LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 41

2023

Bate Stamp Number
01208793 – 01210734

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2023

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

VOLUME 41

2023

A. Title: Report (Cont'd) – Appendix C File 3, Level IV DoD to Quarterly Evaluation Report, 2nd Quarter (April–June) 2023, Groundwater Treatment Plant, Longhorn Army Ammunition Plant Karnack, Texas
Author(s): PCI-Bhate JV
Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality
Date: December 21, 2023
Bate Stamp: 01208793–01209160

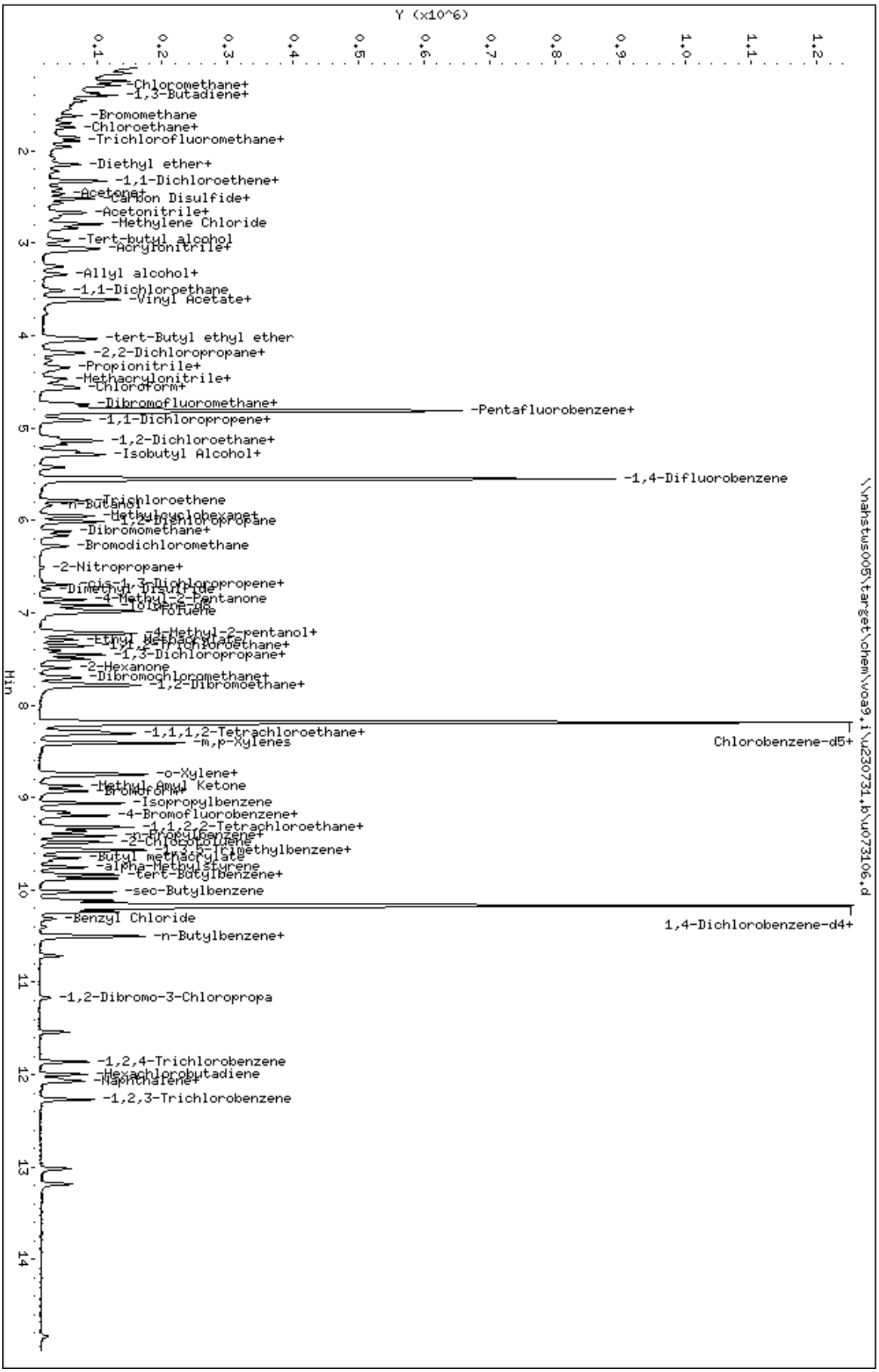
B. Title: Report (Cont'd) – Appendix G Level IV DoD to Quarterly Evaluation Report, 2nd Quarter (April–June) 2023, Groundwater Treatment Plant, Longhorn Army Ammunition Plant Karnack, Texas
Author(s): PCI-Bhate JV
Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality
Date: December 21, 2023
Bate Stamp: 01209161–01210734

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	4162	5.00000	4.48
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	25884	5.00000	4.44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	13619	5.00000	6.16(M)
	92 Naphthalene	128	12.069	12.069	(1.186)	51655	5.00000	4.84
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	26348	5.00000	4.42
M	94 1,2-Dichloroethylene (total)	96				37371	10.0000	
M	95 Xylenes (total)	106				92417	15.0000	
	135 1,4-Dioxane	88	6.176	6.176	(1.284)	6838	100.000	99.92(M)
	141 Cyclohexane	56	4.778	4.778	(0.993)	26286	5.00000	4.89(M)
	138 Freon TF	101	2.330	2.330	(0.484)	16029	5.00000	6.05(M)
	140 1,3-Butadiene	54	1.396	1.396	(0.290)	19067	5.00000	5.01
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	42152	5.00000	4.22
	146 Methyl Acetate	43	2.712	2.712	(0.564)	16899	5.00000	4.93
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.617)	44536	100.000	108.21
	149 Isopropyl Alcohol	45	2.562	2.562	(0.533)	24018	100.000	91.05(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.



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Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
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Column phase: DB624

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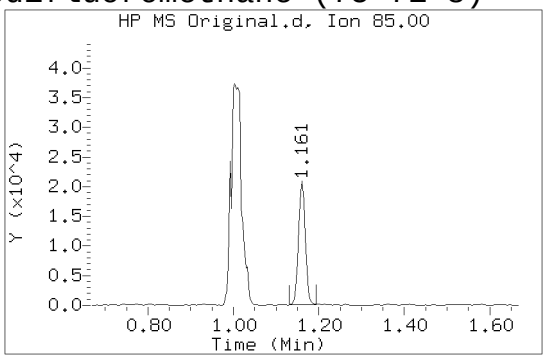
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Operator: PC
Column diameter: 0.18

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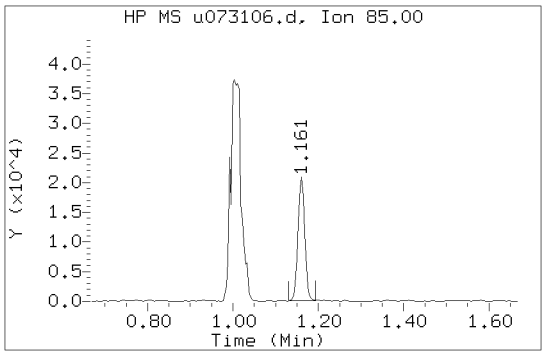
Dichlorodifluoromethane (75-71-8)

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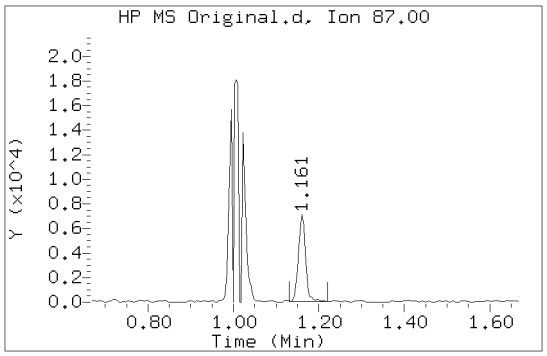
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21:03



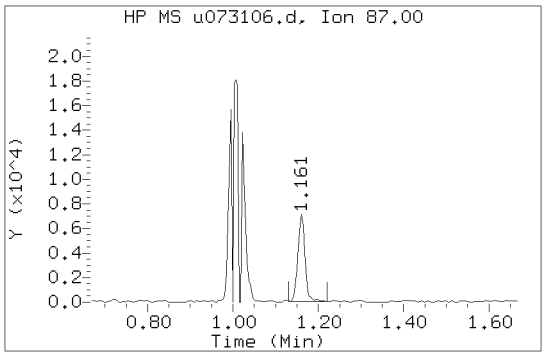
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21:03



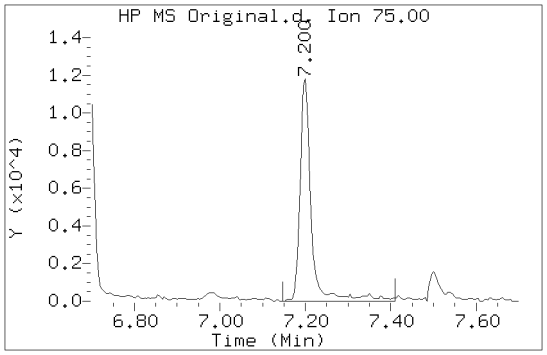
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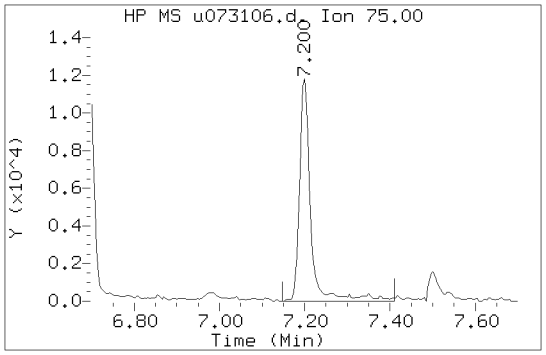
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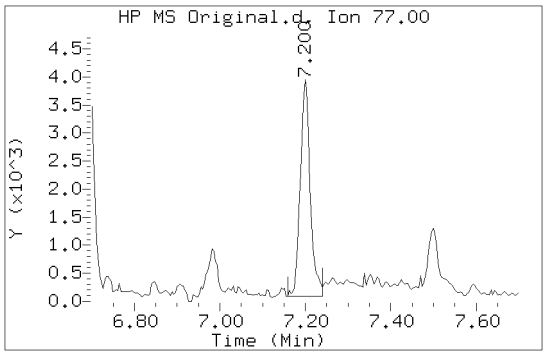
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01-Aug-2023
21:03



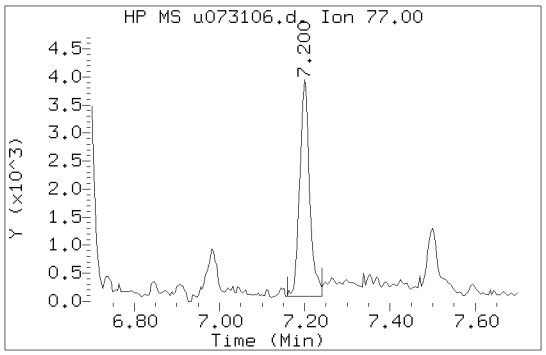
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01-Aug-2023
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BEFORE
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AREA
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HEIGHT
3860
01-Aug-2023
21:03



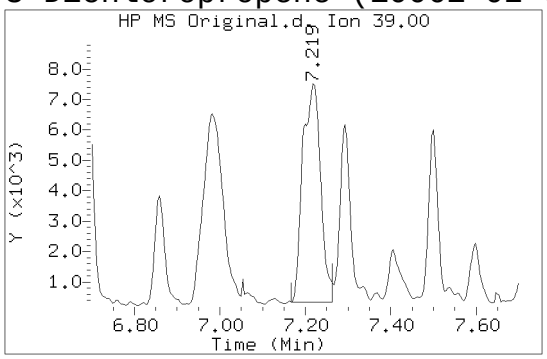
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LabSampID : VSTD005

trans-1,3-Dichloropropene (10061-02-6)

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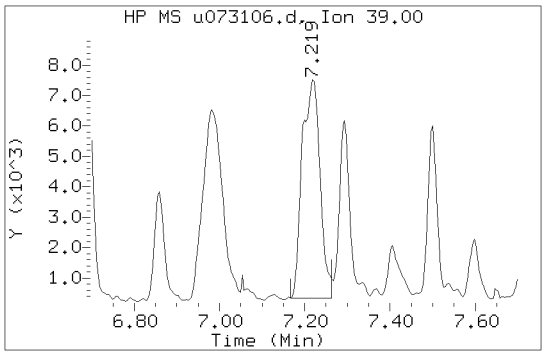
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HEIGHT
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21:03



AFTER

MASS
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AREA
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01-Aug-2023
21:03

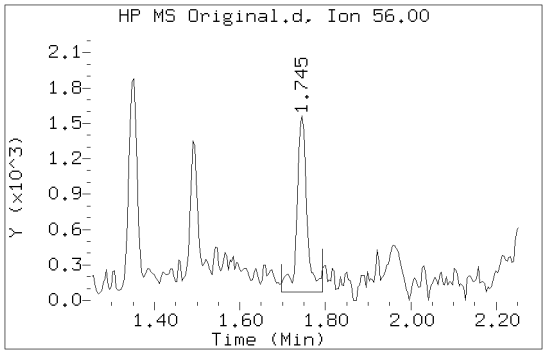


Acrolein (107-02-8)

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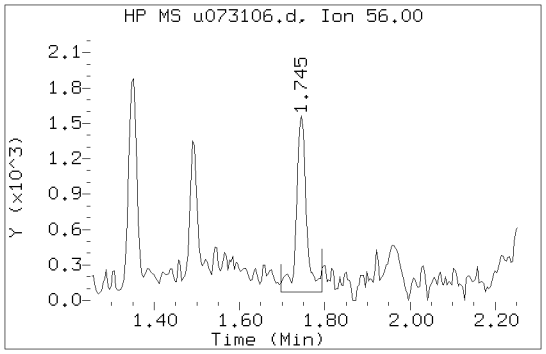
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01-Aug-2023
21:03



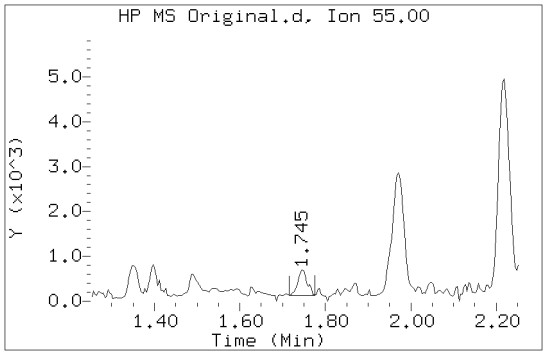
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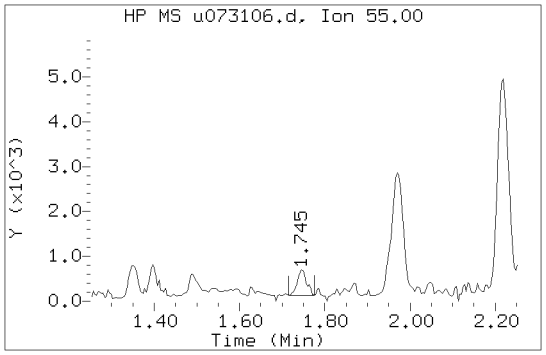
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AREA
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AFTER

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AREA
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01-Aug-2023
21:03

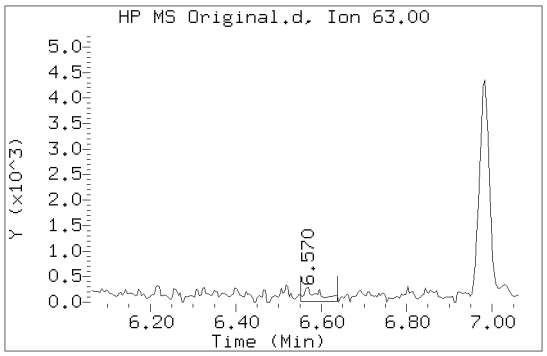


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

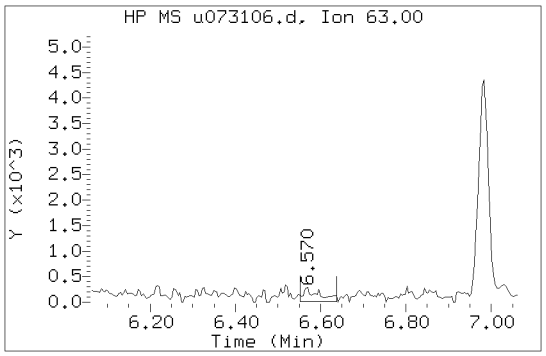
BEFORE

MASS
63
AREA
737
HEIGHT
275
01-Aug-2023
21:03



AFTER

MASS
63
AREA
737
HEIGHT
275
01-Aug-2023
21:03

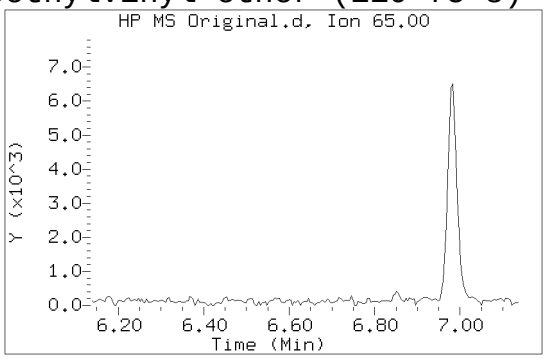


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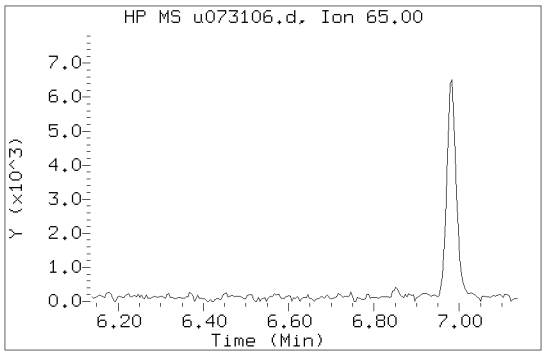
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

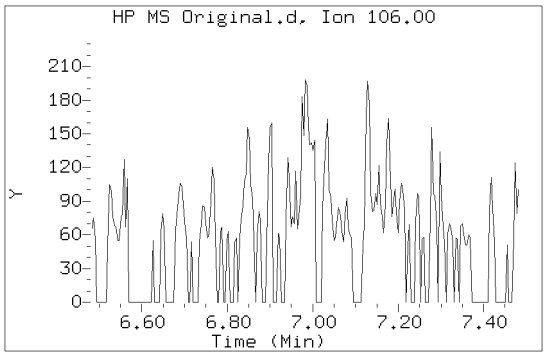
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01-Aug-2023
21:03



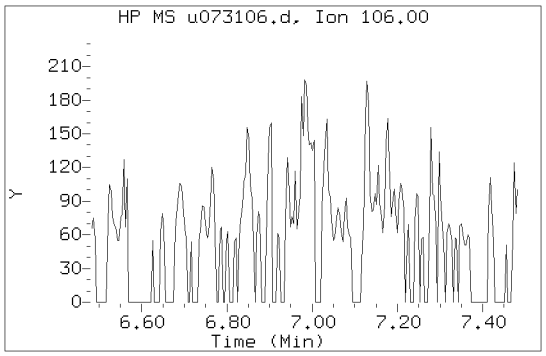
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01-Aug-2023
21:03



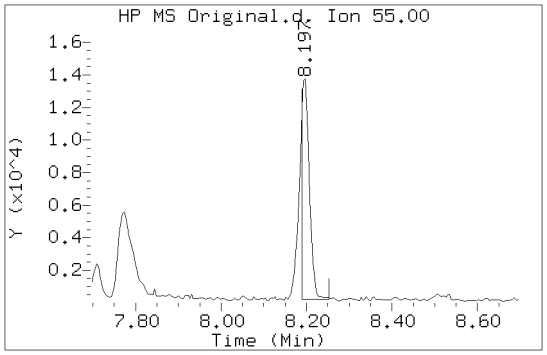
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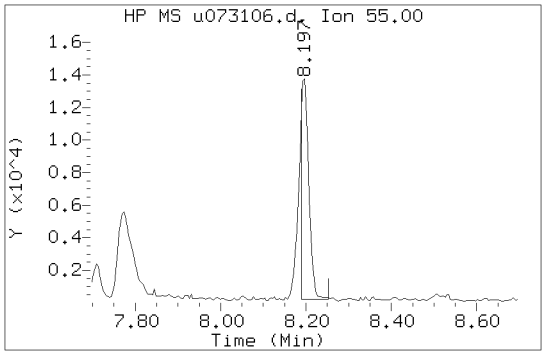
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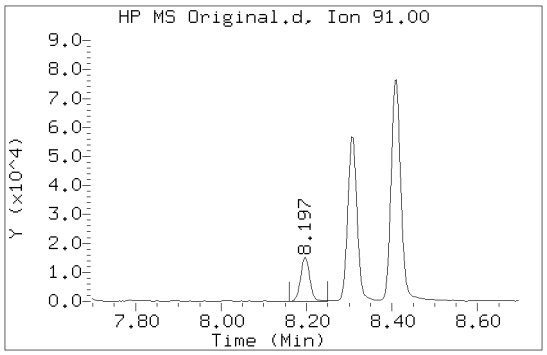
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01-Aug-2023
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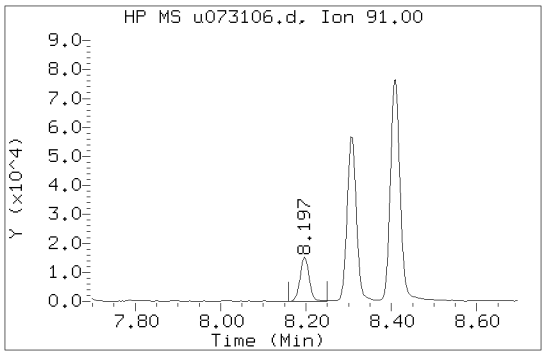
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21:03



AFTER
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AREA
22814
HEIGHT
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01-Aug-2023
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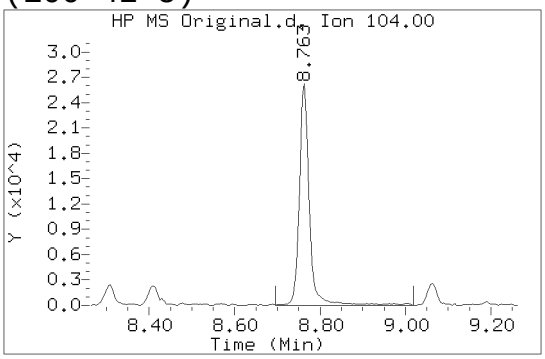
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LabSampID : VSTD005

Styrene (100-42-5)

Reason Code:

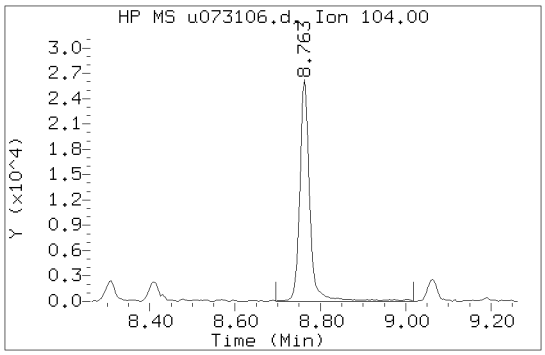
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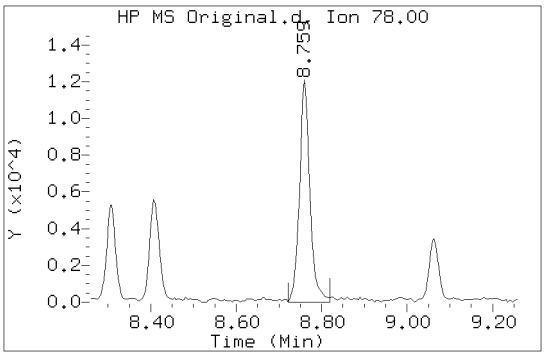
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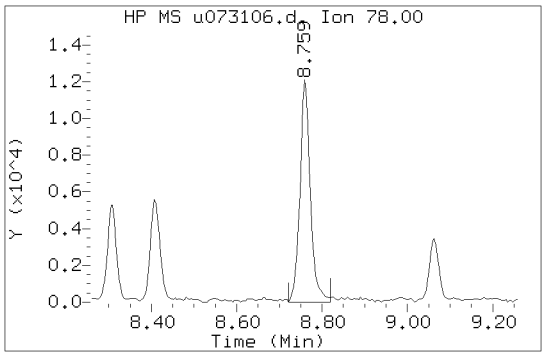
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AFTER

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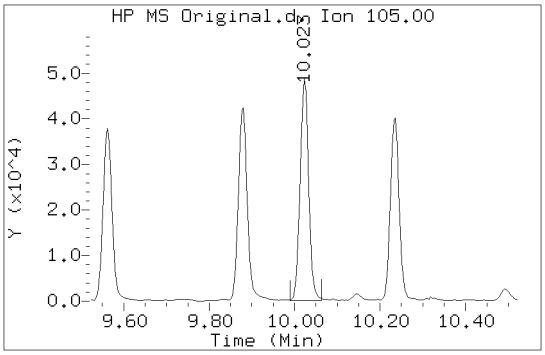


sec-Butylbenzene (135-98-8)

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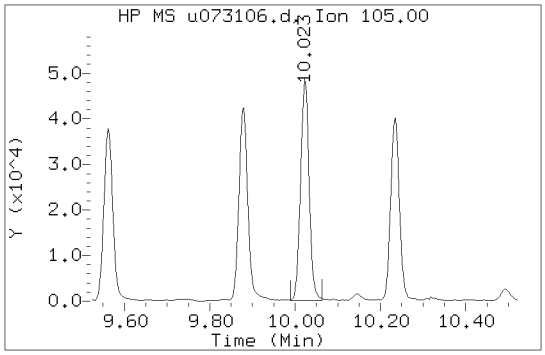
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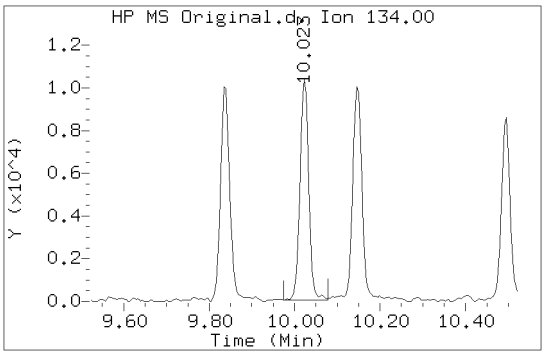
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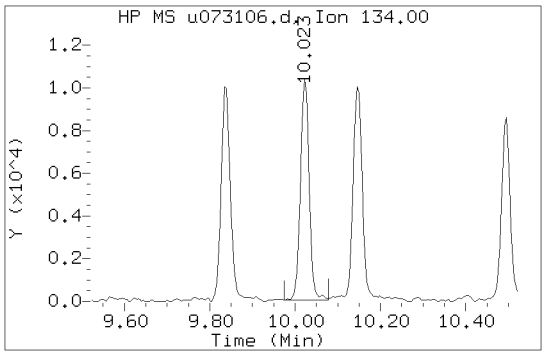
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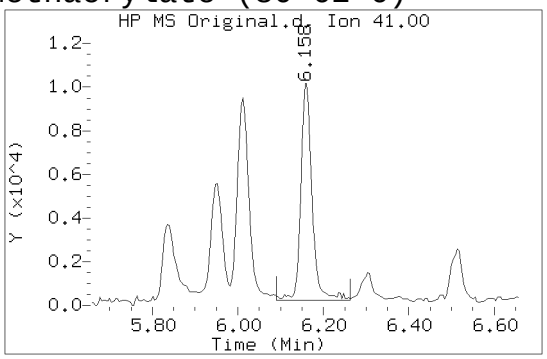


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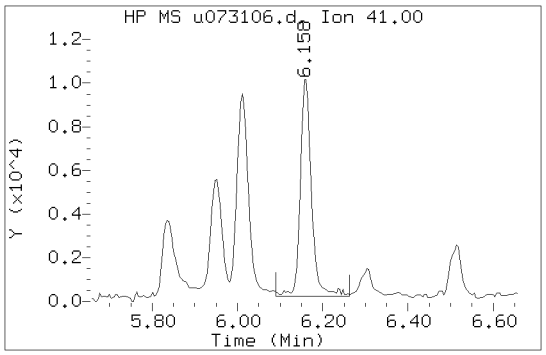
Methyl Methacrylate (80-62-6)

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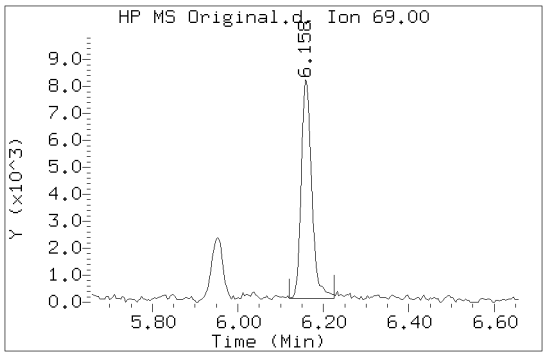
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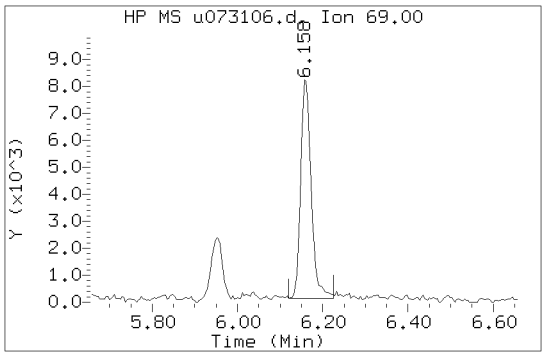
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AREA
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HEIGHT
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01-Aug-2023
21:03



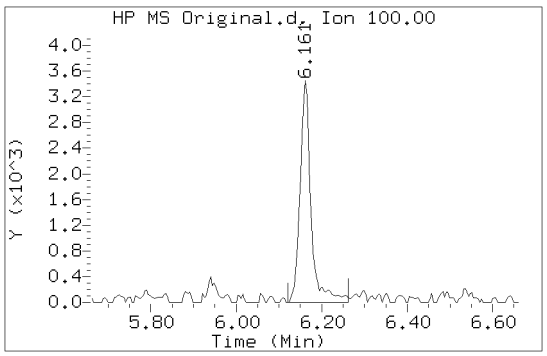
BEFORE
MASS
69
AREA
14157
HEIGHT
8087
01-Aug-2023
21:03



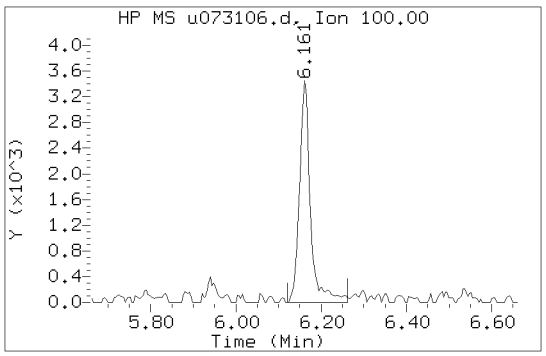
AFTER
MASS
69
AREA
14157
HEIGHT
8087
01-Aug-2023
21:03



BEFORE
MASS
100
AREA
6271
HEIGHT
3450
01-Aug-2023
21:03



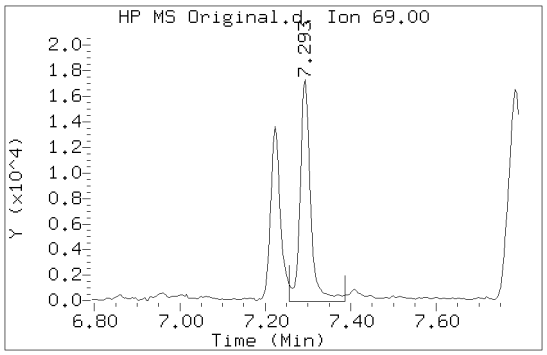
AFTER
MASS
100
AREA
6271
HEIGHT
3450
01-Aug-2023
21:03



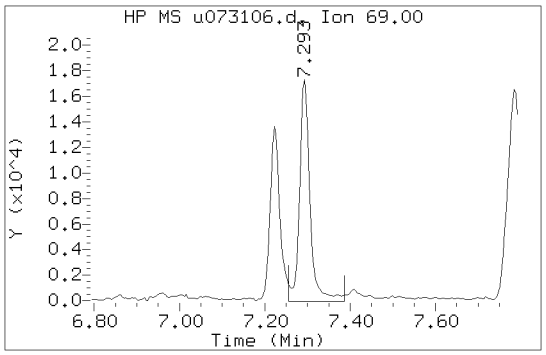
Ethyl Methacrylate (97-63-2)

Reason Code:

BEFORE
MASS
69
AREA
30207
HEIGHT
17342
01-Aug-2023
21:03



AFTER
MASS
69
AREA
30207
HEIGHT
17342
01-Aug-2023
21:03

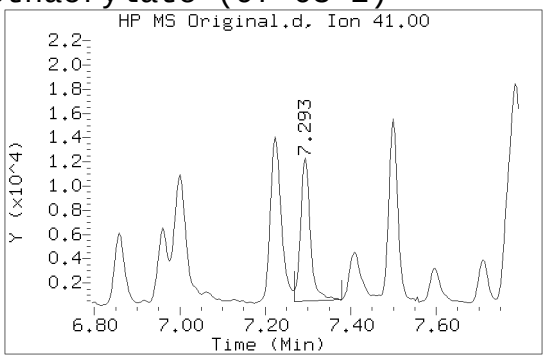


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InstruID : VOA9.i
LabSampID : VSTD005

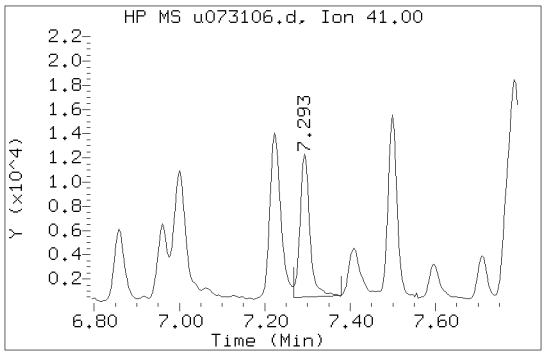
Ethyl Methacrylate (97-63-2)

Reason Code:

BEFORE
MASS
41
AREA
19359
HEIGHT
11841
01-Aug-2023
21:03



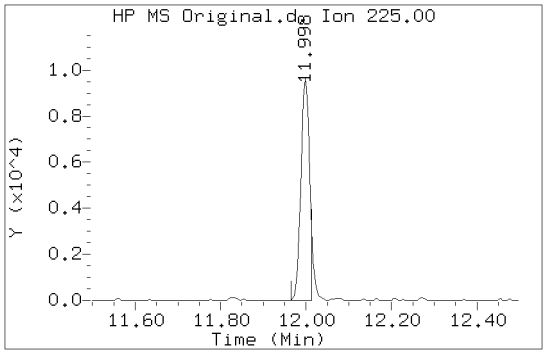
AFTER
MASS
41
AREA
19359
HEIGHT
11841
01-Aug-2023
21:03



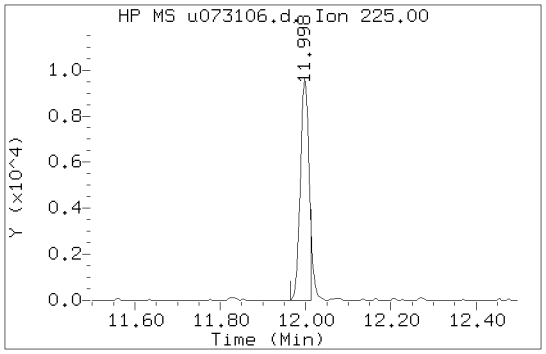
Hexachlorobutadiene (87-68-3)

Reason Code:

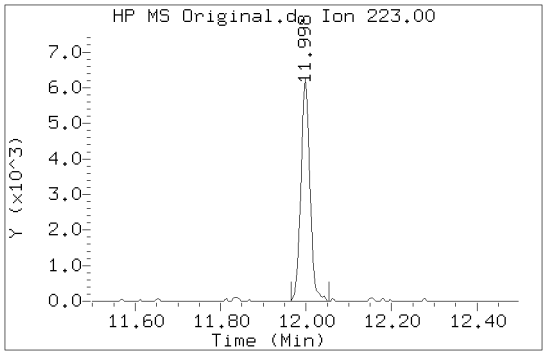
BEFORE
MASS
225
AREA
13619
HEIGHT
9624
01-Aug-2023
21:03



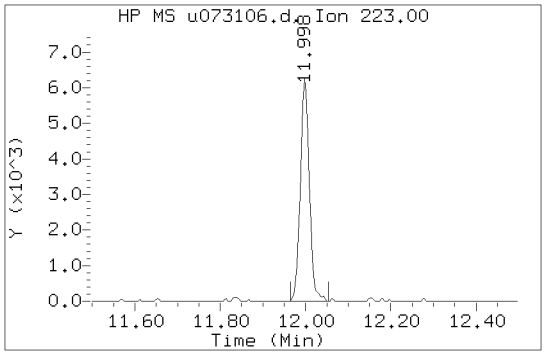
AFTER
MASS
225
AREA
13619
HEIGHT
9624
01-Aug-2023
21:03



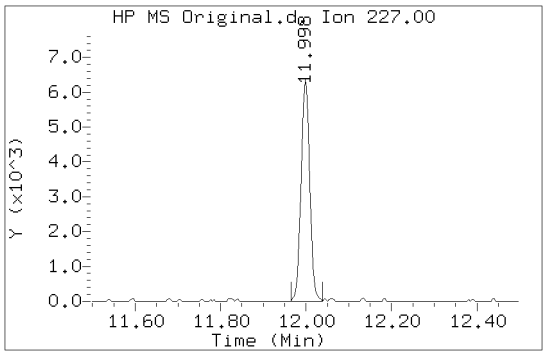
BEFORE
MASS
223
AREA
9370
HEIGHT
6248
01-Aug-2023
21:03



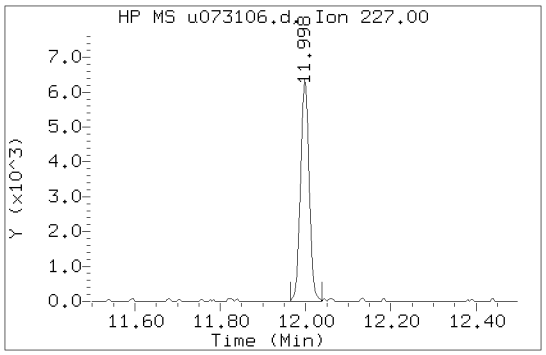
AFTER
MASS
223
AREA
9370
HEIGHT
6248
01-Aug-2023
21:03



BEFORE
MASS
227
AREA
9177
HEIGHT
6360
01-Aug-2023
21:03



AFTER
MASS
227
AREA
9177
HEIGHT
6360
01-Aug-2023
21:03

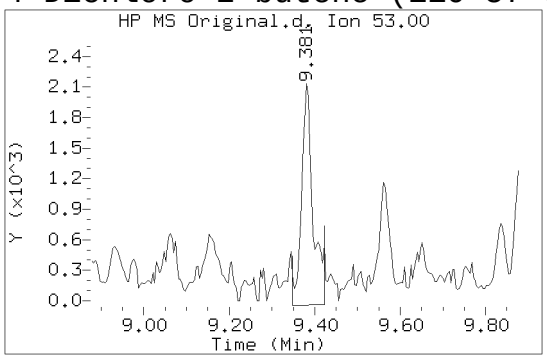


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InstruID : VOA9.i
LabSampID : VSTD005

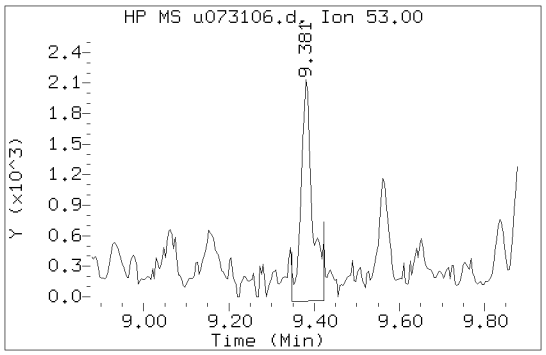
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

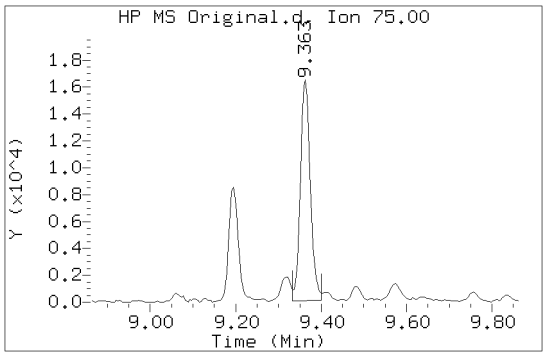
BEFORE
MASS
53
AREA
4112
HEIGHT
2172
01-Aug-2023
21:03



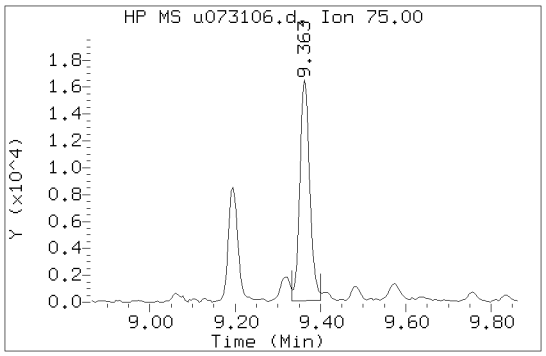
AFTER
MASS
53
AREA
4112
HEIGHT
2172
01-Aug-2023
21:03



BEFORE
MASS
75
AREA
27211
HEIGHT
16421
01-Aug-2023
21:03



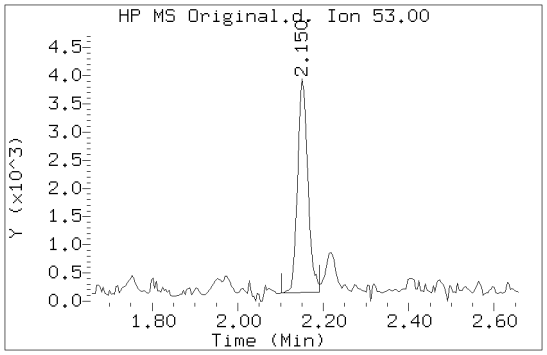
AFTER
MASS
75
AREA
27211
HEIGHT
16421
01-Aug-2023
21:03



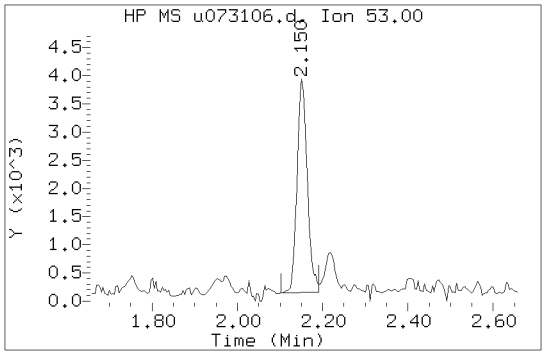
Chloroprene (126-99-8)

Reason Code:

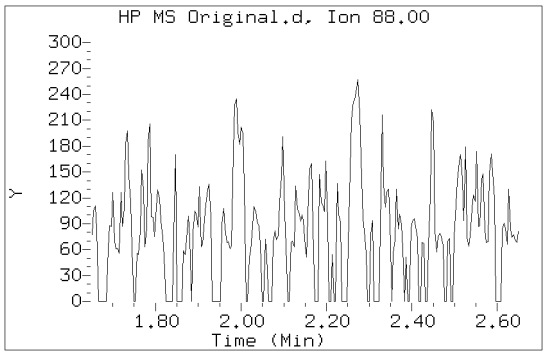
BEFORE
MASS
53
AREA
6457
HEIGHT
3787
01-Aug-2023
21:03



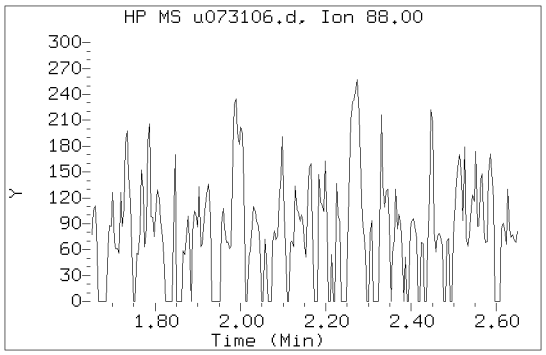
AFTER
MASS
53
AREA
6457
HEIGHT
3787
01-Aug-2023
21:03



BEFORE
MASS
88
AREA
0
HEIGHT
0
01-Aug-2023
21:03



AFTER
MASS
88
AREA
0
HEIGHT
0
01-Aug-2023
21:03

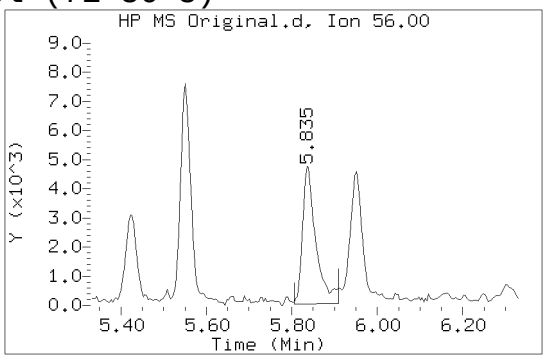


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InstruID : VOA9.i
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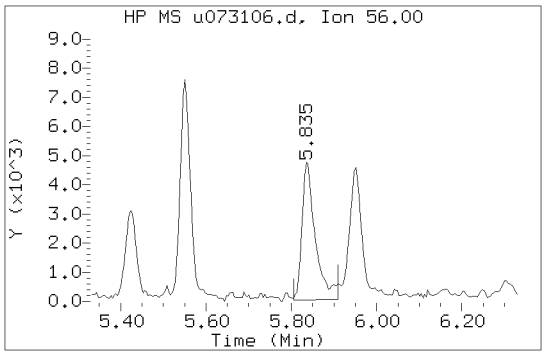
n-Butanol (71-36-3)

Reason Code:

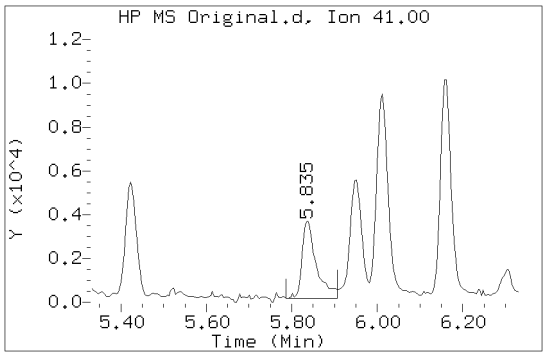
BEFORE
MASS
56
AREA
10577
HEIGHT
4724
01-Aug-2023
21:03



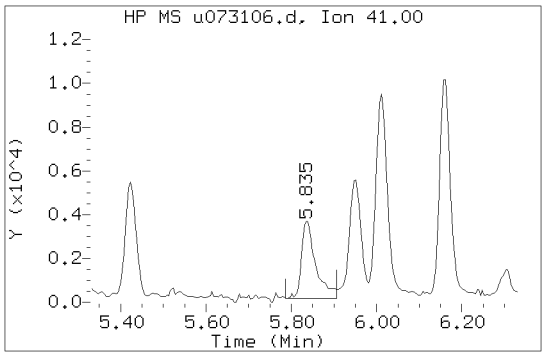
AFTER
MASS
56
AREA
10577
HEIGHT
4724
01-Aug-2023
21:03



BEFORE
MASS
41
AREA
8306
HEIGHT
3501
01-Aug-2023
21:03



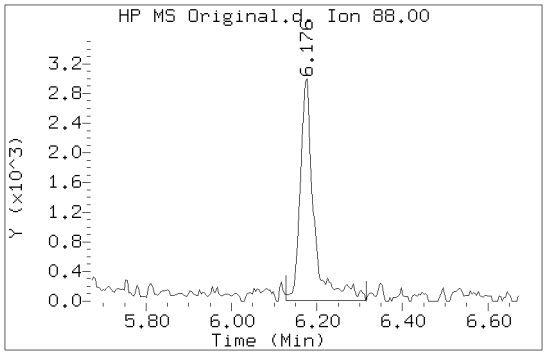
AFTER
MASS
41
AREA
8306
HEIGHT
3501
01-Aug-2023
21:03



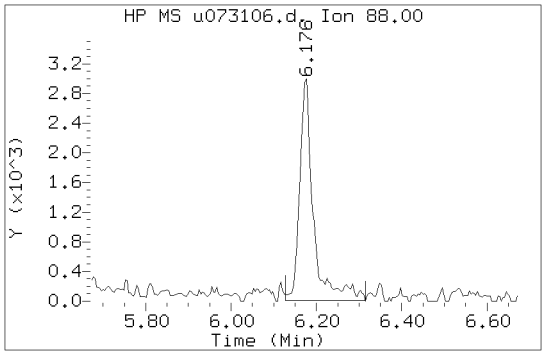
1,4-Dioxane ()

Reason Code:

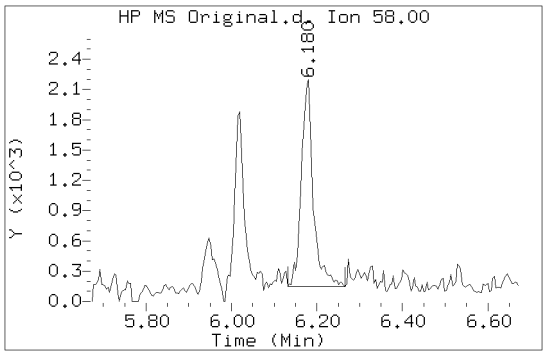
BEFORE
MASS
88
AREA
6838
HEIGHT
2989
01-Aug-2023
21:03



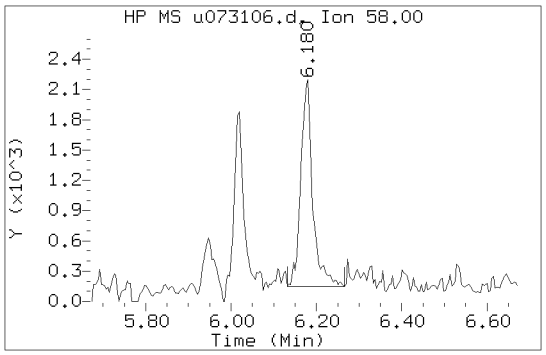
AFTER
MASS
88
AREA
6838
HEIGHT
2989
01-Aug-2023
21:03



BEFORE
MASS
58
AREA
4048
HEIGHT
2050
01-Aug-2023
21:03



AFTER
MASS
58
AREA
4048
HEIGHT
2050
01-Aug-2023
21:03

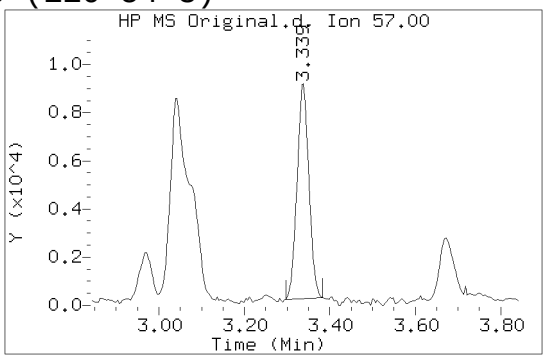


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InstruID : VOA9.i
LabSampID : VSTD005

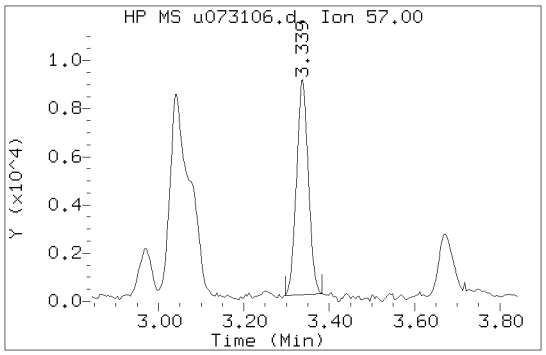
n-Hexane (110-54-3)

Reason Code:

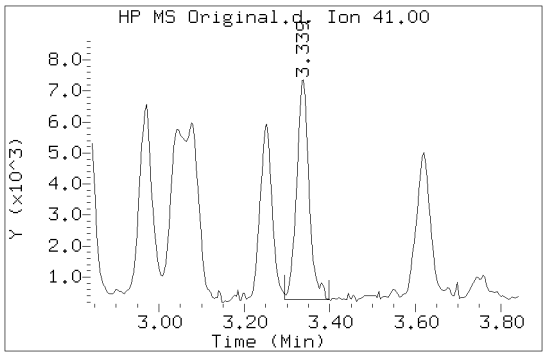
BEFORE
MASS
57
AREA
17510
HEIGHT
8919
01-Aug-2023
21:03



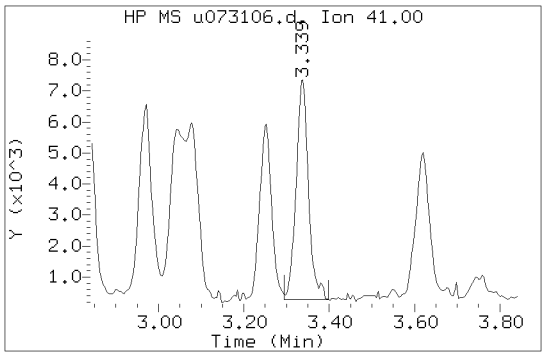
AFTER
MASS
57
AREA
17510
HEIGHT
8919
01-Aug-2023
21:03



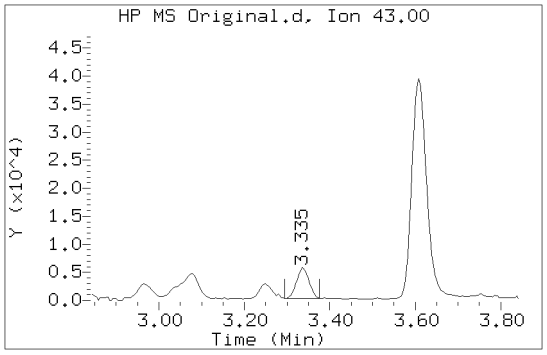
BEFORE
MASS
41
AREA
14632
HEIGHT
7081
01-Aug-2023
21:03



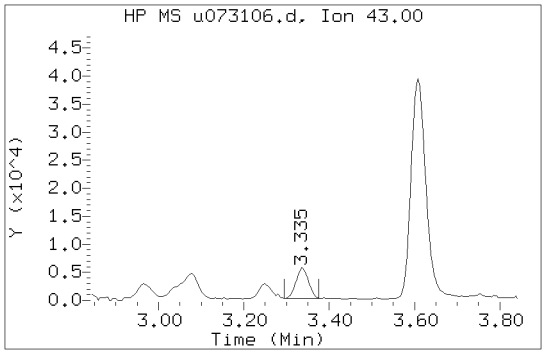
AFTER
MASS
41
AREA
14632
HEIGHT
7081
01-Aug-2023
21:03



BEFORE
MASS
43
AREA
11064
HEIGHT
5461
01-Aug-2023
21:03



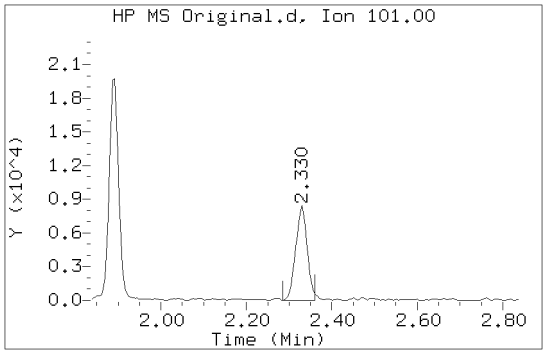
AFTER
MASS
43
AREA
11064
HEIGHT
5461
01-Aug-2023
21:03



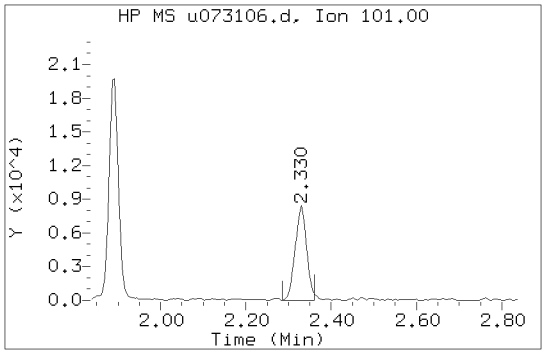
Freon TF (76-13-1)

Reason Code:

BEFORE
MASS
101
AREA
16029
HEIGHT
8452
01-Aug-2023
21:03



AFTER
MASS
101
AREA
16029
HEIGHT
8452
01-Aug-2023
21:03



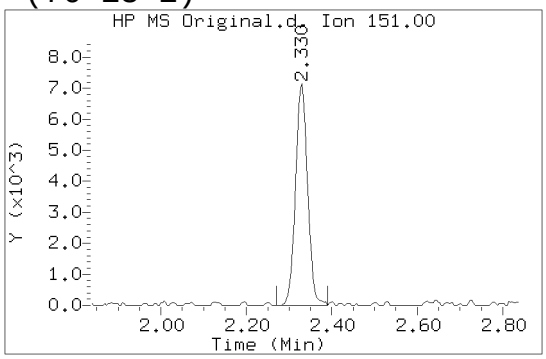
Data File : \\nahstws005\target\chem\voa9.i\u230731.b\u073106.d
Inj Date : 31-JUL-2023 13:22
InstruID : VOA9.i
LabSampID : VSTD005

Freon TF (76-13-1)

Reason Code:

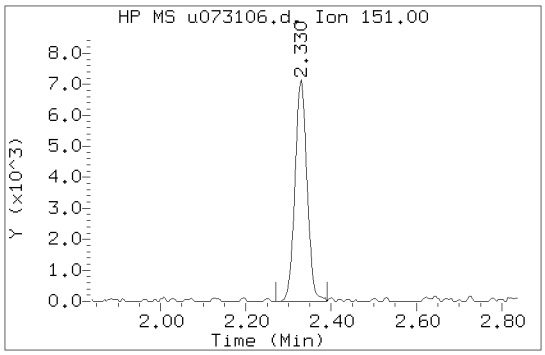
BEFORE

MASS
151
AREA
14333
HEIGHT
7146
01-Aug-2023
21:03



AFTER

MASS
151
AREA
14333
HEIGHT
7146
01-Aug-2023
21:03

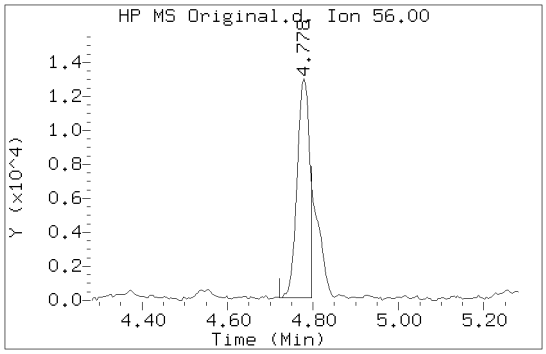


Cyclohexane (110-82-7)

Reason Code:

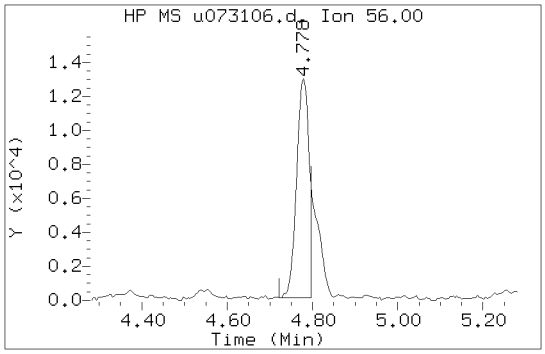
BEFORE

MASS
56
AREA
26286
HEIGHT
12886
01-Aug-2023
21:03



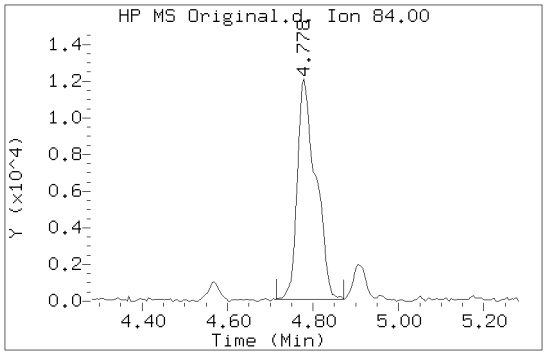
AFTER

MASS
56
AREA
26286
HEIGHT
12886
01-Aug-2023
21:03



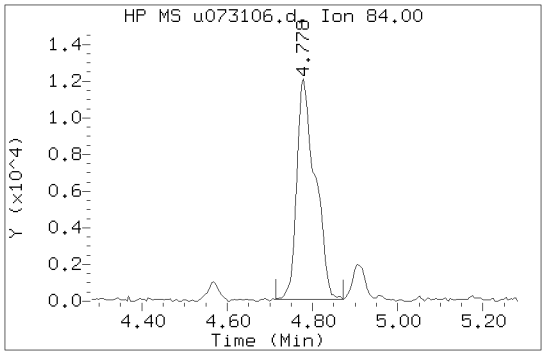
BEFORE

MASS
84
AREA
36483
HEIGHT
12015
01-Aug-2023
21:03



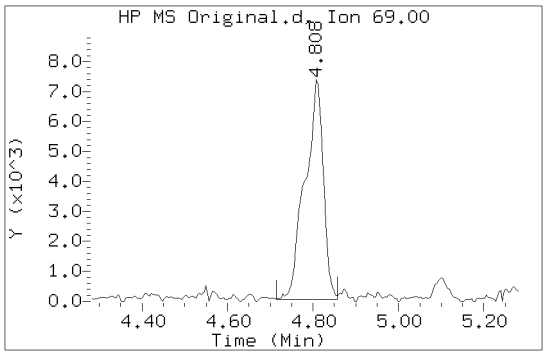
AFTER

MASS
84
AREA
36483
HEIGHT
12015
01-Aug-2023
21:03



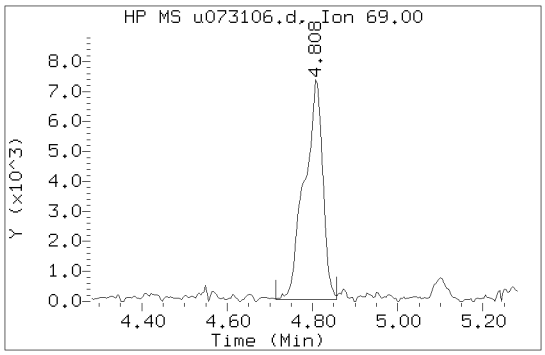
BEFORE

MASS
69
AREA
21975
HEIGHT
7326
01-Aug-2023
21:03



AFTER

MASS
69
AREA
21975
HEIGHT
7326
01-Aug-2023
21:03

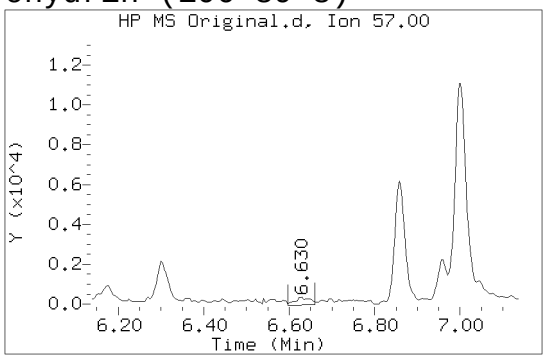


Data File : \\nahstws005\target\chem\voa9.i\u230731.b\u073106.d
Inj Date : 31-JUL-2023 13:22
InstruID : VOA9.i
LabSampID : VSTD005

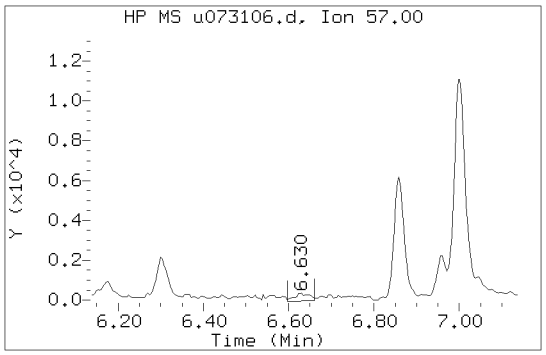
Epichlorohydrin (106-89-8)

Reason Code:

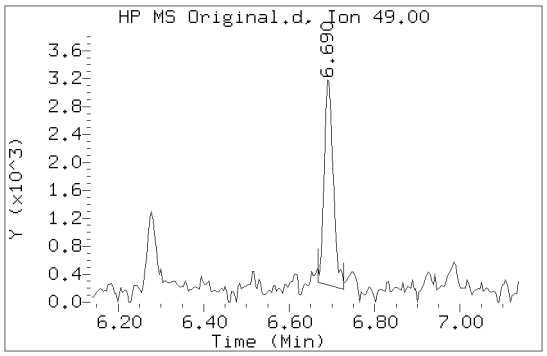
BEFORE
MASS
57
AREA
991
HEIGHT
399
01-Aug-2023
21:03



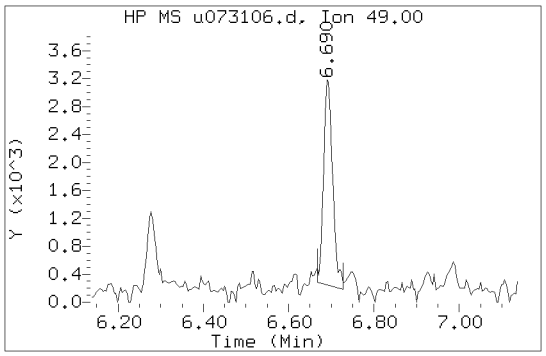
AFTER
MASS
57
AREA
991
HEIGHT
399
01-Aug-2023
21:03



BEFORE
MASS
49
AREA
4381
HEIGHT
2935
01-Aug-2023
21:03



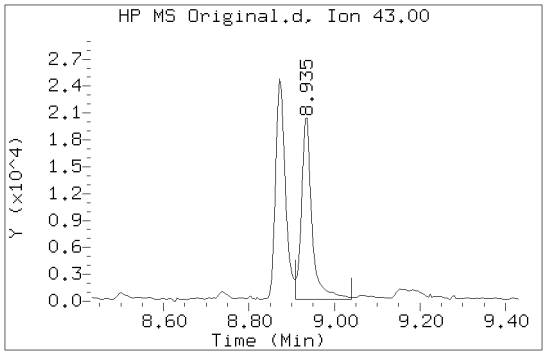
AFTER
MASS
49
AREA
4381
HEIGHT
2935
01-Aug-2023
21:03



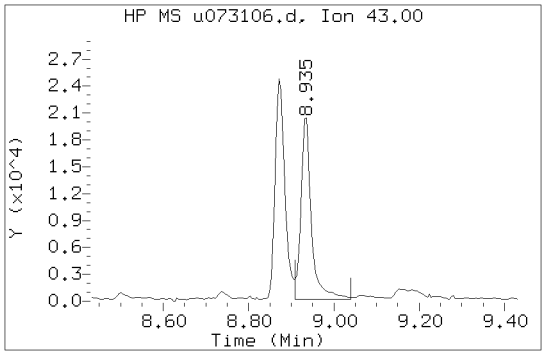
n-Amyl acetate (628-63-7)

Reason Code:

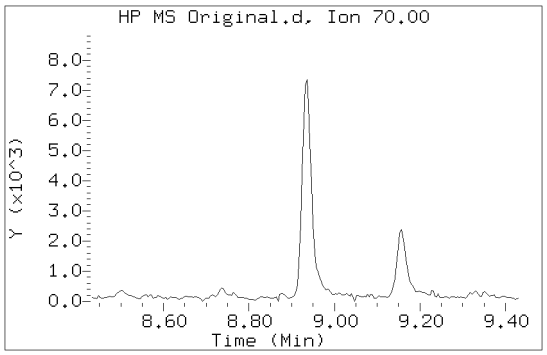
BEFORE
MASS
43
AREA
35636
HEIGHT
20249
01-Aug-2023
21:03



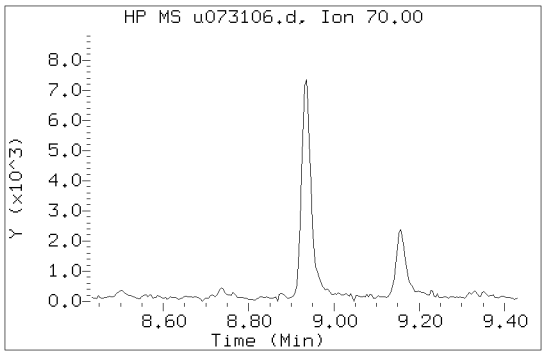
AFTER
MASS
43
AREA
35636
HEIGHT
20249
01-Aug-2023
21:03



BEFORE
MASS
70
AREA
0
HEIGHT
0
01-Aug-2023
21:03



AFTER
MASS
70
AREA
0
HEIGHT
0
01-Aug-2023
21:03

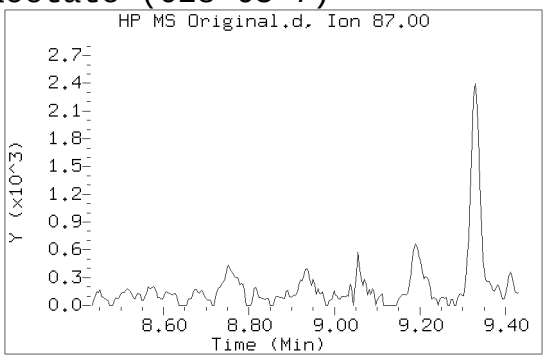


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Inj Date : 31-JUL-2023 13:22
InstruID : VOA9.i
LabSampID : VSTD005

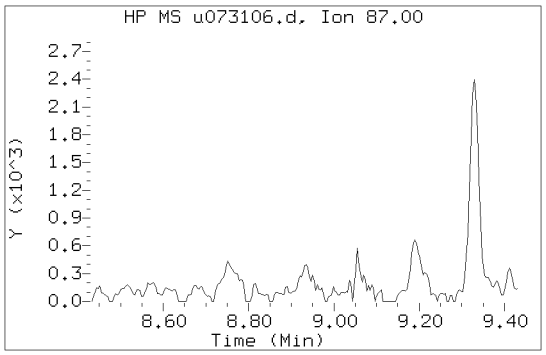
n-Amyl acetate (628-63-7)

Reason Code:

BEFORE
MASS
87
AREA
0
HEIGHT
0
01-Aug-2023
21:03



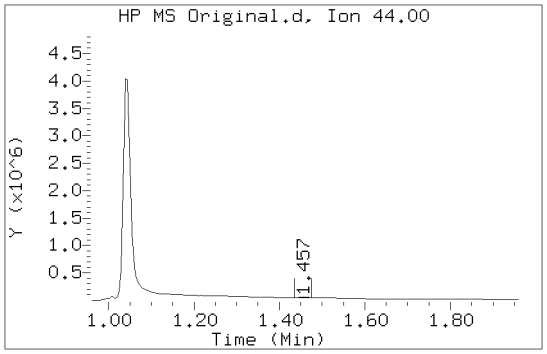
AFTER
MASS
87
AREA
0
HEIGHT
0
01-Aug-2023
21:03



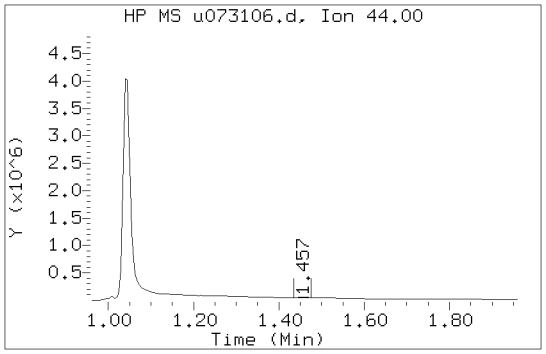
Acetaldehyde (75-07-0)

Reason Code:

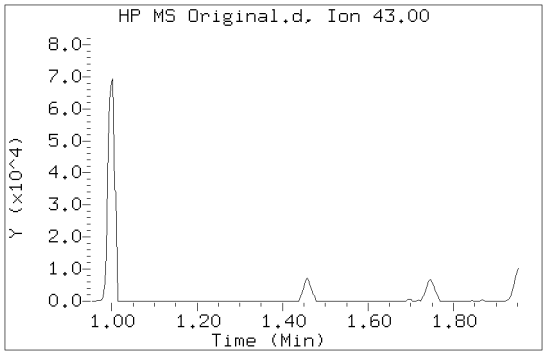
BEFORE
MASS
44
AREA
13015
HEIGHT
10024
01-Aug-2023
21:03



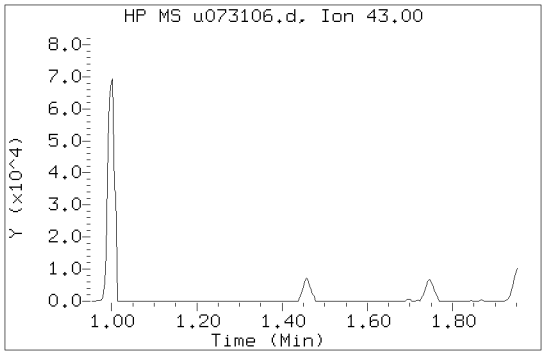
AFTER
MASS
44
AREA
13015
HEIGHT
10024
01-Aug-2023
21:03



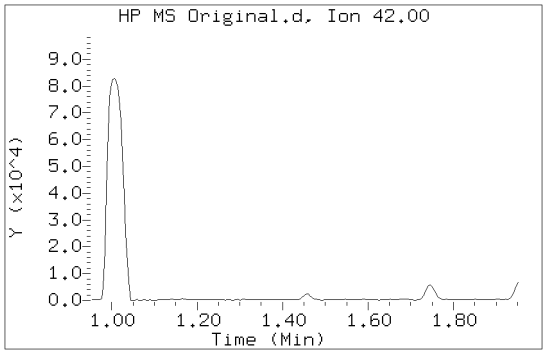
BEFORE
MASS
43
AREA
0
HEIGHT
0
01-Aug-2023
21:03



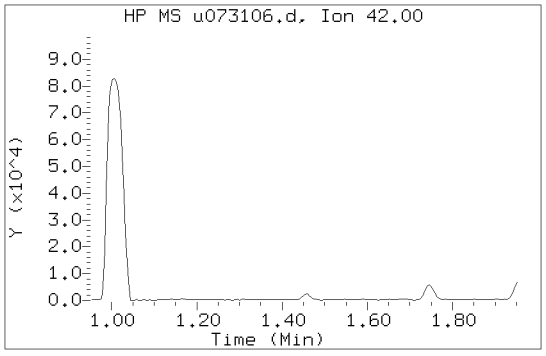
AFTER
MASS
43
AREA
0
HEIGHT
0
01-Aug-2023
21:03



BEFORE
MASS
42
AREA
0
HEIGHT
0
01-Aug-2023
21:03



AFTER
MASS
42
AREA
0
HEIGHT
0
01-Aug-2023
21:03

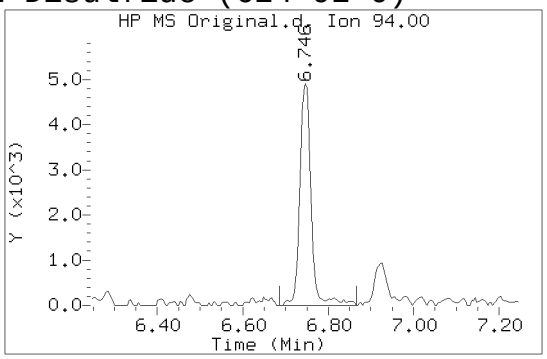


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Inj Date : 31-JUL-2023 13:22
InstruID : VOA9.i
LabSampID : VSTD005

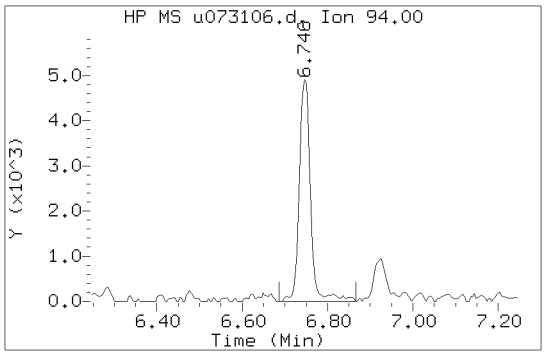
Dimethyl Disulfide (624-92-0)

Reason Code:

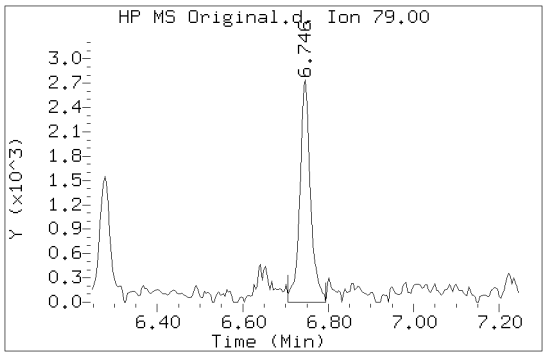
BEFORE
MASS
94
AREA
9195
HEIGHT
4909
01-Aug-2023
21:03



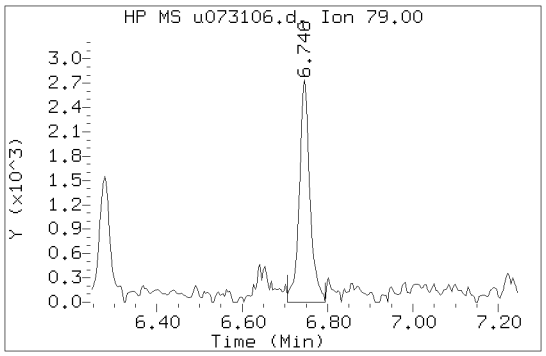
AFTER
MASS
94
AREA
9195
HEIGHT
4909
01-Aug-2023
21:03



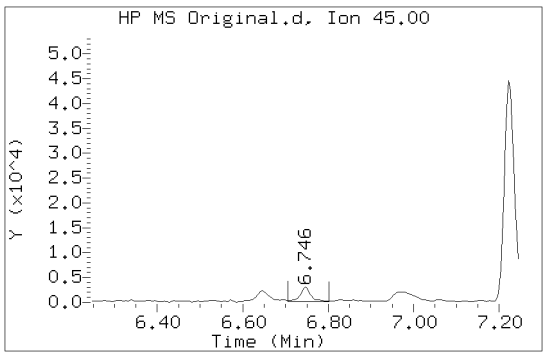
BEFORE
MASS
79
AREA
4843
HEIGHT
2740
01-Aug-2023
21:03



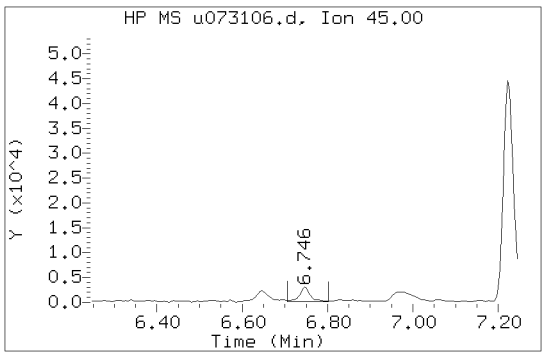
AFTER
MASS
79
AREA
4843
HEIGHT
2740
01-Aug-2023
21:03



BEFORE
MASS
45
AREA
5444
HEIGHT
2977
01-Aug-2023
21:03



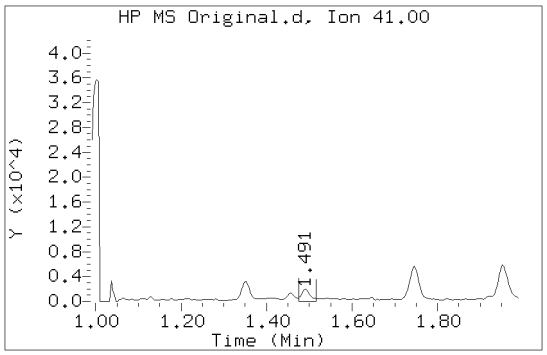
AFTER
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45
AREA
5444
HEIGHT
2977
01-Aug-2023
21:03



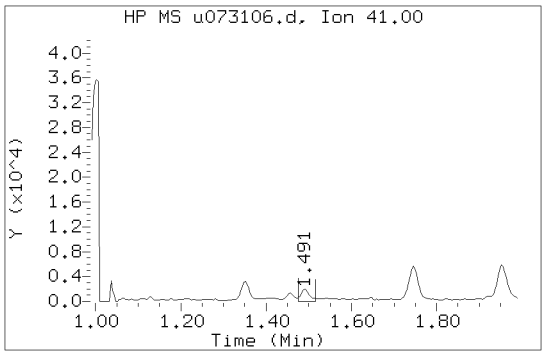
Isobutylene (115-11-7)

Reason Code:

BEFORE
MASS
41
AREA
2884
HEIGHT
1980
01-Aug-2023
21:03



AFTER
MASS
41
AREA
2884
HEIGHT
1980
01-Aug-2023
21:03

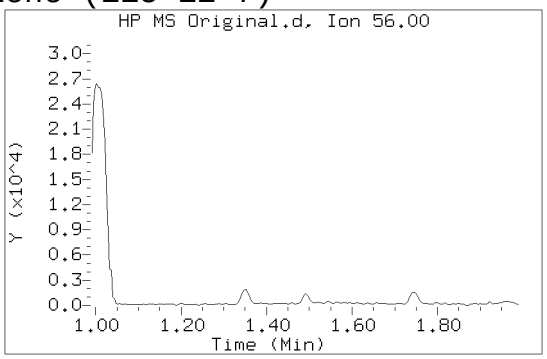


Data File : \\nahstws005\target\chem\voa9.i\u230731.b\u073106.d
Inj Date : 31-JUL-2023 13:22
InstruID : VOA9.i
LabSampID : VSTD005

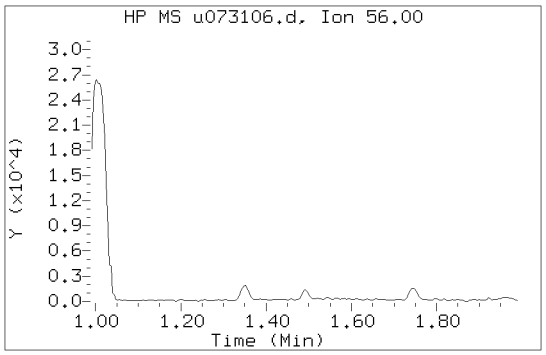
Isobutylene (115-11-7)

Reason Code:

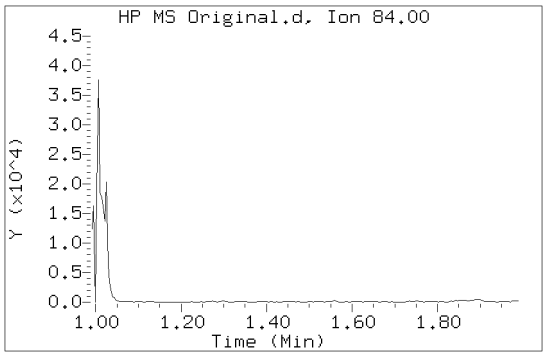
BEFORE
MASS
56
AREA
0
HEIGHT
0
01-Aug-2023
21:03



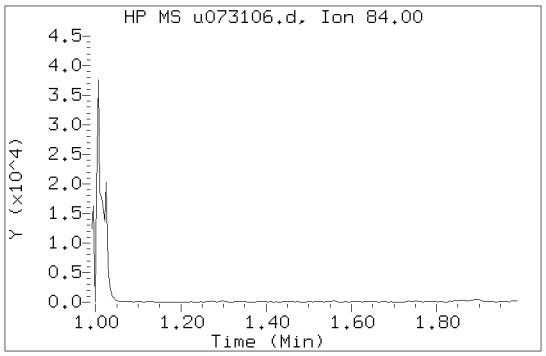
AFTER
MASS
56
AREA
0
HEIGHT
0
01-Aug-2023
21:03



BEFORE
MASS
84
AREA
0
HEIGHT
0
01-Aug-2023
21:03



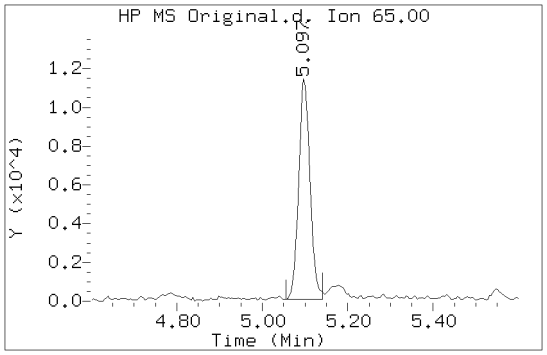
AFTER
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84
AREA
0
HEIGHT
0
01-Aug-2023
21:03



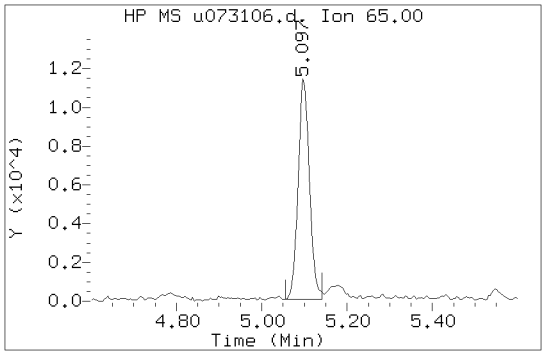
1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

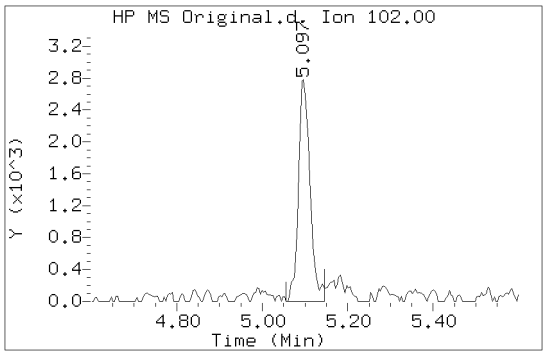
BEFORE
MASS
65
AREA
21416
HEIGHT
11374
01-Aug-2023
21:03



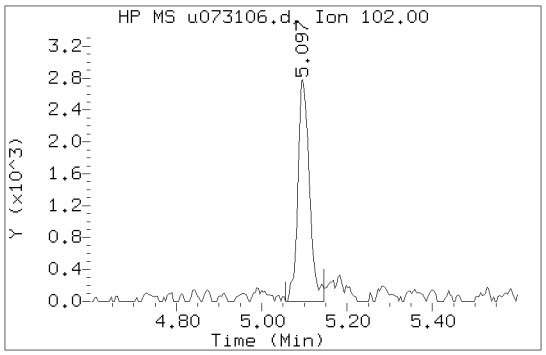
AFTER
MASS
65
AREA
21416
HEIGHT
11374
01-Aug-2023
21:03



BEFORE
MASS
102
AREA
5359
HEIGHT
2780
01-Aug-2023
21:03



AFTER
MASS
102
AREA
5359
HEIGHT
2780
01-Aug-2023
21:03

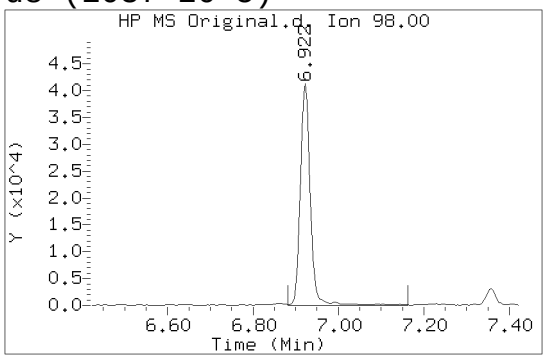


Data File : \\nahstws005\target\chem\voa9.i\u230731.b\u073106.d
Inj Date : 31-JUL-2023 13:22
InstruID : VOA9.i
LabSampID : VSTD005

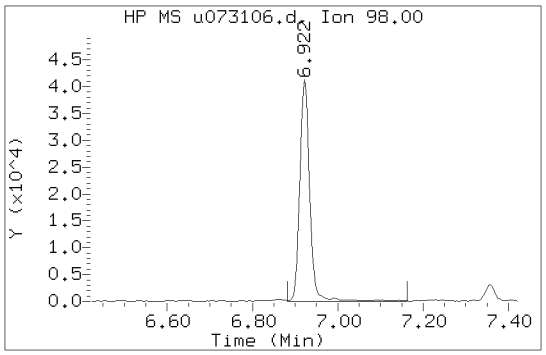
Toluene-d8 (2037-26-5)

Reason Code:

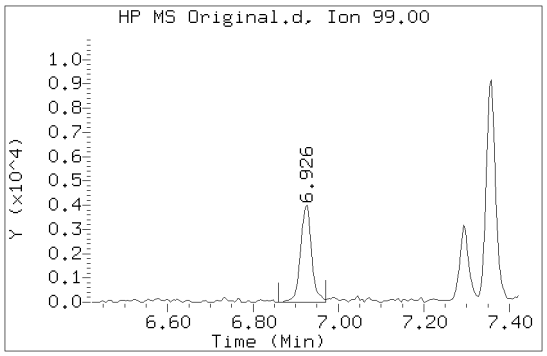
BEFORE
MASS
98
AREA
68368
HEIGHT
41285
01-Aug-2023
21:03



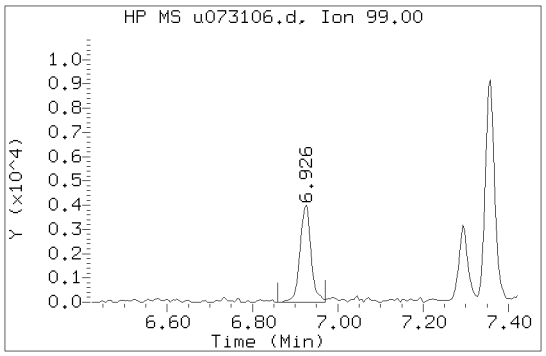
AFTER
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98
AREA
68368
HEIGHT
41285
01-Aug-2023
21:03



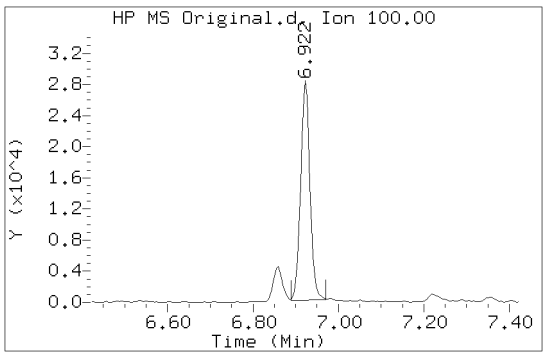
BEFORE
MASS
99
AREA
7396
HEIGHT
4006
01-Aug-2023
21:03



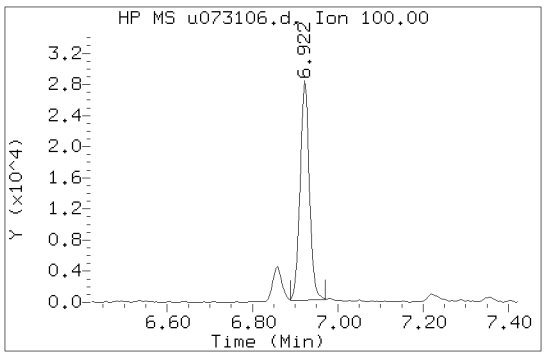
AFTER
MASS
99
AREA
7396
HEIGHT
4006
01-Aug-2023
21:03



BEFORE
MASS
100
AREA
43400
HEIGHT
28206
01-Aug-2023
21:03



AFTER
MASS
100
AREA
43400
HEIGHT
28206
01-Aug-2023
21:03



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073107.D Page 1
Report Date: 07-Aug-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073107.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 31-JUL-2023 13:44
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\8260C.m
Meth Date : 07-Aug-2023 11:14 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 13:22 Cal File: U073106.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.811	4.811	(1.000)	508113	50.0000	
2	Dichlorodifluoromethane	85	1.153	1.153	(0.240)	89461	20.0000	19.18
3	Chloromethane	50	1.288	1.288	(0.268)	122049	20.0000	20.26
5	Vinyl Chloride	62	1.366	1.366	(0.284)	93372	20.0000	18.66
6	Bromomethane	94	1.610	1.610	(0.335)	63845	20.0000	22.80
7	Chloroethane	64	1.689	1.689	(0.351)	60002	20.0000	19.04
8	Trichlorofluoromethane	101	1.884	1.884	(0.392)	115200	20.0000	18.65
9	Acrolein	56	1.741	1.741	(0.362)	12556	40.0000	38.52
10	Acetone	43	2.401	2.401	(0.499)	78782	40.0000	45.41
11	1,1-Dichloroethene	96	2.322	2.322	(0.483)	62778	20.0000	18.75
15	Iodomethane	142	2.457	2.457	(0.511)	100586	40.0000	34.80
16	Acrylonitrile	53	3.061	3.061	(0.636)	61984	40.0000	38.80
17	Methylene Chloride	84	2.783	2.783	(0.579)	81979	20.0000	20.04
18	Methyl tert-butyl ether	73	3.072	3.072	(0.639)	197578	20.0000	19.09
19	Carbon Disulfide	76	2.510	2.510	(0.522)	362924	40.0000	37.23
20	trans-1,2-Dichloroethene	96	3.049	3.049	(0.634)	69686	20.0000	18.57
21	Vinyl Acetate	43	3.600	3.600	(0.748)	400455	40.0000	37.29
22	1,1-Dichloroethane	63	3.503	3.503	(0.728)	126006	20.0000	18.37
24	2-Butanone	43	4.264	4.264	(0.886)	74752	40.0000	37.44
26	2,2-Dichloropropane	77	4.174	4.174	(0.868)	91735	20.0000	19.40

27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	82546	20.0000	19.71
28 Chloroform	83	4.564	4.564 (0.949)	154466	20.0000	19.35

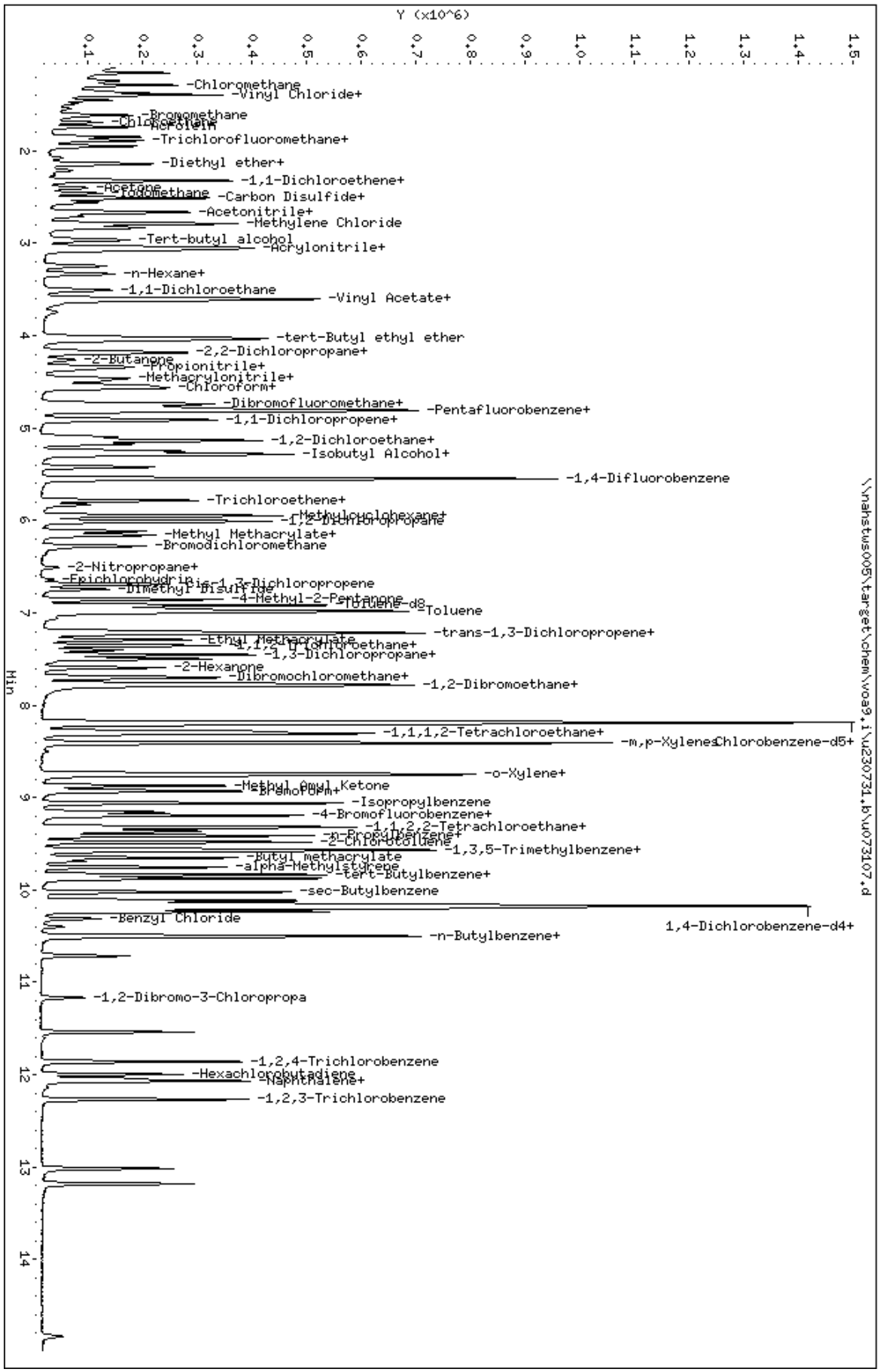
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.463	4.463	(0.928)	47382	20.0000	19.12
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	85217	20.0000	20.39
	31 1,1,1-Trichloroethane	97	4.736	4.736	(0.984)	115867	20.0000	18.66
	32 1,1-Dichloropropene	75	4.912	4.912	(0.885)	104598	20.0000	19.18
	33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	125987	20.0000	19.92
	34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	87355	20.0000	17.88
$	35 1,2-Dichloroethane-d4	65	5.092	5.092	(1.058)	92644	20.0000	20.15
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	734279	50.0000	
	37 Benzene	78	5.134	5.134	(0.925)	344926	20.0000	19.23
	38 Trichloroethene	130	5.786	5.786	(1.043)	95768	20.0000	18.89
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	109407	20.0000	19.07
	41 2-Chloroethylvinyl ether	63	6.562	6.562	(1.182)	3649	40.0000	43.19(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	94074	20.0000	19.56
	44 Dibromomethane	93	6.116	6.116	(1.102)	60570	20.0000	19.61
	45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	202206	40.0000	39.59
	46 cis-1,3-Dichloropropene	75	6.689	6.689	(1.205)	121394	20.0000	18.07
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	686300	50.0000	
$	48 Toluene-d8	98	6.918	6.918	(0.845)	318501	20.0000	19.95
	50 Toluene	91	6.978	6.978	(0.853)	379846	20.0000	20.35
	51 trans-1,3-Dichloropropene	75	7.195	7.195	(1.297)	99553	20.0000	18.00
	52 2-Hexanone	43	7.593	7.593	(0.928)	136038	40.0000	40.23
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	75535	20.0000	18.90
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	162196	20.0000	19.78
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	92434	20.0000	18.84
	56 Tetrachloroethene	164	7.454	7.454	(0.911)	86434	20.0000	19.05
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	93653	20.0000	19.48
	58 1-Chlorohexane	55	8.196	8.196	(1.477)	71609	20.0000	18.67
	59 Chlorobenzene	112	8.208	8.208	(1.003)	259416	20.0000	19.61
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	93087	20.0000	19.30
	61 Ethylbenzene	106	8.305	8.305	(1.015)	115489	20.0000	19.28
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	280953	40.0000	39.96
	63 o-Xylene	106	8.747	8.747	(1.069)	140809	20.0000	20.47
	64 Styrene	104	8.759	8.759	(1.070)	210754	20.0000	19.63
	66 Bromoform	173	8.916	8.916	(1.089)	62613	20.0000	18.27
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	330709	20.0000	19.87
	68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	130051	20.0000	18.67
$	69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	131600	20.0000	20.32
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	361627	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	117425	20.0000	19.36
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	353551	20.0000	18.44
	74 Bromobenzene	156	9.317	9.317	(0.916)	114455	20.0000	19.13
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	240887	20.0000	19.06
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	254798	20.0000	19.98
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	290669	20.0000	20.41
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	234774	20.0000	19.60
	79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	259961	20.0000	20.31
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	286254	20.0000	22.41
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	235209	20.0000	22.36
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	192210	20.0000	19.24
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	204815	20.0000	18.51
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	200492	20.0000	18.05
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	196170	20.0000	19.14

89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	16731	20.0000	16.66
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	119903	20.0000	19.02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	49415	20.0000	22.86
	92 Naphthalene	128	12.069	12.069	(1.186)	276874	20.0000	17.69
	93 1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	120721	20.0000	18.76
M	94 1,2-Dichloroethylene (total)	96				152232	40.0000	
M	95 Xylenes (total)	106				421762	60.0000	
	135 1,4-Dioxane	88	6.168	6.168	(1.282)	27650	400.000	379.53(M)
	141 Cyclohexane	56	4.774	4.774	(0.992)	110200	20.0000	19.29
	138 Freon TF	101	2.322	2.322	(0.483)	59963	20.0000	23.21
	140 1,3-Butadiene	54	1.392	1.392	(0.289)	74085	20.0000	18.31
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	210480	20.0000	19.67
	146 Methyl Acetate	43	2.705	2.705	(0.562)	68962	20.0000	18.91
	148 Tert-Butyl alcohol	59	2.963	2.963	(0.616)	172724	400.000	402.47
	149 Isopropyl Alcohol	45	2.555	2.555	(0.531)	100114	400.000	356.52

QC Flag Legend

M - Compound response manually integrated.



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Column phase: DB624

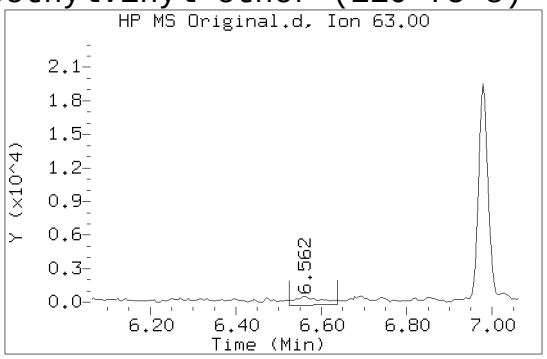
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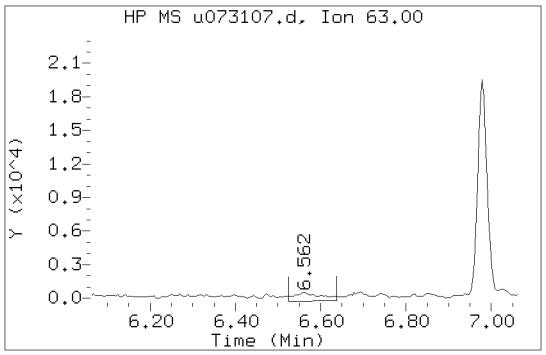
2-Chloroethylvinyl ether (110-75-8)

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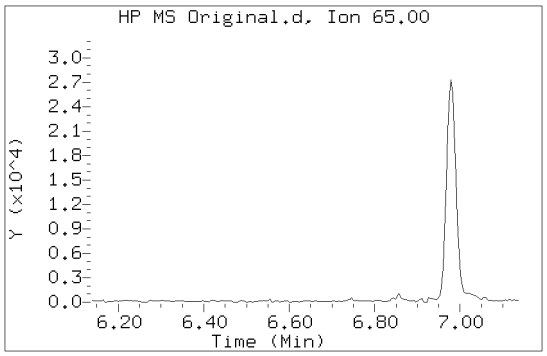
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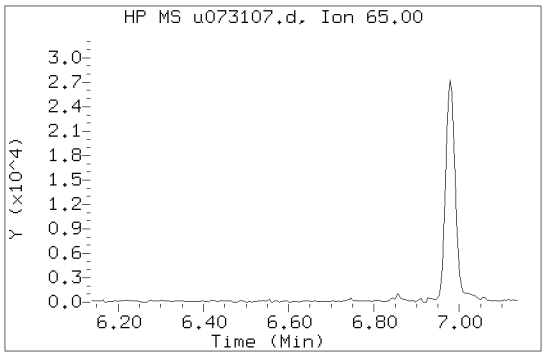
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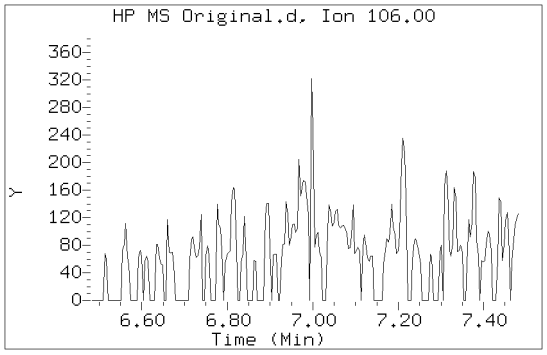
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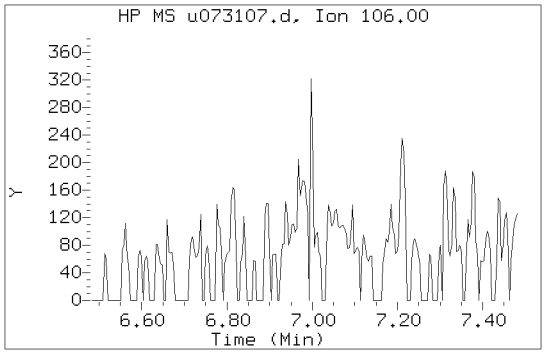
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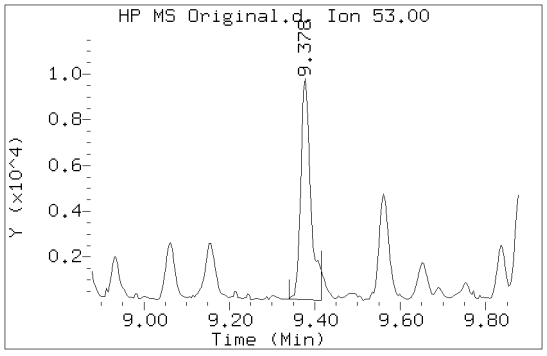
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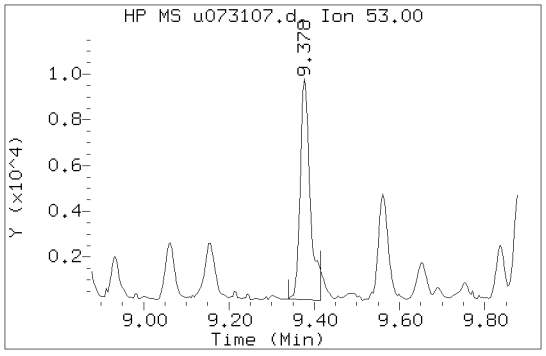
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

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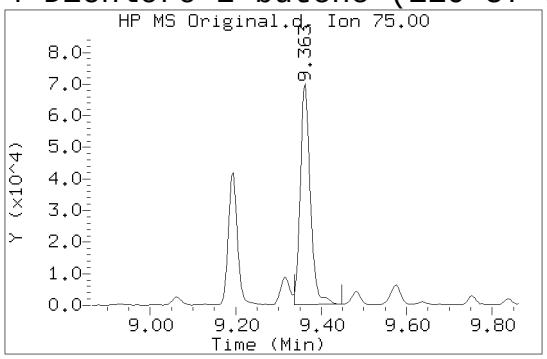
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Inj Date : 31-JUL-2023 13:44
InstruID : VOA9.i
LabSampID : VSTD020

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

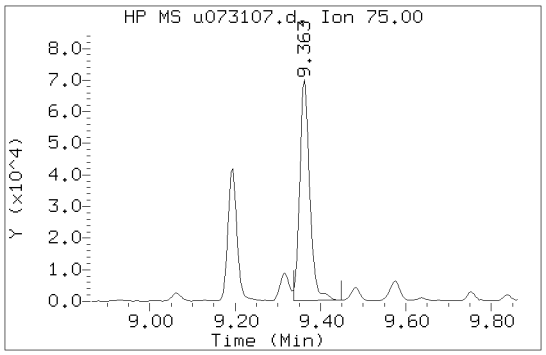
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AFTER

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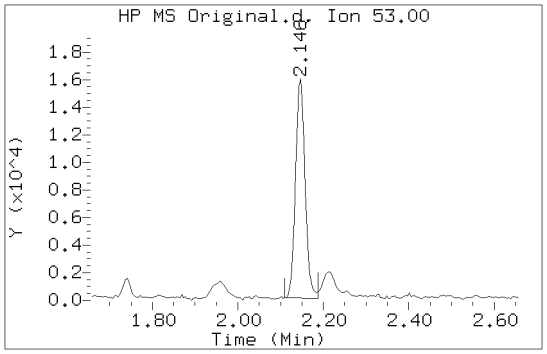


Chloroprene (126-99-8)

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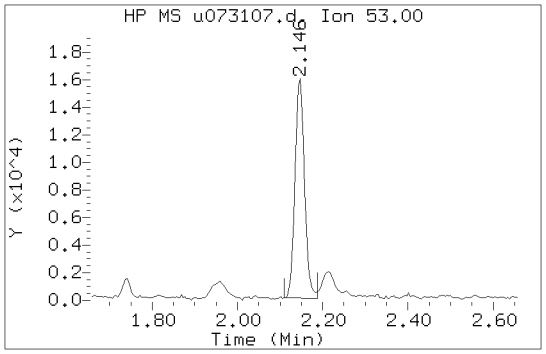
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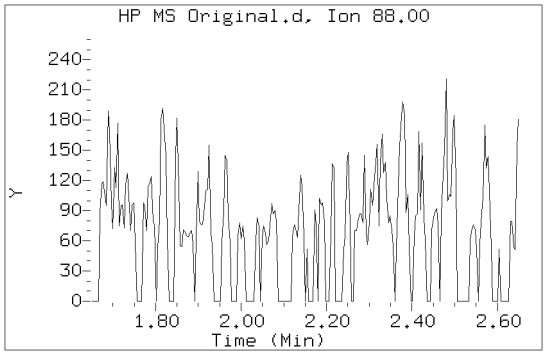
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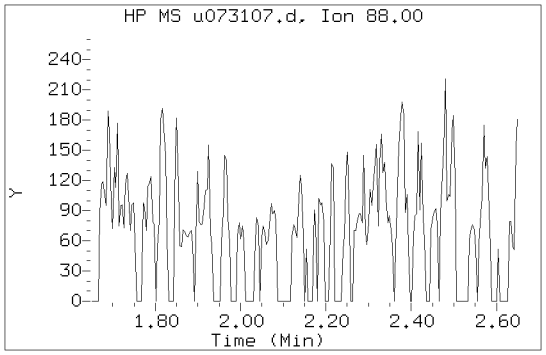
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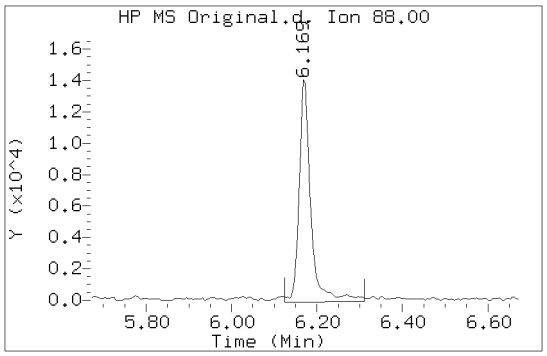


1,4-Dioxane ()

Reason Code:

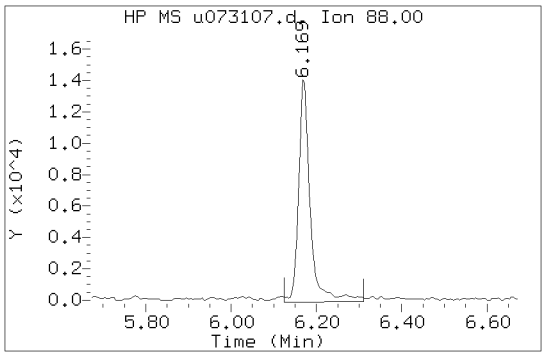
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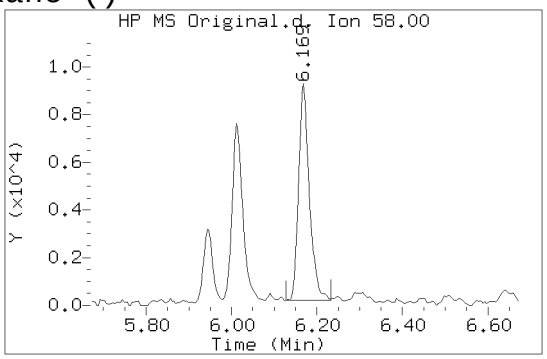


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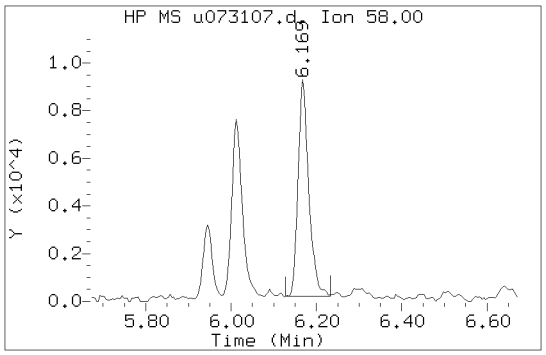
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Reason Code:

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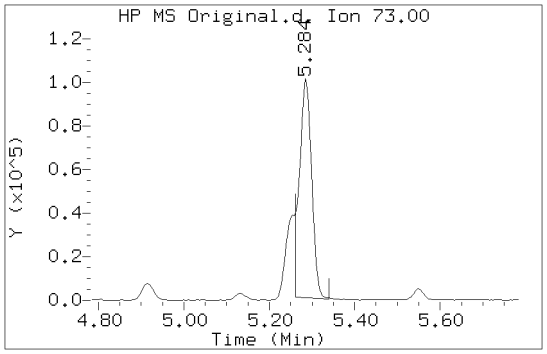
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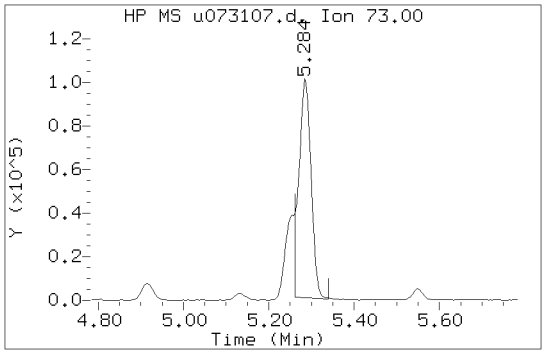
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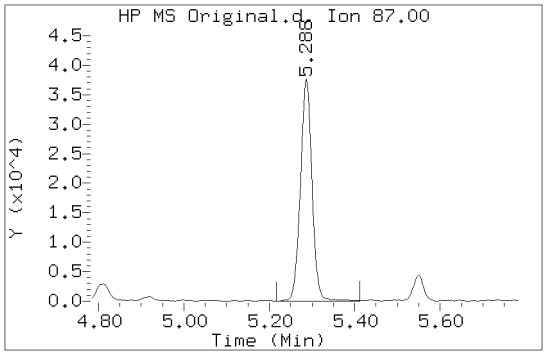
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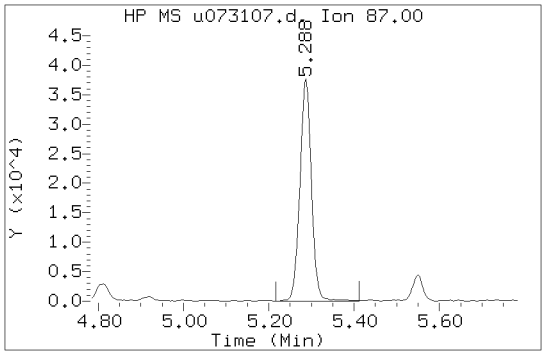
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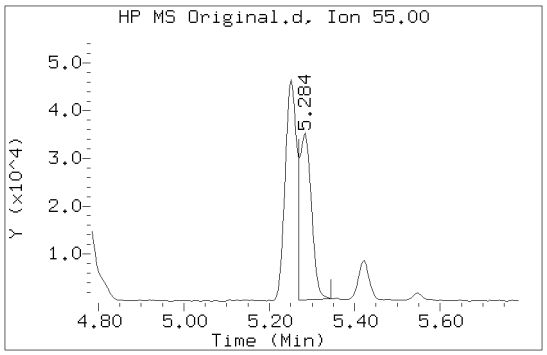
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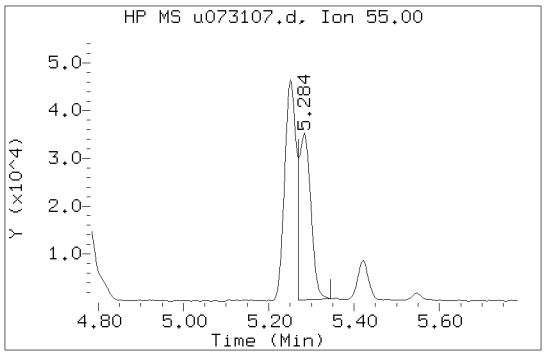
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AFTER
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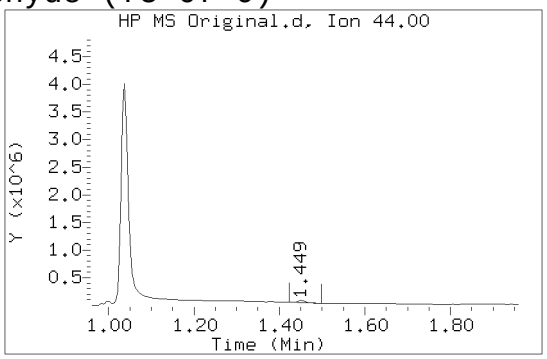


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LabSampID : VSTD020

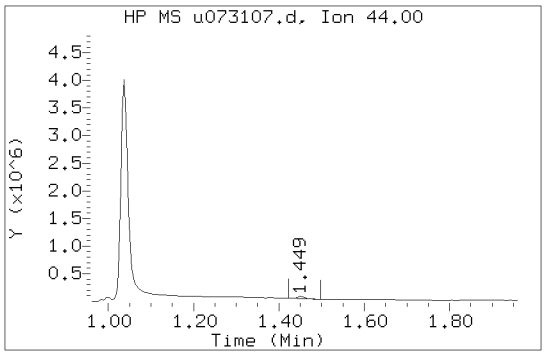
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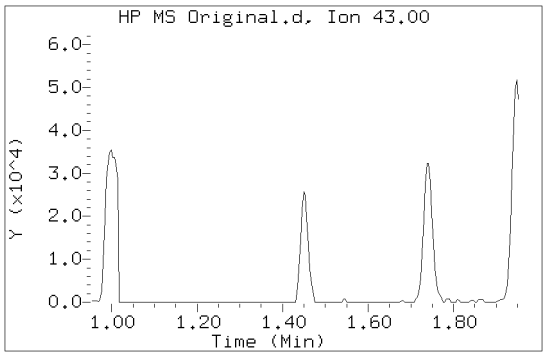
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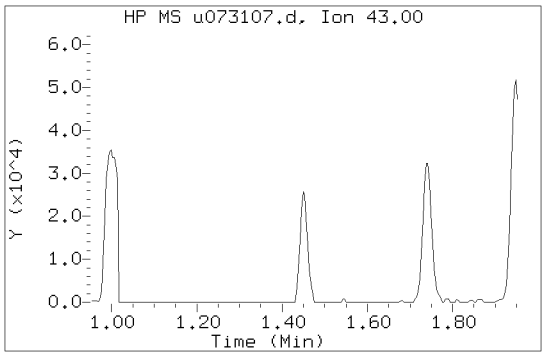
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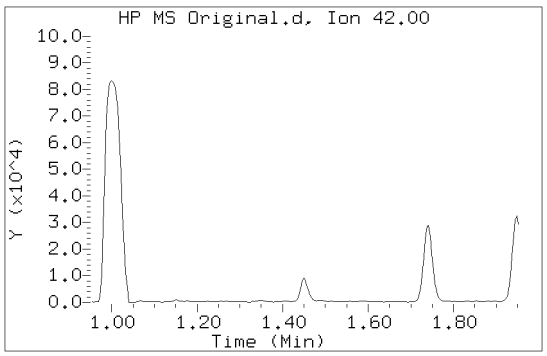
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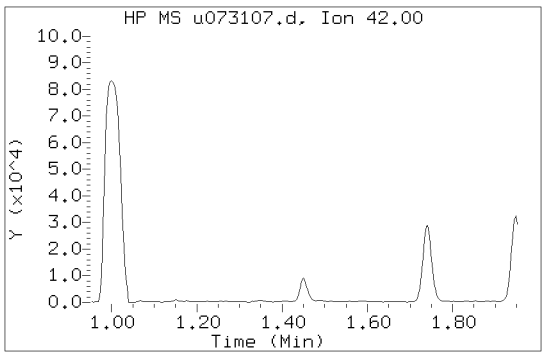
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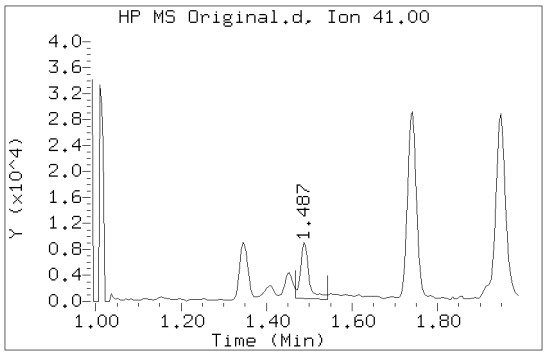
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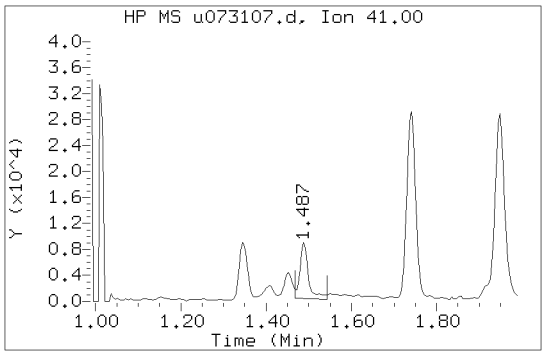
Isobutylene (115-11-7)

Reason Code:

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AFTER
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01-Aug-2023
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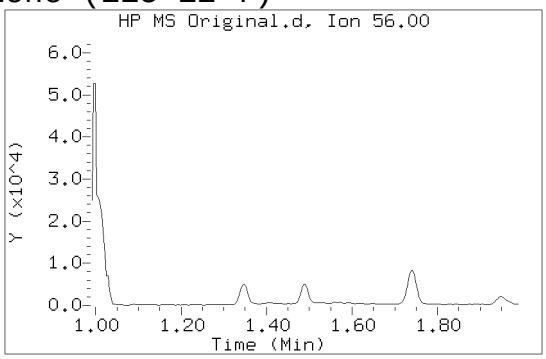


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Inj Date : 31-JUL-2023 13:44
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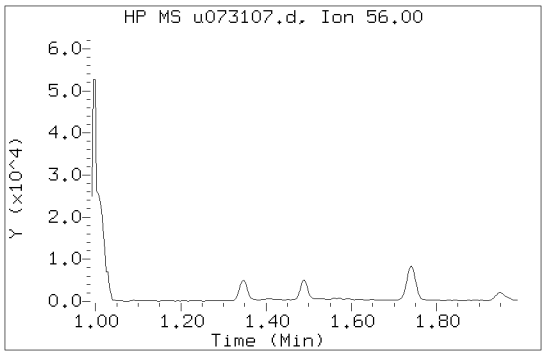
Isobutylene (115-11-7)

Reason Code:

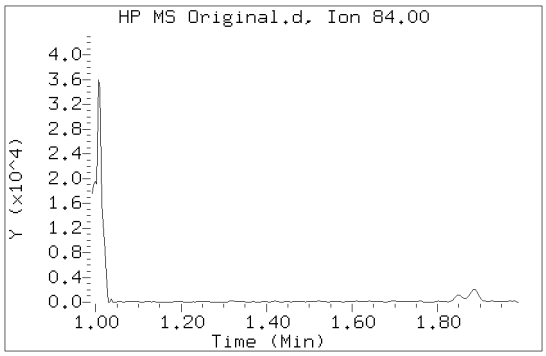
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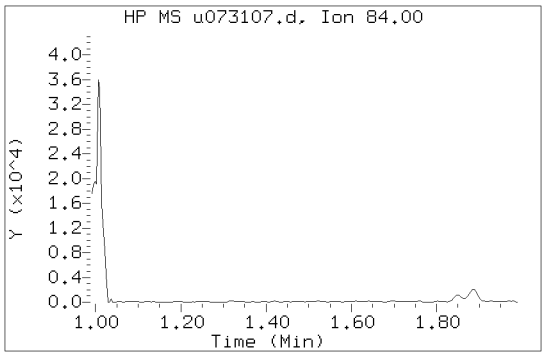
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BEFORE
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01-Aug-2023
21:03



AFTER
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01-Aug-2023
21:03



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073108.D
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Inj Date : 31-JUL-2023 14:06
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : V9;WATER;0;1;
Comment :
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Meth Date : 07-Aug-2023 11:14 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 13:44 Cal File: U073107.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.811	4.811	(1.000)	521501	50.0000	
2 Dichlorodifluoromethane	85	1.156	1.156	(0.240)	210687	50.0000	42.40
3 Chloromethane	50	1.291	1.291	(0.268)	290271	50.0000	47.40
5 Vinyl Chloride	62	1.370	1.370	(0.285)	230497	50.0000	44.89
6 Bromomethane	94	1.610	1.610	(0.335)	140100	50.0000	50.62
7 Chloroethane	64	1.693	1.693	(0.352)	140986	50.0000	43.60
8 Trichlorofluoromethane	101	1.887	1.887	(0.392)	278846	50.0000	44.00
9 Acrolein	56	1.741	1.741	(0.362)	30057	100.000	89.85
10 Acetone	43	2.401	2.401	(0.499)	169500	100.000	104.17
11 1,1-Dichloroethene	96	2.326	2.326	(0.483)	156147	50.0000	45.44
15 Iodomethane	142	2.461	2.461	(0.512)	293634	100.000	89.53
16 Acrylonitrile	53	3.061	3.061	(0.636)	164576	100.000	100.39
17 Methylene Chloride	84	2.787	2.787	(0.579)	200746	50.0000	48.08
18 Methyl tert-butyl ether	73	3.072	3.072	(0.639)	524571	50.0000	49.39
19 Carbon Disulfide	76	2.514	2.514	(0.522)	914751	100.000	91.45
20 trans-1,2-Dichloroethene	96	3.050	3.050	(0.634)	173824	50.0000	45.14
21 Vinyl Acetate	43	3.601	3.601	(0.748)	1096284	100.000	99.48
22 1,1-Dichloroethane	63	3.507	3.507	(0.729)	306506	50.0000	43.55
24 2-Butanone	43	4.264	4.264	(0.886)	184731	100.000	90.16
26 2,2-Dichloropropane	77	4.178	4.178	(0.868)	225058	50.0000	46.38

27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	200549	50.0000	46.66
28 Chloroform	83	4.568	4.568 (0.949)	370309	50.0000	45.21

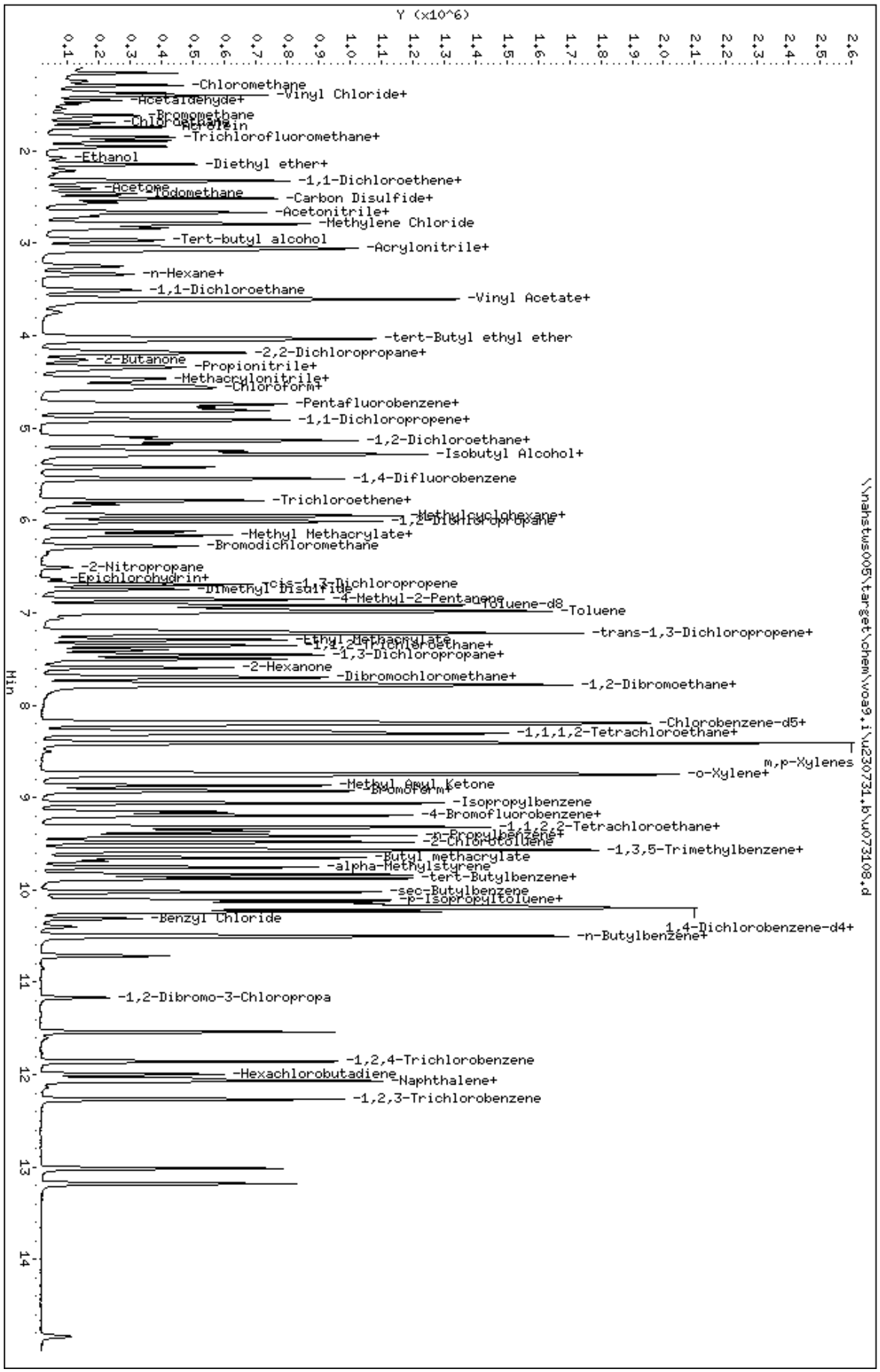
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.463	4.463	(0.928)	114734	50.0000	45.11
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	213944	50.0000	51.31
	31 1,1,1-Trichloroethane	97	4.736	4.736	(0.984)	288139	50.0000	45.22
	32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	247660	50.0000	44.27
	33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	310322	50.0000	47.83
	34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	222170	50.0000	44.33
$	35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.058)	242144	50.0000	53.39
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	753344	50.0000	
	37 Benzene	78	5.134	5.134	(0.925)	847314	50.0000	46.04
	38 Trichloroethene	130	5.786	5.786	(1.043)	234118	50.0000	45.01
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	279504	50.0000	47.48
	41 2-Chloroethylvinyl ether	63	6.573	6.573	(1.184)	8568	100.000	100.26(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	233383	50.0000	47.31
	44 Dibromomethane	93	6.116	6.116	(1.102)	151090	50.0000	47.69
	45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	534926	100.000	102.38
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	332624	50.0000	44.58
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	702205	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	812511	50.0000	49.74
	50 Toluene	91	6.978	6.978	(0.853)	923622	50.0000	48.37
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	283880	50.0000	50.04
	52 2-Hexanone	43	7.593	7.593	(0.928)	349171	100.000	100.92
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	191597	50.0000	46.85
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	400885	50.0000	47.79
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	251335	50.0000	50.08
	56 Tetrachloroethene	164	7.454	7.454	(0.911)	200189	50.0000	43.12
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	246343	50.0000	50.07
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	157109	50.0000	39.93
	59 Chlorobenzene	112	8.208	8.208	(1.003)	620392	50.0000	45.83
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	232375	50.0000	47.10
	61 Ethylbenzene	106	8.305	8.305	(1.015)	284758	50.0000	46.47
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	695488	100.000	96.69
	63 o-Xylene	106	8.744	8.744	(1.068)	348256	50.0000	49.49
	64 Styrene	104	8.759	8.759	(1.070)	567019	50.0000	51.63
	66 Bromoform	173	8.920	8.920	(1.090)	174502	50.0000	49.77
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	789895	50.0000	46.39
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	329861	50.0000	46.28
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	329909	50.0000	51.80
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	369999	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	297386	50.0000	47.92
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	850858	50.0000	41.16
	74 Bromobenzene	156	9.317	9.317	(0.916)	282913	50.0000	46.21
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	586347	50.0000	45.34
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	597862	50.0000	45.83
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	688448	50.0000	47.24
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	551666	50.0000	45.03
	79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	604762	50.0000	46.18
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	678780	50.0000	48.59
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	559357	50.0000	48.64
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	455217	50.0000	44.55
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	486155	50.0000	42.94
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	474213	50.0000	38.60
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	472224	50.0000	45.05

89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	46740	50.0000	45.48
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.165)	306323	50.0000	47.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	112500	50.0000	48.22
	92 Naphthalene	128	12.065	12.065	(1.186)	769637	50.0000	45.34
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	305902	50.0000	46.46
M	94 1,2-Dichloroethylene (total)	96				374373	100.000	
M	95 Xylenes (total)	106				1043744	150.000	
	135 1,4-Dioxane	88	6.168	6.168	(1.282)	69347	1000.00	927.44(M)
	141 Cyclohexane	56	4.778	4.778	(0.993)	243118	50.0000	41.47
	138 Freon TF	101	2.326	2.326	(0.483)	133548	50.0000	47.95
	140 1,3-Butadiene	54	1.396	1.396	(0.290)	190601	50.0000	45.90
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	564625	50.0000	51.45
	146 Methyl Acetate	43	2.708	2.708	(0.563)	172678	50.0000	46.14
	148 Tert-Butyl alcohol	59	2.963	2.963	(0.616)	427118	1000.00	974.10
	149 Isopropyl Alcohol	45	2.558	2.558	(0.532)	271031	1000.00	940.42

QC Flag Legend

M - Compound response manually integrated.



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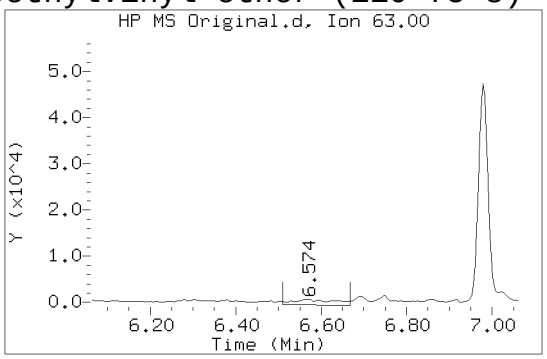
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Operator: PC
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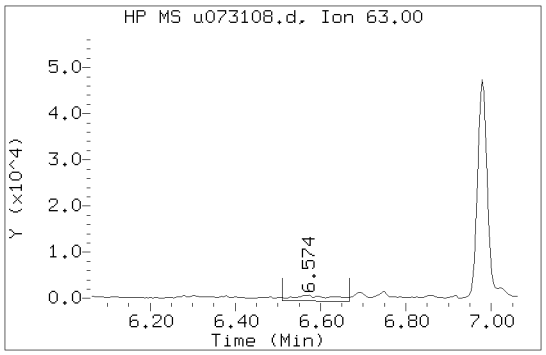
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

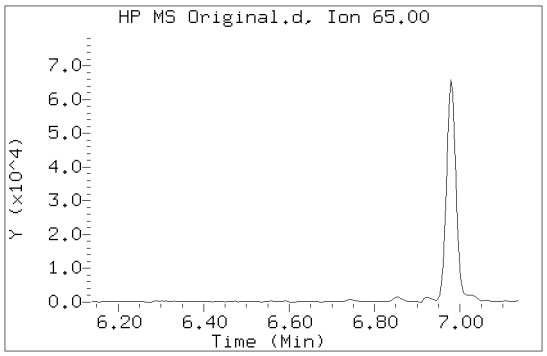
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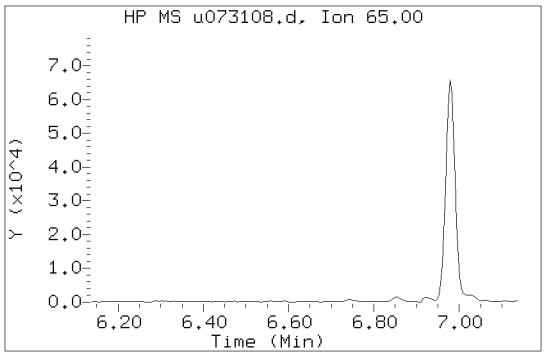
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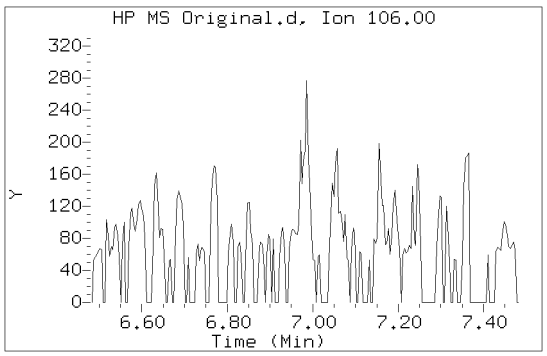
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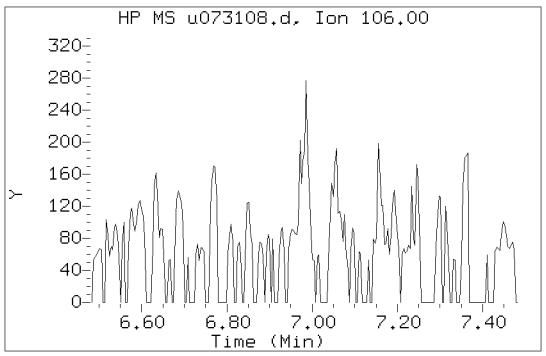
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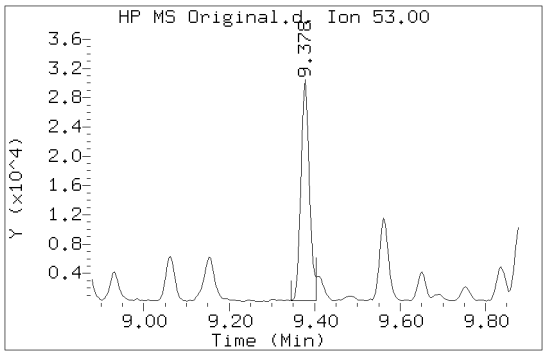
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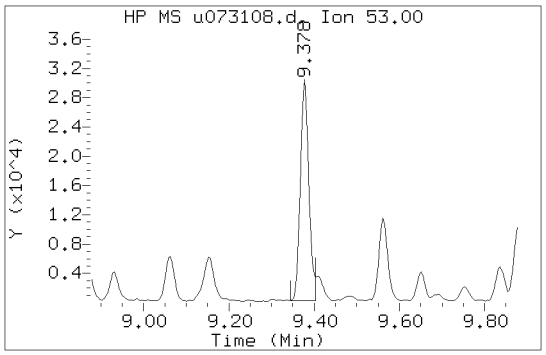
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

BEFORE
MASS
53
AREA
43380
HEIGHT
30186
01-Aug-2023
21:07



AFTER
MASS
53
AREA
43380
HEIGHT
30186
01-Aug-2023
21:07



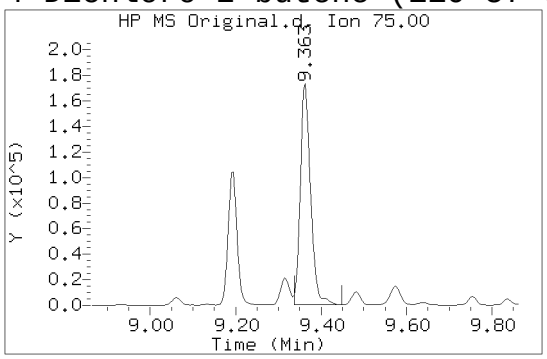
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Inj Date : 31-JUL-2023 14:06
InstruID : VOA9.i
LabSampID : VSTD050

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

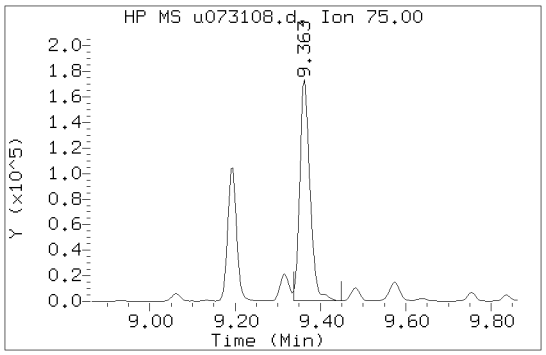
BEFORE

MASS
75
AREA
295054
HEIGHT
173128
01-Aug-2023
21:07



AFTER

MASS
75
AREA
295054
HEIGHT
173128
01-Aug-2023
21:07

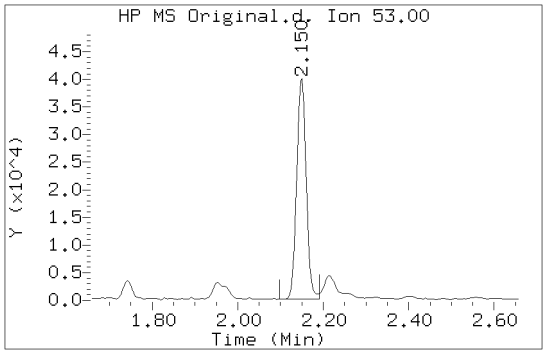


Chloroprene (126-99-8)

Reason Code:

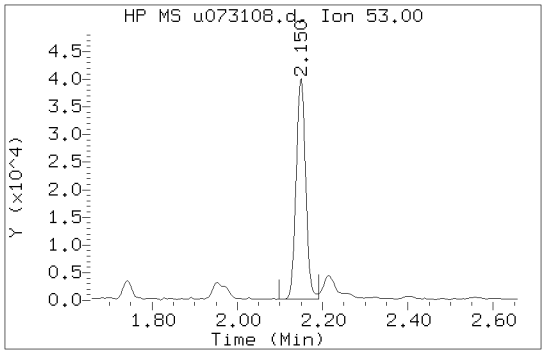
BEFORE

MASS
53
AREA
62644
HEIGHT
39895
01-Aug-2023
21:07



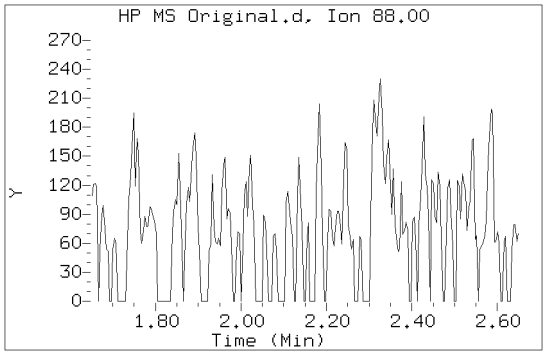
AFTER

MASS
53
AREA
62644
HEIGHT
39895
01-Aug-2023
21:07



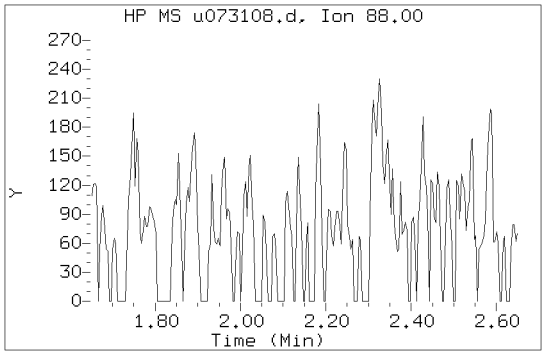
BEFORE

MASS
88
AREA
0
HEIGHT
0
01-Aug-2023
21:07



AFTER

MASS
88
AREA
0
HEIGHT
0
01-Aug-2023
21:07

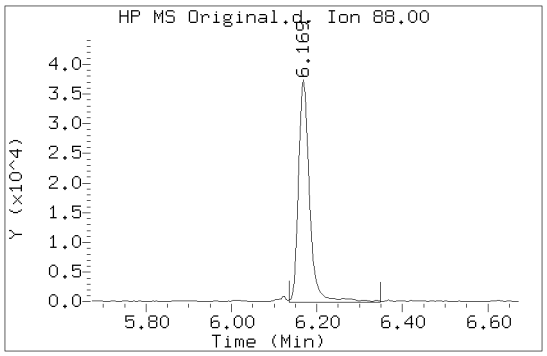


1,4-Dioxane ()

Reason Code:

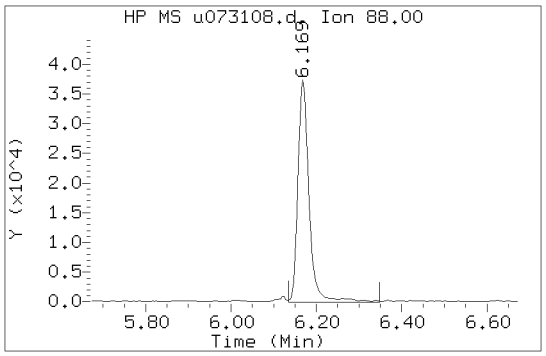
BEFORE

MASS
88
AREA
69347
HEIGHT
37380
01-Aug-2023
21:07



AFTER

MASS
88
AREA
69347
HEIGHT
37380
01-Aug-2023
21:07

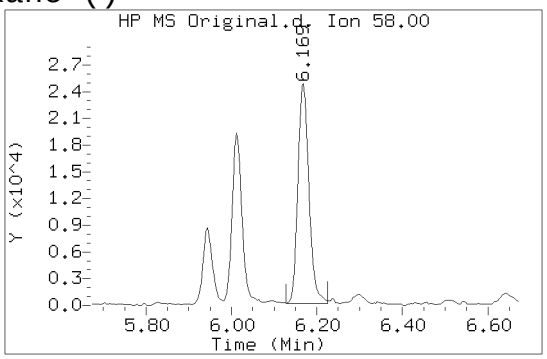


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Inj Date : 31-JUL-2023 14:06
InstruID : VOA9.i
LabSampID : VSTD050

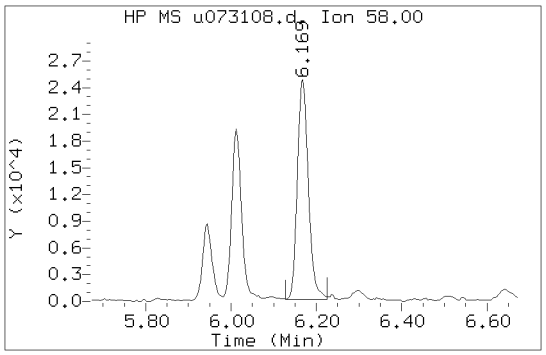
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
45410
HEIGHT
24666
01-Aug-2023
21:07



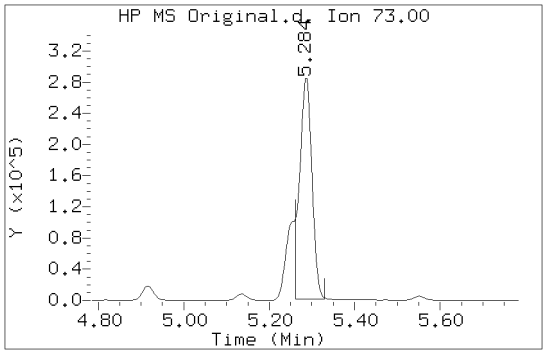
AFTER
MASS
58
AREA
45410
HEIGHT
24666
01-Aug-2023
21:07



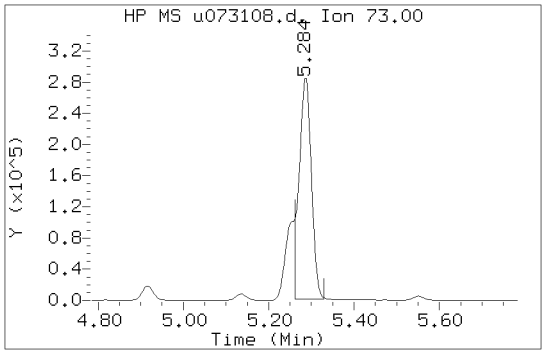
tert-Amyl methyl ether (974-05-08)

Reason Code:

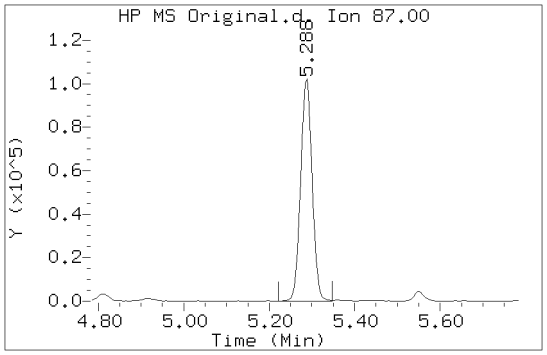
BEFORE
MASS
73
AREA
577923
HEIGHT
282594
01-Aug-2023
21:07



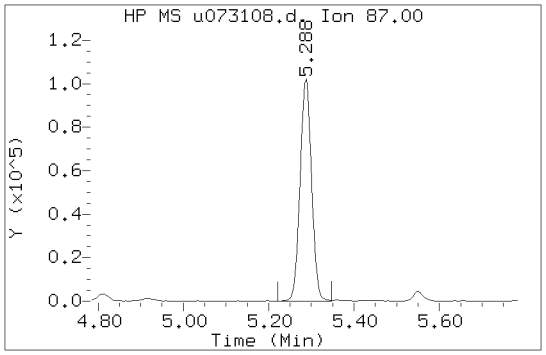
AFTER
MASS
73
AREA
577923
HEIGHT
282594
01-Aug-2023
21:07



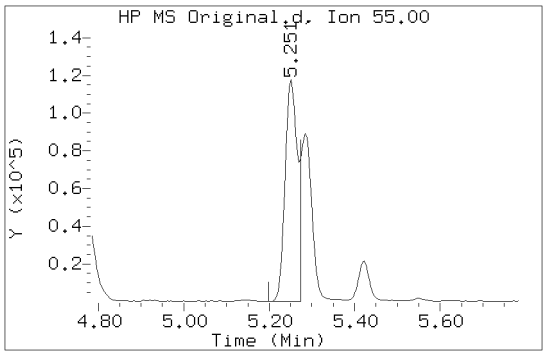
BEFORE
MASS
87
AREA
195353
HEIGHT
102111
01-Aug-2023
21:07



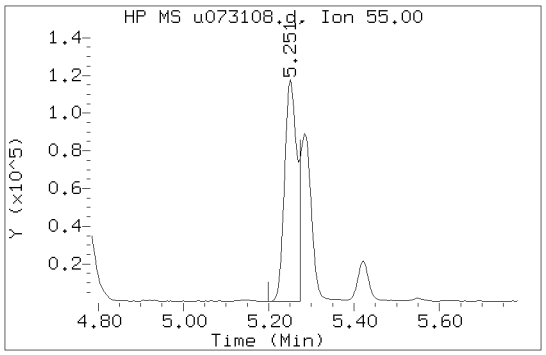
AFTER
MASS
87
AREA
195353
HEIGHT
102111
01-Aug-2023
21:07



BEFORE
MASS
55
AREA
243538
HEIGHT
117540
01-Aug-2023
21:07



AFTER
MASS
55
AREA
243538
HEIGHT
117540
01-Aug-2023
21:07

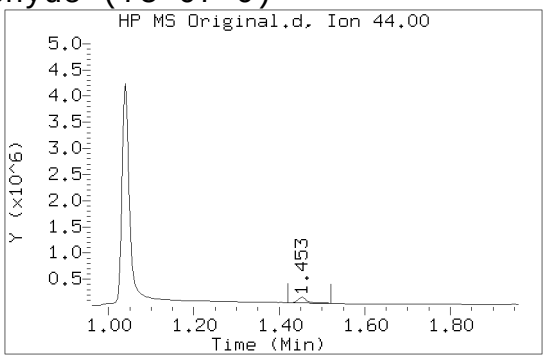


Data File : \\nahstws005\target\chem\voa9.i\u230731.b\u073108.d
Inj Date : 31-JUL-2023 14:06
InstruID : VOA9.i
LabSampID : VSTD050

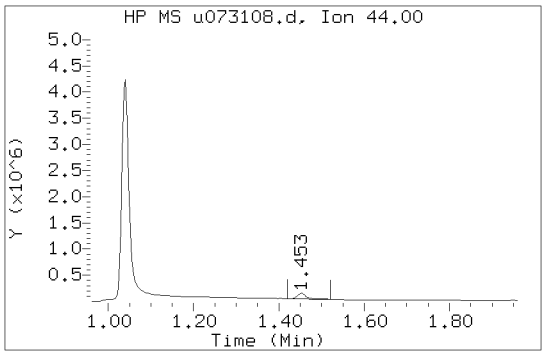
Acetaldehyde (75-07-0)

Reason Code:

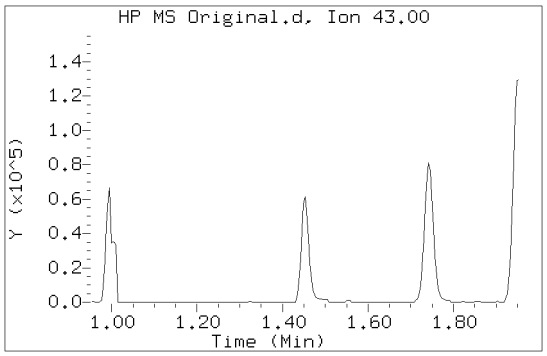
BEFORE
MASS
44
AREA
147751
HEIGHT
105308
01-Aug-2023
21:07



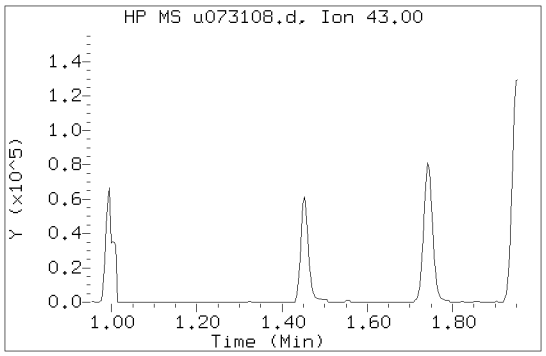
AFTER
MASS
44
AREA
147751
HEIGHT
105308
01-Aug-2023
21:07



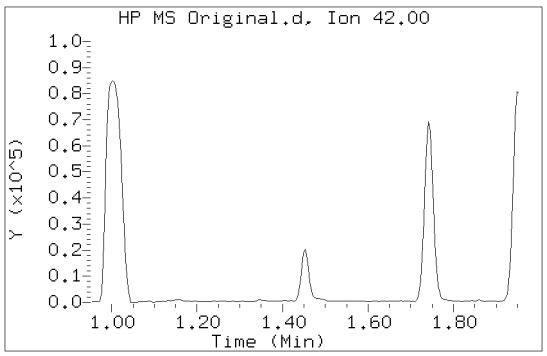
BEFORE
MASS
43
AREA
0
HEIGHT
0
01-Aug-2023
21:07



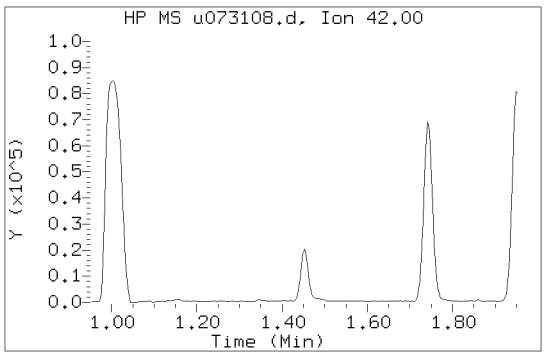
AFTER
MASS
43
AREA
0
HEIGHT
0
01-Aug-2023
21:07



BEFORE
MASS
42
AREA
0
HEIGHT
0
01-Aug-2023
21:07



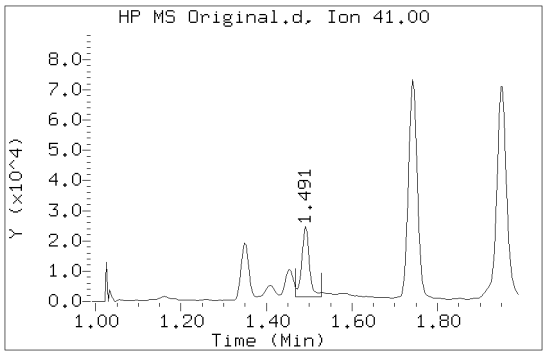
AFTER
MASS
42
AREA
0
HEIGHT
0
01-Aug-2023
21:07



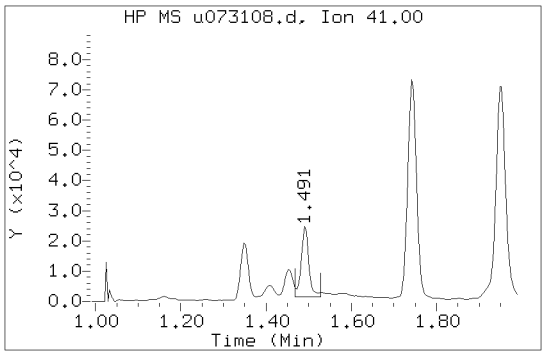
Isobutylene (115-11-7)

Reason Code:

BEFORE
MASS
41
AREA
29766
HEIGHT
23313
01-Aug-2023
21:07



AFTER
MASS
41
AREA
29766
HEIGHT
23313
01-Aug-2023
21:07

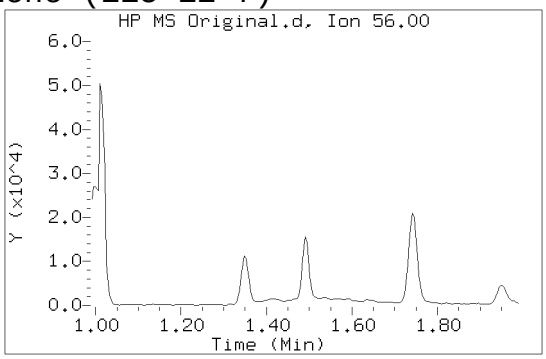


Data File : \\nahstws005\target\chem\voa9.i\u230731.b\u073108.d
Inj Date : 31-JUL-2023 14:06
InstruID : VOA9.i
LabSampID : VSTD050

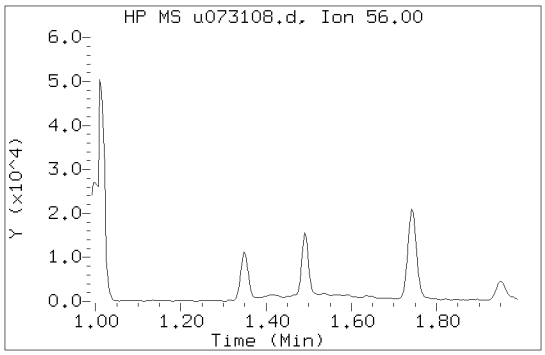
Isobutylene (115-11-7)

Reason Code:

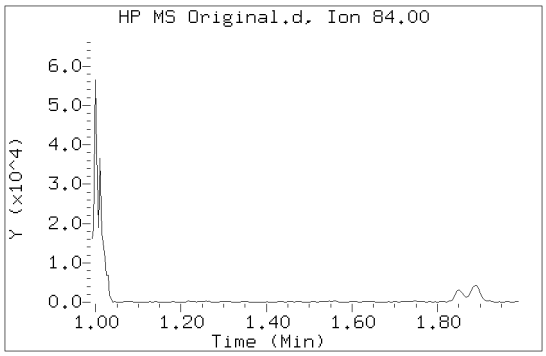
BEFORE
MASS
56
AREA
0
HEIGHT
0
01-Aug-2023
21:07



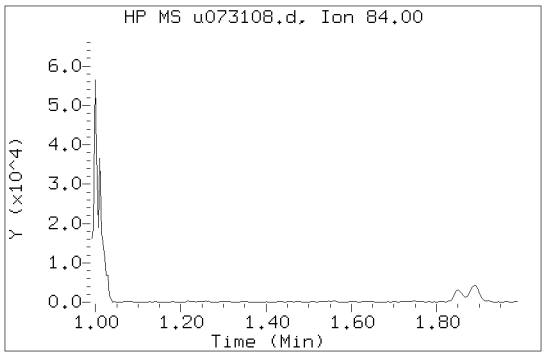
AFTER
MASS
56
AREA
0
HEIGHT
0
01-Aug-2023
21:07



BEFORE
MASS
84
AREA
0
HEIGHT
0
01-Aug-2023
21:07



AFTER
MASS
84
AREA
0
HEIGHT
0
01-Aug-2023
21:07



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073109.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 31-JUL-2023 14:28
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\8260C.m
Meth Date : 07-Aug-2023 11:14 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.811	4.811	(1.000)	531119	50.0000	
2 Dichlorodifluoromethane	85	1.160	1.160	(0.241)	539886	100.000	104.78
3 Chloromethane	50	1.291	1.291	(0.268)	647562	100.000	104.26
5 Vinyl Chloride	62	1.374	1.374	(0.286)	556620	100.000	106.44
6 Bromomethane	94	1.610	1.610	(0.335)	279477	100.000	100.74
7 Chloroethane	64	1.693	1.693	(0.352)	326908	100.000	99.27
8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	708047	100.000	109.70
9 Acrolein	56	1.745	1.745	(0.363)	72803	200.000	213.70
10 Acetone	43	2.405	2.405	(0.500)	334973	200.000	209.83(A)
11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	375202	100.000	107.22
15 Iodomethane	142	2.465	2.465	(0.512)	790175	200.000	209.83
16 Acrylonitrile	53	3.061	3.061	(0.636)	326846	200.000	195.77
17 Methylene Chloride	84	2.791	2.791	(0.580)	426614	100.000	100.55
18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	1061414	100.000	98.13
19 Carbon Disulfide	76	2.517	2.517	(0.523)	2172250	200.000	213.23
20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.635)	387474	100.000	98.81
21 Vinyl Acetate	43	3.604	3.604	(0.749)	2321009	200.000	206.81
22 1,1-Dichloroethane	63	3.511	3.511	(0.730)	686592	100.000	95.79
24 2-Butanone	43	4.264	4.264	(0.886)	378901	200.000	181.59
26 2,2-Dichloropropane	77	4.178	4.178	(0.868)	526083	100.000	106.45

27	cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	444452	100.000	101.53
28	Chloroform	83	4.572	4.572 (0.950)	809862	100.000	97.09

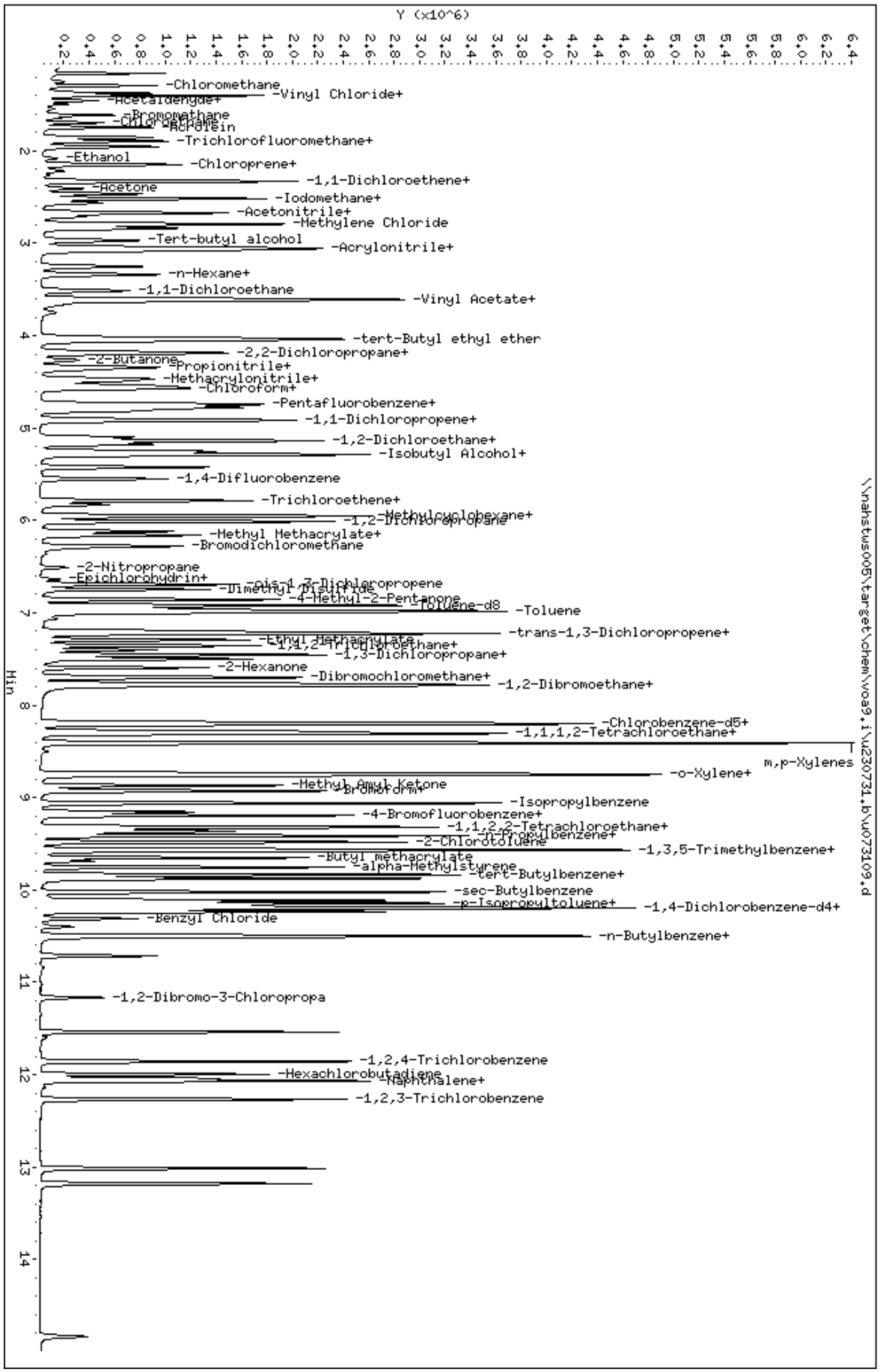
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	251900	100.000	97.25
$	30 Dibromofluoromethane	113	4.748	4.748	(0.987)	432647	100.000	102.88
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	692131	100.000	106.65
	32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	621122	100.000	108.81
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	653640	100.000	98.74
	34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	590616	100.000	115.50
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	469501	100.000	102.86
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	768682	50.0000	
	37 Benzene	78	5.138	5.138	(0.926)	1881235	100.000	100.18
	38 Trichloroethene	130	5.786	5.786	(1.043)	546012	100.000	102.88
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	626277	100.000	104.28
	41 2-Chloroethylvinyl ether	63	6.573	6.573	(1.184)	17476	200.000	201.52(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	503188	100.000	99.98
	44 Dibromomethane	93	6.120	6.120	(1.103)	317210	100.000	98.13
	45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	1113382	200.000	204.85
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	774336	100.000	98.89
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	730455	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1702517	100.000	100.20
	50 Toluene	91	6.978	6.978	(0.853)	2103575	100.000	105.92
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	657662	100.000	113.61
	52 2-Hexanone	43	7.593	7.593	(0.928)	745592	200.000	207.16
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	399622	100.000	93.95
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	852281	100.000	97.67
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	562633	100.000	107.78
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	508894	100.000	105.39
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	511063	100.000	99.87
	58 1-Chlorohexane	55	8.196	8.196	(1.477)	456782	100.000	113.79
	59 Chlorobenzene	112	8.208	8.208	(1.003)	1400796	100.000	99.49
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	524704	100.000	102.25
	61 Ethylbenzene	106	8.305	8.305	(1.015)	707960	100.000	111.08
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1748509	200.000	233.68
	63 o-Xylene	106	8.748	8.748	(1.069)	842626	100.000	115.11
	64 Styrene	104	8.759	8.759	(1.070)	1350547	100.000	118.23
	66 Bromoform	173	8.916	8.916	(1.089)	397643	100.000	109.03
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	2157581	100.000	121.81
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	678033	100.000	91.98
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	681158	100.000	104.18
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	382676	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	649935	100.000	101.27
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	2371517	100.000	108.15
	74 Bromobenzene	156	9.317	9.317	(0.916)	640155	100.000	101.11
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	1580368	100.000	118.16
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1466545	100.000	108.70
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1658605	100.000	110.06
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1531790	100.000	120.89
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	1537488	100.000	113.52
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	2006353	100.000	100.11(M)
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	1676245	100.000	100.10
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1093115	100.000	103.45
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1130176	100.000	96.52
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	1404287	100.000	106.06
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1085919	100.000	100.16

89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	111083	100.000	104.52
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.165)	779707	100.000	116.91

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	351435	100.000	100.12
	92 Naphthalene	128	12.065	12.065	(1.186)	1846543	100.000	103.09
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	758679	100.000	111.43
M	94 1,2-Dichloroethylene (total)	96				831926	200.000	
M	95 Xylenes (total)	106				2591135	300.000	
	135 1,4-Dioxane	88	6.168	6.168	(1.282)	133163	2000.00	1748.66
	141 Cyclohexane	56	4.778	4.778	(0.993)	724781	100.000	121.41
	138 Freon TF	101	2.330	2.330	(0.484)	376621	100.000	100.17
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	471706	100.000	111.54
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	1231847	100.000	110.02(A)
	146 Methyl Acetate	43	2.708	2.708	(0.563)	348427	100.000	91.42
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.617)	876760	2000.00	1966.54
	149 Isopropyl Alcohol	45	2.562	2.562	(0.533)	542945	2000.00	1849.80

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws005\target\chem\voa9.i\u230731.b\u073109.d
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Sample Info: VSTD100;VSTD100;1;8;
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Column phase: DB624

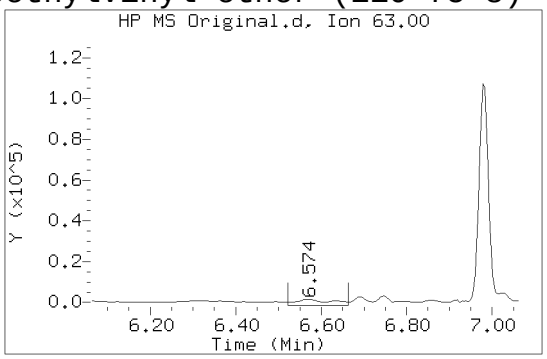
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Inj Date : 31-JUL-2023 14:28
InstruID : VOA9.i
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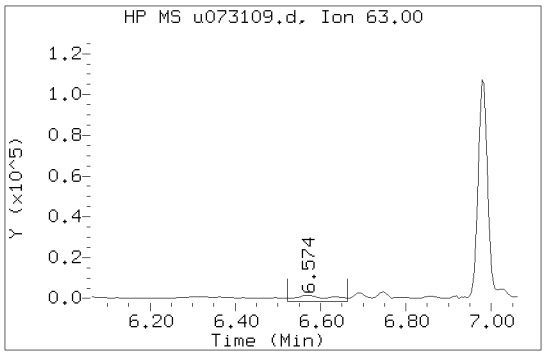
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

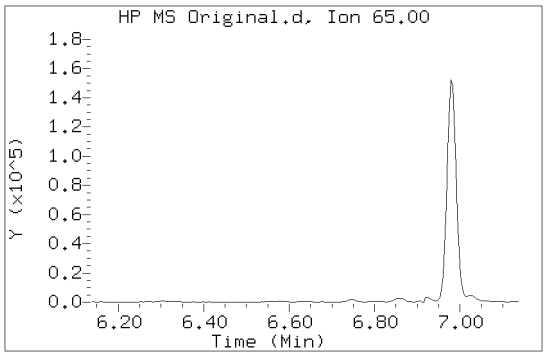
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01-Aug-2023
21:04



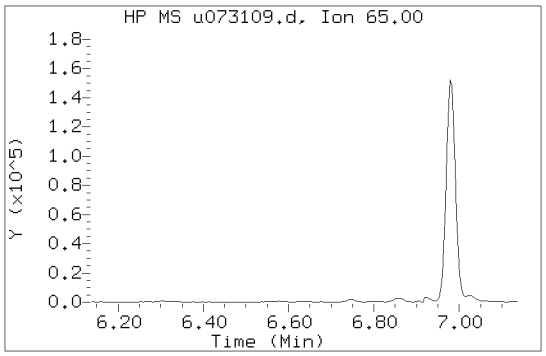
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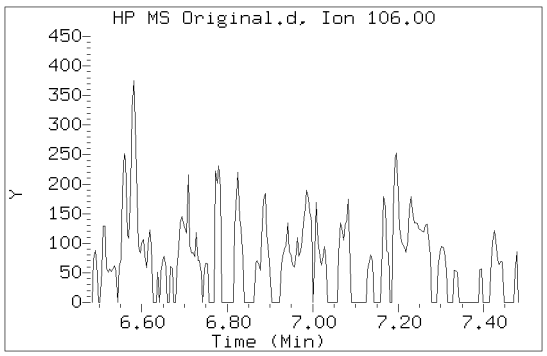
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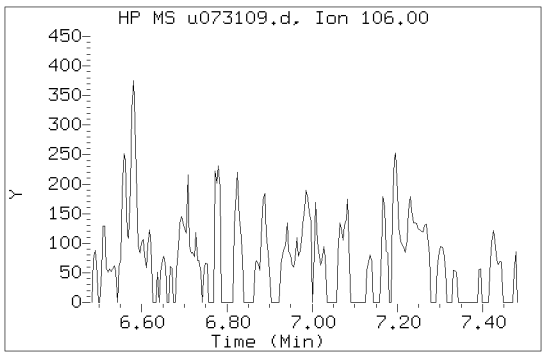
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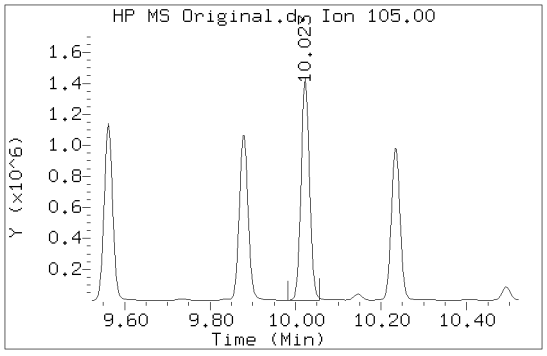
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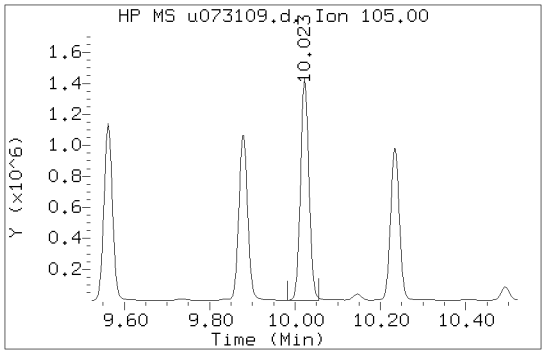
sec-Butylbenzene (135-98-8)

Reason Code:

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01-Aug-2023
21:04



AFTER
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AREA
2006353
HEIGHT
1429206
01-Aug-2023
21:04



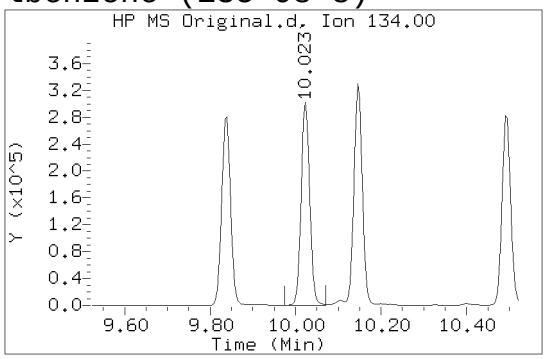
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Inj Date : 31-JUL-2023 14:28
InstruID : VOA9.i
LabSampID : VSTD100

sec-Butylbenzene (135-98-8)

Reason Code:

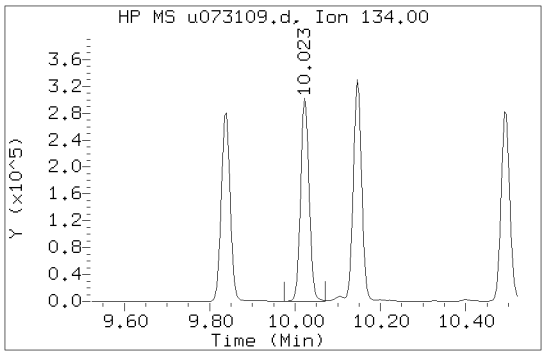
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01-Aug-2023
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AFTER

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HEIGHT
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01-Aug-2023
21:04

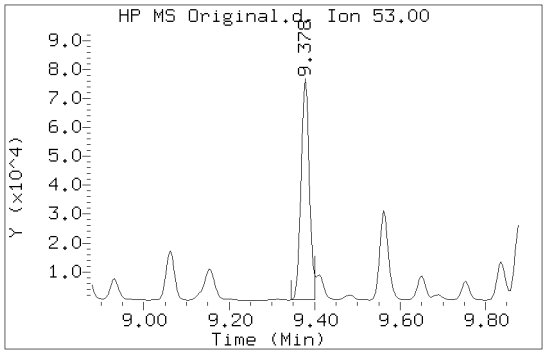


trans-1,4-Dichloro-2-butene (110-57-6)

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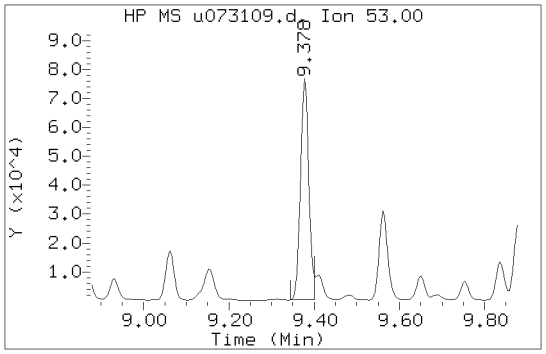
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01-Aug-2023
21:04



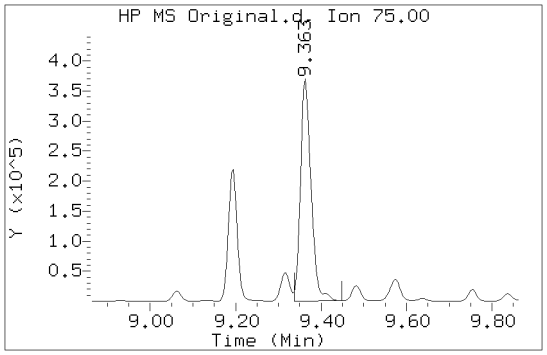
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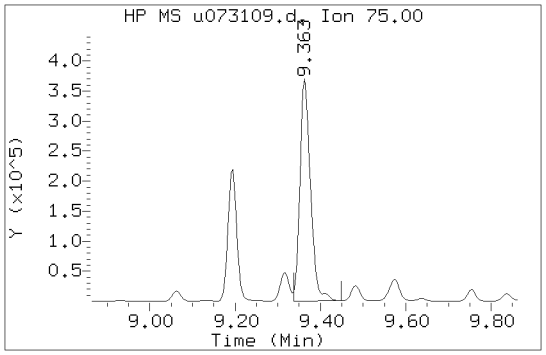
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AFTER

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01-Aug-2023
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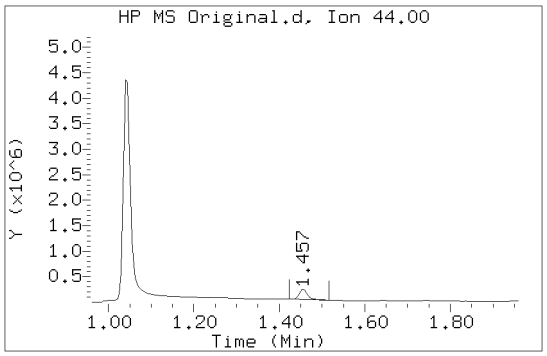


Acetaldehyde (75-07-0)

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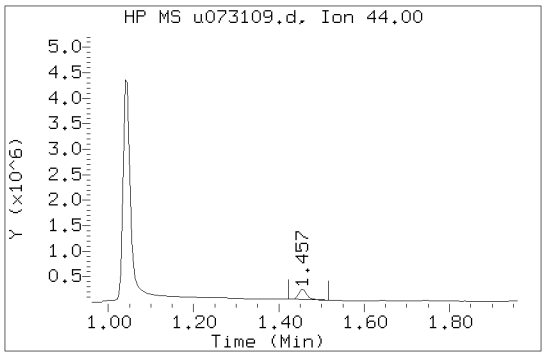
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AFTER

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HEIGHT
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01-Aug-2023
21:04



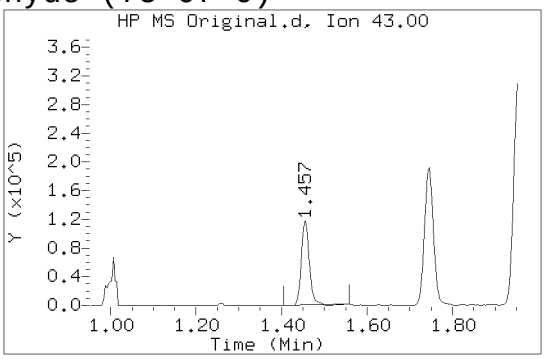
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Inj Date : 31-JUL-2023 14:28
InstruID : VOA9.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

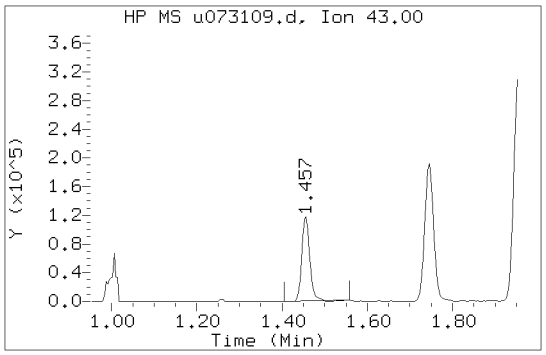
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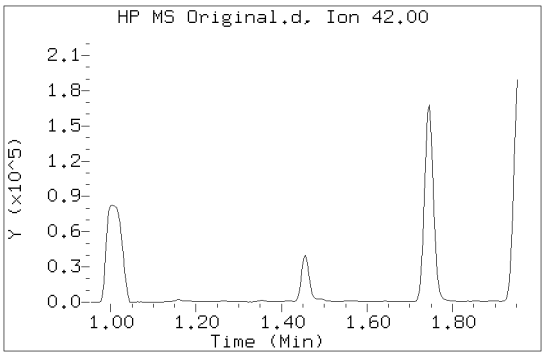
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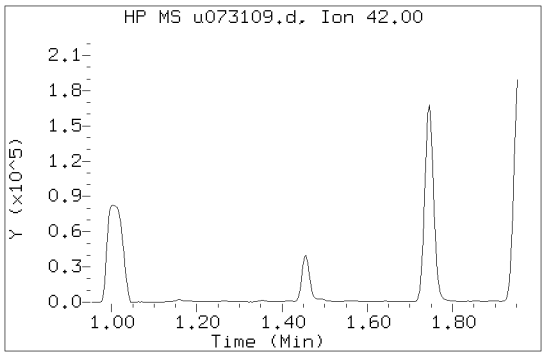
BEFORE

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AFTER

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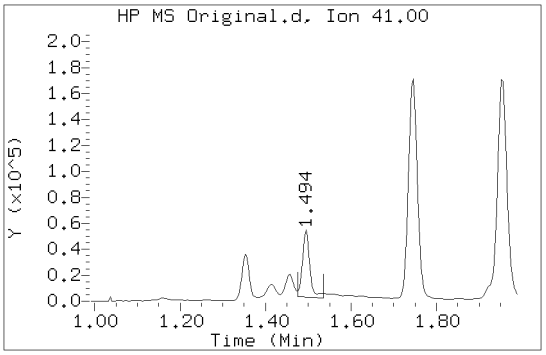


Isobutylene (115-11-7)

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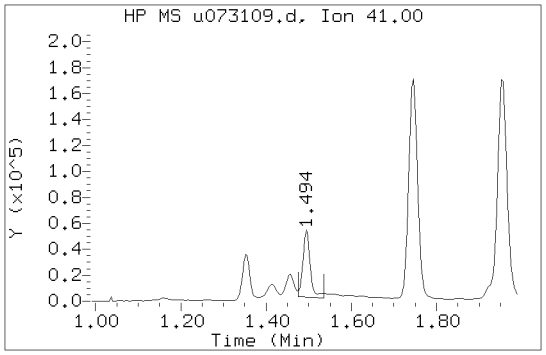
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01-Aug-2023
21:04



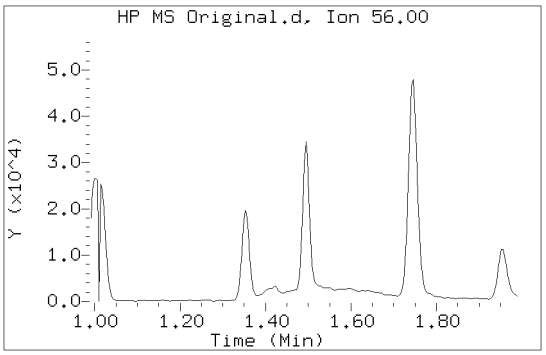
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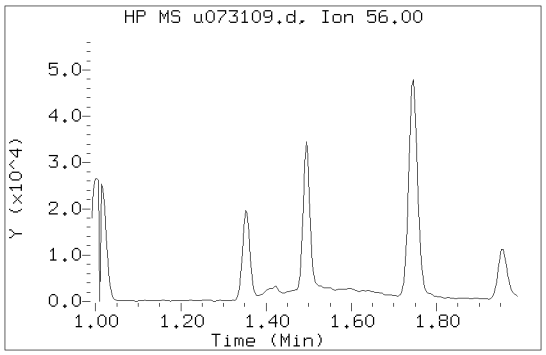
BEFORE

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21:04



AFTER

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01-Aug-2023
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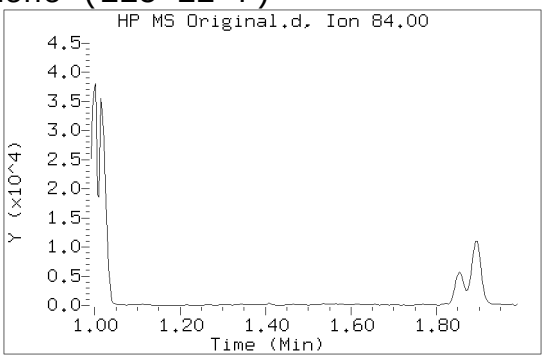
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InstruID : VOA9.i
LabSampID : VSTD100

Isobutylene (115-11-7)

Reason Code:

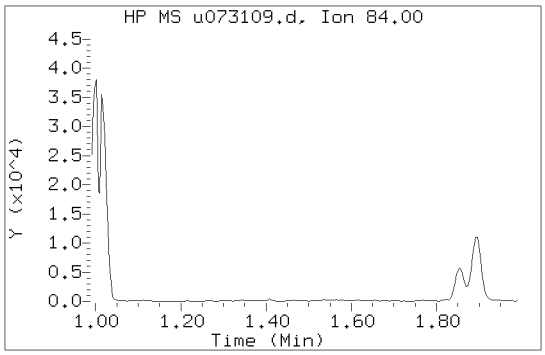
BEFORE

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21:04



AFTER

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01-Aug-2023
21:04



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073110.D Page 1
Report Date: 07-Aug-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073110.D
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Inj Date : 31-JUL-2023 14:51
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\8260C.m
Meth Date : 07-Aug-2023 11:14 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:28 Cal File: U073109.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.811	4.811	(1.000)	557237	50.0000	
2	Dichlorodifluoromethane	85	1.157	1.157	(0.240)	807250	150.000	148.79
3	Chloromethane	50	1.288	1.288	(0.268)	961975	150.000	147.77
5	Vinyl Chloride	62	1.366	1.366	(0.284)	860938	150.000	156.92
6	Bromomethane	94	1.599	1.599	(0.332)	430983	150.000	148.84
7	Chloroethane	64	1.685	1.685	(0.350)	507306	150.000	146.83
8	Trichlorofluoromethane	101	1.887	1.887	(0.392)	1063202	150.000	157.01
9	Acrolein	56	1.738	1.738	(0.361)	119190	300.000	333.46
10	Acetone	43	2.401	2.401	(0.499)	501220	300.000	302.73(A)
11	1,1-Dichloroethene	96	2.322	2.322	(0.483)	590988	150.000	160.97
15	Iodomethane	142	2.457	2.457	(0.511)	1298909	300.000	296.63
16	Acrylonitrile	53	3.057	3.057	(0.635)	529815	300.000	302.48
17	Methylene Chloride	84	2.787	2.787	(0.579)	668149	150.000	150.20
18	Methyl tert-butyl ether	73	3.072	3.072	(0.639)	1727226	150.000	152.21
19	Carbon Disulfide	76	2.510	2.510	(0.522)	3392907	300.000	317.45
20	trans-1,2-Dichloroethene	96	3.050	3.050	(0.634)	617223	150.000	150.02
21	Vinyl Acetate	43	3.601	3.601	(0.748)	3717826	300.000	315.75
22	1,1-Dichloroethane	63	3.507	3.507	(0.729)	1090457	150.000	145.00
24	2-Butanone	43	4.260	4.260	(0.885)	600335	300.000	274.23
26	2,2-Dichloropropane	77	4.174	4.174	(0.868)	826727	150.000	159.44

27	cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	694795	150.000	151.29
28	Chloroform	83	4.568	4.568 (0.949)	1267508	150.000	144.83

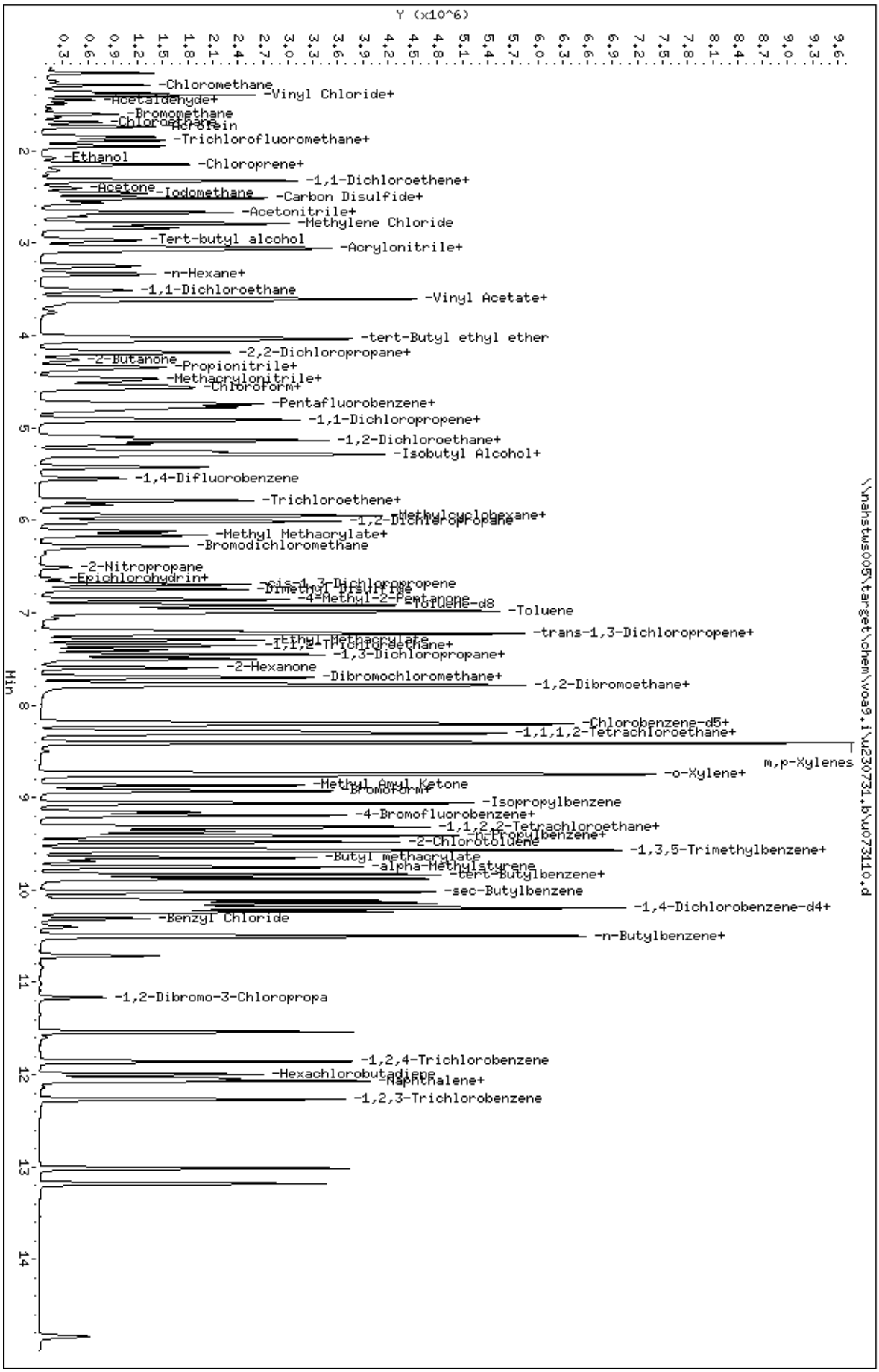
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.463	4.463	(0.928)	404224	150.000	148.75
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	673185	150.000	153.05
	31 1,1,1-Trichloroethane	97	4.737	4.737	(0.984)	1068384	150.000	156.92
	32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	951085	150.000	158.71
	33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	1009084	150.000	145.19
	34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	911153	150.000	169.72
$	35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.058)	729852	150.000	153.05
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	807021	50.0000	
	37 Benzene	78	5.134	5.134	(0.925)	2909338	150.000	147.58
	38 Trichloroethene	130	5.786	5.786	(1.043)	851111	150.000	152.75
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	994606	150.000	157.74
	41 2-Chloroethylvinyl ether	63	6.573	6.573	(1.184)	27126	300.000	298.47(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	784770	150.000	148.53
	44 Dibromomethane	93	6.116	6.116	(1.102)	492584	150.000	145.15
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	1760675	300.000	312.23
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	1255756	150.000	151.55
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	757857	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	2578663	150.000	146.28
	50 Toluene	91	6.978	6.978	(0.853)	3174237	150.000	154.05
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	1058091	150.000	174.10
	52 2-Hexanone	43	7.593	7.593	(0.928)	1167264	300.000	312.60
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	617355	150.000	139.89
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1323436	150.000	146.19
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	898045	150.000	165.82
	56 Tetrachloroethene	164	7.454	7.454	(0.911)	763419	150.000	152.39
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	793097	150.000	149.39
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	680728	150.000	161.53
	59 Chlorobenzene	112	8.208	8.208	(1.003)	2133475	150.000	146.06
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	815348	150.000	153.15
	61 Ethylbenzene	106	8.305	8.305	(1.015)	1067099	150.000	161.37
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	2643756	300.000	340.56
	63 o-Xylene	106	8.748	8.748	(1.069)	1288431	150.000	169.65
	64 Styrene	104	8.759	8.759	(1.070)	2087563	150.000	176.15
	66 Bromoform	173	8.920	8.920	(1.090)	625679	150.000	165.36
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	3206712	150.000	174.49
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1027356	150.000	135.02
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1028731	150.000	152.29
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	395026	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	1014556	150.000	153.14
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	3432693	150.000	150.99
	74 Bromobenzene	156	9.317	9.317	(0.916)	973908	150.000	149.02
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	2391650	150.000	173.24
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	2177941	150.000	156.38
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	2480954	150.000	159.48
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	2271872	150.000	173.70
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	2354756	150.000	168.43
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	3013427	150.000	105.19
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	2567946	150.000	102.53
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1653085	150.000	151.55
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1696943	150.000	140.39
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	2119417	150.000	153.97
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1631585	150.000	145.79

89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	178139	150.000	162.38
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1201951	150.000	174.59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	527704	150.000	98.49
	92 Naphthalene	128	12.065	12.065	(1.186)	2827642	150.000	152.16
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1161534	150.000	165.26
M	94 1,2-Dichloroethylene (total)	96				1312018	300.000	
M	95 Xylenes (total)	106				3932187	450.000	
	135 1,4-Dioxane	88	6.169	6.169	(1.282)	207196	3000.00	2593.31
	141 Cyclohexane	56	4.778	4.778	(0.993)	1079520	150.000	172.36(A)
	138 Freon TF	101	2.322	2.322	(0.483)	573884	150.000	110.31
	140 1,3-Butadiene	54	1.396	1.396	(0.290)	730457	150.000	164.62
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	1960914	150.000	166.81(A)
	146 Methyl Acetate	43	2.705	2.705	(0.562)	569325	150.000	142.38
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.617)	1418139	3000.00	3033.44
	149 Isopropyl Alcohol	45	2.559	2.559	(0.532)	897894	3000.00	2915.72

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



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Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

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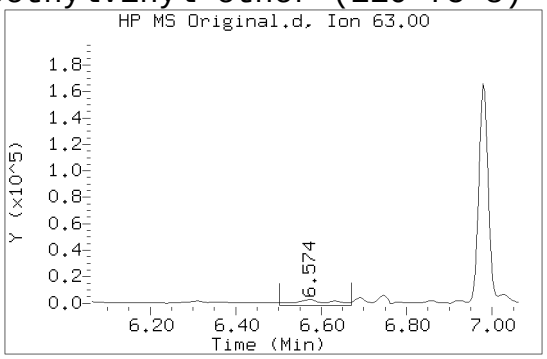
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Operator: PC
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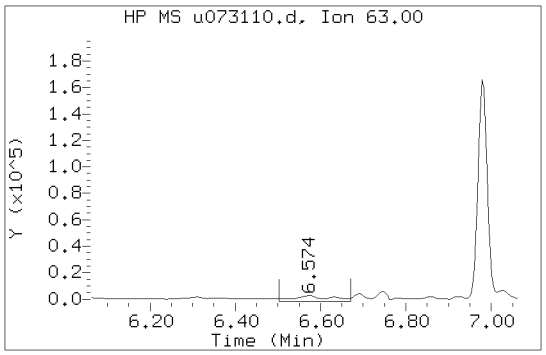
2-Chloroethylvinyl ether (110-75-8)

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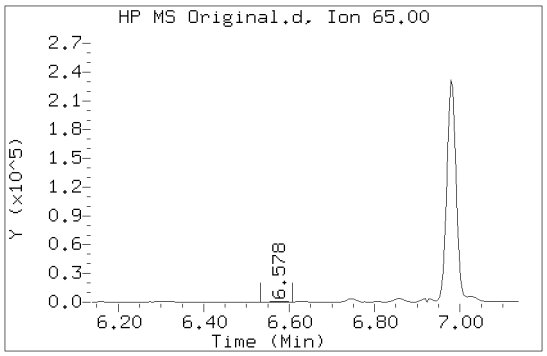
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01-Aug-2023
21:04



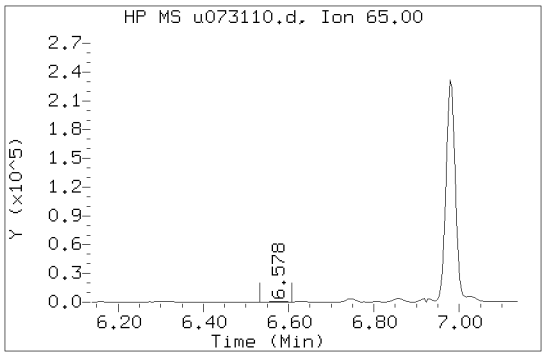
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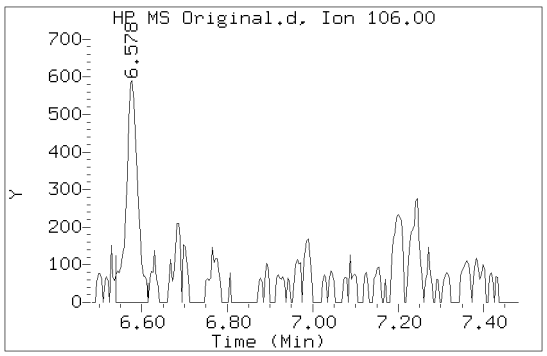
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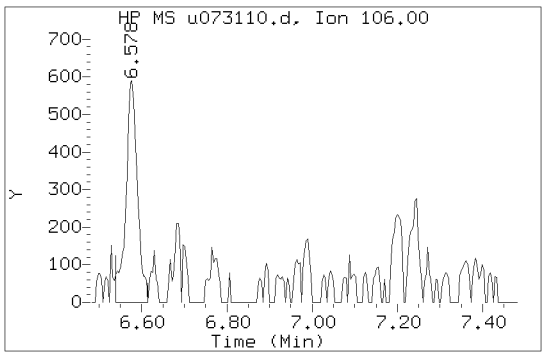
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01-Aug-2023
21:04



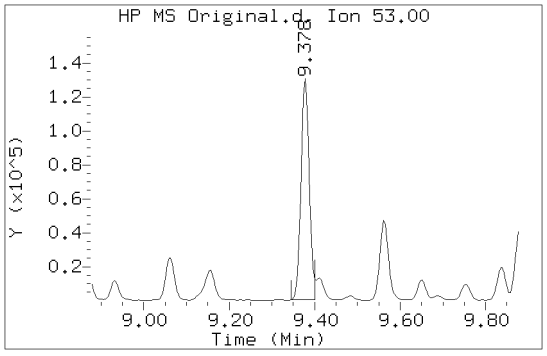
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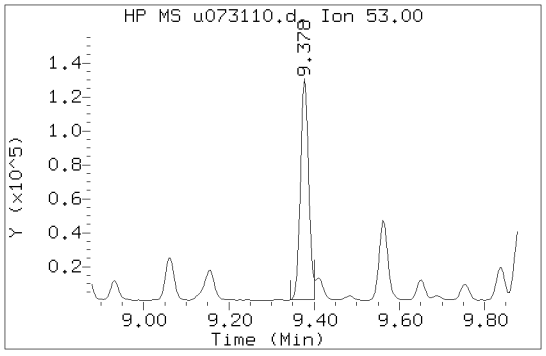
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

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AFTER
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01-Aug-2023
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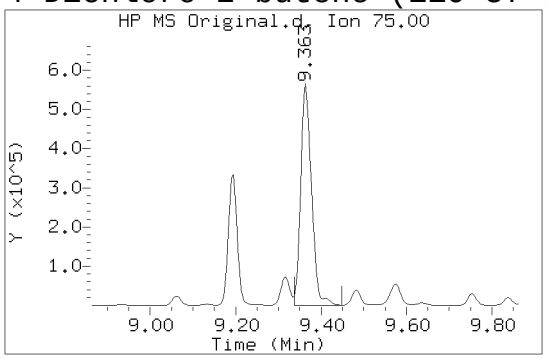
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Inj Date : 31-JUL-2023 14:51
InstruID : VOA9.i
LabSampID : VSTD150

trans-1,4-Dichloro-2-butene (110-57-6)

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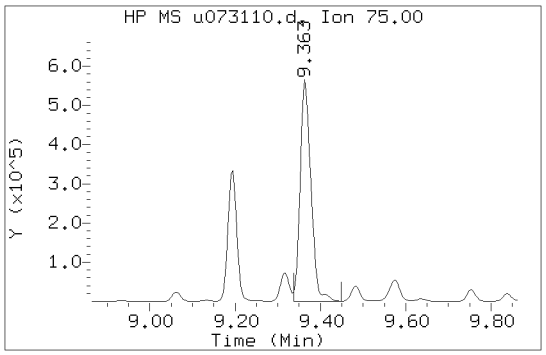
BEFORE

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01-Aug-2023
21:04



AFTER

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HEIGHT
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01-Aug-2023
21:04

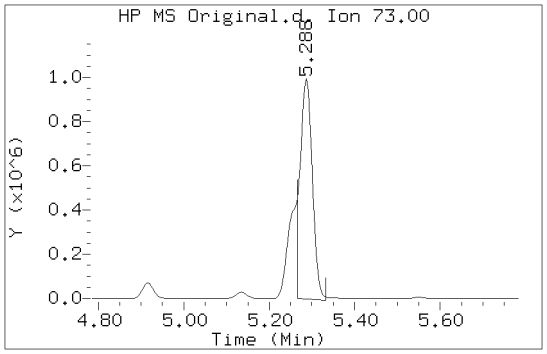


tert-Amyl methyl ether (974-05-08)

Reason Code:

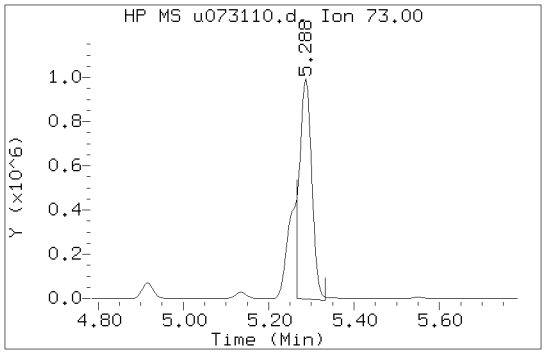
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01-Aug-2023
21:04



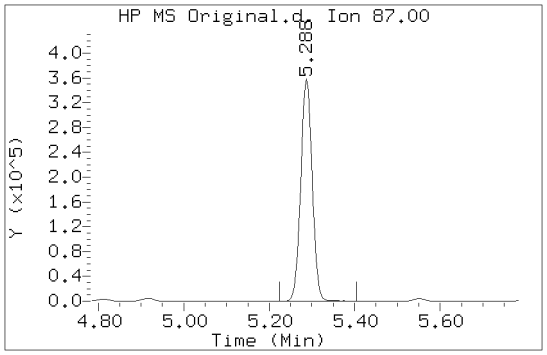
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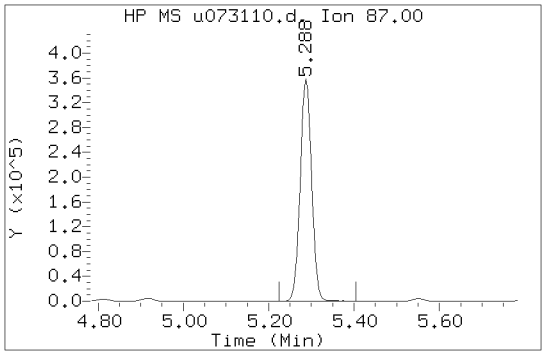
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01-Aug-2023
21:04



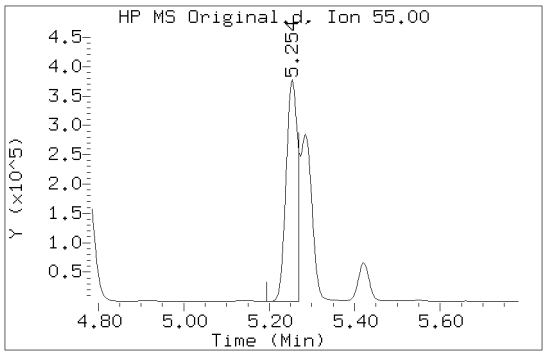
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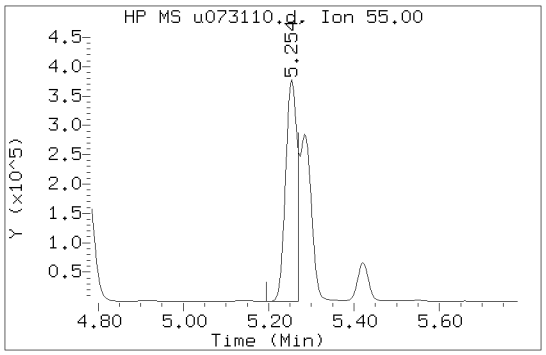
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AFTER

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01-Aug-2023
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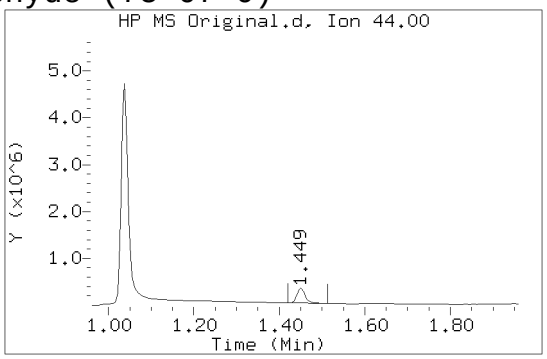


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InstruID : VOA9.i
LabSampID : VSTD150

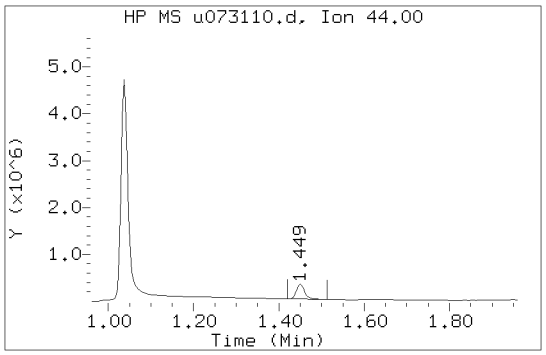
Acetaldehyde (75-07-0)

Reason Code:

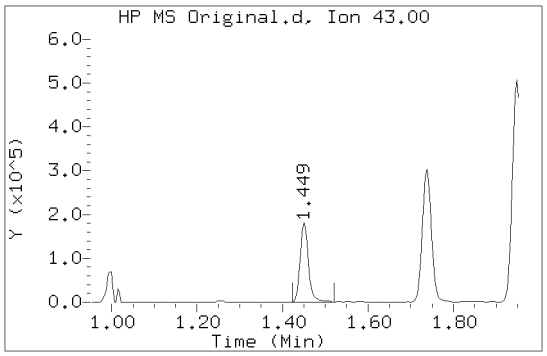
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01-Aug-2023
21:04



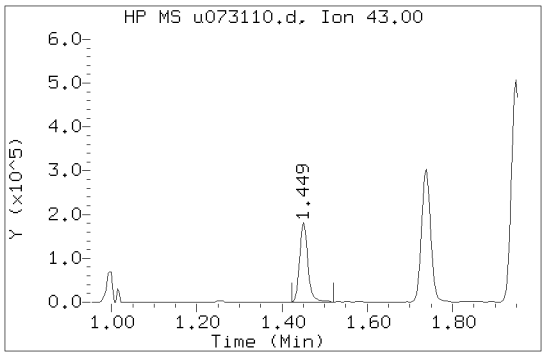
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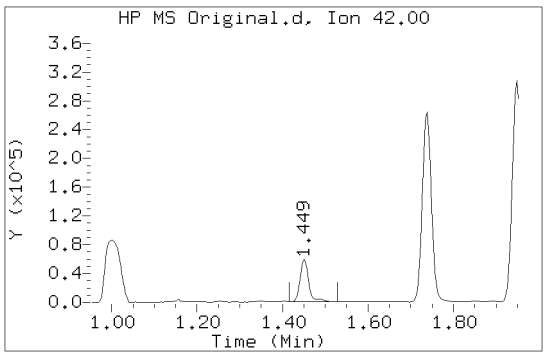
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01-Aug-2023
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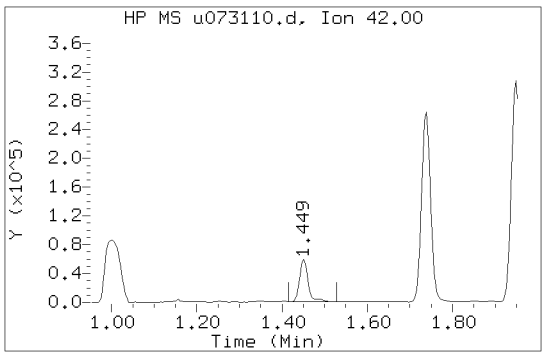
AFTER
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BEFORE
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01-Aug-2023
21:04



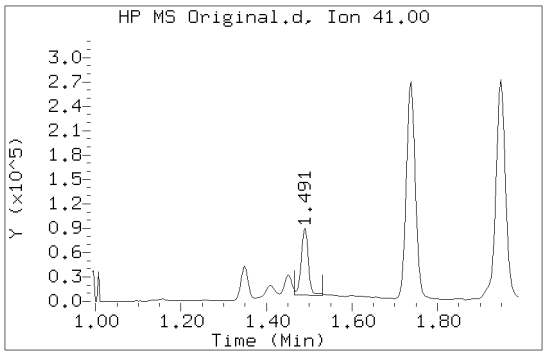
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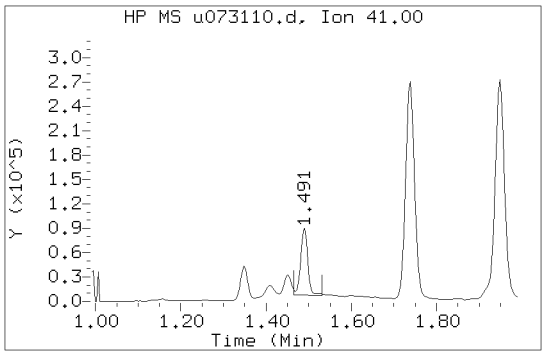
Isobutylene (115-11-7)

Reason Code:

BEFORE
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21:04



AFTER
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01-Aug-2023
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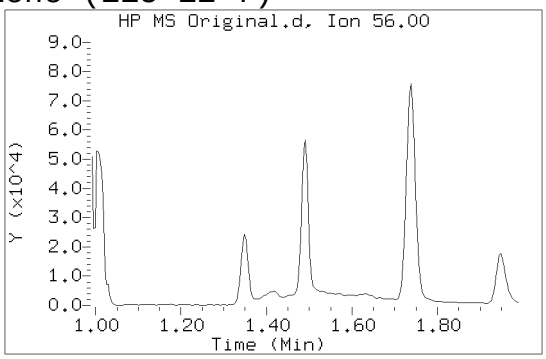


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InstruID : VOA9.i
LabSampID : VSTD150

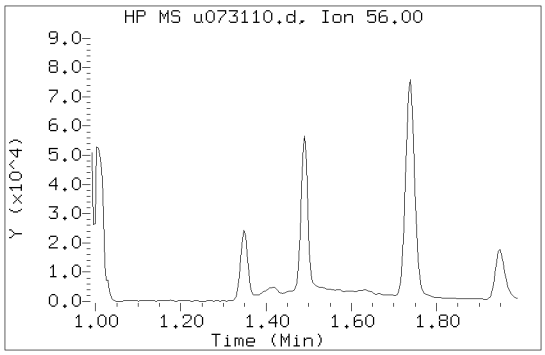
Isobutylene (115-11-7)

Reason Code:

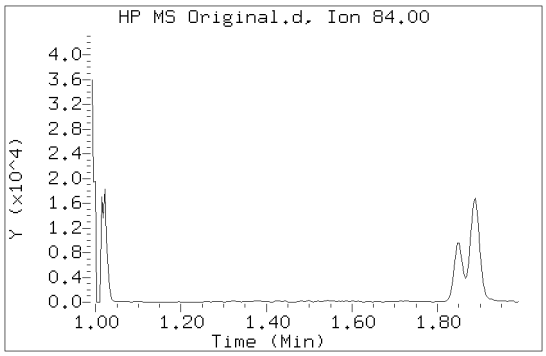
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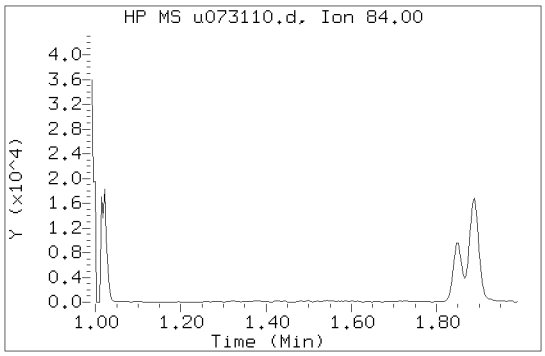
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073111.D Page 1
Report Date: 07-Aug-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073111.D
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Inj Date : 31-JUL-2023 15:13
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V9;WATER;0;1;
Comment   :
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Meth Date : 07-Aug-2023 11:14 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:51 Cal File: U073110.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.811	4.811	(1.000)	570202	50.0000	
2 Dichlorodifluoromethane	85	1.156	1.156	(0.240)	1019713	200.000	183.38
3 Chloromethane	50	1.291	1.291	(0.268)	1264921	200.000	189.98
5 Vinyl Chloride	62	1.370	1.370	(0.285)	1126971	200.000	200.74(A)
6 Bromomethane	94	1.599	1.599	(0.332)	507880	200.000	171.65
7 Chloroethane	64	1.685	1.685	(0.350)	666015	200.000	188.38
8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	1308026	200.000	188.77
9 Acrolein	56	1.738	1.738	(0.361)	154362	400.000	422.04(A)
10 Acetone	43	2.405	2.405	(0.500)	658218	400.000	390.84(A)
11 1,1-Dichloroethene	96	2.326	2.326	(0.484)	759024	200.000	202.04(A)
15 Iodomethane	142	2.461	2.461	(0.512)	1727558	400.000	352.01
16 Acrylonitrile	53	3.061	3.061	(0.636)	707285	400.000	394.61
17 Methylene Chloride	84	2.787	2.787	(0.579)	909993	200.000	199.98
18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	2336621	200.000	201.23(A)
19 Carbon Disulfide	76	2.514	2.514	(0.522)	4402937	400.000	402.58(A)
20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.635)	815001	200.000	193.59
21 Vinyl Acetate	43	3.604	3.604	(0.749)	4975358	400.000	412.95(A)
22 1,1-Dichloroethane	63	3.511	3.511	(0.730)	1435268	200.000	186.52
24 2-Butanone	43	4.264	4.264	(0.886)	788336	400.000	351.92
26 2,2-Dichloropropane	77	4.178	4.178	(0.868)	1066112	200.000	200.94(A)

27	cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	935978	200.000	199.17
28	Chloroform	83	4.572	4.572 (0.950)	1666771	200.000	186.13

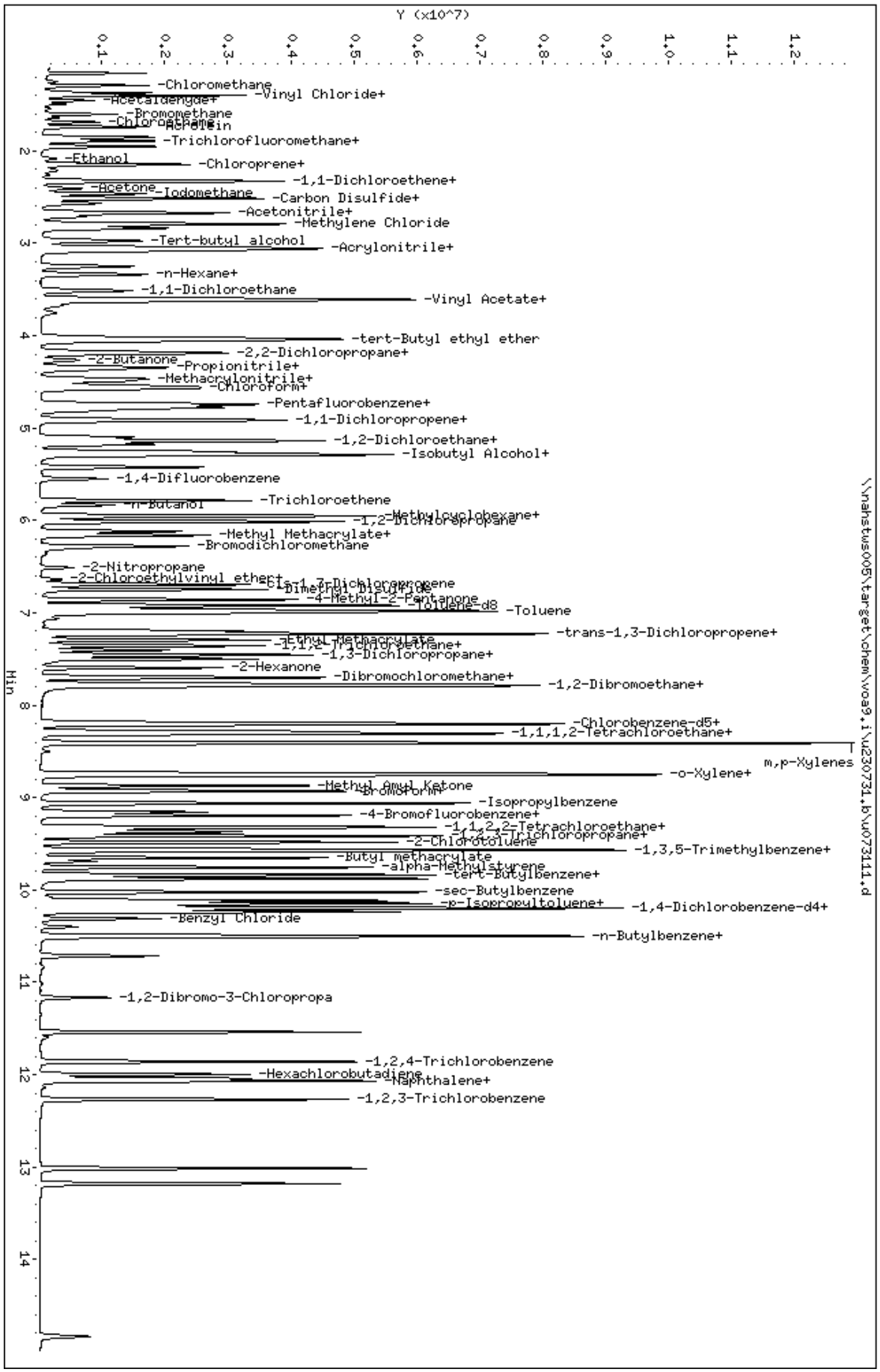
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
29	Bromochloromethane	128	4.467	4.467	(0.928)	498347	200.000	179.21
$ 30	Dibromofluoromethane	113	4.748	4.748	(0.987)	879652	200.000	195.72
31	1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	1371560	200.000	196.87
32	1,1-Dichloropropene	75	4.916	4.916	(0.886)	1207825	200.000	197.27
33	1,2-Dichloroethane	62	5.175	5.175	(0.932)	1335743	200.000	188.11
34	Carbon Tetrachloride	117	4.909	4.909	(0.885)	1133427	200.000	206.64(A)
$ 35	1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	950577	200.000	195.17
* 36	1,4-Difluorobenzene	114	5.550	5.550	(1.000)	824550	50.0000	
37	Benzene	78	5.138	5.138	(0.926)	3816784	200.000	189.49
38	Trichloroethene	130	5.786	5.786	(1.043)	1105898	200.000	194.26
39	Bromodichloromethane	83	6.277	6.277	(1.131)	1321967	200.000	205.21(A)
41	2-Chloroethylvinyl ether	63	6.577	6.577	(1.185)	9808	400.000	104.91
42	1,2-Dichloropropane	63	6.011	6.011	(1.083)	1039756	200.000	192.61
44	Dibromomethane	93	6.120	6.120	(1.103)	666792	200.000	192.30
45	4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	2391345	400.000	406.74(A)
46	cis-1,3-Dichloropropene	75	6.693	6.693	(1.206)	1704761	200.000	200.64(A)
* 47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	790154	50.0000	
$ 48	Toluene-d8	98	6.922	6.922	(0.846)	3405550	200.000	185.30
50	Toluene	91	6.982	6.982	(0.853)	4184874	200.000	194.80
51	trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	1452570	200.000	233.93(A)
52	2-Hexanone	43	7.593	7.593	(0.928)	1597049	400.000	410.22(A)
53	1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	830168	200.000	180.42
54	1,3-Dichloropropane	76	7.499	7.499	(0.916)	1766495	200.000	187.16
55	Dibromochloromethane	129	7.694	7.694	(0.940)	1214851	200.000	215.14(A)
56	Tetrachloroethene	164	7.458	7.458	(0.911)	979030	200.000	187.44
57	1,2-Dibromoethane	107	7.784	7.784	(0.951)	1065136	200.000	192.43
58	1-Chlorohexane	55	8.197	8.197	(1.477)	873975	200.000	202.98(A)
59	Chlorobenzene	112	8.212	8.212	(1.003)	2824872	200.000	185.49
60	1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	1105730	200.000	199.21
61	Ethylbenzene	106	8.309	8.309	(1.015)	1413378	200.000	205.00(A)
62	m,p-Xylenes	106	8.410	8.410	(1.027)	3469755	400.000	428.69(A)
63	o-Xylene	106	8.748	8.748	(1.069)	1710909	200.000	216.07(A)
64	Styrene	104	8.763	8.763	(1.071)	2829265	200.000	228.98(A)
66	Bromoform	173	8.920	8.920	(1.090)	865119	200.000	219.30(A)
67	Isopropylbenzene	105	9.062	9.062	(1.107)	4166795	200.000	217.47(A)
68	1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1373844	200.000	175.48
$ 69	4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1374126	200.000	195.49
* 70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	406460	50.0000	
71	1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1391040	200.000	204.06(A)
73	n-Propylbenzene	91	9.411	9.411	(0.925)	4612232	200.000	196.67
74	Bromobenzene	156	9.317	9.317	(0.916)	1303306	200.000	193.82
75	1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	3157707	200.000	222.29(A)
76	2-Chlorotoluene	91	9.482	9.482	(0.932)	2873591	200.000	200.53(A)
77	4-Chlorotoluene	91	9.576	9.576	(0.941)	3265271	200.000	203.99(A)
78	tert-Butylbenzene	119	9.838	9.838	(0.967)	2926405	200.000	217.45(A)
79	1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	3151112	200.000	219.06(A)
81	sec-Butylbenzene	105	10.022	10.022	(0.985)	3876784	200.000	90.88
82	p-Isopropyltoluene	119	10.146	10.146	(0.997)	3372466	200.000	80.89
83	1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	2183578	200.000	194.56
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	2243745	200.000	180.41
87	n-Butylbenzene	91	10.491	10.491	(1.031)	2783598	200.000	195.87
88	1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2147264	200.000	186.47

89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	250171	200.000	221.63(A)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1610904	200.000	227.41(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	659381	200.000	80.10
	92 Naphthalene	128	12.065	12.065	(1.186)	3794466	200.000	197.95
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	1538961	200.000	212.80(A)
M	94 1,2-Dichloroethylene (total)	96				1750979	400.000	
M	95 Xylenes (total)	106				5180664	600.000	
	135 1,4-Dioxane	88	6.168	6.168	(1.282)	278742	4000.00	3409.48
	141 Cyclohexane	56	4.778	4.778	(0.993)	1335056	200.000	208.31(A)
	138 Freon TF	101	2.326	2.326	(0.484)	699712	200.000	105.50
	140 1,3-Butadiene	54	1.396	1.396	(0.290)	922301	200.000	203.14(A)
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	2583280	200.000	215.09(A)
	146 Methyl Acetate	43	2.708	2.708	(0.563)	747739	200.000	182.75
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	1911477	4000.00	3996.72
	149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	1191893	4000.00	3782.42

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



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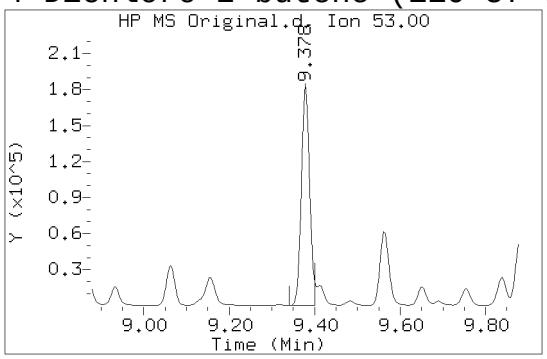
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Operator: PC
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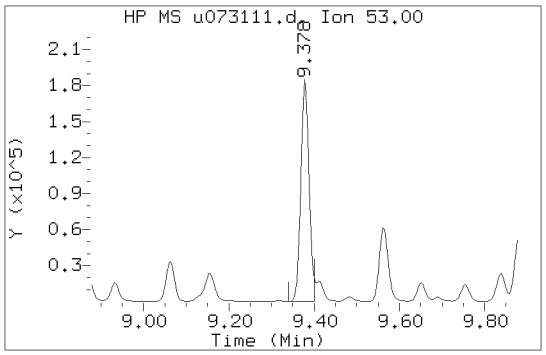
trans-1,4-Dichloro-2-butene (110-57-6)

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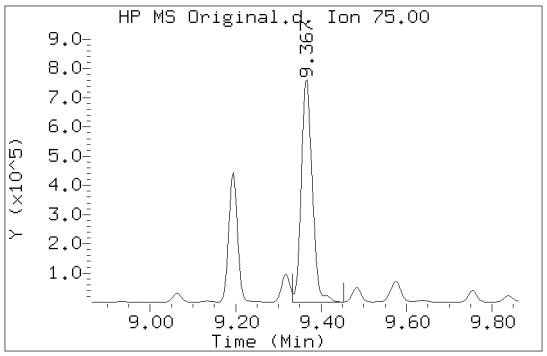
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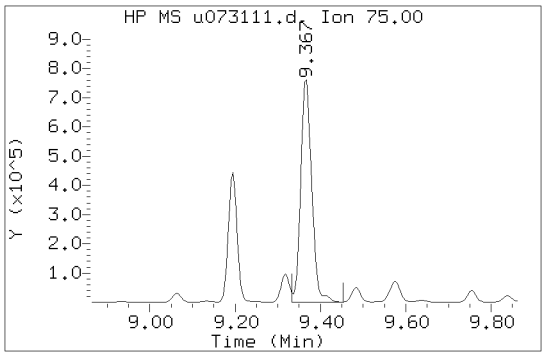
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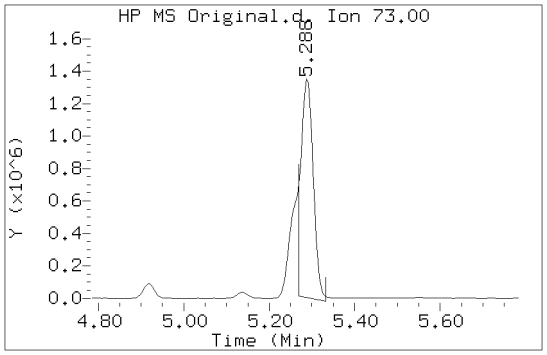
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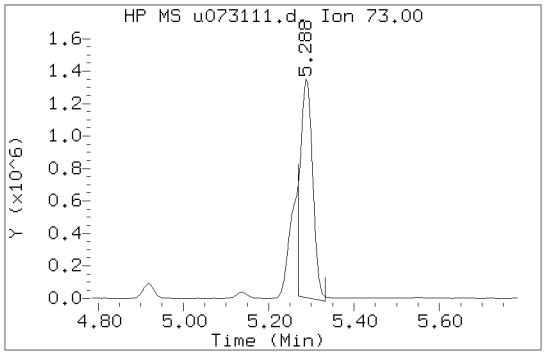
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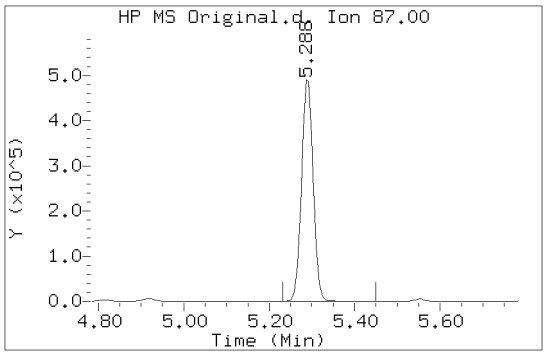
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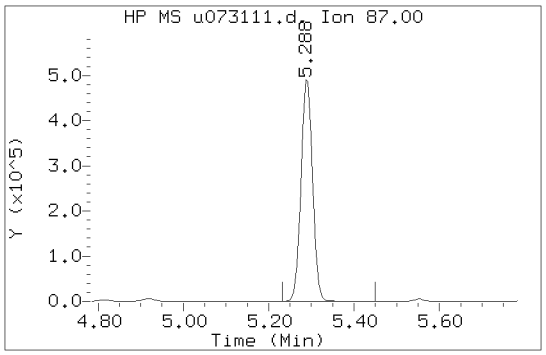
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BEFORE
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AFTER
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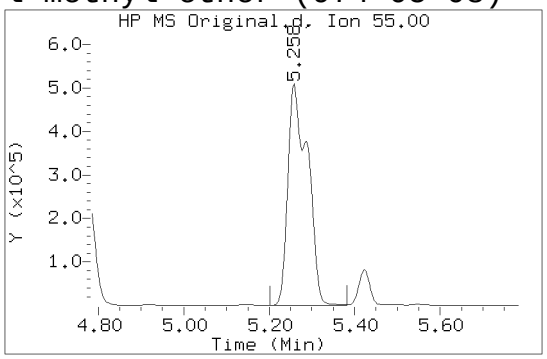
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LabSampID : VSTD200

tert-Amyl methyl ether (974-05-08)

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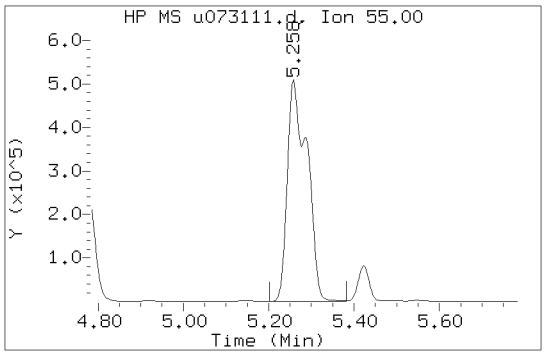
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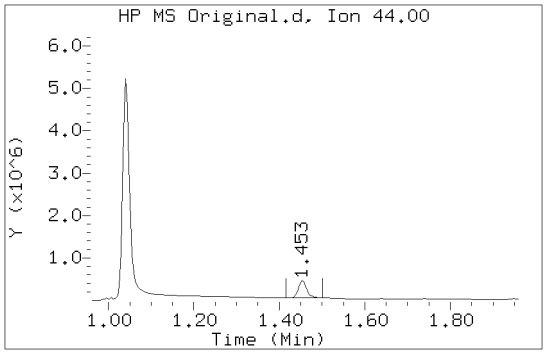


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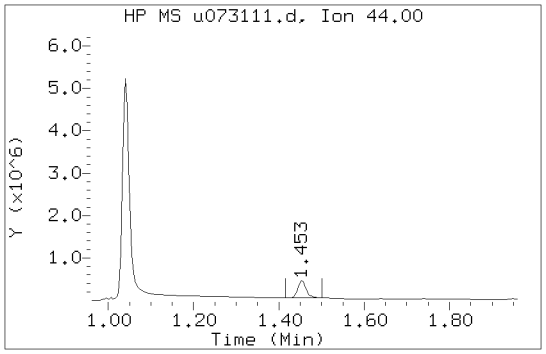
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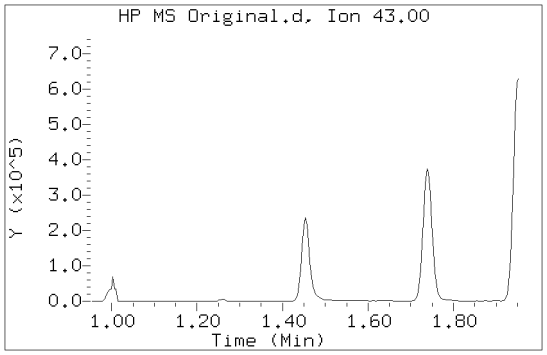
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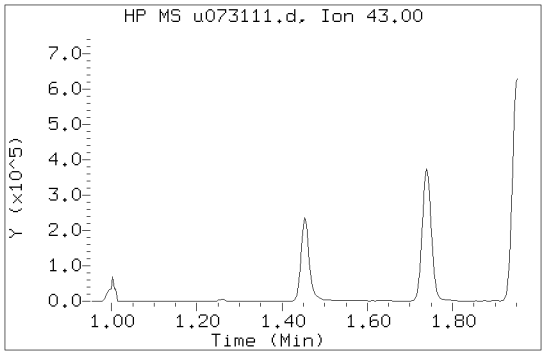
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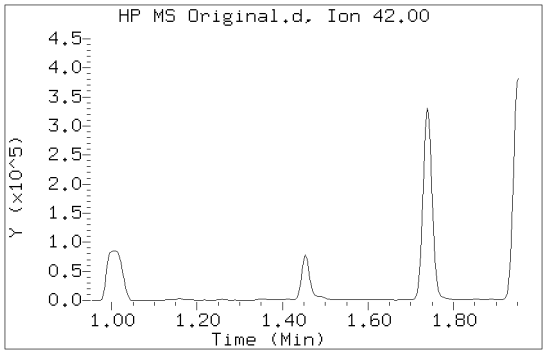
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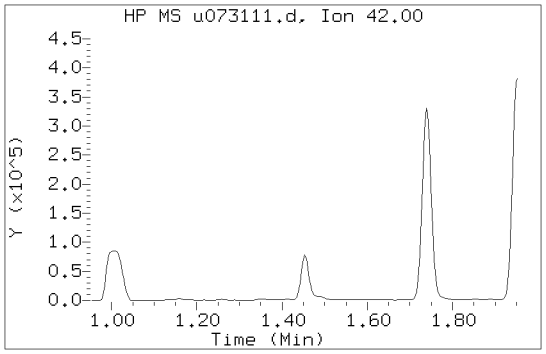
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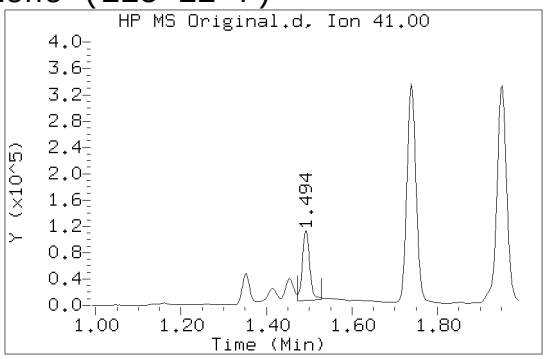


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LabSampID : VSTD200

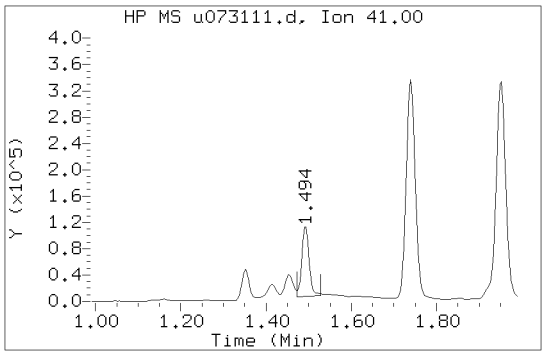
Isobutylene (115-11-7)

Reason Code:

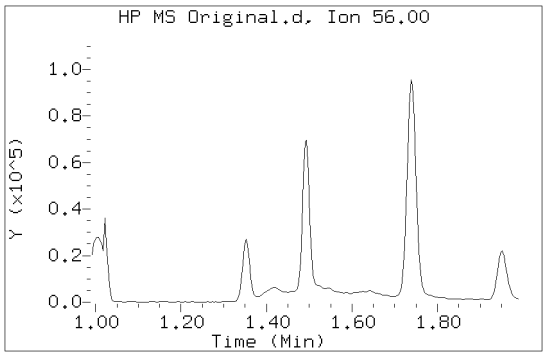
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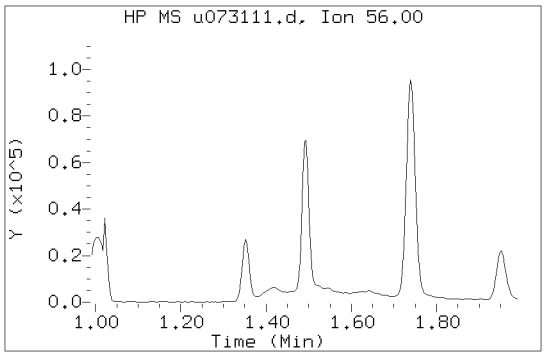
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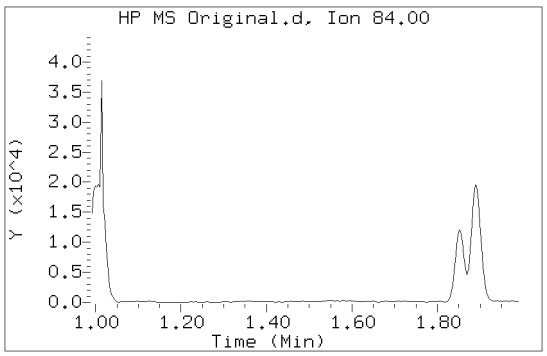
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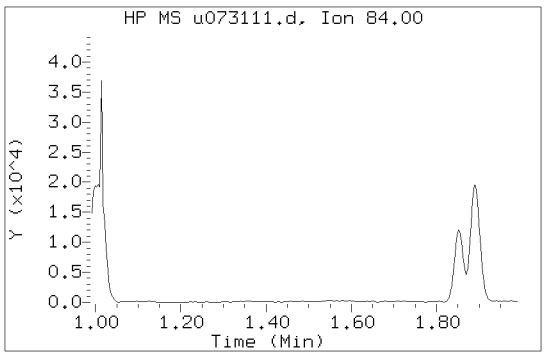
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AFTER
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01-Aug-2023
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073113.D Page 1
Report Date: 07-Aug-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230731.b\U073113.D
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Inj Date : 31-JUL-2023 15:57
Operator : PC Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : V9;WATER;0;1;
Comment :
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Cal Date : 31-JUL-2023 15:13 Cal File: U073111.D
Als bottle: 14 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.811	4.811	(1.000)	586872	50.0000	
2	Dichlorodifluoromethane	85	1.156	1.156	(0.240)	231901	41.5004	41.50
3	Chloromethane	50	1.291	1.291	(0.268)	308539	44.7605	44.76
5	Vinyl Chloride	62	1.370	1.370	(0.285)	254476	44.0407	44.04
6	Bromomethane	94	1.614	1.599	(0.335)	166237	53.4715	53.47
7	Chloroethane	64	1.693	1.685	(0.352)	158516	43.5644	43.56
8	Trichlorofluoromethane	101	1.887	1.891	(0.392)	298086	41.7982	41.79
9	Acrolein	56	1.741	1.738	(0.362)	30707	81.5725	81.57
10	Acetone	43	2.405	2.405	(0.500)	189178	103.249	103.24
11	1,1-Dichloroethene	96	2.326	2.326	(0.483)	171838	44.4419	44.44
15	Iodomethane	142	2.461	2.461	(0.512)	331402	89.7712	89.77
16	Acrylonitrile	53	3.061	3.061	(0.636)	173385	93.9898	93.98
17	Methylene Chloride	84	2.787	2.787	(0.579)	218974	46.6075	46.60
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	564440	47.2299	47.22
19	Carbon Disulfide	76	2.514	2.514	(0.522)	1032983	91.7693	91.76
20	trans-1,2-Dichloroethene	96	3.050	3.053	(0.634)	190107	43.8748	43.87
21	Vinyl Acetate	43	3.601	3.604	(0.748)	1202045	96.9359	96.93
22	1,1-Dichloroethane	63	3.507	3.511	(0.729)	335609	42.3758	42.37
24	2-Butanone	43	4.264	4.264	(0.886)	205343	89.0635	89.06
26	2,2-Dichloropropane	77	4.174	4.178	(0.868)	254593	46.6233	46.62

27 cis-1,2-Dichloroethene	96	4.189	4.193 (0.871)	219638	45.4114	45.41
28 Chloroform	83	4.568	4.572 (0.949)	393581	42.7038	42.70

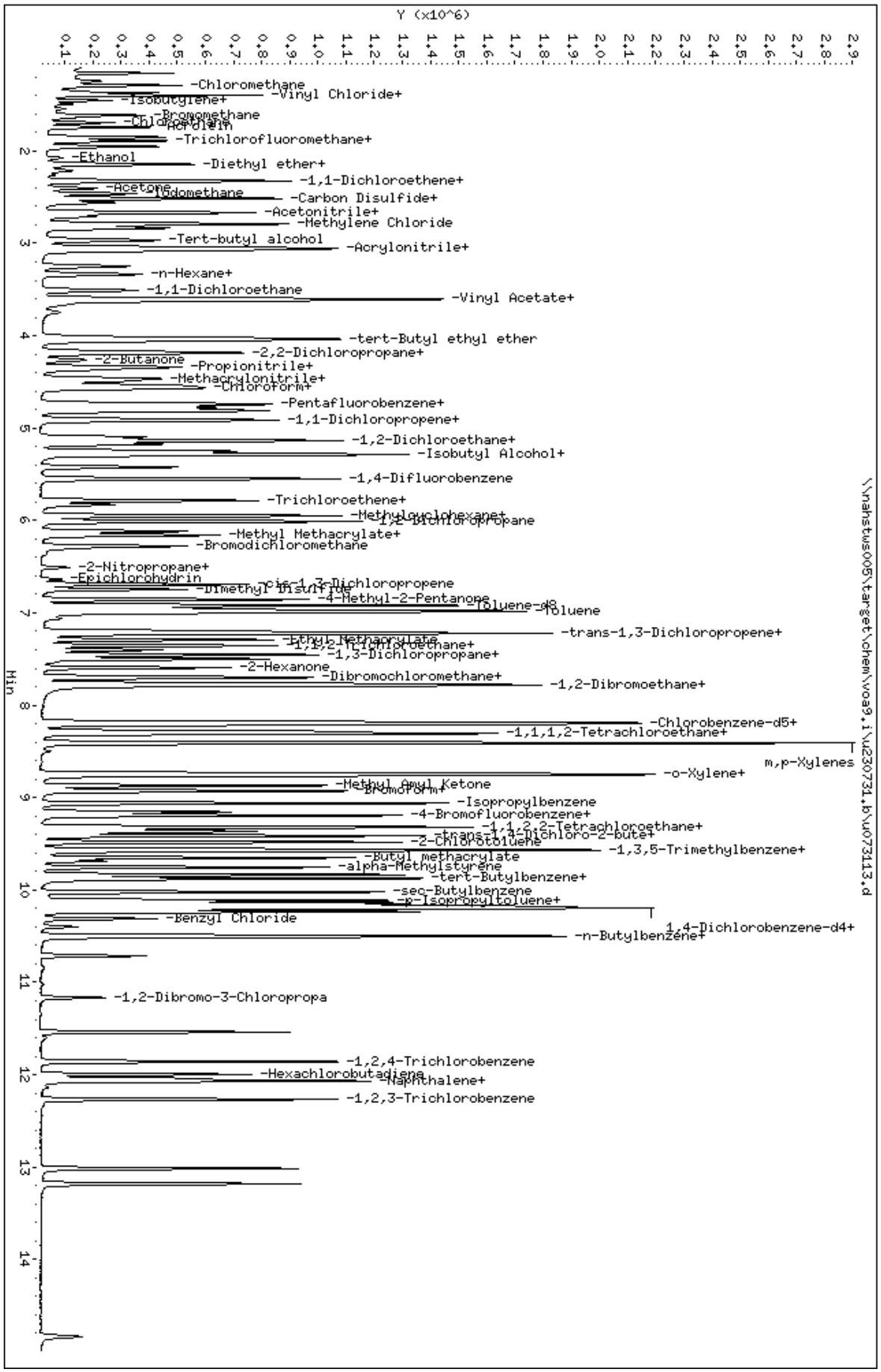
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.463	4.467	(0.928)	121210	42.3518	42.35
$	30 Dibromofluoromethane	113	4.744	4.748	(0.986)	228111	48.5703	48.57
	31 1,1,1-Trichloroethane	97	4.736	4.740	(0.984)	302944	42.2492	42.24
	32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	276559	44.9086	44.90
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	321433	45.0067	45.00
	34 Carbon Tetrachloride	117	4.905	4.909	(0.884)	228059	41.3385	41.33
$	35 1,2-Dichloroethane-d4	65	5.093	5.096	(1.058)	244458	47.7631	47.76
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	829346	50.0000	
	37 Benzene	78	5.134	5.138	(0.925)	911920	45.0133	45.01
	38 Trichloroethene	130	5.786	5.786	(1.043)	254593	44.4633	44.46
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	293437	45.2876	45.28
	41 2-Chloroethylvinyl ether	63	6.562	6.577	(1.182)	7925	84.0686	84.06(M)
	42 1,2-Dichloropropane	63	6.007	6.011	(1.082)	246953	45.4824	45.48
	44 Dibromomethane	93	6.116	6.120	(1.102)	158311	45.3943	45.39
	45 4-Methyl-2-Pentanone	43	6.855	6.858	(0.837)	567410	98.8517	98.85
	46 cis-1,3-Dichloropropene	75	6.690	6.693	(1.205)	370428	45.0728	45.07
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	771437	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	907991	50.6041	50.60
	50 Toluene	91	6.978	6.982	(0.853)	989176	47.1624	47.16
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	312150	49.9815	49.98
	52 2-Hexanone	43	7.593	7.593	(0.928)	383453	100.884	100.88
	53 1,1,2-Trichloroethane	83	7.353	7.357	(0.898)	199841	44.4867	44.48
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	419694	45.5457	45.54
	55 Dibromochloromethane	129	7.690	7.694	(0.940)	269696	48.9216	48.92
	56 Tetrachloroethene	164	7.454	7.458	(0.911)	221025	43.3447	43.34
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	252062	46.6438	46.64
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	175594	40.5459	40.54
	59 Chlorobenzene	112	8.208	8.212	(1.003)	678750	45.6510	45.65
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.286	(1.012)	244784	45.1713	45.17
	61 Ethylbenzene	106	8.305	8.309	(1.015)	316080	46.9589	46.95
	62 m,p-Xylenes	106	8.406	8.410	(1.027)	793036	100.359	100.35
	63 o-Xylene	106	8.748	8.748	(1.069)	389527	50.3885	50.38
	64 Styrene	104	8.763	8.763	(1.071)	640797	53.1212	53.12
	66 Bromoform	173	8.920	8.920	(1.090)	188437	48.9270	48.92
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	898452	48.0303	48.03
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	342233	43.4452	43.44
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	354282	50.6059	50.60
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	408967	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.366	(0.920)	325886	47.5154	47.51
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	982839	42.9466	42.94
	74 Bromobenzene	156	9.317	9.317	(0.916)	307453	45.4426	45.44
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	685273	47.9461	47.94
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	657409	45.5958	45.59
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	756542	46.9757	46.97
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	612686	45.2488	45.24
	79 1,2,4-Trimethylbenzene	105	9.876	9.880	(0.971)	716435	49.5002	49.50
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	795064	51.0573	51.05
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	684325	53.0116	53.01
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	503873	44.6211	44.62
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	525749	42.0142	42.01
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	575686	42.1612	42.16
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	502953	43.4107	43.41

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.165 (1.098)	51032	44.9334	44.93
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	346158	48.5682	48.56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	148428	55.9981	55.99
	92 Naphthalene	128	12.065	12.065	(1.186)	841153	44.8549	44.85
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	334790	46.0110	46.01
M	94 1,2-Dichloroethylene (total)	96				409745	89.2862	89.28
M	95 Xylenes (total)	106				1182563	150.748	150.74
	135 1,4-Dioxane	88	6.168	6.168	(1.282)	67615	803.552	803.55
	141 Cyclohexane	56	4.778	4.778	(0.993)	283626	42.9988	42.99
	138 Freon TF	101	2.326	2.326	(0.483)	156960	49.8056	49.80
	140 1,3-Butadiene	54	1.396	1.396	(0.290)	209079	44.7426	44.74
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	551131	45.6239	45.62
	146 Methyl Acetate	43	2.708	2.708	(0.563)	179622	42.6545	42.65
	148 Tert-Butyl alcohol	59	2.963	2.971	(0.616)	469230	950.874	950.87
	149 Isopropyl Alcohol	45	2.559	2.566	(0.532)	287541	886.580	886.57

QC Flag Legend

M - Compound response manually integrated.



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Column phase: DB624

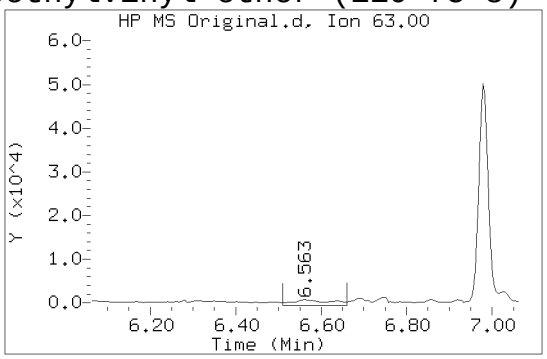
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Column diameter: 0.18

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LabSampID : CCV

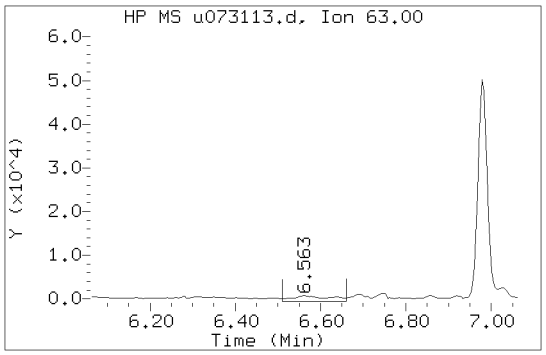
2-Chloroethylvinyl ether (110-75-8)

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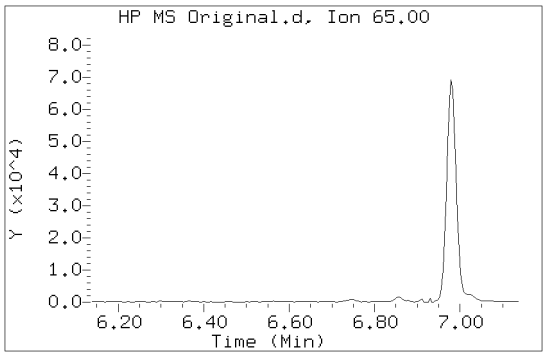
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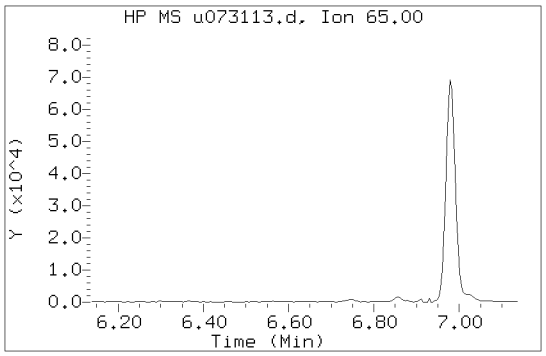
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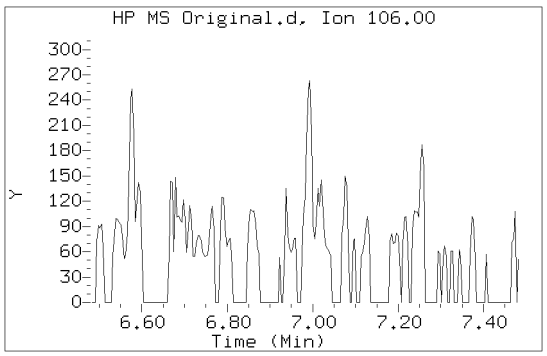
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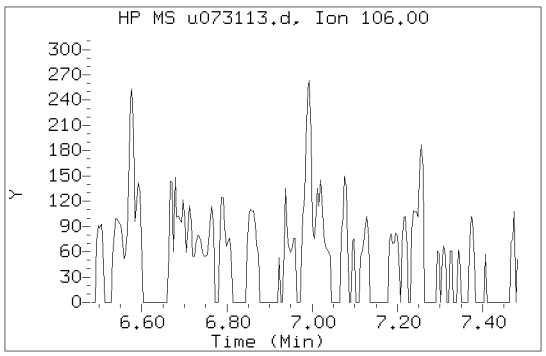
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01-Aug-2023
21:06



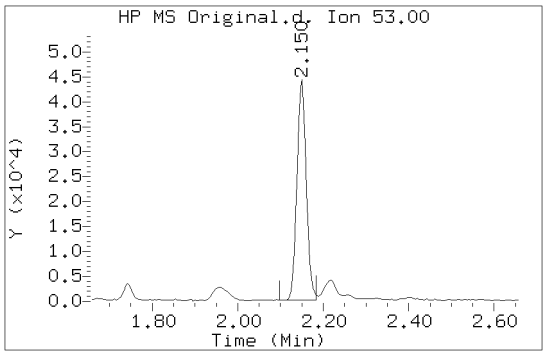
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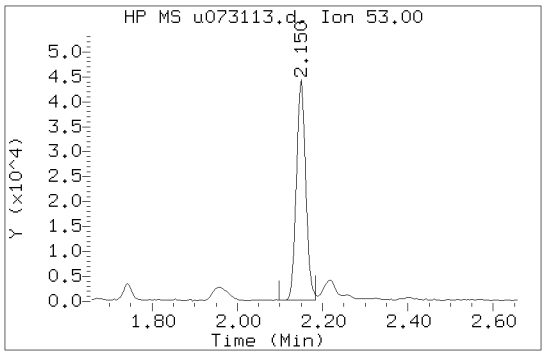
Chloroprene (126-99-8)

Reason Code:

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21:06



AFTER
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01-Aug-2023
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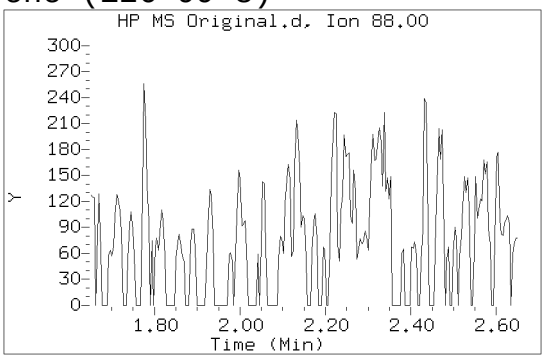
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LabSampID : CCV

Chloroprene (126-99-8)

Reason Code:

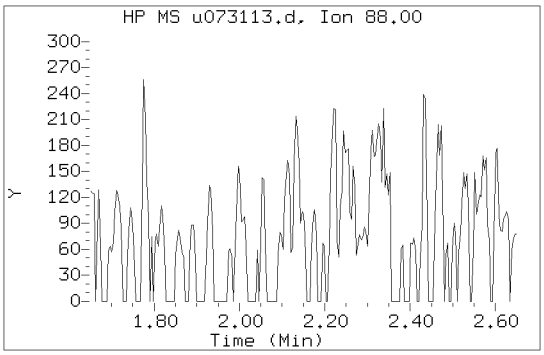
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AFTER

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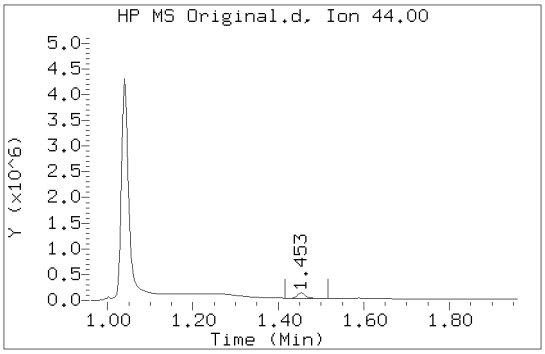


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Reason Code:

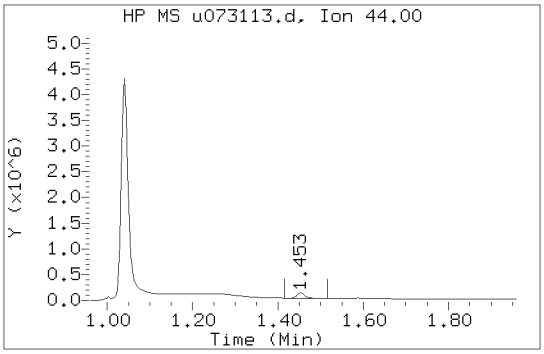
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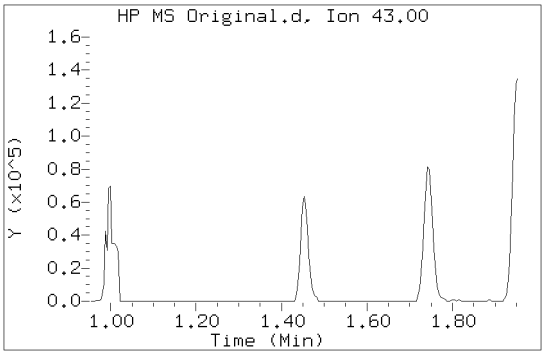
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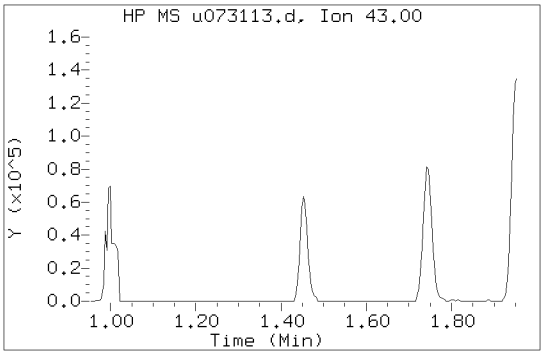
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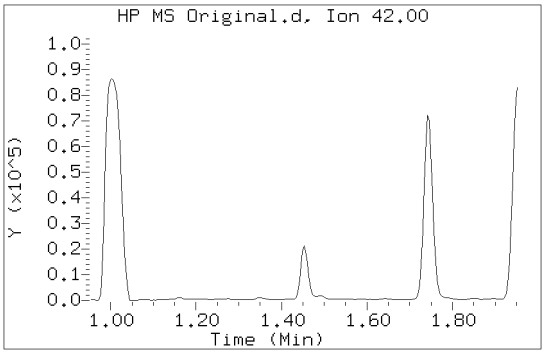
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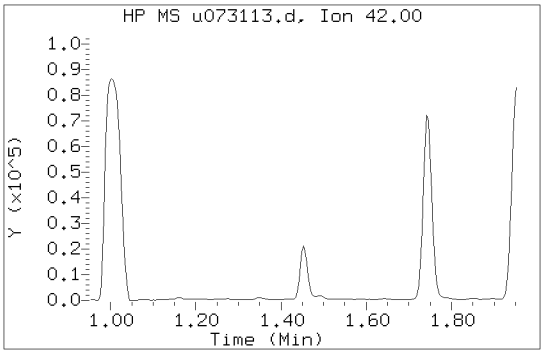
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01-Aug-2023
21:06



AFTER

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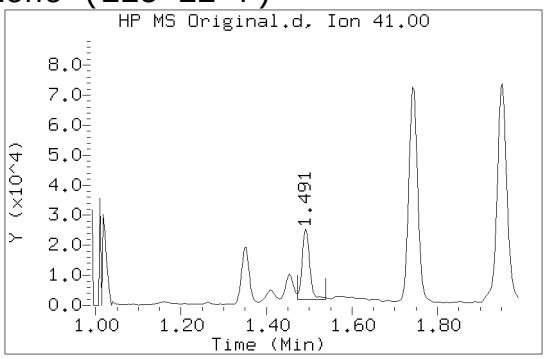


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LabSampID : CCV

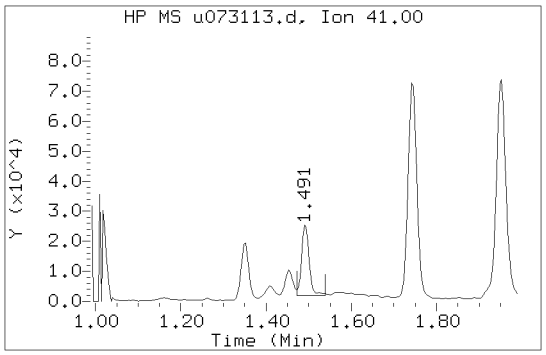
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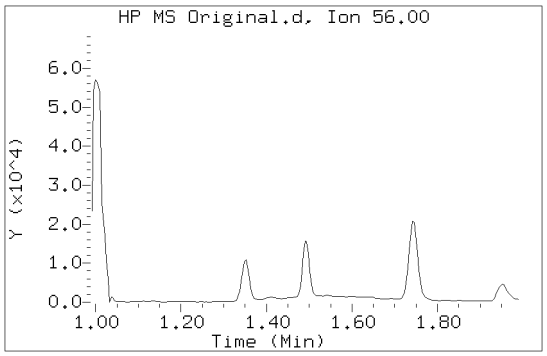
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01-Aug-2023
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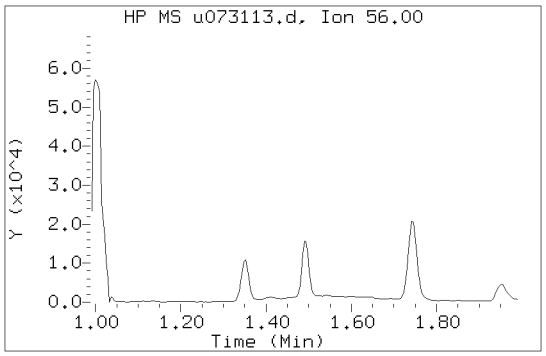
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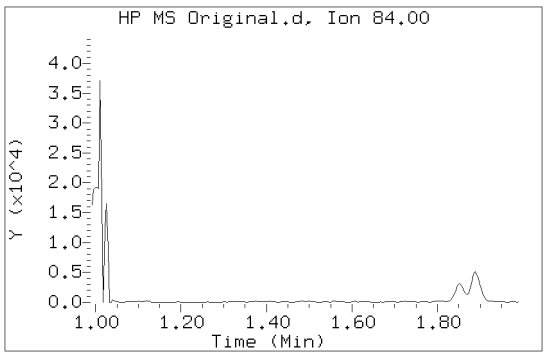
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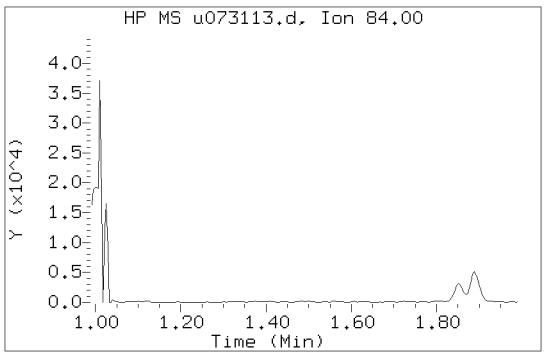
AFTER
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01-Aug-2023
21:06



BEFORE
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AREA
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HEIGHT
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01-Aug-2023
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AFTER
MASS
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AREA
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HEIGHT
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01-Aug-2023
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right solutions.
right partner.

Raw Data VOA9 443493

Volatiles by EPA 8260

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/14/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080801.D Page 1
Report Date: 08-Aug-2023 11:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080801.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 08-AUG-2023 10:53
Operator : PC Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\bfb.m
Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
9.194	9.180	(0.000)	95	136640			0.00- 100.00	100.00
9.194	9.180	(0.000)	50	24704			15.00- 40.00	18.08
9.194	9.180	(0.000)	75	65640			30.00- 60.00	48.04
9.194	9.180	(0.000)	96	9195			5.00- 9.00	6.73
9.194	9.180	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
9.194	9.180	(0.000)	174	127808			50.00- 0.00	93.54
9.194	9.180	(0.000)	175	11209			5.00- 9.00	8.77
9.194	9.180	(0.000)	176	123744			95.00- 101.00	96.82
9.194	9.180	(0.000)	177	8581			5.00- 9.00	6.93

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.08
75	30.00 - 60.00% of mass 95	48.04
96	5.00 - 9.00% of mass 95	6.73
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	93.54
175	5.00 - 9.00% of mass 174	8.20 (8.77)
176	95.00 - 101.00% of mass 174	90.56 (96.82)
177	5.00 - 9.00% of mass 176	6.28 (6.93)

Data File: U080801.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.05
Number of points: 132

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1297	69.00	13436	109.70	102	145.90	208
37.00	6640	70.00	1324	110.60	135	146.90	121
38.00	5911	71.00	177	111.30	50	147.70	406
39.00	2399	72.10	917	112.00	51	148.80	116
39.90	406	73.00	5982	112.80	178	149.90	161
41.00	211	74.00	22224	114.90	181	151.80	83
41.70	120	75.00	65640	115.80	472	152.80	143
42.20	91	76.00	6293	116.90	943	153.90	160
43.00	187	77.10	1001	117.80	392	154.90	412
44.00	1188	77.80	717	118.70	618	156.80	263
44.90	1044	78.90	3119	120.00	70	157.70	63
45.80	194	80.00	1096	121.60	103	158.70	182
47.00	2147	80.90	3127	122.70	62	160.30	58
47.90	945	81.90	792	123.90	129	161.00	279
49.00	5564	82.80	106	126.10	80	161.40	52
50.00	24704	83.30	58	126.80	79	164.30	81
51.00	7510	84.00	97	127.80	665	165.10	59
52.00	525	86.90	6070	129.00	313	167.00	53
52.90	157	87.90	5262	129.80	665	168.00	74
53.60	91	89.30	116	131.00	172	170.00	140
54.20	116	91.00	555	132.00	75	171.00	262
55.10	524	92.00	3557	132.60	69	171.90	1209
56.00	1912	93.00	6147	134.00	62	173.90	127808
57.00	3528	94.00	16672	134.70	263	175.00	11209
58.00	188	95.00	136640	135.10	185	175.90	123744
58.80	92	96.00	9195	136.90	279	176.90	8581
60.00	1267	96.90	311	138.10	58	178.00	188
61.00	6086	97.90	83	138.50	78	207.00	66
62.00	6426	101.50	71	138.90	157	273.40	55
63.00	4439	102.10	76	141.00	1416	316.80	58
63.90	674	104.00	479	141.90	230		
65.00	603	105.10	239	142.90	1747		
66.90	347	106.00	552	143.80	77		
68.00	13180	106.80	223	145.10	253		

Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080801.d Page 1

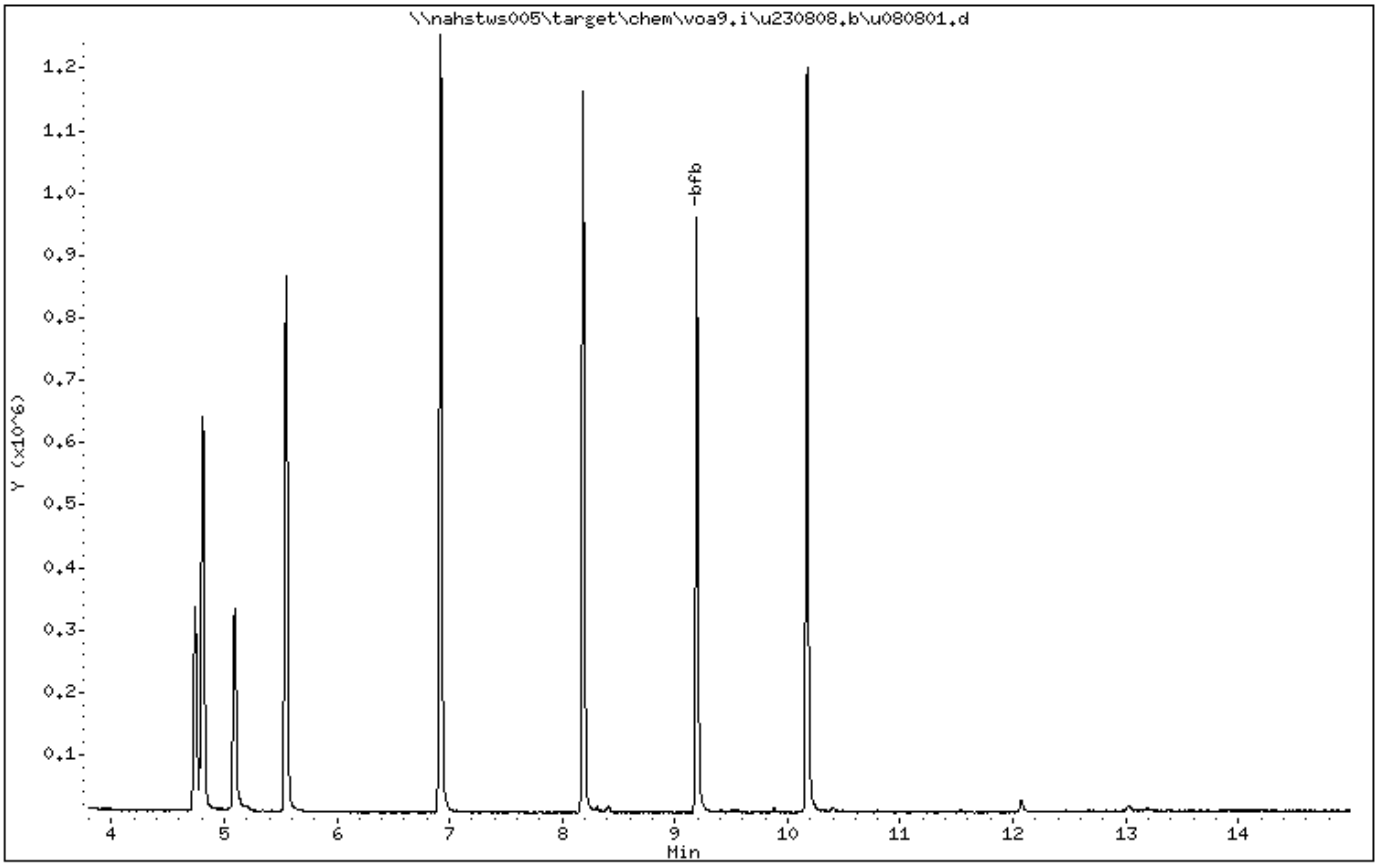
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Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa9.i\u230808.b\u080801.d
Inj Date : 08-AUG-2023 10:53
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080803.D Page 1
Report Date: 08-Aug-2023 22:26

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080803.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 08-AUG-2023 11:37
Operator : PC Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa9.i\U230808.b\8260C.m
Meth Date : 08-Aug-2023 22:23 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.812	4.812	(1.000)	407824	50.0000	
2	Dichlorodifluoromethane	85	1.157	1.157	(0.240)	155802	50.0000	40.16
3	Chloromethane	50	1.288	1.288	(0.268)	212388	50.0000	44.33
5	Vinyl Chloride	62	1.366	1.366	(0.284)	166495	50.0000	41.46
6	Bromomethane	94	1.610	1.610	(0.335)	107275	50.0000	49.53
7	Chloroethane	64	1.689	1.689	(0.351)	112508	50.0000	44.49
8	Trichlorofluoromethane	101	1.888	1.888	(0.392)	219466	50.0000	44.28
9	Acrolein	56	1.741	1.741	(0.362)	23405	100.000	89.47
10	Acetone	43	2.401	2.401	(0.499)	133934	100.000	105.34
11	1,1-Dichloroethene	96	2.322	2.322	(0.483)	126719	50.0000	47.16
15	Iodomethane	142	2.461	2.461	(0.512)	262330	100.000	101.00
16	Acrylonitrile	53	3.057	3.057	(0.635)	136017	100.000	106.10
17	Methylene Chloride	84	2.787	2.787	(0.579)	163566	50.0000	50.11
18	Methyl tert-butyl ether	73	3.072	3.072	(0.639)	496460	50.0000	59.77
19	Carbon Disulfide	76	2.514	2.514	(0.522)	693273	100.000	88.62
20	trans-1,2-Dichloroethene	96	3.050	3.050	(0.634)	141557	50.0000	47.01
21	Vinyl Acetate	43	3.601	3.601	(0.748)	964867	100.000	111.97
22	1,1-Dichloroethane	63	3.507	3.507	(0.729)	260197	50.0000	47.27
24	2-Butanone	43	4.260	4.260	(0.885)	146222	100.000	91.26
26	2,2-Dichloropropane	77	4.174	4.174	(0.868)	192364	50.0000	50.69
27	cis-1,2-Dichloroethene	96	4.189	4.189	(0.871)	169553	50.0000	50.44

28	Chloroform	83	4.568	4.568 (0.949)	285571	50.0000	44.58
29	Bromochloromethane	128	4.463	4.463 (0.928)	95509	50.0000	48.02

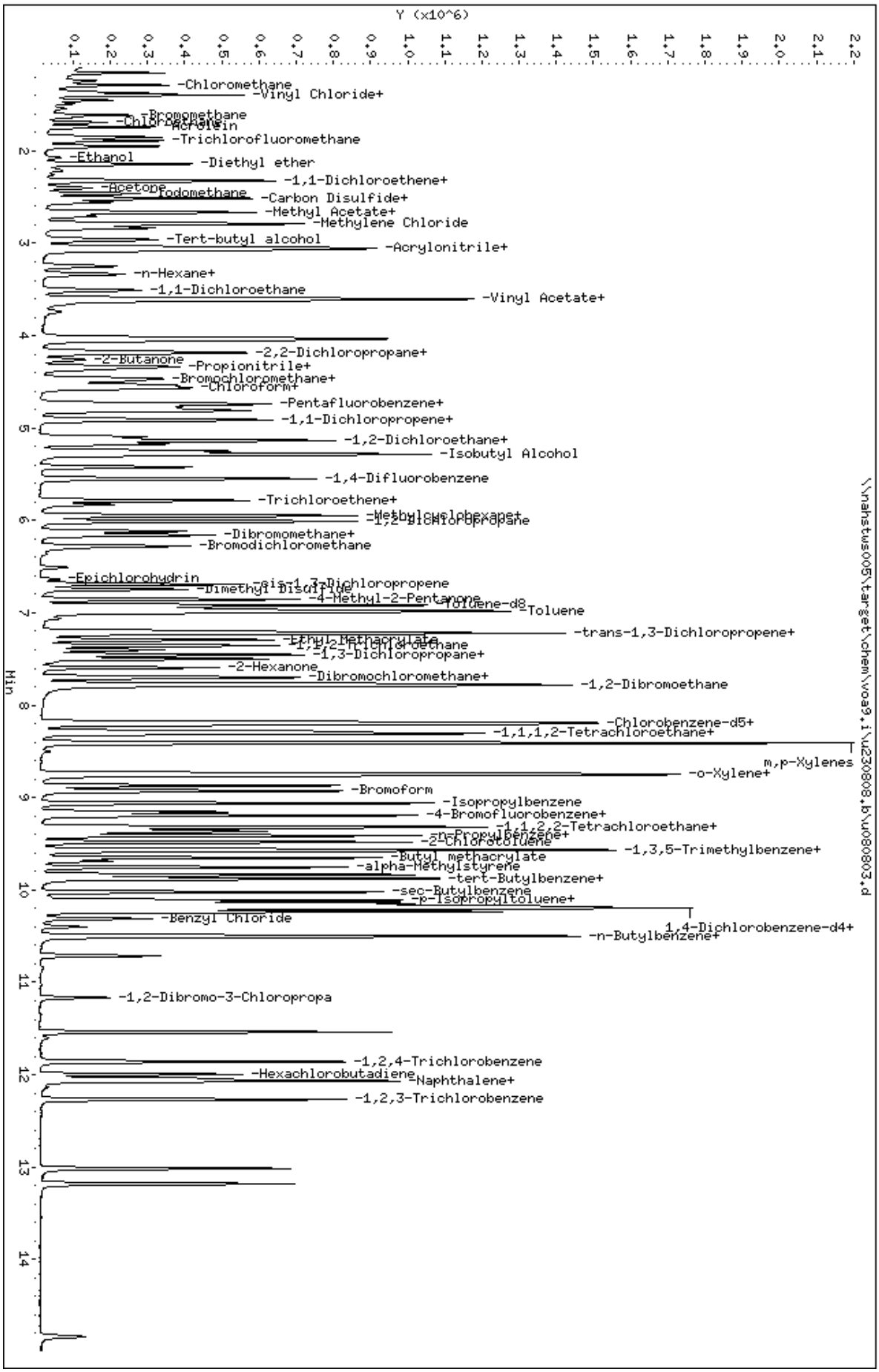
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	172773	50.0000	53.02
	31 1,1,1-Trichloroethane	97	4.737	4.737	(0.984)	225977	50.0000	45.35
	32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	201865	50.0000	46.13
	33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	255492	50.0000	50.34
	34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	170272	50.0000	43.43
$	35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.058)	190095	50.0000	53.60
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	589261	50.0000	
	37 Benzene	78	5.134	5.134	(0.925)	670838	50.0000	46.60
	38 Trichloroethene	130	5.786	5.786	(1.043)	188638	50.0000	46.36
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	222771	50.0000	48.38
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	183727	50.0000	47.62
	44 Dibromomethane	93	6.116	6.116	(1.102)	122491	50.0000	49.43
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	404854	100.000	96.16
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	275516	50.0000	47.07
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	565790	50.0000	
$	48 Toluene-d8	98	6.918	6.918	(0.845)	633817	50.0000	48.16
	50 Toluene	91	6.978	6.978	(0.853)	719334	50.0000	46.76
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	230619	50.0000	51.97
	52 2-Hexanone	43	7.593	7.593	(0.928)	268642	100.000	96.36
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	151880	50.0000	46.09
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	316961	50.0000	46.89
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	200784	50.0000	49.65
	56 Tetrachloroethene	164	7.454	7.454	(0.911)	161513	50.0000	43.18
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	193456	50.0000	48.81
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	114280	50.0000	37.13
	59 Chlorobenzene	112	8.208	8.208	(1.003)	507773	50.0000	46.56
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	183868	50.0000	46.26
	61 Ethylbenzene	106	8.305	8.305	(1.015)	233325	50.0000	47.26
	62 m,p-Xylenes	106	8.407	8.407	(1.027)	600268	100.000	103.57
	63 o-Xylene	106	8.748	8.748	(1.069)	303381	50.0000	53.50
	64 Styrene	104	8.759	8.759	(1.070)	508456	50.0000	57.47
	66 Bromoform	173	8.920	8.920	(1.090)	143328	50.0000	50.74
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	654689	50.0000	47.72
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	270379	50.0000	43.12
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	280660	50.0000	54.77
*	70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	325510	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	251567	50.0000	46.08
	73 n-Propylbenzene	91	9.411	9.411	(0.926)	734118	50.0000	40.40
	74 Bromobenzene	156	9.317	9.317	(0.916)	246907	50.0000	45.85
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	536278	50.0000	47.14
	76 2-Chlorotoluene	91	9.482	9.482	(0.933)	506930	50.0000	44.17
	77 4-Chlorotoluene	91	9.576	9.576	(0.942)	585825	50.0000	45.70
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	464349	50.0000	43.08
	79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	561506	50.0000	48.74
	81 sec-Butylbenzene	105	10.022	10.022	(0.986)	580938	50.0000	47.45
	82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	525618	50.0000	51.44
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	397974	50.0000	44.27
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	423493	50.0000	42.51
	87 n-Butylbenzene	91	10.491	10.491	(1.032)	439268	50.0000	40.51
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	407799	50.0000	44.22
	89 1,2-Dibromo-3-Chloropropane	155	11.166	11.166	(1.098)	42417	50.0000	46.92
	90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	271738	50.0000	47.90

91 Hexachlorobutadiene	225	11.998	11.998 (1.180)	110466	50.0000	52.95
92 Naphthalene	128	12.065	12.065 (1.187)	690647	50.0000	46.22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	267942	50.0000	46.26
M 94	1,2-Dichloroethylene (total)	96				311110	100.000	97.45
M 95	Xylenes (total)	106				903649	150.000	157.08
135	1,4-Dioxane	88	6.169	6.169	(1.282)	51506	1000.00	880.84
141	Cyclohexane	56	4.778	4.778	(0.993)	168410	50.0000	36.74
138	Freon TF	101	2.326	2.326	(0.484)	103322	50.0000	47.50
140	1,3-Butadiene	54	1.393	1.393	(0.290)	142538	50.0000	43.89
147	Methylcyclohexane	55	5.944	5.944	(1.071)	427993	50.0000	49.86
146	Methyl Acetate	43	2.705	2.705	(0.562)	142322	50.0000	48.63
148	Tert-Butyl alcohol	59	2.960	2.960	(0.615)	351217	1000.00	1024.43
149	Isopropyl Alcohol	45	2.555	2.555	(0.531)	212736	1000.00	943.90
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	40839	50.0000	53.37
12	Isobutyl Alcohol	43	5.284	5.284	(1.098)	592191	1000.00	1025.22
13	Acetonitrile	39	2.664	2.664	(0.554)	191210	500.000	507.56
14	Allyl Chloride	41	2.664	2.664	(0.554)	423180	50.0000	49.18
25	Methacrylonitrile	41	4.489	4.489	(0.933)	112687	50.0000	49.20
40	Methyl Methacrylate	41	6.154	6.154	(1.279)	182345	50.0000	51.74
4	Propionitrile	54	4.332	4.332	(0.900)	251090	500.000	518.60
131	Methyl Acrylate	55	4.362	4.362	(0.907)	198553	50.0000	50.89
182	Epichlorohydrin	57	6.633	6.633	(1.195)	9456	200.000	260.93(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080803.d
Date : 08-AUG-2023 11:37
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

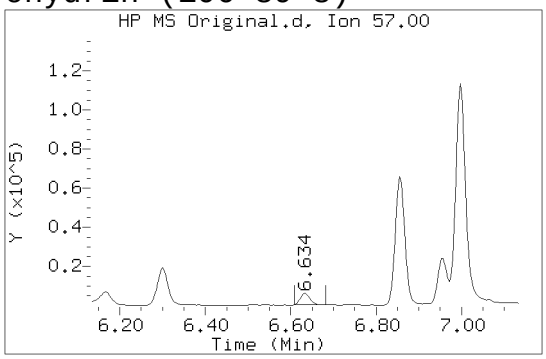
Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

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Inj Date : 08-AUG-2023 11:37
InstruID : VOA9.i
LabSampID : CCV

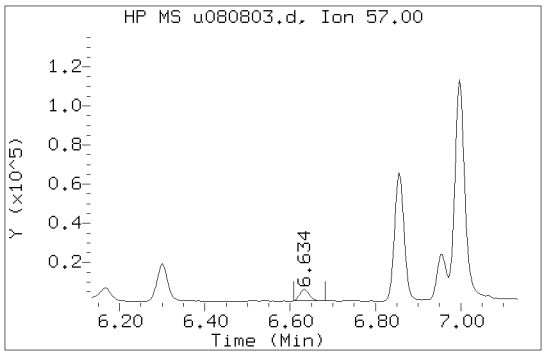
Epichlorohydrin (106-89-8)

Reason Code:

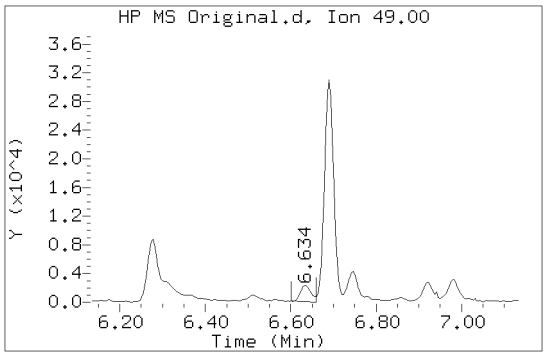
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MASS
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08-Aug-2023
22:26



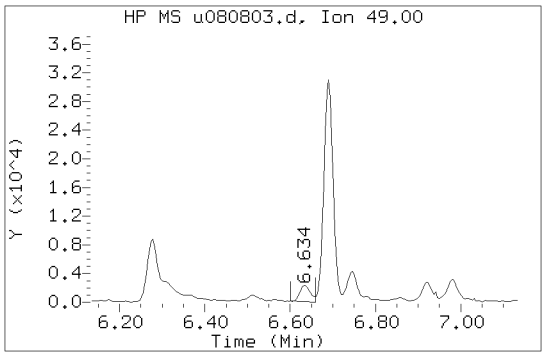
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08-Aug-2023
22:26



BEFORE
MASS
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HEIGHT
2265
08-Aug-2023
22:26



AFTER
MASS
49
AREA
4089
HEIGHT
2265
08-Aug-2023
22:26



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080804.D Page 1
Report Date: 08-Aug-2023 22:27

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080804.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 08-AUG-2023 12:00
Operator : PC Inst ID: VOA9.i
Smp Info : CCB;CCB;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\U230808.b\8260C.m
Meth Date : 08-Aug-2023 22:23 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.812	(1.000)	463774	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.744	(0.986)	186262	50.2195	50.21
$ 35 1,2-Dichloroethane-d4	65	5.100	5.093	(1.059)	222714	55.2691	55.26
* 36 1,4-Difluorobenzene	114	5.554	5.550	(1.000)	623952	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	560023	50.0000	
$ 48 Toluene-d8	98	6.922	6.918	(0.846)	687504	52.7806	52.78
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	250043	49.1610	49.16
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	305007	50.0000	

01208885

Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080804.d

Date : 08-AUG-2023 12:00

Client ID: CCB

Instrument: VOA9.i

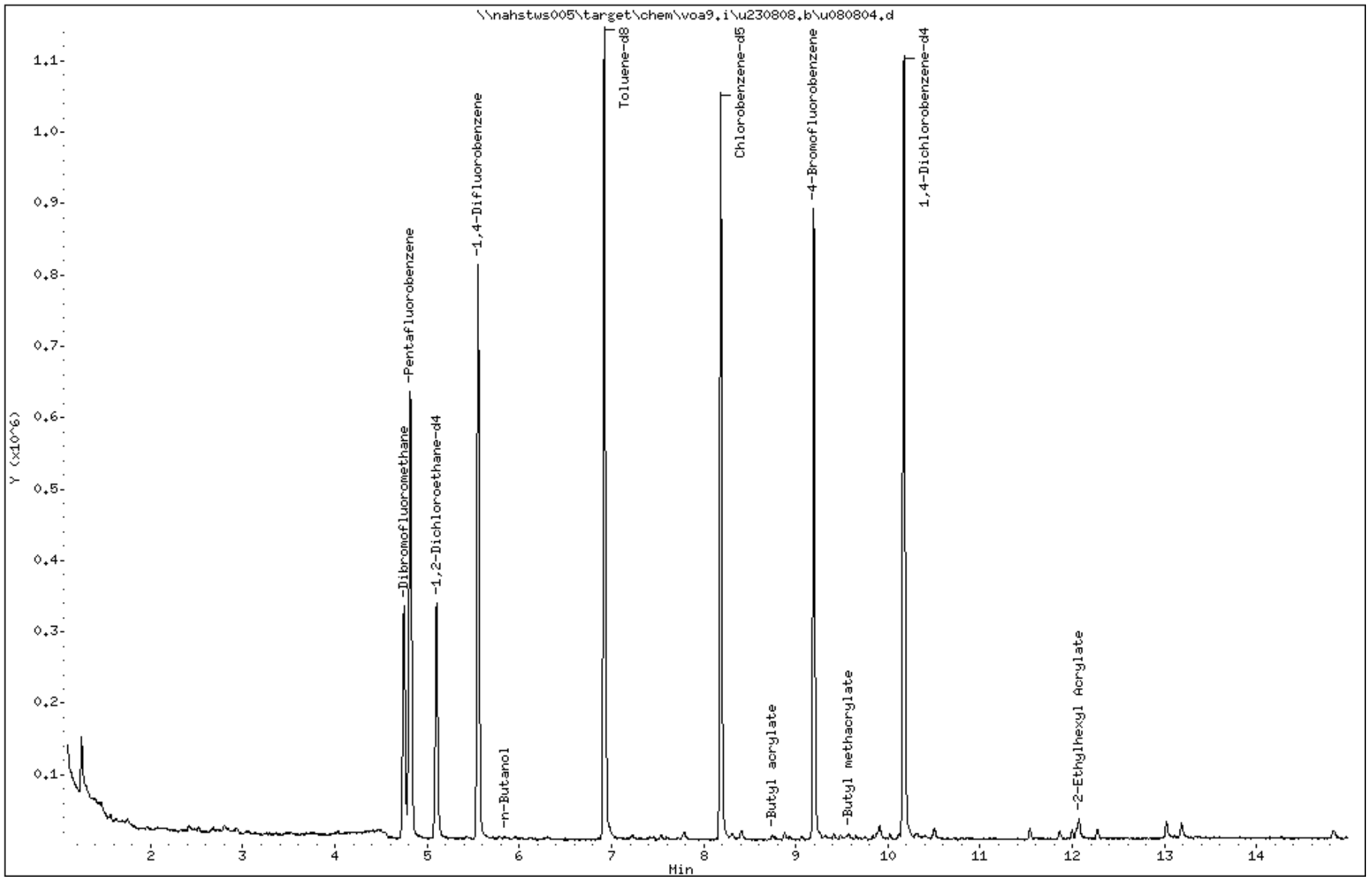
Sample Info: CCB;CCB;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa9.i\u230808.b\u080804.d
Inj Date : 08-AUG-2023 12:00
InstruID : VOA9.i
LabSampID : CCB

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\voa9.i\U230808.b\U080805.D Page 1
Report Date: 08-Aug-2023 12:38

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\U230808.b\U080805.D
Lab Smp Id: VLCSW-230808 Client Smp ID: VLCSW-230808
Inj Date : 08-AUG-2023 12:22
Operator : PC Inst ID: VOA9.i
Smp Info : VLCSW-230808;VLCSW-230808;3;;LCS
Misc Info : V9;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa9.i\U230808.b\8260C.m
Meth Date : 08-Aug-2023 11:53 pcabasca Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.812	(1.000)	430680	50.0000	
2 Dichlorodifluoromethane	85	1.160	1.157	(0.241)	69536	17.7004	17.70
3 Chloromethane	50	1.295	1.288	(0.269)	91845	17.9500	17.95
5 Vinyl Chloride	62	1.374	1.366	(0.285)	73053	17.2280	17.22
6 Bromomethane	94	1.617	1.610	(0.336)	49243	20.6051	20.60
7 Chloroethane	64	1.696	1.689	(0.352)	49210	18.4290	18.42
8 Trichlorofluoromethane	101	1.891	1.888	(0.393)	99412	18.9952	18.99
9 Acrolein	56	1.745	1.741	(0.362)	7839	28.3763	28.37
10 Acetone	43	2.405	2.401	(0.499)	61104	40.8665	40.86
11 1,1-Dichloroethene	96	2.330	2.322	(0.484)	56224	19.8146	19.81
15 Iodomethane	142	2.465	2.461	(0.512)	101953	40.8077	40.80
16 Acrylonitrile	53	3.064	3.057	(0.636)	53505	39.5232	39.52
17 Methylene Chloride	84	2.791	2.787	(0.580)	69286	19.9845	19.98
18 Methyl tert-butyl ether	73	3.079	3.072	(0.640)	189653	21.6246	21.62
19 Carbon Disulfide	76	2.517	2.514	(0.523)	296363	35.8771	35.87
20 trans-1,2-Dichloroethene	96	3.057	3.050	(0.635)	61072	19.2065	19.20
21 Vinyl Acetate	43	3.604	3.601	(0.749)	375819	41.2982	41.29
22 1,1-Dichloroethane	63	3.511	3.507	(0.729)	108534	18.6741	18.67
24 2-Butanone	43	4.268	4.260	(0.886)	62359	36.8560	36.85
26 2,2-Dichloropropane	77	4.178	4.174	(0.868)	81063	20.2287	20.22

27 cis-1,2-Dichloroethene	96	4.193	4.189 (0.871)	72461	20.4150	20.41
28 Chloroform	83	4.571	4.568 (0.949)	126388	18.6864	18.68

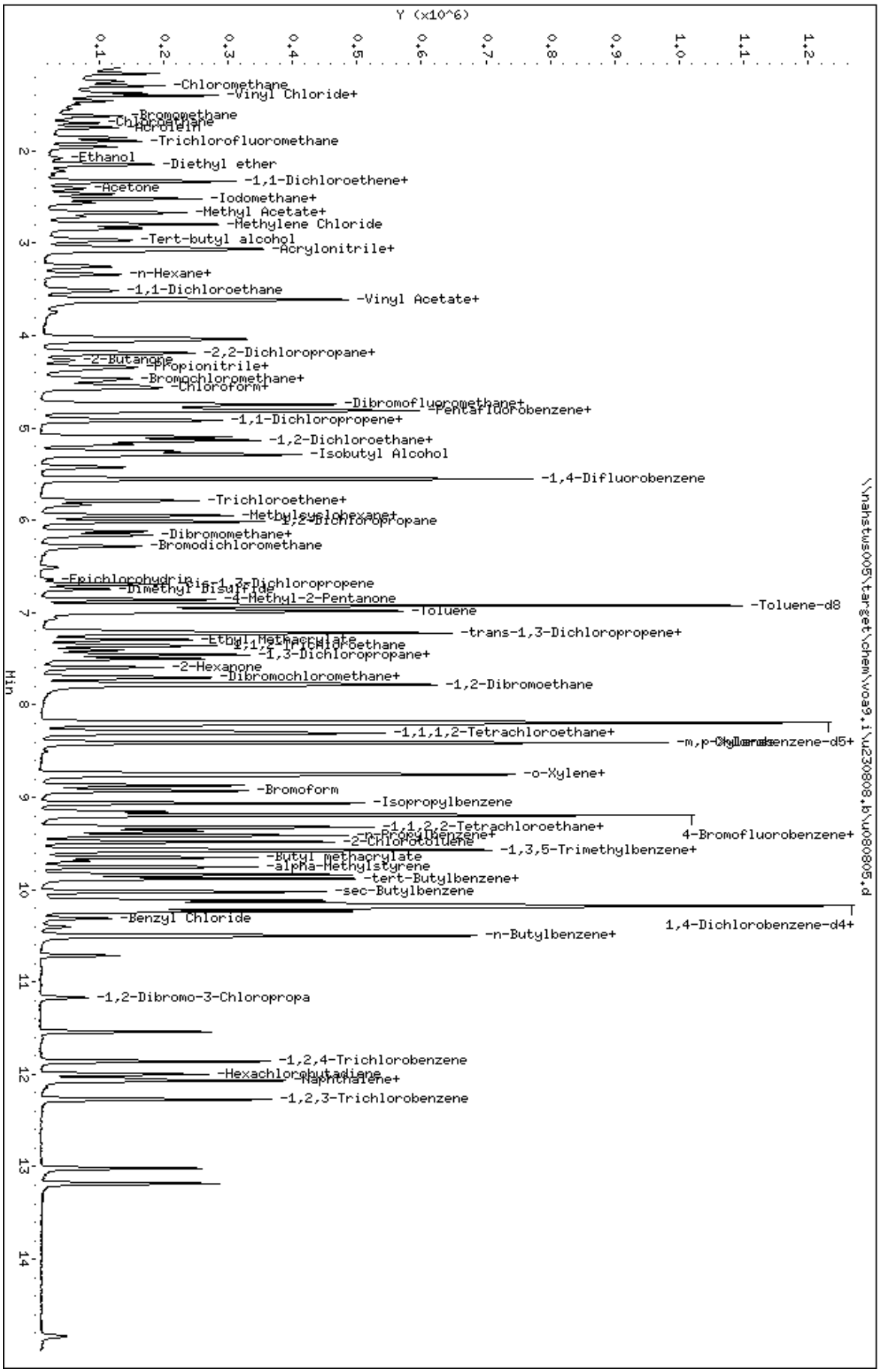
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	29 Bromochloromethane	128	4.466	4.463	(0.928)	39072	18.6032	18.60
$	30 Dibromofluoromethane	113	4.748	4.744	(0.986)	178480	51.8508	51.85
	31 1,1,1-Trichloroethane	97	4.740	4.737	(0.984)	100010	19.0059	19.00
	32 1,1-Dichloropropene	75	4.920	4.916	(0.887)	89267	19.8264	19.82
	33 1,2-Dichloroethane	62	5.175	5.171	(0.932)	106534	20.4026	20.40
	34 Carbon Tetrachloride	117	4.909	4.905	(0.885)	74488	18.4673	18.46
$	35 1,2-Dichloroethane-d4	65	5.096	5.093	(1.058)	196043	52.3191	52.31
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	606353	50.0000	
	37 Benzene	78	5.137	5.134	(0.926)	291973	19.7123	19.71
	38 Trichloroethene	130	5.786	5.786	(1.043)	84853	20.2690	20.26
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	90304	19.0626	19.06
	42 1,2-Dichloropropane	63	6.011	6.007	(1.083)	75381	18.9890	18.98
	44 Dibromomethane	93	6.120	6.116	(1.103)	49249	19.3152	19.31
	45 4-Methyl-2-Pentanone	43	6.858	6.855	(0.838)	164123	38.5513	38.55
	46 cis-1,3-Dichloropropene	75	6.689	6.690	(1.205)	100183	18.0604	18.06
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	572160	50.0000	
$	48 Toluene-d8	98	6.922	6.918	(0.846)	660649	49.6430	49.64
	50 Toluene	91	6.982	6.978	(0.853)	312794	20.1077	20.10
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.297)	86311	18.9026	18.90
	52 2-Hexanone	43	7.593	7.593	(0.928)	109750	38.9312	38.93
	53 1,1,2-Trichloroethane	83	7.357	7.353	(0.899)	62967	18.8991	18.89
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	130481	19.0917	19.09
	55 Dibromochloromethane	129	7.694	7.691	(0.940)	77338	18.9148	18.91
	56 Tetrachloroethene	164	7.458	7.454	(0.911)	72419	19.1483	19.14
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	80876	20.1785	20.17
	58 1-Chlorohexane	55	8.196	8.197	(1.477)	59817	18.8918	18.89
	59 Chlorobenzene	112	8.211	8.208	(1.003)	218489	19.8131	19.81
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	75262	18.7257	18.72
	61 Ethylbenzene	106	8.305	8.305	(1.015)	104847	21.0020	21.00
	62 m,p-Xylenes	106	8.410	8.407	(1.027)	268743	45.8547	45.85
	63 o-Xylene	106	8.747	8.748	(1.069)	131890	23.0032	23.00
	64 Styrene	104	8.762	8.759	(1.071)	210216	23.4961	23.49
	66 Bromoform	173	8.920	8.920	(1.090)	53478	18.7215	18.72
	67 Isopropylbenzene	105	9.062	9.063	(1.107)	310193	22.3581	22.35
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	113534	18.0988	18.09
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	284262	54.8598	54.85
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	325675	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	101131	18.5164	18.51
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	344547	19.8243	19.82
	74 Bromobenzene	156	9.317	9.317	(0.916)	104220	19.3437	19.34
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	248054	21.7942	21.79
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	236207	20.5725	20.57
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	267800	20.8812	20.88
	78 tert-Butylbenzene	119	9.838	9.835	(0.967)	222353	20.6213	20.62
	79 1,2,4-Trimethylbenzene	105	9.880	9.876	(0.971)	257372	22.3303	22.33
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	289055	25.0315	25.03
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	251467	26.3843	26.38
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	178256	19.8229	19.82
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	192107	19.2781	19.27
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	208563	20.4842	20.48
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	184097	19.9535	19.95
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.166	(1.098)	16483	18.2250	18.22

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	117344	20.6749	20.67
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	53368	27.3123	27.31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	92 Naphthalene	128	12.069	12.065	(1.186)	272989	19.2231	19.22
	93 1,2,3-Trichlorobenzene	180	12.267	12.268	(1.206)	117713	20.3150	20.31
M	94 1,2-Dichloroethylene (total)	96				133533	39.6215	39.62
M	95 Xylenes (total)	106				400633	68.8579	68.85
	135 1,4-Dioxane	88	6.172	6.169	(1.282)	20527	332.419	332.41
	141 Cyclohexane	56	4.778	4.778	(0.992)	91610	18.9253	18.92
	138 Freon TF	101	2.330	2.326	(0.484)	51664	23.5895	23.58
	140 1,3-Butadiene	54	1.400	1.393	(0.291)	61253	17.8619	17.86
	147 Methylcyclohexane	55	5.947	5.944	(1.072)	153333	17.3614	17.36
	146 Methyl Acetate	43	2.712	2.705	(0.563)	58198	18.8323	18.83
	148 Tert-Butyl alcohol	59	2.967	2.960	(0.616)	148343	407.855	407.85
	149 Isopropyl Alcohol	45	2.562	2.555	(0.532)	84930	356.835	356.83
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	16120	20.8349	20.83
	12 Isobutyl Alcohol	43	5.287	5.284	(1.098)	235336	385.802	385.80
	13 Acetonitrile	39	2.667	2.664	(0.554)	74953	188.401	188.40
	14 Allyl Chloride	41	2.671	2.664	(0.555)	169050	18.6036	18.60
	25 Methacrylonitrile	41	4.496	4.489	(0.934)	42084	17.3996	17.39
	40 Methyl Methacrylate	41	6.157	6.154	(1.279)	68250	18.3406	18.34
	4 Propionitrile	54	4.339	4.332	(0.901)	102887	201.228	201.22(a)
	136 n-Hexane	57	3.338	3.335	(0.693)	58424	18.6877	18.68
	131 Methyl Acrylate	55	4.369	4.362	(0.907)	79044	19.1847	19.18
	200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	50938	15.2419	15.24
	49 Ethyl Methacrylate	69	7.293	7.293	(1.314)	109773	19.7439	19.74
	166 1,2,3-Trimethylbenzene	105	10.236	10.232	(1.006)	256179	22.0375	22.03
	167 Ethanol	45	2.082	2.071	(0.433)	16342	353.682	353.68
	164 Dicyclopentadiene	66	10.198	10.198	(1.003)	250330	18.1328	18.13
	145 alpha-Methylstyrene	118	9.756	9.752	(0.959)	99339	19.9132	19.91
	142 Tetrahydrofuran	42	4.545	4.538	(0.944)	25916	35.9608	35.96
	156 Diisopropyl ether	45	3.619	3.616	(0.752)	204880	20.1333	20.13
	151 4-Methyl-2-pentanol	45	7.222	7.218	(1.301)	353769	448.689	448.68
	150 Allyl alcohol	57	3.338	3.335	(0.693)	58424	503.806	503.80
	86 Benzyl Chloride	91	10.311	10.311	(1.260)	70174	20.0109	20.01
	162 Butyl acrylate	55	8.736	8.733	(1.067)	130277	19.4763	19.47
	139 Diethyl ether	59	2.142	2.135	(0.445)	50734	20.8053	20.80
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	54280	17.4022	17.40
	134 Cyclohexanone	55	9.156	9.153	(0.900)	75852	376.705	376.70(a)
	130 Ethyl Acetate	43	4.343	4.335	(0.902)	72164	18.5305	18.53
	189 n-Butyl acetate	43	7.709	7.706	(0.942)	121065	19.1682	19.16
	182 Epichlorohydrin	57	6.633	6.633	(1.195)	3043	93.9541	93.95
	132 n-Butanol	56	5.835	5.827	(1.212)	39504	343.981	343.98(a)
	133 Ethyl Acrylate	55	5.947	5.944	(1.235)	153333	17.2744	17.27
	163 Butyl methacrylate	41	9.651	9.651	(0.949)	84784	20.6782	20.67

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080805.d
Date : 08-AUG-2023 12:22
Client ID: VLCSW-230808
Sample Info: VLCSW-230808;VLCSW-230808;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u230808.b\u080805.d
Inj Date : 08-AUG-2023 12:22
InstruID : VOA9.i
LabSampID : VLCSW-230808

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\voa9.i\U230808.b\U080807.D Page 1
Report Date: 08-Aug-2023 13:32

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\U230808.b\U080807.D
Lab Smp Id: VBLKW-230808 Client Smp ID: VBLKW-230808
Inj Date : 08-AUG-2023 13:17
Operator : PC Inst ID: VOA9.i
Smp Info : VBLKW-230808;VBLKW-230808;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa9.i\U230808.b\8260C.m
Meth Date : 08-Aug-2023 11:53 pcabasca Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.808	4.812	(1.000)	431269	50.0000	
	2 Dichlorodifluoromethane	85	1.025	1.157	(0.213)	4323	2.27790	2.27(a)
	3 Chloromethane	50	1.007	1.288	(0.209)	79936	15.5558	15.55
	5 Vinyl Chloride	62	1.025	1.366	(0.213)	5869	1.38219	1.38(a)
	7 Chloroethane	64	1.235	1.689	(0.257)	108169	40.4536	40.45
	15 Iodomethane	142	2.457	2.461	(0.511)	2290	4.27004	4.27(a)
$	30 Dibromofluoromethane	113	4.740	4.744	(0.986)	171586	49.7401	49.74
	32 1,1-Dichloropropene	75	4.808	4.916	(0.866)	23755	5.11770	5.11
	33 1,2-Dichloroethane	62	5.550	5.171	(1.000)	19667	3.65345	3.65(a)
	34 Carbon Tetrachloride	117	4.808	4.905	(0.866)	36701	8.82598	8.82
$	35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.059)	219423	58.6361	58.63
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	625112	50.0000	
	42 1,2-Dichloropropane	63	5.546	6.007	(0.999)	116031	28.3518	28.35
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	566691	50.0000	
$	48 Toluene-d8	98	6.922	6.918	(0.846)	692912	52.5698	52.56
	58 1-Chlorohexane	55	8.185	8.197	(1.475)	5094	1.56054	1.56(a)
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	245453	47.6493	47.64
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	306722	50.0000	
	71 1,2,3-Trichloropropane	75	9.194	9.362	(0.904)	116585	22.6649	22.66
	141 Cyclohexane	56	4.804	4.778	(0.999)	6541	1.34943	1.34(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

01208897

Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080807.d

Date : 08-AUG-2023 13:17

Client ID: VBLKW-230808

Instrument: VOA9.i

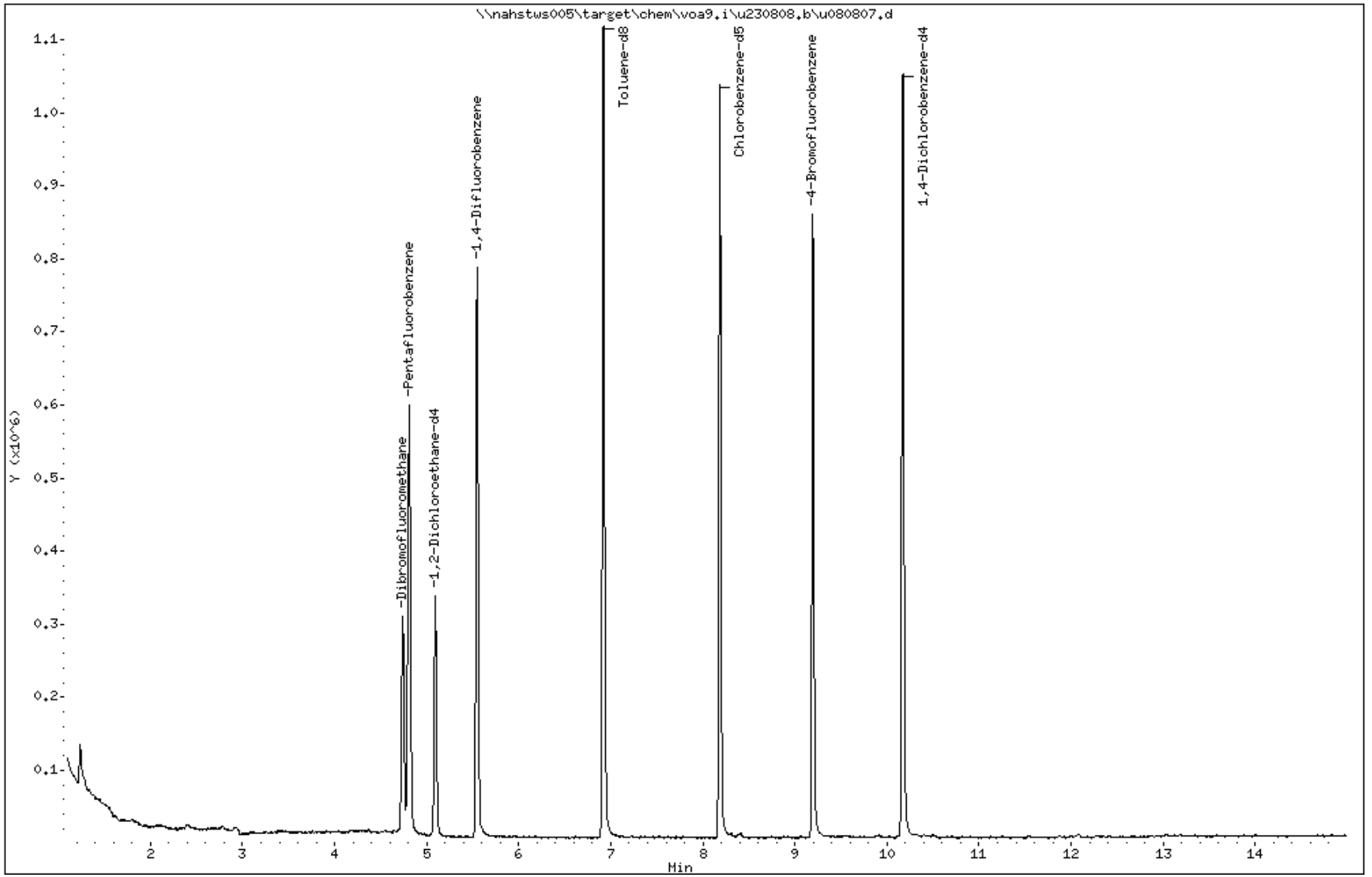
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Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa9.i\u230808.b\u080807.d
Inj Date : 08-AUG-2023 13:17
InstruID : VOA9.i
LabSampID : VBLKW-230808

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080809.D Page 1
Report Date: 08-Aug-2023 22:29

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080809.D
Lab Smp Id: HS23080324-02 Client Smp ID: HS23080324-02
Inj Date : 08-AUG-2023 14:01
Operator : PC Inst ID: VOA9.i
Smp Info : HS23080324-02;HS23080324-02;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\U230808.b\8260C.m
Meth Date : 08-Aug-2023 22:23 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.812	(1.000)	451112	50.0000	
8 Trichlorofluoromethane	101	1.899	1.888	(0.394)	5876	1.07191	1.07(a)
$ 30 Dibromofluoromethane	113	4.751	4.744	(0.987)	182341	50.5486	50.54
$ 35 1,2-Dichloroethane-d4	65	5.100	5.093	(1.059)	209116	53.3048	53.30
* 36 1,4-Difluorobenzene	114	5.554	5.550	(1.000)	591510	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	539518	50.0000	
$ 48 Toluene-d8	98	6.922	6.918	(0.846)	649436	51.7529	51.75
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	232777	47.4590	47.45
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	285358	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01208900

Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080809.d

Date : 08-AUG-2023 14:01

Client ID: HS23080324-02

Instrument: VOA9.i

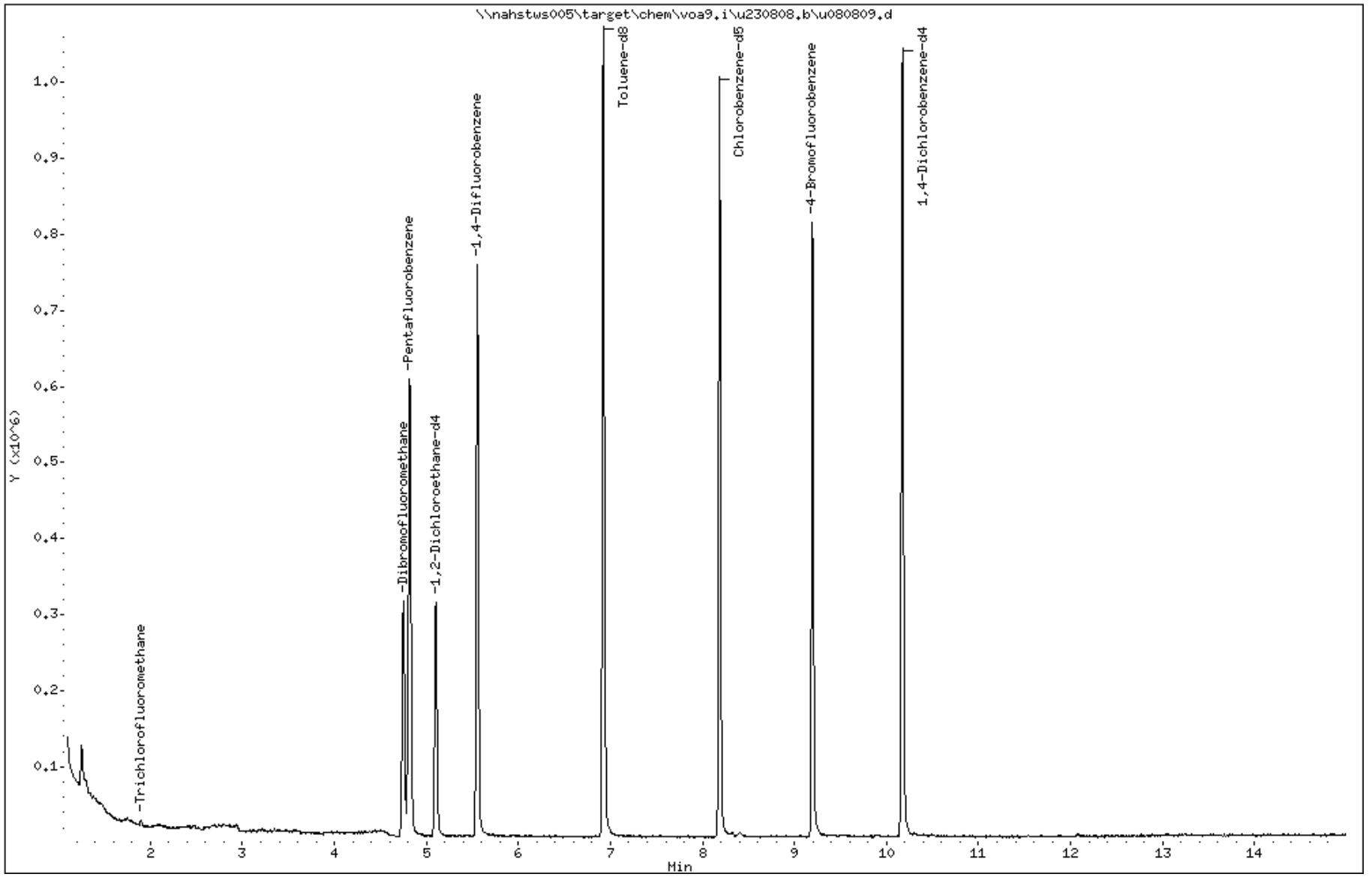
Sample Info: HS23080324-02;HS23080324-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080809.d Page 2

Date : 08-AUG-2023 14:01

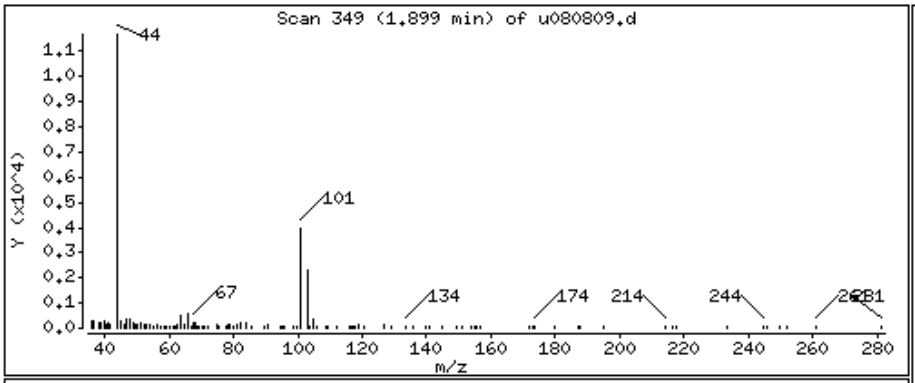
Client ID: HS23080324-02 Instrument: VOA9.i

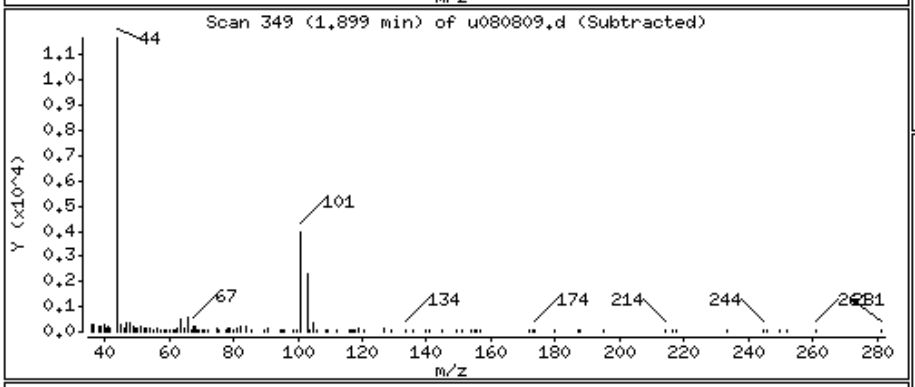
Sample Info: HS23080324-02;HS23080324-02;;;

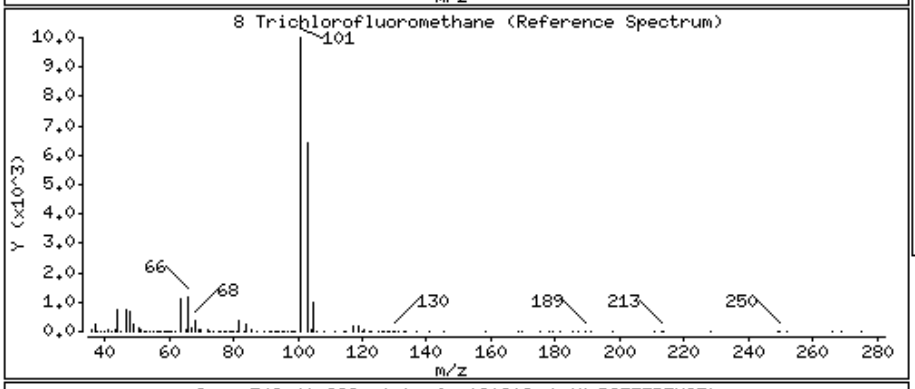
Purge Volume: 5.0 Operator: PC

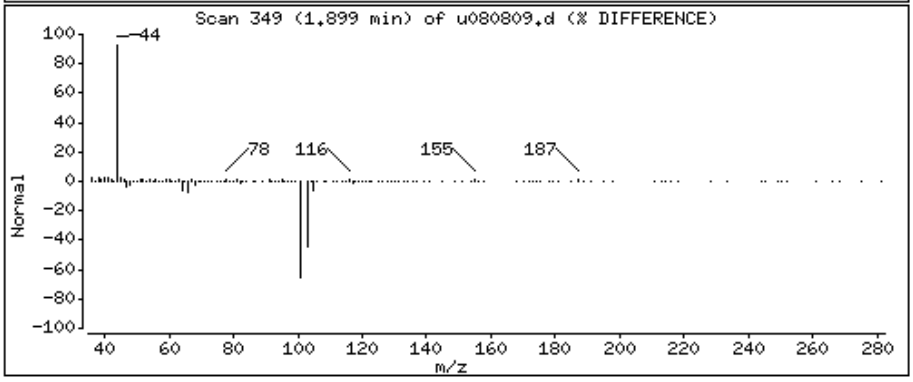
Column phase: DB624 Column diameter: 0.18

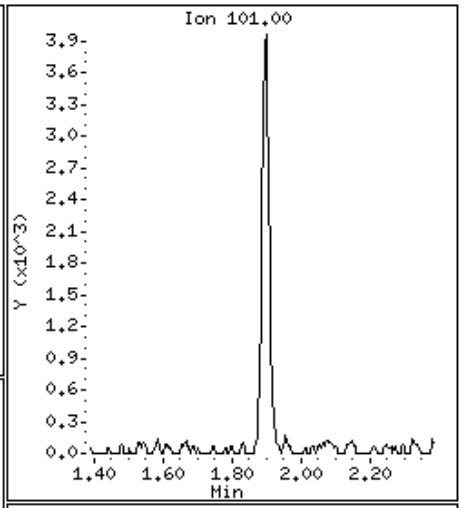
8 Trichlorofluoromethane Concentration: 1.07 ug/l

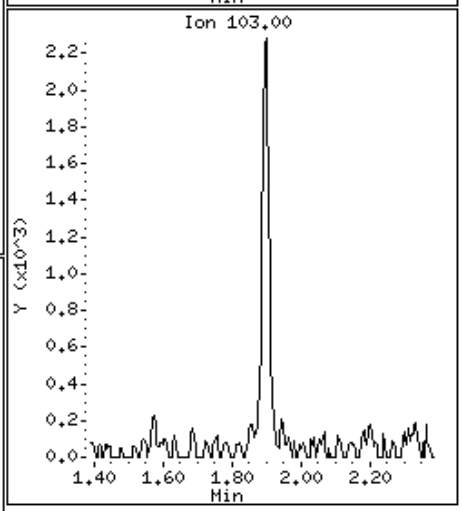












Data File : \\nahstws005\target\chem\voa9.i\u230808.b\u080809.d
Inj Date : 08-AUG-2023 14:01
InstruID : VOA9.i
LabSampID : HS23080324-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080813.D Page 1
Report Date: 08-Aug-2023 22:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080813.D
Lab Smp Id: HS23080324-01 Client Smp ID: HS23080324-01
Inj Date : 08-AUG-2023 15:31
Operator : PC Inst ID: VOA9.i
Smp Info : HS23080324-01;HS23080324-01;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa9.i\U230808.b\8260C.m
Meth Date : 08-Aug-2023 22:23 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.812	(1.000)	437904	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.744	(0.986)	179855	51.3794	51.37
$ 35 1,2-Dichloroethane-d4	65	5.096	5.093	(1.058)	209819	55.1422	55.14
* 36 1,4-Difluorobenzene	114	5.554	5.550	(1.000)	575797	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	530910	50.0000	
$ 48 Toluene-d8	98	6.922	6.918	(0.846)	647010	52.3956	52.39
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	227390	47.1023	47.10
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	280148	50.0000	

01208904

Data File: \\nahstws005\target\chem\voa9.i\u230808.b\u080813.d

Page 1

Date : 08-AUG-2023 15:31

Client ID: HS23080324-01

Instrument: VOA9.i

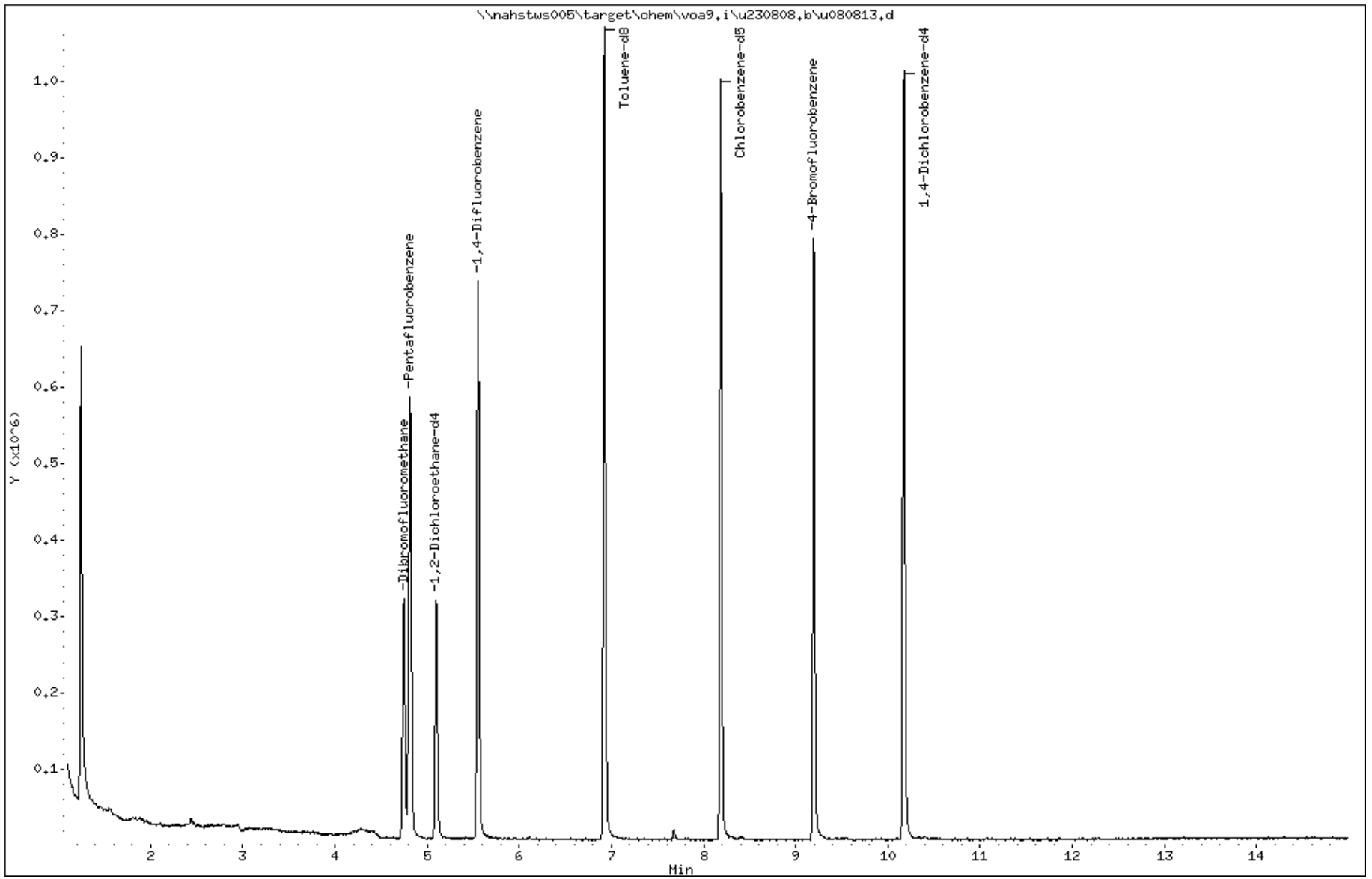
Sample Info: HS23080324-01;HS23080324-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa9.i\u230808.b\u080813.d
Inj Date : 08-AUG-2023 15:31
InstruID : VOA9.i
LabSampID : HS23080324-01

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\voa9.i\U230808.b\U080814.D Page 1
Report Date: 08-Aug-2023 16:09

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\U230808.b\U080814.D
Lab Smp Id: HS23080101-01MS Client Smp ID: HS23080101-01MS
Inj Date : 08-AUG-2023 15:53
Operator : PC Inst ID: VOA9.i
Smp Info : HS23080101-01MS;HS23080101-01MS;3;;MS
Misc Info : V9;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa9.i\U230808.b\8260C.m
Meth Date : 08-Aug-2023 11:53 pcabasca Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.815	4.811	(1.000)	405384	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.160	(0.243)	81475	21.7258	21.72
3	Chloromethane	50	1.303	1.295	(0.271)	96153	20.0035	20.00
5	Vinyl Chloride	62	1.378	1.374	(0.286)	87114	21.8259	21.82
6	Bromomethane	94	1.621	1.614	(0.337)	34986	15.1505	15.15
7	Chloroethane	64	1.250	1.696	(0.260)	3433604	1366.11	1366.11(A)
8	Trichlorofluoromethane	101	1.899	1.891	(0.394)	120739	24.5098	24.50
9	Acrolein	56	1.753	1.749	(0.364)	11476	44.1341	44.13
10	Acetone	43	2.412	2.405	(0.501)	48898	33.5190	33.51
11	1,1-Dichloroethene	96	2.334	2.330	(0.485)	61459	23.0110	23.01
15	Iodomethane	142	2.472	2.465	(0.513)	194505	77.4149	77.41
16	Acrylonitrile	53	3.068	3.061	(0.637)	53659	42.1103	42.11
17	Methylene Chloride	84	2.798	2.791	(0.581)	66911	20.5088	20.50
18	Methyl tert-butyl ether	73	3.083	3.076	(0.640)	186626	22.6073	22.60
19	Carbon Disulfide	76	2.521	2.517	(0.524)	391441	50.3440	50.34
20	trans-1,2-Dichloroethene	96	3.061	3.057	(0.636)	64139	21.4297	21.42
21	Vinyl Acetate	43	3.612	3.604	(0.750)	371302	43.3479	43.34
22	1,1-Dichloroethane	63	3.518	3.511	(0.731)	112158	20.5018	20.50
24	2-Butanone	43	4.272	4.264	(0.887)	59815	37.5584	37.55
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	94236	24.9833	24.98

27 cis-1,2-Dichloroethene	96	4.197	4.193 (0.872)	82507	24.6959	24.69
28 Chloroform	83	4.575	4.571 (0.950)	129891	20.4027	20.40

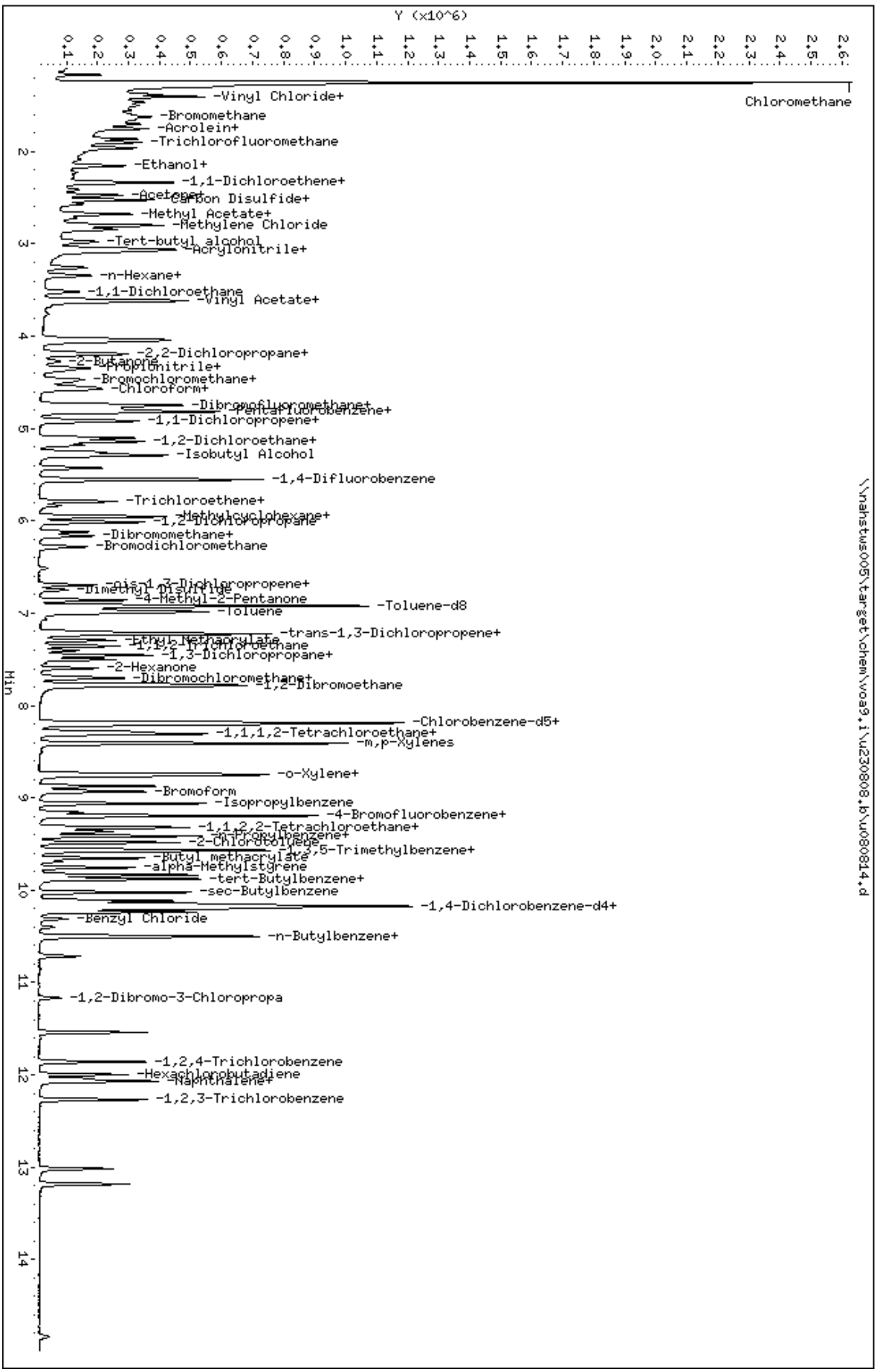
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.466	(0.928)	38408	19.4282	19.42
$	30 Dibromofluoromethane	113	4.748	4.744	(0.986)	170567	52.6592	52.65
	31 1,1,1-Trichloroethane	97	4.744	4.740	(0.985)	113778	22.9716	22.97
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	94527	23.3485	23.34
	33 1,2-Dichloroethane	62	5.179	5.175	(0.933)	110500	23.5348	23.53
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	94467	26.0465	26.04
$	35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.059)	209146	59.4773	59.47
*	36 1,4-Difluorobenzene	114	5.554	5.550	(1.000)	545222	50.0000	
	37 Benzene	78	5.138	5.137	(0.925)	280028	21.0256	21.02
	38 Trichloroethene	130	5.790	5.786	(1.043)	82313	21.8668	21.86
	39 Bromodichloromethane	83	6.281	6.277	(1.131)	89132	20.9247	20.92
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	72972	20.4432	20.44
	44 Dibromomethane	93	6.120	6.120	(1.102)	47310	20.6351	20.63
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	162122	42.8835	42.88
	46 cis-1,3-Dichloropropene	75	6.693	6.689	(1.205)	92456	18.4781	18.47
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	508088	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	633154	53.5766	53.57
	50 Toluene	91	6.982	6.982	(0.853)	303134	21.9441	21.94
	51 trans-1,3-Dichloropropene	75	7.199	7.195	(1.296)	79165	19.2815	19.28
	52 2-Hexanone	43	7.593	7.593	(0.928)	112155	44.8013	44.80
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	58603	19.8074	19.80
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	123479	20.3456	20.34
	55 Dibromochloromethane	129	7.691	7.694	(0.940)	74463	20.5082	20.50
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	78872	23.4844	23.48
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	76358	21.4537	21.45
	58 1-Chlorohexane	55	8.197	8.196	(1.476)	68306	23.9916	23.99
	59 Chlorobenzene	112	8.208	8.208	(1.003)	205649	21.0005	21.00
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	73529	20.6016	20.60
	61 Ethylbenzene	106	8.305	8.305	(1.015)	102224	23.0587	23.05
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	263731	50.6741	50.67
	63 o-Xylene	106	8.748	8.747	(1.069)	128810	25.2991	25.29
	64 Styrene	104	8.763	8.762	(1.071)	190026	23.9178	23.91
	66 Bromoform	173	8.920	8.920	(1.090)	51755	20.4031	20.40
	67 Isopropylbenzene	105	9.063	9.062	(1.107)	319263	25.9138	25.91
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.328	(0.917)	104418	17.8321	17.83
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	248872	54.0670	54.06
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	304006	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	93651	18.3691	18.36
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	362776	22.1510	22.15
	74 Bromobenzene	156	9.317	9.317	(0.916)	94546	18.7989	18.79
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	255654	24.0629	24.06
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	227536	21.2298	21.22
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	271090	22.6444	22.64
	78 tert-Butylbenzene	119	9.835	9.838	(0.967)	234086	23.2569	23.25
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	267578	24.8706	24.87
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	300709	27.7517	27.75
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	263146	29.3998	29.39
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	174981	20.8457	20.84
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	180021	19.3529	19.35
	87 n-Butylbenzene	91	10.495	10.491	(1.032)	222161	23.0375	23.03
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	175258	20.3495	20.34
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	15238	18.0493	18.04

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	111455	21.0370	21.03
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	55012	30.0412	30.04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	92 Naphthalene	128	12.069	12.065	(1.186)	279008	20.8963	20.89
	93 1,2,3-Trichlorobenzene	180	12.271	12.267	(1.206)	113364	20.9590	20.95
M	94 1,2-Dichloroethylene (total)	96				146646	46.1256	46.12
M	95 Xylenes (total)	106				392541	75.9732	75.97
	135 1,4-Dioxane	88	6.172	6.168	(1.282)	18205	313.212	313.21
	141 Cyclohexane	56	4.782	4.781	(0.993)	108650	23.8461	23.84
	138 Freon TF	101	2.337	2.333	(0.485)	63709	30.6448	30.64
	140 1,3-Butadiene	54	1.404	1.400	(0.292)	71957	22.2926	22.29
	147 Methylcyclohexane	55	5.951	5.947	(1.072)	182494	22.9799	22.97
	146 Methyl Acetate	43	2.716	2.708	(0.564)	54386	18.6969	18.69
	148 Tert-Butyl alcohol	59	2.975	2.963	(0.618)	145284	424.497	424.49
	149 Isopropyl Alcohol	45	2.570	2.558	(0.534)	79098	353.070	353.06
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	15720	22.8801	22.88
	12 Isobutyl Alcohol	43	5.291	5.287	(1.099)	237317	413.327	413.32
	13 Acetonitrile	39	2.675	2.667	(0.556)	83538	223.083	223.08
	14 Allyl Chloride	41	2.675	2.667	(0.556)	170417	19.9243	19.92
	25 Methacrylonitrile	41	4.500	4.493	(0.935)	46283	20.3297	20.32
	40 Methyl Methacrylate	41	6.161	6.157	(1.279)	70740	20.1959	20.19
	4 Propionitrile	54	4.343	4.335	(0.902)	96739	201.010	201.00(a)
	136 n-Hexane	57	3.342	3.338	(0.694)	69289	23.5460	23.54
	131 Methyl Acrylate	55	4.373	4.365	(0.908)	77880	20.0817	20.08
	200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	45404	15.2829	15.28
	49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	112839	22.5709	22.57
	166 1,2,3-Trimethylbenzene	105	10.232	10.232	(1.006)	262647	24.2043	24.20
	167 Ethanol	45	2.086	2.079	(0.433)	16594	382.634	382.63
	164 Dicyclopentadiene	66	10.202	10.198	(1.003)	232559	18.0463	18.04
	145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	86418	18.8110	18.81
	142 Tetrahydrofuran	42	4.549	4.541	(0.945)	29840	43.9894	43.98
	156 Diisopropyl ether	45	3.623	3.619	(0.752)	199834	20.8628	20.86
	151 4-Methyl-2-pentanol	45	7.222	7.222	(1.300)	400424	564.804	564.80
	150 Allyl alcohol	57	3.342	3.338	(0.694)	69289	629.586	629.58
	86 Benzyl Chloride	91	10.311	10.311	(1.260)	58098	18.9345	18.93
	162 Butyl acrylate	55	8.736	8.732	(1.067)	137380	22.6595	22.65
	139 Diethyl ether	59	2.146	2.142	(0.446)	50799	22.1319	22.13
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	59235	20.0255	20.02
	134 Cyclohexanone	55	9.156	9.152	(0.900)	53264	283.381	283.38(a)
	130 Ethyl Acetate	43	4.347	4.339	(0.903)	73608	20.0807	20.08
	189 n-Butyl acetate	43	7.709	7.705	(0.942)	125865	22.4412	22.44
	132 n-Butanol	56	5.835	5.827	(1.212)	35942	332.494	332.49(a)
	133 Ethyl Acrylate	55	5.951	5.947	(1.236)	182494	21.8426	21.84
	163 Butyl methacrylate	41	9.651	9.651	(0.949)	88489	23.1201	23.12

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.



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Sample Info: HS23080101-01HS;HS23080101-01HS;3;;HS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

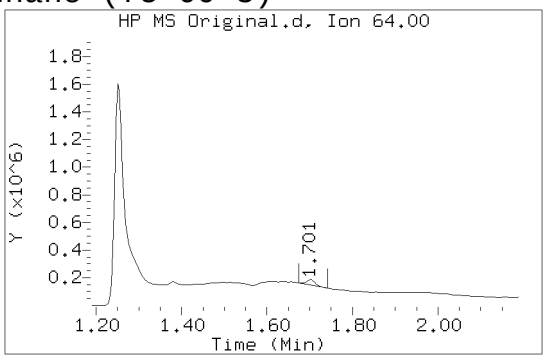
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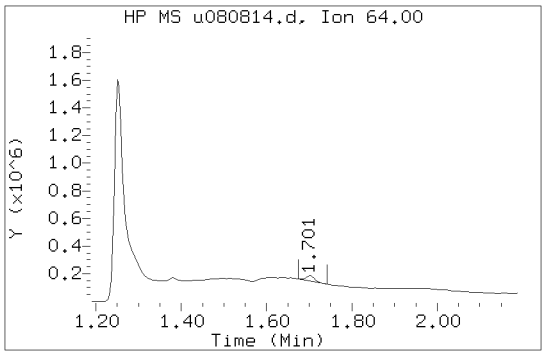
Chloroethane (75-00-3)

Reason Code:

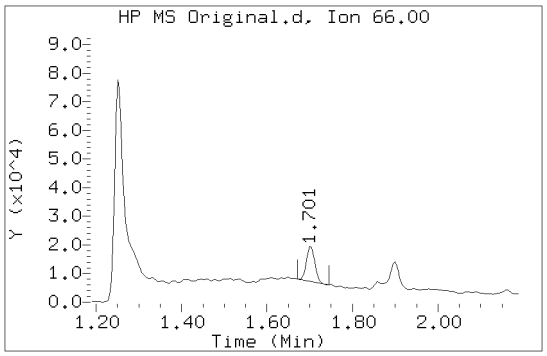
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08-Aug-2023
22:32



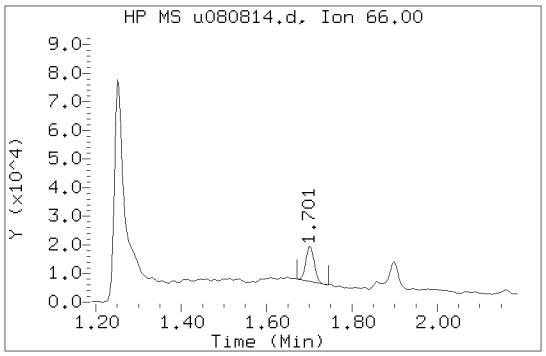
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BEFORE
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08-Aug-2023
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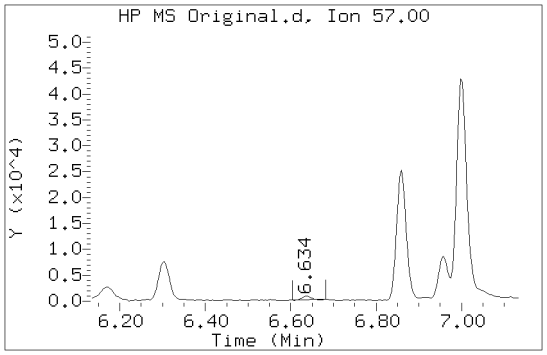
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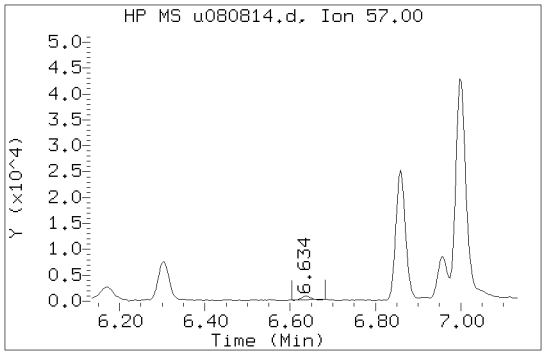
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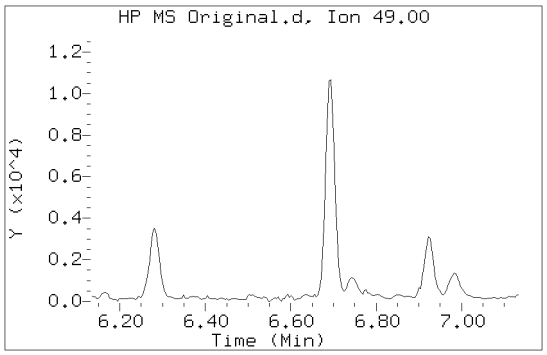
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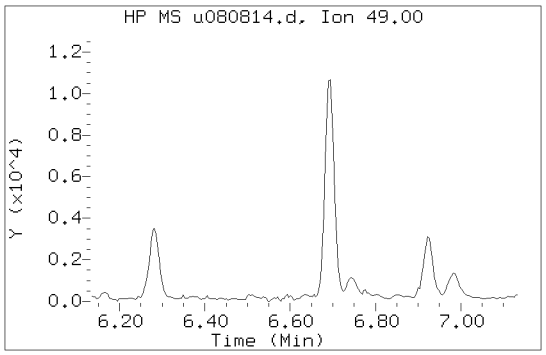
AFTER
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08-Aug-2023
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BEFORE
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22:32



AFTER
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HEIGHT
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08-Aug-2023
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080815.D Page 1
Report Date: 08-Aug-2023 22:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080815.D
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Inj Date : 08-AUG-2023 16:16
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Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.812	4.812	(1.000)	463959	50.0000	
2 Dichlorodifluoromethane	85	1.160	1.157	(0.241)	79706	18.7533	18.75
3 Chloromethane	50	1.295	1.288	(0.269)	92569	16.7715	16.77
5 Vinyl Chloride	62	1.374	1.366	(0.286)	87374	19.1273	19.12
6 Bromomethane	94	1.614	1.610	(0.335)	27793	10.0141	10.01
7 Chloroethane	64	1.696	1.689	(0.353)	63274	21.9962	21.99(M)
8 Trichlorofluoromethane	101	1.891	1.888	(0.393)	119716	21.2340	21.23
9 Acrolein	56	1.745	1.741	(0.363)	11859	39.8491	39.84
10 Acetone	43	2.405	2.401	(0.500)	52838	31.1905	31.19
11 1,1-Dichloroethene	96	2.330	2.322	(0.484)	62753	20.5292	20.52
15 Iodomethane	142	2.465	2.461	(0.512)	194718	68.5305	68.53
16 Acrylonitrile	53	3.065	3.057	(0.637)	53888	36.9509	36.95
17 Methylene Chloride	84	2.791	2.787	(0.580)	66992	17.9168	17.91
18 Methyl tert-butyl ether	73	3.080	3.072	(0.640)	193531	20.4839	20.48
19 Carbon Disulfide	76	2.517	2.514	(0.523)	387125	43.5030	43.50
20 trans-1,2-Dichloroethene	96	3.057	3.050	(0.635)	65888	19.2348	19.23
21 Vinyl Acetate	43	3.604	3.601	(0.749)	375309	38.2840	38.28
22 1,1-Dichloroethane	63	3.511	3.507	(0.730)	115357	18.4243	18.42
24 2-Butanone	43	4.268	4.260	(0.887)	61799	33.9051	33.90
26 2,2-Dichloropropane	77	4.182	4.174	(0.869)	90633	20.9946	20.99

27	cis-1,2-Dichloroethene	96	4.193	4.189 (0.871)	84589	22.1225	22.12
28	Chloroform	83	4.572	4.568 (0.950)	134383	18.4434	18.44

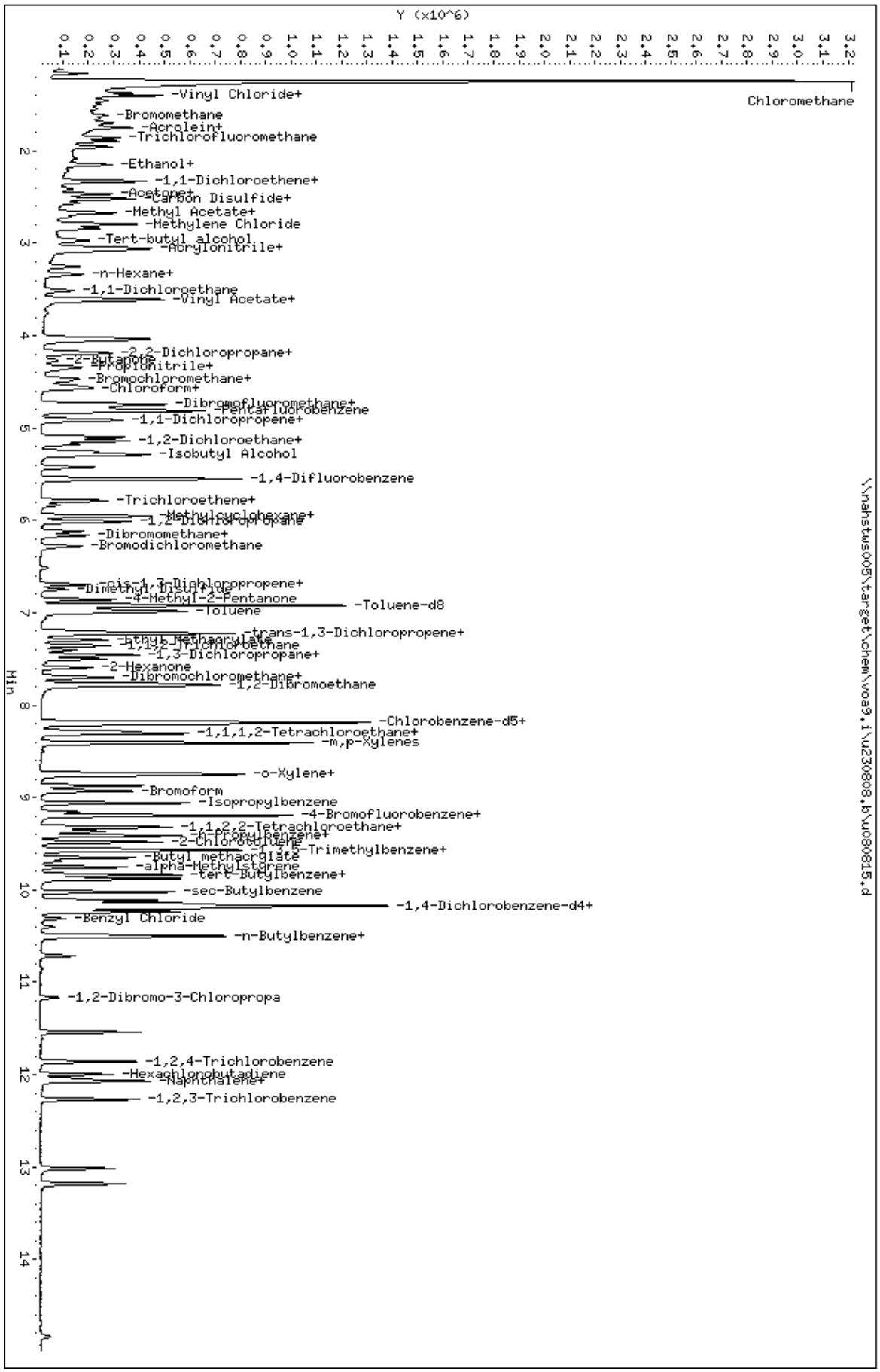
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.467	4.463	(0.928)	40391	17.8518	17.85
$	30 Dibromofluoromethane	113	4.748	4.744	(0.987)	192671	51.9606	51.96
	31 1,1,1-Trichloroethane	97	4.740	4.737	(0.985)	115695	20.4096	20.40
	32 1,1-Dichloropropene	75	4.917	4.916	(0.886)	97581	21.0955	21.09
	33 1,2-Dichloroethane	62	5.175	5.171	(0.932)	111924	20.8638	20.86
	34 Carbon Tetrachloride	117	4.909	4.905	(0.885)	96898	23.3832	23.38
$	35 1,2-Dichloroethane-d4	65	5.096	5.093	(1.059)	220460	54.6739	54.67
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	622950	50.0000	
	37 Benzene	78	5.138	5.134	(0.926)	296951	19.5142	19.51
	38 Trichloroethene	130	5.786	5.786	(1.043)	88085	20.4805	20.48
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	94591	19.4355	19.43
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	76383	18.7287	18.72
	44 Dibromomethane	93	6.120	6.116	(1.103)	52373	19.9931	19.99
	45 4-Methyl-2-Pentanone	43	6.858	6.855	(0.838)	174804	39.8680	39.86
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	100345	17.6628	17.66
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	589270	50.0000	
$	48 Toluene-d8	98	6.922	6.918	(0.846)	725660	52.9448	52.94
	50 Toluene	91	6.978	6.978	(0.853)	330383	20.6218	20.62
	51 trans-1,3-Dichloropropene	75	7.199	7.196	(1.297)	86021	18.3372	18.33
	52 2-Hexanone	43	7.593	7.593	(0.928)	119616	41.1989	41.19
	53 1,1,2-Trichloroethane	83	7.357	7.353	(0.899)	64003	18.6523	18.65
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	131695	18.7099	18.70
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	78403	18.6185	18.61
	56 Tetrachloroethene	164	7.458	7.454	(0.911)	88816	22.8019	22.80
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	81822	19.8218	19.82
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	74168	22.8001	22.80
	59 Chlorobenzene	112	8.208	8.208	(1.003)	226860	19.9749	19.97
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	79237	19.1423	19.14
	61 Ethylbenzene	106	8.305	8.305	(1.015)	111149	21.6179	21.61
	62 m,p-Xylenes	106	8.410	8.407	(1.027)	290639	48.1508	48.15
	63 o-Xylene	106	8.748	8.748	(1.069)	138620	23.4750	23.47
	64 Styrene	104	8.759	8.759	(1.070)	212956	23.1112	23.11
	66 Bromoform	173	8.920	8.920	(1.090)	54949	18.6779	18.67
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	346609	24.2575	24.25
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	110414	16.7762	16.77
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	279054	52.2260	52.22
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	341696	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	102486	17.8847	17.88
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	383481	20.9301	20.93
	74 Bromobenzene	156	9.317	9.317	(0.916)	107544	19.0247	19.02
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	278952	23.3597	23.35
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	240202	19.9395	19.93
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	288319	21.4270	21.42
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	256492	22.6721	22.67
	79 1,2,4-Trimethylbenzene	105	9.880	9.876	(0.971)	292615	24.1977	24.19
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	325927	26.8117	26.81
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	289105	28.7752	28.77
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	189273	20.0612	20.06
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	200647	19.1911	19.19
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	240020	22.2368	22.23
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	187189	19.3374	19.33
	89 1,2-Dibromo-3-Chloropropane	155	11.166	11.166	(1.098)	16416	17.2998	17.29

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	123412	20.7245	20.72
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	57245	27.9015	27.90

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	92 Naphthalene	128	12.069	12.065	(1.186)	324006	21.5370	21.53
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	127036	20.8960	20.89
M	94 1,2-Dichloroethylene (total)	96				150477	41.3573	41.35
M	95 Xylenes (total)	106				429259	71.6258	71.62
	135 1,4-Dioxane	88	6.172	6.169	(1.283)	21881	328.929	328.92
	141 Cyclohexane	56	4.778	4.778	(0.993)	111846	21.4484	21.44
	138 Freon TF	101	2.330	2.326	(0.484)	62710	26.5093	26.50
	140 1,3-Butadiene	54	1.400	1.393	(0.291)	72092	19.5147	19.51
	147 Methylcyclohexane	55	5.947	5.944	(1.072)	196978	21.7089	21.70
	146 Methyl Acetate	43	2.712	2.705	(0.564)	54880	16.4848	16.48
	148 Tert-Butyl alcohol	59	2.971	2.960	(0.617)	143265	365.318	365.31
	149 Isopropyl Alcohol	45	2.562	2.555	(0.533)	84624	330.047	330.04
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	16696	20.9528	20.95
	12 Isobutyl Alcohol	43	5.288	5.284	(1.099)	247551	376.718	376.71
	13 Acetonitrile	39	2.667	2.664	(0.554)	85340	199.124	199.12
	14 Allyl Chloride	41	2.671	2.664	(0.555)	174867	17.8635	17.86
	25 Methacrylonitrile	41	4.497	4.489	(0.935)	45074	17.2991	17.29
	40 Methyl Methacrylate	41	6.157	6.154	(1.280)	73693	18.3828	18.38
	4 Propionitrile	54	4.339	4.332	(0.902)	100965	183.305	183.30(a)
	131 Methyl Acrylate	55	4.369	4.362	(0.908)	83208	18.7468	18.74
	182 Epichlorohydrin	57	6.633	6.633	(1.195)	836	24.9899	24.98(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



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Column phase: DB624

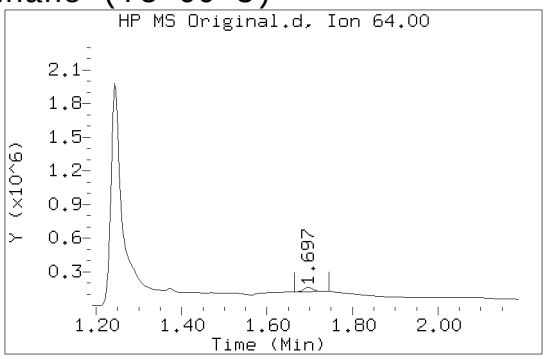
Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

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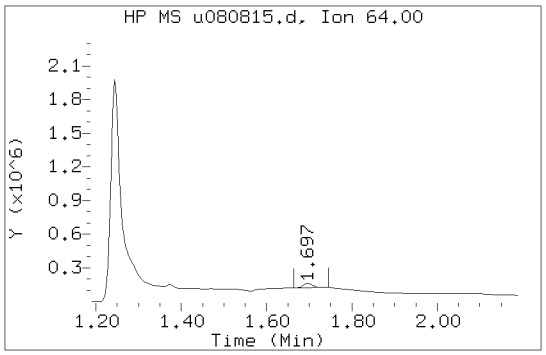
Chloroethane (75-00-3)

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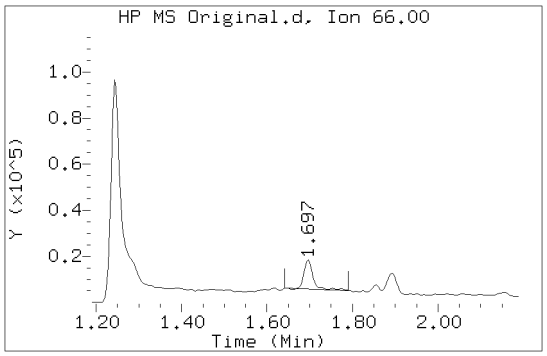
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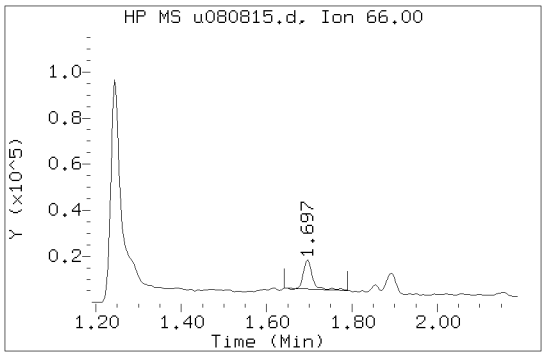
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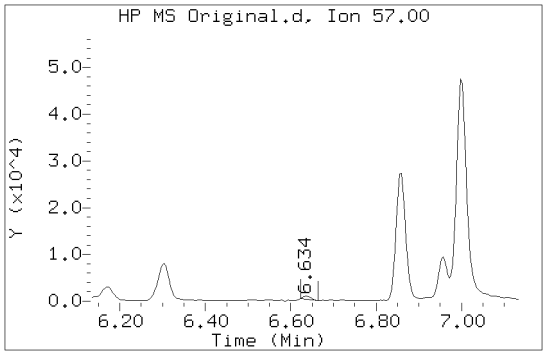
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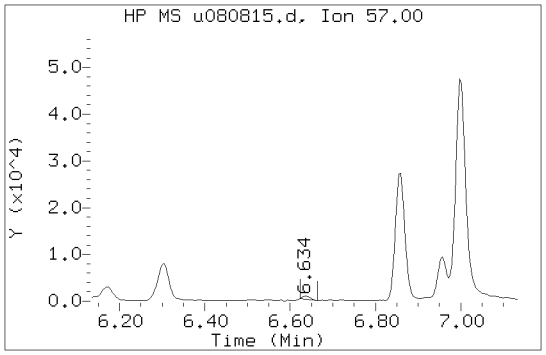
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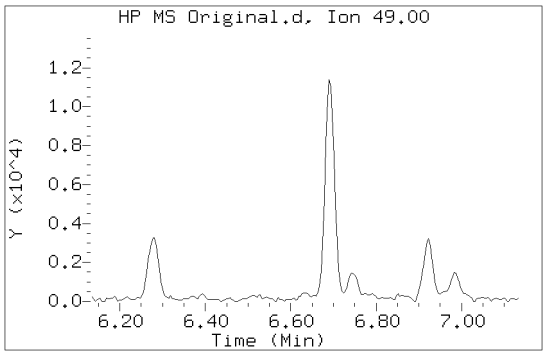
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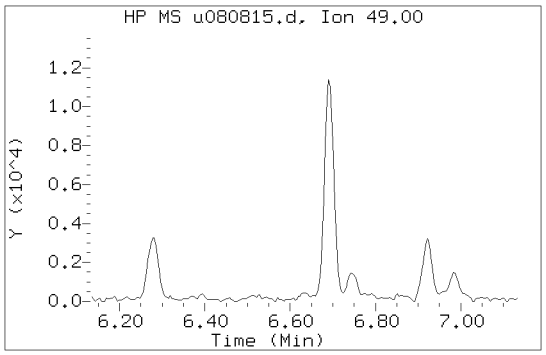
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08-Aug-2023
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080816.D Page 1
Report Date: 08-Aug-2023 22:24

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230808.b\U080816.D
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Inj Date : 08-AUG-2023 16:38
Operator : PC Inst ID: VOA9.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
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Meth Date : 08-Aug-2023 22:23 VOA9.i Quant Type: ISTD
Cal Date : 31-JUL-2023 14:06 Cal File: U073108.D
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.812	4.812	(1.000)	417018	50.0000	
2	Dichlorodifluoromethane	85	1.157	1.157	(0.240)	158132	50.0000	39.87
3	Chloromethane	50	1.288	1.288	(0.268)	173991	50.0000	35.45
5	Vinyl Chloride	62	1.367	1.367	(0.284)	165560	50.0000	40.32
6	Bromomethane	94	1.610	1.610	(0.335)	86324	50.0000	38.63
7	Chloroethane	64	1.689	1.689	(0.351)	102684	50.0000	39.71(M)
8	Trichlorofluoromethane	101	1.888	1.888	(0.392)	225146	50.0000	44.42
9	Acrolein	56	1.741	1.741	(0.362)	18991	100.000	70.99
10	Acetone	43	2.401	2.401	(0.499)	125025	100.000	95.45
11	1,1-Dichloroethene	96	2.322	2.322	(0.483)	122076	50.0000	44.43
15	Iodomethane	142	2.461	2.461	(0.512)	302001	100.000	112.38
16	Acrylonitrile	53	3.057	3.057	(0.635)	124834	100.000	95.23
17	Methylene Chloride	84	2.787	2.787	(0.579)	151481	50.0000	45.36
18	Methyl tert-butyl ether	73	3.072	3.072	(0.639)	422238	50.0000	49.72
19	Carbon Disulfide	76	2.510	2.510	(0.522)	717990	100.000	89.76
20	trans-1,2-Dichloroethene	96	3.050	3.050	(0.634)	136007	50.0000	44.17
21	Vinyl Acetate	43	3.601	3.601	(0.748)	847874	100.000	96.22
22	1,1-Dichloroethane	63	3.507	3.507	(0.729)	243701	50.0000	43.30
24	2-Butanone	43	4.261	4.261	(0.885)	141897	100.000	86.61
26	2,2-Dichloropropane	77	4.174	4.174	(0.868)	182471	50.0000	47.02

27	cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	162678	50.0000	47.33
28	Chloroform	83	4.568	4.568 (0.949)	294276	50.0000	44.93

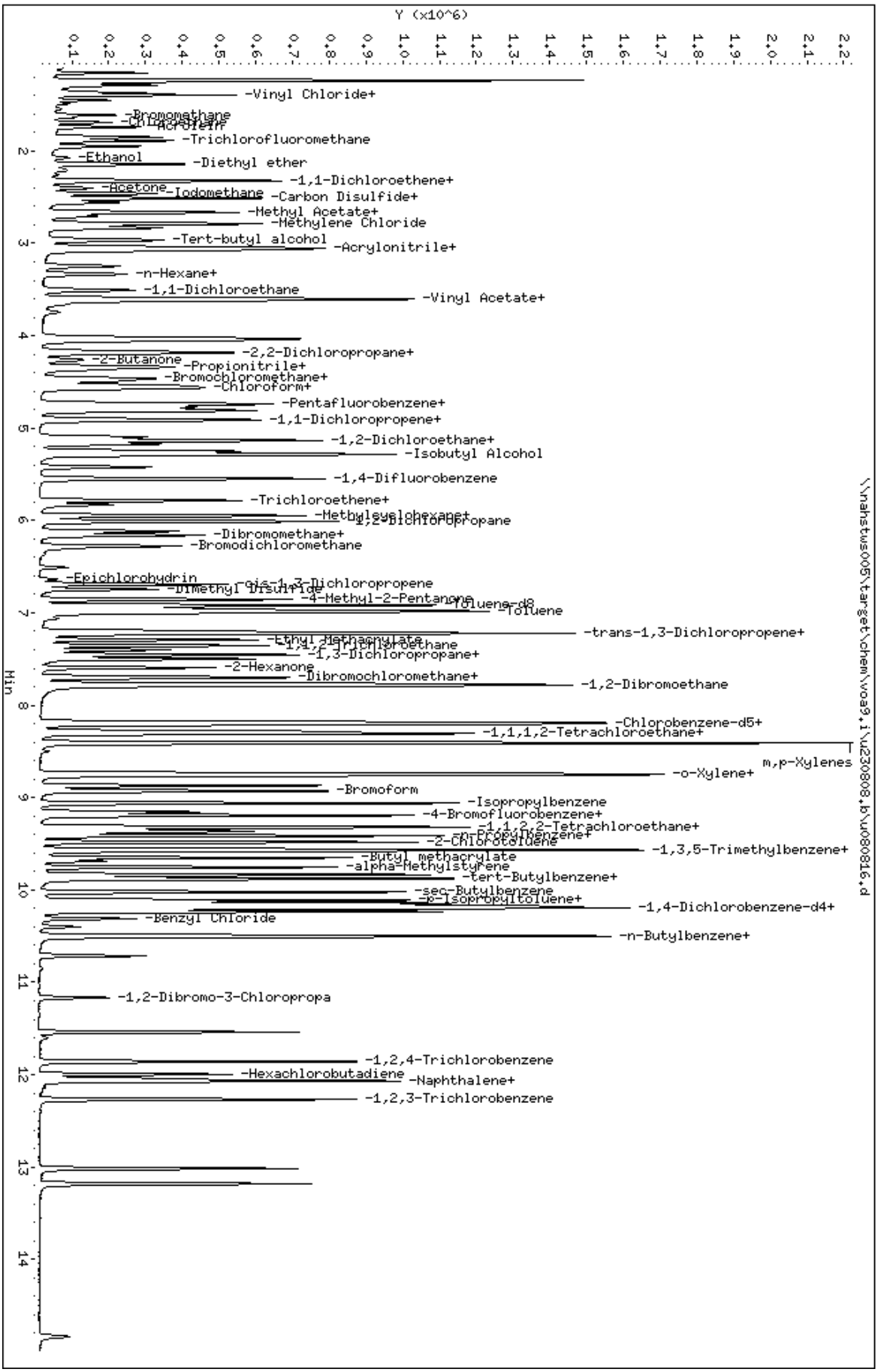
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.463	4.463	(0.928)	90059	50.0000	44.28
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	174891	50.0000	52.48
	31 1,1,1-Trichloroethane	97	4.737	4.737	(0.984)	229278	50.0000	44.99
	32 1,1-Dichloropropene	75	4.917	4.917	(0.886)	191335	50.0000	43.72
	33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	246166	50.0000	48.50
	34 Carbon Tetrachloride	117	4.905	4.905	(0.884)	166434	50.0000	42.45
$	35 1,2-Dichloroethane-d4	65	5.093	5.093	(1.058)	195217	50.0000	53.84
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	589312	50.0000	
	37 Benzene	78	5.134	5.134	(0.925)	637823	50.0000	44.30
	38 Trichloroethene	130	5.786	5.786	(1.043)	181496	50.0000	44.60
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	216181	50.0000	46.95
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	173730	50.0000	45.02
	44 Dibromomethane	93	6.116	6.116	(1.102)	115987	50.0000	46.80
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	398111	100.000	93.94
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	254060	50.0000	43.58
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	569541	50.0000	
$	48 Toluene-d8	98	6.918	6.918	(0.845)	651268	50.0000	49.16
	50 Toluene	91	6.978	6.978	(0.853)	689043	50.0000	44.49
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	216600	50.0000	48.80
	52 2-Hexanone	43	7.593	7.593	(0.928)	268236	100.000	95.58
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	143553	50.0000	43.28
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	303103	50.0000	44.55
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	190748	50.0000	46.86
	56 Tetrachloroethene	164	7.454	7.454	(0.911)	157234	50.0000	41.76
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	187281	50.0000	46.94
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	128192	50.0000	41.65
	59 Chlorobenzene	112	8.208	8.208	(1.003)	492306	50.0000	44.84
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	179682	50.0000	44.91
	61 Ethylbenzene	106	8.305	8.305	(1.015)	229885	50.0000	46.26
	62 m,p-Xylenes	106	8.407	8.407	(1.027)	595510	100.000	102.07
	63 o-Xylene	106	8.748	8.748	(1.069)	295498	50.0000	51.77
	64 Styrene	104	8.759	8.759	(1.070)	489442	50.0000	54.95
	66 Bromoform	173	8.920	8.920	(1.090)	135935	50.0000	47.80
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	684522	50.0000	49.56
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	254304	50.0000	40.09
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	279188	50.0000	54.10
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	329276	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	243038	50.0000	44.01
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	773621	50.0000	42.02
	74 Bromobenzene	156	9.317	9.317	(0.916)	237652	50.0000	43.62
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	564592	50.0000	49.06
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	521228	50.0000	44.89
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	600948	50.0000	46.34
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	500035	50.0000	45.86
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	596034	50.0000	51.14
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	627537	50.0000	50.20
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	573518	50.0000	54.81
	83 1,3-Dichlorobenzene	146	10.112	10.112	(0.994)	403387	50.0000	44.36
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	426668	50.0000	42.34
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	468007	50.0000	42.54
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	413283	50.0000	44.30
	89 1,2-Dibromo-3-Chloropropane	155	11.166	11.166	(1.098)	40251	50.0000	44.01

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	279198	50.0000	48.65
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	103612	50.0000	49.66

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	92 Naphthalene	128	12.065	12.065	(1.186)	706509	50.0000	46.72
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	279429	50.0000	47.69
M	94 1,2-Dichloroethylene (total)	96				298685	100.000	91.50
M	95 Xylenes (total)	106				891008	150.000	153.85
	135 1,4-Dioxane	88	6.169	6.169	(1.282)	51535	1000.00	861.91
	141 Cyclohexane	56	4.778	4.778	(0.993)	183311	50.0000	39.10
	138 Freon TF	101	2.326	2.326	(0.484)	105642	50.0000	47.49
	140 1,3-Butadiene	54	1.393	1.393	(0.290)	137926	50.0000	41.53
	147 Methylcyclohexane	55	5.944	5.944	(1.071)	376057	50.0000	43.81
	146 Methyl Acetate	43	2.705	2.705	(0.562)	136693	50.0000	45.68
	148 Tert-Butyl alcohol	59	2.963	2.963	(0.616)	357884	1000.00	1020.85
	149 Isopropyl Alcohol	45	2.559	2.559	(0.532)	216681	1000.00	940.21
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	44290	50.0000	57.50
	12 Isobutyl Alcohol	43	5.288	5.288	(1.099)	565436	1000.00	957.32
	13 Acetonitrile	39	2.664	2.664	(0.554)	179701	500.000	466.49
	14 Allyl Chloride	41	2.664	2.664	(0.554)	389173	50.0000	44.23
	25 Methacrylonitrile	41	4.489	4.489	(0.933)	105355	50.0000	44.98
	40 Methyl Methacrylate	41	6.157	6.157	(1.280)	170020	50.0000	47.18
	4 Propionitrile	54	4.335	4.335	(0.901)	236258	500.000	477.21
	131 Methyl Acrylate	55	4.365	4.365	(0.907)	192287	50.0000	48.19
	182 Epichlorohydrin	57	6.633	6.633	(1.195)	10974	200.000	291.30

QC Flag Legend

M - Compound response manually integrated.



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Client ID: CCV-END
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Column phase: DB624

Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

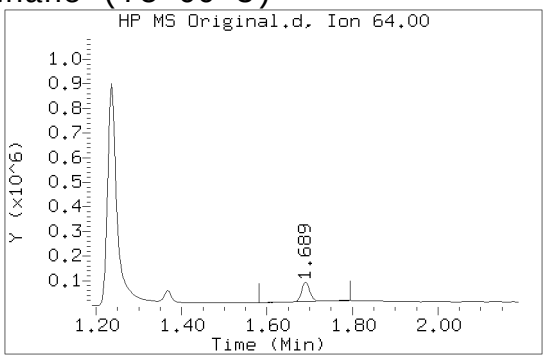
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LabSampID : CCV-END

Chloroethane (75-00-3)

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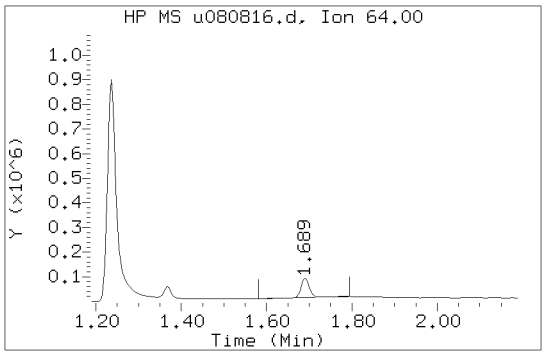
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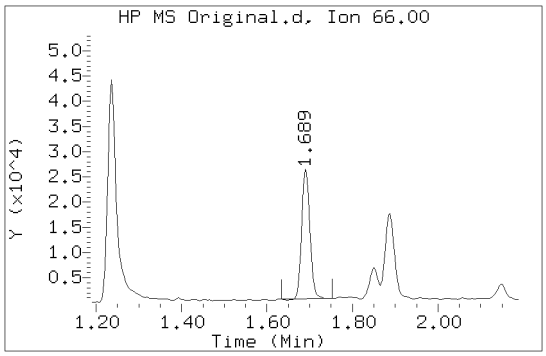
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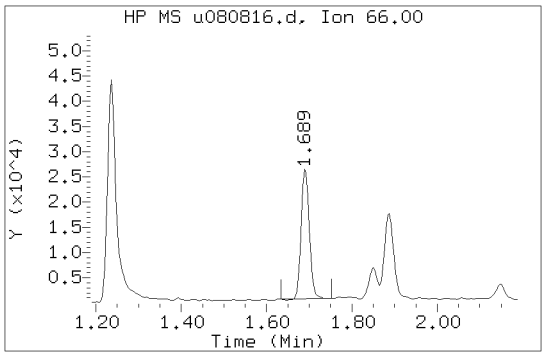
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08-Aug-2023
22:24



AFTER

MASS
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AREA
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HEIGHT
25738
08-Aug-2023
22:24



HS23080324-MSSEMI-SW8270SIM

ALS WO# HS23080324

01208928

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Form 1

Organic Analysis Data Sheet

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder **HS23080324**

Semi-Volatiles by EPA 8270SIM

HS23080324-01

1824DPTMW07_080223

Collected	Received	Matrix	Basis
08/02/23 08:10	08/03/23 09:15	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.014		0.010	0.010	0.010	1	08/15/23 18:21	SV-6_444008	18.D	198677

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder
HS23080324

Semi-Volatiles by EPA 8270SIM

MBLK-198677

MBLK-198677

Collected	Received	Matrix	Basis
NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.030	U	0.010	0.030	0.030	1	08/15/23 17:27	SV-6_444008	15.D	198677

01208931

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Form 2

System Monitoring Compound Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.

Project: LHAAP

Workorder: HS23080324

RunID: SV-6-444008

Semi-Volatiles by EPA 8270SIM

HS23080324-01	Analyzed	Conc Units	Dilution
1824DPTMW07_080223	08/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.064	0.08	80.0		40-140
4-Terphenyl-d14	0.092	0.08	115		40-140
Nitrobenzene-d5	0.052	0.08	65.5		40-140

LCS-198677	Analyzed	Conc Units	Dilution
LCS-198677	08/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.1084	0.08	136		40-140
4-Terphenyl-d14	0.1011	0.08	126		40-140
Nitrobenzene-d5	0.1031	0.08	129		40-140

LCSD-198677	Analyzed	Conc Units	Dilution
LCSD-198677	08/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.1064	0.08	133		40-140
4-Terphenyl-d14	0.09872	0.08	123		40-140
Nitrobenzene-d5	0.1101	0.08	138		40-140

MBLK-198677	Analyzed	Conc Units	Dilution
MBLK-198677	08/15/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.08092	0.08	101		40-140
4-Terphenyl-d14	0.102	0.08	127		40-140
Nitrobenzene-d5	0.06677	0.08	83.5		40-140

01208933

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Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder
HS23080324

SAMPLENUM
LCS-198677

Semi-Volatiles by EPA 8270SIM

SV-6_444008				LCS-198677			LCSD-198677					
Spike Matrix	Aqueous		Run Date	08/15/23			08/15/23					
Result Units	ug/L		Run Time	17:45			18:03					
Prep Method	Prep Batch	Prep Date	Data File	16.D			17.D					
SW3510	08/08/23	198677	Prep Amt	1000 mL			1000 mL					
Analyte		%Recovery Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,4-Dioxane		40-140	0.08	0.04183	52		0.04582	57.0		20	9.1	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

01208935

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right partner.

Form 4

Method Blank Summary

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder
HS23080324

Semi-Volatiles by EPA 8270SIM

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-198677	15.D	08/15/23 17:27	SV-6_444008
LCS-198677	LCS	LCS-198677	16.D	08/15/23 17:45	SV-6_444008
LCSD-198677	LCSD	LCSD-198677	17.D	08/15/23 18:03	SV-6_444008
1824DPTMW07_080223	SAMP	HS23080324-01	18.D	08/15/23 18:21	SV-6_444008

01208937

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Form 5

Instrument Performance Check

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory

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Phone (281) 530-5656 Fax (281) 530-5887

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Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder **HS23080324**

RunID SV-6-439923

Semi-Volatiles by EPA 8270SIM

Tune File 01.D 06/16/23 6/16/2023

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	40.3 (40.3)
68	Less than 2.0% of mass 69	0.5 (1.44) 1
69	Mass 69 RA	32.2 (32.2)
70	Less than 2.0% of mass 69	0.2 (0.502) 1
127	25.0 - 75.0% of mass 198	38.5 (38.5)
197	Less than 1.0% of mass 198	0.5 (0.46)
198	Base peak, 100% RA	100 (83.3)
199	5.0 - 9.0% of mass 198	6.5 (6.46)
275	10.0 - 30.0% of mass 198	25.8 (25.8)
365	Greater than 0.75% of mass 198	3.4 (3.43)
441	Present, but less than mass 443	17.7 (76.4)
442	40.0 - 110.0% of mass 198	120.1 (120)
443	15.0 - 24.0% of mass 442	23.2 (19.3) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	14DXICAL-	ICAL1	6/16/2023	04	14DXICAL-0.01
2	14DXICAL-	ICAL2	6/16/2023	05	14DXICAL-0.03
3	14DXICAL-	ICAL3	6/16/2023	06	14DXICAL-0.05
4	14DXICAL-	ICAL4	6/16/2023	07	14DXICAL-0.08
5	14DXICAL-	ICAL6	6/16/2023	09	14DXICAL-0.15
6	14DXICAL-0.1	ICAL5	6/16/2023	12	14DXICAL-0.1
7	14DXICAL-0.5	ICAL8	6/16/2023	14	14DXICAL-0.5
8	14DXICAL-0.2	ICAL7	6/16/2023	15	14DXICAL-0.2
9	14DXICV-0.08	ICV	6/16/2023	16	14DXICV-0.08

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder HS23080324

RunID SV-6-444008

Semi-Volatiles by EPA 8270SIM

Tune File 01.D 08/15/23 8/15/2023

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	47.7 (47.7)
68	Less than 2.0% of mass 69	0.5 (1.41) 1
69	Mass 69 RA	37.6 (37.62)
70	Less than 2.0% of mass 69	0.2 (0.57) 1
127	25.0 - 75.0% of mass 198	47.2 (47.2)
197	Less than 1.0% of mass 198	0.5 (0.51)
198	Base peak, 100% RA	100 (100)
199	5.0 - 9.0% of mass 198	6.7 (6.65)
275	10.0 - 30.0% of mass 198	25.9 (25.95)
365	Greater than 0.75% of mass 198	3.6 (3.64)
441	Present, but less than mass 443	14.1 (75.48)
442	40.0 - 110.0% of mass 198	96.4 (96.39)
443	15.0 - 24.0% of mass 442	18.7 (19.36) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	1 4DX-0.08	CCV	8/15/2023	03	1 4DX-0.08
2	MBLK-198367	MBLK	8/15/2023	09	MBLK-198367
3	LCS-198367	LCS	8/15/2023	10	LCS-198367
4	LCSD-198367	LCSD	8/15/2023	11	LCSD-198367
5	MBLK-198677	MBLK	8/15/2023	15	MBLK-198677
6	LCS-198677	LCS	8/15/2023	16	LCS-198677
7	LCSD-198677	LCSD	8/15/2023	17	LCSD-198677
8	HS23080324-	SAMP	8/15/2023	18	1824DPTMW07_080223
9	CCV-END	CCV	8/15/2023	36	CCV-END

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Form 6

Initial Calibration Data

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project LHAAP

Workorder HS23080324

RunID SV-6_439923

Semi-Volatiles by EPA 8270SIM

ICAL Start Date 10-MAR-2022 1025
ICAL End Date 16-JUN-2023 1556

Calibration Files

Level 1 ..target\chem\sv6.i\230616.b\04.d
Level 2 ..target\chem\sv6.i\230616.b\05.d
Level 3 ..target\chem\sv6.i\230616.b\06.d
Level 4 ..target\chem\sv6.i\230616.b\07.d
Level 5 ..target\chem\sv6.i\230616.b\12.d
Level 6 ..target\chem\sv6.i\230616.b\09.d
Level 7 ..target\chem\sv6.i\230616.b\15.d
Level 8 ..target\chem\sv6.i\230616.b\14.d

Compound	0.20000 Level 7 0.01000 Level 1	0.50000 Level 8 0.03000 Level 2	0.05000 Level 3	0.08000 Level 4	0.10000 Level 5	0.15000 Level 6	RRF	%RSD	Q
1,4-Dioxane	0.30124 0.40150	0.32659 0.31193	0.32643	0.34940	0.35892	0.33837	0.33930	9.241	
2-Fluorophenol	0.40150 NE NE	0.31193 NE NE	NE	NE	NE	NE	0.33930 NE	9.241 NE	
13 Phenol-d6	NE NE	NE NE	NE	NE	NE	NE	NE	NE	
33 Nitrobenzene-d5	0.28832 0.34832	0.28035 0.27609	0.30204	0.32108	0.30808	0.30634	0.30383	7.735	
69 2-Fluorobiphenyl	0.98985 1.25227	0.97067 0.94386	0.97876	1.06873	0.97017	1.00640	1.02259	9.764	
105 2,4,6-Tribromophenol	NE NE	NE NE	NE	NE	NE	NE	NE	NE	
158 4-Terphenyl-d14	0.60104 1.00267	0.68127 0.75942	0.64541	0.74244	0.75380	0.71602	0.73776	16.347	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

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Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

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Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP

Workorder HS23080324

RunID SV-6_439923

Semi-Volatiles by EPA 8270SIM

Sample Matrix LIQUID
Lab Smp Id 14DXICV-0.08
Level LOW
Data Type MS DATA

Fraction SV
Client Smp ID 14DXICV-0.08
Operator LG
SampleType METHSPIKE

Compound	CONC Added	CONC Recovered	% Recovered	Limits	Q
1,4-Dioxane	0.08000	0.07070	88.38	40-140	
Nitrobenzene-d5	0.08000	0.07086	88.57	40-140	
2-Fluorobiphenyl	0.08000	0.08036	100.45	40-140	
4-Terphenyl-d14	0.08000	0.08379	104.74	40-140	

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Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory
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Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP

Workorder HS23080324

RunID SV-6_444008

Semi-Volatiles by EPA 8270SIM

Instrument ID SV6.I
Lab File ID 03.D
Analysis Type WATER
Lab Sample ID 1 4DX-0.08 Quant Type

Injection Date :47
ICAL Date(s) 10-MAR-2022 16-JUN-2023
ICAL Times :25 15:56
ISTD

Compound	$\overline{RRF}$ / Conc	RF0.080	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
33 Nitrobenzene-d5	0.30383	0.27224	0.010	-10.39529	20.0	Averaged	
69 2-Fluorobiphenyl	1.02259	1.05193	0.010	2.86930	20.0	Averaged	
158 4-Terphenyl-d14	0.73776	0.68776	0.010	-6.77719	20.0	Averaged	
1,4-Dioxane	0.33930	0.30801	0.010	-9.22111	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP

Workorder HS23080324

RunID SV-6_444008

Semi-Volatiles by EPA 8270SIM

Instrument ID SV6.I
Lab File ID 36.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date :45
ICAL Date(s) 10-MAR-2022 16-JUN-2023
ICAL Times :25 15:56
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF0.080	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
33 Nitrobenzene-d5	0.30383	0.27912	0.010	-8.13284	20.0	Averaged	
69 2-Fluorobiphenyl	1.02259	1.05082	0.010	2.76104	20.0	Averaged	
158 4-Terphenyl-d14	0.73776	0.72949	0.010	-1.12104	20.0	Averaged	
1,4-Dioxane	0.33930	0.29900	0.010	-11.87829	20.0	Averaged	

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Form 12

Preparation Log

Semi-VolatilesEPA 3510

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

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08/17/2023

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Form 12 - Preparation Log

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder
HS23080324

RunID
198677

Semi-VolatilesEPA 3510

Prep Batch 198677 **Prep Date** 08/08/23

	Matrix	Type	Client Sample ID	Lab Sample ID	Initial Amt (mL)	Final Amt (mL)
1	Aqueous	MBLK	MBLK-198677	MBLK-198677	1000	1
2	Aqueous	LCS	LCS-198677	LCS-198677	1000	1
3	Aqueous	LCSD	LCSD-198677	LCSD-198677	1000	1
4	Groundwater	SAMP	1824DPTMW07_080223	HS23080324-01	1000	1

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Analysis Run Log

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory

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www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder
HS23080324

RunID
SV-6-439923

Semi-Volatiles by EPA 8270SIM

Run ID SV-6_439923 **Start Date** 06/16/23 **EndDate** 06/16/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
09:28	DFTPP	TUNE	DFTPP	01.D	06/16/23	1
11:08	14DXICAL-0.01	ICAL1	14DXICAL-0.01	04.D	06/16/23	1
11:26	14DXICAL-0.03	ICAL2	14DXICAL-0.03	05.D	06/16/23	1
11:44	14DXICAL-0.05	ICAL3	14DXICAL-0.05	06.D	06/16/23	1
12:02	14DXICAL-0.08	ICAL4	14DXICAL-0.08	07.D	06/16/23	1
12:38	14DXICAL-0.15	ICAL6	14DXICAL-0.15	09.D	06/16/23	1
14:15	14DXICAL-0.1	ICAL5	14DXICAL-0.1	12.D	06/16/23	1
14:51	14DXICAL-0.5	ICAL8	14DXICAL-0.5	14.D	06/16/23	1
15:56	14DXICAL-0.2	ICAL7	14DXICAL-0.2	15.D	06/16/23	1
16:22	14DXICV-0.08	ICV	14DXICV-0.08	16.D	06/16/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP

Workorder
HS23080324

RunID
SV-6-444008

Semi-Volatiles by EPA 8270SIM

Run ID SV-6_444008 **Start Date** 08/15/23 **EndDate** 08/15/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
13:15	DFTPP	TUNE	DFTPP	01.D	08/15/23	1
13:47	1 4DX-0.08	CCV	1 4DX-0.08	03.D	08/15/23	1
14:10	HS23071620-11	SAMP	ZZZZZZZZZZ	04.D	08/15/23	50
14:28	HS23071620-05	SAMP	ZZZZZZZZZZ	05.D	08/15/23	5
14:46	HS23071620-10	SAMP	ZZZZZZZZZZ	06.D	08/15/23	10
15:04	HS23071723-04	SAMP	ZZZZZZZZZZ	07.D	08/15/23	10
15:22	HS23071723-05	SAMP	ZZZZZZZZZZ	08.D	08/15/23	5
15:40	MBLK-198367	MBLK	MBLK-198367	09.D	08/15/23	1
15:57	LCS-198367	LCS	LCS-198367	10.D	08/15/23	1
16:15	LCSD-198367	LCSD	LCSD-198367	11.D	08/15/23	1
17:27	MBLK-198677	MBLK	MBLK-198677	15.D	08/15/23	1
17:45	LCS-198677	LCS	LCS-198677	16.D	08/15/23	1
18:03	LCSD-198677	LCSD	LCSD-198677	17.D	08/15/23	1
18:21	HS23080324-01	SAMP	1824DPTMW07_08022	18.D	08/15/23	1
18:39	HS23071923-01	SAMP	ZZZZZZZZZZ	19.D	08/15/23	1
18:57	HS23071923-02	SAMP	ZZZZZZZZZZ	20.D	08/15/23	1
19:15	HS23071923-03	SAMP	ZZZZZZZZZZ	21.D	08/15/23	1
19:33	HS23071923-04	SAMP	ZZZZZZZZZZ	22.D	08/15/23	1
19:51	HS23071923-05	SAMP	ZZZZZZZZZZ	23.D	08/15/23	1
20:09	HS23071923-06	SAMP	ZZZZZZZZZZ	24.D	08/15/23	1
20:27	HS23071923-07	SAMP	ZZZZZZZZZZ	25.D	08/15/23	1
20:45	HS23080271-01	SAMP	ZZZZZZZZZZ	26.D	08/15/23	1
21:03	HS23080271-03	SAMP	ZZZZZZZZZZ	27.D	08/15/23	1
21:21	HS23080271-04	SAMP	ZZZZZZZZZZ	28.D	08/15/23	1
21:39	HS23080326-01	SAMP	ZZZZZZZZZZ	29.D	08/15/23	1
21:57	HS23080326-02	SAMP	ZZZZZZZZZZ	30.D	08/15/23	1
22:15	HS23080326-03	SAMP	ZZZZZZZZZZ	31.D	08/15/23	1
22:33	HS23080326-04	SAMP	ZZZZZZZZZZ	32.D	08/15/23	1
22:51	HS23080326-06	SAMP	ZZZZZZZZZZ	33.D	08/15/23	1
23:09	HS23080326-08	SAMP	ZZZZZZZZZZ	34.D	08/15/23	1
23:27	HS23080326-09	SAMP	ZZZZZZZZZZ	35.D	08/15/23	1
23:45	CCV-END	CCV	CCV-END	36.D	08/15/23	1

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Raw Data SV 6 439923

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\nahstws005\Target\chem\SV6.i\230616.b\01.D Page 1
Report Date: 16-Jun-2023 09:41

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230616.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 16-JUN-2023 09:28
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230616.b\DFTPP.m
Meth Date : 14-Mar-2023 15:59 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7015

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
5.009	6.357	-1.348	198	573312			0.00- 100.00	83.28
5.009	6.357	-1.348	51	231176			10.00- 80.00	40.32
5.009	6.357	-1.348	68	2654			0.00- 2.00	1.44
5.009	6.357	-1.348	69	184729			0.00- 0.00	32.22
5.009	6.357	-1.348	70	927			0.00- 2.00	0.50
5.009	6.357	-1.348	127	220864			10.00- 80.00	38.52
5.009	6.357	-1.348	197	2637			0.00- 2.00	0.46
5.009	6.357	-1.348	199	37040			5.00- 9.00	6.46
5.009	6.357	-1.348	275	147776			10.00- 60.00	25.78
5.009	6.357	-1.348	365	19688			1.00- 100.00	3.43
5.009	6.357	-1.348	441	101568			0.01- 99.99	76.45
5.009	6.357	-1.348	442	688448			50.00- 150.00	120.08
5.009	6.357	-1.348	443	132864			15.00- 24.00	19.30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	40.32
68	Less than 2.00% of mass 69	0.46 (1.44)
69	Mass 69 relative abundance	32.22
70	Less than 2.00% of mass 69	0.16 (0.50)
127	10.00 - 80.00% of mass 198	38.52
197	Less than 2.00% of mass 198	0.46
199	5.00 - 9.00% of mass 198	6.46
275	10.00 - 60.00% of mass 198	25.78
365	1.00 - 100.00% of mass 198	3.43
441	Present, but less than mass 443	17.72
442	50.00 - 150.00% of mass 198	120.08
443	15.00 - 24.00% of mass 442	23.17 (19.30)

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 453: 5.010 min. (SUB)
Location of Maximum: 442.10
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.10	691	128.10	16159	209.00	1513	297.00	5492
38.00	1909	129.00	84336	210.10	2201	298.00	365
39.10	12523	130.00	6769	211.00	6102	301.00	640
40.00	181	131.00	1444	213.00	401	302.00	602
40.90	276	132.10	794	214.00	192	303.10	4693
45.00	312	133.10	248	215.00	1503	304.00	1179
49.00	1051	134.00	2156	216.00	2932	304.90	175
50.10	53200	135.00	6519	217.00	39448	308.00	557
51.10	231168	136.00	2427	218.00	4584	309.00	385
52.10	12049	137.10	3257	219.00	408	310.00	461
53.00	444	138.10	689	221.10	31488	311.10	249
55.00	841	139.00	436	221.70	5812	311.90	184
56.00	6699	140.00	864	223.00	9377	312.90	383
57.00	16176	141.00	10733	224.10	87680	314.00	1739
58.00	734	142.00	3754	225.10	21984	315.00	3954
61.00	2603	143.00	2343	226.00	2230	316.10	2781
62.00	2746	144.00	787	227.00	33024	317.00	633
63.00	8959	145.00	657	228.00	4457	319.90	232
64.00	1134	146.10	1823	229.00	7608	321.00	1268
65.10	3754	147.00	5380	230.00	950	322.00	605
66.20	170	148.00	12478	231.00	3201	323.10	14516
66.90	176	149.00	2115	232.00	487	324.00	2985
68.00	2654	150.00	633	233.00	674	325.00	302
69.00	184704	151.60	2531	234.00	1838	326.00	247
70.00	927	152.00	808	235.00	2392	327.00	2521
71.10	180	153.00	3358	236.00	1374	328.00	1205
73.00	1217	154.00	2616	237.00	2292	329.00	338
74.00	17520	155.00	6177	238.00	338	332.00	1141
75.00	28192	156.10	9411	239.00	1122	333.00	1368
76.10	9960	157.00	2001	240.00	936	334.10	8776
77.10	218880	158.00	2113	241.00	1871	335.00	2203
78.10	13466	159.00	1675	242.00	4359	336.00	187
79.00	12046	160.10	3244	243.10	4502	339.10	380
80.00	9791	161.00	5606	244.10	67632	339.90	281
81.00	14216	162.00	1730	245.10	8922	341.00	1623
82.00	3653	163.00	400	246.00	11263	342.10	476
83.00	3381	164.00	727	247.00	2407	346.00	2738
84.00	184	165.00	4330	248.10	663	347.00	596
85.00	2227	166.00	3419	249.00	2399	350.90	220
86.00	3237	167.00	24512	250.00	534	352.10	4359
87.00	1991	168.00	9507	251.00	626	353.00	3284
88.00	676	169.10	1791	252.00	592	354.10	4838
89.00	341	170.00	842	253.00	1532	355.00	896
91.00	2912	170.90	1000	254.00	2136	359.00	467
92.00	3110	172.00	2269	255.00	354304	365.00	19688

93.00	21304	173.10	2549	256.00	51136	366.00	2752
94.00	1218	174.00	5175	257.00	3611	370.10	513
95.00	484	175.00	9799	258.00	18768	371.00	1054
96.00	924	176.00	2683	259.00	3038	372.00	8081
97.10	374	177.00	3904	260.00	415	373.10	1766
98.00	16345	178.00	1303	261.00	547	374.00	321
99.00	11441	179.00	17472	263.00	216	377.00	254
100.00	1118	180.00	12918	264.00	482	383.00	2280
101.00	8931	181.00	6121	265.00	7562	384.00	529
101.90	481	182.10	939	266.00	1247	385.00	199
103.00	2466	183.00	711	267.90	202	390.10	1132
104.00	4787	184.00	1198	270.00	419	391.00	640
105.00	4856	185.10	9374	270.90	595	392.00	528
106.00	1473	186.10	74288	272.00	859	401.00	506
107.00	67952	187.10	20504	273.00	9955	402.00	3420
108.00	9807	188.00	2068	274.00	26688	403.00	5432
109.00	1838	189.00	3837	275.00	147776	404.00	1627
110.00	123544	189.90	682	276.10	18968	405.00	236
111.00	17696	191.00	2262	277.00	11809	415.00	201
112.00	1819	192.00	6230	278.00	1774	421.00	5131
112.90	638	193.10	7049	279.00	482	422.00	3941
114.00	179	194.00	1444	280.90	159	423.00	33192
114.80	238	195.00	1036	282.00	357	424.00	5796
116.00	3334	196.10	15513	283.00	1383	425.00	632
117.00	50184	197.00	2637	284.00	975	434.00	155
118.10	3139	198.00	573312	285.00	2248	436.70	155
119.00	504	199.00	37040	286.10	556	441.10	101568
120.00	697	200.00	3218	289.00	393	442.10	688448
121.00	285	201.50	2802	290.00	552	443.10	132864
122.00	4036	203.00	3916	291.00	367	444.10	12072
123.10	5628	204.00	19400	291.90	558	445.00	733
124.00	2843	205.10	32656	293.00	2916		
125.00	2735	206.10	146944	294.00	680		
126.10	975	207.10	18016	295.00	908		
127.00	220864	208.10	4201	296.00	40008		

Data File: \\nahstws005\target\chem\sv6.i\230616.b\01.d

Date : 16-JUN-2023 09:28

Client ID: DFTPP

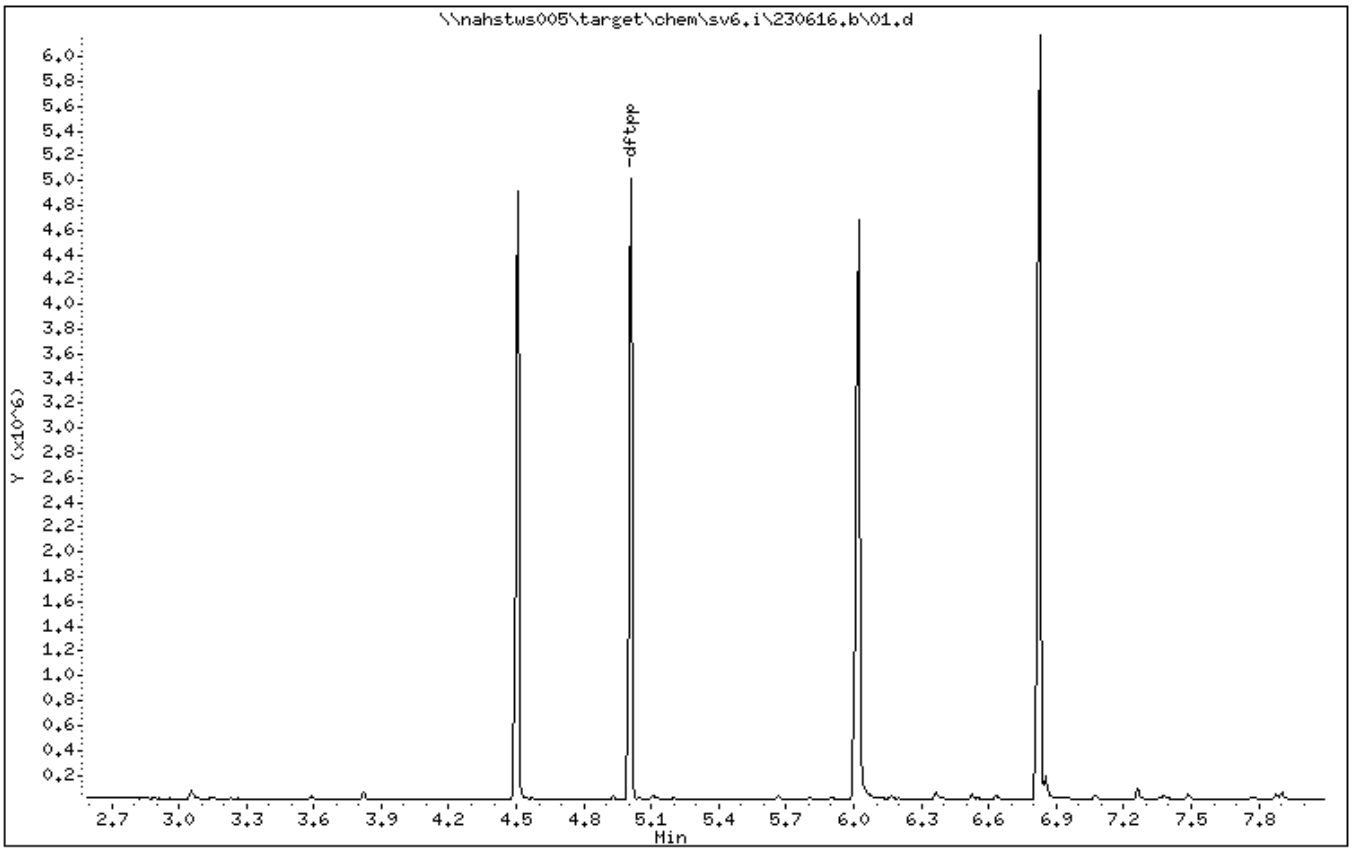
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File : \\nahstws005\target\chem\sv6.i\230616.b\01.d
Inj Date : 16-JUN-2023 09:28
InstruID : SV6.i
LabSampID : DFTPP

NO MANUAL INTEGRATIONS

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Lab Smp Id: 14DXICAL-0.01 Client Smp ID: 14DXICAL-0.01
Inj Date : 16-JUN-2023 11:08
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.01
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 12:20 Cal File: 08.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	5079	0.10000	(a)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	17862	0.10000	
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	515	0.01000	0.009537(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	10143	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	1004	0.01000	0.009665(M)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	20228	0.10000	
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	14841	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.909	8.909	(0.889)	892	0.01000	0.008235(M)
* 198 Perylene-d12	264	11.945	11.945	(1.000)	14498	0.10000	(M)
1 1,4-Dioxane	58	1.486	1.486	(0.475)	153	0.01000	0.008943(aQM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01208960

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D

Date : 16-JUN-2023 11:08

Client ID: 14DXICAL-0.01

Instrument: SV6.i

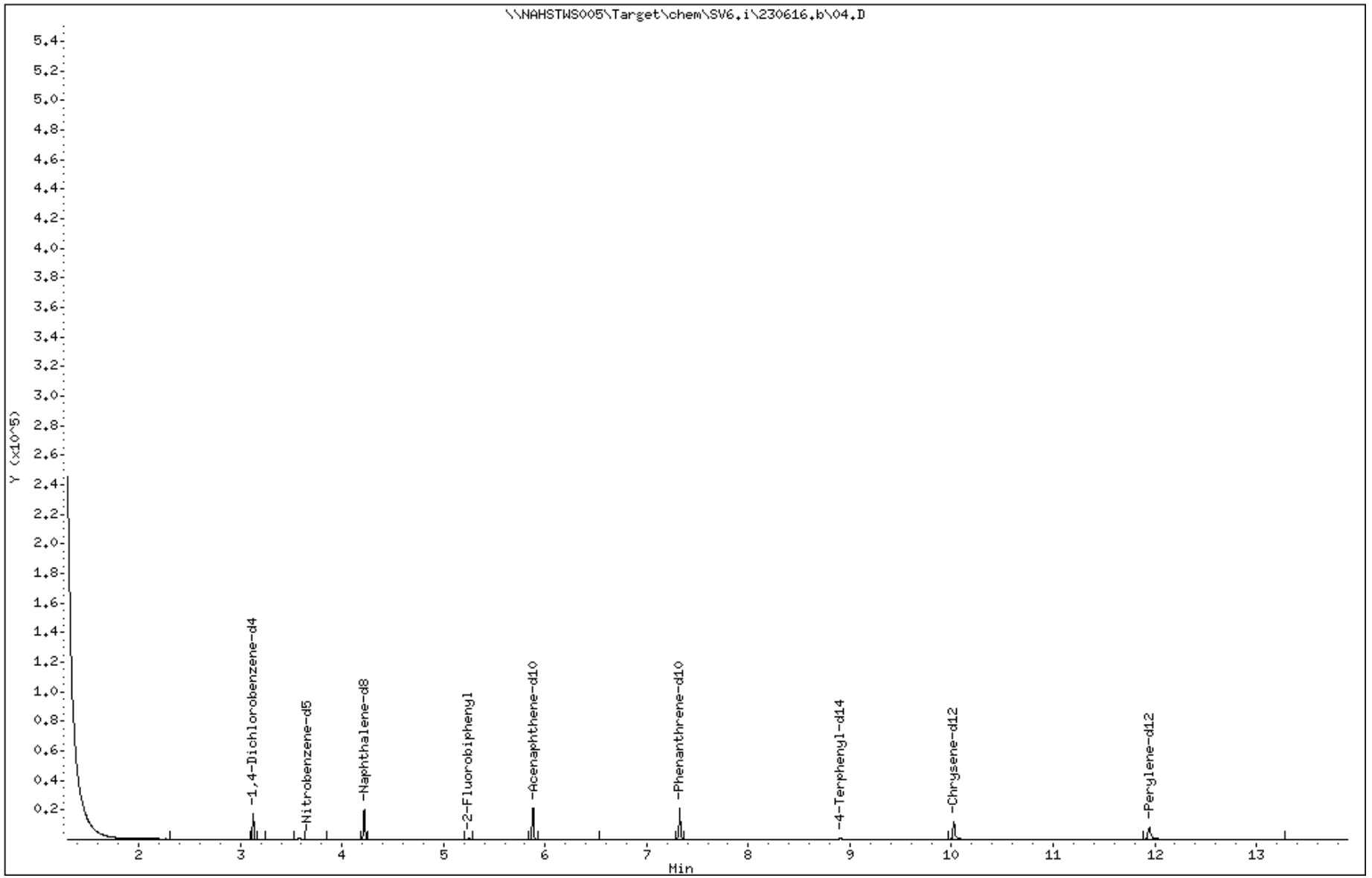
Sample Info: 14DXICAL-0.01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



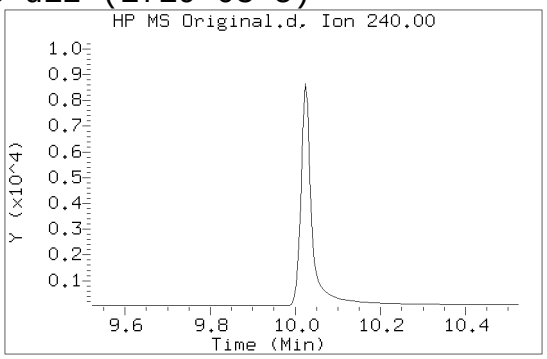
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

Chrysene-d12 (1719-03-5)

Reason Code:

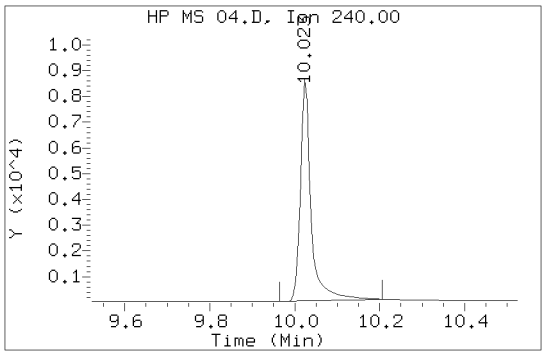
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



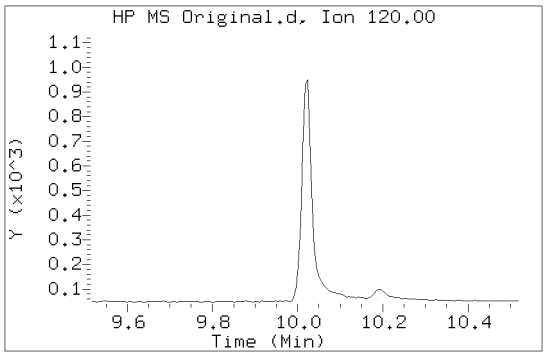
AFTER

MASS
240
AREA
14841
HEIGHT
8583
29-Jun-2023
14:26
ALSHS
Ser



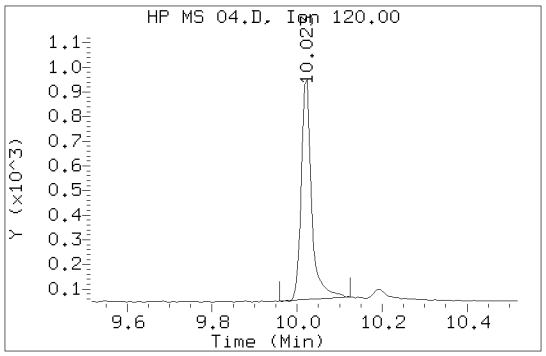
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



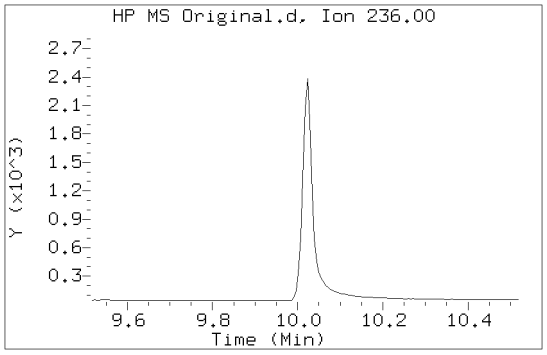
AFTER

MASS
120
AREA
1504
HEIGHT
891
29-Jun-2023
14:26
ALSHS
Ser



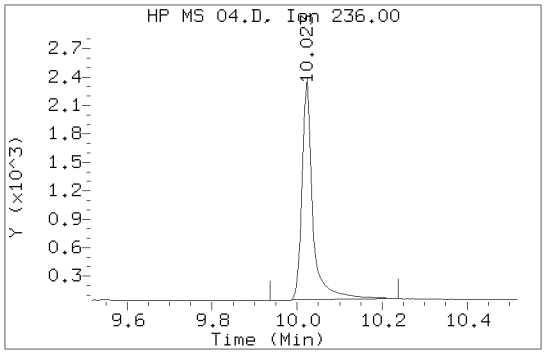
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
236
AREA
4047
HEIGHT
2330
29-Jun-2023
14:26
ALSHS
Ser

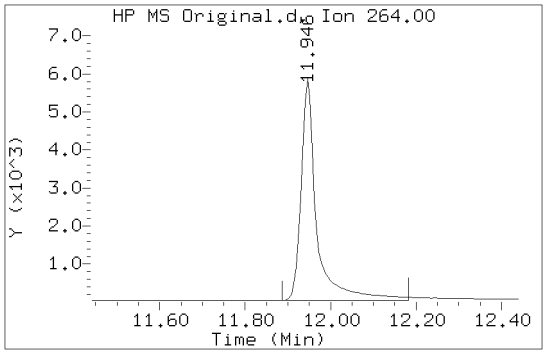


Perylene-d12 (1520-96-3)

Reason Code:

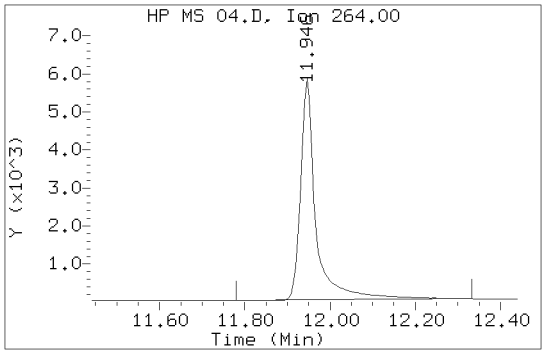
BEFORE

MASS
264
AREA
14674
HEIGHT
5826
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
264
AREA
14498
HEIGHT
5814
29-Jun-2023
14:26
ALSHS
Ser



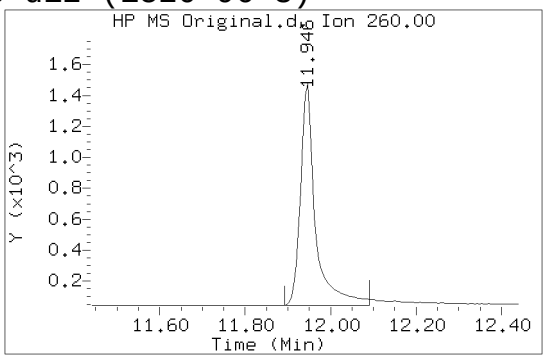
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

Perylene-d12 (1520-96-3)

Reason Code:

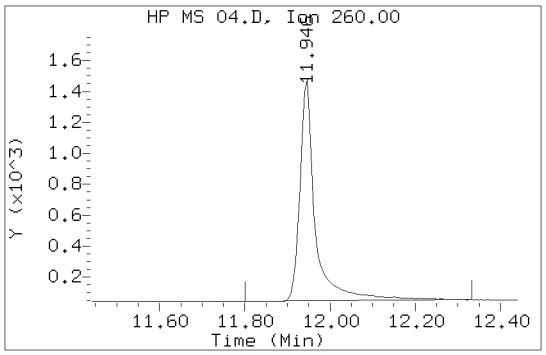
BEFORE

MASS
260
AREA
3461
HEIGHT
1431
16-Jun-2023
11:24
ALSHS
Server



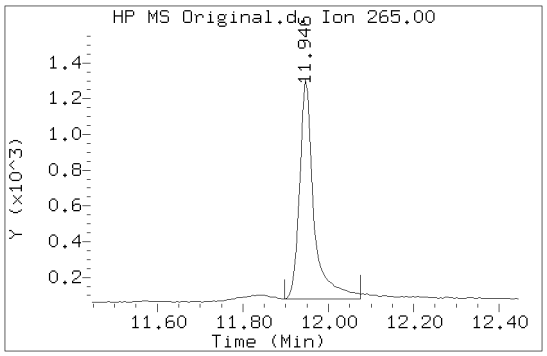
AFTER

MASS
260
AREA
3563
HEIGHT
1428
29-Jun-2023
14:26
ALSHS
Ser



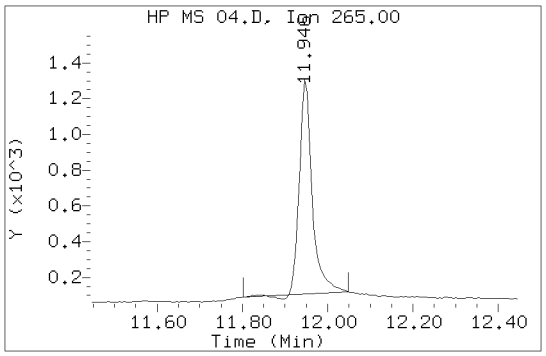
BEFORE

MASS
265
AREA
2841
HEIGHT
1225
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
265
AREA
2485
HEIGHT
1196
29-Jun-2023
14:26
ALSHS
Ser

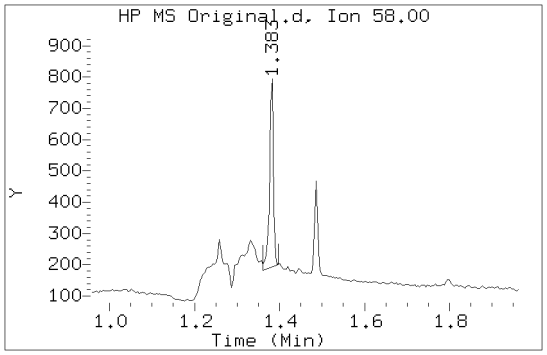


1,4-Dioxane ()

Reason Code:

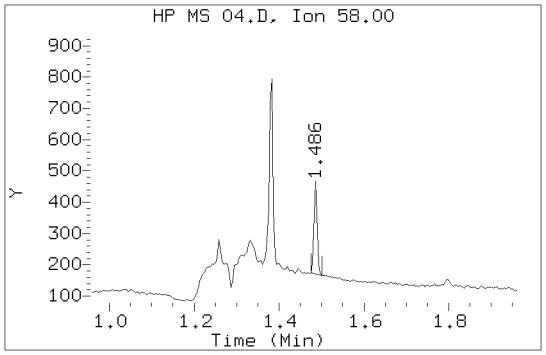
BEFORE

MASS
58
AREA
375
HEIGHT
599
16-Jun-2023
11:24
ALSHS
Server



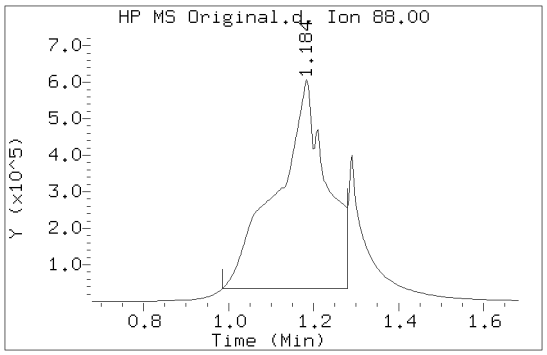
AFTER

MASS
58
AREA
153
HEIGHT
296
29-Jun-2023
14:26
ALSHS
Ser



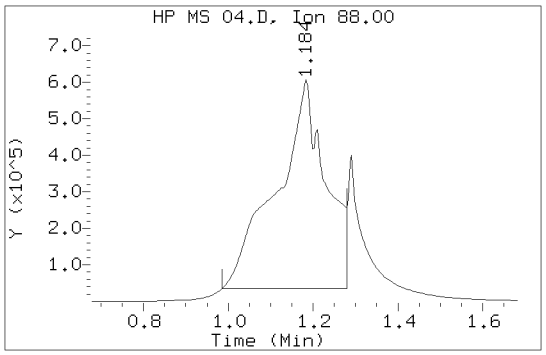
BEFORE

MASS
88
AREA
4618745
HEIGHT
572488
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
88
AREA
4618745
HEIGHT
572488
29-Jun-2023
14:26
ALSHS
Ser

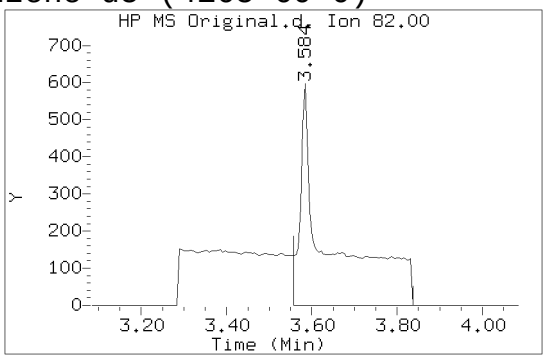


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

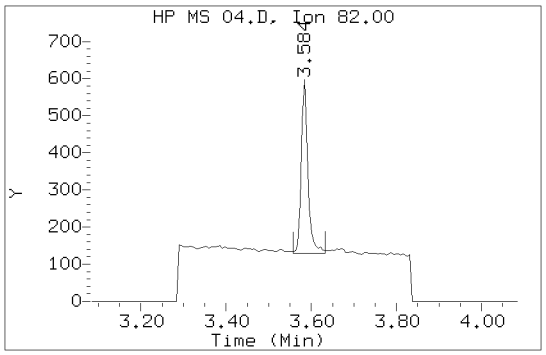
Nitrobenzene-d5 (4165-60-0)

Reason Code:

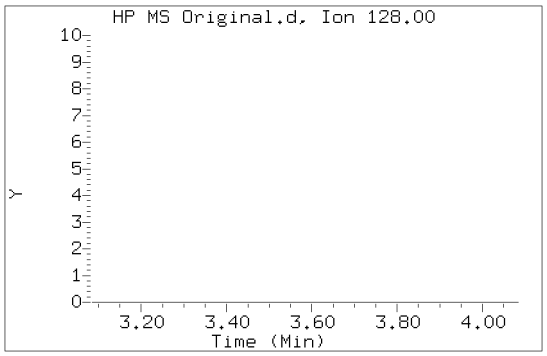
BEFORE
MASS
82
AREA
2695
HEIGHT
597
16-Jun-2023
11:24
ALSHS
Server



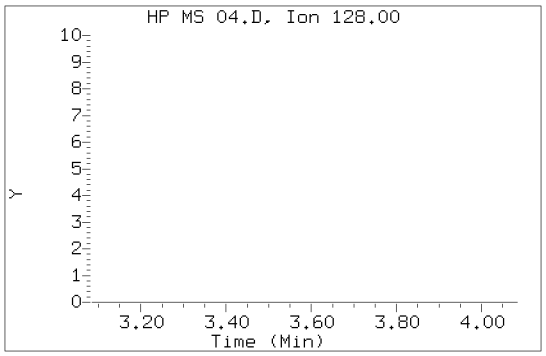
AFTER
MASS
82
AREA
515
HEIGHT
468
29-Jun-2023
14:26
ALSHS
Ser



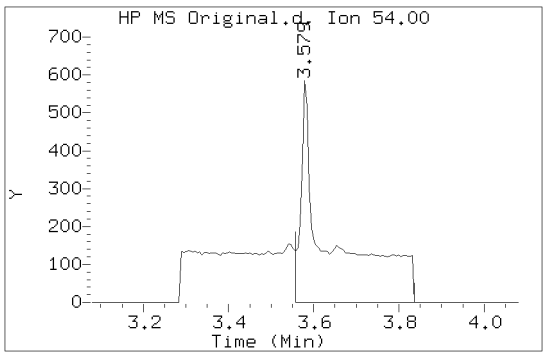
BEFORE
MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



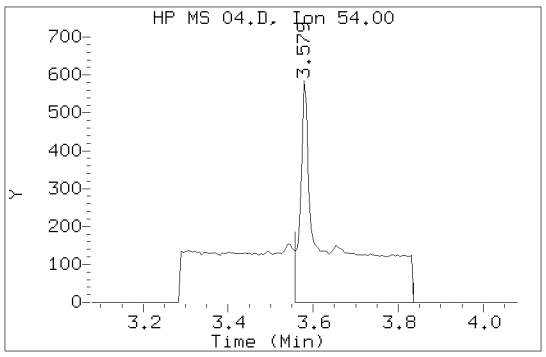
AFTER
MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



BEFORE
MASS
54
AREA
2634
HEIGHT
585
16-Jun-2023
11:24
ALSHS
Server



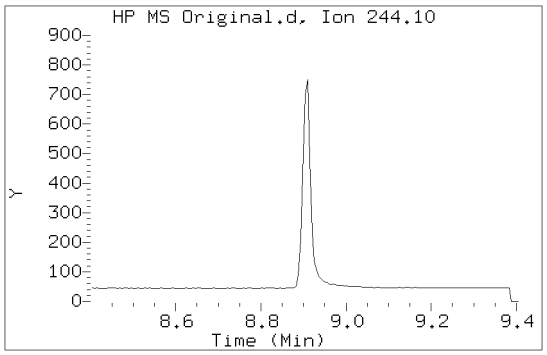
AFTER
MASS
54
AREA
2634
HEIGHT
585
29-Jun-2023
14:26
ALSHS
Ser



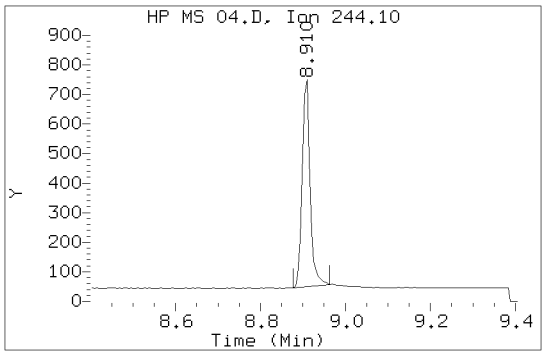
4-Terphenyl-d14 (1718-51-0)

Reason Code:

BEFORE
MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



AFTER
MASS
244.1
AREA
892
HEIGHT
699
29-Jun-2023
14:26
ALSHS
Ser



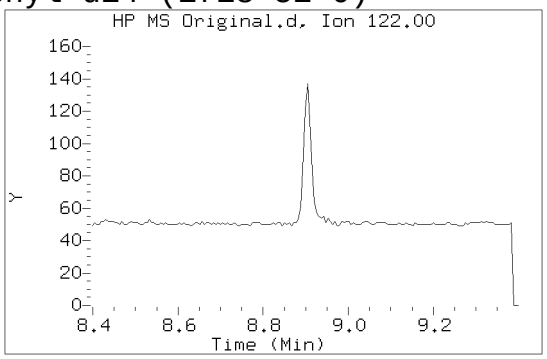
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

4-Terphenyl-d14 (1718-51-0)

Reason Code:

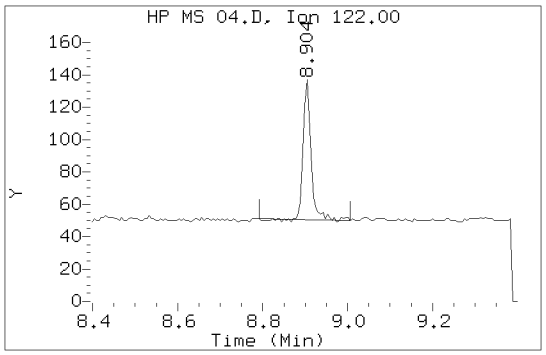
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



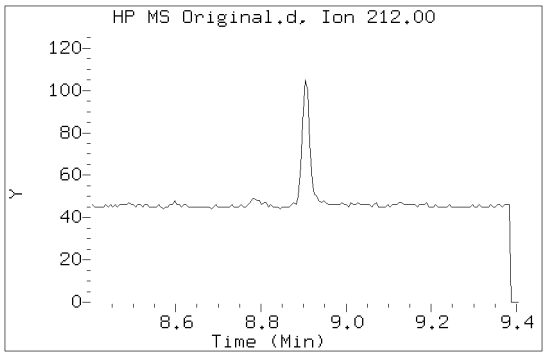
AFTER

MASS
122
AREA
109
HEIGHT
86
29-Jun-2023
14:26
ALSHS
Ser



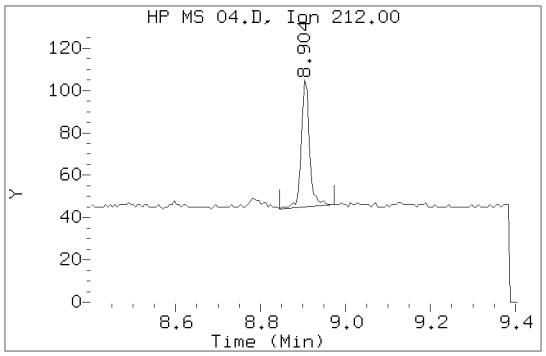
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
212
AREA
80
HEIGHT
60
29-Jun-2023
14:26
ALSHS
Ser

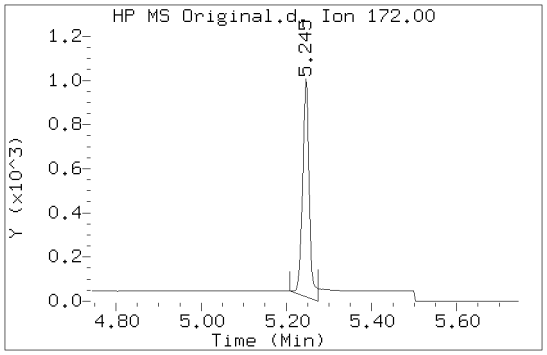


2-Fluorobiphenyl (321-60-8)

Reason Code:

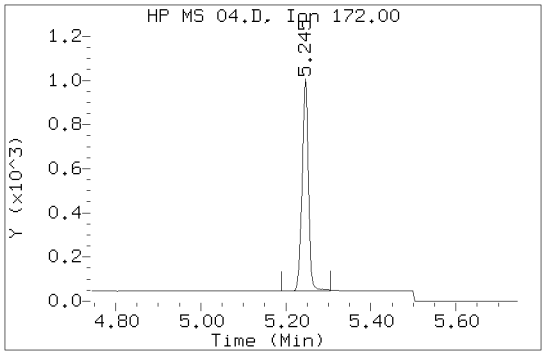
BEFORE

MASS
172
AREA
1093
HEIGHT
986
16-Jun-2023
11:24
ALSHS
Server



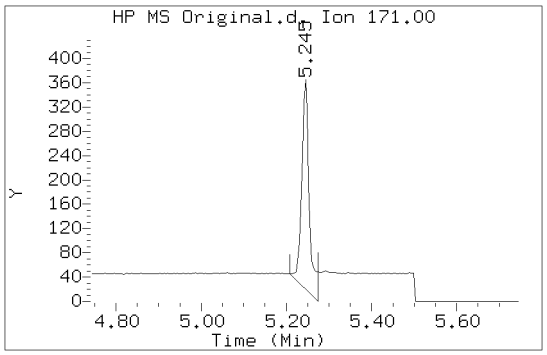
AFTER

MASS
172
AREA
1004
HEIGHT
960
29-Jun-2023
14:26
ALSHS
Ser



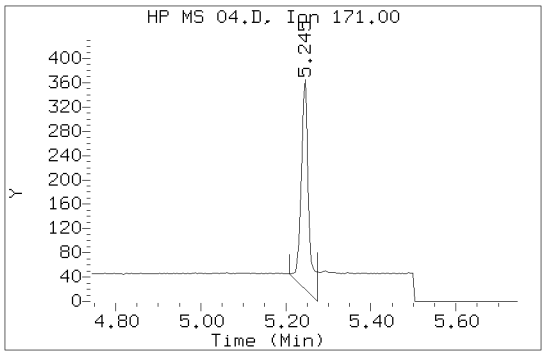
BEFORE

MASS
171
AREA
428
HEIGHT
345
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
171
AREA
428
HEIGHT
345
29-Jun-2023
14:26
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Lab Smp Id: 14DXICAL-0.03 Client Smp ID: 14DXICAL-0.03
Inj Date : 16-JUN-2023 11:26
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.03
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 11:08 Cal File: 04.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	4348	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	14672	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	1234	0.03000	0.02782(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	8616	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	2509	0.03000	0.02843(M)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	16998	0.10000	
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	11821	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.888)	2416	0.03000	0.02800(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	10677	0.10000	(M)
1 1,4-Dioxane	58	1.467	1.467	(0.469)	426	0.03000	0.02909(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01208966

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D

Date : 16-JUN-2023 11:26

Client ID: 14DXICAL-0.03

Instrument: SV6.i

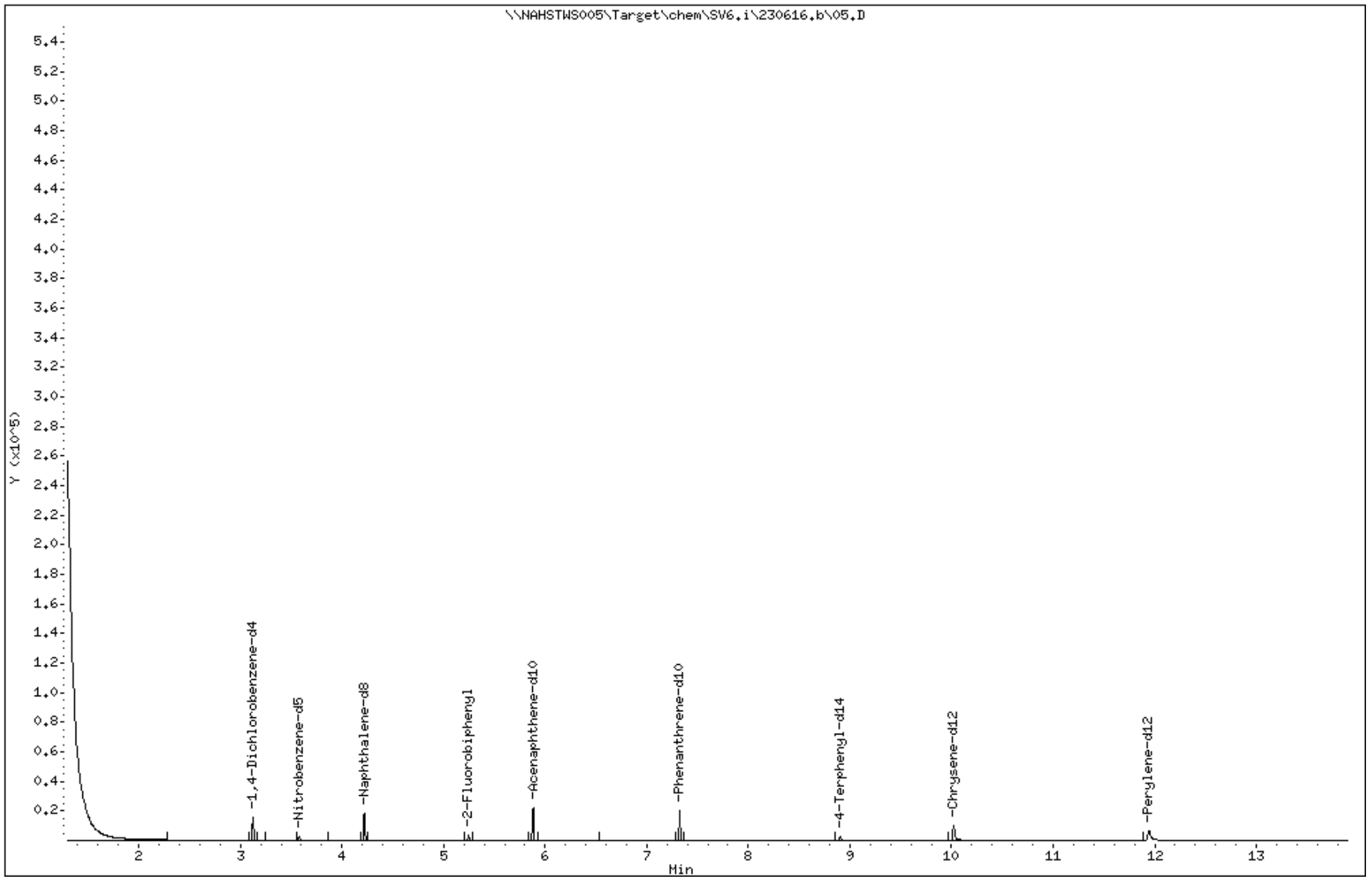
Sample Info: 14DXICAL-0.03

Purge Volume: 1000.0

Operator: LC

Column phase: RTX-5SIL MS

Column diameter: 0.28



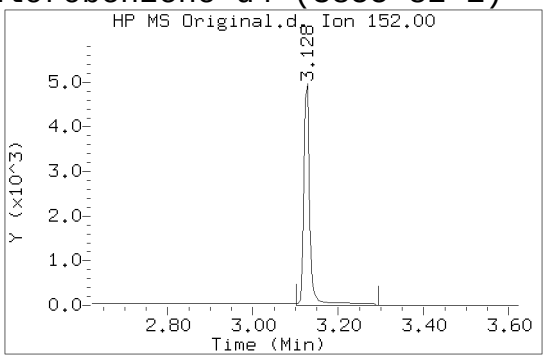
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

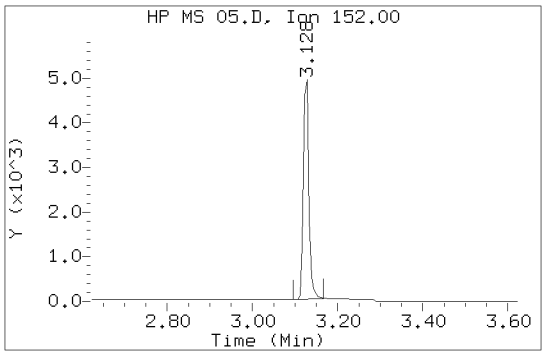
BEFORE

MASS
152
AREA
4935
HEIGHT
4966
16-Jun-2023
11:42
ALSHS
Server



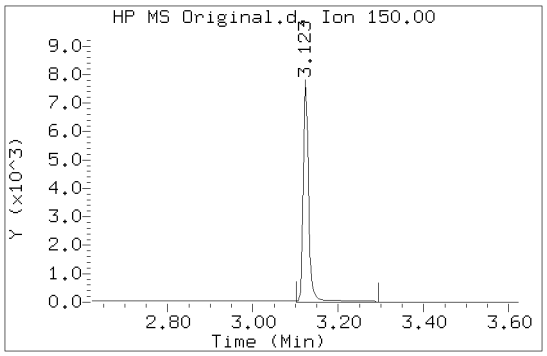
AFTER

MASS
152
AREA
4348
HEIGHT
4916
29-Jun-2023
14:26
ALSHS
Ser



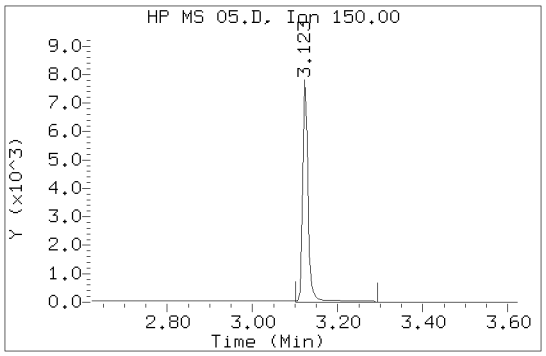
BEFORE

MASS
150
AREA
6954
HEIGHT
7812
16-Jun-2023
11:42
ALSHS
Server



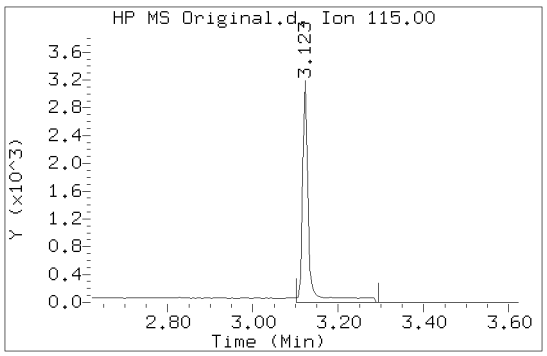
AFTER

MASS
150
AREA
6954
HEIGHT
7812
29-Jun-2023
14:26
ALSHS
Ser



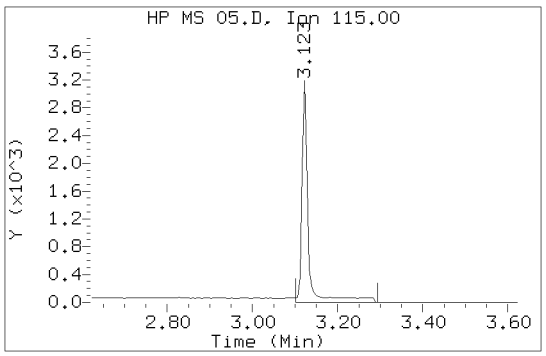
BEFORE

MASS
115
AREA
3189
HEIGHT
3190
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
115
AREA
3189
HEIGHT
3190
29-Jun-2023
14:26
ALSHS
Ser

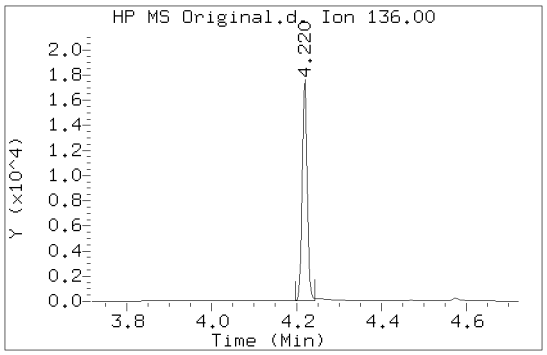


Naphthalene-d8 (1146-65-2)

Reason Code:

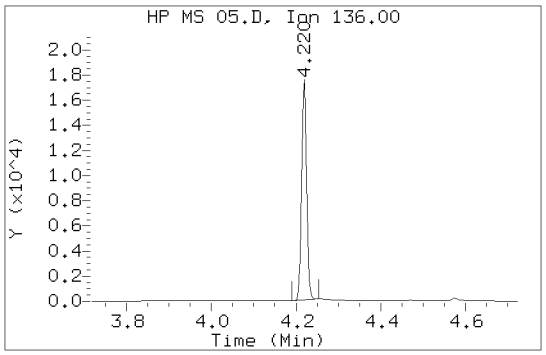
BEFORE

MASS
136
AREA
14851
HEIGHT
17567
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
136
AREA
14672
HEIGHT
17505
29-Jun-2023
14:26
ALSHS
Ser



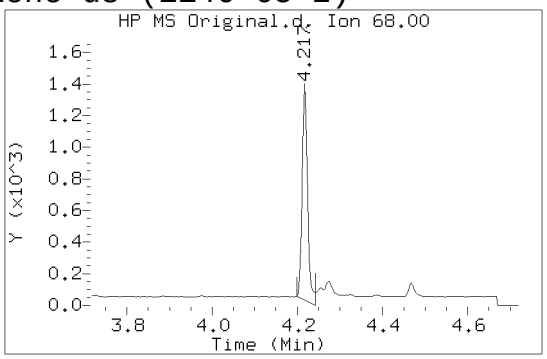
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

Naphthalene-d8 (1146-65-2)

Reason Code:

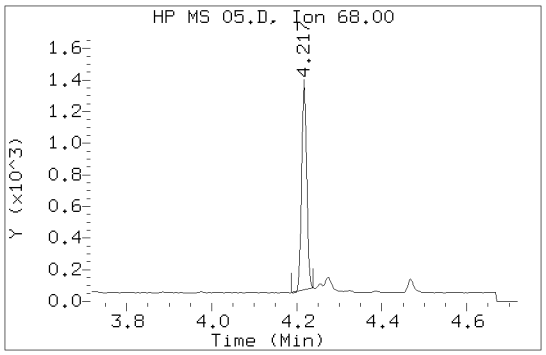
BEFORE

MASS
68
AREA
1196
HEIGHT
1368
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
68
AREA
1062
HEIGHT
1328
29-Jun-2023
14:26
ALSHS
Ser

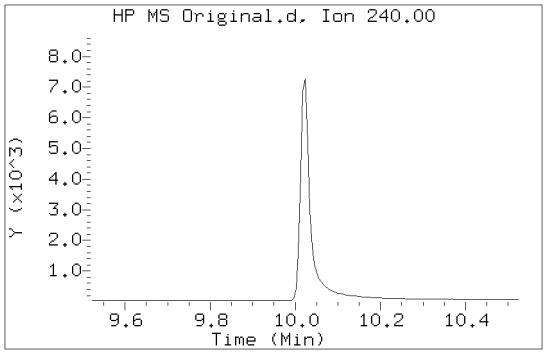


Chrysene-d12 (1719-03-5)

Reason Code:

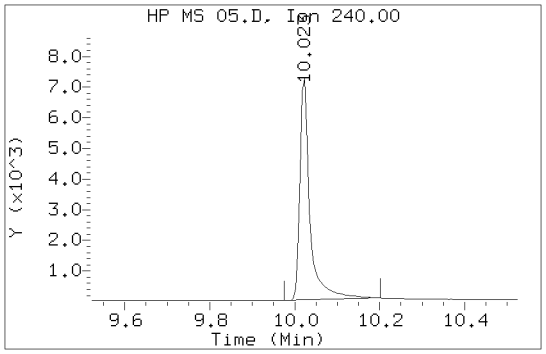
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



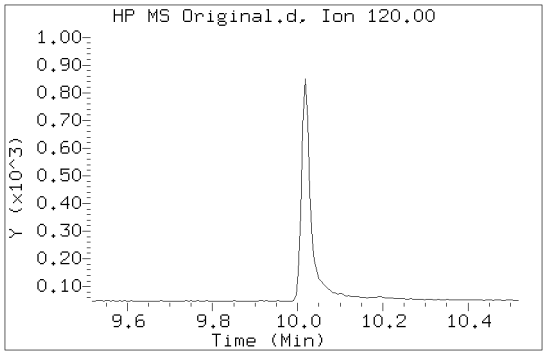
AFTER

MASS
240
AREA
11821
HEIGHT
7215
29-Jun-2023
14:26
ALSHS
Ser



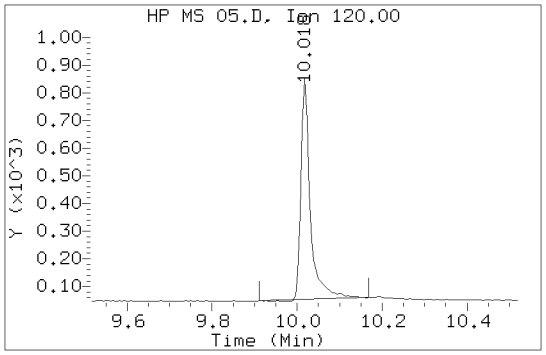
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



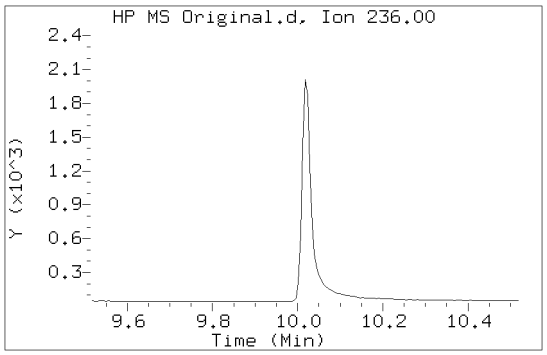
AFTER

MASS
120
AREA
1207
HEIGHT
796
29-Jun-2023
14:26
ALSHS
Ser



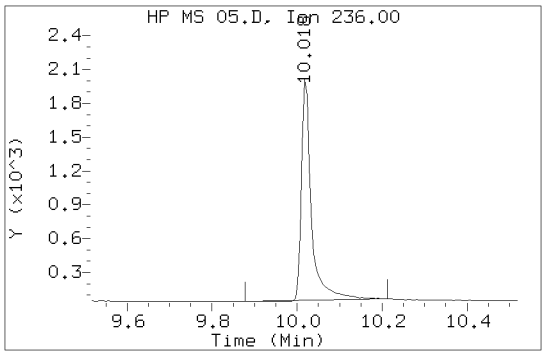
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
236
AREA
3185
HEIGHT
1956
29-Jun-2023
14:26
ALSHS
Ser



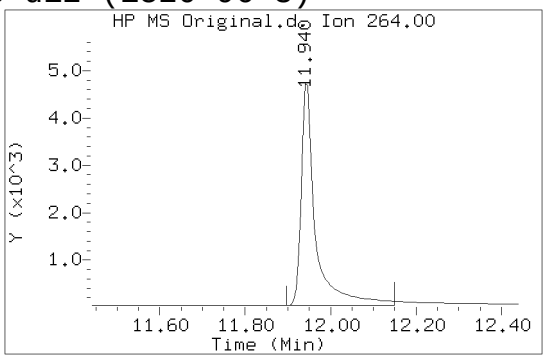
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

Perylene-d12 (1520-96-3)

Reason Code:

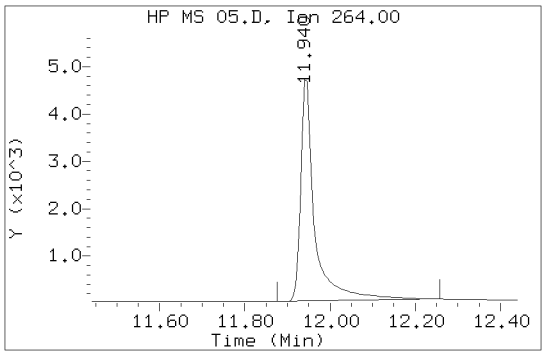
BEFORE

MASS
264
AREA
10829
HEIGHT
4681
16-Jun-2023
11:42
ALSHS
Server



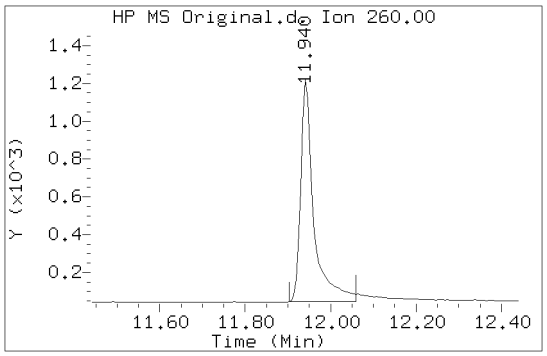
AFTER

MASS
264
AREA
10677
HEIGHT
4673
29-Jun-2023
14:26
ALSHS
Ser



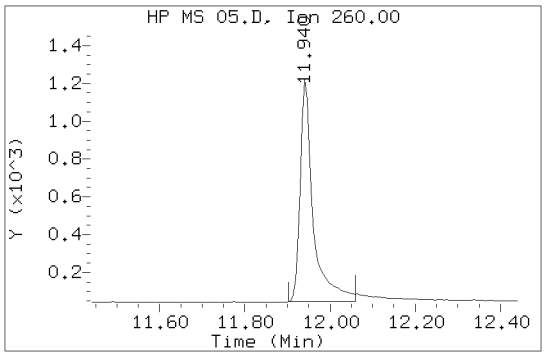
BEFORE

MASS
260
AREA
2488
HEIGHT
1174
16-Jun-2023
11:42
ALSHS
Server



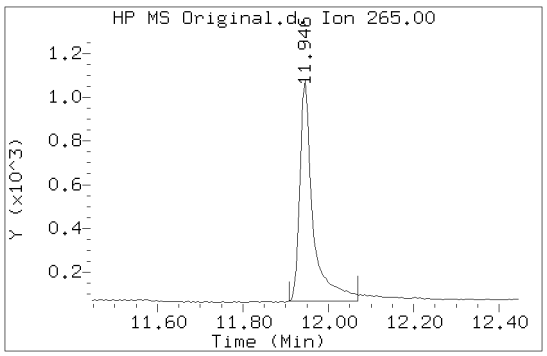
AFTER

MASS
260
AREA
2488
HEIGHT
1174
29-Jun-2023
14:26
ALSHS
Ser



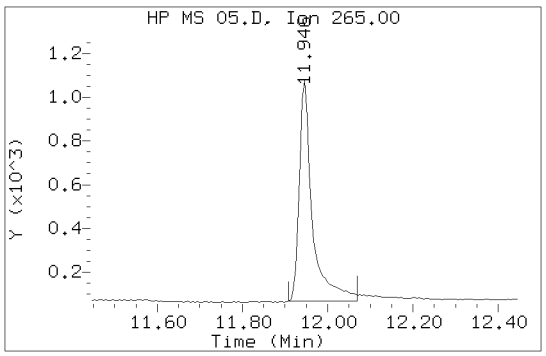
BEFORE

MASS
265
AREA
2154
HEIGHT
1009
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
265
AREA
2154
HEIGHT
1009
29-Jun-2023
14:26
ALSHS
Ser

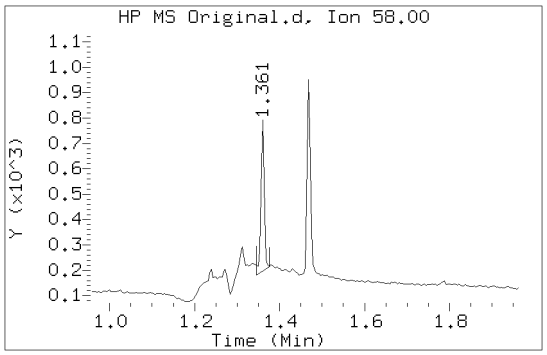


1,4-Dioxane ()

Reason Code:

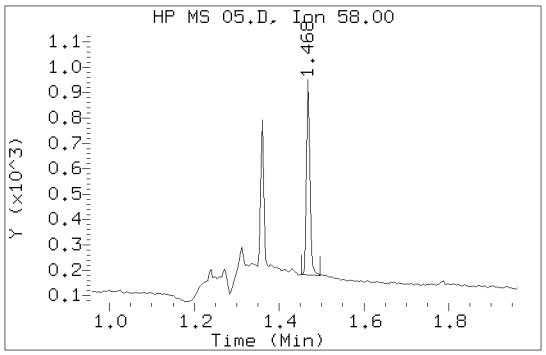
BEFORE

MASS
58
AREA
319
HEIGHT
594
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
58
AREA
426
HEIGHT
768
29-Jun-2023
14:26
ALSHS
Ser



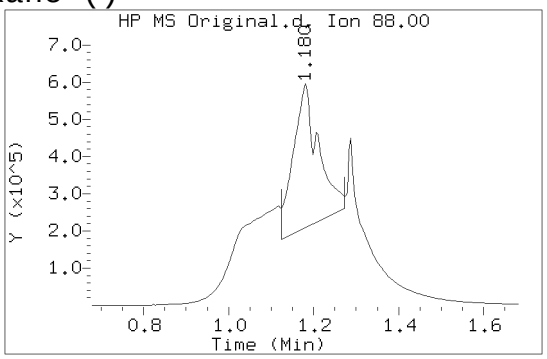
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

1,4-Dioxane ()

Reason Code:

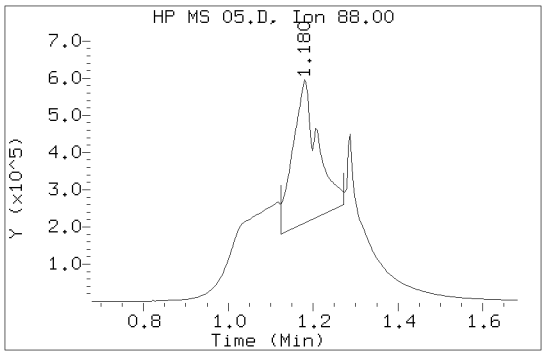
BEFORE

MASS
88
AREA
1599767
HEIGHT
386587
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
88
AREA
1591467
HEIGHT
385442
29-Jun-2023
14:26
ALSHS
Ser

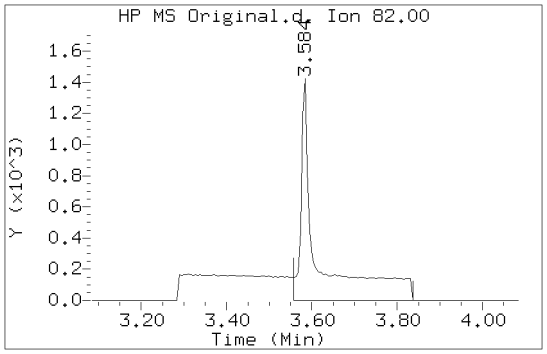


Nitrobenzene-d5 (4165-60-0)

Reason Code:

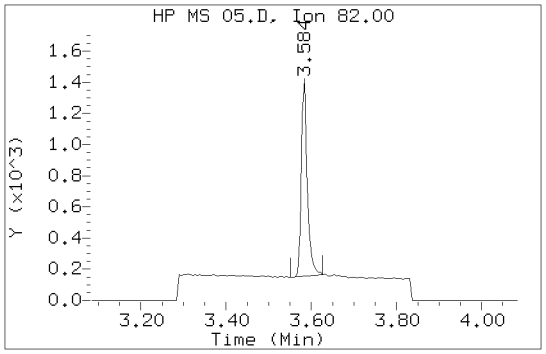
BEFORE

MASS
82
AREA
3739
HEIGHT
1423
16-Jun-2023
11:42
ALSHS
Server



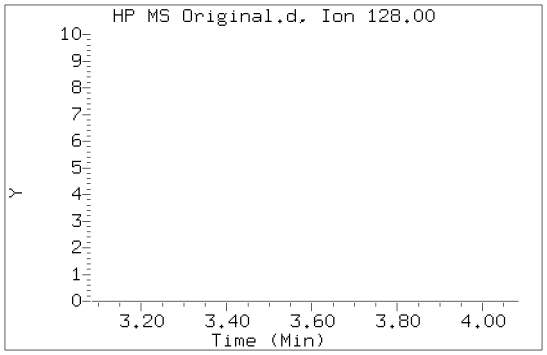
AFTER

MASS
82
AREA
1234
HEIGHT
1266
29-Jun-2023
14:26
ALSHS
Ser



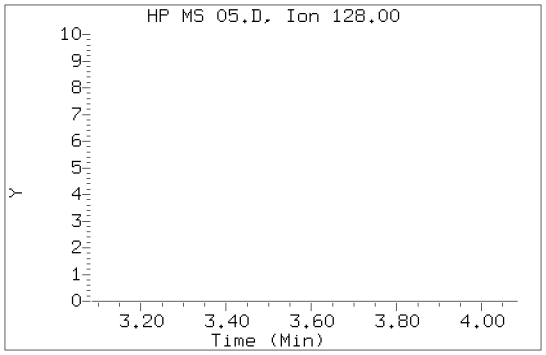
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



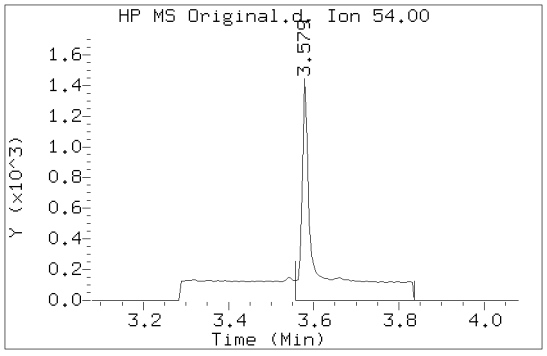
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



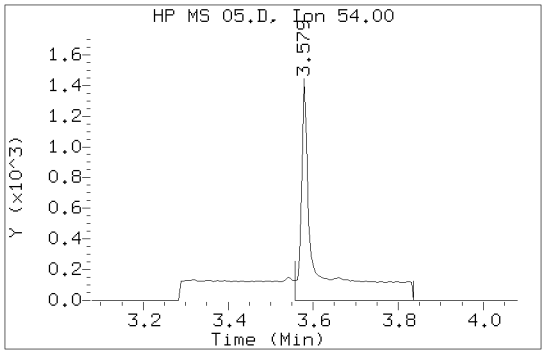
BEFORE

MASS
54
AREA
3364
HEIGHT
1444
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
54
AREA
3364
HEIGHT
1444
29-Jun-2023
14:26
ALSHS
Ser



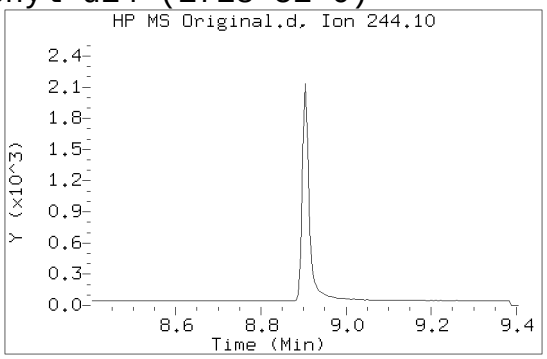
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

4-Terphenyl-d14 (1718-51-0)

Reason Code:

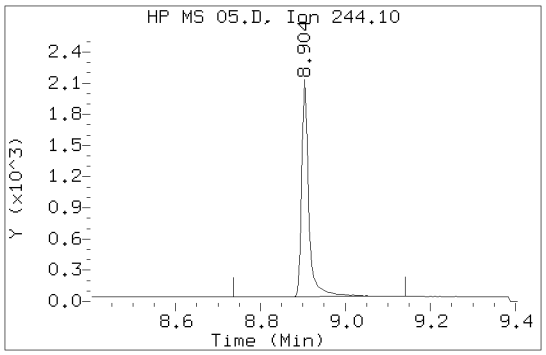
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



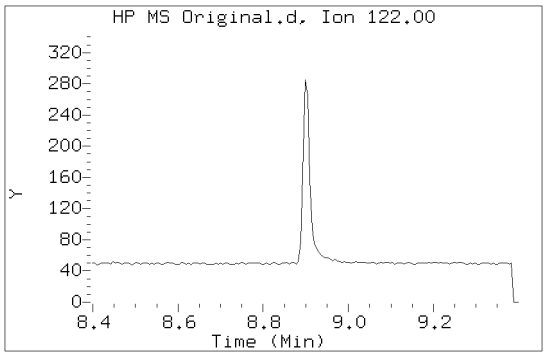
AFTER

MASS
244.1
AREA
2416
HEIGHT
2087
29-Jun-2023
14:26
ALSHS
Ser



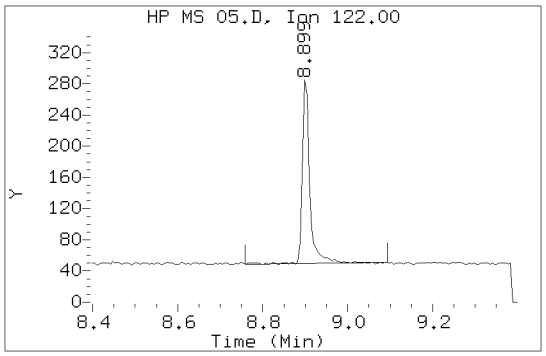
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



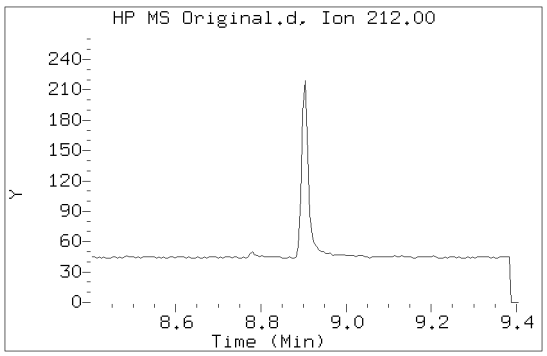
AFTER

MASS
122
AREA
278
HEIGHT
235
29-Jun-2023
14:26
ALSHS
Ser



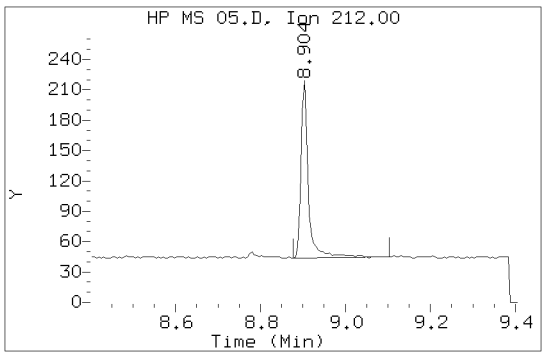
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
212
AREA
205
HEIGHT
174
29-Jun-2023
14:26
ALSHS
Ser

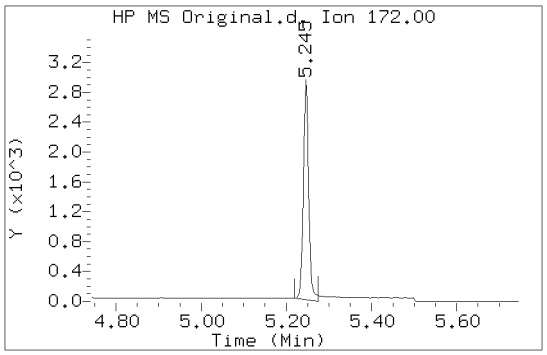


2-Fluorobiphenyl (321-60-8)

Reason Code:

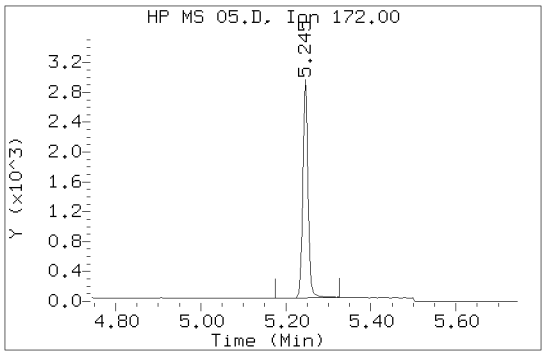
BEFORE

MASS
172
AREA
2588
HEIGHT
2943
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
172
AREA
2509
HEIGHT
2918
29-Jun-2023
14:26
ALSHS
Ser



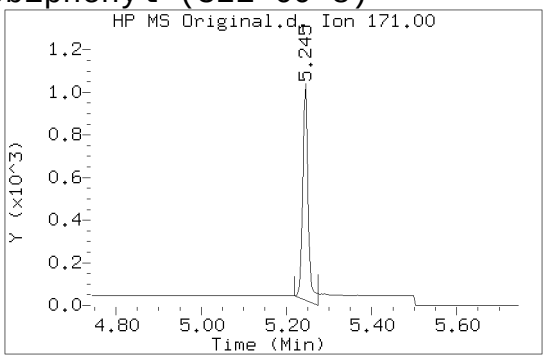
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

2-Fluorobiphenyl (321-60-8)

Reason Code:

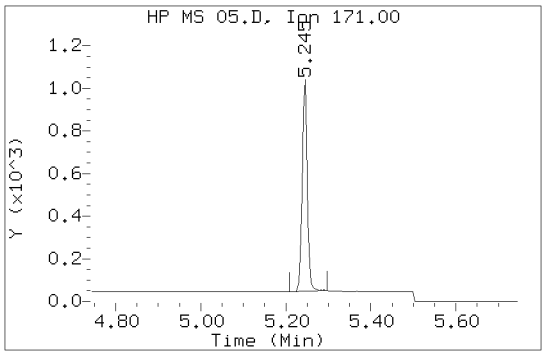
BEFORE

MASS
171
AREA
921
HEIGHT
1017
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
171
AREA
834
HEIGHT
993
29-Jun-2023
14:26
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Lab Smp Id: 14DXICAL-0.05 Client Smp ID: 14DXICAL-0.05
Inj Date : 16-JUN-2023 11:44
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.05
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 11:26 Cal File: 05.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	5073	0.10000	(a)
* 45 Naphthalene-d8	136	4.216	4.216	(1.000)	17044	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.850)	2574	0.05000	0.04995(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	10027	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	4907	0.05000	0.04778(M)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	19800	0.10000	
* 182 Chrysene-d12	240	10.017	10.017	(1.000)	14524	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	4687	0.05000	0.04422(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	12549	0.10000	(M)
1 1,4-Dioxane	58	1.486	1.486	(0.475)	828	0.05000	0.04846(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01208974

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D

Date : 16-JUN-2023 11:44

Client ID: 14DXICAL-0.05

Instrument: SV6.i

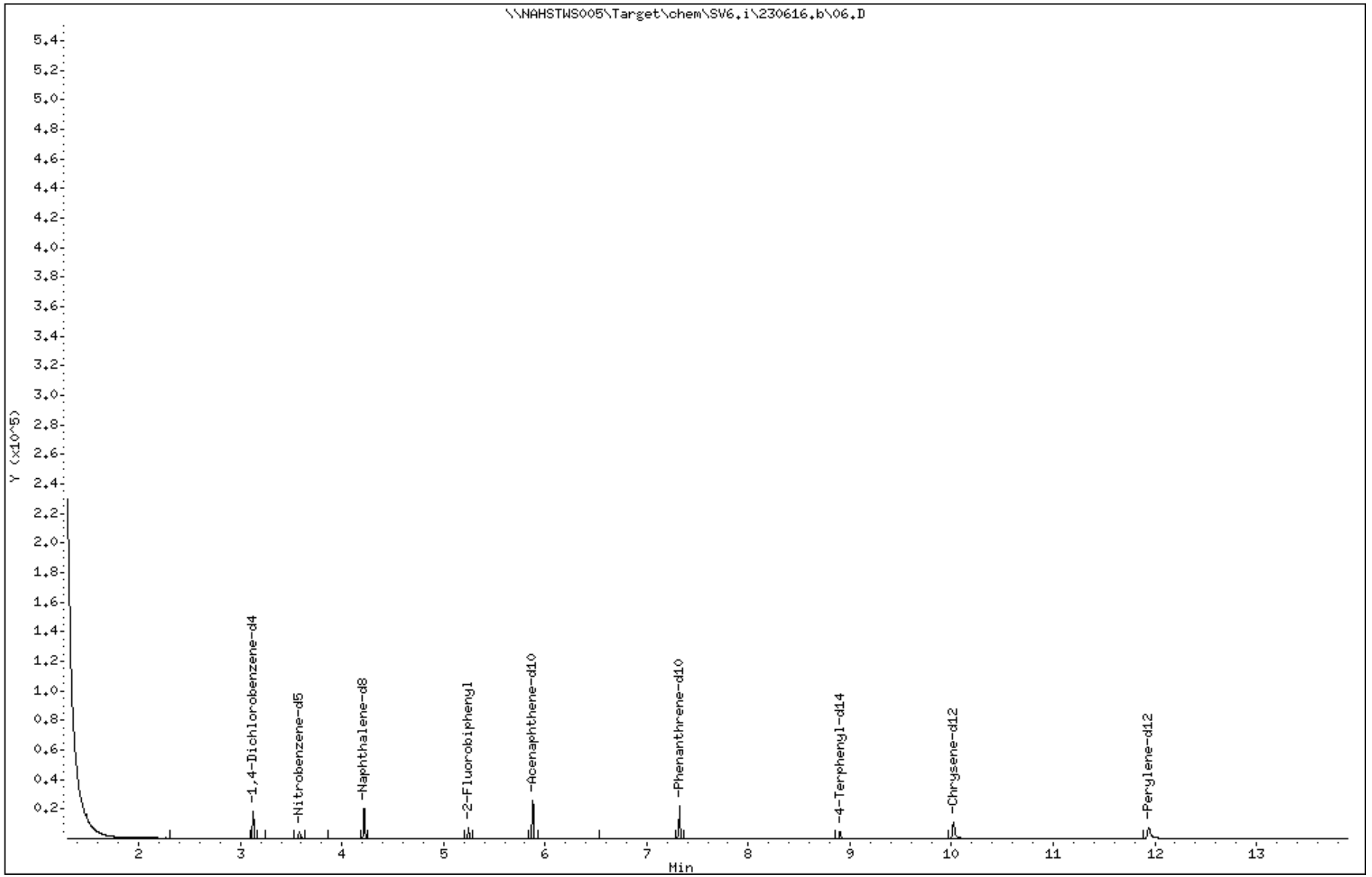
Sample Info: 14DXICAL-0.05

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



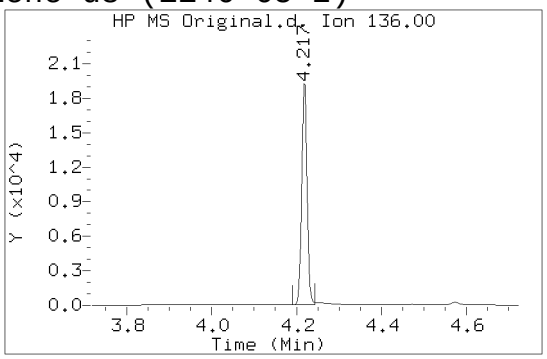
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

Naphthalene-d8 (1146-65-2)

Reason Code:

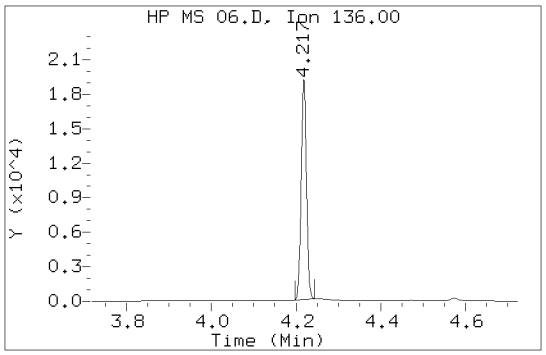
BEFORE

MASS
136
AREA
17378
HEIGHT
19211
16-Jun-2023
11:59
ALSHS
Server



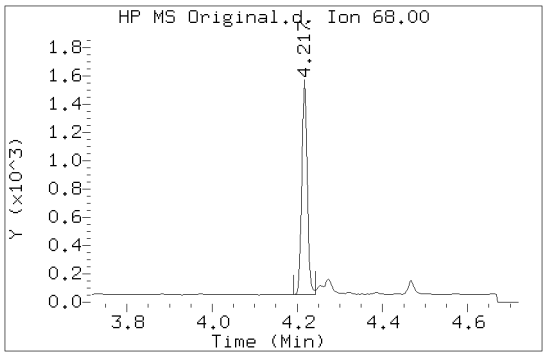
AFTER

MASS
136
AREA
17044
HEIGHT
19106
29-Jun-2023
14:26
ALSHS
Ser



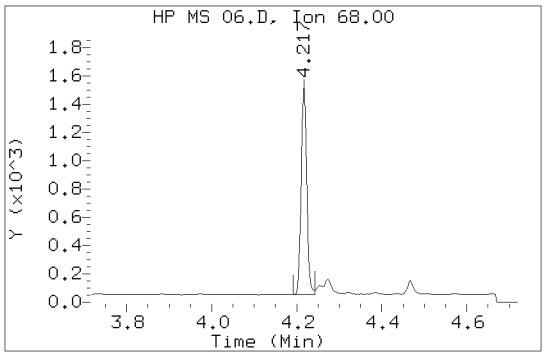
BEFORE

MASS
68
AREA
1330
HEIGHT
1515
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
68
AREA
1330
HEIGHT
1515
29-Jun-2023
14:26
ALSHS
Ser

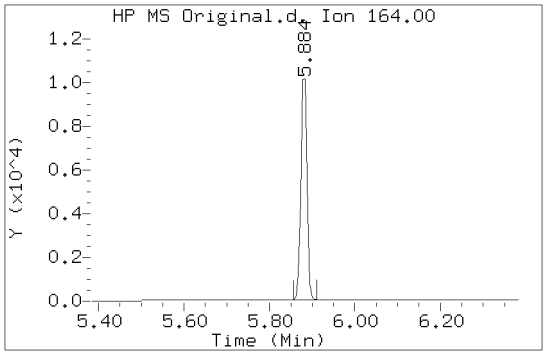


Acenaphthene-d10 (15067-26-2)

Reason Code:

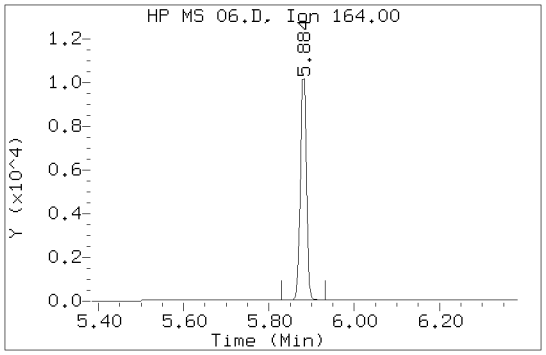
BEFORE

MASS
164
AREA
9969
HEIGHT
10109
16-Jun-2023
11:59
ALSHS
Server



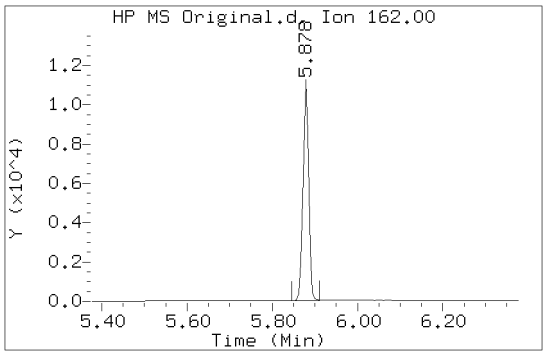
AFTER

MASS
164
AREA
10027
HEIGHT
10124
29-Jun-2023
14:26
ALSHS
Ser



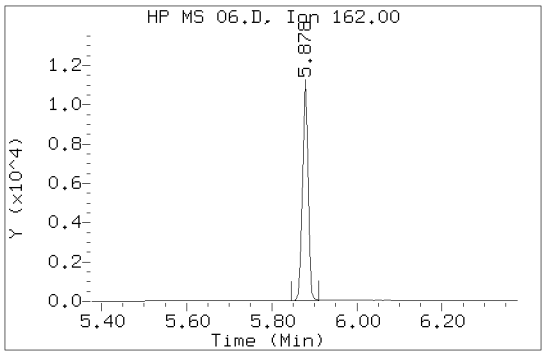
BEFORE

MASS
162
AREA
10122
HEIGHT
11230
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
162
AREA
10122
HEIGHT
11230
29-Jun-2023
14:26
ALSHS
Ser



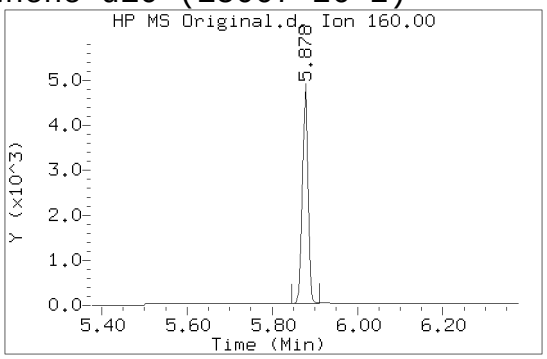
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Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

Acenaphthene-d10 (15067-26-2)

Reason Code:

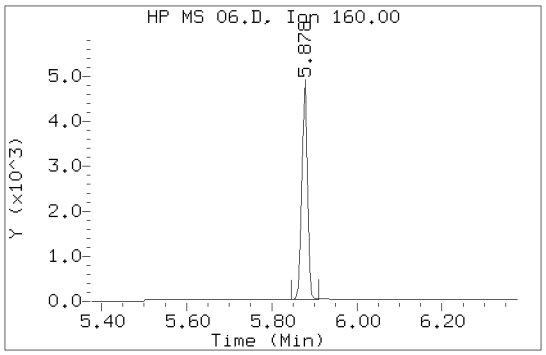
BEFORE

MASS
160
AREA
4359
HEIGHT
4881
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
160
AREA
4359
HEIGHT
4881
29-Jun-2023
14:26
ALSHS
Ser

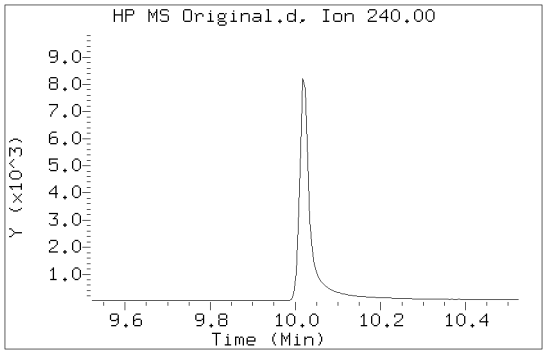


Chrysene-d12 (1719-03-5)

Reason Code:

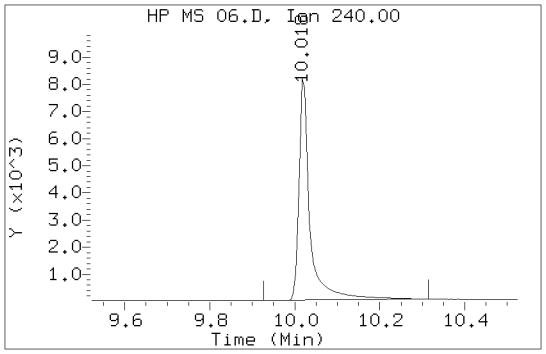
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



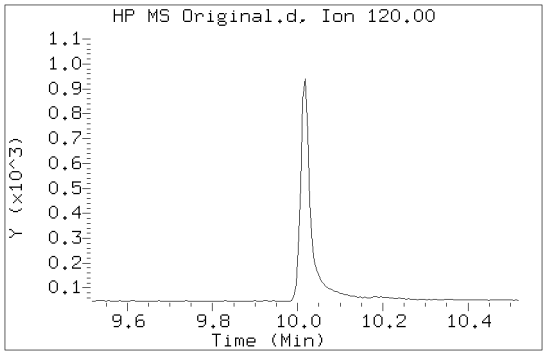
AFTER

MASS
240
AREA
14524
HEIGHT
8152
29-Jun-2023
14:26
ALSHS
Ser



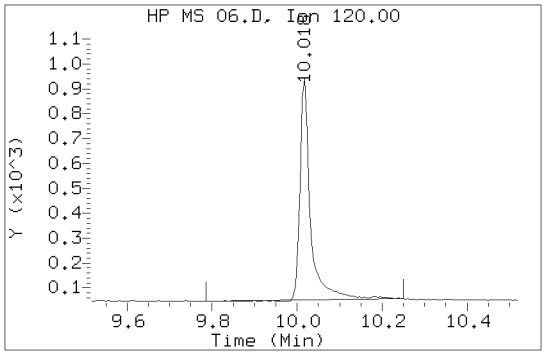
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



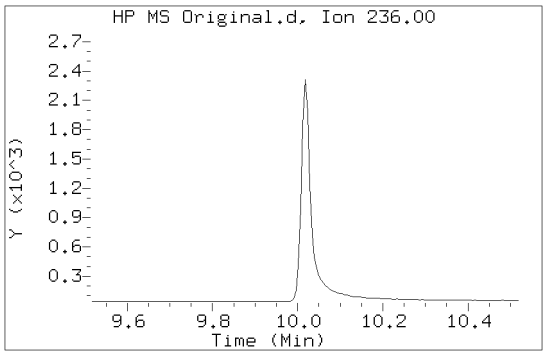
AFTER

MASS
120
AREA
1511
HEIGHT
888
29-Jun-2023
14:26
ALSHS
Ser



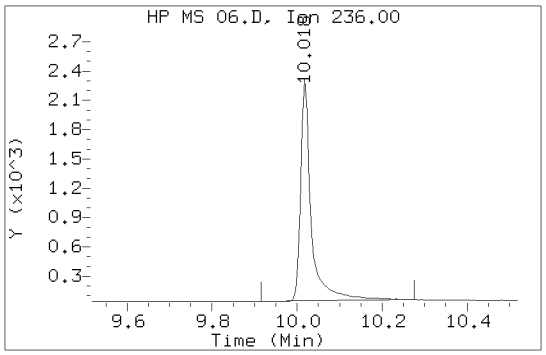
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
236
AREA
3903
HEIGHT
2262
29-Jun-2023
14:26
ALSHS
Ser



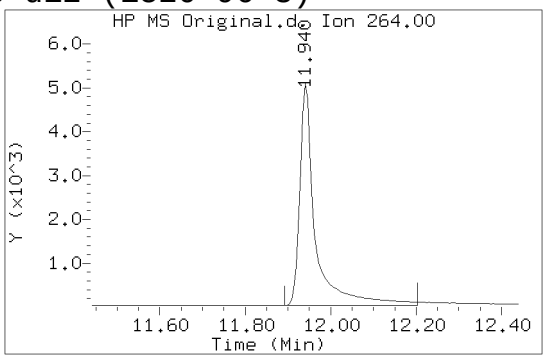
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

Perylene-d12 (1520-96-3)

Reason Code:

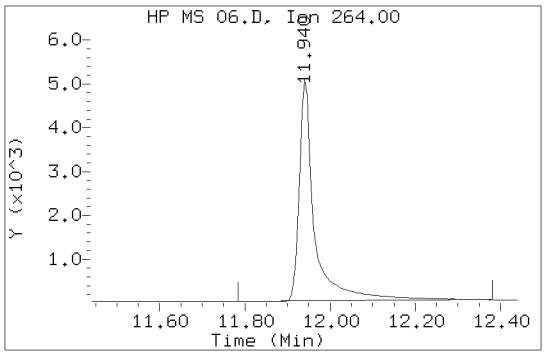
BEFORE

MASS
264
AREA
12686
HEIGHT
5050
16-Jun-2023
11:59
ALSHS
Server



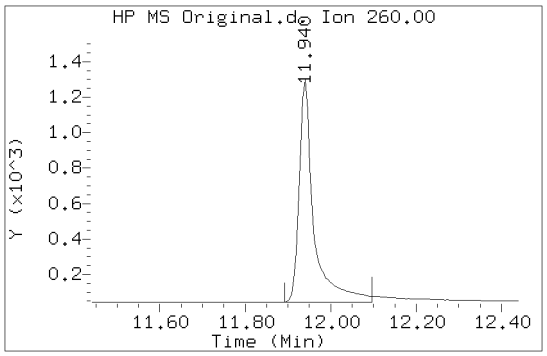
AFTER

MASS
264
AREA
12549
HEIGHT
5041
29-Jun-2023
14:26
ALSHS
Ser



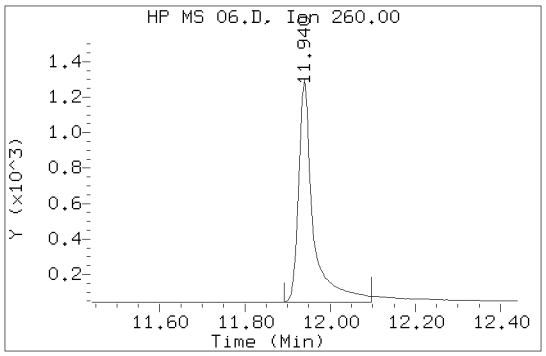
BEFORE

MASS
260
AREA
2978
HEIGHT
1253
16-Jun-2023
11:59
ALSHS
Server



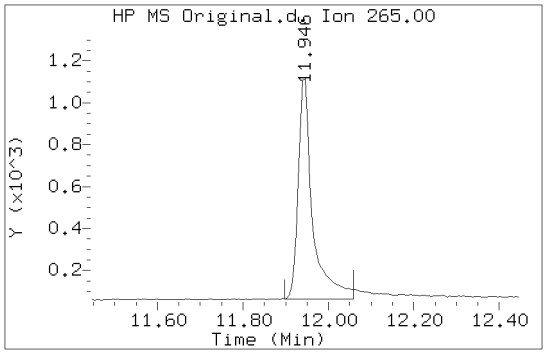
AFTER

MASS
260
AREA
2978
HEIGHT
1253
29-Jun-2023
14:26
ALSHS
Ser



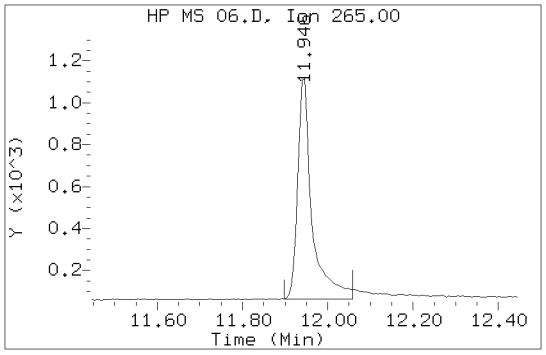
BEFORE

MASS
265
AREA
2473
HEIGHT
1053
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
265
AREA
2473
HEIGHT
1053
29-Jun-2023
14:26
ALSHS
Ser

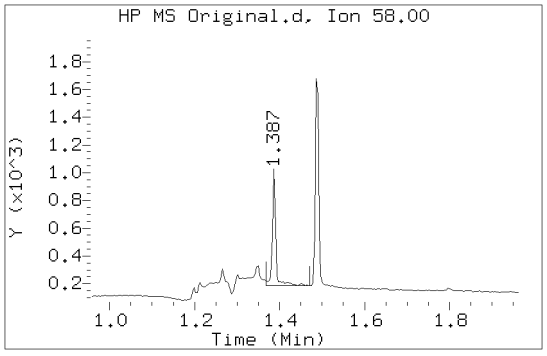


1,4-Dioxane ()

Reason Code:

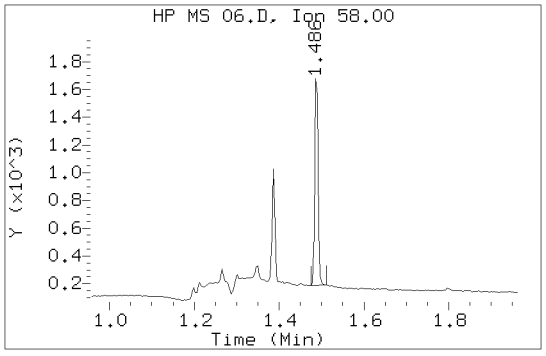
BEFORE

MASS
58
AREA
474
HEIGHT
839
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
58
AREA
828
HEIGHT
1488
29-Jun-2023
14:26
ALSHS
Ser



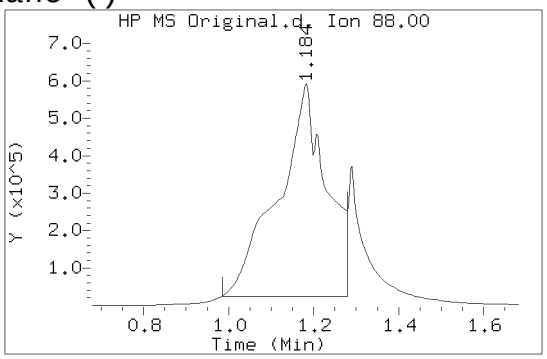
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

1,4-Dioxane ()

Reason Code:

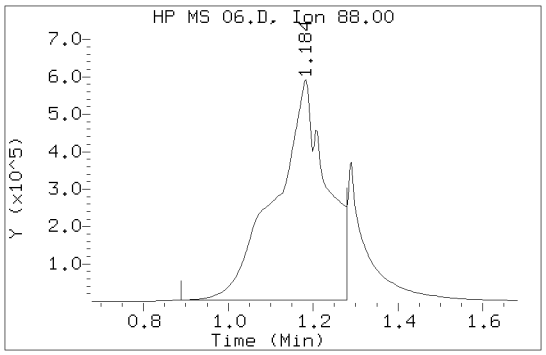
BEFORE

MASS
88
AREA
4490753
HEIGHT
567696
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
88
AREA
4905096
HEIGHT
589066
29-Jun-2023
14:26
ALSHS
Ser

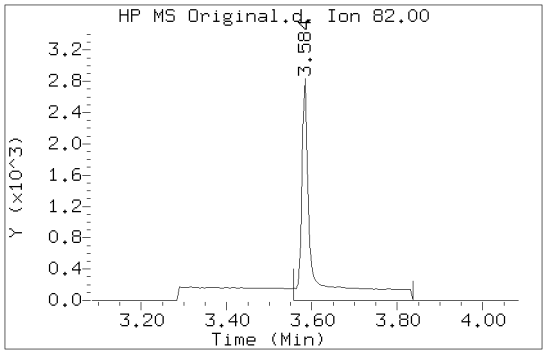


Nitrobenzene-d5 (4165-60-0)

Reason Code:

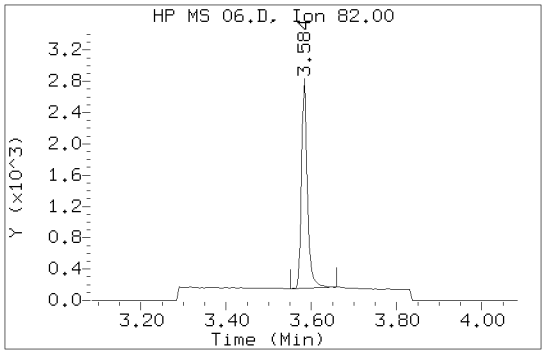
BEFORE

MASS
82
AREA
5121
HEIGHT
2833
16-Jun-2023
11:59
ALSHS
Server



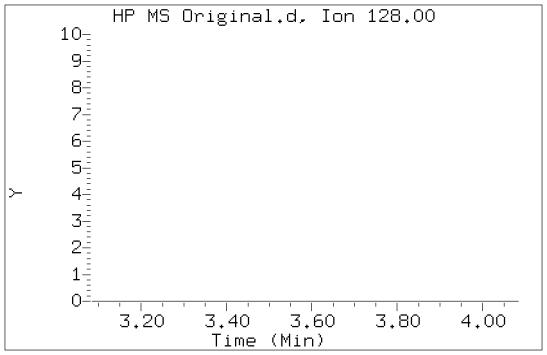
AFTER

MASS
82
AREA
2574
HEIGHT
2676
29-Jun-2023
14:26
ALSHS
Ser



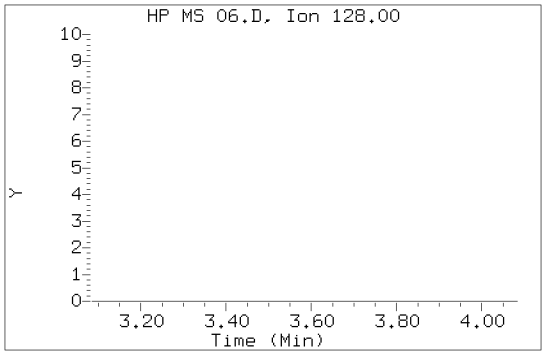
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



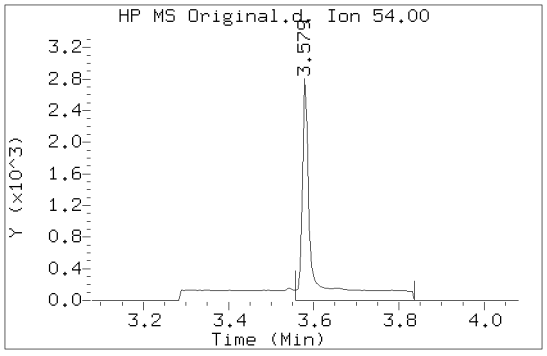
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



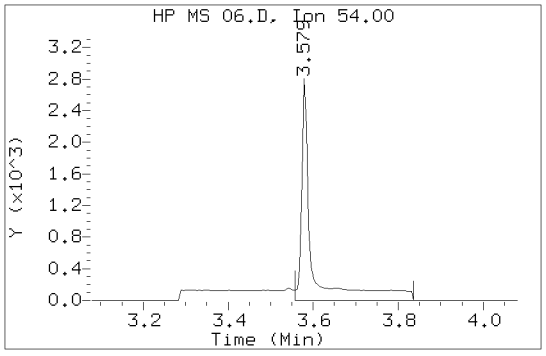
BEFORE

MASS
54
AREA
4709
HEIGHT
2805
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
54
AREA
4709
HEIGHT
2805
29-Jun-2023
14:26
ALSHS
Ser



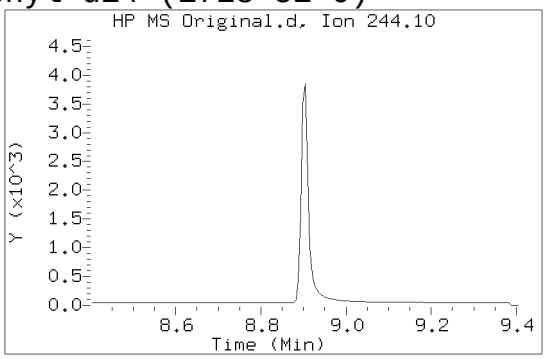
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

4-Terphenyl-d14 (1718-51-0)

Reason Code:

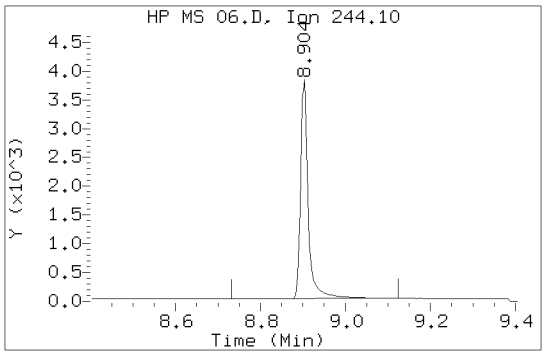
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



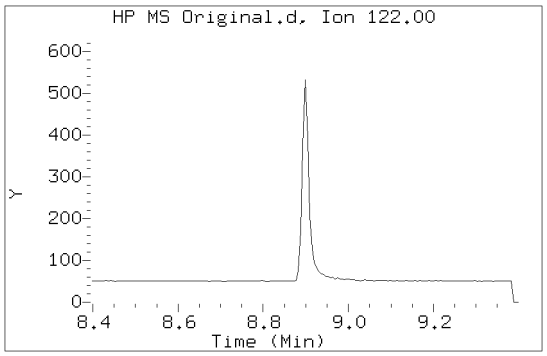
AFTER

MASS
244.1
AREA
4687
HEIGHT
3802
29-Jun-2023
14:26
ALSHS
Ser



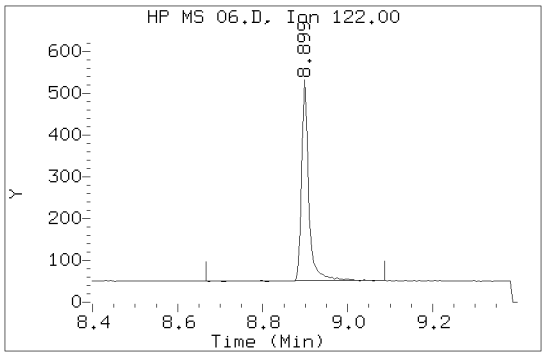
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



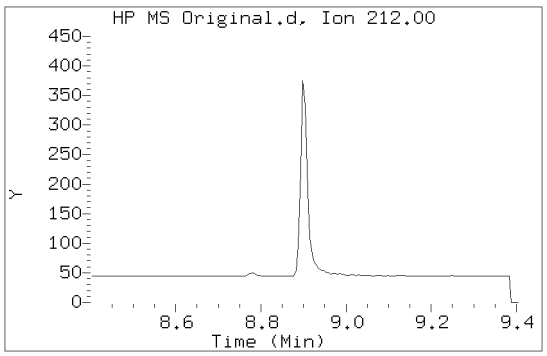
AFTER

MASS
122
AREA
540
HEIGHT
480
29-Jun-2023
14:26
ALSHS
Ser



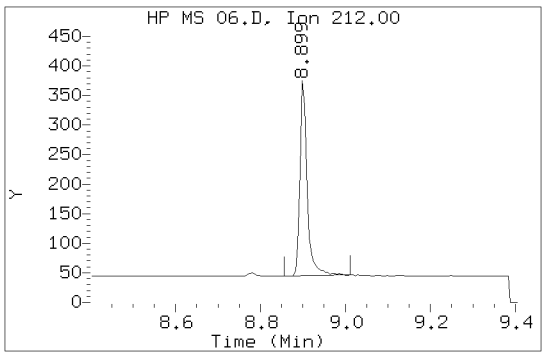
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
212
AREA
383
HEIGHT
330
29-Jun-2023
14:26
ALSHS
Ser

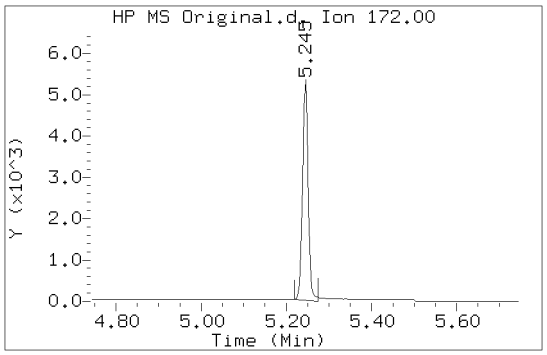


2-Fluorobiphenyl (321-60-8)

Reason Code:

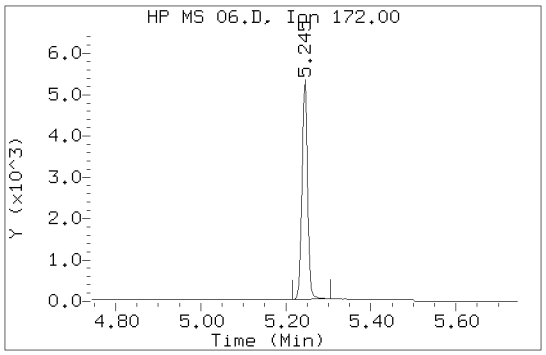
BEFORE

MASS
172
AREA
4989
HEIGHT
5338
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
172
AREA
4907
HEIGHT
5312
29-Jun-2023
14:26
ALSHS
Ser



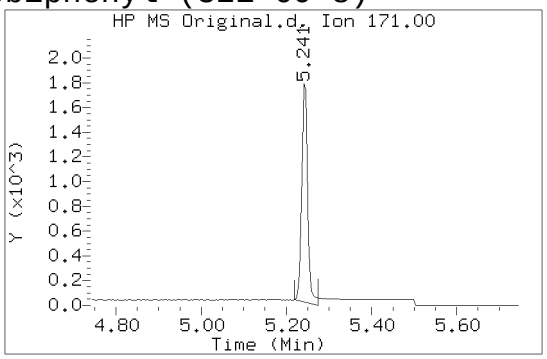
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

2-Fluorobiphenyl (321-60-8)

Reason Code:

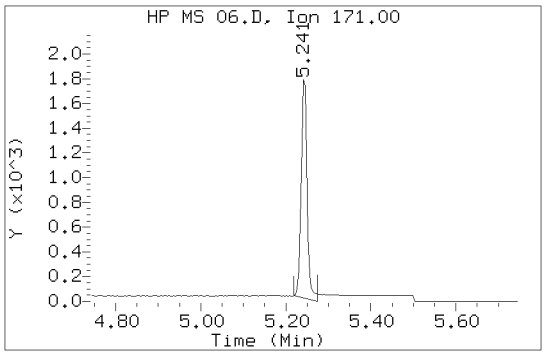
BEFORE

MASS
171
AREA
1727
HEIGHT
1764
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
171
AREA
1727
HEIGHT
1764
29-Jun-2023
14:26
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D Page 1
Report Date: 29-Jun-2023 14:27

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Lab Smp Id: 14DXICAL-0.08 Client Smp ID: 14DXICAL-0.08
Inj Date : 16-JUN-2023 12:02
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 11:44 Cal File: 06.D
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	4590	0.10000	(a)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	15619	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	4012	0.08000	0.08496(M)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	9075	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	7759	0.08000	0.08348
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	18261	0.10000	
* 182 Chrysene-d12	240	10.017	10.017	(1.000)	12097	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	7185	0.08000	0.08138(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	10759	0.10000	(M)
1 1,4-Dioxane	58	1.482	1.482	(0.474)	1283	0.08000	0.08298(QH)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

01208982

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D

Page 1

Date : 16-JUN-2023 12:02

Client ID: 14DXICAL-0.08

Instrument: SV6.i

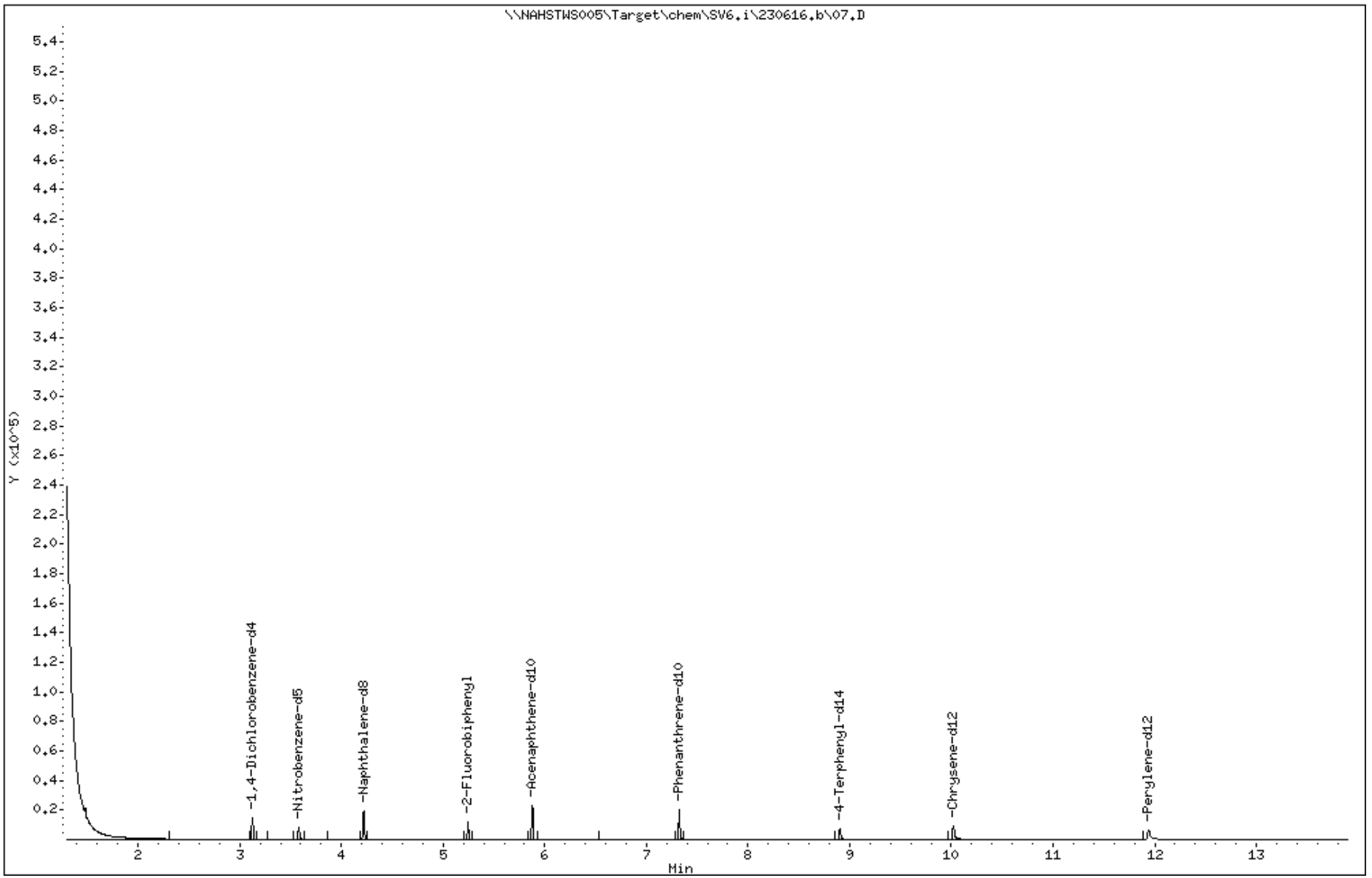
Sample Info: 14DXICAL-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



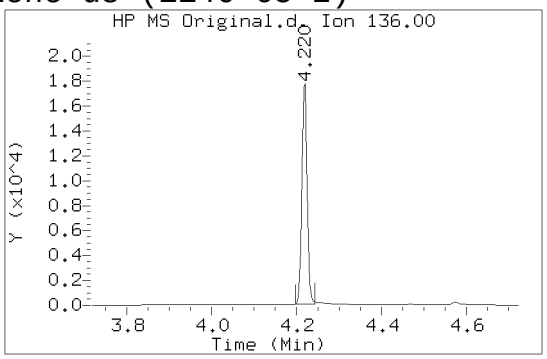
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

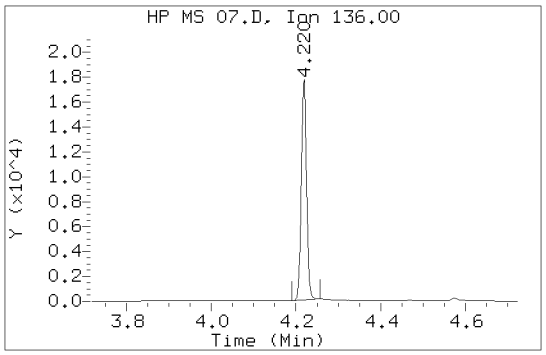
BEFORE

MASS
136
AREA
15744
HEIGHT
17718
16-Jun-2023
12:18
ALSHS
Server



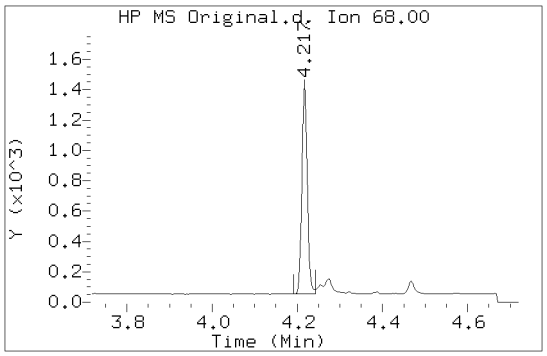
AFTER

MASS
136
AREA
15619
HEIGHT
17670
29-Jun-2023
14:26
ALSHS
Ser



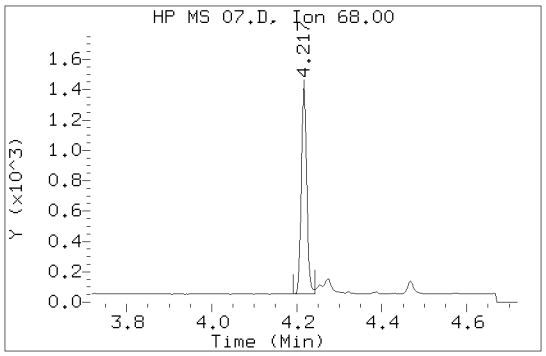
BEFORE

MASS
68
AREA
1209
HEIGHT
1411
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
68
AREA
1209
HEIGHT
1411
29-Jun-2023
14:26
ALSHS
Ser

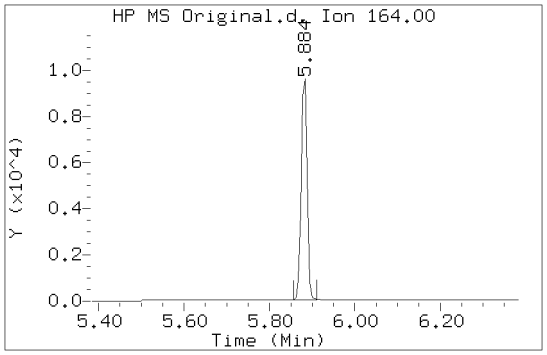


Acenaphthene-d10 (15067-26-2)

Reason Code:

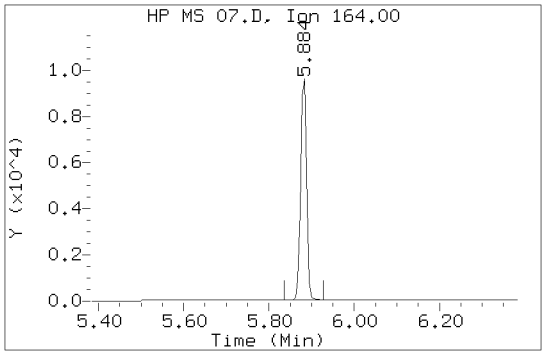
BEFORE

MASS
164
AREA
9060
HEIGHT
9568
16-Jun-2023
12:18
ALSHS
Server



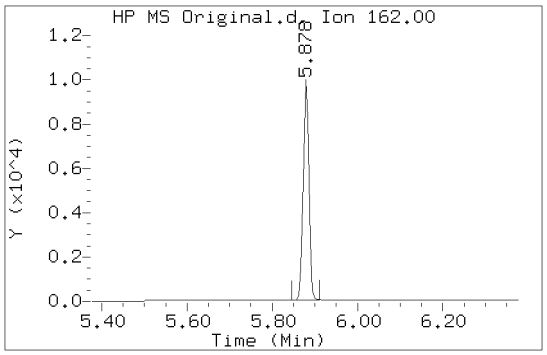
AFTER

MASS
164
AREA
9075
HEIGHT
9571
29-Jun-2023
14:26
ALSHS
Ser



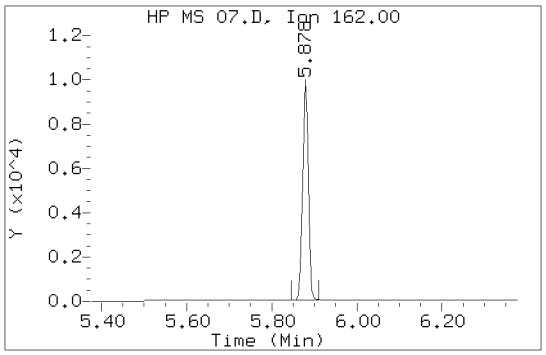
BEFORE

MASS
162
AREA
9173
HEIGHT
9961
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
162
AREA
9173
HEIGHT
9961
29-Jun-2023
14:26
ALSHS
Ser



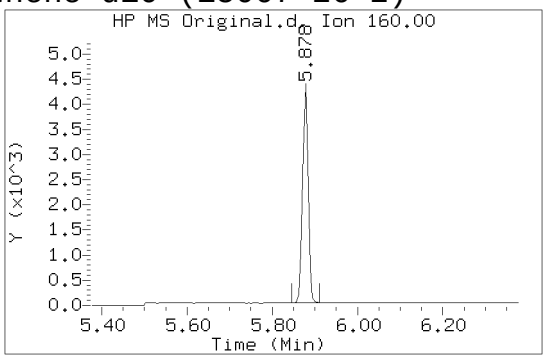
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Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Acenaphthene-d10 (15067-26-2)

Reason Code:

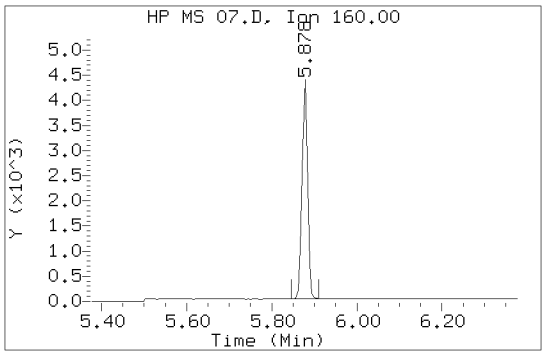
BEFORE

MASS
160
AREA
3928
HEIGHT
4365
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
160
AREA
3928
HEIGHT
4365
29-Jun-2023
14:26
ALSHS
Ser

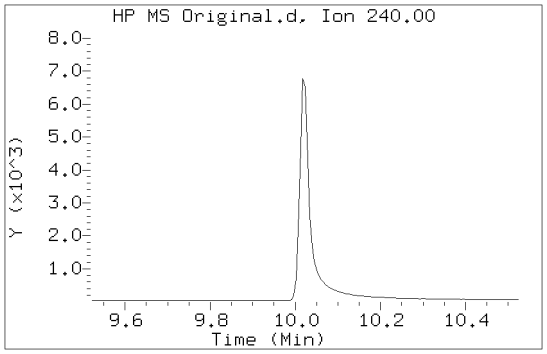


Chrysene-d12 (1719-03-5)

Reason Code:

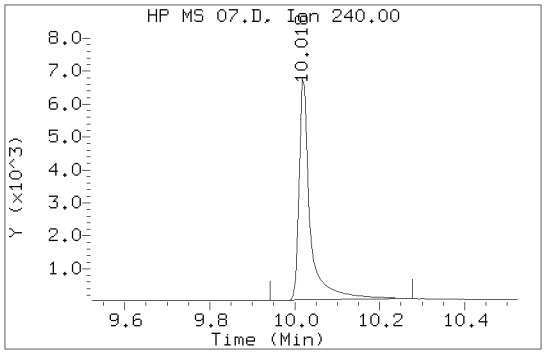
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



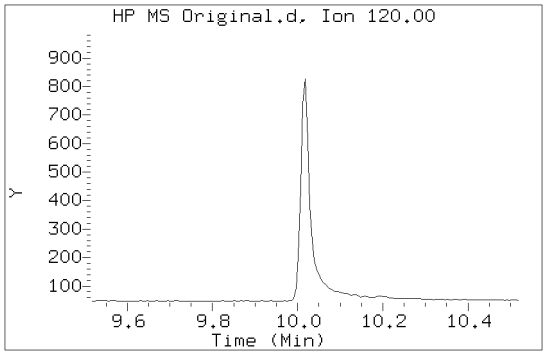
AFTER

MASS
240
AREA
12097
HEIGHT
6713
29-Jun-2023
14:26
ALSHS
Ser



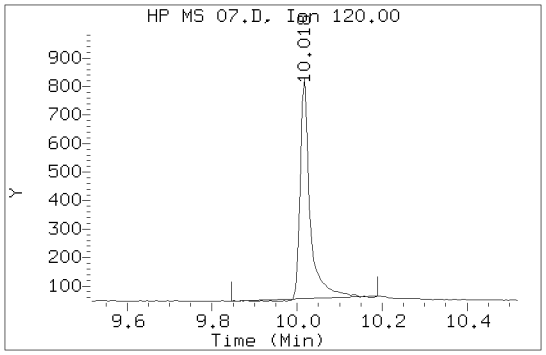
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



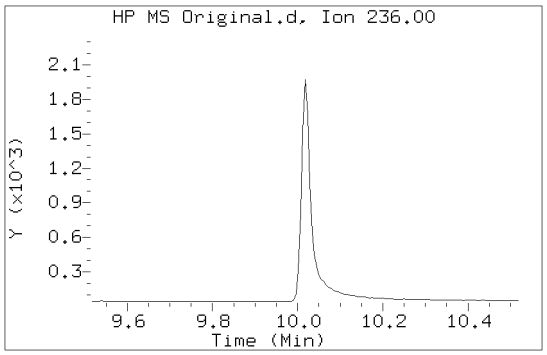
AFTER

MASS
120
AREA
1207
HEIGHT
771
29-Jun-2023
14:26
ALSHS
Ser



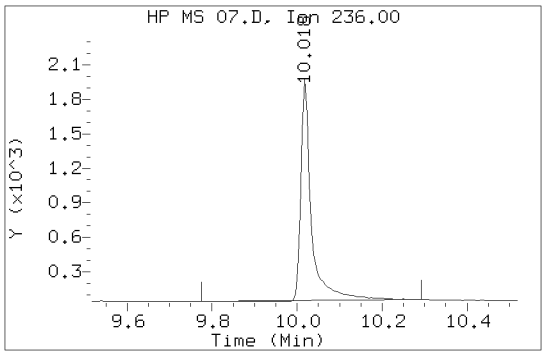
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
236
AREA
3279
HEIGHT
1919
29-Jun-2023
14:26
ALSHS
Ser



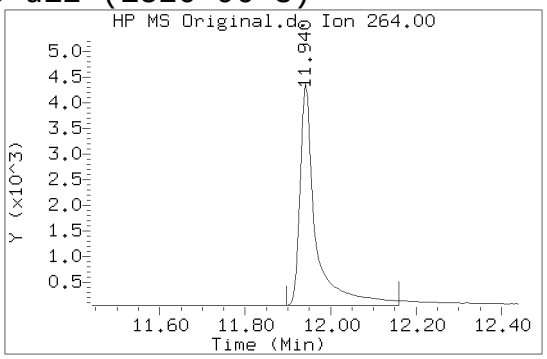
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Perylene-d12 (1520-96-3)

Reason Code:

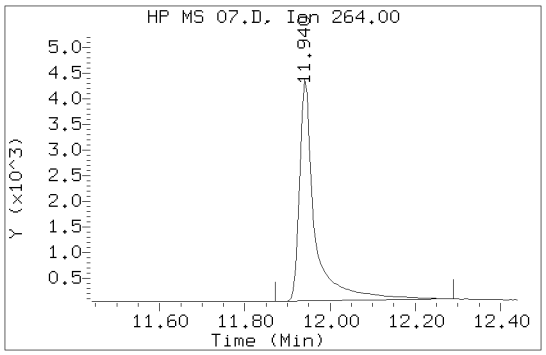
BEFORE

MASS
264
AREA
10879
HEIGHT
4324
16-Jun-2023
12:18
ALSHS
Server



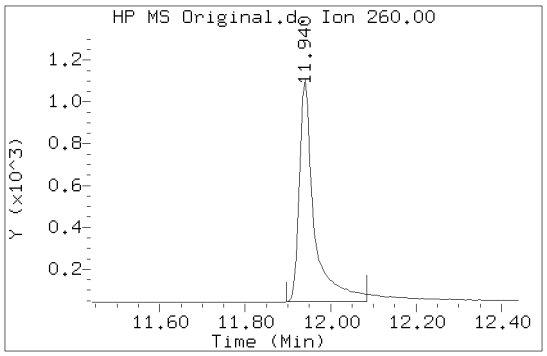
AFTER

MASS
264
AREA
10759
HEIGHT
4317
29-Jun-2023
14:26
ALSHS
Ser



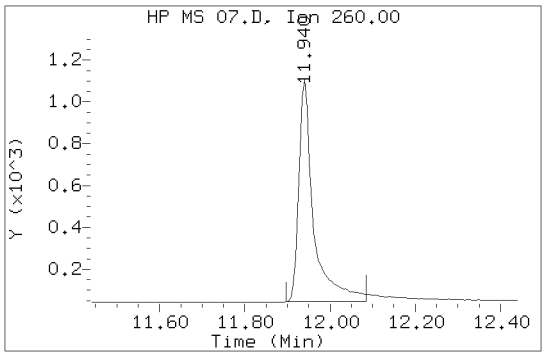
BEFORE

MASS
260
AREA
2559
HEIGHT
1060
16-Jun-2023
12:18
ALSHS
Server



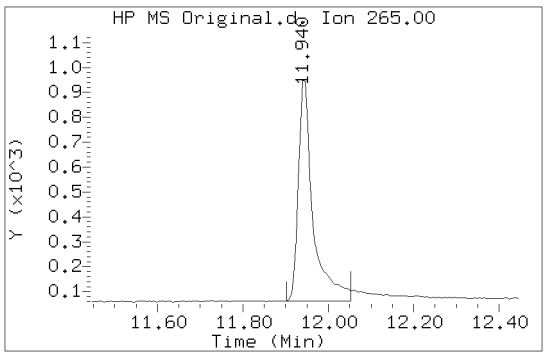
AFTER

MASS
260
AREA
2559
HEIGHT
1060
29-Jun-2023
14:26
ALSHS
Ser



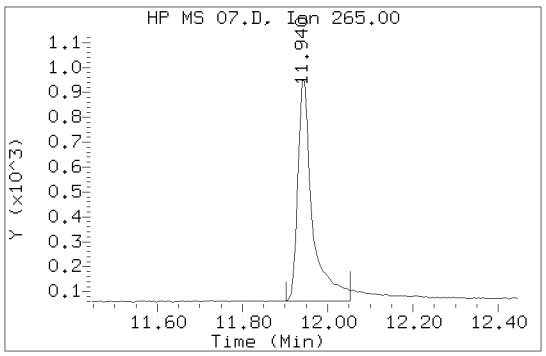
BEFORE

MASS
265
AREA
2115
HEIGHT
884
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
265
AREA
2115
HEIGHT
884
29-Jun-2023
14:26
ALSHS
Ser

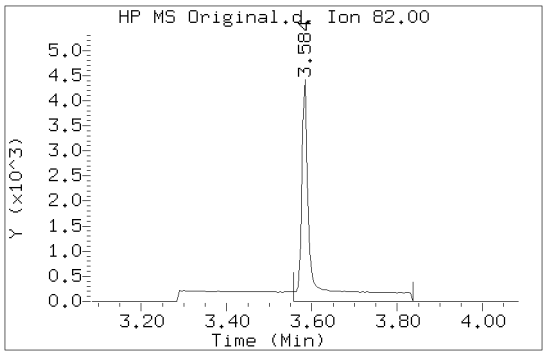


Nitrobenzene-d5 (4165-60-0)

Reason Code:

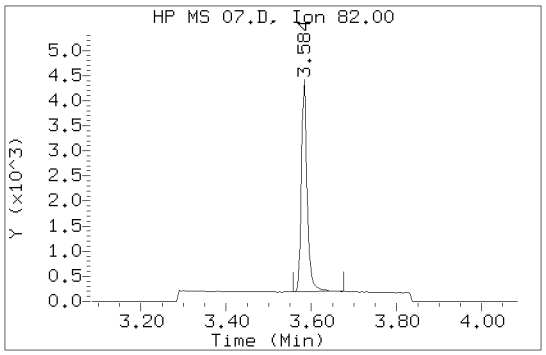
BEFORE

MASS
82
AREA
7140
HEIGHT
4418
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
82
AREA
4012
HEIGHT
4226
29-Jun-2023
14:26
ALSHS
Ser



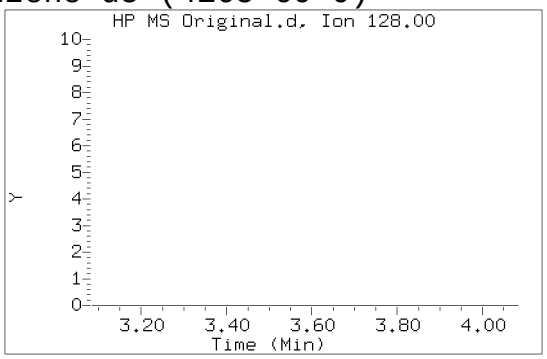
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

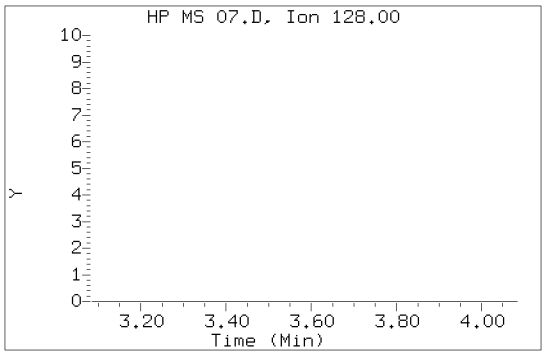
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



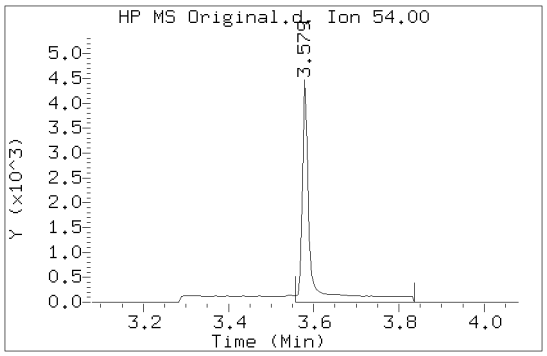
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



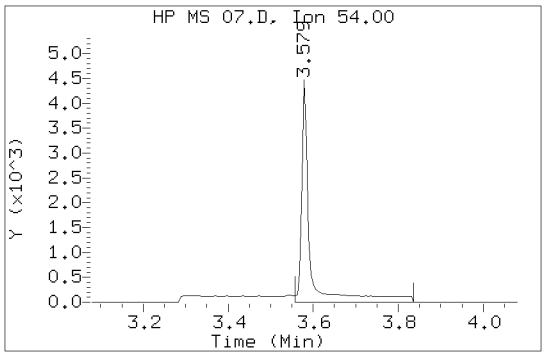
BEFORE

MASS
54
AREA
6137
HEIGHT
4470
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
54
AREA
6137
HEIGHT
4470
29-Jun-2023
14:26
ALSHS
Ser

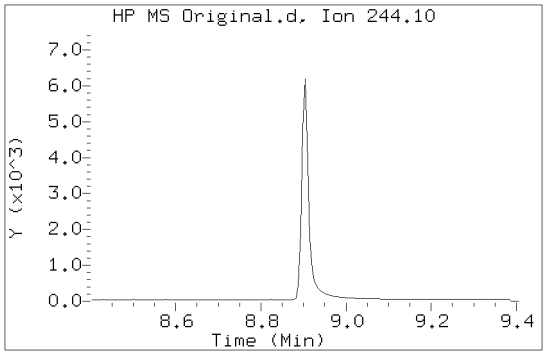


4-Terphenyl-d14 (1718-51-0)

Reason Code:

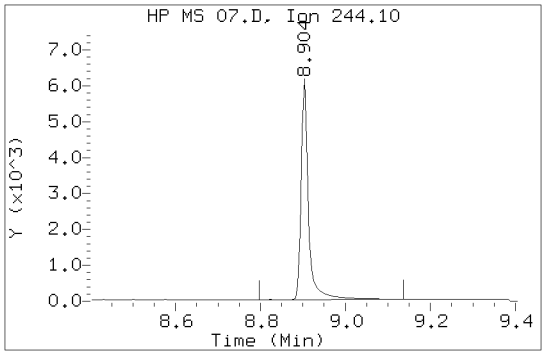
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



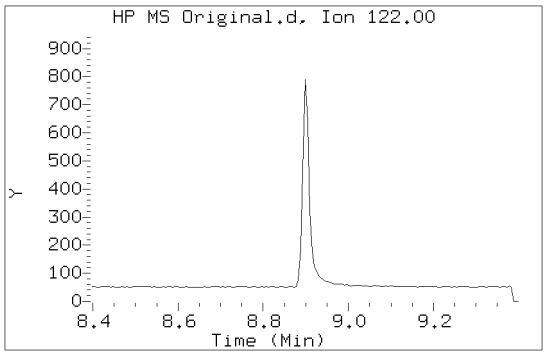
AFTER

MASS
244.1
AREA
7185
HEIGHT
6143
29-Jun-2023
14:26
ALSHS
Ser



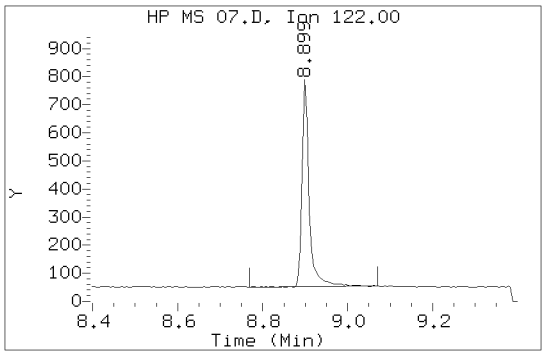
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
122
AREA
850
HEIGHT
736
29-Jun-2023
14:26
ALSHS
Ser



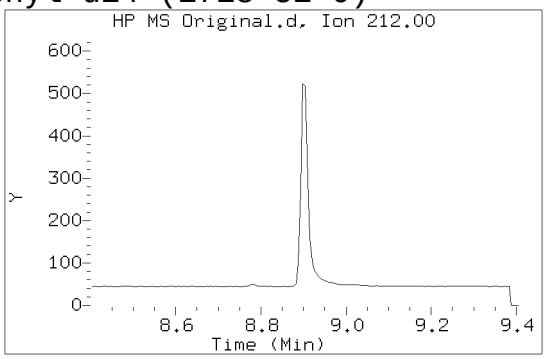
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

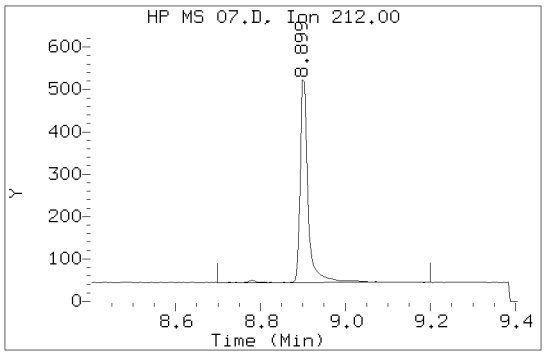
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
212
AREA
622
HEIGHT
478
29-Jun-2023
14:26
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Lab Smp Id: 14DXICAL-0.15 Client Smp ID: 14DXICAL-0.15
Inj Date : 16-JUN-2023 12:38
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.15
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 12:20 Cal File: 08.D
Als bottle: 9 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	3901	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	13349	0.10000	
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	6134	0.15000	0.1520(AQM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	7708	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	11636	0.15000	0.1474
* 126 Phenanthrene-d10	188	7.323	7.323	(1.000)	15157	0.10000	
* 182 Chrysene-d12	240	10.018	10.018	(1.000)	10131	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	10881	0.15000	0.1472(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	7987	0.10000	(M)
1 1,4-Dioxane	58	1.464	1.464	(0.468)	1980	0.15000	0.1507(QH)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

01208990

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D

Date : 16-JUN-2023 12:38

Client ID: 14DXICAL-0.15

Instrument: SV6.i

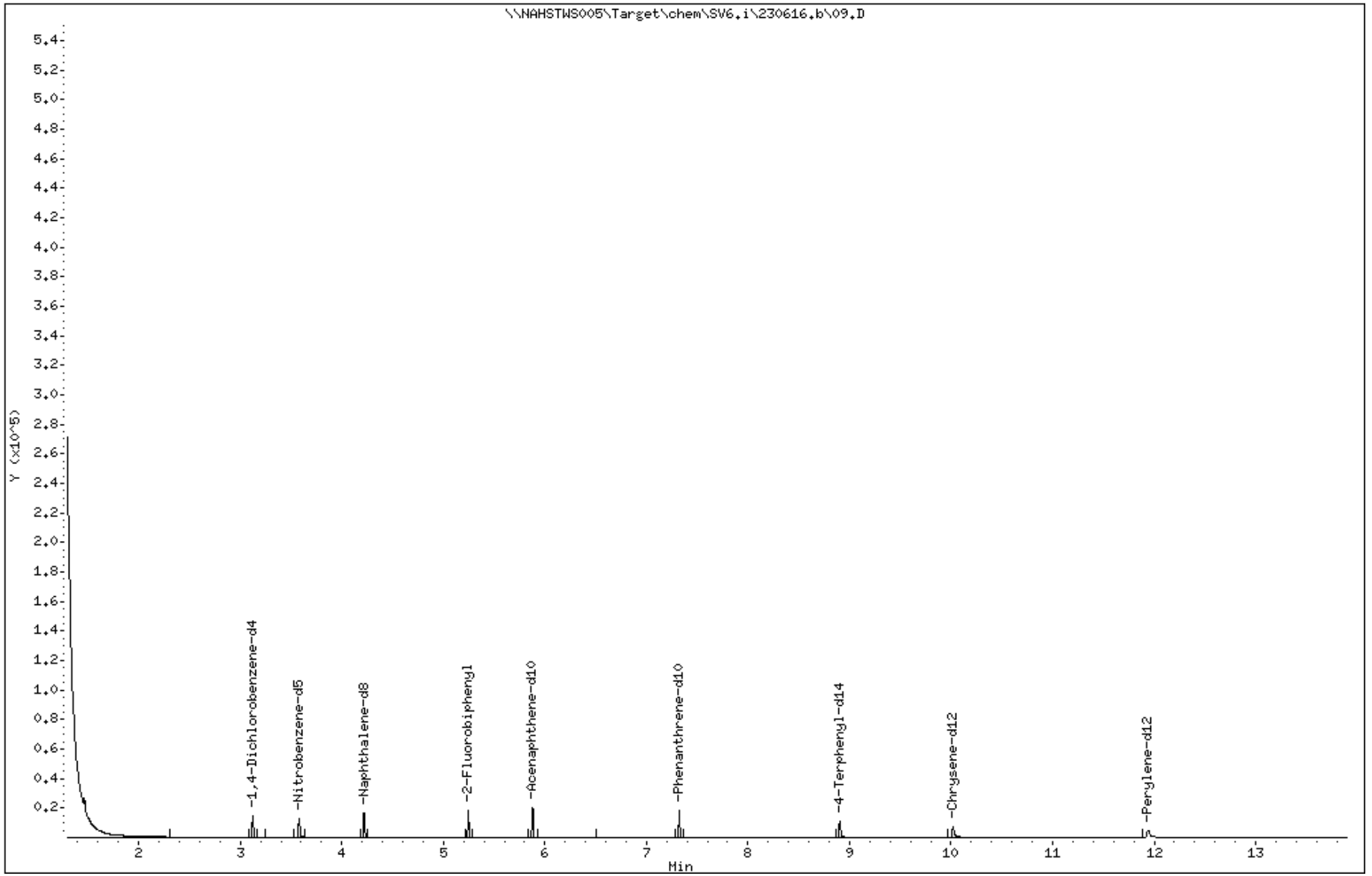
Sample Info: 14DXICAL-0.15

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



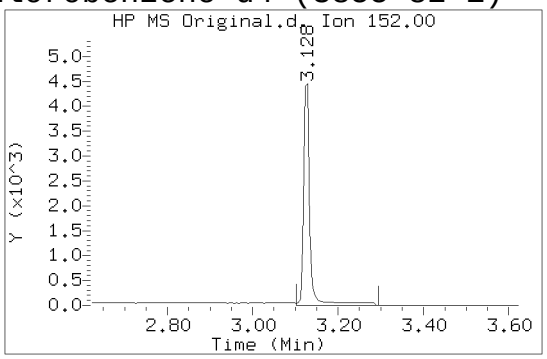
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

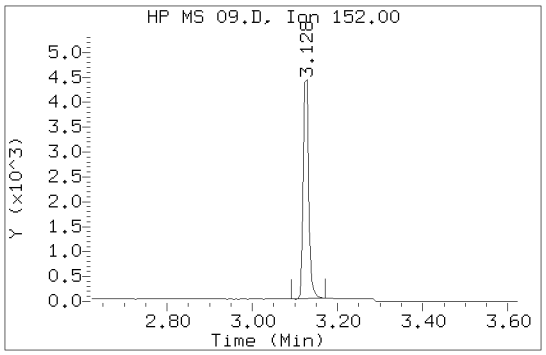
BEFORE

MASS
152
AREA
4505
HEIGHT
4453
16-Jun-2023
12:57
ALSHS
Server



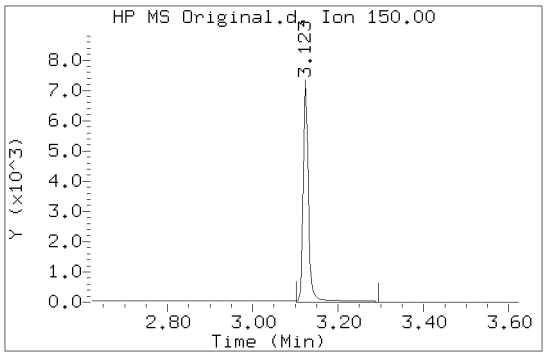
AFTER

MASS
152
AREA
3901
HEIGHT
4398
29-Jun-2023
14:27
ALSHS
Ser



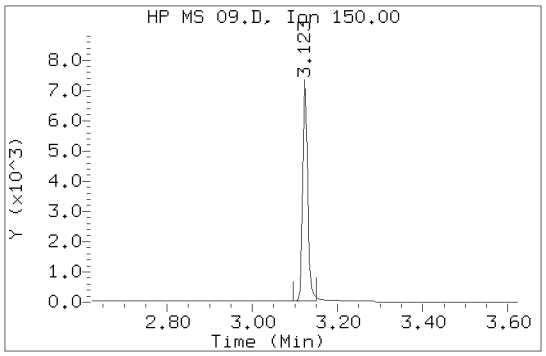
BEFORE

MASS
150
AREA
6326
HEIGHT
7351
16-Jun-2023
12:57
ALSHS
Server



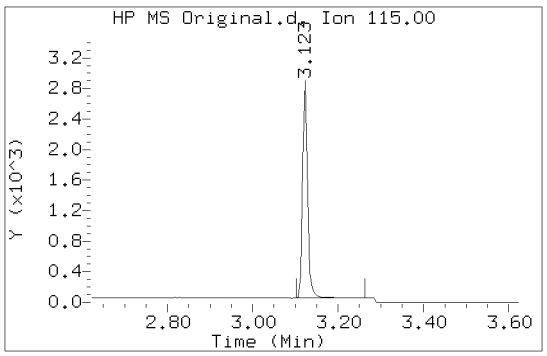
AFTER

MASS
150
AREA
5706
HEIGHT
7305
29-Jun-2023
14:27
ALSHS
Ser



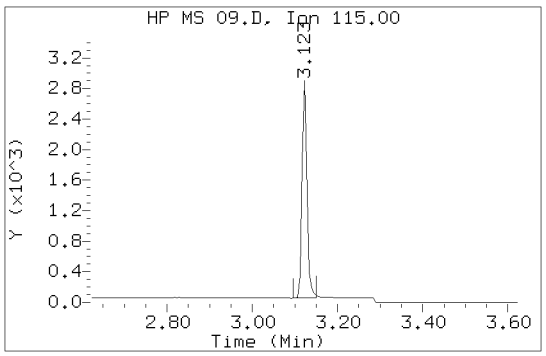
BEFORE

MASS
115
AREA
2255
HEIGHT
2847
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
115
AREA
2210
HEIGHT
2846
29-Jun-2023
14:27
ALSHS
Ser

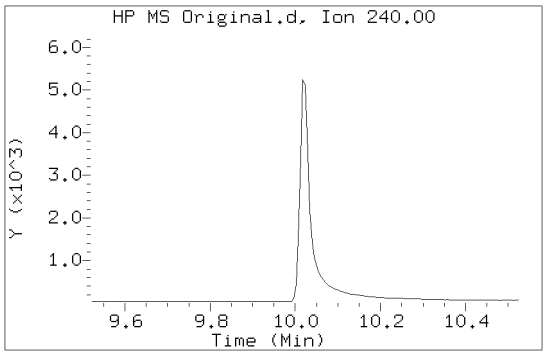


Chrysene-d12 (1719-03-5)

Reason Code:

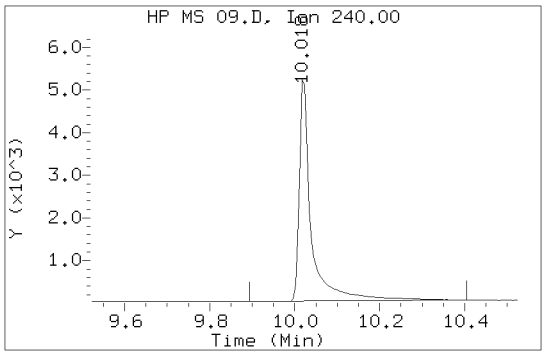
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
240
AREA
10131
HEIGHT
5190
29-Jun-2023
14:27
ALSHS
Ser



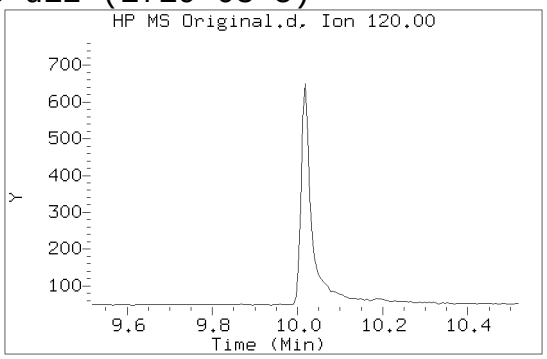
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

Chrysene-d12 (1719-03-5)

Reason Code:

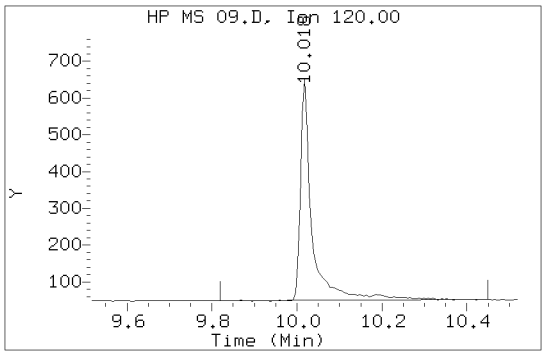
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



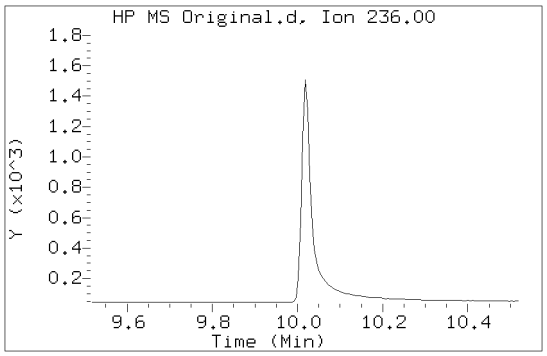
AFTER

MASS
120
AREA
1131
HEIGHT
600
29-Jun-2023
14:27
ALSHS
Ser



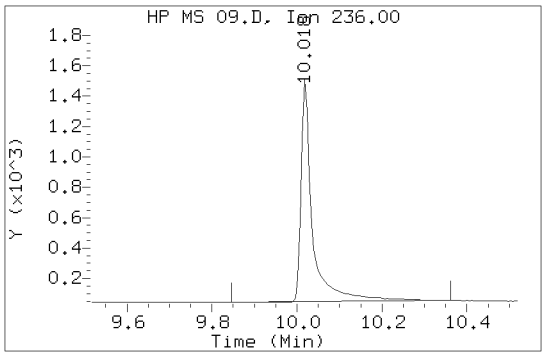
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
236
AREA
2695
HEIGHT
1458
29-Jun-2023
14:27
ALSHS
Ser

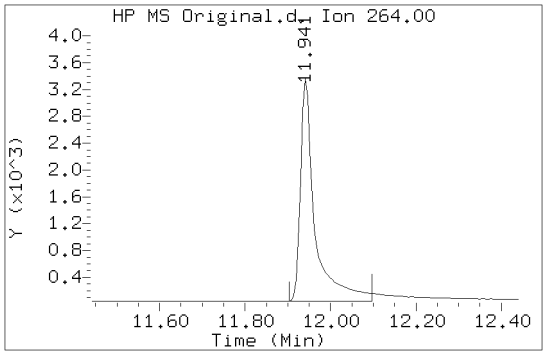


Perylene-d12 (1520-96-3)

Reason Code:

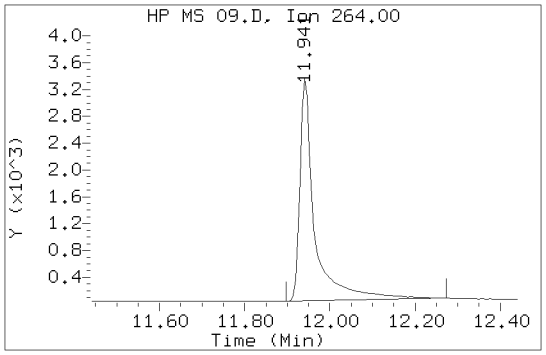
BEFORE

MASS
264
AREA
7735
HEIGHT
3310
16-Jun-2023
12:57
ALSHS
Server



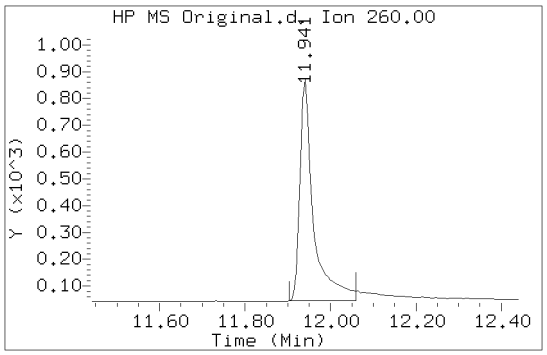
AFTER

MASS
264
AREA
7987
HEIGHT
3307
29-Jun-2023
14:27
ALSHS
Ser



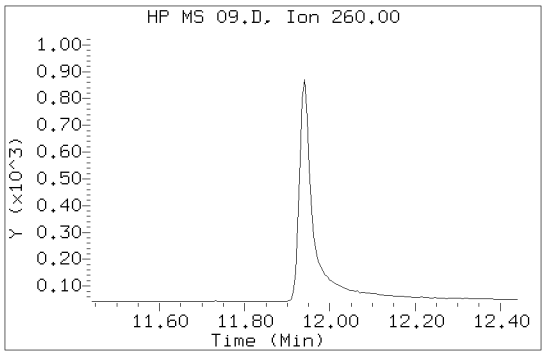
BEFORE

MASS
260
AREA
1816
HEIGHT
824
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
260
AREA
2012
HEIGHT
823
29-Jun-2023
14:27
ALSHS
Ser



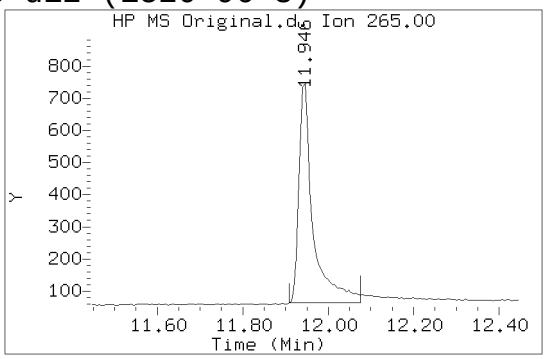
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

Perylene-d12 (1520-96-3)

Reason Code:

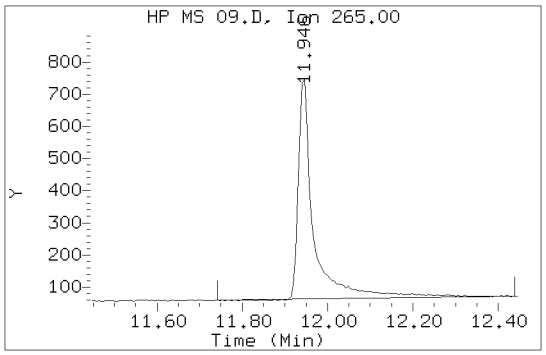
BEFORE

MASS
265
AREA
1571
HEIGHT
682
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
265
AREA
1706
HEIGHT
682
29-Jun-2023
14:27
ALSHS
Ser

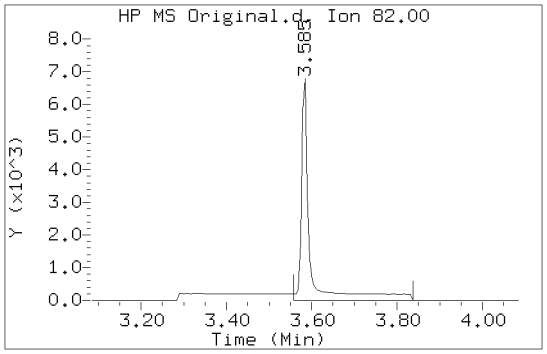


Nitrobenzene-d5 (4165-60-0)

Reason Code:

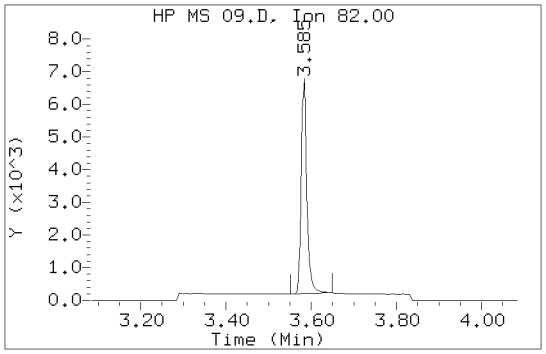
BEFORE

MASS
82
AREA
9487
HEIGHT
6787
16-Jun-2023
12:57
ALSHS
Server



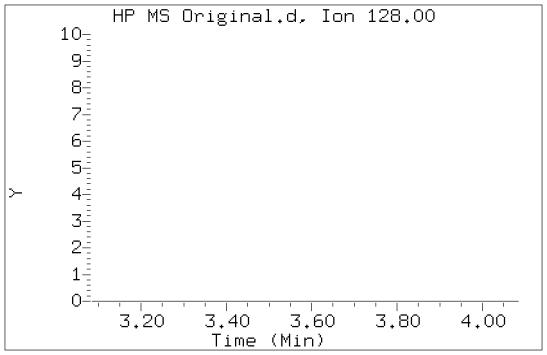
AFTER

MASS
82
AREA
6134
HEIGHT
6582
29-Jun-2023
14:27
ALSHS
Ser



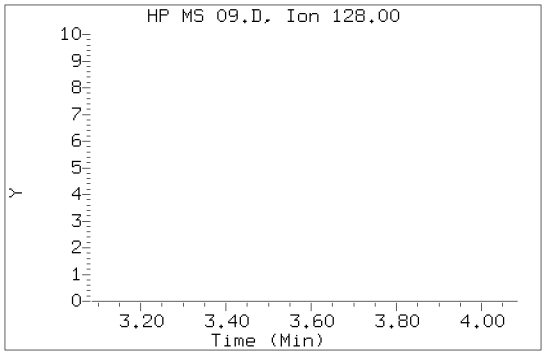
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



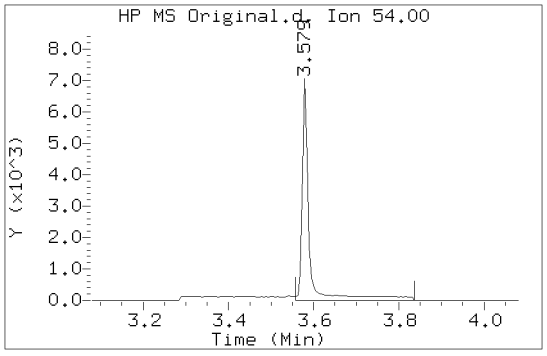
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



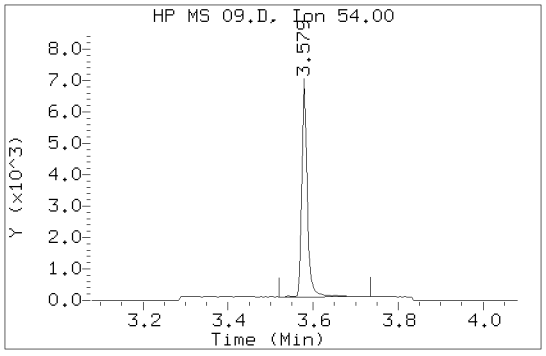
BEFORE

MASS
54
AREA
8200
HEIGHT
7059
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
54
AREA
6294
HEIGHT
6945
29-Jun-2023
14:27
ALSHS
Ser

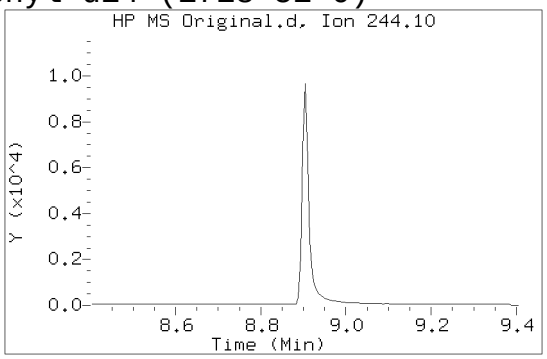


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

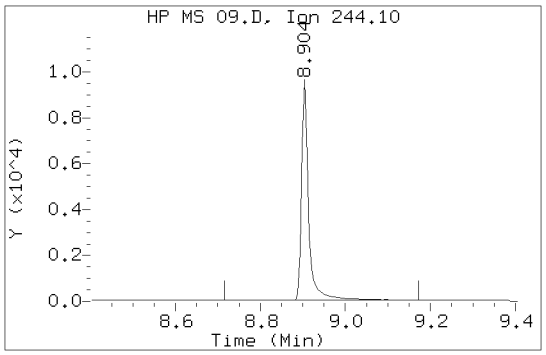
4-Terphenyl-d14 (1718-51-0)

Reason Code:

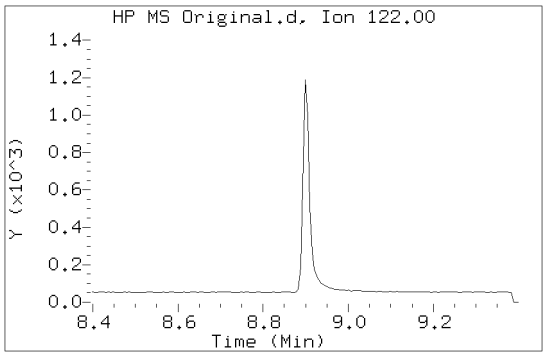
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



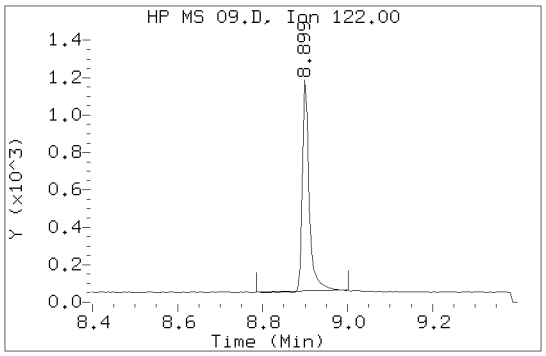
AFTER
MASS
244.1
AREA
10881
HEIGHT
9614
29-Jun-2023
14:27
ALSHS
Ser



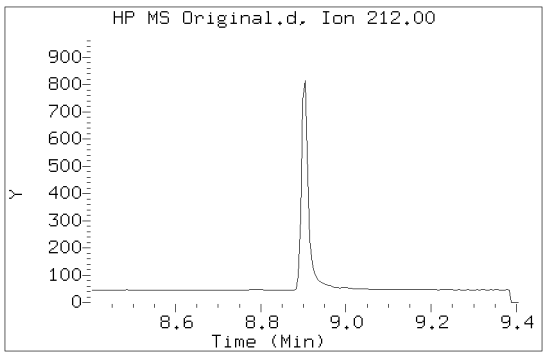
BEFORE
MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



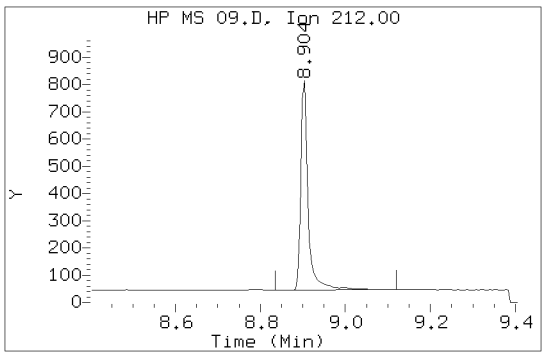
AFTER
MASS
122
AREA
1222
HEIGHT
1128
29-Jun-2023
14:27
ALSHS
Ser



BEFORE
MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



AFTER
MASS
212
AREA
918
HEIGHT
769
29-Jun-2023
14:27
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Lab Smp Id: 14DXICAL-0.1 Client Smp ID: 14DXICAL-0.1
Inj Date : 16-JUN-2023 14:15
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.1
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 15:48 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	4026	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	13383	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	4123	0.10000	0.1019(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	7945	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.248	5.248	(0.892)	7708	0.10000	0.09473(M)
* 126 Phenanthrene-d10	188	7.328	7.328	(1.000)	15519	0.10000	(M)
* 182 Chrysene-d12	240	10.028	10.028	(1.000)	9988	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.909	8.909	(0.888)	7529	0.10000	0.1033(M)
* 198 Perylene-d12	264	11.946	11.946	(1.000)	8963	0.10000	(M)
1 1,4-Dioxane	58	1.471	1.471	(0.470)	1445	0.10000	0.1066(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01208996

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D

Date : 16-JUN-2023 14:15

Client ID: 14DXICAL-0.1

Instrument: SV6.i

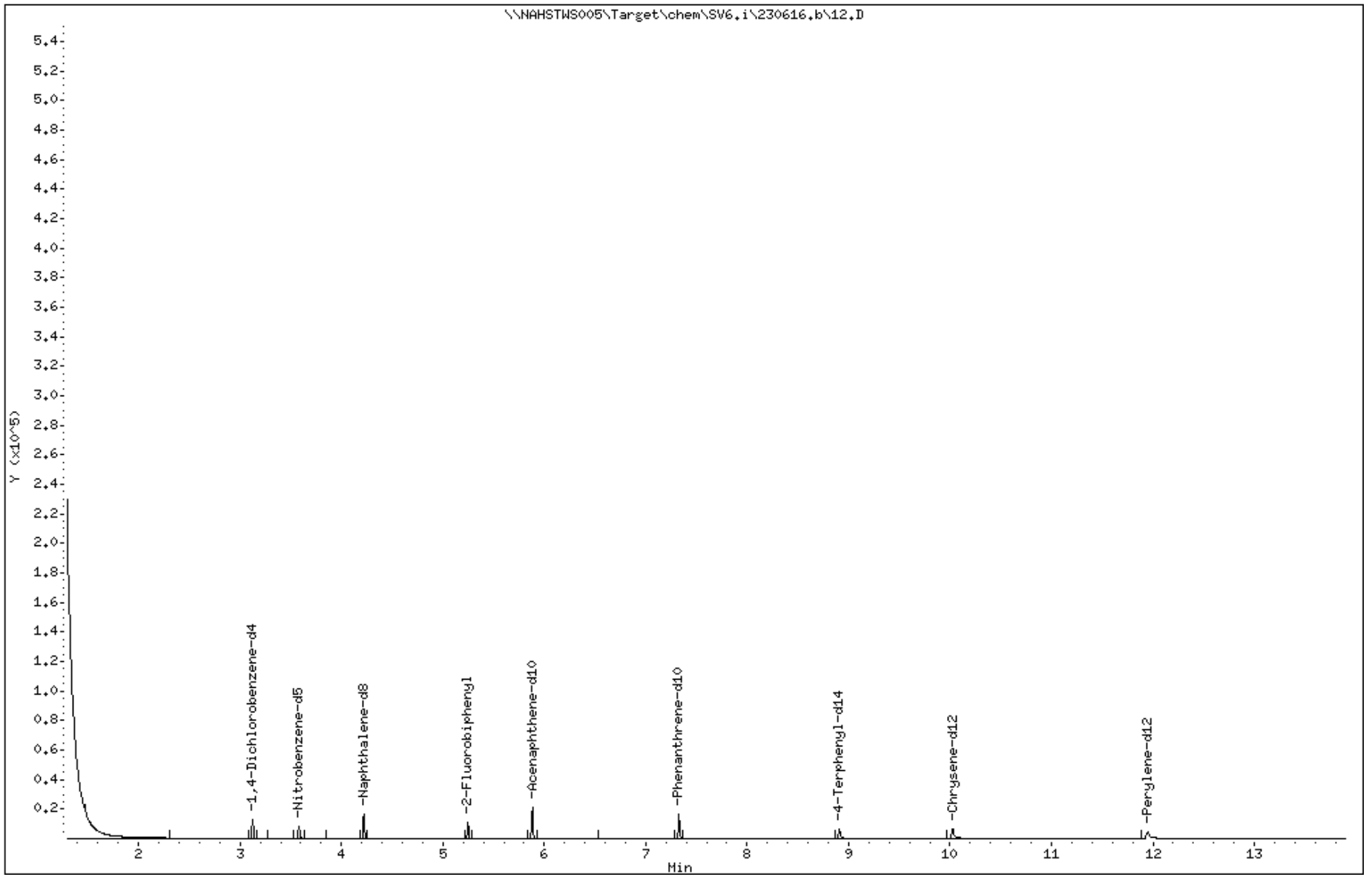
Sample Info: 14DXICAL-0.1

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

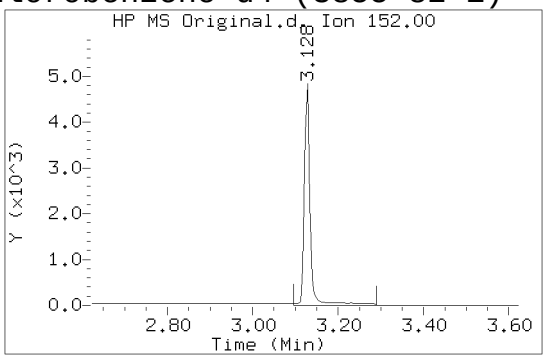


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

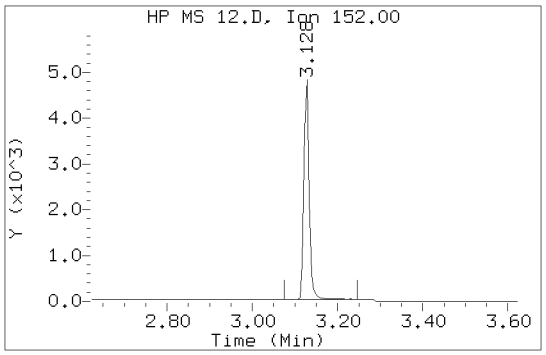
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

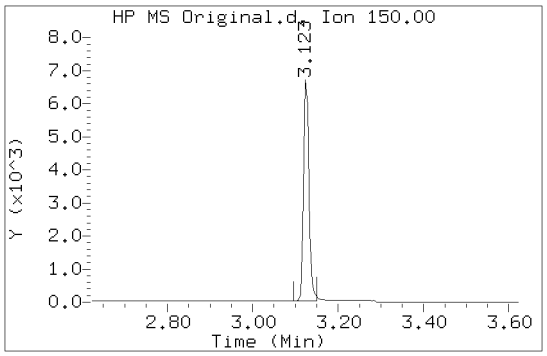
BEFORE
MASS
152
AREA
4570
HEIGHT
4842
16-Jun-2023
14:59
jiayi
lu



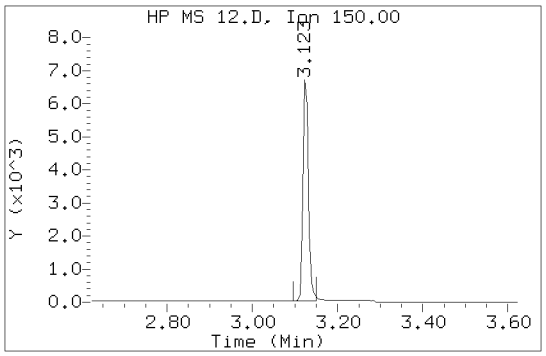
AFTER
MASS
152
AREA
4026
HEIGHT
4796
29-Jun-2023
15:48



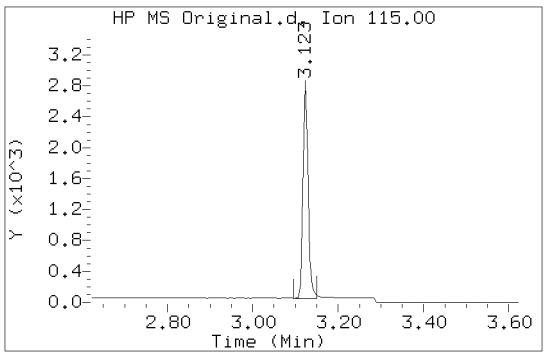
BEFORE
MASS
150
AREA
5752
HEIGHT
6676
16-Jun-2023
14:59
jiayi
lu



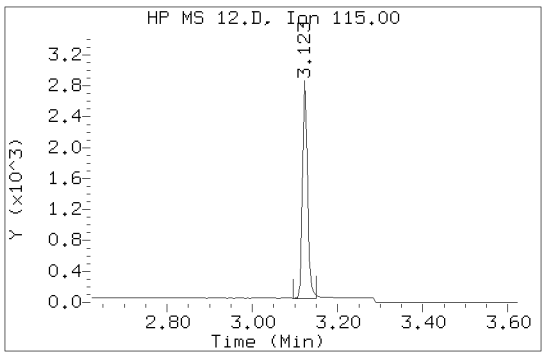
AFTER
MASS
150
AREA
5752
HEIGHT
6676
29-Jun-2023
15:48



BEFORE
MASS
115
AREA
2249
HEIGHT
2814
16-Jun-2023
14:59
jiayi
lu



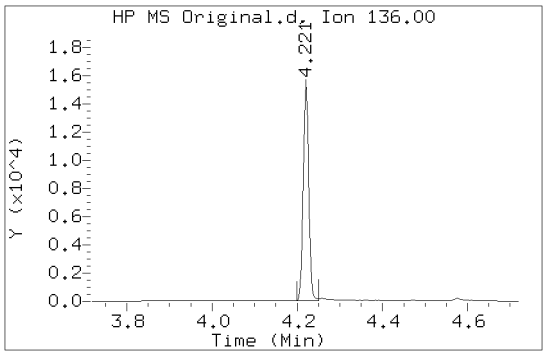
AFTER
MASS
115
AREA
2249
HEIGHT
2814
29-Jun-2023
15:48



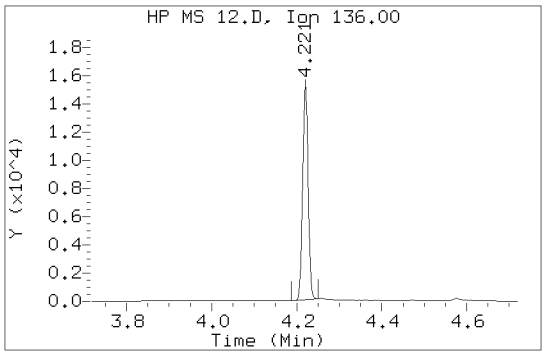
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
13619
HEIGHT
15676
16-Jun-2023
14:59
jiayi
lu



AFTER
MASS
136
AREA
13383
HEIGHT
15614
29-Jun-2023
15:48



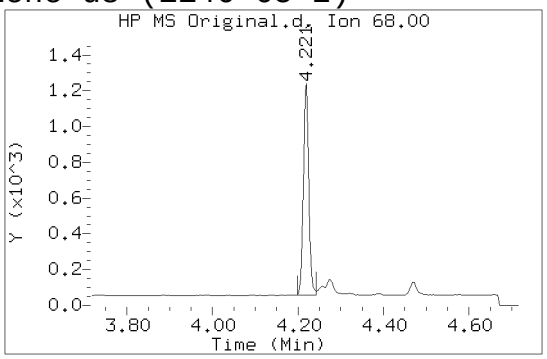
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

Naphthalene-d8 (1146-65-2)

Reason Code:

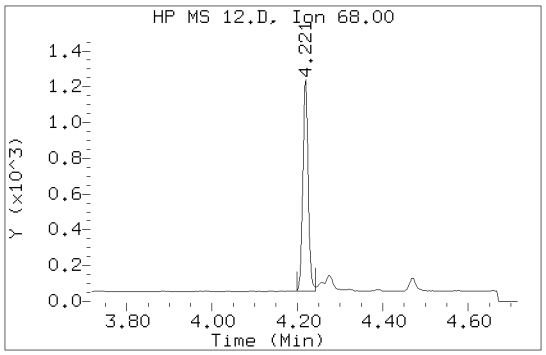
BEFORE

MASS
68
AREA
1062
HEIGHT
1182
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
68
AREA
1062
HEIGHT
1182
29-Jun-2023
15:48

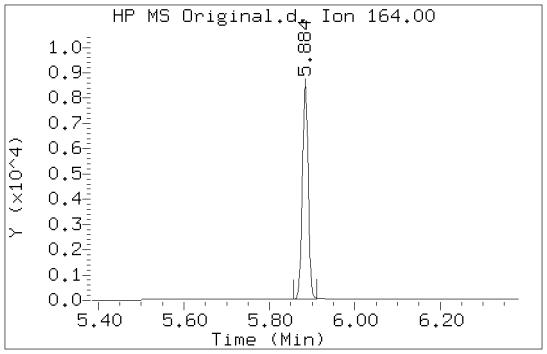


Acenaphthene-d10 (15067-26-2)

Reason Code:

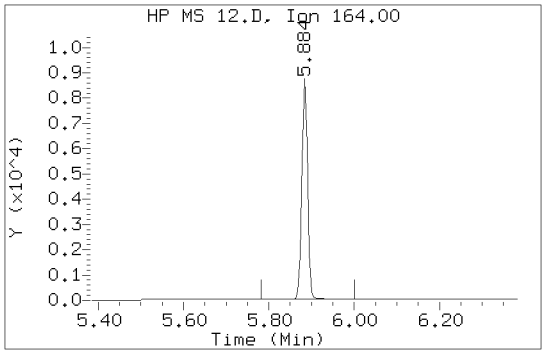
BEFORE

MASS
164
AREA
7893
HEIGHT
8717
16-Jun-2023
14:59
jiayi
lu



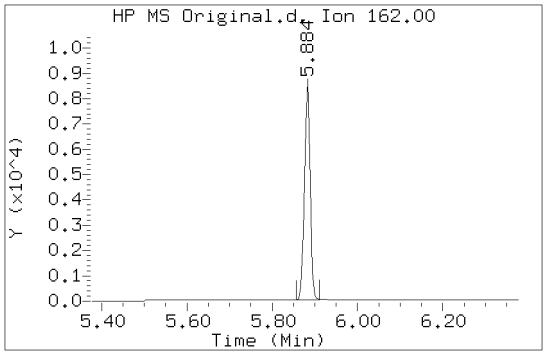
AFTER

MASS
164
AREA
7945
HEIGHT
8719
29-Jun-2023
15:48



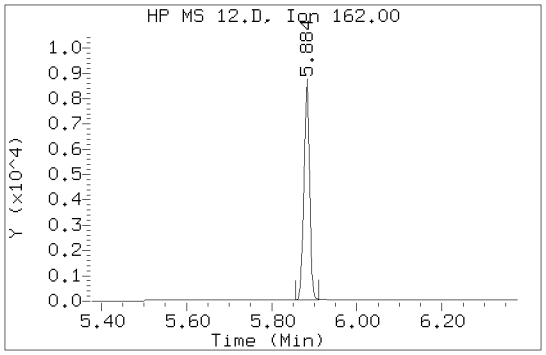
BEFORE

MASS
162
AREA
7978
HEIGHT
8729
16-Jun-2023
14:59
jiayi
lu



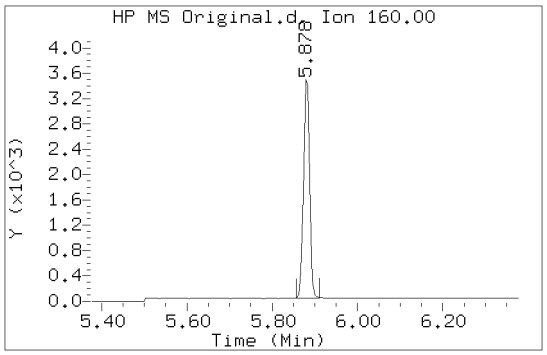
AFTER

MASS
162
AREA
7978
HEIGHT
8729
29-Jun-2023
15:48



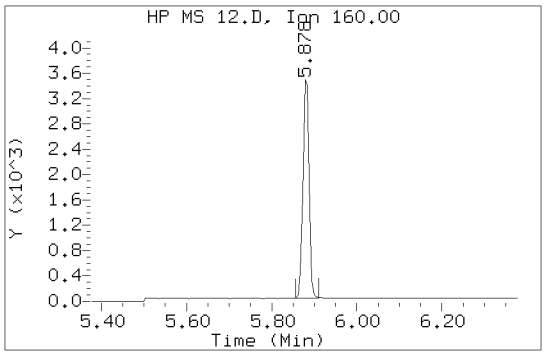
BEFORE

MASS
160
AREA
3420
HEIGHT
3449
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
160
AREA
3420
HEIGHT
3449
29-Jun-2023
15:48

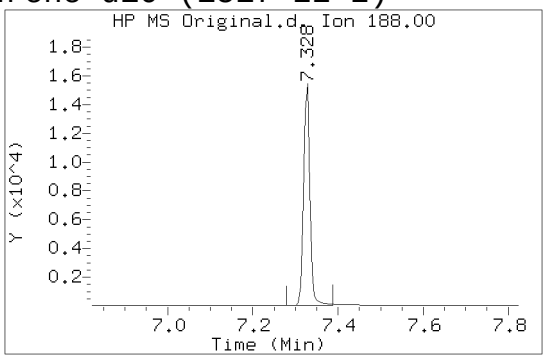


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

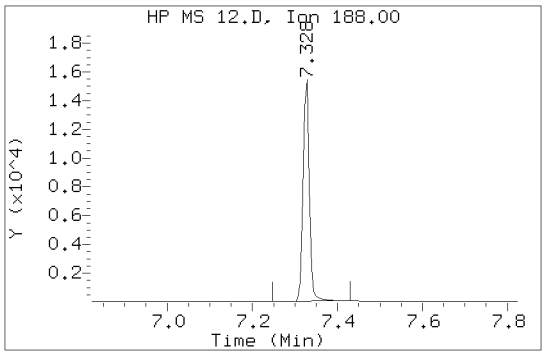
Phenanthrene-d10 (1517-22-2)

Reason Code:

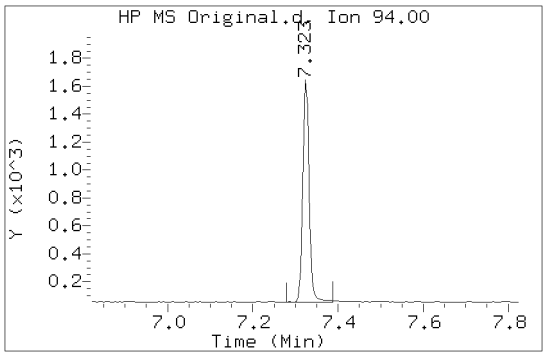
BEFORE
MASS
188
AREA
15580
HEIGHT
15412
16-Jun-2023
14:59
jiayi
lu



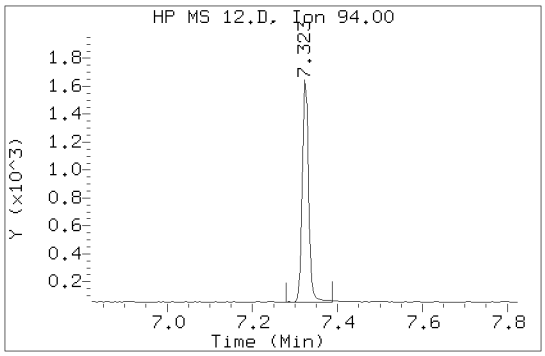
AFTER
MASS
188
AREA
15519
HEIGHT
15398
29-Jun-2023
15:48



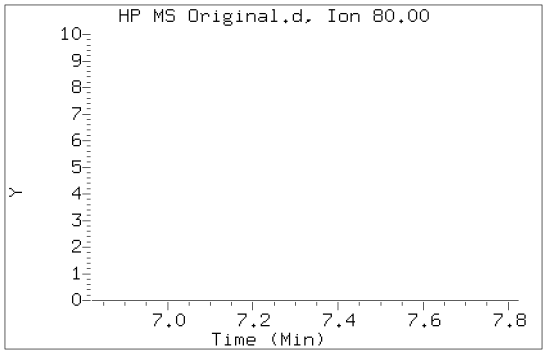
BEFORE
MASS
94
AREA
1615
HEIGHT
1589
16-Jun-2023
14:59
jiayi
lu



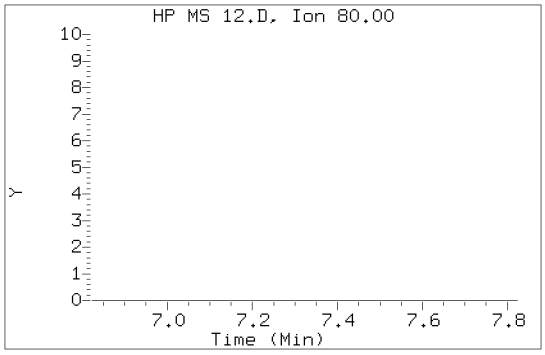
AFTER
MASS
94
AREA
1615
HEIGHT
1589
29-Jun-2023
15:48



BEFORE
MASS
80
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



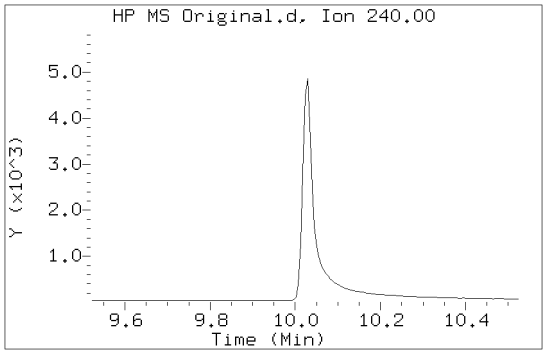
AFTER
MASS
80
AREA
0
HEIGHT
0
29-Jun-2023
15:48



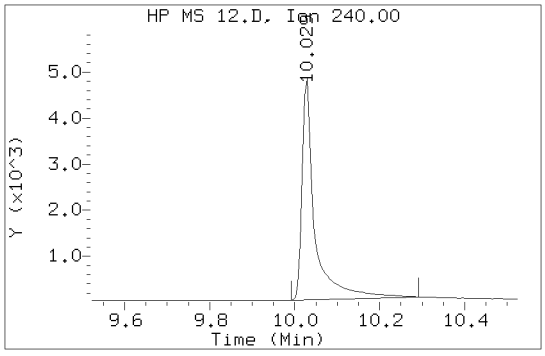
Chrysene-d12 (1719-03-5)

Reason Code:

BEFORE
MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



AFTER
MASS
240
AREA
9988
HEIGHT
4801
29-Jun-2023
15:48

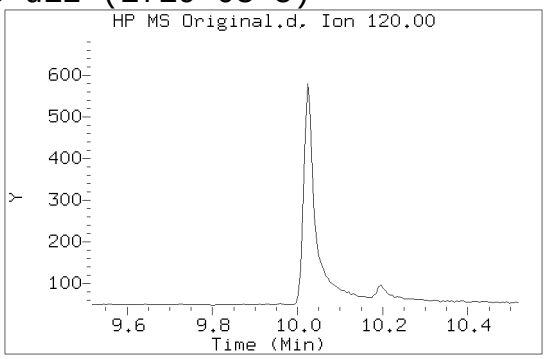


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Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

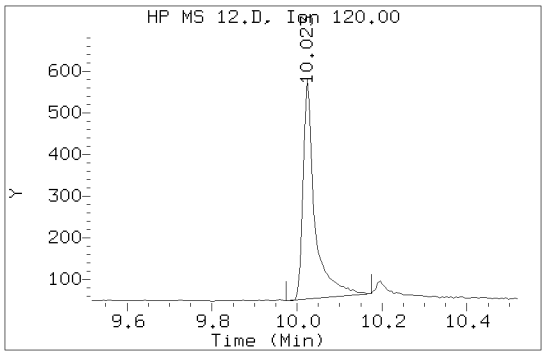
Chrysene-d12 (1719-03-5)

Reason Code:

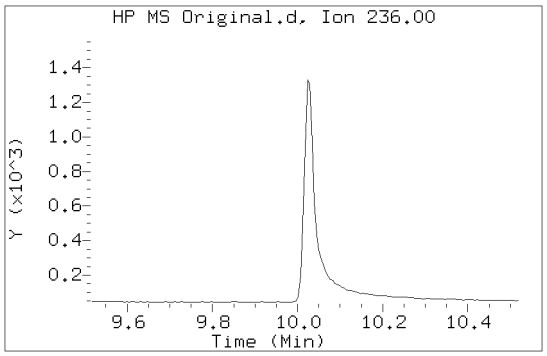
BEFORE
MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



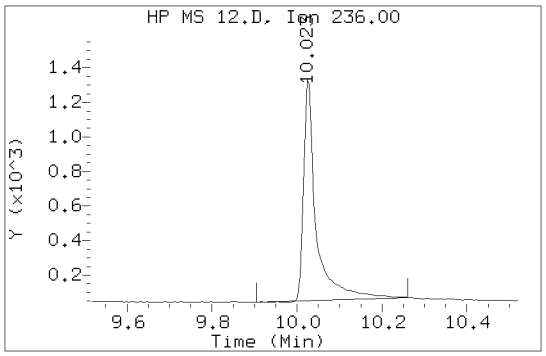
AFTER
MASS
120
AREA
998
HEIGHT
525
29-Jun-2023
15:48



BEFORE
MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



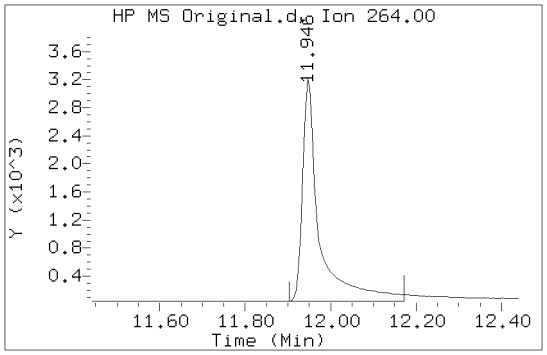
AFTER
MASS
236
AREA
2622
HEIGHT
1277
29-Jun-2023
15:48



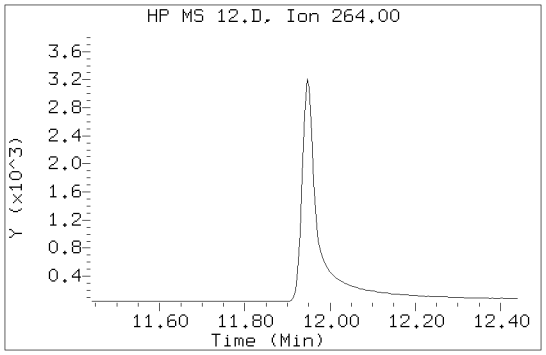
Perylene-d12 (1520-96-3)

Reason Code:

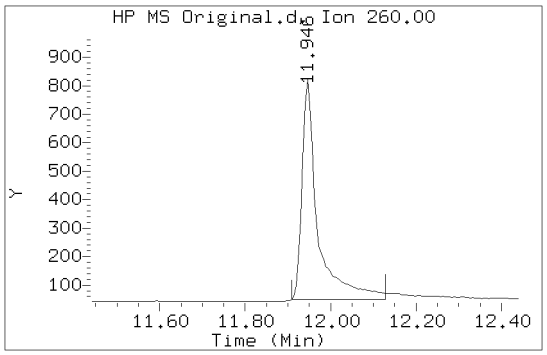
BEFORE
MASS
264
AREA
8613
HEIGHT
3164
16-Jun-2023
14:59
jiayi
lu



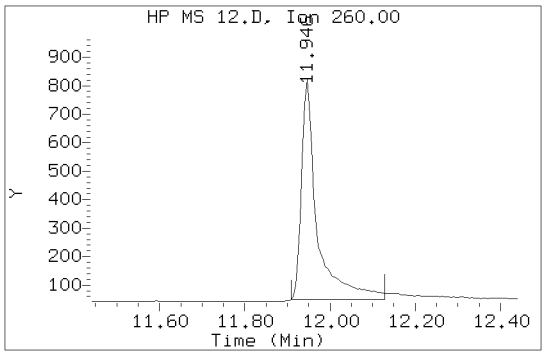
AFTER
MASS
264
AREA
8963
HEIGHT
3161
29-Jun-2023
15:48



BEFORE
MASS
260
AREA
1977
HEIGHT
772
16-Jun-2023
14:59
jiayi
lu



AFTER
MASS
260
AREA
1977
HEIGHT
772
29-Jun-2023
15:48



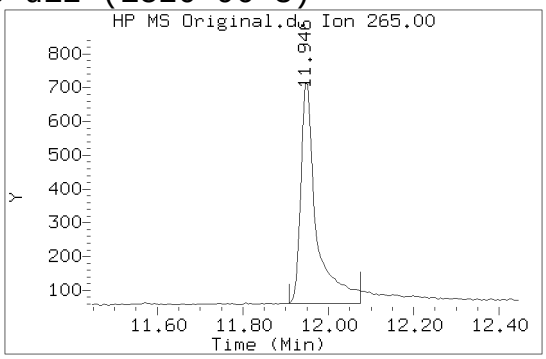
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

Perylene-d12 (1520-96-3)

Reason Code:

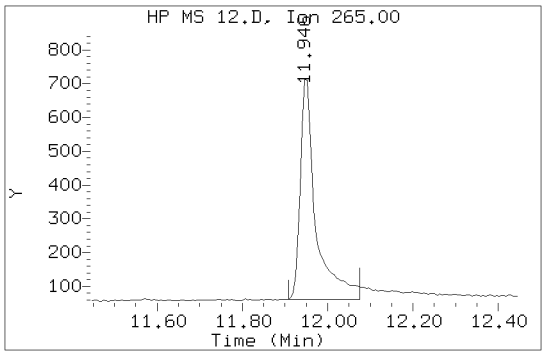
BEFORE

MASS
265
AREA
1666
HEIGHT
651
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
265
AREA
1666
HEIGHT
651
29-Jun-2023
15:48

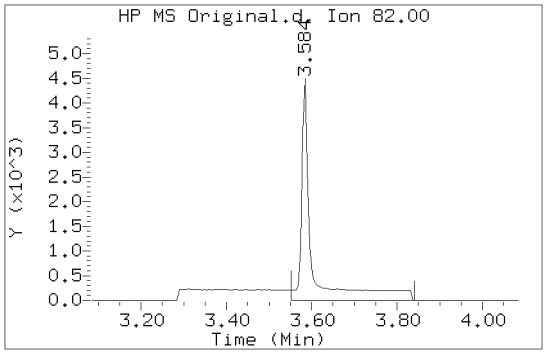


Nitrobenzene-d5 (4165-60-0)

Reason Code:

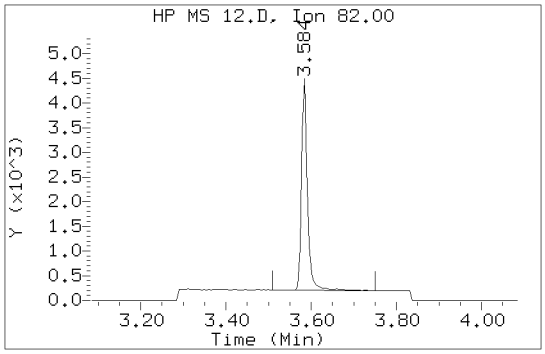
BEFORE

MASS
82
AREA
7524
HEIGHT
4492
16-Jun-2023
14:59
jiayi
lu



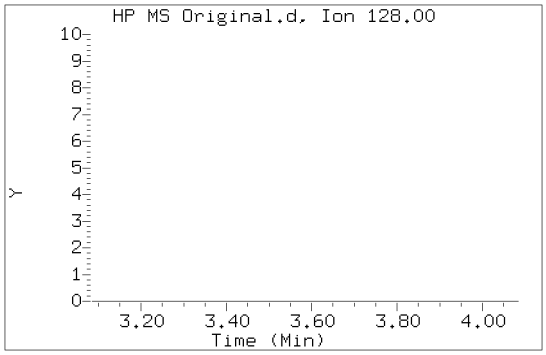
AFTER

MASS
82
AREA
4123
HEIGHT
4285
29-Jun-2023
15:48



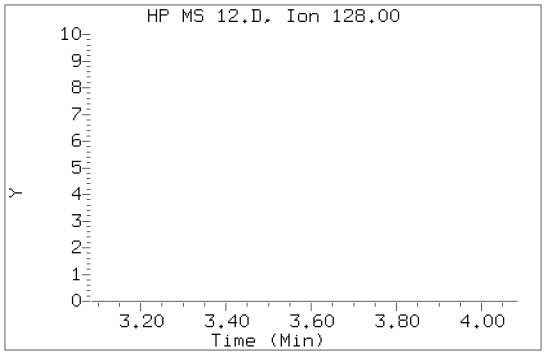
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



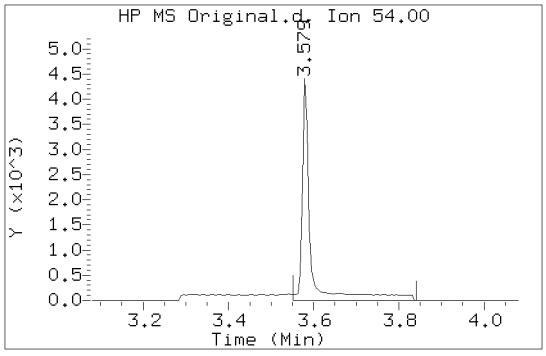
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
15:48



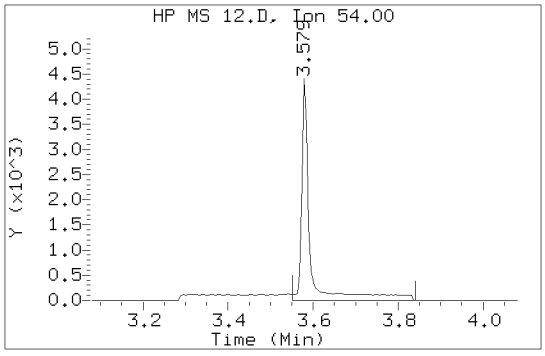
BEFORE

MASS
54
AREA
6015
HEIGHT
4407
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
54
AREA
6015
HEIGHT
4407
29-Jun-2023
15:48

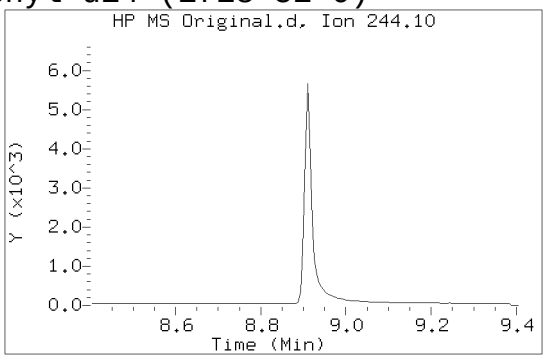


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

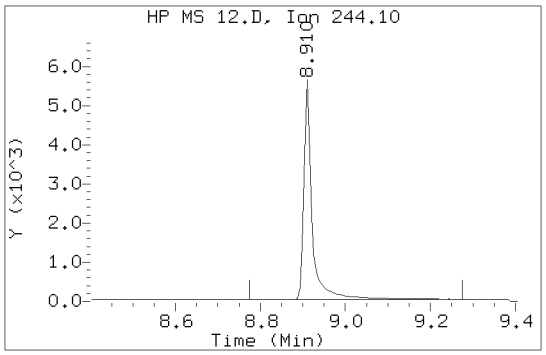
4-Terphenyl-d14 (1718-51-0)

Reason Code:

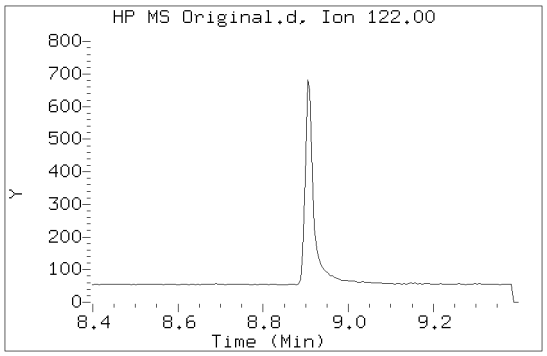
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



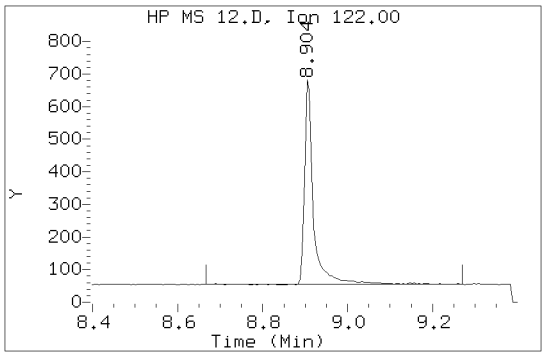
AFTER
MASS
244.1
AREA
7529
HEIGHT
5616
29-Jun-2023
15:48



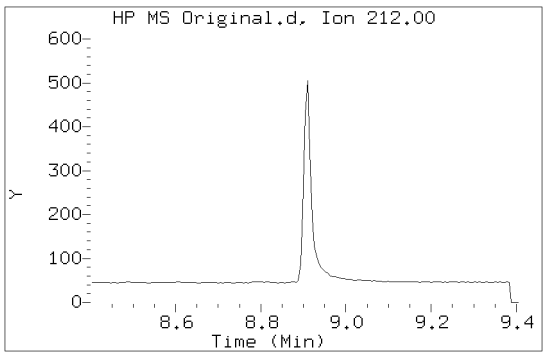
BEFORE
MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



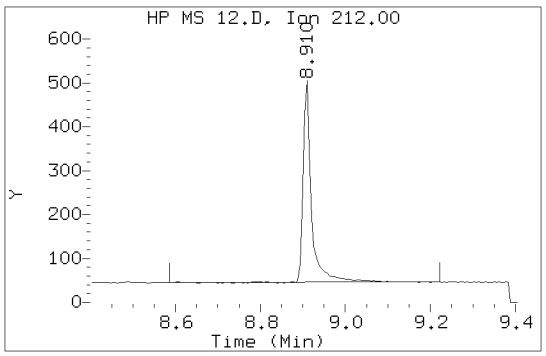
AFTER
MASS
122
AREA
918
HEIGHT
627
29-Jun-2023
15:48



BEFORE
MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



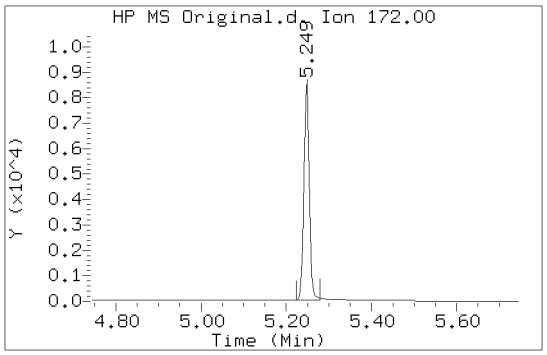
AFTER
MASS
212
AREA
625
HEIGHT
459
29-Jun-2023
15:48



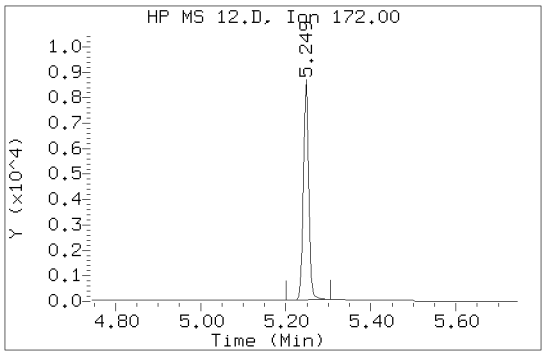
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
7733
HEIGHT
8663
16-Jun-2023
14:59
jiayi
lu



AFTER
MASS
172
AREA
7708
HEIGHT
8650
29-Jun-2023
15:48



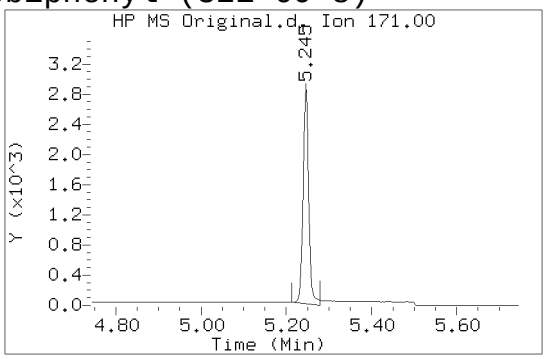
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

2-Fluorobiphenyl (321-60-8)

Reason Code:

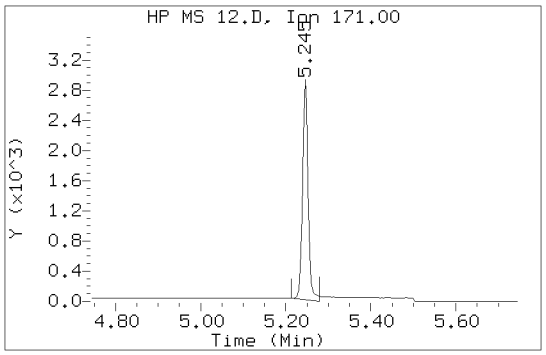
BEFORE

MASS
171
AREA
2685
HEIGHT
2917
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
171
AREA
2685
HEIGHT
2917
29-Jun-2023
15:48



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Lab Smp Id: 14DXICAL-0.5 Client Smp ID: 14DXICAL-0.5
Inj Date : 16-JUN-2023 14:51
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.5
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 12:38 Cal File: 09.D
Als bottle: 14 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.122	3.122	(1.000)	4165	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	13989	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.579	3.579	(0.848)	19311	0.50000	0.4566(AM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	8414	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	39708	0.50000	0.4608(AM)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	16472	0.10000	(M)
* 182 Chrysene-d12	240	10.017	10.017	(1.000)	10483	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	39805	0.50000	0.5203(AM)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	8460	0.10000	(M)
1 1,4-Dioxane	58	1.452	1.452	(0.465)	6496	0.50000	0.4630(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01209006

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D

Date : 16-JUN-2023 14:51

Client ID: 14DXICAL-0.5

Instrument: SV6.i

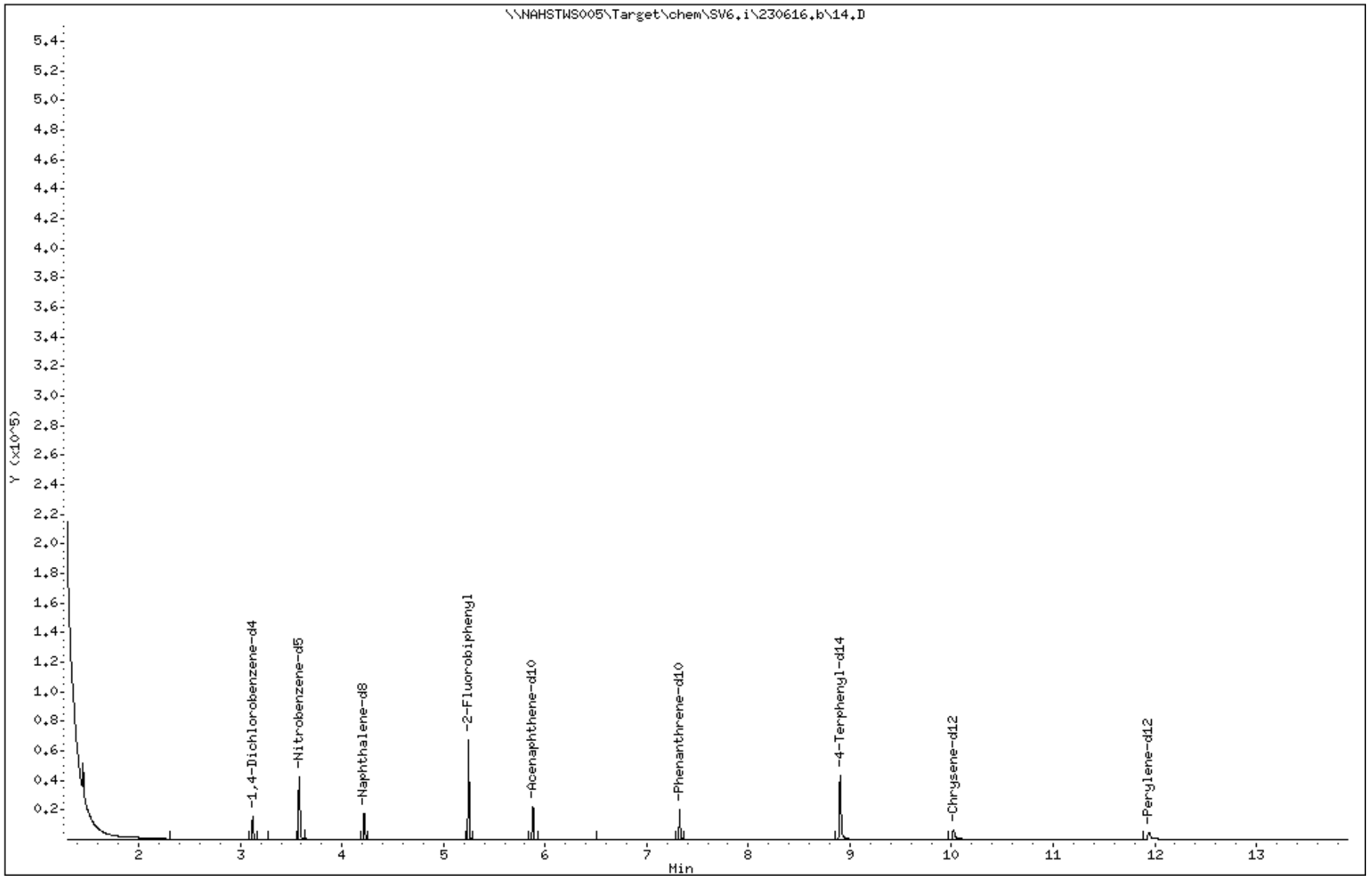
Sample Info: 14DXICAL-0.5

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



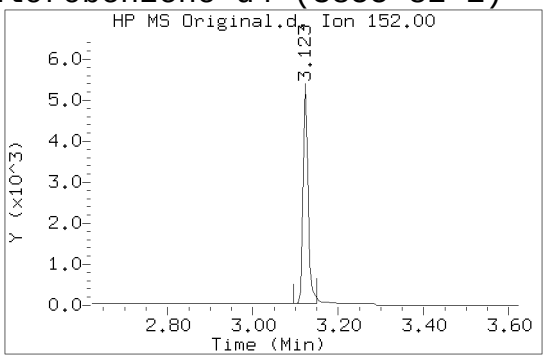
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

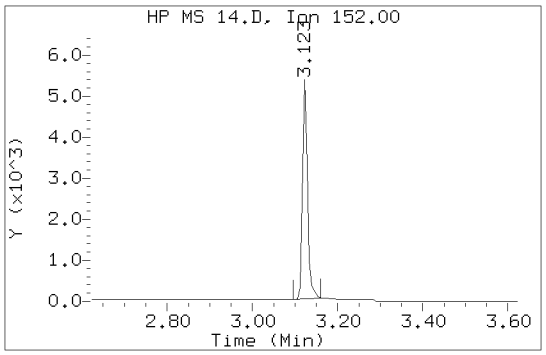
BEFORE

MASS
152
AREA
4211
HEIGHT
5358
16-Jun-2023
15:06
ALSHS
Server



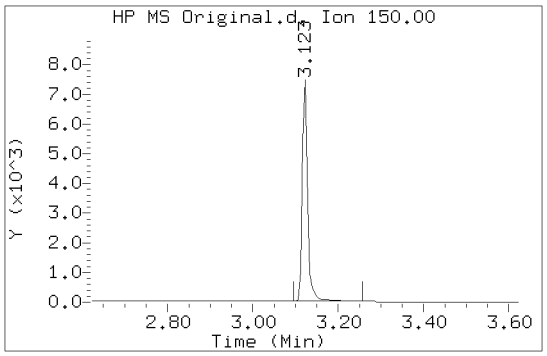
AFTER

MASS
152
AREA
4165
HEIGHT
5341
29-Jun-2023
14:27
ALSHS
Ser



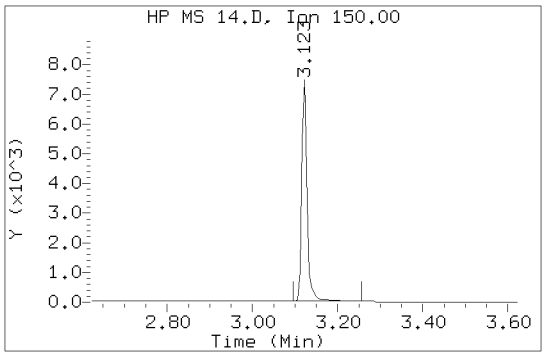
BEFORE

MASS
150
AREA
6228
HEIGHT
7441
16-Jun-2023
15:06
ALSHS
Server



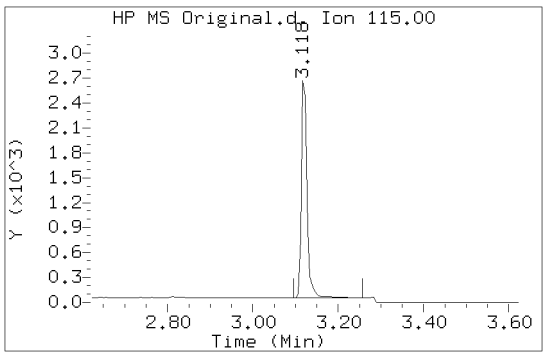
AFTER

MASS
150
AREA
6228
HEIGHT
7441
29-Jun-2023
14:27
ALSHS
Ser



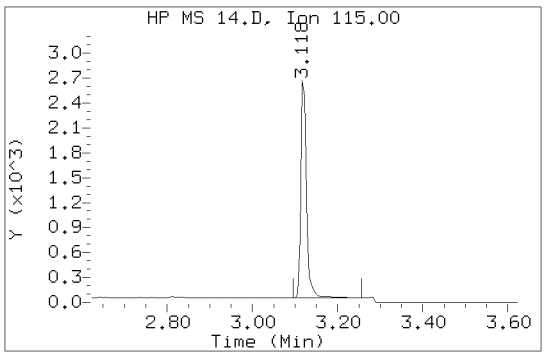
BEFORE

MASS
115
AREA
2367
HEIGHT
2615
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
115
AREA
2367
HEIGHT
2615
29-Jun-2023
14:27
ALSHS
Ser

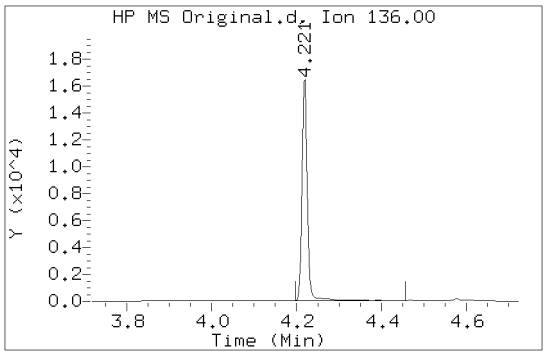


Naphthalene-d8 (1146-65-2)

Reason Code:

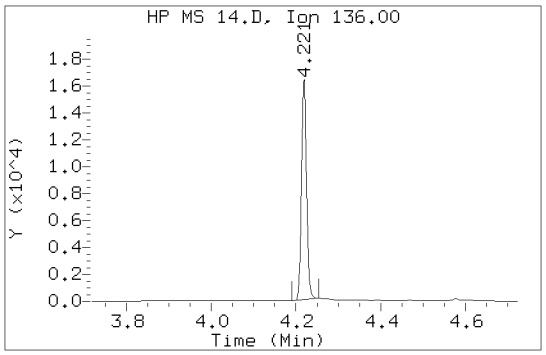
BEFORE

MASS
136
AREA
14856
HEIGHT
16448
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
136
AREA
13989
HEIGHT
16349
29-Jun-2023
14:27
ALSHS
Ser



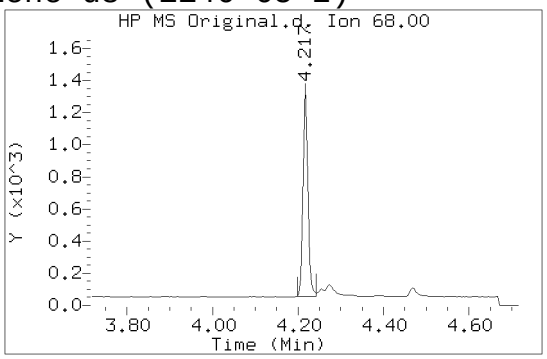
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

Naphthalene-d8 (1146-65-2)

Reason Code:

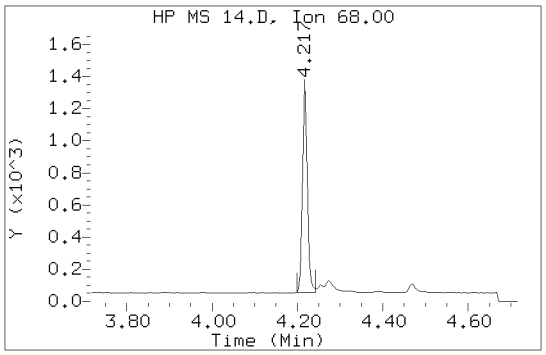
BEFORE

MASS
68
AREA
1074
HEIGHT
1326
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
68
AREA
1074
HEIGHT
1326
29-Jun-2023
14:27
ALSHS
Ser

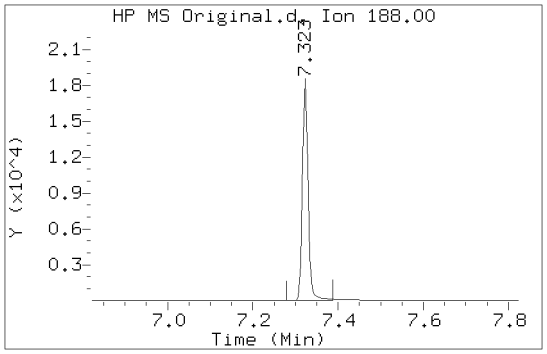


Phenanthrene-d10 (1517-22-2)

Reason Code:

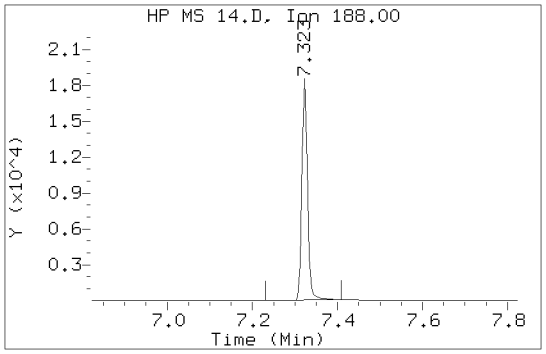
BEFORE

MASS
188
AREA
16664
HEIGHT
18523
16-Jun-2023
15:06
ALSHS
Server



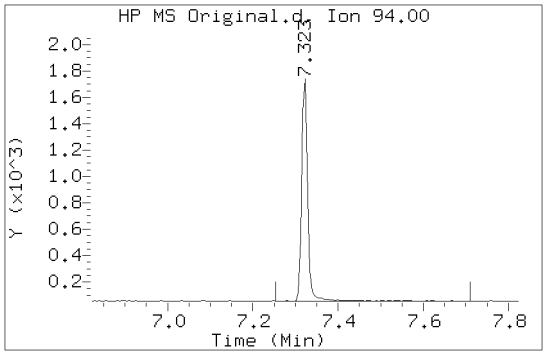
AFTER

MASS
188
AREA
16472
HEIGHT
18498
29-Jun-2023
14:27
ALSHS
Ser



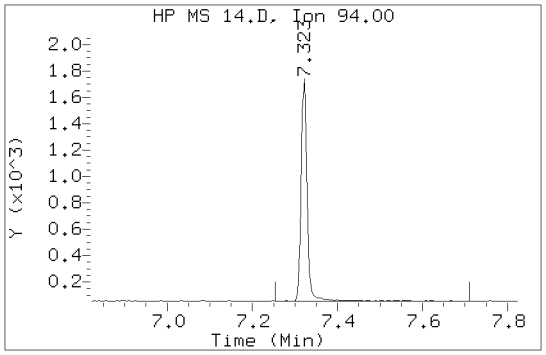
BEFORE

MASS
94
AREA
1634
HEIGHT
1685
16-Jun-2023
15:06
ALSHS
Server



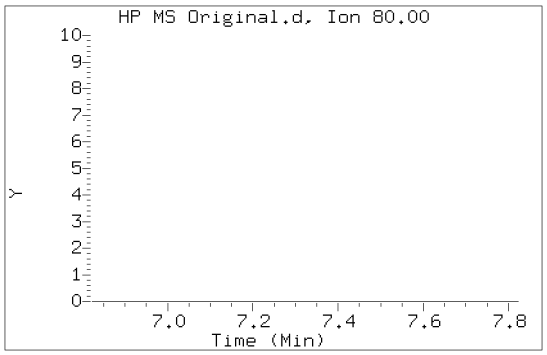
AFTER

MASS
94
AREA
1634
HEIGHT
1685
29-Jun-2023
14:27
ALSHS
Ser



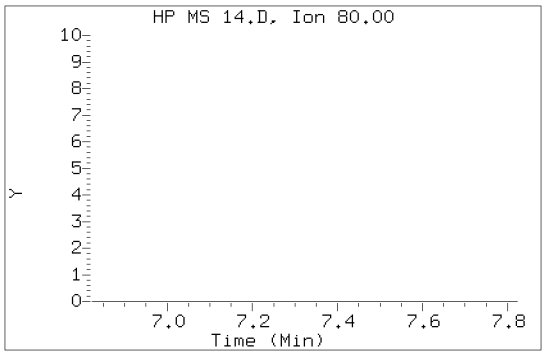
BEFORE

MASS
80
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



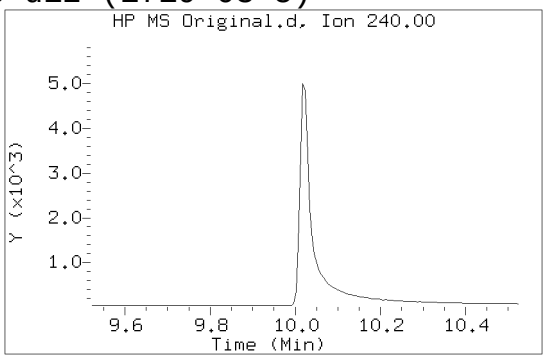
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

Chrysene-d12 (1719-03-5)

Reason Code:

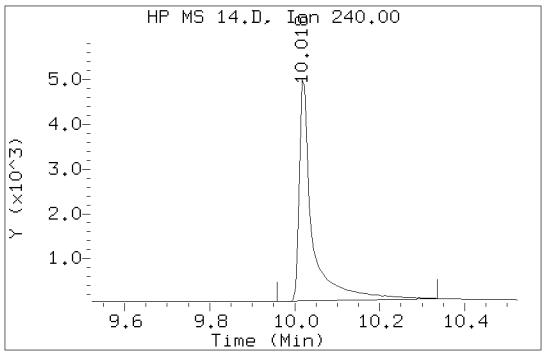
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



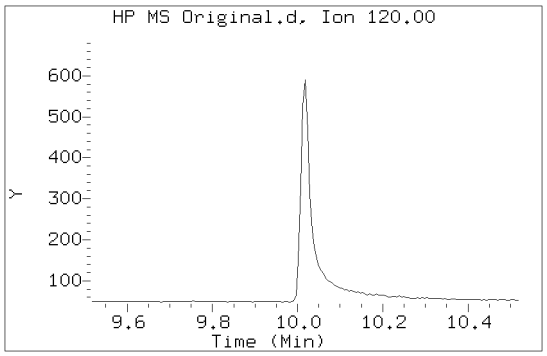
AFTER

MASS
240
AREA
10483
HEIGHT
4943
29-Jun-2023
14:27
ALSHS
Ser



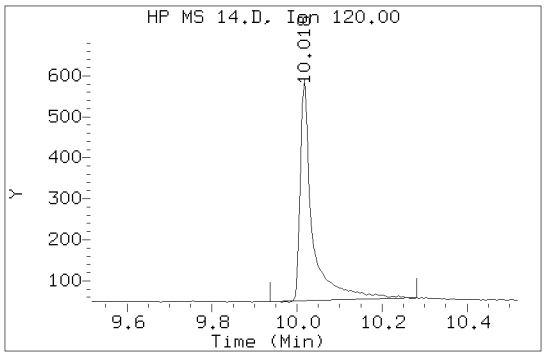
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



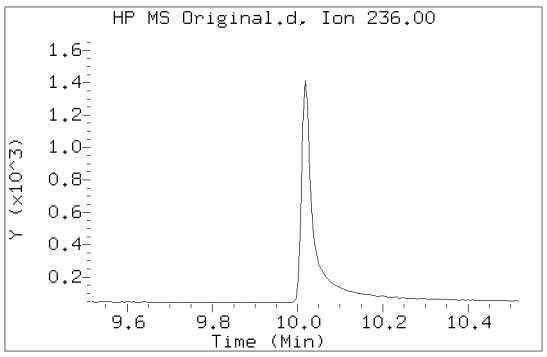
AFTER

MASS
120
AREA
1068
HEIGHT
538
29-Jun-2023
14:27
ALSHS
Ser



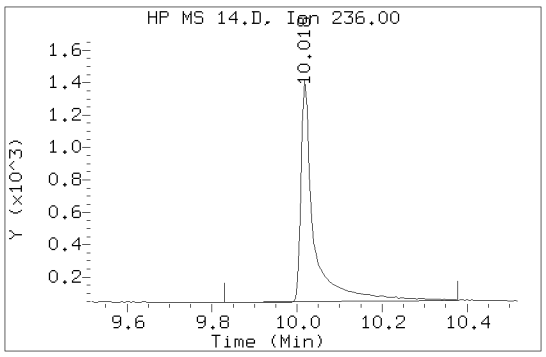
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
236
AREA
2872
HEIGHT
1362
29-Jun-2023
14:27
ALSHS
Ser

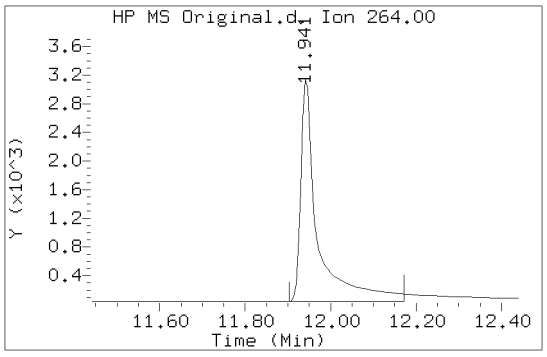


Perylene-d12 (1520-96-3)

Reason Code:

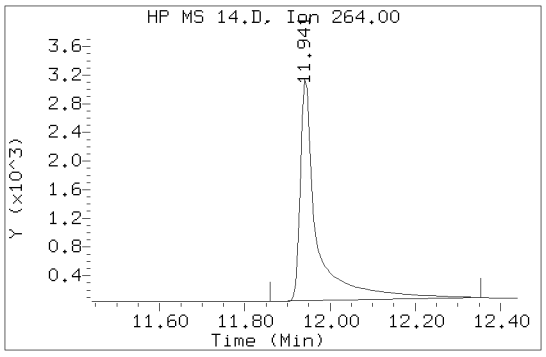
BEFORE

MASS
264
AREA
8406
HEIGHT
3088
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
264
AREA
8460
HEIGHT
3081
29-Jun-2023
14:27
ALSHS
Ser



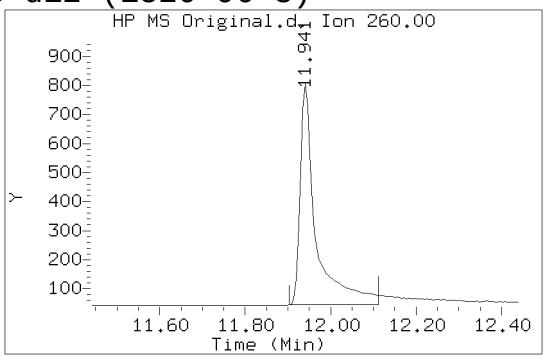
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

Perylene-d12 (1520-96-3)

Reason Code:

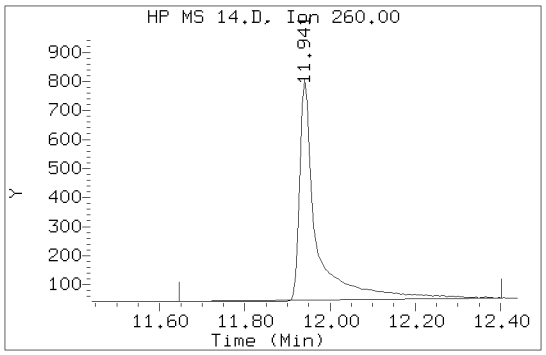
BEFORE

MASS
260
AREA
1950
HEIGHT
761
16-Jun-2023
15:06
ALSHS
Server



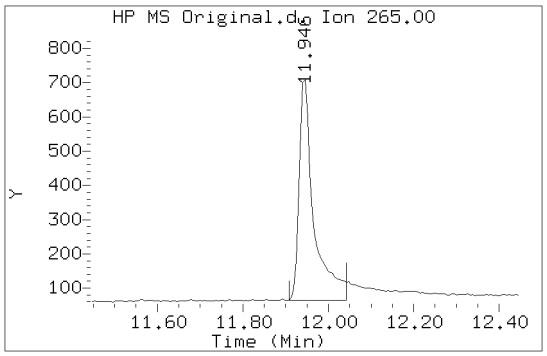
AFTER

MASS
260
AREA
2034
HEIGHT
757
29-Jun-2023
14:27
ALSHS
Ser



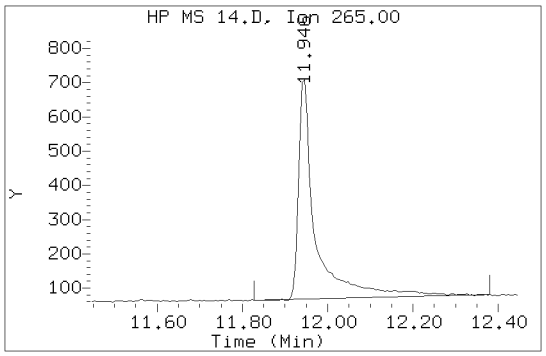
BEFORE

MASS
265
AREA
1539
HEIGHT
643
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
265
AREA
1765
HEIGHT
639
29-Jun-2023
14:27
ALSHS
Ser

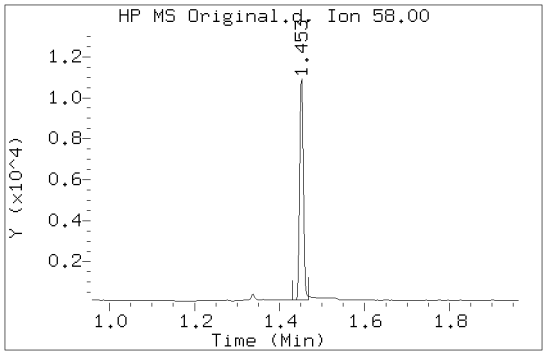


1,4-Dioxane ()

Reason Code:

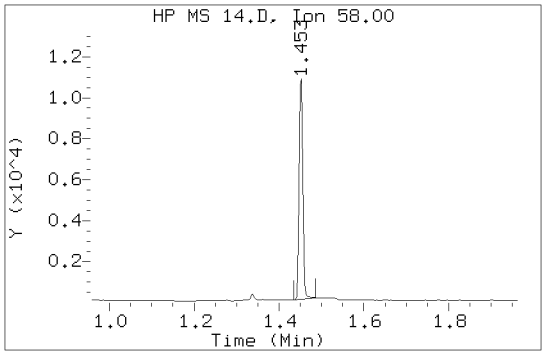
BEFORE

MASS
58
AREA
6535
HEIGHT
10789
16-Jun-2023
15:06
ALSHS
Server



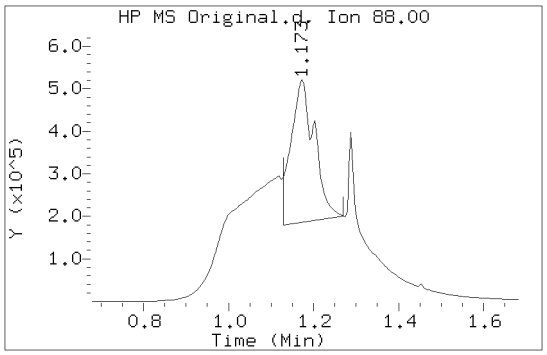
AFTER

MASS
58
AREA
6496
HEIGHT
10751
29-Jun-2023
14:27
ALSHS
Ser



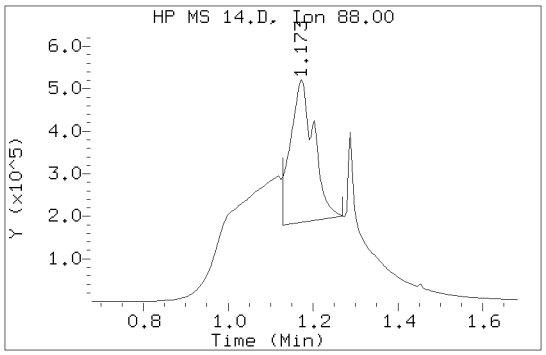
BEFORE

MASS
88
AREA
1285756
HEIGHT
334955
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
88
AREA
1285756
HEIGHT
334955
29-Jun-2023
14:27
ALSHS
Ser



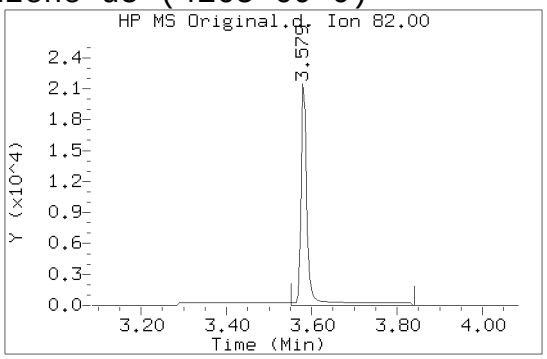
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

Nitrobenzene-d5 (4165-60-0)

Reason Code:

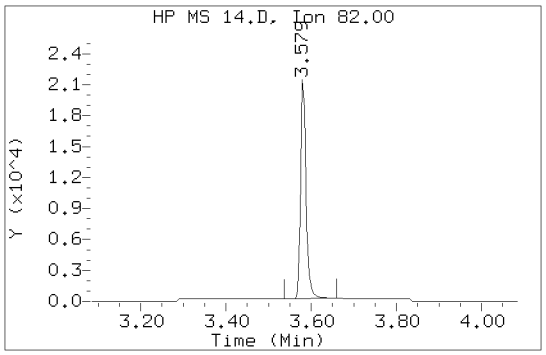
BEFORE

MASS
82
AREA
23560
HEIGHT
21488
16-Jun-2023
15:06
ALSHS
Server



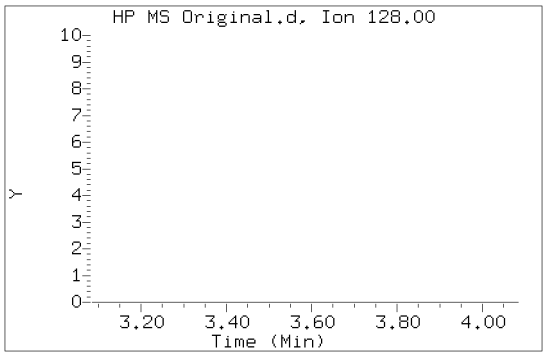
AFTER

MASS
82
AREA
19311
HEIGHT
21230
29-Jun-2023
14:27
ALSHS
Ser



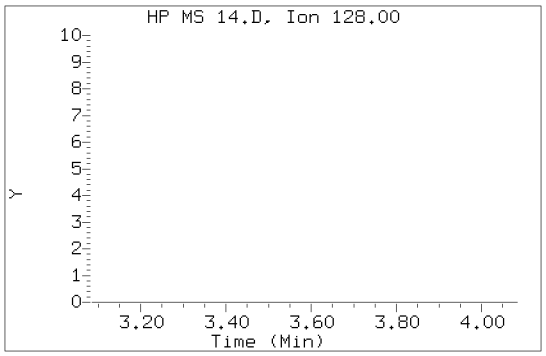
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



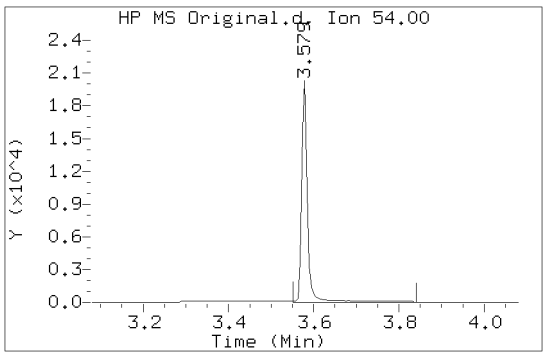
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



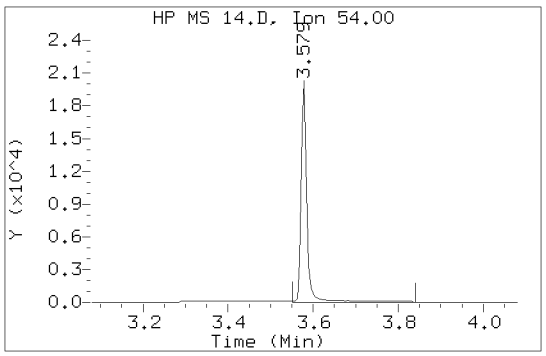
BEFORE

MASS
54
AREA
20065
HEIGHT
20304
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
54
AREA
20065
HEIGHT
20304
29-Jun-2023
14:27
ALSHS
Ser

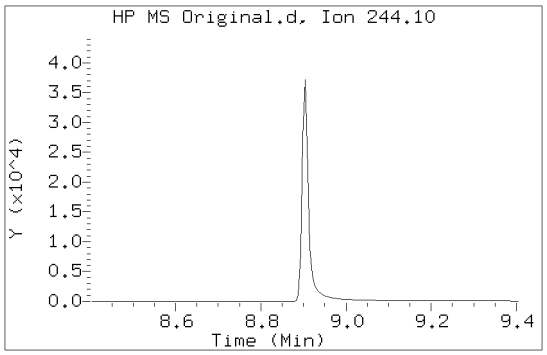


4-Terphenyl-d14 (1718-51-0)

Reason Code:

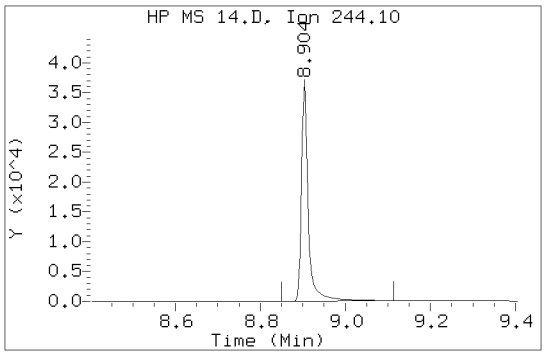
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
244.1
AREA
39805
HEIGHT
37107
29-Jun-2023
14:27
ALSHS
Ser



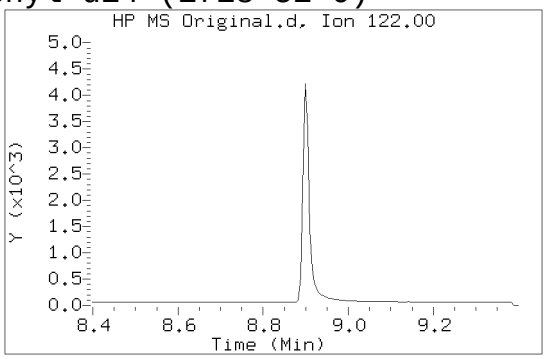
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

4-Terphenyl-d14 (1718-51-0)

Reason Code:

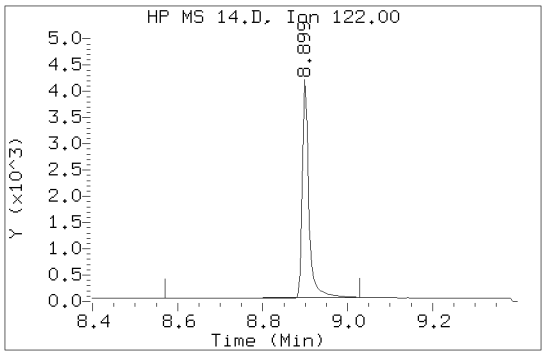
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



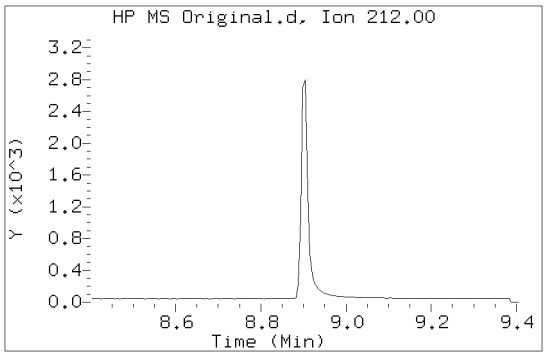
AFTER

MASS
122
AREA
4228
HEIGHT
4149
29-Jun-2023
14:27
ALSHS
Ser



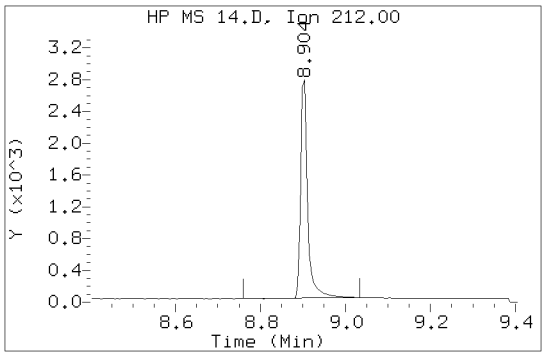
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
212
AREA
3105
HEIGHT
2745
29-Jun-2023
14:27
ALSHS
Ser

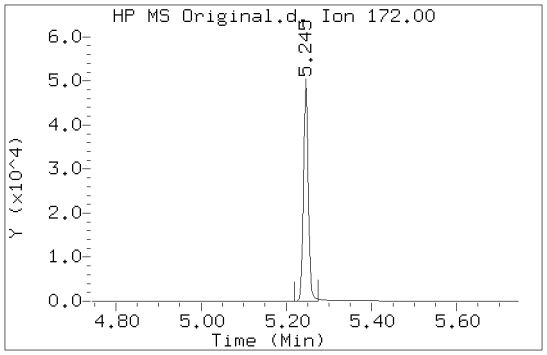


2-Fluorobiphenyl (321-60-8)

Reason Code:

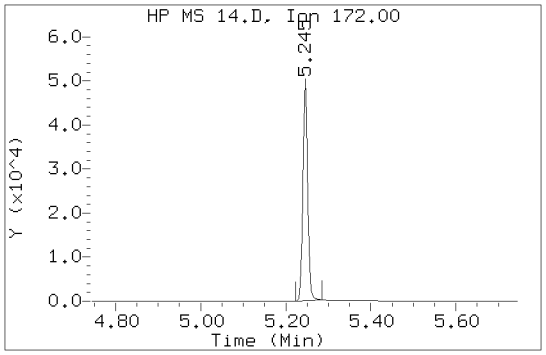
BEFORE

MASS
172
AREA
40002
HEIGHT
50410
16-Jun-2023
15:06
ALSHS
Server



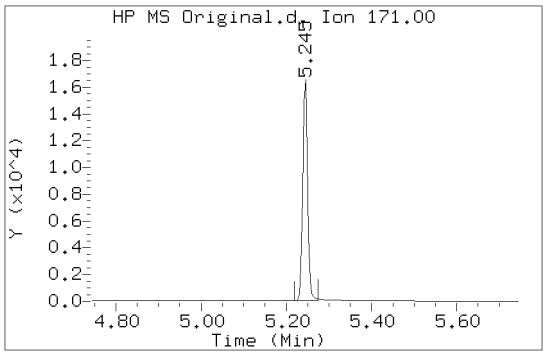
AFTER

MASS
172
AREA
39708
HEIGHT
50322
29-Jun-2023
14:27
ALSHS
Ser



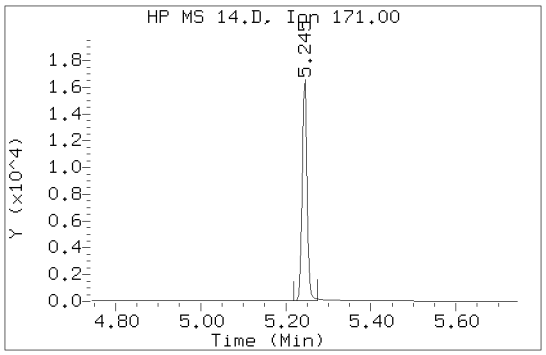
BEFORE

MASS
171
AREA
13389
HEIGHT
16514
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
171
AREA
13389
HEIGHT
16514
29-Jun-2023
14:27
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D Page 1
Report Date: 29-Jun-2023 14:27

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Lab Smp Id: 14DXICAL-0.2 Client Smp ID: 14DXICAL-0.2
Inj Date : 16-JUN-2023 15:56
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.2RR
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 14:51 Cal File: 14.D
Als bottle: 15 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.122	3.122	(1.000)	3731	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	12688	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	8839	0.20000	0.2304(AM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	7256	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	18173	0.20000	0.2446(AM)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	14346	0.10000	
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	8796	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.888)	17639	0.20000	0.2748(AM)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	6565	0.10000	(M)
1 1,4-Dioxane	58	1.460	1.460	(0.468)	2996	0.20000	0.2384(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01209015

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D

Date : 16-JUN-2023 15:56

Client ID: 14DXICAL-0.2

Instrument: SV6.i

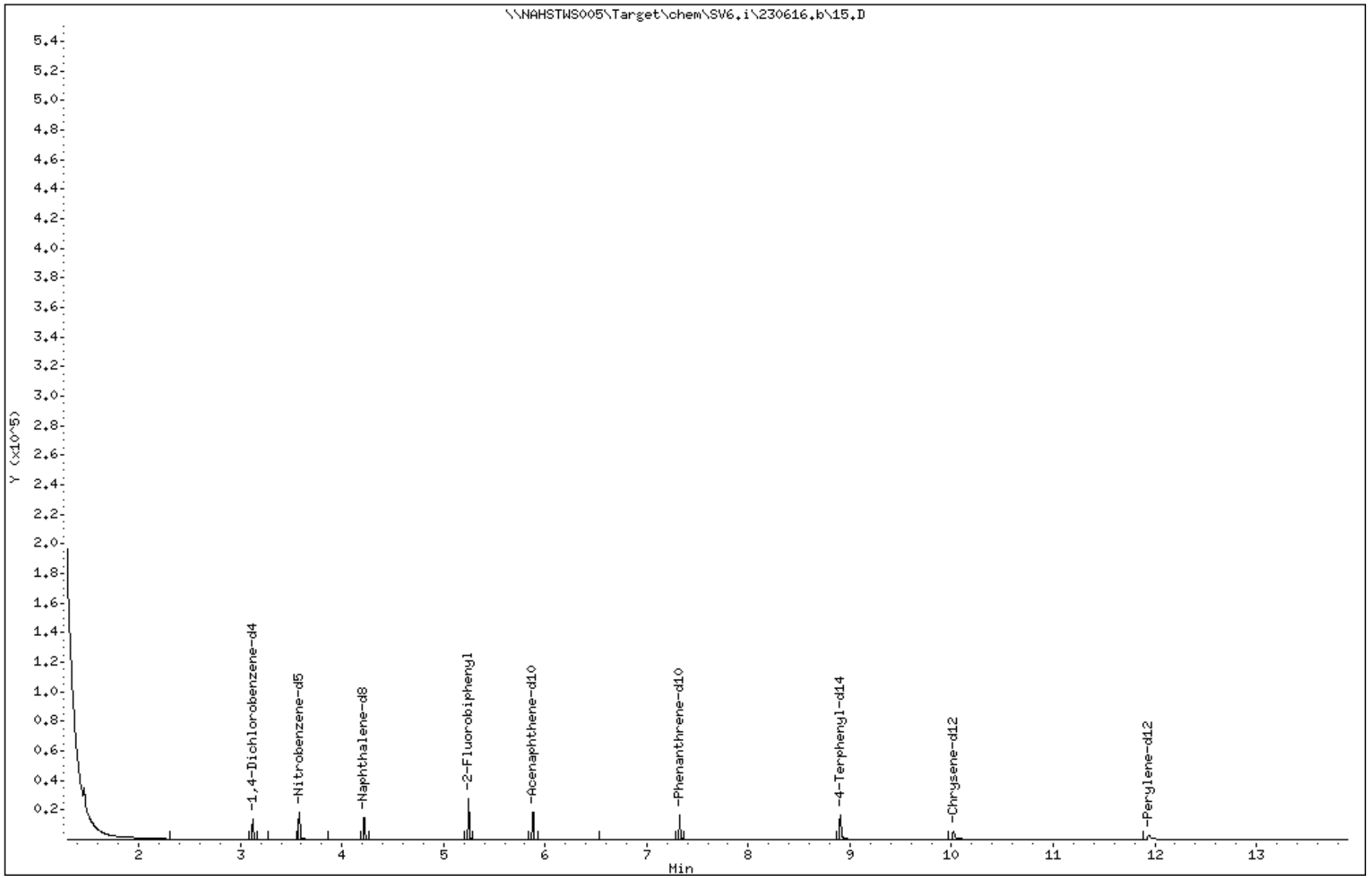
Sample Info: 14DXICAL-0.2RR

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



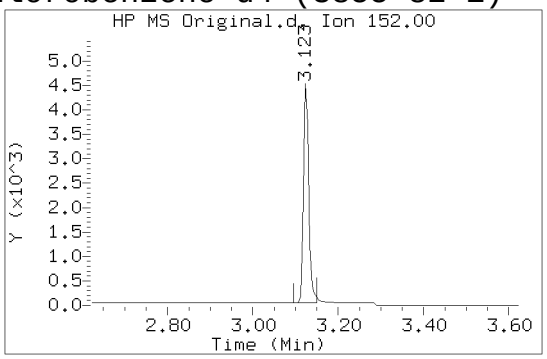
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Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

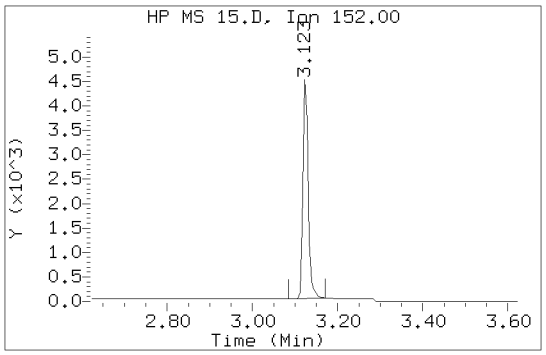
BEFORE

MASS
152
AREA
3749
HEIGHT
4489
16-Jun-2023
16:11
ALSHS
Server



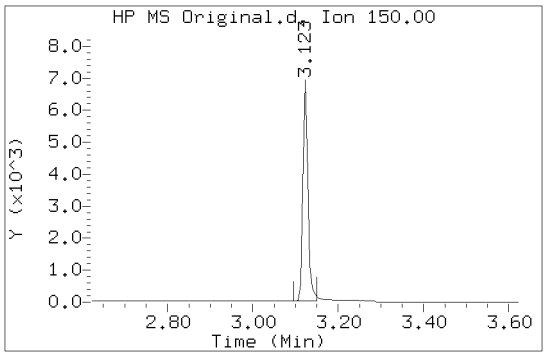
AFTER

MASS
152
AREA
3731
HEIGHT
4478
29-Jun-2023
14:27
ALSHS
Ser



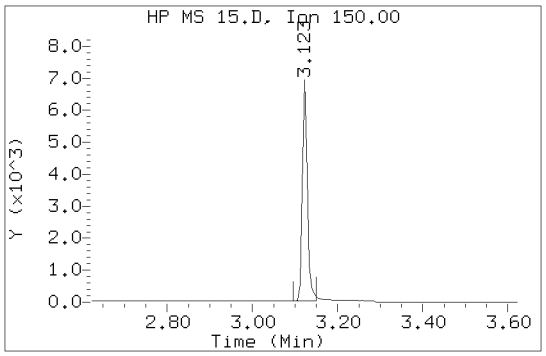
BEFORE

MASS
150
AREA
5426
HEIGHT
6903
16-Jun-2023
16:11
ALSHS
Server



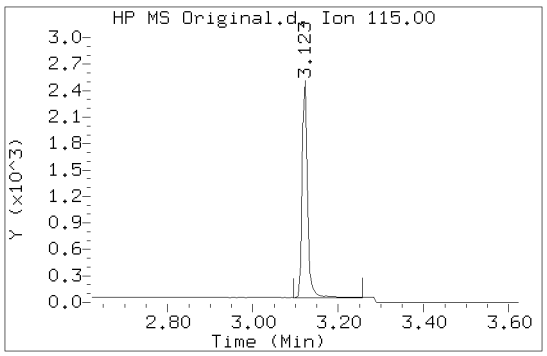
AFTER

MASS
150
AREA
5426
HEIGHT
6903
29-Jun-2023
14:27
ALSHS
Ser



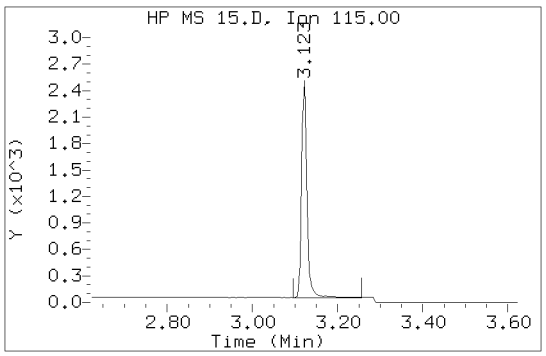
BEFORE

MASS
115
AREA
2094
HEIGHT
2459
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
115
AREA
2094
HEIGHT
2459
29-Jun-2023
14:27
ALSHS
Ser

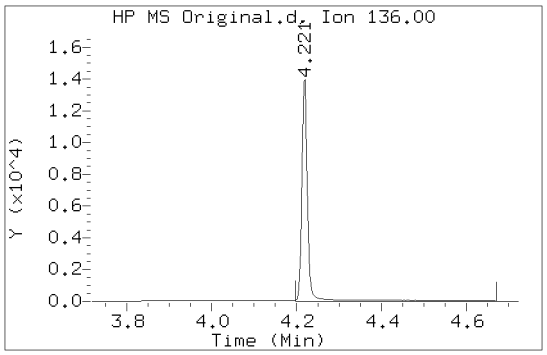


Naphthalene-d8 (1146-65-2)

Reason Code:

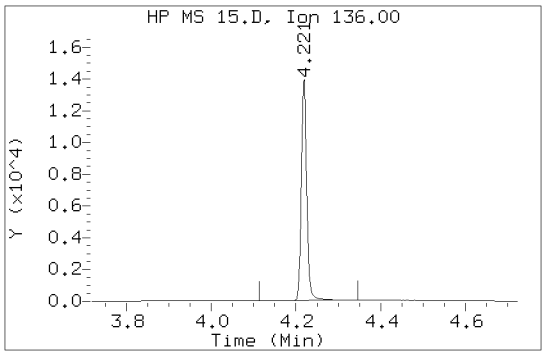
BEFORE

MASS
136
AREA
14465
HEIGHT
13959
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
136
AREA
12688
HEIGHT
13897
29-Jun-2023
14:27
ALSHS
Ser



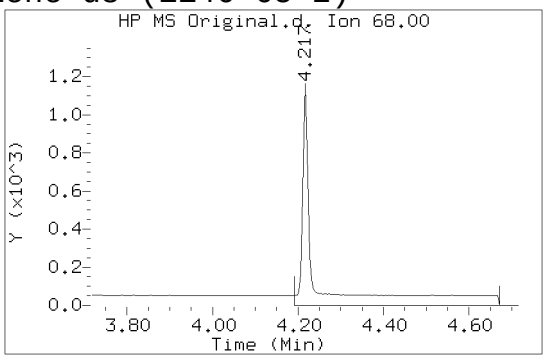
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Naphthalene-d8 (1146-65-2)

Reason Code:

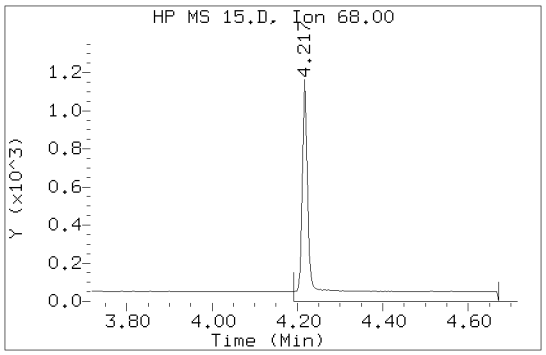
BEFORE

MASS
68
AREA
2461
HEIGHT
1163
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
68
AREA
2461
HEIGHT
1163
29-Jun-2023
14:27
ALSHS
Ser

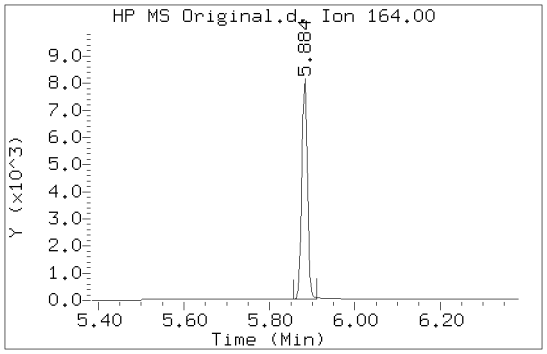


Acenaphthene-d10 (15067-26-2)

Reason Code:

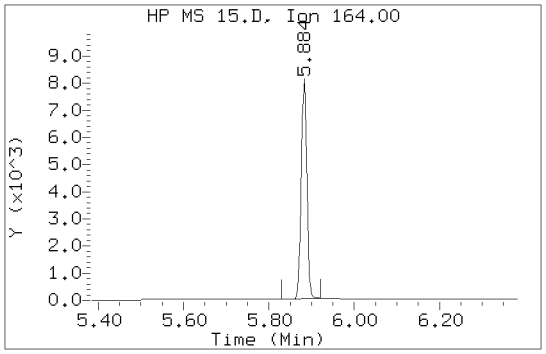
BEFORE

MASS
164
AREA
7305
HEIGHT
8114
16-Jun-2023
16:11
ALSHS
Server



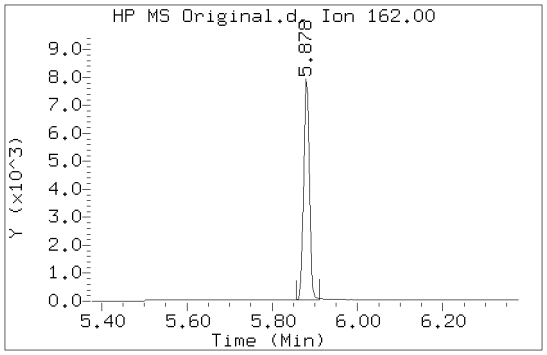
AFTER

MASS
164
AREA
7256
HEIGHT
8100
29-Jun-2023
14:27
ALSHS
Ser



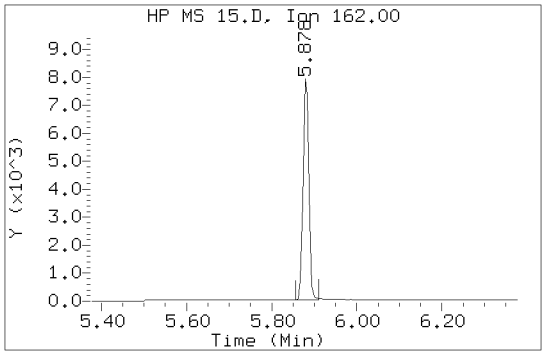
BEFORE

MASS
162
AREA
7389
HEIGHT
7893
16-Jun-2023
16:11
ALSHS
Server



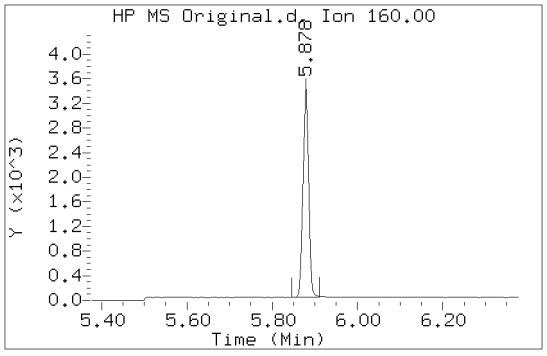
AFTER

MASS
162
AREA
7389
HEIGHT
7893
29-Jun-2023
14:27
ALSHS
Ser



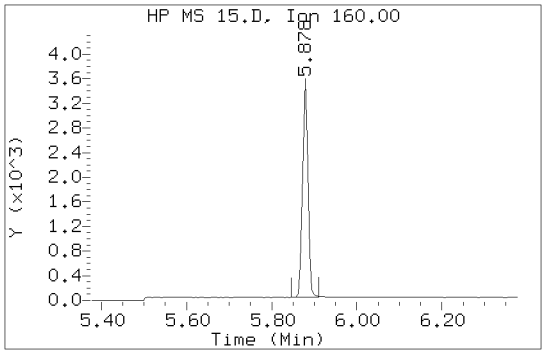
BEFORE

MASS
160
AREA
3110
HEIGHT
3554
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
160
AREA
3110
HEIGHT
3554
29-Jun-2023
14:27
ALSHS
Ser



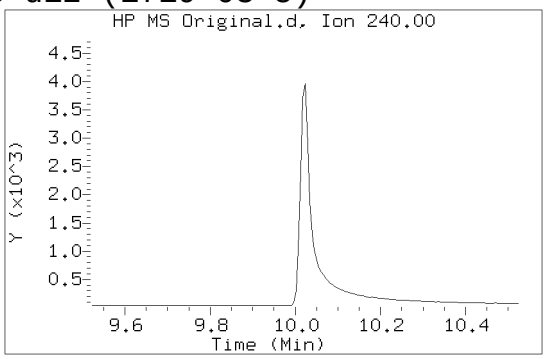
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Chrysene-d12 (1719-03-5)

Reason Code:

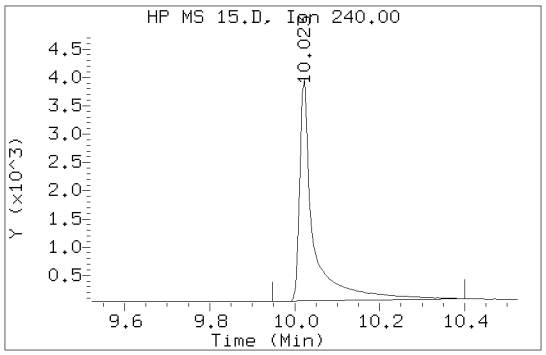
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



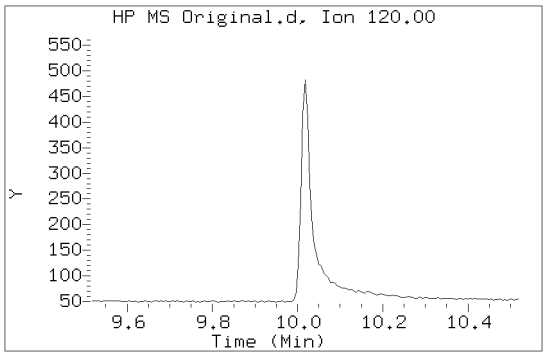
AFTER

MASS
240
AREA
8796
HEIGHT
3907
29-Jun-2023
14:27
ALSHS
Ser



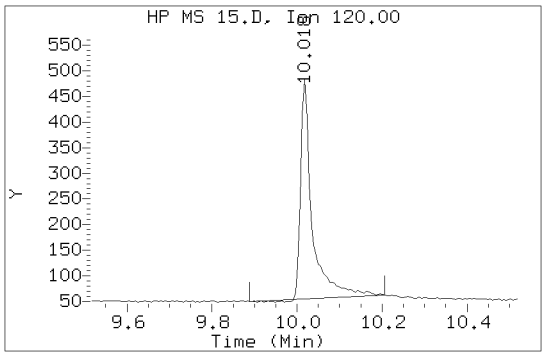
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



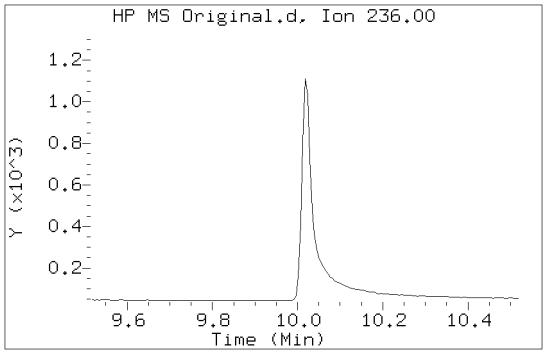
AFTER

MASS
120
AREA
798
HEIGHT
426
29-Jun-2023
14:27
ALSHS
Ser



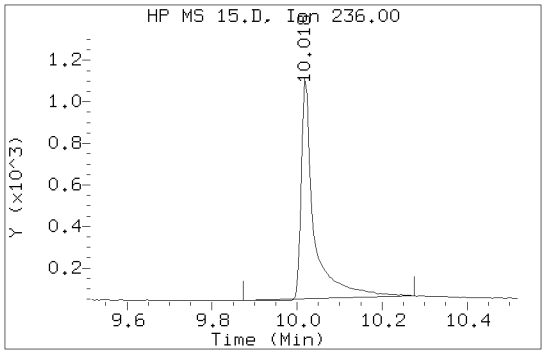
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
236
AREA
2198
HEIGHT
1058
29-Jun-2023
14:27
ALSHS
Ser

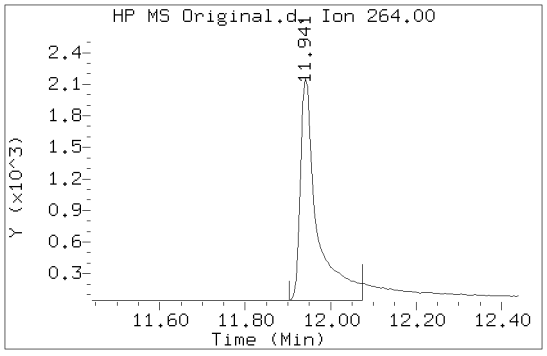


Perylene-d12 (1520-96-3)

Reason Code:

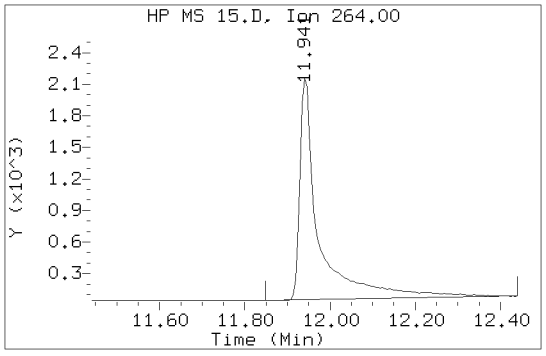
BEFORE

MASS
264
AREA
5713
HEIGHT
2106
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
264
AREA
6565
HEIGHT
2100
29-Jun-2023
14:27
ALSHS
Ser



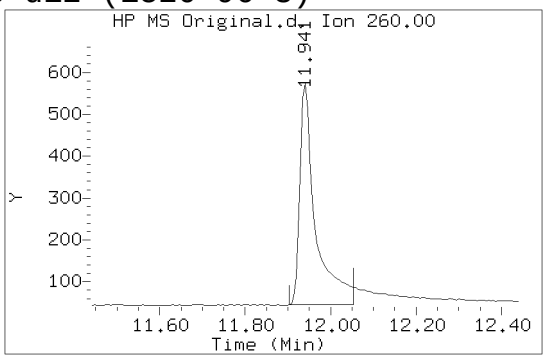
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Perylene-d12 (1520-96-3)

Reason Code:

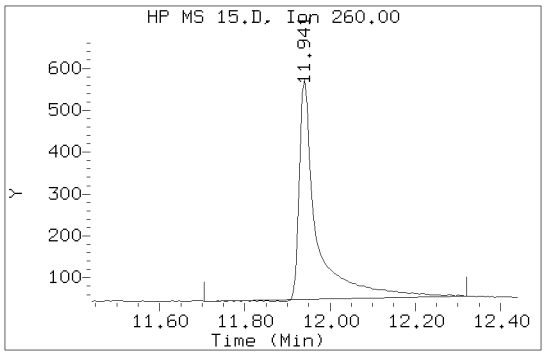
BEFORE

MASS
260
AREA
1348
HEIGHT
528
16-Jun-2023
16:11
ALSHS
Server



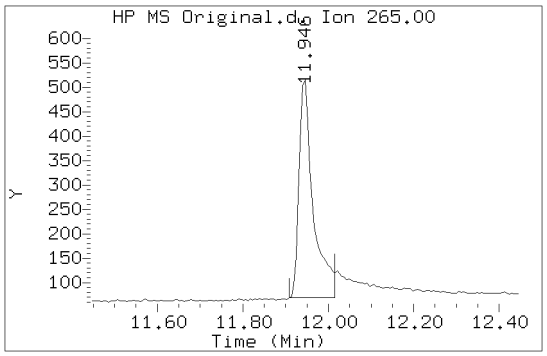
AFTER

MASS
260
AREA
1491
HEIGHT
524
29-Jun-2023
14:27
ALSHS
Ser



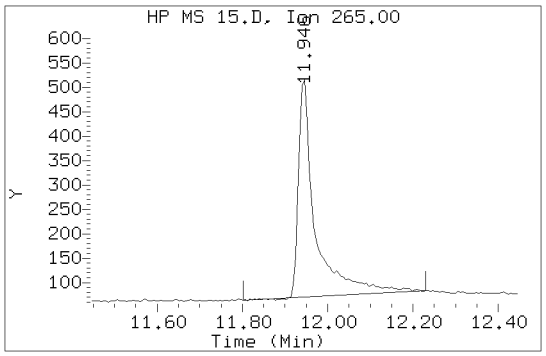
BEFORE

MASS
265
AREA
1037
HEIGHT
446
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
265
AREA
1210
HEIGHT
444
29-Jun-2023
14:27
ALSHS
Ser

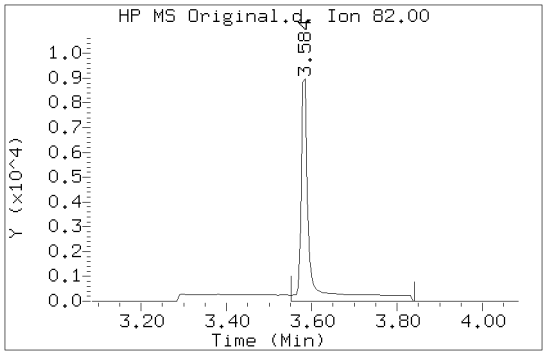


Nitrobenzene-d5 (4165-60-0)

Reason Code:

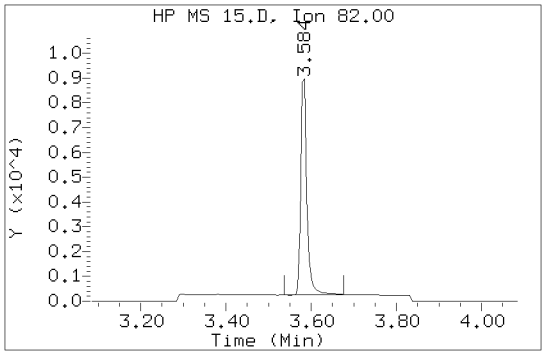
BEFORE

MASS
82
AREA
13113
HEIGHT
8968
16-Jun-2023
16:11
ALSHS
Server



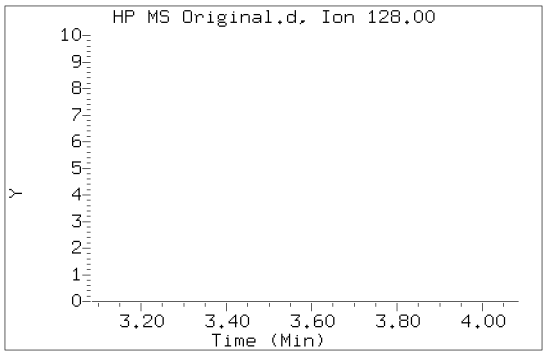
AFTER

MASS
82
AREA
8839
HEIGHT
8709
29-Jun-2023
14:27
ALSHS
Ser



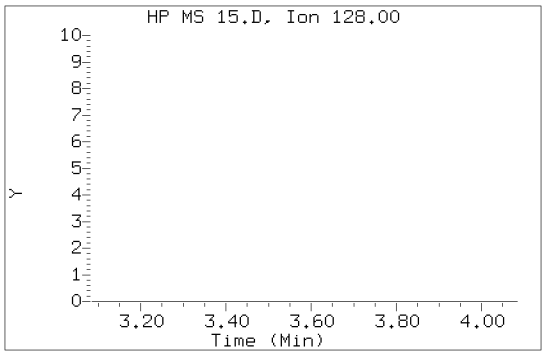
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



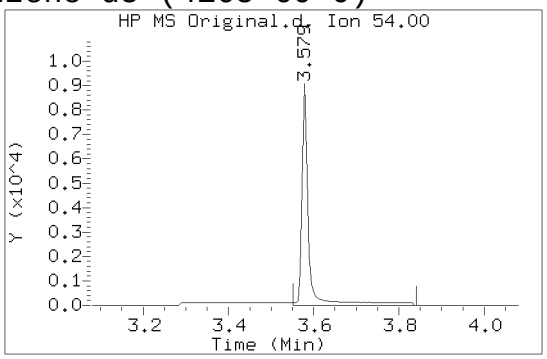
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Nitrobenzene-d5 (4165-60-0)

Reason Code:

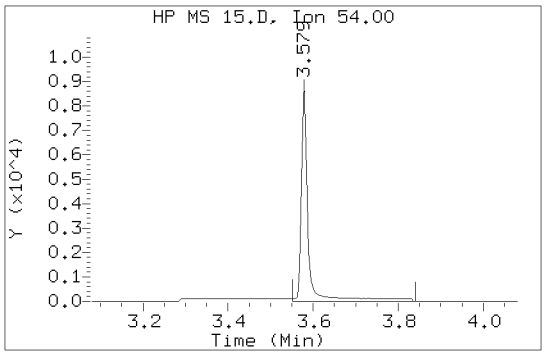
BEFORE

MASS
54
AREA
10106
HEIGHT
9078
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
54
AREA
10106
HEIGHT
9078
29-Jun-2023
14:27
ALSHS
Ser

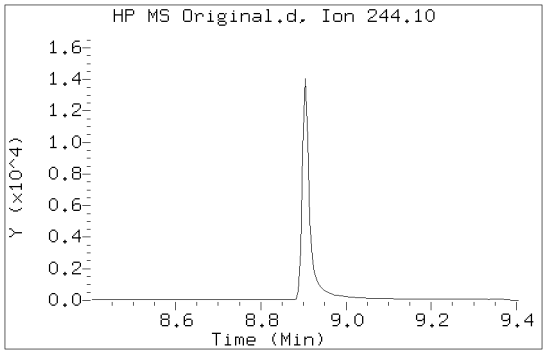


4-Terphenyl-d14 (1718-51-0)

Reason Code:

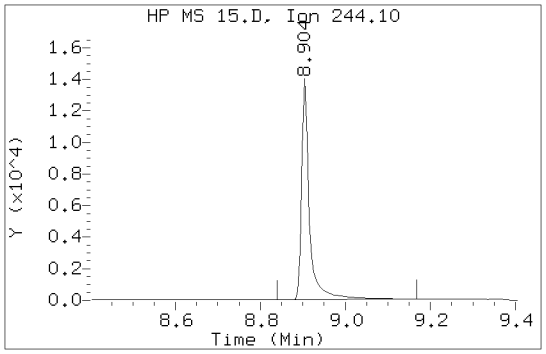
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



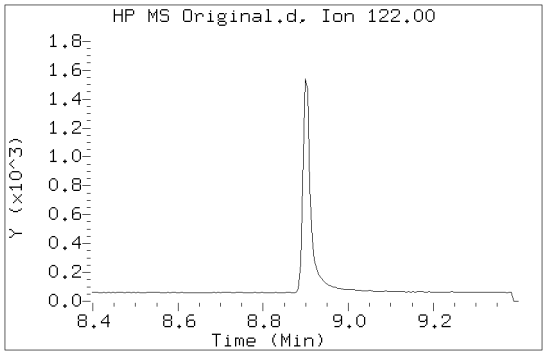
AFTER

MASS
244.1
AREA
17639
HEIGHT
13989
29-Jun-2023
14:27
ALSHS
Ser



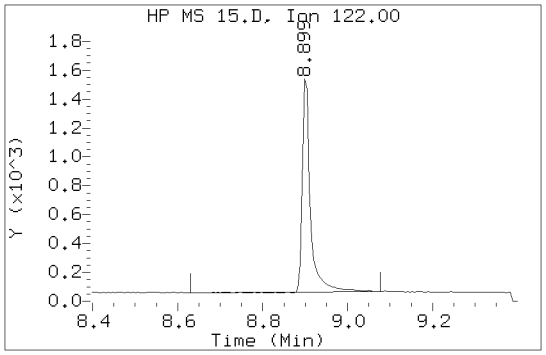
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



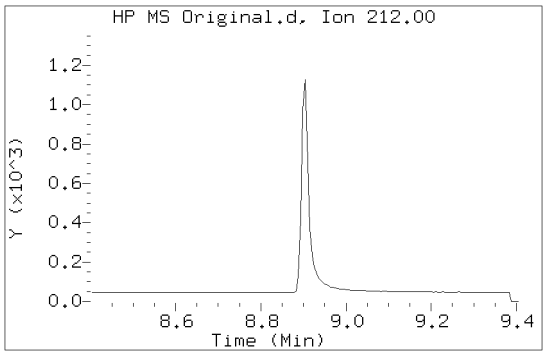
AFTER

MASS
122
AREA
1896
HEIGHT
1474
29-Jun-2023
14:27
ALSHS
Ser



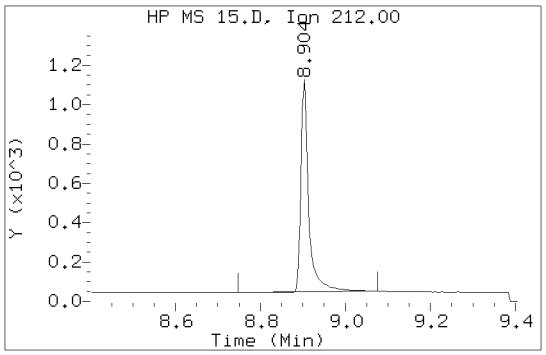
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
212
AREA
1371
HEIGHT
1079
29-Jun-2023
14:27
ALSHS
Ser



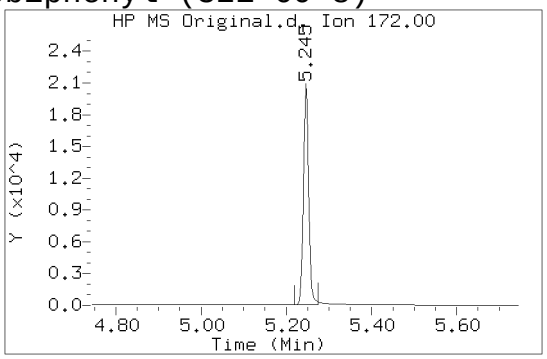
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Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

2-Fluorobiphenyl (321-60-8)

Reason Code:

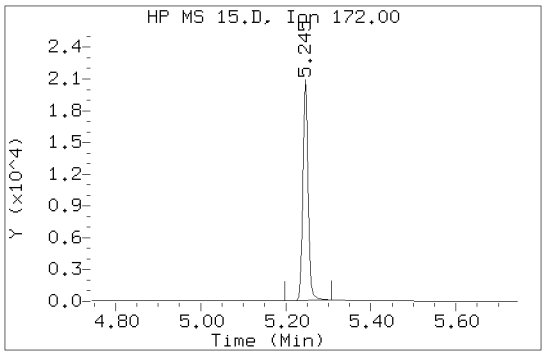
BEFORE

MASS
172
AREA
18197
HEIGHT
20880
16-Jun-2023
16:11
ALSHS
Server



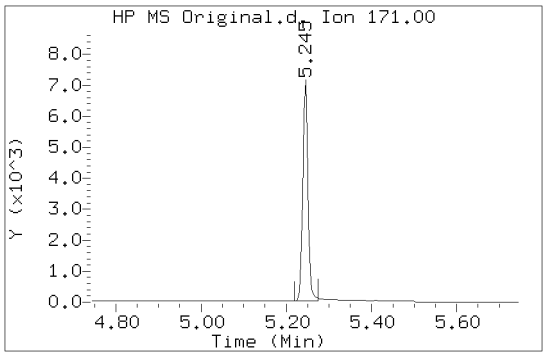
AFTER

MASS
172
AREA
18173
HEIGHT
20843
29-Jun-2023
14:27
ALSHS
Ser



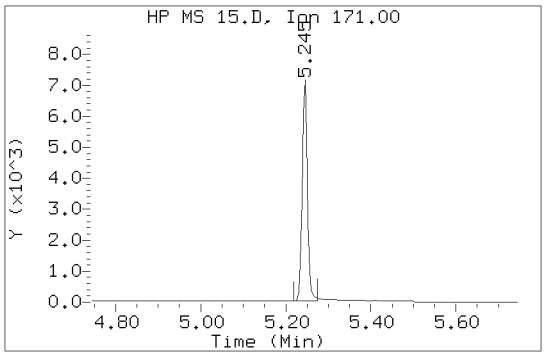
BEFORE

MASS
171
AREA
6120
HEIGHT
7129
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
171
AREA
6120
HEIGHT
7129
29-Jun-2023
14:27
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Lab Smp Id: 14DXICV-0.08 Client Smp ID: 14DXICV-0.08
Inj Date : 16-JUN-2023 16:22
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICV-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 16 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.122	(1.000)	5295	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	17725	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	3797	0.07086	0.07086(M)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	10379	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.248	5.245	(0.892)	8542	0.08036	0.08036(M)
* 126 Phenanthrene-d10	188	7.328	7.322	(1.000)	20505	0.10000	(M)
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	12662	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.909	8.904	(0.889)	7743	0.08379	0.08379(M)
* 198 Perylene-d12	264	11.945	11.940	(1.000)	10635	0.10000	(M)
1 1,4-Dioxane	58	1.464	1.460	(0.468)	1261	0.07070	0.07070(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209023

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D

Date : 16-JUN-2023 16:22

Client ID: 14DXICV-0.08

Instrument: SV6.i

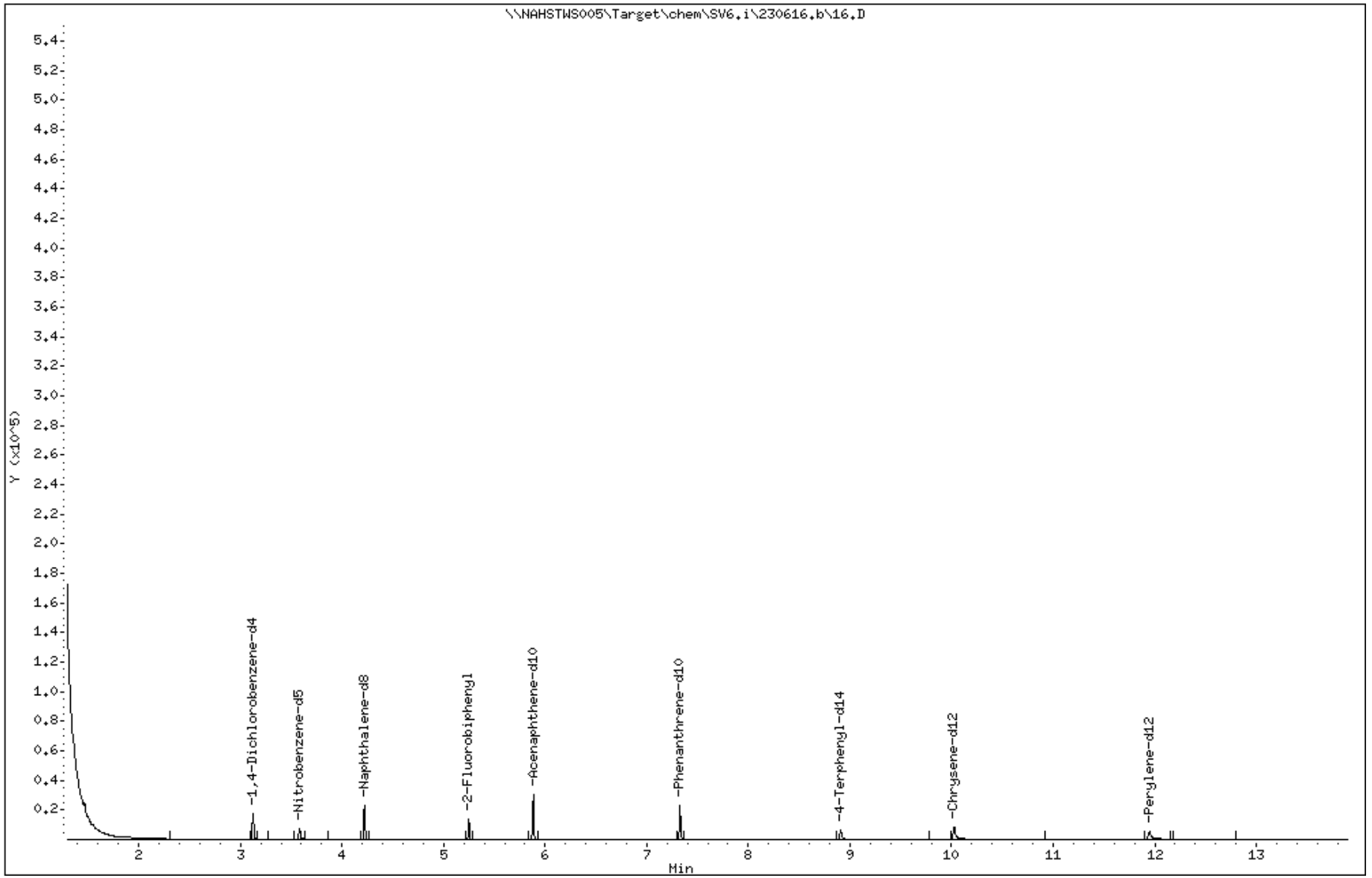
Sample Info: 14DXICV-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



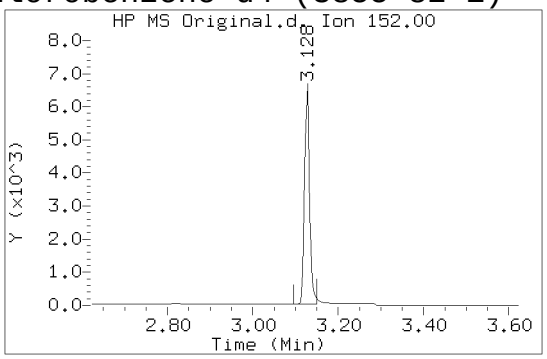
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

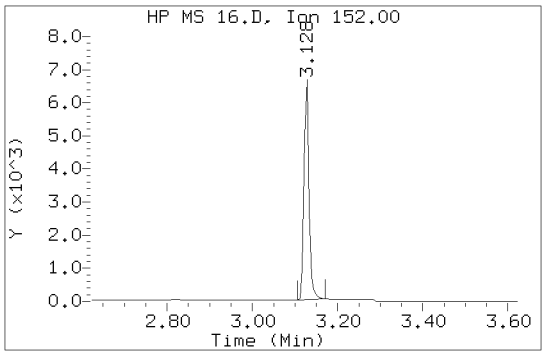
BEFORE

MASS
152
AREA
5292
HEIGHT
6650
16-Jun-2023
16:37
ALSHS
Server



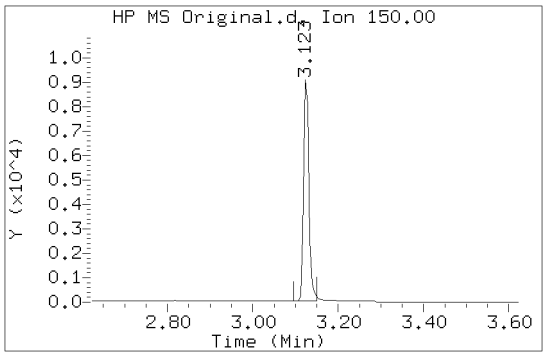
AFTER

MASS
152
AREA
5295
HEIGHT
6641
29-Jun-2023
14:27
ALSHS
Ser



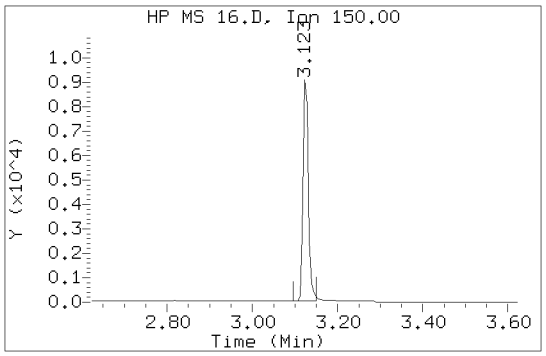
BEFORE

MASS
150
AREA
7668
HEIGHT
9050
16-Jun-2023
16:37
ALSHS
Server



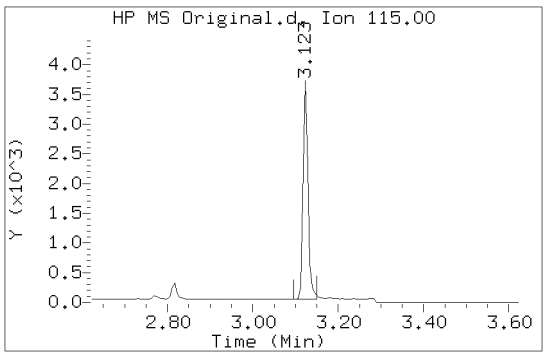
AFTER

MASS
150
AREA
7668
HEIGHT
9050
29-Jun-2023
14:27
ALSHS
Ser



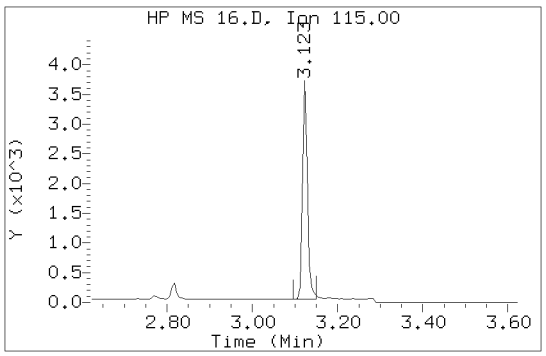
BEFORE

MASS
115
AREA
2824
HEIGHT
3676
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
115
AREA
2824
HEIGHT
3676
29-Jun-2023
14:27
ALSHS
Ser

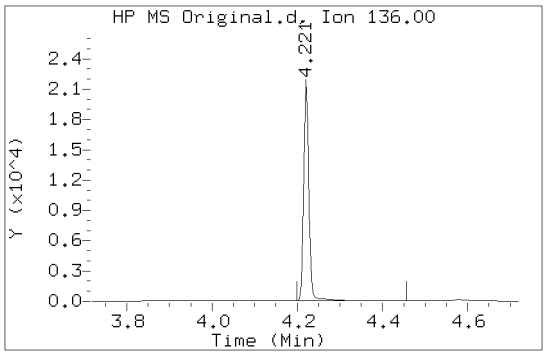


Naphthalene-d8 (1146-65-2)

Reason Code:

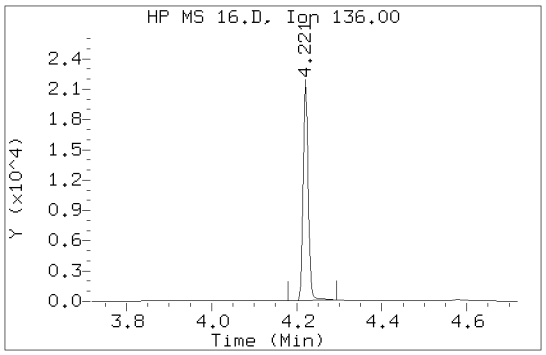
BEFORE

MASS
136
AREA
18147
HEIGHT
21880
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
136
AREA
17725
HEIGHT
21858
29-Jun-2023
14:27
ALSHS
Ser



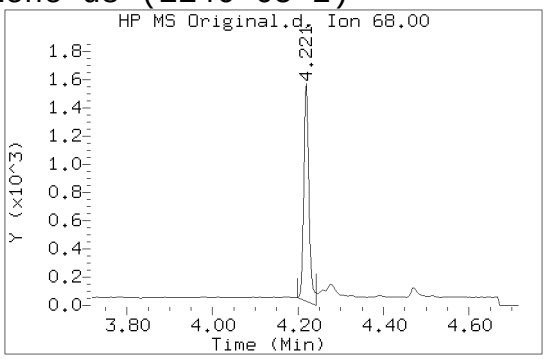
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

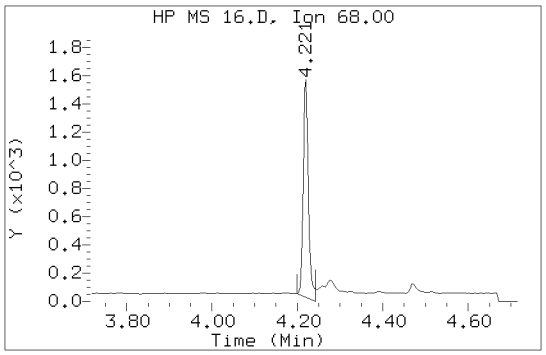
BEFORE

MASS
68
AREA
1351
HEIGHT
1544
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
68
AREA
1351
HEIGHT
1544
29-Jun-2023
14:27
ALSHS
Ser

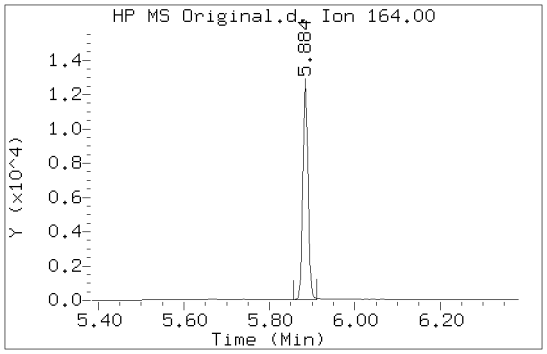


Acenaphthene-d10 (15067-26-2)

Reason Code:

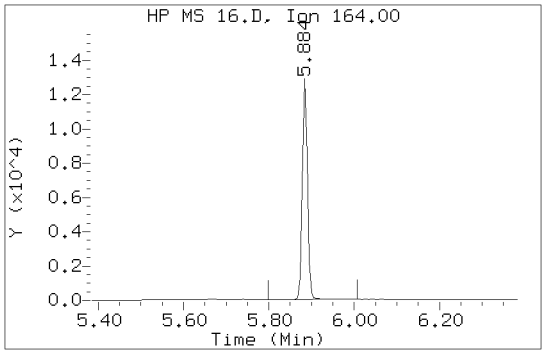
BEFORE

MASS
164
AREA
10322
HEIGHT
12879
16-Jun-2023
16:37
ALSHS
Server



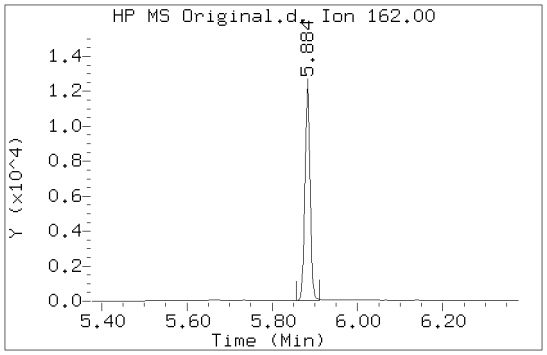
AFTER

MASS
164
AREA
10379
HEIGHT
12877
29-Jun-2023
14:27
ALSHS
Ser



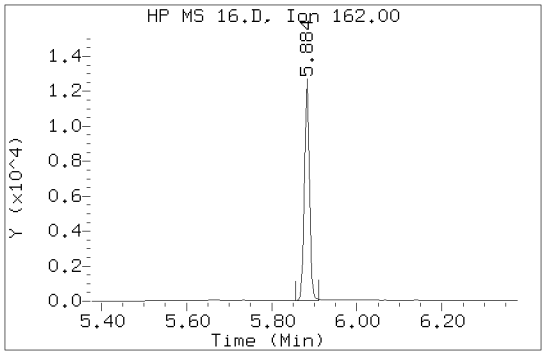
BEFORE

MASS
162
AREA
10387
HEIGHT
12657
16-Jun-2023
16:37
ALSHS
Server



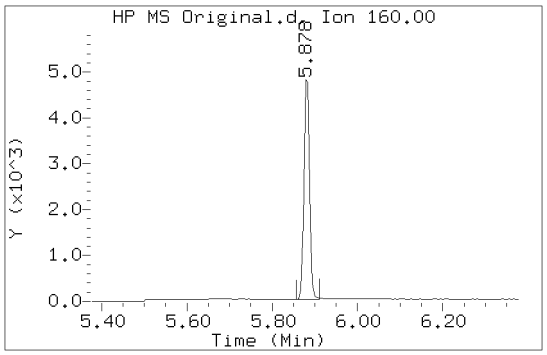
AFTER

MASS
162
AREA
10387
HEIGHT
12657
29-Jun-2023
14:27
ALSHS
Ser



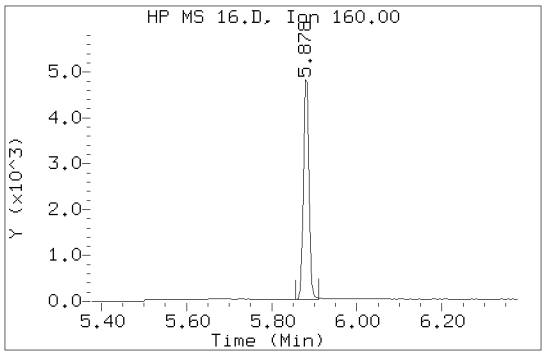
BEFORE

MASS
160
AREA
4356
HEIGHT
4785
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
160
AREA
4356
HEIGHT
4785
29-Jun-2023
14:27
ALSHS
Ser



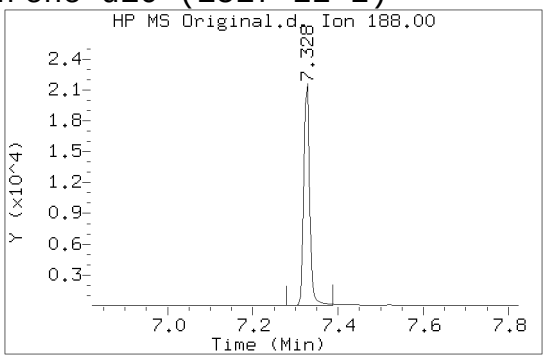
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Phenanthrene-d10 (1517-22-2)

Reason Code:

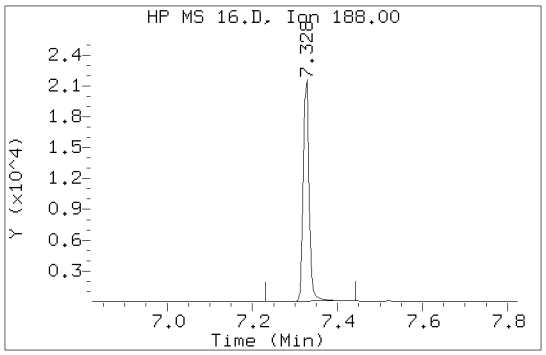
BEFORE

MASS
188
AREA
20554
HEIGHT
21579
16-Jun-2023
16:37
ALSHS
Server



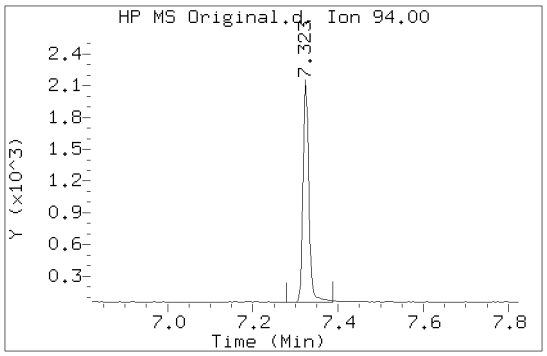
AFTER

MASS
188
AREA
20505
HEIGHT
21562
29-Jun-2023
14:27
ALSHS
Ser



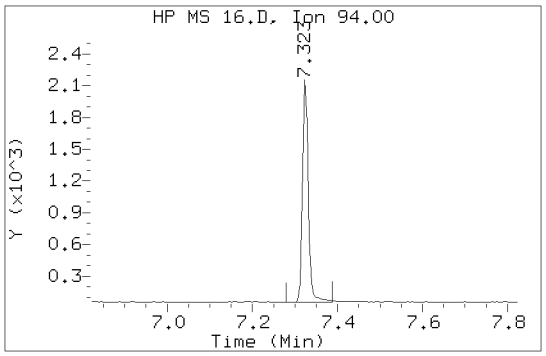
BEFORE

MASS
94
AREA
1950
HEIGHT
2099
16-Jun-2023
16:37
ALSHS
Server



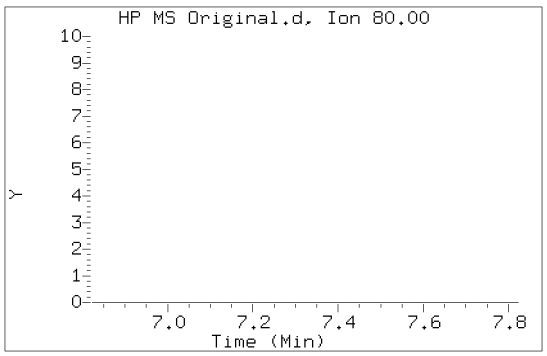
AFTER

MASS
94
AREA
1950
HEIGHT
2099
29-Jun-2023
14:27
ALSHS
Ser



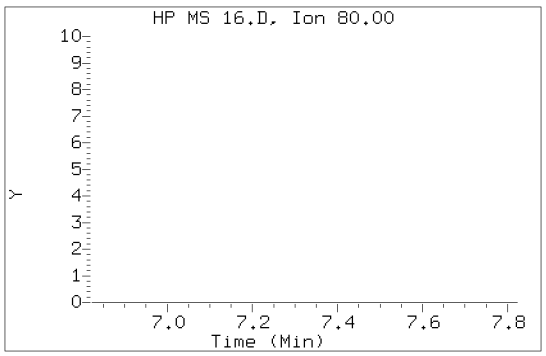
BEFORE

MASS
80
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser

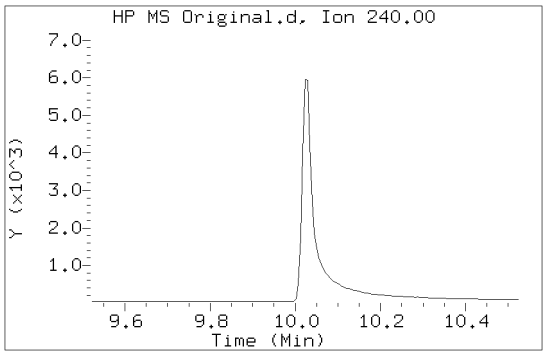


Chrysene-d12 (1719-03-5)

Reason Code:

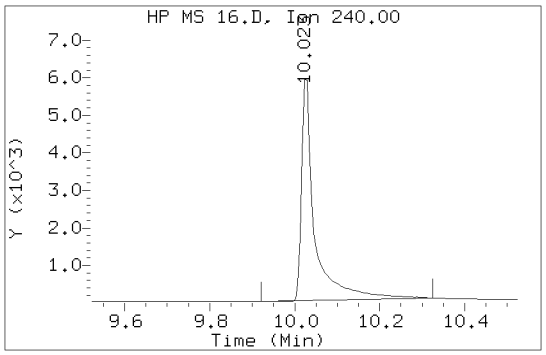
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
240
AREA
12662
HEIGHT
5881
29-Jun-2023
14:27
ALSHS
Ser



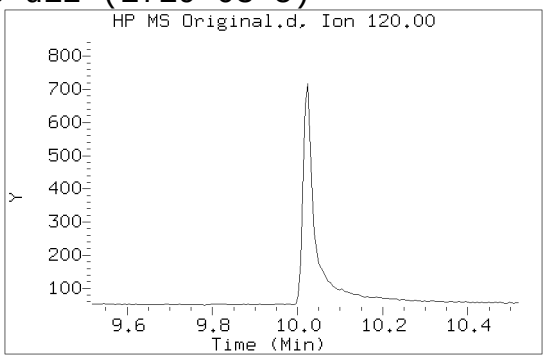
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Chrysene-d12 (1719-03-5)

Reason Code:

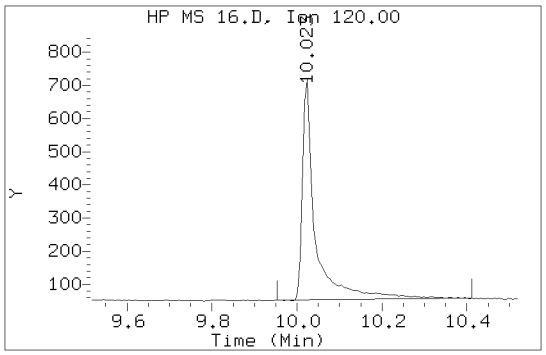
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



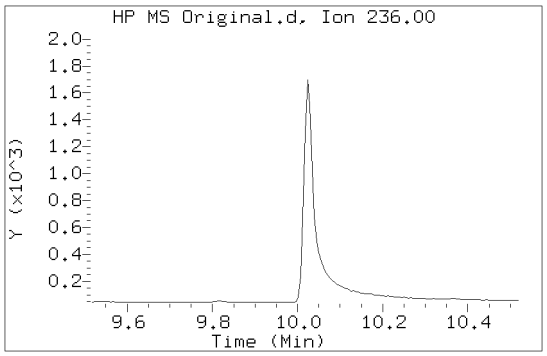
AFTER

MASS
120
AREA
1417
HEIGHT
664
29-Jun-2023
14:27
ALSHS
Ser



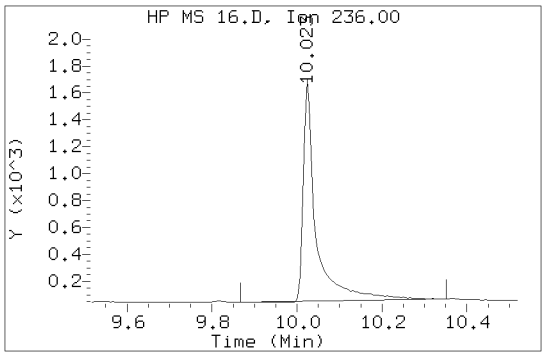
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
236
AREA
3367
HEIGHT
1641
29-Jun-2023
14:27
ALSHS
Ser

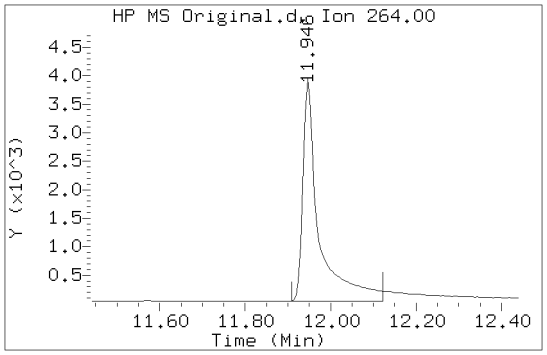


Perylene-d12 (1520-96-3)

Reason Code:

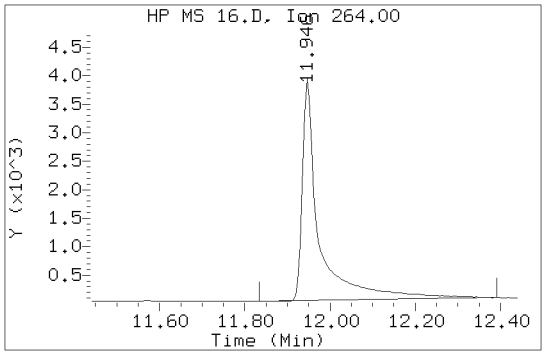
BEFORE

MASS
264
AREA
10066
HEIGHT
3896
16-Jun-2023
16:37
ALSHS
Server



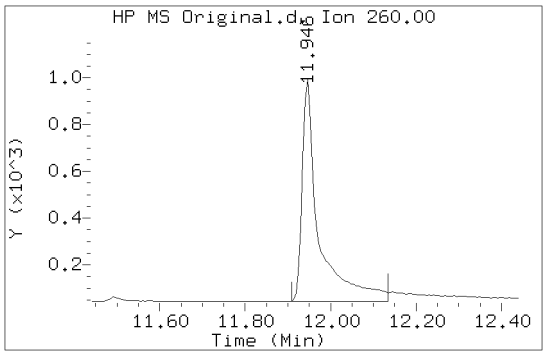
AFTER

MASS
264
AREA
10635
HEIGHT
3885
29-Jun-2023
14:27
ALSHS
Ser



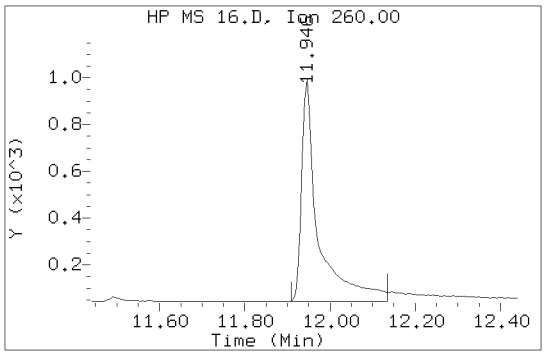
BEFORE

MASS
260
AREA
2544
HEIGHT
947
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
260
AREA
2544
HEIGHT
947
29-Jun-2023
14:27
ALSHS
Ser



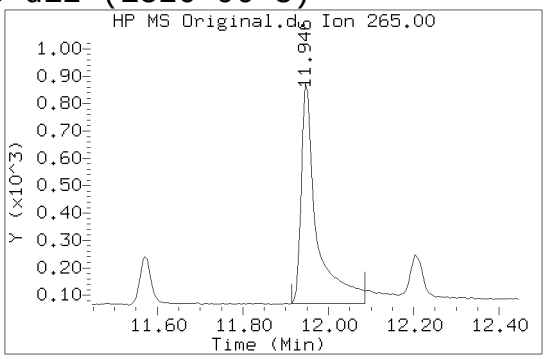
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Perylene-d12 (1520-96-3)

Reason Code:

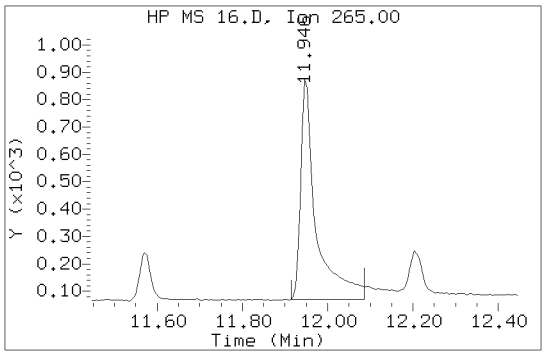
BEFORE

MASS
265
AREA
2015
HEIGHT
803
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
265
AREA
2015
HEIGHT
803
29-Jun-2023
14:27
ALSHS
Ser

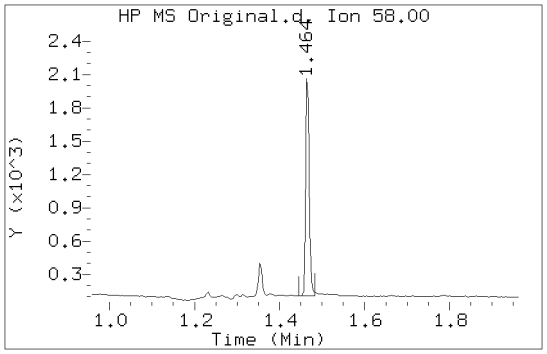


1,4-Dioxane ()

Reason Code:

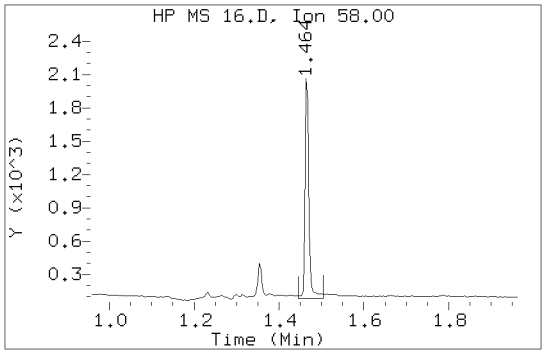
BEFORE

MASS
58
AREA
1149
HEIGHT
1956
16-Jun-2023
16:37
ALSHS
Server



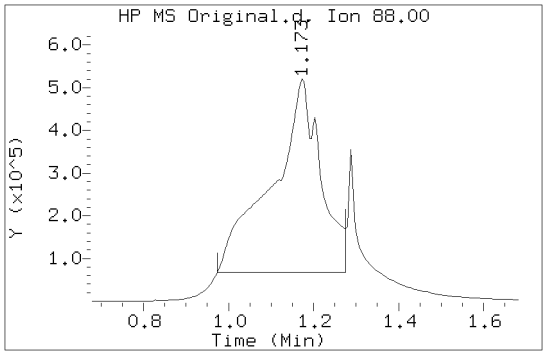
AFTER

MASS
58
AREA
1261
HEIGHT
1979
29-Jun-2023
14:27
ALSHS
Ser



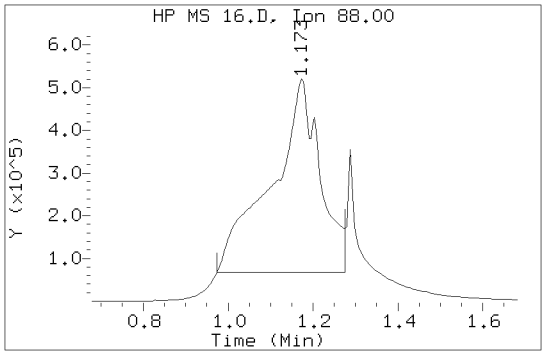
BEFORE

MASS
88
AREA
3609729
HEIGHT
452352
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
88
AREA
3609729
HEIGHT
452352
29-Jun-2023
14:27
ALSHS
Ser

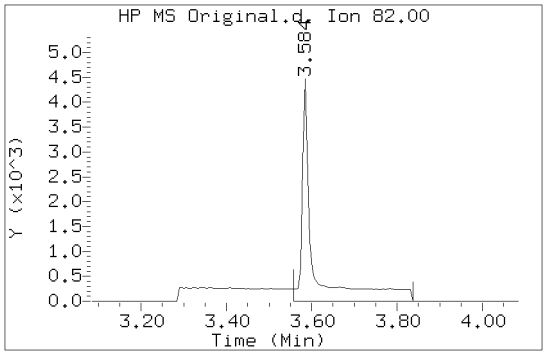


Nitrobenzene-d5 (4165-60-0)

Reason Code:

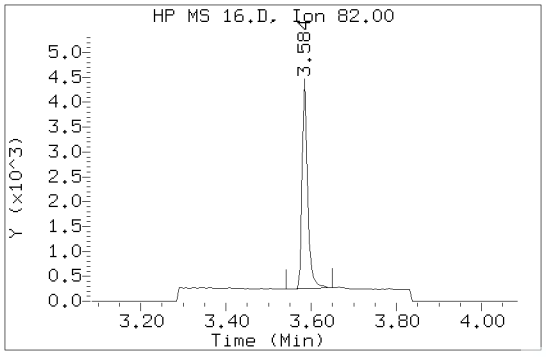
BEFORE

MASS
82
AREA
8001
HEIGHT
4469
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
82
AREA
3797
HEIGHT
4214
29-Jun-2023
14:27
ALSHS
Ser



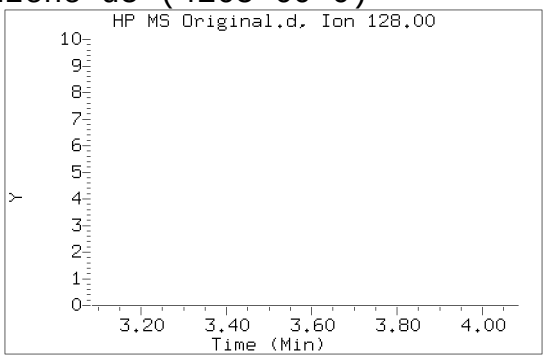
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

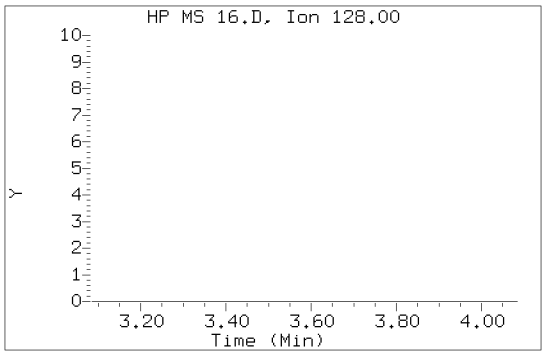
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



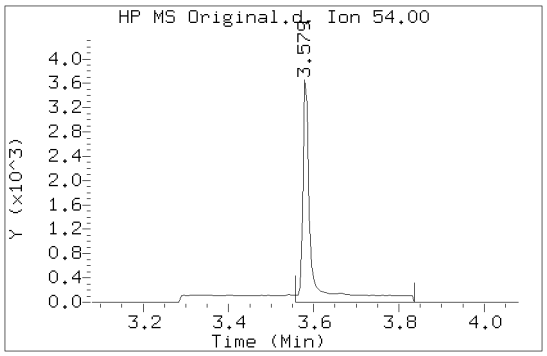
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



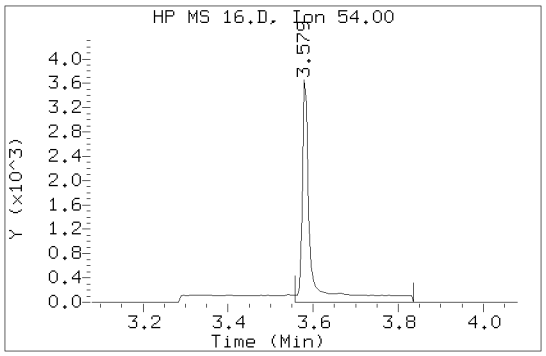
BEFORE

MASS
54
AREA
5382
HEIGHT
3655
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
54
AREA
5382
HEIGHT
3655
29-Jun-2023
14:27
ALSHS
Ser

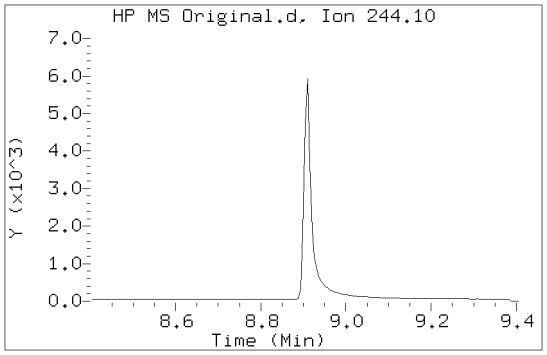


4-Terphenyl-d14 (1718-51-0)

Reason Code:

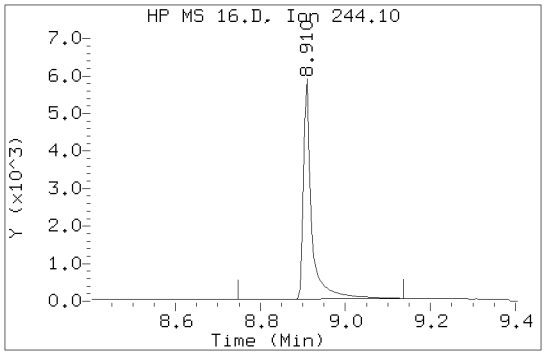
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



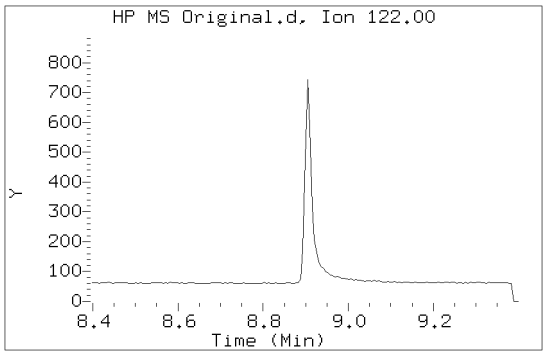
AFTER

MASS
244.1
AREA
7743
HEIGHT
5864
29-Jun-2023
14:27
ALSHS
Ser



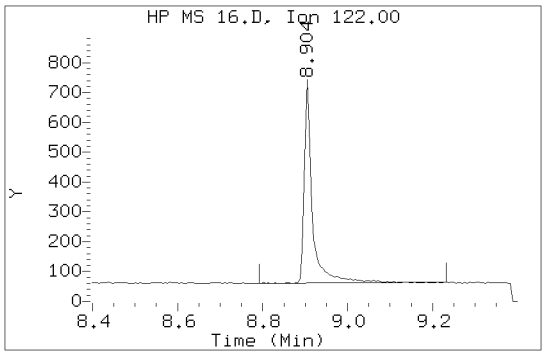
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
122
AREA
889
HEIGHT
681
29-Jun-2023
14:27
ALSHS
Ser



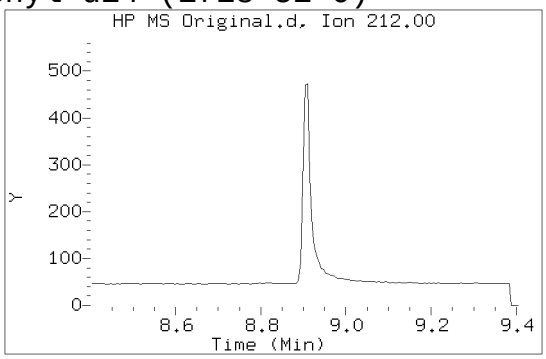
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

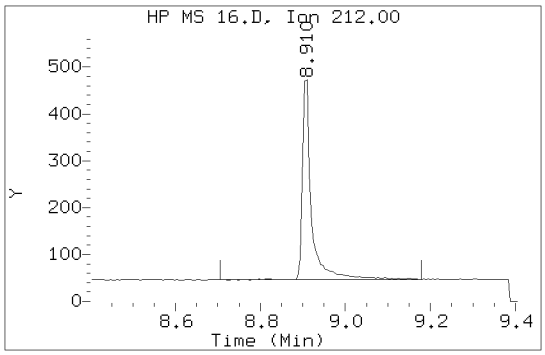
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
212
AREA
632
HEIGHT
426
29-Jun-2023
14:27
ALSHS
Ser

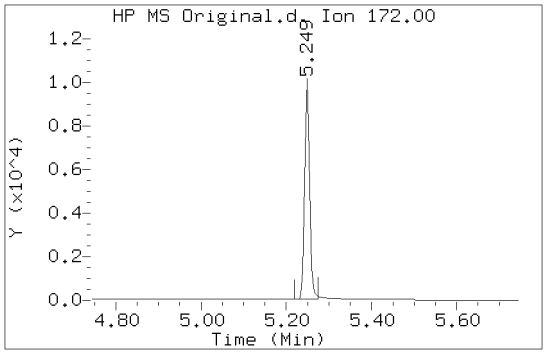


2-Fluorobiphenyl (321-60-8)

Reason Code:

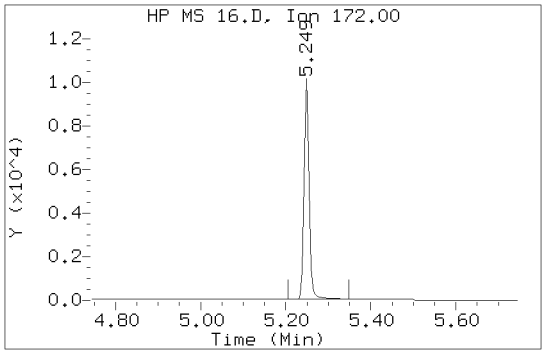
BEFORE

MASS
172
AREA
8416
HEIGHT
10125
16-Jun-2023
16:37
ALSHS
Server



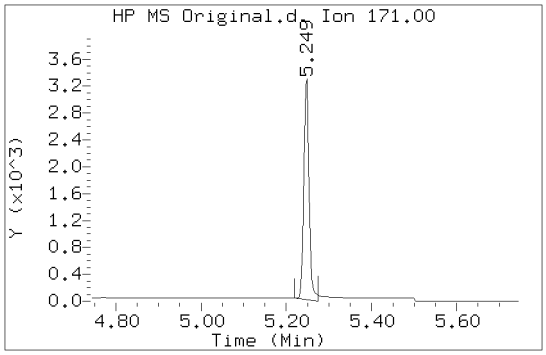
AFTER

MASS
172
AREA
8542
HEIGHT
10120
29-Jun-2023
14:27
ALSHS
Ser



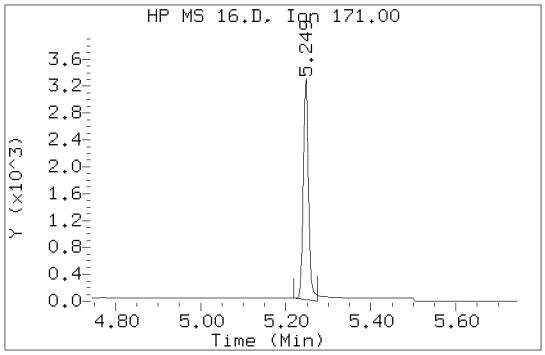
BEFORE

MASS
171
AREA
2911
HEIGHT
3286
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
171
AREA
2911
HEIGHT
3286
29-Jun-2023
14:27
ALSHS
Ser



01209031

right solutions.
right partner.

Raw Data SV 6 444008

Semi-Volatiles by EPA 8270SIM

Workorder

HS23080324

Client

Bhate Environmental Associates, Inc.

Project

LHAAP

08/17/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\01.D Page 1
Report Date: 15-Aug-2023 13:35

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 15-AUG-2023 13:15
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DFTPP.m
Meth Date : 14-Mar-2023 15:59 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7053

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
5.582	5.726	-0.144	198	317408			0.00- 100.00	100.00
5.582	6.357	-0.775	51	151405			10.00- 80.00	47.70
5.582	6.357	-0.775	68	1678			0.00- 2.00	1.41
5.582	6.357	-0.775	69	119416			0.00- 0.00	37.62
5.582	6.357	-0.775	70	675			0.00- 2.00	0.57
5.582	6.357	-0.775	127	149804			10.00- 80.00	47.20
5.582	6.357	-0.775	197	1611			0.00- 2.00	0.51
5.582	6.357	-0.775	199	21120			5.00- 9.00	6.65
5.582	6.357	-0.775	275	82360			10.00- 60.00	25.95
5.582	6.357	-0.775	365	11539			1.00- 100.00	3.64
5.582	6.357	-0.775	441	44708			0.01- 99.99	75.48
5.582	6.357	-0.775	442	305952			50.00- 150.00	96.39
5.582	6.357	-0.775	443	59228			15.00- 24.00	19.36

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	47.70
68	Less than 2.00% of mass 69	0.53 (1.41)
69	Mass 69 relative abundance	37.62
70	Less than 2.00% of mass 69	0.21 (0.57)
127	10.00 - 80.00% of mass 198	47.20
197	Less than 2.00% of mass 198	0.51
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 60.00% of mass 198	25.95
365	1.00 - 100.00% of mass 198	3.64
441	Present, but less than mass 443	14.09
442	50.00 - 150.00% of mass 198	96.39
443	15.00 - 24.00% of mass 442	18.66 (19.36)

Data File: 01.D
Spectrum: Average Spectrum: 5.582 to 5.587 min. (SUB)
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	341	121.00	102	196.00	8430	282.00	103
37.00	494	122.00	2344	197.00	1611	283.00	769
38.00	1436	123.00	4008	198.00	317376	284.00	532
39.00	9087	124.00	1814	199.00	21120	285.00	1365
40.00	368	125.00	1927	200.00	1665	286.00	256
41.00	353	126.00	621	201.00	1345	289.00	295
43.00	92	127.00	149760	203.00	2209	290.00	283
44.00	55	128.00	10918	204.00	12173	291.00	173
45.00	194	129.00	55952	205.00	19992	292.00	348
47.00	171	130.00	4754	206.00	82008	293.00	1766
48.00	92	131.00	1019	207.00	10487	294.00	428
49.00	544	132.00	502	208.00	2708	295.00	469
50.00	35888	133.00	165	209.00	827	296.00	24160
51.00	151360	134.00	1413	210.00	1294	297.00	3324
52.00	7426	135.00	4508	211.00	3239	298.00	257
53.00	285	136.00	1683	213.00	209	301.00	271
55.00	573	137.00	2394	215.00	916	302.00	380
56.00	3722	138.00	428	216.00	1670	303.00	2653
57.00	9656	139.00	217	217.00	23032	304.00	647
58.00	424	140.00	622	218.00	2928	308.00	372
61.00	1406	141.00	6409	219.00	268	309.00	264
62.00	1770	142.00	2285	221.00	14900	310.00	308
63.00	5322	143.00	1636	222.00	3343	313.00	234
64.00	696	144.00	507	223.00	5411	314.00	1152
65.00	2743	145.00	398	224.00	49584	315.00	2538
66.00	116	146.00	1327	225.00	12580	316.00	1400
68.00	1678	147.00	3690	226.00	1247	317.00	201
69.00	119416	148.00	9281	227.00	19896	321.00	785
70.00	675	149.00	1695	228.00	2827	322.00	417
73.00	818	150.00	488	229.00	4428	323.00	7912
74.00	12493	151.00	830	230.00	618	324.00	1518
75.00	19832	152.00	429	231.00	1718	326.00	217
76.00	7794	153.00	2218	232.00	284	327.00	1675
77.00	162368	154.00	1618	233.00	332	328.00	732
78.00	10819	155.00	4224	234.00	1250	332.00	616
79.00	7701	156.00	6505	235.00	1556	333.00	762
80.00	6066	157.00	1105	236.00	1001	334.00	5033
81.00	9675	158.00	1149	237.00	1681	335.00	1247
82.00	2522	159.00	1054	238.00	212	336.00	89
83.00	2269	160.00	2203	239.00	774	341.00	842
84.00	177	161.00	3472	240.00	576	342.00	228
85.00	1407	162.00	929	241.00	1101	346.00	1714
86.00	2495	163.00	286	242.00	2754	347.00	312
87.00	1222	164.00	351	243.00	2786	352.00	2226
88.00	472	165.00	2559	244.00	37712	353.00	1519

89.00 278	166.00 2241	245.00 4796	354.00 2269
91.00 1822	167.00 18280	246.00 6981	355.00 437
92.00 2072	168.00 8412	247.00 1537	359.00 181
93.00 15071	169.00 1354	248.00 327	365.00 11539
94.00 1078	170.00 393	249.00 1371	366.00 1571
95.00 249	171.00 558	250.00 275	370.00 240
96.00 742	172.00 1217	251.00 306	371.00 648
97.00 268	173.00 1681	252.00 373	372.00 4382
98.00 11909	174.00 3221	253.00 809	373.00 1034
99.00 8948	175.00 6541	254.00 1247	383.00 1100
100.00 785	176.00 1693	255.00 183488	384.00 298
101.00 5831	177.00 2411	256.00 27176	390.00 652
102.00 267	178.00 864	257.00 2037	391.00 346
103.00 1460	179.00 11384	258.00 10832	392.00 279
104.00 3179	180.00 8058	259.00 1731	401.00 253
105.00 3116	181.00 3860	260.00 278	402.00 1574
106.00 1011	182.00 613	261.00 339	403.00 2301
107.00 47904	183.00 329	264.00 278	404.00 864
108.00 6810	184.00 773	265.00 4383	421.00 1985
109.00 956	185.00 5286	266.00 672	422.00 1853
110.00 76368	186.00 45720	270.00 243	423.00 14838
111.00 11788	187.00 12897	271.00 415	424.00 3024
112.00 1466	188.00 1293	272.00 539	425.00 284
113.00 488	189.00 2317	273.00 6154	441.00 44704
115.00 87	190.00 405	274.00 15245	442.00 305920
116.00 2043	191.00 1259	275.00 82360	443.00 59224
117.00 41440	192.00 3842	276.00 10491	444.00 5416
118.00 2814	193.00 4280	277.00 7337	445.00 315
119.00 326	194.00 865	278.00 1230	
120.00 519	195.00 452	279.00 185	

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\01.D

Date : 15-AUG-2023 13:15

Client ID: DFTPP

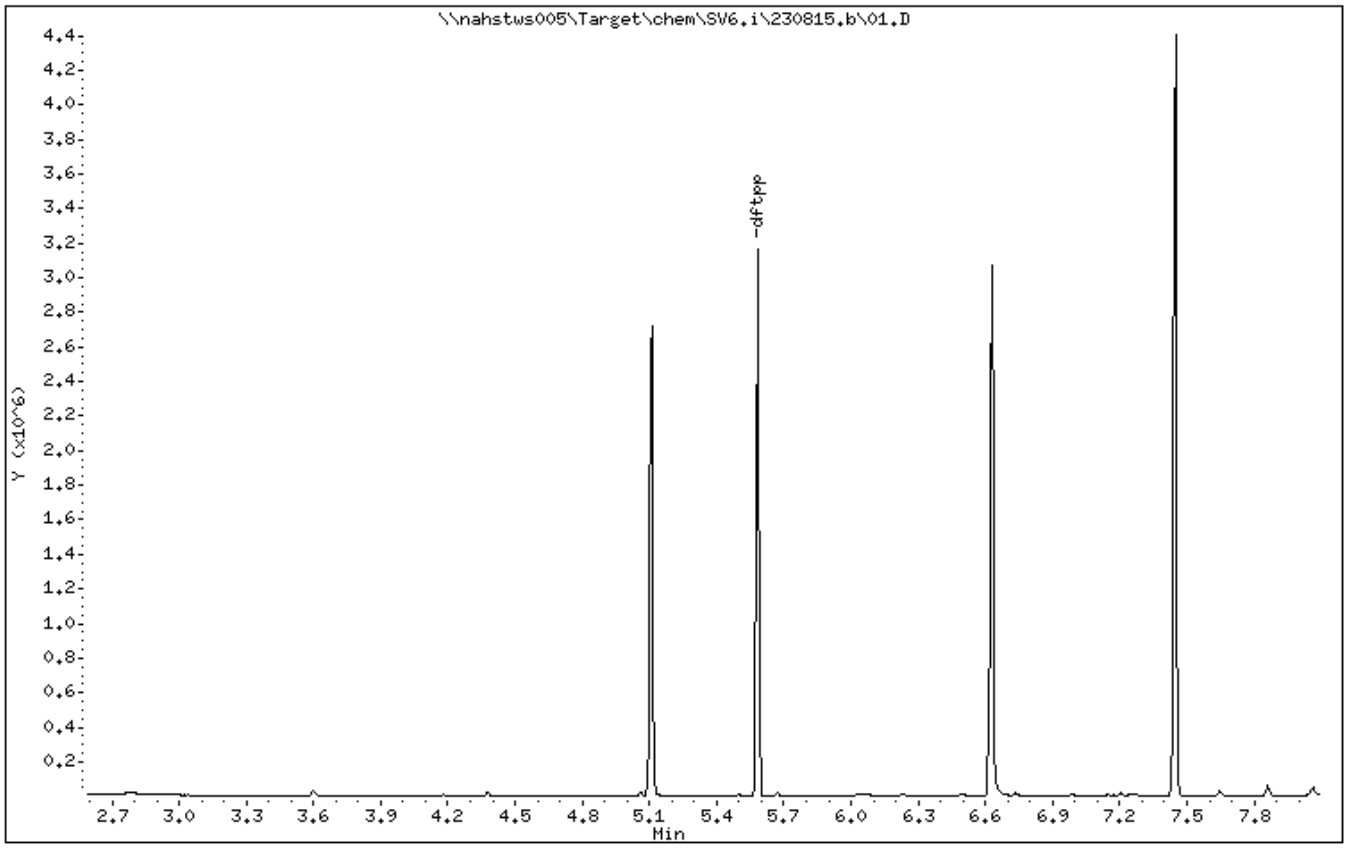
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\01.D

Date : 15-AUG-2023 13:15

Client ID: DFTPP

Instrument: SV6.i

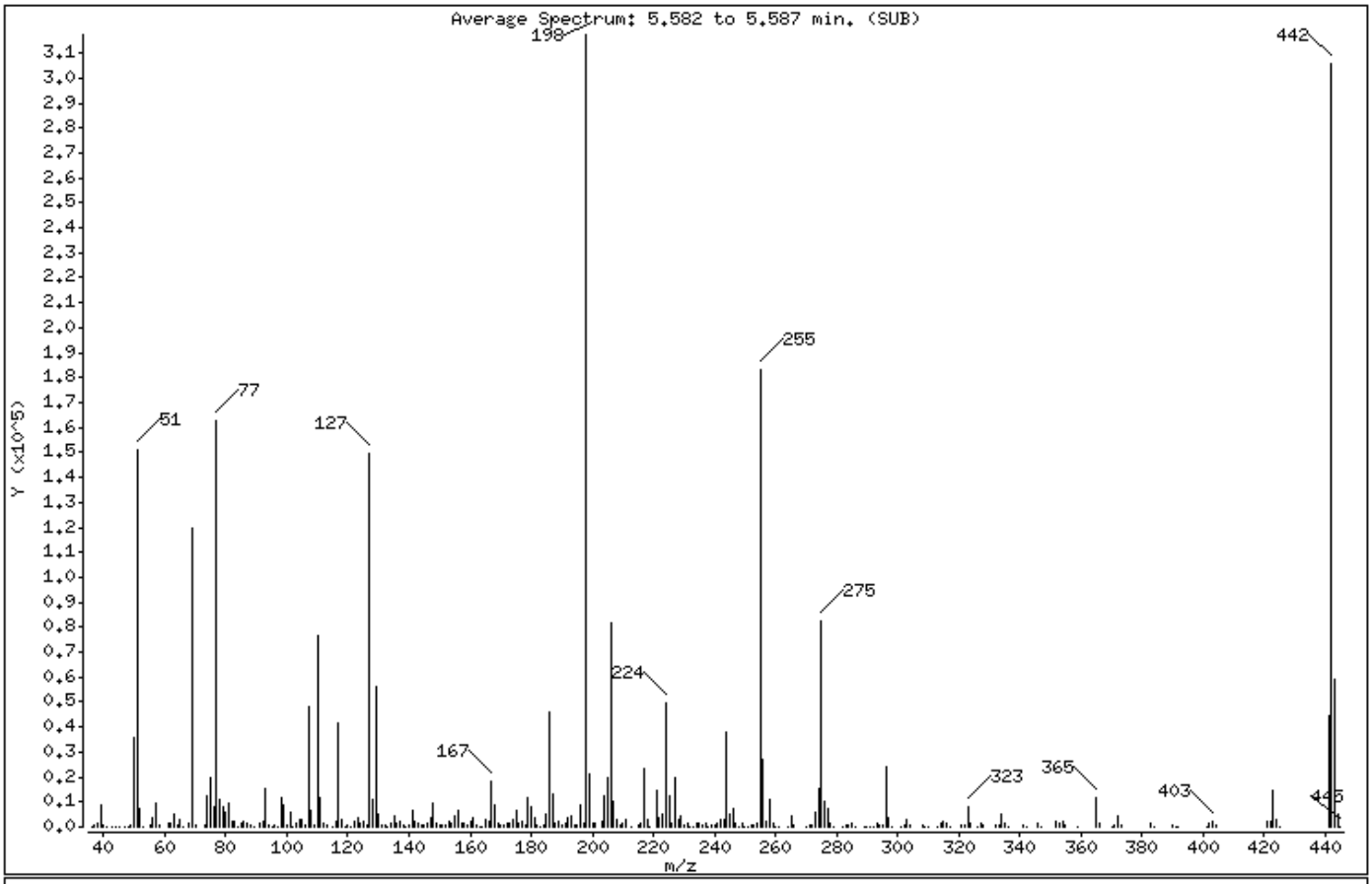
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	47.70
68	Less than 2.00% of mass 69	0.53 (1.41)
69	Mass 69 relative abundance	37.62
70	Less than 2.00% of mass 69	0.21 (0.57)
127	10.00 - 80.00% of mass 198	47.20
197	Less than 2.00% of mass 198	0.51
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 60.00% of mass 198	25.95
365	1.00 - 100.00% of mass 198	3.64
441	Present, but less than mass 443	14.09
442	50.00 - 150.00% of mass 198	96.39
443	15.00 - 24.00% of mass 442	18.66 (19.36)

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\01.D

Date : 15-AUG-2023 13:15

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.582 to 5.587 min. (SUB)
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	341	121.00	102	196.00	8430	282.00	103
37.00	494	122.00	2344	197.00	1611	283.00	769
38.00	1436	123.00	4008	198.00	317376	284.00	532
39.00	9087	124.00	1814	199.00	21120	285.00	1365
40.00	368	125.00	1927	200.00	1665	286.00	256
41.00	353	126.00	621	201.00	1345	289.00	295
43.00	92	127.00	149760	203.00	2209	290.00	283
44.00	55	128.00	10918	204.00	12173	291.00	173
45.00	194	129.00	55952	205.00	19992	292.00	348
47.00	171	130.00	4754	206.00	82008	293.00	1766
48.00	92	131.00	1019	207.00	10487	294.00	428
49.00	544	132.00	502	208.00	2708	295.00	469
50.00	35888	133.00	165	209.00	827	296.00	24160
51.00	151360	134.00	1413	210.00	1294	297.00	3324
52.00	7426	135.00	4508	211.00	3239	298.00	257
53.00	285	136.00	1683	213.00	209	301.00	271
55.00	573	137.00	2394	215.00	916	302.00	380
56.00	3722	138.00	428	216.00	1670	303.00	2653
57.00	9656	139.00	217	217.00	23032	304.00	647
58.00	424	140.00	622	218.00	2928	308.00	372
61.00	1406	141.00	6409	219.00	268	309.00	264
62.00	1770	142.00	2285	221.00	14900	310.00	308
63.00	5322	143.00	1636	222.00	3343	313.00	234
64.00	696	144.00	507	223.00	5411	314.00	1152
65.00	2743	145.00	398	224.00	49584	315.00	2538
66.00	116	146.00	1327	225.00	12580	316.00	1400
68.00	1678	147.00	3690	226.00	1247	317.00	201
69.00	119416	148.00	9281	227.00	19896	321.00	785
70.00	675	149.00	1695	228.00	2827	322.00	417
73.00	818	150.00	488	229.00	4428	323.00	7912
74.00	12493	151.00	830	230.00	618	324.00	1518
75.00	19832	152.00	429	231.00	1718	326.00	217
76.00	7794	153.00	2218	232.00	284	327.00	1675
77.00	162368	154.00	1618	233.00	332	328.00	732
78.00	10819	155.00	4224	234.00	1250	332.00	616

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\01.D

Date : 15-AUG-2023 13:15

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.582 to 5.587 min. (SUB)
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7701	156.00	6505	235.00	1556	333.00	762
80.00	6066	157.00	1105	236.00	1001	334.00	5033
81.00	9675	158.00	1149	237.00	1681	335.00	1247
82.00	2522	159.00	1054	238.00	212	336.00	89
83.00	2269	160.00	2203	239.00	774	341.00	842
84.00	177	161.00	3472	240.00	576	342.00	228
85.00	1407	162.00	929	241.00	1101	346.00	1714
86.00	2495	163.00	286	242.00	2754	347.00	312
87.00	1222	164.00	351	243.00	2786	352.00	2226
88.00	472	165.00	2559	244.00	37712	353.00	1519
89.00	278	166.00	2241	245.00	4796	354.00	2269
91.00	1822	167.00	18280	246.00	6981	355.00	437
92.00	2072	168.00	8412	247.00	1537	359.00	181
93.00	15071	169.00	1354	248.00	327	365.00	11539
94.00	1078	170.00	393	249.00	1371	366.00	1571
95.00	249	171.00	558	250.00	275	370.00	240
96.00	742	172.00	1217	251.00	306	371.00	648
97.00	268	173.00	1681	252.00	373	372.00	4382
98.00	11909	174.00	3221	253.00	809	373.00	1034
99.00	8948	175.00	6541	254.00	1247	383.00	1100
100.00	785	176.00	1693	255.00	183488	384.00	298
101.00	5831	177.00	2411	256.00	27176	390.00	652
102.00	267	178.00	864	257.00	2037	391.00	346
103.00	1460	179.00	11384	258.00	10832	392.00	279
104.00	3179	180.00	8058	259.00	1731	401.00	253
105.00	3116	181.00	3860	260.00	278	402.00	1574
106.00	1011	182.00	613	261.00	339	403.00	2301
107.00	47904	183.00	329	264.00	278	404.00	864
108.00	6810	184.00	773	265.00	4383	421.00	1985
109.00	956	185.00	5286	266.00	672	422.00	1853
110.00	76368	186.00	45720	270.00	243	423.00	14838
111.00	11788	187.00	12897	271.00	415	424.00	3024
112.00	1466	188.00	1293	272.00	539	425.00	284
113.00	488	189.00	2317	273.00	6154	441.00	44704
115.00	87	190.00	405	274.00	15245	442.00	305920

Date : 15-AUG-2023 13:15

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.582 to 5.587 min. (SUB)
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2043	191.00	1259	275.00	82360	443.00	59224
117.00	41440	192.00	3842	276.00	10491	444.00	5416
118.00	2814	193.00	4280	277.00	7337	445.00	315
119.00	326	194.00	865	278.00	1230		
120.00	519	195.00	452	279.00	185		

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230815.b\03.D
Lab Smp Id: 1 4DX-0.08
Inj Date : 15-AUG-2023 13:47
Operator : LG Inst ID: SV6.i
Smp Info : 1 4DX-0.08;;2
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 17-Aug-2023 18:02 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.902	3.902	(1.000)	4038	0.10000	(aQM)
* 45 Naphthalene-d8	136	5.033	5.033	(1.000)	16993	0.10000	
$ 33 Nitrobenzene-d5	82	4.374	4.374	(0.869)	3701	0.08000	0.07168(M)
* 86 Acenaphthene-d10	164	6.726	6.726	(1.000)	7876	0.10000	
$ 69 2-Fluorobiphenyl	172	6.061	6.061	(0.901)	6628	0.08000	0.08230(M)
* 126 Phenanthrene-d10	188	8.191	8.191	(1.000)	14994	0.10000	
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	16561	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.826	9.826	(0.879)	9112	0.08000	0.07458(M)
* 198 Perylene-d12	264	13.379	13.379	(1.000)	12228	0.10000	
1 1,4-Dioxane	58	2.141	2.141	(0.549)	995	0.08000	0.07262(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209042

Data File: \\NAHSTWS005\Target\chem\SV6.i\230815.b\03.D

Date : 15-AUG-2023 13:47

Client ID:

Instrument: SV6.i

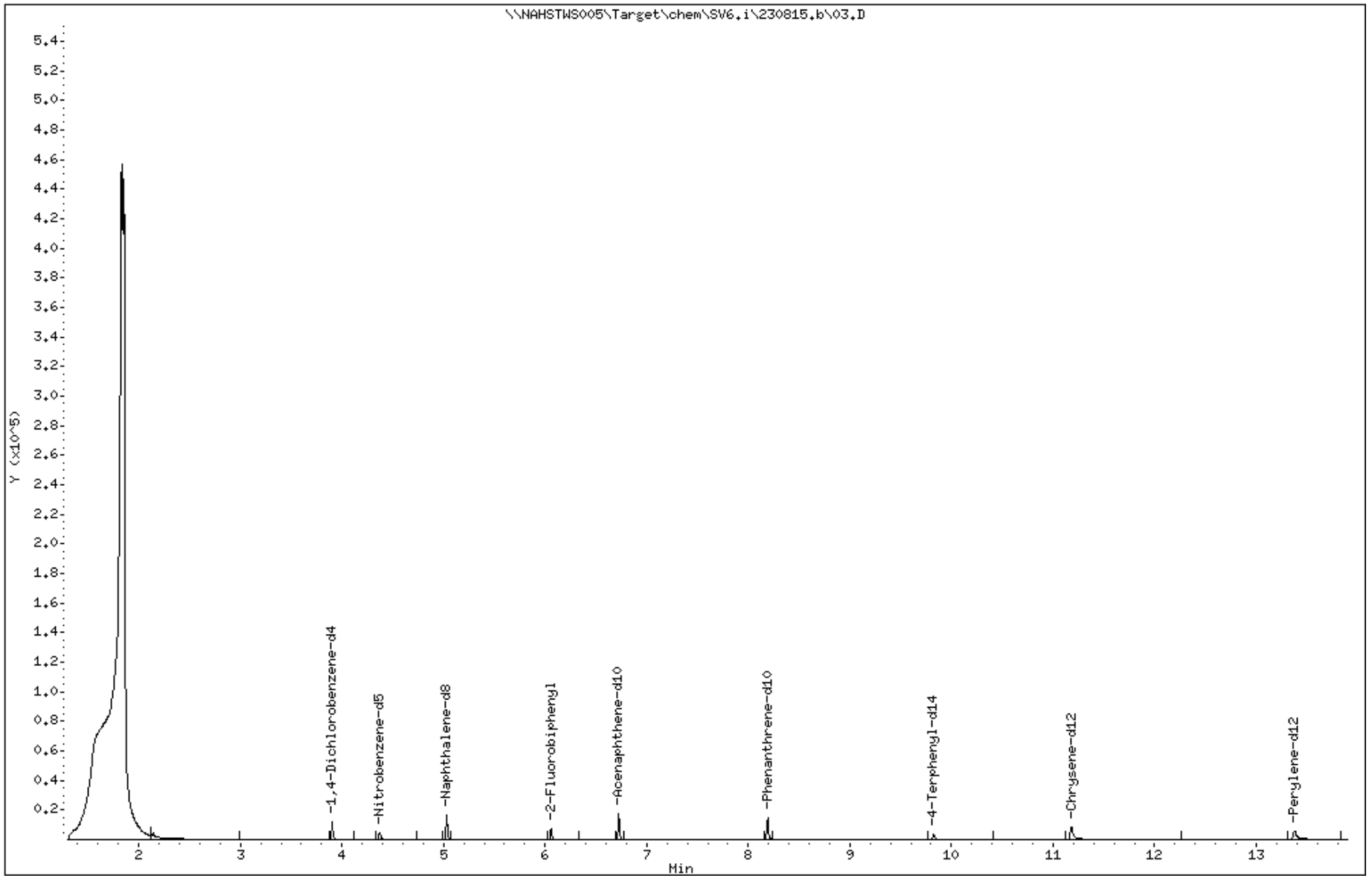
Sample Info: 1 4DX-0.08;;2

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



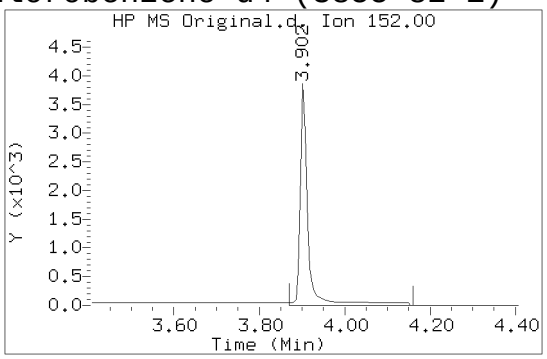
Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\03.D
Inj Date : 15-AUG-2023 13:47
InstruID : SV6.i
LabSampID : 1 4DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

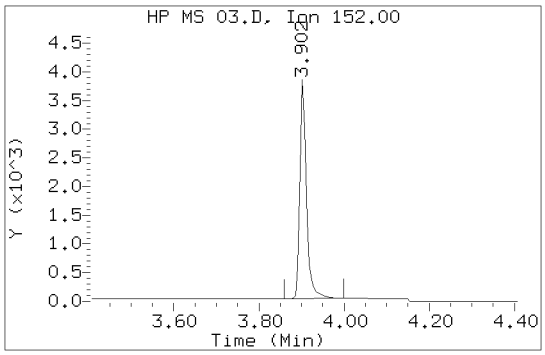
BEFORE

MASS
152
AREA
4898
HEIGHT
3864
15-Aug-2023
14:03
ALSHS
Server



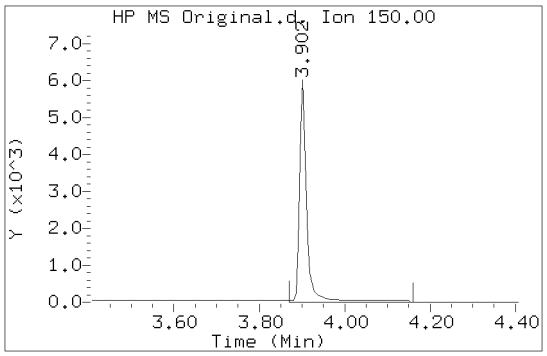
AFTER

MASS
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AREA
4038
HEIGHT
3814
17-Aug-2023
18:02
ALSHS
Ser



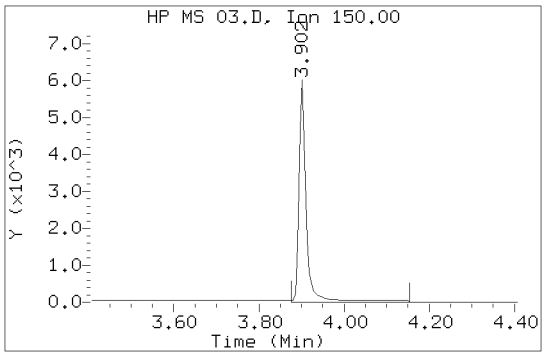
BEFORE

MASS
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AREA
7253
HEIGHT
6019
15-Aug-2023
14:03
ALSHS
Server



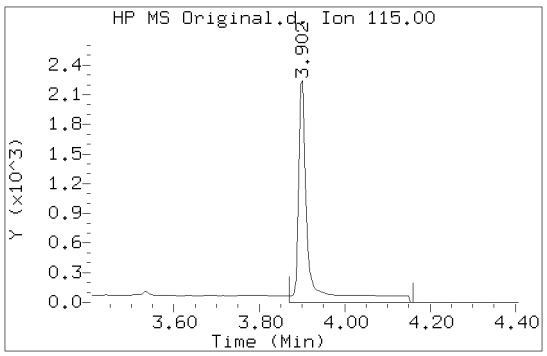
AFTER

MASS
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AREA
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HEIGHT
6019
17-Aug-2023
18:02
ALSHS
Ser



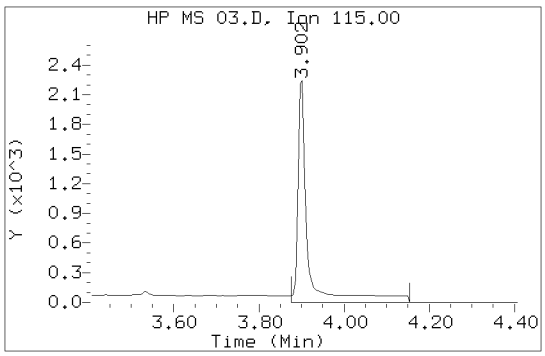
BEFORE

MASS
115
AREA
3666
HEIGHT
2242
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
115
AREA
3645
HEIGHT
2242
17-Aug-2023
18:02
ALSHS
Ser

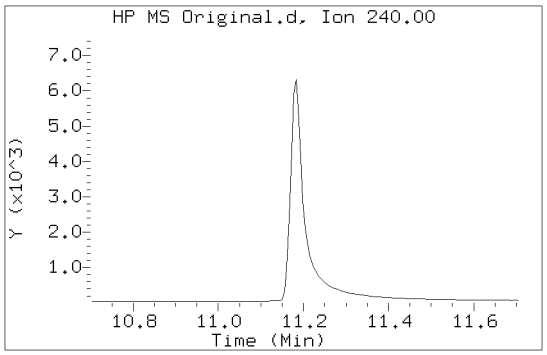


Chrysene-d12 (1719-03-5)

Reason Code:

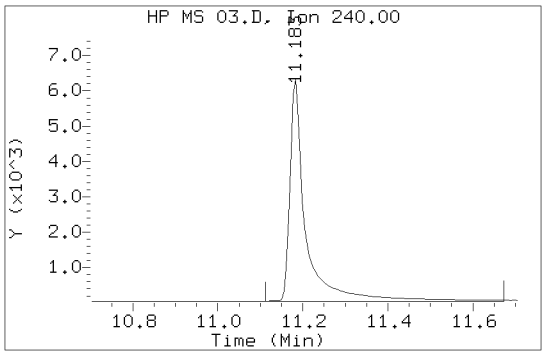
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
240
AREA
16561
HEIGHT
6267
17-Aug-2023
18:02
ALSHS
Ser



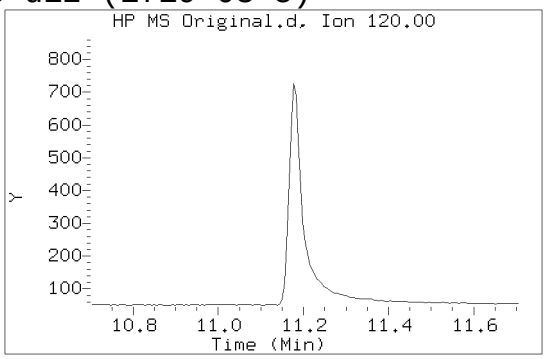
Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\03.D
Inj Date : 15-AUG-2023 13:47
InstruID : SV6.i
LabSampID : 1 4DX-0.08

Chrysene-d12 (1719-03-5)

Reason Code:

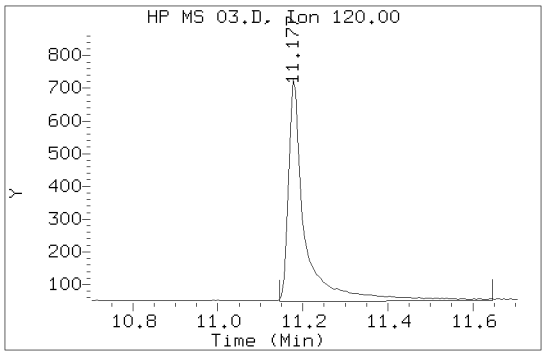
BEFORE

MASS
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AREA
0
HEIGHT
0
15-Aug-2023
14:03
ALSHS
Server



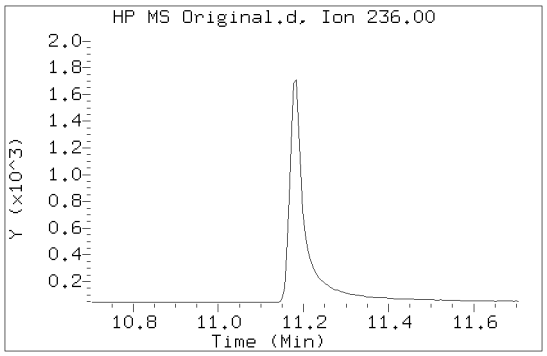
AFTER

MASS
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AREA
1857
HEIGHT
676
17-Aug-2023
18:02
ALSHS
Ser



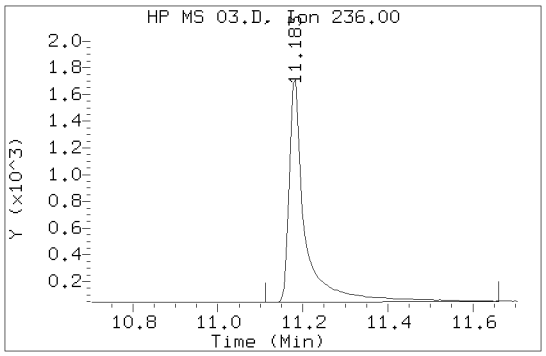
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
236
AREA
4384
HEIGHT
1660
17-Aug-2023
18:02
ALSHS
Ser

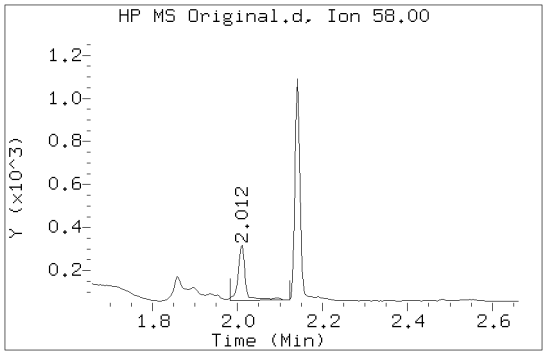


1,4-Dioxane ()

Reason Code:

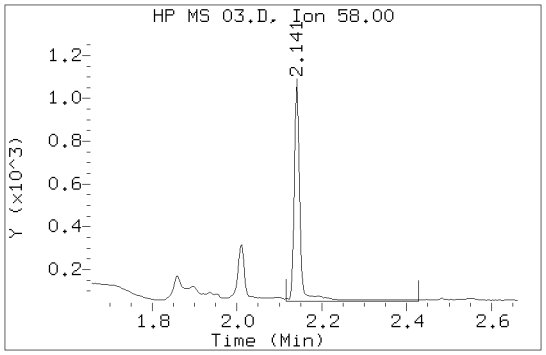
BEFORE

MASS
58
AREA
305
HEIGHT
254
15-Aug-2023
14:03
ALSHS
Server



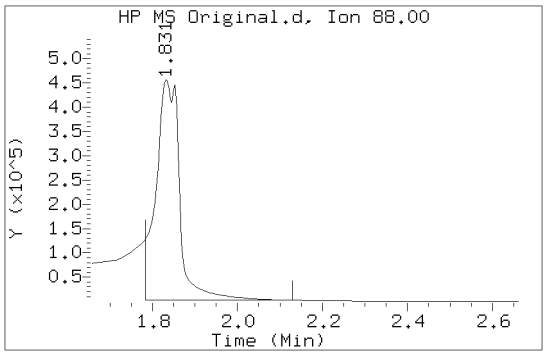
AFTER

MASS
58
AREA
995
HEIGHT
1037
17-Aug-2023
18:02
ALSHS
Ser



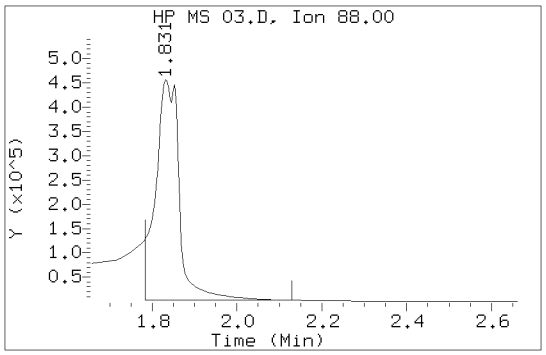
BEFORE

MASS
88
AREA
1778926
HEIGHT
454180
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
88
AREA
1778926
HEIGHT
454180
17-Aug-2023
18:02
ALSHS
Ser



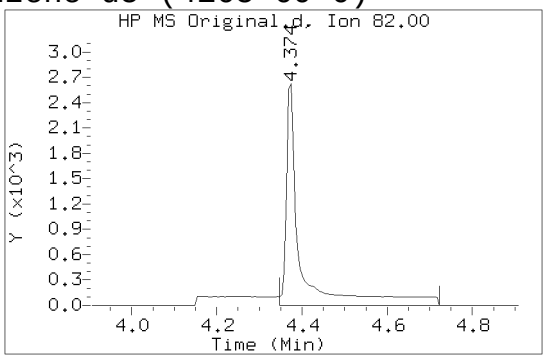
Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\03.D
Inj Date : 15-AUG-2023 13:47
InstruID : SV6.i
LabSampID : 1 4DX-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

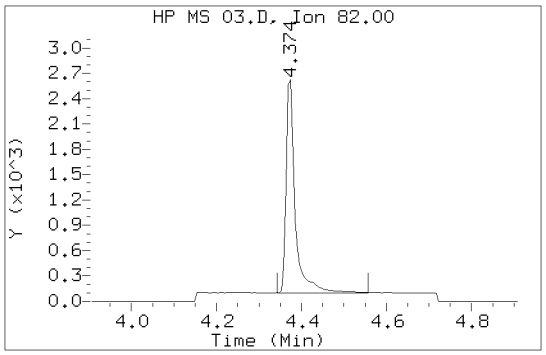
BEFORE

MASS
82
AREA
5952
HEIGHT
2624
15-Aug-2023
14:03
ALSHS
Server



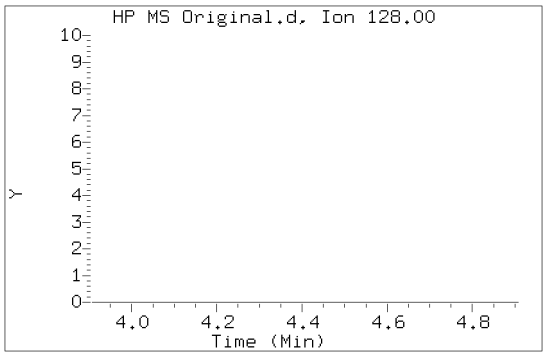
AFTER

MASS
82
AREA
3701
HEIGHT
2523
17-Aug-2023
18:02
ALSHS
Ser



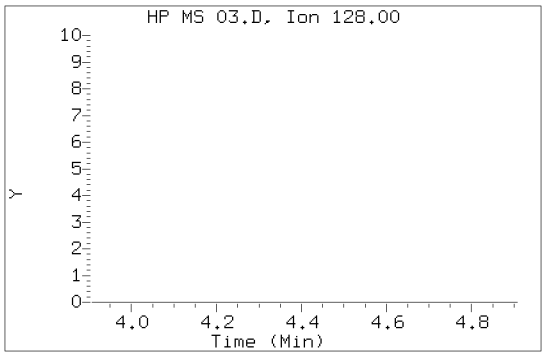
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Aug-2023
14:03
ALSHS
Server



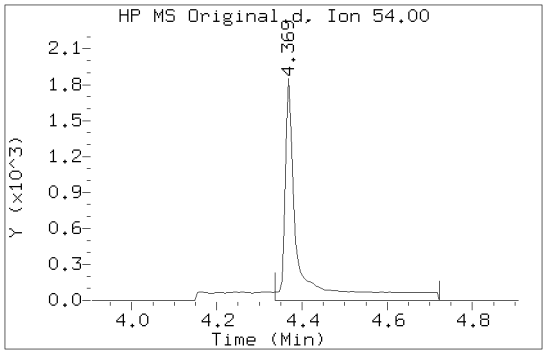
AFTER

MASS
128
AREA
0
HEIGHT
0
17-Aug-2023
18:02
ALSHS
Ser



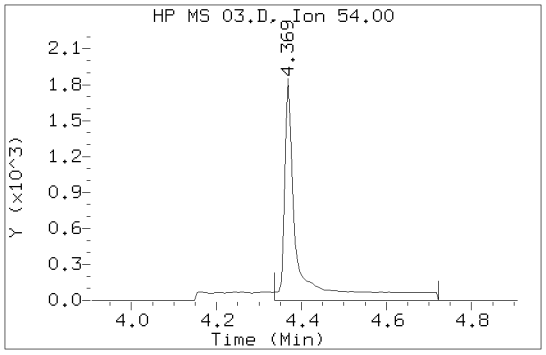
BEFORE

MASS
54
AREA
3982
HEIGHT
1850
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
54
AREA
3982
HEIGHT
1850
17-Aug-2023
18:02
ALSHS
Ser

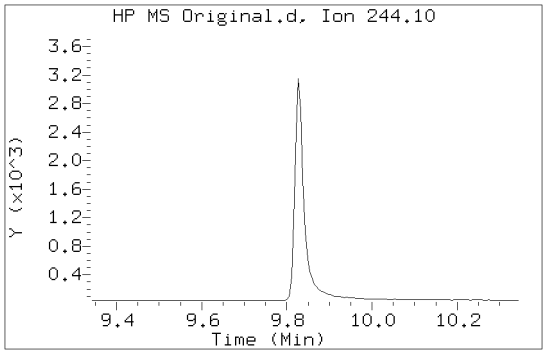


4-Terphenyl-d14 (1718-51-0)

Reason Code:

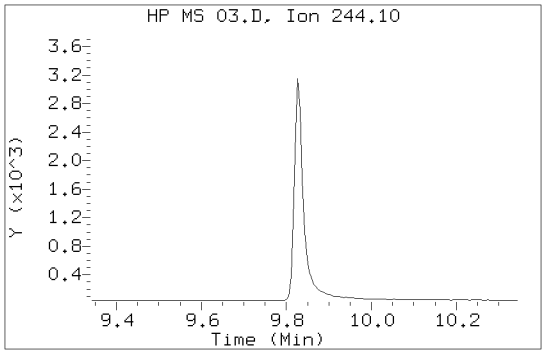
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
244.1
AREA
9112
HEIGHT
3150
17-Aug-2023
18:02
ALSHS
Ser



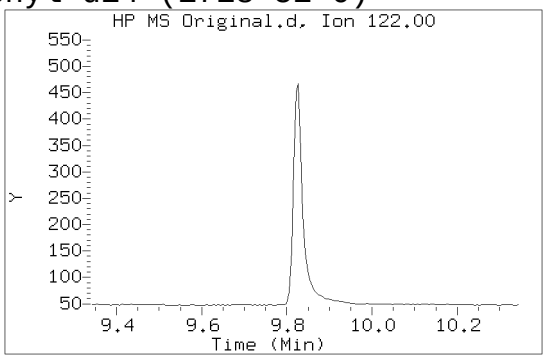
Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\03.D
Inj Date : 15-AUG-2023 13:47
InstruID : SV6.i
LabSampID : 1 4DX-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

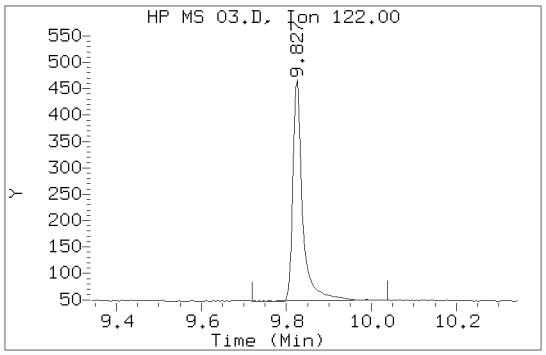
BEFORE

MASS
122
AREA
0
HEIGHT
0
15-Aug-2023
14:03
ALSHS
Server



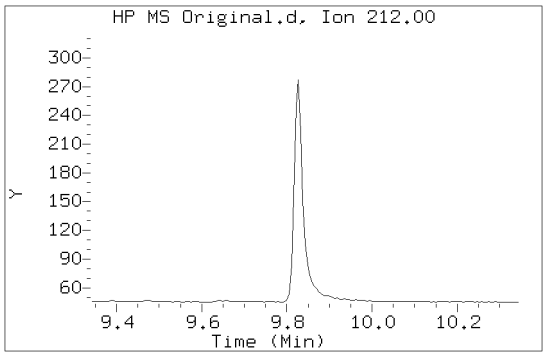
AFTER

MASS
122
AREA
688
HEIGHT
419
17-Aug-2023
18:02
ALSHS
Ser



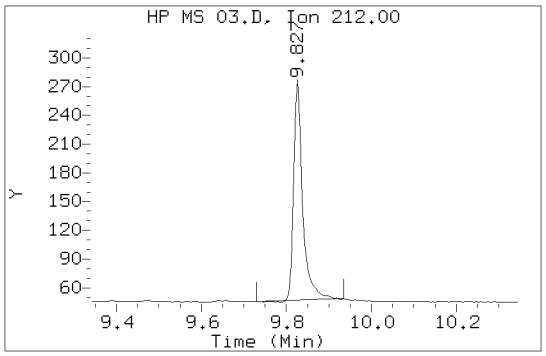
BEFORE

MASS
212
AREA
0
HEIGHT
0
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
212
AREA
336
HEIGHT
229
17-Aug-2023
18:02
ALSHS
Ser

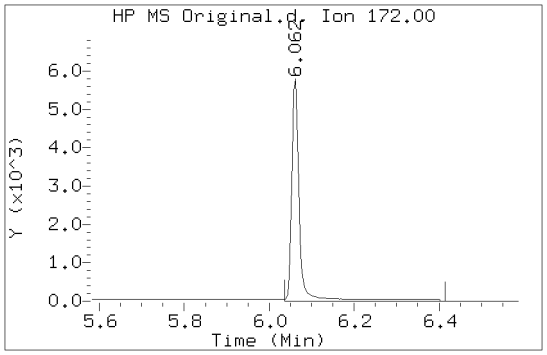


2-Fluorobiphenyl (321-60-8)

Reason Code:

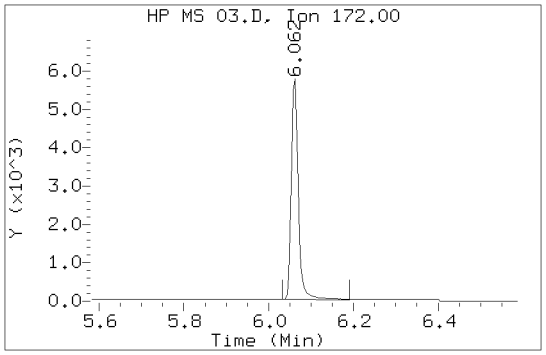
BEFORE

MASS
172
AREA
7719
HEIGHT
5795
15-Aug-2023
14:03
ALSHS
Server



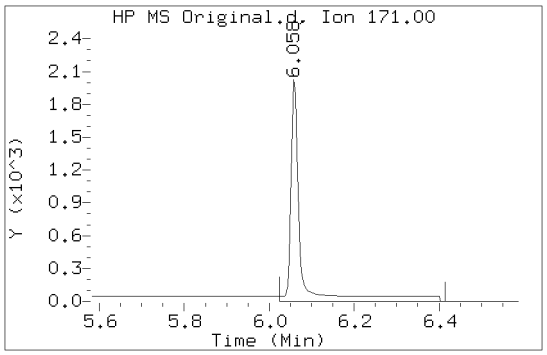
AFTER

MASS
172
AREA
6628
HEIGHT
5753
17-Aug-2023
18:02
ALSHS
Ser



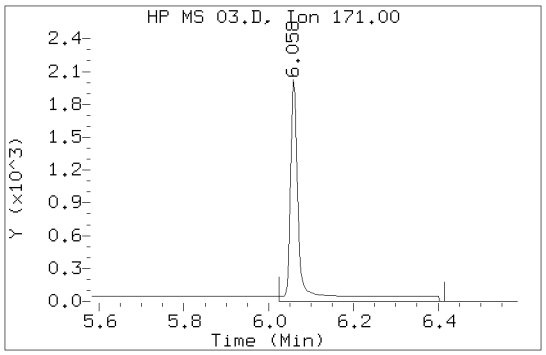
BEFORE

MASS
171
AREA
3302
HEIGHT
2026
15-Aug-2023
14:03
ALSHS
Server



AFTER

MASS
171
AREA
3302
HEIGHT
2026
17-Aug-2023
18:02
ALSHS
Ser



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\09.D Page 1
Report Date: 16-Aug-2023 13:19

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\09.D
Lab Smp Id: MBLK-198367
Inj Date : 15-AUG-2023 15:40
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-198367;;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 16-Aug-2023 08:26 jjuarez Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7053

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.901	3.902	(1.000)	4644	0.10000	(a)
* 45 Naphthalene-d8	136	5.033	5.033	(1.000)	19242	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.374	4.374	(0.869)	3079	0.05267	0.05267(M)
* 86 Acenaphthene-d10	164	6.725	6.726	(1.000)	11579	0.10000	
$ 69 2-Fluorobiphenyl	172	6.061	6.061	(0.901)	9292	0.07848	0.07848(M)
* 126 Phenanthrene-d10	188	8.191	8.191	(1.000)	21251	0.10000	
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	20811	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.826	9.826	(0.879)	10445	0.06803	0.06803(M)
* 198 Perylene-d12	264	13.374	13.379	(1.000)	7707	0.10000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209048

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\09.D

Date : 15-AUG-2023 15:40

Client ID:

Instrument: SV6.i

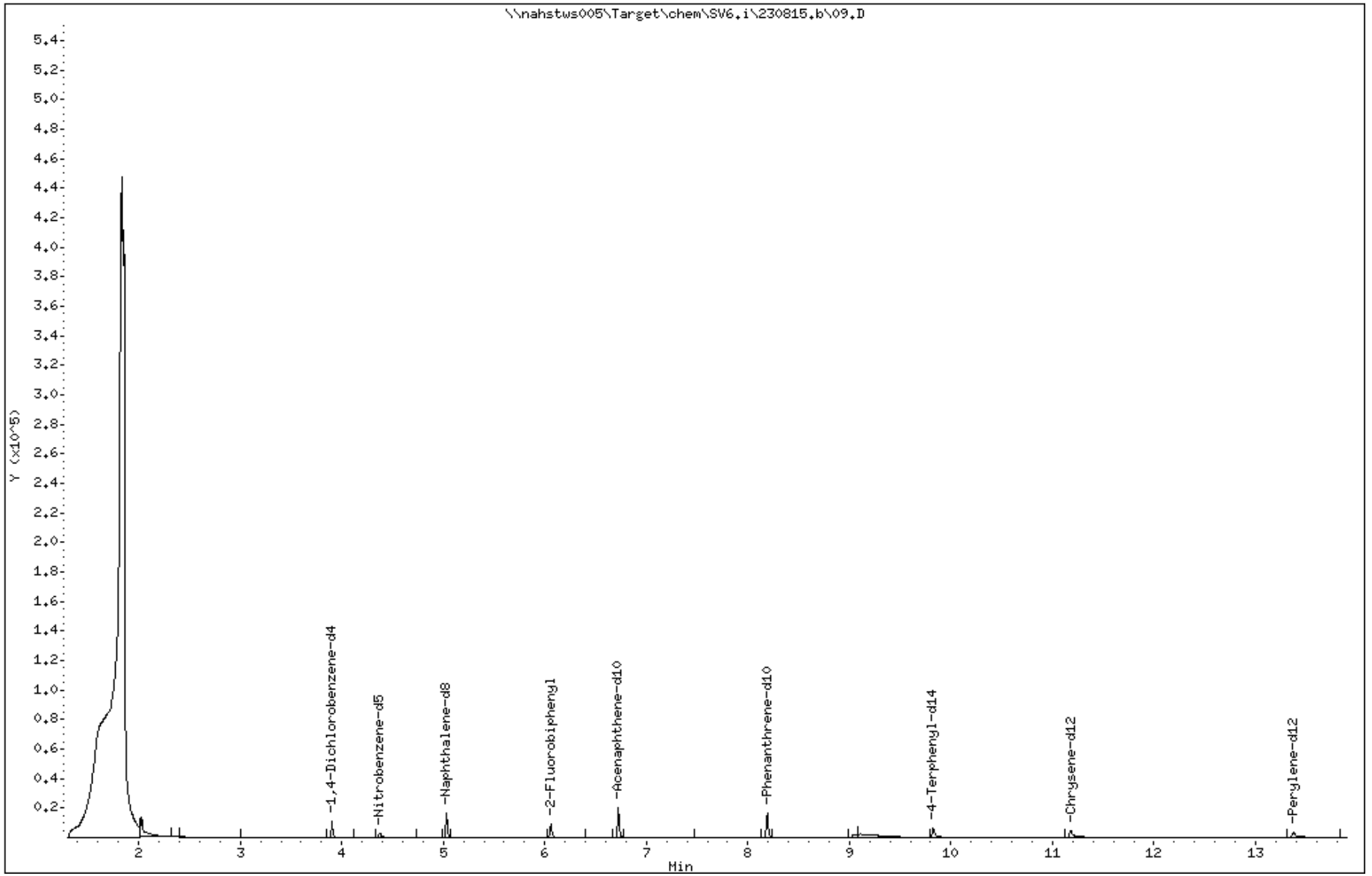
Sample Info: MBLK-198367;;3;;BLANK

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



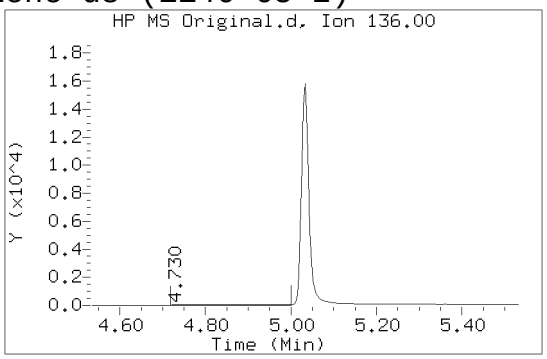
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\09.D
Inj Date : 15-AUG-2023 15:40
InstruID : SV6.i
LabSampID : MBLK-198367

Naphthalene-d8 (1146-65-2)

Reason Code:

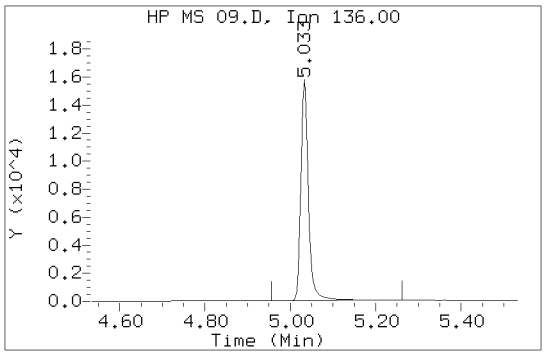
BEFORE

MASS
136
AREA
1045
HEIGHT
63
15-Aug-2023
15:54
ALSHS
Server



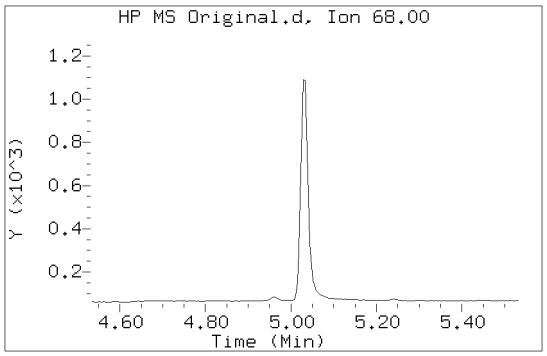
AFTER

MASS
136
AREA
19242
HEIGHT
15747
16-Aug-2023
13:19
ALSHS
S



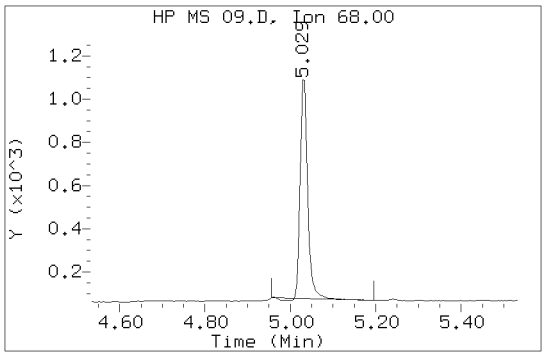
BEFORE

MASS
68
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



AFTER

MASS
68
AREA
1203
HEIGHT
1011
16-Aug-2023
13:19
ALSHS
S

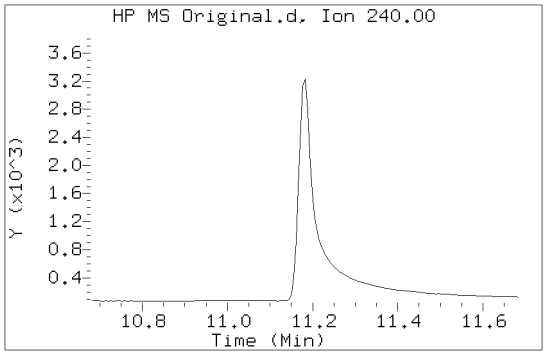


Chrysene-d12 (1719-03-5)

Reason Code:

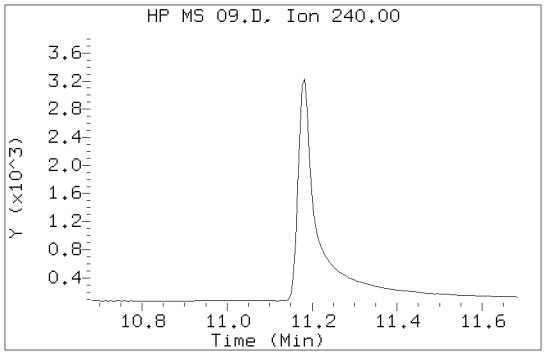
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



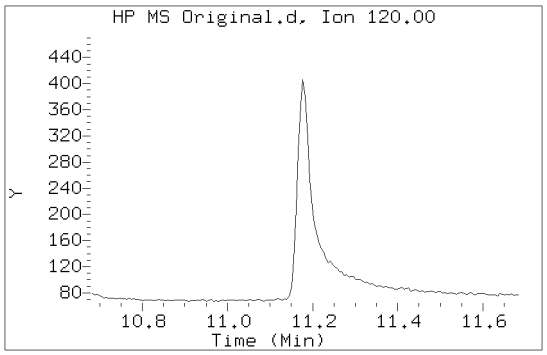
AFTER

MASS
240
AREA
20811
HEIGHT
3231
16-Aug-2023
13:19
ALSHS
S



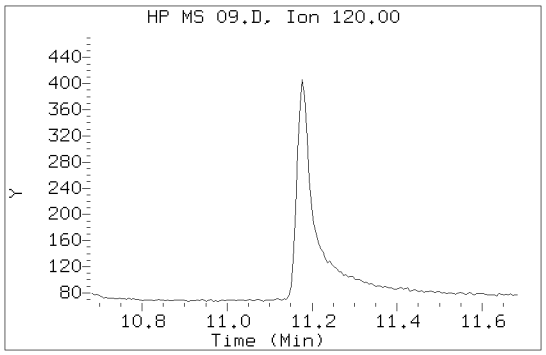
BEFORE

MASS
120
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



AFTER

MASS
120
AREA
1212
HEIGHT
336
16-Aug-2023
13:19
ALSHS
S

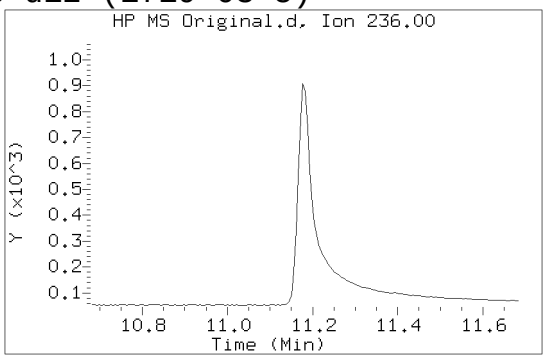


Data File : \\nahstws005\Target\chem\SV6.i\230815.b\09.D
Inj Date : 15-AUG-2023 15:40
InstruID : SV6.i
LabSampID : MBLK-198367

Chrysene-d12 (1719-03-5)

BEFORE

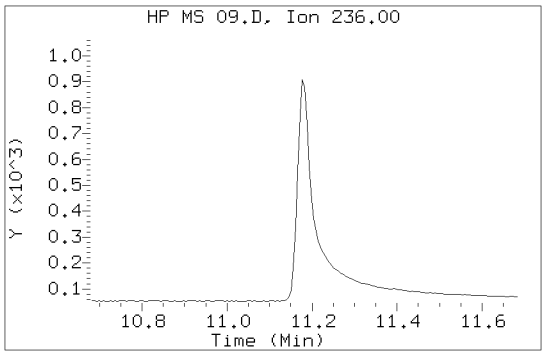
MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



Reason Code:

AFTER

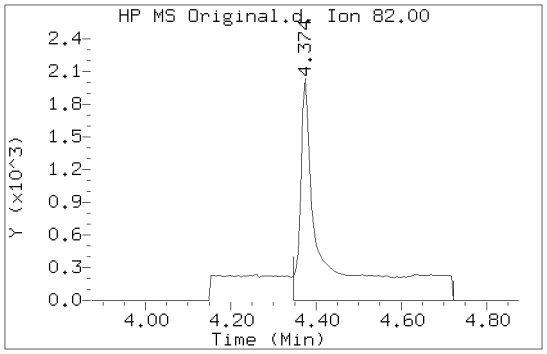
MASS
236
AREA
3033
HEIGHT
852
16-Aug-2023
13:19
ALSHS
S



Nitrobenzene-d5 (4165-60-0)

BEFORE

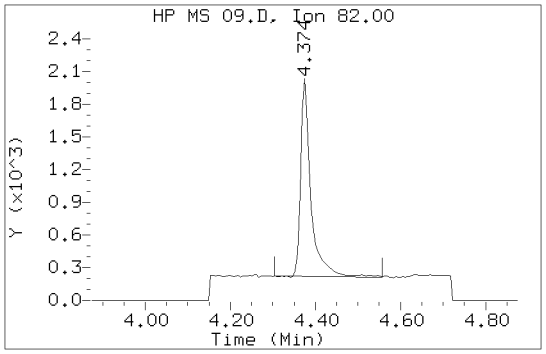
MASS
82
AREA
8020
HEIGHT
2032
15-Aug-2023
15:54
ALSHS
Server



Reason Code:

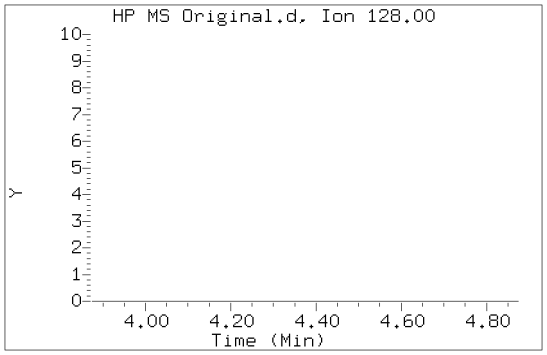
AFTER

MASS
82
AREA
3079
HEIGHT
1812
16-Aug-2023
13:19
ALSHS
S



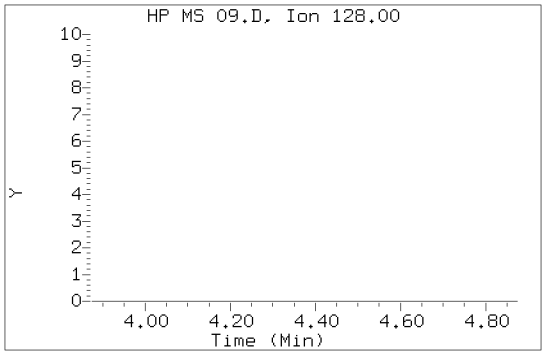
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



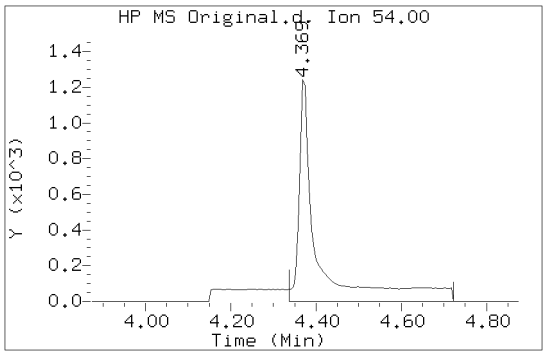
AFTER

MASS
128
AREA
0
HEIGHT
0
16-Aug-2023
13:19
ALSHS
S



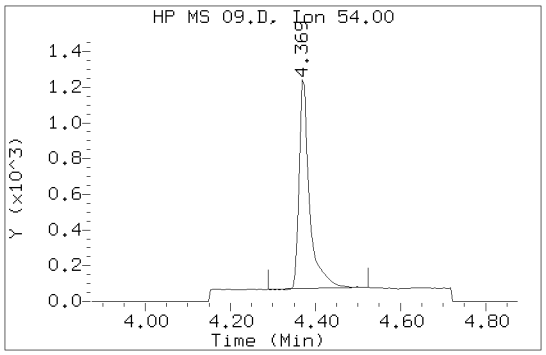
BEFORE

MASS
54
AREA
3713
HEIGHT
1242
15-Aug-2023
15:54
ALSHS
Server



AFTER

MASS
54
AREA
2005
HEIGHT
1171
16-Aug-2023
13:19
ALSHS
S



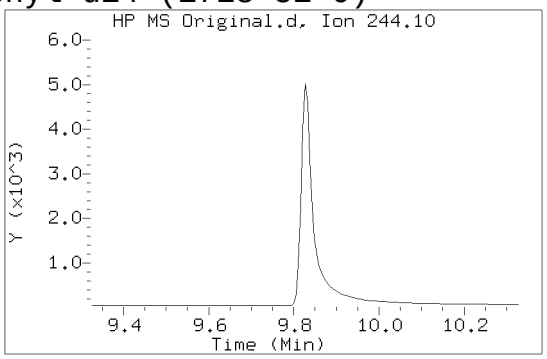
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Inj Date : 15-AUG-2023 15:40
InstruID : SV6.i
LabSampID : MBLK-198367

4-Terphenyl-d14 (1718-51-0)

Reason Code:

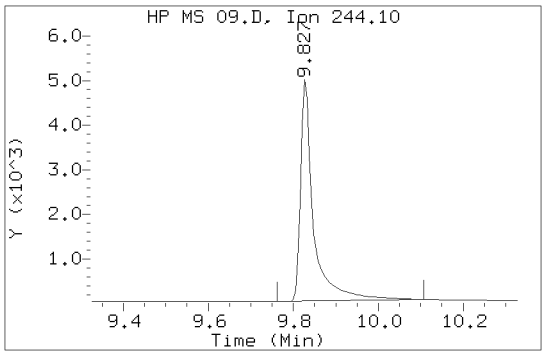
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



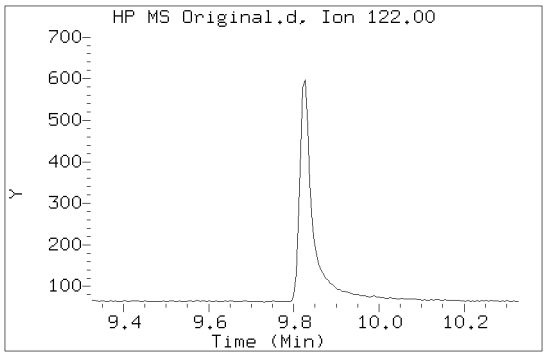
AFTER

MASS
244.1
AREA
10445
HEIGHT
4959
16-Aug-2023
13:19
ALSHS
S



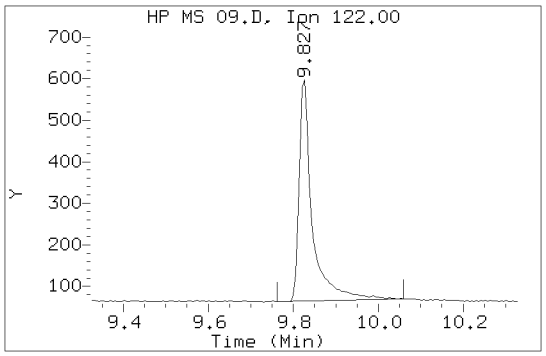
BEFORE

MASS
122
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



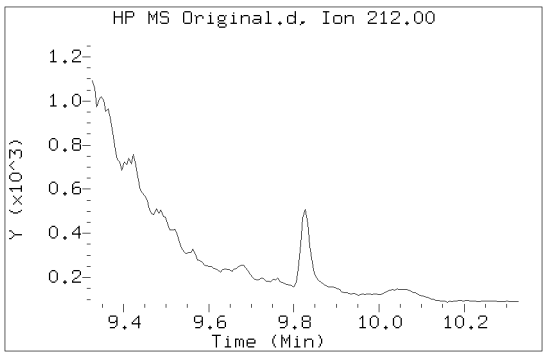
AFTER

MASS
122
AREA
1134
HEIGHT
531
16-Aug-2023
13:19
ALSHS
S



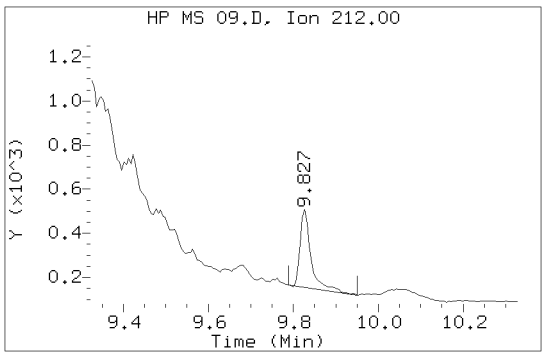
BEFORE

MASS
212
AREA
0
HEIGHT
0
15-Aug-2023
15:54
ALSHS
Server



AFTER

MASS
212
AREA
619
HEIGHT
353
16-Aug-2023
13:19
ALSHS
S

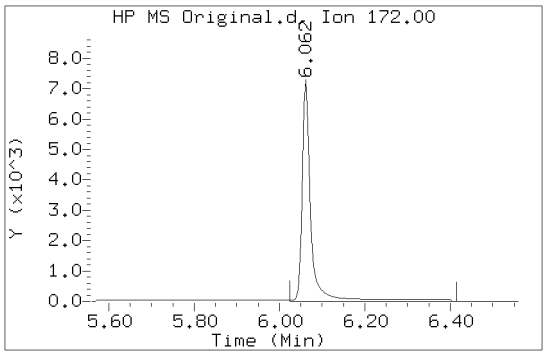


2-Fluorobiphenyl (321-60-8)

Reason Code:

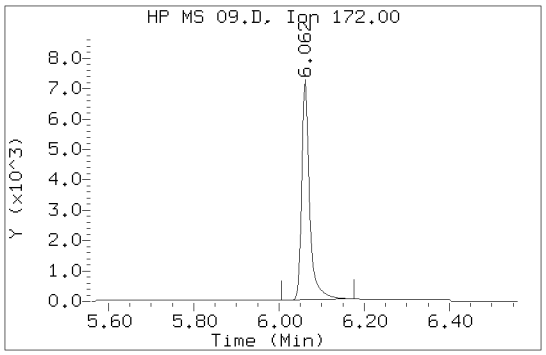
BEFORE

MASS
172
AREA
10821
HEIGHT
7297
15-Aug-2023
15:54
ALSHS
Server



AFTER

MASS
172
AREA
9292
HEIGHT
7236
16-Aug-2023
13:19
ALSHS
S



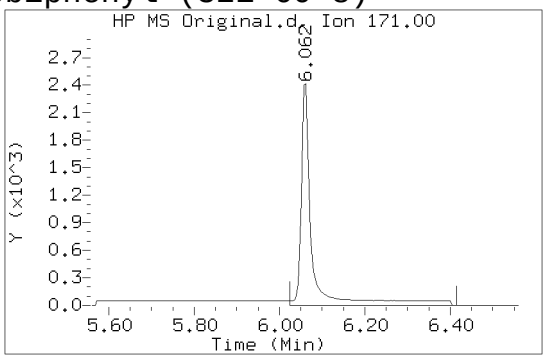
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\09.D
Inj Date : 15-AUG-2023 15:40
InstruID : SV6.i
LabSampID : MBLK-198367

2-Fluorobiphenyl (321-60-8)

Reason Code:

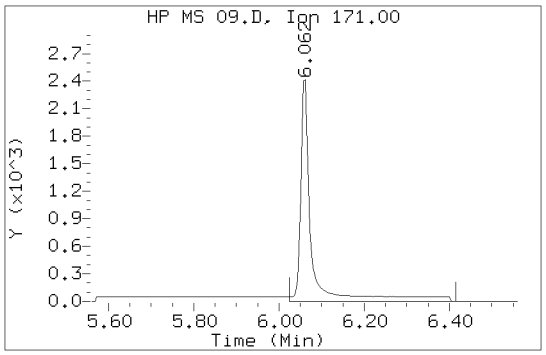
BEFORE

MASS
171
AREA
4368
HEIGHT
2416
15-Aug-2023
15:54
ALSHS
Server



AFTER

MASS
171
AREA
4368
HEIGHT
2416
16-Aug-2023
13:19
ALSHS
S



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\10.D Page 1
Report Date: 16-Aug-2023 13:19

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\10.D
Lab Smp Id: LCS-198367
Inj Date : 15-AUG-2023 15:57
Operator : LG Inst ID: SV6.i
Smp Info : LCS-198367;;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 16-Aug-2023 08:26 jjuarez Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7053

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.901	3.902	(1.000)	4447	0.10000	(aM)
* 45 Naphthalene-d8	136	5.033	5.033	(1.000)	26398	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.374	4.374	(0.869)	7076	0.08822	0.08822(M)
* 86 Acenaphthene-d10	164	6.725	6.726	(1.000)	15557	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	6.061	6.061	(0.901)	17081	0.10737	0.1074(M)
* 126 Phenanthrene-d10	188	8.191	8.191	(1.000)	24652	0.10000	
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	23099	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.832	9.826	(0.879)	19079	0.11196	0.1120(M)
* 198 Perylene-d12	264	13.379	13.379	(1.000)	7692	0.10000	
1 1,4-Dioxane	58	2.140	2.141	(0.549)	893	0.05918	0.05918(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209054

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\10.D

Date : 15-AUG-2023 15:57

Client ID:

Instrument: SV6.i

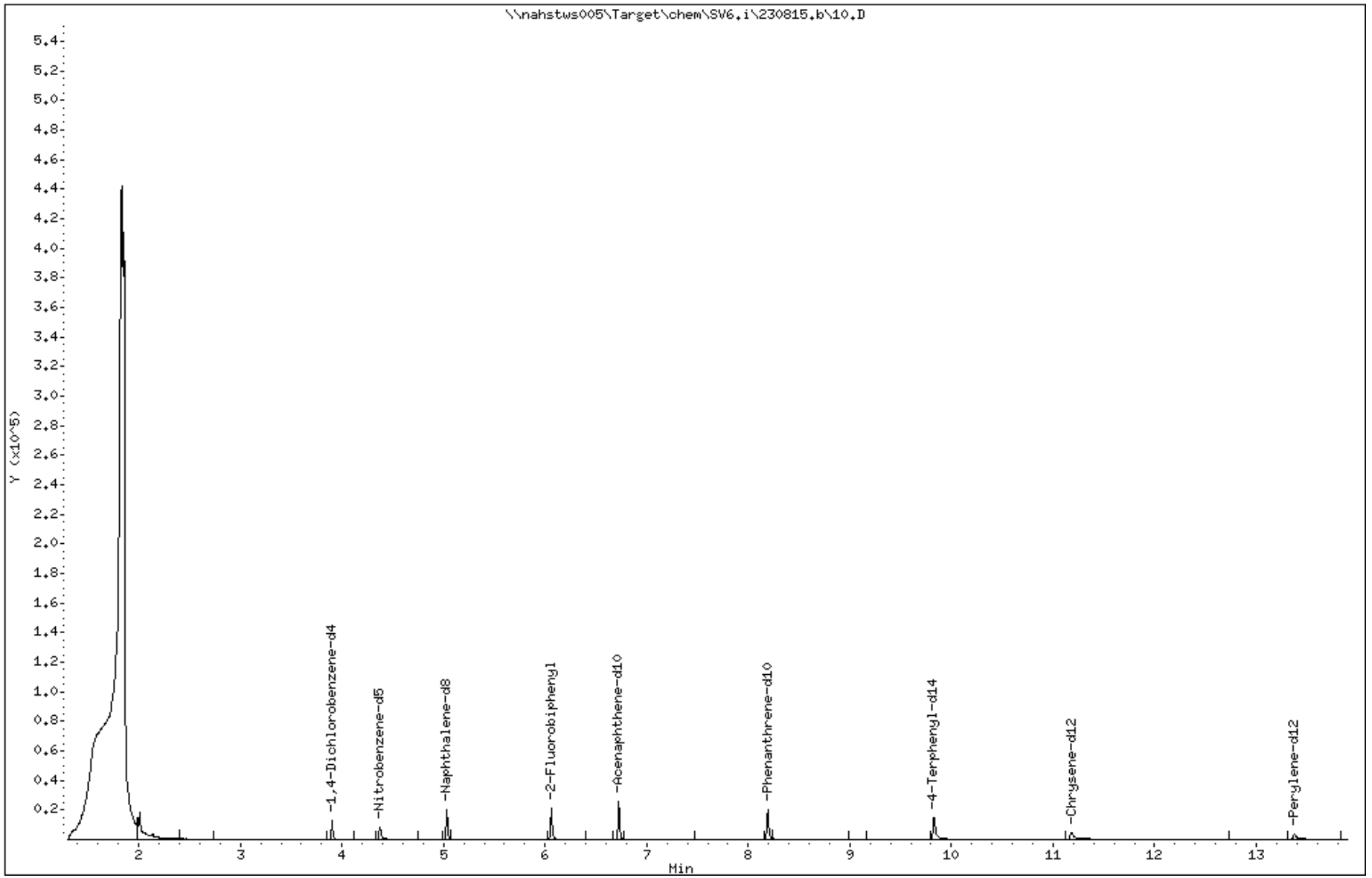
Sample Info: LCS-198367;;3;;LCS

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



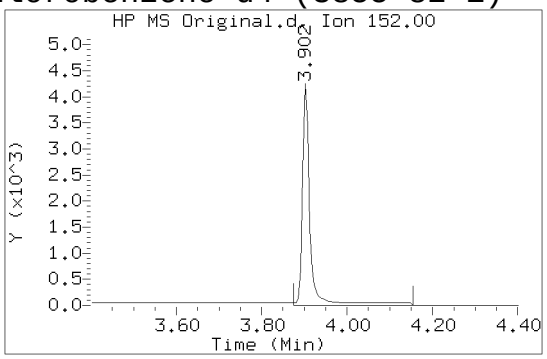
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\10.D
Inj Date : 15-AUG-2023 15:57
InstruID : SV6.i
LabSampID : LCS-198367

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

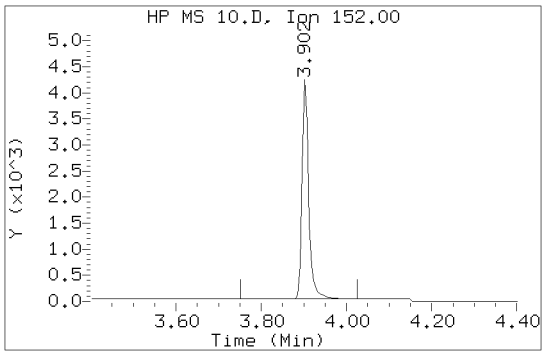
BEFORE

MASS
152
AREA
5282
HEIGHT
4252
15-Aug-2023
16:13
ALSHS
Server



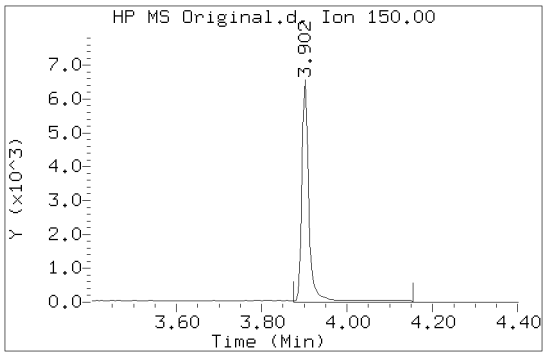
AFTER

MASS
152
AREA
4447
HEIGHT
4202
16-Aug-2023
13:19
ALSHS
S



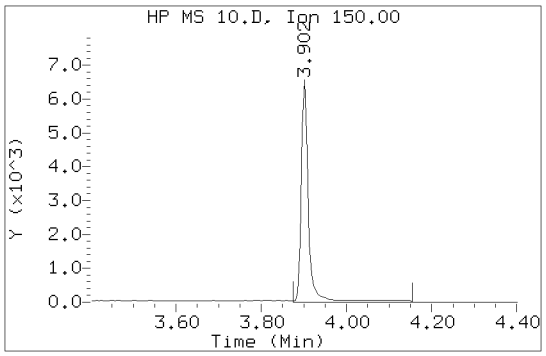
BEFORE

MASS
150
AREA
7846
HEIGHT
6565
15-Aug-2023
16:13
ALSHS
Server



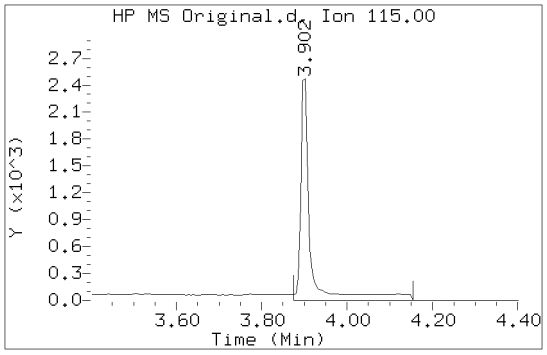
AFTER

MASS
150
AREA
7846
HEIGHT
6565
16-Aug-2023
13:19
ALSHS
S



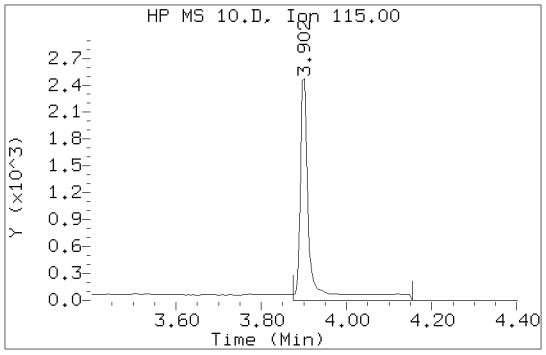
BEFORE

MASS
115
AREA
3824
HEIGHT
2474
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
115
AREA
3824
HEIGHT
2474
16-Aug-2023
13:19
ALSHS
S

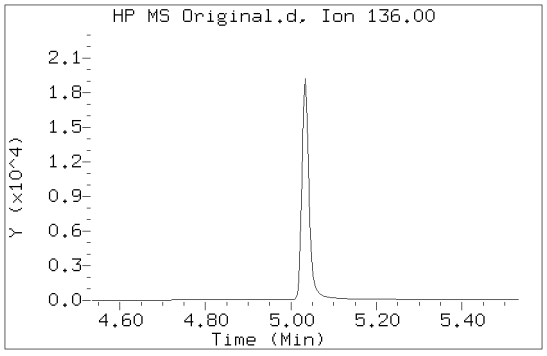


Naphthalene-d8 (1146-65-2)

Reason Code:

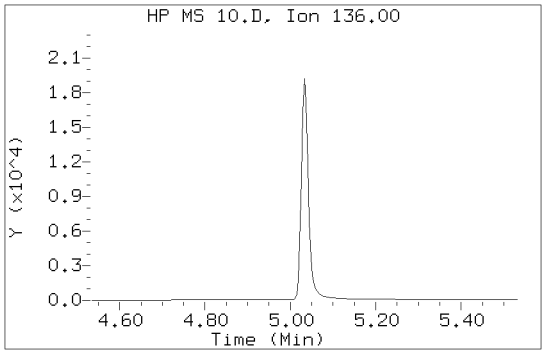
BEFORE

MASS
136
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
136
AREA
26398
HEIGHT
19224
16-Aug-2023
13:19
ALSHS
S



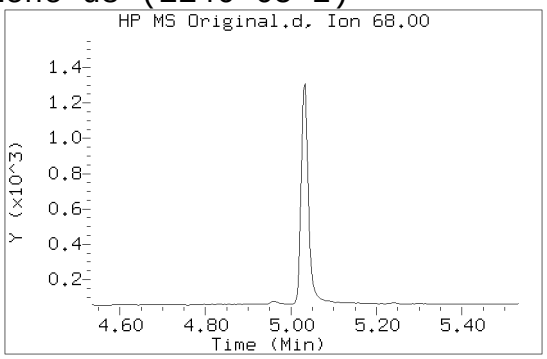
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Inj Date : 15-AUG-2023 15:57
InstruID : SV6.i
LabSampID : LCS-198367

Naphthalene-d8 (1146-65-2)

Reason Code:

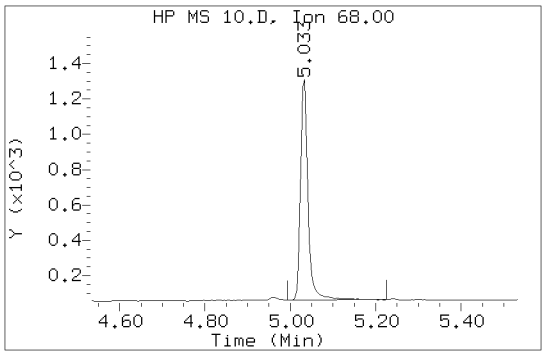
BEFORE

MASS
68
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
68
AREA
1498
HEIGHT
1244
16-Aug-2023
13:19
ALSHS
S

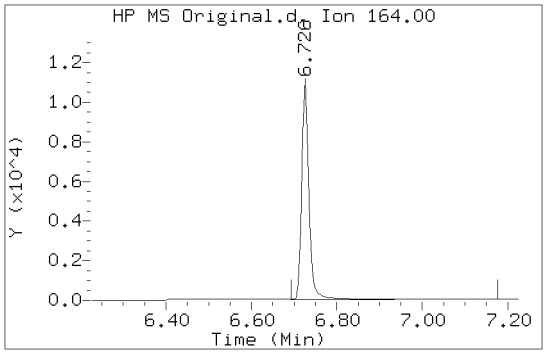


Acenaphthene-d10 (15067-26-2)

Reason Code:

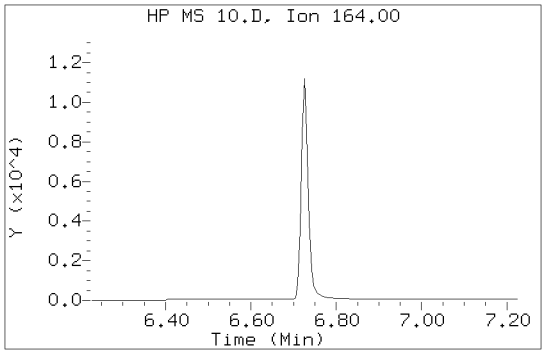
BEFORE

MASS
164
AREA
13497
HEIGHT
11166
15-Aug-2023
16:13
ALSHS
Server



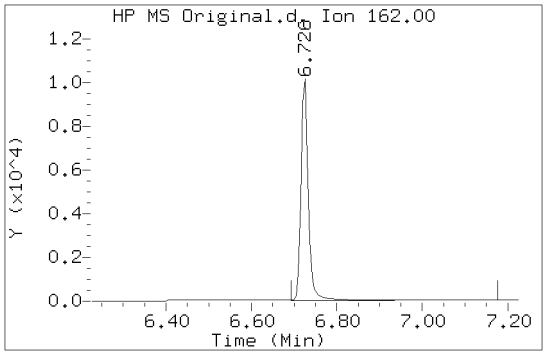
AFTER

MASS
164
AREA
15557
HEIGHT
11176
16-Aug-2023
13:19
ALSHS
S



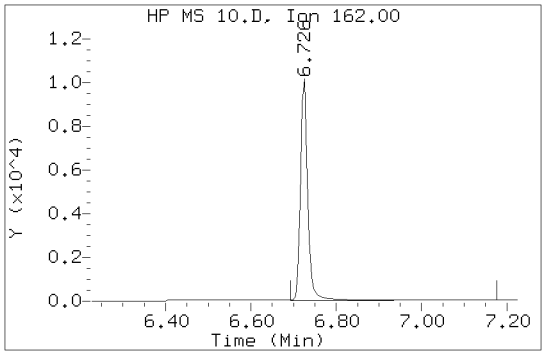
BEFORE

MASS
162
AREA
12556
HEIGHT
10140
15-Aug-2023
16:13
ALSHS
Server



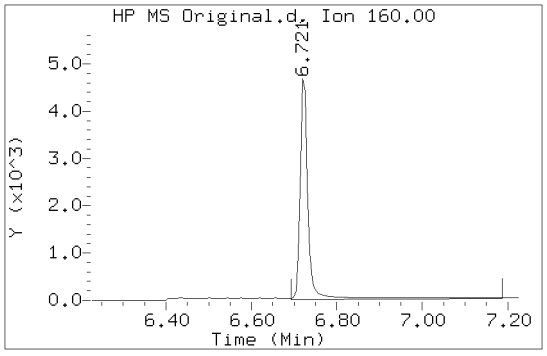
AFTER

MASS
162
AREA
12556
HEIGHT
10140
16-Aug-2023
13:19
ALSHS
S



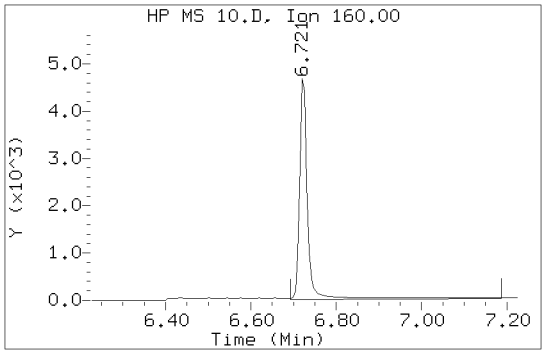
BEFORE

MASS
160
AREA
6147
HEIGHT
4666
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
160
AREA
6147
HEIGHT
4666
16-Aug-2023
13:19
ALSHS
S



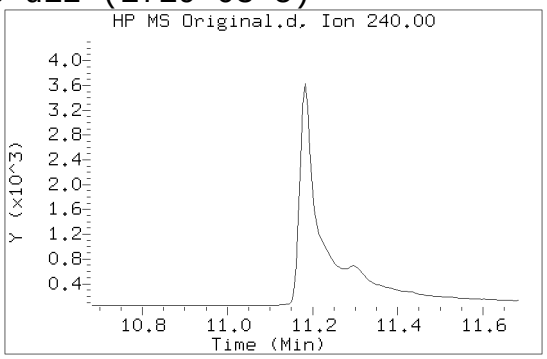
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\10.D
Inj Date : 15-AUG-2023 15:57
InstruID : SV6.i
LabSampID : LCS-198367

Chrysene-d12 (1719-03-5)

Reason Code:

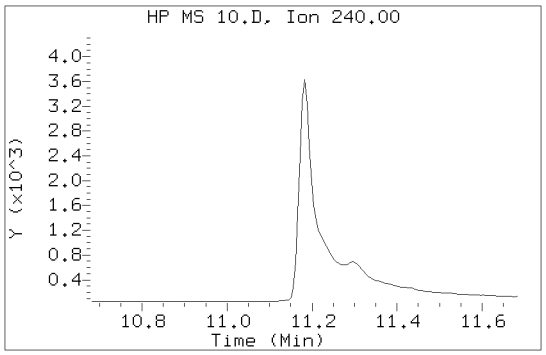
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



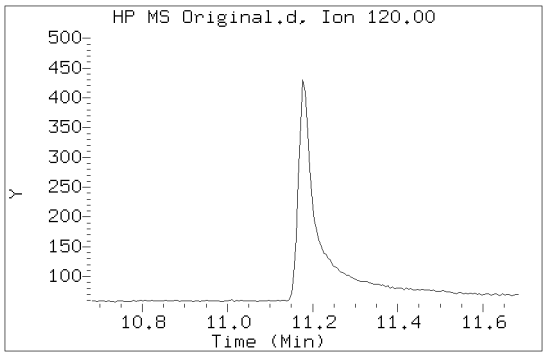
AFTER

MASS
240
AREA
23099
HEIGHT
3628
16-Aug-2023
13:19
ALSHS
S



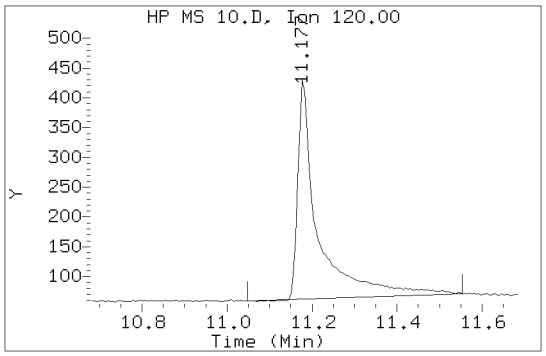
BEFORE

MASS
120
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



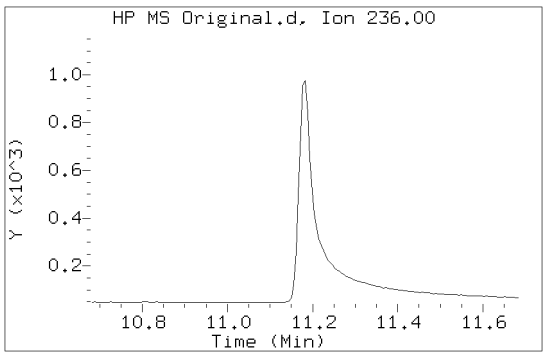
AFTER

MASS
120
AREA
1214
HEIGHT
367
16-Aug-2023
13:19
ALSHS
S



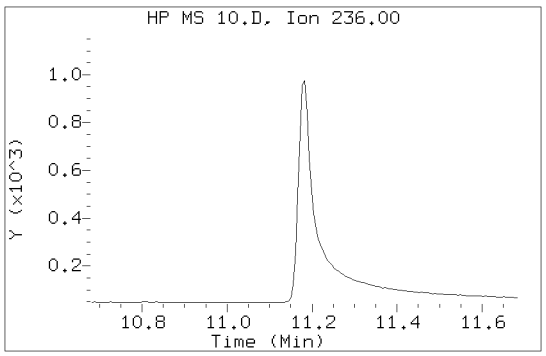
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
236
AREA
3326
HEIGHT
922
16-Aug-2023
13:19
ALSHS
S

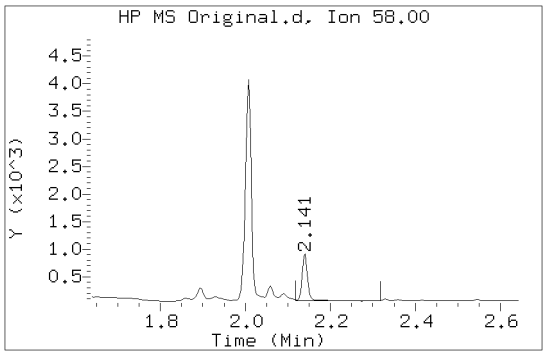


1,4-Dioxane ()

Reason Code:

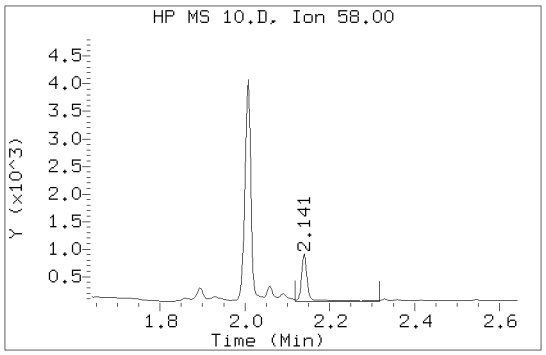
BEFORE

MASS
58
AREA
729
HEIGHT
840
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
58
AREA
893
HEIGHT
853
16-Aug-2023
13:19
ALSHS
S



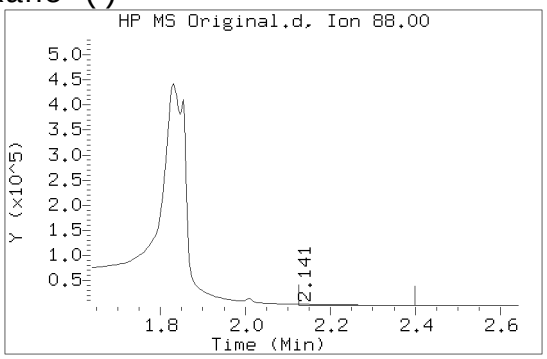
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\10.D
Inj Date : 15-AUG-2023 15:57
InstruID : SV6.i
LabSampID : LCS-198367

1,4-Dioxane ()

Reason Code:

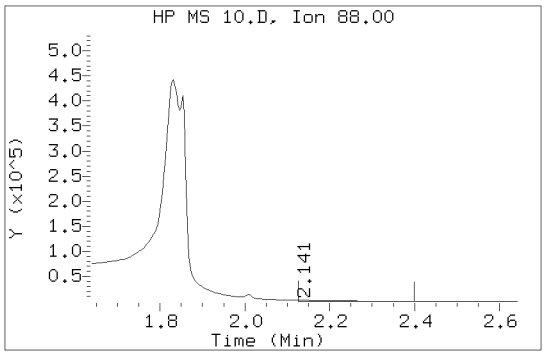
BEFORE

MASS
88
AREA
10348
HEIGHT
2540
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
88
AREA
10348
HEIGHT
2540
16-Aug-2023
13:19
ALSHS
S

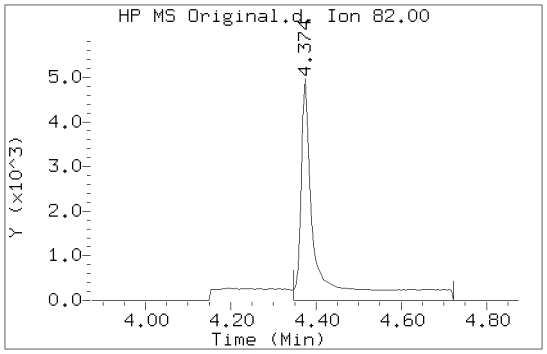


Nitrobenzene-d5 (4165-60-0)

Reason Code:

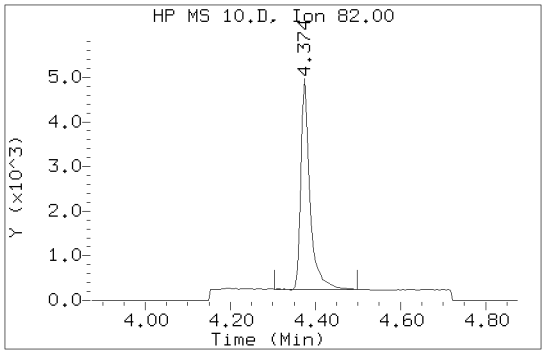
BEFORE

MASS
82
AREA
12522
HEIGHT
4968
15-Aug-2023
16:13
ALSHS
Server



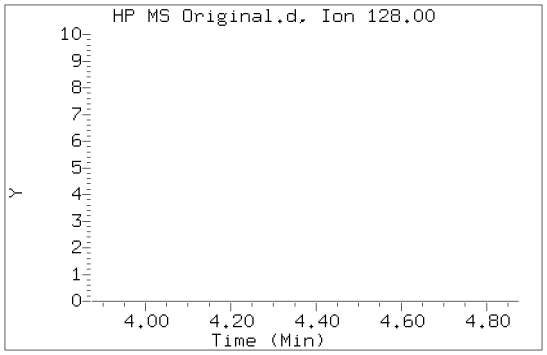
AFTER

MASS
82
AREA
7076
HEIGHT
4722
16-Aug-2023
13:19
ALSHS
S



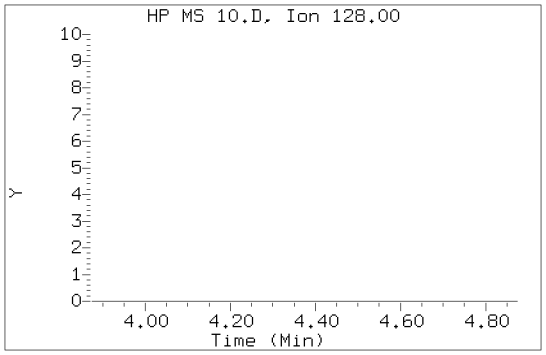
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



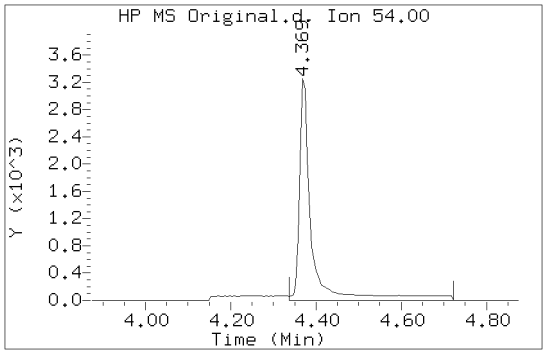
AFTER

MASS
128
AREA
0
HEIGHT
0
16-Aug-2023
13:19
ALSHS
S



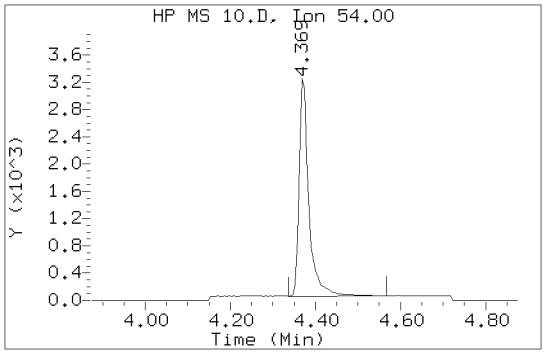
BEFORE

MASS
54
AREA
6604
HEIGHT
3253
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
54
AREA
5083
HEIGHT
3191
16-Aug-2023
13:19
ALSHS
S



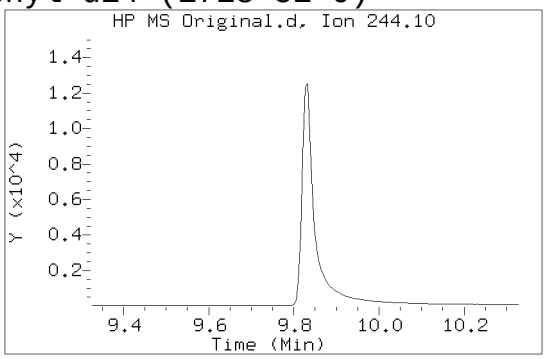
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\10.D
Inj Date : 15-AUG-2023 15:57
InstruID : SV6.i
LabSampID : LCS-198367

4-Terphenyl-d14 (1718-51-0)

Reason Code:

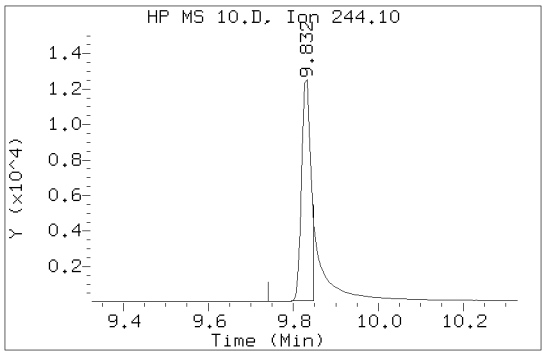
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



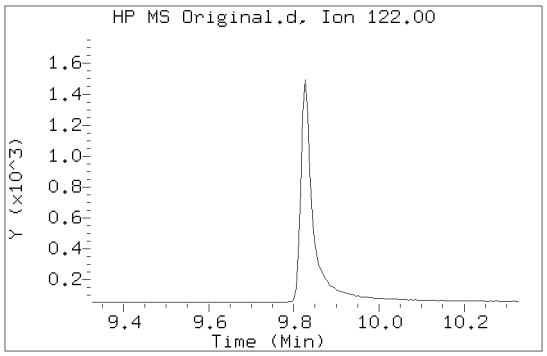
AFTER

MASS
244.1
AREA
19079
HEIGHT
12460
16-Aug-2023
13:19
ALSHS
S



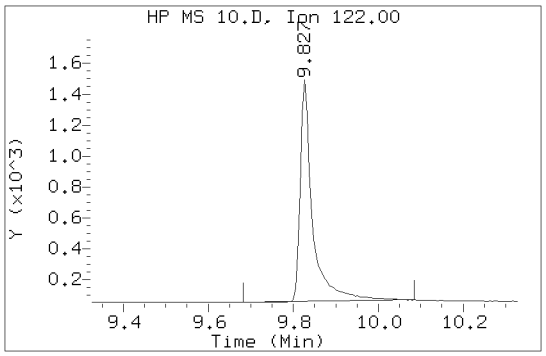
BEFORE

MASS
122
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



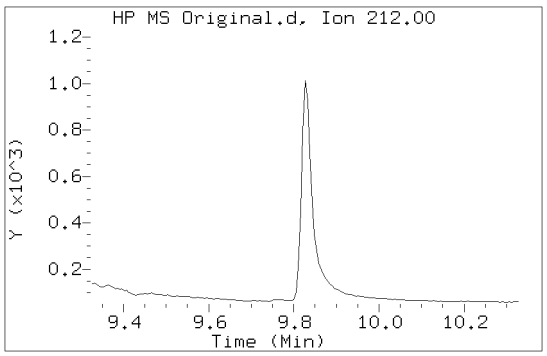
AFTER

MASS
122
AREA
2869
HEIGHT
1433
16-Aug-2023
13:19
ALSHS
S



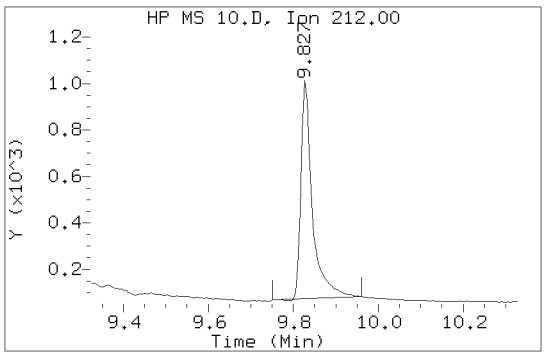
BEFORE

MASS
212
AREA
0
HEIGHT
0
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
212
AREA
1738
HEIGHT
938
16-Aug-2023
13:19
ALSHS
S

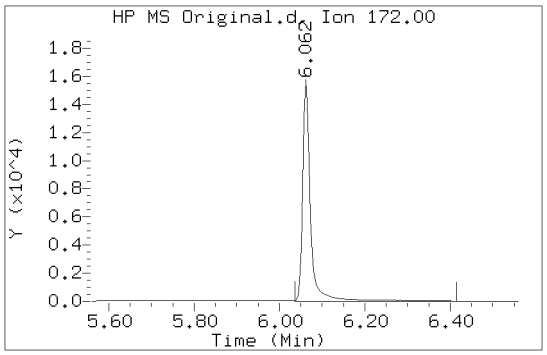


2-Fluorobiphenyl (321-60-8)

Reason Code:

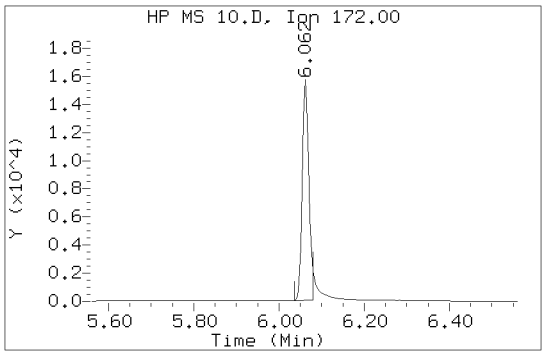
BEFORE

MASS
172
AREA
20651
HEIGHT
15760
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
172
AREA
17081
HEIGHT
15688
16-Aug-2023
13:19
ALSHS
S



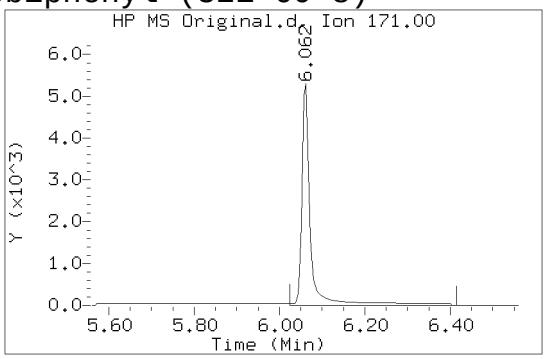
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\10.D
Inj Date : 15-AUG-2023 15:57
InstruID : SV6.i
LabSampID : LCS-198367

2-Fluorobiphenyl (321-60-8)

Reason Code:

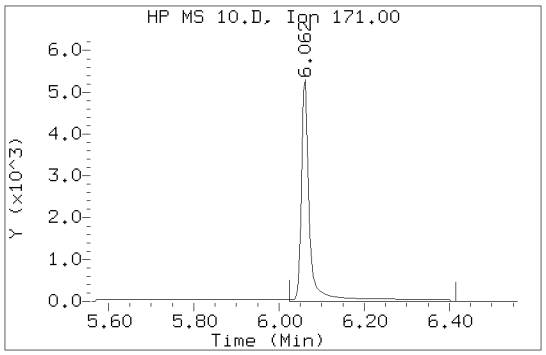
BEFORE

MASS
171
AREA
7682
HEIGHT
5300
15-Aug-2023
16:13
ALSHS
Server



AFTER

MASS
171
AREA
7682
HEIGHT
5300
16-Aug-2023
13:19
ALSHS
S



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\11.D Page 1
Report Date: 16-Aug-2023 13:19

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\11.D
Lab Smp Id: LCSD-198367
Inj Date : 15-AUG-2023 16:15
Operator : LG Inst ID: SV6.i
Smp Info : LCSD-198367;;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 16-Aug-2023 08:26 jjuarez Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 11 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7053

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.901	3.902	(1.000)	5150	0.10000	(aM)
* 45 Naphthalene-d8	136	5.033	5.033	(1.000)	27518	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.374	4.374	(0.869)	7778	0.09303	0.09303(M)
* 86 Acenaphthene-d10	164	6.725	6.726	(1.000)	15737	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	6.061	6.061	(0.901)	16702	0.10379	0.1038(M)
* 126 Phenanthrene-d10	188	8.191	8.191	(1.000)	29854	0.10000	(M)
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	24724	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.826	9.826	(0.879)	17212	0.09436	0.09436(M)
* 198 Perylene-d12	264	13.374	13.379	(1.000)	11186	0.10000	
1 1,4-Dioxane	58	2.159	2.141	(0.553)	927	0.05305	0.05305(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209062

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\11.D

Date : 15-AUG-2023 16:15

Client ID:

Instrument: SV6.i

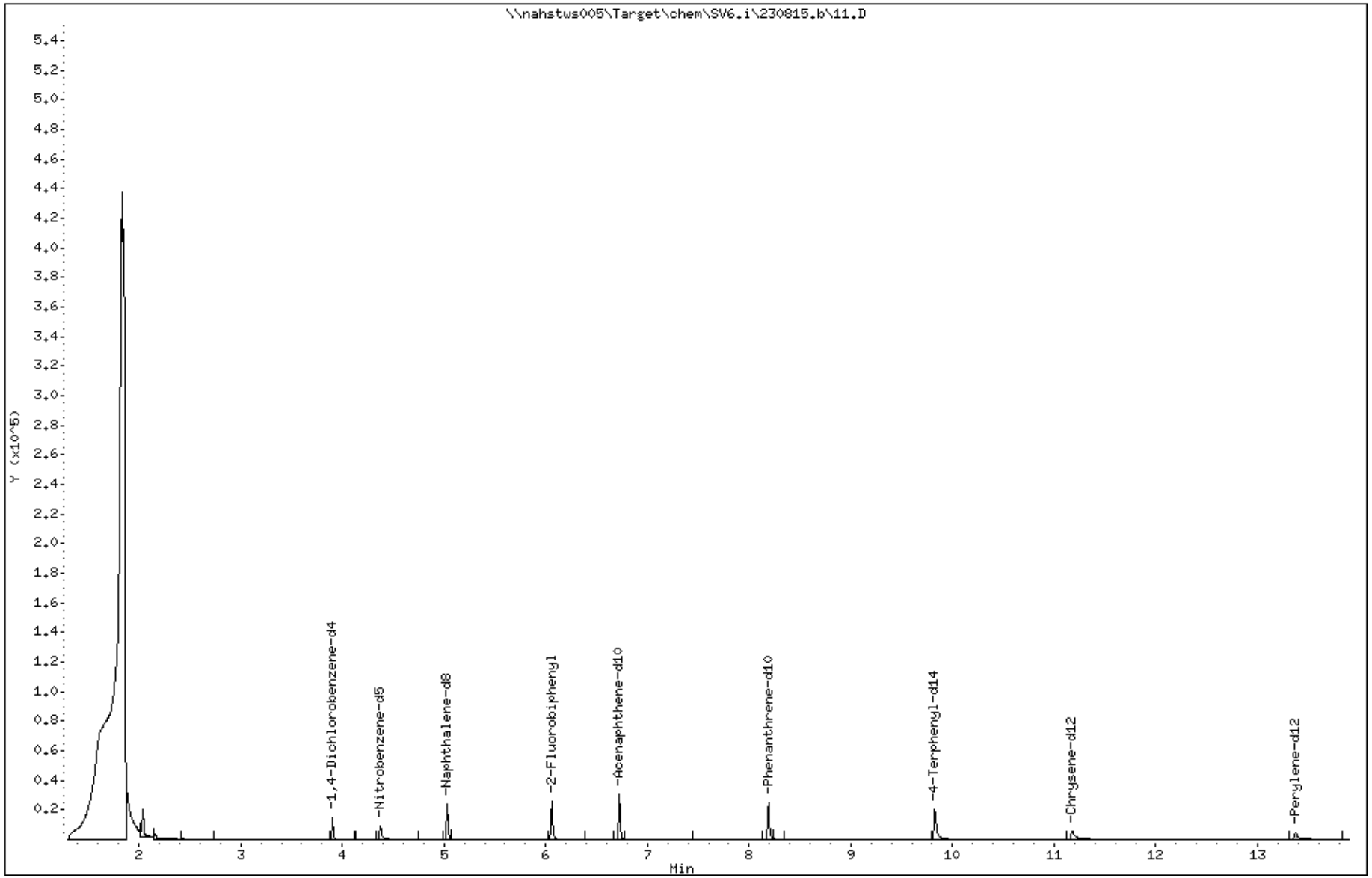
Sample Info: LCSD-198367;;3;;LCSD

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



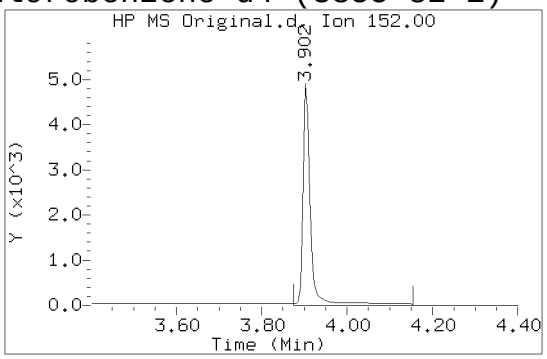
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\11.D
Inj Date : 15-AUG-2023 16:15
InstruID : SV6.i
LabSampID : LCSD-198367

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

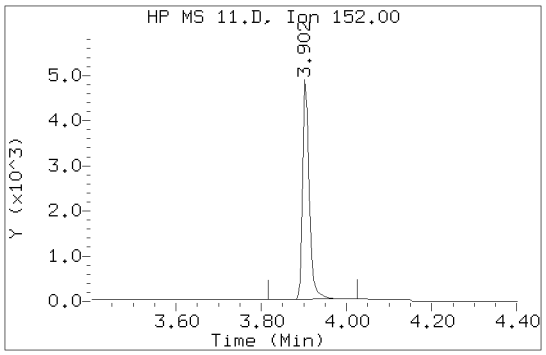
BEFORE

MASS
152
AREA
5966
HEIGHT
4909
15-Aug-2023
16:32
ALSHS
Server



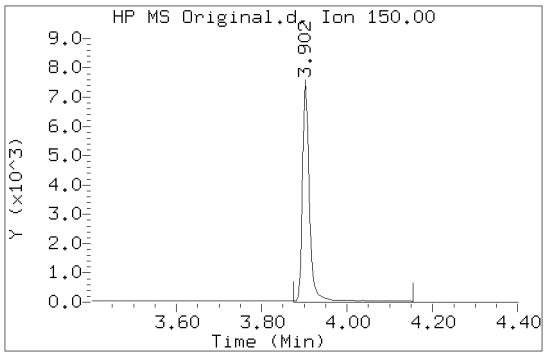
AFTER

MASS
152
AREA
5150
HEIGHT
4860
16-Aug-2023
13:19
ALSHS
S



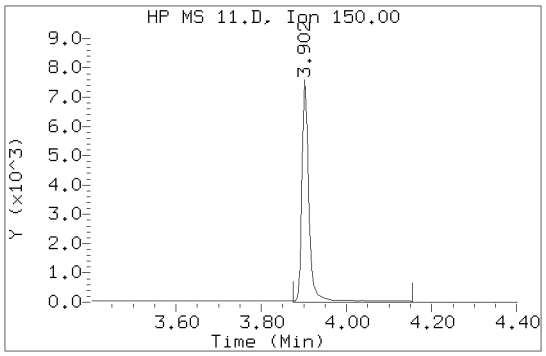
BEFORE

MASS
150
AREA
8862
HEIGHT
7589
15-Aug-2023
16:32
ALSHS
Server



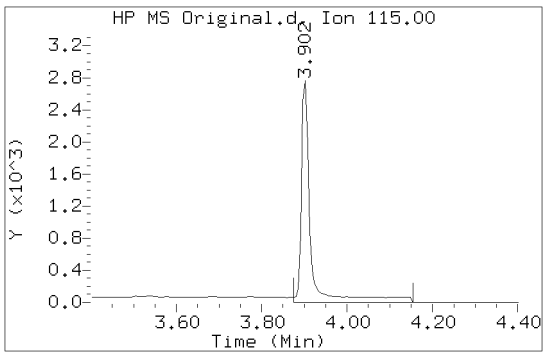
AFTER

MASS
150
AREA
8862
HEIGHT
7589
16-Aug-2023
13:19
ALSHS
S



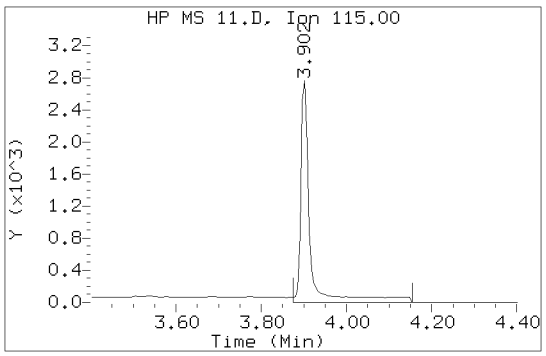
BEFORE

MASS
115
AREA
4167
HEIGHT
2763
15-Aug-2023
16:32
ALSHS
Server



AFTER

MASS
115
AREA
4167
HEIGHT
2763
16-Aug-2023
13:19
ALSHS
S

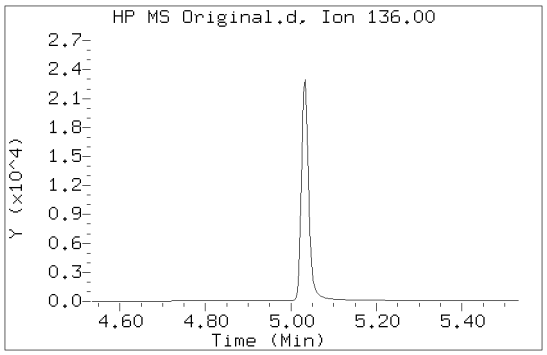


Naphthalene-d8 (1146-65-2)

Reason Code:

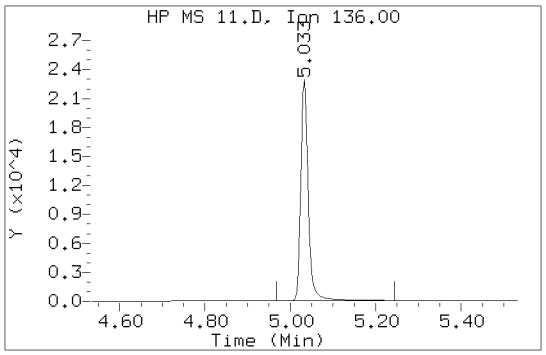
BEFORE

MASS
136
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



AFTER

MASS
136
AREA
27518
HEIGHT
22881
16-Aug-2023
13:19
ALSHS
S



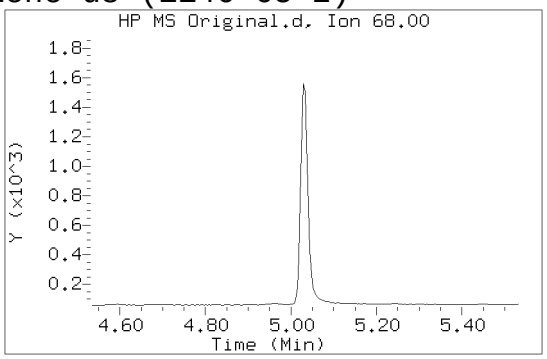
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\11.D
Inj Date : 15-AUG-2023 16:15
InstruID : SV6.i
LabSampID : LCSD-198367

Naphthalene-d8 (1146-65-2)

Reason Code:

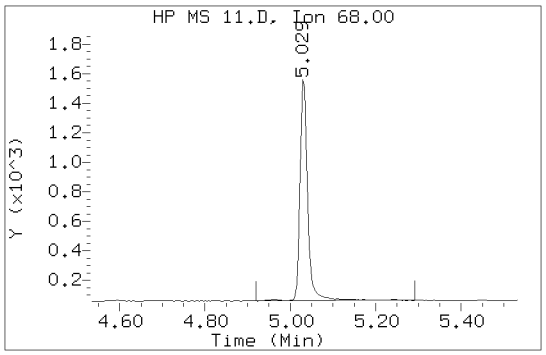
BEFORE

MASS
68
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



AFTER

MASS
68
AREA
1872
HEIGHT
1498
16-Aug-2023
13:19
ALSHS
S

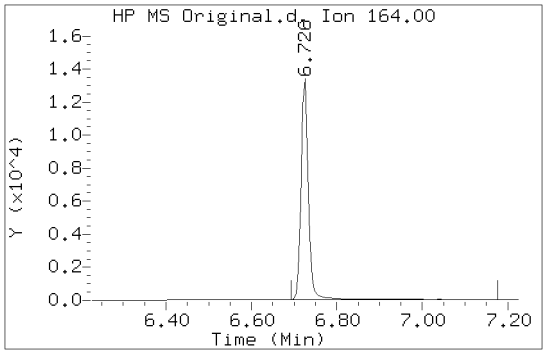


Acenaphthene-d10 (15067-26-2)

Reason Code:

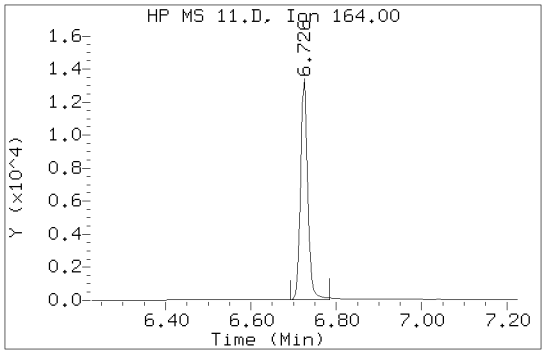
BEFORE

MASS
164
AREA
16485
HEIGHT
13396
15-Aug-2023
16:32
ALSHS
Server



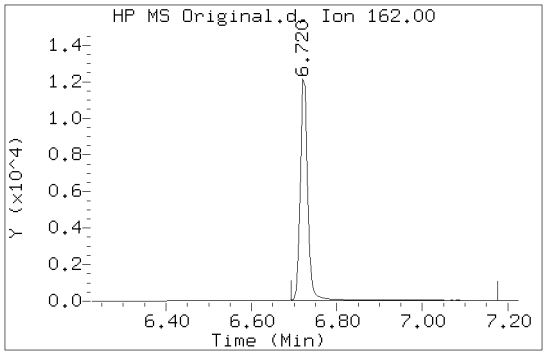
AFTER

MASS
164
AREA
15737
HEIGHT
13365
16-Aug-2023
13:19
ALSHS
S



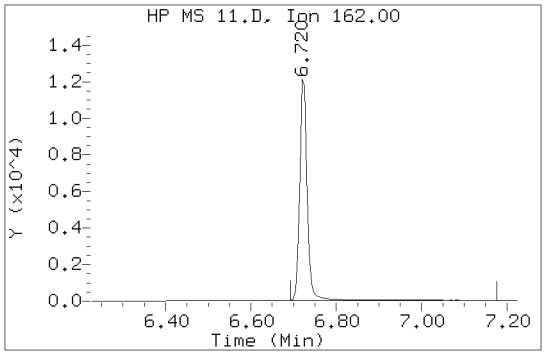
BEFORE

MASS
162
AREA
14909
HEIGHT
12108
15-Aug-2023
16:32
ALSHS
Server



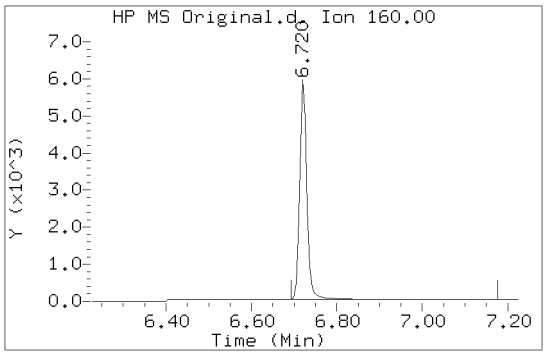
AFTER

MASS
162
AREA
14909
HEIGHT
12108
16-Aug-2023
13:19
ALSHS
S



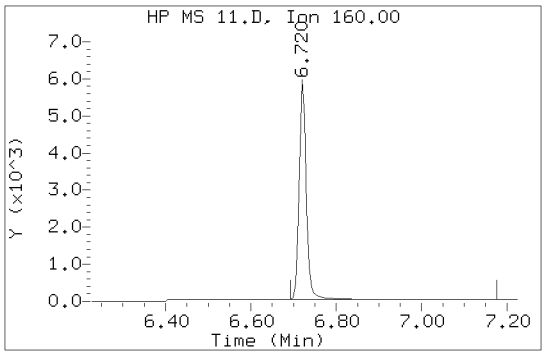
BEFORE

MASS
160
AREA
7020
HEIGHT
5929
15-Aug-2023
16:32
ALSHS
Server



AFTER

MASS
160
AREA
7020
HEIGHT
5929
16-Aug-2023
13:19
ALSHS
S

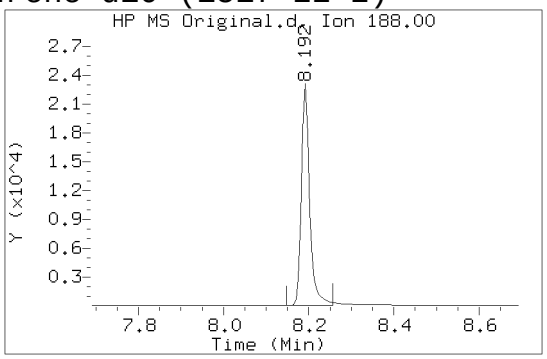


Data File : \\nahstws005\Target\chem\SV6.i\230815.b\11.D
Inj Date : 15-AUG-2023 16:15
InstruID : SV6.i
LabSampID : LCSD-198367

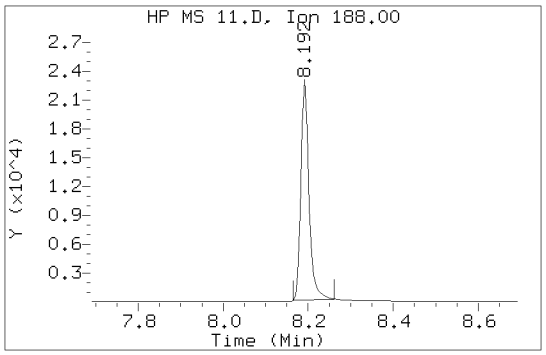
Phenanthrene-d10 (1517-22-2)

Reason Code:

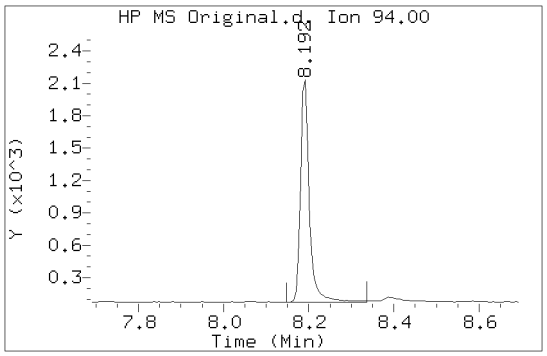
BEFORE
MASS
188
AREA
30700
HEIGHT
23056
15-Aug-2023
16:32
ALSHS
Server



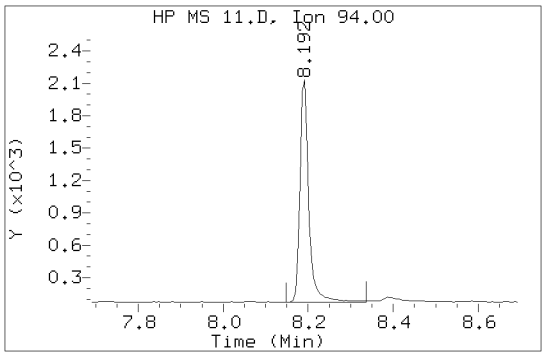
AFTER
MASS
188
AREA
29854
HEIGHT
22926
16-Aug-2023
13:19
ALSHS
S



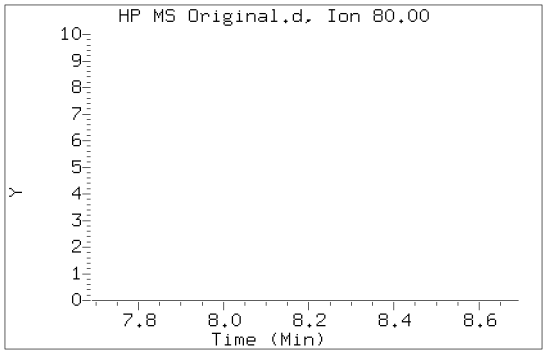
BEFORE
MASS
94
AREA
2937
HEIGHT
2057
15-Aug-2023
16:32
ALSHS
Server



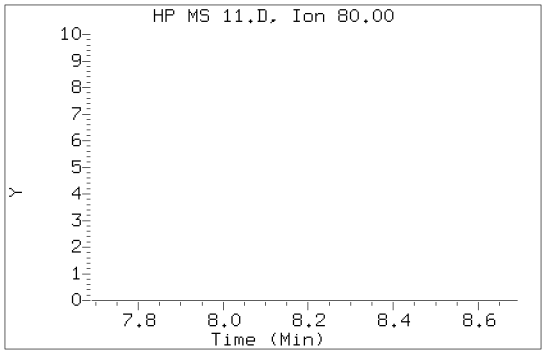
AFTER
MASS
94
AREA
2937
HEIGHT
2057
16-Aug-2023
13:19
ALSHS
S



BEFORE
MASS
80
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



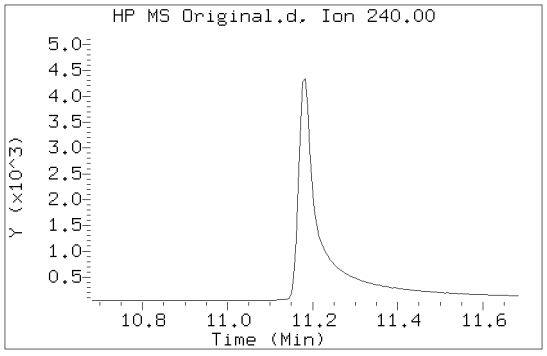
AFTER
MASS
80
AREA
0
HEIGHT
0
16-Aug-2023
13:19
ALSHS
S



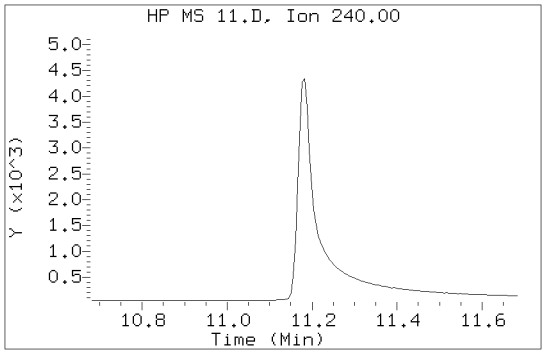
Chrysene-d12 (1719-03-5)

Reason Code:

BEFORE
MASS
240
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



AFTER
MASS
240
AREA
24724
HEIGHT
4340
16-Aug-2023
13:19
ALSHS
S

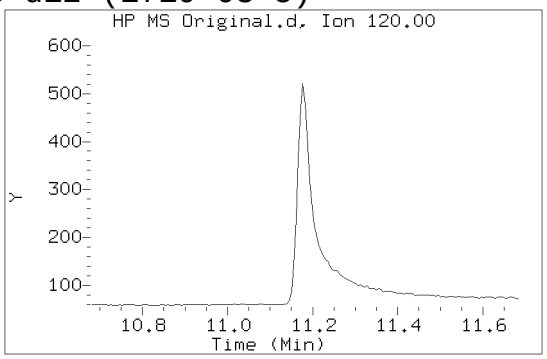


Data File : \\nahstws005\Target\chem\SV6.i\230815.b\11.D
Inj Date : 15-AUG-2023 16:15
InstruID : SV6.i
LabSampID : LCSD-198367

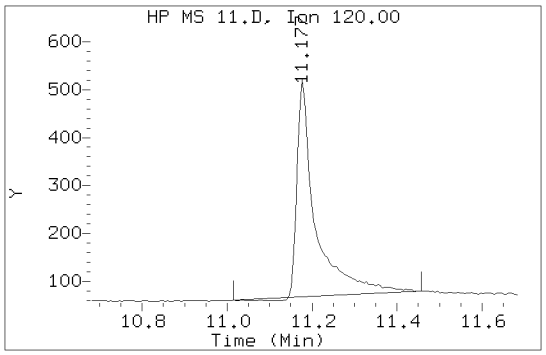
Chrysene-d12 (1719-03-5)

Reason Code:

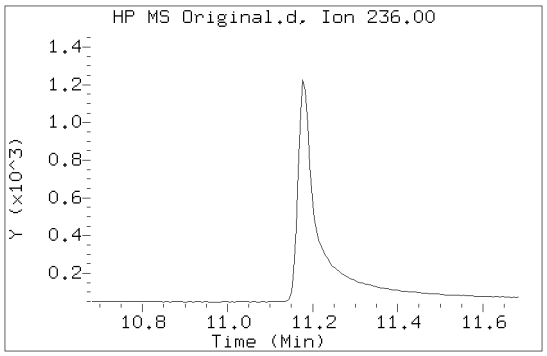
BEFORE
MASS
120
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



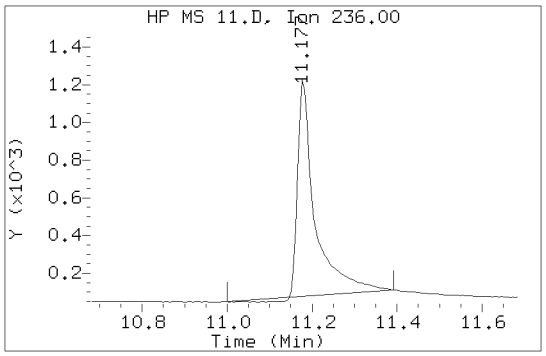
AFTER
MASS
120
AREA
1337
HEIGHT
453
16-Aug-2023
13:19
ALSHS
S



BEFORE
MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



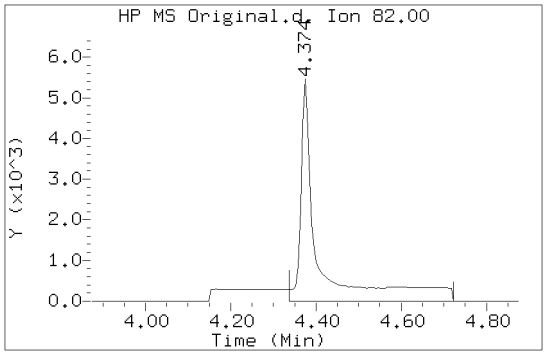
AFTER
MASS
236
AREA
3192
HEIGHT
1148
16-Aug-2023
13:19
ALSHS
S



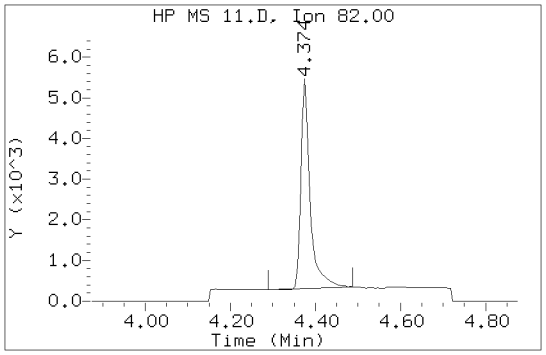
Nitrobenzene-d5 (4165-60-0)

Reason Code:

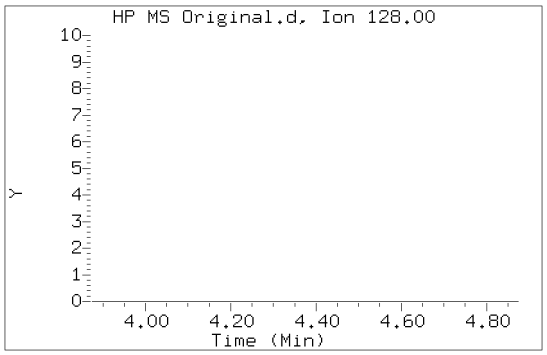
BEFORE
MASS
82
AREA
15454
HEIGHT
5464
15-Aug-2023
16:32
ALSHS
Server



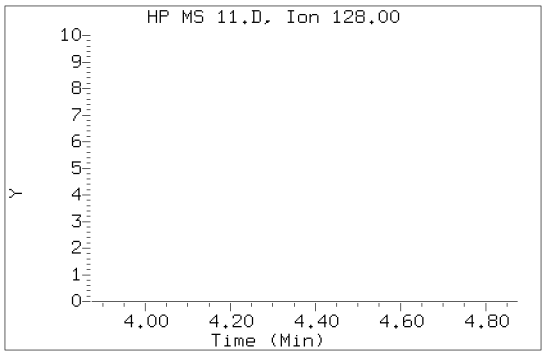
AFTER
MASS
82
AREA
7778
HEIGHT
5150
16-Aug-2023
13:19
ALSHS
S



BEFORE
MASS
128
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



AFTER
MASS
128
AREA
0
HEIGHT
0
16-Aug-2023
13:19
ALSHS
S



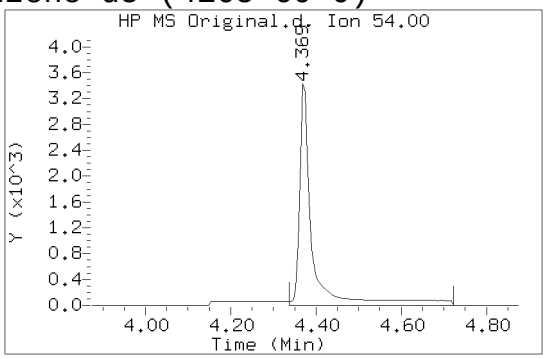
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\11.D
Inj Date : 15-AUG-2023 16:15
InstruID : SV6.i
LabSampID : LCSD-198367

Nitrobenzene-d5 (4165-60-0)

Reason Code:

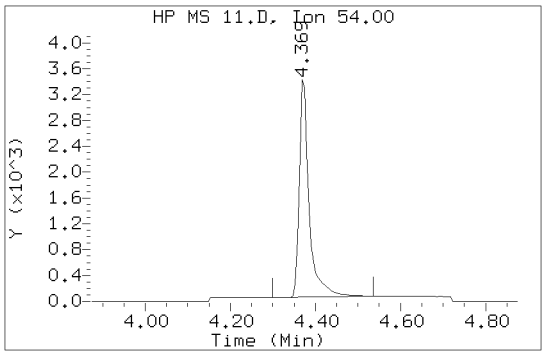
BEFORE

MASS
54
AREA
7167
HEIGHT
3430
15-Aug-2023
16:32
ALSHS
Server



AFTER

MASS
54
AREA
5450
HEIGHT
3364
16-Aug-2023
13:19
ALSHS
S

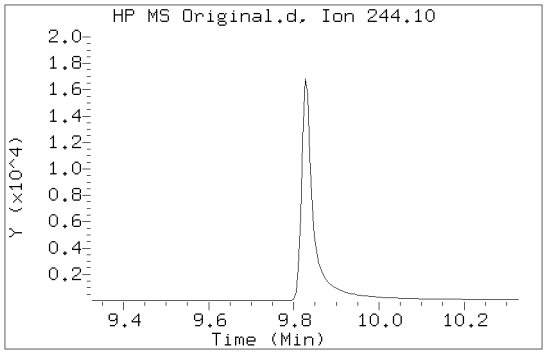


4-Terphenyl-d14 (1718-51-0)

Reason Code:

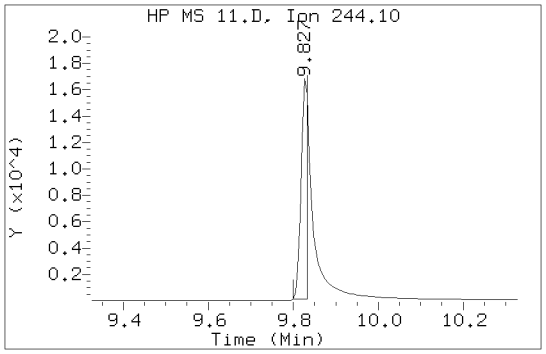
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



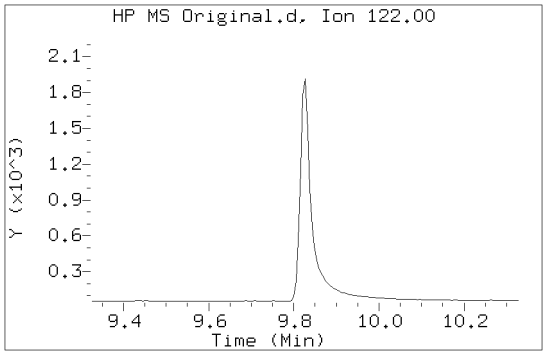
AFTER

MASS
244.1
AREA
17212
HEIGHT
16674
16-Aug-2023
13:19
ALSHS
S



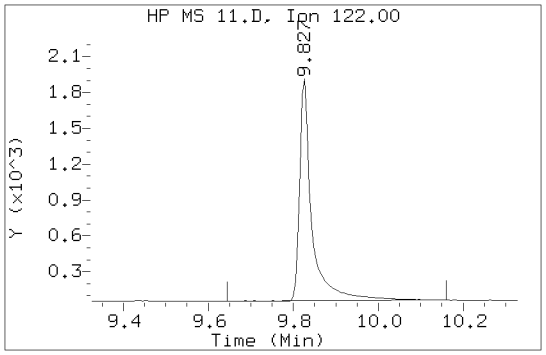
BEFORE

MASS
122
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



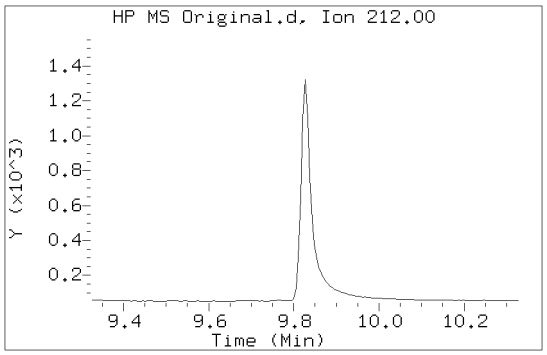
AFTER

MASS
122
AREA
3689
HEIGHT
1854
16-Aug-2023
13:19
ALSHS
S



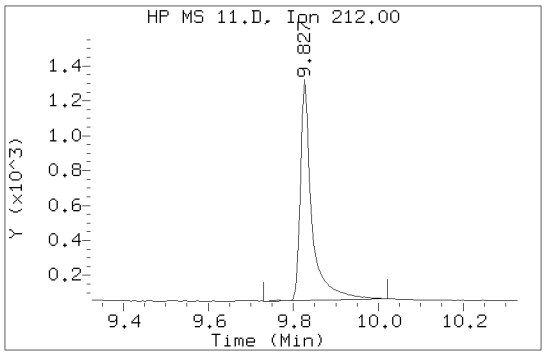
BEFORE

MASS
212
AREA
0
HEIGHT
0
15-Aug-2023
16:32
ALSHS
Server



AFTER

MASS
212
AREA
2344
HEIGHT
1264
16-Aug-2023
13:19
ALSHS
S



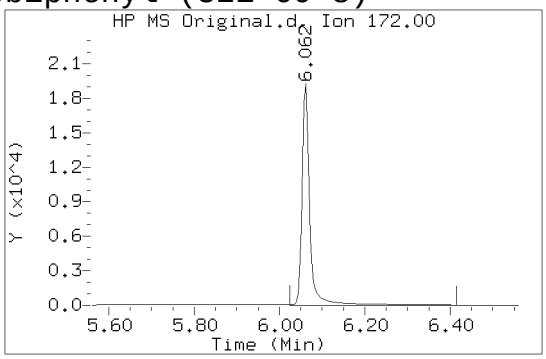
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\11.D
Inj Date : 15-AUG-2023 16:15
InstruID : SV6.i
LabSampID : LCSD-198367

2-Fluorobiphenyl (321-60-8)

Reason Code:

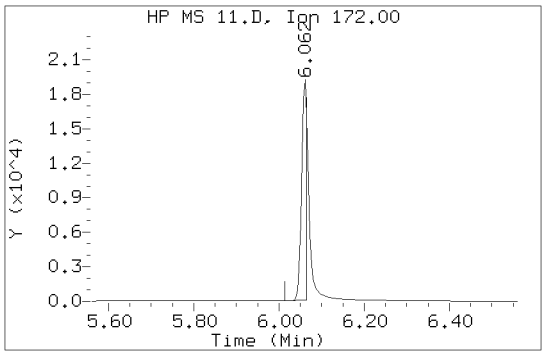
BEFORE

MASS
172
AREA
25194
HEIGHT
19272
15-Aug-2023
16:32
ALSHS
Server



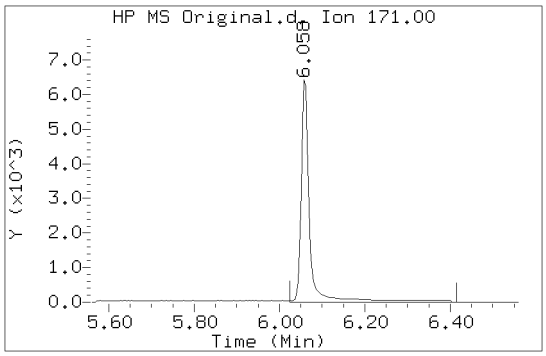
AFTER

MASS
172
AREA
16702
HEIGHT
19156
16-Aug-2023
13:19
ALSHS
S



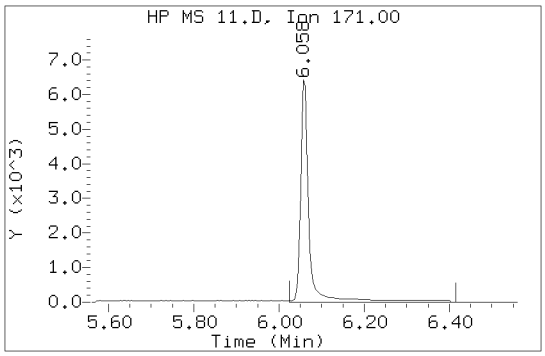
BEFORE

MASS
171
AREA
9226
HEIGHT
6423
15-Aug-2023
16:32
ALSHS
Server



AFTER

MASS
171
AREA
9226
HEIGHT
6423
16-Aug-2023
13:19
ALSHS
S



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\15.D Page 1
Report Date: 17-Aug-2023 11:32

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\15.D
Lab Smp Id: MBLK-198677
Inj Date : 15-AUG-2023 17:27
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-198677;;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 16-Aug-2023 08:26 jjuarez Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7053

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.907	3.902	(1.000)	5402	0.10000		(a)
* 45 Naphthalene-d8	136	5.033	5.033	(1.000)	21121	0.10000		(M)
$ 33 Nitrobenzene-d5	82	4.379	4.374	(0.870)	4285	0.06677	0.06677	(M)
* 86 Acenaphthene-d10	164	6.725	6.726	(1.000)	12992	0.10000		
$ 69 2-Fluorobiphenyl	172	6.065	6.061	(0.902)	10751	0.08092	0.08092	
* 126 Phenanthrene-d10	188	8.197	8.191	(1.000)	24622	0.10000		
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	18627	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.826	9.826	(0.879)	14014	0.10198	0.1020	(M)
* 198 Perylene-d12	264	13.379	13.379	(1.000)	6198	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209070

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\15.D

Date : 15-AUG-2023 17:27

Client ID:

Instrument: SV6.i

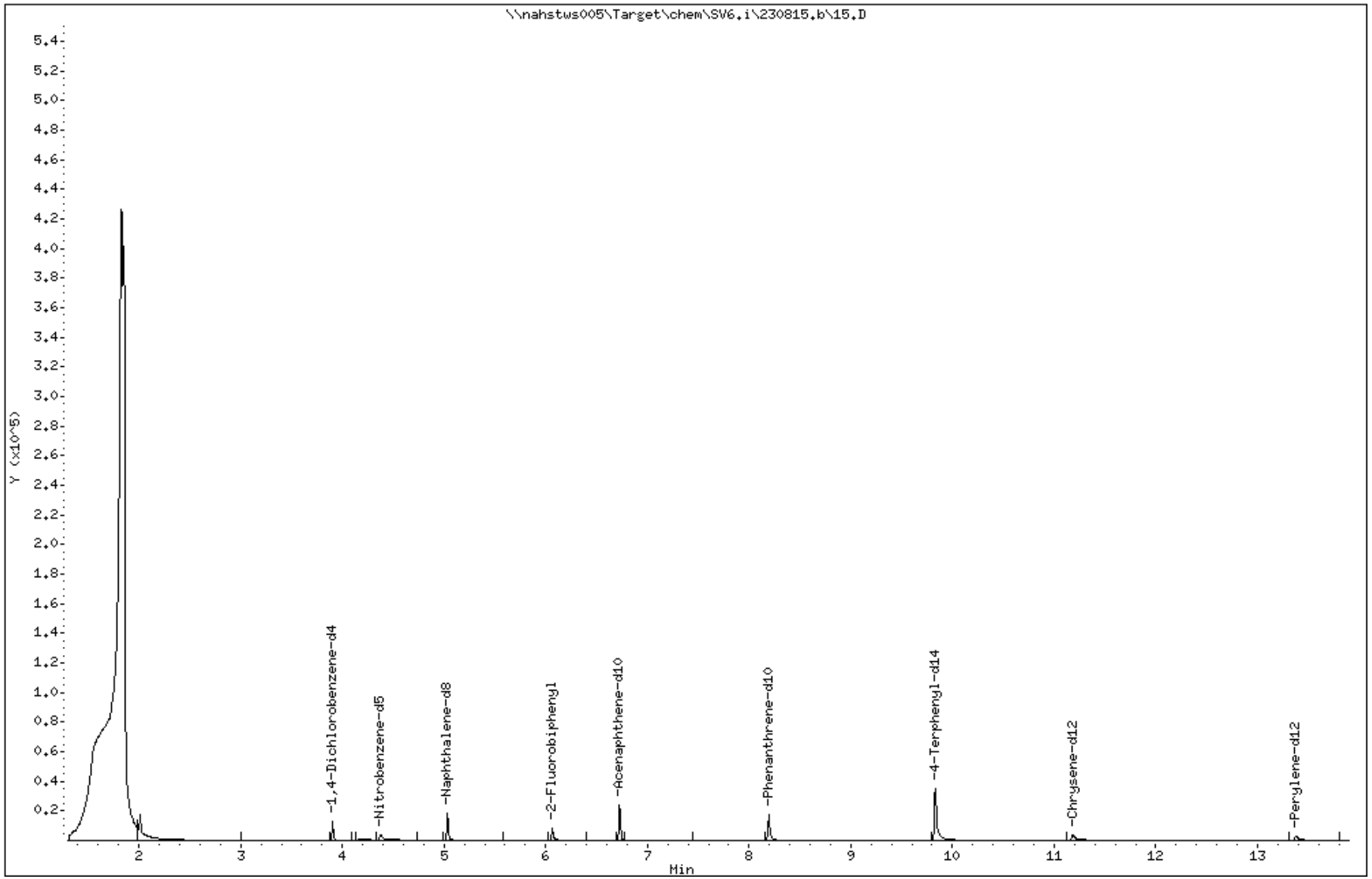
Sample Info: MBLK-198677;;3;;BLANK

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



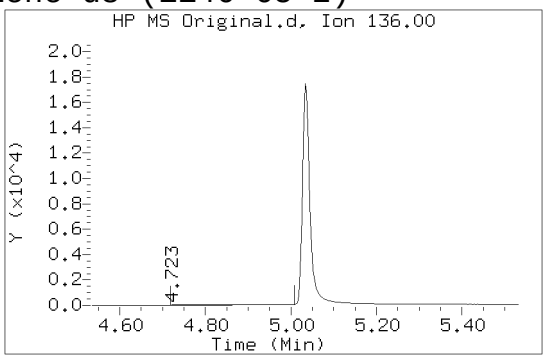
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\15.D
Inj Date : 15-AUG-2023 17:27
InstruID : SV6.i
LabSampID : MBLK-198677

Naphthalene-d8 (1146-65-2)

Reason Code:

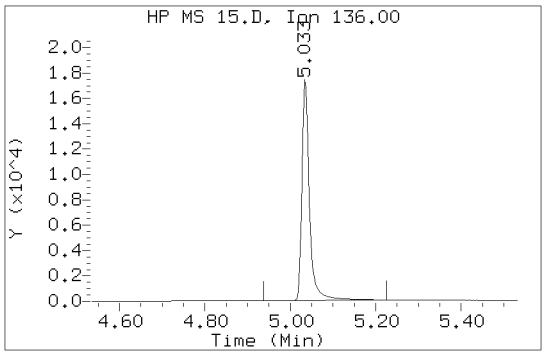
BEFORE

MASS
136
AREA
518
HEIGHT
62
15-Aug-2023
17:43
ALSHS
Server



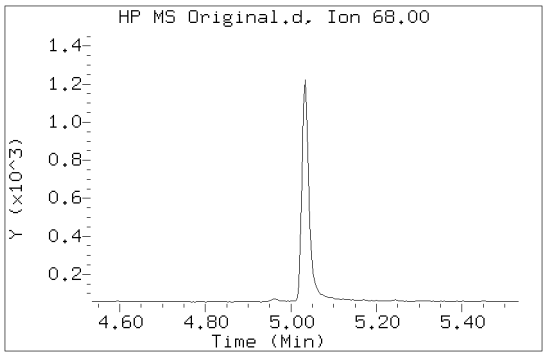
AFTER

MASS
136
AREA
21121
HEIGHT
17395
17-Aug-2023
11:32
ALSHS
S



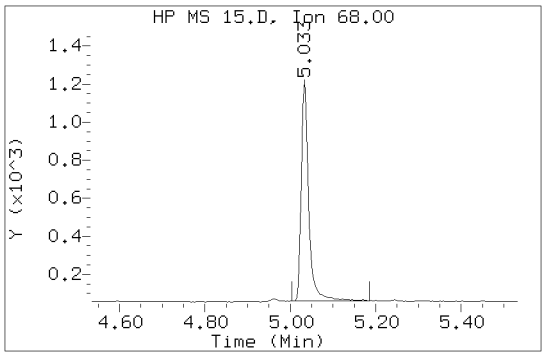
BEFORE

MASS
68
AREA
0
HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



AFTER

MASS
68
AREA
1382
HEIGHT
1160
17-Aug-2023
11:32
ALSHS
S

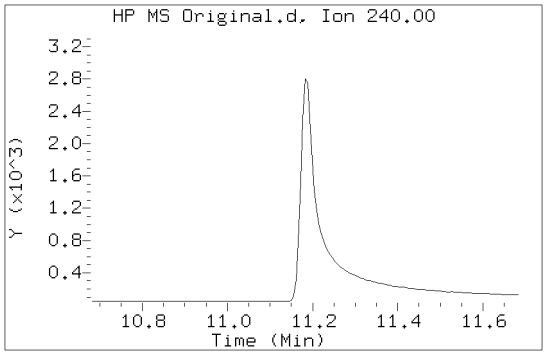


Chrysene-d12 (1719-03-5)

Reason Code:

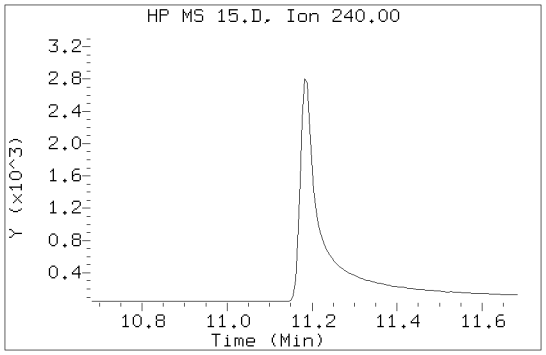
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



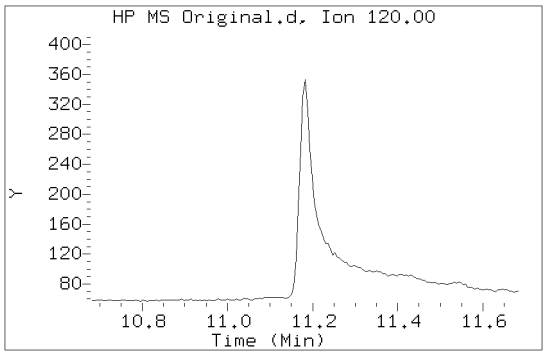
AFTER

MASS
240
AREA
18627
HEIGHT
2802
17-Aug-2023
11:32
ALSHS
S



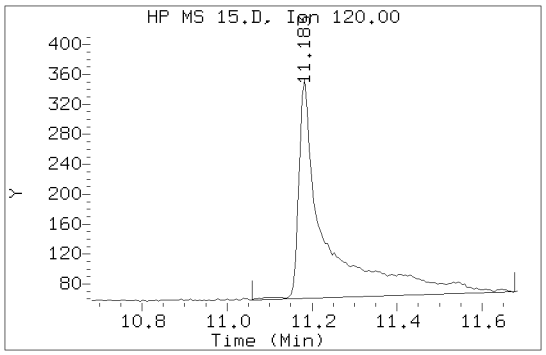
BEFORE

MASS
120
AREA
0
HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



AFTER

MASS
120
AREA
1295
HEIGHT
291
17-Aug-2023
11:32
ALSHS
S



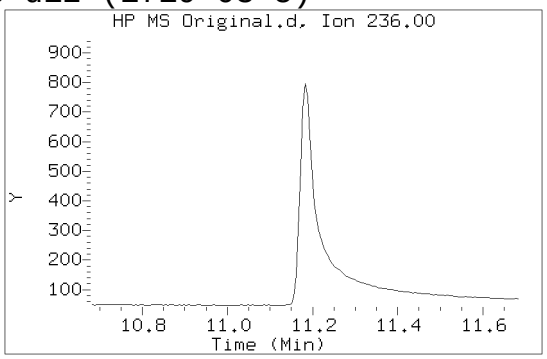
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Inj Date : 15-AUG-2023 17:27
InstruID : SV6.i
LabSampID : MBLK-198677

Chrysene-d12 (1719-03-5)

Reason Code:

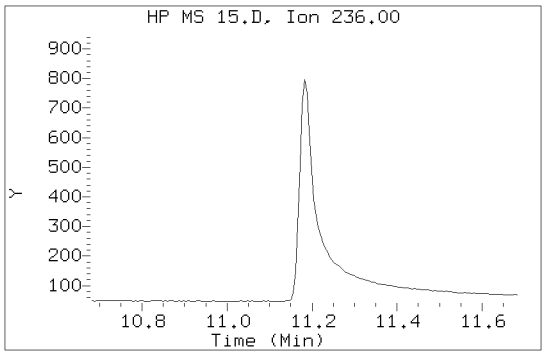
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



AFTER

MASS
236
AREA
2849
HEIGHT
746
17-Aug-2023
11:32
ALSHS
S

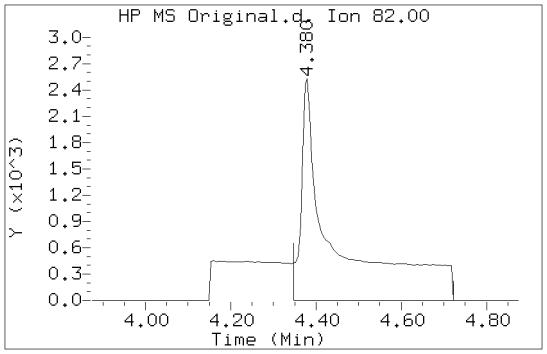


Nitrobenzene-d5 (4165-60-0)

Reason Code:

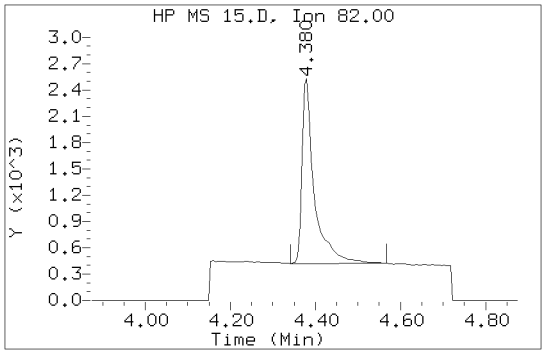
BEFORE

MASS
82
AREA
13635
HEIGHT
2529
15-Aug-2023
17:43
ALSHS
Server



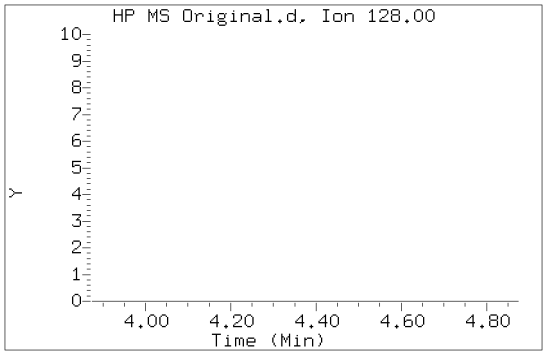
AFTER

MASS
82
AREA
4285
HEIGHT
2108
17-Aug-2023
11:32
ALSHS
S



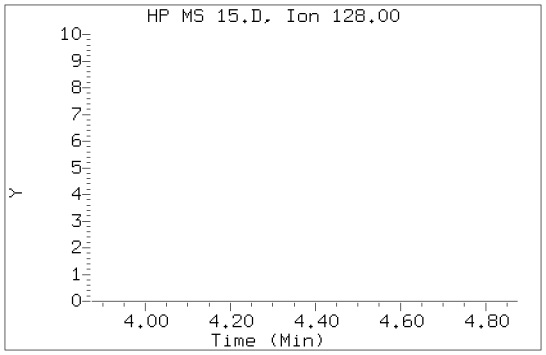
BEFORE

MASS
128
AREA
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HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



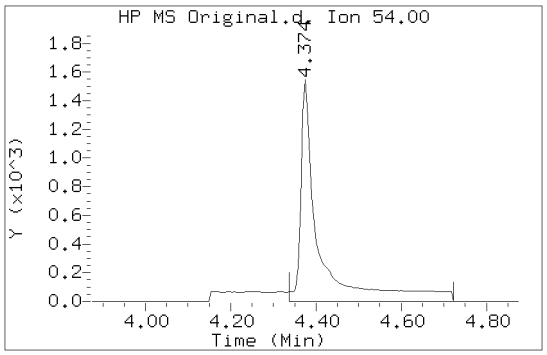
AFTER

MASS
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AREA
0
HEIGHT
0
17-Aug-2023
11:32
ALSHS
S



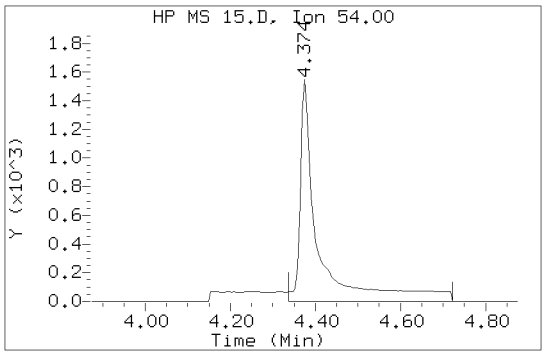
BEFORE

MASS
54
AREA
4559
HEIGHT
1547
15-Aug-2023
17:43
ALSHS
Server



AFTER

MASS
54
AREA
4559
HEIGHT
1547
17-Aug-2023
11:32
ALSHS
S

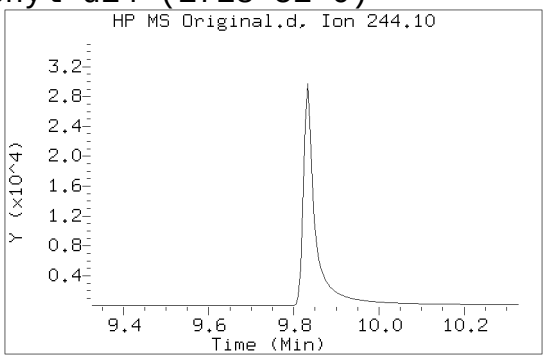


Data File : \\nahstws005\Target\chem\SV6.i\230815.b\15.D
Inj Date : 15-AUG-2023 17:27
InstruID : SV6.i
LabSampID : MBLK-198677

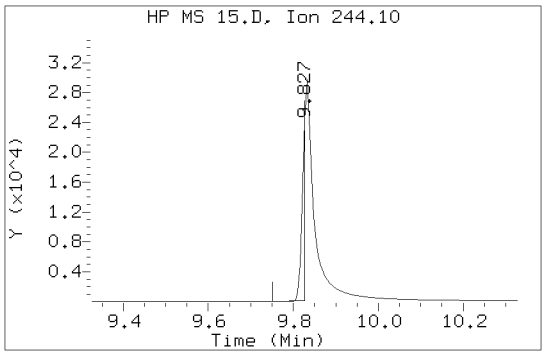
4-Terphenyl-d14 (1718-51-0)

Reason Code:

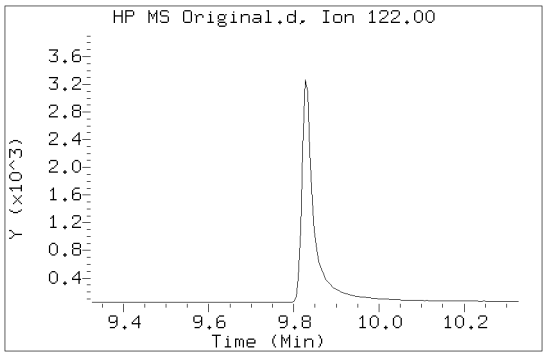
BEFORE
MASS
244.1
AREA
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HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



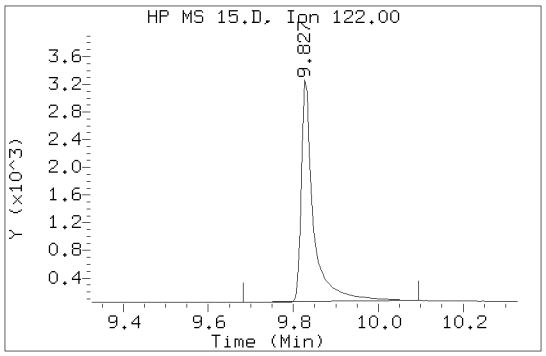
AFTER
MASS
244.1
AREA
14014
HEIGHT
24241
17-Aug-2023
11:32
ALSHS
S



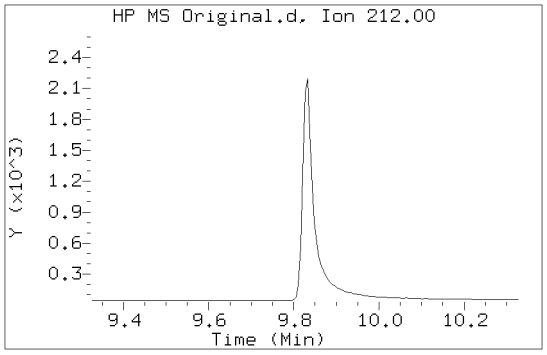
BEFORE
MASS
122
AREA
0
HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



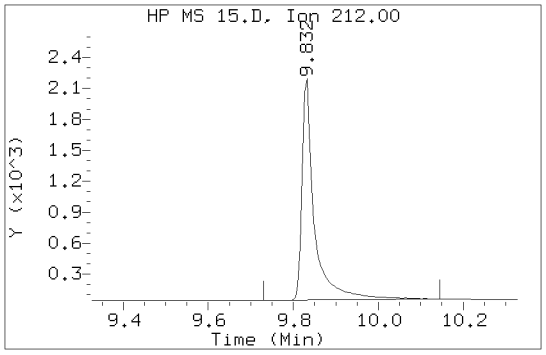
AFTER
MASS
122
AREA
6307
HEIGHT
3202
17-Aug-2023
11:32
ALSHS
S



BEFORE
MASS
212
AREA
0
HEIGHT
0
15-Aug-2023
17:43
ALSHS
Server



AFTER
MASS
212
AREA
4278
HEIGHT
2142
17-Aug-2023
11:32
ALSHS
S



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\16.D Page 1
Report Date: 17-Aug-2023 11:32

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\16.D
Lab Smp Id: LCS-198677
Inj Date : 15-AUG-2023 17:45
Operator : LG Inst ID: SV6.i
Smp Info : LCS-198677;;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 16-Aug-2023 08:26 jjuarez Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7053

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.907	3.902	(1.000)	5805	0.10000	(aM)
* 45 Naphthalene-d8	136	5.036	5.033	(1.000)	25569	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.379	4.374	(0.870)	8010	0.10311	0.1031(M)
* 86 Acenaphthene-d10	164	6.725	6.726	(1.000)	14891	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	6.065	6.061	(0.902)	16510	0.10842	0.1084(M)
* 126 Phenanthrene-d10	188	8.191	8.191	(1.000)	24249	0.10000	
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	18278	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.832	9.826	(0.879)	13638	0.10114	0.1011(M)
* 198 Perylene-d12	264	13.379	13.379	(1.000)	6860	0.10000	
1 1,4-Dioxane	58	2.148	2.141	(0.550)	824	0.04184	0.04184(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209075

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\16.D

Date : 15-AUG-2023 17:45

Client ID:

Instrument: SV6.i

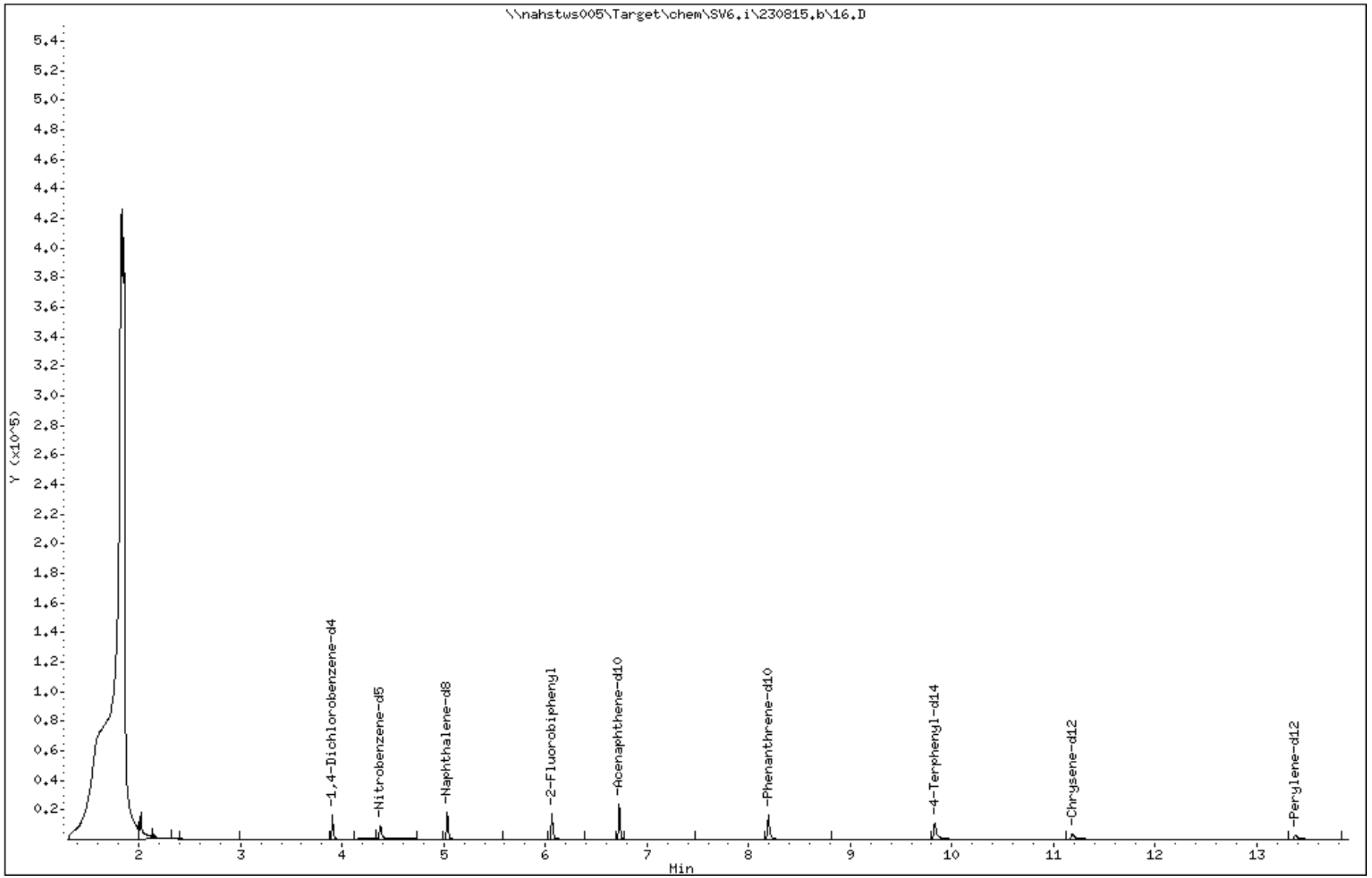
Sample Info: LCS-198677;;3;;LCS

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



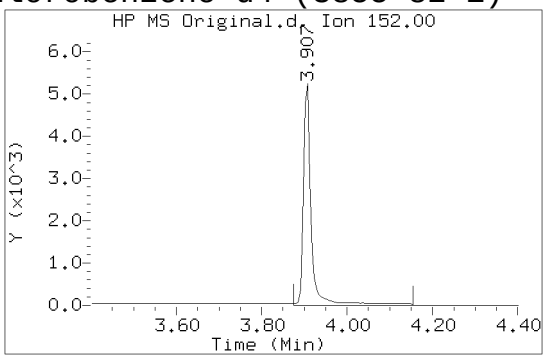
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\16.D
Inj Date : 15-AUG-2023 17:45
InstruID : SV6.i
LabSampID : LCS-198677

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

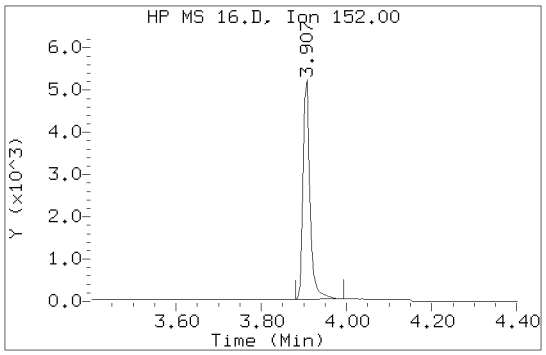
BEFORE

MASS
152
AREA
6681
HEIGHT
5245
15-Aug-2023
18:01
ALSHS
Server



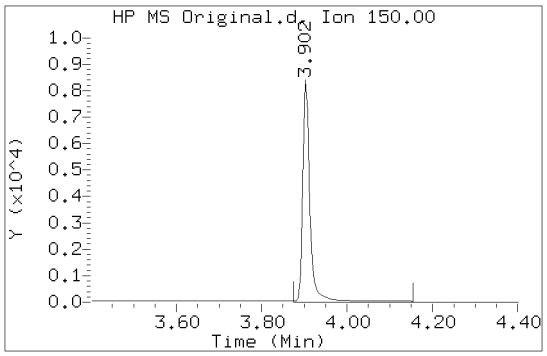
AFTER

MASS
152
AREA
5805
HEIGHT
5194
17-Aug-2023
11:32
ALSHS
S



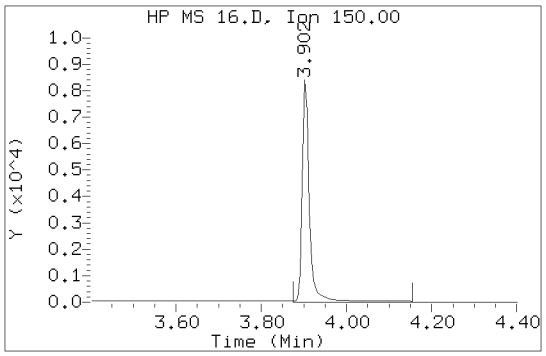
BEFORE

MASS
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AREA
10036
HEIGHT
8405
15-Aug-2023
18:01
ALSHS
Server



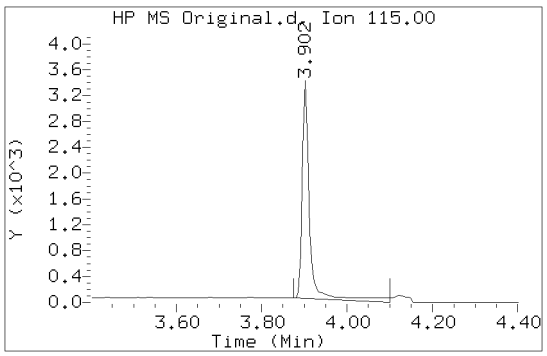
AFTER

MASS
150
AREA
10036
HEIGHT
8405
17-Aug-2023
11:32
ALSHS
S



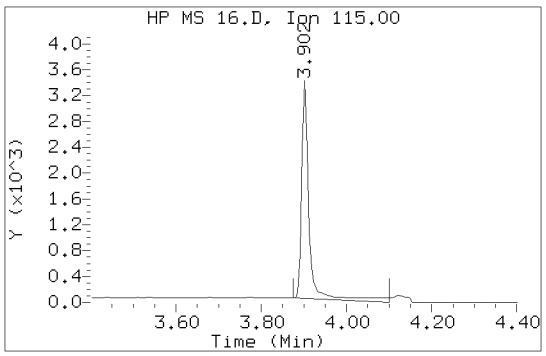
BEFORE

MASS
115
AREA
4056
HEIGHT
3371
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
115
AREA
4056
HEIGHT
3371
17-Aug-2023
11:32
ALSHS
S

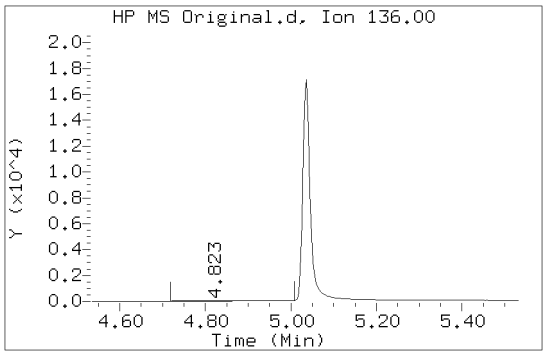


Naphthalene-d8 (1146-65-2)

Reason Code:

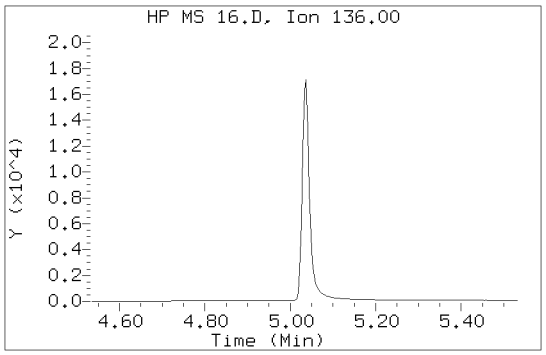
BEFORE

MASS
136
AREA
515
HEIGHT
41
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
136
AREA
25569
HEIGHT
17136
17-Aug-2023
11:32
ALSHS
S



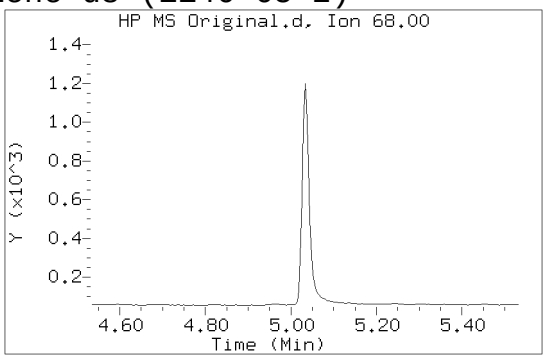
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Inj Date : 15-AUG-2023 17:45
InstruID : SV6.i
LabSampID : LCS-198677

Naphthalene-d8 (1146-65-2)

Reason Code:

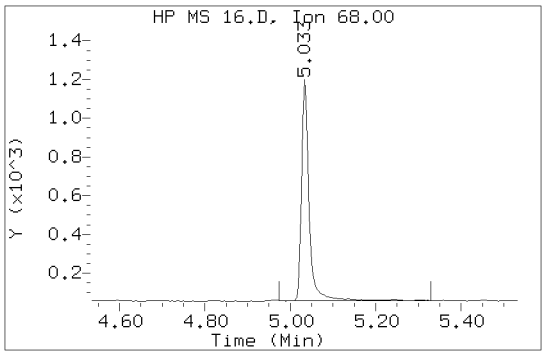
BEFORE

MASS
68
AREA
0
HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
68
AREA
1404
HEIGHT
1141
17-Aug-2023
11:32
ALSHS
S

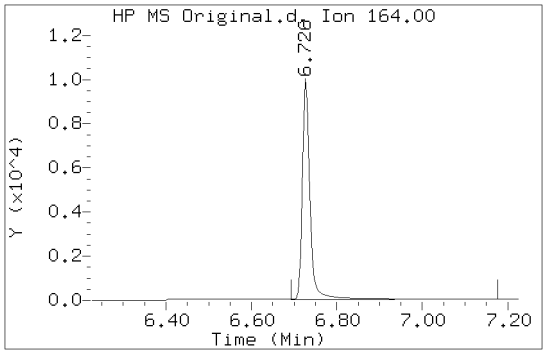


Acenaphthene-d10 (15067-26-2)

Reason Code:

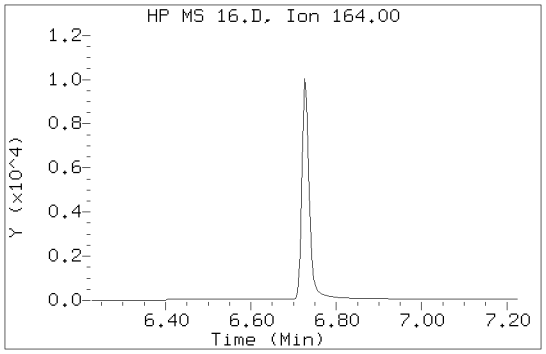
BEFORE

MASS
164
AREA
12849
HEIGHT
10018
15-Aug-2023
18:01
ALSHS
Server



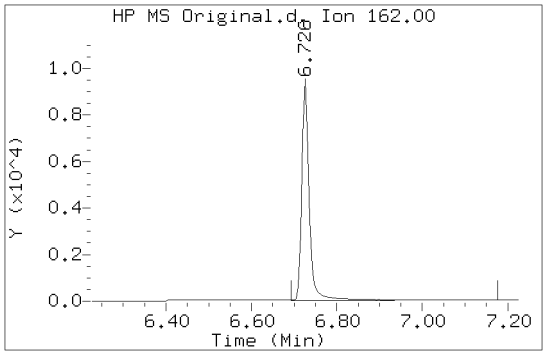
AFTER

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AREA
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HEIGHT
10042
17-Aug-2023
11:32
ALSHS
S



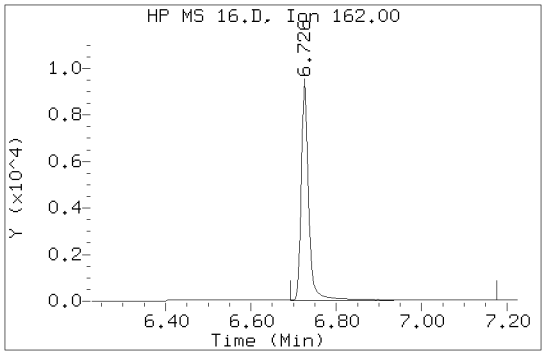
BEFORE

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18:01
ALSHS
Server



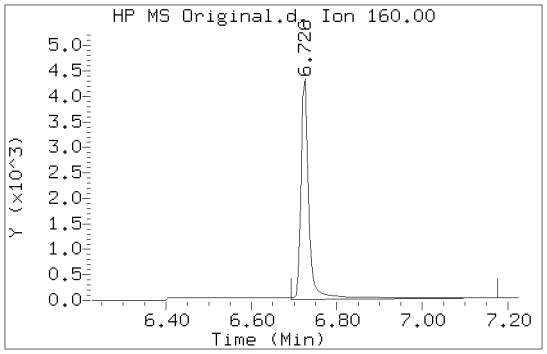
AFTER

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AREA
11922
HEIGHT
9527
17-Aug-2023
11:32
ALSHS
S



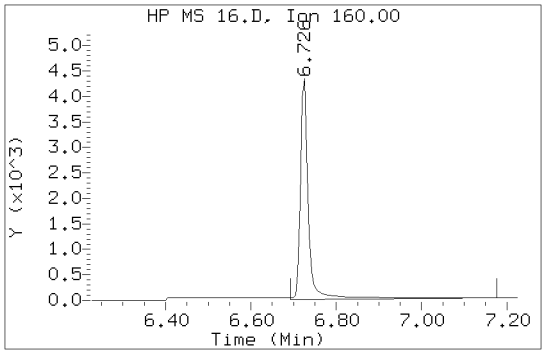
BEFORE

MASS
160
AREA
5828
HEIGHT
4329
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
160
AREA
5828
HEIGHT
4329
17-Aug-2023
11:32
ALSHS
S



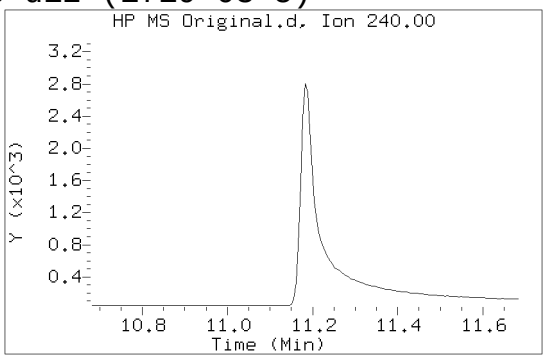
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\16.D
Inj Date : 15-AUG-2023 17:45
InstruID : SV6.i
LabSampID : LCS-198677

Chrysene-d12 (1719-03-5)

Reason Code:

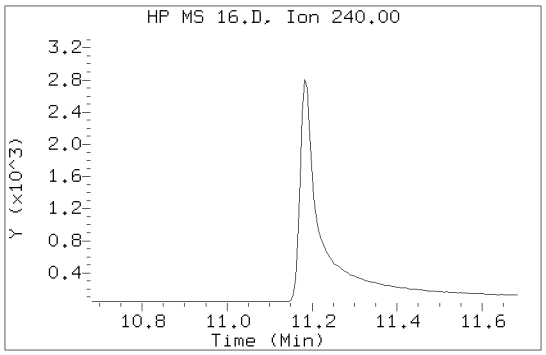
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



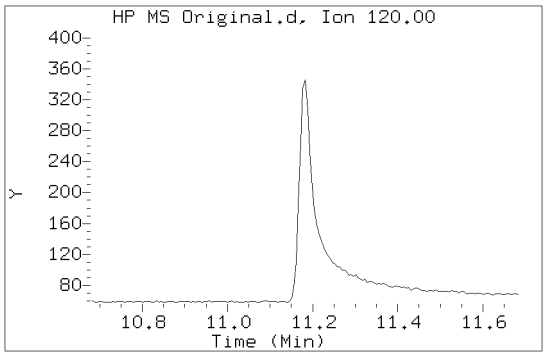
AFTER

MASS
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AREA
18278
HEIGHT
2803
17-Aug-2023
11:32
ALSHS
S



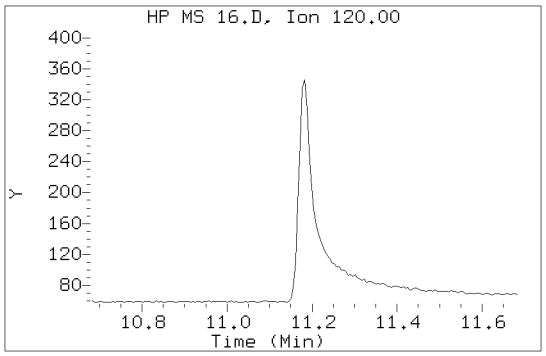
BEFORE

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AREA
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HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



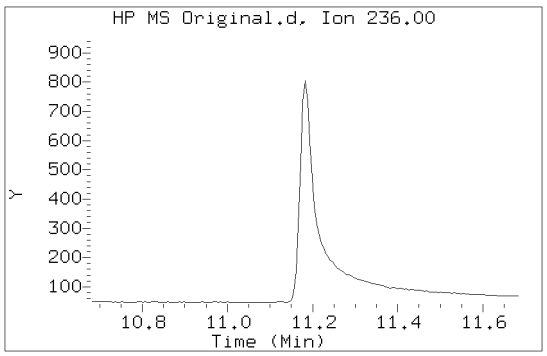
AFTER

MASS
120
AREA
1130
HEIGHT
285
17-Aug-2023
11:32
ALSHS
S



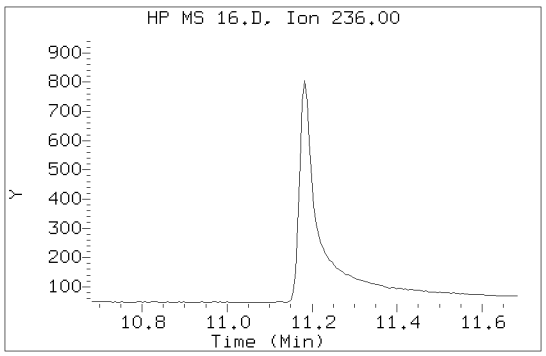
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
236
AREA
2798
HEIGHT
754
17-Aug-2023
11:32
ALSHS
S

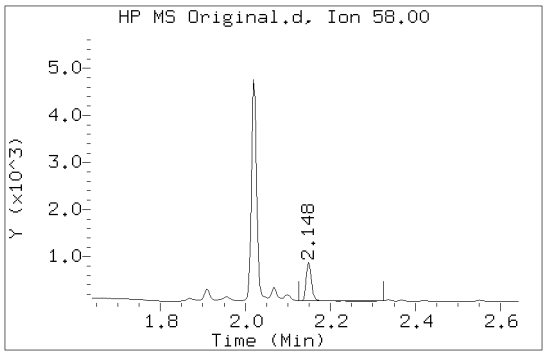


1,4-Dioxane ()

Reason Code:

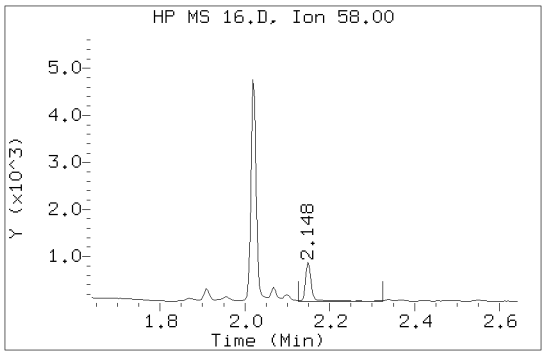
BEFORE

MASS
58
AREA
697
HEIGHT
823
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
58
AREA
824
HEIGHT
833
17-Aug-2023
11:32
ALSHS
S



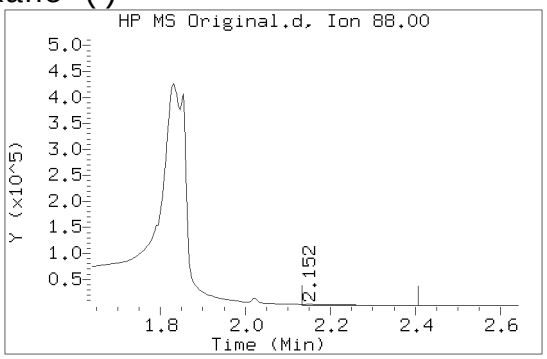
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\16.D
Inj Date : 15-AUG-2023 17:45
InstruID : SV6.i
LabSampID : LCS-198677

1,4-Dioxane ()

Reason Code:

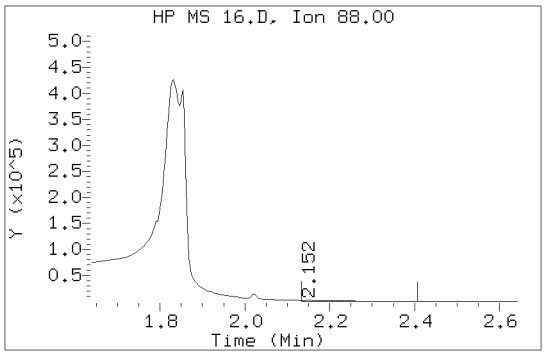
BEFORE

MASS
88
AREA
9066
HEIGHT
2136
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
88
AREA
9066
HEIGHT
2136
17-Aug-2023
11:32
ALSHS
S

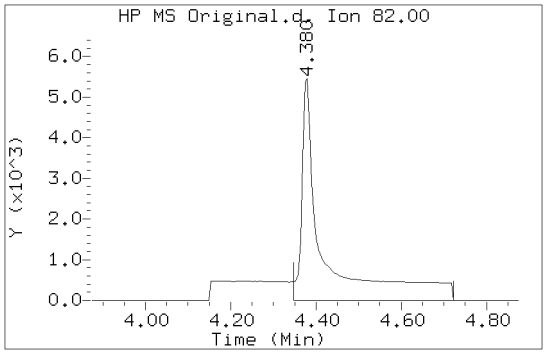


Nitrobenzene-d5 (4165-60-0)

Reason Code:

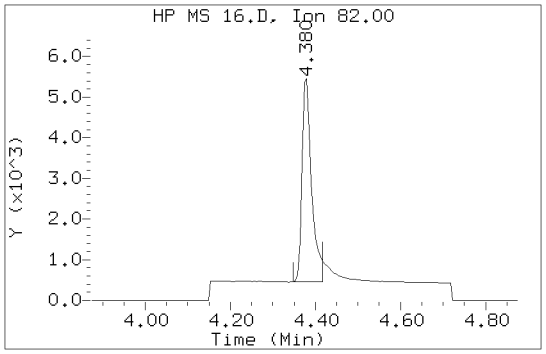
BEFORE

MASS
82
AREA
19056
HEIGHT
5453
15-Aug-2023
18:01
ALSHS
Server



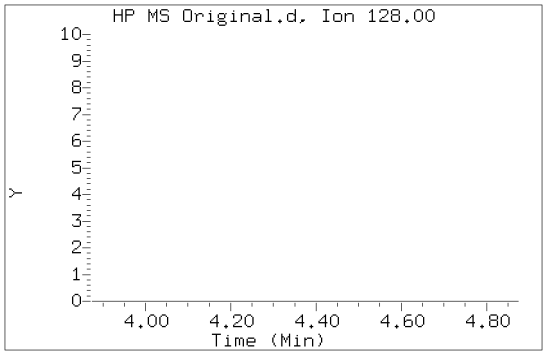
AFTER

MASS
82
AREA
8010
HEIGHT
5003
17-Aug-2023
11:32
ALSHS
S



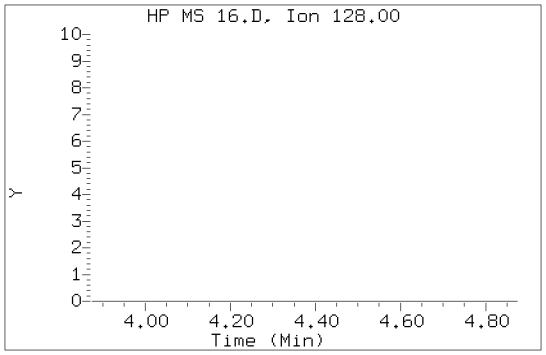
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



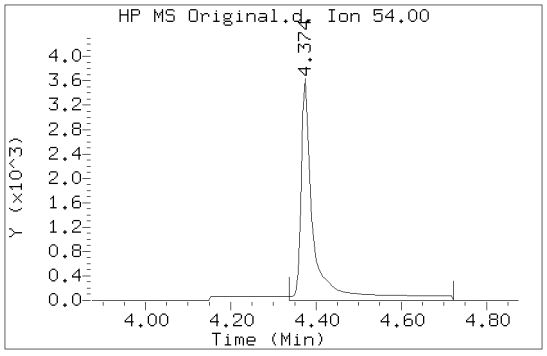
AFTER

MASS
128
AREA
0
HEIGHT
0
17-Aug-2023
11:32
ALSHS
S



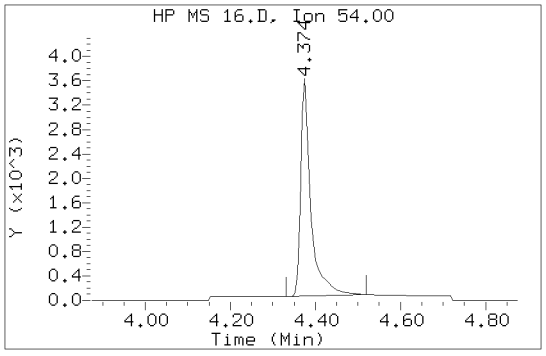
BEFORE

MASS
54
AREA
7802
HEIGHT
3634
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
54
AREA
5946
HEIGHT
3561
17-Aug-2023
11:32
ALSHS
S



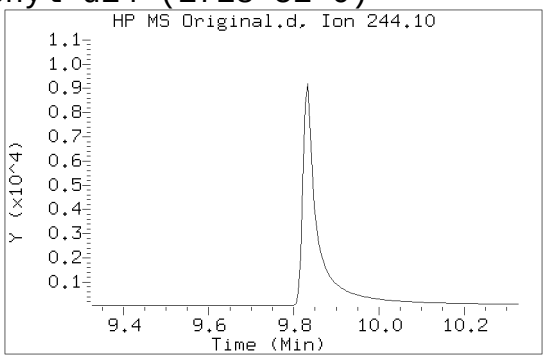
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\16.D
Inj Date : 15-AUG-2023 17:45
InstruID : SV6.i
LabSampID : LCS-198677

4-Terphenyl-d14 (1718-51-0)

Reason Code:

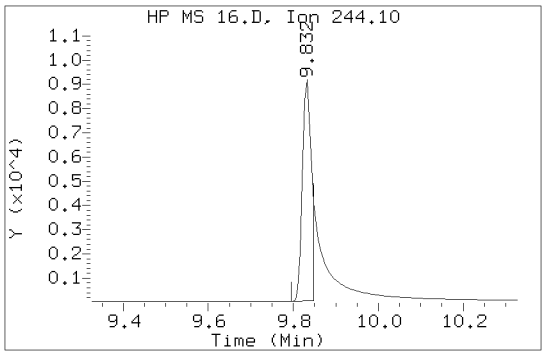
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



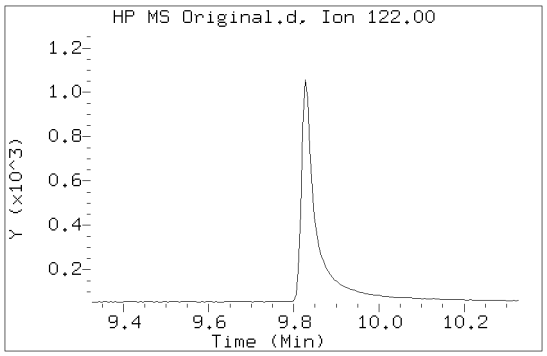
AFTER

MASS
244.1
AREA
13638
HEIGHT
9137
17-Aug-2023
11:32
ALSHS
S



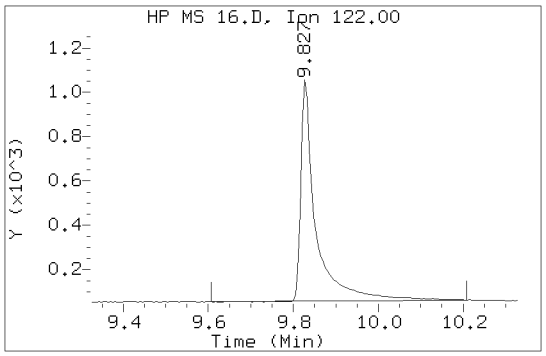
BEFORE

MASS
122
AREA
0
HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



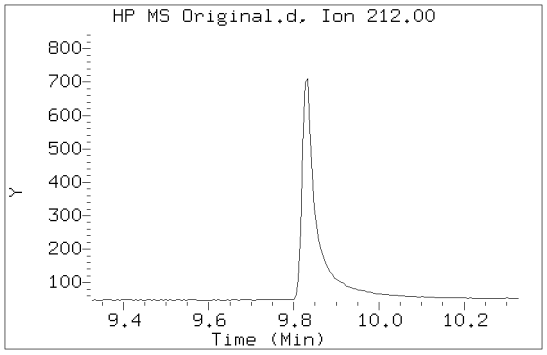
AFTER

MASS
122
AREA
2407
HEIGHT
997
17-Aug-2023
11:32
ALSHS
S



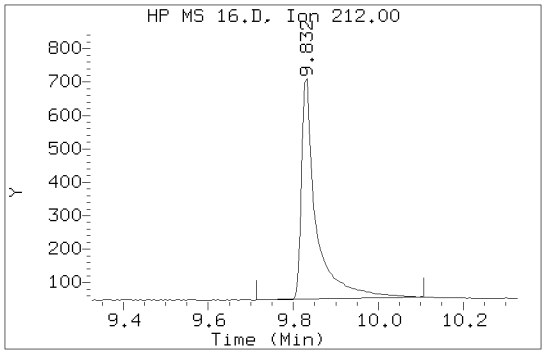
BEFORE

MASS
212
AREA
0
HEIGHT
0
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
212
AREA
1577
HEIGHT
659
17-Aug-2023
11:32
ALSHS
S

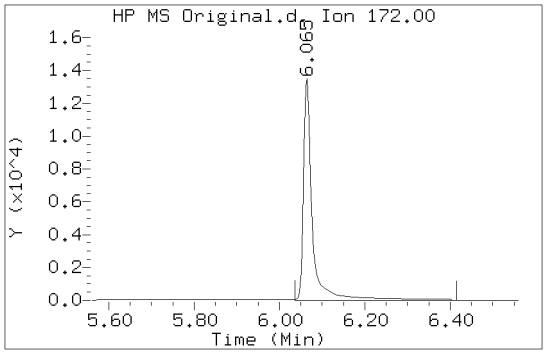


2-Fluorobiphenyl (321-60-8)

Reason Code:

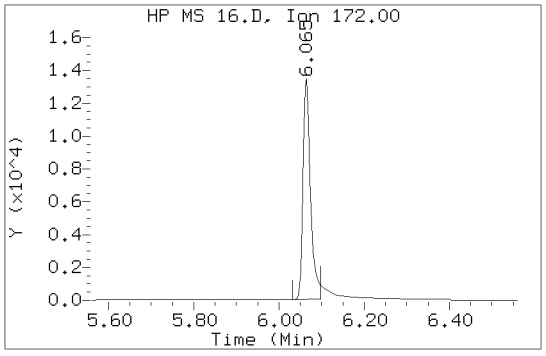
BEFORE

MASS
172
AREA
20065
HEIGHT
13496
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
172
AREA
16510
HEIGHT
13448
17-Aug-2023
11:32
ALSHS
S



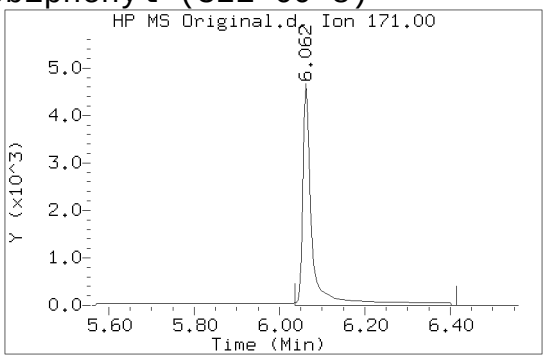
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\16.D
Inj Date : 15-AUG-2023 17:45
InstruID : SV6.i
LabSampID : LCS-198677

2-Fluorobiphenyl (321-60-8)

Reason Code:

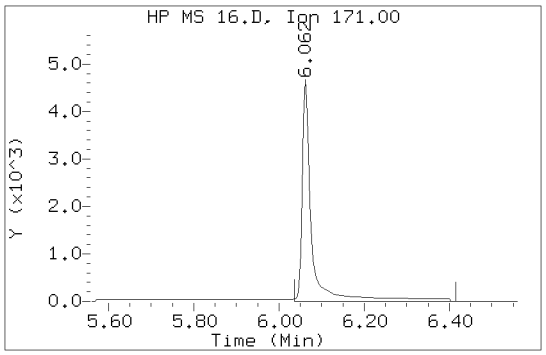
BEFORE

MASS
171
AREA
7447
HEIGHT
4670
15-Aug-2023
18:01
ALSHS
Server



AFTER

MASS
171
AREA
7447
HEIGHT
4670
17-Aug-2023
11:32
ALSHS
S



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\17.D
Lab Smp Id: LCSD-198677
Inj Date : 15-AUG-2023 18:03
Operator : LG Inst ID: SV6.i
Smp Info : LCSD-198677;;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 16-Aug-2023 08:26 jjuarez Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 17 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7053

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.901	3.902	(1.000)	4888	0.10000	(aM)
* 45 Naphthalene-d8	136	5.036	5.033	(1.000)	22505	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.374	4.374	(0.868)	7529	0.11011	0.1101(M)
* 86 Acenaphthene-d10	164	6.725	6.726	(1.000)	13256	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	6.065	6.061	(0.902)	14423	0.10640	0.1064(M)
* 126 Phenanthrene-d10	188	8.197	8.191	(1.000)	20380	0.10000	
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	17788	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.832	9.826	(0.879)	12955	0.09872	0.09872(M)
* 198 Perylene-d12	264	13.379	13.379	(1.000)	7552	0.10000	
1 1,4-Dioxane	58	2.129	2.141	(0.546)	760	0.04582	0.04582(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209083

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\17.D

Date : 15-AUG-2023 18:03

Client ID:

Instrument: SV6.i

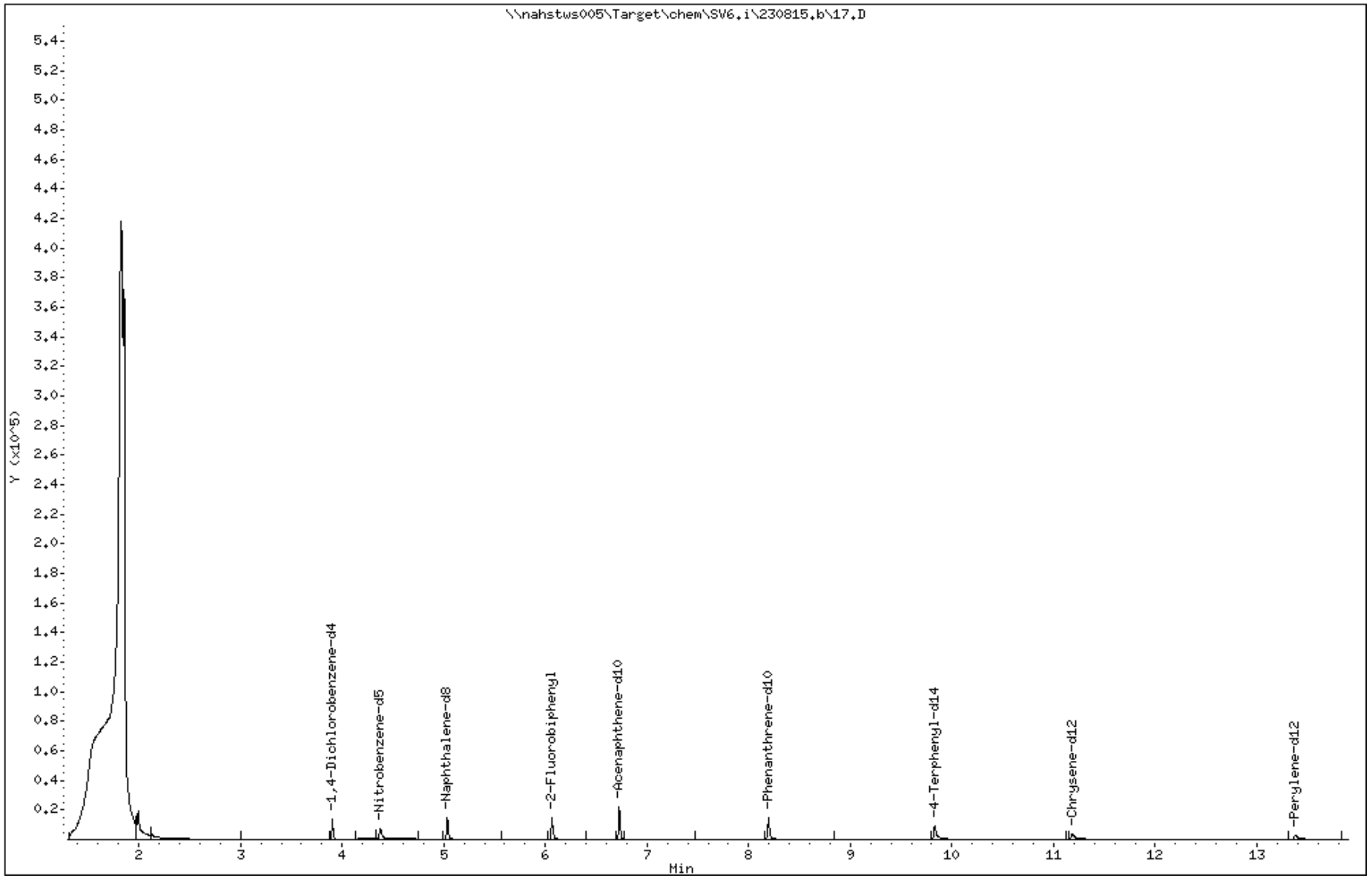
Sample Info: LCSD-198677;;3;;LCSD

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



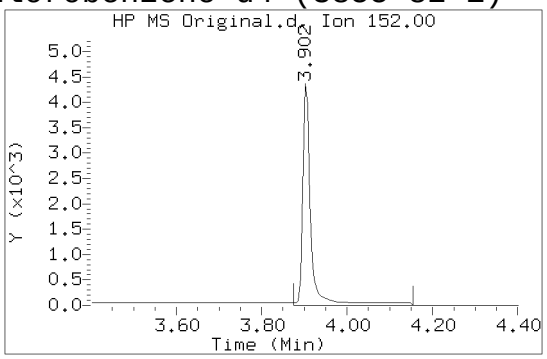
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\17.D
Inj Date : 15-AUG-2023 18:03
InstruID : SV6.i
LabSampID : LCSD-198677

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

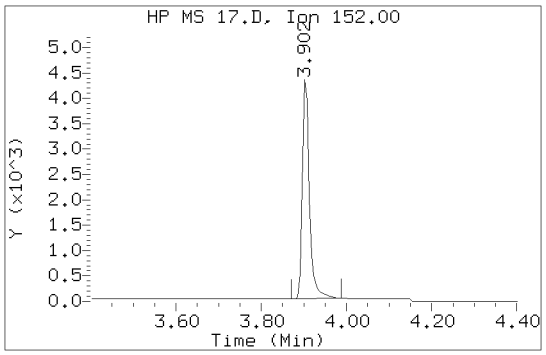
BEFORE

MASS
152
AREA
5786
HEIGHT
4367
15-Aug-2023
18:19
ALSHS
Server



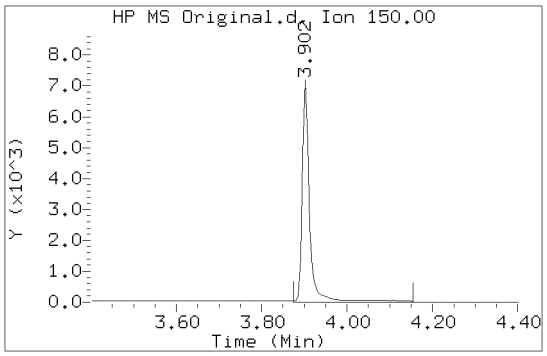
AFTER

MASS
152
AREA
4888
HEIGHT
4314
17-Aug-2023
11:32
ALSHS
S



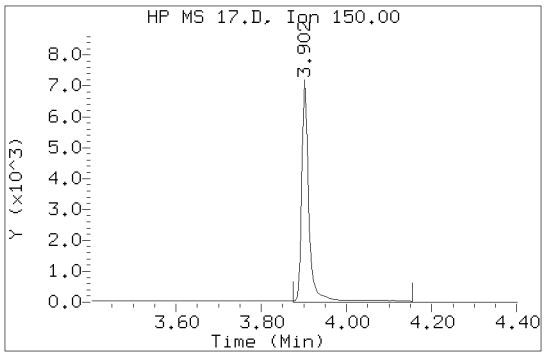
BEFORE

MASS
150
AREA
8624
HEIGHT
7193
15-Aug-2023
18:19
ALSHS
Server



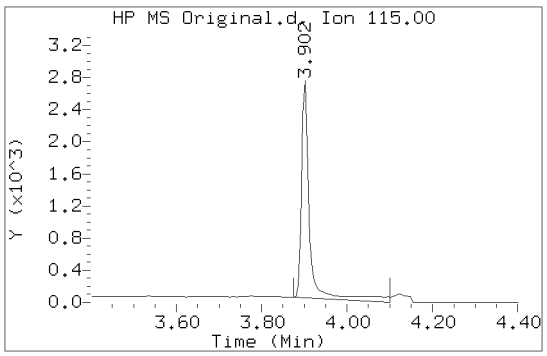
AFTER

MASS
150
AREA
8624
HEIGHT
7193
17-Aug-2023
11:32
ALSHS
S



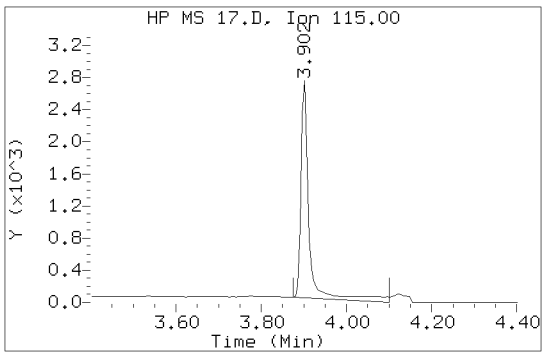
BEFORE

MASS
115
AREA
3500
HEIGHT
2702
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
115
AREA
3500
HEIGHT
2702
17-Aug-2023
11:32
ALSHS
S

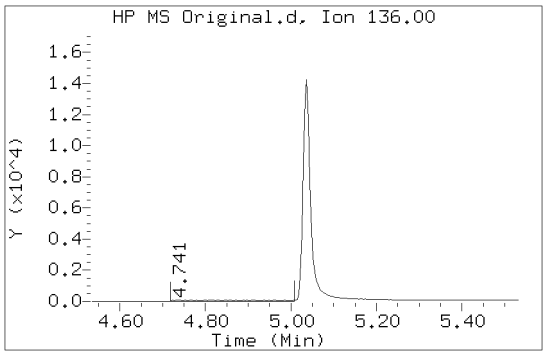


Naphthalene-d8 (1146-65-2)

Reason Code:

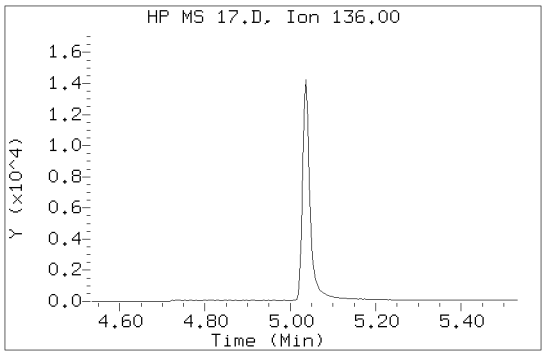
BEFORE

MASS
136
AREA
1066
HEIGHT
63
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
136
AREA
22505
HEIGHT
14241
17-Aug-2023
11:32
ALSHS
S



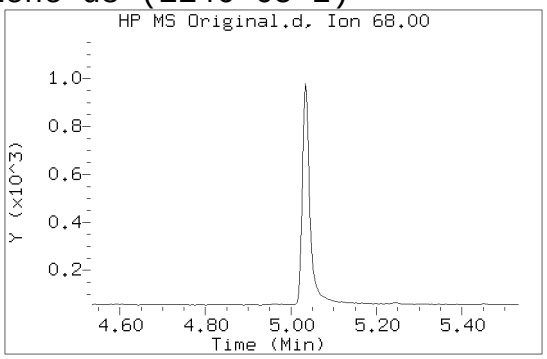
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\17.D
Inj Date : 15-AUG-2023 18:03
InstruID : SV6.i
LabSampID : LCSD-198677

Naphthalene-d8 (1146-65-2)

Reason Code:

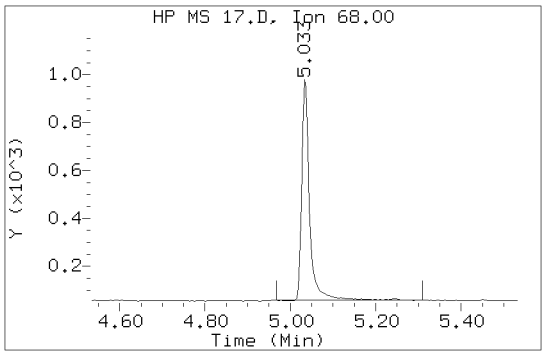
BEFORE

MASS
68
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
68
AREA
1139
HEIGHT
919
17-Aug-2023
11:32
ALSHS
S

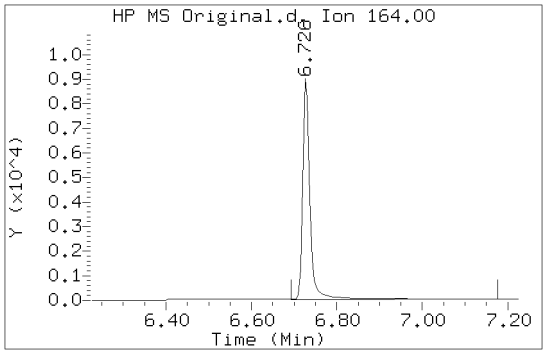


Acenaphthene-d10 (15067-26-2)

Reason Code:

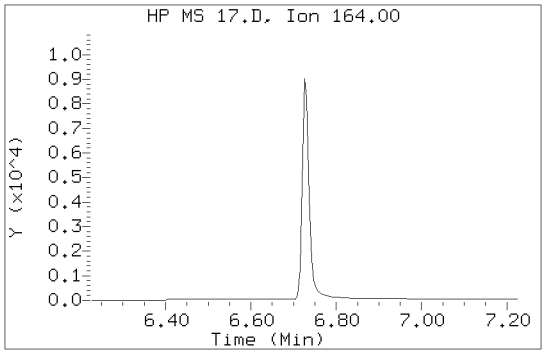
BEFORE

MASS
164
AREA
10931
HEIGHT
8999
15-Aug-2023
18:19
ALSHS
Server



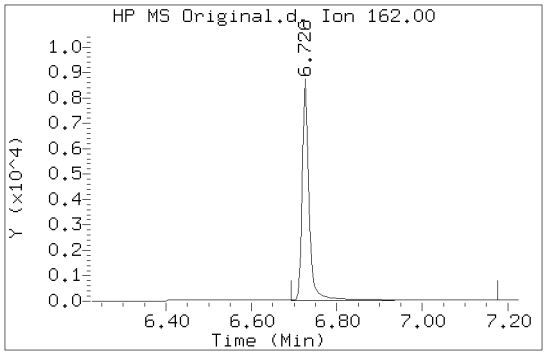
AFTER

MASS
164
AREA
13256
HEIGHT
9023
17-Aug-2023
11:32
ALSHS
S



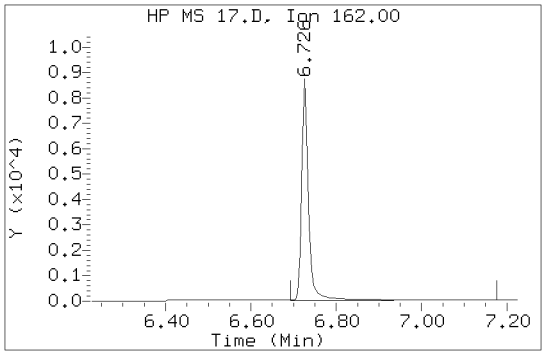
BEFORE

MASS
162
AREA
10145
HEIGHT
8726
15-Aug-2023
18:19
ALSHS
Server



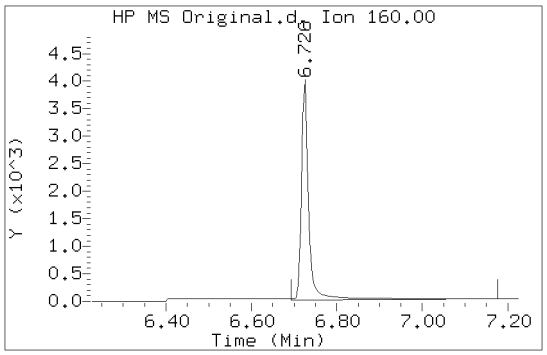
AFTER

MASS
162
AREA
10145
HEIGHT
8726
17-Aug-2023
11:32
ALSHS
S



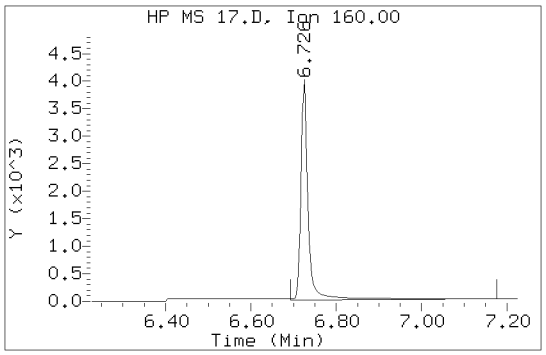
BEFORE

MASS
160
AREA
4996
HEIGHT
4007
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
160
AREA
4996
HEIGHT
4007
17-Aug-2023
11:32
ALSHS
S



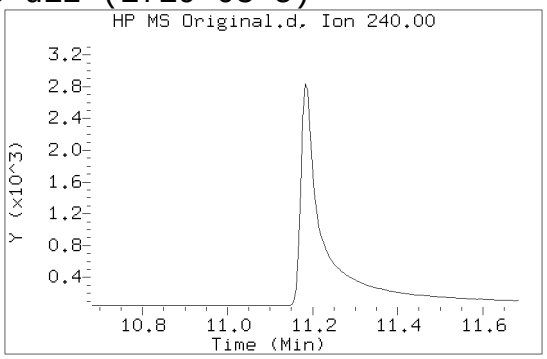
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\17.D
Inj Date : 15-AUG-2023 18:03
InstruID : SV6.i
LabSampID : LCSD-198677

Chrysene-d12 (1719-03-5)

Reason Code:

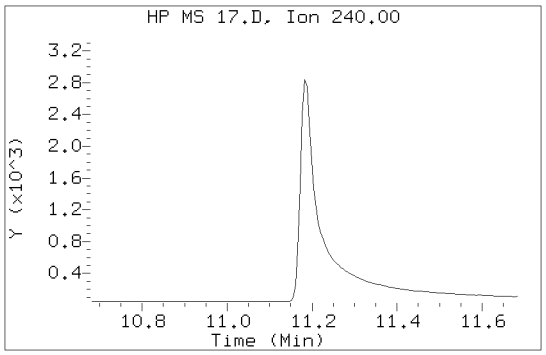
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



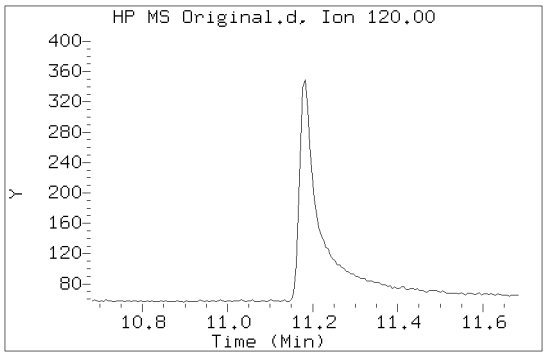
AFTER

MASS
240
AREA
17788
HEIGHT
2838
17-Aug-2023
11:32
ALSHS
S



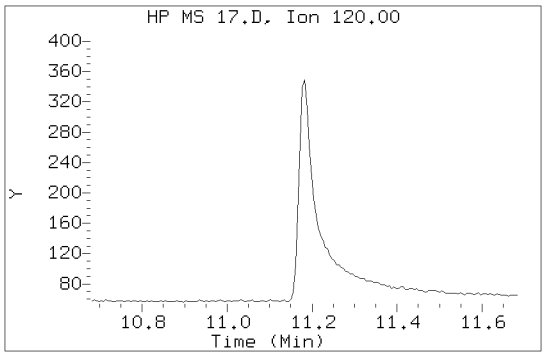
BEFORE

MASS
120
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



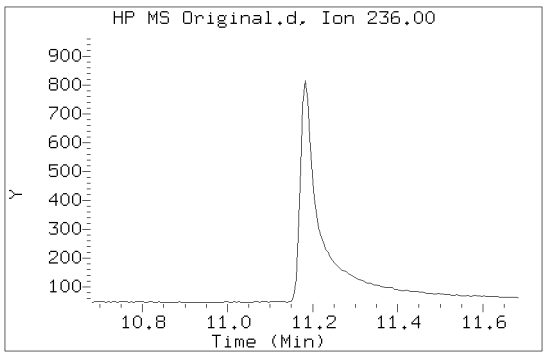
AFTER

MASS
120
AREA
1151
HEIGHT
290
17-Aug-2023
11:32
ALSHS
S



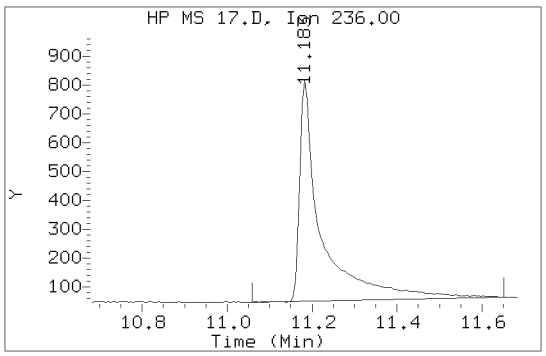
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
236
AREA
2729
HEIGHT
763
17-Aug-2023
11:32
ALSHS
S

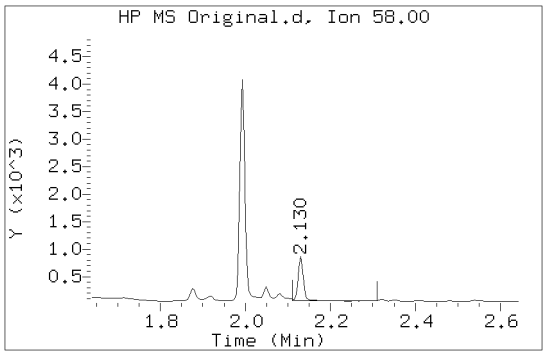


1,4-Dioxane ()

Reason Code:

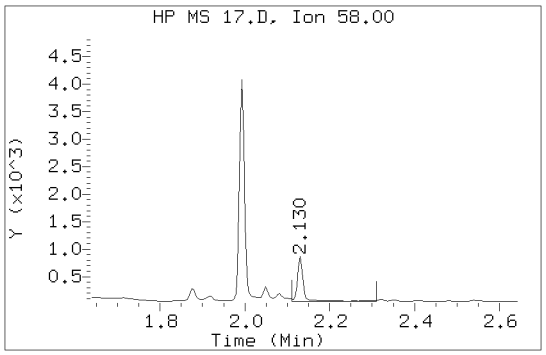
BEFORE

MASS
58
AREA
626
HEIGHT
804
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
58
AREA
760
HEIGHT
815
17-Aug-2023
11:32
ALSHS
S



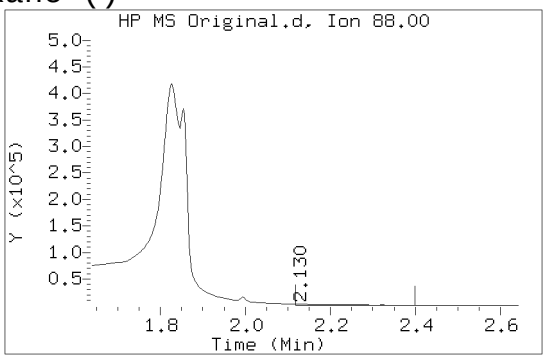
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Inj Date : 15-AUG-2023 18:03
InstruID : SV6.i
LabSampID : LCSD-198677

1,4-Dioxane ()

Reason Code:

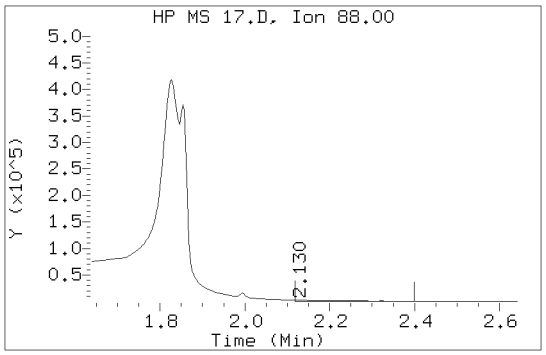
BEFORE

MASS
88
AREA
11310
HEIGHT
2566
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
88
AREA
11310
HEIGHT
2566
17-Aug-2023
11:32
ALSHS
S

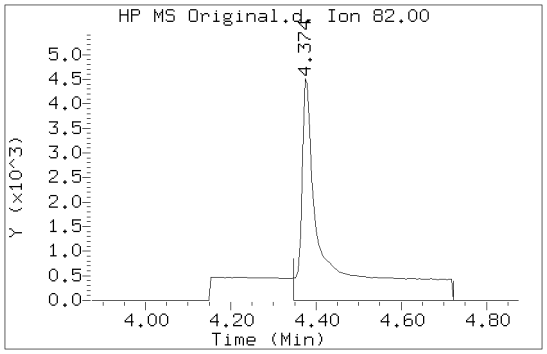


Nitrobenzene-d5 (4165-60-0)

Reason Code:

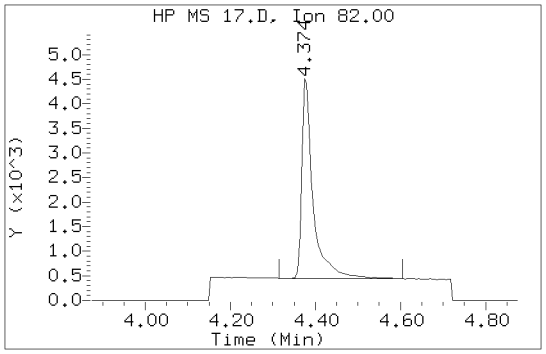
BEFORE

MASS
82
AREA
17506
HEIGHT
4509
15-Aug-2023
18:19
ALSHS
Server



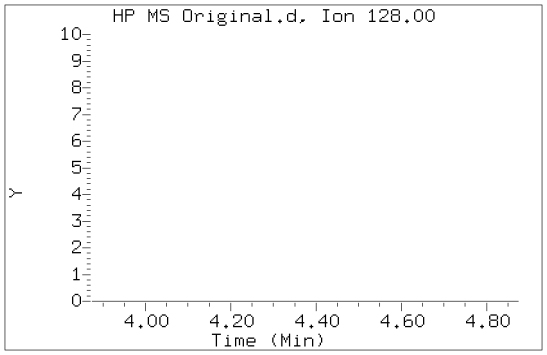
AFTER

MASS
82
AREA
7529
HEIGHT
4061
17-Aug-2023
11:32
ALSHS
S



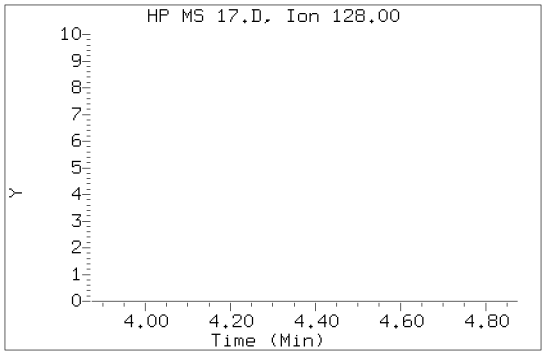
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



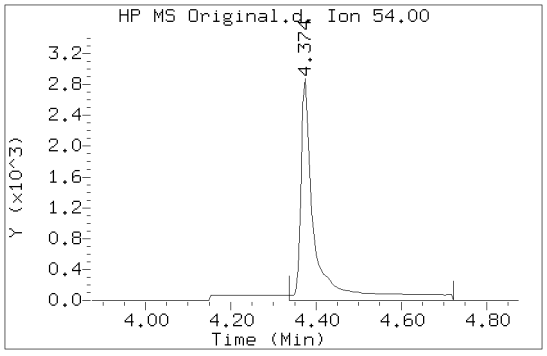
AFTER

MASS
128
AREA
0
HEIGHT
0
17-Aug-2023
11:32
ALSHS
S



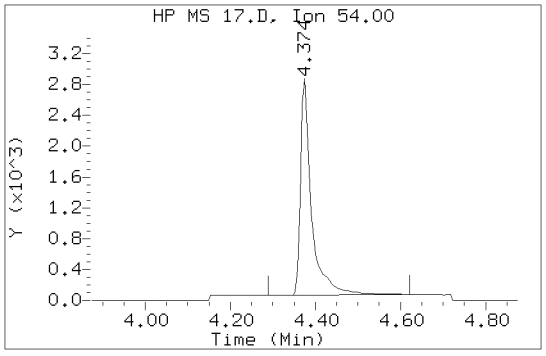
BEFORE

MASS
54
AREA
6776
HEIGHT
2875
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
54
AREA
5151
HEIGHT
2809
17-Aug-2023
11:32
ALSHS
S



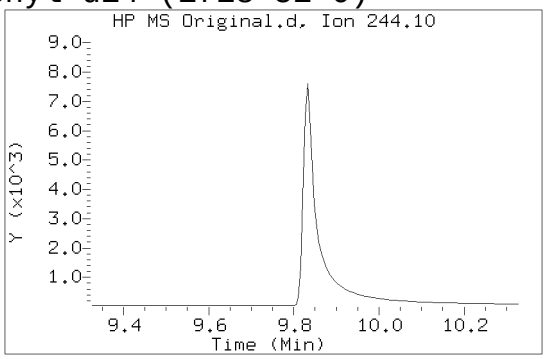
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Inj Date : 15-AUG-2023 18:03
InstruID : SV6.i
LabSampID : LCSD-198677

4-Terphenyl-d14 (1718-51-0)

Reason Code:

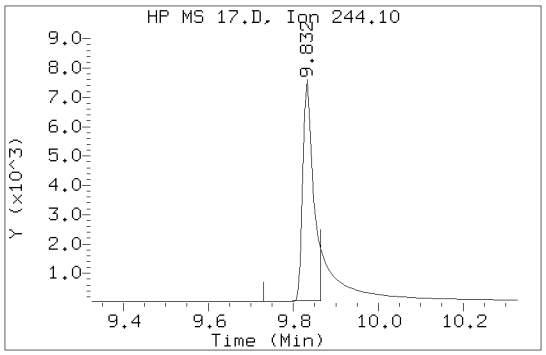
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



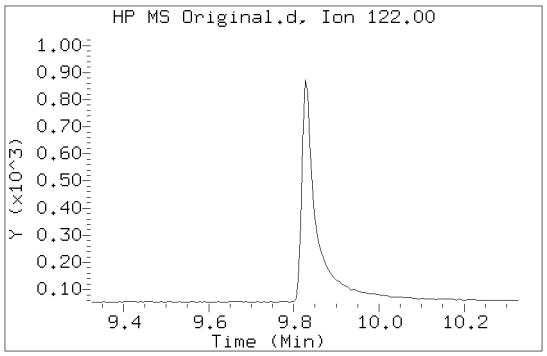
AFTER

MASS
244.1
AREA
12955
HEIGHT
7537
17-Aug-2023
11:32
ALSHS
S



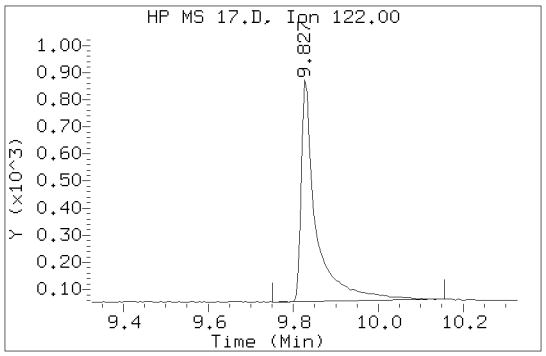
BEFORE

MASS
122
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



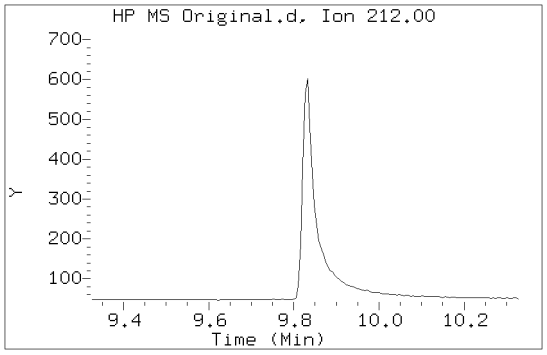
AFTER

MASS
122
AREA
1995
HEIGHT
817
17-Aug-2023
11:32
ALSHS
S



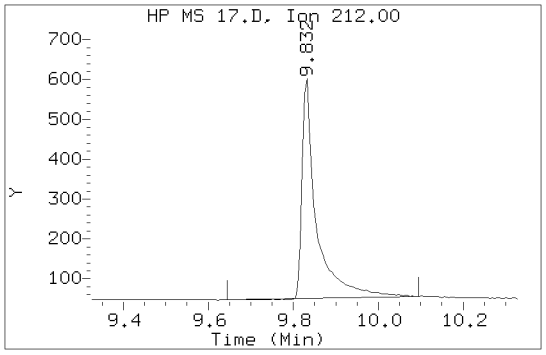
BEFORE

MASS
212
AREA
0
HEIGHT
0
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
212
AREA
1283
HEIGHT
551
17-Aug-2023
11:32
ALSHS
S

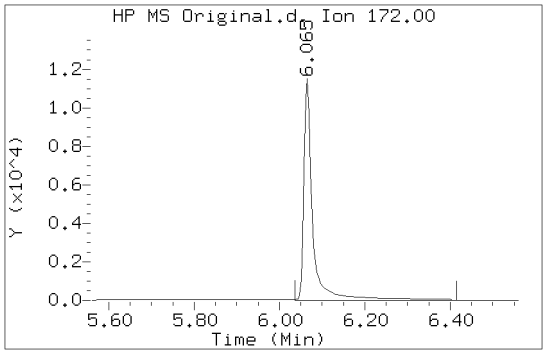


2-Fluorobiphenyl (321-60-8)

Reason Code:

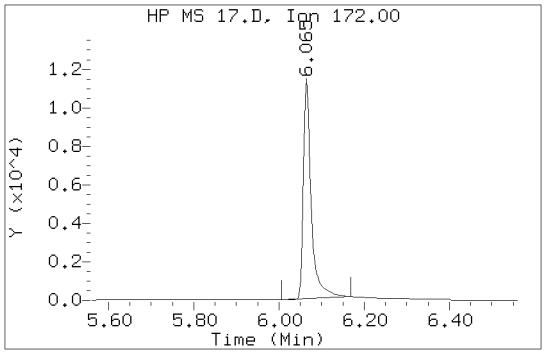
BEFORE

MASS
172
AREA
17104
HEIGHT
11513
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
172
AREA
14423
HEIGHT
11411
17-Aug-2023
11:32
ALSHS
S



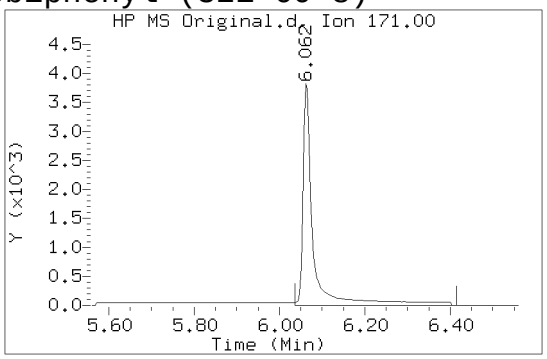
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Inj Date : 15-AUG-2023 18:03
InstruID : SV6.i
LabSampID : LCSD-198677

2-Fluorobiphenyl (321-60-8)

Reason Code:

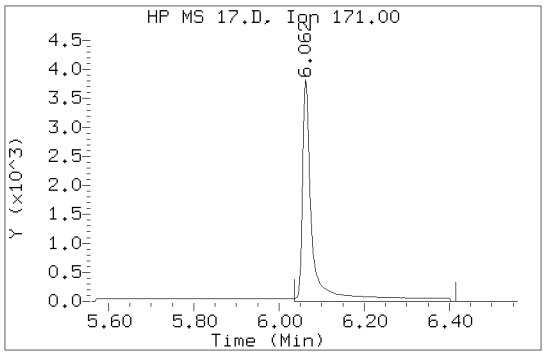
BEFORE

MASS
171
AREA
6442
HEIGHT
3824
15-Aug-2023
18:19
ALSHS
Server



AFTER

MASS
171
AREA
6442
HEIGHT
3824
17-Aug-2023
11:32
ALSHS
S



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\18.D Page 1
Report Date: 17-Aug-2023 12:02

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230815.b\18.D
Lab Smp Id: HS23080324-01
Inj Date : 15-AUG-2023 18:21
Operator : LG Inst ID: SV6.i
Smp Info : HS23080324-01
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 16-Aug-2023 08:26 jjuarez Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.907	3.902	(1.000)	5175	0.10000	(a)
* 45 Naphthalene-d8	136	5.033	5.033	(1.000)	24409	0.10000	
$ 33 Nitrobenzene-d5	82	4.374	4.374	(0.869)	3887	0.05241	0.05241(M)
* 86 Acenaphthene-d10	164	6.725	6.726	(1.000)	14861	0.10000	
$ 69 2-Fluorobiphenyl	172	6.061	6.061	(0.901)	9721	0.06397	0.06397
* 126 Phenanthrene-d10	188	8.191	8.191	(1.000)	28152	0.10000	
* 182 Chrysene-d12	240	11.182	11.182	(1.000)	23067	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.826	9.826	(0.900)	15674	0.09210	0.09210
* 198 Perylene-d12	264	13.379	13.379	(1.000)	13381	0.10000	
1 1,4-Dioxane	58	2.166	2.141	(0.554)	240	0.01367	0.01367(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209091

Data File: \\nahstws005\Target\chem\SV6.i\230815.b\18.D

Page 1

Date : 15-AUG-2023 18:21

Client ID:

Instrument: SV6.i

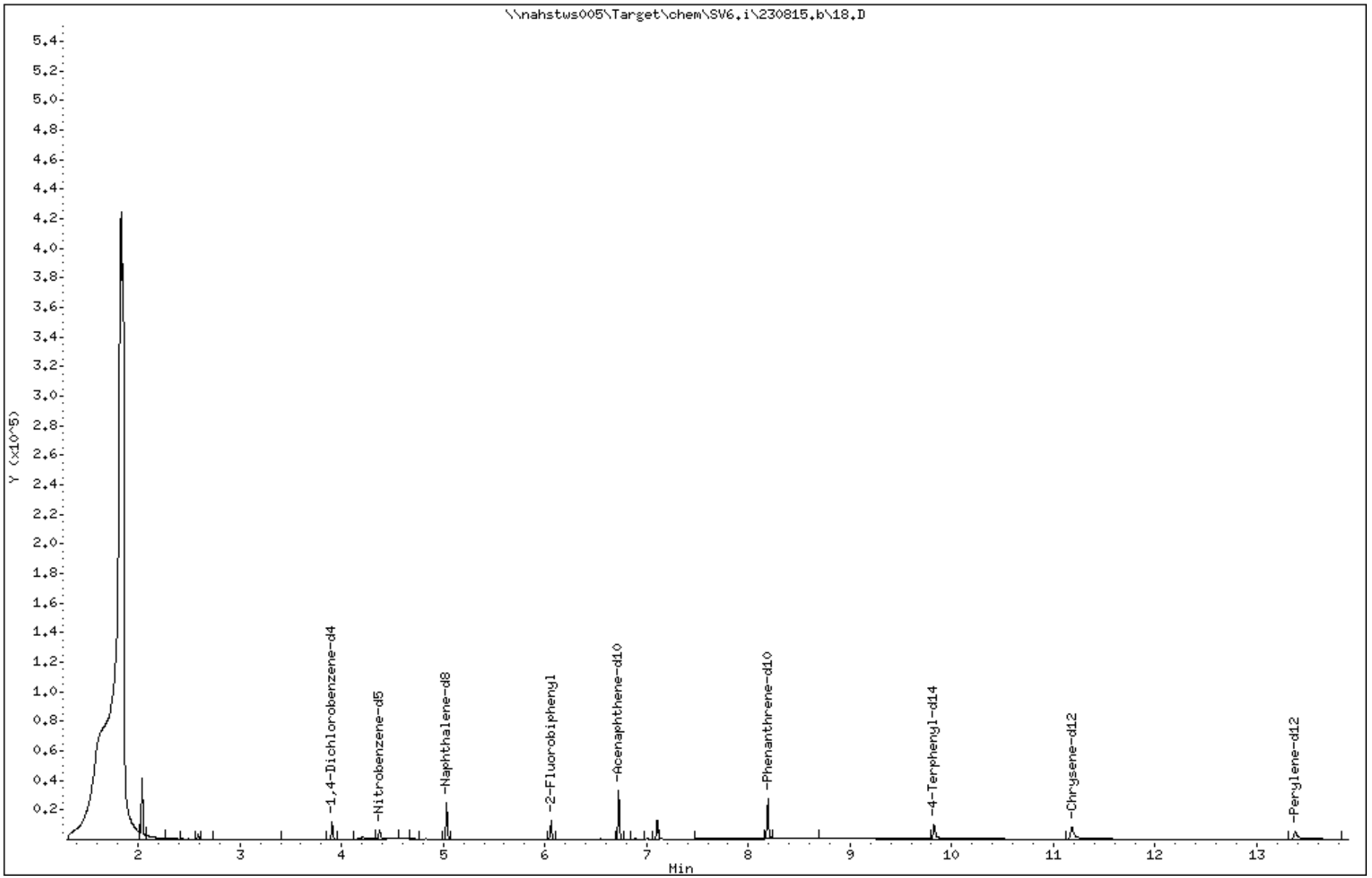
Sample Info: HS23080324-01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\230815.b\18.D

Date : 15-AUG-2023 18:21

Client ID:

Instrument: SV6.i

Sample Info: HS23080324-01

Purge Volume: 1000.0

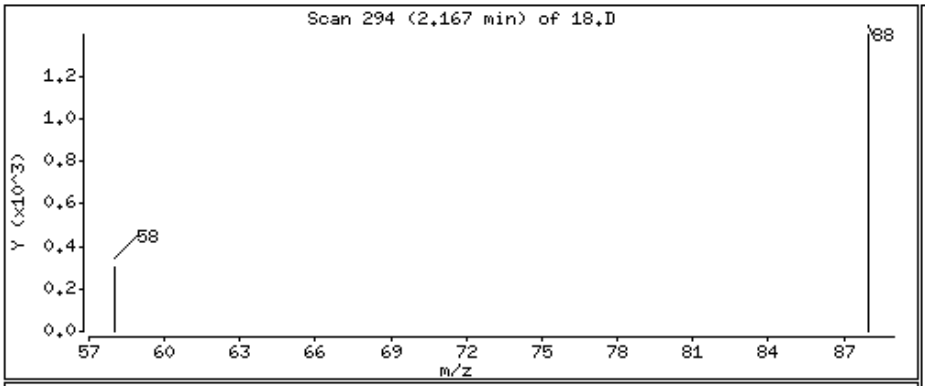
Operator: LG

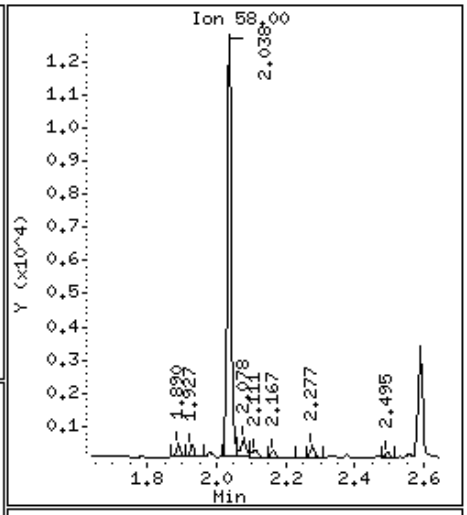
Column phase: RTX-5SIL MS

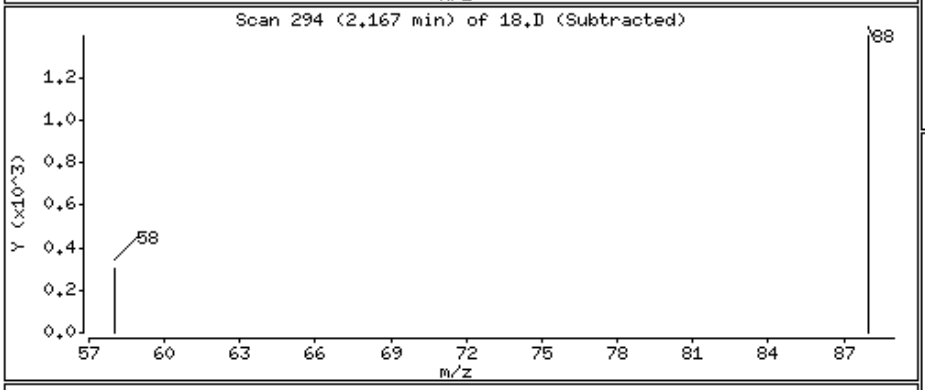
Column diameter: 0.28

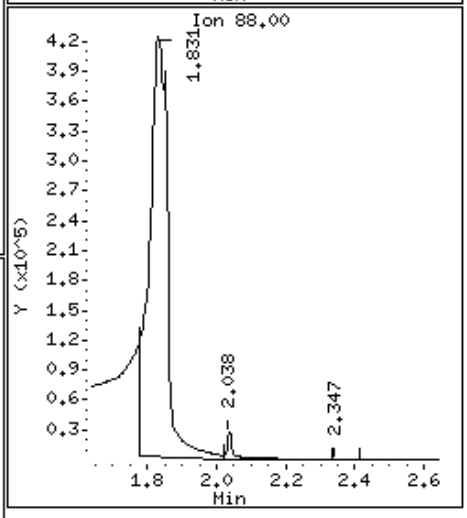
1 1,4-Dioxane

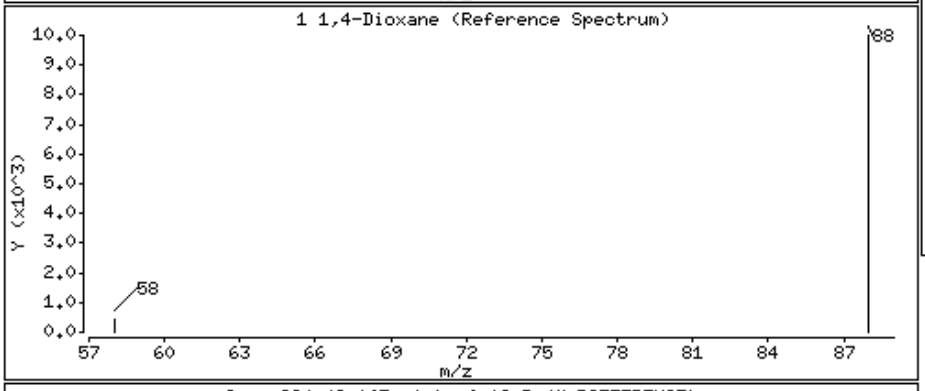
Concentration: 0.01367 ug/L

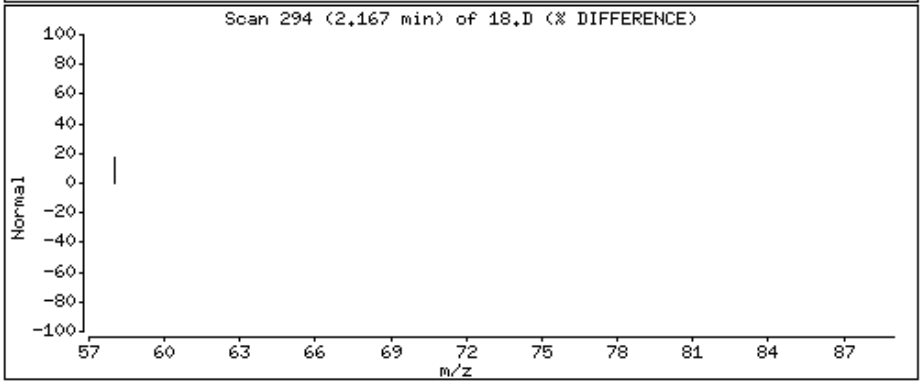












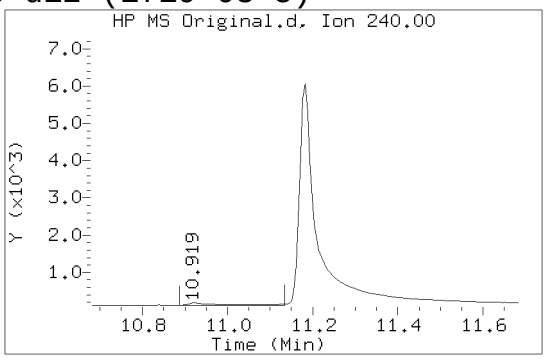
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Inj Date : 15-AUG-2023 18:21
InstruID : SV6.i
LabSampID : HS23080324-01

Chrysene-d12 (1719-03-5)

Reason Code:

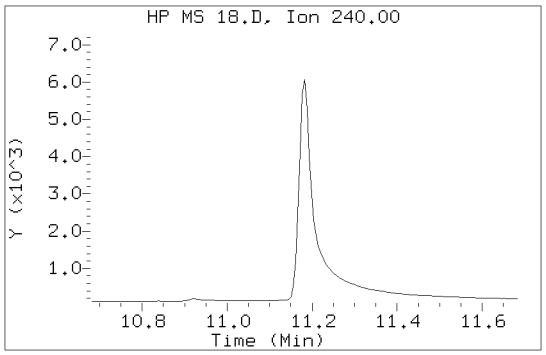
BEFORE

MASS
240
AREA
320
HEIGHT
61
15-Aug-2023
18:38
ALSHS
Server



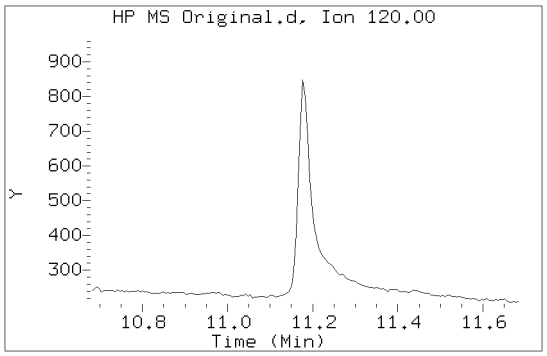
AFTER

MASS
240
AREA
23067
HEIGHT
5962
17-Aug-2023
12:02
ALSHS
S



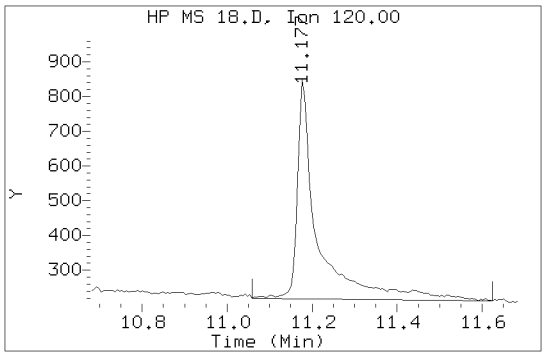
BEFORE

MASS
120
AREA
0
HEIGHT
0
15-Aug-2023
18:38
ALSHS
Server



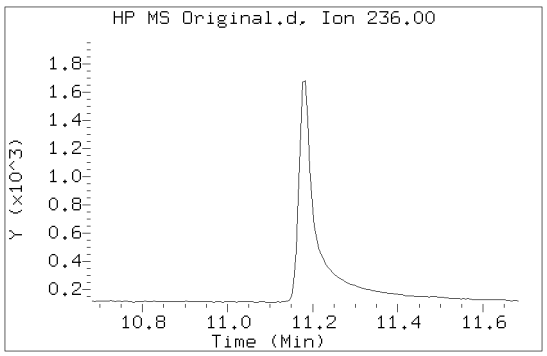
AFTER

MASS
120
AREA
2124
HEIGHT
630
17-Aug-2023
12:02
ALSHS
S



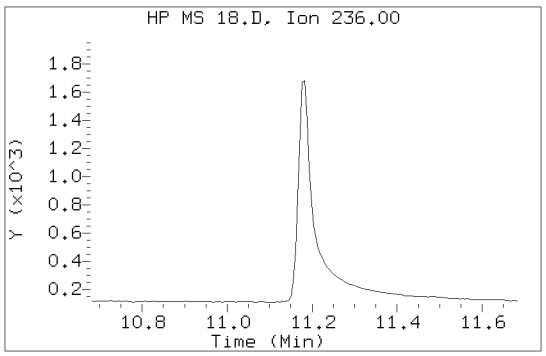
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Aug-2023
18:38
ALSHS
Server



AFTER

MASS
236
AREA
0
HEIGHT
0
17-Aug-2023
12:02
ALSHS
S

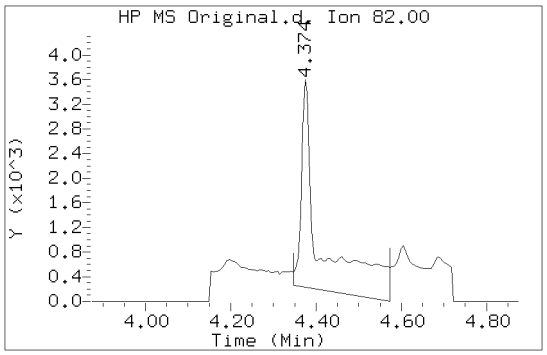


Nitrobenzene-d5 (4165-60-0)

Reason Code:

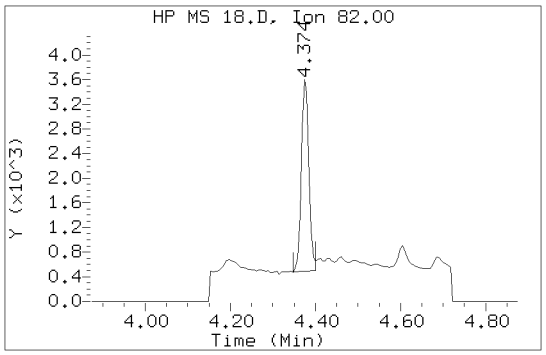
BEFORE

MASS
82
AREA
10352
HEIGHT
3369
15-Aug-2023
18:38
ALSHS
Server



AFTER

MASS
82
AREA
3887
HEIGHT
3113
17-Aug-2023
12:02
ALSHS
S



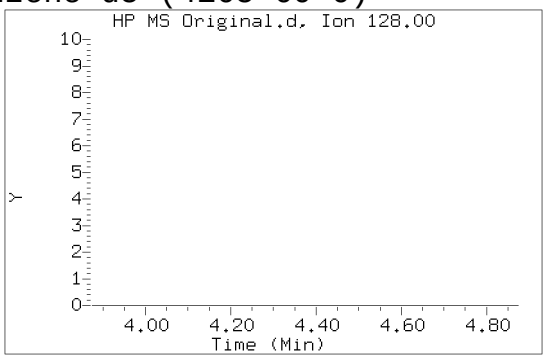
Data File : \\nahstws005\Target\chem\SV6.i\230815.b\18.D
Inj Date : 15-AUG-2023 18:21
InstruID : SV6.i
LabSampID : HS23080324-01

Nitrobenzene-d5 (4165-60-0)

Reason Code:

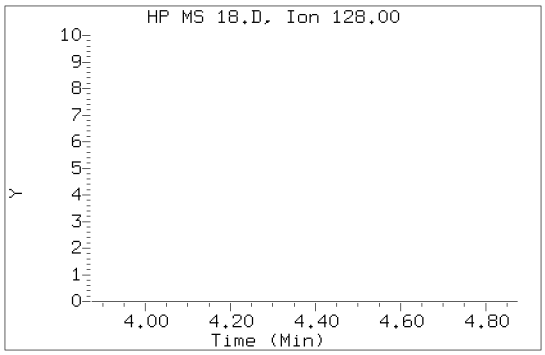
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Aug-2023
18:38
ALSHS
Server



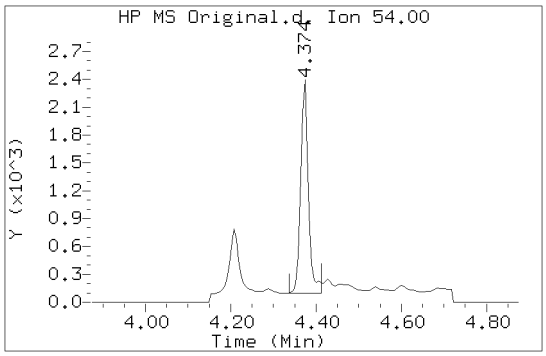
AFTER

MASS
128
AREA
0
HEIGHT
0
17-Aug-2023
12:02
ALSHS
S



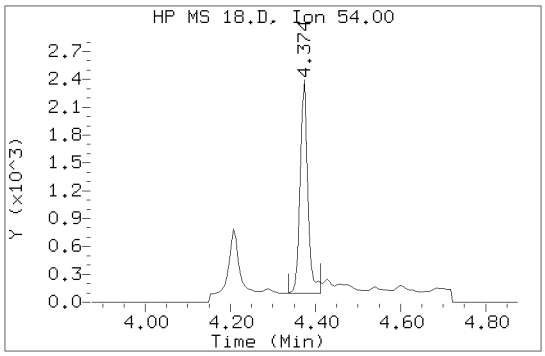
BEFORE

MASS
54
AREA
2898
HEIGHT
2295
15-Aug-2023
18:38
ALSHS
Server



AFTER

MASS
54
AREA
2898
HEIGHT
2295
17-Aug-2023
12:02
ALSHS
S



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230815.b\36.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 15-AUG-2023 23:45
Operator : LG Inst ID: SV6.i
Smp Info : CCV;CCV
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230815.b\DXSIM.m
Meth Date : 17-Aug-2023 17:42 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.907	3.907	(1.000)	5924	0.10000	(aQM)
* 45 Naphthalene-d8	136	5.044	5.044	(1.000)	24967	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.406	4.406	(0.874)	5575	0.08000	0.07349(QM)
* 86 Acenaphthene-d10	164	6.736	6.736	(1.000)	14585	0.10000	
$ 69 2-Fluorobiphenyl	172	6.083	6.083	(0.903)	12261	0.08000	0.08221
* 126 Phenanthrene-d10	188	8.208	8.208	(1.000)	29675	0.10000	
* 182 Chrysene-d12	240	11.204	11.204	(1.000)	21964	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.843	9.843	(0.879)	12818	0.08000	0.07910(M)
* 198 Perylene-d12	264	13.395	13.395	(1.000)	17713	0.10000	
1 1,4-Dioxane	58	2.159	2.159	(0.553)	1417	0.08000	0.07050(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209096

Data File: \\NAHSTWS005\Target\chem\SV6.i\230815.b\36.D

Date : 15-AUG-2023 23:45

Client ID: CCV-END

Instrument: SV6.i

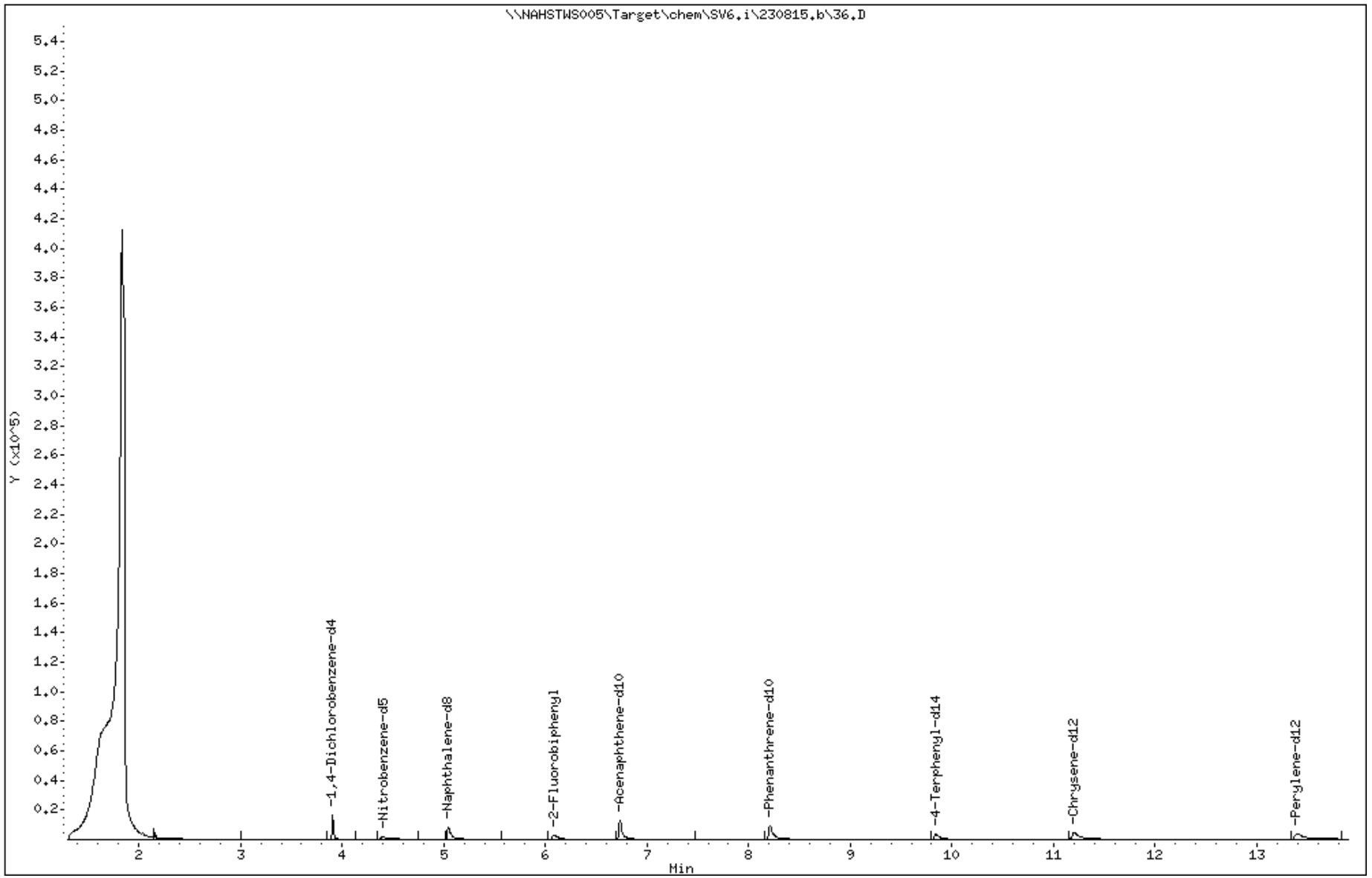
Sample Info: CCV:CCV

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



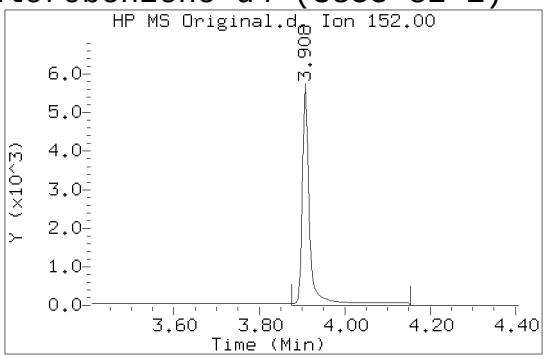
Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\36.D
Inj Date : 15-AUG-2023 23:45
InstruID : SV6.i
LabSampID : CCV-END

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

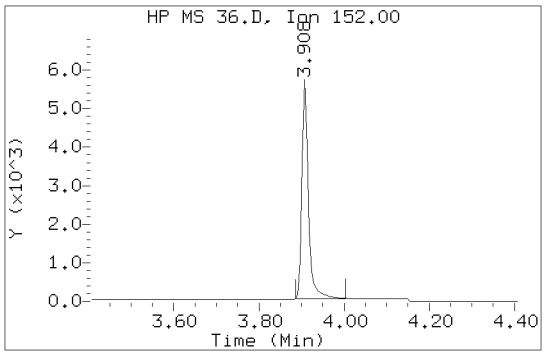
BEFORE

MASS
152
AREA
6987
HEIGHT
5751
16-Aug-2023
00:00
ALSHS
Server



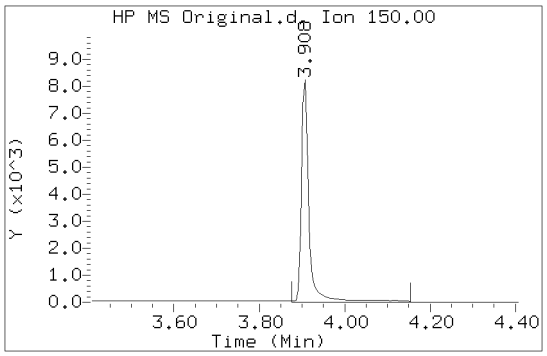
AFTER

MASS
152
AREA
5924
HEIGHT
5688
17-Aug-2023
17:58
ALSHS
Ser



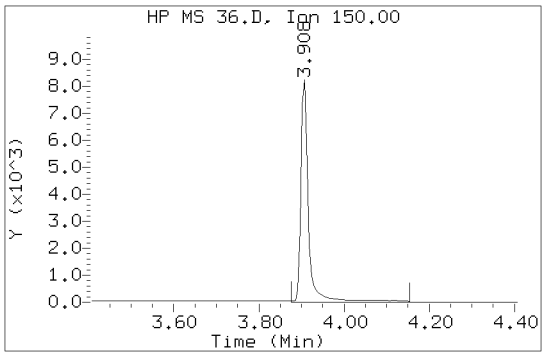
BEFORE

MASS
150
AREA
10300
HEIGHT
8234
16-Aug-2023
00:00
ALSHS
Server



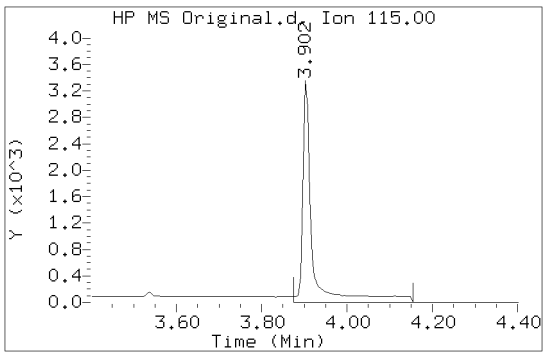
AFTER

MASS
150
AREA
10300
HEIGHT
8234
17-Aug-2023
17:58
ALSHS
Ser



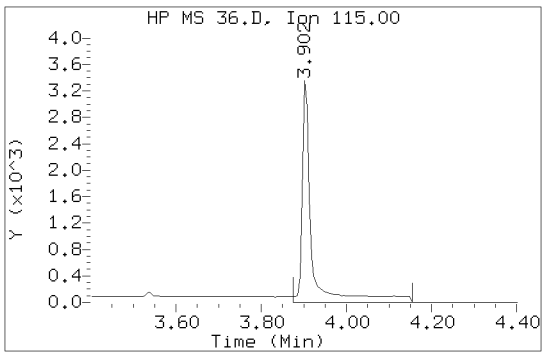
BEFORE

MASS
115
AREA
5140
HEIGHT
3354
16-Aug-2023
00:00
ALSHS
Server



AFTER

MASS
115
AREA
5140
HEIGHT
3354
17-Aug-2023
17:58
ALSHS
Ser

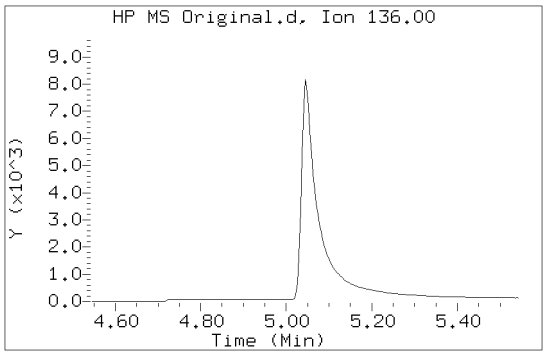


Naphthalene-d8 (1146-65-2)

Reason Code:

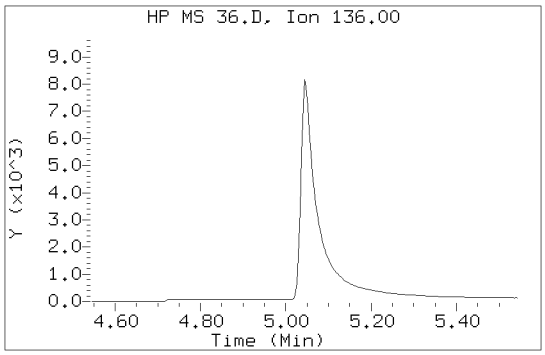
BEFORE

MASS
136
AREA
0
HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



AFTER

MASS
136
AREA
24967
HEIGHT
8092
17-Aug-2023
17:58
ALSHS
Ser



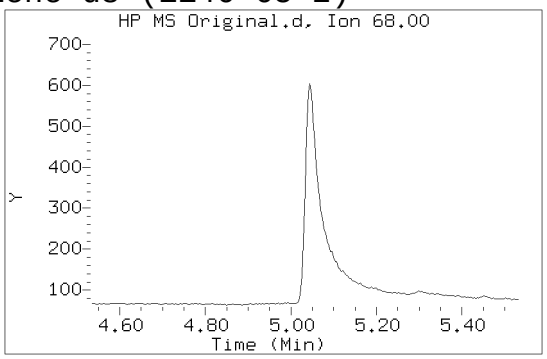
Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\36.D
Inj Date : 15-AUG-2023 23:45
InstruID : SV6.i
LabSampID : CCV-END

Naphthalene-d8 (1146-65-2)

Reason Code:

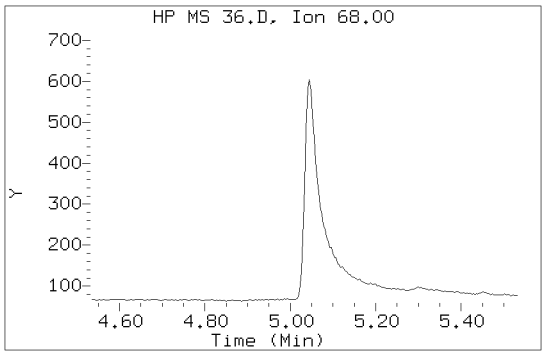
BEFORE

MASS
68
AREA
0
HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



AFTER

MASS
68
AREA
0
HEIGHT
0
17-Aug-2023
17:58
ALSHS
Ser

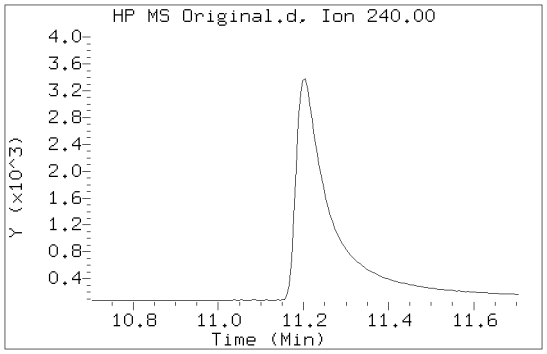


Chrysene-d12 (1719-03-5)

Reason Code:

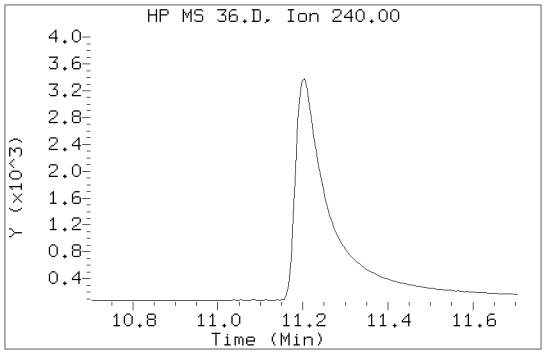
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



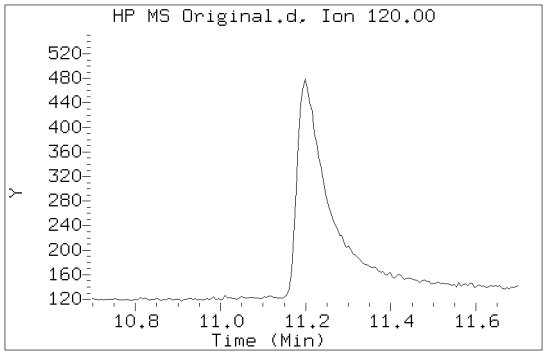
AFTER

MASS
240
AREA
21964
HEIGHT
3291
17-Aug-2023
17:58
ALSHS
Ser



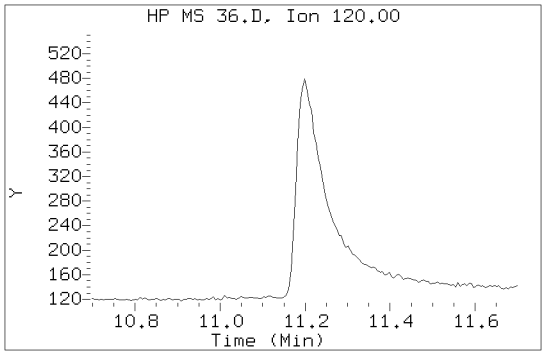
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



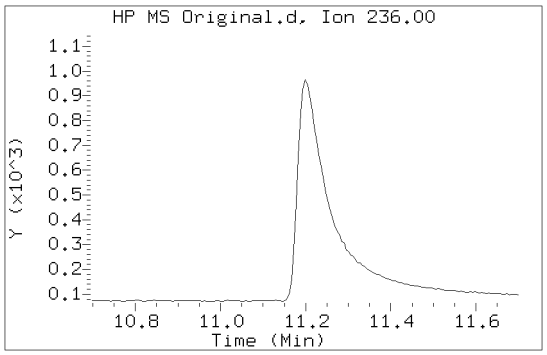
AFTER

MASS
120
AREA
2787
HEIGHT
357
17-Aug-2023
17:58
ALSHS
Ser



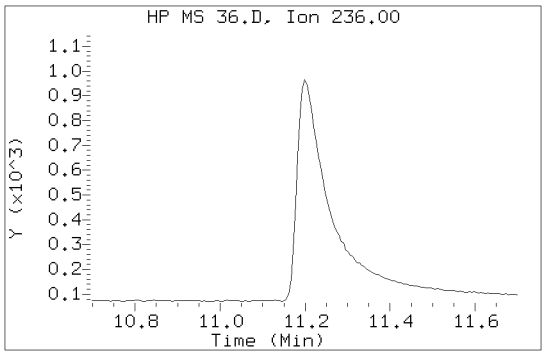
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



AFTER

MASS
236
AREA
6062
HEIGHT
892
17-Aug-2023
17:58
ALSHS
Ser

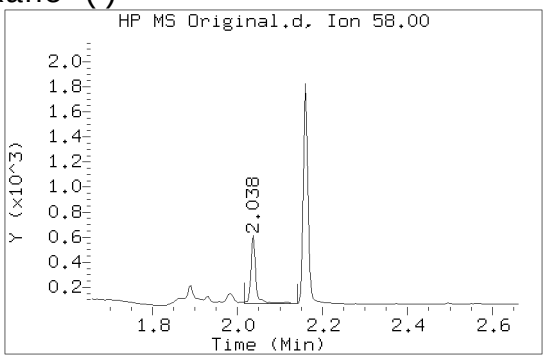


Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\36.D
Inj Date : 15-AUG-2023 23:45
InstruID : SV6.i
LabSampID : CCV-END

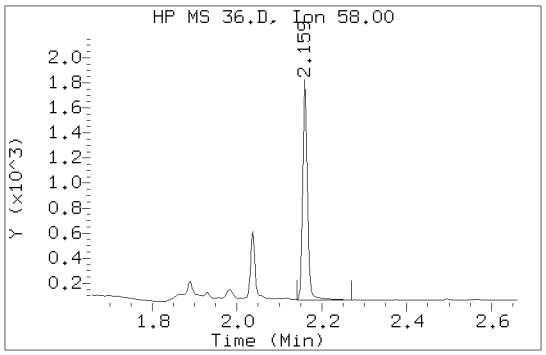
1,4-Dioxane ()

Reason Code:

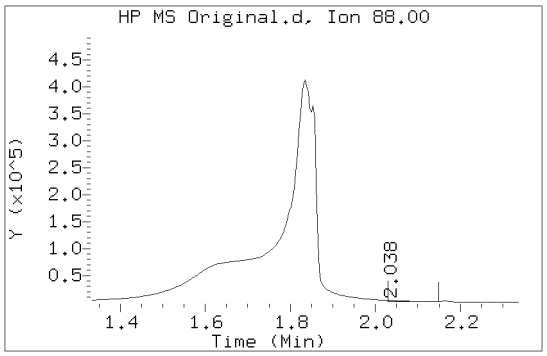
BEFORE
MASS
58
AREA
438
HEIGHT
540
16-Aug-2023
00:00
ALSHS
Server



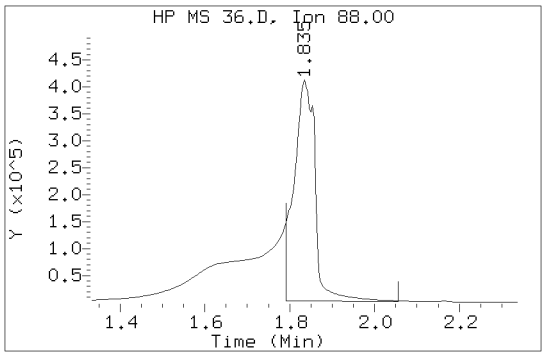
AFTER
MASS
58
AREA
1417
HEIGHT
1759
17-Aug-2023
17:58
ALSHS
Ser



BEFORE
MASS
88
AREA
7050
HEIGHT
3034
16-Aug-2023
00:00
ALSHS
Server



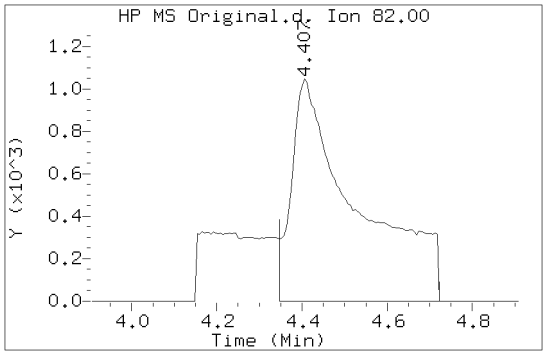
AFTER
MASS
88
AREA
1417977
HEIGHT
409749
17-Aug-2023
17:58
ALSHS
Ser



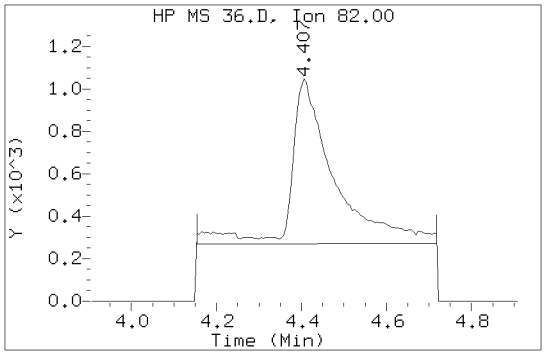
Nitrobenzene-d5 (4165-60-0)

Reason Code:

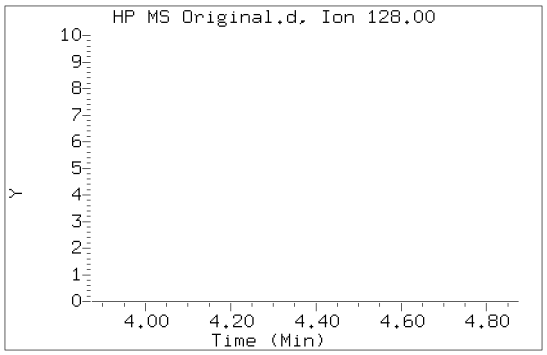
BEFORE
MASS
82
AREA
11204
HEIGHT
1047
16-Aug-2023
00:00
ALSHS
Server



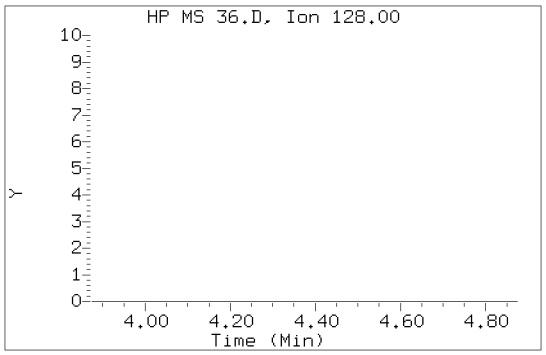
AFTER
MASS
82
AREA
5575
HEIGHT
777
17-Aug-2023
17:58
ALSHS
Ser



BEFORE
MASS
128
AREA
0
HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



AFTER
MASS
128
AREA
0
HEIGHT
0
17-Aug-2023
17:58
ALSHS
Ser



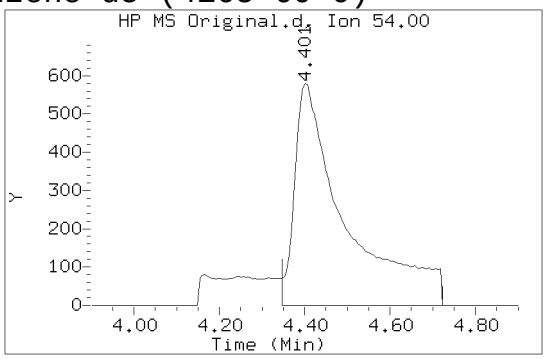
Data File : \\NAHSTWS005\Target\chem\SV6.i\230815.b\36.D
Inj Date : 15-AUG-2023 23:45
InstruID : SV6.i
LabSampID : CCV-END

Nitrobenzene-d5 (4165-60-0)

Reason Code:

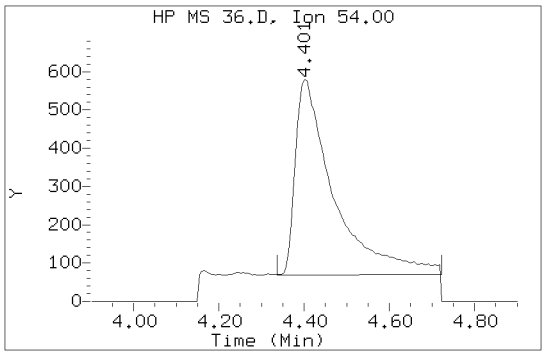
BEFORE

MASS
54
AREA
4775
HEIGHT
579
16-Aug-2023
00:00
ALSHS
Server



AFTER

MASS
54
AREA
3176
HEIGHT
509
17-Aug-2023
17:58
ALSHS
Ser

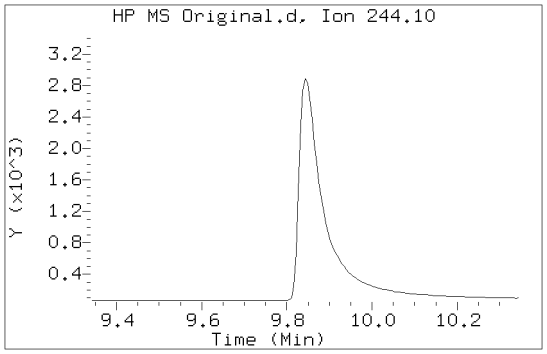


4-Terphenyl-d14 (1718-51-0)

Reason Code:

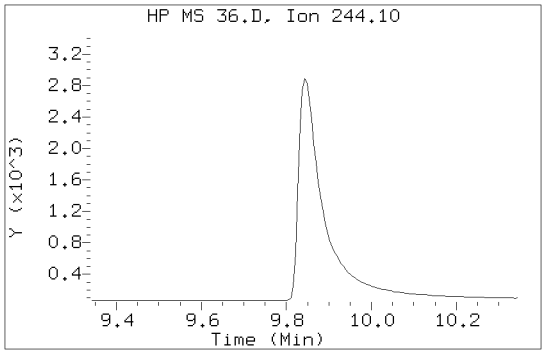
BEFORE

MASS
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AREA
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HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



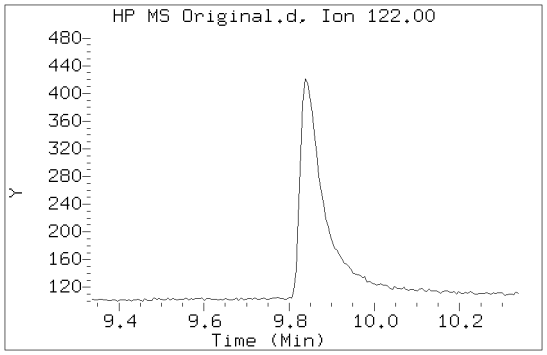
AFTER

MASS
244.1
AREA
12818
HEIGHT
2820
17-Aug-2023
17:58
ALSHS
Ser



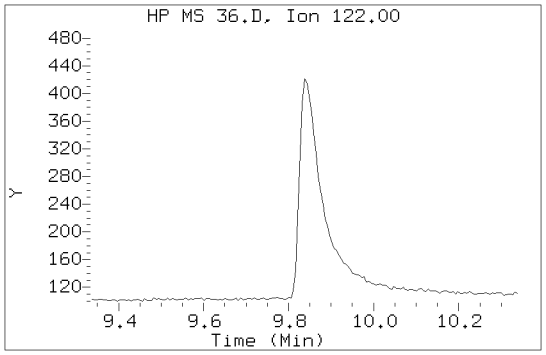
BEFORE

MASS
122
AREA
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HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



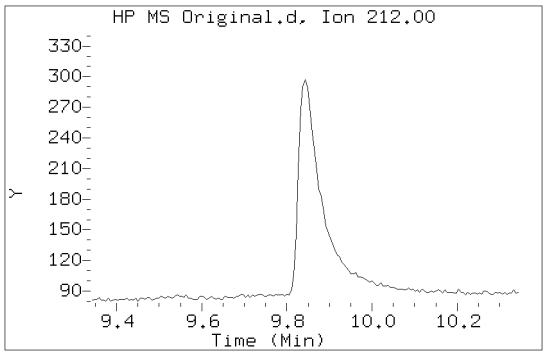
AFTER

MASS
122
AREA
1635
HEIGHT
318
17-Aug-2023
17:58
ALSHS
Ser



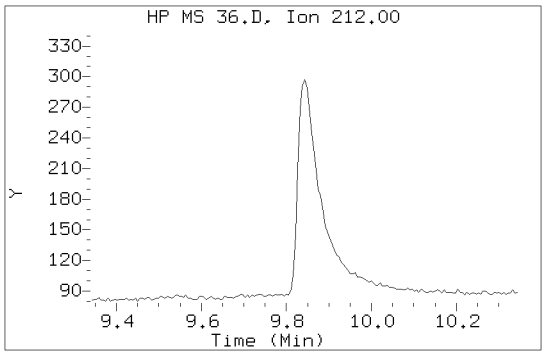
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Aug-2023
00:00
ALSHS
Server



AFTER

MASS
212
AREA
972
HEIGHT
211
17-Aug-2023
17:58
ALSHS
Ser



HS23080324 - E2300716 Perchlorate Final Report IV

ALS WO# HS23080324

August 09, 2023 Service Request No:E2300716

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23080324

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory August 05, 2023
For your reference, these analyses have been assigned our service request number **E2300716.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	□2□□□□□2
Project:	HS23080324	**Date Received:**	08/05/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 08/05/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300381: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report. Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300716
Project: HS23080324

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300716-001	1824DPTMW07_080223	8/2/2023	0810

Service Request Summary

Folder #: **E2300716**
Client Name: ALS Environmental - US
Project Name: HS23080324
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 08/05/23
Internal Due Date: 8/17/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23080324
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300716-001	1824DPTMW07_080223	Water	08/02/23 0810	**IV**

Service Request Summary

Folder #: **E2300716**
Client Name: ALS Environmental - US
Project Name: HS23080324
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 08/05/23
Internal Due Date: 8/17/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23080324
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343-2023	6/30/2024
Michigan Depratment of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932023-14	7/31/2024
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22613

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23080324
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23080324-01**	**1824DPTMW07_080223**	**Groundwater**	**02 Aug 2023 08:10**
	Provide Level II and Level IV reports in separate pdf			17 Aug 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: NR Date/Time:

Received By: CG Date/Time: 8-5-23 1114

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist JH

Client/Project ALS

Thermometer ID IR1

Date/Time Received: 8-9-23 Initials: CM Date/Time Logged in: 8-9-23 Initials CM

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☑ Courier (ALS) ○ Client

2. Samples received in: ☑ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		8-9-23	1114	CM	3.1	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☑ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☑ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☑ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☑ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☑ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 424245 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 8/9/23 09:01

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300708-001	LH18/24-SP650_080123_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300709-001	LH18/24-SP140_080123	.01	6850/ClO4 DOD			Water	10mL	
3	E2300711-001	04WW09_080123	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2300711-002	04WW10_080123	.02	6850/ClO4 DOD			Ground Water	10mL	
5	E2300711-003	04WW05_080123	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300711-004	04WW11_080123	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300711-005	04WW07_080123	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300711-006	04WW07_080123_a	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300711-007	04WW04_080123	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300711-008	04WW01_080123	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300716-001	1824DPTMW07_080223	.01	6850/ClO4 DOD			Water	10mL	
12	E2300718-001	LH18/24-SP650_080823_Between IX	.01	6850/ClO4 DOD			Water	10mL	
13	E2300718-002	LH18/24-SP650_080823_AIX	.01	6850/ClO4 DOD			Water	10mL	
14	E2300718-003	LH18/24-SP650_080823_BIX	.01	6850/ClO4 DOD			Water	10mL	
15	EQ2300381-01	MB		6850/ClO4			Liquid	10mL	
16	EQ2300381-02	LCS		6850/ClO4			Liquid	10mL	
17	EQ2300381-03	DLCS		6850/ClO4			Liquid	10mL	
18	EQ2300381-04	04WW10_080123 MS	.02	6850/ClO4 DOD			Liquid	10mL	
19	EQ2300381-05	04WW10_080123 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
20	K2308781-001	LGAC-INF-080723	.01	6850/ClO4			Water	10mL	
21	K2308781-002	LGAC-INT1-080723	.01	6850/ClO4			Water	10mL	
22	K2308781-003	LGAC-INT2-080723	.01	6850/ClO4			Water	10mL	
23	R2306562-017	2307210621 PFE-1	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 230342 Logbook Ref: Perchlorate (1st Source) Expires On: 03/07/2024

EQ2300381-02	1.00µL	EQ2300381-02	1.00µL	EQ2300381-03	1.00µL	EQ2300381-03	1.00µL	EQ2300381-04	1.00µL	EQ2300381-05	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 230372 Logbook Ref: Perchlorate Internal Standard Expires On: 04/30/2024

E2300708-001	100.00µL	E2300709-001	100.00µL	E2300711-001	100.00µL	E2300711-002	100.00µL	E2300711-003	100.00µL	E2300711-004	100.00µL
E2300711-005	100.00µL	E2300711-006	100.00µL	E2300711-007	100.00µL	E2300711-008	100.00µL	E2300716-001	100.00µL	E2300718-001	100.00µL
E2300718-002	100.00µL	E2300718-003	100.00µL	EQ2300381-01	100.00µL	EQ2300381-01	100.00µL	EQ2300381-02	100.00µL	EQ2300381-02	100.00µL
EQ2300381-03	100.00µL	EQ2300381-03	100.00µL	EQ2300381-04	100.00µL	EQ2300381-05	100.00µL	K2308781-001	100.00µL	K2308781-002	100.00µL
K2308781-003	100.00µL	R2306562-017	100.00µL								

Preparation Information Benchsheet

Prep Run#: 424245 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 8/9/23 09:01

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229315)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45 SYRING FILTER (229979)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 8/9/23 09:01
Finished: 8/9/23 09:53
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Collected:**	8/ 2/23 0810
Sample Matrix:	Water	**Date Received:**	8/ 5/23
Sample Name:	1824DPTMW07_080223	**Units:**	µg/L
Lab Code:	E2300716-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.126**		0.100	0.0500	0.0250	1	8/ 9/23	8/9/23 11:08	424245	813305	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300381-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	8/ 9/23	8/9/23 10:23	424245	813305	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23080324
Sample Matrix: Water

Service Request: E2300716
Date Analyzed: 8/ 9/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 424245

	Lab Control Sample EQ2300381-02			Duplicate Lab Control Sample EQ2300381-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0995	0.100	100	0.102	0.100	102	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300381-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0995**	J	0.100	0.0500	0.0250	1	8/ 9/23	8/9/23 10:29	424245	813305	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300381-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.102**		0.100	0.0500	0.0250	1	8/ 9/23	8/9/23 10:34	424245	813305	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230802

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: KN

ICAL Date: 8/2/2023
Cal. Std. xp: 03/07/2024
ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 **B:**Acetonitrile 229152

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		2230802-001	Perchlorate6850c.lcm	1x		8/2/2023 13:05
2	IB		2230802-002	Perchlorate6850c.lcm	1x		8/2/2023 13:11
3	Perchlorate ICAL 1		2230802-003	Perchlorate6850c.lcm	1x	230373	8/2/2023 13:17
4	Perchlorate ICAL 2		2230802-004	Perchlorate6850c.lcm	1x	230375	8/2/2023 13:23
5	Perchlorate ICAL 3		2230802-005	Perchlorate6850c.lcm	1x	230376	8/2/2023 13:28
6	Perchlorate ICAL 4		2230802-006	Perchlorate6850c.lcm	1x	230377	8/2/2023 13:34
7	Perchlorate ICAL 5		2230802-007	Perchlorate6850c.lcm	1x	230378	8/2/2023 13:39
8	Perchlorate ICAL 6		2230802-008	Perchlorate6850c.lcm	1x	230379	8/2/2023 13:45
9	Perchlorate ICAL 7		2230802-009	Perchlorate6850c.lcm	1x	230380	8/2/2023 13:50
10	Perchlorate ICAL 8		2230802-010	Perchlorate6850c.lcm	1x	230381	8/2/2023 13:56
11	Perchlorate ICAL 9		2230802-011	Perchlorate6850c.lcm	1x	230382	8/2/2023 14:02
12	Perchlorate ICAL 10		2230802-012	Perchlorate6850c.lcm	1x	230383	8/2/2023 14:07
13	PerchlorateICV		2230802-013	Perchlorate6850c.lcm	1x	230385	8/2/2023 14:19

Initial Calibration - Detailed Report

Calibration ID: EC2300012 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300012-01	Perchlorate ICAL 1	2230802-003	08/02/2023 13:17
02	EC2300012-02	Perchlorate ICAL 2	2230802-004	08/02/2023 13:23
03	EC2300012-03	Perchlorate ICAL 3	2230802-005	08/02/2023 13:28
04	EC2300012-04	Perchlorate ICAL 4	2230802-006	08/02/2023 13:34
05	EC2300012-05	Perchlorate ICAL 5	2230802-007	08/02/2023 13:39
06	EC2300012-06	Perchlorate ICAL 6	2230802-008	08/02/2023 13:45
07	EC2300012-07	Perchlorate ICAL 7	2230802-009	08/02/2023 13:50
08	EC2300012-08	Perchlorate ICAL 8	2230802-010	08/02/2023 13:56
09	EC2300012-09	Perchlorate ICAL 9	2230802-011	08/02/2023 14:02
10	EC2300012-10	Perchlorate ICAL 10	2230802-012	08/02/2023 14:07

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 2.086** **Average RF = 0.1475**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1428	02	0.5000	0.1421	03	0.7000	0.1457	04	1.0000	0.149
05	2.0000	0.1515	06	5.0000	0.1475	07	10.0000	0.1503	08	20.0000	0.1477
09	30.0000	0.1485	10	50.0000	0.1496						

Analyte

Perchlorate RSE = 2.09

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0968	-3.2	02	0.5000	0.482	-3.6	03	0.7000	0.692	-1.2
04	1.0000	1.01	1.0	05	2.0000	2.05	2.7	06	5.0000	5.00	-0.0
07	10.0000	10.2	1.9	08	20.0000	20.0	0.2	09	30.0000	30.2	0.7
10	50.0000	50.7	1.4								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300012	**Instrument ID:**	E-LCMS-01
Datafile ID:	2230802-013	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300012-11	T	Average RF	10	10.670	ng/mL	6.7	<= 15

Insight Report

Printed at 8/3/2023 9:30:46 AM

Method File: I:\LCMS01\DATA\20230802\20230802ICAL.lcm
Project File: I:\LCMS01\DATA\20230802\no use\20230802ICAL.damlp

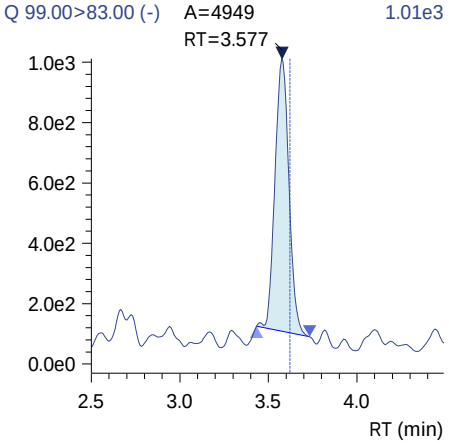
Perchlorate ICAL 1

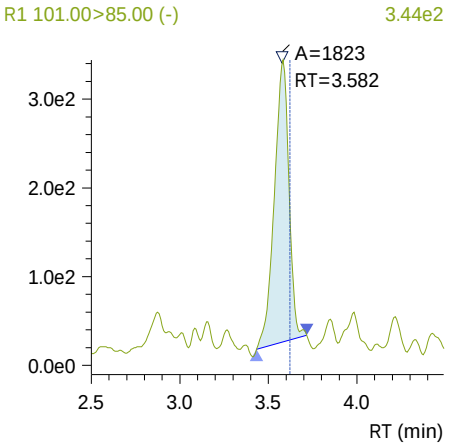
Sample ID: Perchlorate ICAL 1
Date Acquired: 8/2/2023 1:17:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-003.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.577	4949	346538	0.0968	ng/mL	101.00 >85.00	36.83	21.29-39.54
Sodium Perchlorate-18O4 _IS	Auto	3.572	346538	346538	1.0000	ng/mL	----	----	

Perchlorate

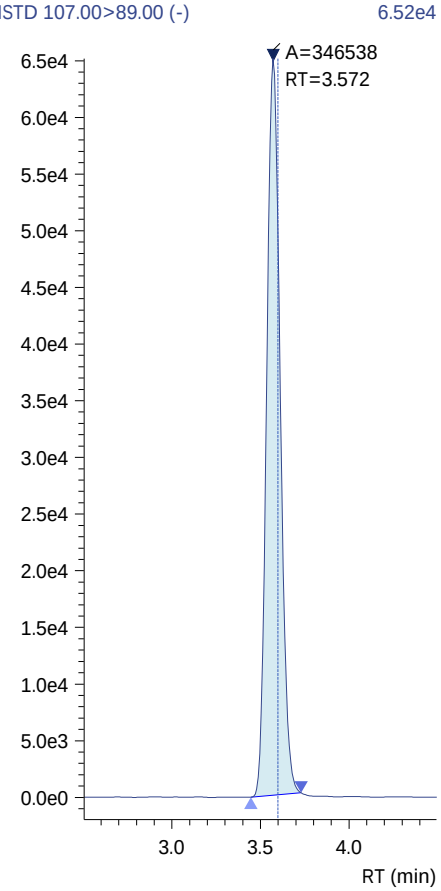
Conc 0.0968
R#1 36.83 (30.41)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

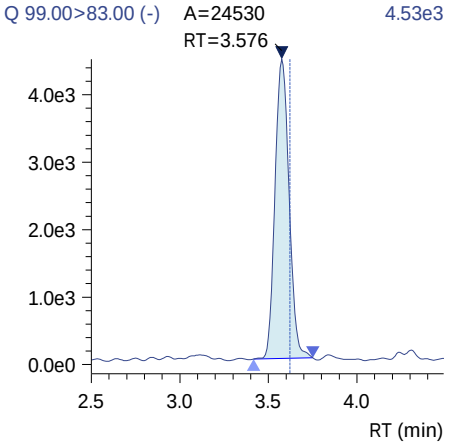
Perchlorate ICAL 2

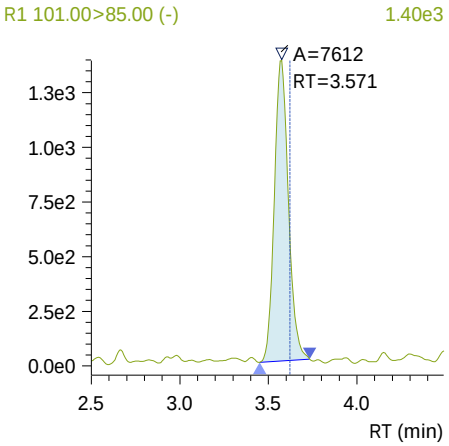
Sample ID: Perchlorate ICAL 2
Date Acquired: 8/2/2023 1:23:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-004.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.576	24530	345149	0.4820	ng/mL	101.00 >85.00	31.03	21.29-39.54
Sodium Perchlorate-18O4 _IS	Auto	3.571	345149	345149	1.0000	ng/mL	----	----	

Perchlorate

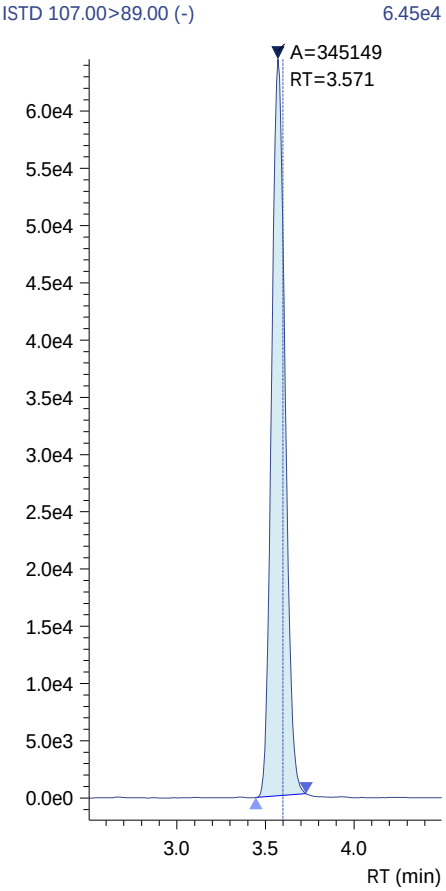
Conc 0.4820
R#1 31.03 (30.41)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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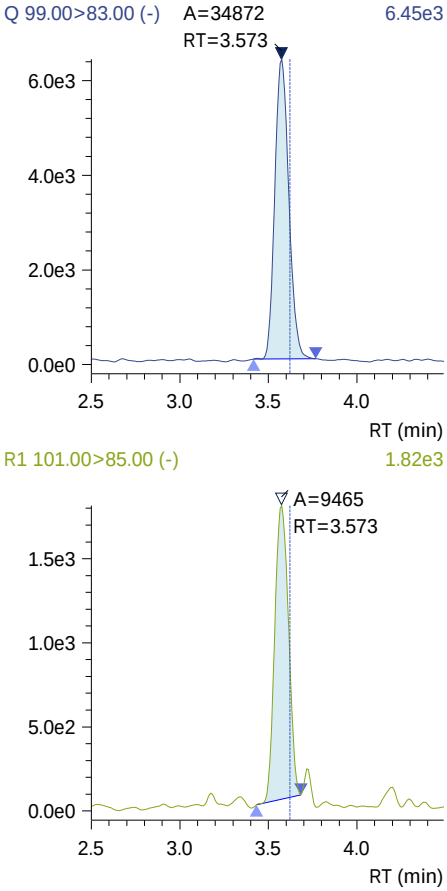
Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3
Date Acquired: 8/2/2023 1:28:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-005.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	34872	341974	0.6915	ng/mL	101.00 >85.00	27.14	21.29-39.54
Sodium Perchlorate-18O4 _IS	Auto	3.570	341974	341974	1.0000	ng/mL	----	----	

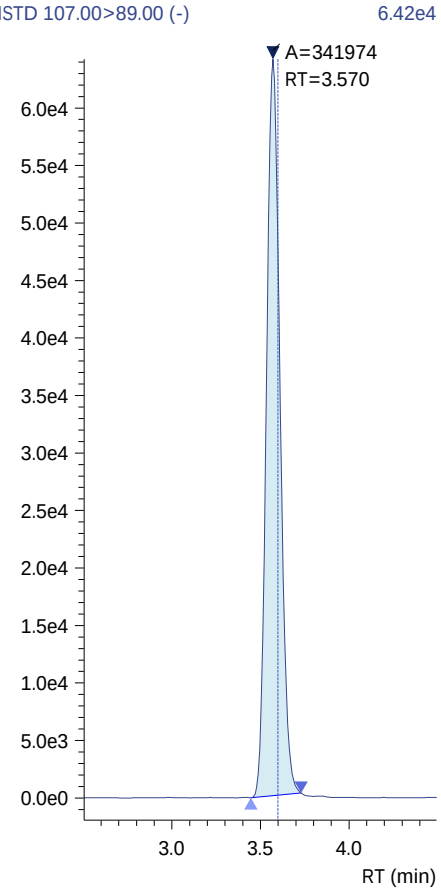
Perchlorate

Conc 0.6915
R#1 27.14 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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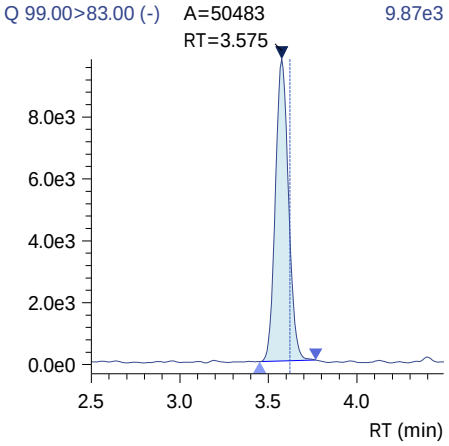
Perchlorate ICAL 4

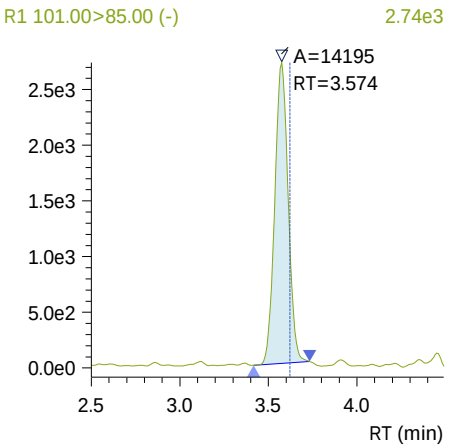
Sample ID: Perchlorate ICAL 4
Date Acquired: 8/2/2023 1:34:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-006.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	50483	338838	1.0104	ng/mL	101.00 >85.00	28.12	21.29-39.54
Sodium Perchlorate-18O4 _IS	Auto	3.570	338838	338838	1.0000	ng/mL	----	----	

Perchlorate

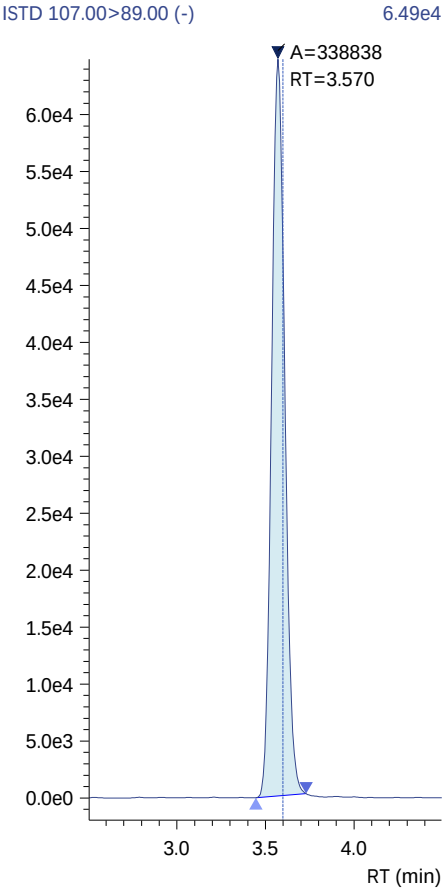
Conc 1.0104
R#1 28.12 (30.41)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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Perchlorate ICAL 5

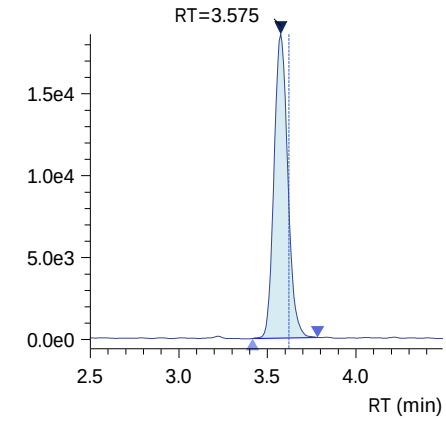
Sample ID: Perchlorate ICAL 5
Date Acquired: 8/2/2023 1:39:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-007.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.575	100319	331124	2.0545	ng/mL	101.00 >85.00	27.89	21.29-39.54
Sodium Perchlorate-18O4 _IS	Auto	3.570	331124	331124	1.0000	ng/mL	----	----	

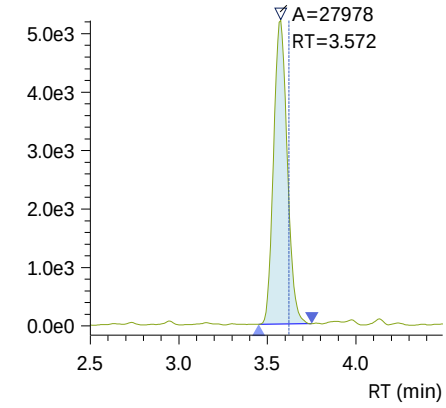
Perchlorate

Conc 2.0545
R#1 27.89 (30.41)

Q 99.00>83.00 (-) A=100319 1.86e4



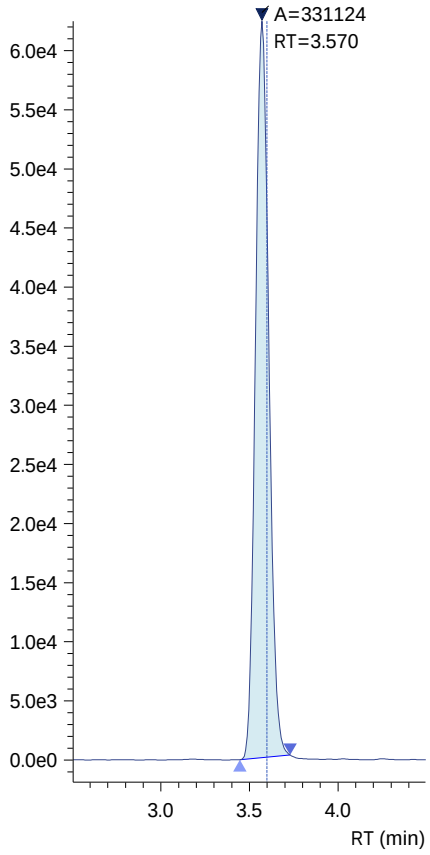
R1 101.00>85.00 (-) 5.22e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.25e4



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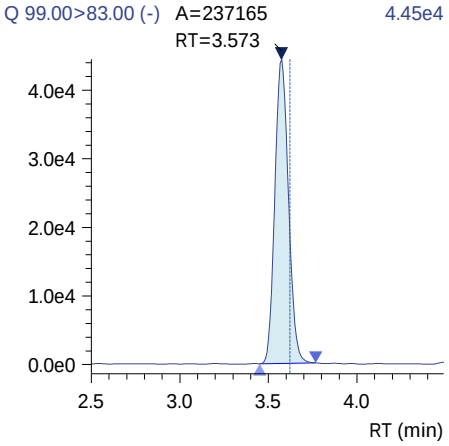
Perchlorate ICAL 6

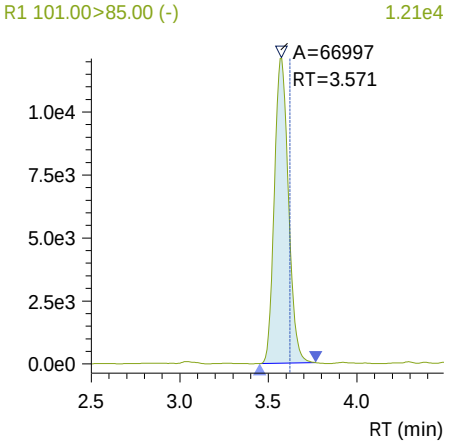
Sample ID: Perchlorate ICAL 6
Date Acquired: 8/2/2023 1:45:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-008.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	237165	321666	5.0000	ng/mL	101.00 >85.00	28.25	21.29-39.54
Sodium Perchlorate-18O4 _IS	Auto	3.570	321666	321666	1.0000	ng/mL	----	----	

Perchlorate

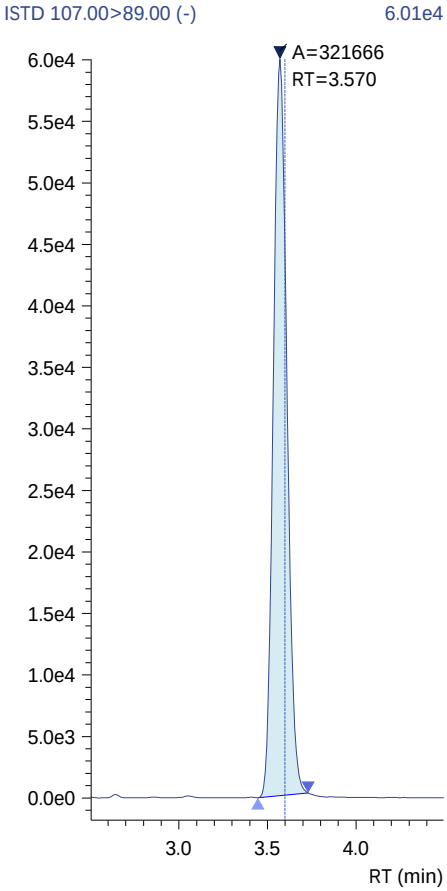
Conc 5.0000
R#1 28.25 (30.41)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

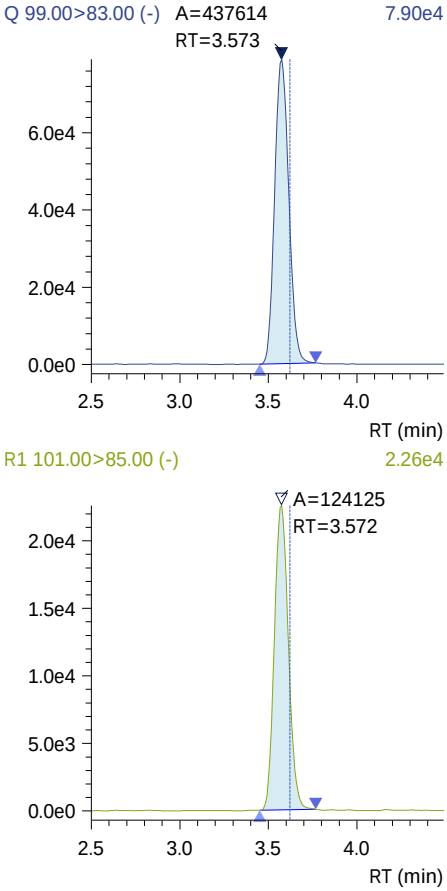
Perchlorate ICAL 7

Sample ID: Perchlorate ICAL 7
Date Acquired: 8/2/2023 1:50:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-009.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	437614	291215	10.1905	ng/mL	101.00 >85.00	28.36	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291215	291215	1.0000	ng/mL	----	----	

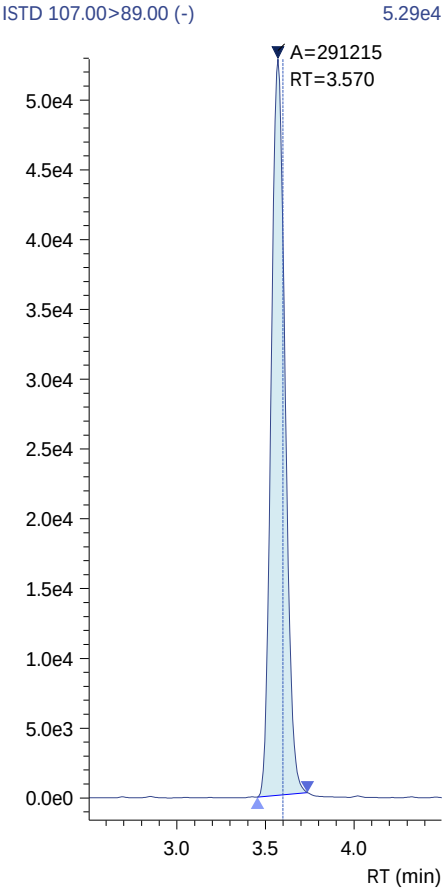
Perchlorate

Conc 10.1905
R#1 28.36 (30.41)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 8

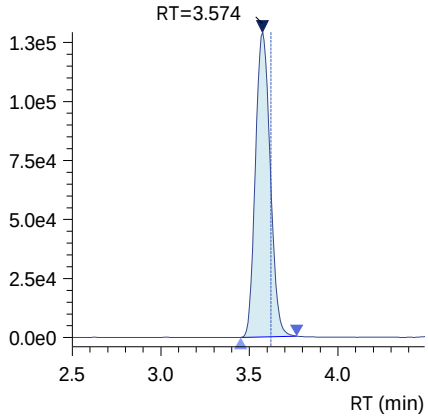
Sample ID: Perchlorate ICAL 8
Date Acquired: 8/2/2023 1:56:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-010.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	749856	253829	20.03 36	ng/mL	101.00 >85.00	28.56	21.29-39.54
Sodium Perchlorate-18O4 _IS	Auto	3.569	253829	253829	1.0000	ng/mL	----	----	

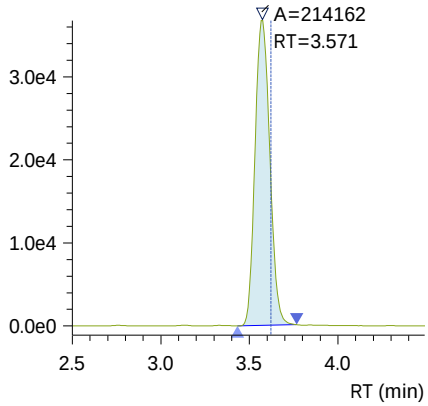
Perchlorate

Conc 20.0336
R#1 28.56 (30.41)

Q 99.00>83.00 (-) A=749856 1.29e5



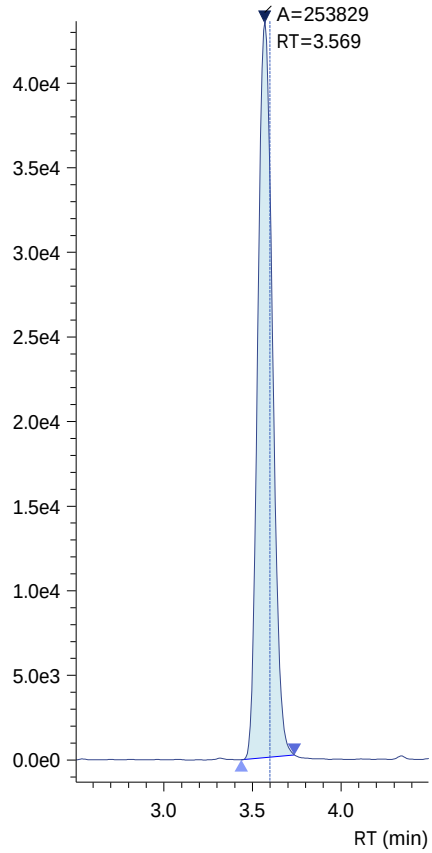
R1 101.00>85.00 (-) 3.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.37e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 9

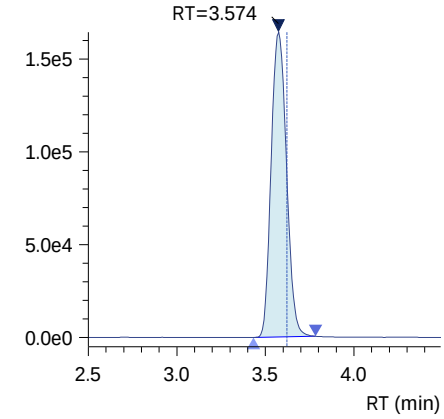
Sample ID: Perchlorate ICAL 9
Date Acquired: 8/2/2023 2:02:07 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-011.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	990671	222379	30.2105	ng/mL	101.00 >85.00	27.95	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.568	222379	222379	1.0000	ng/mL	----	----	

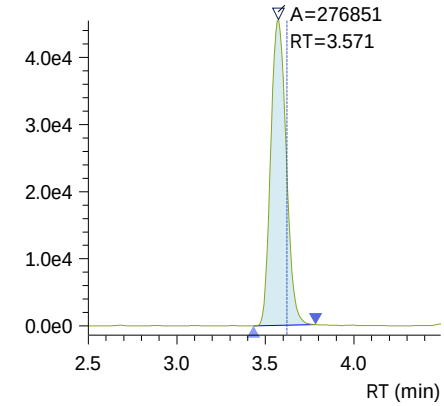
Perchlorate

Conc 30.2105
R#1 27.95 (30.41)

Q 99.00>83.00 (-) A=990671 1.64e5



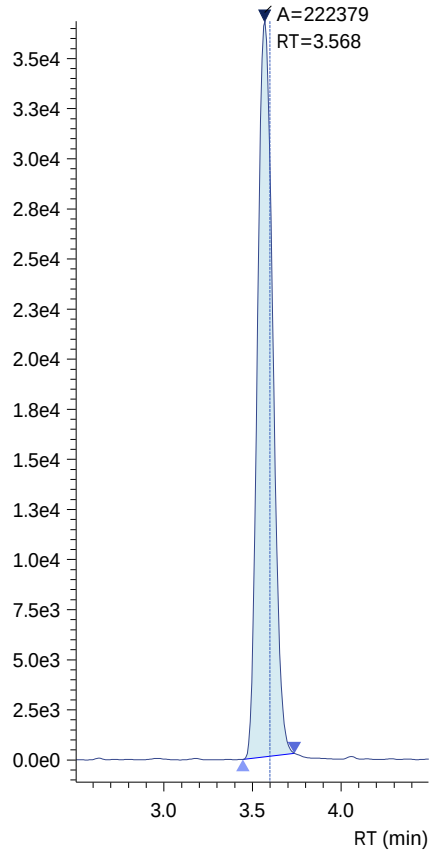
R1 101.00>85.00 (-) 4.55e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.69e4



Insight Report

Printed at 8/3/2023 9:30:46 AM

Perchlorate ICAL 10

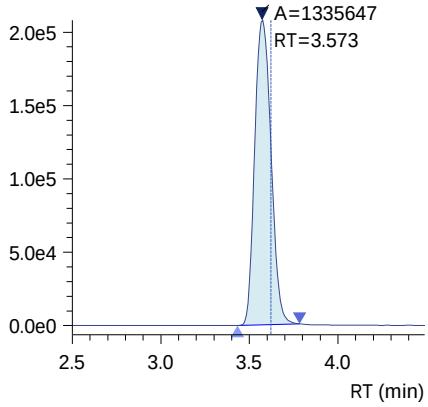
Sample ID: Perchlorate ICAL 10
Date Acquired: 8/2/2023 2:07:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-012.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.573	1335647	178573	50.72 20	ng/mL	101.00 >85.00	28.04	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.567	178573	178573	1.0000	ng/mL	----	----	

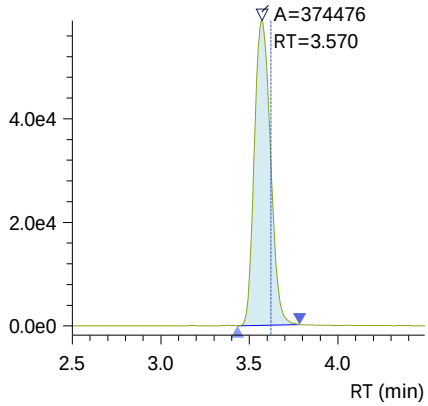
Perchlorate

Conc 50.7220
R#1 28.04 (30.41)

Q 99.00>83.00 (-) 2.08e5



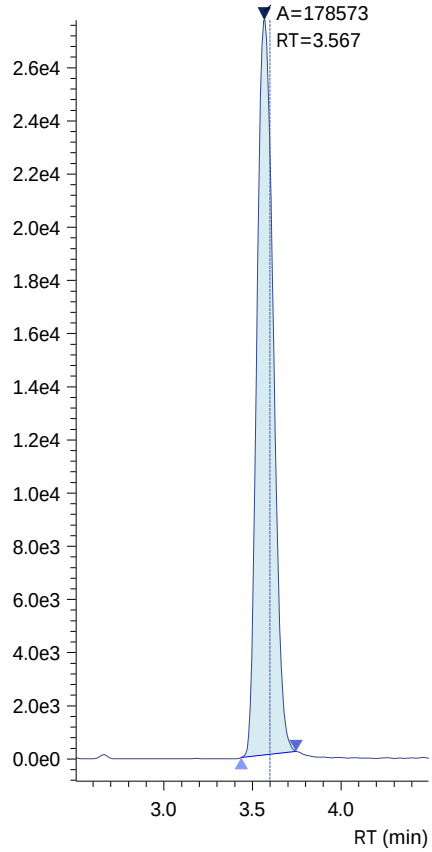
R1 101.00>85.00 (-) 5.90e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.78e4



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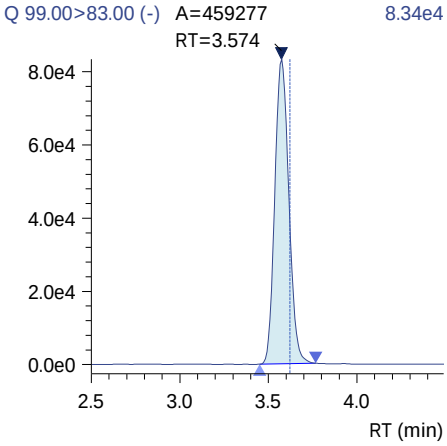
PerchlorateICV

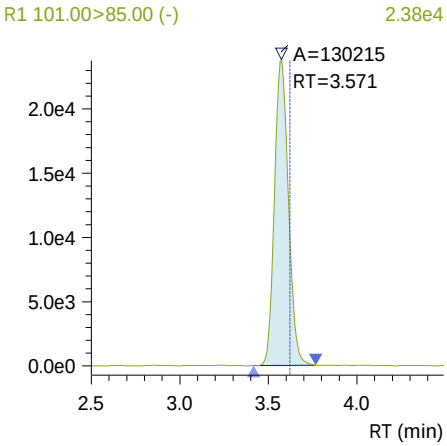
Sample ID: PerchlorateICV
Date Acquired: 8/2/2023 2:19:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230802\2230802-013.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.574	459277	291890	10.6703	ng/mL	101.00 >85.00	28.35	21.29-39.54
Sodium Perchlorate-18O4_IS	Auto	3.570	291890	291890	1.0000	ng/mL	----	----	

Perchlorate

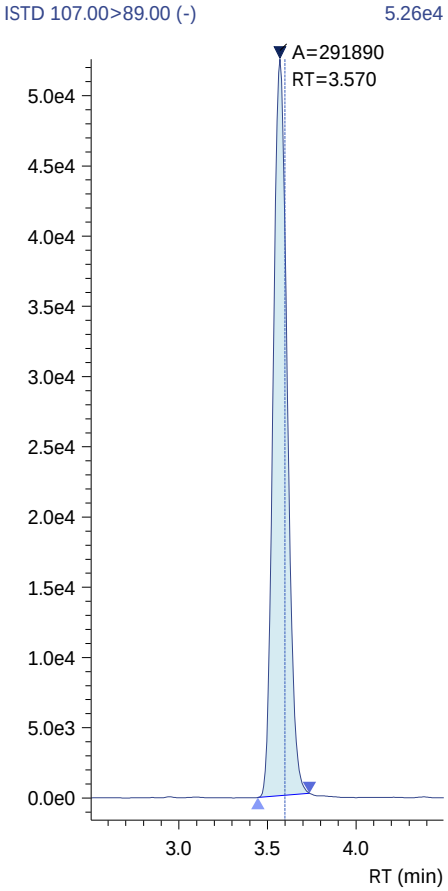
Conc 10.6703
R#1 28.35 (30.41)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230808-813305

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: KN

ICAL Date: 8/2/2023
Cal. Std. xp: 03/07/2024
ICAL ID: EC2300012

Mobile Phases : A:20mM ammonium acetate in water 230388 **B:**Acetonitrile 229152

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		2230808-001	Perchlorate6850c.lcm	1x		8/9/2023 9:59
2	LODV		2230808-002	Perchlorate6850c.lcm	1x	230386	8/9/2023 10:04
3	ICS		2230808-003	Perchlorate6850c.lcm	1x		8/9/2023 10:10
4	CCV		2230808-004	Perchlorate6850c.lcm	1x	230380	8/9/2023 10:18
5	EQ2300381-01		2230808-005	Perchlorate6850c.lcm	1x		8/9/2023 10:23
6	EQ2300381-02		2230808-006	Perchlorate6850c.lcm	1x		8/9/2023 10:29
7	EQ2300381-03		2230808-007	Perchlorate6850c.lcm	1x		8/9/2023 10:34
8	K2308781-001		2230808-008	Perchlorate6850c.lcm	1x		8/9/2023 10:46
9	K2308781-002		2230808-009	Perchlorate6850c.lcm	1x		8/9/2023 10:51
10	K2308781-003		2230808-010	Perchlorate6850c.lcm	1x		8/9/2023 10:57
11	R2306562-017		2230808-011	Perchlorate6850c.lcm	1x		8/9/2023 11:02
12	E2300716-001		2230808-012	Perchlorate6850c.lcm	1x		8/9/2023 11:08
13	E2300708-001		2230808-013	Perchlorate6850c.lcm	1x		8/9/2023 11:14
14	E2300709-001		2230808-014	Perchlorate6850c.lcm	1000x		8/9/2023 11:19
15	CCV		2230808-015	Perchlorate6850c.lcm	1x	230380	8/9/2023 11:25
16	E2300711-002		2230808-017	Perchlorate6850c.lcm	1x		8/9/2023 11:36
17	EQ2300381-04		2230808-018	Perchlorate6850c.lcm	1x		8/9/2023 11:41
18	EQ2300381-05		2230808-019	Perchlorate6850c.lcm	1x		8/9/2023 11:47
19	E2300711-001		2230808-016	Perchlorate6850c.lcm	1x	DNU-IS	8/9/2023 11:30
20	E2300711-003		2230808-020	Perchlorate6850c.lcm	1x		8/9/2023 11:53
21	E2300711-004		2230808-021	Perchlorate6850c.lcm	1x		8/9/2023 11:58
22	E2300711-005		2230808-022	Perchlorate6850c.lcm	1x		8/9/2023 12:04
23	E2300711-006		2230808-023	Perchlorate6850c.lcm	1x		8/9/2023 12:09
24	E2300711-007		2230808-024	Perchlorate6850c.lcm	1x		8/9/2023 12:15
25	E2300711-008		2230808-025	Perchlorate6850c.lcm	1x		8/9/2023 12:20
26	CCV		2230808-026	Perchlorate6850c.lcm	1x	230380	8/9/2023 12:26
27	E2300711-001		2230808-027	Perchlorate6850c.lcm	1x		8/9/2023 12:44
28	E2300718-001		2230808-028	Perchlorate6850c.lcm	1x		8/9/2023 13:06
29	E2300718-002		2230808-029	Perchlorate6850c.lcm	1x		8/9/2023 13:12
30	E2300718-003		2230808-030	Perchlorate6850c.lcm	10x		8/9/2023 13:29
32	CCV		2230803-031	Perchlorate6850c.lcm	1x	230380	8/3/2023 12:04

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Analyzed:**	8/9/23 10:18

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230808\2230808-004	**Lab Code:**	EQ2300385-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	813305
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	297,129	3.57
	Upper Limit ==>	445,694	5.57
	Lower Limit ==>	148,565	1.57
Associated Analyses			
Continuing Calibration Verification	EQ2300385-01	293,010	3.58
Method Blank	EQ2300381-01	348,388	3.58
Lab Control Sample	EQ2300381-02	345,049	3.58
Duplicate Lab Control Sample	EQ2300381-03	340,635	3.58
1824DPTMW07_080223	E2300716-001	387,937	3.58

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Analyzed:**	8/9/23 11:25

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230808\2230808-015	**Lab Code:**	EQ2300385-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	813305
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	297,129	3.57
	Upper Limit ==>	445,694	5.57
	Lower Limit ==>	148,565	1.57
Associated Analyses			
Continuing Calibration Verification	EQ2300385-02	289,217	3.58

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Analyzed:**	8/9/23 12:26

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230808\2230808-026	**Lab Code:**	EQ2300385-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	813305
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	297,129	3.57
	Upper Limit ==>	445,694	5.57
	Lower Limit ==>	148,565	1.57
Associated Analyses			
Continuing Calibration Verification	EQ2300385-03	292,242	3.58

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300716
Project:	HS23080324	**Date Analyzed:**	8/9/23 13:38

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230808\2230808-031	**Lab Code:**	EQ2300385-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	813305
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	297,129	3.57
	Upper Limit ==>	445,694	5.57
	Lower Limit ==>	148,565	1.57
Associated Analyses			
Continuing Calibration Verification	EQ2300385-04	288,788	3.58

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23080324

Service Request: E2300716
Date Analyzed: 8/ 9/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230808\2230808-004

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 813305
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.3	0.1475	0.1513	2.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23080324

Service Request: E2300716
Date Analyzed: 8/ 9/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230808\2230808-015

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 813305
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1475	0.1511	2.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23080324

Service Request: E2300716
Date Analyzed: 8/ 9/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230808\2230808-026

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 813305
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1475	0.1495	1.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23080324

Service Request: E2300716
Date Analyzed: 8/ 9/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230808\2230808-031

Calibration Date: 8/2/23
Calibration ID: EC2300012
Analysis Lot: 813305
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1475	0.1505	2.1	NA	± 15 %	Average RF

Insight Report

Printed at 8/9/2023 1:55:45 PM

Method File: I:\LCMS01\DATA\20230808\20230808.lcm
Project File: I:\LCMS01\DATA\20230808\20230808.damlp

IB

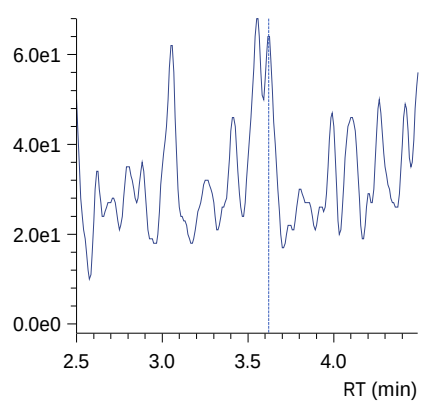
Sample ID: IB
Date Acquired: 8/9/2023 9:59:05 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-001.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	376063	----	ng/mL	101.00 >85.00	0.00	19.41-36.06
Sodium Perchlorate-18O4_IS	Auto	3.582	376063	376063	1.0000	ng/mL	----	----	

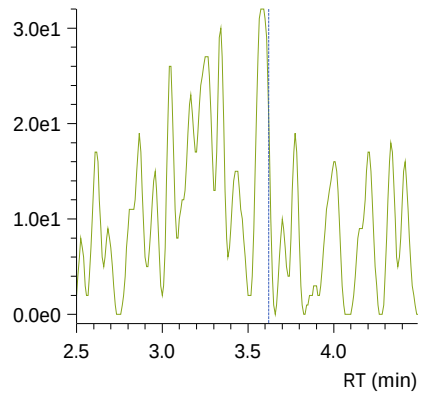
Perchlorate

Conc ----
R#1 0.00 (27.74)

Q 99.00>83.00 (-) 6.80e1



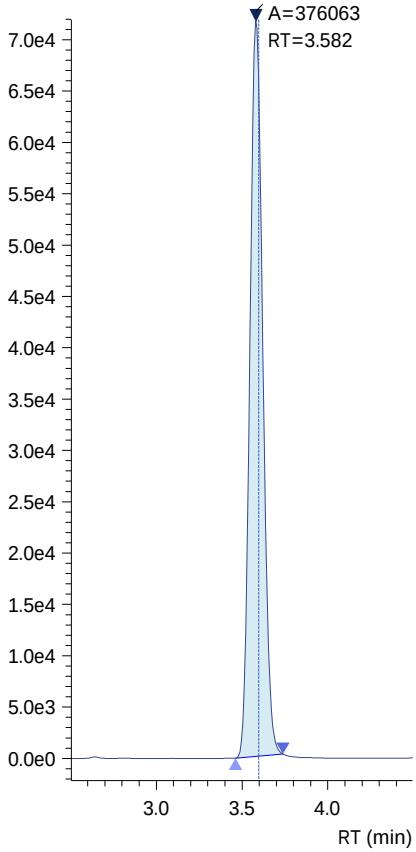
R1 101.00>85.00 (-) 3.20e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.20e4



Insight Report

Printed at 8/9/2023 1:55:45 PM

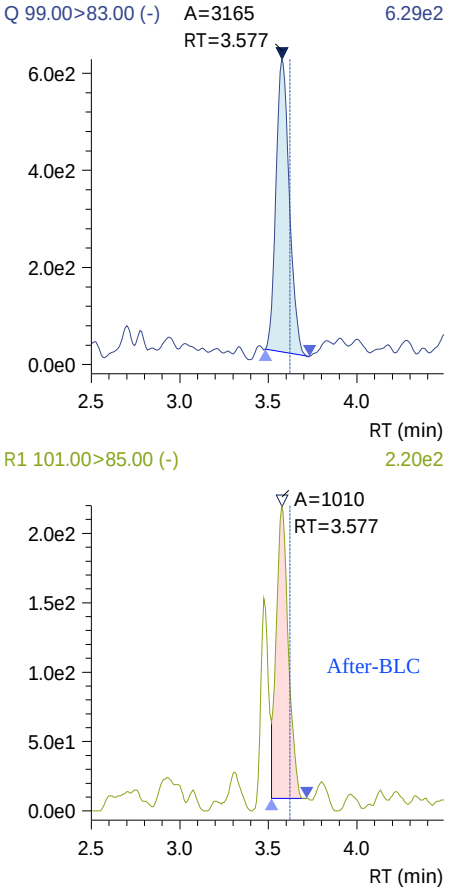
LODV

Sample ID: LODV
Date Acquired: 8/9/2023 10:04:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-002.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.577	3165	350096	0.0613	ng/mL	101.00 >85.00	31.90	19.41-36.06
Sodium Perchlorate-18O4 _IS	Auto	3.580	3500 96	350096	1.0000	ng/mL	----	----	

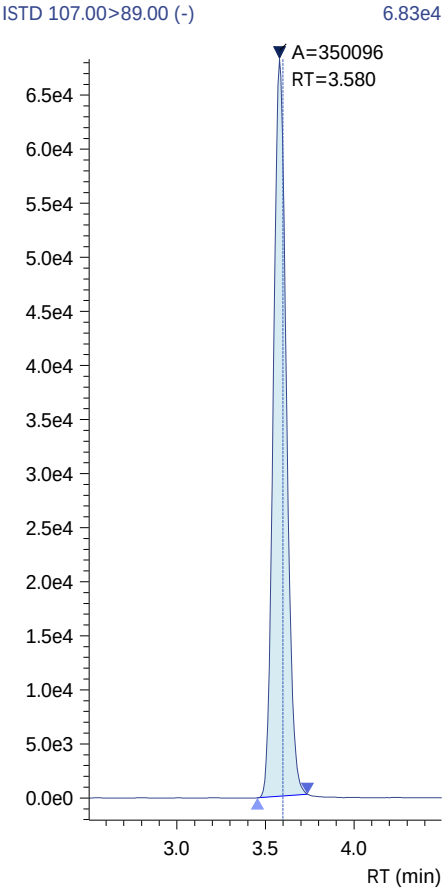
Perchlorate

Conc 0.0613
R#1 31.90 (27.74)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/9/2023 1:59:12 PM

Method File: I:\LCMS01\DATA\20230808\20230808.lcm
Project File: I:\LCMS01\DATA\20230808\20230808.damlp

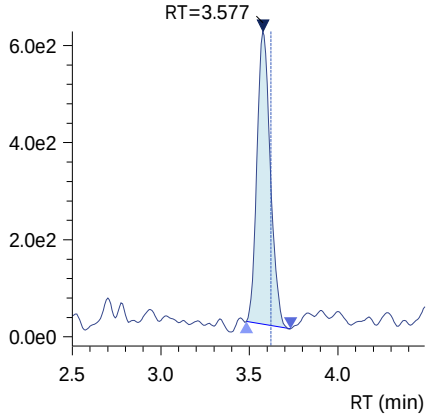
LODV

Sample ID: LODV
Date Acquired: 8/9/2023 10:04:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-002.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

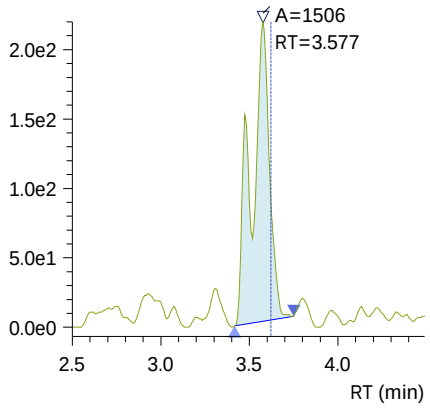
Perchlorate

Conc 0.0613
R#1 47.59 (27.74)

Q 99.00>83.00 (-) A=3165 6.29e2



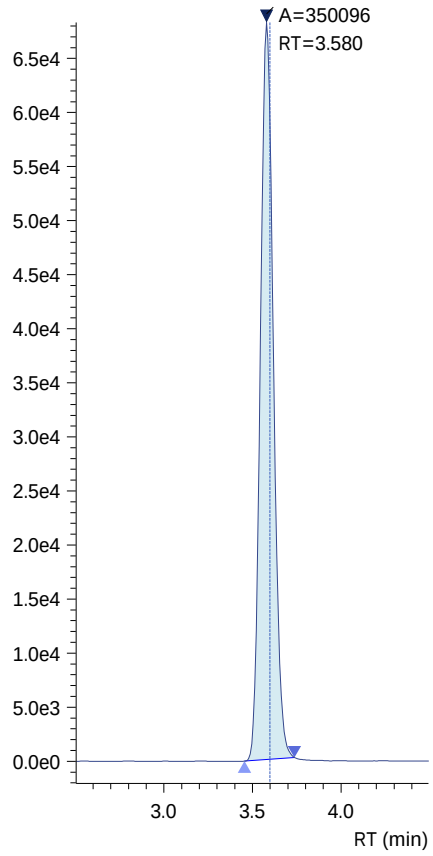
R1 101.00>85.00 (-) 2.20e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.83e4



Insight Report

Printed at 8/9/2023 1:55:45 PM

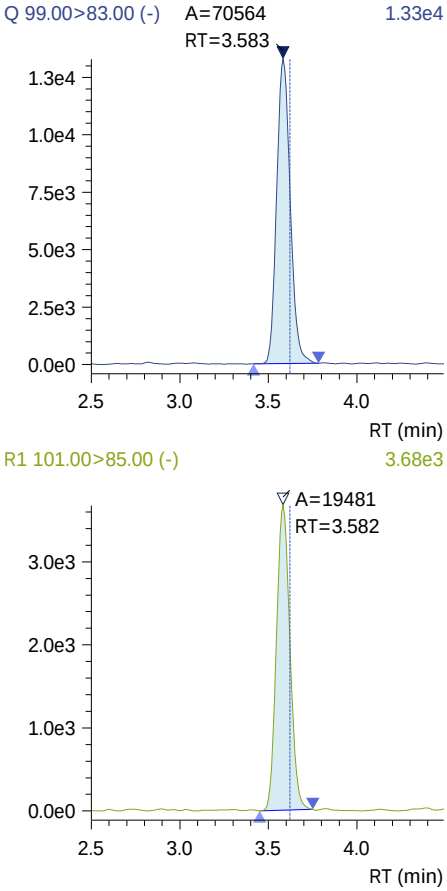
ICS

Sample ID: ICS
Date Acquired: 8/9/2023 10:10:09 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.583	70564	423644	1.1295	ng/mL	101.00 >85.00	27.61	19.41-36.06
Sodium Perchlorate-18O4 _IS	Auto	3.580	4236 44	423644	1.0000	ng/mL	----	----	

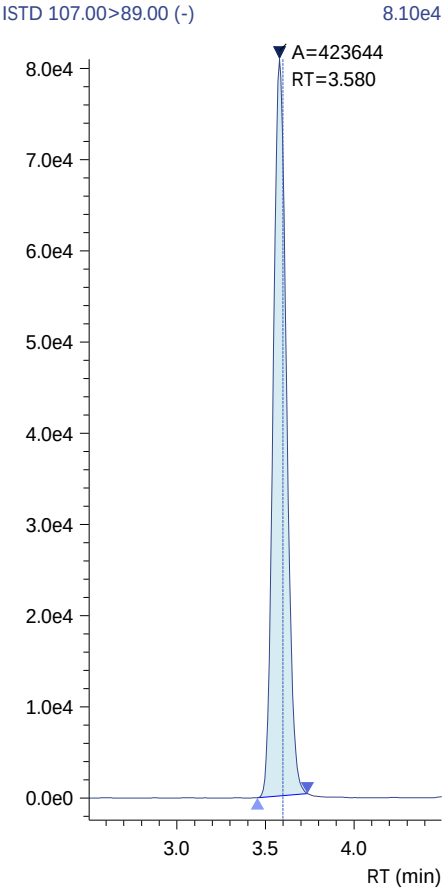
Perchlorate

Conc 1.1295
R#1 27.61 (27.74)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/9/2023 1:55:45 PM

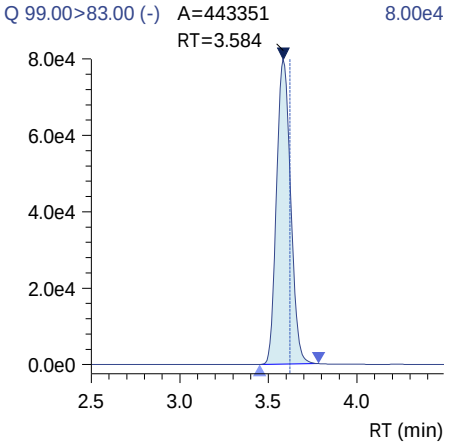
CCV

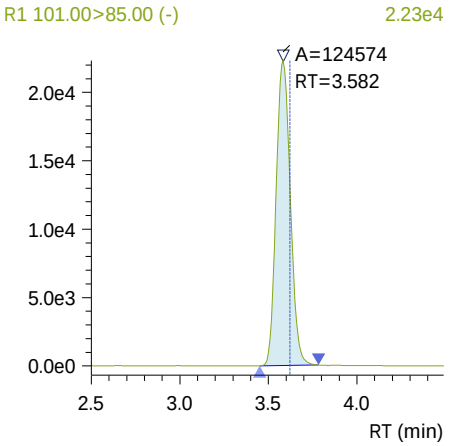
Sample ID: CCV
Date Acquired: 8/9/2023 10:18:05 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-004.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.584	443351	293010	10.2609	ng/mL	101.00 >85.00	28.10	19.41-36.06
Sodium Perchlorate-18O4_IS	Auto	3.580	293010	293010	1.0000	ng/mL	----	----	

Perchlorate

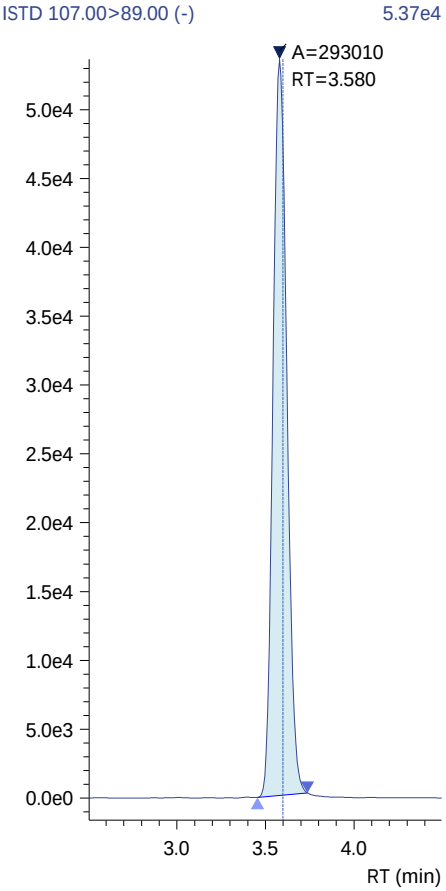
Conc 10.2609
R#1 28.10 (27.74)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/9/2023 1:55:45 PM

EQ2300381-01

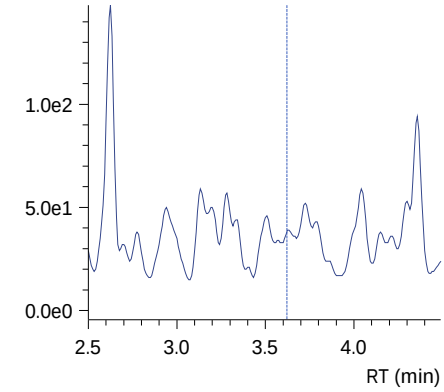
Sample ID: EQ2300381-01
Date Acquired: 8/9/2023 10:23:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-005.lcd
Vial: 25 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	348388	----	ng/mL	101.00 >85.00	0.00	19.41-36.06
Sodium Perchlorate-18O4_IS	Auto	3.579	348388	348388	1.0000	ng/mL	----	----	

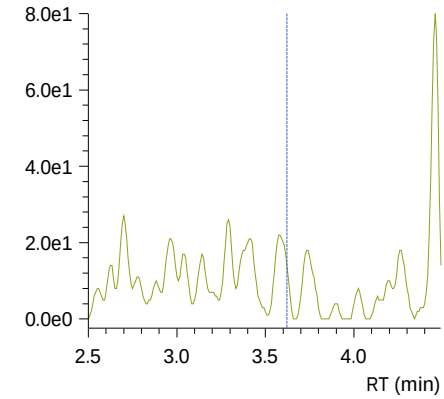
Perchlorate

Conc ----
R#1 0.00 (27.74)

Q 99.00>83.00 (-) 1.48e2



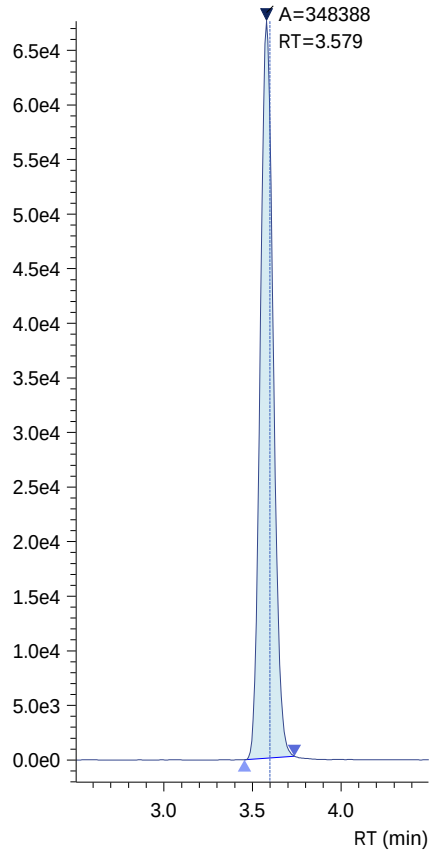
R1 101.00>85.00 (-) 8.00e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.77e4



Insight Report

Printed at 8/9/2023 1:55:45 PM

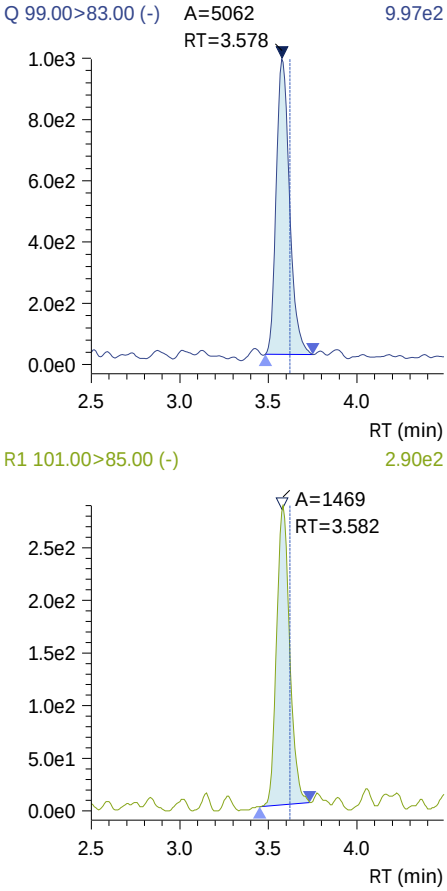
EQ2300381-02

Sample ID: EQ2300381-02
Date Acquired: 8/9/2023 10:29:08 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-006.lcd
Vial: 26 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.578	5062	345049	0.0995	ng/mL	101.00 >85.00	29.01	19.41-36.06
Sodium Perchlorate-18O4 _IS	Auto	3.580	3450 49	345049	1.0000	ng/mL	----	----	

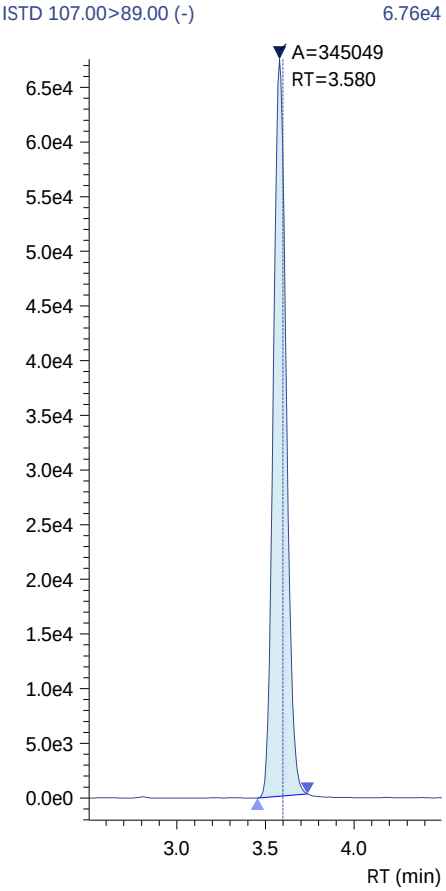
Perchlorate

Conc 0.0995
R#1 29.01 (27.74)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/9/2023 1:55:45 PM

EQ2300381-03

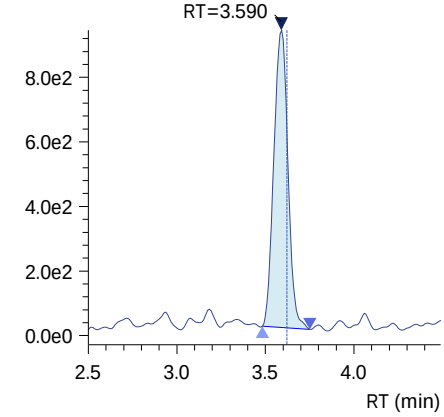
Sample ID: EQ2300381-03
Date Acquired: 8/9/2023 10:34:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-007.lcd
Vial: 27 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.590	5120	340635	0.1019	ng/mL	101.00 >85.00	31.26	19.41-36.06
Sodium Perchlorate-18O4 _IS	Auto	3.580	3406 35	340635	1.0000	ng/mL	----	----	

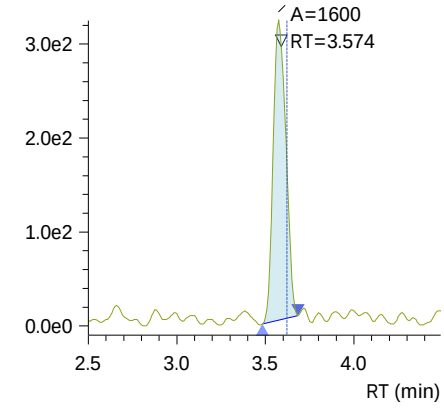
Perchlorate

Conc 0.1019
R#1 31.26 (27.74)

Q 99.00>83.00 (-) A=5120 RT=3.590 9.46e2



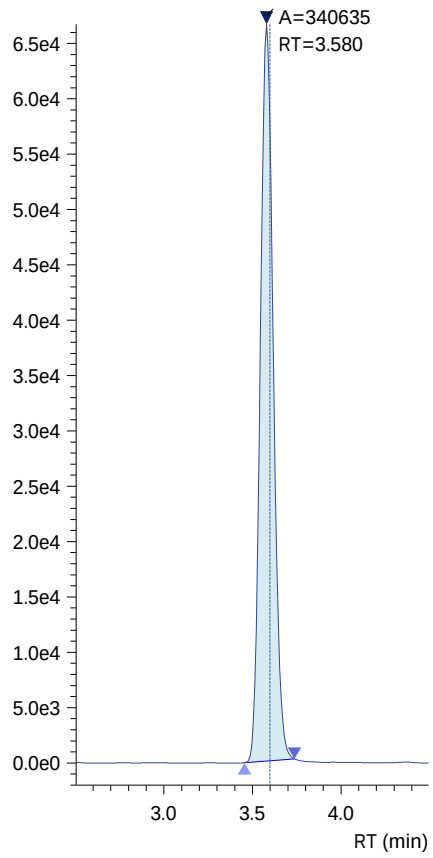
R1 101.00>85.00 (-) 3.25e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.67e4



Insight Report

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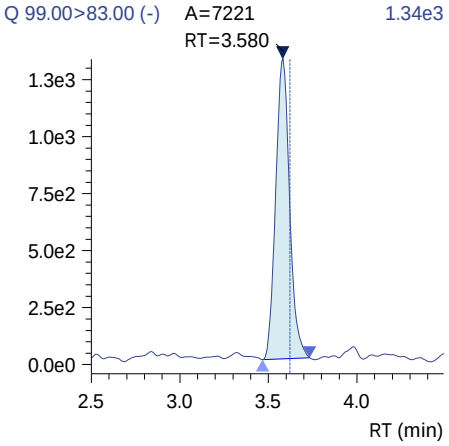
E2300716-001

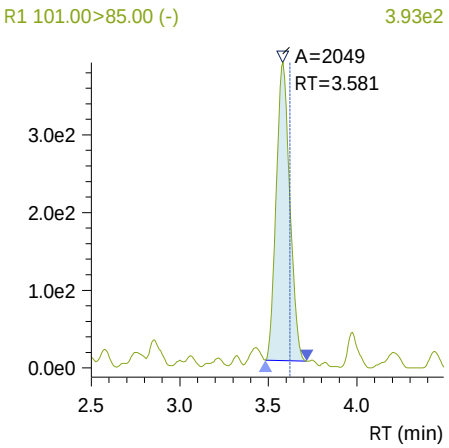
Sample ID: E2300716-001
Date Acquired: 8/9/2023 11:08:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-012.lcd
Vial: 38 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.580	7221	387937	0.1262	ng/mL	101.00 >85.00	28.38	19.41-36.06
Sodium Perchlorate-18O4 _IS	Auto	3.577	3879 37	387937	1.0000	ng/mL	----	----	

Perchlorate

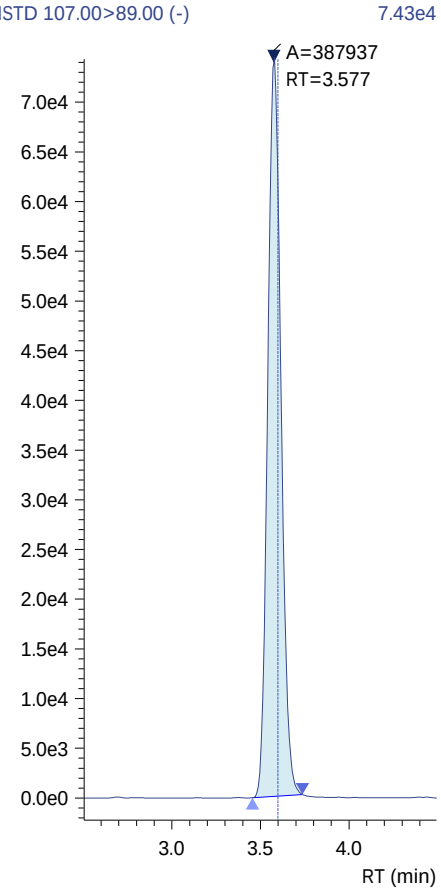
Conc 0.1262
R#1 28.38 (27.74)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 8/9/2023 1:55:45 PM

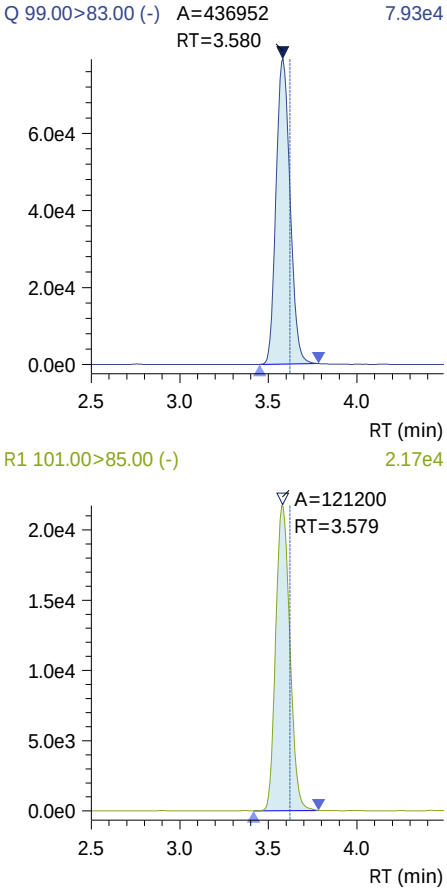
CCV

Sample ID: CCV
Date Acquired: 8/9/2023 11:25:07 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230808\2230808-015.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.580	436952	289217	10.2454	ng/mL	101.00 >85.00	27.74	19.41-36.06
Sodium Perchlorate-18O4_IS	Auto	3.577	289217	289217	1.0000	ng/mL	----	----	

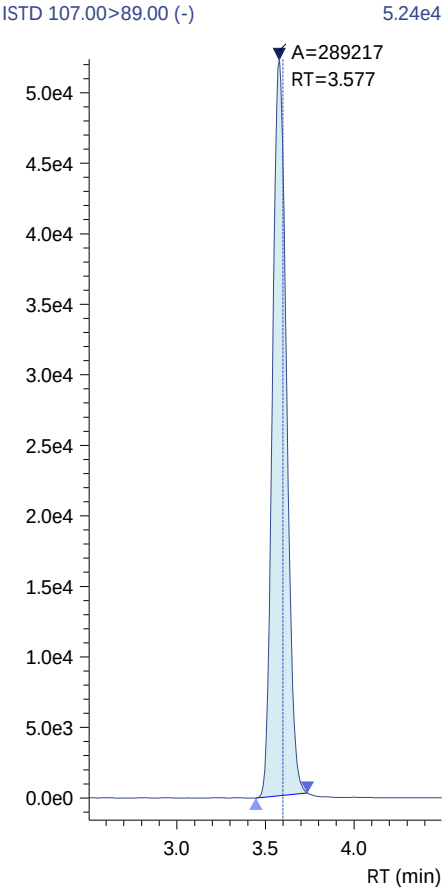
Perchlorate

Conc 10.2454
R#1 27.74 (27.74)



Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23051516 Longhorn GW Treatment Plant
Monthly Influent Samples Cover Page

ALS WO# HS23051516

ALS Environmental
ALS Group USA, Corp
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Houston, TX 77099
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F : +1 281 530 5887
www.alsglobal.com

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  - Weight/Volume Log
  - Dates Report
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HS23051516 Wetchem Cr6_W

HS23051516-E2300501 Perchlorate Level IV

- CoverLetter
- Certificate of Analysis
- Chain of Custody
- Preparation Sheets
- Analytical Results
- Accuracy and Precision
- Initial Calibration
- Chromatograms and Selected Ion Monitoring

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alsglobal.com

right solutions.
right partner.

WorkOrder: HS23051516

Longhorn GW Treatment Plant Monthly Influent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

25-May-2023

HS23051516 Longhorn GW Treatment Plant
Monthly Influent Samples Final

ALS WO# HS23051516

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

May 31, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23051516**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Influent Samples**

Dear Marcia Olive,

ALS Environmental received 1 sample(s) on May 23, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
Dane J. Wacasey

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS23051516

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23051516-01	LH18/24-SP140_052223	Water		22-May-2023 13:00	23-May-2023 09:30	☐

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS23051516

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

Metals by Method SW6020A

Batch ID: 194431

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7196

Batch ID: R436029

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 31-May-23

Client: Bhate Environmental Associates, Inc.

ANALYTICAL REPORT

Project: Longhorn GW Treatment Plant Monthly Influent Samples

WorkOrder:HS23051516

Sample ID: LH18/24-SP140_052223

Lab ID:HS23051516-01

Collection Date: 22-May-2023 13:00

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 30-May-2023		Analyst: JC
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	30-May-2023 16:02
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	30-May-2023 16:02
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**						Analyst: JAC
Chromium, Hexavalent	0.00600	U	0.00600	0.00600	0.0100	mg/L	1	23-May-2023 10:14
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-May-23

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Batch ID: 194431 **Start Date:** 30 May 2023 10:00 **End Date:** 30 May 2023 10:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23051516-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 194431 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS23051516-01	LH18/24-SP140_052223	22 May 2023 13:00		30 May 2023 10:00	30 May 2023 16:02	1
Batch ID: R436029 (0)	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A				**Matrix:** Water	
HS23051516-01	LH18/24-SP140_052223	22 May 2023 13:00			23 May 2023 10:14	1
Batch ID: R436668 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS23051516-01	LH18/24-SP140_052223	22 May 2023 13:00			31 May 2023 13:22	1

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

QC BATCH REPORT

Batch ID: 194431 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-194431** Units: **mg/L** Analysis Date: **30-May-2023 15:46**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330905** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U

LCS Sample ID: **LCS-194431** Units: **mg/L** Analysis Date: **30-May-2023 15:48**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330906** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05092	0.00500	0.05	0	102	80 - 120				
Silver	0.04863	0.00500	0.05	0	97.3	85 - 116				

MS Sample ID: **HS23051127-01MS** Units: **mg/L** Analysis Date: **30-May-2023 15:54**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330909** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05259	0.00500	0.05	0.002268	101	80 - 120				
Silver	0.04752	0.00500	0.05	0.000017	95.0	85 - 116				

MSD Sample ID: **HS23051127-01MSD** Units: **mg/L** Analysis Date: **30-May-2023 15:56**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330910** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05282	0.00500	0.05	0.002268	101	80 - 120	0.05259	0.431	20	
Silver	0.04719	0.00500	0.05	0.000017	94.3	85 - 116	0.04752	0.691	20	

PDS Sample ID: **HS23051127-01PDS** Units: **mg/L** Analysis Date: **30-May-2023 15:58**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330911** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.1041	0.00500	0.1	0.002268	102	80 - 120				
Silver	0.09723	0.00500	0.1	0.000017	97.2	80 - 120				

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

QC BATCH REPORT

Batch ID: 194431 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

SD Sample ID: **HS23051127-01SD** Units: **mg/L** Analysis Date: **30-May-2023 15:52**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330908** PrepDate: **30-May-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Selenium	0.0125	0.0250					0.002268	0	10	U
Silver	0.00250	0.0250					0.000017	0	10	U

The following samples were analyzed in this batch: HS23051516-01

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

QC BATCH REPORT

Batch ID: R436029 (0) **Instrument: UV-2450** **Method: HEXAVALENT CHROMIUM BY SW7196A**

MBLK Sample ID: **MBLK-R436029** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319012** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.00600	0.0100								U

LCS Sample ID: **LCS-R436029** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319011** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.243	0.0100	0.25	0	97.2	80 - 120				

MS Sample ID: **HS23051482-01MS** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319014** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	12.55	0.500	12.5	-0.4	104	86 - 117				

MSD Sample ID: **HS23051482-01MSD** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319013** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	12.65	0.500	12.5	-0.4	104	86 - 117	12.55	0.794	15	

The following samples were analyzed in this batch: HS23051516-01

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: **HS23051516**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

ALS Houston, US Date: 31-May-23

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 31-May-23

Sample Receipt Checklist

Work Order ID: HS23051516 **Date/Time Received:** 23-May-2023 09:30

Client Name: Bhate Environmental **Received by:** Paresh M. Giga

Completed By: /S/ Nilesh D. Ranchod (eSignature) 23-May-2023 10:12 (Date/Time) **Reviewed by:** /S/ Dane J. Wacasey (eSignature) 26-May-2023 08:48 (Date/Time)

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☐	No ☑	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.4C/0.9C U/C	IR31	
Cooler(s)/Kit(s):	49894		
Date/Time sample(s) sent to storage:	3/8/23 12:15		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

01209178

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd., Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Gigi

Page 1 of 1

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. NWO1312.0150.0 16.0001
Job: **GROUNDWATER TREATMENT PLANT MONTHLY INFLUENT SAMPLES**	
Prepared By: Scott Beesinger	P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: SILVER & SELENIUM	HEXAVALENT CHROMIUM	PERCHLORATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP140_052223	Water	05/22/23 / 13:00		1	X			HNO3	
LH18/24-SP140_052223	Water	05/22/23 / 13:00		2		X	X	NONE	

HS23051516

Bhate Environmental Associates, Inc.

ighorn GW Treatment Plant Monthly Influent Sample



Additional Remarks: **STANDARD TURN AROUND TIME**

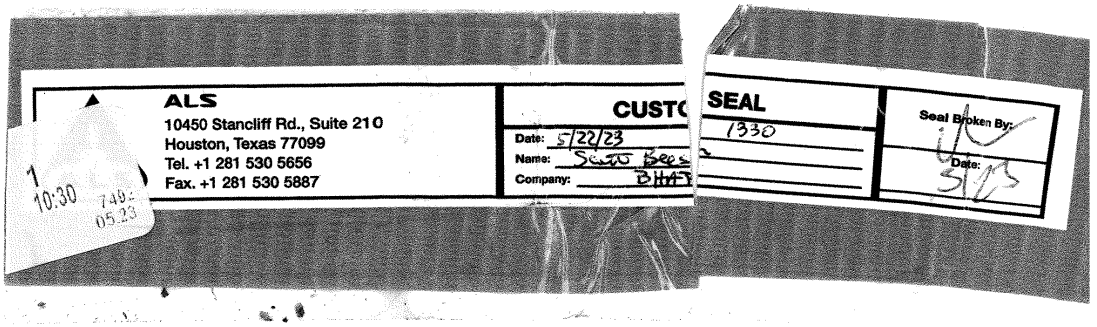
Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	05/22/23	13:30		5/23/23	09:30						

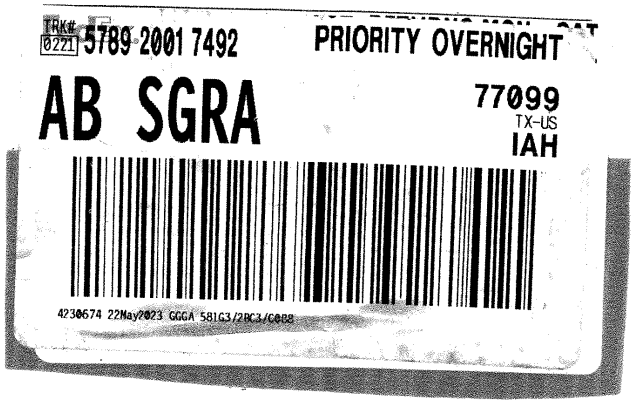
For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
43491									

Remarks: 1.6 -0.1 = 1.5 431

(Word) 8 - Laser Comm Chain of Custody - BiWeekly


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTO
Date: 5/22/23
Name: Scott Bees
Company: BHA
10:30
05.23
SEAL
1330
Seal Broken By:
Date:


TRK#
0221 5789 2001 7492
PRIORITY OVERNIGHT
AB SGRA
77099
TX-US
IAH
4230674 22May2023 GGGA 581G3/2BC3/C0B8

May 31, 2023 Service Request No:E2300501

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051516

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 23, 2023
For your reference, these analyses have been assigned our service request number **E2300501.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300501
Project:	HS23051516	**Date Received:**	05/23/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 05/23/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300265: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300501
Project: HS23051516

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300501-001	LH18/24-SP140_052223	5/22/2023	1300

Service Request Summary

Folder #: **E2300501**
Client Name: ALS Environmental - US
Project Name: HS23051516
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/23/23
Internal Due Date: 6/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051516
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300501-001	LH18/24-SP140_052223	Water	05/22/23 1300	**IV**

Service Request Summary

Folder #:	**E2300501**
Client Name:	ALS Environmental - US
Project Name:	HS23051516
Project Number:	

Report To:	Dane Wacasey ALS Group USA, Corp. 10450 Stancliff Road Houston, TX 77099-4338 USA
Phone Number:	281-575-2190
Cell Number:	
Fax Number:	281-530-5887
E-mail:	dane.wacasey@alsglobal.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	CGRANDITS
Date Received:	05/23/23
Internal Due Date:	6/7/2023
QAP:	LAB QAP
Qualifier Set:	Lab Standard
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	HS23051516
EDD:	No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **21800**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23051516
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051516-01**	**LH18/24-SP140_052223**	**Water**	**22 May 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			07 Jun 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: 5.23.23 10.35

Received By: _____ Date/Time: 5.24.23 1025

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID 1231

Date/Time Received: 5.23.23 Initials: CG Date/Time Logged in: 5.23.23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		5.23.23	1025	CG	1.3	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300499-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300499-002	LH18/24-SP650_052223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300500-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300501-001	LH18/24-SP140_052223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300512-001	50WW09_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300512-002	50WW08_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300512-003	50WW22_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300512-004	50WW13_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300512-005	50WW11_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300512-006	50WW06_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300512-007	50WW29_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	EQ2300265-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300265-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300265-03	DLCS		6850/ClO4			Liquid	10mL	
15	K2305800-001	LGAC-INF-052223	.01	6850/ClO4			Water	10mL	
16	K2305800-002	LGAC-INT1-052223	.01	6850/ClO4			Water	10mL	
17	R2304146-004	2305090957X BLM-38-620	.01	6850/ClO4			Water	10mL	
18	R2304146-009	2305090931B ST-1-630	.01	6850/ClO4			Water	10mL	
19	R2304203-004	2305100842X BLM-38-480	.01	6850/ClO4			Water	10mL	
20	R2304203-011	2305100858B 600-C-173	.01	6850/ClO4			Water	10mL	
21	R2304267-009	2305111350X WB-1-330	.01	6850/ClO4			Water	10mL	
22	R2304267-012	2305121010X WB-1-200	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300265-02	1.00µL	EQ2300265-02	1.00µL	EQ2300265-03	1.00µL	EQ2300265-03	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300499-001	100.00µL	E2300499-002	100.00µL	E2300500-001	100.00µL	E2300501-001	100.00µL	E2300512-001	100.00µL	E2300512-002	100.00µL
E2300512-003	100.00µL	E2300512-004	100.00µL	E2300512-005	100.00µL	E2300512-006	100.00µL	E2300512-007	100.00µL	EQ2300265-01	100.00µL
EQ2300265-01	100.00µL	EQ2300265-02	100.00µL	EQ2300265-02	100.00µL	EQ2300265-03	100.00µL	EQ2300265-03	100.00µL	K2305800-001	100.00µL
K2305800-002	100.00µL	R2304146-004	100.00µL	R2304146-009	100.00µL	R2304203-004	100.00µL	R2304203-011	100.00µL	R2304267-009	100.00µL
R2304267-012	100.00µL										

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 5/30/23 08:20
Finished: 5/30/23 09:20
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 05/30/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	5/22/23 1300
Sample Matrix:	Water	**Date Received:**	5/23/23
Sample Name:	LH18/24-SP140_052223	**Units:**	µg/L
Lab Code:	E2300501-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**79900**		2500	250	125	5000	5/30/23	5/30/23 17:13	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300265-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:38	420569	805870	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051516
Sample Matrix: Water

Service Request: E2300501
Date Analyzed: 5/30/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 420569

	Lab Control Sample EQ2300265-02			Duplicate Lab Control Sample EQ2300265-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.105	0.100	105	0.101	0.100	101	84 - 119	4	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.105**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:44	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.101**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:50	420569	805870	

HS23051516 - ME - ICP_W_DOD

ALS WO# HS23051516

ALS Houston, US Date: 02-Jun-23

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc. Instrument:ICPMS06
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		ArHe
24	Magnesium	Germanium		ArHe
27	Aluminum	Germanium		ArHe
39	Potassium	Germanium		ArHe
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
82	Selenium	Germanium		Ar
88	Strontium	Indium		Ar
95	Molybdenum	Indium		Ar
105	Palladium	Germanium		Ar
107	Silver	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Indium		Ar
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US Date: 02-Jun-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516
Start Date: 30-May-2023 End Date: 30-May-2023

Run ID:ICPMS06_436532
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_436532_Tune	1	30-May-2023 00:00	ICPMS06_436532_Tune_1	
CAL BLK	1	30-May-2023 11:20	014CALB.d_7330085	AG SE
2/10/200	1	30-May-2023 11:22	015CALS.d_7330086	AG SE
5/25/500	1	30-May-2023 11:24	016CALS.d_7330087	AG SE
10/50/100	1	30-May-2023 11:26	017CALS.d_7330088	AG SE
100/500/10K	1	30-May-2023 11:28	018CALS.d_7330089	AG SE
200/1000/20K	1	30-May-2023 11:30	019CALS.d_7330090	AG SE
LLICV2	1	30-May-2023 11:38	023LCV2.d_7330094	AG SE
LLICV5	1	30-May-2023 11:40	024LCV5.d_7330095	AG SE
ICB	1	30-May-2023 11:42	025_ICB.d_7330096	AG SE
ICV	1	30-May-2023 11:44	026_ICV.d_7330097	AG SE
ICSA	1	30-May-2023 11:48	028ICSA.d_7330099	AG SE
ICSAB	1	30-May-2023 11:50	029ICSB.d_7330100	AG SE
CCV 1	1	30-May-2023 15:42	129_CCV.d_7330903	AG SE
CCB 1	1	30-May-2023 15:44	130_CCB.d_7330904	AG SE
MBLK-194431	1	30-May-2023 15:46	131SMPL.d_7330905	AG SE
LCS-194431	1	30-May-2023 15:48	132SMPL.d_7330906	AG SE
ZZZZZZSD	5	30-May-2023 15:52	134SMPL.d_7330908	AG SE
ZZZZZZMS	1	30-May-2023 15:54	135SMPL.d_7330909	AG SE
ZZZZZZMSD	1	30-May-2023 15:56	136SMPL.d_7330910	AG SE
ZZZZZZPDS	1	30-May-2023 15:58	137SMPL.d_7330911	AG SE
LH18/24-SP140_052223	1	30-May-2023 16:02	139SMPL.d_7330913	AG SE
CCV 2	1	30-May-2023 16:06	141_CCV.d_7331125	AG SE
CCB 2	1	30-May-2023 16:08	142_CCB.d_7331126	AG SE

ALS Houston, US Date: 02-Jun-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Run ID: ICPMS06_436532
Instrument: ICPMS06
Method: SW6020A

ICV Date: 30-May-2023 11:44 Seq: 7330097 ICV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	98.51	99	90-110	
Silver	100	99.466	100	90-110	

CCV1 Date: 30-May-2023 15:42 Seq: 7330903 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	98.31	98	90-110	
Silver	100	97.765	98	90-110	

CCV2 Date: 30-May-2023 16:06 Seq: 7331125 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	99.332	99	90-110	
Silver	100	98.401	98	90-110	

ALS Houston, US Date: 02-Jun-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Run ID: ICPMS06_436532
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 30-May-2023 11:42		Seq: 7330096	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB1	Date: 30-May-2023 15:44		Seq: 7330904	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

MBLK-194431	Date: 30-May-2023 15:46		Seq: 7330905	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB2	Date: 30-May-2023 16:08		Seq: 7331126	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

ALS Houston, US

Date: 02-Jun-23

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Run ID: ICPMS06_436532
Instrument: ICPMS06
Method: SW6020A

ICSA	Date: 30-May-2023 11:48	Seq: 7330099	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium		0.378	0	
Silver		0.171	0	

ICSAB	Date: 30-May-2023 11:50	Seq: 7330100	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium	100	102.2	102	
Silver	100	99.05	99.1	

ALS Houston, US Date: 02-Jun-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Date Analyzed: 30-May-2023 15:56
Date Extracted: 30-May-2023 10:00
Units: ug/L

Matrix Spike: HS23051127-01MS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Selenium	2.268	52.59	50.00	101	52.82	50.00	101	80-120	0.431	20
Silver	5.000	47.52	50.00	95.0	47.19	50.00	94.3	85-116	0.691	20

ALS Houston, US Date: 02-Jun-23

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Date Analyzed: 30-May-2023 15:58
Date Extracted: 30-May-2023 10:00
Units: ug/L

Lab Sample ID: HS23051127-01PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Selenium	2.268	104.1	100	102	80-120
Silver	0	97.23	100	97	80-120

ALS Houston, US

Date: 02-Jun-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Date Analyzed: 30-May-2023 15:48
Date Extracted: 30-May-2023 10:00
Units: ug/L

Lab Sample ID: LCS-194431

Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Selenium	50	50.92	102	80-120
Silver	50	48.63	97	85-116

ALS Houston, US

Date: 02-Jun-23

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23051516

Date Analyzed: 30-May-2023 15:52
Date Extracted: 30-May-2023 10:00
Units: ug/L

Lab Sample ID: HS23051127-01SD
Client Sample ID:

Analysis Method: SW6020A

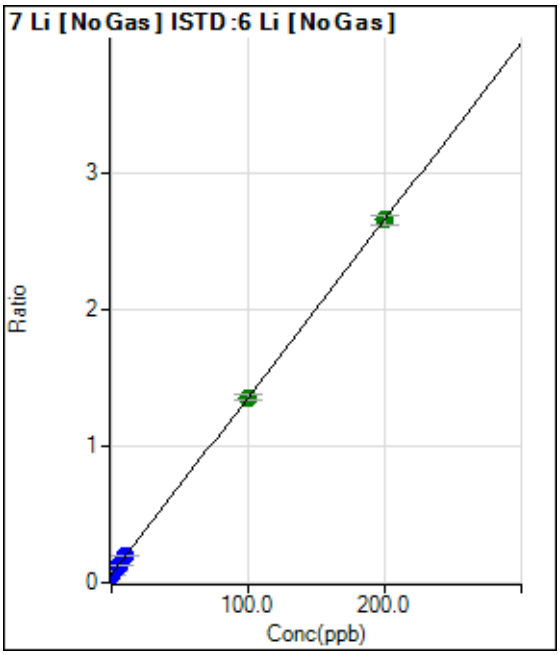
Analyte	Sample Result	C	SD Result	C	RPD	Q
Selenium	2.268	J	0	U	0	
Silver	0	U	0	U	0	

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\053023A.b\
Analysis File: 053023A.batch.bin
DA Date-Time: 5/30/2023 11:35:39 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	5/30/2023 11:20:34 AM
2	015CALS.d	2/10/200	5/30/2023 11:22:32 AM
3	016CALS.d	5/25/500	5/30/2023 11:24:30 AM
4	017CALS.d	10/50/100	5/30/2023 11:26:28 AM
5	018CALS.d	100/500/10K	5/30/2023 11:28:25 AM
6	019CALS.d	200/1000/20K	5/30/2023 11:30:18 AM

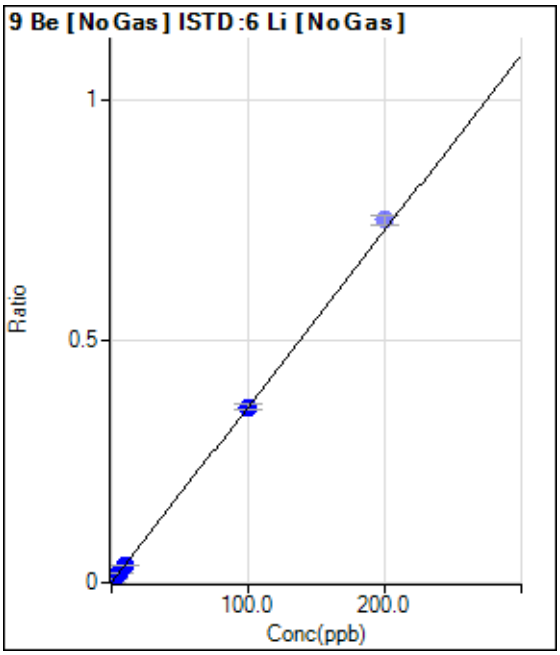
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58340.09	0.0605	P	2.4
2	☐	2.000	2.014	82427.67	0.0866	P	2.0
3	☐	5.000	5.257	119752.54	0.1286	P	0.6
4	☐	10.000	10.280	182919.06	0.1937	P	1.3
5	☐	100.000	99.898	1267901.94	1.3551	A	2.8
6	☐	200.000	200.030	2399604.81	2.6528	A	2.7

y = 0.0130 * x + 0.0605
R = 1.0000
DL = 0.3309
BEC = 4.665

Weight: <None>
Min Conc: <None>

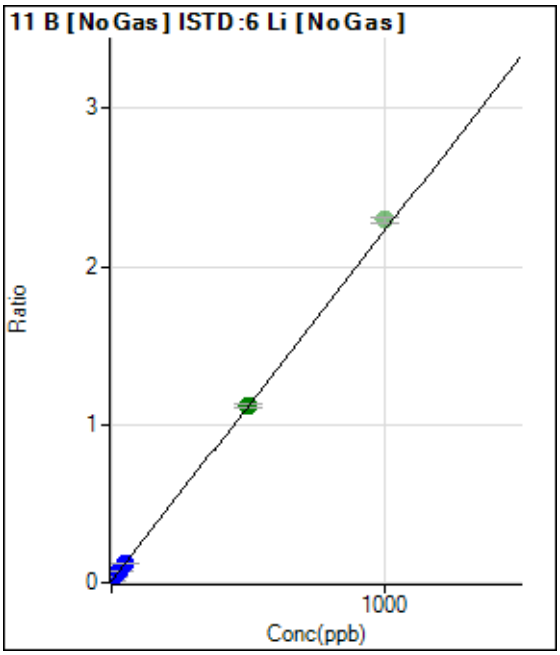


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	42.4
2	☐	2.000	1.975	6878.39	0.0072	P	2.3
3	☐	5.000	5.049	17155.57	0.0184	P	3.3
4	☐	10.000	10.086	34736.19	0.0368	P	1.8
5	☐	100.000	99.989	340981.02	0.3644	P	2.8
6	☑	200.000		679794.11	0.7516	P	2.3

y = 0.0036 * x + 2.6088E-005
R = 1.0000
DL = 0.009104
BEC = 0.007159

Weight: <None>
Min Conc: <None>

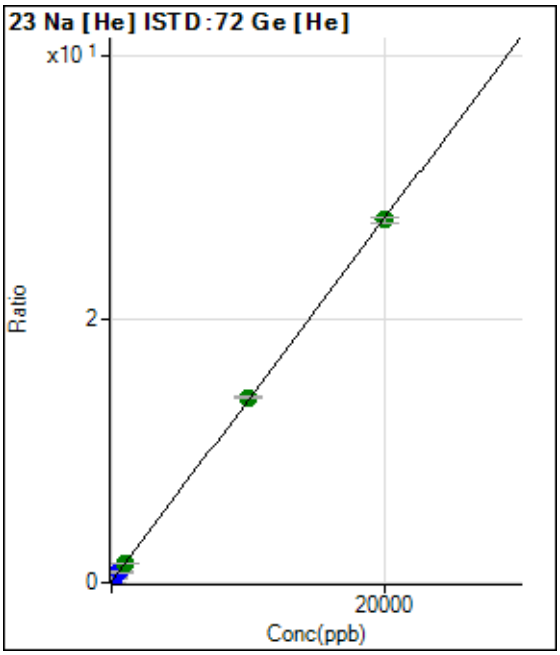
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9595.03	0.0099	P	1.9
2	☐	10.000	10.418	31433.45	0.0330	P	1.1
3	☐	25.000	26.050	62966.91	0.0676	P	1.9
4	☐	50.000	51.947	118005.76	0.1250	P	0.8
5	☐	500.000	499.744	1044770.32	1.1164	A	2.3
6	☑	1000.000		2075336.17	2.2941	A	1.5

y = 0.0022 * x + 0.0099
R = 1.0000
DL = 0.2598
BEC = 4.491

Weight: <None>
Min Conc: <None>

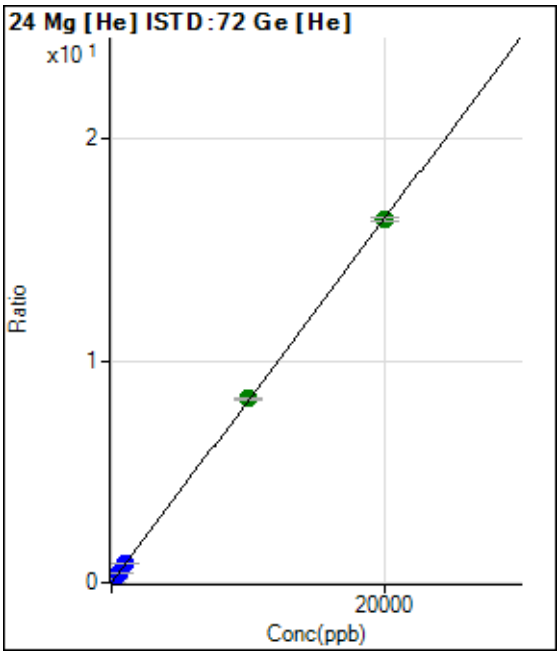


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46036.14	0.0687	P	2.2
2	☐	200.000	214.404	243879.32	0.3644	P	1.1
3	☐	500.000	533.775	540574.13	0.8048	P	0.8
4	☐	1000.000	1037.219	1002583.24	1.4990	A	2.9
5	☐	10000.00	10156.40	9387837.57	14.0740	A	0.8
6	☐	20000.00	19918.95	18225449.73	27.5361	A	1.8

y = 0.0014 * x + 0.0687
R = 1.0000
DL = 3.309
BEC = 49.86

Weight: <None>
Min Conc: <None>

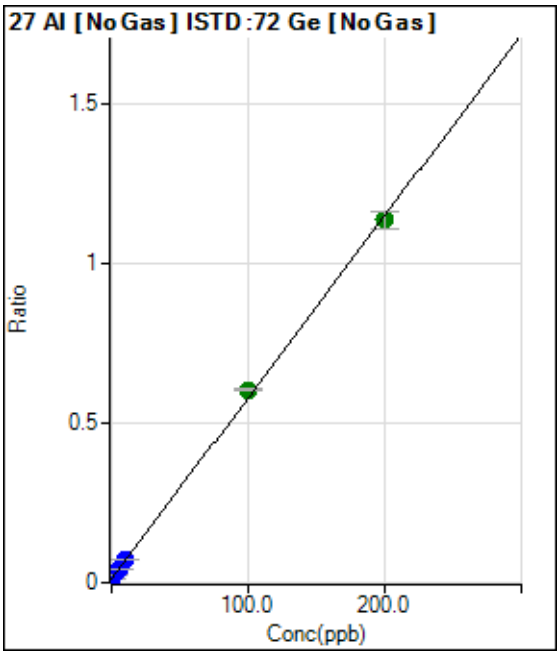
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	790.04	0.0012	P	5.8
2	☐	200.000	213.411	118073.92	0.1764	P	1.2
3	☐	500.000	532.446	294436.51	0.4384	P	0.9
4	☐	1000.000	1076.114	591824.61	0.8847	P	0.5
5	☐	10000.00	10120.75	5543689.71	8.3110	A	1.3
6	☐	20000.00	19934.87	10834694.01	16.3691	A	1.0

y = 8.2107E-004 * x + 0.0012
R = 1.0000
DL = 0.2501
BEC = 1.437

Weight: <None>
Min Conc: <None>

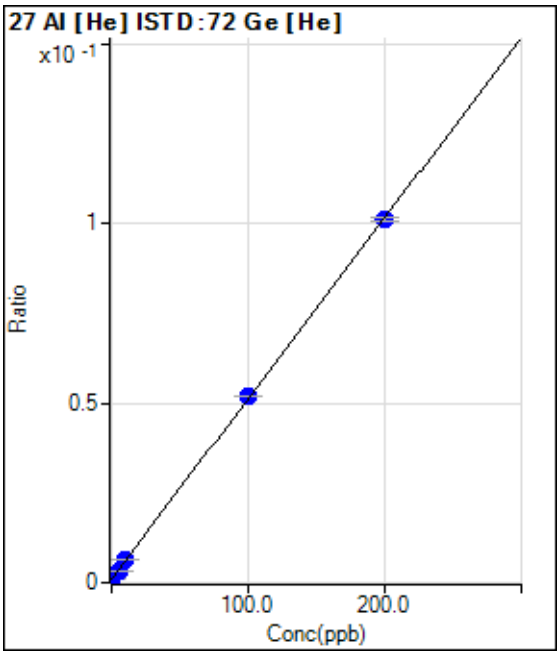


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30914.73	0.0113	P	1.6
2	☐	2.000	2.419	69338.95	0.0250	P	1.3
3	☐	5.000	5.517	117335.05	0.0426	P	1.3
4	☐	10.000	10.898	200944.19	0.0732	P	1.2
5	☐	100.000	104.047	1640854.19	0.6025	A	0.9
6	☐	200.000	197.914	3113082.87	1.1360	A	5.1

y = 0.0057 * x + 0.0113
R = 0.9997
DL = 0.09325
BEC = 1.983

Weight: <None>
Min Conc: <None>

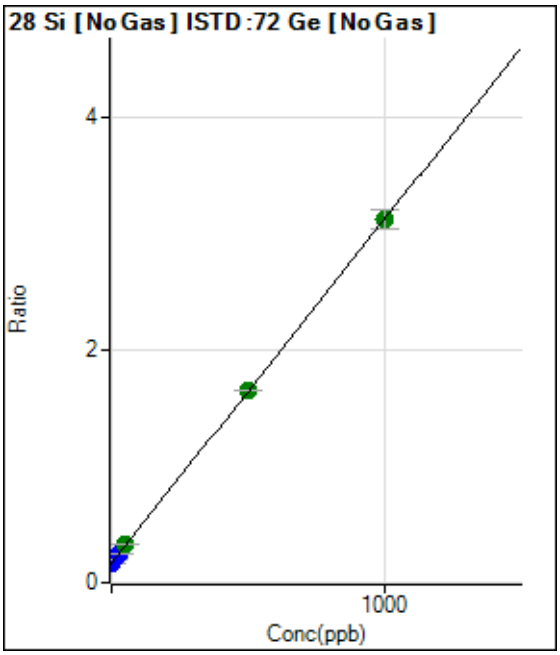
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.69	0.0010	P	9.3
2	☐	2.000	2.364	1440.10	0.0022	P	11.0
3	☐	5.000	4.807	2270.23	0.0034	P	4.8
4	☐	10.000	10.651	4224.04	0.0063	P	0.8
5	☐	100.000	101.848	34757.03	0.0521	P	0.1
6	☐	200.000	199.045	66793.62	0.1009	P	1.0

y = 5.0212E-004 * x + 9.6603E-004
R = 0.9999
DL = 0.537
BEC = 1.924

Weight: <None>
Min Conc: <None>

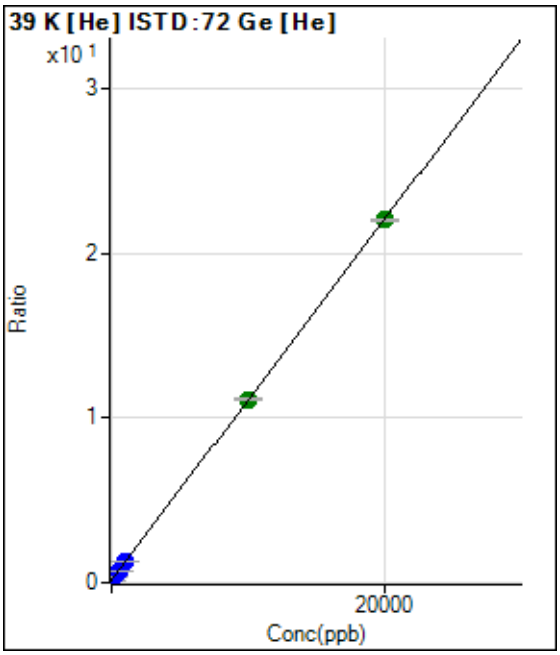


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	463001.29	0.1688	P	1.2
2	☐	10.000	10.233	551695.15	0.1991	P	0.9
3	☐	25.000	26.741	682362.31	0.2479	P	1.2
4	☐	50.000	56.267	920059.26	0.3352	A	1.6
5	☐	500.000	502.713	4508298.16	1.6554	A	0.5
6	☐	1000.000	998.284	8552736.75	3.1209	A	5.3

y = 0.0030 * x + 0.1688
R = 1.0000
DL = 2.058
BEC = 57.08

Weight: <None>
Min Conc: <None>

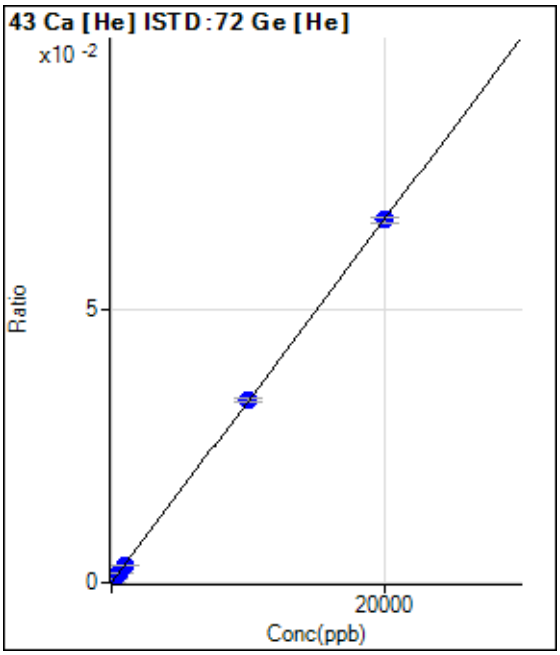
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94230.13	0.1407	P	1.2
2	☐	200.000	208.218	246808.13	0.3688	P	0.6
3	☐	500.000	511.445	470793.01	0.7009	P	0.5
4	☐	1000.000	1033.657	851445.17	1.2729	P	1.0
5	☐	10000.00	10040.17	7429268.43	11.1378	A	1.2
6	☐	20000.00	19977.86	14576880.61	22.0226	A	0.9

y = 0.0011 * x + 0.1407
R = 1.0000
DL = 4.757
BEC = 128.5

Weight: <None>
Min Conc: <None>

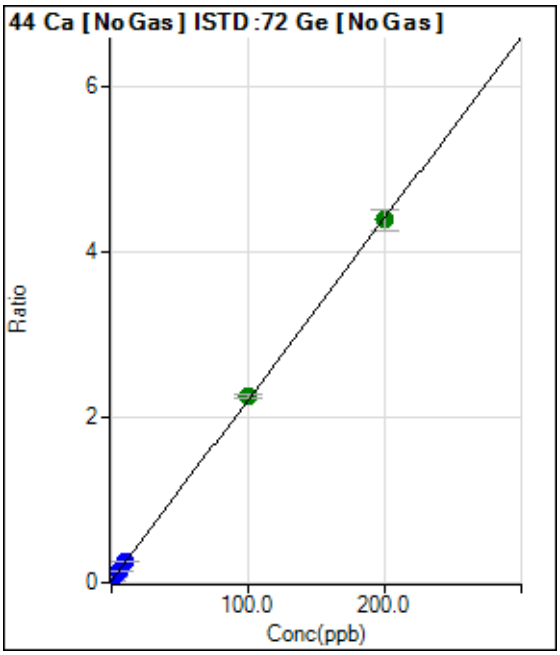


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	49.5
2	☐	200.000	209.385	486.69	0.0007	P	11.2
3	☐	500.000	505.110	1150.07	0.0017	P	5.0
4	☐	1000.000	933.638	2100.20	0.0031	P	2.4
5	☐	10000.00	10055.73	22358.46	0.0335	P	2.0
6	☐	20000.00	19975.22	44057.80	0.0666	P	1.8

y = 3.3304E-006 * x + 2.9798E-005
R = 1.0000
DL = 13.29
BEC = 8.947

Weight: <None>
Min Conc: <None>

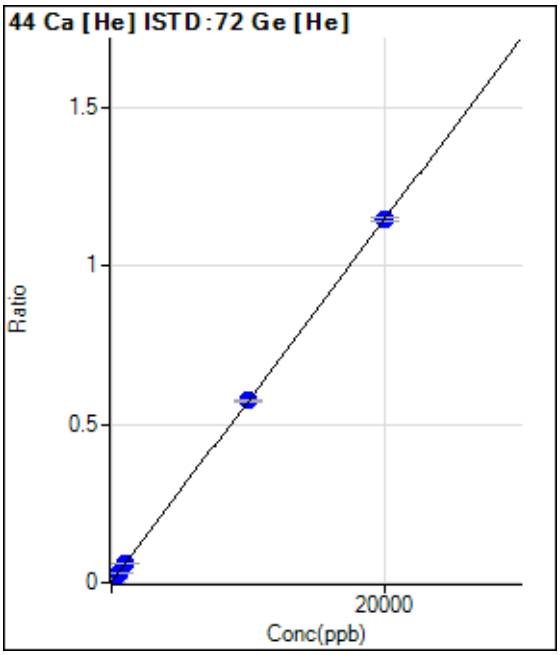
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	57650.97	0.0210	P	0.9
2	☐	2.000	2.108	186566.64	0.0673	P	0.2
3	☐	5.000	5.336	380370.32	0.1382	P	1.9
4	☐	10.000	10.852	711874.16	0.2593	P	0.8
5	☐	100.000	101.648	6135691.57	2.2530	A	1.8
6	☐	200.000	199.124	12038537.32	4.3935	A	5.7

y = 0.0220 * x + 0.0210
R = 1.0000
DL = 0.02639
BEC = 0.9571

Weight: <None>
Min Conc: <None>

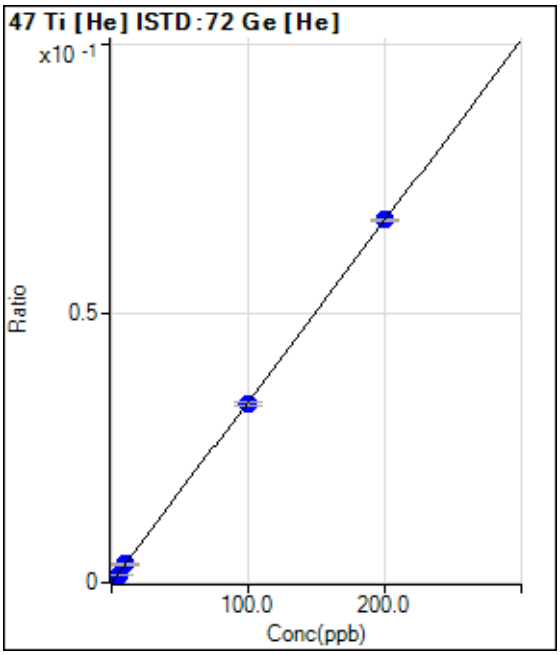


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	840.05	0.0013	P	5.9
2	☐	200.000	194.815	8296.04	0.0124	P	1.8
3	☐	500.000	497.867	19968.16	0.0297	P	2.1
4	☐	1000.000	1015.018	39670.71	0.0593	P	0.3
5	☐	10000.00	10042.02	383918.60	0.5756	P	1.1
6	☐	20000.00	19978.34	757152.72	1.1438	P	0.9

y = 5.7190E-005 * x + 0.0013
R = 1.0000
DL = 3.906
BEC = 21.94

Weight: <None>
Min Conc: <None>

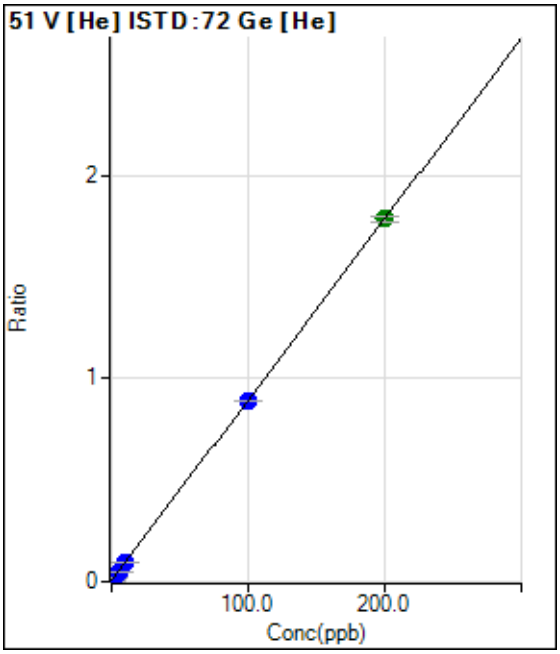
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	1.959	446.68	0.0007	P	15.3
3	☐	5.000	4.349	986.72	0.0015	P	4.8
4	☐	10.000	10.212	2296.90	0.0034	P	10.9
5	☐	100.000	98.997	22158.10	0.0332	P	2.5
6	☐	200.000	200.507	44529.04	0.0673	P	0.4

y = 3.3545E-004 * x + 9.9775E-006
R = 1.0000
DL = 0.07728
BEC = 0.02974

Weight: <None>
Min Conc: <None>

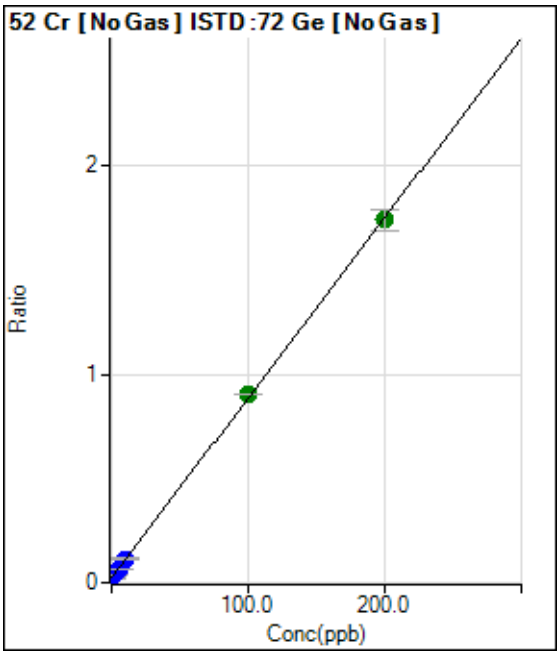


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3197.06	0.0048	P	5.2
2	☐	2.000	1.916	14608.92	0.0218	P	2.3
3	☐	5.000	4.876	32363.70	0.0482	P	2.0
4	☐	10.000	9.862	61923.58	0.0926	P	0.1
5	☐	100.000	99.722	595381.87	0.8926	P	0.3
6	☐	200.000	200.150	1182535.96	1.7866	A	1.8

y = 0.0089 * x + 0.0048
R = 1.0000
DL = 0.08435
BEC = 0.5364

Weight: <None>
Min Conc: <None>

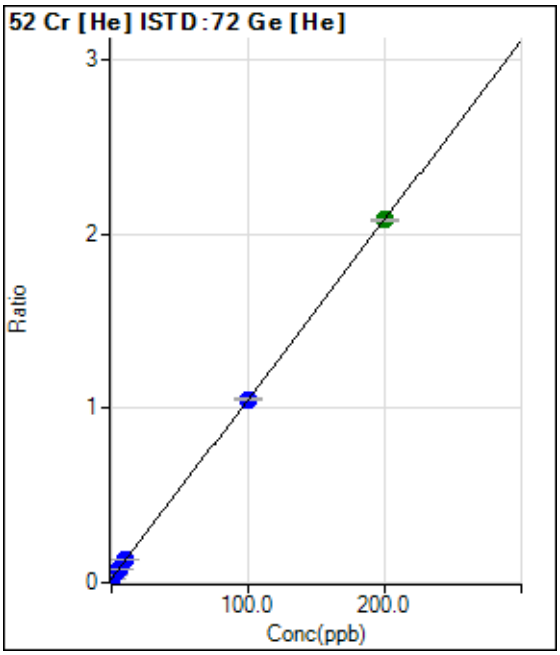
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63604.29	0.0232	P	1.7
2	☐	2.000	2.075	113843.53	0.0411	P	0.7
3	☐	5.000	5.170	186533.24	0.0678	P	1.9
4	☐	10.000	10.624	315153.21	0.1148	P	1.0
5	☐	100.000	101.871	2455202.78	0.9015	A	0.5
6	☐	200.000	199.028	4765524.09	1.7392	A	5.5

y = 0.0086 * x + 0.0232
R = 0.9999
DL = 0.1343
BEC = 2.689

Weight: <None>
Min Conc: <None>

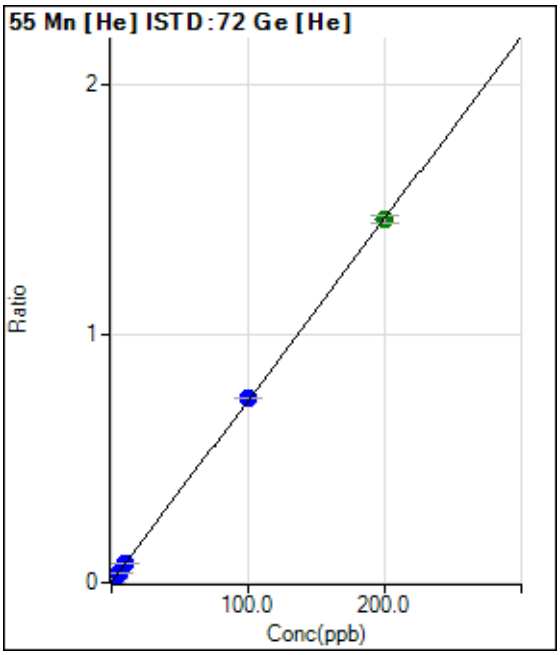


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14708.14	0.0220	P	1.6
2	☐	2.000	2.111	29268.25	0.0437	P	1.8
3	☐	5.000	5.046	49707.05	0.0740	P	3.0
4	☐	10.000	10.253	85422.66	0.1277	P	0.6
5	☐	100.000	100.076	703026.32	1.0539	P	0.4
6	☐	200.000	199.947	1379328.73	2.0838	A	0.5

y = 0.0103 * x + 0.0220
R = 1.0000
DL = 0.1024
BEC = 2.13

Weight: <None>
Min Conc: <None>

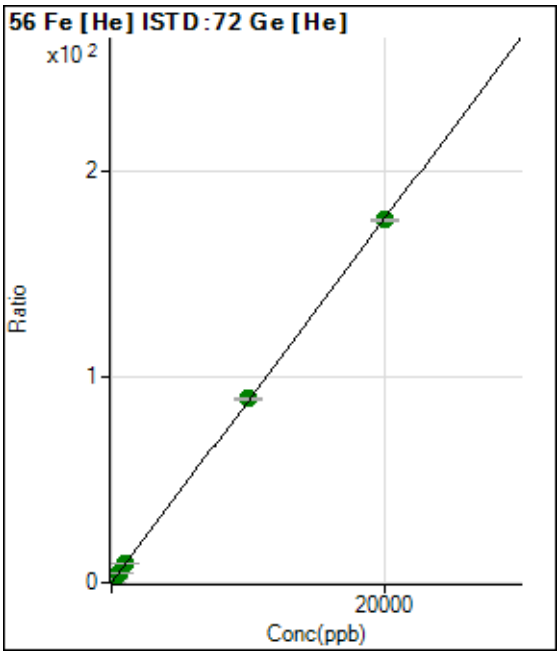
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1140.07	0.0017	P	9.2
2	☐	2.000	2.071	11271.52	0.0168	P	3.9
3	☐	5.000	5.041	25901.52	0.0386	P	2.9
4	☐	10.000	10.114	50603.83	0.0756	P	1.4
5	☐	100.000	101.369	495501.32	0.7428	P	0.6
6	☐	200.000	199.308	965576.13	1.4589	A	2.2

y = 0.0073 * x + 0.0017
R = 1.0000
DL = 0.06427
BEC = 0.233

Weight: <None>
Min Conc: <None>

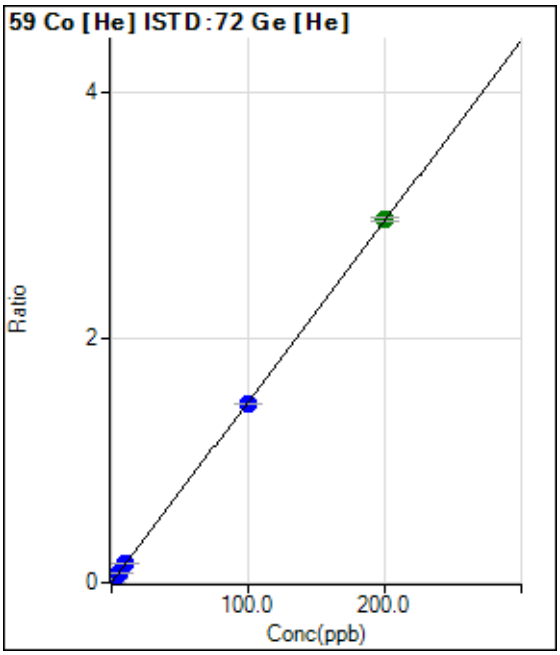


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24191.72	0.0361	P	3.3
2	☐	200.000	205.971	1243162.90	1.8575	A	0.5
3	☐	500.000	513.769	3075898.91	4.5793	A	2.7
4	☐	1000.000	1018.660	6050033.66	9.0440	A	0.8
5	☐	10000.00	10097.00	59581645.78	89.3228	A	0.8
6	☐	20000.00	19950.16	116800118.2	176.453	A	0.5

y = 0.0088 * x + 0.0361
R = 1.0000
DL = 0.404
BEC = 4.086

Weight: <None>
Min Conc: <None>

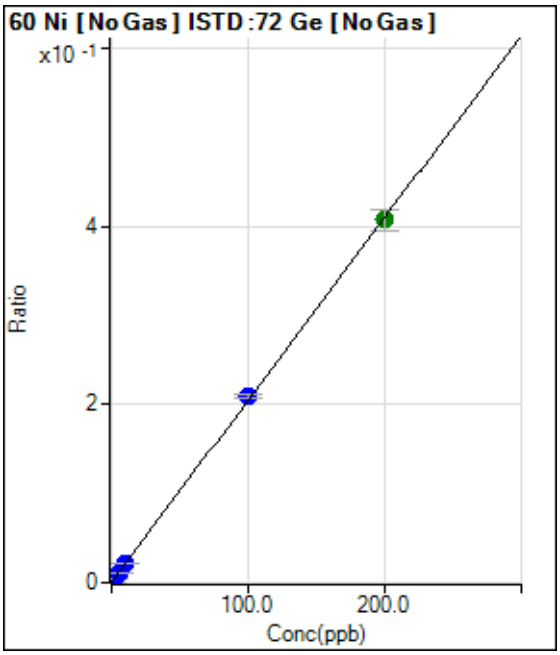
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0002	P	3.9
2	☐	2.000	1.981	19734.61	0.0295	P	4.1
3	☐	5.000	4.979	49543.44	0.0738	P	1.6
4	☐	10.000	10.148	100388.00	0.1501	P	0.6
5	☐	100.000	98.566	970814.08	1.4554	P	0.2
6	☐	200.000	200.710	1961459.81	2.9634	A	1.0

y = 0.0148 * x + 2.4893E-004
R = 1.0000
DL = 0.001968
BEC = 0.01686

Weight: <None>
Min Conc: <None>

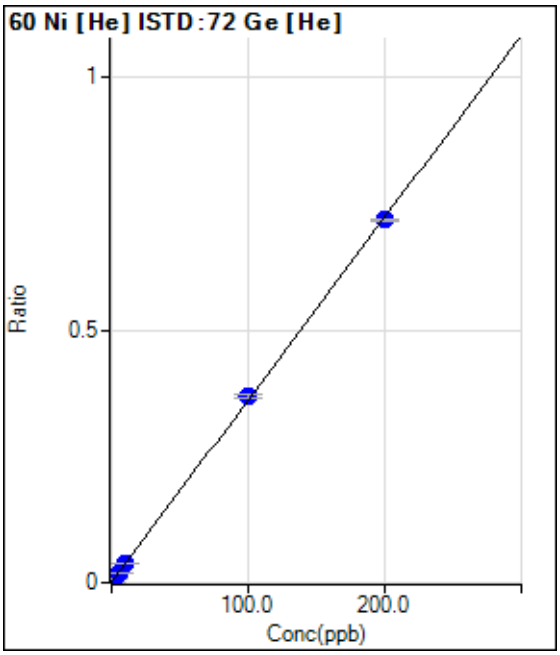


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1513.45	0.0006	P	9.1
2	☐	2.000	2.072	13283.38	0.0048	P	3.4
3	☐	5.000	5.087	30187.23	0.0110	P	1.8
4	☐	10.000	10.433	60149.85	0.0219	P	0.9
5	☐	100.000	102.127	570880.83	0.2096	P	1.4
6	☐	200.000	198.912	1117250.58	0.4078	A	5.6

y = 0.0020 * x + 5.5188E-004
R = 0.9999
DL = 0.0739
BEC = 0.2696

Weight: <None>
Min Conc: <None>

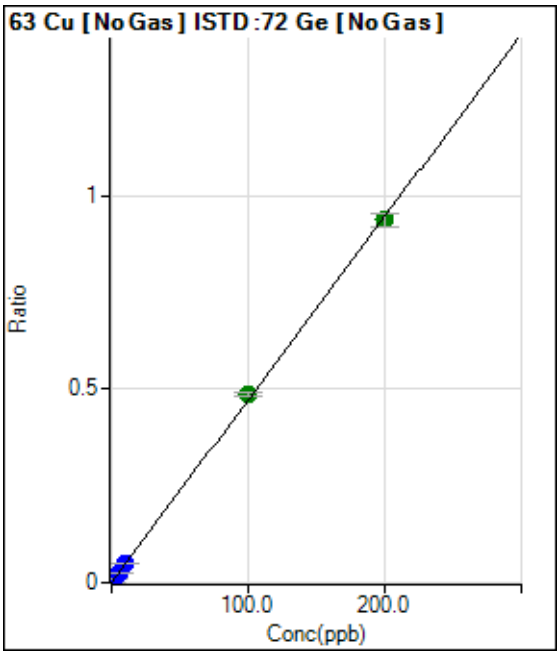
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	503.35	0.0008	P	11.5
2	☐	2.000	2.075	5507.86	0.0082	P	2.9
3	☐	5.000	5.083	12812.88	0.0191	P	2.7
4	☐	10.000	10.504	25838.24	0.0386	P	1.2
5	☐	100.000	102.326	246573.40	0.3697	P	1.6
6	☐	200.000	198.809	474939.49	0.7175	P	0.4

y = 0.0036 * x + 7.5188E-004
R = 0.9999
DL = 0.0721
BEC = 0.2086

Weight: <None>
Min Conc: <None>

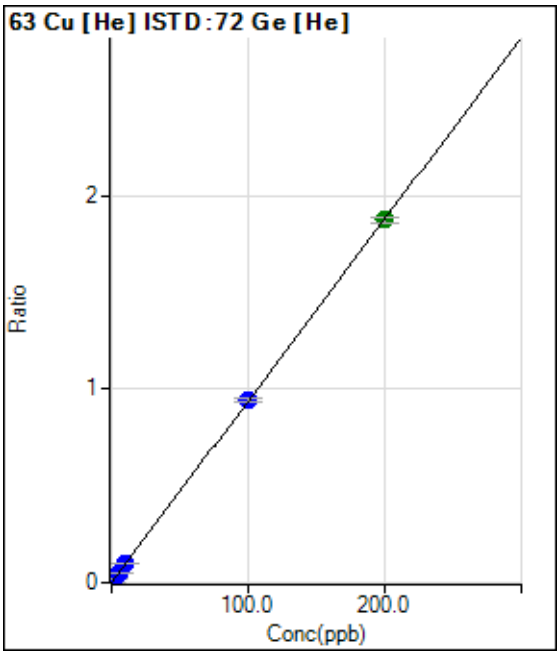


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1113.40	0.0004	P	9.4
2	☐	2.000	2.119	28867.81	0.0104	P	2.7
3	☐	5.000	5.261	69520.97	0.0253	P	2.1
4	☐	10.000	10.593	138442.62	0.0504	P	1.9
5	☐	100.000	103.137	1327675.50	0.4875	A	1.4
6	☐	200.000	198.394	2569956.01	0.9374	A	4.0

y = 0.0047 * x + 4.0575E-004
R = 0.9998
DL = 0.02426
BEC = 0.08591

Weight: <None>
Min Conc: <None>

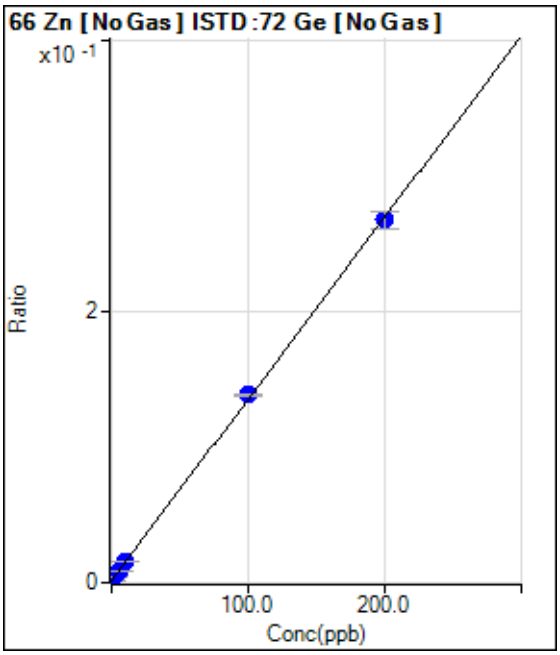
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0007	P	7.5
2	☐	2.000	2.070	13486.89	0.0202	P	0.7
3	☐	5.000	5.105	32669.58	0.0486	P	2.8
4	☐	10.000	10.214	64606.70	0.0966	P	0.4
5	☐	100.000	100.527	629729.56	0.9441	P	1.1
6	☐	200.000	199.723	1241068.60	1.8749	A	1.4

y = 0.0094 * x + 7.3155E-004
R = 1.0000
DL = 0.01747
BEC = 0.07796

Weight: <None>
Min Conc: <None>

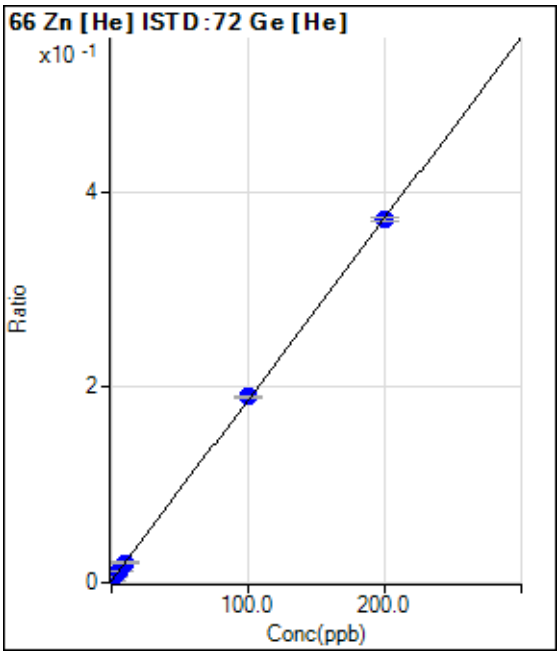


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4017.35	0.0015	P	8.1
2	☐	2.000	2.153	12042.19	0.0043	P	4.3
3	☐	5.000	5.120	22879.76	0.0083	P	0.8
4	☐	10.000	10.552	42761.12	0.0156	P	1.3
5	☐	100.000	102.498	377209.93	0.1385	P	1.4
6	☐	200.000	198.719	732274.96	0.2672	P	4.9

y = 0.0013 * x + 0.0015
R = 0.9999
DL = 0.2663
BEC = 1.095

Weight: <None>
Min Conc: <None>

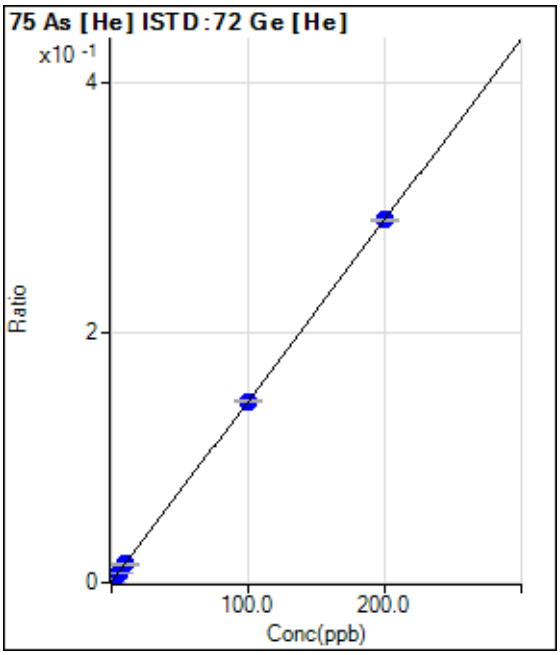
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1256.75	0.0019	P	4.5
2	☐	2.000	2.307	4117.37	0.0062	P	7.7
3	☐	5.000	5.042	7538.89	0.0112	P	4.1
4	☐	10.000	10.130	13820.59	0.0207	P	2.2
5	☐	100.000	101.546	126831.67	0.1901	P	0.3
6	☐	200.000	199.217	245711.90	0.3712	P	1.0

y = 0.0019 * x + 0.0019
R = 1.0000
DL = 0.1371
BEC = 1.012

Weight: <None>
Min Conc: <None>

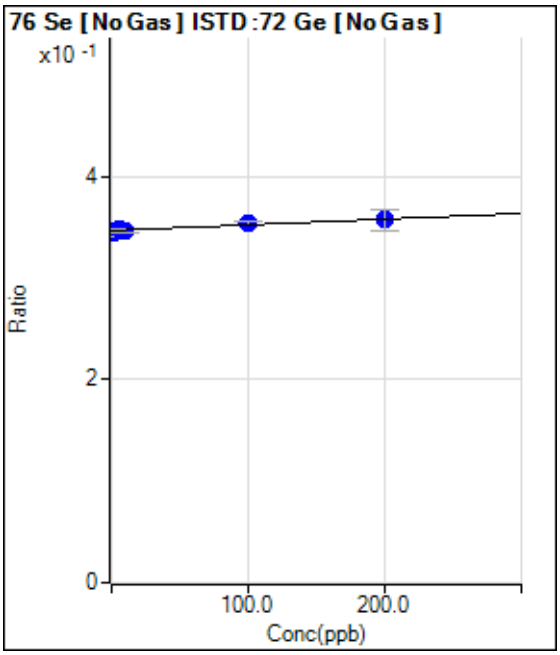


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	178.89	0.0003	P	8.8
2	☐	2.000	2.072	2192.42	0.0033	P	5.7
3	☐	5.000	4.862	4920.93	0.0073	P	3.0
4	☐	10.000	9.994	9882.54	0.0148	P	2.8
5	☐	100.000	99.870	96886.12	0.1452	P	0.6
6	☐	200.000	200.068	192420.43	0.2907	P	0.8

y = 0.0015 * x + 2.6707E-004
R = 1.0000
DL = 0.04851
BEC = 0.184

Weight: <None>
Min Conc: <None>

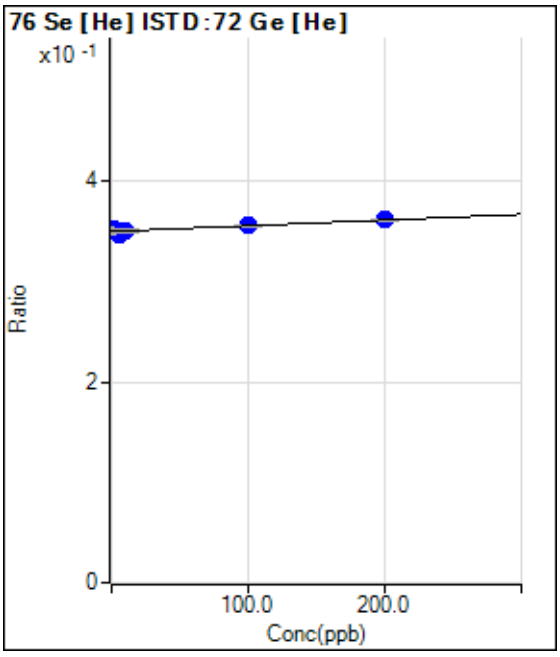
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	950931.16	0.3467	P	0.0
2	☐	2.000	-44.609	953797.49	0.3441	P	1.6
3	☐	5.000	14.290	956578.71	0.3475	P	0.4
4	☐	10.000	-1.446	951375.58	0.3466	P	1.0
5	☐	100.000	131.569	964114.31	0.3540	P	0.7
6	☐	200.000	185.022	978251.70	0.3570	P	5.6

y = 5.6117E-005 * x + 0.3467
R = 0.9574
DL = 7.19
BEC = 6177

Weight: <None>
Min Conc: <None>

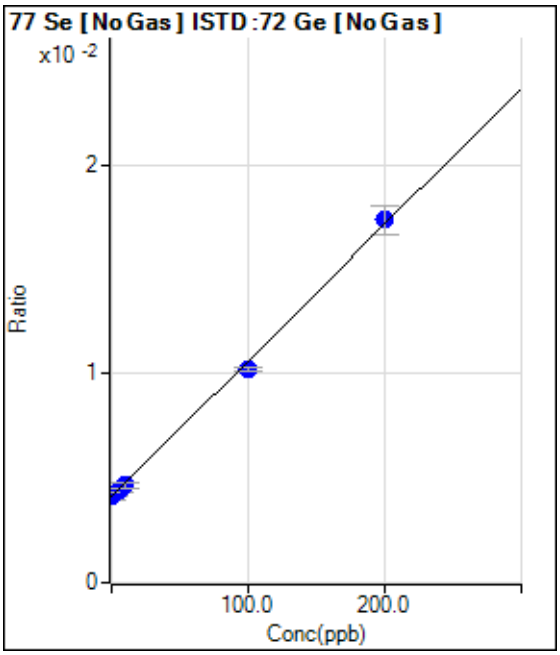


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	234448.87	0.3502	P	1.6
2	☐	2.000	52.936	236372.96	0.3532	P	0.9
3	☐	5.000	-45.761	233444.46	0.3475	P	0.6
4	☐	10.000	15.243	234805.62	0.3510	P	1.0
5	☐	100.000	99.010	237342.39	0.3558	P	0.2
6	☐	200.000	200.993	239373.59	0.3616	P	0.4

y = 5.7095E-005 * x + 0.3502
R = 0.9292
DL = 290.8
BEC = 6133

Weight: <None>
Min Conc: <None>

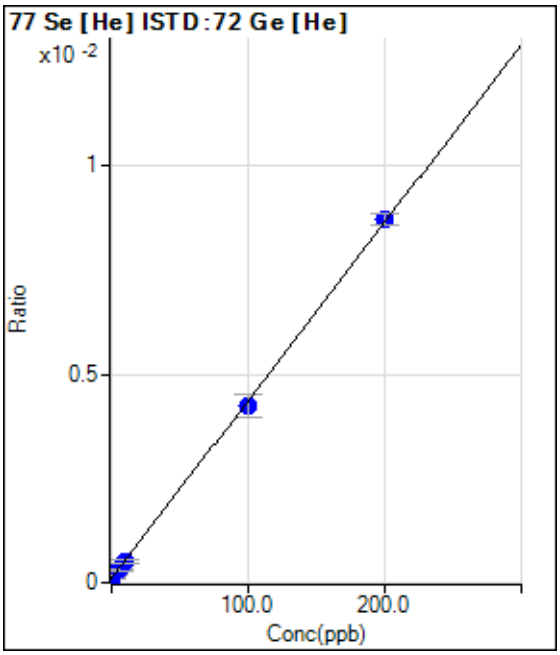
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11254.88	0.0041	P	6.2
2	☐	2.000	1.805	11701.96	0.0042	P	3.7
3	☐	5.000	5.209	12229.09	0.0044	P	3.4
4	☐	10.000	8.544	12799.63	0.0047	P	5.8
5	☐	100.000	93.424	27758.98	0.0102	P	1.3
6	☐	200.000	203.357	47527.51	0.0174	P	7.9

y = 6.5191E-005 * x + 0.0041
R = 0.9992
DL = 11.65
BEC = 62.94

Weight: <None>
Min Conc: <None>

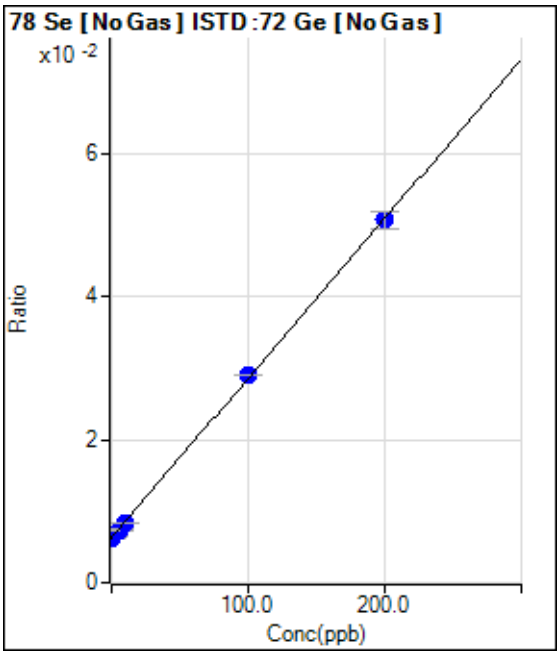


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	28.0
2	☐	2.000	2.454	140.00	0.0002	P	13.8
3	☐	5.000	4.882	210.01	0.0003	P	9.3
4	☐	10.000	9.705	346.68	0.0005	P	18.9
5	☐	100.000	96.947	2827.02	0.0042	P	13.4
6	☐	200.000	201.540	5758.01	0.0087	P	3.1

y = 4.2646E-005 * x + 1.0441E-004
R = 0.9998
DL = 2.057
BEC = 2.448

Weight: <None>
Min Conc: <None>

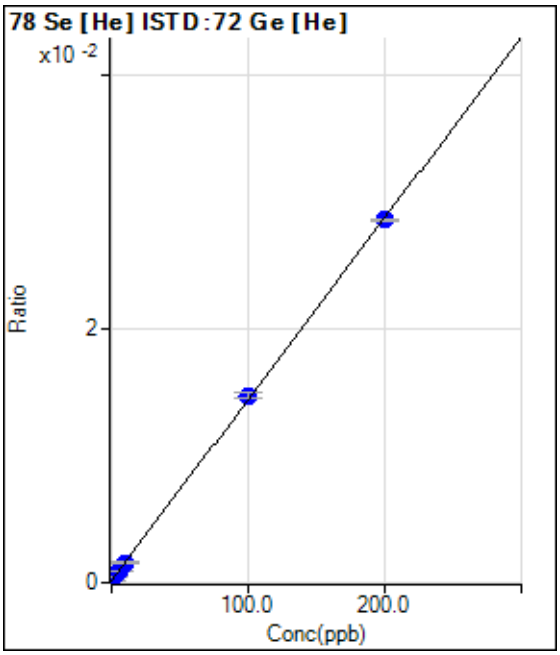
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17338.05	0.0063	P	1.1
2	☐	2.000	1.422	18396.18	0.0066	P	3.2
3	☐	5.000	4.423	20111.90	0.0073	P	3.2
4	☐	10.000	8.740	22702.74	0.0083	P	0.5
5	☐	100.000	101.758	79010.96	0.0290	P	0.5
6	☐	200.000	199.204	139076.30	0.0507	P	4.8

y = 2.2301E-004 * x + 0.0063
R = 0.9999
DL = 0.922
BEC = 28.34

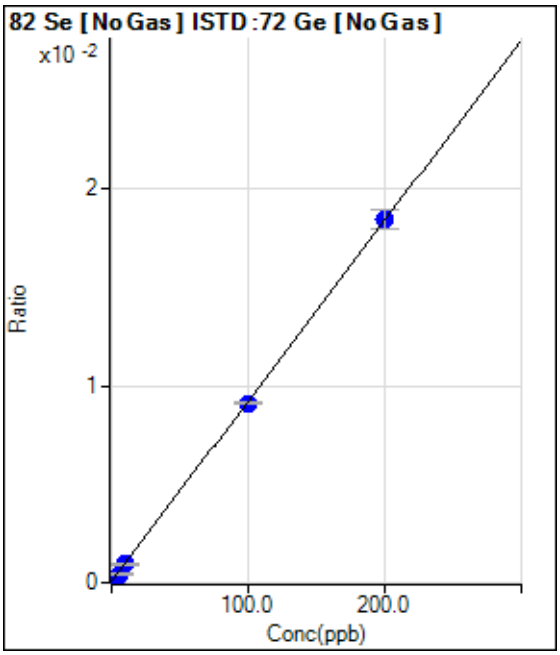
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.33	0.0002	P	9.3
2	☐	2.000	2.039	306.00	0.0005	P	8.4
3	☐	5.000	5.021	592.68	0.0009	P	4.1
4	☐	10.000	9.864	1052.04	0.0016	P	3.9
5	☐	100.000	101.833	9797.58	0.0147	P	3.1
6	☐	200.000	199.089	18901.90	0.0286	P	0.8

y = 1.4259E-004 * x + 1.6635E-004
R = 0.9999
DL = 0.3262
BEC = 1.167

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	178.00	0.0001	P	53.7
2	☐	2.000	1.624	591.15	0.0002	P	16.2
3	☐	5.000	3.939	1170.96	0.0004	P	10.6
4	☐	10.000	9.827	2647.41	0.0010	P	8.7
5	☐	100.000	98.947	24821.30	0.0091	P	1.8
6	☐	200.000	200.565	50447.03	0.0184	P	5.4

y = 9.1468E-005 * x + 6.4781E-005

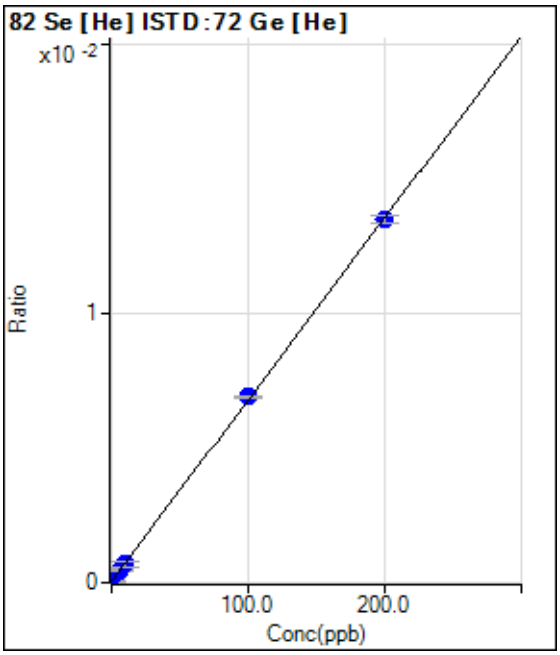
R = 1.0000

DL = 1.141

BEC = 0.7082

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0000	P	88.4
2	☐	2.000	3.395	183.34	0.0003	P	7.1
3	☐	5.000	5.880	296.68	0.0004	P	19.2
4	☐	10.000	9.516	460.02	0.0007	P	26.0
5	☐	100.000	101.835	4614.20	0.0069	P	1.0
6	☐	200.000	199.071	8923.09	0.0135	P	2.0

y = 6.7485E-005 * x + 4.4935E-005

R = 0.9999

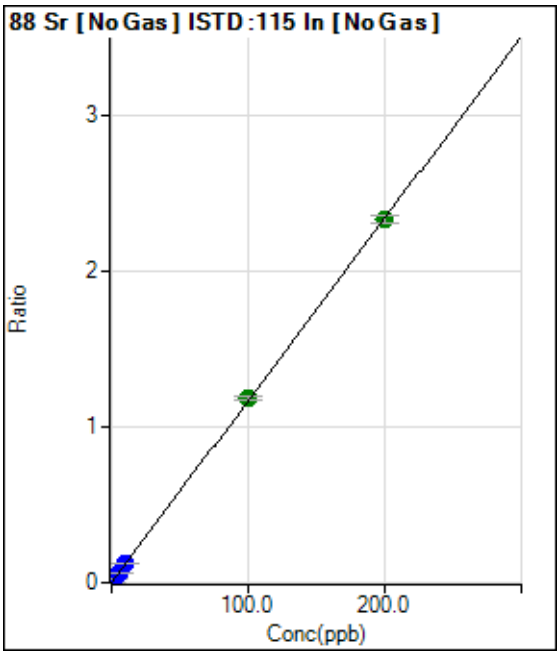
DL = 1.766

BEC = 0.6658

Weight: <None>

Min Conc: <None>

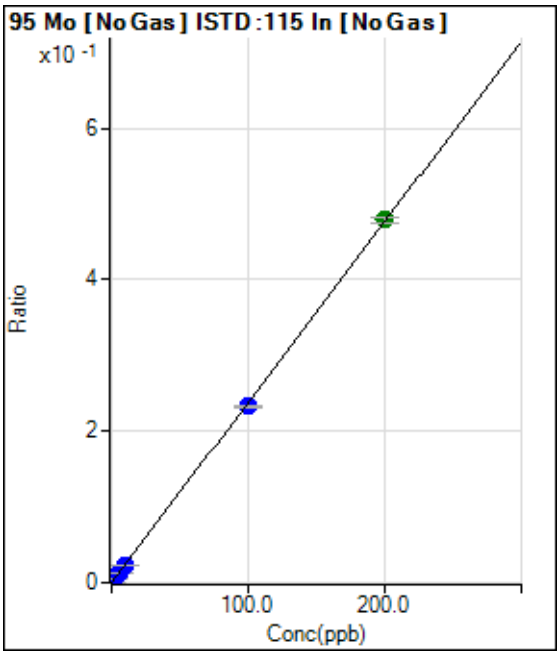
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1330.09	0.0004	P	6.5
2	☐	2.000	2.008	76943.97	0.0238	P	2.7
3	☐	5.000	4.966	187699.91	0.0583	P	1.1
4	☐	10.000	10.106	377151.06	0.1183	P	1.1
5	☐	100.000	101.308	3740263.69	1.1820	A	1.3
6	☐	200.000	199.341	7236729.89	2.3255	A	2.0

y = 0.0117 * x + 4.1226E-004
R = 1.0000
DL = 0.006908
BEC = 0.03535

Weight: <None>
Min Conc: <None>

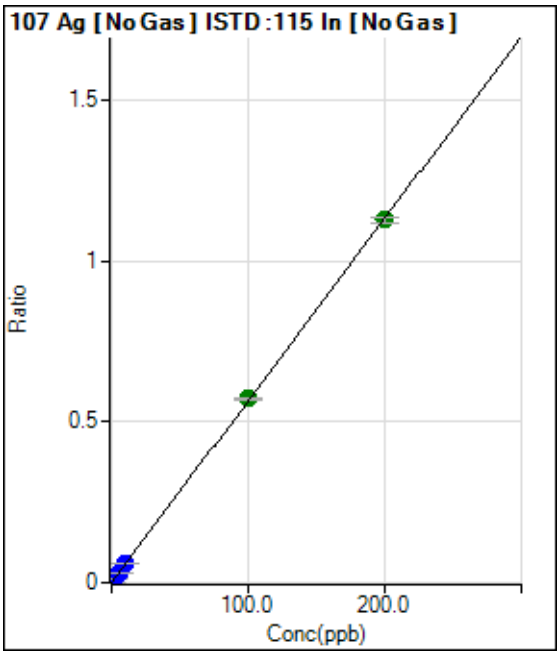


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.68	0.0001	P	11.9
2	☐	2.000	1.867	14538.17	0.0045	P	1.1
3	☐	5.000	4.862	37409.55	0.0116	P	3.0
4	☐	10.000	9.655	73449.08	0.0230	P	0.9
5	☐	100.000	97.732	736118.40	0.2326	P	1.0
6	☐	200.000	201.156	1489861.44	0.4788	A	1.7

y = 0.0024 * x + 5.7807E-005
R = 0.9999
DL = 0.008665
BEC = 0.02429

Weight: <None>
Min Conc: <None>

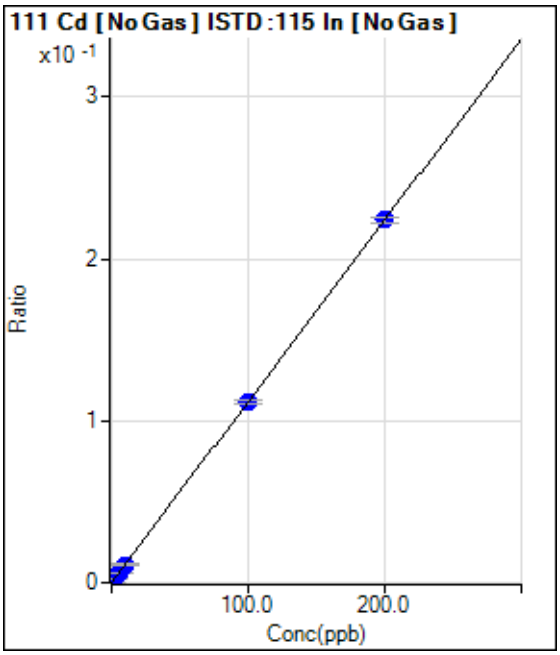
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	296.68	0.0001	P	16.9
2	☐	2.000	2.015	37112.47	0.0115	P	2.3
3	☐	5.000	5.060	92401.38	0.0287	P	2.2
4	☐	10.000	10.238	185024.17	0.0580	P	0.5
5	☐	100.000	101.209	1812366.43	0.5727	A	0.9
6	☐	200.000	199.382	3511020.47	1.1282	A	1.7

y = 0.0057 * x + 9.2005E-005
R = 1.0000
DL = 0.008236
BEC = 0.01626

Weight: <None>
Min Conc: <None>

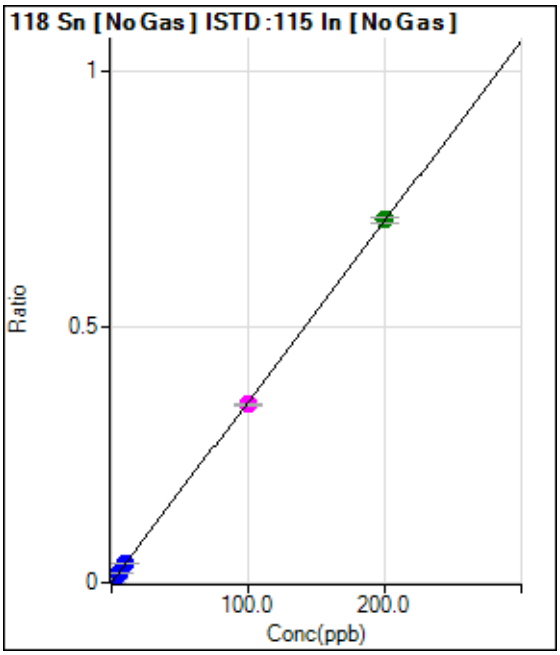


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-11.22	0.0000	P	-159.3
2	☐	2.000	1.937	6980.44	0.0022	P	7.9
3	☐	5.000	4.964	17857.95	0.0056	P	0.9
4	☐	10.000	10.072	35927.03	0.0113	P	1.6
5	☐	100.000	99.405	351913.44	0.1112	P	2.0
6	☐	200.000	200.295	697374.37	0.2241	P	1.3

y = 0.0011 * x - 3.4488E-006
R = 1.0000
DL = 0.01473
BEC = -0.003083

Weight: <None>
Min Conc: <None>

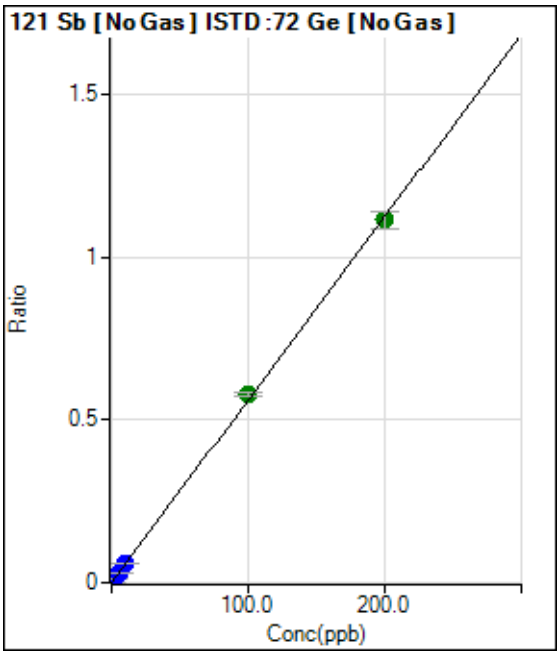
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1730.15	0.0005	P	1.3
2	☐	2.000	2.012	24624.57	0.0076	P	4.8
3	☐	5.000	4.907	57375.26	0.0178	P	1.6
4	☐	10.000	10.028	114439.48	0.0359	P	1.0
5	☐	100.000	98.436	1099737.64	0.3476	M	0.5
6	☐	200.000	200.783	2204351.17	0.7084	A	1.8

y = 0.0035 * x + 5.3602E-004
R = 1.0000
DL = 0.005992
BEC = 0.1521

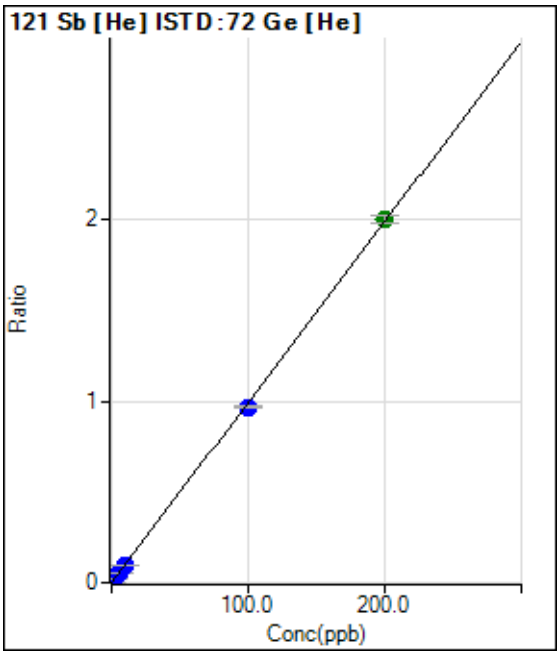
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	210.01	0.0001	P	30.1
2	☐	2.000	1.991	31230.81	0.0113	P	2.3
3	☐	5.000	5.001	77595.60	0.0282	P	1.1
4	☐	10.000	10.265	158610.79	0.0578	P	1.1
5	☐	100.000	102.980	1576476.02	0.5789	A	1.3
6	☐	200.000	198.497	3058020.16	1.1158	A	5.1

y = 0.0056 * x + 7.6625E-005
R = 0.9998
DL = 0.01232
BEC = 0.01363

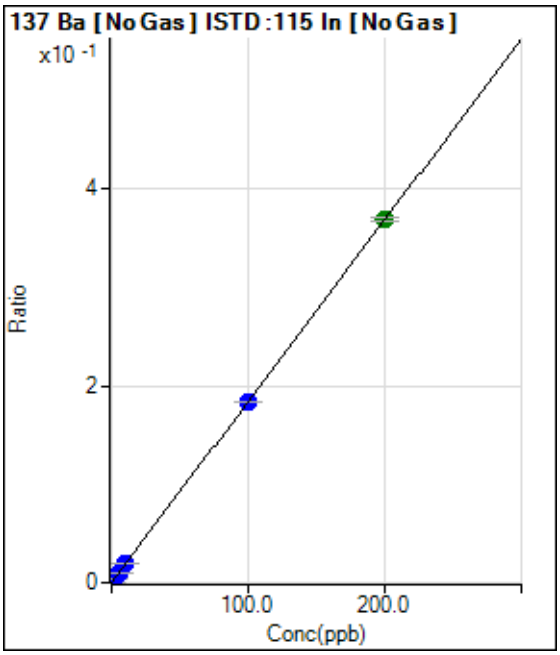
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	9.1
2	☐	2.000	1.911	12773.15	0.0191	P	1.8
3	☐	5.000	4.801	32099.61	0.0478	P	0.3
4	☐	10.000	9.733	64743.07	0.0968	P	0.3
5	☐	100.000	97.457	645811.58	0.9682	P	0.6
6	☐	200.000	201.291	1323497.92	1.9996	A	2.0

y = 0.0099 * x + 9.9591E-005
R = 0.9999
DL = 0.002739
BEC = 0.01003

Weight: <None>
Min Conc: <None>

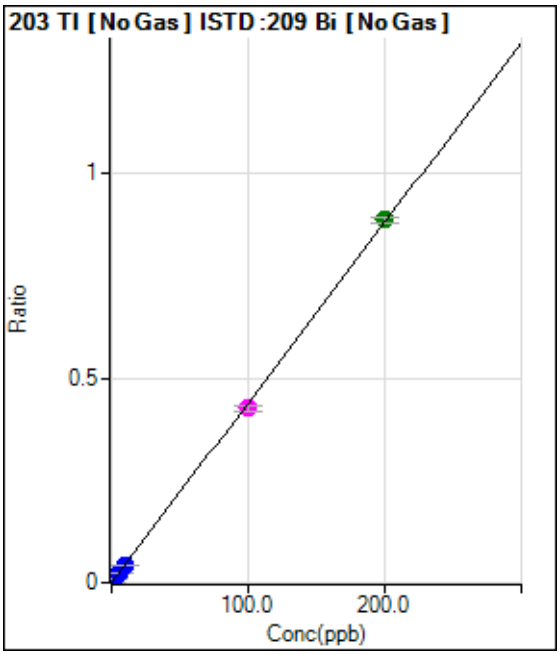


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	413.35	0.0001	P	11.0
2	☐	2.000	1.964	12089.19	0.0037	P	1.4
3	☐	5.000	5.065	30422.53	0.0095	P	2.5
4	☐	10.000	10.147	59988.49	0.0188	P	1.6
5	☐	100.000	99.661	581080.85	0.1836	P	0.9
6	☐	200.000	200.161	1147449.31	0.3687	A	1.0

y = 0.0018 * x + 1.2813E-004
R = 1.0000
DL = 0.02289
BEC = 0.06959

Weight: <None>
Min Conc: <None>

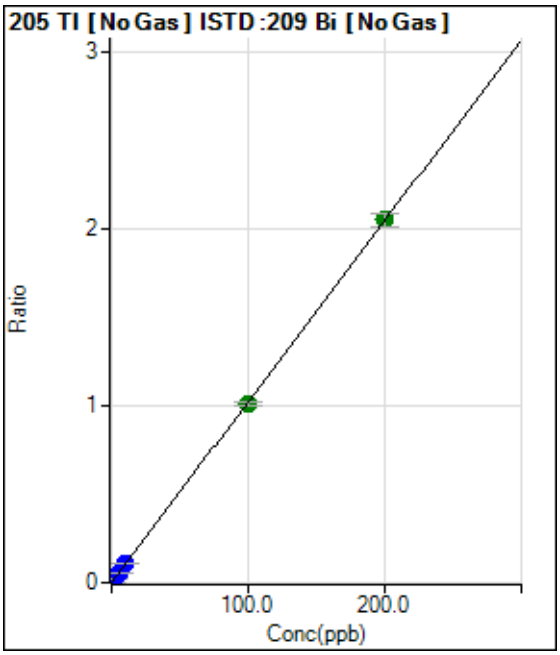
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0001	P	28.7
2	☐	2.000	2.138	25225.84	0.0095	P	2.1
3	☐	5.000	5.314	62281.85	0.0234	P	2.4
4	☐	10.000	9.923	117146.32	0.0437	P	3.6
5	☐	100.000	96.723	1118469.12	0.4252	M	3.7
6	☐	200.000	201.633	2285677.78	0.8863	A	1.9

y = 0.0044 * x + 6.1640E-005
R = 0.9998
DL = 0.01207
BEC = 0.01402

Weight: <None>
Min Conc: <None>

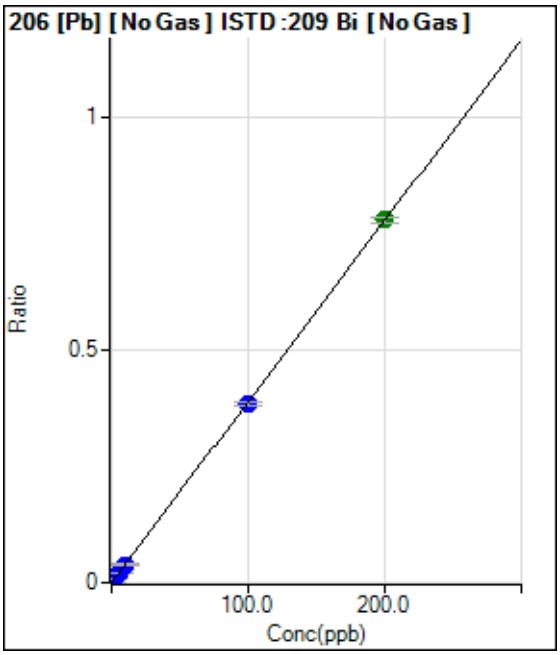


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0002	P	9.4
2	☐	2.000	2.183	59934.52	0.0225	P	2.9
3	☐	5.000	5.459	148679.30	0.0559	P	4.1
4	☐	10.000	10.284	282092.48	0.1052	P	3.4
5	☐	100.000	98.622	2650233.24	1.0071	A	2.0
6	☐	200.000	200.661	5282380.44	2.0488	A	3.6

y = 0.0102 * x + 1.8192E-004
R = 1.0000
DL = 0.005
BEC = 0.01782

Weight: <None>
Min Conc: <None>

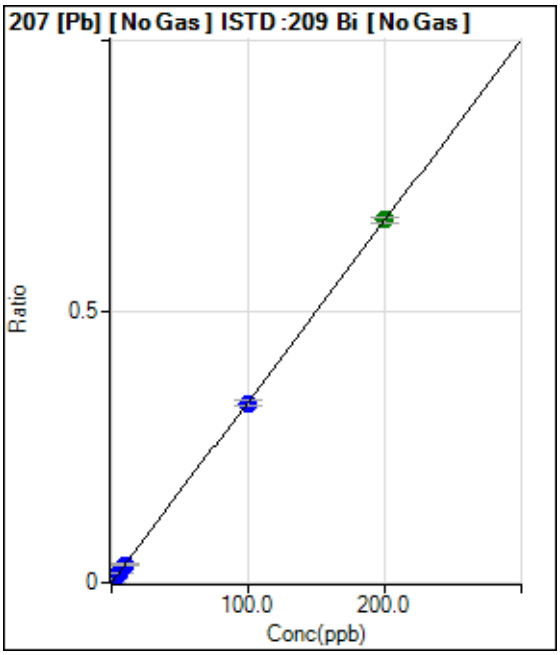
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.01	0.0001	P	11.0
2	☐	2.000	2.010	21074.79	0.0079	P	4.3
3	☐	5.000	5.039	52286.60	0.0197	P	3.4
4	☐	10.000	10.061	105037.61	0.0392	P	3.2
5	☐	100.000	98.864	1010145.95	0.3839	P	2.7
6	☐	200.000	200.564	2008439.24	0.7787	A	1.6

y = 0.0039 * x + 1.0047E-004
R = 1.0000
DL = 0.008504
BEC = 0.02588

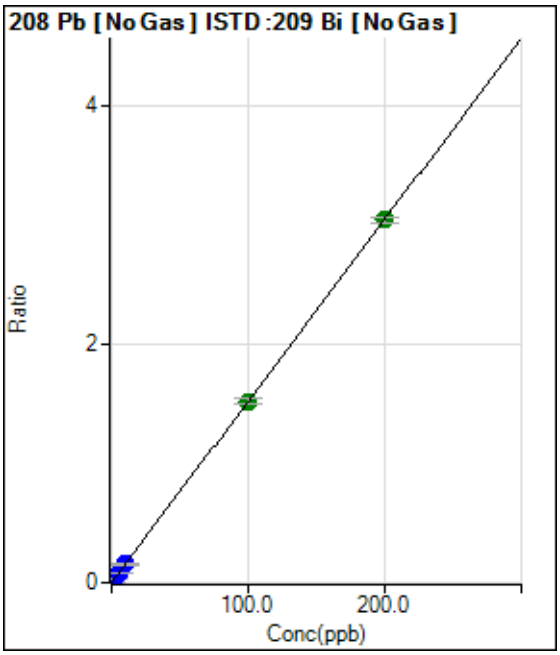
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.68	0.0001	P	31.5
2	☐	2.000	2.000	18050.00	0.0068	P	3.8
3	☐	5.000	4.968	44288.92	0.0167	P	4.5
4	☐	10.000	10.008	89712.66	0.0334	P	4.2
5	☐	100.000	99.074	868515.77	0.3302	P	3.7
6	☐	200.000	200.463	1722577.84	0.6679	A	1.8

y = 0.0033 * x + 1.0717E-004
R = 1.0000
DL = 0.03037
BEC = 0.03217

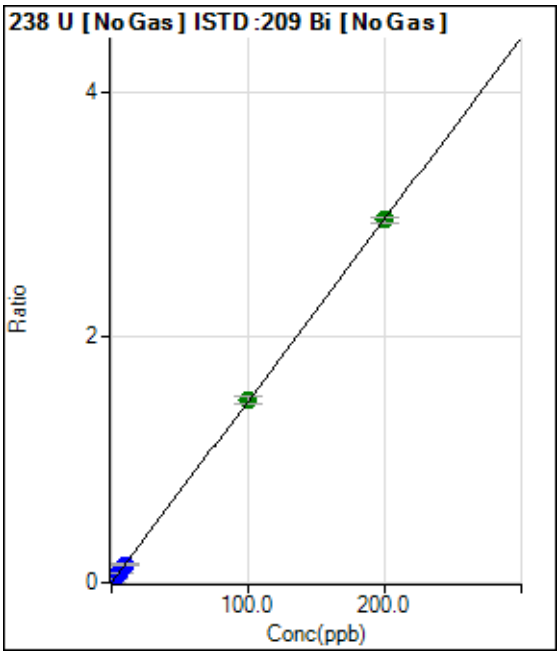
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1123.38	0.0004	P	11.1
2	☐	2.000	2.014	82915.45	0.0311	P	2.4
3	☐	5.000	5.052	205701.25	0.0773	P	2.8
4	☐	10.000	10.148	415619.78	0.1549	P	3.1
5	☐	100.000	100.117	4012458.35	1.5249	A	2.6
6	☐	200.000	199.933	7852937.02	3.0449	A	1.5

y = 0.0152 * x + 4.1840E-004
R = 1.0000
DL = 0.009183
BEC = 0.02748

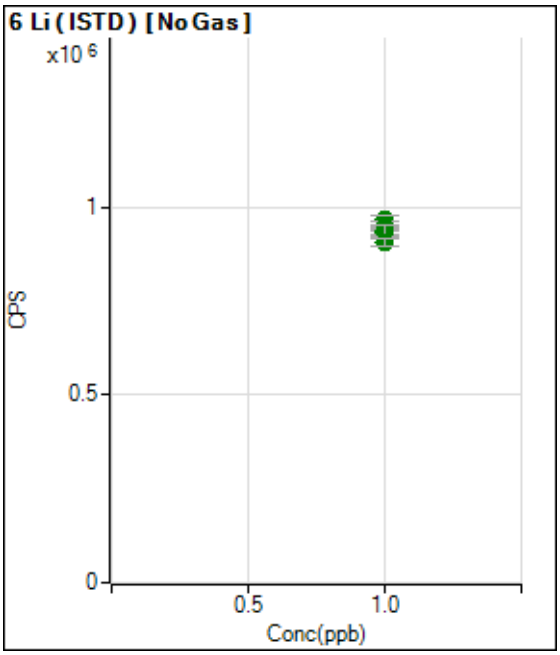
Weight: <None>
Min Conc: <None>



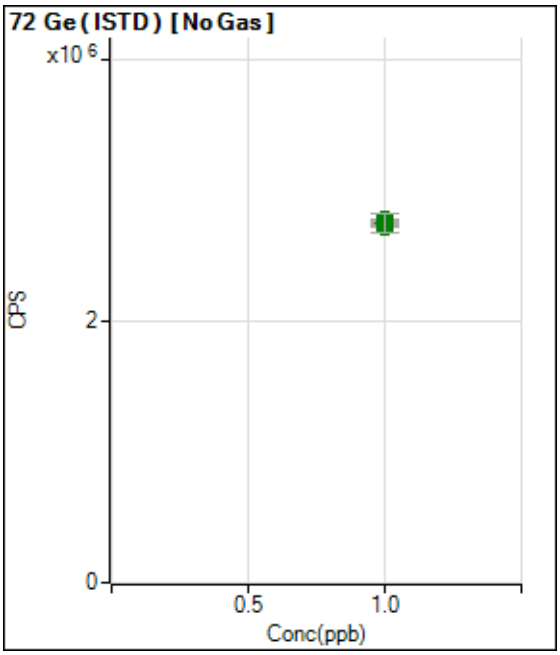
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0000	P	33.6
2	☐	2.000	1.993	78729.08	0.0295	P	0.4
3	☐	5.000	4.941	194534.65	0.0732	P	3.4
4	☐	10.000	9.947	394973.69	0.1472	P	3.2
5	☐	100.000	100.577	3916118.06	1.4885	A	3.5
6	☐	200.000	199.716	7622781.14	2.9558	A	1.9

y = 0.0148 * x + 2.7249E-005
R = 1.0000
DL = 0.001854
BEC = 0.001841

Weight: <None>
Min Conc: <None>

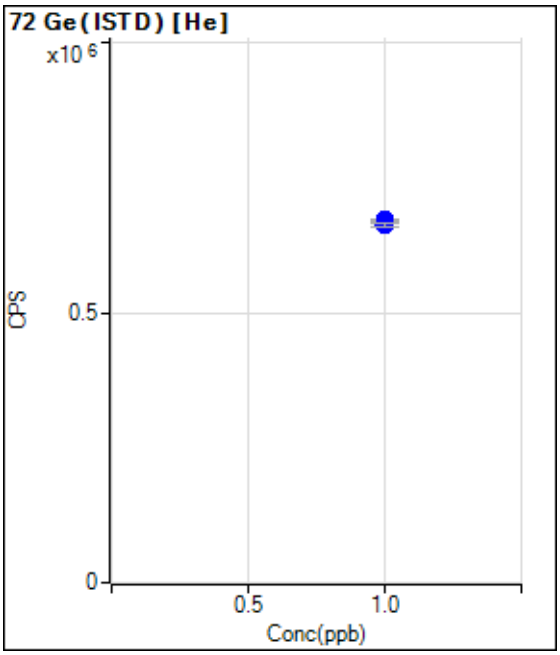


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		965311.47		A	2.6
2	☐	1.000		952398.30		A	1.8
3	☐	1.000		931348.95		A	1.1
4	☐	1.000		944414.84		A	0.3
5	☐	1.000		936176.51		A	3.2
6	☐	1.000		904869.95		A	2.6

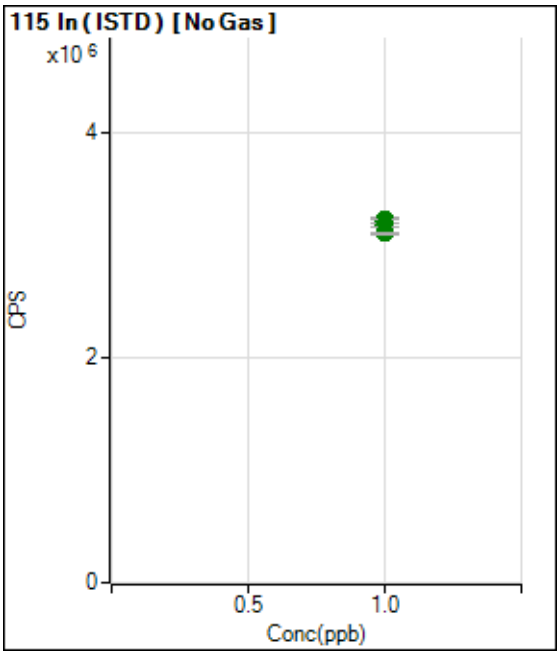


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2743180.79		A	0.5
2	☐	1.000		2771690.17		A	0.8
3	☐	1.000		2753171.63		A	1.2
4	☐	1.000		2745330.27		A	1.4
5	☐	1.000		2723309.85		A	0.9
6	☐	1.000		2745461.52		A	5.4

Calibration for 021_ICV.d

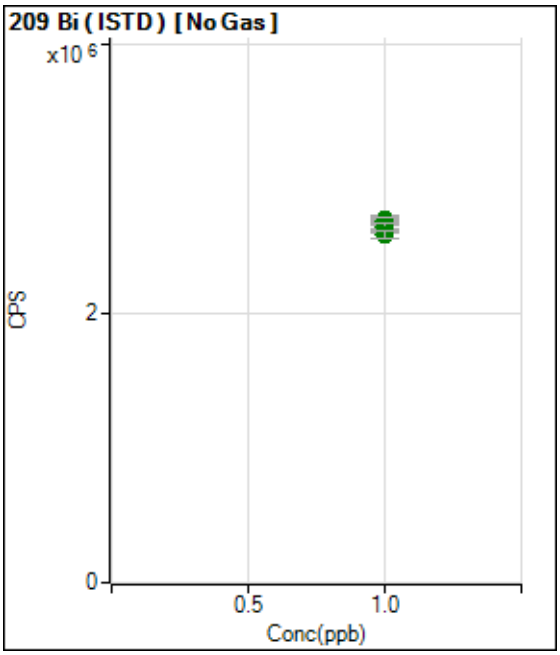


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		669605.57		P	0.8
2	☐	1.000		669281.74		P	1.0
3	☐	1.000		671697.57		P	0.3
4	☐	1.000		668948.17		P	1.0
5	☐	1.000		667044.89		P	0.3
6	☐	1.000		661927.12		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3228126.25		A	1.3
2	☐	1.000		3229088.23		A	1.2
3	☐	1.000		3217780.86		A	1.4
4	☐	1.000		3188818.94		A	0.9
5	☐	1.000		3164260.08		A	0.4
6	☐	1.000		3112201.64		A	0.7

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2690468.40		A	2.8
2	☐	1.000		2667120.79		A	0.6
3	☐	1.000		2660830.85		A	2.8
4	☐	1.000		2683560.06		A	2.3
5	☐	1.000		2632461.83		A	2.8
6	☐	1.000		2579700.43		A	2.4

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	014CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:20:34-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	58340	0.00
Be	9	1	No Gas	25	160.00
V	51	2	He	3197	0.16
Cr	52	2	He	14708	0.01
Fe	56	2	He	24192	0.01
Se	78	2	He	111	7.63
As	75	2	He	179	5.24
Ca	44	2	He	840	0.71
Na	23	2	He	46036	0.01
Mg	24	2	He	790	0.83
K	39	2	He	94230	0.00
Mn	55	2	He	1140	0.76
Co	59	2	He	167	2.08
Ni	60	2	He	503	2.24
Cu	63	2	He	490	1.67
Zn	66	2	He	1257	0.42
Al	27	2	He	647	1.38
B	11	1	No Gas	9595	0.01
Al	27	1	No Gas	30915	0.00
Si	28	1	No Gas	463001	0.00
Ag	107	1	No Gas	297	5.37
Sr	88	1	No Gas	1330	0.40
Mo	95	1	No Gas	187	6.63
Sn	118	1	No Gas	1730	0.00
Sb	121	1	No Gas	210	14.16
Ba	137	1	No Gas	413	2.44
Tl	205	1	No Gas	490	2.32
Tl	203	1	No Gas	167	18.47
Pb	208	1	No Gas	1123	0.73
U	238	1	No Gas	73	46.80
Ca	43	2	He	20	250.00
Sb	121	2	He	67	12.99
Ti	47	2	He	7	1299.04
Cu	63	1	No Gas	1113	0.89

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	965311	2.59

Calibration Blank Report

Ge	72	2	He	669606	0.80
Ge	72	1	No Gas	2743181	0.50
In	115	1	No Gas	3228126	1.32
Bi	209	1	No Gas	2690468	2.76

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:22:32-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	6878	0.02
V	51	2	He	14609	0.01
Cr	52	2	He	29268	0.00
Fe	56	2	He	1243163	0.00
Se	78	2	He	306	2.94
As	75	2	He	2192	0.29
Ca	44	2	He	8296	0.02
Na	23	2	He	243879	0.00
Mg	24	2	He	118074	0.00
K	39	2	He	246808	0.00
Mn	55	2	He	11272	0.03
Co	59	2	He	19735	0.02
Ni	60	2	He	5508	0.04
Cu	63	2	He	13487	0.00
Zn	66	2	He	4117	0.18
Al	27	2	He	1440	0.70
B	11	1	No Gas	31433	0.00
Al	27	1	No Gas	69339	0.00
Si	28	1	No Gas	551695	0.00
Ag	107	1	No Gas	37112	0.00
Cd	111	1	No Gas	6980	0.09
Sr	88	1	No Gas	76944	0.00
Mo	95	1	No Gas	14538	0.02
Sn	118	1	No Gas	24625	0.01
Sb	121	1	No Gas	31231	0.01
Ba	137	1	No Gas	12089	0.01
Tl	205	1	No Gas	59935	0.00
Tl	203	1	No Gas	25226	0.01
Pb	208	1	No Gas	82915	0.00
U	238	1	No Gas	78729	0.00
Ca	43	2	He	487	2.33
Sb	121	2	He	12773	0.01
Cu	63	1	No Gas	28868	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	952398	1.84	965311	98.66	70	120	
Ge	72	2	He	669282	0.99	669606	99.95	70	120	
Ge	72	1	No Gas	2771690	0.81	2743181	101.04	70	120	

Calibration Standard Report

In	115	1	No Gas	3229088	1.24	3228126	100.03	70	120	
Bi	209	1	No Gas	2667121	0.65	2690468	99.13	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	016CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:24:30-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	17156	0.01
V	51	2	He	32364	0.01
Cr	52	2	He	49707	0.01
Fe	56	2	He	3075899	0.00
Se	78	2	He	593	0.72
As	75	2	He	4921	0.06
Ca	44	2	He	19968	0.01
Na	23	2	He	540574	0.00
Mg	24	2	He	294437	0.00
K	39	2	He	470793	0.00
Mn	55	2	He	25902	0.01
Co	59	2	He	49543	0.00
Ni	60	2	He	12813	0.02
Cu	63	2	He	32670	0.01
Zn	66	2	He	7539	0.06
Al	27	2	He	2270	0.22
B	11	1	No Gas	62967	0.00
Al	27	1	No Gas	117335	0.00
Si	28	1	No Gas	682362	0.00
Ag	107	1	No Gas	92401	0.00
Cd	111	1	No Gas	17858	0.01
Sr	88	1	No Gas	187700	0.00
Mo	95	1	No Gas	37410	0.01
Sn	118	1	No Gas	57375	0.00
Sb	121	1	No Gas	77596	0.00
Ba	137	1	No Gas	30423	0.01
Tl	205	1	No Gas	148679	0.00
Tl	203	1	No Gas	62282	0.00
Pb	208	1	No Gas	205701	0.00
U	238	1	No Gas	194535	0.00
Ca	43	2	He	1150	0.46
Sb	121	2	He	32100	0.00
Cu	63	1	No Gas	69521	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	931349	1.10	965311	96.48	70	120	
Ge	72	2	He	671698	0.27	669606	100.31	70	120	
Ge	72	1	No Gas	2753172	1.23	2743181	100.36	70	120	

Calibration Standard Report

In	115	1	No Gas	3217781	1.42	3228126	99.68	70	120	
Bi	209	1	No Gas	2660831	2.83	2690468	98.90	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	017CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:26:28-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	34736	0.00
V	51	2	He	61924	0.00
Cr	52	2	He	85423	0.00
Fe	56	2	He	6050034	0.00
Se	78	2	He	1052	0.31
As	75	2	He	9883	0.02
Ca	44	2	He	39671	0.00
Na	23	2	He	1002583	0.00
Mg	24	2	He	591825	0.00
K	39	2	He	851445	0.00
Mn	55	2	He	50604	0.00
Co	59	2	He	100388	0.00
Ni	60	2	He	25838	0.01
Cu	63	2	He	64607	0.00
Zn	66	2	He	13821	0.02
Al	27	2	He	4224	0.04
B	11	1	No Gas	118006	0.00
Al	27	1	No Gas	200944	0.00
Si	28	1	No Gas	920059	0.00
Ag	107	1	No Gas	185024	0.00
Cd	111	1	No Gas	35927	0.01
Sr	88	1	No Gas	377151	0.00
Mo	95	1	No Gas	73449	0.00
Sn	118	1	No Gas	114439	0.00
Sb	121	1	No Gas	158611	0.00
Ba	137	1	No Gas	59988	0.00
Tl	205	1	No Gas	282092	0.00
Tl	203	1	No Gas	117146	0.00
Pb	208	1	No Gas	415620	0.00
U	238	1	No Gas	394974	0.00
Ca	43	2	He	2100	0.15
Sb	121	2	He	64743	0.00
Cu	63	1	No Gas	138443	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	944415	0.32	965311	97.84	70	120	
Ge	72	2	He	668948	1.03	669606	99.90	70	120	
Ge	72	1	No Gas	2745330	1.36	2743181	100.08	70	120	

Calibration Standard Report

In	115	1	No Gas	3188819	0.89	3228126	98.78	70	120	
Bi	209	1	No Gas	2683560	2.26	2690468	99.74	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	018CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:28:25-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	340981	0.00
V	51	2	He	595382	0.00
Cr	52	2	He	703026	0.00
Fe	56	2	He	59581646	0.00
Se	78	2	He	9798	0.03
As	75	2	He	96886	0.00
Ca	44	2	He	383919	0.00
Na	23	2	He	9387838	0.00
Mg	24	2	He	5543690	0.00
K	39	2	He	7429268	0.00
Mn	55	2	He	495501	0.00
Co	59	2	He	970814	0.00
Ni	60	2	He	246573	0.00
Cu	63	2	He	629730	0.00
Zn	66	2	He	126832	0.00
Al	27	2	He	34757	0.00
B	11	1	No Gas	1044770	0.00
Al	27	1	No Gas	1640854	0.00
Si	28	1	No Gas	4508298	0.00
Ag	107	1	No Gas	1812366	0.00
Cd	111	1	No Gas	351913	0.00
Sr	88	1	No Gas	3740264	0.00
Mo	95	1	No Gas	736118	0.00
Sn	118	1	No Gas	1099738	0.00
Sb	121	1	No Gas	1576476	0.00
Ba	137	1	No Gas	581081	0.00
Tl	205	1	No Gas	2650233	0.00
Tl	203	1	No Gas	1118469	0.00
Pb	208	1	No Gas	4012458	0.00
U	238	1	No Gas	3916118	0.00
Ca	43	2	He	22358	0.01
Sb	121	2	He	645812	0.00
Cu	63	1	No Gas	1327676	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	936177	3.16	965311	96.98	70	120	
Ge	72	2	He	667045	0.26	669606	99.62	70	120	
Ge	72	1	No Gas	2723310	0.85	2743181	99.28	70	120	

Calibration Standard Report

In	115	1	No Gas	3164260	0.37	3228126	98.02	70	120	
Bi	209	1	No Gas	2632462	2.82	2690468	97.84	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	019CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:30:18-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	679794	0.00
V	51	2	He	1182536	0.00
Cr	52	2	He	1379329	0.00
Fe	56	2	He	116800118	0.00
Se	78	2	He	18902	0.01
As	75	2	He	192420	0.00
Ca	44	2	He	757153	0.00
Na	23	2	He	18225450	0.00
Mg	24	2	He	10834694	0.00
K	39	2	He	14576881	0.00
Mn	55	2	He	965576	0.00
Co	59	2	He	1961460	0.00
Ni	60	2	He	474939	0.00
Cu	63	2	He	1241069	0.00
Zn	66	2	He	245712	0.00
Al	27	2	He	66794	0.00
B	11	1	No Gas	2075336	0.00
Al	27	1	No Gas	3113083	0.00
Si	28	1	No Gas	8552737	0.00
Ag	107	1	No Gas	3511020	0.00
Cd	111	1	No Gas	697374	0.00
Sr	88	1	No Gas	7236730	0.00
Mo	95	1	No Gas	1489861	0.00
Sn	118	1	No Gas	2204351	0.00
Sb	121	1	No Gas	3058020	0.00
Ba	137	1	No Gas	1147449	0.00
Tl	205	1	No Gas	5282380	0.00
Tl	203	1	No Gas	2285678	0.00
Pb	208	1	No Gas	7852937	0.00
U	238	1	No Gas	7622781	0.00
Ca	43	2	He	44058	0.01
Sb	121	2	He	1323498	0.00
Cu	63	1	No Gas	2569956	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	904870	2.64	965311	93.74	70	120	
Ge	72	2	He	661927	0.67	669606	98.85	70	120	
Ge	72	1	No Gas	2745462	5.39	2743181	100.08	70	120	

Calibration Standard Report

In	115	1	No Gas	3112202	0.71	3228126	96.41	70	120	
Bi	209	1	No Gas	2579700	2.41	2690468	95.88	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	023LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:38:48-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.935	1.935	1.66	84091	0.00	2	
Be	9	1	No Gas	1.997	1.997	0.58	7180	0.03	2	
V	51	2	He	1.754	1.754	2.27	13638	0.01	2	
Cr	52	2	He	2.011	2.011	1.80	28563	0.01	2	
Fe	56	2	He	206.912	206.912	1.32	1247814	0.02	200	
Se	78	2	He	2.302	2.302	11.74	331	0.70	2	
As	75	2	He	2.041	2.041	3.41	2160	0.09	2	
Ca	44	2	He	200.776	200.776	5.78	8516	2.36	200	
Na	23	2	He	217.087	217.087	1.08	246179	0.09	200	
Mg	24	2	He	212.704	212.704	2.30	117583	0.18	200	
K	39	2	He	213.705	213.705	0.94	250667	0.09	200	
Mn	55	2	He	2.022	2.022	3.93	11028	0.02	2	
Co	59	2	He	2.032	2.032	3.54	20235	0.01	2	
Ni	60	2	He	2.136	2.136	2.72	5655	0.04	2	
Cu	63	2	He	2.015	2.015	2.66	13137	0.02	2	
Zn	66	2	He	2.247	2.247	7.49	4041	0.06	2	
Al	27	2	He	1.897	1.897	14.37	1283	0.15	2	
B	11	1	No Gas	13.725	13.725	3.56	39647	0.03	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.455	2.455	5.67	68880	0.00	2	
Si	28	1	No Gas	12.554	12.554	10.97	562320	0.00	10	
Ag	107	1	No Gas	2.059	2.059	0.61	37096	0.01	2	
Cd	111	1	No Gas	2.063	2.063	2.18	7284	0.03	2	
Sr	88	1	No Gas	2.000	2.000	3.32	75003	0.00	2	
Mo	95	1	No Gas	1.996	1.996	3.74	15189	0.01	2	
Sn	118	1	No Gas	2.017	2.017	1.95	24166	0.01	2	
Sb	121	1	No Gas	2.033	2.033	0.75	31418	0.01	2	
Ba	137	1	No Gas	1.951	1.951	5.28	11756	0.02	2	
Tl	205	1	No Gas	2.317	2.317	2.58	62731	0.00	2	
Tl	203	1	No Gas	2.203	2.203	2.36	25650	0.01	2	
Pb	208	1	No Gas	2.042	2.042	4.09	82926	0.00	2	
U	238	1	No Gas	1.971	1.971	1.96	76854	0.00	2	
Ca	43	2	He	194.414	194.414	12.88	453	42.88	200	
Sb	121	2	He	1.973	1.973	5.11	13170	0.01	2	
Ti	47	2	He	1.795	1.795	29.72	410	0.44	200	
Cu	63	1	No Gas	2.142	2.142	1.81	28737	0.01	2	
Se	82	1	No Gas	1.675	1.675	20.05	595	0.28	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	983150	0.75	965311	101.85	70	120	
Ge	72	2	He	668821	1.05	669606	99.88	70	120	
Ge	72	1	No Gas	2731363	1.41	2743181	99.57	70	120	
In	115	1	No Gas	3159849	1.69	3228126	97.88	70	120	
Bi	209	1	No Gas	2632536	2.36	2690468	97.85	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	024LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:40:46-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	5.061	5.061	1.90	120156	0.00	5	
Be	9	1	No Gas	4.968	4.968	1.63	17284	0.03	5	
V	51	2	He	4.595	4.595	0.92	30634	0.01	5	
Cr	52	2	He	4.916	4.916	2.74	48727	0.01	5	
Fe	56	2	He	506.747	506.747	0.86	3029389	0.02	500	
Se	78	2	He	4.990	4.990	9.06	589	0.85	5	
As	75	2	He	4.987	4.987	2.48	5034	0.10	5	
Ca	44	2	He	507.331	507.331	2.74	20299	2.50	500	
Na	23	2	He	531.702	531.702	0.61	537787	0.10	500	
Mg	24	2	He	528.423	528.423	1.43	291744	0.18	500	
K	39	2	He	512.914	512.914	0.72	471106	0.11	500	
Mn	55	2	He	4.892	4.892	0.47	25127	0.02	5	
Co	59	2	He	4.949	4.949	1.53	49162	0.01	5	
Ni	60	2	He	5.241	5.241	0.42	13177	0.04	5	
Cu	63	2	He	5.054	5.054	1.57	32292	0.02	5	
Zn	66	2	He	5.016	5.016	1.85	7496	0.07	5	
Al	27	2	He	4.957	4.957	8.86	2317	0.21	5	
B	11	1	No Gas	28.335	28.335	2.98	69270	0.04	25	
Al	27	1	No Gas	5.315	5.315	1.00	114821	0.00	5	
Si	28	1	No Gas	26.481	26.481	3.01	684081	0.00	25	
Ag	107	1	No Gas	5.069	5.069	1.03	91743	0.01	5	
Cd	111	1	No Gas	4.939	4.939	0.40	17605	0.03	5	
Sr	88	1	No Gas	4.961	4.961	0.40	185788	0.00	5	
Mo	95	1	No Gas	4.724	4.724	0.54	36029	0.01	5	
Sn	118	1	No Gas	4.901	4.901	1.60	56790	0.01	5	
Sb	121	1	No Gas	5.027	5.027	2.13	78448	0.01	5	
Ba	137	1	No Gas	4.888	4.888	0.90	29103	0.02	5	
Tl	205	1	No Gas	5.406	5.406	1.45	145340	0.00	5	
Tl	203	1	No Gas	5.391	5.391	3.42	62339	0.01	5	
Pb	208	1	No Gas	5.052	5.052	2.61	202980	0.00	5	
U	238	1	No Gas	4.962	4.962	2.13	192800	0.00	5	
Ca	43	2	He	523.904	523.904	3.45	1190	44.02	500	
Sb	121	2	He	4.691	4.691	2.36	31318	0.01	5	
Ti	47	2	He	5.098	5.098	7.49	1153	0.44	5	
Cu	63	1	No Gas	5.197	5.197	0.75	69078	0.01	5	
Se	82	1	No Gas	4.588	4.588	3.92	1341	0.34	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	953301	1.04	965311	98.76	70	120	
Ge	72	2	He	670613	0.50	669606	100.15	70	120	
Ge	72	1	No Gas	2768340	0.64	2743181	100.92	70	120	

Sample Report

In	115	1	No Gas	3188186	1.56	3228126	98.76	70	120	
Bi	209	1	No Gas	2624839	1.20	2690468	97.56	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	025_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:42:44-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.119	111.2	58625	1.2	0.5	
Be	9	1	No Gas	0.000	4309.0	25	60.0	0.5	
V	51	2	He	-0.145	-22.8	2301	8.8	2.5	
Cr	52	2	He	0.143	33.5	15496	1.7	2.5	
Fe	56	2	He	0.326	1.7	25795	0.6	100	
Se	78	2	He	0.086	181.1	118	11.9	1	
As	75	2	He	0.031	89.3	207	12.6	2.5	
Ca	44	2	He	0.025	7505.9	830	7.9	100	
Na	23	2	He	0.123	173.4	45561	0.9	100	
Mg	24	2	He	0.467	8.4	1033	2.0	100	
K	39	2	He	4.624	16.3	96371	0.3	100	
Mn	55	2	He	0.016	305.6	1200	18.6	2.5	
Co	59	2	He	0.003	99.5	193	14.9	2.5	
Ni	60	2	He	0.015	98.4	533	7.1	2.5	
Cu	63	2	He	0.039	45.7	723	15.2	1	
Zn	66	2	He	0.101	126.1	1363	11.0	2.5	
Al	27	2	He	0.275	99.0	730	12.6	5	
B	11	1	No Gas	2.667	7.4	14988	2.3	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	0.252	12.0	34446	2.4	5	
Si	28	1	No Gas	2.248	38.3	475714	0.7	10	
Ag	107	1	No Gas	0.002	218.5	320	19.0	2.5	
Cd	111	1	No Gas	0.000	-26417.8	-11	-249.4	1	
Sr	88	1	No Gas	0.006	33.5	1517	3.6	2.5	
Mo	95	1	No Gas	0.029	30.4	400	16.4	2.5	
Sn	118	1	No Gas	0.068	12.6	2460	5.0	5	
Sb	121	1	No Gas	0.026	24.6	610	15.6	2.5	
Ba	137	1	No Gas	0.080	16.9	870	8.3	2.5	
Tl	205	1	No Gas	0.045	8.5	1667	6.4	1	
Tl	203	1	No Gas	0.057	19.4	817	16.2	1	
Pb	208	1	No Gas	0.004	88.4	1237	11.2	2.5	
U	238	1	No Gas	0.003	27.5	170	15.6	2.5	
Ca	43	2	He	-1.350	-516.0	17	91.7	100	
Sb	121	2	He	0.026	44.0	233	31.6	2.5	
Ti	47	2	He	0.015	294.3	10	100.0	2.5	
Se	82	1	No Gas	-0.690	-14.8	4	582.7	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	945884	1.74	965311	97.99	70	120	
Ge	72	2	He	661081	0.58	669606	98.73	70	120	
Ge	72	1	No Gas	2711866	1.24	2743181	98.86	70	120	
In	115	1	No Gas	3164799	1.13	3228126	98.04	70	120	
Bi	209	1	No Gas	2598688	0.62	2690468	96.59	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	026_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:44:42-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	99.608	3.072	1244955	3.13	100	99.6	90	110	
Be	9	1	No Gas	101.088	1.680	339383	1.08	100	101.1	90	110	
V	51	2	He	98.194	0.787	582157	0.46	100	98.2	90	110	
Cr	52	2	He	98.672	0.879	688449	0.20	100	98.7	90	110	
Fe	56	2	He	10023.992	1.479	58729787	0.52	10000	100.2	90	110	
Se	78	2	He	98.510	0.909	9415	1.77	100	98.5	90	110	
As	75	2	He	99.419	0.753	95771	1.19	100	99.4	90	110	
Ca	44	2	He	10020.533	0.245	380413	1.12	10000	100.2	90	110	
Na	23	2	He	9984.755	0.929	9164752	0.75	10000	99.8	90	110	
Mg	24	2	He	9954.743	1.518	5414030	0.73	10000	99.5	90	110	
K	39	2	He	9935.073	0.513	7300657	0.54	10000	99.4	90	110	
Mn	55	2	He	100.239	1.050	486509	0.29	100	100.2	90	110	
Co	59	2	He	98.168	1.179	960015	0.43	100	98.2	90	110	
Ni	60	2	He	101.006	1.932	241672	1.37	100	101.0	90	110	
Cu	63	2	He	98.773	1.579	614341	0.55	100	98.8	90	110	
Zn	66	2	He	100.196	2.548	124272	2.16	100	100.2	90	110	
Al	27	2	He	99.173	1.045	33621	0.46	100	99.2	90	110	
B	11	1	No Gas	500.947	4.808	1030915	4.80	500	100.2	90	110	
Al	27	1	No Gas	103.870	1.009	1618593	1.91	100	103.9	90	110	
Si	28	1	No Gas	502.220	1.803	4449596	0.51	500	100.4	90	110	
Ag	107	1	No Gas	99.466	0.082	1757781	0.31	100	99.5	90	110	
Cd	111	1	No Gas	98.307	0.644	343463	0.87	100	98.3	90	110	
Sr	88	1	No Gas	98.928	0.377	3604594	0.19	100	98.9	90	110	
Mo	95	1	No Gas	96.685	0.775	718693	0.95	100	96.7	90	110	
Sn	118	1	No Gas	98.427	1.119	1085261	1.39	100	98.4	90	110	
Sb	121	1	No Gas	100.805	1.302	1524672	0.97	100	100.8	90	110	
Ba	137	1	No Gas	99.404	1.453	572006	1.46	100	99.4	90	110	
Tl	205	1	No Gas	100.931	1.377	2590228	0.63	100	100.9	90	110	
Tl	203	1	No Gas	99.929	3.168	1103713	1.39	100	99.9	90	110	
Pb	208	1	No Gas	102.726	2.617	3931738	0.83	100	102.7	90	110	
U	238	1	No Gas	101.172	2.740	3762549	1.10	100	101.2	90	110	
Ca	43	2	He	10063.499	2.889	22215	1.93	10000	100.6	90	110	
Sb	121	2	He	96.252	0.955	633317	0.76	100	96.3	90	110	
Ti	47	2	He	99.805	3.214	22178	2.48	100	99.8	90	110	
Cu	63	1	No Gas	101.294	0.146	1288353	1.61	100	101.3	90	110	
Se	82	1	No Gas	100.049	1.276	24795	0.35	100	100.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	921356	1.94	965311	95.45	70	120	
Ge	72	2	He	662354	1.05	669606	98.92	70	120	
Ge	72	1	No Gas	2690744	1.63	2743181	98.09	70	120	
In	115	1	No Gas	3122823	0.29	3228126	96.74	70	120	
Bi	209	1	No Gas	2513613	1.82	2690468	93.43	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	028ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:48:38-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.641	14.8	63641	4.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.005	144.7	42	60.4	0	ICSA Main CR1 Failed
V	51	2	He	-0.022	-16.4	2947	1.8	0	ICSA Main CR1 Failed
Cr	52	2	He	1.451	9.1	23774	2.6	0	ICSA Main CR1 Failed
Fe	56	2	He	98975.824	2.3	563629605	1.3	0	
Se	78	2	He	0.378	72.4	142	18.6	0	ICSA Main CR1 Failed
As	75	2	He	0.242	13.6	399	8.5	0	ICSA Main CR1 Failed
Ca	44	2	He	96558.536	0.6	3557846	2.3	0	
Na	23	2	He	102168.353	1.8	90769949	0.6	0	
Mg	24	2	He	100137.851	1.6	52948366	0.3	0	
K	39	2	He	101344.269	1.6	71574256	0.3	0	
Mn	55	2	He	0.827	2.3	4991	0.2	0	ICSA Main CR1 Failed
Co	59	2	He	0.377	5.2	3744	6.6	0	ICSA Main CR1 Failed
Ni	60	2	He	0.913	3.8	2604	3.9	0	ICSA Main CR1 Failed
Cu	63	2	He	0.218	2.9	1790	0.6	0	ICSA Main CR1 Failed
Zn	66	2	He	2.200	10.1	3837	7.9	0	ICSA Main CR1 Failed
Al	27	2	He	98207.813	0.9	31758915	0.8	0	
B	11	1	No Gas	4.950	8.1	19327	1.8	0	
Al	27	1	No Gas	97541.305	2.2	1458972352	1.4	0	
Si	28	1	No Gas	26.938	5.9	653920	0.7	0	
Ag	107	1	No Gas	0.171	3.7	3077	1.8	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.403	9.2	1302	11.2	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.633	2.8	158117	1.6	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1932.509	1.6	13356410	1.4	0	
Sn	118	1	No Gas	0.069	4.0	2267	2.0	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.253	7.7	3941	6.3	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.760	5.4	4434	2.9	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.130	12.9	3404	12.8	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.138	6.9	1500	7.9	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.174	2.4	6901	1.2	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.011	12.5	413	9.2	0	ICSA Main CR1 Failed
Ca	43	2	He	98505.698	1.2	211299	0.9	0	
Sb	121	2	He	0.278	9.3	1843	8.7	0	ICSA Main CR1 Failed
Ti	47	2	He	2042.049	0.9	441170	0.7	0	
Se	82	1	No Gas	-0.307	-69.2	97	54.8	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	925267	2.47	965311	95.85	70	120	
Ge	72	2	He	644090	1.67	669606	96.19	70	120	
Ge	72	1	No Gas	2632493	1.64	2743181	95.96	70	120	
In	115	1	No Gas	2904797	2.22	3228126	89.98	70	120	
Bi	209	1	No Gas	2247034	1.63	2690468	83.52	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	029ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:50:39-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	94.213	2.020	1256294	2.60	100	94.2	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	95.002	0.547	339417	0.74	100	95.0	80	120	
V	51	2	He	99.749	1.014	583234	0.44	100	99.7	80	120	
Cr	52	2	He	100.004	1.003	688012	0.39	100	100.0	80	120	
Fe	56	2	He	110020.291	0.670	635587951	0.13	100	110020.3	80	120	
Se	78	2	He	102.181	3.721	9627	3.76	100	102.2	80	120	
As	75	2	He	101.061	1.179	96013	0.43	100	101.1	80	120	
Ca	44	2	He	107279.786	1.154	4008860	0.87	100	107279.8	80	120	
Na	23	2	He	113785.075	1.180	102543348	0.48	100	113785.1	80	120	
Mg	24	2	He	111160.117	0.506	59625267	0.31	100	111160.1	80	120	
K	39	2	He	112043.102	0.336	80263654	0.45	100	112043.1	80	120	
Mn	55	2	He	101.019	0.945	483590	0.23	100	101.0	80	120	
Co	59	2	He	96.612	0.935	931908	0.41	100	96.6	80	120	
Ni	60	2	He	97.953	0.645	231191	0.36	100	98.0	80	120	
Cu	63	2	He	94.287	0.933	578472	0.18	100	94.3	80	120	
Zn	66	2	He	98.927	0.802	121043	0.74	100	98.9	80	120	
Al	27	2	He	100047.966	1.700	32816819	0.95	100	100048.0	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	475.719	1.763	1042171	1.14	100	475.7	80	120	
Al	27	1	No Gas	99333.140	2.299	1498794858	0.07	100	99333.1	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	546.403	2.414	4738404	0.56	100	546.4	80	120	
Ag	107	1	No Gas	99.053	1.554	1622825	0.53	100	99.1	80	120	
Cd	111	1	No Gas	99.692	1.733	322897	0.81	100	99.7	80	120	
Sr	88	1	No Gas	109.542	2.182	3700354	2.11	100	109.5	80	120	
Mo	95	1	No Gas	2074.175	2.532	14289189	1.52	100	2074.2	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	100.659	0.869	1028942	0.77	100	100.7	80	120	
Sb	121	1	No Gas	97.947	0.876	1462406	2.04	100	97.9	80	120	
Ba	137	1	No Gas	102.215	1.874	545291	1.52	100	102.2	80	120	
Tl	205	1	No Gas	101.835	2.044	2331213	0.87	100	101.8	80	120	
Tl	203	1	No Gas	101.148	2.066	996742	0.76	100	101.1	80	120	
Pb	208	1	No Gas	102.778	2.110	3509462	0.84	100	102.8	80	120	
U	238	1	No Gas	105.995	0.728	3517446	1.57	100	106.0	80	120	
Ca	43	2	He	110118.971	0.656	239604	0.40	100	110119.0	80	120	
Sb	121	2	He	94.724	0.928	614742	0.49	100	94.7	80	120	
Ti	47	2	He	2165.678	1.005	474589	0.31	100	2165.7	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	98.619	2.888	1237636	0.76	100	98.6	80	120	
Se	82	1	No Gas	98.629	1.776	24140	4.15	100	98.6	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	980311	0.68	965311	101.55	70	120	
Ge	72	2	He	653292	0.78	669606	97.56	70	120	
Ge	72	1	No Gas	2656048	2.36	2743181	96.82	70	120	
In	115	1	No Gas	2895385	1.02	3228126	89.69	70	120	
Bi	209	1	No Gas	2242364	1.96	2690468	83.34	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	129_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:42:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	97.894	0.775	1309846	0.60	100	97.9	90	110	
Be	9	1	No Gas	99.876	1.742	358690	0.42	100	99.9	90	110	
V	51	2	He	96.955	1.395	616859	1.46	100	97.0	90	110	
Cr	52	2	He	96.865	0.751	725518	0.58	100	96.9	90	110	
Fe	56	2	He	9778.691	0.974	61485404	1.49	10000	97.8	90	110	
Se	78	2	He	98.310	1.559	10082	1.88	100	98.3	90	110	
As	75	2	He	99.645	0.761	102996	0.24	100	99.6	90	110	
Ca	44	2	He	9739.493	0.602	396768	0.70	10000	97.4	90	110	
Na	23	2	He	9959.289	0.569	9809571	0.85	10000	99.6	90	110	
Mg	24	2	He	9687.945	1.521	5653989	1.05	10000	96.9	90	110	
K	39	2	He	9736.579	1.613	7679216	1.20	10000	97.4	90	110	
Mn	55	2	He	99.117	0.719	516253	1.07	100	99.1	90	110	
Co	59	2	He	97.932	1.772	1027747	2.00	100	97.9	90	110	
Ni	60	2	He	99.207	0.858	254737	1.07	100	99.2	90	110	
Cu	63	2	He	97.906	0.392	653491	0.52	100	97.9	90	110	
Zn	66	2	He	102.469	0.738	136353	0.66	100	102.5	90	110	
Al	27	2	He	136.306	1.775	49331	1.97	100	136.3	90	110	CCV Main CR1-2 Failed
B	11	1	No Gas	511.697	3.510	1125988	2.17	500	102.3	90	110	
Al	27	1	No Gas	145.841	2.664	2453034	1.90	100	145.8	90	110	CCV Main CR1-2 Failed
Si	28	1	No Gas	787.133	3.246	7289377	1.86	5000	15.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.765	1.402	1869250	0.64	100	97.8	90	110	
Cd	111	1	No Gas	97.527	1.681	368655	1.38	100	97.5	90	110	
Sr	88	1	No Gas	98.378	1.849	3878153	1.19	100	98.4	90	110	
Mo	95	1	No Gas	93.778	1.619	754170	0.83	100	93.8	90	110	
Sn	118	1	No Gas	96.211	1.582	1147905	2.30	100	96.2	90	110	
Sb	121	1	No Gas	99.747	1.635	1637555	1.11	100	99.7	90	110	
Ba	137	1	No Gas	98.731	1.956	614653	1.19	100	98.7	90	110	
Tl	205	1	No Gas	102.148	4.330	2921870	3.11	100	102.1	90	110	
Tl	203	1	No Gas	100.147	4.391	1232891	1.96	100	100.1	90	110	
Pb	208	1	No Gas	99.955	3.463	4264374	0.47	100	100.0	90	110	
U	238	1	No Gas	96.208	2.493	3989047	0.75	100	96.2	90	110	
Ca	43	2	He	10064.580	1.242	23844	1.31	10000	100.6	90	110	
Sb	121	2	He	96.626	0.427	682230	0.22	100	96.6	90	110	
Ti	47	2	He	96.285	3.071	22963	3.11	100	96.3	90	110	
Cu	63	1	No Gas	100.476	0.693	1387050	0.85	100	100.5	90	110	
Se	82	1	No Gas	98.686	3.806	26545	2.79	100	98.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	985563	1.34	965311	102.10	70	120	
Ge	72	2	He	710725	0.54	669606	106.14	70	120	
Ge	72	1	No Gas	2920606	1.42	2743181	106.47	70	120	
In	115	1	No Gas	3378860	0.80	3228126	104.67	70	120	
Bi	209	1	No Gas	2802953	3.11	2690468	104.18	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	130_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:44:45-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.123	31.5	63814	1.8	0.5	
Be	9	1	No Gas	0.022	19.1	110	15.7	0.5	
V	51	2	He	0.199	6.2	4687	1.8	2.5	
Cr	52	2	He	-0.033	-164.5	15476	3.0	2.5	
Fe	56	2	He	4.371	11.4	53513	5.8	100	
Se	78	2	He	0.036	228.9	123	6.6	2	
As	75	2	He	0.074	44.5	268	12.2	2.5	
Ca	44	2	He	-2.142	-8.1	810	1.2	100	
Na	23	2	He	71.112	3.5	119361	2.3	100	
Mg	24	2	He	3.461	4.3	2877	2.8	100	
K	39	2	He	-4.803	-57.3	96925	2.4	100	
Mn	55	2	He	-0.046	-70.4	980	17.7	2.5	
Co	59	2	He	0.020	40.2	393	21.6	2.5	
Ni	60	2	He	-0.001	-434.7	537	1.1	2.5	
Cu	63	2	He	0.018	21.6	647	4.7	2	
Zn	66	2	He	-0.032	-234.4	1300	7.6	2.5	
Al	27	2	He	6.400	17.8	2990	13.5	5	CCB Main CR1 Failed
B	11	1	No Gas	14.184	4.3	42509	3.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	7.864	4.8	165631	2.8	5	CCB Main CR1 Failed
Si	28	1	No Gas	43.435	2.6	879945	1.0	10	CCB Main CR1 Failed
Ag	107	1	No Gas	0.024	16.0	800	7.8	2.5	
Cd	111	1	No Gas	0.023	45.2	79	52.8	1	
Sr	88	1	No Gas	0.052	11.1	3574	4.7	2.5	
Mo	95	1	No Gas	0.097	22.5	1010	15.6	2.5	
Sn	118	1	No Gas	0.085	22.1	2940	5.6	5	
Sb	121	1	No Gas	0.100	15.7	1890	12.5	2.5	
Ba	137	1	No Gas	0.144	40.2	1387	28.5	2.5	
Tl	205	1	No Gas	1.007	32.6	30079	31.4	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.014	33.9	12998	32.8	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.025	24.0	2287	10.6	2.5	
U	238	1	No Gas	0.031	28.4	1383	26.5	2.5	
Ca	43	2	He	3.649	231.2	30	66.7	100	
Sb	121	2	He	0.076	22.3	613	19.5	2.5	
Ti	47	2	He	0.026	245.6	13	114.6	2.5	
Cu	63	1	No Gas	0.120	19.4	2877	10.1	2.5	
Se	82	1	No Gas	-0.436	-56.3	74	89.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1028242	1.56	965311	106.52	70	120	
Ge	72	2	He	715536	0.61	669606	106.86	70	120	
Ge	72	1	No Gas	2960640	1.25	2743181	107.93	70	120	
In	115	1	No Gas	3521933	2.21	3228126	109.10	70	120	
Bi	209	1	No Gas	2879478	0.93	2690468	107.03	70	120	

Sample Report

Sample Table

Sample Name	MBLK-194431
Data File Name	131SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:46:47-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	-0.018	-0.018	-413.57	64416	0.00	2000	
Be	9	1	No Gas	0.005	0.005	35.15	47	0.01	2000	
V	51	2	He	0.170	0.170	7.91	4670	0.00	2000	
Cr	52	2	He	-0.677	-0.677	-10.21	11128	-0.01	2000	
Fe	56	2	He	1.356	1.356	11.58	35747	0.00	200000	
Se	78	2	He	-0.046	-0.046	-260.48	119	-0.04	2000	
As	75	2	He	0.042	0.042	81.32	243	0.02	2000	
Ca	44	2	He	1.958	1.958	208.36	1013	0.19	200000	
Na	23	2	He	44.261	44.261	4.42	96401	0.05	200000	
Mg	24	2	He	11.432	11.432	0.83	7849	0.15	200000	
K	39	2	He	-8.854	-8.854	-29.58	97315	-0.01	200000	
Mn	55	2	He	-0.031	-0.031	-36.09	1100	0.00	2000	
Co	59	2	He	-0.004	-0.004	-36.46	140	0.00	2000	
Ni	60	2	He	0.013	0.013	73.79	593	0.00	2000	
Cu	63	2	He	0.054	0.054	16.68	917	0.01	2000	
Zn	66	2	He	0.084	0.084	35.72	1510	0.01	2000	
Al	27	2	He	7.507	7.507	7.03	3517	0.21	2000	
B	11	1	No Gas	8.479	8.479	7.26	30688	0.03	2000	
Al	27	1	No Gas	8.126	8.126	2.32	176516	0.00	2000	
Si	28	1	No Gas	99.344	99.344	2.48	1421364	0.01	2000	
Ag	107	1	No Gas	0.011	0.011	39.44	563	0.00	2000	
Cd	111	1	No Gas	0.009	0.009	18.64	23	0.04	2000	
Sr	88	1	No Gas	0.023	0.023	15.09	2494	0.00	2000	
Mo	95	1	No Gas	0.023	0.023	17.55	407	0.01	2000	
Sn	118	1	No Gas	0.020	0.020	27.75	2200	0.00	2000	
Sb	121	1	No Gas	0.028	0.028	6.68	727	0.00	2000	
Ba	137	1	No Gas	0.089	0.089	7.82	1060	0.01	2000	
Tl	205	1	No Gas	0.080	0.080	20.43	2954	0.00	2000	
Tl	203	1	No Gas	0.076	0.076	15.65	1170	0.01	2000	
Pb	208	1	No Gas	0.000	0.000	13412.04	1243	0.00	2000	
U	238	1	No Gas	0.003	0.003	29.40	227	0.00	2000	
Ca	43	2	He	12.625	12.625	49.92	53	23.67	200000	
Sb	121	2	He	0.025	0.025	43.60	260	0.01	2000	
Ti	47	2	He	0.024	0.024	99.25	13	0.18	2000	
Cu	63	1	No Gas	0.115	0.115	12.75	2920	0.00	2000	
Zn	66	1	No Gas	0.136	0.136	52.32	5058	0.00	2000	
Se	82	1	No Gas	-0.527	-0.527	-25.74	51	-1.04	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1069794	3.16	965311	110.82	70	120	
Ge	72	2	He	742909	1.58	669606	110.95	70	120	

Sample Report

Ge	72	1	No Gas	3072842	0.71	2743181	112.02	70	120	
In	115	1	No Gas	3636666	0.80	3228126	112.66	70	120	
Bi	209	1	No Gas	2970235	1.09	2690468	110.40	70	120	

Sample Report

Sample Table

Sample Name	LCS-194431
Data File Name	132SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:48:47-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	-0.069	-0.069	-111.16	62625	0.00	2000	
Be	9	1	No Gas	49.301	49.301	1.43	188892	0.03	2000	
V	51	2	He	47.839	47.839	0.07	316148	0.02	2000	
Cr	52	2	He	47.004	47.004	0.59	371937	0.01	2000	
Fe	56	2	He	4907.729	4907.729	0.40	31884975	0.02	200000	
Se	78	2	He	50.916	50.916	0.83	5452	0.93	2000	
As	75	2	He	48.808	48.808	0.89	52208	0.09	2000	
Ca	44	2	He	4784.427	4784.427	0.47	201783	2.37	200000	
Na	23	2	He	4956.675	4956.675	0.82	5067933	0.10	200000	
Mg	24	2	He	5048.862	5048.862	0.51	3044009	0.17	200000	
K	39	2	He	4902.871	4902.871	1.78	4045436	0.12	200000	
Mn	55	2	He	49.294	49.294	0.20	265813	0.02	2000	
Co	59	2	He	47.753	47.753	1.16	517714	0.01	2000	
Ni	60	2	He	49.317	49.317	1.05	131073	0.04	2000	
Cu	63	2	He	49.371	49.371	0.71	340640	0.01	2000	
Zn	66	2	He	51.401	51.401	0.24	71334	0.07	2000	
Al	27	2	He	57.944	57.944	2.67	22068	0.26	2000	
B	11	1	No Gas	7.328	7.328	3.12	27507	0.03	2000	
Al	27	1	No Gas	58.963	58.963	3.02	1049166	0.01	2000	
Si	28	1	No Gas	107.785	107.785	3.46	1476860	0.01	2000	
Ag	107	1	No Gas	48.631	48.631	1.07	984446	0.00	2000	
Cd	111	1	No Gas	49.279	49.279	1.03	197210	0.02	2000	
Sr	88	1	No Gas	0.045	0.045	8.68	3367	0.00	2000	
Mo	95	1	No Gas	44.733	44.733	0.19	380968	0.01	2000	
Sn	118	1	No Gas	-0.012	-0.012	-57.65	1770	0.00	2000	
Sb	121	1	No Gas	49.423	49.423	0.70	841973	0.01	2000	
Ba	137	1	No Gas	48.077	48.077	1.27	317091	0.02	2000	
Tl	205	1	No Gas	42.683	42.683	3.20	1268074	0.00	2000	
Tl	203	1	No Gas	42.283	42.283	4.81	540558	0.01	2000	
Pb	208	1	No Gas	48.478	48.478	4.81	2147676	0.00	2000	
U	238	1	No Gas	0.003	0.003	30.68	217	0.00	2000	
Ca	43	2	He	4700.846	4700.846	3.56	11515	40.82	200000	
Sb	121	2	He	46.928	46.928	0.63	342271	0.01	2000	
Ti	47	2	He	48.113	48.113	0.51	11855	0.41	2000	
Cu	63	1	No Gas	51.249	51.249	2.13	734480	0.01	2000	
Zn	66	1	No Gas	51.435	51.435	1.83	212799	0.02	2000	
Se	82	1	No Gas	50.970	50.970	2.98	14320	0.36	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1051325	1.19	965311	108.91	70	120	
Ge	72	2	He	734086	0.26	669606	109.63	70	120	
Ge	72	1	No Gas	3030294	2.28	2743181	110.47	70	120	
In	115	1	No Gas	3576919	1.48	3228126	110.80	70	120	

Sample Report

Bi	209	1	No Gas	2910789	3.31	2690468	108.19	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01SD
Data File Name	134SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:52:44-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.668	8.340	12.49	82602	0.00	2000	
Be	9	1	No Gas	0.004	0.018	89.47	40	0.01	2000	
V	51	2	He	3.512	17.560	0.63	25774	0.01	2000	
Cr	52	2	He	0.009	0.046	70.93	15776	0.00	2000	
Fe	56	2	He	40.692	203.459	3.82	283098	0.01	200000	
Se	78	2	He	0.286	1.430	72.22	148	0.19	2000	
As	75	2	He	0.457	2.285	6.22	666	0.07	2000	
Ca	44	2	He	13441.880	67209.400	1.07	550623	2.44	200000	
Na	23	2	He	22402.816	112014.082	1.30	22139710	0.10	200000	
Mg	24	2	He	5202.448	26012.240	1.24	3055566	0.17	200000	
K	39	2	He	872.915	4364.574	1.37	784318	0.11	200000	
Mn	55	2	He	1.901	9.505	4.02	11155	0.02	2000	
Co	59	2	He	0.074	0.370	21.57	960	0.01	2000	
Ni	60	2	He	0.585	2.926	5.04	2047	0.03	2000	
Cu	63	2	He	1.316	6.579	2.55	9353	0.01	2000	
Zn	66	2	He	2.309	11.544	4.80	4404	0.05	2000	
Al	27	2	He	38.665	193.326	8.02	14577	0.27	2000	
B	11	1	No Gas	36.345	181.726	4.16	90981	0.04	2000	
Al	27	1	No Gas	37.372	186.859	2.24	656120	0.01	2000	
Si	28	1	No Gas	1565.369	7826.843	0.56	14076391	0.01	2000	
Ag	107	1	No Gas	-0.003	-0.014	-61.64	263	0.00	2000	
Cd	111	1	No Gas	0.011	0.055	17.11	31	0.04	2000	
Sr	88	1	No Gas	42.111	210.555	2.49	1712526	0.00	2000	
Mo	95	1	No Gas	0.298	1.491	4.48	2674	0.01	2000	
Sn	118	1	No Gas	-0.029	-0.145	-40.30	1510	0.00	2000	
Sb	121	1	No Gas	0.060	0.298	4.25	1207	0.00	2000	
Ba	137	1	No Gas	22.439	112.194	0.25	144416	0.02	2000	
Tl	205	1	No Gas	0.122	0.608	14.54	4024	0.00	2000	
Tl	203	1	No Gas	0.128	0.640	13.05	1763	0.01	2000	
Pb	208	1	No Gas	0.145	0.725	5.99	7431	0.00	2000	
U	238	1	No Gas	0.880	4.400	0.92	36903	0.00	2000	
Ca	43	2	He	13571.009	67855.045	3.49	32335	41.97	200000	
Sb	121	2	He	0.065	0.326	17.34	533	0.01	2000	
Ti	47	2	He	1.194	5.972	15.24	293	0.41	2000	
Cu	63	1	No Gas	1.548	7.742	2.10	22646	0.01	2000	
Zn	66	1	No Gas	2.332	11.658	4.72	13444	0.02	2000	
Se	82	1	No Gas	-0.010	-0.048	-5511.22	188	-0.01	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1007194	3.61	965311	104.34	70	120	
Ge	72	2	He	715150	1.27	669606	106.80	70	120	
Ge	72	1	No Gas	2933927	0.53	2743181	106.95	70	120	
In	115	1	No Gas	3484350	1.12	3228126	107.94	70	120	

Sample Report

Bi	209	1	No Gas	2827878	1.75	2690468	105.11	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01MS
Data File Name	135SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:54:43-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	8.445	8.445	5.64	170015	0.00	2000	
Be	9	1	No Gas	49.143	49.143	4.37	179194	0.03	2000	
V	51	2	He	62.375	62.375	0.20	394476	0.02	2000	
Cr	52	2	He	47.359	47.359	0.20	359428	0.01	2000	
Fe	56	2	He	5007.498	5007.498	0.64	31213437	0.02	200000	
Se	78	2	He	52.593	52.593	2.01	5399	0.97	2000	
As	75	2	He	50.870	50.870	0.56	52199	0.10	2000	
Ca	44	2	He	73161.709	73161.709	0.36	2947826	2.48	200000	
Na	23	2	He	119598.737	119598.737	0.52	116204128	0.10	200000	
Mg	24	2	He	31360.382	31360.382	0.48	18136437	0.17	200000	
K	39	2	He	9276.464	9276.464	0.82	7255466	0.13	200000	
Mn	55	2	He	58.760	58.760	1.68	303788	0.02	2000	
Co	59	2	He	46.692	46.692	0.60	485673	0.01	2000	
Ni	60	2	He	50.126	50.126	0.88	127808	0.04	2000	
Cu	63	2	He	52.094	52.094	0.47	344813	0.02	2000	
Zn	66	2	He	58.700	58.700	0.96	77974	0.08	2000	
Al	27	2	He	260.287	260.287	3.86	92740	0.28	2000	
B	11	1	No Gas	152.888	152.888	4.99	348553	0.04	2000	
Al	27	1	No Gas	247.805	247.805	3.04	4163655	0.01	2000	
Si	28	1	No Gas	8114.680	8114.680	1.54	70883504	0.01	2000	>LDR
Ag	107	1	No Gas	47.518	47.518	1.05	907250	0.01	2000	
Cd	111	1	No Gas	48.112	48.112	0.67	181565	0.03	2000	
Sr	88	1	No Gas	219.905	219.905	0.45	8653582	0.00	2000	
Mo	95	1	No Gas	47.759	47.759	0.76	383574	0.01	2000	
Sn	118	1	No Gas	0.029	0.029	47.01	2154	0.00	2000	
Sb	121	1	No Gas	49.470	49.470	0.63	815943	0.01	2000	
Ba	137	1	No Gas	168.361	168.361	1.16	1046172	0.02	2000	
Tl	205	1	No Gas	44.151	44.151	3.11	1218455	0.00	2000	
Tl	203	1	No Gas	43.027	43.027	2.64	511182	0.01	2000	
Pb	208	1	No Gas	49.917	49.917	2.87	2055013	0.00	2000	
U	238	1	No Gas	4.658	4.658	3.14	186341	0.00	2000	
Ca	43	2	He	74903.928	74903.928	1.10	175717	42.63	200000	
Sb	121	2	He	47.244	47.244	1.36	330593	0.01	2000	
Ti	47	2	He	56.690	56.690	4.00	13400	0.42	2000	
Cu	63	1	No Gas	55.484	55.484	0.21	769924	0.01	2000	
Zn	66	1	No Gas	60.280	60.280	1.30	240734	0.03	2000	
Se	82	1	No Gas	51.024	51.024	0.80	13882	0.37	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1001438	3.41	965311	103.74	70	120	
Ge	72	2	He	704315	0.39	669606	105.18	70	120	
Ge	72	1	No Gas	2933634	1.27	2743181	106.94	70	120	
In	115	1	No Gas	3373382	1.02	3228126	104.50	70	120	
Bi	209	1	No Gas	2703326	2.40	2690468	100.48	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01MSD
Data File Name	136SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:56:42-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	8.793	8.793	2.62	170437	0.01	2000	
Be	9	1	No Gas	49.869	49.869	1.77	177613	0.03	2000	
V	51	2	He	61.473	61.473	0.65	386936	0.02	2000	
Cr	52	2	He	46.898	46.898	1.47	354350	0.01	2000	
Fe	56	2	He	5037.715	5037.715	0.98	31248902	0.02	200000	
Se	78	2	He	52.820	52.820	0.58	5396	0.98	2000	
As	75	2	He	50.489	50.489	0.63	51560	0.10	2000	
Ca	44	2	He	72854.975	72854.975	0.38	2921292	2.49	200000	
Na	23	2	He	119334.101	119334.101	0.81	115385695	0.10	200000	
Mg	24	2	He	31255.715	31255.715	1.32	17987913	0.17	200000	
K	39	2	He	9082.516	9082.516	1.29	7071230	0.13	200000	
Mn	55	2	He	58.412	58.412	0.59	300520	0.02	2000	
Co	59	2	He	46.520	46.520	0.45	481543	0.01	2000	
Ni	60	2	He	49.247	49.247	1.25	124969	0.04	2000	
Cu	63	2	He	52.580	52.580	0.93	346344	0.02	2000	
Zn	66	2	He	59.043	59.043	1.53	78038	0.08	2000	
Al	27	2	He	249.170	249.170	3.65	88367	0.28	2000	
B	11	1	No Gas	154.163	154.163	1.37	343264	0.04	2000	
Al	27	1	No Gas	256.859	256.859	6.62	4184561	0.01	2000	
Si	28	1	No Gas	8302.364	8302.364	2.54	70356934	0.01	2000	>LDR
Ag	107	1	No Gas	47.191	47.191	0.82	886055	0.01	2000	
Cd	111	1	No Gas	48.562	48.562	1.39	180218	0.03	2000	
Sr	88	1	No Gas	219.169	219.169	1.43	8481232	0.00	2000	
Mo	95	1	No Gas	47.743	47.743	0.67	377081	0.01	2000	
Sn	118	1	No Gas	0.039	0.039	12.98	2234	0.00	2000	
Sb	121	1	No Gas	50.281	50.281	1.01	804694	0.01	2000	
Ba	137	1	No Gas	170.657	170.657	0.58	1042878	0.02	2000	
Tl	205	1	No Gas	44.418	44.418	3.52	1232437	0.00	2000	
Tl	203	1	No Gas	43.956	43.956	3.27	525001	0.01	2000	
Pb	208	1	No Gas	49.911	49.911	3.00	2065957	0.00	2000	
U	238	1	No Gas	4.664	4.664	3.90	187563	0.00	2000	
Ca	43	2	He	74719.609	74719.609	0.88	174445	42.83	200000	
Sb	121	2	He	47.356	47.356	1.28	329776	0.01	2000	
Ti	47	2	He	57.317	57.317	4.76	13484	0.43	2000	
Cu	63	1	No Gas	56.037	56.037	1.07	754452	0.01	2000	
Zn	66	1	No Gas	60.380	60.380	0.90	233981	0.03	2000	
Se	82	1	No Gas	51.821	51.821	2.82	13675	0.38	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	977365	1.64	965311	101.25	70	120	
Ge	72	2	He	700910	0.27	669606	104.68	70	120	
Ge	72	1	No Gas	2846562	1.40	2743181	103.77	70	120	
In	115	1	No Gas	3317297	0.34	3228126	102.76	70	120	
Bi	209	1	No Gas	2717995	2.23	2690468	101.02	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01PDS
Data File Name	137SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:58:41-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	8.730	8.730	0.46	167074	0.01	2000	
Be	9	1	No Gas	102.035	102.035	0.93	357872	0.03	2000	
V	51	2	He	111.158	111.158	1.63	688129	0.02	2000	
Cr	52	2	He	96.588	96.588	0.89	704519	0.01	2000	
Fe	56	2	He	10005.231	10005.231	2.19	61254291	0.02	200000	
Se	78	2	He	104.095	104.095	0.56	10388	1.00	2000	
As	75	2	He	101.499	101.499	1.44	102152	0.10	2000	
Ca	44	2	He	77999.926	77999.926	1.63	3087859	2.53	200000	
Na	23	2	He	124852.906	124852.906	1.39	119192092	0.10	200000	
Mg	24	2	He	36024.783	36024.783	1.35	20470396	0.18	200000	
K	39	2	He	14231.749	14231.749	1.37	10885409	0.13	200000	
Mn	55	2	He	108.657	108.657	1.47	550934	0.02	2000	
Co	59	2	He	93.840	93.840	1.51	958894	0.01	2000	
Ni	60	2	He	98.150	98.150	2.56	245385	0.04	2000	
Cu	63	2	He	99.171	99.171	1.00	644541	0.02	2000	
Zn	66	2	He	108.068	108.068	0.73	139964	0.08	2000	
Al	27	2	He	2112.366	2112.366	1.93	734661	0.29	2000	>LDR
B	11	1	No Gas	153.970	153.970	0.11	337655	0.05	2000	
Al	27	1	No Gas	2112.102	2112.102	0.77	34012174	0.01	2000	>LDR
Si	28	1	No Gas	8523.718	8523.718	6.39	71814571	0.01	2000	>LDR
Ag	107	1	No Gas	97.232	97.232	1.17	1804876	0.01	2000	
Cd	111	1	No Gas	98.630	98.630	1.14	361948	0.03	2000	
Sr	88	1	No Gas	218.500	218.500	0.60	8361562	0.00	2000	
Mo	95	1	No Gas	96.438	96.438	1.50	752926	0.01	2000	
Sn	118	1	No Gas	1.808	1.808	1.31	22667	0.01	2000	
Sb	121	1	No Gas	96.681	96.681	1.63	1538780	0.01	2000	
Ba	137	1	No Gas	217.195	217.195	0.31	1312406	0.02	2000	
Tl	205	1	No Gas	109.020	109.020	1.44	3047935	0.00	2000	
Tl	203	1	No Gas	108.423	108.423	1.71	1304830	0.01	2000	
Pb	208	1	No Gas	99.130	99.130	1.44	4134033	0.00	2000	
U	238	1	No Gas	4.638	4.638	2.66	188008	0.00	2000	
Ca	43	2	He	79940.013	79940.013	2.14	184254	43.39	200000	
Sb	121	2	He	92.245	92.245	1.43	634181	0.01	2000	
Ti	47	2	He	104.915	104.915	5.40	24355	0.43	2000	
Cu	63	1	No Gas	103.537	103.537	0.58	1385447	0.01	2000	
Zn	66	1	No Gas	111.056	111.056	0.53	424535	0.03	2000	
Se	82	1	No Gas	105.825	105.825	1.78	27587	0.38	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	962441	1.40	965311	99.70	70	120	
Ge	72	2	He	692100	1.08	669606	103.36	70	120	
Ge	72	1	No Gas	2830940	0.98	2743181	103.20	70	120	
In	115	1	No Gas	3280564	1.81	3228126	101.62	70	120	
Bi	209	1	No Gas	2738432	1.95	2690468	101.78	70	120	

Sample Report

Sample Table

Sample Name	HS23051516-01
Data File Name	139SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T16:02:37-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	103.729	103.729	0.45	1338076	0.01	2000	
Be	9	1	No Gas	0.148	0.148	8.13	540	0.03	2000	
V	51	2	He	3.080	3.080	1.06	21865	0.01	2000	
Cr	52	2	He	4.487	4.487	1.56	46339	0.01	2000	
Fe	56	2	He	4997.409	4997.409	0.17	30037362	0.02	200000	
Se	78	2	He	0.369	0.369	49.86	149	0.25	2000	
As	75	2	He	2.067	2.067	4.72	2219	0.09	2000	
Ca	44	2	He	152719.028	152719.028	1.19	5932755	2.57	200000	
Na	23	2	He	602438.215	602438.215	1.20	564265925	0.11	200000	>LDR
Mg	24	2	He	115046.487	115046.487	0.58	64156164	0.18	200000	
K	39	2	He	1460.613	1460.613	1.16	1182097	0.12	200000	
Mn	55	2	He	757.266	757.266	0.75	3761306	0.02	2000	
Co	59	2	He	5.002	5.002	0.27	50320	0.01	2000	
Ni	60	2	He	10.674	10.674	1.89	26646	0.04	2000	
Cu	63	2	He	8.976	8.976	0.79	57706	0.02	2000	
Zn	66	2	He	21.459	21.459	1.64	28297	0.08	2000	
Al	27	2	He	104.696	104.696	3.87	36359	0.29	2000	
B	11	1	No Gas	50.972	50.972	1.03	116950	0.04	2000	
Al	27	1	No Gas	104.041	104.041	5.85	1647347	0.01	2000	
Si	28	1	No Gas	18450.193	18450.193	0.47	149698528	0.01	2000	>LDR
Ag	107	1	No Gas	0.007	0.007	14.28	403	0.00	2000	
Cd	111	1	No Gas	0.172	0.172	11.62	584	0.03	2000	
Sr	88	1	No Gas	2931.874	2931.874	0.81	105782055	0.00	2000	>LDR
Mo	95	1	No Gas	0.978	0.978	3.20	7382	0.01	2000	
Sn	118	1	No Gas	0.038	0.038	99.75	2071	0.00	2000	
Sb	121	1	No Gas	0.340	0.340	1.34	5441	0.01	2000	
Ba	137	1	No Gas	281.043	281.043	1.12	1601166	0.02	2000	
Tl	205	1	No Gas	0.077	0.077	0.36	2317	0.00	2000	
Tl	203	1	No Gas	0.085	0.085	8.51	1033	0.01	2000	
Pb	208	1	No Gas	0.249	0.249	7.76	10028	0.00	2000	
U	238	1	No Gas	6.954	6.954	0.91	245097	0.00	2000	
Ca	43	2	He	160742.365	160742.365	0.40	363608	44.21	200000	
Sb	121	2	He	0.325	0.325	9.54	2264	0.01	2000	
Ti	47	2	He	2.004	2.004	2.68	463	0.43	2000	
Cu	63	1	No Gas	13.473	13.473	1.36	175157	0.01	2000	
Zn	66	1	No Gas	22.418	22.418	1.87	85998	0.03	2000	
Se	82	1	No Gas	8.617	8.617	9.26	2331	0.37	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	952576	2.84	965311	98.68	70	120	
Ge	72	2	He	679155	0.72	669606	101.43	70	120	
Ge	72	1	No Gas	2735299	1.14	2743181	99.71	70	120	
In	115	1	No Gas	3093530	1.48	3228126	95.83	70	120	
Bi	209	1	No Gas	2381075	1.21	2690468	88.50	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	141_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T16:06:39-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	98.968	1.538	1326645	0.25	100	99.0	90	110	
Be	9	1	No Gas	101.964	1.024	367089	0.44	100	102.0	90	110	
V	51	2	He	95.872	1.405	600359	0.85	100	95.9	90	110	
Cr	52	2	He	96.592	1.103	712085	0.29	100	96.6	90	110	
Fe	56	2	He	9694.564	0.674	59994186	1.10	10000	96.9	90	110	
Se	78	2	He	99.332	2.360	10024	1.93	100	99.3	90	110	
As	75	2	He	98.718	0.998	100429	0.15	100	98.7	90	110	
Ca	44	2	He	9730.990	2.059	390143	1.50	10000	97.3	90	110	
Na	23	2	He	10006.850	1.029	9700300	0.34	10000	100.1	90	110	
Mg	24	2	He	9711.654	2.047	5578279	1.48	10000	97.1	90	110	
K	39	2	He	9757.435	1.972	7573725	1.14	10000	97.6	90	110	
Mn	55	2	He	99.481	1.352	509940	0.83	100	99.5	90	110	
Co	59	2	He	95.569	0.387	987114	0.57	100	95.6	90	110	
Ni	60	2	He	98.713	0.606	249473	0.81	100	98.7	90	110	
Cu	63	2	He	96.753	0.238	635637	1.07	100	96.8	90	110	
Zn	66	2	He	100.687	0.931	131890	0.70	100	100.7	90	110	
Al	27	2	He	111.021	1.985	39670	1.87	100	111.0	90	110	CCV Main CR1-2 Failed
B	11	1	No Gas	492.876	1.854	1087705	0.90	500	98.6	90	110	
Al	27	1	No Gas	113.421	1.736	1879521	0.53	100	113.4	90	110	CCV Main CR1-2 Failed
Si	28	1	No Gas	672.172	0.607	6181155	1.14	5000	13.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.401	1.144	1856044	1.62	100	98.4	90	110	
Cd	111	1	No Gas	96.881	0.432	361253	0.63	100	96.9	90	110	
Sr	88	1	No Gas	97.196	0.561	3779790	0.61	100	97.2	90	110	
Mo	95	1	No Gas	92.988	0.719	737711	0.54	100	93.0	90	110	
Sn	118	1	No Gas	99.413	1.732	1169921	2.31	100	99.4	90	110	
Sb	121	1	No Gas	98.808	0.823	1592155	1.47	100	98.8	90	110	
Ba	137	1	No Gas	97.481	0.415	598688	0.54	100	97.5	90	110	
Tl	205	1	No Gas	100.538	2.793	2802585	1.03	100	100.5	90	110	
Tl	203	1	No Gas	98.613	4.397	1183006	2.07	100	98.6	90	110	
Pb	208	1	No Gas	99.834	2.612	4151344	1.23	100	99.8	90	110	
U	238	1	No Gas	96.692	4.232	3905651	1.98	100	96.7	90	110	
Ca	43	2	He	9743.849	4.180	22716	3.28	10000	97.4	90	110	
Sb	121	2	He	95.990	0.523	667064	0.79	100	96.0	90	110	
Ti	47	2	He	94.637	2.116	22212	1.28	100	94.6	90	110	
Cu	63	1	No Gas	99.759	1.135	1351690	2.05	100	99.8	90	110	
Se	82	1	No Gas	99.391	1.577	26241	1.00	100	99.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	987920	1.34	965311	102.34	70	120	
Ge	72	2	He	699527	0.90	669606	104.47	70	120	
Ge	72	1	No Gas	2866332	1.33	2743181	104.49	70	120	
In	115	1	No Gas	3332970	0.77	3228126	103.25	70	120	
Bi	209	1	No Gas	2731055	2.47	2690468	101.51	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	142_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T16:08:32-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.106	49.8	60777	0.4	0.5	
Be	9	1	No Gas	0.036	9.2	155	8.5	0.5	
V	51	2	He	0.088	22.0	3912	3.0	2.5	
Cr	52	2	He	-0.031	-102.4	15232	1.5	2.5	
Fe	56	2	He	1.505	11.0	34805	3.1	100	
Se	78	2	He	-0.097	-247.6	107	22.5	2	
As	75	2	He	0.061	69.9	250	17.3	2.5	
Ca	44	2	He	-2.064	-85.4	800	9.0	100	
Na	23	2	He	149.321	2.3	193324	1.9	100	CCB Main CR1 Failed
Mg	24	2	He	3.398	11.5	2794	8.1	100	
K	39	2	He	0.058	799.7	99091	0.5	100	
Mn	55	2	He	0.067	60.9	1543	13.7	2.5	
Co	59	2	He	0.016	19.0	337	9.1	2.5	
Ni	60	2	He	-0.029	-113.7	457	18.2	2.5	
Cu	63	2	He	0.012	79.0	597	10.8	2	
Zn	66	2	He	-0.059	-71.4	1243	4.4	2.5	
Al	27	2	He	0.519	20.4	863	4.4	5	
B	11	1	No Gas	8.615	4.3	28521	3.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.418	9.0	39259	1.4	5	
Si	28	1	No Gas	4.371	23.9	522753	0.9	10	
Ag	107	1	No Gas	0.023	19.0	773	10.8	2.5	
Cd	111	1	No Gas	0.043	54.4	154	58.8	1	
Sr	88	1	No Gas	0.076	5.1	4481	3.0	2.5	
Mo	95	1	No Gas	0.117	19.3	1163	15.6	2.5	
Sn	118	1	No Gas	0.091	9.8	2967	4.3	5	
Sb	121	1	No Gas	0.162	12.8	2844	12.7	2.5	
Ba	137	1	No Gas	0.038	15.2	687	6.1	2.5	
Tl	205	1	No Gas	1.020	27.5	30443	29.1	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.010	27.3	12931	29.0	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.037	5.4	2830	5.1	2.5	
U	238	1	No Gas	0.043	13.4	1917	14.5	2.5	
Ca	43	2	He	16.655	51.4	60	33.3	100	
Sb	121	2	He	0.127	9.2	957	8.7	2.5	
Ti	47	2	He	-0.016	-156.7	3	173.2	2.5	
Cu	63	1	No Gas	0.074	10.5	2167	5.6	2.5	
Se	82	1	No Gas	-0.425	-42.0	74	62.4	2	

QC ISTD Table

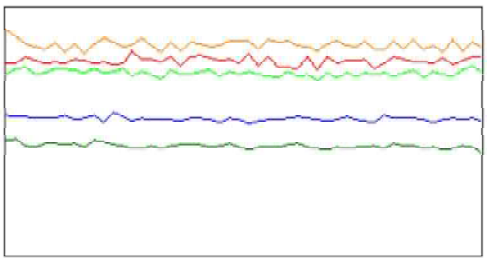
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	982900	1.24	965311	101.82	70	120	
Ge	72	2	He	703867	0.15	669606	105.12	70	120	
Ge	72	1	No Gas	2877039	0.92	2743181	104.88	70	120	
In	115	1	No Gas	3455473	0.70	3228126	107.04	70	120	
Bi	209	1	No Gas	2864275	2.03	2690468	106.46	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq. Date-Time	5/30/2023 10:09:14 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	5000	3945	39451.38		
24	20000	14799	147992.15		
59	50000	27833	278325.25		
115	50000	42767	427670.94		
208	50000	22280	222803.86		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.140	5.000	
24	1.625	5.000	
59	1.561	5.000	
115	2.204	5.000	
208	2.404	5.000	

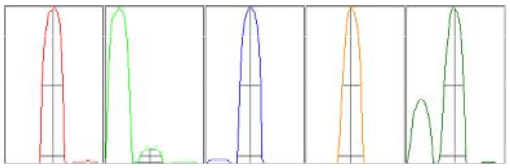
Mass	Background	Background (Required)	Background (Flag)
9	1.500		
24	1.000		
59	0.400		
115	1.000		
208	2.000		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.172 %
Doubly Charged	70 / 140 0.758 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	3926.33	9.00	8.90 - 9.10	
24	14617.72	23.90	23.90 - 24.10	
59	28165.33	58.90	58.90 - 59.10	
115	43701.88	114.90	114.90 - 115.10	
208	21878.23	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.65	0.742		
24	0.65	0.792		
59	0.61	0.740		
115	0.56	0.764		
208	0.60	0.785		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.50 L/min	Dilution Gas	0.56 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	14.6 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0004	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.6 mm

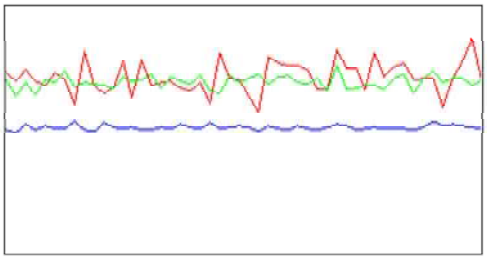
EM

Discriminator	4.5 mV	Analog HV	2996 V	Pulse HV	1658 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	200	143	1432.27		
24	1000	697	6965.53		
59	20000	10251	102512.50		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

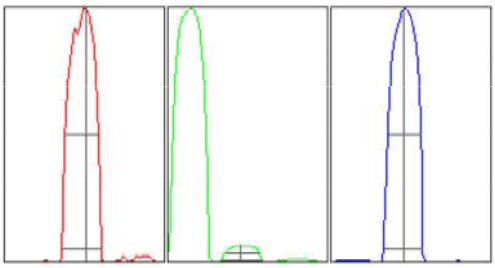
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	8.892	5.000	Fail
24	3.841	5.000	
59	1.949	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.100		
24	0.100		
59	0.200		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.433 %
Doubly Charged	70 / 140 0.899 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	146.26	9.05	8.90 - 9.10	
24	711.96	23.90	23.90 - 24.10	
59	10443.97	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.742		
24	0.65	0.784		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.61	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.50 L/min	Dilution Gas	0.56 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.6 V	Deflect	0.5 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.1 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0004	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.6 mm

EM

Discriminator	4.5 mV	Analog HV	2996 V	Pulse HV	1658 V

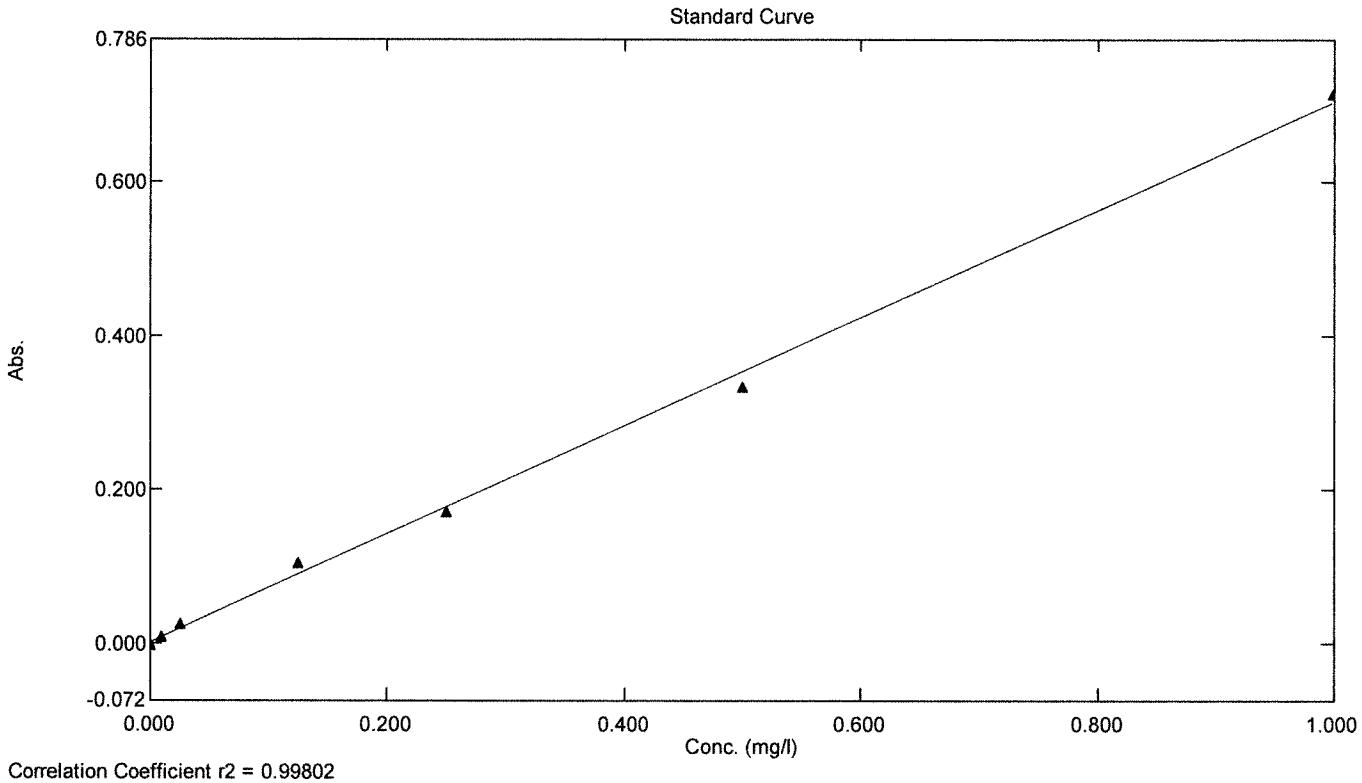
HS23051516 Wetchem Cr6_W

ALS WO# HS23051516

Standard Table Report

05/25/2023 06:58:38 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\05232023CR6_W.pho



Correlation Coefficient r2 = 0.99802

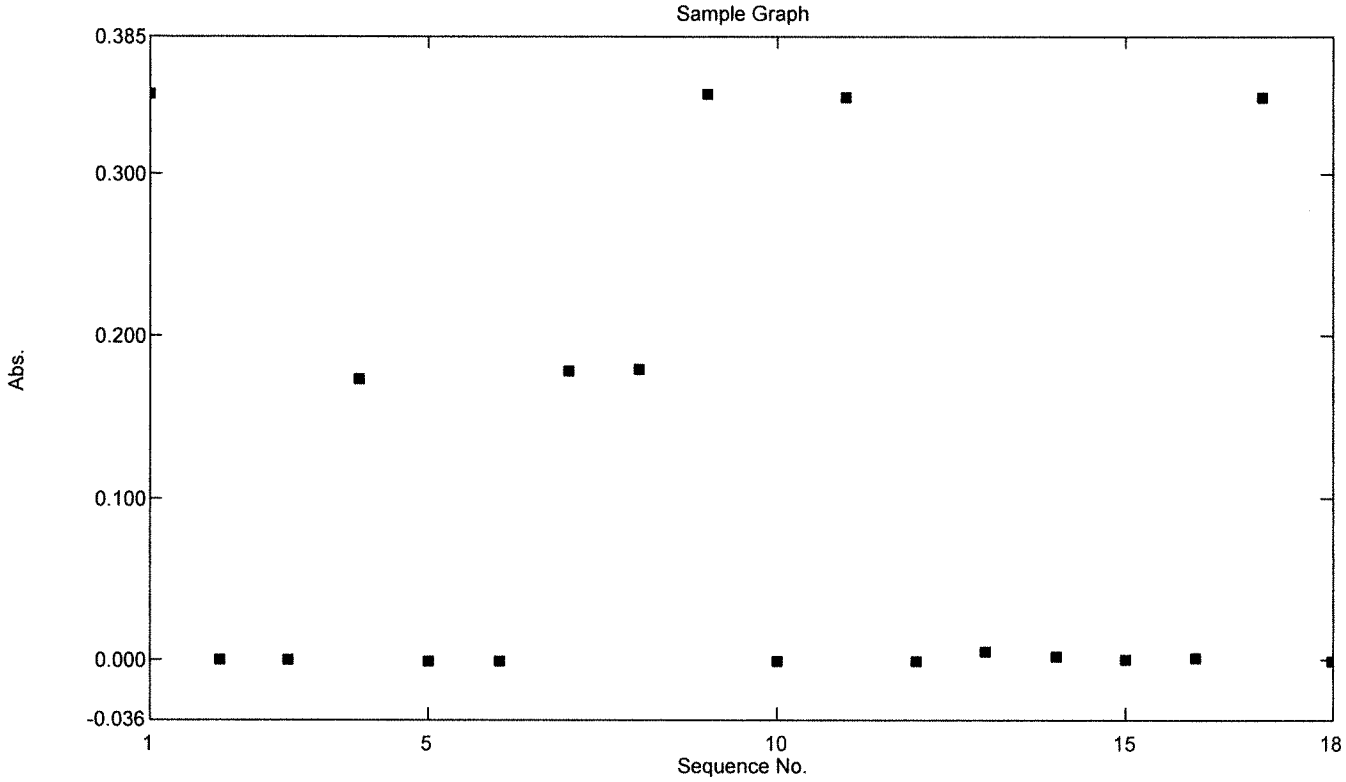
Standard Table

	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.009	1.000	
3	STD3	Standard		0.025	0.026	1.000	
4	STD4	Standard		0.125	0.105	1.000	
5	STD5	Standard		0.250	0.171	1.000	
6	STD6	Standard		0.500	0.334	1.000	
7	STD7	Standard		1.000	0.714	1.000	
8							

Sample Table Report

05/25/2023 06:58:39 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\05232023CR6_W.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		05/23/2023	10:14:25 AM	0.494	0.350	CCV- 321105802
2	CCB	Unknown		05/23/2023	10:14:34 AM	-0.003	0.000	LCS- 321105801
3	MBLK	Unknown		05/23/2023	10:14:40 AM	-0.003	0.000	
4	LCS	Unknown		05/23/2023	10:14:49 AM	0.243	0.173	
5	HS23051482.01	Unknown		05/23/2023	10:15:15 AM	-0.003	-0.000	PF= 50X
6	HS23051482.01BKG	Unknown		05/23/2023	10:15:48 AM	-0.005	-0.001	BKG= -0.008
7	HS23051482.01MS	Unknown		05/23/2023	10:16:22 AM	0.251	0.179	
8	HS23051482.01MSD	Unknown		05/23/2023	10:16:31 AM	0.253	0.180	
9	CCV2	Unknown		05/23/2023	10:16:45 AM	0.494	0.349	
10	CCB2	Unknown		05/23/2023	10:16:54 AM	-0.004	-0.000	
11	CCV3	Unknown		05/23/2023	10:48:49 AM	0.492	0.348	
12	CCB3	Unknown		05/23/2023	10:49:04 AM	-0.004	-0.001	
13	HS23051516.01	Unknown		05/23/2023	10:59:19 AM	0.004	0.005	
14	HS23051516.01BKG	Unknown		05/23/2023	10:59:50 AM	-0.001	0.002	BKG= 0
15	HS23051522.01	Unknown		05/23/2023	11:00:31 AM	-0.002	0.001	
16	HS23051522.01BKG	Unknown		05/23/2023	11:00:57 AM	-0.002	0.001	BKG= 0
17	CCV4	Unknown		05/23/2023	11:01:15 AM	0.491	0.347	
18	CCB4	Unknown		05/23/2023	11:01:29 AM	-0.005	-0.001	
19								

HS23051516-E2300501 Perchlorate Level IV

ALS WO# HS23051516

May 31, 2023 Service Request No:E2300501

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051516

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 23, 2023
For your reference, these analyses have been assigned our service request number **E2300501.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300501
Project:	HS23051516	**Date Received:**	05/23/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 05/23/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300265: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300501
Project: HS23051516

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300501-001	LH18/24-SP140_052223	5/22/2023	1300

Service Request Summary

Folder #: **E2300501**
Client Name: ALS Environmental - US
Project Name: HS23051516
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/23/23
Internal Due Date: 6/7/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051516
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300501-001	LH18/24-SP140_052223	Water	05/22/23 1300	**IV**

Service Request Summary

Folder #:	**E2300501**
Client Name:	ALS Environmental - US
Project Name:	HS23051516
Project Number:	

Report To:	Dane Wacasey ALS Group USA, Corp. 10450 Stancliff Road Houston, TX 77099-4338 USA
Phone Number:	281-575-2190
Cell Number:	
Fax Number:	281-530-5887
E-mail:	dane.wacasey@alsglobal.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	CGRANDITS
Date Received:	05/23/23
Internal Due Date:	6/7/2023
QAP:	LAB QAP
Qualifier Set:	Lab Standard
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	HS23051516
EDD:	No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

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Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **21800**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23051516
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051516-01**	**LH18/24-SP140_052223**	**Water**	**22 May 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			07 Jun 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: 5.23.23 10.35

Received By: _____ Date/Time: 5.24.23 1025

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID 1231

Date/Time Received: 5.23.23 Initials: CG Date/Time Logged in: 5.23.23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		5.23.23	1025	CG	1.3	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300499-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300499-002	LH18/24-SP650_052223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300500-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300501-001	LH18/24-SP140_052223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300512-001	50WW09_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300512-002	50WW08_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300512-003	50WW22_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300512-004	50WW13_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300512-005	50WW11_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300512-006	50WW06_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300512-007	50WW29_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	EQ2300265-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300265-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300265-03	DLCS		6850/ClO4			Liquid	10mL	
15	K2305800-001	LGAC-INF-052223	.01	6850/ClO4			Water	10mL	
16	K2305800-002	LGAC-INT1-052223	.01	6850/ClO4			Water	10mL	
17	R2304146-004	2305090957X BLM-38-620	.01	6850/ClO4			Water	10mL	
18	R2304146-009	2305090931B ST-1-630	.01	6850/ClO4			Water	10mL	
19	R2304203-004	2305100842X BLM-38-480	.01	6850/ClO4			Water	10mL	
20	R2304203-011	2305100858B 600-C-173	.01	6850/ClO4			Water	10mL	
21	R2304267-009	2305111350X WB-1-330	.01	6850/ClO4			Water	10mL	
22	R2304267-012	2305121010X WB-1-200	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300265-02	1.00µL	EQ2300265-02	1.00µL	EQ2300265-03	1.00µL	EQ2300265-03	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300499-001	100.00µL	E2300499-002	100.00µL	E2300500-001	100.00µL	E2300501-001	100.00µL	E2300512-001	100.00µL	E2300512-002	100.00µL
E2300512-003	100.00µL	E2300512-004	100.00µL	E2300512-005	100.00µL	E2300512-006	100.00µL	E2300512-007	100.00µL	EQ2300265-01	100.00µL
EQ2300265-01	100.00µL	EQ2300265-02	100.00µL	EQ2300265-02	100.00µL	EQ2300265-03	100.00µL	EQ2300265-03	100.00µL	K2305800-001	100.00µL
K2305800-002	100.00µL	R2304146-004	100.00µL	R2304146-009	100.00µL	R2304203-004	100.00µL	R2304203-011	100.00µL	R2304267-009	100.00µL
R2304267-012	100.00µL										

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 5/30/23 08:20
Finished: 5/30/23 09:20
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 05/30/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	5/22/23 1300
Sample Matrix:	Water	**Date Received:**	5/23/23
Sample Name:	LH18/24-SP140_052223	**Units:**	µg/L
Lab Code:	E2300501-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**79900**		2500	250	125	5000	5/30/23	5/30/23 17:13	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300265-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:38	420569	805870	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Analyzed:**	5/30/23
Sample Matrix:	Water		

Lab Control Sample Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	420569

	Lab Control Sample EQ2300265-02			Duplicate Lab Control Sample EQ2300265-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.105	0.100	105	0.101	0.100	101	84 - 119	4	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.105**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:44	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.101**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:50	420569	805870	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

Initial Calibration - Detailed Report

Calibration ID: EC2300007 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
11	EC2300007-11	PERCHLORATE1	20230530-002	05/30/2023 15:08
01	EC2300007-01	PERCHLORATE2	20230530-003	05/30/2023 15:14
02	EC2300007-02	PERCHLORATE3	20230530-004	05/30/2023 15:21
03	EC2300007-03	PERCHLORATE4	20230530-005	05/30/2023 15:27
04	EC2300007-04	PERCHLORATE5	20230530-006	05/30/2023 15:33
05	EC2300007-05	PERCHLORATE6	20230530-007	05/30/2023 15:39
06	EC2300007-06	PERCHLORATE7	20230530-008	05/30/2023 15:45
07	EC2300007-07	PERCHLORATE8	20230530-009	05/30/2023 15:51
08	EC2300007-08	PERCHLORATE9	20230530-010	05/30/2023 15:57
09	EC2300007-09	PERCHLORATE10	20230530-011	05/30/2023 16:03

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 1.842** **Average RF = 0.1844**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5000	0.1845	02	0.7000	0.1911	03	1.0000	0.181	04	2.0000	0.1794
05	5.0000	0.1836	06	10.0000	0.1842	07	20.0000	0.1862	08	30.0000	0.1828
09	50.0000	0.1863	11								

Analyte

Perchlorate RSE = 1.74

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.5000	0.500	0.1	02	0.7000	0.726	3.7	03	1.0000	0.982	-1.8
04	2.0000	1.95	-2.7	05	5.0000	4.98	-0.4	06	10.0000	9.99	-0.1
07	20.0000	20.2	1.0	08	30.0000	29.8	-0.8	09	50.0000	50.5	1.1
11											

Initial Calibration Verification Summary Report

Calibration ID:	EC2300007	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230530-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300007-10	T	Average RF	10	10.045	ng/mL	0.4	<= 15

Insight Report

Printed at 5/31/2023 8:58:43 AM

Method File: I:\LCMS01\DATA\20230530\20230530.lcm
Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

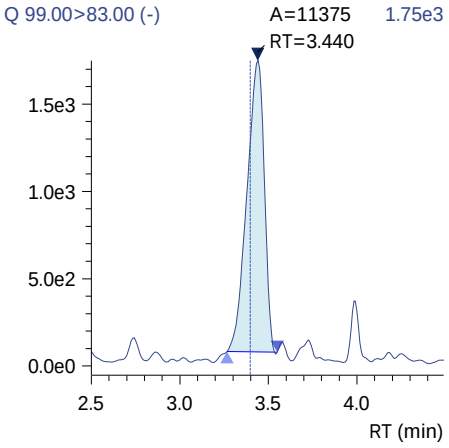
PERCHLORATE1

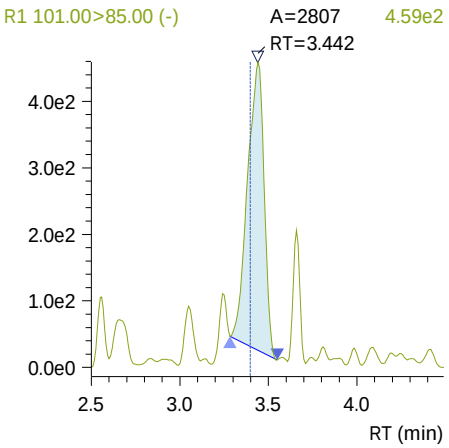
Sample ID: PERCHLORATE1
Date Acquired: 5/30/2023 3:08:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.440	11375	579508	0.1065	ng/mL	101.00 >85.00	24.68	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.437	579508	579508	1.0000	ng/mL	----	----	

Perchlorate

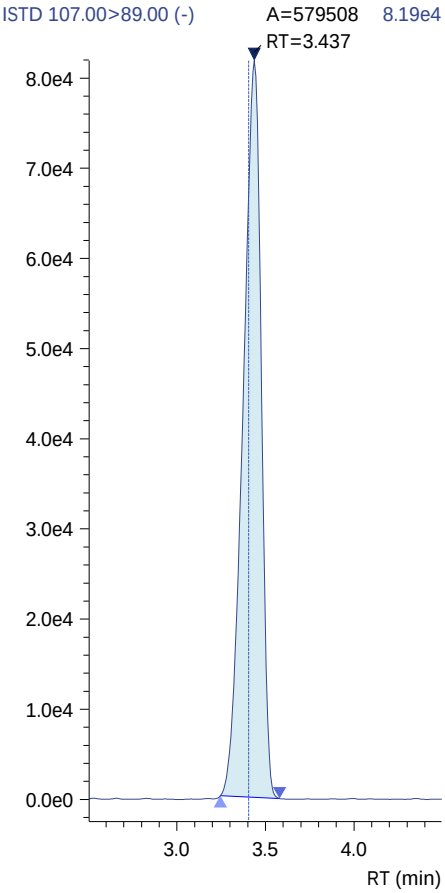
Conc 0.1065
R#1 24.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

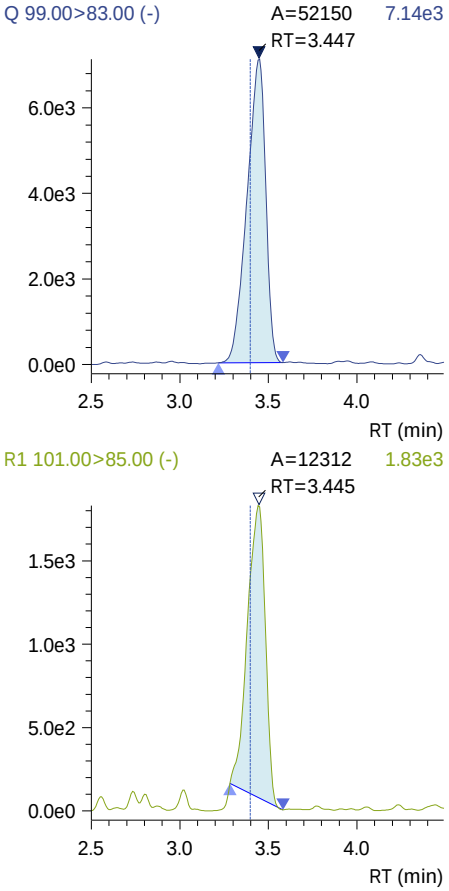
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 5/30/2023 3:14:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	52150	565411	0.5003	ng/mL	101.00 >85.00	23.61	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	565411	565411	1.0000	ng/mL	----	----	

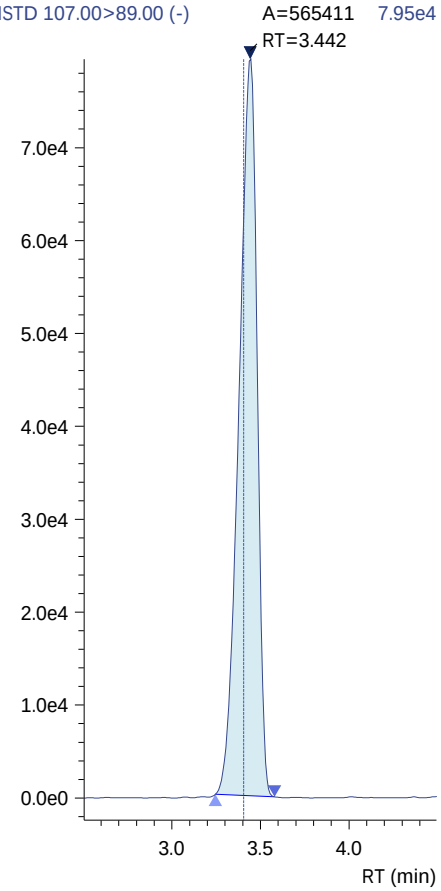
Perchlorate

Conc 0.5003
R#1 23.61 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

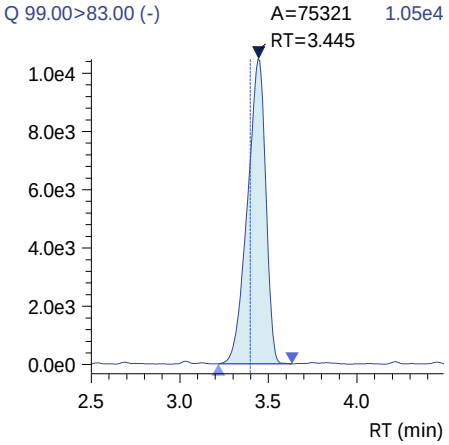
PERCHLORATE3

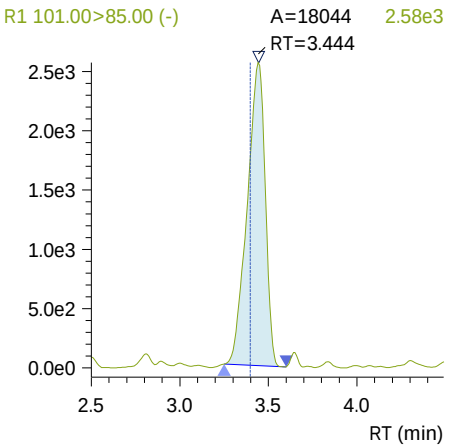
Sample ID: PERCHLORATE3
Date Acquired: 5/30/2023 3:21:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	75321	562984	0.7257	ng/mL	101.00 >85.00	23.96	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	562984	562984	1.0000	ng/mL	----	----	

Perchlorate

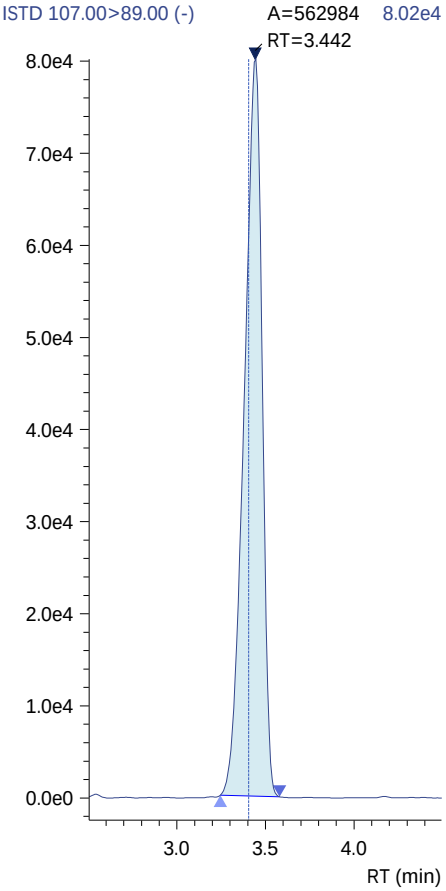
Conc 0.7257
R#1 23.96 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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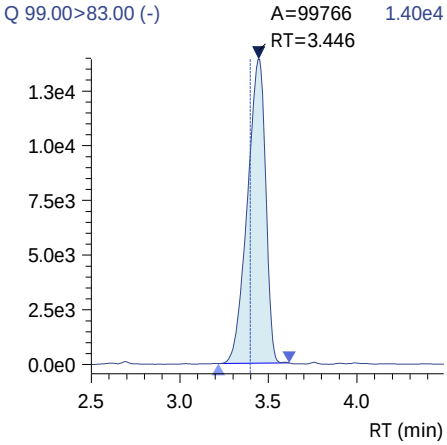
PERCHLORATE4

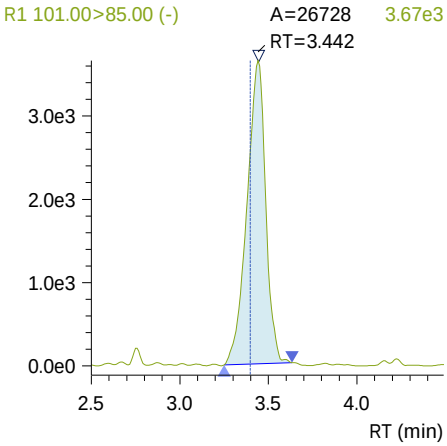
Sample ID: PERCHLORATE4
Date Acquired: 5/30/2023 3:27:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	99766	551315	0.9816	ng/mL	101.00 >85.00	26.79	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	551315	551315	1.0000	ng/mL	----	----	

Perchlorate

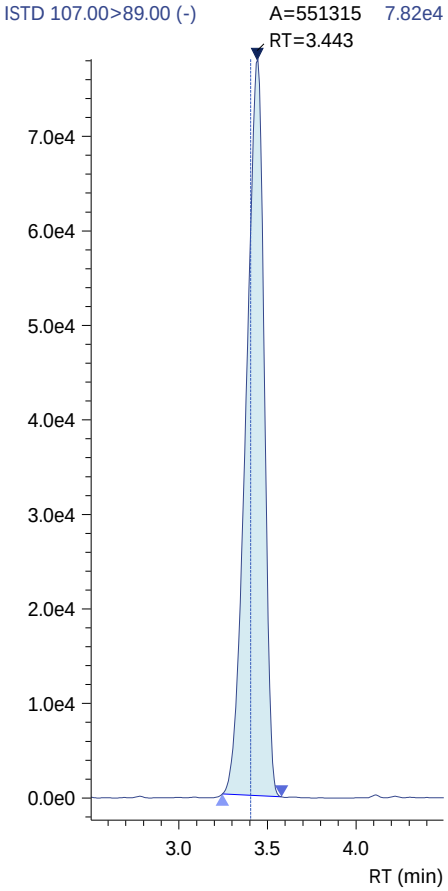
Conc 0.9816
R#1 26.79 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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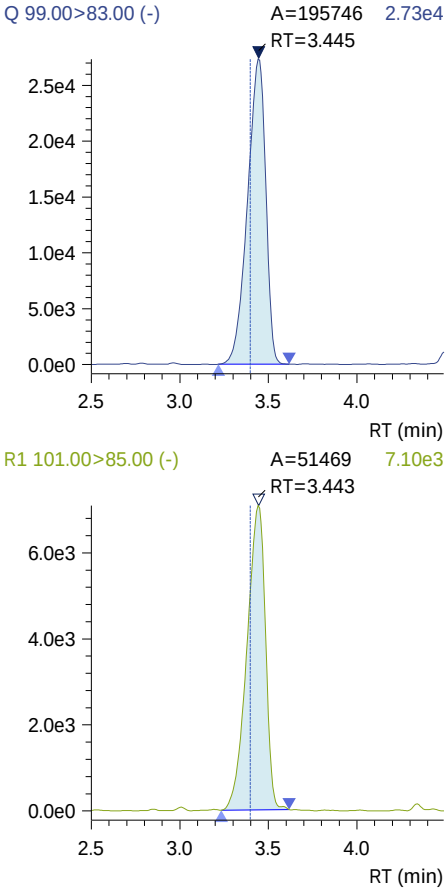
PERCHLORATE5

Sample ID: PERCHLORATE5
Date Acquired: 5/30/2023 3:33:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	195746	545560	1.9463	ng/mL	101.00 >85.00	26.29	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	545560	545560	1.0000	ng/mL	----	----	

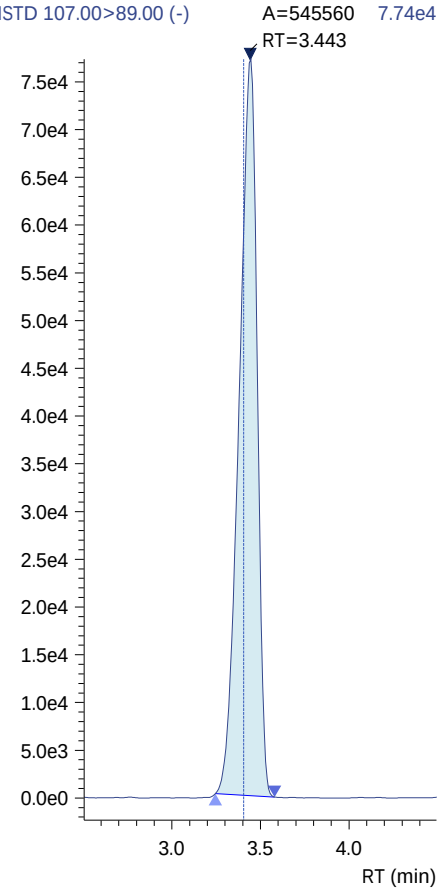
Perchlorate

Conc 1.9463
R#1 26.29 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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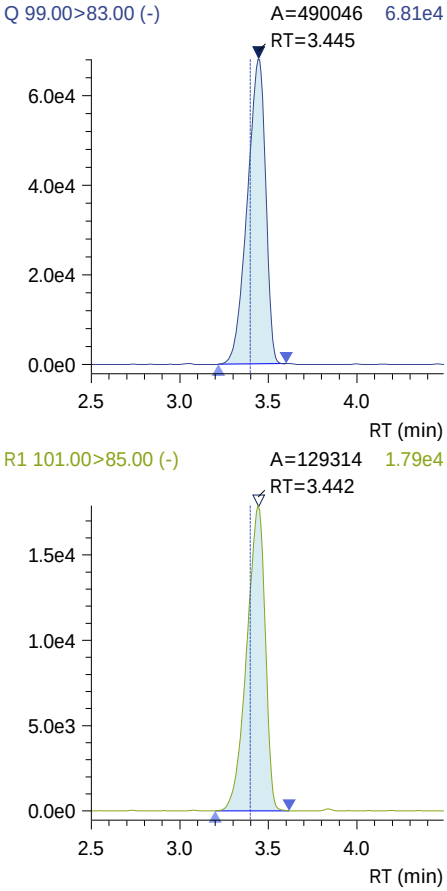
PERCHLORATE6

Sample ID: PERCHLORATE6
Date Acquired: 5/30/2023 3:39:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	490046	533799	4.9798	ng/mL	101.00 >85.00	26.39	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	533799	533799	1.0000	ng/mL	----	----	

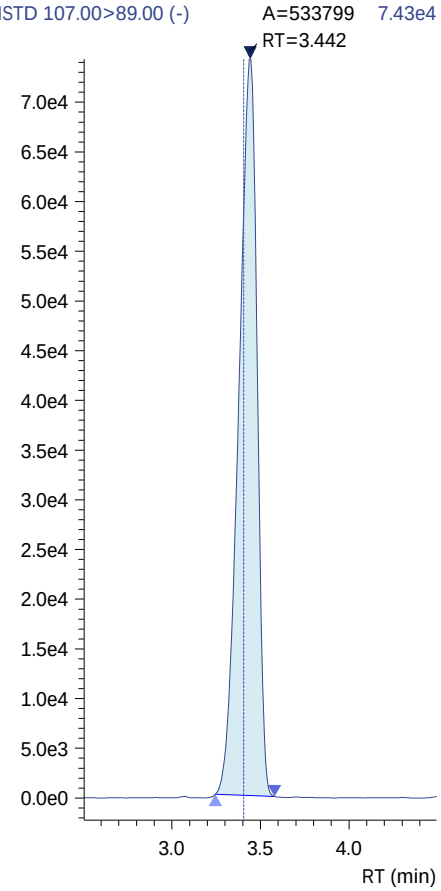
Perchlorate

Conc 4.9798
R#1 26.39 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

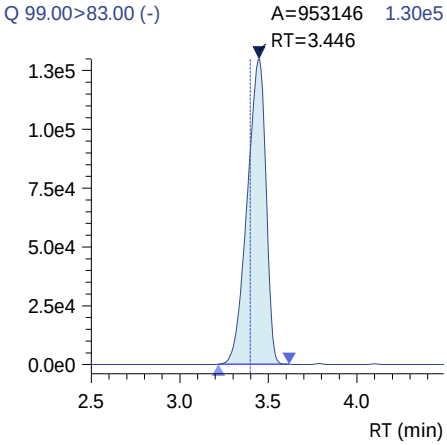
PERCHLORATE7

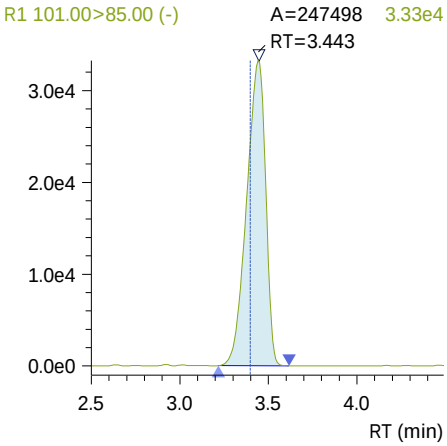
Sample ID: PERCHLORATE7
Date Acquired: 5/30/2023 3:45:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	953146	517404	9.9927	ng/mL	101.00 >85.00	25.97	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	517404	517404	1.0000	ng/mL	----	----	

Perchlorate

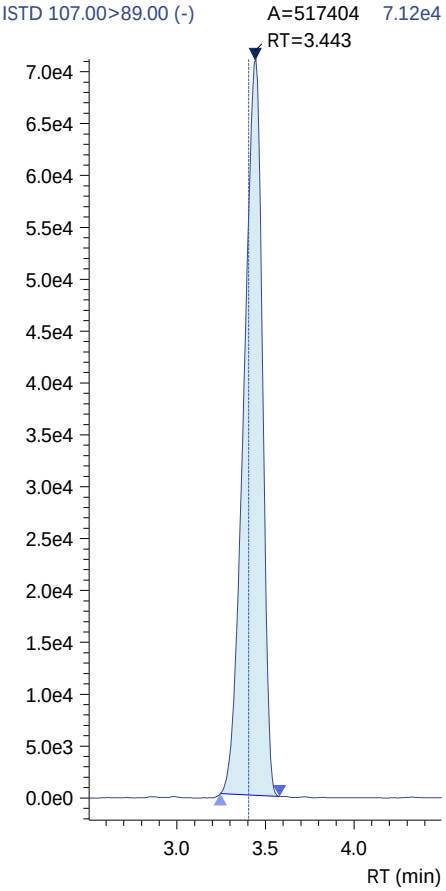
Conc 9.9927
R#1 25.97 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

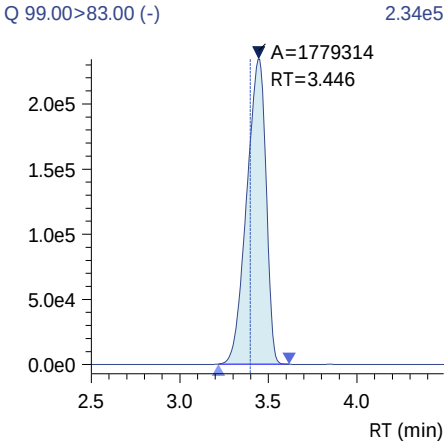
PERCHLORATE8

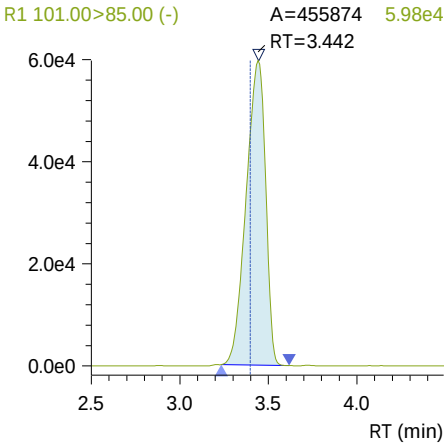
Sample ID: PERCHLORATE8
Date Acquired: 5/30/2023 3:51:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	1779314	477685	20.2052	ng/mL	101.00 >85.00	25.62	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.442	477685	477685	1.0000	ng/mL	----	----	

Perchlorate

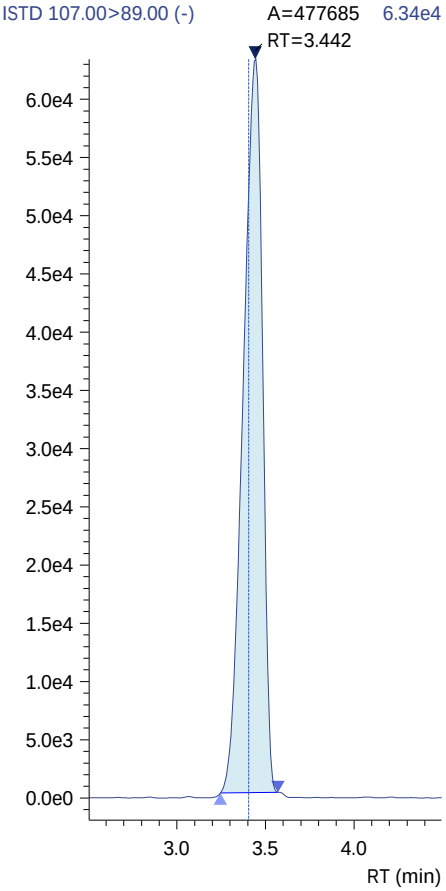
Conc 20.2052
R#1 25.62 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

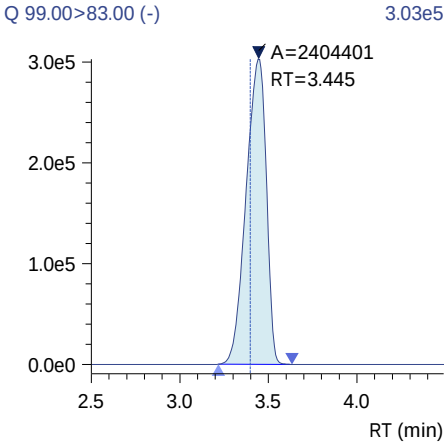
PERCHLORATE9

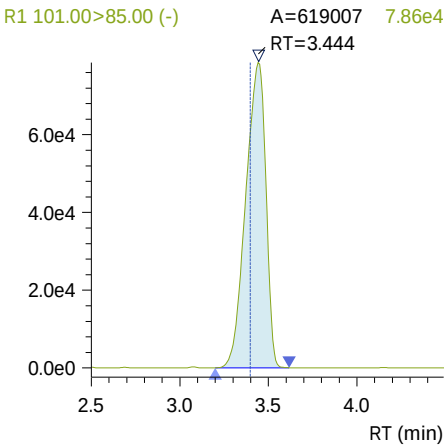
Sample ID: PERCHLORATE9
Date Acquired: 5/30/2023 3:57:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	2404401	438344	29.75 39	ng/mL	101.00 >85.00	25.75	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	438344	438344	1.0000	ng/mL	----	----	

Perchlorate

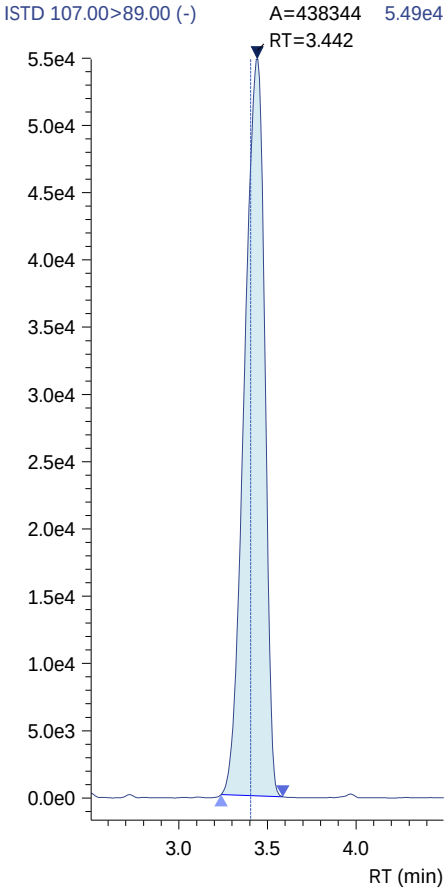
Conc 29.7539
R#1 25.75 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

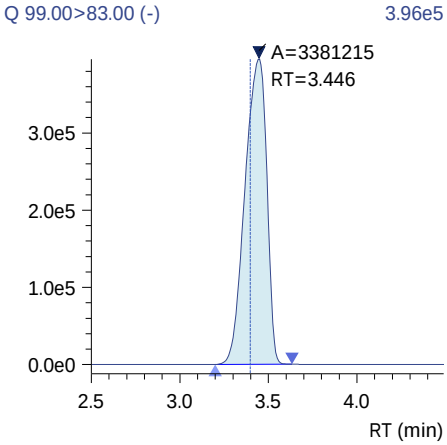
PERCHLORATE10

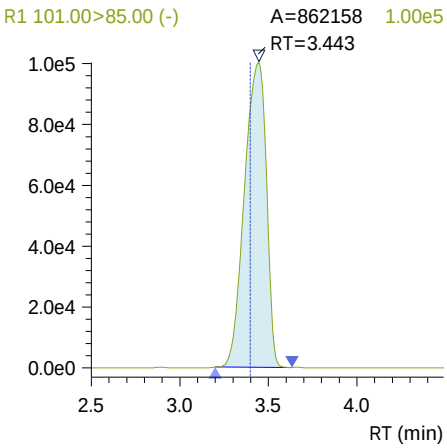
Sample ID: PERCHLORATE10
Date Acquired: 5/30/2023 4:03:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	3381215	362968	50.5309	ng/mL	101.00 >85.00	25.50	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.441	362968	362968	1.0000	ng/mL	----	----	

Perchlorate

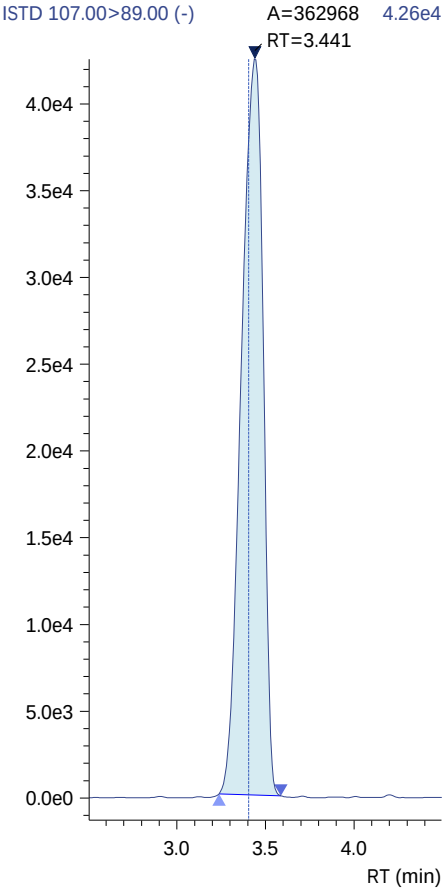
Conc 50.5309
R#1 25.50 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

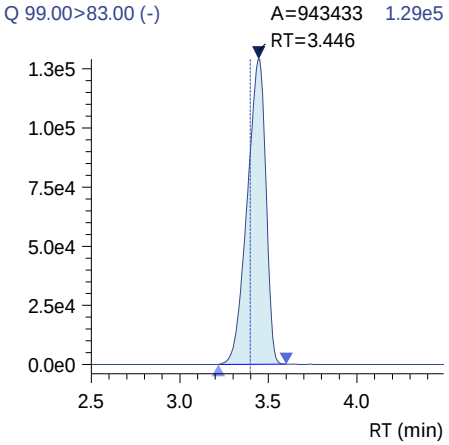
PERCHLORATEICV

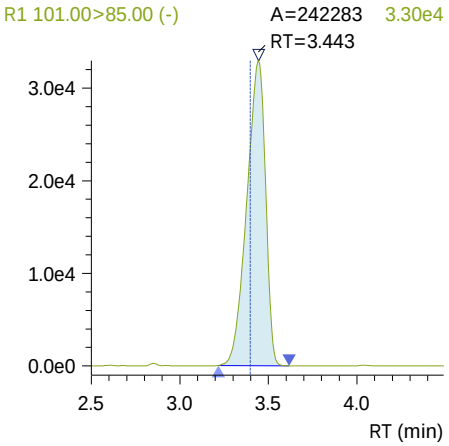
Sample ID: PERCHLORATEICV
Date Acquired: 5/30/2023 4:10:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	943433	509464	10.04 50	ng/mL	101.00 >85.00	25.68	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.442	509464	509464	1.0000	ng/mL	----	----	

Perchlorate

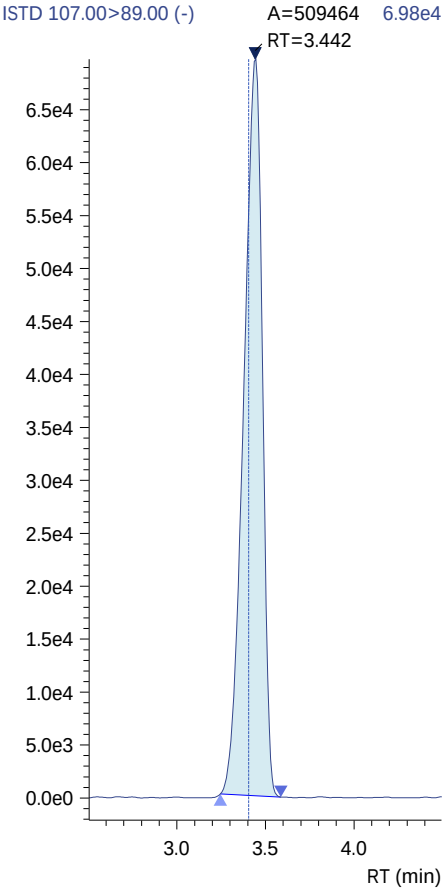
Conc 10.0450
R#1 25.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Analyzed:**	5/30/23 16:33

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-016	**Lab Code:**	EQ2300267-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-01	446,992	3.44
Method Blank	EQ2300265-01	521,804	3.44
Lab Control Sample	EQ2300265-02	512,245	3.44
Duplicate Lab Control Sample	EQ2300265-03	508,088	3.44
LH18/24-SP140_052223	E2300501-001	462,987	3.44

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Analyzed:**	5/30/23 17:18

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-024	**Lab Code:**	EQ2300267-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-02	438,284	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Analyzed:**	5/30/23 18:04

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-032	**Lab Code:**	EQ2300267-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-03	427,101	3.44

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300501
Project:	HS23051516	**Date Analyzed:**	5/30/23 18:56

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-041	**Lab Code:**	EQ2300267-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-04	409,761	3.44

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051516

Service Request: E2300501
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-016

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2102	14.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051516

Service Request: E2300501
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-024

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2106	14.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051516

Service Request: E2300501
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-032

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.5	0.1844	0.2115	14.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051516

Service Request: E2300501
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-041

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2104	14.1	NA	± 15 %	Average RF

Insight Report

Printed at 5/31/2023 8:58:43 AM

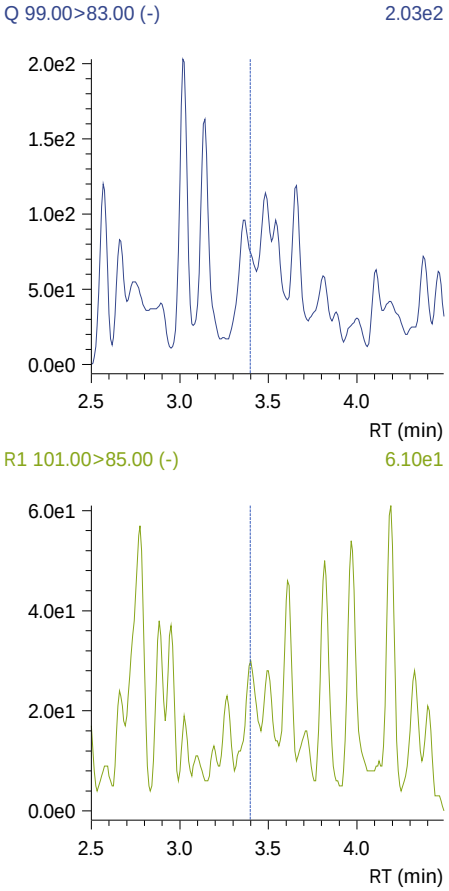
IB

Sample ID: IB
Date Acquired: 5/30/2023 4:15:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-013.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	541043	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	541043	541043	1.0000	ng/mL	----	----	

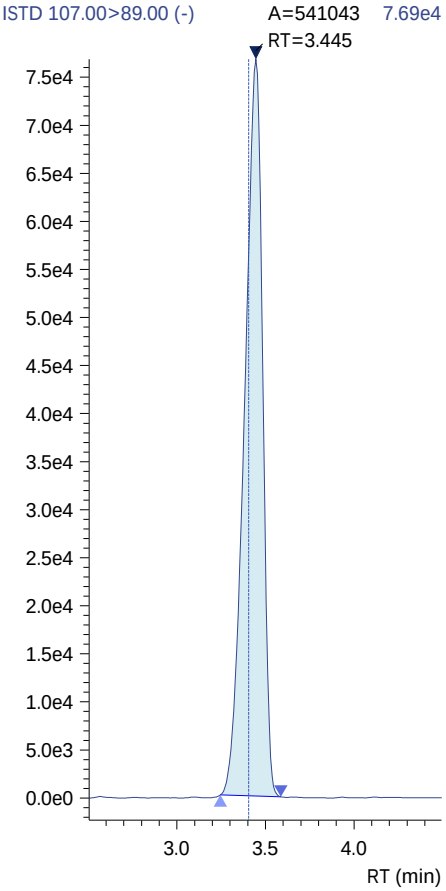
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

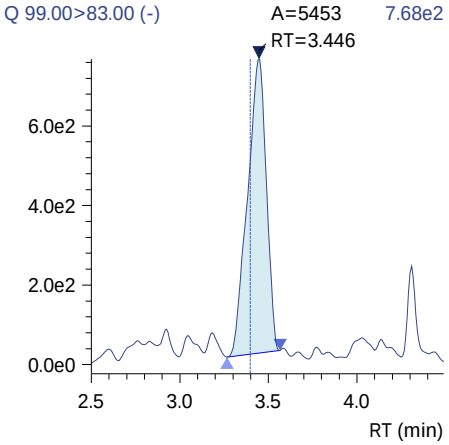
LODV

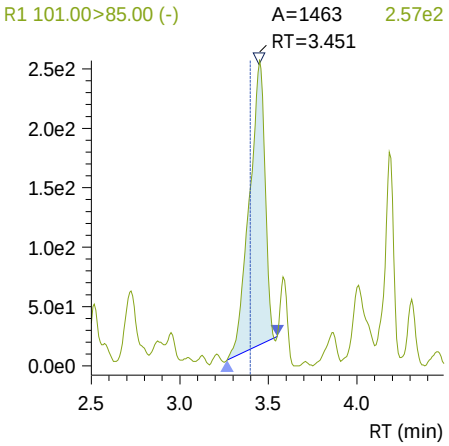
Sample ID: LODV
Date Acquired: 5/30/2023 4:21:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-014.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	5453	525947	0.0562	ng/mL	101.00 >85.00	26.83	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	525947	525947	1.0000	ng/mL	----	----	

Perchlorate

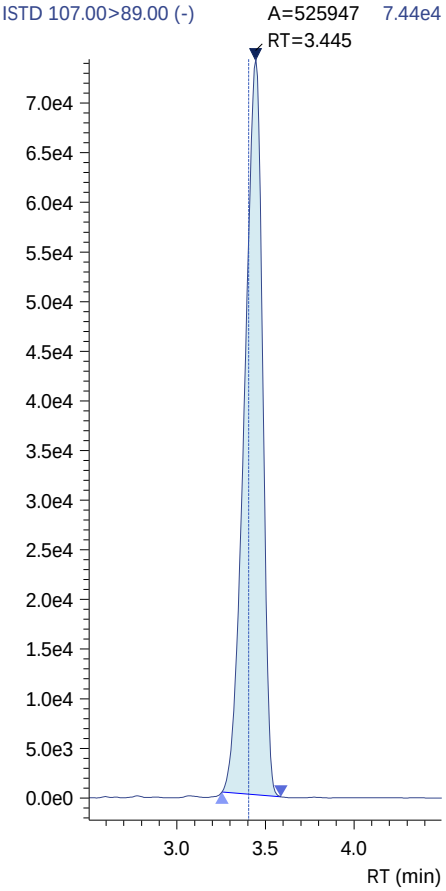
Conc 0.0562
R#1 26.83 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

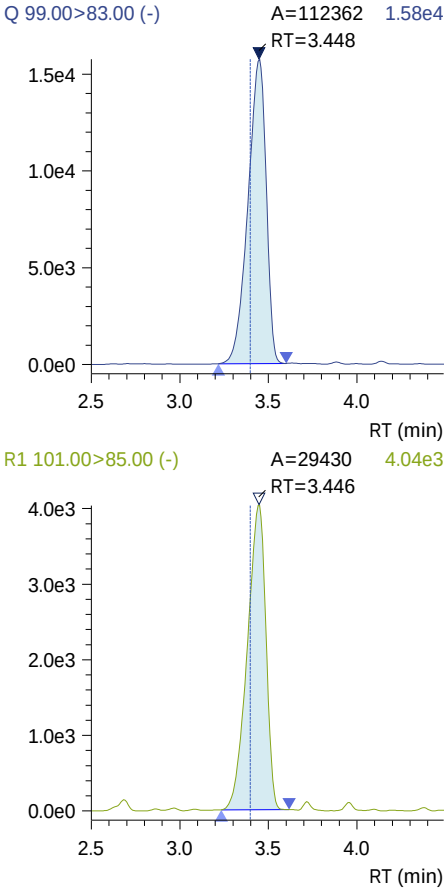
ICS

Sample ID: ICS
Date Acquired: 5/30/2023 4:27:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-015.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.448	112362	575368	1.0593	ng/mL	101.00 >85.00	26.19	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	575368	575368	1.0000	ng/mL	----	----	

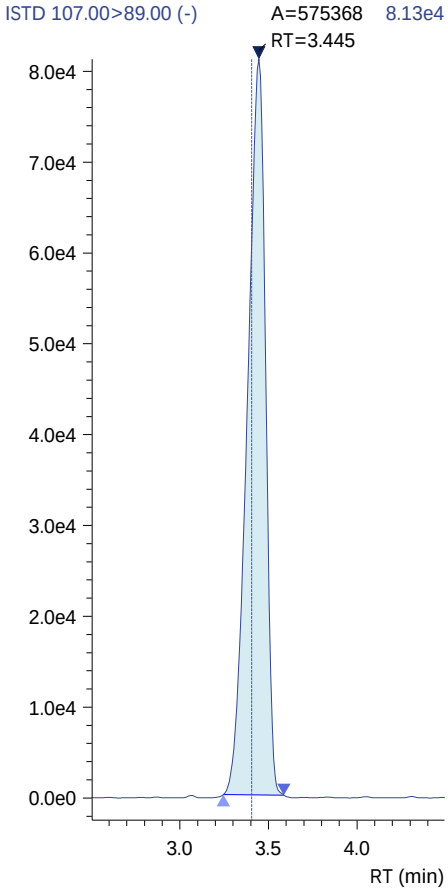
Perchlorate

Conc 1.0593
R#1 26.19 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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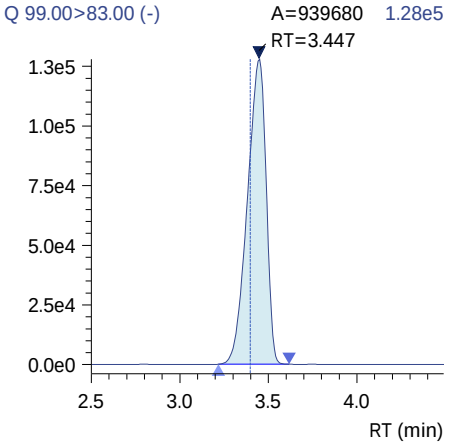
CCV

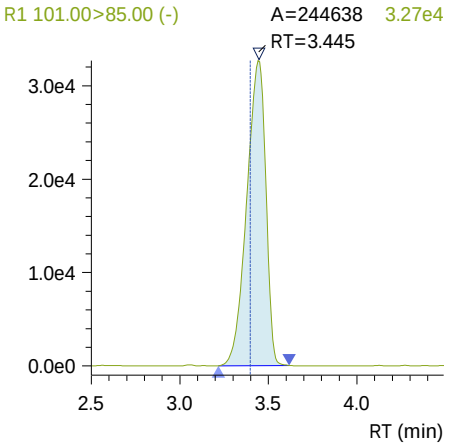
Sample ID: CCV
Date Acquired: 5/30/2023 4:33:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-016.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	939680	446992	11.40 33	ng/mL	101.00 >85.00	26.03	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	446992	446992	1.0000	ng/mL	----	----	

Perchlorate

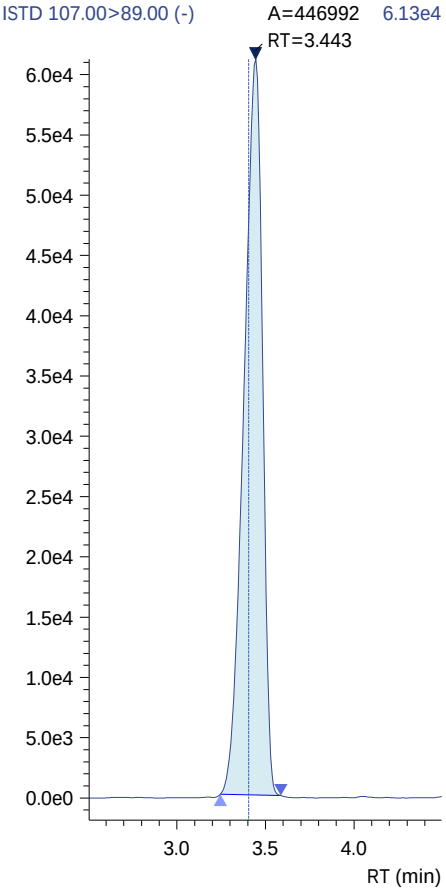
Conc 11.4033
R#1 26.03 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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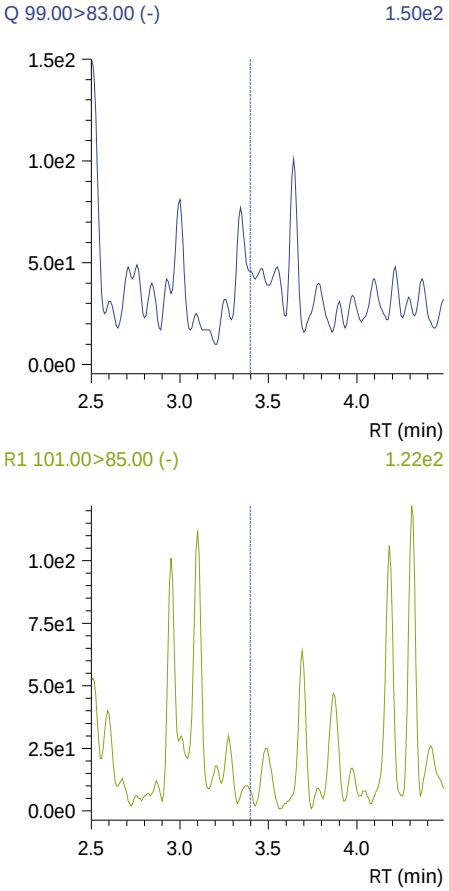
EQ2300265-01

Sample ID: EQ2300265-01
Date Acquired: 5/30/2023 4:38:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-017.lcd
Vial: 15 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	521804	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.444	521804	521804	1.0000	ng/mL	----	----	

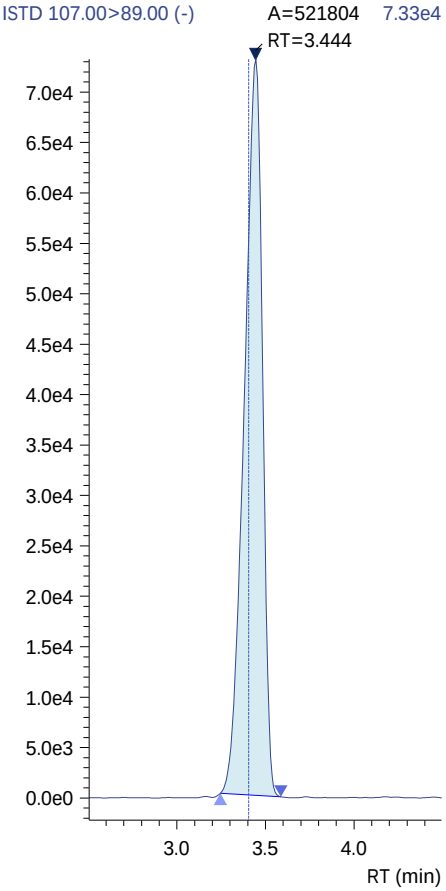
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

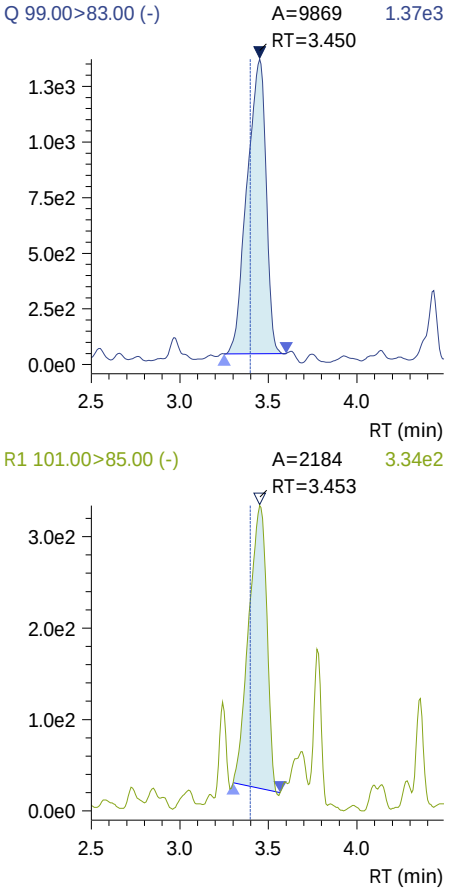
EQ2300265-02

Sample ID: EQ2300265-02
Date Acquired: 5/30/2023 4:44:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-018.lcd
Vial: 16 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.450	9869	512245	0.1045	ng/mL	101.00 >85.00	22.13	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	512245	512245	1.0000	ng/mL	----	----	

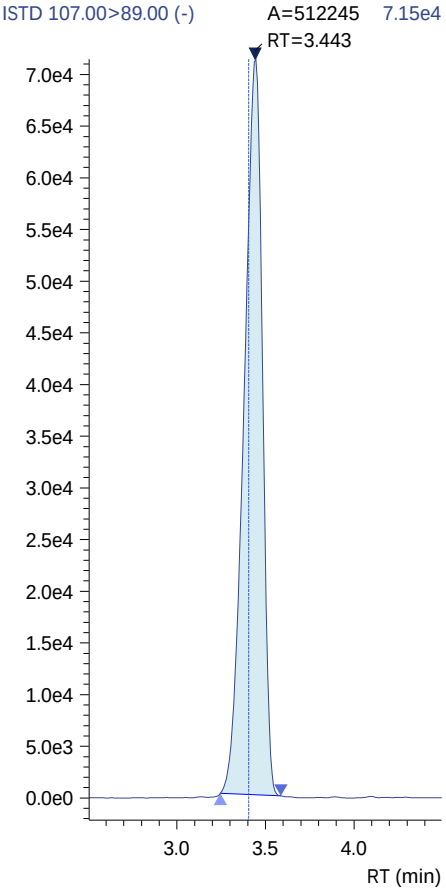
Perchlorate

Conc 0.1045
R#1 22.13 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

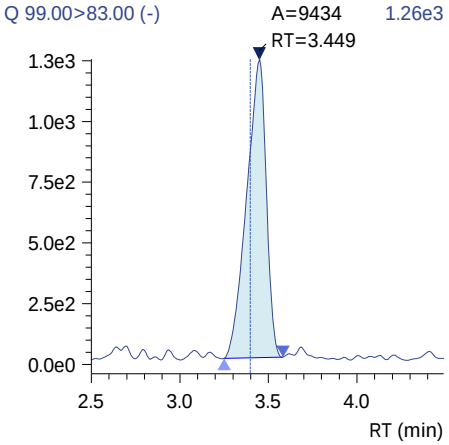
EQ2300265-03

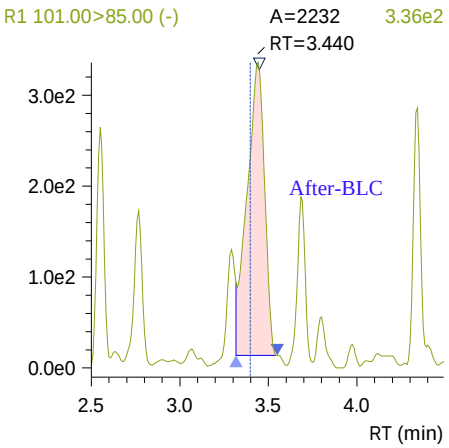
Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-019.lcd
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.449	9434	508088	0.1007	ng/mL	101.00 >85.00	23.65	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	508088	508088	1.0000	ng/mL	----	----	

Perchlorate

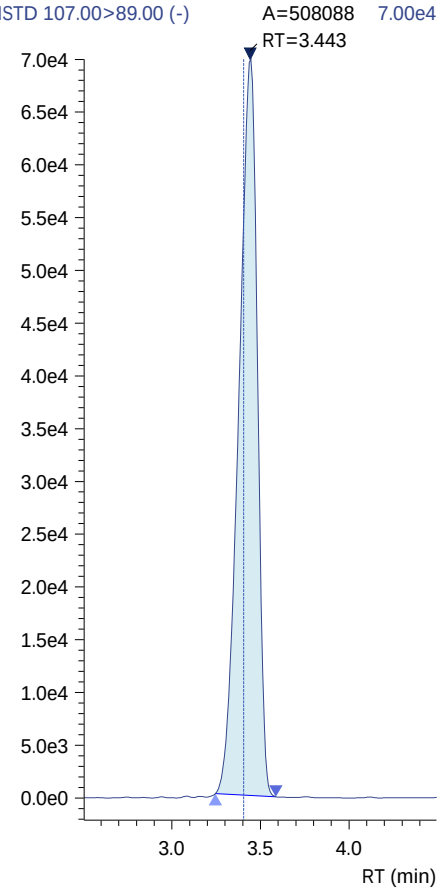
Conc 0.1007
R#1 23.65 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 9:00:07 AM

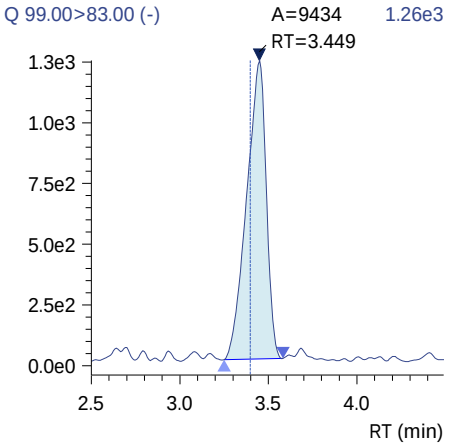
Method File: I:\LCMS01\DATA\20230530\20230530.lcm
Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

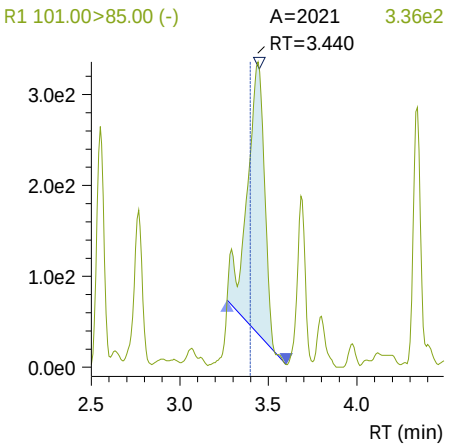
EQ2300265-03

Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-019.lcd
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

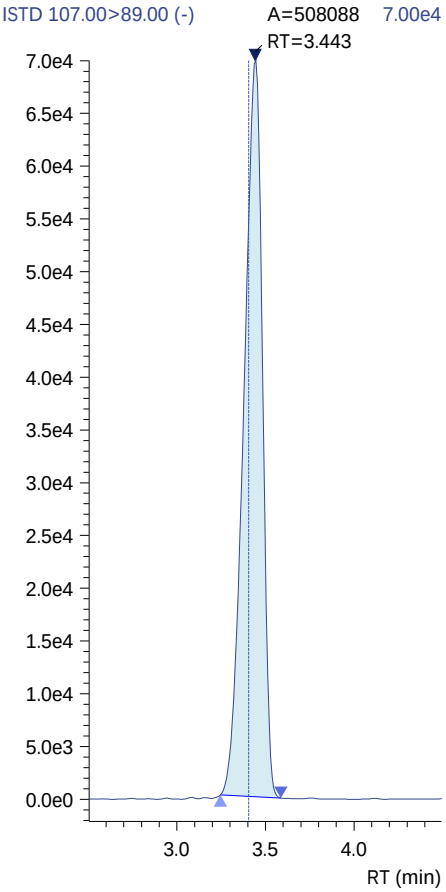
Conc 0.1007
R#1 21.42 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

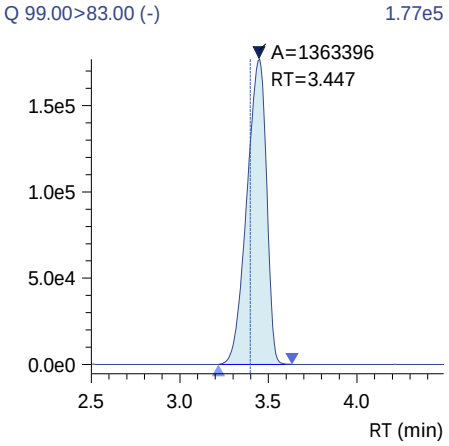
E2300501-001x5k

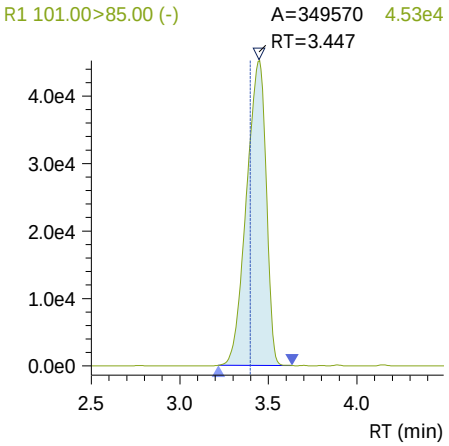
Sample ID: E2300501-001
Date Acquired: 5/30/2023 5:13:09 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-023.lcd
Vial: 21 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	1363396	462987	15.97 37	ng/mL	101.00 >85.00	25.64	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.444	462987	462987	1.0000	ng/mL	----	----	

Perchlorate

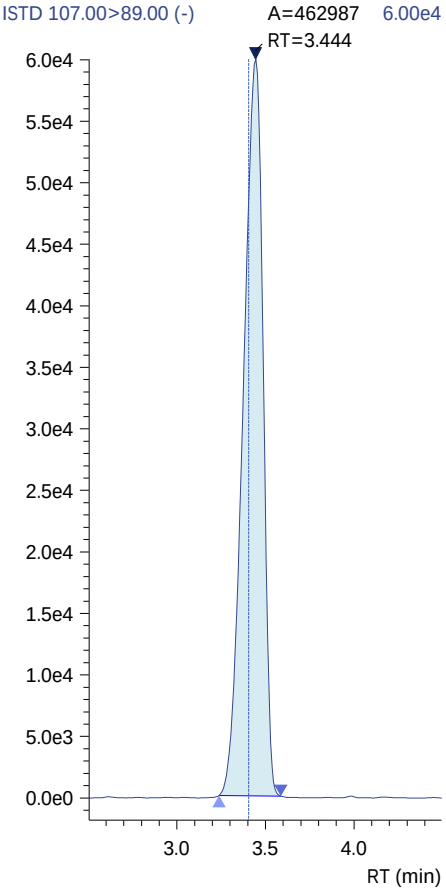
Conc 15.9737
R#1 25.64 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

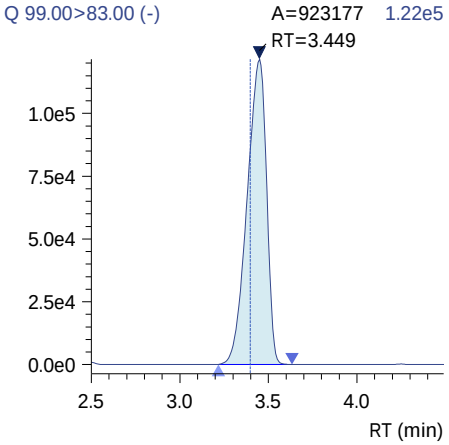
CCV

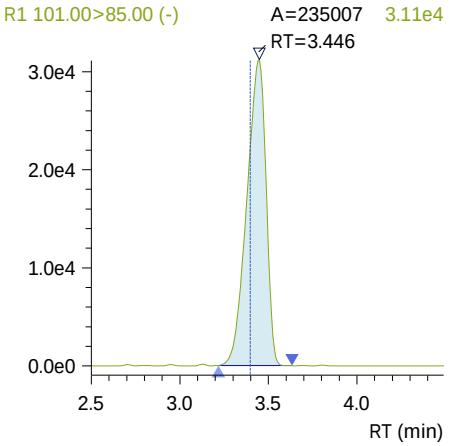
Sample ID: CCV
Date Acquired: 5/30/2023 5:18:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-024.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.449	923177	438284	11.42 57	ng/mL	101.00 >85.00	25.46	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	438284	438284	1.0000	ng/mL	----	----	

Perchlorate

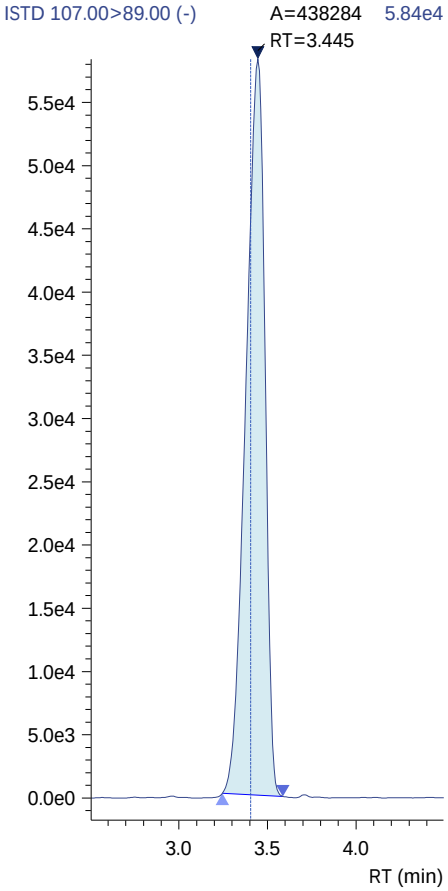
Conc 11.4257
R#1 25.46 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



May 31, 2023 Service Request No:E2300499

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051518

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 23, 2023
For your reference, these analyses have been assigned our service request number **E2300499.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300499
Project:	HS23051518	**Date Received:**	05/23/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 05/23/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300265: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300499
Project: HS23051518

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300499-001	LH18/24-SP650_052223_AIX	5/22/2023	1300
E2300499-002	LH18/24-SP650_052223_BIX	5/22/2023	1300

Service Request Summary

Folder #: **E2300499**
Client Name: ALS Environmental - US
Project Name: HS23051518
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/23/23
Internal Due Date: 5/24/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051518
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300499-001	LH18/24-SP650_052223_AIX	Water	05/22/23 1300	**IV**
E2300499-002	LH18/24-SP650_052223_BIX	Water	05/22/23 1300	**IV**

Service Request Summary

Folder #: **E2300499**
Client Name: ALS Environmental - US
Project Name: HS23051518
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
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Date Received: 05/23/23
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QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051518
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **21801**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23051518
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051518-02**	**LH18/24-SP650_052223_AIX**	**Water**	**22 May 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			24 May 2023
2.	**HS23051518-03**	**LH18/24-SP650_052223_BIX**	**Water**	**22 May 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			24 May 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: 5.23.23 10.25

Received By: _____ Date/Time: 9-24-23 1025

Cooler ID(s): _____ Temperature(s): _____

RIGHT SOLUTIONS | RIGHT PARTNER

Cooler Receipt Form

ALS Environmental

Project Chemist JG

Client/Project ALS Thermometer ID 1R21

Date/Time Received: 5.23.23 Initials: CG Date/Time Logged in: 5.23.23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		5.23.23	1025	CG	1.3	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300499-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300499-002	LH18/24-SP650_052223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300500-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300501-001	LH18/24-SP140_052223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300512-001	50WW09_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300512-002	50WW08_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300512-003	50WW22_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300512-004	50WW13_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300512-005	50WW11_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300512-006	50WW06_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300512-007	50WW29_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	EQ2300265-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300265-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300265-03	DLCS		6850/ClO4			Liquid	10mL	
15	K2305800-001	LGAC-INF-052223	.01	6850/ClO4			Water	10mL	
16	K2305800-002	LGAC-INT1-052223	.01	6850/ClO4			Water	10mL	
17	R2304146-004	2305090957X BLM-38-620	.01	6850/ClO4			Water	10mL	
18	R2304146-009	2305090931B ST-1-630	.01	6850/ClO4			Water	10mL	
19	R2304203-004	2305100842X BLM-38-480	.01	6850/ClO4			Water	10mL	
20	R2304203-011	2305100858B 600-C-173	.01	6850/ClO4			Water	10mL	
21	R2304267-009	2305111350X WB-1-330	.01	6850/ClO4			Water	10mL	
22	R2304267-012	2305121010X WB-1-200	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300265-02 1.00µL EQ2300265-02 1.00µL EQ2300265-03 1.00µL EQ2300265-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300499-001 100.00µL E2300499-002 100.00µL E2300500-001 100.00µL E2300501-001 100.00µL E2300512-001 100.00µL E2300512-002 100.00µL
E2300512-003 100.00µL E2300512-004 100.00µL E2300512-005 100.00µL E2300512-006 100.00µL E2300512-007 100.00µL EQ2300265-01 100.00µL
EQ2300265-01 100.00µL EQ2300265-02 100.00µL EQ2300265-02 100.00µL EQ2300265-03 100.00µL EQ2300265-03 100.00µL K2305800-001 100.00µL
K2305800-002 100.00µL R2304146-004 100.00µL R2304146-009 100.00µL R2304203-004 100.00µL R2304203-011 100.00µL R2304267-009 100.00µL
R2304267-012 100.00µL

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 5/30/23 08:20
Finished: 5/30/23 09:20
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 05/30/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Collected:**	5/22/23 1300
Sample Matrix:	Water	**Date Received:**	5/23/23
Sample Name:	LH18/24-SP650_052223_AIX	**Units:**	µg/L
Lab Code:	E2300499-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.184**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:55	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Collected:**	5/22/23 1300
Sample Matrix:	Water	**Date Received:**	5/23/23
Sample Name:	LH18/24-SP650_052223_BIX	**Units:**	µg/L
Lab Code:	E2300499-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.874**		0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:01	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300265-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:38	420569	805870	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051518
Sample Matrix: Water

Service Request: E2300499
Date Analyzed: 5/30/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 420569

	Lab Control Sample EQ2300265-02			Duplicate Lab Control Sample EQ2300265-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.105	0.100	105	0.101	0.100	101	84 - 119	4	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.105**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:44	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.101**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:50	420569	805870	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

Initial Calibration - Detailed Report

Calibration ID: EC2300007 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
11	EC2300007-11	PERCHLORATE1	20230530-002	05/30/2023 15:08
01	EC2300007-01	PERCHLORATE2	20230530-003	05/30/2023 15:14
02	EC2300007-02	PERCHLORATE3	20230530-004	05/30/2023 15:21
03	EC2300007-03	PERCHLORATE4	20230530-005	05/30/2023 15:27
04	EC2300007-04	PERCHLORATE5	20230530-006	05/30/2023 15:33
05	EC2300007-05	PERCHLORATE6	20230530-007	05/30/2023 15:39
06	EC2300007-06	PERCHLORATE7	20230530-008	05/30/2023 15:45
07	EC2300007-07	PERCHLORATE8	20230530-009	05/30/2023 15:51
08	EC2300007-08	PERCHLORATE9	20230530-010	05/30/2023 15:57
09	EC2300007-09	PERCHLORATE10	20230530-011	05/30/2023 16:03

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 1.842** **Average RF = 0.1844**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5000	0.1845	02	0.7000	0.1911	03	1.0000	0.181	04	2.0000	0.1794
05	5.0000	0.1836	06	10.0000	0.1842	07	20.0000	0.1862	08	30.0000	0.1828
09	50.0000	0.1863	11								

Analyte

Perchlorate RSE = 1.74

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.5000	0.500	0.1	02	0.7000	0.726	3.7	03	1.0000	0.982	-1.8
04	2.0000	1.95	-2.7	05	5.0000	4.98	-0.4	06	10.0000	9.99	-0.1
07	20.0000	20.2	1.0	08	30.0000	29.8	-0.8	09	50.0000	50.5	1.1
11											

Initial Calibration Verification Summary Report

Calibration ID:	EC2300007	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230530-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300007-10	T	Average RF	10	10.045	ng/mL	0.4	<= 15

Insight Report

Printed at 5/31/2023 8:58:43 AM

Method File: I:\LCMS01\DATA\20230530\20230530.lcm
Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

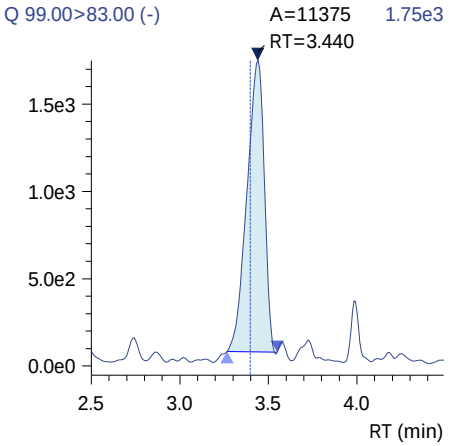
PERCHLORATE1

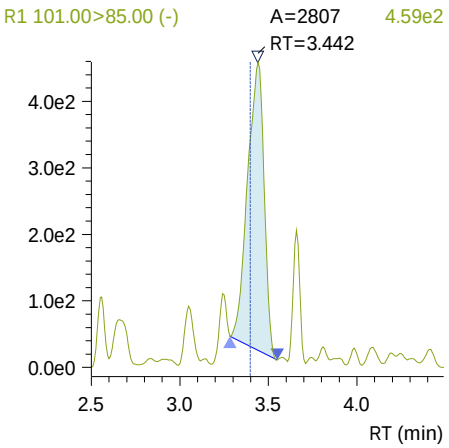
Sample ID: PERCHLORATE1
Date Acquired: 5/30/2023 3:08:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.440	11375	579508	0.1065	ng/mL	101.00 >85.00	24.68	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.437	579508	579508	1.0000	ng/mL	----	----	

Perchlorate

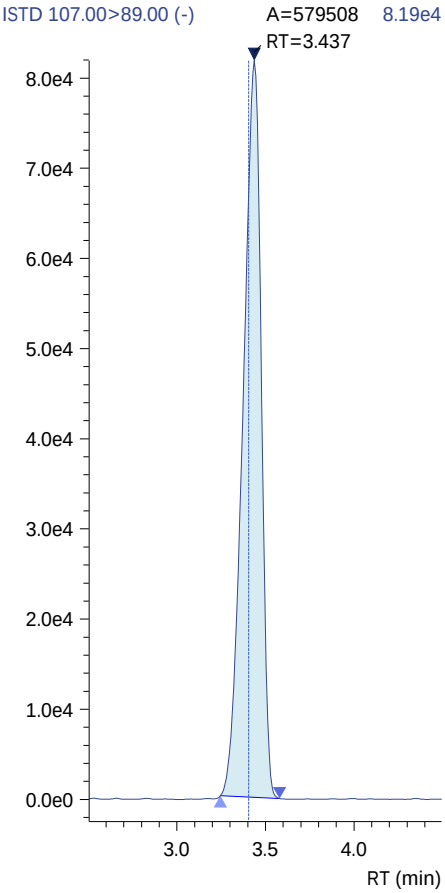
Conc 0.1065
R#1 24.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

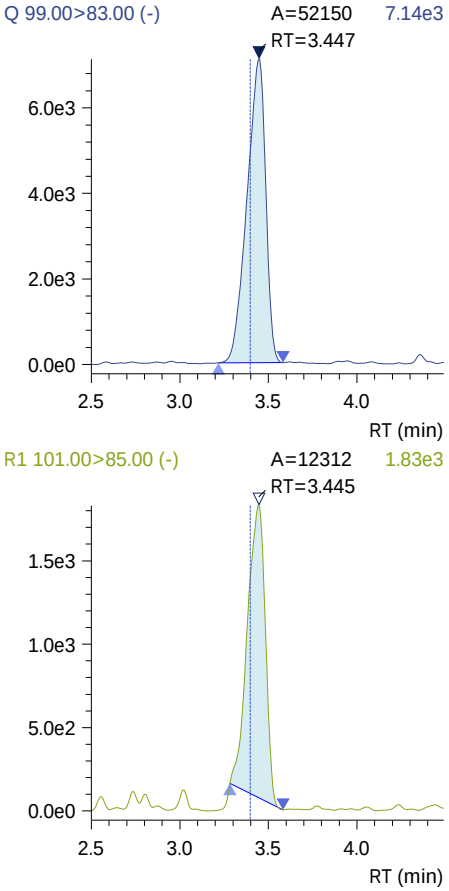
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 5/30/2023 3:14:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	52150	565411	0.5003	ng/mL	101.00 >85.00	23.61	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	565411	565411	1.0000	ng/mL	----	----	

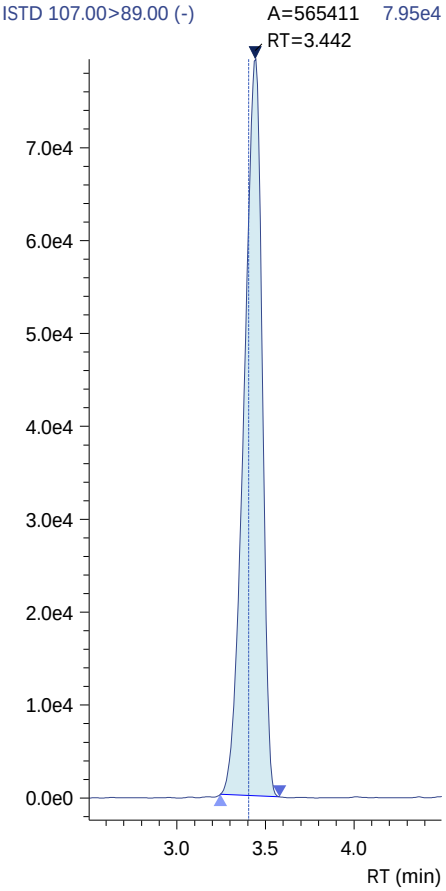
Perchlorate

Conc 0.5003
R#1 23.61 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

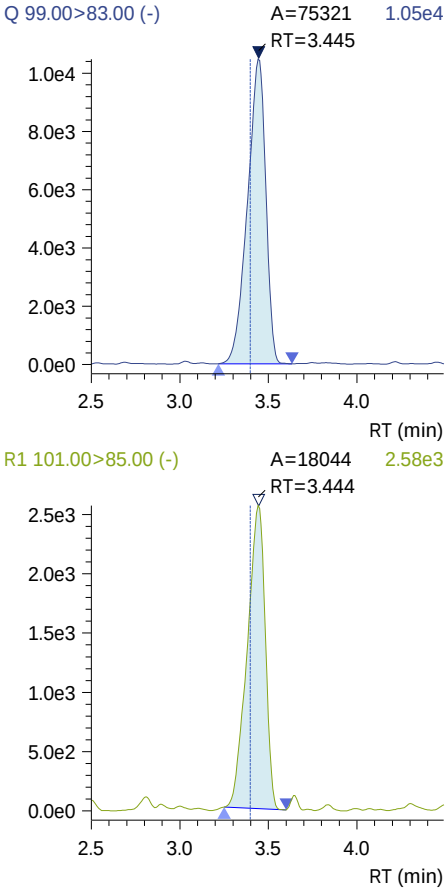
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 5/30/2023 3:21:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	75321	562984	0.7257	ng/mL	101.00 >85.00	23.96	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	562984	562984	1.0000	ng/mL	----	----	

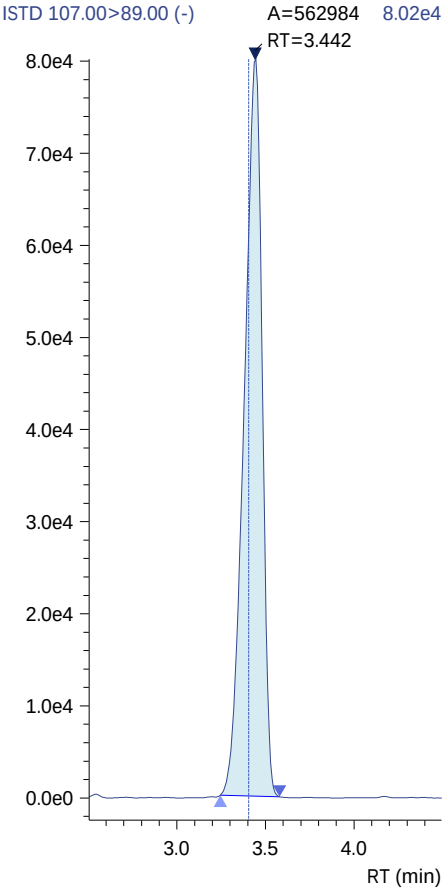
Perchlorate

Conc 0.7257
R#1 23.96 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

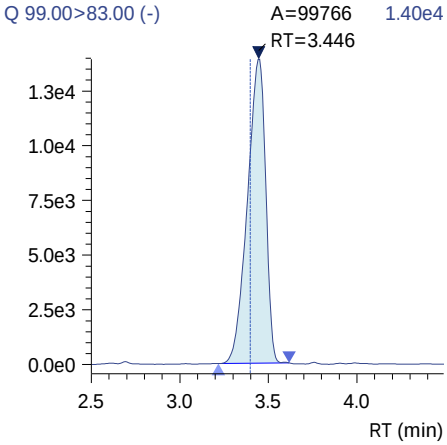
PERCHLORATE4

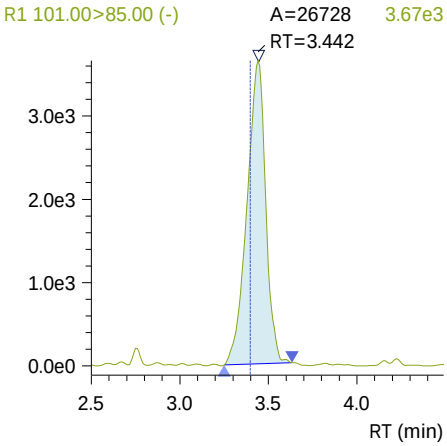
Sample ID: PERCHLORATE4
Date Acquired: 5/30/2023 3:27:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	99766	551315	0.9816	ng/mL	101.00 >85.00	26.79	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	551315	551315	1.0000	ng/mL	----	----	

Perchlorate

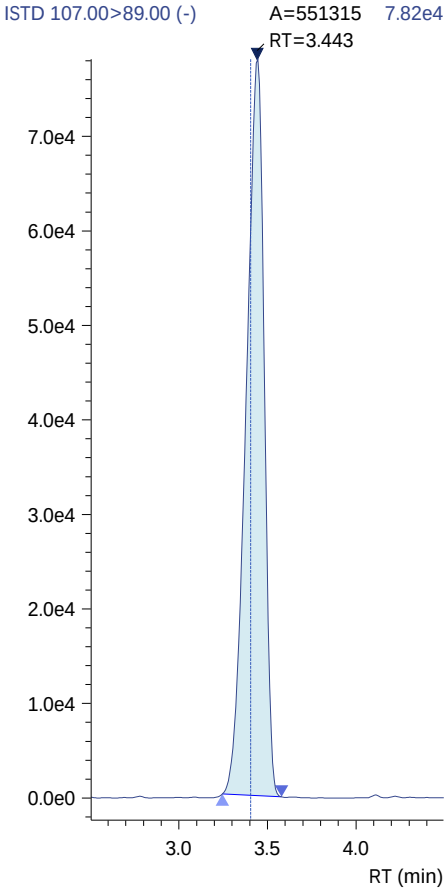
Conc 0.9816
R#1 26.79 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

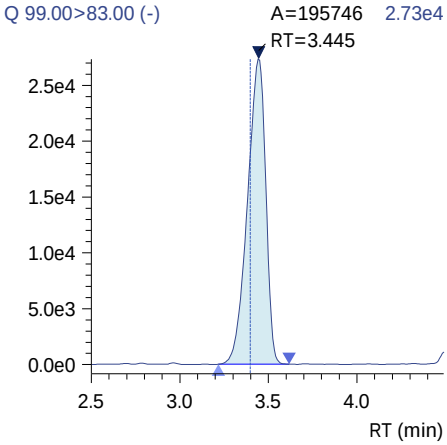
PERCHLORATE5

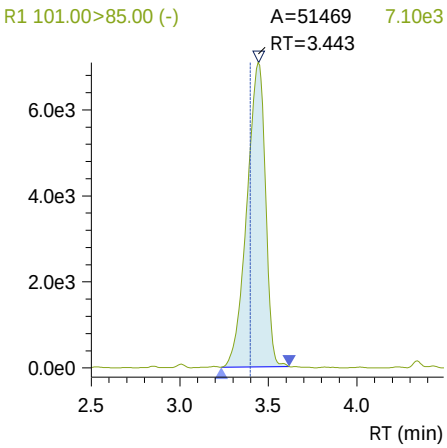
Sample ID: PERCHLORATE5
Date Acquired: 5/30/2023 3:33:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	195746	545560	1.9463	ng/mL	101.00 >85.00	26.29	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	545560	545560	1.0000	ng/mL	----	----	

Perchlorate

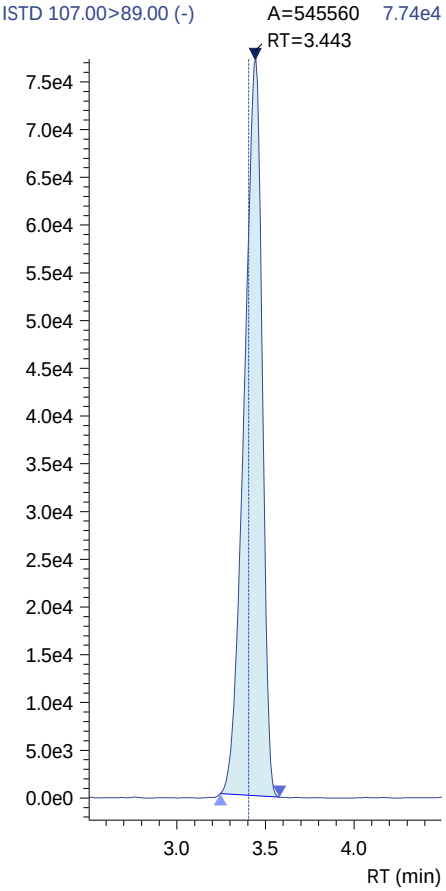
Conc 1.9463
R#1 26.29 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

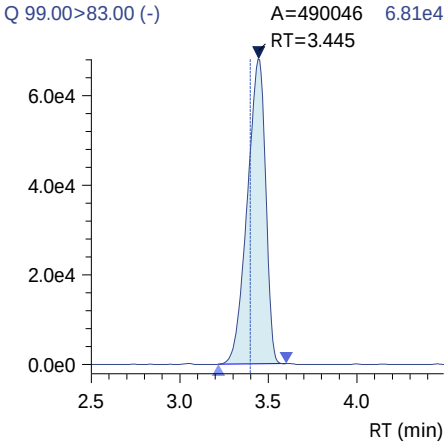
PERCHLORATE6

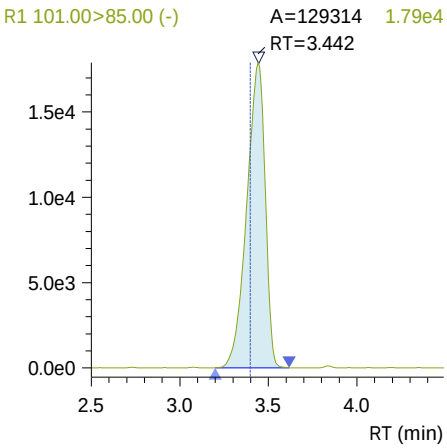
Sample ID: PERCHLORATE6
Date Acquired: 5/30/2023 3:39:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	490046	533799	4.9798	ng/mL	101.00 >85.00	26.39	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	533799	533799	1.0000	ng/mL	----	----	

Perchlorate

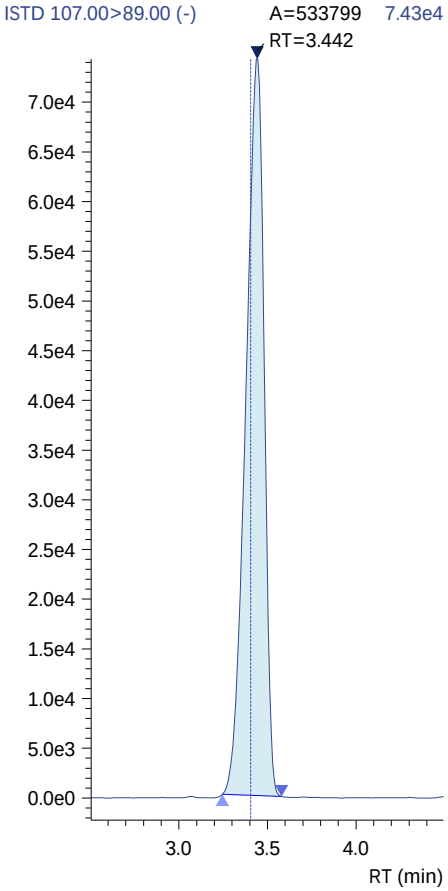
Conc 4.9798
R#1 26.39 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

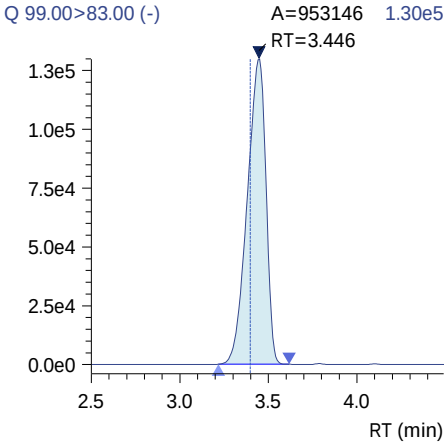
PERCHLORATE7

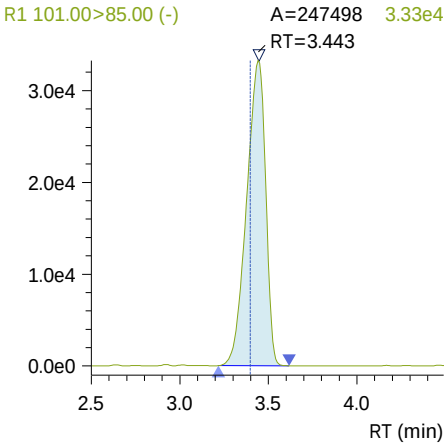
Sample ID: PERCHLORATE7
Date Acquired: 5/30/2023 3:45:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	953146	517404	9.9927	ng/mL	101.00 >85.00	25.97	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	517404	517404	1.0000	ng/mL	----	----	

Perchlorate

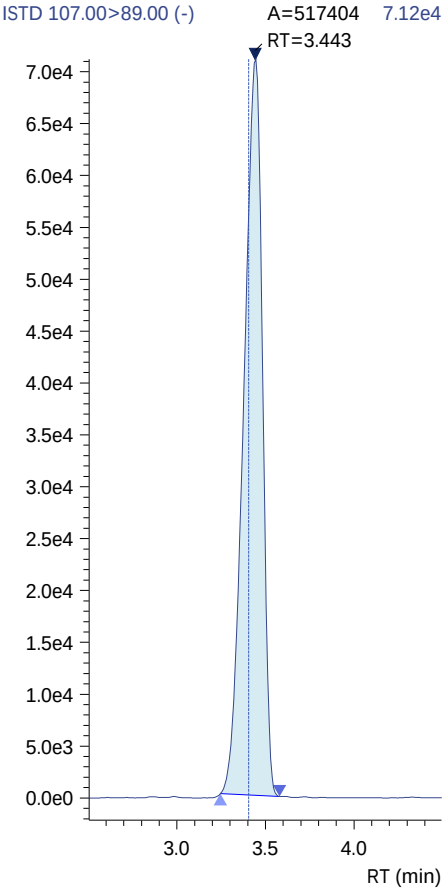
Conc 9.9927
R#1 25.97 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

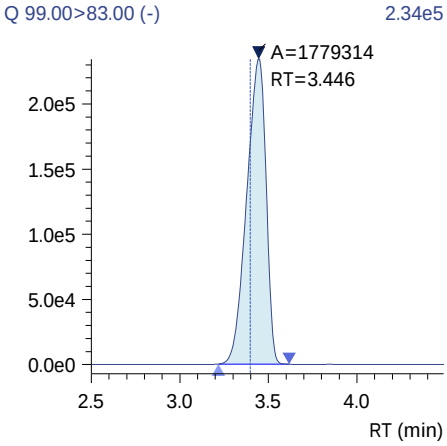
PERCHLORATE8

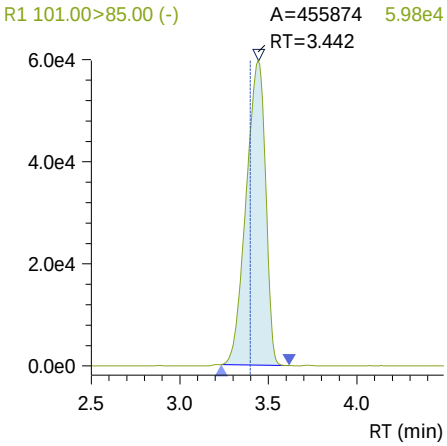
Sample ID: PERCHLORATE8
Date Acquired: 5/30/2023 3:51:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	1779314	477685	20.2052	ng/mL	101.00 >85.00	25.62	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.442	477685	477685	1.0000	ng/mL	----	----	

Perchlorate

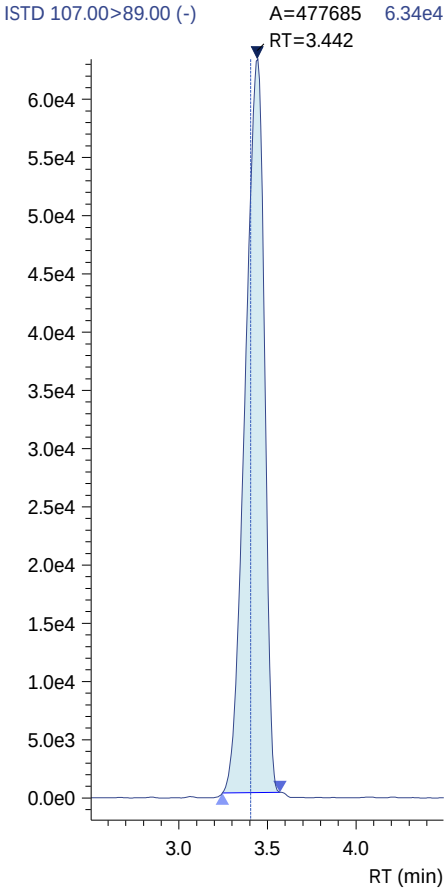
Conc 20.2052
R#1 25.62 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

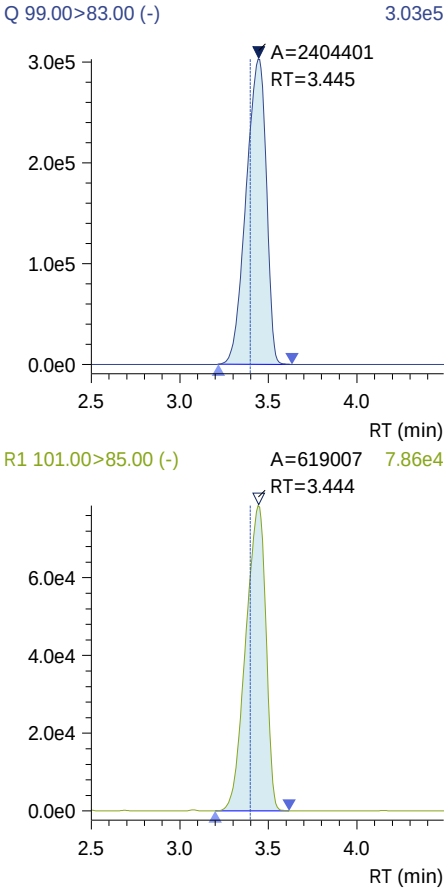
PERCHLORATE9

Sample ID: PERCHLORATE9
Date Acquired: 5/30/2023 3:57:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	2404401	438344	29.75 39	ng/mL	101.00 >85.00	25.75	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	438344	438344	1.0000	ng/mL	----	----	

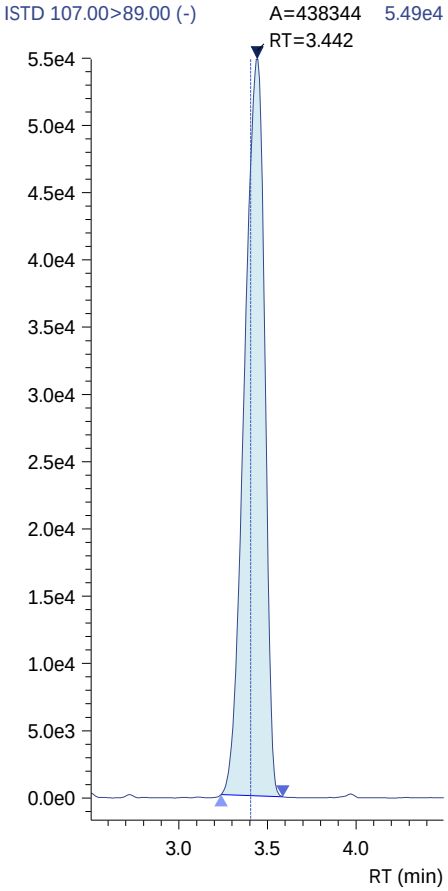
Perchlorate

Conc 29.7539
R#1 25.75 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

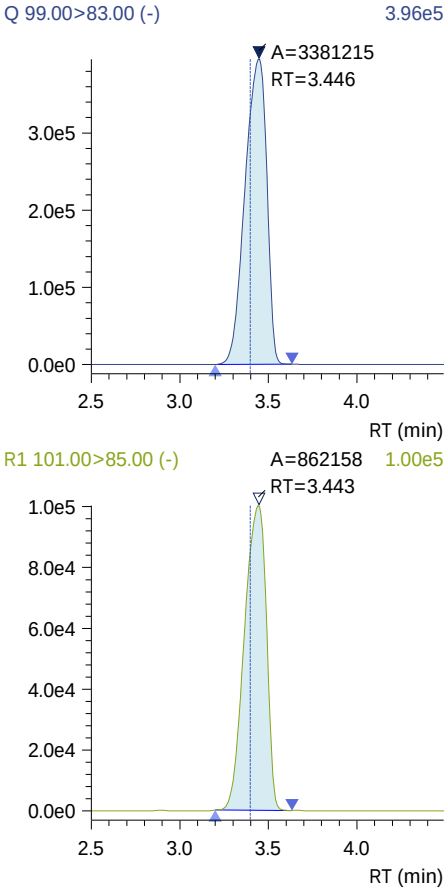
PERCHLORATE10

Sample ID: PERCHLORATE10
Date Acquired: 5/30/2023 4:03:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	3381215	362968	50.5309	ng/mL	101.00 >85.00	25.50	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.441	362968	362968	1.0000	ng/mL	----	----	

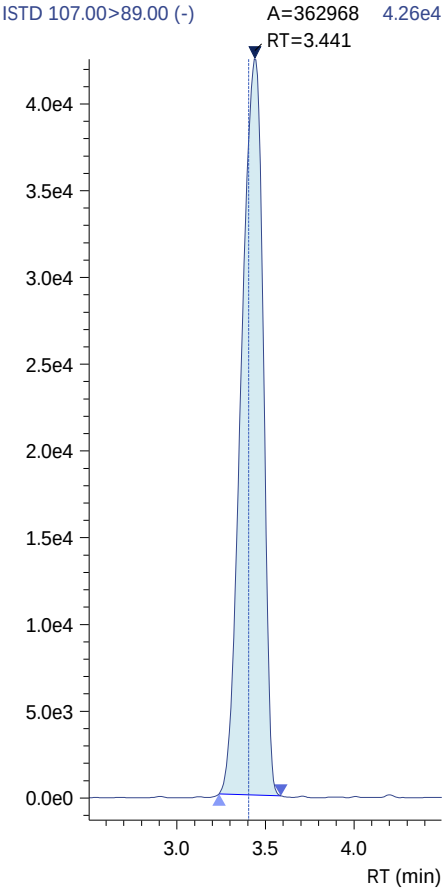
Perchlorate

Conc 50.5309
R#1 25.50 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

PERCHLORATEICV

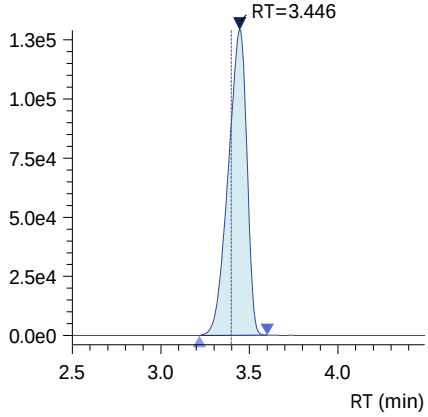
Sample ID: PERCHLORATEICV
Date Acquired: 5/30/2023 4:10:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	943433	509464	10.04 50	ng/mL	101.00 >85.00	25.68	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.442	509464	509464	1.0000	ng/mL	----	----	

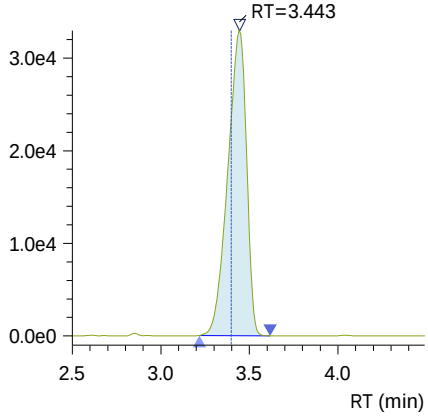
Perchlorate

Conc 10.0450
R#1 25.68 (25.79)

Q 99.00>83.00 (-) A=943433 1.29e5



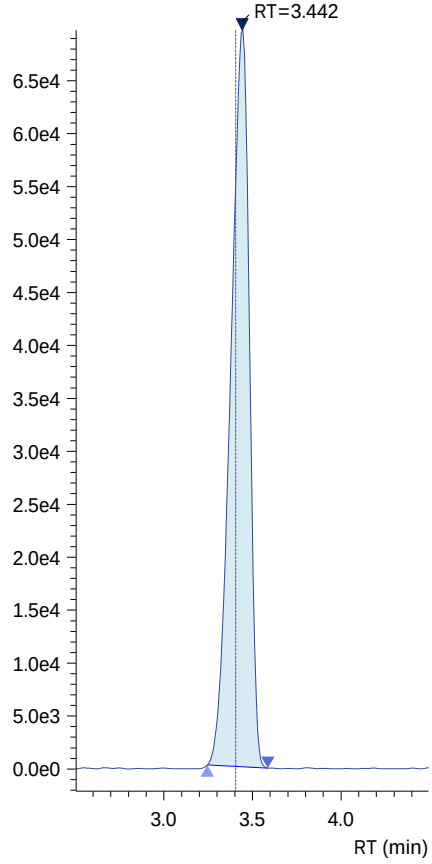
R1 101.00>85.00 (-) A=242283 3.30e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=509464 6.98e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Analyzed:**	5/30/23 16:33

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-016	**Lab Code:**	EQ2300267-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-01	446,992	3.44
Method Blank	EQ2300265-01	521,804	3.44
Lab Control Sample	EQ2300265-02	512,245	3.44
Duplicate Lab Control Sample	EQ2300265-03	508,088	3.44
LH18/24-SP650_052223_AIX	E2300499-001	514,316	3.45
LH18/24-SP650_052223_BIX	E2300499-002	510,119	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Analyzed:**	5/30/23 17:18

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-024	**Lab Code:**	EQ2300267-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-02	438,284	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Analyzed:**	5/30/23 18:04

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-032	**Lab Code:**	EQ2300267-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-03	427,101	3.44

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Analyzed:**	5/30/23 18:56

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-041	**Lab Code:**	EQ2300267-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-04	409,761	3.44

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Analyzed:**	5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	5/30/23
File ID:	I:\LCMS01\DATA\20230530\20230530-016	**Calibration ID:**	EC2300007
		Analysis Lot:	805870
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2102	14.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051518

Service Request: E2300499
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-024

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2106	14.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300499
Project:	HS23051518	**Date Analyzed:**	5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	5/30/23
File ID:	I:\LCMS01\DATA\20230530\20230530-032	**Calibration ID:**	EC2300007
		Analysis Lot:	805870
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.5	0.1844	0.2115	14.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051518

Service Request: E2300499
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-041

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2104	14.1	NA	± 15 %	Average RF

Insight Report

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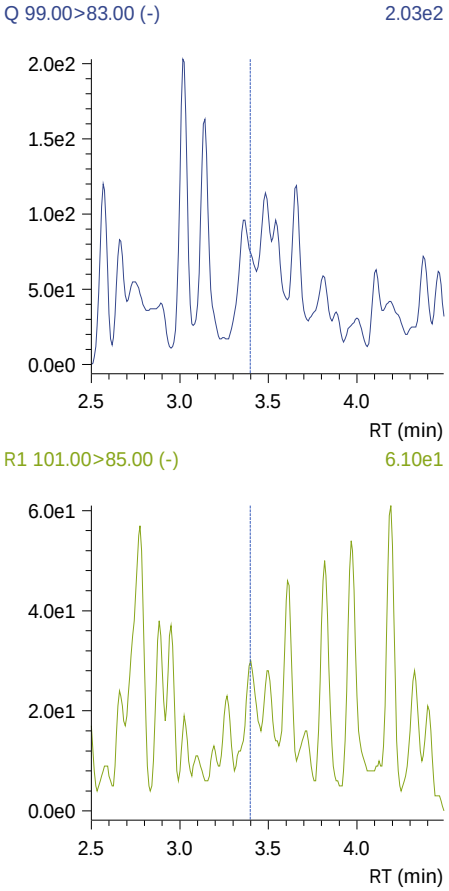
IB

Sample ID: IB
Date Acquired: 5/30/2023 4:15:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-013.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	541043	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	541043	541043	1.0000	ng/mL	----	----	

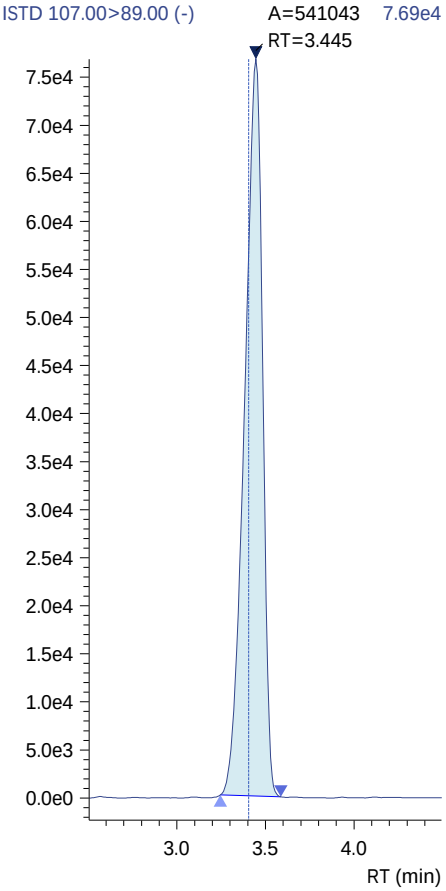
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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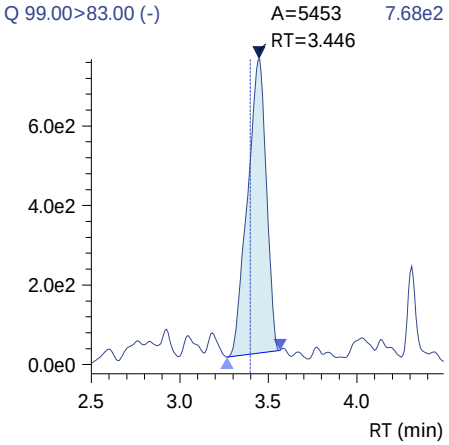
LODV

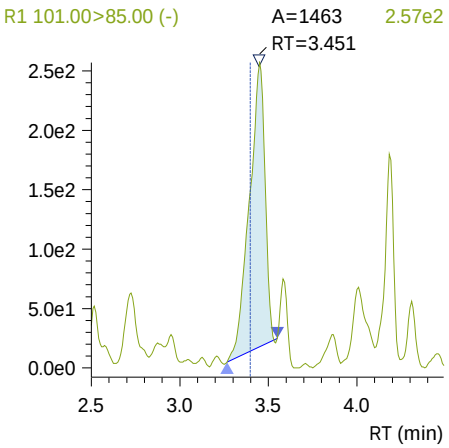
Sample ID: LODV
Date Acquired: 5/30/2023 4:21:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-014.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	5453	525947	0.0562	ng/mL	101.00 >85.00	26.83	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	525947	525947	1.0000	ng/mL	----	----	

Perchlorate

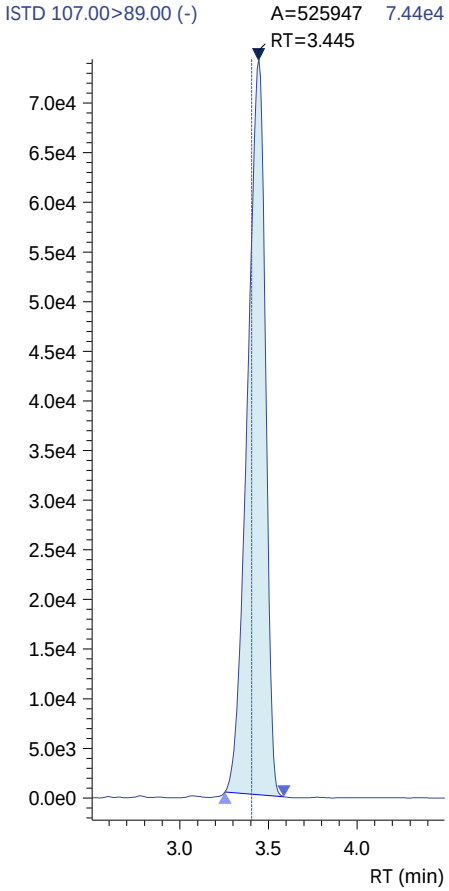
Conc 0.0562
R#1 26.83 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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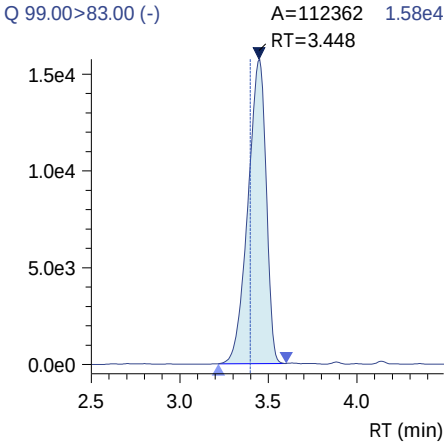
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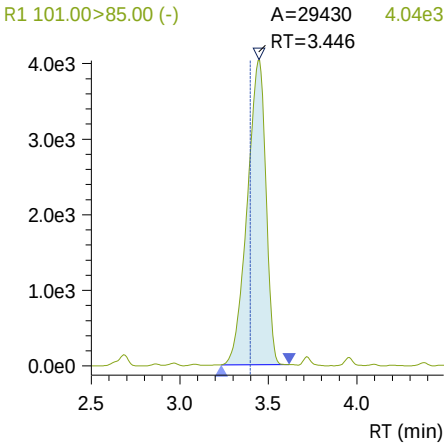
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Date Acquired: 5/30/2023 4:27:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-015.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.448	112362	575368	1.0593	ng/mL	101.00 >85.00	26.19	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	575368	575368	1.0000	ng/mL	----	----	

Perchlorate

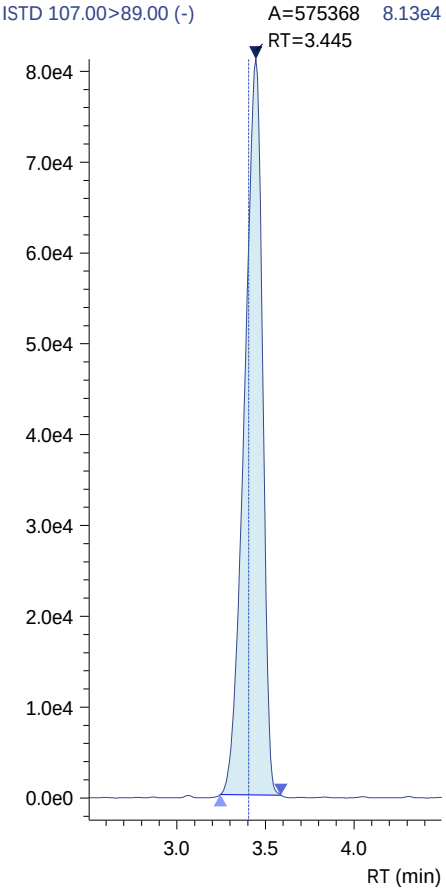
Conc 1.0593
R#1 26.19 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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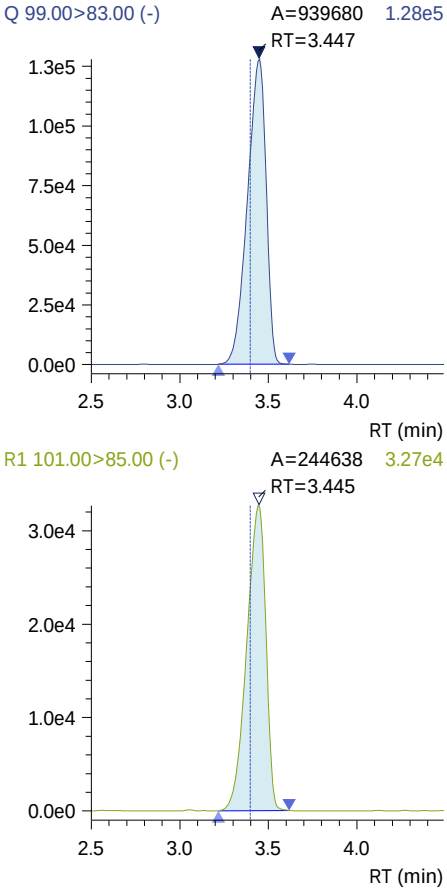
CCV

Sample ID: CCV
Date Acquired: 5/30/2023 4:33:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-016.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	939680	446992	11.40 33	ng/mL	101.00 >85.00	26.03	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	446992	446992	1.0000	ng/mL	----	----	

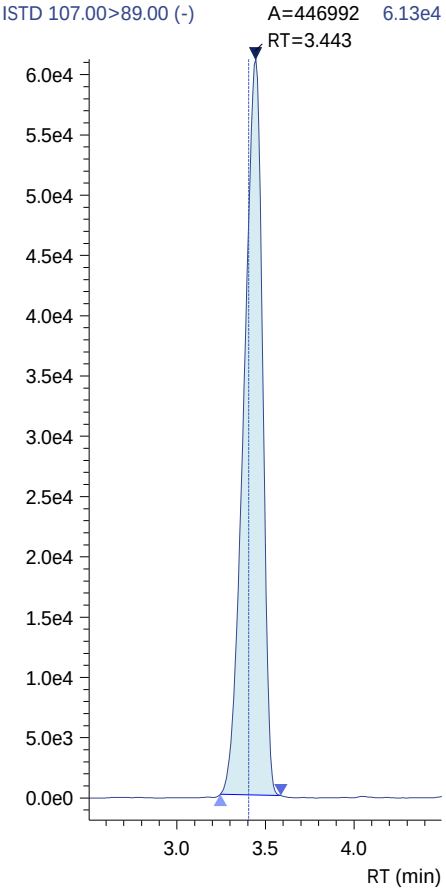
Perchlorate

Conc 11.4033
R#1 26.03 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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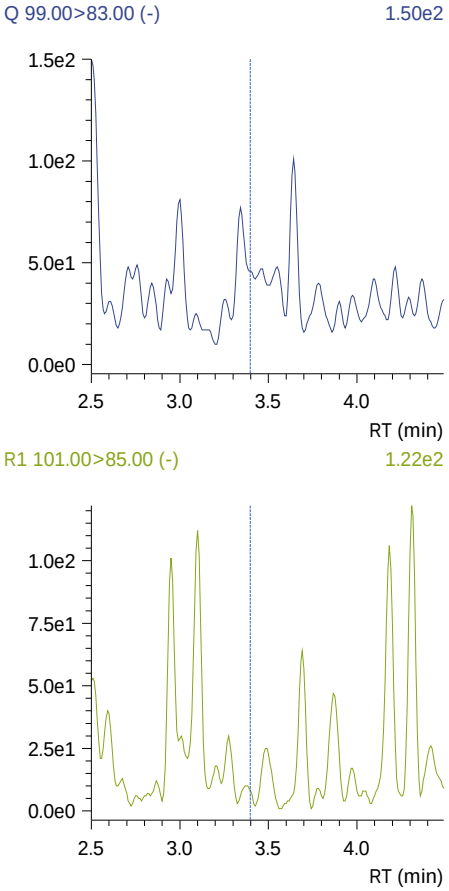
EQ2300265-01

Sample ID: EQ2300265-01
Date Acquired: 5/30/2023 4:38:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-017.lcd
Vial: 15 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	521804	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.444	521804	521804	1.0000	ng/mL	----	----	

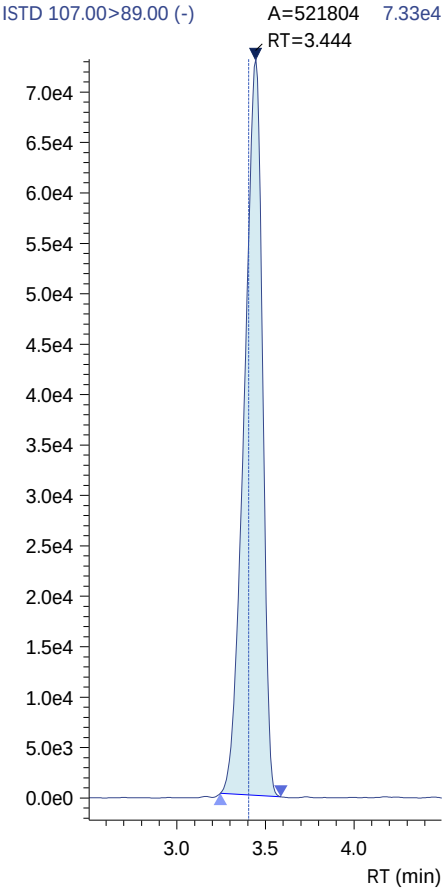
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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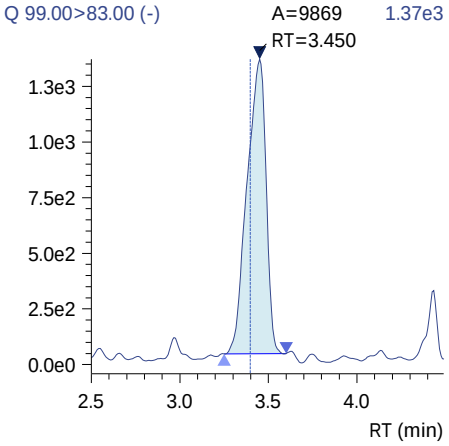
EQ2300265-02

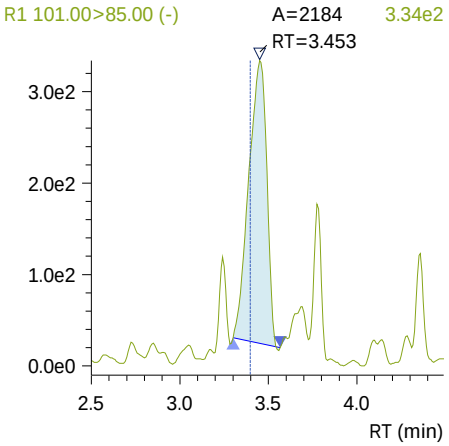
Sample ID: EQ2300265-02
Date Acquired: 5/30/2023 4:44:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-018.lcd
Vial: 16 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.450	9869	512245	0.1045	ng/mL	101.00 >85.00	22.13	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	512245	512245	1.0000	ng/mL	----	----	

Perchlorate

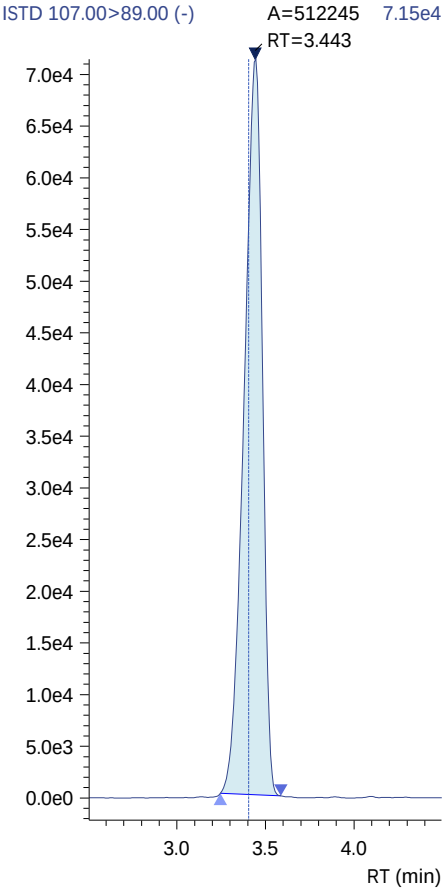
Conc 0.1045
R#1 22.13 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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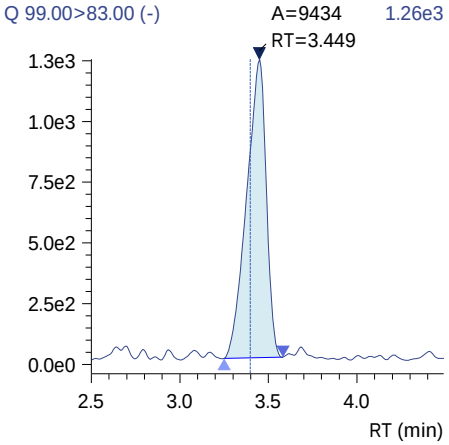
EQ2300265-03

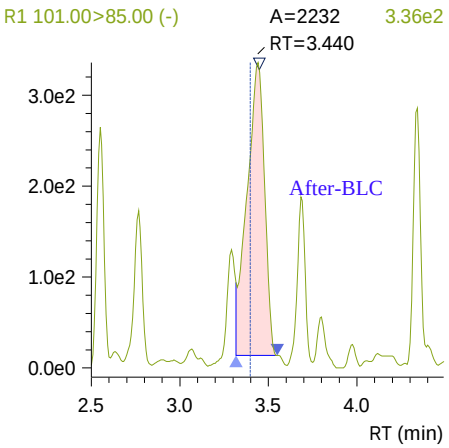
Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-019.lcd
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.449	9434	508088	0.1007	ng/mL	101.00 >85.00	23.65	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	508088	508088	1.0000	ng/mL	----	----	

Perchlorate

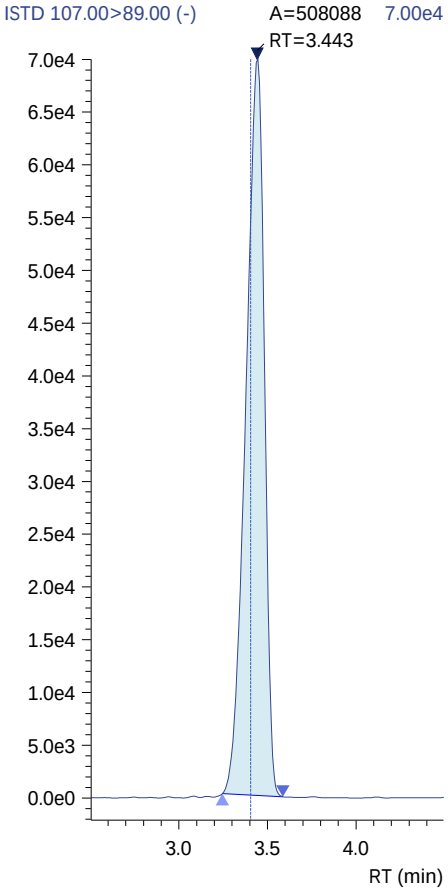
Conc 0.1007
R#1 23.65 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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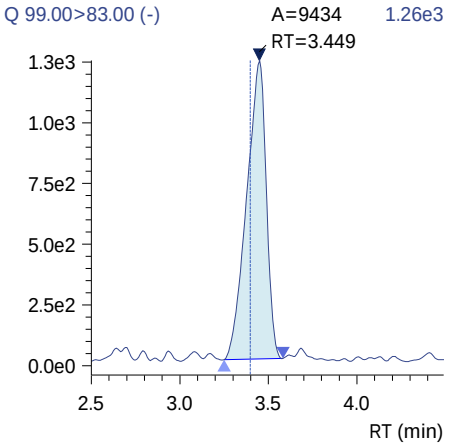
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Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

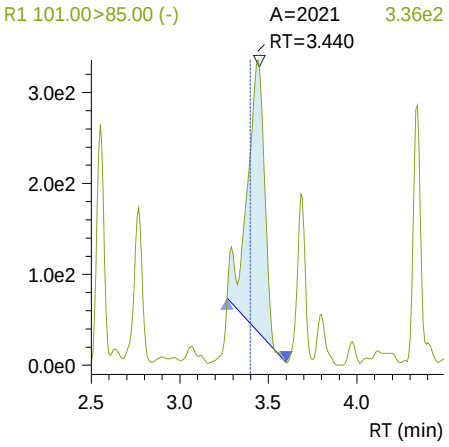
EQ2300265-03

Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
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Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

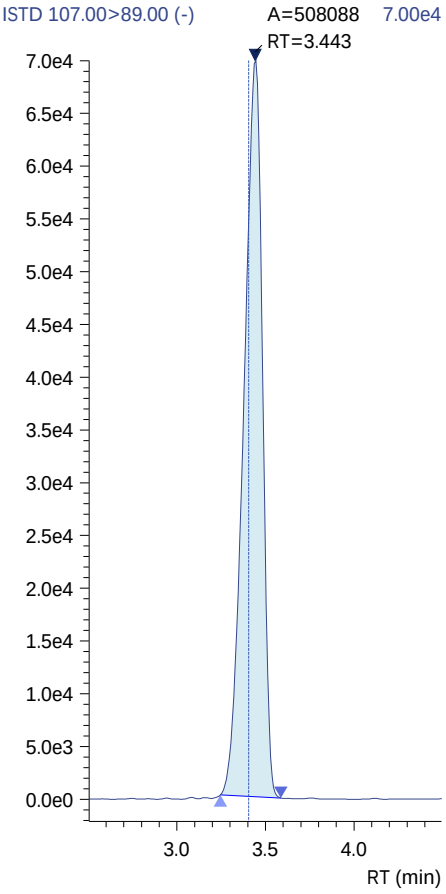
Conc 0.1007
R#1 21.42 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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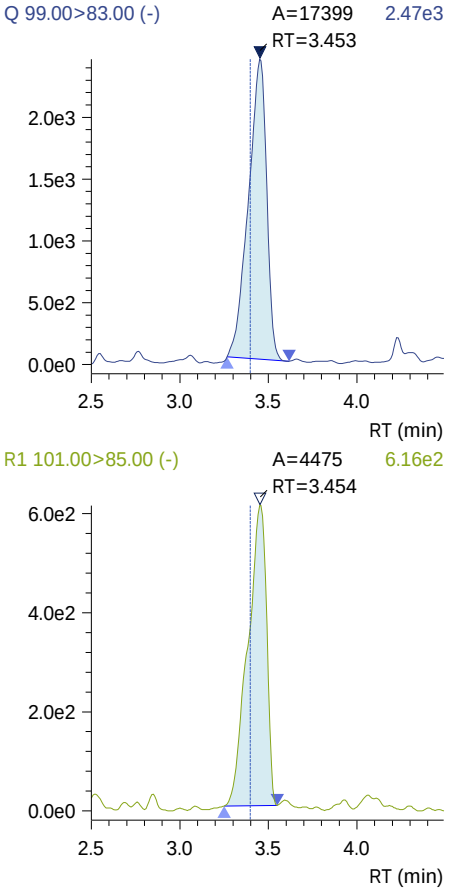
E2300499-001

Sample ID: E2300499-001
Date Acquired: 5/30/2023 4:55:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-020.lcd
Vial: 18 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.453	17399	514316	0.1835	ng/mL	101.00 >85.00	25.72	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.447	514316	514316	1.0000	ng/mL	----	----	

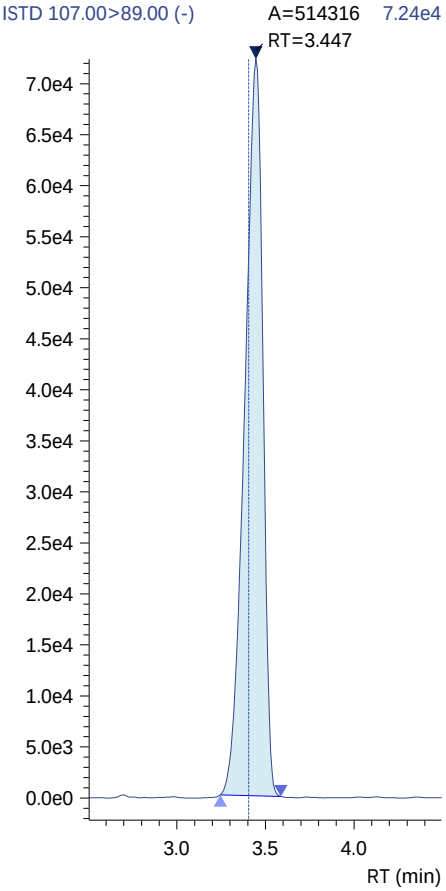
Perchlorate

Conc 0.1835
R#1 25.72 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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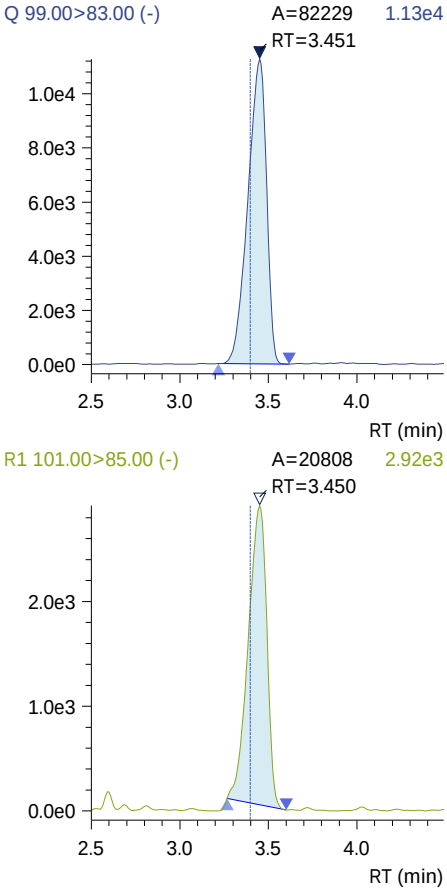
E2300499-002

Sample ID: E2300499-002
Date Acquired: 5/30/2023 5:01:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-021.lcd
Vial: 19 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.451	82229	510119	0.8744	ng/mL	101.00 >85.00	25.31	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.448	510119	510119	1.0000	ng/mL	----	----	

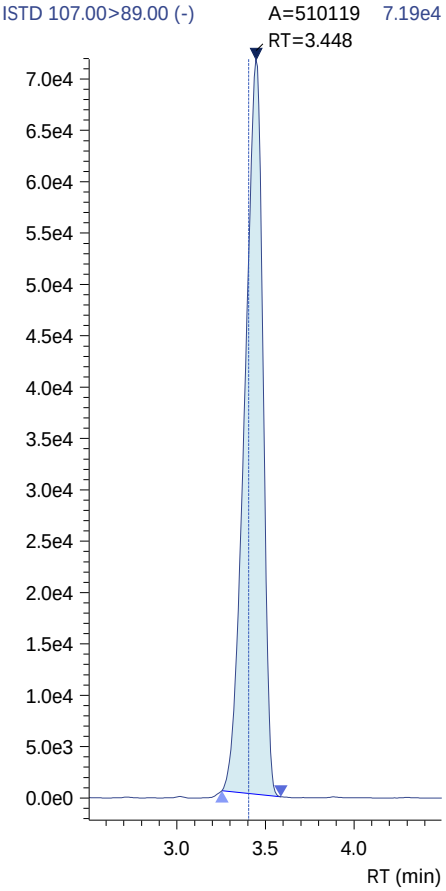
Perchlorate

Conc 0.8744
R#1 25.31 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

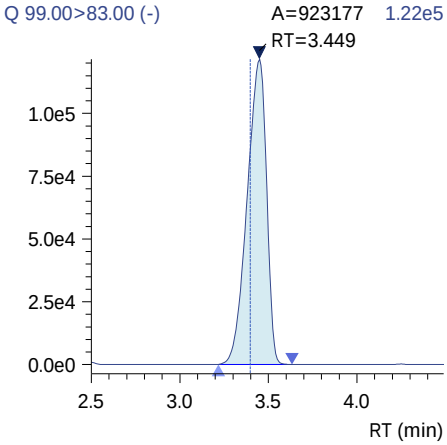
CCV

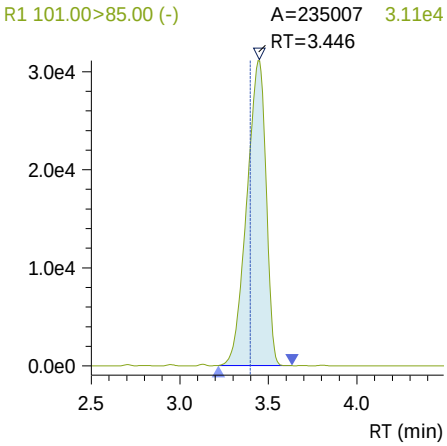
Sample ID: CCV
Date Acquired: 5/30/2023 5:18:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-024.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.449	923177	438284	11.42 57	ng/mL	101.00 >85.00	25.46	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	438284	438284	1.0000	ng/mL	----	----	

Perchlorate

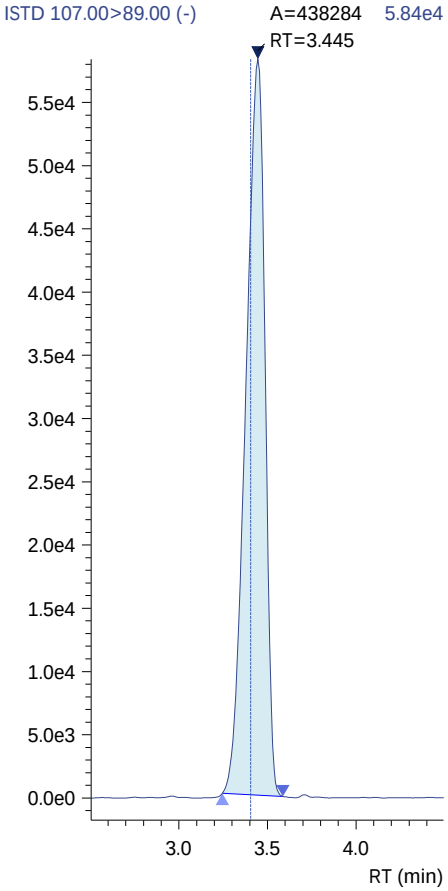
Conc 11.4257
R#1 25.46 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23051522 Longhorn GW Treatment Plant Monthly Effluent Samples Cover Page

ALS WO# HS23051522

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HS23051522-E2300500 Perchlorate Level IV
CoverLetter

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alsglobal.com

right solutions.
right partner.

WorkOrder: HS23051522

Longhorn GW Treatment Plant Monthly Effluent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

25-May-2023

HS23051522 Longhorn GW Treatment Plant
Monthly Effluent Samples Final

ALS WO# HS23051522

10450 Stancliff Rd. Suite 210
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May 31, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23051522**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Effluent Samples**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on May 23, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
Dane J. Wacasey

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Work Order: HS23051522

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23051522-01	LH18/24-SP650_052223	Water		22-May-2023 13:00	23-May-2023 09:30	☐
HS23051522-02	LH18/24-SP650_052223_AIX	Water		22-May-2023 13:00	23-May-2023 09:30	☐
HS23051522-03	Trip Blank	Water		22-May-2023 00:00	23-May-2023 09:30	☐

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Work Order: HS23051522

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

GCMS Semivolatiles by Method SW8270SIM

Batch ID: 194323

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R436190

Sample ID: CCV

- 2,2-Dichloropropane exceeded %D recovery limits. Samples are ND for this compound.

Sample ID: LH18/24-SP650_052223 (HS23051522-01MS)

- MS and/or MSD recovered outside control limits

Metals by Method SW6020A

Batch ID: 194431

Sample ID: HS23051127-01MSD

- MSD is for an unrelated sample

WetChemistry by Method SW7196

Batch ID: R436029

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Effluent Samples WorkOrder:HS23051522
Sample ID: LH18/24-SP650_052223 Lab ID:HS23051522-01
Collection Date: 22-May-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 13:24
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 13:24
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	24-May-2023 13:24
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	24-May-2023 13:24
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	24-May-2023 13:24
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	24-May-2023 13:24
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	24-May-2023 13:24
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 13:24
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder:HS23051522
Sample ID: LH18/24-SP650_052223
Lab ID:HS23051522-01
Collection Date: 22-May-2023 13:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
cis-1,2-Dichloroethene	**1.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	24-May-2023 13:24
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	24-May-2023 13:24
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	24-May-2023 13:24
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	24-May-2023 13:24
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 13:24
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 13:24
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 13:24
Surr: 1,2-Dichloroethane-d4	*111*			**0**	*81-118*	*%REC*	*1*	*24-May-2023 13:24*
Surr: 4-Bromofluorobenzene	*94.0*			**0**	*85-114*	*%REC*	*1*	*24-May-2023 13:24*
Surr: Dibromofluoromethane	*104*			**0**	*80-119*	*%REC*	*1*	*24-May-2023 13:24*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*1*	*24-May-2023 13:24*
SEMIVOLATILES SIM		**Method:SW8270SIM**				Prep:SW3510 / 25-May-2023		Analyst: MBG
1,4-Dioxane	**0.018**	a	**0.010**	**0.0050**	**0.010**	**ug/L**	1	30-May-2023 12:42
Surr: 2-Fluorobiphenyl	*94.5*			**0**	*40-140*	*%REC*	*1*	*30-May-2023 12:42*
Surr: 4-Terphenyl-d14	*82.9*			**0**	*40-140*	*%REC*	*1*	*30-May-2023 12:42*
Surr: Nitrobenzene-d5	*109*			**0**	*40-140*	*%REC*	*1*	*30-May-2023 12:42*
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 30-May-2023		Analyst: JC
Barium	**0.129**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	30-May-2023 16:04
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	30-May-2023 16:04
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	30-May-2023 16:04
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	30-May-2023 16:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 31-May-23

Client: Bhate Environmental Associates, Inc.

ANALYTICAL REPORT

Project: Longhorn GW Treatment Plant Monthly Effluent Samples

WorkOrder:HS23051522

Sample ID: LH18/24-SP650_052223

Lab ID:HS23051522-01

Collection Date: 22-May-2023 13:00

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**							Analyst: JAC
Chromium, Hexavalent	0.00600	U	0.00600	0.00600	0.0100	mg/L	1	23-May-2023 10:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 31-May-23

Client: Bhate Environmental Associates, Inc.

ANALYTICAL REPORT

Project: Longhorn GW Treatment Plant Monthly Effluent Samples

WorkOrder:HS23051522

Sample ID: LH18/24-SP650_052223_AIX

Lab ID:HS23051522-02

Collection Date: 22-May-2023 13:00

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Monthly Effluent Samples WorkOrder:HS23051522
Sample ID: Trip Blank Lab ID:HS23051522-03
Collection Date: 22-May-2023 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 12:42
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
1,2-Dichloropropane	**25**		**0.50**	**0.50**	**1.0**	**ug/L**	1	24-May-2023 12:42
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	24-May-2023 12:42
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	24-May-2023 12:42
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	24-May-2023 12:42
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	24-May-2023 12:42
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	24-May-2023 12:42
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	24-May-2023 12:42
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Longhorn GW Treatment Plant Monthly Effluent Samples WorkOrder:HS23051522

Sample ID: Trip Blank Lab ID:HS23051522-03

Collection Date: 22-May-2023 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	24-May-2023 12:42
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	24-May-2023 12:42
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	24-May-2023 12:42
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	24-May-2023 12:42
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	24-May-2023 12:42
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Trichlorofluoromethane	**6.4**		**0.30**	**0.50**	**1.0**	**ug/L**	1	24-May-2023 12:42
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	24-May-2023 12:42
Surr: 1,2-Dichloroethane-d4	*109*			**0**	*81-118*	*%REC*	*1*	*24-May-2023 12:42*
Surr: 4-Bromofluorobenzene	*95.6*			**0**	*85-114*	*%REC*	*1*	*24-May-2023 12:42*
Surr: Dibromofluoromethane	*103*			**0**	*80-119*	*%REC*	*1*	*24-May-2023 12:42*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*24-May-2023 12:42*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-May-23

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Batch ID: 194323 **Start Date:** 25 May 2023 10:30 **End Date:** 25 May 2023 10:30
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_SIM

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23051522-01		1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat

Batch ID: 194431 **Start Date:** 30 May 2023 10:00 **End Date:** 30 May 2023 10:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23051522-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 194323 (0)	**Test Name :** SEMIVOLATILES SIM				**Matrix:** Water	
HS23051522-01	LH18/24-SP650_052223	22 May 2023 13:00		25 May 2023 10:30	30 May 2023 12:42	1
Batch ID: 194431 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS23051522-01	LH18/24-SP650_052223	22 May 2023 13:00		30 May 2023 10:00	30 May 2023 16:04	1
Batch ID: R436029 (0)	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A				**Matrix:** Water	
HS23051522-01	LH18/24-SP650_052223	22 May 2023 13:00			23 May 2023 10:14	1
Batch ID: R436190 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23051522-01	LH18/24-SP650_052223	22 May 2023 13:00			24 May 2023 13:24	1
HS23051522-03	Trip Blank	22 May 2023 00:00			24 May 2023 12:42	1
Batch ID: R436668 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS23051522-02	LH18/24-SP650_052223_AIX	22 May 2023 13:00			31 May 2023 13:22	1

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: 194431 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-194431** Units: **mg/L** Analysis Date: **30-May-2023 15:46**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330905** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.00250	0.00500								U
Lead	0.00125	0.00500								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U

LCS Sample ID: **LCS-194431** Units: **mg/L** Analysis Date: **30-May-2023 15:48**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330906** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.04808	0.00500	0.05	0	96.2	86 - 114				
Lead	0.04848	0.00500	0.05	0	97.0	88 - 115				
Selenium	0.05092	0.00500	0.05	0	102	80 - 120				
Silver	0.04863	0.00500	0.05	0	97.3	85 - 116				

MS Sample ID: **HS23051127-01MS** Units: **mg/L** Analysis Date: **30-May-2023 15:54**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330909** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1684	0.00500	0.05	0.1129	111	86 - 114				
Lead	0.04992	0.00500	0.05	0.000741	98.4	88 - 115				
Selenium	0.05259	0.00500	0.05	0.002268	101	80 - 120				
Silver	0.04752	0.00500	0.05	0.000017	95.0	85 - 116				

MSD Sample ID: **HS23051127-01MSD** Units: **mg/L** Analysis Date: **30-May-2023 15:56**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330910** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1707	0.00500	0.05	0.1129	116	86 - 114	0.1684	1.35	20	S
Lead	0.04991	0.00500	0.05	0.000741	98.3	88 - 115	0.04992	0.012	20	
Selenium	0.05282	0.00500	0.05	0.002268	101	80 - 120	0.05259	0.431	20	
Silver	0.04719	0.00500	0.05	0.000017	94.3	85 - 116	0.04752	0.691	20	

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: 194431 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS23051127-01PDS** Units: **mg/L** Analysis Date: **30-May-2023 15:58**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330911** PrepDate: **30-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.2172	0.00500	0.1	0.1129	104	80 - 120				
Lead	0.09913	0.00500	0.1	0.000741	98.4	80 - 120				
Selenium	0.1041	0.00500	0.1	0.002268	102	80 - 120				
Silver	0.09723	0.00500	0.1	0.000017	97.2	80 - 120				

SD Sample ID: **HS23051127-01SD** Units: **mg/L** Analysis Date: **30-May-2023 15:52**
Client ID: Run ID: **ICPMS06_436532** SeqNo: **7330908** PrepDate: **30-May-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Barium	0.1122	0.0250					0.1129	0.6	10	
Lead	0.00625	0.0250					0.000741	0	10	U
Selenium	0.0125	0.0250					0.002268	0	10	U
Silver	0.00250	0.0250					0.000017	0	10	U

The following samples were analyzed in this batch: HS23051522-01

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: 194323 (0) **Instrument: SV-6** **Method: SEMIVOLATILES SIM**

MBLK Sample ID: **MBLK-194323** Units: **ug/L** Analysis Date: **30-May-2023 13:00**
Client ID: Run ID: **SV-6_436574** SeqNo: **7330660** PrepDate: **25-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0050	0.030								U
Surr: 2-Fluorobiphenyl	*0.07649*	*0*	*0.08*	*0*	*95.6*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.07211*	*0*	*0.08*	*0*	*90.1*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.09642*	*0*	*0.08*	*0*	*121*	*40 - 140*				

LCS Sample ID: **LCS-194323** Units: **ug/L** Analysis Date: **30-May-2023 13:18**
Client ID: Run ID: **SV-6_436574** SeqNo: **7330661** PrepDate: **25-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.07622	0.030	0.08	0	95.3	40 - 140				
Surr: 2-Fluorobiphenyl	*0.07086*	*0*	*0.08*	*0*	*88.6*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.07088*	*0*	*0.08*	*0*	*88.6*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.0982*	*0*	*0.08*	*0*	*123*	*40 - 140*				

LCSD Sample ID: **LCSD-194323** Units: **ug/L** Analysis Date: **30-May-2023 13:36**
Client ID: Run ID: **SV-6_436574** SeqNo: **7330662** PrepDate: **25-May-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.07303	0.030	0.08	0	91.3	40 - 140	0.07622	4.28	20	
Surr: 2-Fluorobiphenyl	*0.0762*	*0*	*0.08*	*0*	*95.3*	*40 - 140*	*0.07086*	*7.27*	*20*	
Surr: 4-Terphenyl-d14	*0.07444*	*0*	*0.08*	*0*	*93.1*	*40 - 140*	*0.07088*	*4.91*	*20*	
Surr: Nitrobenzene-d5	*0.09418*	*0*	*0.08*	*0*	*118*	*40 - 140*	*0.0982*	*4.17*	*20*	

The following samples were analyzed in this batch: HS23051522-01

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230524** Units: **ug/L** Analysis Date: **24-May-2023 12:21**
Client ID: Run ID: **VOA6_436190** SeqNo: **7322548** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	0.50	1.0								U
1,1,1-Trichloroethane	0.50	1.0								U
1,1,2,2-Tetrachloroethane	0.50	1.0								U
1,1,2-Trichloroethane	0.50	1.0								U
1,1-Dichloroethane	0.50	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,1-Dichloropropene	0.50	1.0								U
1,2,3-Trichlorobenzene	0.50	1.0								U
1,2,3-Trichloropropane	0.50	1.0								U
1,2,4-Trichlorobenzene	0.50	1.0								U
1,2,4-Trimethylbenzene	0.50	1.0								U
1,2-Dibromo-3-chloropropane	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
1,2-Dichloropropane	0.50	1.0								U
1,3,5-Trimethylbenzene	0.50	1.0								U
1,3-Dichlorobenzene	0.50	1.0								U
1,3-Dichloropropane	0.50	1.0								U
1,4-Dichlorobenzene	0.50	1.0								U
2,2-Dichloropropane	0.50	1.0								U
2-Butanone	0.50	2.0								U
2-Chlorotoluene	0.50	1.0								U
2-Hexanone	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	0.50	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	0.50	1.0								U
Bromomethane	0.50	1.0								U

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230524** Units: **ug/L** Analysis Date: **24-May-2023 12:21**
Client ID: Run ID: **VOA6_436190** SeqNo: **7322548** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	2.0								U
Carbon tetrachloride	0.50	1.0								U
Chlorobenzene	0.50	1.0								U
Chloroethane	0.50	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	0.50	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	0.50	1.0								U
Ethylbenzene	0.50	1.0								U
Hexachlorobutadiene	0.50	1.0								U
Isopropylbenzene	0.50	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	0.50	2.0								U
Naphthalene	0.50	1.0								U
n-Butylbenzene	0.50	1.0								U
n-Propylbenzene	0.50	1.0								U
o-Xylene	0.50	1.0								U
sec-Butylbenzene	0.50	1.0								U
Styrene	0.50	1.0								U
tert-Butylbenzene	0.50	1.0								U
Tetrachloroethene	0.50	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*55.11*	*1.0*	*50*	*0*	*110*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.6*	*1.0*	*50*	*0*	*95.2*	*85 - 114*				
Surr: Dibromofluoromethane	*51.29*	*1.0*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*53.25*	*1.0*	*50*	*0*	*107*	*89 - 112*				

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

LCS Sample ID: **VLCSW-230524** Units: **ug/L** Analysis Date: **24-May-2023 11:39**
Client ID: Run ID: **VOA6_436190** SeqNo: **7322547** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.55	1.0	20	0	108	78 - 124				
1,1,1-Trichloroethane	23.48	1.0	20	0	117	74 - 131				
1,1,2,2-Tetrachloroethane	21.04	1.0	20	0	105	71 - 121				
1,1,2-Trichloroethane	20.16	1.0	20	0	101	80 - 119				
1,1-Dichloroethane	20.64	1.0	20	0	103	77 - 125				
1,1-Dichloroethene	21.17	1.0	20	0	106	71 - 131				
1,1-Dichloropropene	21.57	1.0	20	0	108	78 - 125				
1,2,3-Trichlorobenzene	19.02	1.0	20	0	95.1	69 - 129				
1,2,3-Trichloropropane	22.8	1.0	20	0	114	73 - 122				
1,2,4-Trichlorobenzene	19.35	1.0	20	0	96.8	69 - 130				
1,2,4-Trimethylbenzene	20.17	1.0	20	0	101	76 - 124				
1,2-Dibromo-3-chloropropane	20.27	1.0	20	0	101	62 - 128				
1,2-Dibromoethane	21.53	1.0	20	0	108	77 - 121				
1,2-Dichlorobenzene	20	1.0	20	0	100.0	80 - 119				
1,2-Dichloroethane	23.63	1.0	20	0	118	73 - 128				
1,2-Dichloropropane	18.83	1.0	20	0	94.2	78 - 122				
1,3,5-Trimethylbenzene	20.49	1.0	20	0	102	75 - 124				
1,3-Dichlorobenzene	19.68	1.0	20	0	98.4	80 - 119				
1,3-Dichloropropane	20.08	1.0	20	0	100	80 - 119				
1,4-Dichlorobenzene	20.41	1.0	20	0	102	79 - 118				
2,2-Dichloropropane	24.47	1.0	20	0	122	60 - 139				
2-Butanone	40.29	2.0	40	0	101	56 - 143				
2-Chlorotoluene	19.76	1.0	20	0	98.8	79 - 122				
2-Hexanone	40.69	2.0	40	0	102	57 - 139				
4-Chlorotoluene	21.03	1.0	20	0	105	78 - 122				
4-Isopropyltoluene	21.31	1.0	20	0	107	77 - 127				
4-Methyl-2-pentanone	39.17	2.0	40	0	97.9	67 - 130				
Acetone	45.72	2.0	40	0	114	39 - 160				
Benzene	19.56	1.0	20	0	97.8	79 - 120				
Bromobenzene	20.08	1.0	20	0	100	80 - 120				
Bromochloromethane	20.52	1.0	20	0	103	78 - 123				
Bromodichloromethane	21.05	1.0	20	0	105	79 - 125				
Bromoform	21.25	1.0	20	0	106	66 - 130				
Bromomethane	23.71	1.0	20	0	119	53 - 141				

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

LCS Sample ID: **VLCSW-230524** Units: **ug/L** Analysis Date: **24-May-2023 11:39**
Client ID: Run ID: **VOA6_436190** SeqNo: **7322547** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	36.94	2.0	40	0	92.4	64 - 133				
Carbon tetrachloride	22.45	1.0	20	0	112	72 - 136				
Chlorobenzene	20.52	1.0	20	0	103	82 - 118				
Chloroethane	19.77	1.0	20	0	98.8	60 - 138				
Chloroform	22.51	1.0	20	0	113	79 - 124				
Chloromethane	16.92	1.0	20	0	84.6	50 - 139				
cis-1,2-Dichloroethene	20.4	1.0	20	0	102	78 - 123				
cis-1,3-Dichloropropene	19.93	1.0	20	0	99.6	75 - 124				
Dibromochloromethane	20.72	1.0	20	0	104	74 - 126				
Dibromomethane	20.88	1.0	20	0	104	79 - 123				
Dichlorodifluoromethane	19.56	1.0	20	0	97.8	32 - 152				
Ethylbenzene	20.69	1.0	20	0	103	79 - 121				
Hexachlorobutadiene	20.96	1.0	20	0	105	66 - 134				
Isopropylbenzene	21.39	1.0	20	0	107	72 - 131				
m,p-Xylene	43.05	2.0	40	0	108	80 - 121				
Methylene chloride	20.23	2.0	20	0	101	74 - 124				
Naphthalene	19.35	1.0	20	0	96.8	61 - 128				
n-Butylbenzene	22.79	1.0	20	0	114	75 - 128				
n-Propylbenzene	20.91	1.0	20	0	105	76 - 126				
o-Xylene	20.74	1.0	20	0	104	78 - 122				
sec-Butylbenzene	21.06	1.0	20	0	105	77 - 126				
Styrene	21.72	1.0	20	0	109	78 - 123				
tert-Butylbenzene	20.19	1.0	20	0	101	78 - 124				
Tetrachloroethene	21.33	1.0	20	0	107	74 - 129				
Toluene	20.73	1.0	20	0	104	80 - 121				
trans-1,2-Dichloroethene	20.72	1.0	20	0	104	75 - 124				
trans-1,3-Dichloropropene	21.35	1.0	20	0	107	73 - 127				
Trichloroethene	20.82	1.0	20	0	104	79 - 123				
Trichlorofluoromethane	22.95	1.0	20	0	115	65 - 141				
Vinyl chloride	18.7	1.0	20	0	93.5	58 - 137				
Surr: 1,2-Dichloroethane-d4	*57.12*	*1.0*	*50*	*0*	*114*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.15*	*1.0*	*50*	*0*	*96.3*	*85 - 114*				
Surr: Dibromofluoromethane	*53.26*	*1.0*	*50*	*0*	*107*	*80 - 119*				
Surr: Toluene-d8	*46.87*	*1.0*	*50*	*0*	*93.7*	*89 - 112*				

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23051522-01MS** Units: **ug/L** Analysis Date: **24-May-2023 14:27**
Client ID: **LH18/24-SP650_052223** Run ID: **VOA6_436190** SeqNo: **7322554** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	22.45	1.0	20	0	112	78 - 124				
1,1,1-Trichloroethane	23.16	1.0	20	0	116	74 - 131				
1,1,2,2-Tetrachloroethane	21.29	1.0	20	0	106	71 - 121				
1,1,2-Trichloroethane	20.57	1.0	20	0	103	80 - 119				
1,1-Dichloroethane	19.77	1.0	20	0	98.9	77 - 125				
1,1-Dichloroethene	20.6	1.0	20	0	103	71 - 131				
1,1-Dichloropropene	22.21	1.0	20	0	111	78 - 125				
1,2,3-Trichlorobenzene	21.94	1.0	20	0	110	69 - 129				
1,2,3-Trichloropropane	22.68	1.0	20	0	113	73 - 122				
1,2,4-Trichlorobenzene	22.36	1.0	20	0	112	69 - 130				
1,2,4-Trimethylbenzene	24.13	1.0	20	0	121	76 - 124				
1,2-Dibromo-3-chloropropane	19.02	1.0	20	0	95.1	62 - 128				
1,2-Dibromoethane	21.57	1.0	20	0	108	77 - 121				
1,2-Dichlorobenzene	22.78	1.0	20	0	114	80 - 119				
1,2-Dichloroethane	23.3	1.0	20	0	116	73 - 128				
1,2-Dichloropropane	18.64	1.0	20	0	93.2	78 - 122				
1,3,5-Trimethylbenzene	24.39	1.0	20	0	122	75 - 124				
1,3-Dichlorobenzene	22.76	1.0	20	0	114	80 - 119				
1,3-Dichloropropane	20.58	1.0	20	0	103	80 - 119				
1,4-Dichlorobenzene	23.12	1.0	20	0	116	79 - 118				
2,2-Dichloropropane	23.71	1.0	20	0	119	60 - 139				
2-Butanone	35.01	2.0	40	0	87.5	56 - 143				
2-Chlorotoluene	23.05	1.0	20	0	115	79 - 122				
2-Hexanone	40.6	2.0	40	0	102	57 - 139				
4-Chlorotoluene	24.38	1.0	20	0	122	78 - 122				
4-Isopropyltoluene	25.83	1.0	20	0	129	77 - 127				S
4-Methyl-2-pentanone	39.96	2.0	40	0	99.9	67 - 130				
Acetone	29.55	2.0	40	0	73.9	39 - 160				
Benzene	19.76	1.0	20	0	98.8	79 - 120				
Bromobenzene	22.35	1.0	20	0	112	80 - 120				
Bromochloromethane	19.38	1.0	20	0	96.9	78 - 123				
Bromodichloromethane	20.98	1.0	20	0	105	79 - 125				
Bromoform	21.67	1.0	20	0	108	66 - 130				
Bromomethane	12.07	1.0	20	0	60.4	53 - 141				

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23051522-01MS** Units: **ug/L** Analysis Date: **24-May-2023 14:27**
Client ID: **LH18/24-SP650_052223** Run ID: **VOA6_436190** SeqNo: **7322554** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	36.74	2.0	40	0	91.8	64 - 133				
Carbon tetrachloride	23.89	1.0	20	0	119	72 - 136				
Chlorobenzene	21.92	1.0	20	0	110	82 - 118				
Chloroethane	14.35	1.0	20	0	71.7	60 - 138				
Chloroform	21.49	1.0	20	0	107	79 - 124				
Chloromethane	12.68	1.0	20	0	63.4	50 - 139				
cis-1,2-Dichloroethene	20.32	1.0	20	1.213	95.6	78 - 123				
cis-1,3-Dichloropropene	19.15	1.0	20	0	95.7	75 - 124				
Dibromochloromethane	21.07	1.0	20	0	105	74 - 126				
Dibromomethane	20.07	1.0	20	0	100	79 - 123				
Dichlorodifluoromethane	6.723	1.0	20	0	33.6	32 - 152				
Ethylbenzene	23.04	1.0	20	0	115	79 - 121				
Hexachlorobutadiene	25.11	1.0	20	0	126	66 - 134				
Isopropylbenzene	24.88	1.0	20	0	124	72 - 131				
m,p-Xylene	47.94	2.0	40	0	120	80 - 121				
Methylene chloride	18.58	2.0	20	0	92.9	74 - 124				
Naphthalene	21.31	1.0	20	0	107	61 - 128				
n-Butylbenzene	28.41	1.0	20	0	142	75 - 128				S
n-Propylbenzene	24.98	1.0	20	0	125	76 - 126				
o-Xylene	22.98	1.0	20	0	115	78 - 122				
sec-Butylbenzene	25.95	1.0	20	0	130	77 - 126				S
Styrene	23.32	1.0	20	0	117	78 - 123				
tert-Butylbenzene	24.71	1.0	20	0	124	78 - 124				
Tetrachloroethene	24.71	1.0	20	0	124	74 - 129				
Toluene	22.18	1.0	20	0	111	80 - 121				
trans-1,2-Dichloroethene	20.41	1.0	20	0	102	75 - 124				
trans-1,3-Dichloropropene	20.75	1.0	20	0	104	73 - 127				
Trichloroethene	20.7	1.0	20	0	104	79 - 123				
Trichlorofluoromethane	21.47	1.0	20	0	107	65 - 141				
Vinyl chloride	14.68	1.0	20	0	73.4	58 - 137				
Surr: 1,2-Dichloroethane-d4	*53.27*	*1.0*	*50*	*0*	*107*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.05*	*1.0*	*50*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*50.92*	*1.0*	*50*	*0*	*102*	*80 - 119*				
Surr: Toluene-d8	*51.71*	*1.0*	*50*	*0*	*103*	*89 - 112*				

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23051522-01MSD** Units: **ug/L** Analysis Date: **24-May-2023 14:48**
Client ID: **LH18/24-SP650_052223** Run ID: **VOA6_436190** SeqNo: **7322555** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.22	1.0	20	0	106	78 - 124	22.45	5.66	20	
1,1,1-Trichloroethane	22.56	1.0	20	0	113	74 - 131	23.16	2.66	20	
1,1,2,2-Tetrachloroethane	21.28	1.0	20	0	106	71 - 121	21.29	0.0379	20	
1,1,2-Trichloroethane	20.46	1.0	20	0	102	80 - 119	20.57	0.528	20	
1,1-Dichloroethane	19.06	1.0	20	0	95.3	77 - 125	19.77	3.67	20	
1,1-Dichloroethene	19.53	1.0	20	0	97.6	71 - 131	20.6	5.37	20	
1,1-Dichloropropene	21.34	1.0	20	0	107	78 - 125	22.21	4.02	20	
1,2,3-Trichlorobenzene	20.94	1.0	20	0	105	69 - 129	21.94	4.63	20	
1,2,3-Trichloropropane	21.37	1.0	20	0	107	73 - 122	22.68	5.98	20	
1,2,4-Trichlorobenzene	21.41	1.0	20	0	107	69 - 130	22.36	4.35	20	
1,2,4-Trimethylbenzene	22.67	1.0	20	0	113	76 - 124	24.13	6.27	20	
1,2-Dibromo-3-chloropropane	19.59	1.0	20	0	98.0	62 - 128	19.02	2.95	20	
1,2-Dibromoethane	21.52	1.0	20	0	108	77 - 121	21.57	0.215	20	
1,2-Dichlorobenzene	21.82	1.0	20	0	109	80 - 119	22.78	4.29	20	
1,2-Dichloroethane	22.87	1.0	20	0	114	73 - 128	23.3	1.85	20	
1,2-Dichloropropane	17.65	1.0	20	0	88.2	78 - 122	18.64	5.46	20	
1,3,5-Trimethylbenzene	22.93	1.0	20	0	115	75 - 124	24.39	6.14	20	
1,3-Dichlorobenzene	21.54	1.0	20	0	108	80 - 119	22.76	5.53	20	
1,3-Dichloropropane	19.72	1.0	20	0	98.6	80 - 119	20.58	4.23	20	
1,4-Dichlorobenzene	22.26	1.0	20	0	111	79 - 118	23.12	3.79	20	
2,2-Dichloropropane	22.64	1.0	20	0	113	60 - 139	23.71	4.62	20	
2-Butanone	34.91	2.0	40	0	87.3	56 - 143	35.01	0.29	20	
2-Chlorotoluene	21.72	1.0	20	0	109	79 - 122	23.05	5.92	20	
2-Hexanone	41.18	2.0	40	0	103	57 - 139	40.6	1.41	20	
4-Chlorotoluene	22.89	1.0	20	0	114	78 - 122	24.38	6.28	20	
4-Isopropyltoluene	24.35	1.0	20	0	122	77 - 127	25.83	5.92	20	
4-Methyl-2-pentanone	41.54	2.0	40	0	104	67 - 130	39.96	3.87	20	
Acetone	30.54	2.0	40	0	76.4	39 - 160	29.55	3.3	20	
Benzene	19.02	1.0	20	0	95.1	79 - 120	19.76	3.82	20	
Bromobenzene	21.46	1.0	20	0	107	80 - 120	22.35	4.09	20	
Bromochloromethane	19.13	1.0	20	0	95.6	78 - 123	19.38	1.3	20	
Bromodichloromethane	20.36	1.0	20	0	102	79 - 125	20.98	3	20	
Bromoform	21.35	1.0	20	0	107	66 - 130	21.67	1.5	20	
Bromomethane	10.13	1.0	20	0	50.7	53 - 141	12.07	17.5	20	S

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436190 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23051522-01MSD** Units: **ug/L** Analysis Date: **24-May-2023 14:48**
Client ID: **LH18/24-SP650_052223** Run ID: **VOA6_436190** SeqNo: **7322555** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	35.58	2.0	40	0	88.9	64 - 133	36.74	3.22	20	
Carbon tetrachloride	22.47	1.0	20	0	112	72 - 136	23.89	6.13	20	
Chlorobenzene	20.66	1.0	20	0	103	82 - 118	21.92	5.95	20	
Chloroethane	15.39	1.0	20	0	76.9	60 - 138	14.35	6.97	20	
Chloroform	21.05	1.0	20	0	105	79 - 124	21.49	2.06	20	
Chloromethane	10.84	1.0	20	0	54.2	50 - 139	12.68	15.6	20	
cis-1,2-Dichloroethene	20.31	1.0	20	1.213	95.5	78 - 123	20.32	0.0634	20	
cis-1,3-Dichloropropene	18.83	1.0	20	0	94.2	75 - 124	19.15	1.64	20	
Dibromochloromethane	20.65	1.0	20	0	103	74 - 126	21.07	2	20	
Dibromomethane	20.13	1.0	20	0	101	79 - 123	20.07	0.272	20	
Dichlorodifluoromethane	6.454	1.0	20	0	32.3	32 - 152	6.723	4.1	20	
Ethylbenzene	21.57	1.0	20	0	108	79 - 121	23.04	6.59	20	
Hexachlorobutadiene	23.87	1.0	20	0	119	66 - 134	25.11	5.07	20	
Isopropylbenzene	23.6	1.0	20	0	118	72 - 131	24.88	5.27	20	
m,p-Xylene	45.52	2.0	40	0	114	80 - 121	47.94	5.17	20	
Methylene chloride	18.13	2.0	20	0	90.7	74 - 124	18.58	2.43	20	
Naphthalene	21.2	1.0	20	0	106	61 - 128	21.31	0.497	20	
n-Butylbenzene	26.59	1.0	20	0	133	75 - 128	28.41	6.62	20	S
n-Propylbenzene	23.67	1.0	20	0	118	76 - 126	24.98	5.41	20	
o-Xylene	22.19	1.0	20	0	111	78 - 122	22.98	3.51	20	
sec-Butylbenzene	24.12	1.0	20	0	121	77 - 126	25.95	7.31	20	
Styrene	22.05	1.0	20	0	110	78 - 123	23.32	5.61	20	
tert-Butylbenzene	23.24	1.0	20	0	116	78 - 124	24.71	6.1	20	
Tetrachloroethene	23.41	1.0	20	0	117	74 - 129	24.71	5.4	20	
Toluene	21.33	1.0	20	0	107	80 - 121	22.18	3.92	20	
trans-1,2-Dichloroethene	19.63	1.0	20	0	98.2	75 - 124	20.41	3.89	20	
trans-1,3-Dichloropropene	20.62	1.0	20	0	103	73 - 127	20.75	0.631	20	
Trichloroethene	19.96	1.0	20	0	99.8	79 - 123	20.7	3.62	20	
Trichlorofluoromethane	20.3	1.0	20	0	102	65 - 141	21.47	5.57	20	
Vinyl chloride	14	1.0	20	0	70.0	58 - 137	14.68	4.72	20	
Surr: 1,2-Dichloroethane-d4	*54.85*	*1.0*	*50*	*0*	*110*	*81 - 118*	*53.27*	*2.93*	*20*	
Surr: 4-Bromofluorobenzene	*50*	*1.0*	*50*	*0*	*100.0*	*85 - 114*	*50.05*	*0.0982*	*20*	
Surr: Dibromofluoromethane	*51.01*	*1.0*	*50*	*0*	*102*	*80 - 119*	*50.92*	*0.176*	*20*	
Surr: Toluene-d8	*51.05*	*1.0*	*50*	*0*	*102*	*89 - 112*	*51.71*	*1.29*	*20*	

ALS Houston, US Date: 31-May-23

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder:	HS23051522

QC BATCH REPORT

Batch ID:	**R436190 (0)**	**Instrument:**	**VOA6**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS23051522-01 HS23051522-03

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

QC BATCH REPORT

Batch ID: R436029 (0) **Instrument: UV-2450** **Method: HEXAVALENT CHROMIUM BY SW7196A**

MBLK Sample ID: **MBLK-R436029** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319012** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.00600	0.0100								U

LCS Sample ID: **LCS-R436029** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319011** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.243	0.0100	0.25	0	97.2	80 - 120				

MS Sample ID: **HS23051482-01MS** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319014** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	12.55	0.500	12.5	-0.4	104	86 - 117				

MSD Sample ID: **HS23051482-01MSD** Units: **mg/L** Analysis Date: **23-May-2023 10:14**
Client ID: Run ID: **UV-2450_436029** SeqNo: **7319013** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	12.65	0.500	12.5	-0.4	104	86 - 117	12.55	0.794	15	

The following samples were analyzed in this batch: HS23051522-01

ALS Houston, US Date: 31-May-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: **HS23051522**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

ALS Houston, US Date: 31-May-23

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 31-May-23

Sample Receipt Checklist

Work Order ID: HS23051522 **Date/Time Received:** 23-May-2023 09:30

Client Name: Bhate Environmental **Received by:** Paresh M. Giga

Completed By: /S/ Nilesh D. Ranchod (eSignature) 23-May-2023 10:28 (Date/Time) **Reviewed by:** /S/ Dane J. Wacasey (eSignature) 26-May-2023 08:55 (Date/Time)

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.6C/1.5C U/C	IR31	
Cooler(s)/Kit(s):	43491		
Date/Time sample(s) sent to storage:	05/23/23 10:31		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

01209439

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd., Suite 210 Houston, TX 77099 (281) 530 – 5656 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job: GROUNDWATER TREATMENT PLANT MONTHLY EFFLUENT SAMPLES

Prepared By: Scott Beesinger

P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: VOLATILES	SILVER, SELENIUM, LEAD, BARIUM	HEXAVALENT CHROMIUM	1, 4 - DIOXANE	PERCHLORATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_052223	Water	05/22/23 / 13:00		3	X					HCL	
LH18/24-SP650_052223	Water	05/22/23 / 13:00		2			X	X		NONE	
LH18/24-SP650_052223_AIX	Water	05/22/23 / 13:00		1					X	NONE	
LH18/24-SP650_052223	Water	05/22/23 / 13:00		1		X				HNO3	
Trip Blank	Water	05/22/23		2	X					HCL	

Additional Remarks: **Standard TAT on all parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date
Scott Beesinger	05/22/23	13:30		5/23/23	09:30		

HS23051522

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Monthly Effluent Sample

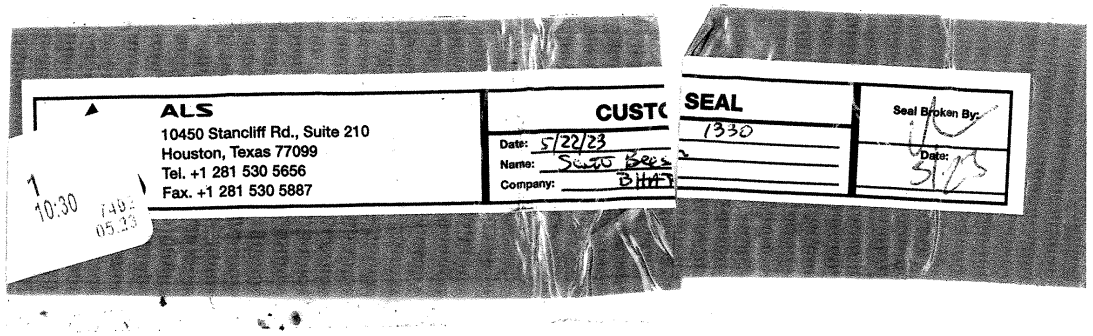
For Lab Use Only

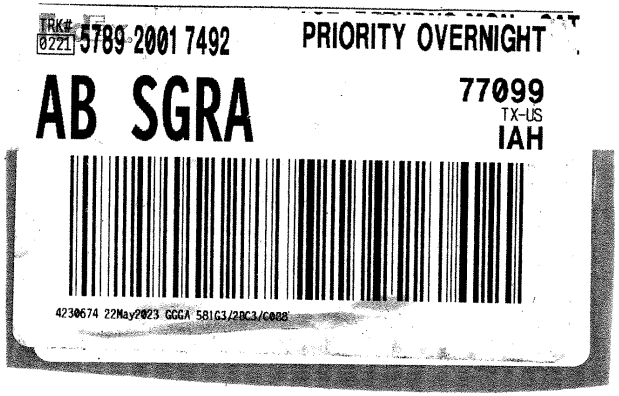
Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

43491 OK 1.6°
#131
Cl2 = 0.10

(Word) S:\Users\Forms\Chain of Custody - BiWeekly


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUST
Date: 5/22/23
Name:
Company:
SEAL
1330
Seal Broken By:
Date:
10:30


TRK#
0221 5789 2001 7492
PRIORITY OVERNIGHT
AB SGRA
77099
TX-US
IAH
4230674 22May2023 GGGA 581G3/2BC3/C088

May 31, 2023 Service Request No:E2300500

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051522

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 23, 2023
For your reference, these analyses have been assigned our service request number **E2300500.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300500
Project:	HS23051522	**Date Received:**	05/23/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 05/23/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300265: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300500
Project: HS23051522

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300500-001	LH18/24-SP650_052223_AIX	5/22/2023	1300

Service Request Summary

Folder #: **E2300500**
Client Name: ALS Environmental - US
Project Name: HS23051522
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/23/23
Internal Due Date: 5/31/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051522
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300500-001	LH18/24-SP650_052223_AIX	Water	05/22/23 1300	IV

Service Request Summary

Folder #: **E2300500**
Client Name: ALS Environmental - US
Project Name: HS23051522
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/23/23
Internal Due Date: 5/31/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051522
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **21802**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23051522
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051522-02**	**LH18/24-SP650_052223_AIX**	**Water**	**22 May 2023 13:00**
	Provide Level II and Level IV reports in separate pdf			31 May 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: 5.23.23 10:25

Received By: _____ Date/Time: 5.24.23 1025

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist JG

Client/Project ALS Thermometer ID 1231

Date/Time Received: 5.23.23 Initials: CG Date/Time Logged in: 5.23.23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other _____

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other _____

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling: _____

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		5.23.23	1025	CG	1.3	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300499-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300499-002	LH18/24-SP650_052223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300500-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300501-001	LH18/24-SP140_052223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300512-001	50WW09_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300512-002	50WW08_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300512-003	50WW22_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300512-004	50WW13_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300512-005	50WW11_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300512-006	50WW06_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300512-007	50WW29_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	EQ2300265-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300265-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300265-03	DLCS		6850/ClO4			Liquid	10mL	
15	K2305800-001	LGAC-INF-052223	.01	6850/ClO4			Water	10mL	
16	K2305800-002	LGAC-INT1-052223	.01	6850/ClO4			Water	10mL	
17	R2304146-004	2305090957X BLM-38-620	.01	6850/ClO4			Water	10mL	
18	R2304146-009	2305090931B ST-1-630	.01	6850/ClO4			Water	10mL	
19	R2304203-004	2305100842X BLM-38-480	.01	6850/ClO4			Water	10mL	
20	R2304203-011	2305100858B 600-C-173	.01	6850/ClO4			Water	10mL	
21	R2304267-009	2305111350X WB-1-330	.01	6850/ClO4			Water	10mL	
22	R2304267-012	2305121010X WB-1-200	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300265-02	1.00µL	EQ2300265-02	1.00µL	EQ2300265-03	1.00µL	EQ2300265-03	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300499-001	100.00µL	E2300499-002	100.00µL	E2300500-001	100.00µL	E2300501-001	100.00µL	E2300512-001	100.00µL	E2300512-002	100.00µL
E2300512-003	100.00µL	E2300512-004	100.00µL	E2300512-005	100.00µL	E2300512-006	100.00µL	E2300512-007	100.00µL	EQ2300265-01	100.00µL
EQ2300265-01	100.00µL	EQ2300265-02	100.00µL	EQ2300265-02	100.00µL	EQ2300265-03	100.00µL	EQ2300265-03	100.00µL	K2305800-001	100.00µL
K2305800-002	100.00µL	R2304146-004	100.00µL	R2304146-009	100.00µL	R2304203-004	100.00µL	R2304203-011	100.00µL	R2304267-009	100.00µL
R2304267-012	100.00µL										

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 5/30/23 08:20
Finished: 5/30/23 09:20
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 05/30/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	5/22/23 1300
Sample Matrix:	Water	**Date Received:**	5/23/23
Sample Name:	LH18/24-SP650_052223_AIX	**Units:**	µg/L
Lab Code:	E2300500-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.244**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:07	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300265-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:38	420569	805870	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051522
Sample Matrix: Water

Service Request: E2300500
Date Analyzed: 5/30/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 420569

	Lab Control Sample EQ2300265-02			Duplicate Lab Control Sample EQ2300265-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.105	0.100	105	0.101	0.100	101	84 - 119	4	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.105**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:44	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.101**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:50	420569	805870	

HS23051522-MSVOA-SW8260

ALS WO# HS23051522

01209466

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

HS23051522-01	Collected	Received	Matrix	Basis
LH18/24-SP650_052223	05/22/23 13:00	05/23/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2-Dibromo-3-	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

HS23051522-01	Collected	Received	Matrix	Basis
LH18/24-SP650_052223	05/22/23 13:00	05/23/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
cis-1,2-Dichloroethene	ug/L	1.2		0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 13:24	VOA6_436190_R43619	X052410

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

HS23051522-03	Collected	Received	Matrix	Basis
Trip Blank	05/22/23 00:00	05/23/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2-Dibromo-3-	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,2-Dichloropropane	ug/L	25		0.50	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder **HS23051522**

Volatiles by EPA 8260

HS23051522-03	Collected	Received	Matrix	Basis
Trip Blank	05/22/23 00:00	05/23/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Trichlorofluoromethane	ug/L	6.4		0.30	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:42	VOA6_436190_R43619	X052408

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

VBLKW-230524	Collected	Received	Matrix	Basis
VBLKW-230524	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2-Dibromo-3-	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

VBLKW-230524	Collected	Received	Matrix	Basis
VBLKW-230524	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/24/23 12:21	VOA6_436190_R43619	X052407

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Form 2

System Monitoring Compound Recovery

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
VOA6_436190_R436190

Volatiles by EPA 8260

CCV Analyzed 05/24/23 Conc Units µg/L Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	58.45	50	117	80-120	
4-Bromofluorobenzene	49.97	50	99.9	80-120	
Dibromofluoromethane	54.6	50	109	80-120	
Toluene-d8	47.14	50	94.3	80-120	

CCB Analyzed 05/24/23 Conc Units µg/L Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	54.55	50	109	80-120	
4-Bromofluorobenzene	47.24	50	94.5	80-120	
Dibromofluoromethane	51.38	50	103	80-120	
Toluene-d8	52.49	50	105	80-120	

VLCSW-230524 Analyzed 05/24/23 Conc Units µg/L Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	57.12	50	114	81-118	
4-Bromofluorobenzene	48.15	50	96.3	85-114	
Dibromofluoromethane	53.26	50	107	80-119	
Toluene-d8	46.87	50	93.7	89-112	

VBLKW-230524 Analyzed 05/24/23 Conc Units µg/L Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55.11	50	110	81-118	
4-Bromofluorobenzene	47.6	50	95.2	85-114	
Dibromofluoromethane	51.29	50	103	80-119	
Toluene-d8	53.25	50	107	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
VOA6_436190_R436190

Volatiles by EPA 8260

HS23051522-03	Analyzed 05/24/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55	50	109	81-118	
4-Bromofluorobenzene	48	50	95.6	85-114	
Dibromofluoromethane	51	50	103	80-119	
Toluene-d8	53	50	106	89-112	

HS23051522-01	Analyzed 05/24/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55	50	111	81-118	
4-Bromofluorobenzene	47	50	94.0	85-114	
Dibromofluoromethane	52	50	104	80-119	
Toluene-d8	52	50	105	89-112	

HS23051522-01MS	Analyzed 05/24/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	53.27	50	107	81-118	
4-Bromofluorobenzene	50.05	50	100	85-114	
Dibromofluoromethane	50.92	50	102	80-119	
Toluene-d8	51.71	50	103	89-112	

HS23051522-01MSD	Analyzed 05/24/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	54.85	50	110	81-118	
4-Bromofluorobenzene	50	50	100.0	85-114	
Dibromofluoromethane	51.01	50	102	80-119	
Toluene-d8	51.05	50	102	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder **HS23051522**

LH18/24-SP650_052223	HS23051522-01	HS23051522-01MS	HS23051522-01MSD	
Sample Matrix Aqueous	**Run Date** 05/24/23	05/24/23	05/24/23	
Units µg/L	**Run Time** 13:24	14:27	14:48	
	Data File X052410.D	X052413.D	X052414.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,1,2-Tetrachloroethane	78-124	1	0	22.45	20.00	112		21.22	20.00	106		20	5.70	
1,1,1-Trichloroethane	74-131	1	0	23.16	20.00	116		22.56	20.00	113		20	2.70	
1,1,2,2-Tetrachloroethane	71-121	1	0	21.29	20.00	106		21.28	20.00	106		20	0	
1,1,2-Trichloroethane	80-119	1	0	20.57	20.00	103		20.46	20.00	102		20	0.500	
1,1-Dichloroethane	77-125	1	0	19.77	20.00	99		19.06	20.00	95		20	3.70	
1,1-Dichloroethene	71-131	1	0	20.60	20.00	103		19.53	20.00	98		20	5.40	
1,1-Dichloropropene	78-125	1	0	22.21	20.00	111		21.34	20.00	107		20	4.00	
1,2,3-Trichlorobenzene	69-129	1	0	21.94	20.00	110		20.94	20.00	105		20	4.60	
1,2,3-Trichloropropane	73-122	1	0	22.68	20.00	113		21.37	20.00	107		20	6.00	
1,2,4-Trichlorobenzene	69-130	1	0	22.36	20.00	112		21.41	20.00	107		20	4.30	
1,2,4-Trimethylbenzene	76-124	1	0	24.13	20.00	121		22.67	20.00	113		20	6.30	
1,2-Dibromo-3-chloropropane	62-128	1	0	19.02	20.00	95		19.59	20.00	98		20	2.90	
1,2-Dibromoethane	77-121	1	0	21.57	20.00	108		21.52	20.00	108		20	0.200	
1,2-Dichlorobenzene	80-119	1	0	22.78	20.00	114		21.82	20.00	109		20	4.30	
1,2-Dichloroethane	73-128	1	0	23.30	20.00	116		22.87	20.00	114		20	1.90	
1,2-Dichloropropane	78-122	1	0	18.64	20.00	93		17.65	20.00	88		20	5.50	
1,3,5-Trimethylbenzene	75-124	1	0	24.39	20.00	122		22.93	20.00	115		20	6.10	
1,3-Dichlorobenzene	80-119	1	0	22.76	20.00	114		21.54	20.00	108		20	5.50	
1,3-Dichloropropane	80-119	1	0	20.58	20.00	103		19.72	20.00	99		20	4.20	
1,4-Dichlorobenzene	79-118	1	0	23.12	20.00	116		22.26	20.00	111		20	3.80	
2,2-Dichloropropane	60-139	1	0	23.71	20.00	119		22.64	20.00	113		20	4.60	
2-Butanone	56-143	1	0	35.01	40.00	88		34.91	40.00	87		20	0.300	
2-Chlorotoluene	79-122	1	0	23.05	20.00	115		21.72	20.00	109		20	5.90	
2-Hexanone	57-139	1	0	40.60	40.00	102		41.18	40.00	103		20	1.40	
4-Chlorotoluene	78-122	1	0	24.38	20.00	122		22.89	20.00	114		20	6.30	
4-Isopropyltoluene	77-127	1	0	25.83	20.00	129	*	24.35	20.00	122		20	5.90	
4-Methyl-2-pentanone	67-130	1	0	39.96	40.00	100		41.54	40.00	104		20	3.90	
Acetone	39-160	1	0	29.55	40.00	74		30.54	40.00	76		20	3.30	
Benzene	79-120	1	0	19.76	20.00	99		19.02	20.00	95		20	3.80	
Bromobenzene	80-120	1	0	22.35	20.00	112		21.46	20.00	107		20	4.10	
Bromochloromethane	78-123	1	0	19.38	20.00	97		19.13	20.00	96		20	1.30	
Bromodichloromethane	79-125	1	0	20.98	20.00	105		20.36	20.00	102		20	3.00	
Bromoform	66-130	1	0	21.67	20.00	108		21.35	20.00	107		20	1.50	
Bromomethane	53-141	1	0	12.07	20.00	60		10.13	20.00	51	*	20	17.5	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder **HS23051522**

LH18/24-SP650_052223	HS23051522-01	HS23051522-01MS	HS23051522-01MSD	
Sample Matrix Aqueous	**Run Date** 05/24/23	05/24/23	05/24/23	
Units µg/L	**Run Time** 13:24	14:27	14:48	
	Data File X052410.D	X052413.D	X052414.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Carbon disulfide	64-133	1	0	36.74	40.00	92		35.58	40.00	89		20	3.20	
Carbon tetrachloride	72-136	1	0	23.89	20.00	119		22.47	20.00	112		20	6.10	
Chlorobenzene	82-118	1	0	21.92	20.00	110		20.66	20.00	103		20	6.00	
Chloroethane	60-138	1	0	14.35	20.00	72		15.39	20.00	77		20	7.00	
Chloroform	79-124	1	0	21.49	20.00	107		21.05	20.00	105		20	2.10	
Chloromethane	50-139	1	0	12.68	20.00	63		10.84	20.00	54		20	15.6	
cis-1,2-Dichloroethene	78-123	1	1.213	20.32	20.00	96		20.31	20.00	96		20	0.100	
cis-1,3-Dichloropropene	75-124	1	0	19.15	20.00	96		18.83	20.00	94		20	1.60	
Dibromochloromethane	74-126	1	0	21.07	20.00	105		20.65	20.00	103		20	2.00	
Dibromomethane	79-123	1	0	20.07	20.00	100		20.13	20.00	101		20	0.300	
Dichlorodifluoromethane	32-152	1	0	6.723	20.00	34		6.454	20.00	32		20	4.10	
Ethylbenzene	79-121	1	0	23.04	20.00	115		21.57	20.00	108		20	6.60	
Hexachlorobutadiene	66-134	1	0	25.11	20.00	126		23.87	20.00	119		20	5.10	
Isopropylbenzene	72-131	1	0	24.88	20.00	124		23.6	20.00	118		20	5.30	
m,p-Xylene	80-121	1	0	47.94	40.00	120		45.52	40.00	114		20	5.20	
Methylene chloride	74-124	1	0	18.58	20.00	93		18.13	20.00	91		20	2.40	
n-Butylbenzene	75-128	1	0	28.41	20.00	142	*	26.59	20.00	133	*	20	6.60	
n-Propylbenzene	76-126	1	0	24.98	20.00	125		23.67	20.00	118		20	5.40	
Naphthalene	61-128	1	0	21.31	20.00	107		21.2	20.00	106		20	0.500	
o-Xylene	78-122	1	0	22.98	20.00	115		22.19	20.00	111		20	3.50	
sec-Butylbenzene	77-126	1	0	25.95	20.00	130	*	24.12	20.00	121		20	7.30	
Styrene	78-123	1	0	23.32	20.00	117		22.05	20.00	110		20	5.60	
tert-Butylbenzene	78-124	1	0	24.71	20.00	124		23.24	20.00	116		20	6.10	
Tetrachloroethene	74-129	1	0	24.71	20.00	124		23.41	20.00	117		20	5.40	
Toluene	80-121	1	0	22.18	20.00	111		21.33	20.00	107		20	3.90	
trans-1,2-Dichloroethene	75-124	1	0	20.41	20.00	102		19.63	20.00	98		20	3.90	
trans-1,3-Dichloropropene	73-127	1	0	20.75	20.00	104		20.62	20.00	103		20	0.600	
Trichloroethene	79-123	1	0	20.70	20.00	104		19.96	20.00	100		20	3.60	
Trichlorofluoromethane	65-141	1	0	21.47	20.00	107		20.3	20.00	102		20	5.60	
Vinyl chloride	58-137	1	0	14.68	20.00	73		14	20.00	70		20	4.70	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

VOA6_436190_R436190		QC ID	LCS-R436190
QC Matrix Aqueous	Units	Run Date	05/24/23
	ug/L	Run Time	11:39

Analyte	%R Limits	Spike Added	LCS Result	%R	Q
1,1,1,2-Tetrachloroethane	78-124	20	21.55	108	
1,1,1-Trichloroethane	74-131	20	23.48	117	
1,1,2,2-Tetrachloroethane	71-121	20	21.04	105	
1,1,2-Trichloroethane	80-119	20	20.16	101	
1,1-Dichloroethane	77-125	20	20.64	103	
1,1-Dichloroethene	71-131	20	21.17	106	
1,1-Dichloropropene	78-125	20	21.57	108	
1,2,3-Trichlorobenzene	69-129	20	19.02	95	
1,2,3-Trichloropropane	73-122	20	22.8	114	
1,2,4-Trichlorobenzene	69-130	20	19.35	97	
1,2,4-Trimethylbenzene	76-124	20	20.17	101	
1,2-Dibromo-3-chloropropane	62-128	20	20.27	101	
1,2-Dibromoethane	77-121	20	21.53	108	
1,2-Dichlorobenzene	80-119	20	20	100	
1,2-Dichloroethane	73-128	20	23.63	118	
1,2-Dichloroethane-d4	81-118	50	57.12	114	
1,2-Dichloropropane	78-122	20	18.83	94	
1,3,5-Trimethylbenzene	75-124	20	20.49	102	
1,3-Dichlorobenzene	80-119	20	19.68	98	
1,3-Dichloropropane	80-119	20	20.08	100	
1,4-Dichlorobenzene	79-118	20	20.41	102	
2,2-Dichloropropane	60-139	20	24.47	122	
2-Butanone	56-143	40	40.29	101	
2-Chlorotoluene	79-122	20	19.76	99	
2-Hexanone	57-139	40	40.69	102	
4-Bromofluorobenzene	85-114	50	48.15	96	
4-Chlorotoluene	78-122	20	21.03	105	
4-Isopropyltoluene	77-127	20	21.31	107	
4-Methyl-2-pentanone	67-130	40	39.17	98	
Acetone	39-160	40	45.72	114	
Benzene	79-120	20	19.56	98	
Bromobenzene	80-120	20	20.08	100	
Bromochloromethane	78-123	20	20.52	103	
Bromodichloromethane	79-125	20	21.05	105	
Bromoform	66-130	20	21.25	106	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

VOA6_436190_R436190		QC ID	LCS-R436190
QC Matrix Aqueous	Units	Run Date	05/24/23
	ug/L	Run Time	11:39

Analyte	%R Limits	Spike Added	LCS Result	%R	Q
Bromomethane	53-141	20	23.71	119	
Carbon disulfide	64-133	40	36.94	92	
Carbon tetrachloride	72-136	20	22.45	112	
Chlorobenzene	82-118	20	20.52	103	
Chloroethane	60-138	20	19.77	99	
Chloroform	79-124	20	22.51	113	
Chloromethane	50-139	20	16.92	85	
cis-1,2-Dichloroethene	78-123	20	20.4	102	
cis-1,3-Dichloropropene	75-124	20	19.93	100	
Dibromochloromethane	74-126	20	20.72	104	
Dibromofluoromethane	80-119	50	53.26	107	
Dibromomethane	79-123	20	20.88	104	
Dichlorodifluoromethane	32-152	20	19.56	98	
Ethylbenzene	79-121	20	20.69	103	
Hexachlorobutadiene	66-134	20	20.96	105	
Isopropylbenzene	72-131	20	21.39	107	
m,p-Xylene	80-121	40	43.05	108	
Methylene chloride	74-124	20	20.23	101	
Naphthalene	61-128	20	19.35	97	
n-Butylbenzene	75-128	20	22.79	114	
n-Propylbenzene	76-126	20	20.91	105	
o-Xylene	78-122	20	20.74	104	
sec-Butylbenzene	77-126	20	21.06	105	
Styrene	78-123	20	21.72	109	
tert-Butylbenzene	78-124	20	20.19	101	
Tetrachloroethene	74-129	20	21.33	107	
Toluene	80-121	20	20.73	104	
Toluene-d8	89-112	50	46.87	94	
trans-1,2-Dichloroethene	75-124	20	20.72	104	
trans-1,3-Dichloropropene	73-127	20	21.35	107	
Trichloroethene	79-123	20	20.82	104	
Trichlorofluoromethane	65-141	20	22.95	115	
Vinyl chloride	58-137	20	18.7	94	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

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Form 4

Method Blank Summary

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
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www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230524	X052407.D	05/24/23 12:21	VOA6_436190_R436190
VLCSW-230524	LCS	VLCSW-230524	X052405.D	05/24/23 11:39	VOA6_436190_R436190
Trip Blank	SAMP	HS23051522-03	X052408.D	05/24/23 12:42	VOA6_436190_R436190
LH18/24-SP650_052223	SAMP	HS23051522-01	X052410.D	05/24/23 13:24	VOA6_436190_R436190
LH18/24-SP650_052223	MS	HS23051522-01MS	X052413.D	05/24/23 14:27	VOA6_436190_R436190
LH18/24-SP650_052223	MSD	HS23051522-01MSD	X052414.D	05/24/23 14:48	VOA6_436190_R436190

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Form 5

Instrument Performance Check

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
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Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
VOA6_435536

Tune File X051701.D 05/17/23 11:57

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	15.1 (15.1)
75	30.0 - 60.0% of mass 95	42.8 (42.8)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	6.6 (6.6)
173	Less than 2.0% of mass 174	0.6 (0.657) 1
174	50.0 - 120.0% of mass 95	90.7 (90.7)
175	4.0 - 9.0% of mass 174	6.7 (7.41) 1
176	93.0 - 101.0% of mass 174	88.6 (97.6) 1
177	5.0 - 9.0% of mass 176	5.6 (6.32) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	ICAL1	05/17/23 12:17	X051702	VSTD000.25
2	ICAL2	05/17/23 12:59	X051703	VSTD000.5
3	ICAL3	05/17/23 13:20	X051704	VSTD001
4	ICAL4	05/17/23 13:41	X051705	VSTD002
5	ICAL5	05/17/23 14:02	X051706	VSTD005
6	ICAL6	05/17/23 14:23	X051707	VSTD020
7	ICAL7	05/17/23 14:44	X051708	VSTD050
8	ICAL8	05/17/23 15:05	X051709	VSTD100
9	ICAL9	05/17/23 15:26	X051710	VSTD150
10	ICAL	05/17/23 15:47	X051711	VSTD200
11	ICV	05/17/23 16:29	X051713	CCV

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
VOA6_436190

Tune File X052401.D 05/24/23 10:15

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	18.4 (18.4)
75	30.0 - 60.0% of mass 95	47.4 (47.4)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7 (6.96)
173	Less than 2.0% of mass 174	0.5 (0.646) 1
174	50.0 - 120.0% of mass 95	81.7 (81.7)
175	4.0 - 9.0% of mass 174	5.8 (7.06) 1
176	93.0 - 101.0% of mass 174	80.5 (98.5) 1
177	5.0 - 9.0% of mass 176	5.2 (6.44) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	05/24/23 10:36	X052402	CCV
2	CCB	05/24/23 11:18	X052404	CCB
3	LCS	05/24/23 11:39	X052405	VLCSW-230524
4	MBLK	05/24/23 12:21	X052407	VBLKW-230524
5	SAMP	05/24/23 12:42	X052408	Trip Blank
6	SAMP	05/24/23 13:24	X052410	LH18/24-SP650_052223
7	MS	05/24/23 14:27	X052413	HS23051522-01MS
8	MSD	05/24/23 14:48	X052414	HS23051522-01MSD
9	CCV_EN	05/24/23 20:46	X052431	CCV-END

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Form 6

Initial Calibration Data

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory

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Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217
ICAL End Date 17-MAY-2023 1547

Calibration Files

Level 1 ..voa6.i\X230517.b\X051702.D
Level 2 ..voa6.i\X230517.b\X051703.D
Level 3 ..voa6.i\X230517.b\X051704.D
Level 4 ..voa6.i\X230517.b\X051705.D
Level 5 ..voa6.i\X230517.b\X051706.D
Level 6 ..voa6.i\X230517.b\X051707.D
Level 7 ..voa6.i\X230517.b\X051708.D
Level 8 ..voa6.i\X230517.b\X051709.D
Level 9 ..voa6.i\X230517.b\X051710.D
Level 10.voa6.i\X230517.b\X051711.D

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Dichlorodifluoromethane	NE 254046	2884 559449	5723 843502	10464 1100606	22495	119708	LINR	0.01273	0.48867		0.99813	
Chloromethane	NE 0.61921	0.77927 0.69542	0.76967 0.72779	0.72599 0.71362	0.62014	0.66257	AVRG		0.70152		8.29311	
Propionitrile	NE 0.06434	0.07817 0.06678	0.06343 0.07134	0.06718 0.06742	0.06843	0.06999	AVRG		0.06857		6.37131	
Vinyl Chloride	NE 0.61811	0.71436 0.67926	0.72158 0.67889	0.65254 0.65323	0.57005	0.67194	AVRG		0.66222		7.06682	
Bromomethane	NE 192549	2591 393567	4982 597056	9450 787052	20042	79030	LINR	0.00530	0.34698		0.99905	
Chloroethane	NE 0.38690	0.47344 0.40524	0.46127 0.40106	0.41893 0.37402	0.38156	0.41805	AVRG		0.41339		8.30744	
Trichlorofluoromethane	NE 0.63017	0.81654 0.73026	0.71830 0.73471	0.67647 0.67958	0.55807	0.73113	AVRG		0.69725		10.50622	
Acrolein	NE 0.04192	0.04943 0.04447	0.04327 0.04569	0.04111 0.04271	0.03378	0.03414	AVRG		0.04183		12.15392	
Acetone	NE 208973	7283 403846	10636 561504	14791 771960	25117	87346	LINR	-0.08712	0.16681		0.99969	
1,1-Dichloroethene	NE 0.40947	0.47327 0.45644	0.46915 0.45253	0.45288 0.43481	0.37152	0.44797	AVRG		0.44089		7.28581	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Isobutyl Alcohol	NE 0.06286	0.06381 0.06793	0.05724 0.06980	0.06982 0.06436	0.06431	0.06645	AVRG		0.06518		6.03492	
Acetonitrile	NE 0.04918	0.04880 0.04924	0.04603 0.05081	0.05041 0.04777	0.04444	0.04655	AVRG		0.04814		4.39264	
Allyl Chloride	NE 1.18326	1.30975 1.21305	1.27541 1.25167	1.25405 1.16839	1.10943	1.16270	AVRG		1.21419		5.25381	
Iodomethane	NE 735694	3196 1590979	6806 2478075	16693 NE	43279	256751	QUAD	0.04713	1.63045	-0.06676	0.99973	
Acrylonitrile	NE 0.17091	0.15781 0.17701	0.14273 0.17832	0.15151 0.17567	0.15419	0.17770	AVRG		0.16510		8.23363	
Methylene Chloride	NE 0.49950	0.55917 0.49767	0.64824 0.50185	0.44831 0.47639	0.54436	0.54173	AVRG		0.52414		11.12128	
Methyl tert-butyl ether	NE 1.28251	1.62836 1.31959	1.48045 1.37221	1.36120 1.29878	1.31894	1.31588	AVRG		1.37532		8.11213	
Carbon Disulfide	NE 1.26138	1.60902 1.38522	1.36592 1.52012	1.36412 1.36128	1.17365	1.40938	AVRG		1.38334		9.22663	
trans-1,2-Dichloroethene	NE 0.43201	0.47537 0.45467	0.47819 0.45907	0.49999 0.43757	0.41276	0.46614	AVRG		0.45731		5.82986	
Vinyl Acetate	NE 1.27496	1.35726 1.27023	1.22311 1.32539	1.13749 1.24591	1.27166	1.34652	AVRG		1.27250		5.33339	
1,1-Dichloroethane	NE 0.79388	0.92781 0.81544	0.84992 0.82356	0.92336 0.78899	0.76894	0.85489	AVRG		0.83853		6.74787	
Chloroprene	NE 0.17384	0.22552 0.21179	0.21097 0.20683	0.21021 0.19947	0.17062	0.20730	AVRG		0.20184		8.98744	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
2-Butanone	NE 0.16799	0.13979 0.18659	0.16354 0.19168	0.15782 0.18495	0.13832	0.16690	AVRG		0.16640		11.58187	
Methacrylonitrile	NE 0.40906	0.54255 0.42760	0.42779 0.45052	0.45680 0.42680	0.43634	0.43393	AVRG		0.44571		8.72590	
2,2-Dichloropropane	NE 349452	4065 728556	7909 1056504	15835 1382720	32480	149611	LINR	-0.00624	0.61372		0.99874	
cis-1,2-Dichloroethene	NE 0.50367	0.57247 0.52173	0.54435 0.53166	0.60019 0.50638	0.52223	0.53835	AVRG		0.53789		5.81550	
Chloroform	NE 0.77839	0.92029 0.79564	0.86223 0.80969	0.93273 0.77169	0.77967	0.82933	AVRG		0.83107		7.35918	
Bromochloromethane	NE 0.26603	0.30408 0.27243	0.32266 0.27947	0.30443 0.25594	0.26363	0.28282	AVRG		0.28350		7.88131	
1,1,1-Trichloroethane	NE 0.58943	0.67570 0.69662	0.64063 0.65648	0.64405 0.62912	0.57118	0.65688	AVRG		0.64001		6.16759	
1,1-Dichloropropene	NE 0.38583	0.42912 0.42581	0.39588 0.39409	0.37572 0.40929	0.32710	0.39745	AVRG		0.39336		7.71426	
1,2-Dichloroethane	NE 0.37699	0.41600 0.37944	0.43682 0.39592	0.40424 0.36966	0.36106	0.37529	AVRG		0.39060		6.30467	
Carbon Tetrachloride	NE 0.34259	0.39299 0.37898	0.38547 0.35165	0.38679 0.36738	0.31037	0.35439	AVRG		0.36340		7.30193	
Benzene	NE 1.25276	1.35461 1.29971	1.27288 1.29351	1.35158 1.24787	1.10745	1.26825	AVRG		1.27207		5.72509	
Trichloroethene	NE 0.34241	0.36308 0.35689	0.33451 0.35415	0.33162 0.35991	0.30293	0.34006	AVRG		0.34284		5.47895	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Bromodichloromethane	NE 0.42249	0.48526 0.43703	0.41814 0.42740	0.45763 0.43062	0.40221	0.43711	AVRG		0.43532		5.53139	
Methyl Methacrylate	NE 0.40902	0.45665 0.44739	0.40317 0.46605	0.46296 0.43199	0.42516	0.43116	AVRG		0.43706		5.20348	
2-Chloroethylvinyl ether	NE 0.14735	0.14786 0.15777	0.12463 0.14758	0.14286 0.15715	0.12938	0.14665	AVRG		0.14458		7.71581	
1,2-Dichloropropane	NE 0.35705	0.37198 0.35490	0.38547 0.35022	0.38364 0.35347	0.34213	0.35438	AVRG		0.36147		4.21306	
2-Nitropropane	NE 1.06800	1.03367 1.05968	1.15079 1.02837	1.12658 1.01120	0.99836	1.06778	AVRG		1.06049		4.79342	
Dibromomethane	NE 0.21251	0.24513 0.22338	0.21055 0.20697	0.24357 0.21175	0.20274	0.21774	AVRG		0.21937		6.99028	
4-Methyl-2-Pentanone	NE 0.36326	0.34169 0.35948	0.36698 0.30718	0.36910 0.30262	0.32596	0.35868	AVRG		0.34388		7.54364	
cis-1,3-Dichloropropene	NE 0.58221	0.61066 0.59865	0.57499 0.57761	0.58553 0.60917	0.51148	0.58487	AVRG		0.58169		5.04789	
Ethyl Methacrylate	NE 0.48741	0.59565 0.48720	0.53360 0.50415	0.50669 0.50078	0.47927	0.50273	AVRG		0.51083		6.93633	
Toluene	NE 1.38442	1.53412 1.46899	1.42013 1.30247	1.50766 1.27256	1.27005	1.46585	AVRG		1.40292		7.21159	
trans-1,3-Dichloropropene	NE 0.48288	0.45346 0.47410	0.40432 0.48538	0.48662 0.49728	0.42528	0.47168	AVRG		0.46456		6.70520	
2-Hexanone	NE 0.22853	0.24429 0.23087	0.23197 0.23374	0.26061 0.20845	0.21418	0.26552	AVRG		0.23535		8.06310	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
1,1,2-Trichloroethane	NE 0.27409	0.29843 0.28069	0.29436 0.26274	0.32883 0.24821	0.27792	0.31330	AVRG		0.28651		8.73140	
1,3-Dichloropropane	NE 0.61464	0.61548 0.57441	0.58296 0.57463	0.68870 0.50502	0.56388	0.64582	AVRG		0.59617		8.83708	
Dibromochloromethane	NE 0.39785	0.41988 0.39997	0.36853 0.35955	0.42772 0.35478	0.36027	0.41061	AVRG		0.38880		7.27547	
Tetrachloroethene	NE 0.27024	0.29241 0.30005	0.26482 0.27032	0.27877 0.25305	0.24080	0.27568	AVRG		0.27179		6.69943	
1,2-Dibromoethane	NE 0.36005	0.36702 0.35169	0.33803 0.32277	0.38809 0.31674	0.32580	0.37193	AVRG		0.34912		7.08512	
1-Chlorohexane	NE 242669	2937 542958	5794 864100	10048 1116920	19611	103587	LINR	0.03692	0.31789		0.99853	
Chlorobenzene	NE 0.92818	1.09562 0.97394	1.00256 0.96138	1.02039 0.91475	0.88811	0.95563	AVRG		0.97117		6.42759	
1,1,1,2-Tetrachloroethane	NE 0.33615	0.38356 0.34896	0.32413 0.32769	0.37622 0.32193	0.30572	0.34299	AVRG		0.34082		7.48927	
Ethylbenzene	NE 0.47027	0.55325 0.50633	0.48089 0.45997	0.50015 0.45201	0.39963	0.47244	AVRG		0.47721		8.82570	
m,p-Xylenes	NE 0.59459	0.63040 0.62386	0.58638 0.58313	0.64543 0.55666	0.52952	0.59918	AVRG		0.59435		6.12892	
o-Xylene	NE 0.57434	0.65319 0.59955	0.55952 0.56223	0.61728 0.55685	0.51902	0.58836	AVRG		0.58115		6.72196	
Styrene	NE 0.99210	1.05386 1.01273	0.89303 0.95805	1.00638 0.93539	0.89968	1.00508	AVRG		0.97292		5.63376	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Bromoform	NE 0.25671	0.29542 0.26047	0.25522 0.25661	0.27753 0.24957	0.25059	0.26292	AVRG		0.26278		5.61794	
Isopropylbenzene	NE 1.37198	1.59821 1.49809	1.37810 1.35382	1.43857 1.34479	1.18674	1.37631	AVRG		1.39407		8.12204	
1,1,2,2-Tetrachloroethane	NE 392411	5038 757153	8792 1240541	17448 NE	40039	169748	LINR	0.00715	0.88580		0.99759	
1,2,3-Trichloropropane	NE 0.61611	0.63738 0.60512	0.65181 0.65946	0.71015 0.58281	0.61193	0.68251	AVRG		0.63970		6.32544	
trans-1,4-Dichloro-2-butene	NE 0.11522	0.11926 0.11558	0.09524 0.11374	0.11079 0.11264	0.09545	0.12267	AVRG		0.11118		8.66948	
n-Propylbenzene	NE 3.13540	3.33637 3.37322	2.80598 3.32277	3.23770 3.00068	2.57069	3.10528	AVRG		3.09868		8.66586	
Bromobenzene	NE 0.78763	0.79275 0.79217	0.77432 0.81987	0.79127 0.73469	0.74165	0.78876	AVRG		0.78034		3.42554	
1,3,5-Trimethylbenzene	NE 2.21479	2.44135 2.40966	2.25468 2.31482	2.36788 2.15524	1.86791	2.17290	AVRG		2.24436		7.75095	
2-Chlorotoluene	NE 1.94888	2.30251 1.97621	2.07431 1.98879	2.30860 1.78870	1.75399	1.96935	AVRG		2.01237		9.62776	
4-Chlorotoluene	NE 2.16812	2.37911 2.28582	2.21985 2.22059	2.40121 2.07706	1.96154	2.20489	AVRG		2.21313		6.23268	
tert-Butylbenzene	NE 1.79421	2.18327 2.03358	1.88374 1.93535	1.95310 1.91965	1.50226	1.79865	AVRG		1.88931		9.92749	
1,2,4-Trimethylbenzene	NE 2.22177	2.57039 2.40794	2.31570 2.31818	2.35002 2.31271	1.94159	2.23029	AVRG		2.29651		7.34028	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
sec-Butylbenzene	NE 2.53137	3.01257 2.94399	2.37741 2.75620	2.62395 2.89500	2.01608	2.55457	AVRG		2.63457		11.90558	
p-Isopropyltoluene	NE 2.26757	2.41328 2.59388	2.08236 2.43264	2.23742 2.44743	1.77738	2.23647	AVRG		2.27649		10.56832	
1,3-Dichlorobenzene	NE 1.36095	1.61335 1.44237	1.35830 1.41967	1.45654 1.43739	1.23538	1.33728	AVRG		1.40680		7.37752	
1,4-Dichlorobenzene	NE 1.41088	1.60182 1.49335	1.52448 1.47619	1.58923 1.46055	1.32685	1.42329	AVRG		1.47852		5.89388	
Benzyl Chloride	NE 0.74273	0.83213 0.83321	0.64222 0.77447	0.72093 0.87703	0.66351	0.77697	AVRG		0.76258		10.33629	
n-Butylbenzene	NE 1.98859	2.01353 2.30205	1.74818 2.13763	1.74928 2.15862	1.46216	1.98310	AVRG		1.94924		13.18330	
1,2-Dichlorobenzene	NE 1.35701	1.54458 1.42117	1.46890 1.38747	1.44772 1.35177	1.25379	1.35279	AVRG		1.39835		5.99865	
1,2-Dibromo-3-Chloropropane	NE 65906	725 141877	1225 212665	2511 298660	6381	27687	LINR	-0.00660	0.14899		0.99776	
1,2,4-Trichlorobenzene	NE 1.02027	0.96553 1.13115	0.78056 1.06725	0.96896 0.98116	0.82986	0.96274	AVRG		0.96750		11.18140	
Hexachlorobutadiene	NE 0.41008	0.45698 0.51326	0.37536 0.46094	0.38531 0.42148	0.32633	0.39678	AVRG		0.41628		13.21957	
Naphthalene	NE 2.40923	2.68420 2.76658	2.19126 2.43095	2.48355 2.27153	2.10902	2.27534	AVRG		2.40241		9.11254	
1,2,3-Trichlorobenzene	NE 0.94733	1.11829 1.08042	0.85327 0.97173	0.98314 0.88705	0.79549	0.89282	AVRG		0.94773		11.02386	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Ethyl Acetate	NE 0.32958	0.41308 0.35518	0.39998 0.37747	0.36324 0.36512	0.24424	0.34561	AVRG		0.35483		13.76075	
Methyl Acrylate	NE 0.44710	0.49374 0.53289	0.40494 0.56037	0.46150 0.53292	0.48029	0.46597	AVRG		0.48664		10.04222	
n-Butanol	NE 150551	566 321653	1207 523242	2750 702850	9680	50896	LINR	1.36390	0.01551		0.99713	*
Ethyl Acrylate	NE 723023	5171 1505762	9158 2266239	23488 2966598	55584	241025	LINR	0.02813	1.32259		0.99862	
Cyclohexanone	NE 275540	4234 539320	6460 845318	13177 NE	28595	113707	LINR	-0.00852	0.03046		0.99940	
1,4-Dioxane	0.00726 0.00624	0.00680 0.00656	0.00731 0.00684	0.00698 0.00670	0.00677	0.00627	AVRG		0.00677		5.28023	
n-Hexane	NE 263012	2794 634405	5002 NE	9316 NE	19066	108733	QUAD	-0.00227	2.48457	-0.60625	0.99916	
Freon TF	NE 212562	2410 505340	4639 NE	8897 NE	18404	93083	QUAD	-0.00980	3.04073	-0.85519	0.99862	
Methyl Acetate	NE 0.30139	0.26856 0.31095	0.25570 0.32578	0.29475 0.30407	0.28285	0.31530	AVRG		0.29548		7.68562	
Methylcyclohexane	NE 0.80600	0.84267 0.83468	0.79187 0.84291	0.72693 0.83720	0.58430	0.65362	AVRG		0.76891		12.24720	
Isopropyl alcohol	NE 0.02829	0.03278 0.02943	0.03189 0.03219	0.03155 0.03003	0.02896	0.03014	AVRG		0.03059		5.14086	
Amyl alcohol	NE 0.01052	NE 0.01105	0.00542 0.01196	0.00999 0.01020	0.00640	0.01042	AVRG		0.00949		24.32126	*

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 / Level 7 50.0	Level 2 0.500 / Level 8 100.0	Level 3 1.00 / Level 9 150.0	Level 4 2.00 / Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Allyl alcohol	NE 0.02209	0.02444 0.02761	0.02215 NE	0.02049 NE	0.01656	0.02348	AVRG		0.02241		15.29104	*
4-Methyl-2-pentanol	NE 0.07122	0.19234 0.07596	0.09292 0.08235	0.08565 0.08259	0.07783	0.07219	AVRG		0.09256		41.08480	*
Tert-butyl alcohol	NE 0.04378	0.05598 0.04547	0.05180 0.04945	0.05428 0.04761	0.04767	0.04839	AVRG		0.04938		8.07035	
Diethyl ether	NE 0.40234	0.46102 0.41847	0.48519 0.43043	0.42614 0.41973	0.40095	0.40042	AVRG		0.42719		6.76146	
1,3-Butadiene	NE 0.48175	0.56635 0.55443	0.55586 0.55038	0.52876 0.53888	0.44094	0.54550	AVRG		0.52921		7.78450	
Cyclohexane	NE 0.59116	0.71909 0.74572	0.56835 0.65357	0.58251 0.63422	0.49071	0.64592	AVRG		0.62569		12.50195	
Tetrahydrofuran	NE 0.07440	0.09325 0.07849	0.08388 0.08344	0.08188 0.07793	0.08866	0.07984	AVRG		0.08242		6.99990	
alpha-Methylstyrene	NE 1.10093	1.15332 1.17426	1.02672 1.15227	1.11935 1.07136	0.92914	1.08263	AVRG		1.09000		6.97578	
Diisopropyl ether	NE 1.48334	1.69222 1.49768	1.58044 1.52228	1.54159 1.42640	1.40230	1.46933	AVRG		1.51284		5.74095	
Dichlorofluoromethane	NE 0.85302	NE 0.87360	NE 0.90871	NE 0.85353	0.71308	0.80030	AVRG		0.83371		8.24903	*
Propylene oxide	NE 0.05358	0.17723 0.05410	0.12249 NE	0.06989 NE	0.07033	0.05848	AVRG		0.08659		53.72541	*
3-Methyl-1-butanol	NE 0.00979	NE 0.00998	0.00262 0.01061	0.00504 0.00938	0.00789	0.00986	AVRG		0.00815		35.00454	*

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Butyl acrylate	NE 0.72459	0.76527 0.73062	0.60245 0.74252	0.72802 0.71331	0.66250	0.73575	AVRG		0.71167		6.94564	
Butyl methacrylate	NE 0.84640	0.90438 0.90236	0.77387 0.90842	0.83861 0.99592	0.73312	0.85683	AVRG		0.86221		9.04986	
Dicyclopentadiene	NE 2.68207	2.96209 2.72399	2.48983 2.83256	2.60564 2.83343	2.23122	2.32688	AVRG		2.63197		9.26155	
1,2,3-Trimethylbenzene	NE 2.20671	2.71858 2.30161	2.20680 2.30664	2.27711 2.26825	1.96627	2.01764	AVRG		2.25218		9.48020	
Ethanol	NE 71440	957 127476	1978 201113	3325 271159	7435	27907	LINR	-0.02960	0.00589		0.99894	
tert-Butyl formate	NE 0.35443	NE 0.40885	NE 0.44025	0.51059 0.41281	0.45629	0.39576	AVRG		0.42557		11.66261	*
3,3-Dimethyl-1-butanol	NE 0.03594	NE 0.03940	NE 0.03767	NE 0.03606	0.03730	0.03989	AVRG		0.03771		4.37372	*
tert-Amyl methyl ether	NE 1.45404	2.71538 1.63053	2.22674 1.69865	1.80748 1.60744	1.47625	1.54760	AVRG		1.79601		23.16054	*
tert-Butyl ethyl ether	NE 1.44128	2.20992 1.47784	1.61684 1.52606	1.56618 1.44711	1.44570	1.43168	AVRG		1.57362		15.69956	*
tert-Amyl alcohol	NE 0.03544	0.04553 0.04089	0.04135 0.04403	0.05106 0.04128	0.04682	0.03958	AVRG		0.04289		10.61827	
Epichlorohydrin	NE 0.02991	0.03274 0.03460	0.03166 0.03205	0.03524 0.03423	0.03051	0.03267	AVRG		0.03262		5.57042	
Isoprene	NE 0.14407	0.31003 0.16182	0.13976 0.15463	0.17832 0.14655	0.10681	0.17036	AVRG		0.16804		33.97541	*

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
n-Amyl acetate	NE 0.61245	NE 0.61378	NE 0.62073	NE 0.61013	0.62699	0.66699	AVRG		0.62518		3.42254	*
Isopropyl acetate	NE 0.83453	0.92760 0.86512	0.84143 0.86682	0.89610 0.83634	0.81597	0.85951	AVRG		0.86038		3.99182	
n-Butyl acetate	NE 0.58763	0.53682 0.58945	0.49688 0.54788	0.53762 0.53801	0.52454	0.64982	AVRG		0.55652		8.16049	
Acetaldehyde	NE 79325	NE 156941	NE 227240	4725 294948	12047	37259	LINR	-0.26507	0.03229		0.99826	*
Methyl Amyl Ketone	NE 0.72996	1.07330 0.74513	0.63849 0.73045	0.70205 0.70651	0.69593	0.76159	AVRG		0.75371		16.57704	*
Dimethyl Disulfide	NE 0.72573	0.76261 0.82577	0.69905 0.69989	0.69095 0.69121	0.62532	0.69960	AVRG		0.71335		7.76307	
Isobutylene	NE 0.06596	0.08171 0.07315	0.08193 0.07020	0.06167 0.06357	0.05245	0.05826	AVRG		0.06765		14.89725	
2-Ethylhexyl Acrylate	NE 0.95222	0.98794 1.17354	0.93109 0.96637	0.86284 0.92915	0.77264	0.76736	AVRG		0.92702		13.21875	
1,2-Dichloroethylene (total)	NE 0.46784	0.52392 0.48820	0.51127 0.49537	0.55009 0.47198	0.46749	0.50224	AVRG		0.49760		5.59393	
Xylenes (total)	NE 0.57335	0.61318 0.57790	0.57180 0.59887	0.61522 0.60406	0.49741	0.56954	AVRG		0.58015		6.19169	
Dibromofluoromethane	NE 254583	3260 556227	6379 755598	11532 1008592	30264	109945	LINR	-0.01710	0.44638		0.99798	
1,2-Dichloroethane-d4	NE 280472	2810 577397	6358 823824	10804 1089460	29580	114636	LINR	-0.00920	0.48206		0.99902	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Toluene-d8	NE 1.18418	1.40978 1.28131	1.40459 1.09822	1.31074 1.13807	1.35754	1.28170	AVRG		1.27402		8.83576	
4-Bromofluorobenzene	NE 0.42949	0.55718 0.45128	0.55054 0.42455	0.50868 0.43206	0.48595	0.47685	AVRG		0.47962		10.56688	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

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Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

Instrument ID voa6.i ICAL Date 17-MAY-2023
Lab File ID X051713.D ICAL Time 1444
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachlor	50.00	49.11	98.23	80-120	
1,1,1-Trichloroeth	50.00	49.36	98.72	80-120	
1,1,2,2-Tetrachlor	50.00	48.52	97.04	80-120	
Freon TF	50.00	51.23	102.46	80-120	
Methyl Acetate	50.00	54.37	108.76	80-120	
Cyclohexane	50.00	49.60	99.22	80-120	
Methylcyclohexane	50.00	54.95	109.91	80-120	
Carbon Disulfide	100.00	97.62	97.63	80-120	
2-Hexanone	100.00	96.07	96.07	80-120	
1,1,2-Trichloroeth	50.00	49.37	98.75	80-120	
1,1-Dichloroethane	50.00	46.16	92.33	80-120	
1,1-Dichloroethene	50.00	47.07	94.15	80-120	
1,1-Dichloropropen	50.00	49.96	99.94	80-120	
1,2,3-Trichloroben	50.00	48.35	96.72	80-120	
1,2,3-Trichloropro	50.00	48.71	97.43	80-120	
1,2,4-Trichloroben	50.00	52.14	104.29	80-120	
1,2,4-Trimethylben	50.00	47.36	94.73	80-120	
1,2-Dibromo-3-Chlo	50.00	51.48	102.97	80-120	
1,2-Dibromoethane	50.00	48.84	97.69	80-120	
Acrolein	100.00	89.30	89.31	80-120	
Acrylonitrile	100.00	104.90	104.90	80-120	
1,2-Dichlorobenzen	50.00	46.69	93.39	80-120	
1,2-Dichloroethane	50.00	50.09	100.19	80-120	
1,2-Dichloropropan	50.00	53.11	106.24	80-120	
1,3,5-Trimethylben	50.00	48.75	97.52	80-120	
1,3-Dichlorobenzen	50.00	47.69	95.39	80-120	
1,3-Dichloropropan	50.00	46.78	93.58	80-120	
1,4-Dichlorobenzen	50.00	47.03	94.06	80-120	
1-Chlorohexane	50.00	43.57	87.16	80-120	
2,2-Dichloropropan	50.00	49.43	98.87	80-120	
2-Butanone	100.00	107.94	107.94	80-120	
2-Chloroethylvinyl	100.00	97.76	97.77	80-120	
2-Chlorotoluene	50.00	46.05	92.11	80-120	
4-Chlorotoluene	50.00	48.96	97.93	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

Instrument ID voa6.i ICAL Date 17-MAY-2023
Lab File ID X051713.D ICAL Time 1444
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	49.43	98.87	80-120	
4-Methyl-2-Pentano	100.00	95.62	95.62	80-120	
Acetone	100.00	107.29	107.30	80-120	
Acetonitrile	500.00	520.68	104.14	80-120	
Allyl Chloride	50.00	51.40	102.82	80-120	
Benzene	50.00	49.31	98.64	80-120	
Bromobenzene	50.00	48.34	96.68	80-120	
Bromochloromethane	50.00	47.93	95.87	80-120	
Bromodichlorometha	50.00	52.01	104.02	80-120	
Bromoform	50.00	49.39	98.80	80-120	
Bromomethane	50.00	51.42	102.84	80-120	
Carbon Tetrachlori	50.00	47.41	94.82	80-120	
Chlorobenzene	50.00	47.40	94.82	80-120	
Chloroethane	50.00	46.44	92.88	80-120	
Chloroform	50.00	47.99	95.99	80-120	
Chloromethane	50.00	45.99	91.99	80-120	
Chloroprene	50.00	46.85	93.72	80-120	
cis-1,2-Dichloroet	50.00	46.62	93.25	80-120	
cis-1,3-Dichloropr	50.00	48.70	97.41	80-120	
Dibromochlorometha	50.00	47.30	94.60	80-120	
Dibromomethane	50.00	51.69	103.38	80-120	
Dichlorodifluorome	50.00	51.62	103.24	80-120	
Ethylbenzene	50.00	49.65	99.32	80-120	
Ethyl Methacrylate	50.00	45.53	91.07	80-120	
Iodomethane	100.00	89.70	89.71	80-120	
Isobutyl Alcohol	1000.00	1054.96	105.50	70-130	
Propionitrile	500.00	481.63	96.33	70-130	
Hexachlorobutadien	50.00	51.78	103.56	80-120	
Isopropylbenzene	50.00	47.55	95.10	80-120	
m,p-Xylenes	100.00	98.27	98.27	80-120	
Methyl tert-butyl	50.00	46.22	92.46	80-120	
Methylene Chloride	50.00	46.48	92.97	80-120	
Methacrylonitrile	50.00	48.12	96.26	80-120	
Methyl Methacrylat	50.00	55.16	110.33	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_435536

Instrument ID voa6.i ICAL Date 17-MAY-2023
Lab File ID X051713.D ICAL Time 1444
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	50.65	101.31	80-120	
n-Propylbenzene	50.00	48.63	97.28	80-120	
Naphthalene	50.00	49.38	98.77	80-120	
o-Xylene	50.00	48.98	97.97	80-120	
sec-Butylbenzene	50.00	47.34	94.69	80-120	
Styrene	50.00	50.24	100.49	80-120	
tert-Butylbenzene	50.00	46.54	93.08	80-120	
Tetrachloroethene	50.00	48.80	97.62	80-120	
Toluene	50.00	47.91	95.82	80-120	
trans-1,2-Dichloro	50.00	47.28	94.56	80-120	
trans-1,3-Dichloro	50.00	50.37	100.75	80-120	
trans-1,4-Dichloro	50.00	52.52	105.06	80-120	
Trichloroethene	50.00	48.37	96.76	80-120	
Trichlorofluoromet	50.00	46.70	93.40	80-120	
Vinyl Acetate	100.00	99.79	99.79	80-120	
Vinyl Chloride	50.00	47.60	95.20	80-120	
1,2-Dichloroethyle	100.00	93.90	93.91	80-120	
Xylenes (total)	150.00	147.25	98.17	80-120	
1,4-Dioxane	1000.00	1041.21	104.12	80-120	
Dibromofluorometha	50.00	51.32	102.66	71-125	
1,2-Dichloroethane	50.00	51.05	102.11	70-125	
Toluene-d8	50.00	47.88	95.77	75-125	
4-Bromofluorobenze	50.00	47.94	95.89	72-125	

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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_436190

Instrument ID voa6.i Injection Date 24-MAY-2023 1036
Lab File ID X052402.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00677	0.00675	0.00675	0.001	0.30231	20.0	Averaged	
1,3-Butadiene	0.52921	0.49682	0.49682	0.100	6.11933	20.0	Averaged	
Methacrylonitrile	0.44571	0.48668	0.48668	0.100	-9.19184	20.0	Averaged	
Isobutyl Alcohol	0.06518	0.07633	0.07633	0.005	-17.11591	20.0	Averaged	
Acetonitrile	0.04814	0.06271	0.06271	0.005	-30.27984	20.0	Averaged	<-
Allyl Chloride	1.21419	1.22537	1.22537	0.100	-0.92067	20.0	Averaged	
Propionitrile	0.06857	0.07002	0.07002	0.010	-2.11463	20.0	Averaged	
trans-1,4-Dichloro-2-butene	0.11118	0.13862	0.13862	0.050	-24.68763	20.0	Averaged	<-
Acetaldehyde	200	172	0.02992	0.001	13.97458	20.0	Linear	
Methyl Methacrylate	0.43706	0.48017	0.48017	0.100	-9.86354	20.0	Averaged	
Ethyl Methacrylate	0.51083	0.52739	0.52739	0.100	-3.24149	20.0	Averaged	
n-Hexane	50.0	51.96369	0.47404	0.100	-3.92738	20.0	Quadratic	
Diisopropyl ether	1.51284	1.66157	1.66157	0.100	-9.83101	20.0	Averaged	
1,2,3-Trimethylbenzene	2.25218	2.54889	2.54889	0.100	-13.17422	20.0	Averaged	
2-Ethylhexyl Acrylate	0.92702	1.06791	1.06791	0.100	-15.19849	20.0	Averaged	
Dichlorodifluoromethane	50.0	48.92893	0.47198	0.100	2.14214	20.0	Linear	
Chloromethane	0.70152	0.56519	0.56519	0.100	19.43372	20.0	Averaged	
Vinyl Chloride	0.66222	0.62988	0.62988	0.100	4.88262	20.0	Averaged	
Bromomethane	50.0	54.04457	0.37321	0.100	-8.08915	20.0	Linear	
Chloroethane	0.41339	0.40222	0.40222	0.100	2.70189	20.0	Averaged	
Trichlorofluoromethane	0.69725	0.78904	0.78904	0.100	-13.16530	20.0	Averaged	
Acrolein	0.04183	0.04631	0.04631	0.010	-10.69899	20.0	Averaged	
Acetone	100	112	0.19444	0.100	-12.20500	20.0	Linear	
1,1-Dichloroethene	0.44089	0.45953	0.45953	0.100	-4.22683	20.0	Averaged	
Iodomethane	100	100	0.63120	0.100	0.04963	20.0	Quadratic	
Acrylonitrile	0.16510	0.18719	0.18719	0.050	-13.38229	20.0	Averaged	
Methylene Chloride	0.52414	0.53225	0.53225	0.100	-1.54869	20.0	Averaged	
Methyl tert-butyl ether	1.37532	1.51034	1.51034	0.100	-9.81747	20.0	Averaged	
Carbon Disulfide	1.38334	1.27073	1.27073	0.100	8.14081	20.0	Averaged	
trans-1,2-Dichloroethene	0.45731	0.49288	0.49288	0.100	-7.77941	20.0	Averaged	
Vinyl Acetate	1.27250	1.49757	1.49757	0.010	-17.68669	20.0	Averaged	
1,1-Dichloroethane	0.83853	0.85799	0.85799	0.200	-2.32010	20.0	Averaged	
2-Butanone	0.16640	0.19570	0.19570	0.100	-17.60774	20.0	Averaged	
2,2-Dichloropropane	50.0	61.93401	0.76403	0.100	-23.86801	20.0	Linear	<-

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_436190

Instrument ID voa6.i Injection Date 24-MAY-2023 1036
Lab File ID X052402.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
cis-1,2-Dichloroethene	0.53789	0.56471	0.56471	0.100	-4.98626	20.0	Averaged	
Chloroform	0.83107	0.93538	0.93538	0.200	-12.55099	20.0	Averaged	
Bromochloromethane	0.28350	0.29542	0.29542	0.100	-4.20427	20.0	Averaged	
Dibromofluoromethane	50.0	54.59555	0.49504	0.100	-9.19111	20.0	Linear	
1,1,1-Trichloroethane	0.64001	0.74973	0.74973	0.100	-17.14348	20.0	Averaged	
1,1-Dichloropropene	0.39336	0.41850	0.41850	0.100	-6.38882	20.0	Averaged	
1,2-Dichloroethane	0.39060	0.46217	0.46217	0.100	-18.32193	20.0	Averaged	
Carbon Tetrachloride	0.36340	0.39942	0.39942	0.100	-9.91157	20.0	Averaged	
1,2-Dichloroethane-d4	50.0	58.45159	0.56798	0.100	-16.90317	20.0	Linear	
Benzene	1.27207	1.28114	1.28114	0.500	-0.71300	20.0	Averaged	
Trichloroethene	0.34284	0.35145	0.35145	0.200	-2.51249	20.0	Averaged	
Bromodichloromethane	0.43532	0.46483	0.46483	0.200	-6.77774	20.0	Averaged	
2-Chloroethylvinyl ether	0.14458	0.13559	0.13559	0.001	6.22116	20.0	Averaged	
1,2-Dichloropropane	0.36147	0.35024	0.35024	0.100	3.10752	20.0	Averaged	
Dibromomethane	0.21937	0.22903	0.22903	0.100	-4.40434	20.0	Averaged	
4-Methyl-2-Pentanone	0.34388	0.33910	0.33910	0.100	1.39071	20.0	Averaged	
cis-1,3-Dichloropropene	0.58169	0.59689	0.59689	0.200	-2.61426	20.0	Averaged	
Toluene-d8	1.27402	1.20119	1.20119	0.100	5.71611	20.0	Averaged	
Toluene	1.40292	1.47129	1.47129	0.400	-4.87362	20.0	Averaged	
trans-1,3-Dichloropropene	0.46456	0.52529	0.52529	0.100	-13.07409	20.0	Averaged	
2-Hexanone	0.23535	0.24403	0.24403	0.100	-3.68684	20.0	Averaged	
1,1,2-Trichloroethane	0.28651	0.29560	0.29560	0.100	-3.17371	20.0	Averaged	
1,3-Dichloropropane	0.59617	0.60042	0.60042	0.100	-0.71235	20.0	Averaged	
Dibromochloromethane	0.38880	0.41224	0.41224	0.100	-6.02946	20.0	Averaged	
Tetrachloroethene	0.27179	0.28612	0.28612	0.200	-5.27152	20.0	Averaged	
1,2-Dibromoethane	0.34912	0.37747	0.37747	0.100	-8.11934	20.0	Averaged	
1-Chlorohexane	50.0	49.26657	0.30149	0.100	1.46687	20.0	Linear	
Chlorobenzene	0.97117	1.00447	1.00447	0.500	-3.42881	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.34082	0.36878	0.36878	0.100	-8.20568	20.0	Averaged	
Ethylbenzene	0.47721	0.50472	0.50472	0.100	-5.76355	20.0	Averaged	
m,p-Xylenes	0.59435	0.64795	0.64795	0.100	-9.01792	20.0	Averaged	
o-Xylene	0.58115	0.62020	0.62020	0.300	-6.72043	20.0	Averaged	
Styrene	0.97292	1.08834	1.08834	0.300	-11.86307	20.0	Averaged	
Bromoform	0.26278	0.29116	0.29116	0.100	-10.79950	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_436190

Instrument ID voa6.i Injection Date 24-MAY-2023 1036
Lab File ID X052402.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Isopropylbenzene	1.39407	1.49172	1.49172	0.100	-7.00508	20.0	Averaged	
1,1,2,2-Tetrachloroethane	50.0	52.83286	0.92965	0.300	-5.66572	20.0	Linear	
4-Bromofluorobenzene	0.47962	0.47929	0.47929	0.100	0.06931	20.0	Averaged	
1,2,3-Trichloropropane	0.63970	0.67767	0.67767	0.100	-5.93579	20.0	Averaged	
n-Propylbenzene	3.09868	3.30472	3.30472	0.100	-6.64957	20.0	Averaged	
Bromobenzene	0.78034	0.81707	0.81707	0.100	-4.70621	20.0	Averaged	
1,3,5-Trimethylbenzene	2.24436	2.36812	2.36812	0.100	-5.51415	20.0	Averaged	
2-Chlorotoluene	2.01237	2.04673	2.04673	0.100	-1.70747	20.0	Averaged	
4-Chlorotoluene	2.21313	2.42054	2.42054	0.100	-9.37140	20.0	Averaged	
tert-Butylbenzene	1.88931	1.92657	1.92657	0.100	-1.97214	20.0	Averaged	
1,2,4-Trimethylbenzene	2.29651	2.43975	2.43975	0.100	-6.23732	20.0	Averaged	
sec-Butylbenzene	2.63457	2.73210	2.73210	0.100	-3.70195	20.0	Averaged	
p-Isopropyltoluene	2.27649	2.41500	2.41500	0.100	-6.08435	20.0	Averaged	
1,3-Dichlorobenzene	1.40680	1.44033	1.44033	0.600	-2.38337	20.0	Averaged	
1,4-Dichlorobenzene	1.47852	1.54197	1.54197	0.400	-4.29184	20.0	Averaged	
n-Butylbenzene	1.94924	2.25570	2.25570	0.500	-15.72185	20.0	Averaged	
1,2-Dichlorobenzene	1.39835	1.45548	1.45548	0.400	-4.08532	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	52.48757	0.15738	0.040	-4.97514	20.0	Linear	
1,2,4-Trichlorobenzene	0.96750	1.01016	1.01016	0.100	-4.40918	20.0	Averaged	
Hexachlorobutadiene	0.41628	0.43723	0.43723	0.100	-5.03329	20.0	Averaged	
Naphthalene	2.40241	2.57789	2.57789	0.200	-7.30448	20.0	Averaged	
1,2,3-Trichlorobenzene	0.94773	0.95580	0.95580	0.010	-0.85173	20.0	Averaged	
1,2-Dichloroethylene (total	0.49760	0.52880	0.52880	0.200	-6.26974	20.0	Averaged	
Xylenes (total)	0.58015	0.62618	0.62618	0.100	-7.93385	20.0	Averaged	
Cyclohexane	0.62569	0.64093	0.64093	0.100	-2.43509	20.0	Averaged	
Freon TF	50.0	57.04550	0.43057	0.100	-14.09100	20.0	Quadratic	
Methylcyclohexane	0.76891	0.82622	0.82622	0.100	-7.45328	20.0	Averaged	
Methyl Acetate	0.29548	0.32763	0.32763	0.100	-10.87769	20.0	Averaged	
Tert-butyl alcohol	0.04938	0.05092	0.05092	0.005	-3.12417	20.0	Averaged	
Isopropyl alcohol	0.03059	0.02865	0.02865	0.005	6.31132	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_436190

Instrument ID voa6.i Injection Date 24-MAY-2023 2046
Lab File ID X052431.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00677	0.00642	0.00642	0.001	5.22978	50.0	Averaged	
1,3-Butadiene	0.52921	0.49527	0.49527	0.100	6.41344	50.0	Averaged	
Methacrylonitrile	0.44571	0.47199	0.47199	0.100	-5.89573	50.0	Averaged	
Isobutyl Alcohol	0.06518	0.07441	0.07441	0.005	-14.16621	50.0	Averaged	
Acetonitrile	0.04814	0.05868	0.05868	0.005	-21.90953	50.0	Averaged	
Allyl Chloride	1.21419	1.14321	1.14321	0.100	5.84557	50.0	Averaged	
Propionitrile	0.06857	0.06869	0.06869	0.010	-0.18278	50.0	Averaged	
trans-1,4-Dichloro-2-butene	0.11118	0.12508	0.12508	0.050	-12.51000	50.0	Averaged	
Acetaldehyde	200	190	0.03274	0.001	5.24103	50.0	Linear	
Methyl Methacrylate	0.43706	0.45530	0.45530	0.100	-4.17279	50.0	Averaged	
Ethyl Methacrylate	0.51083	0.49925	0.49925	0.100	2.26649	50.0	Averaged	
n-Hexane	50.0	51.85630	0.47291	0.100	-3.71261	50.0	Quadratic	
Diisopropyl ether	1.51284	1.56477	1.56477	0.100	-3.43224	50.0	Averaged	
1,2,3-Trimethylbenzene	2.25218	2.37953	2.37953	0.100	-5.65431	50.0	Averaged	
2-Ethylhexyl Acrylate	0.92702	0.95730	0.95730	0.100	-3.26631	50.0	Averaged	
Dichlorodifluoromethane	50.0	47.88629	0.46179	0.100	4.22742	50.0	Linear	
Chloromethane	0.70152	0.44354	0.44354	0.100	36.77394	50.0	Averaged	
Vinyl Chloride	0.66222	0.61237	0.61237	0.100	7.52697	50.0	Averaged	
Bromomethane	50.0	48.79058	0.33675	0.100	2.41884	50.0	Linear	
Chloroethane	0.41339	0.41947	0.41947	0.100	-1.47256	50.0	Averaged	
Trichlorofluoromethane	0.69725	0.80913	0.80913	0.100	-16.04601	50.0	Averaged	
Acrolein	0.04183	0.03992	0.03992	0.010	4.56740	50.0	Averaged	
Acetone	100	92.45591	0.16149	0.100	7.54409	50.0	Linear	
1,1-Dichloroethene	0.44089	0.48102	0.48102	0.100	-9.10084	50.0	Averaged	
Iodomethane	100	76.19646	0.47105	0.100	23.80354	50.0	Quadratic	
Acrylonitrile	0.16510	0.17553	0.17553	0.050	-6.31749	50.0	Averaged	
Methylene Chloride	0.52414	0.52703	0.52703	0.100	-0.55247	50.0	Averaged	
Methyl tert-butyl ether	1.37532	1.43128	1.43128	0.100	-4.06878	50.0	Averaged	
Carbon Disulfide	1.38334	1.25448	1.25448	0.100	9.31512	50.0	Averaged	
trans-1,2-Dichloroethene	0.45731	0.48576	0.48576	0.100	-6.22144	50.0	Averaged	
Vinyl Acetate	1.27250	1.20385	1.20385	0.010	5.39484	50.0	Averaged	
1,1-Dichloroethane	0.83853	0.85483	0.85483	0.200	-1.94378	50.0	Averaged	
2-Butanone	0.16640	0.17737	0.17737	0.100	-6.59292	50.0	Averaged	
2,2-Dichloropropane	50.0	54.80718	0.67655	0.100	-9.61436	50.0	Linear	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_436190

Instrument ID voa6.i Injection Date 24-MAY-2023 2046
Lab File ID X052431.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
cis-1,2-Dichloroethene	0.53789	0.56043	0.56043	0.100	-4.19052	50.0	Averaged	
Chloroform	0.83107	0.94890	0.94890	0.200	-14.17817	50.0	Averaged	
Bromochloromethane	0.28350	0.29869	0.29869	0.100	-5.36011	50.0	Averaged	
Dibromofluoromethane	50.0	58.85917	0.53310	0.100	-17.71834	50.0	Linear	
1,1,1-Trichloroethane	0.64001	0.77276	0.77276	0.100	-20.74238	50.0	Averaged	
1,1-Dichloropropene	0.39336	0.41807	0.41807	0.100	-6.28165	50.0	Averaged	
1,2-Dichloroethane	0.39060	0.44606	0.44606	0.100	-14.19724	50.0	Averaged	
Carbon Tetrachloride	0.36340	0.40064	0.40064	0.100	-10.24684	50.0	Averaged	
1,2-Dichloroethane-d4	50.0	63.53512	0.61699	0.100	-27.07024	50.0	Linear	
Benzene	1.27207	1.25451	1.25451	0.500	1.38039	50.0	Averaged	
Trichloroethene	0.34284	0.35964	0.35964	0.200	-4.90161	50.0	Averaged	
Bromodichloromethane	0.43532	0.45400	0.45400	0.200	-4.29027	50.0	Averaged	
2-Chloroethylvinyl ether	0.14458	0.12572	0.12572	0.001	13.04713	50.0	Averaged	
1,2-Dichloropropane	0.36147	0.33433	0.33433	0.100	7.50740	50.0	Averaged	
Dibromomethane	0.21937	0.22341	0.22341	0.100	-1.83870	50.0	Averaged	
4-Methyl-2-Pentanone	0.34388	0.31313	0.31313	0.100	8.94147	50.0	Averaged	
cis-1,3-Dichloropropene	0.58169	0.55995	0.55995	0.200	3.73759	50.0	Averaged	
Toluene-d8	1.27402	1.27515	1.27515	0.100	-0.08939	50.0	Averaged	
Toluene	1.40292	1.45096	1.45096	0.400	-3.42470	50.0	Averaged	
trans-1,3-Dichloropropene	0.46456	0.49206	0.49206	0.100	-5.91962	50.0	Averaged	
2-Hexanone	0.23535	0.22180	0.22180	0.100	5.75696	50.0	Averaged	
1,1,2-Trichloroethane	0.28651	0.28818	0.28818	0.100	-0.58474	50.0	Averaged	
1,3-Dichloropropane	0.59617	0.58181	0.58181	0.100	2.40954	50.0	Averaged	
Dibromochloromethane	0.38880	0.39569	0.39569	0.100	-1.77390	50.0	Averaged	
Tetrachloroethene	0.27179	0.28995	0.28995	0.200	-6.68118	50.0	Averaged	
1,2-Dibromoethane	0.34912	0.37068	0.37068	0.100	-6.17425	50.0	Averaged	
1-Chlorohexane	50.0	51.39148	0.31500	0.100	-2.78296	50.0	Linear	
Chlorobenzene	0.97117	0.98729	0.98729	0.500	-1.65958	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.34082	0.35983	0.35983	0.100	-5.57929	50.0	Averaged	
Ethylbenzene	0.47721	0.49770	0.49770	0.100	-4.29206	50.0	Averaged	
m,p-Xylenes	0.59435	0.64366	0.64366	0.100	-8.29571	50.0	Averaged	
o-Xylene	0.58115	0.62217	0.62217	0.300	-7.05856	50.0	Averaged	
Styrene	0.97292	1.08223	1.08223	0.300	-11.23430	50.0	Averaged	
Bromoform	0.26278	0.28116	0.28116	0.100	-6.99219	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID VOA6_436190

Instrument ID voa6.i Injection Date 24-MAY-2023 2046
Lab File ID X052431.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Isopropylbenzene	1.39407	1.55211	1.55211	0.100	-11.33651	50.0	Averaged	
1,1,2,2-Tetrachloroethane	50.0	48.09208	0.84566	0.300	3.81585	50.0	Linear	
4-Bromofluorobenzene	0.47962	0.50542	0.50542	0.100	-5.37852	50.0	Averaged	
1,2,3-Trichloropropane	0.63970	0.62729	0.62729	0.100	1.94018	50.0	Averaged	
n-Propylbenzene	3.09868	3.35673	3.35673	0.100	-8.32774	50.0	Averaged	
Bromobenzene	0.78034	0.79418	0.79418	0.100	-1.77341	50.0	Averaged	
1,3,5-Trimethylbenzene	2.24436	2.40822	2.40822	0.100	-7.30089	50.0	Averaged	
2-Chlorotoluene	2.01237	2.02631	2.02631	0.100	-0.69252	50.0	Averaged	
4-Chlorotoluene	2.21313	2.37229	2.37229	0.100	-7.19153	50.0	Averaged	
tert-Butylbenzene	1.88931	1.99959	1.99959	0.100	-5.83692	50.0	Averaged	
1,2,4-Trimethylbenzene	2.29651	2.43622	2.43622	0.100	-6.08348	50.0	Averaged	
sec-Butylbenzene	2.63457	2.87966	2.87966	0.100	-9.30270	50.0	Averaged	
p-Isopropyltoluene	2.27649	2.52344	2.52344	0.100	-10.84757	50.0	Averaged	
1,3-Dichlorobenzene	1.40680	1.42125	1.42125	0.600	-1.02702	50.0	Averaged	
1,4-Dichlorobenzene	1.47852	1.50870	1.50870	0.400	-2.04178	50.0	Averaged	
n-Butylbenzene	1.94924	2.31556	2.31556	0.500	-18.79292	50.0	Averaged	
1,2-Dichlorobenzene	1.39835	1.44819	1.44819	0.400	-3.56371	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	46.68642	0.14010	0.040	6.62716	50.0	Linear	
1,2,4-Trichlorobenzene	0.96750	0.98188	0.98188	0.100	-1.48610	50.0	Averaged	
Hexachlorobutadiene	0.41628	0.42334	0.42334	0.100	-1.69496	50.0	Averaged	
Naphthalene	2.40241	2.43297	2.43297	0.200	-1.27213	50.0	Averaged	
1,2,3-Trichlorobenzene	0.94773	0.94675	0.94675	0.010	0.10283	50.0	Averaged	
1,2-Dichloroethylene (total	0.49760	0.52310	0.52310	0.200	-5.12375	50.0	Averaged	
Xylenes (total)	0.58015	0.62663	0.62663	0.100	-8.01140	50.0	Averaged	
Cyclohexane	0.62569	0.68475	0.68475	0.100	-9.43839	50.0	Averaged	
Freon TF	50.0	59.75171	0.45427	0.100	-19.50341	50.0	Quadratic	
Methylcyclohexane	0.76891	0.73874	0.73874	0.100	3.92337	50.0	Averaged	
Methyl Acetate	0.29548	0.31792	0.31792	0.100	-7.59455	50.0	Averaged	
Tert-butyl alcohol	0.04938	0.04743	0.04743	0.005	3.95140	50.0	Averaged	
Isopropyl alcohol	0.03059	0.02609	0.02609	0.005	14.70494	50.0	Averaged	

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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
VOA6_436190

		IS1		IS2		IS3		IS4					
Sample ID	File ID	Area		RT		Area		RT		Area		RT	
12-HOUR STD (CCV)	X052402	534541	#	4.18	#	847507	#	4.97	#	830890	#	7.67	#	459907	#	9.66	#
CCB	X052404	567128		4.18		846234		4.96		750763		7.67		360135		9.66	
VLCSW-230524	X052405	525000		4.18		829010		4.97		797850		7.67		445241		9.66	
VBLKW-230524	X052407	555260		4.18		830523		4.96		722549		7.67		354170		9.66	
HS23051522-03	X052408	538873		4.18		806081		4.97		714750		7.67		356907		9.66	
HS23051522-01	X052410	540593		4.18		805141		4.97		716355		7.67		356531		9.66	
HS23051522-01MS	X052413	557562		4.18		836286		4.96		769715		7.67		416796		9.66	
HS23051522-01MSD	X052414	557943		4.18		846402		4.97		785646		7.67		427226		9.66	
CCV-END	X052431	497682		4.18		811483		4.97		798904		7.67		451106		9.66	

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

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Analysis Run Log

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
VOA6_435536

Run ID VOA6_435536 **Start Date** 05/17/23 **EndDate** 05/17/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
11:57	BFB	TUNE	BFB	X051701.D	05/17/23	1
12:17	VSTD000.25	ICAL1	VSTD000.25	X051702.D	05/17/23	1
12:59	VSTD000.5	ICAL2	VSTD000.5	X051703.D	05/17/23	1
13:20	VSTD001	ICAL3	VSTD001	X051704.D	05/17/23	1
13:41	VSTD002	ICAL4	VSTD002	X051705.D	05/17/23	1
14:02	VSTD005	ICAL5	VSTD005	X051706.D	05/17/23	1
14:23	VSTD020	ICAL6	VSTD020	X051707.D	05/17/23	1
14:44	VSTD050	ICAL7	VSTD050	X051708.D	05/17/23	1
15:05	VSTD100	ICAL8	VSTD100	X051709.D	05/17/23	1
15:26	VSTD150	ICAL9	VSTD150	X051710.D	05/17/23	1
15:47	VSTD200	ICAL	VSTD200	X051711.D	05/17/23	1
16:29	CCV	ICV	CCV	X051713.D	05/17/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
VOA6_436190

Run ID VOA6_436190 **Start Date** 05/24/23 **EndDate** 05/24/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:15	BFB	TUNE	BFB	X052401.D	05/24/23	1
10:36	CCV	CCV	CCV	X052402.D	05/24/23	1
11:18	CCB	CCB	CCB	X052404.D	05/24/23	1
11:39	VLCSW-230524	LCS	VLCSW-230524	X052405.D	05/24/23	1
12:21	VBLKW-230524	MBLK	VBLKW-230524	X052407.D	05/24/23	1
12:42	Trip Blank	SAMP	HS23051522-03	X052408.D	05/24/23	1
13:03	ZZZZZZZZZZ	SAMP	HS23051255-12	X052409.D	05/24/23	1
13:24	LH18/24-SP650_052223	SAMP	HS23051522-01	X052410.D	05/24/23	1
13:45	ZZZZZZZZZZ	SAMP	HS23051255-10	X052411.D	05/24/23	1
14:06	ZZZZZZZZZZ	SAMP	HS23051255-11	X052412.D	05/24/23	1
14:27	HS23051522-01MS	MS	HS23051522-01MS	X052413.D	05/24/23	1
14:48	HS23051522-01MSD	MSD	HS23051522-01MSD	X052414.D	05/24/23	1
15:30	ZZZZZZZZZZ	SAMP	HS23051379-10	X052416.D	05/24/23	1
15:51	ZZZZZZZZZZ	SAMP	HS23051379-01	X052417.D	05/24/23	1
16:12	ZZZZZZZZZZ	SAMP	HS23051379-04	X052418.D	05/24/23	1
16:33	ZZZZZZZZZZ	SAMP	HS23051379-05	X052419.D	05/24/23	1
16:54	ZZZZZZZZZZ	SAMP	HS23051379-06	X052420.D	05/24/23	1
17:15	ZZZZZZZZZZ	SAMP	HS23051379-07	X052421.D	05/24/23	1
17:37	ZZZZZZZZZZ	SAMP	HS23051379-08	X052422.D	05/24/23	1
17:58	ZZZZZZZZZZ	SAMP	HS23051379-09	X052423.D	05/24/23	1
18:19	ZZZZZZZZZZ	SAMP	HS23051343-01	X052424.D	05/24/23	1
18:40	ZZZZZZZZZZ	SAMP	HS23051343-02	X052425.D	05/24/23	1
19:01	ZZZZZZZZZZ	SAMP	HS23051343-03	X052426.D	05/24/23	1
19:22	ZZZZZZZZZZ	SAMP	HS23051343-04	X052427.D	05/24/23	1
19:43	ZZZZZZZZZZ	SAMP	HS23051379-02	X052428.D	05/24/23	1
20:04	ZZZZZZZZZZ	SAMP	HS23051379-03	X052429.D	05/24/23	1
20:25	ZZZZZZZZZZ	SAMP	HS23051343-05	X052430.D	05/24/23	1
20:46	CCV-END	CCV_END	CCV-END	X052431.D	05/24/23	1

01209516

right solutions.
right partner.

Raw Data VOA6 435536

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D Page 1
Report Date: 17-May-2023 12:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 17-MAY-2023 11:57
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\bfb.m
Meth Date : 14-Mar-2023 15:45 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
8.691	8.889	(0.000)	95	138816			0.00- 100.00	100.00
8.691	8.889	(0.000)	50	21024			15.00- 40.00	15.15
8.691	8.889	(0.000)	75	59416			30.00- 60.00	42.80
8.691	8.889	(0.000)	96	9161			5.00- 9.00	6.60
8.691	8.889	(0.000)	173	828			0.00- 2.00	0.66
8.691	8.889	(0.000)	174	125960			50.00- 0.00	90.74
8.691	8.889	(0.000)	175	9339			5.00- 9.00	7.41
8.691	8.889	(0.000)	176	122984			95.00- 101.00	97.64
8.691	8.889	(0.000)	177	7772			5.00- 9.00	6.32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.15
75	30.00 - 60.00% of mass 95	42.80
96	5.00 - 9.00% of mass 95	6.60
173	Less than 2.00% of mass 174	0.60 (0.66)
174	Greater than 50.00% of mass 95	90.74
175	5.00 - 9.00% of mass 174	6.73 (7.41)
176	95.00 - 101.00% of mass 174	88.59 (97.64)
177	5.00 - 9.00% of mass 176	5.60 (6.32)

Data File: X051701.D
Spectrum: Avg. Scans 2160-2164 (8.69)
Location of Maximum: 95.00
Number of points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	878	67.00	271	104.00	477	144.00	74
37.00	4899	68.00	11648	105.00	243	145.00	100
38.00	4589	69.00	11278	106.00	520	146.00	216
39.00	1934	70.00	901	107.00	109	147.00	97
40.00	2301	72.00	617	110.00	49	148.00	270
42.00	39	73.00	4978	111.00	84	150.00	145
43.00	81	74.00	18448	113.00	30	151.00	20
44.00	1915	75.00	59416	115.00	99	152.00	79
45.00	924	76.00	5455	116.00	357	153.00	90
46.00	92	77.00	911	117.00	685	154.00	62
47.00	1686	78.00	684	118.00	486	155.00	302
48.00	673	79.00	2405	119.00	532	157.00	256
49.00	4557	80.00	648	122.00	23	159.00	141
50.00	21024	81.00	2316	123.00	10	160.00	31
51.00	6432	82.00	542	124.00	81	161.00	85
52.00	352	83.00	53	126.00	28	170.00	10
53.00	12	86.00	197	127.00	61	171.00	18
55.00	314	87.00	6207	128.00	464	172.00	84
56.00	1473	88.00	5933	129.00	234	173.00	828
57.00	2750	89.00	10	130.00	439	174.00	125960
58.00	105	91.00	404	131.00	205	175.00	9339
60.00	1131	92.00	3007	135.00	164	176.00	122984
61.00	4744	93.00	4752	137.00	270	177.00	7772
62.00	4832	94.00	14163	139.00	39	178.00	243
63.00	3516	95.00	138816	140.00	102	186.00	49
64.00	388	96.00	9161	141.00	1022	191.00	15
65.00	130	97.00	287	142.00	110	278.00	65
66.00	66	103.00	32	143.00	1063		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D Page 1

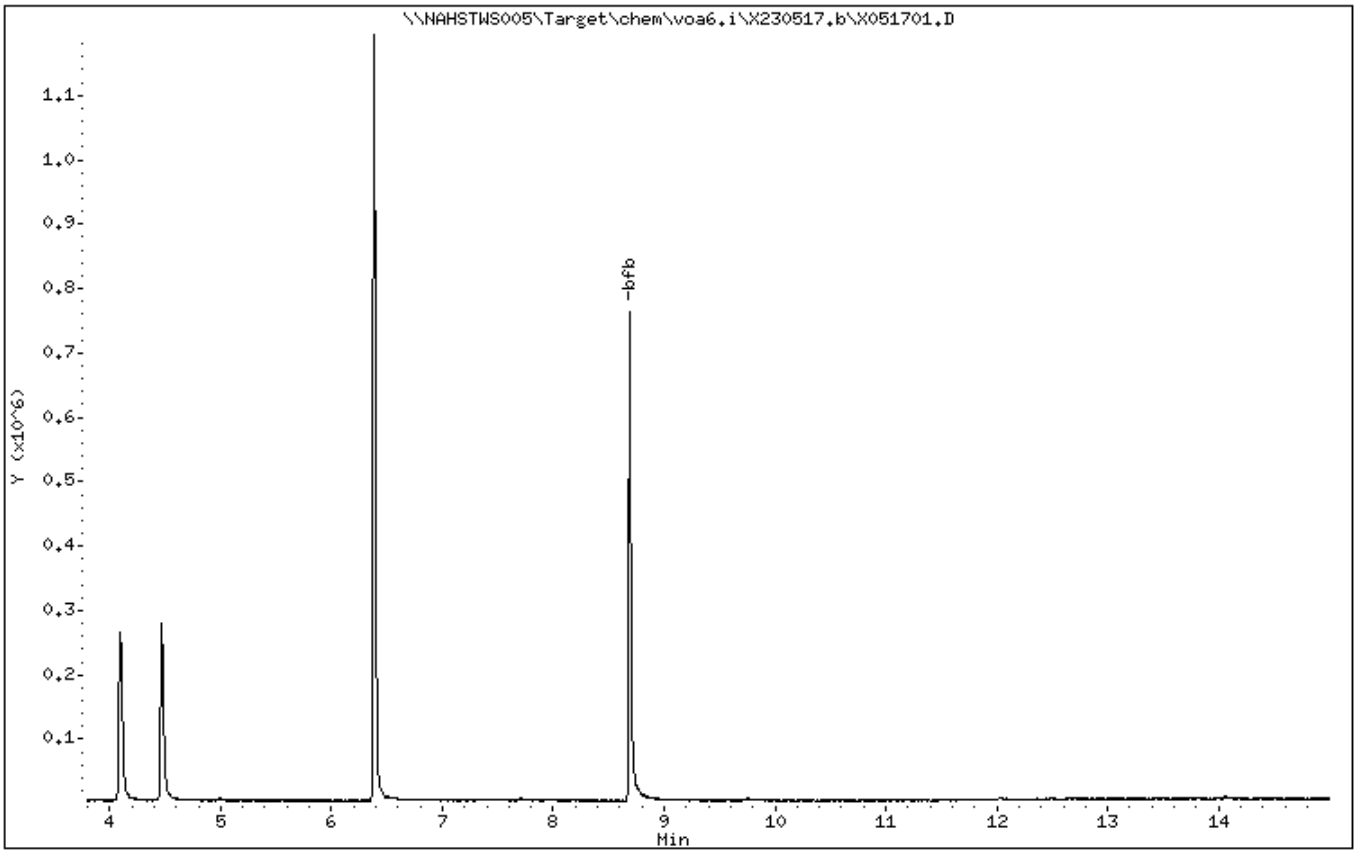
Date : 17-MAY-2023 11:57

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D Page 2

Date : 17-MAY-2023 11:57

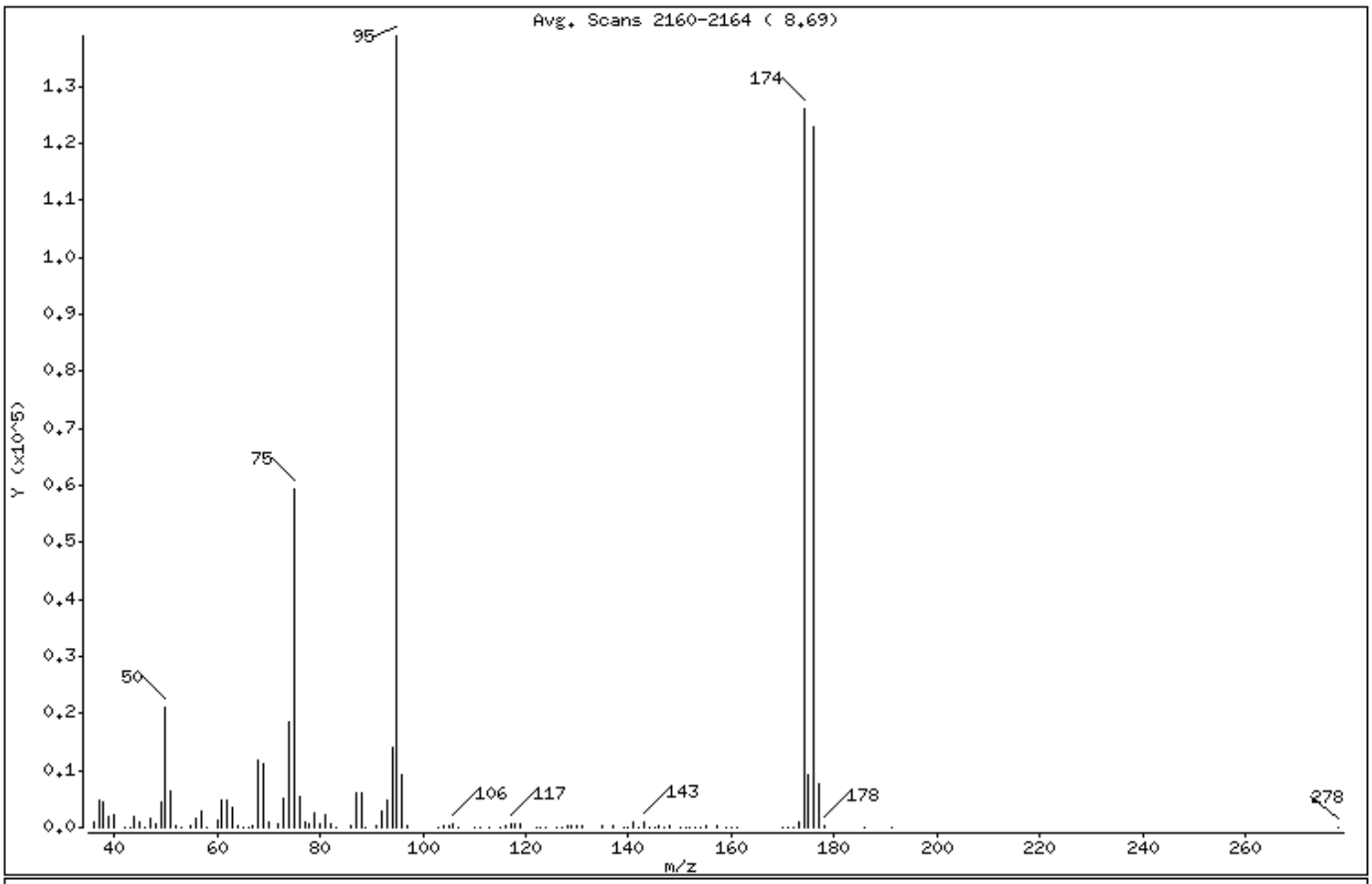
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.15
75	30.00 - 60.00% of mass 95	42.80
96	5.00 - 9.00% of mass 95	6.60
173	Less than 2.00% of mass 174	0.60 (0.66)
174	Greater than 50.00% of mass 95	90.74
175	5.00 - 9.00% of mass 174	6.73 (7.41)
176	95.00 - 101.00% of mass 174	88.59 (97.64)
177	5.00 - 9.00% of mass 176	5.60 (6.32)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D Page 3

Date : 17-MAY-2023 11:57

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X051701.D
Spectrum: Avg. Scans 2160-2164 (8.69)
Location of Maximum: 95.00
Number of points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	878	67.00	271	104.00	477	144.00	74
37.00	4899	68.00	11648	105.00	243	145.00	100
38.00	4589	69.00	11278	106.00	520	146.00	216
39.00	1934	70.00	901	107.00	109	147.00	97
40.00	2301	72.00	617	110.00	49	148.00	270
42.00	39	73.00	4978	111.00	84	150.00	145
43.00	81	74.00	18448	113.00	30	151.00	20
44.00	1915	75.00	59416	115.00	99	152.00	79
45.00	924	76.00	5455	116.00	357	153.00	90
46.00	92	77.00	911	117.00	685	154.00	62
47.00	1686	78.00	684	118.00	486	155.00	302
48.00	673	79.00	2405	119.00	532	157.00	256
49.00	4557	80.00	648	122.00	23	159.00	141
50.00	21024	81.00	2316	123.00	10	160.00	31
51.00	6432	82.00	542	124.00	81	161.00	85
52.00	352	83.00	53	126.00	28	170.00	10
53.00	12	86.00	197	127.00	61	171.00	18
55.00	314	87.00	6207	128.00	464	172.00	84
56.00	1473	88.00	5933	129.00	234	173.00	828
57.00	2750	89.00	10	130.00	439	174.00	125960
58.00	105	91.00	404	131.00	205	175.00	9339
60.00	1131	92.00	3007	135.00	164	176.00	122984
61.00	4744	93.00	4752	137.00	270	177.00	7772
62.00	4832	94.00	14163	139.00	39	178.00	243
63.00	3516	95.00	138816	140.00	102	186.00	49
64.00	388	96.00	9161	141.00	1022	191.00	15
65.00	130	97.00	287	142.00	110	278.00	65
66.00	66	103.00	32	143.00	1063		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051702.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051702.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 17-MAY-2023 12:17
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.177	4.177	(1.000)	607658	50.0000	
	135 1,4-Dioxane	88	5.632	5.632	(1.348)	441	5.00000	5.35(aM)
	2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	1260	0.25000	0.84(a)
	6 Bromomethane	94	1.340	1.340	(0.321)	2119	0.25000	0.76(a)
	15 Iodomethane	142	2.033	2.033	(0.487)	1289	0.50000	2.52(Ta)
$	30 Dibromofluoromethane	113	4.117	4.117	(0.986)	2984	0.25000	(a)
$	35 1,2-Dichloroethane-d4	65	4.489	4.489	(1.074)	3075	0.25000	0.06(a)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	938911	50.0000	
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	888821	50.0000	
$	48 Toluene-d8	98	6.397	6.397	(0.834)	11563	0.25000	0.51(a)
	58 1-Chlorohexane	55	7.664	7.664	(1.544)	9863	0.25000	3.49(a)
	60 1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	1943	0.25000	0.32(a)
$	69 4-Bromofluorobenzene	95	8.706	8.706	(1.135)	9402	0.25000	1.10(a)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	458275	50.0000	
M	94 1,2-Dichloroethylene (total)	96				3814	0.50000	(a)
	141 Cyclohexane	56	4.181	4.181	(1.001)	8730	0.25000	1.14(a)

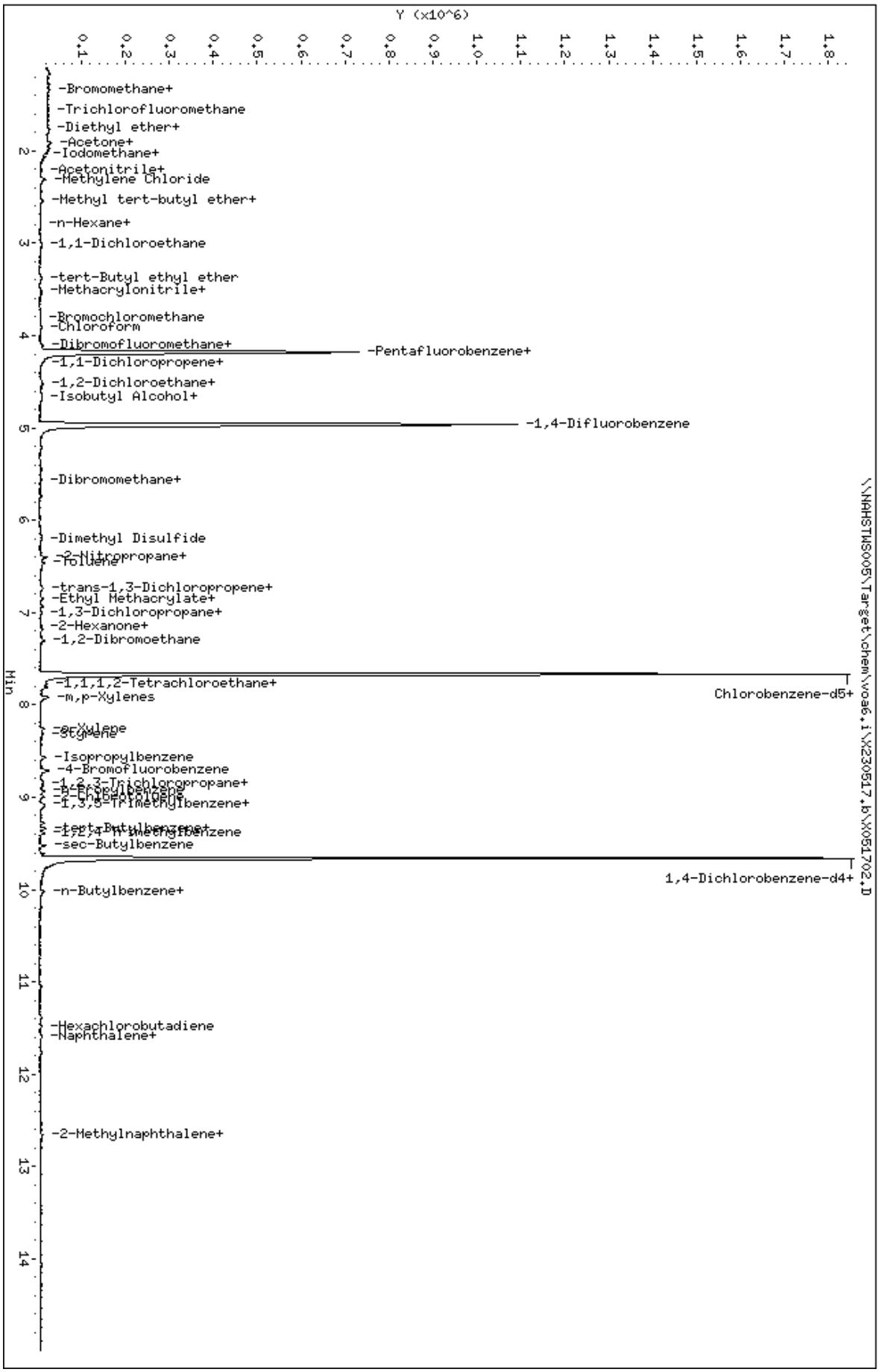
QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount

Below Limit Of Quantitation(BLOQ).

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa6.i\X230517.b\X051702.D
Date : 17-MAY-2023 12:17
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

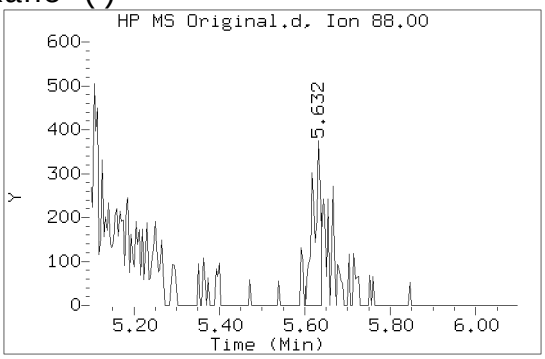
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Inj Date : 17-MAY-2023 12:17
InstruID : voa6.i
LabSampID : VSTD000.25

1,4-Dioxane ()

Reason Code:

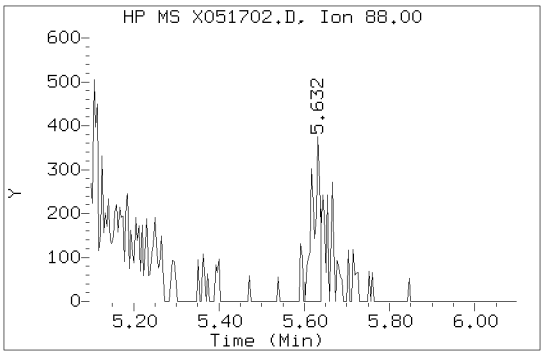
BEFORE

MASS
88
AREA
441
HEIGHT
375
18-May-2023
13:42
linh
pham



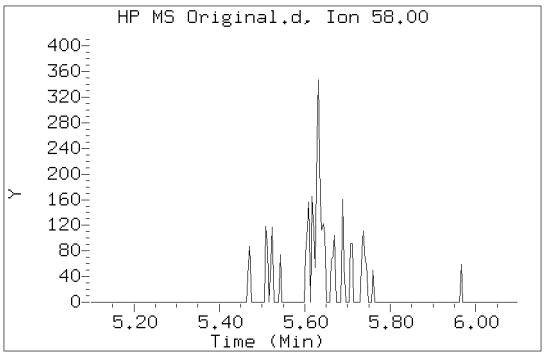
AFTER

MASS
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441
HEIGHT
375
18-May-2023
13:42
linh
pham



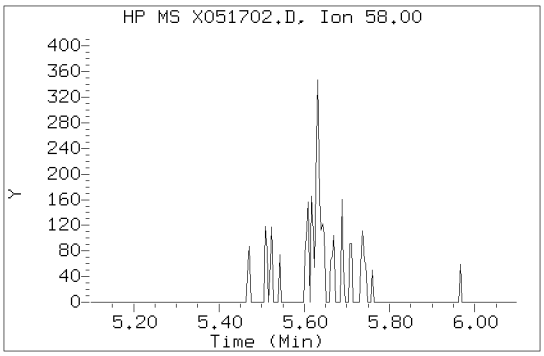
BEFORE

MASS
58
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 17-MAY-2023 12:59
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 12:17 Cal File: X051702.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	571558	50.0000	
135	1,4-Dioxane	88	5.628	5.628	(1.347)	777	10.0000	10.03(aM)
140	1,3-Butadiene	54	1.168	1.168	(0.280)	3237	0.50000	0.53(aM)
25	Methacrylonitrile	41	3.874	3.874	(0.927)	3101	0.50000	0.60(aM)
12	Isobutyl Alcohol	43	4.699	4.699	(1.125)	7294	10.0000	9.79(aM)
13	Acetonitrile	39	2.202	2.202	(0.527)	2789	5.00000	5.06(aM)
72	trans-1,4-Dichloro-2-butene	53	8.935	8.935	(1.165)	1031	0.50000	0.53(aM)
23	Chloroprene	53	1.782	1.782	(0.427)	1289	0.50000	0.55(aM)
130	Ethyl Acetate	43	3.679	3.679	(0.881)	2361	0.50000	0.58(TaM)
40	Methyl Methacrylate	41	5.651	5.651	(1.353)	2610	0.50000	0.52(aM)
49	Ethyl Methacrylate	69	6.802	6.802	(1.370)	5358	0.50000	0.58(aM)
131	Methyl Acrylate	55	3.792	3.792	(0.908)	2822	0.50000	0.50(TaM)
132	n-Butanol	56	5.362	5.362	(1.284)	566	10.0000	71.38(TaM)
139	Diethyl ether	59	1.760	1.760	(0.421)	2635	0.50000	0.53(aM)
142	Tetrahydrofuran	42	3.870	3.870	(0.926)	1066	1.00000	1.13(aM)
145	alpha-Methylstyrene	118	9.268	9.268	(0.959)	5300	0.50000	0.52(a)
156	Diisopropyl ether	45	3.008	3.008	(0.720)	9672	0.50000	0.55(TaM)
162	Butyl acrylate	55	8.282	8.282	(1.080)	6616	0.50000	0.53(aM)
167	Ethanol	45	1.704	1.704	(0.408)	957	10.0000	12.73
200	Dimethyl Disulfide	94	6.206	6.206	(0.809)	6593	0.50000	0.53(aM)

164	Dicyclopentadiene	66	9.681	9.681 (1.002)	13612	0.50000	0.56(aM)
166	1,2,3-Trimethylbenzene	105	9.737	9.737 (1.008)	12493	0.50000	0.60(aM)

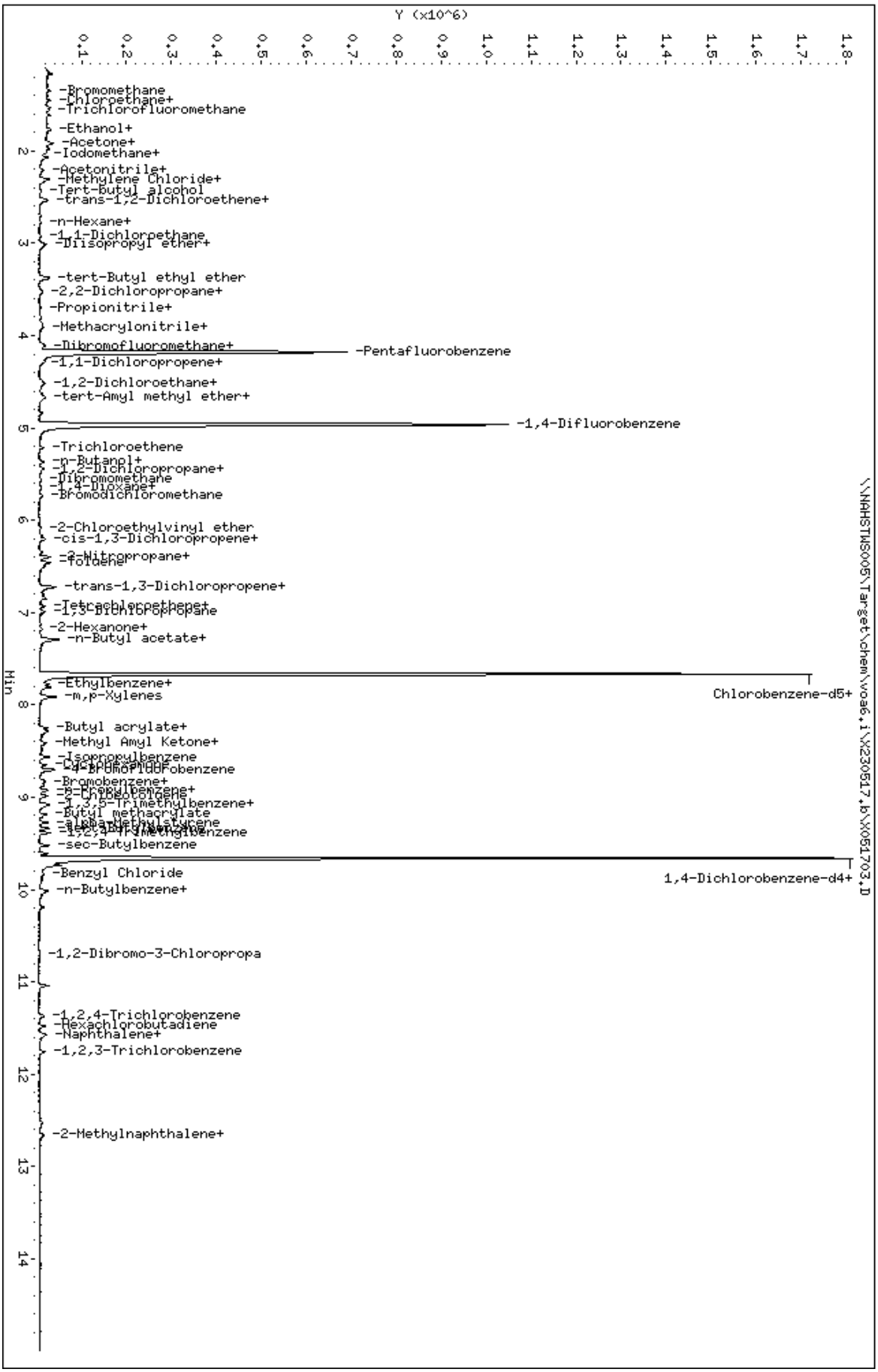
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	205	2-Ethylhexyl Acrylate	55	11.562	11.562	(1.197)	4540	0.50000	0.53(aM)
	86	Benzyl Chloride	91	9.834	9.834	(1.283)	7194	0.50000	0.54(aM)
	133	Ethyl Acrylate	55	5.467	5.467	(1.309)	5171	0.50000	1.74(aM)
	163	Butyl methacrylate	41	9.186	9.186	(0.951)	4156	0.50000	0.52(aM)
	188	Isopropyl acetate	43	4.699	4.699	(0.946)	8344	0.50000	0.53(aM)
	2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	2884	0.50000	1.15(a)
	3	Chloromethane	50	1.081	1.081	(0.259)	4454	0.50000	0.55(aM)
	5	Vinyl Chloride	62	1.145	1.145	(0.274)	4083	0.50000	0.53(aM)
	6	Bromomethane	94	1.344	1.344	(0.322)	2591	0.50000	0.91(aM)
	7	Chloroethane	64	1.404	1.404	(0.336)	2706	0.50000	0.57(aM)
	11	1,1-Dichloroethene	96	1.917	1.917	(0.459)	2705	0.50000	0.53(aM)
	15	Iodomethane	142	2.030	2.030	(0.486)	3196	1.00000	2.81(Ta)
	19	Carbon Disulfide	76	2.071	2.071	(0.496)	18393	1.00000	1.16(a)
	22	1,1-Dichloroethane	63	2.922	2.922	(0.699)	5303	0.50000	0.55(aM)
	29	Bromochloromethane	128	3.795	3.795	(0.908)	1738	0.50000	0.53(aM)
$	30	Dibromofluoromethane	113	4.114	4.114	(0.985)	3260	0.50000	(aM)
	31	1,1,1-Trichloroethane	97	4.088	4.088	(0.978)	3862	0.50000	0.52(aM)
	32	1,1-Dichloropropene	75	4.298	4.298	(0.866)	3860	0.50000	0.54(a)
	33	1,2-Dichloroethane	62	4.571	4.571	(0.921)	3742	0.50000	0.53(a)
$	35	1,2-Dichloroethane-d4	65	4.485	4.485	(1.074)	2810	0.50000	0.05(aM)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	899522	50.0000	
	38	Trichloroethene	130	5.212	5.212	(1.050)	3266	0.50000	0.52(a)
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	864532	50.0000	
$	48	Toluene-d8	98	6.397	6.397	(0.834)	12188	0.50000	0.55(aM)
	50	Toluene	91	6.457	6.457	(0.842)	13263	0.50000	0.54(aM)
	52	2-Hexanone	43	7.120	7.120	(0.929)	4224	1.00000	1.03(aMH)
	53	1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	2580	0.50000	0.52(aM)
	54	1,3-Dichloropropane	76	6.993	6.993	(0.912)	5321	0.50000	0.51(aM)
	55	Dibromochloromethane	129	7.180	7.180	(0.936)	3630	0.50000	0.53(aM)
	57	1,2-Dibromoethane	107	7.274	7.274	(0.949)	3173	0.50000	0.52(aM)
	58	1-Chlorohexane	55	7.701	7.701	(1.551)	2937	0.50000	2.35(aH)
	59	Chlorobenzene	112	7.690	7.690	(1.003)	9472	0.50000	0.56(a)
	60	1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	3316	0.50000	0.56(aM)
	61	Ethylbenzene	106	7.806	7.806	(1.018)	4783	0.50000	0.57(a)
	62	m,p-Xylenes	106	7.915	7.915	(1.032)	10900	1.00000	1.06(aM)
	63	o-Xylene	106	8.256	8.256	(1.077)	5647	0.50000	0.56(aM)
	64	Styrene	104	8.290	8.290	(1.081)	9111	0.50000	0.54(aM)
	66	Bromoform	173	8.421	8.421	(1.098)	2554	0.50000	0.56(TaM)
	67	Isopropylbenzene	105	8.564	8.564	(1.117)	13817	0.50000	0.57(a)
	68	1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	5038	0.50000	0.97(aM)
$	69	4-Bromofluorobenzene	95	8.699	8.699	(1.134)	4817	0.50000	0.58(aM)
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	459541	50.0000	
	73	n-Propylbenzene	91	8.927	8.927	(0.924)	15332	0.50000	0.53(a)
	74	Bromobenzene	156	8.818	8.818	(0.913)	3643	0.50000	0.50(a)
	79	1,2,4-Trimethylbenzene	105	9.388	9.388	(0.972)	11812	0.50000	0.55(a)
	82	p-Isopropyltoluene	119	9.654	9.654	(0.999)	11090	0.50000	0.53(a)
	83	1,3-Dichlorobenzene	146	9.613	9.613	(0.995)	7414	0.50000	0.57(a)
M	94	1,2-Dichloroethylene (total)	96				5989	1.00000	(a)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Date : 17-MAY-2023 12:59
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

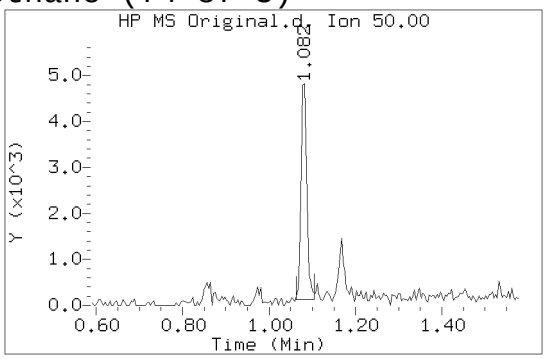
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Chloromethane (74-87-3)

Reason Code:

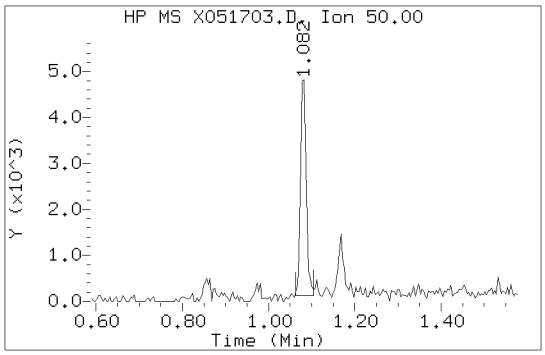
BEFORE

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HEIGHT
4699
18-May-2023
13:42
linh
pham



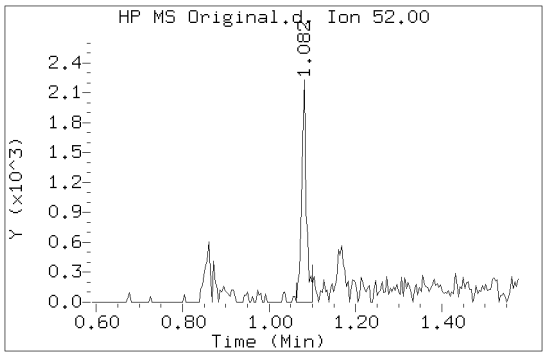
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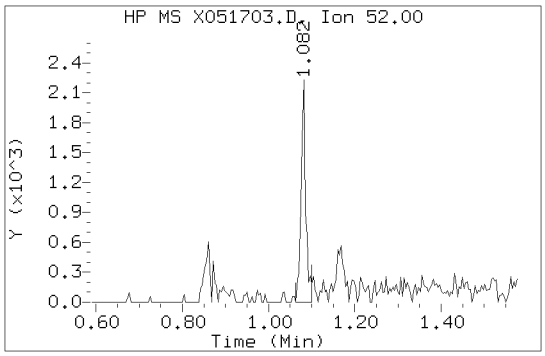
BEFORE

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HEIGHT
2230
18-May-2023
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linh
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AFTER

MASS
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1701
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2230
18-May-2023
13:42
linh
pham

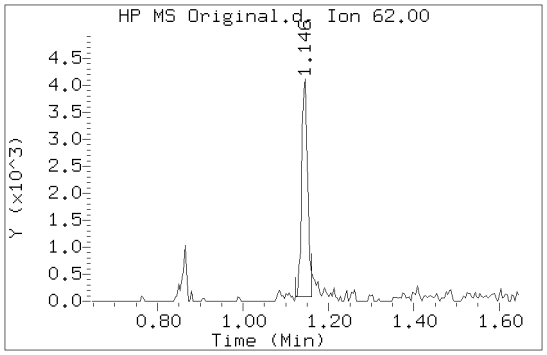


Vinyl Chloride (75-01-4)

Reason Code:

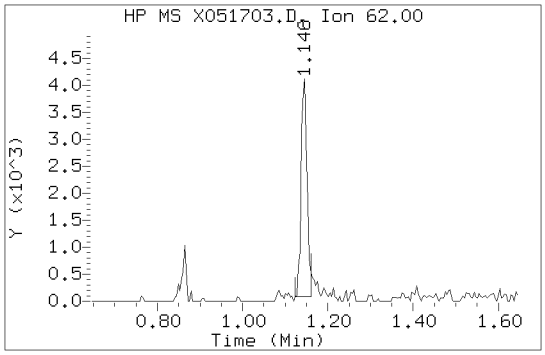
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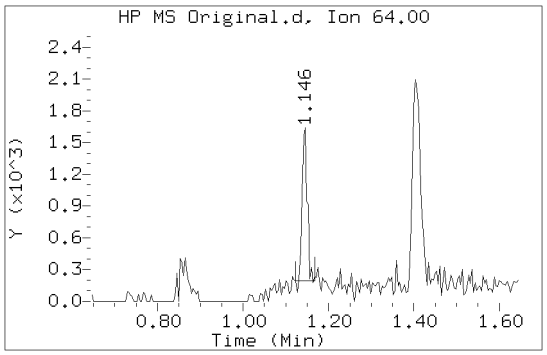
AFTER

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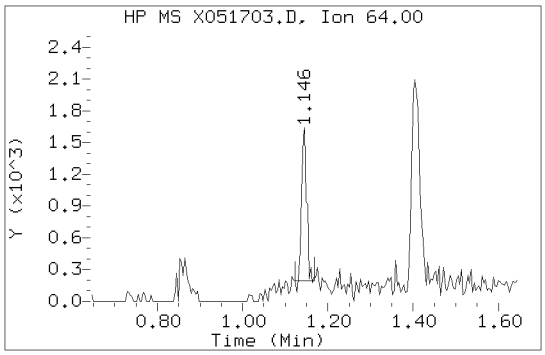
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AFTER

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18-May-2023
13:42
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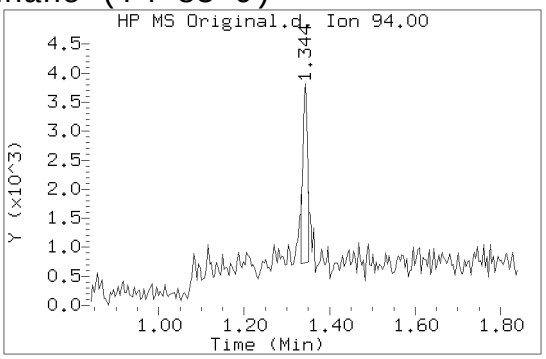


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InstruID : voa6.i
LabSampID : VSTD000.5

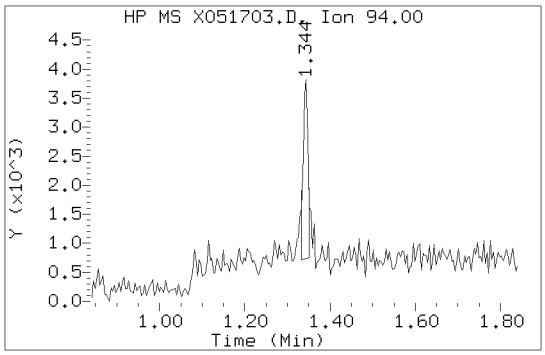
Bromomethane (74-83-9)

Reason Code:

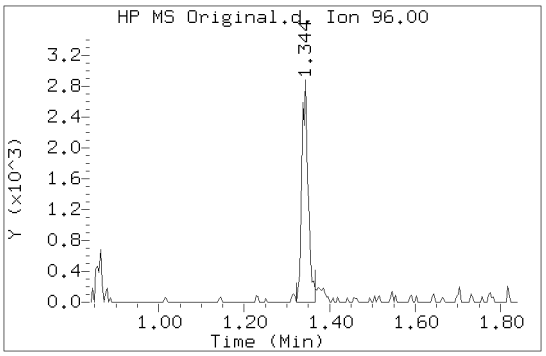
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3079
18-May-2023
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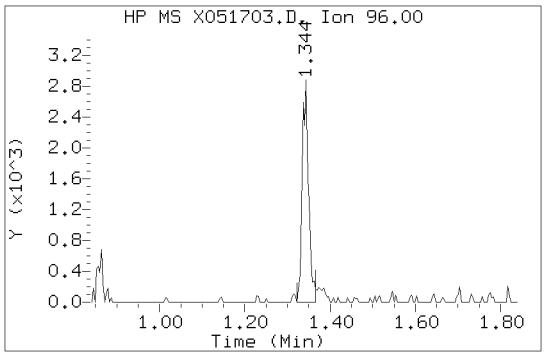
AFTER
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AREA
2591
HEIGHT
3079
18-May-2023
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BEFORE
MASS
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3070
HEIGHT
2880
18-May-2023
13:42
linh
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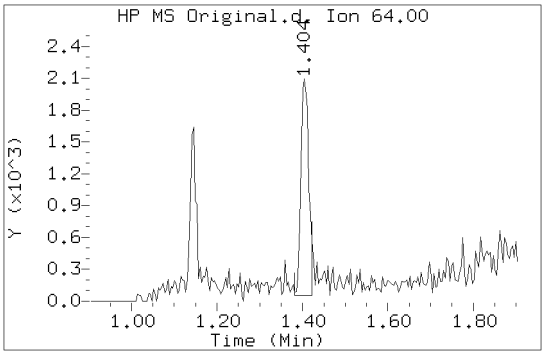
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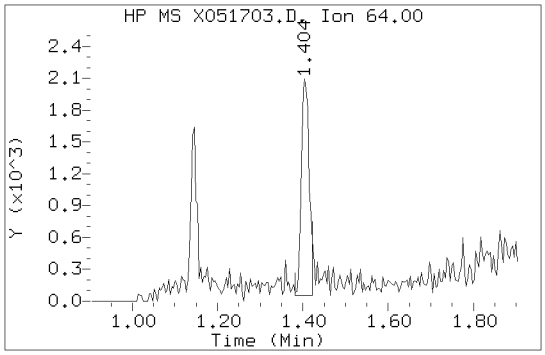
Chloroethane (75-00-3)

Reason Code:

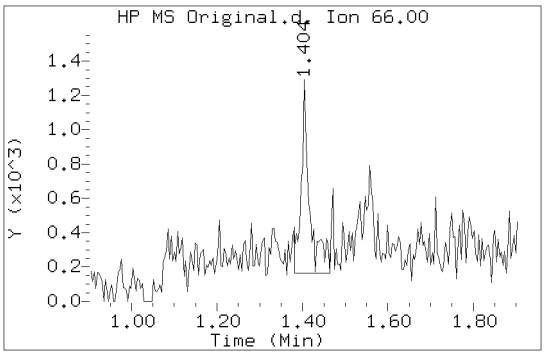
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18-May-2023
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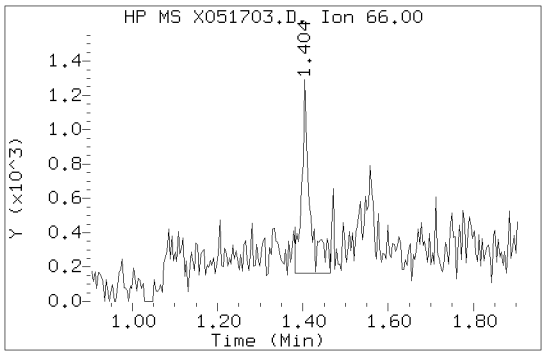
AFTER
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2706
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pham



BEFORE
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66
AREA
1567
HEIGHT
1127
18-May-2023
13:42
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pham



AFTER
MASS
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AREA
1567
HEIGHT
1127
18-May-2023
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linh
pham



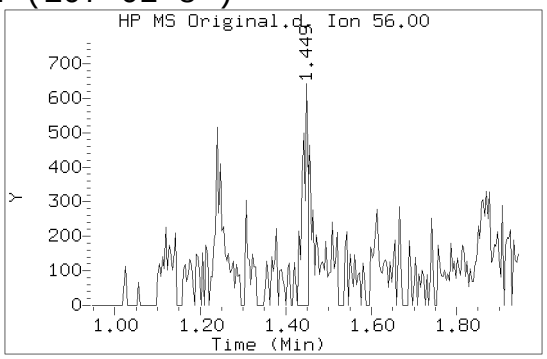
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Acrolein (107-02-8)

Reason Code:

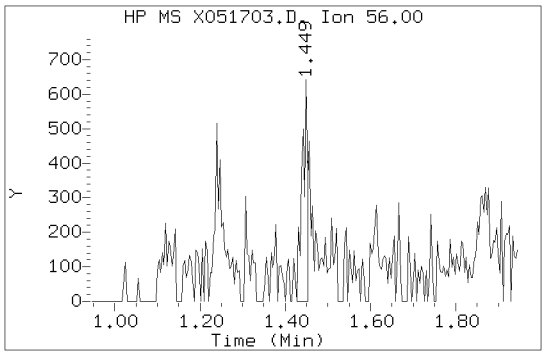
BEFORE

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AREA
565
HEIGHT
642
18-May-2023
13:42
linh
pham



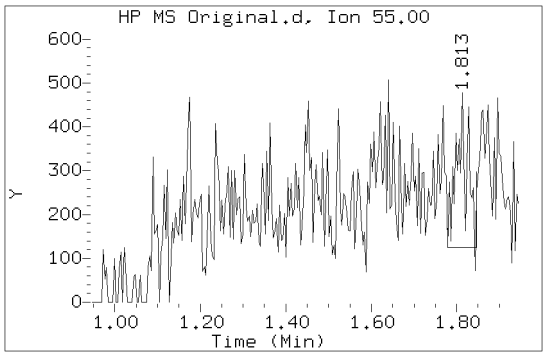
AFTER

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565
HEIGHT
642
18-May-2023
13:42
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pham



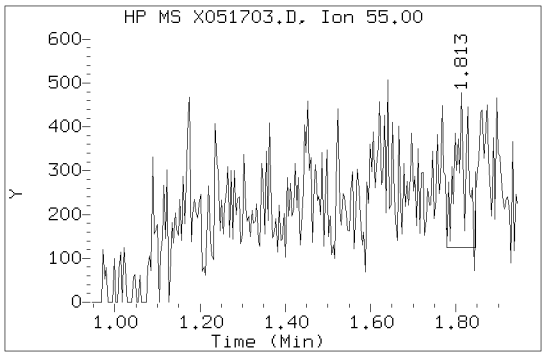
BEFORE

MASS
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AREA
644
HEIGHT
353
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
644
HEIGHT
353
18-May-2023
13:42
linh
pham

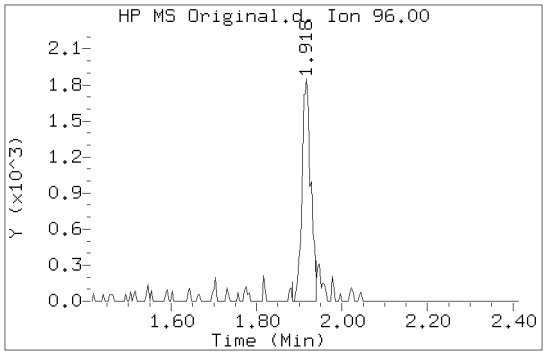


1,1-Dichloroethene (75-35-4)

Reason Code:

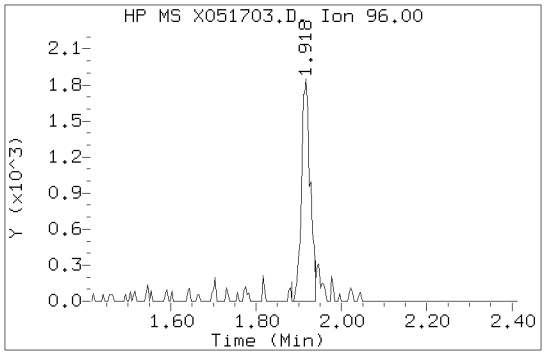
BEFORE

MASS
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AREA
2705
HEIGHT
1850
18-May-2023
13:42
linh
pham



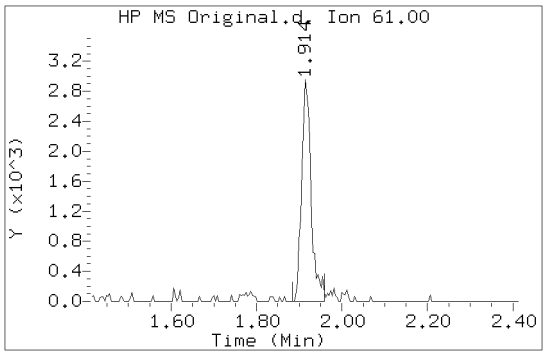
AFTER

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HEIGHT
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18-May-2023
13:42
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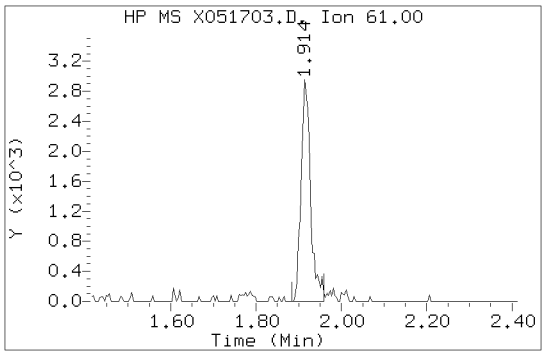
BEFORE

MASS
61
AREA
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HEIGHT
2954
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
4709
HEIGHT
2954
18-May-2023
13:42
linh
pham



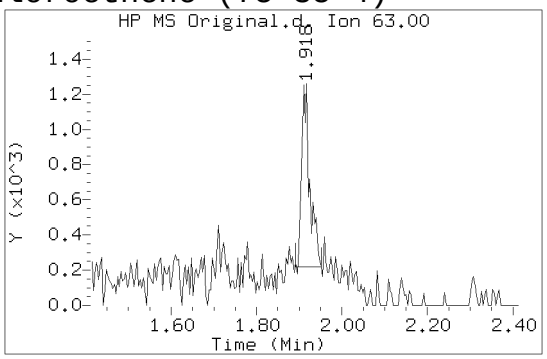
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethene (75-35-4)

Reason Code:

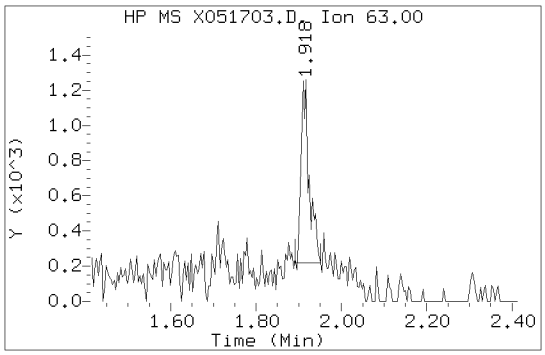
BEFORE

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AREA
1400
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1041
18-May-2023
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linh
pham



AFTER

MASS
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AREA
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18-May-2023
13:42
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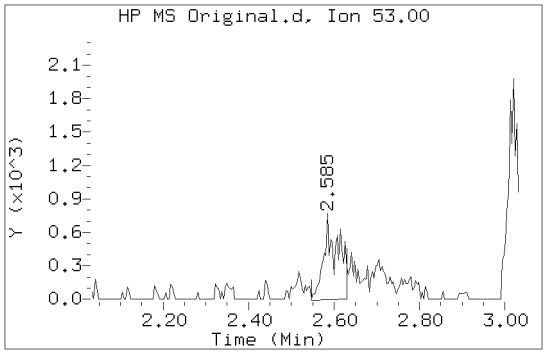


Acrylonitrile (107-13-1)

Reason Code:

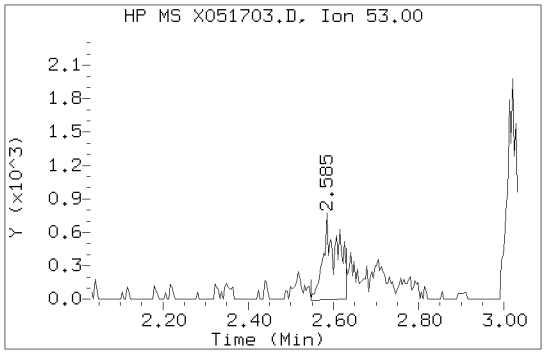
BEFORE

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AREA
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HEIGHT
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18-May-2023
13:42
linh
pham



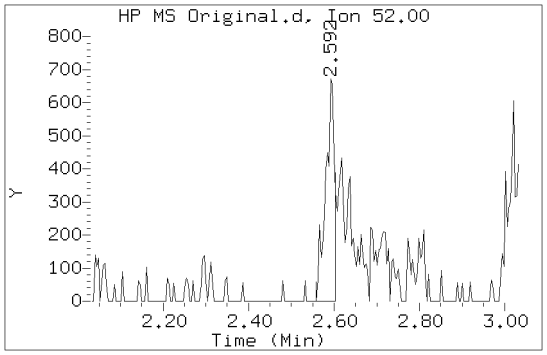
AFTER

MASS
53
AREA
1804
HEIGHT
775
18-May-2023
13:42
linh
pham



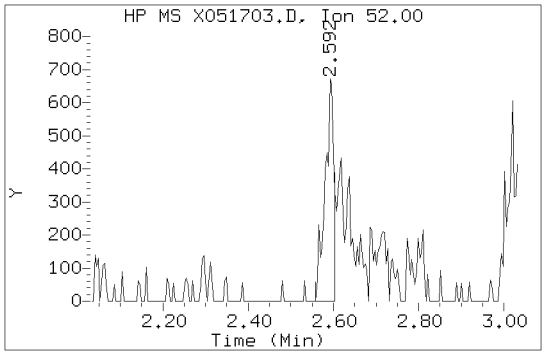
BEFORE

MASS
52
AREA
946
HEIGHT
672
18-May-2023
13:42
linh
pham



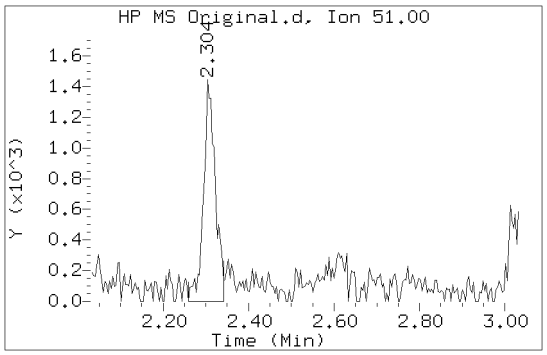
AFTER

MASS
52
AREA
946
HEIGHT
672
18-May-2023
13:42
linh
pham



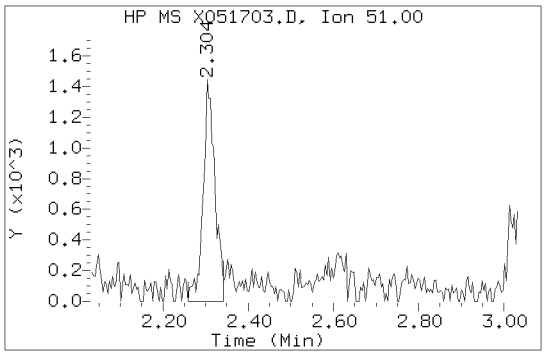
BEFORE

MASS
51
AREA
2762
HEIGHT
1445
18-May-2023
13:42
linh
pham



AFTER

MASS
51
AREA
2762
HEIGHT
1445
18-May-2023
13:42
linh
pham



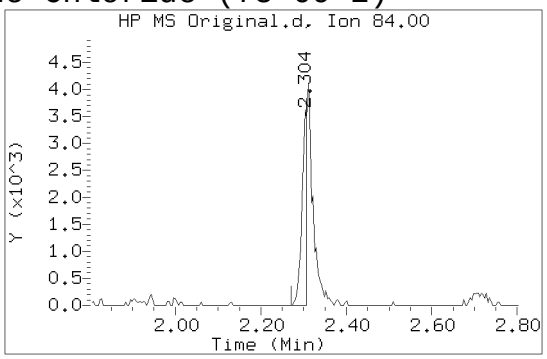
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Methylene Chloride (75-09-2)

Reason Code:

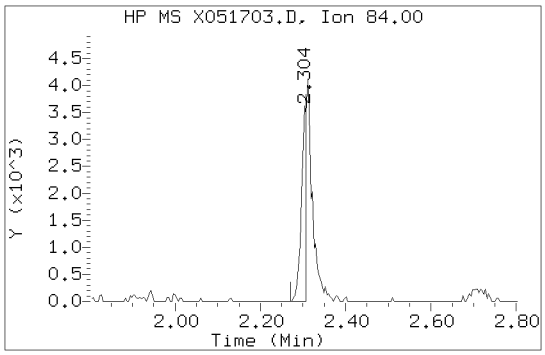
BEFORE

MASS
84
AREA
3196
HEIGHT
3626
18-May-2023
13:42
linh
pham



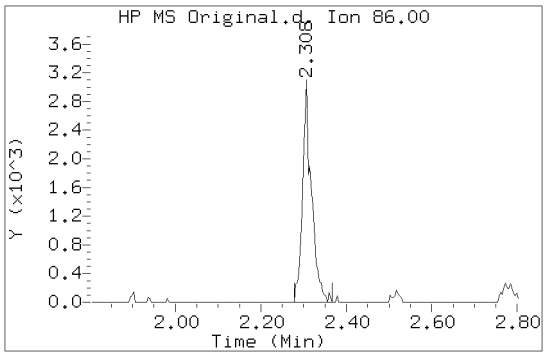
AFTER

MASS
84
AREA
3196
HEIGHT
3626
18-May-2023
13:42
linh
pham



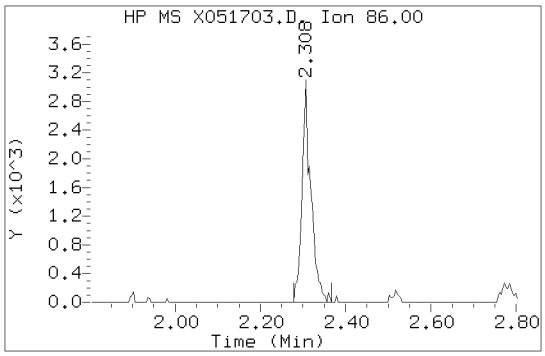
BEFORE

MASS
86
AREA
4604
HEIGHT
3102
18-May-2023
13:42
linh
pham



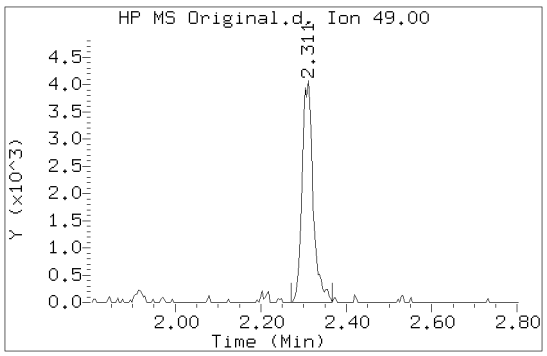
AFTER

MASS
86
AREA
4604
HEIGHT
3102
18-May-2023
13:42
linh
pham



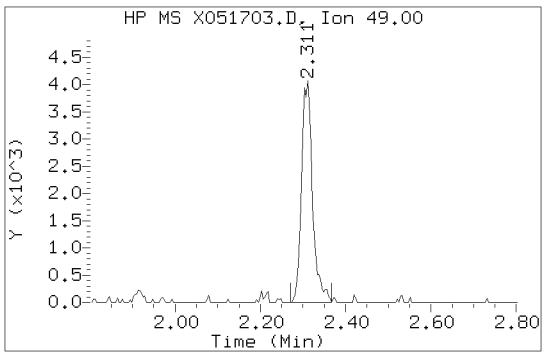
BEFORE

MASS
49
AREA
7449
HEIGHT
4072
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
7449
HEIGHT
4072
18-May-2023
13:42
linh
pham

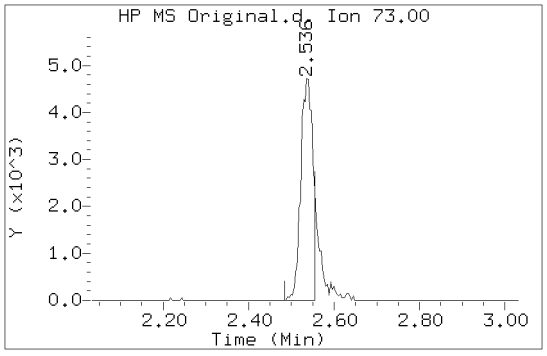


Methyl tert-butyl ether (1634-04-4)

Reason Code:

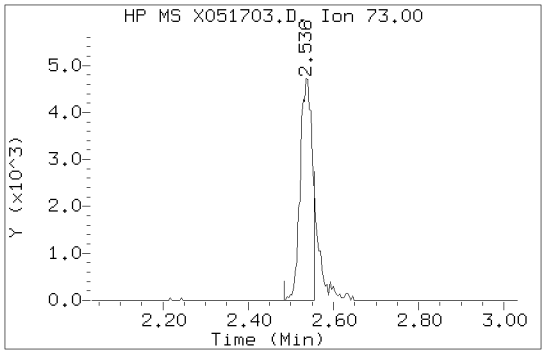
BEFORE

MASS
73
AREA
9307
HEIGHT
4719
18-May-2023
13:42
linh
pham



AFTER

MASS
73
AREA
9307
HEIGHT
4719
18-May-2023
13:42
linh
pham



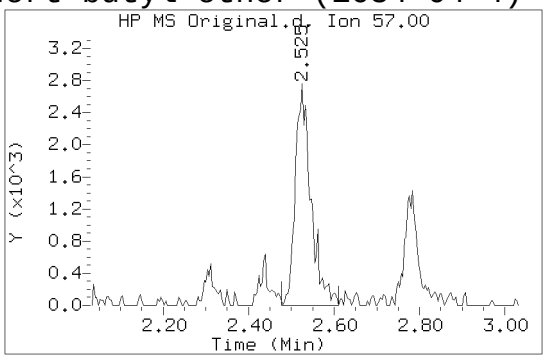
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Methyl tert-butyl ether (1634-04-4)

Reason Code:

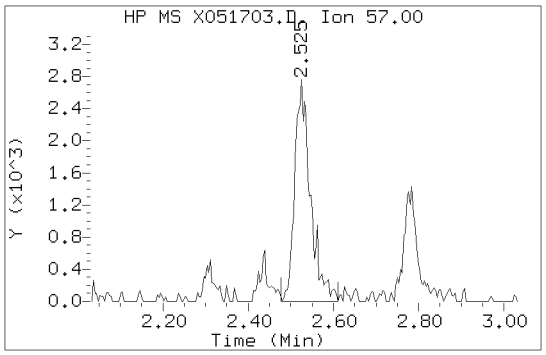
BEFORE

MASS
57
AREA
7096
HEIGHT
2760
18-May-2023
13:42
linh
pham



AFTER

MASS
57
AREA
7096
HEIGHT
2760
18-May-2023
13:42
linh
pham

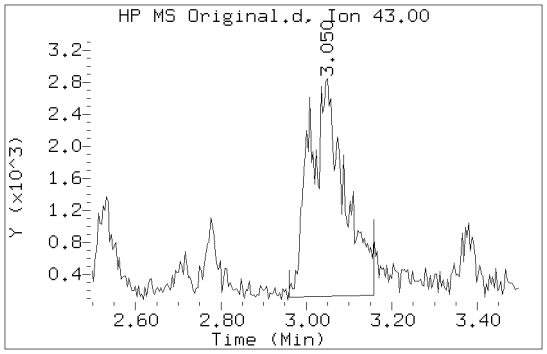


Vinyl Acetate (108-05-4)

Reason Code:

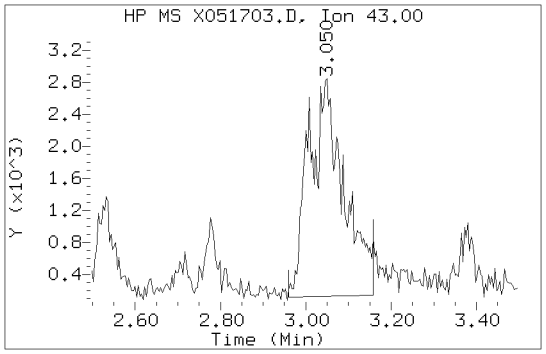
BEFORE

MASS
43
AREA
15515
HEIGHT
2716
18-May-2023
13:42
linh
pham



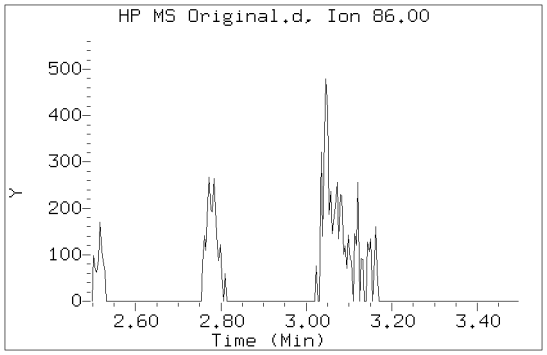
AFTER

MASS
43
AREA
15515
HEIGHT
2716
18-May-2023
13:42
linh
pham



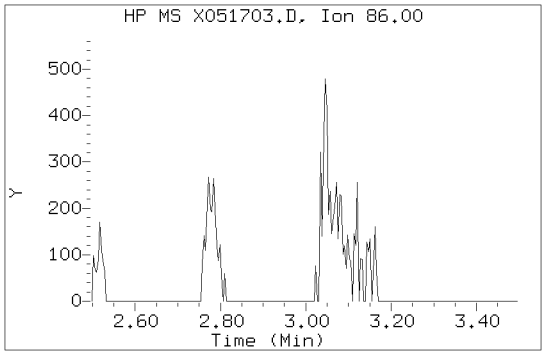
BEFORE

MASS
86
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
86
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

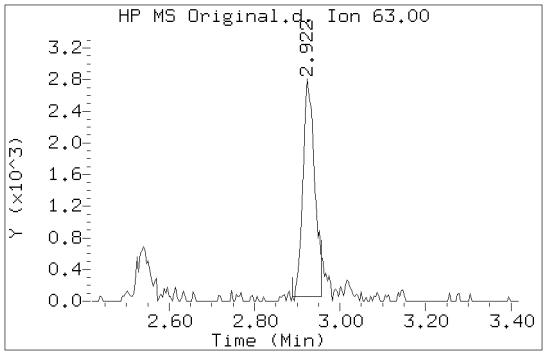


1,1-Dichloroethane (75-34-3)

Reason Code:

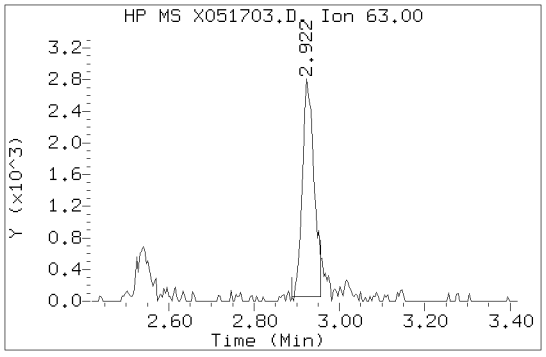
BEFORE

MASS
63
AREA
5303
HEIGHT
2755
18-May-2023
13:42
linh
pham



AFTER

MASS
63
AREA
5303
HEIGHT
2755
18-May-2023
13:42
linh
pham



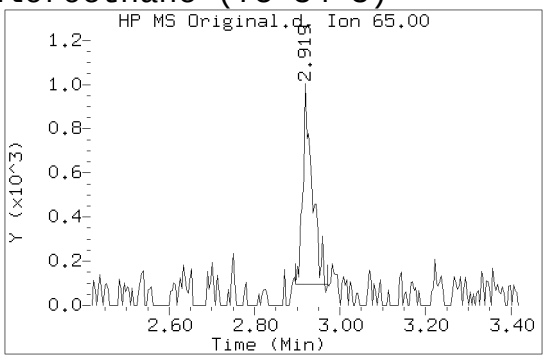
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethane (75-34-3)

Reason Code:

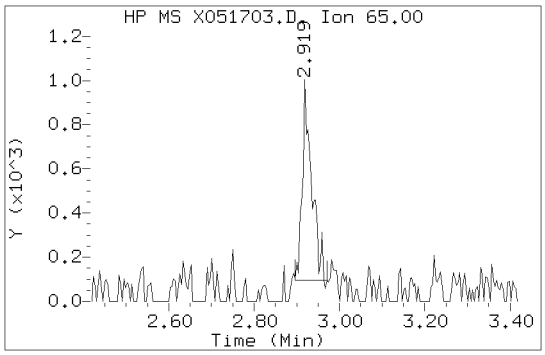
BEFORE

MASS
65
AREA
1385
HEIGHT
907
18-May-2023
13:42
linh
pham



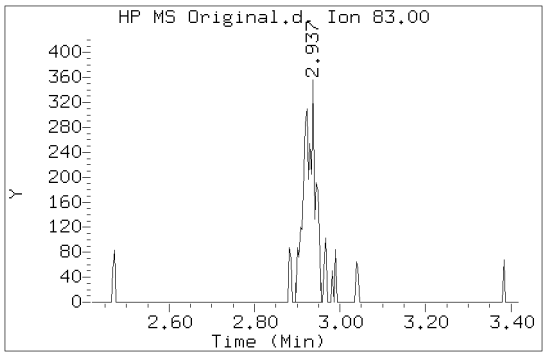
AFTER

MASS
65
AREA
1385
HEIGHT
907
18-May-2023
13:42
linh
pham



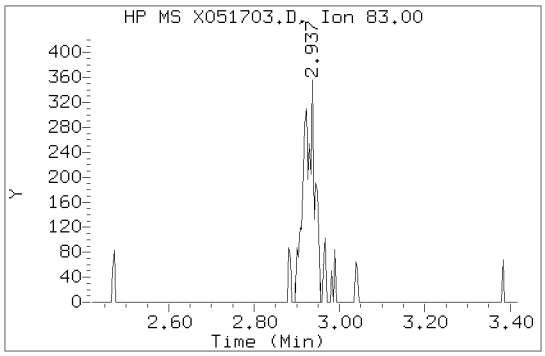
BEFORE

MASS
83
AREA
635
HEIGHT
356
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
635
HEIGHT
356
18-May-2023
13:42
linh
pham

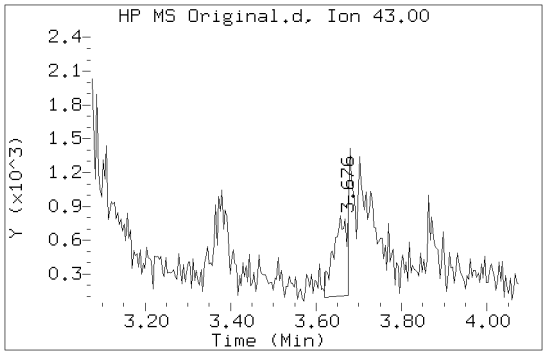


2-Butanone (78-93-3)

Reason Code:

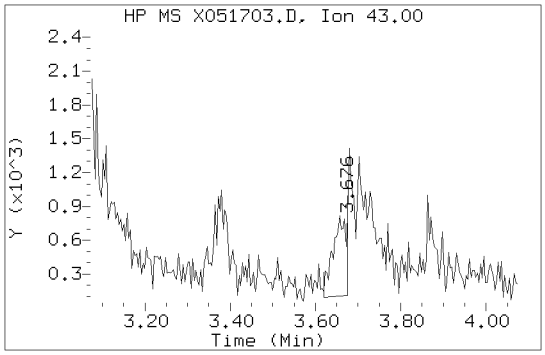
BEFORE

MASS
43
AREA
1598
HEIGHT
713
18-May-2023
13:42
linh
pham



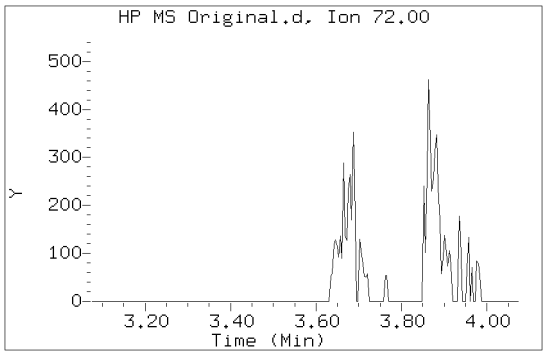
AFTER

MASS
43
AREA
1598
HEIGHT
713
18-May-2023
13:42
linh
pham



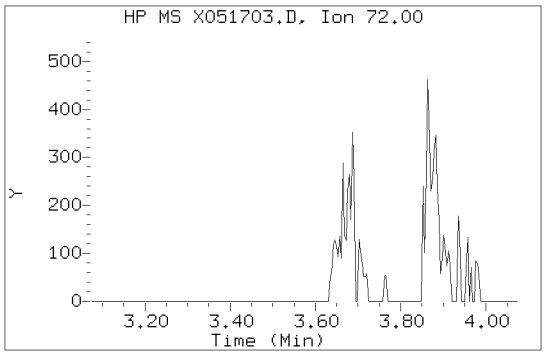
BEFORE

MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



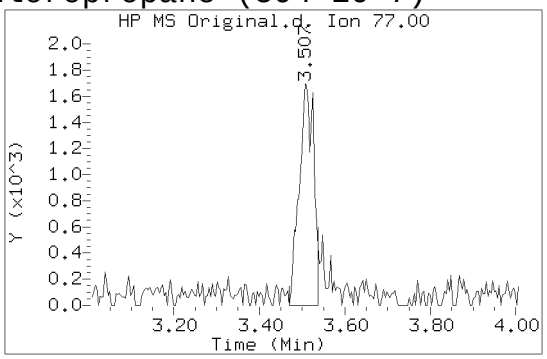
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

2,2-Dichloropropane (594-20-7)

Reason Code:

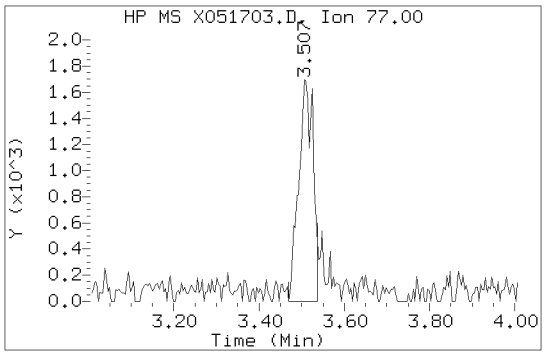
BEFORE

MASS
77
AREA
4065
HEIGHT
1696
18-May-2023
13:42
linh
pham



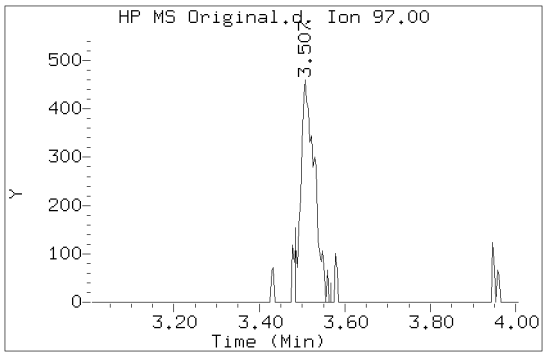
AFTER

MASS
77
AREA
4065
HEIGHT
1696
18-May-2023
13:42
linh
pham



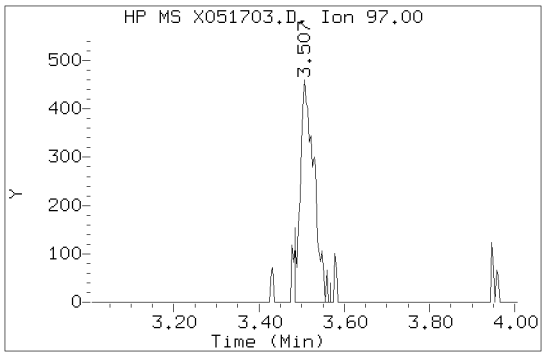
BEFORE

MASS
97
AREA
1051
HEIGHT
460
18-May-2023
13:42
linh
pham



AFTER

MASS
97
AREA
1051
HEIGHT
460
18-May-2023
13:42
linh
pham

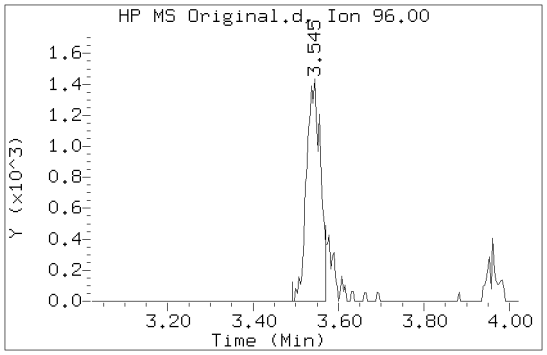


cis-1,2-Dichloroethene (156-59-2)

Reason Code:

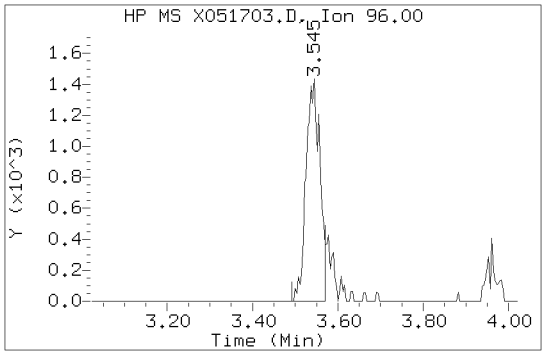
BEFORE

MASS
96
AREA
3272
HEIGHT
1435
18-May-2023
13:42
linh
pham



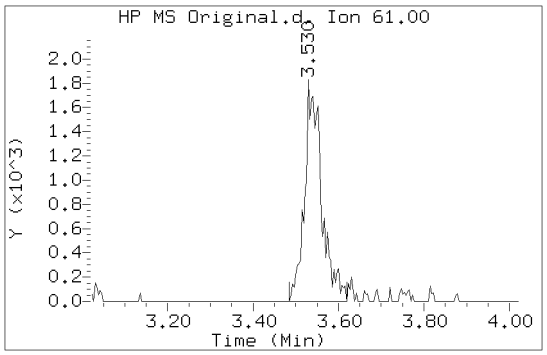
AFTER

MASS
96
AREA
3272
HEIGHT
1435
18-May-2023
13:42
linh
pham



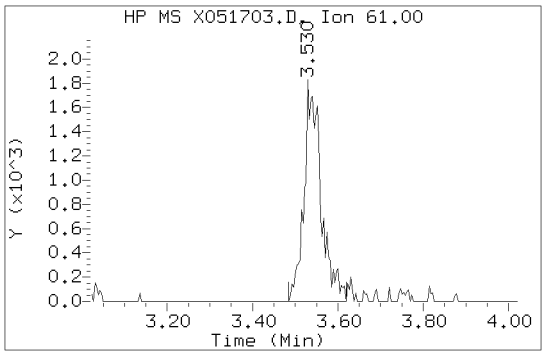
BEFORE

MASS
61
AREA
5044
HEIGHT
1829
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
5044
HEIGHT
1829
18-May-2023
13:42
linh
pham



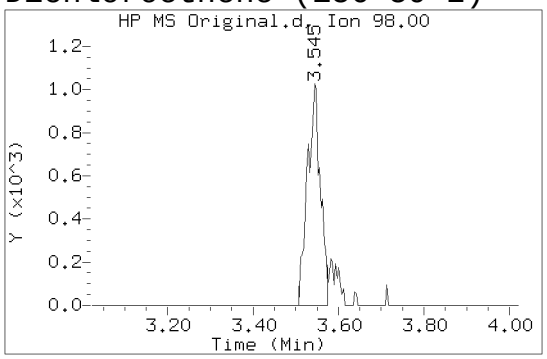
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

cis-1,2-Dichloroethene (156-59-2)

Reason Code:

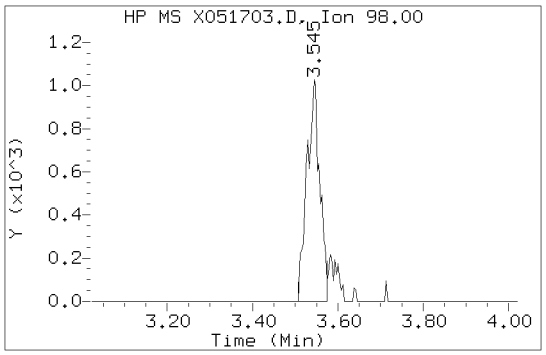
BEFORE

MASS
98
AREA
2158
HEIGHT
1027
18-May-2023
13:42
linh
pham



AFTER

MASS
98
AREA
2158
HEIGHT
1027
18-May-2023
13:42
linh
pham

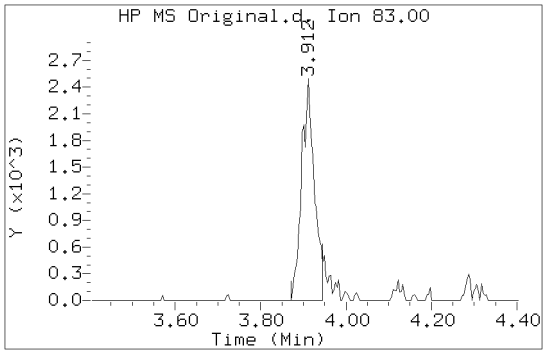


Chloroform (67-66-3)

Reason Code:

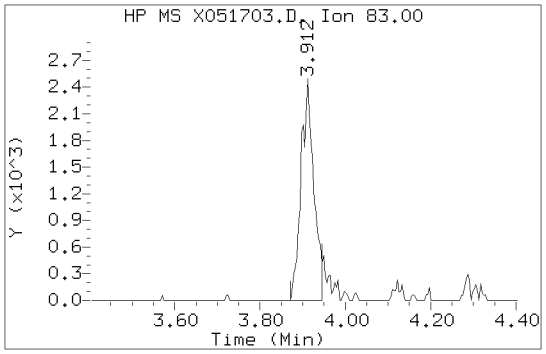
BEFORE

MASS
83
AREA
5260
HEIGHT
2495
18-May-2023
13:42
linh
pham



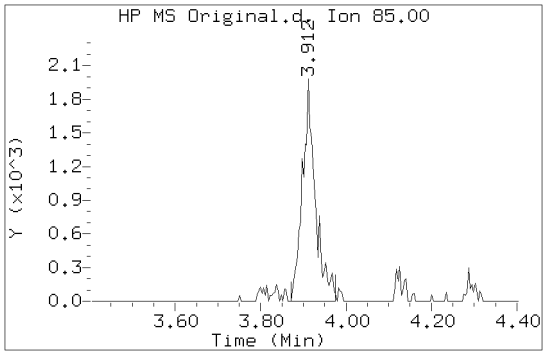
AFTER

MASS
83
AREA
5260
HEIGHT
2495
18-May-2023
13:42
linh
pham



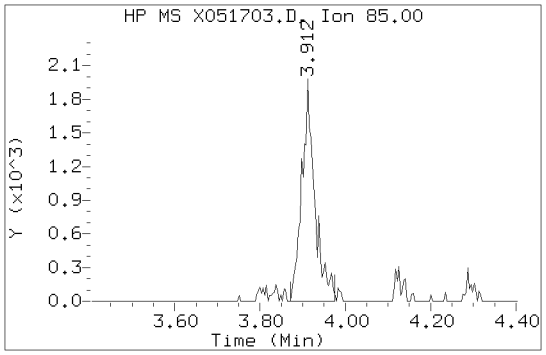
BEFORE

MASS
85
AREA
4218
HEIGHT
1981
18-May-2023
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linh
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AFTER

MASS
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AREA
4218
HEIGHT
1981
18-May-2023
13:42
linh
pham

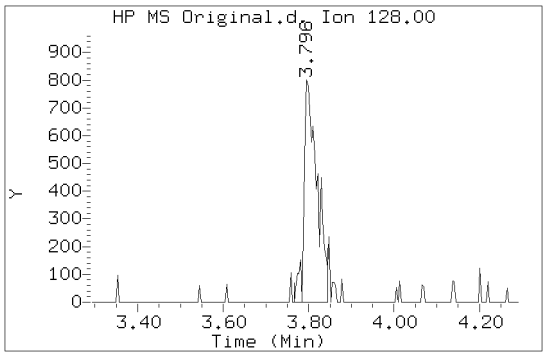


Bromochloromethane (74-97-5)

Reason Code:

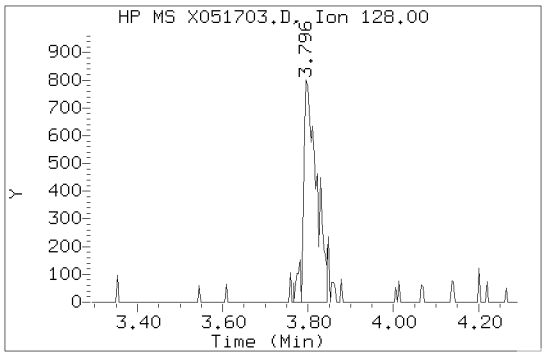
BEFORE

MASS
128
AREA
1738
HEIGHT
801
18-May-2023
13:42
linh
pham



AFTER

MASS
128
AREA
1738
HEIGHT
801
18-May-2023
13:42
linh
pham

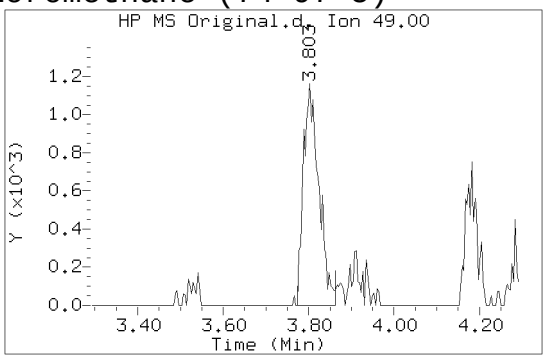


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Bromochloromethane (74-97-5)

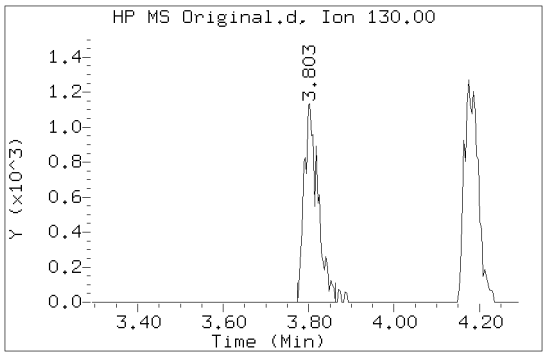
BEFORE

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49
AREA
2948
HEIGHT
1162
18-May-2023
13:42
linh
pham



BEFORE

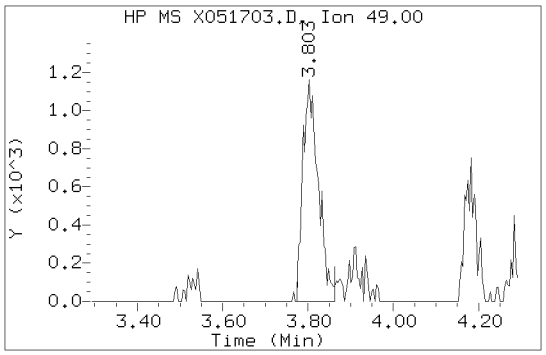
MASS
130
AREA
2582
HEIGHT
1133
18-May-2023
13:42
linh
pham



Reason Code:

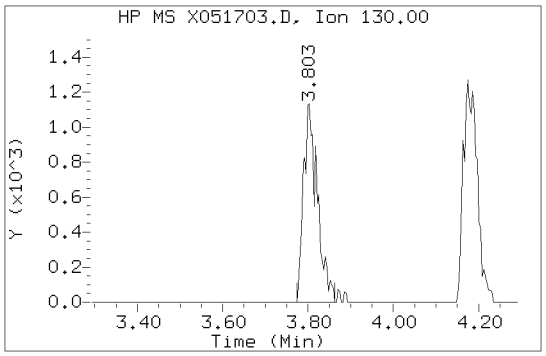
AFTER

MASS
49
AREA
2948
HEIGHT
1162
18-May-2023
13:42
linh
pham



AFTER

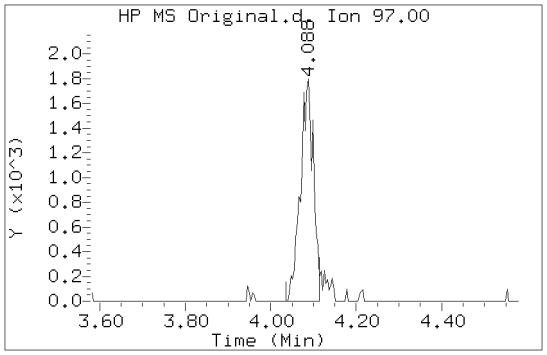
MASS
130
AREA
2582
HEIGHT
1133
18-May-2023
13:42
linh
pham



1,1,1-Trichloroethane (71-55-6)

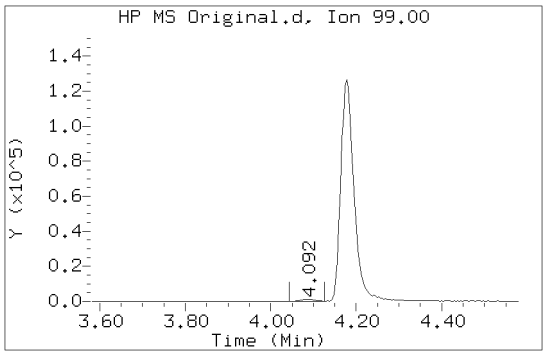
BEFORE

MASS
97
AREA
3862
HEIGHT
1798
18-May-2023
13:42
linh
pham



BEFORE

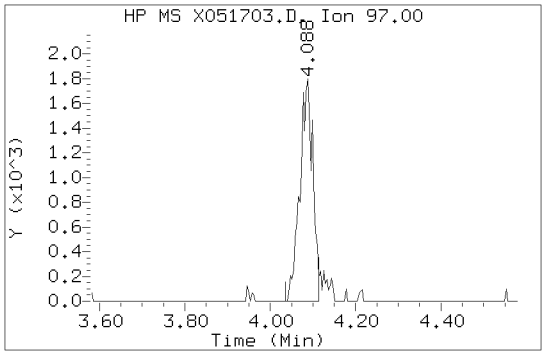
MASS
99
AREA
2612
HEIGHT
1249
18-May-2023
13:42
linh
pham



Reason Code:

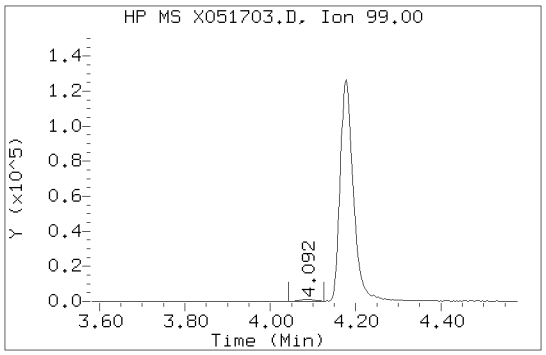
AFTER

MASS
97
AREA
3862
HEIGHT
1798
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
2612
HEIGHT
1249
18-May-2023
13:42
linh
pham



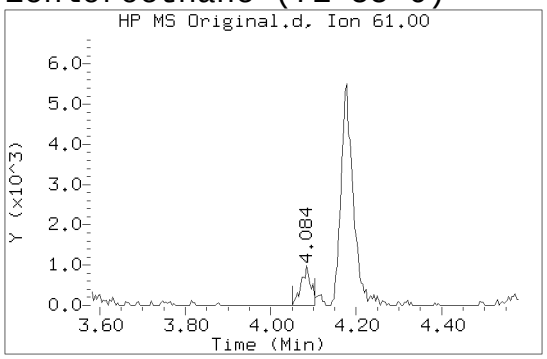
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,1-Trichloroethane (71-55-6)

Reason Code:

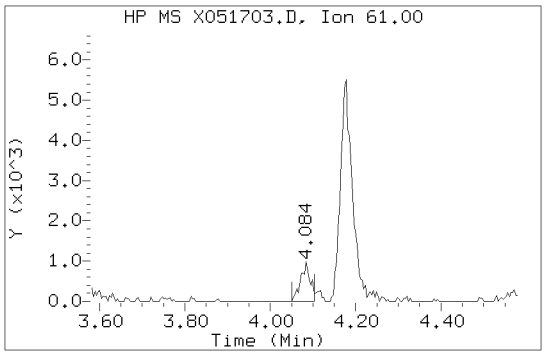
BEFORE

MASS
61
AREA
1532
HEIGHT
993
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
1532
HEIGHT
993
18-May-2023
13:42
linh
pham

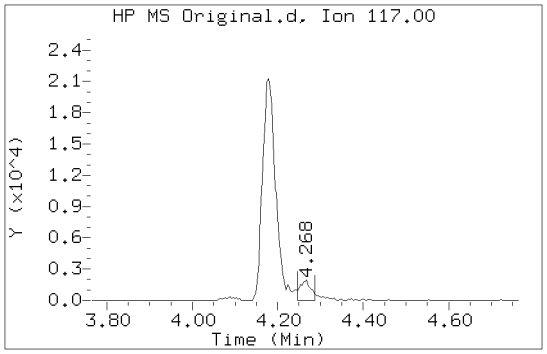


Carbon Tetrachloride (56-23-5)

Reason Code:

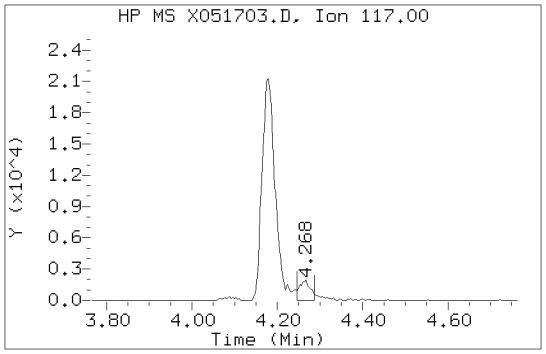
BEFORE

MASS
117
AREA
3535
HEIGHT
1948
18-May-2023
13:42
linh
pham



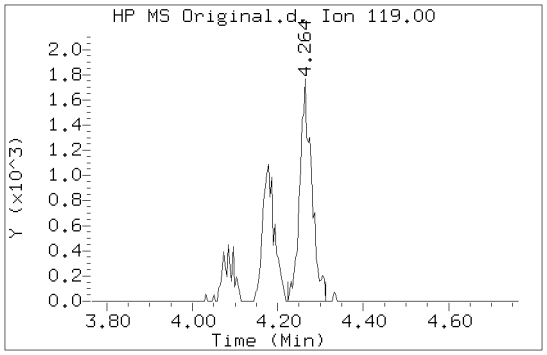
AFTER

MASS
117
AREA
3535
HEIGHT
1948
18-May-2023
13:42
linh
pham



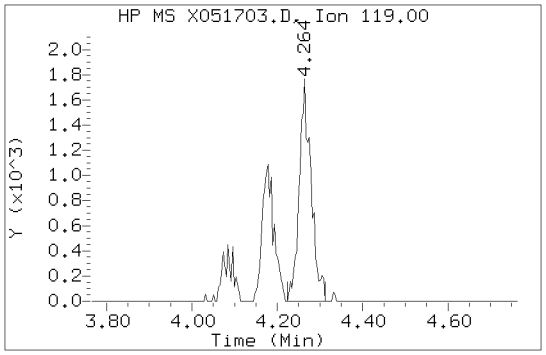
BEFORE

MASS
119
AREA
3467
HEIGHT
1767
18-May-2023
13:42
linh
pham



AFTER

MASS
119
AREA
3467
HEIGHT
1767
18-May-2023
13:42
linh
pham

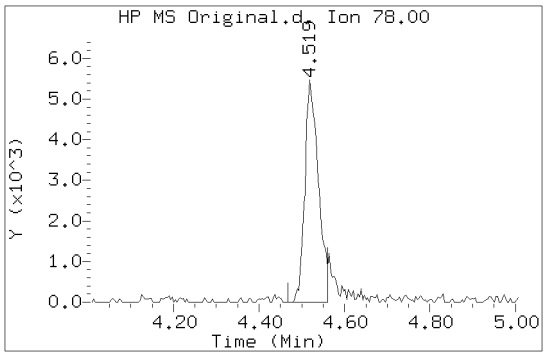


Benzene (71-43-2)

Reason Code:

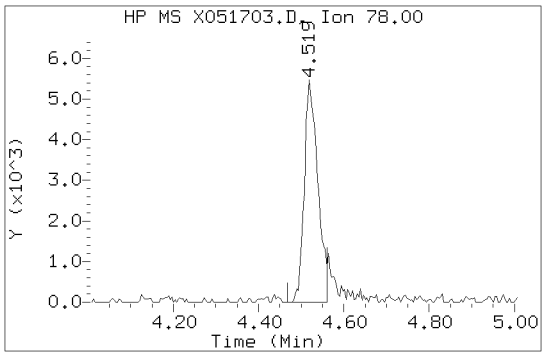
BEFORE

MASS
78
AREA
12185
HEIGHT
5472
18-May-2023
13:42
linh
pham



AFTER

MASS
78
AREA
12185
HEIGHT
5472
18-May-2023
13:42
linh
pham

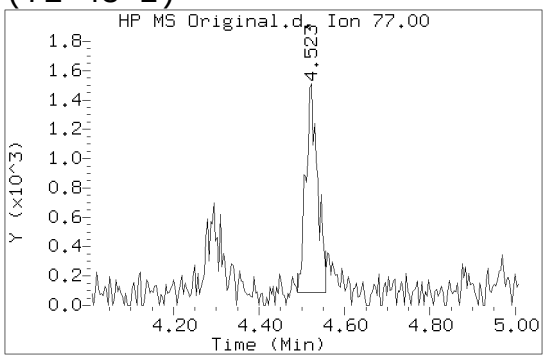


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

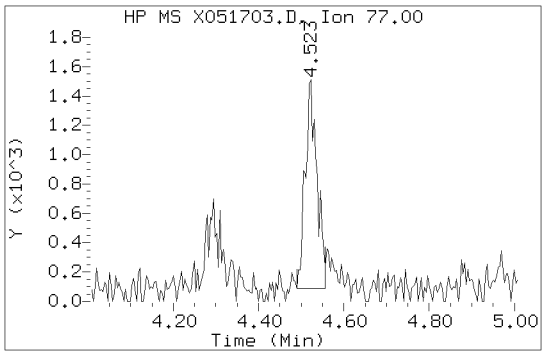
Benzene (71-43-2)

Reason Code:

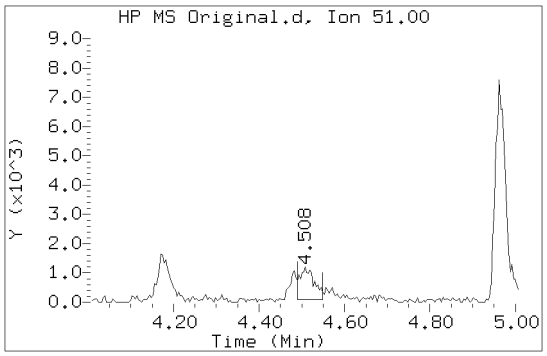
BEFORE
MASS
77
AREA
2772
HEIGHT
1425
18-May-2023
13:42
linh
pham



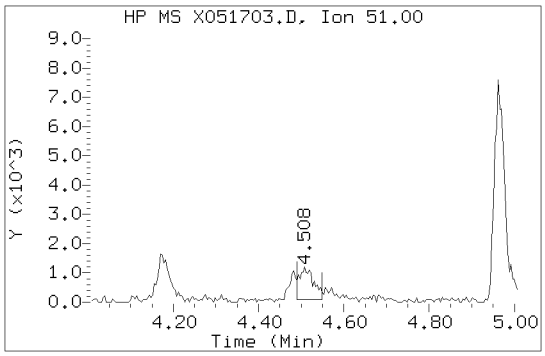
AFTER
MASS
77
AREA
2772
HEIGHT
1425
18-May-2023
13:42
linh
pham



BEFORE
MASS
51
AREA
2692
HEIGHT
1118
18-May-2023
13:42
linh
pham



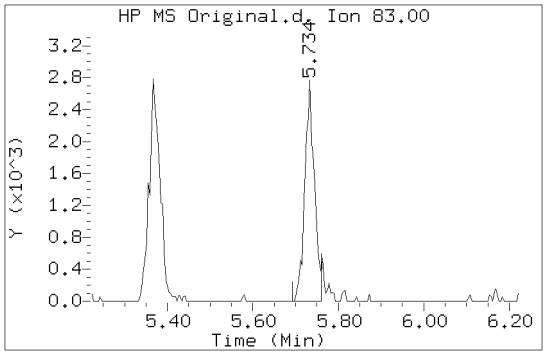
AFTER
MASS
51
AREA
2692
HEIGHT
1118
18-May-2023
13:42
linh
pham



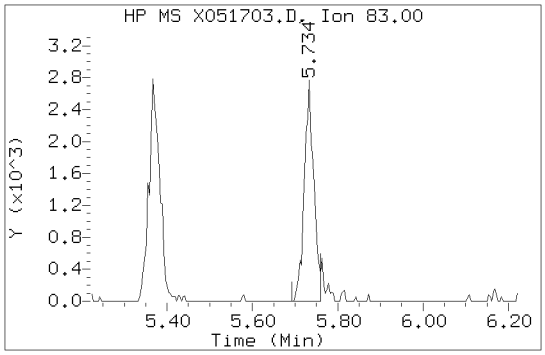
Bromodichloromethane (75-27-4)

Reason Code:

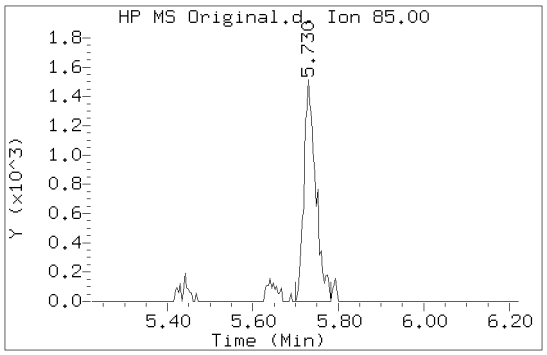
BEFORE
MASS
83
AREA
4365
HEIGHT
2768
18-May-2023
13:42
linh
pham



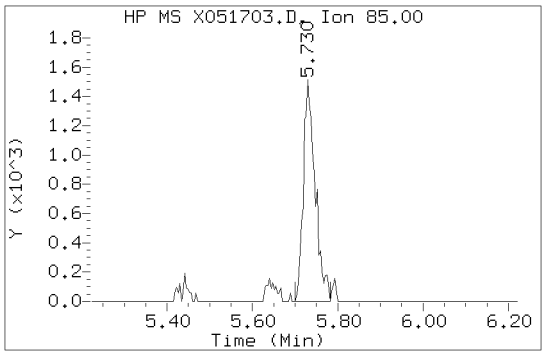
AFTER
MASS
83
AREA
4365
HEIGHT
2768
18-May-2023
13:42
linh
pham



BEFORE
MASS
85
AREA
2952
HEIGHT
1514
18-May-2023
13:42
linh
pham



AFTER
MASS
85
AREA
2952
HEIGHT
1514
18-May-2023
13:42
linh
pham



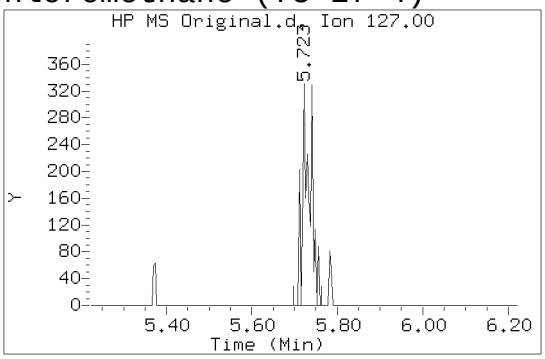
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Bromodichloromethane (75-27-4)

Reason Code:

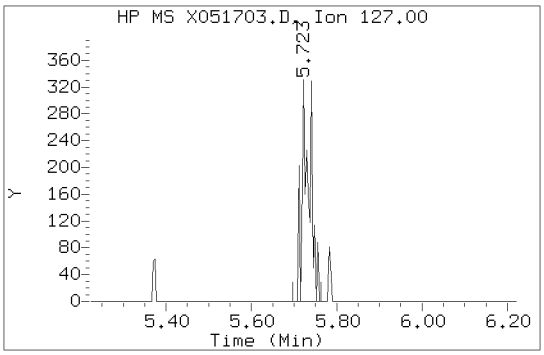
BEFORE

MASS
127
AREA
439
HEIGHT
331
18-May-2023
13:42
linh
pham



AFTER

MASS
127
AREA
439
HEIGHT
331
18-May-2023
13:42
linh
pham

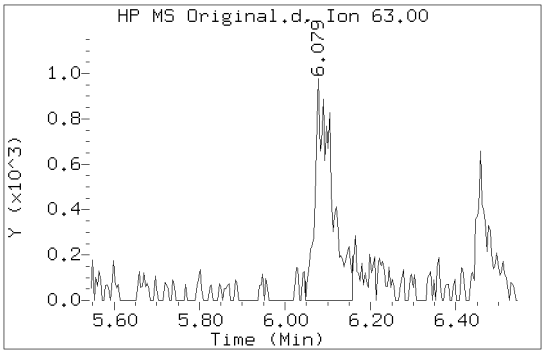


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

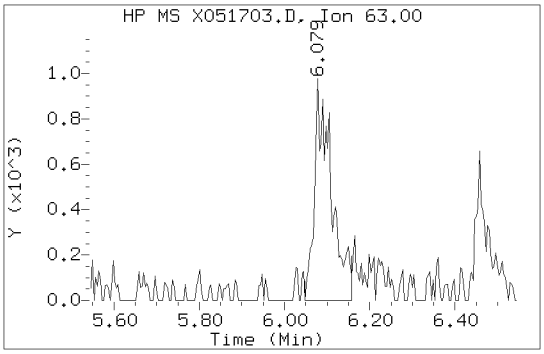
BEFORE

MASS
63
AREA
2660
HEIGHT
977
18-May-2023
13:42
linh
pham



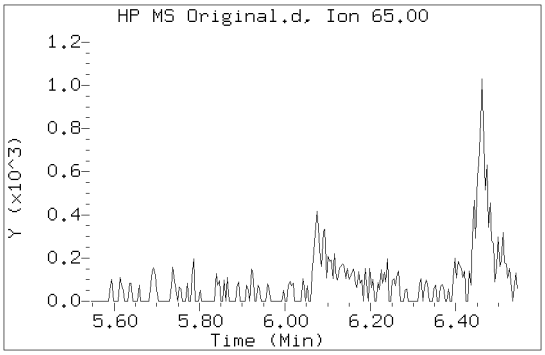
AFTER

MASS
63
AREA
2660
HEIGHT
977
18-May-2023
13:42
linh
pham



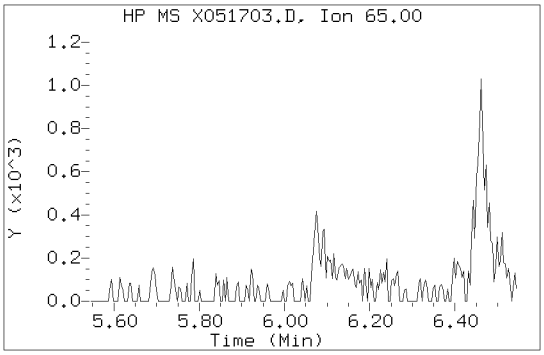
BEFORE

MASS
65
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



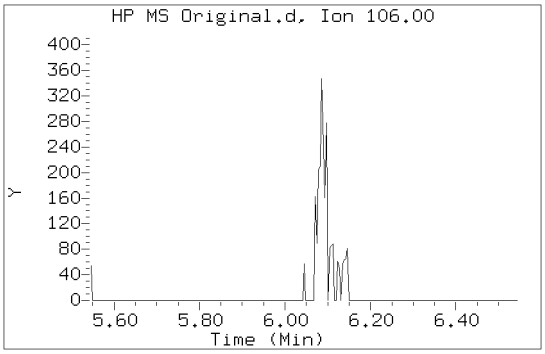
AFTER

MASS
65
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



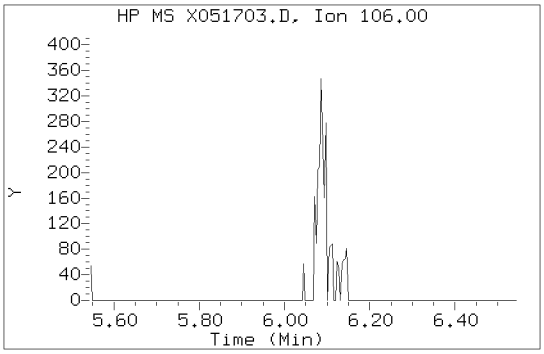
BEFORE

MASS
106
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



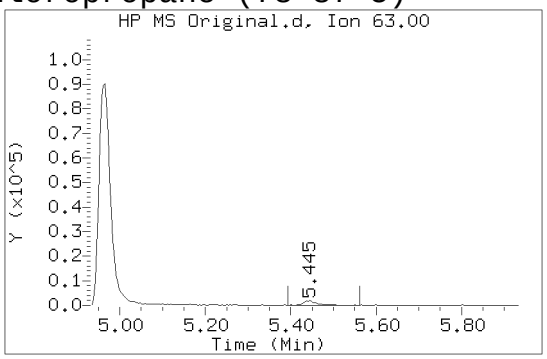
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dichloropropane (78-87-5)

Reason Code:

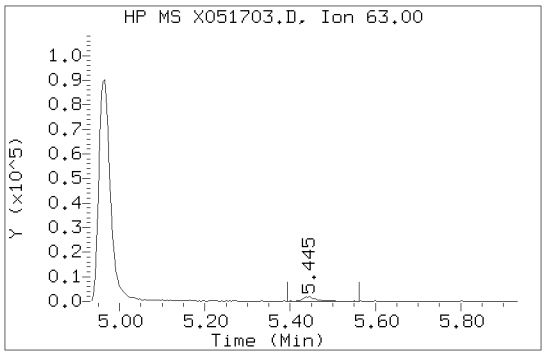
BEFORE

MASS
63
AREA
3346
HEIGHT
2002
18-May-2023
13:42
linh
pham



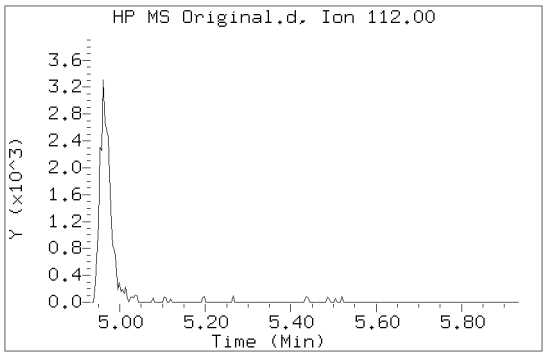
AFTER

MASS
63
AREA
3346
HEIGHT
2002
18-May-2023
13:42
linh
pham



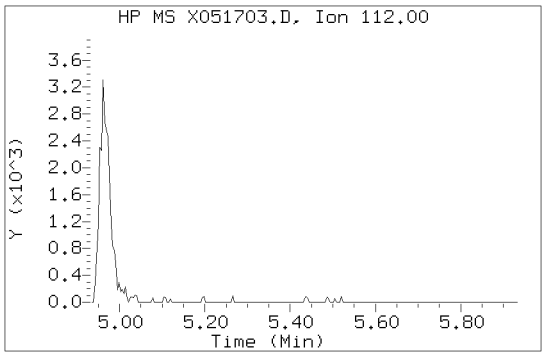
BEFORE

MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

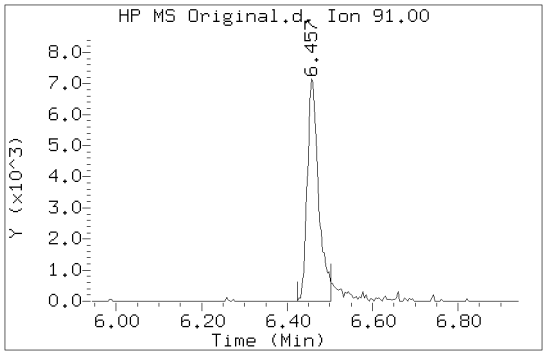


Toluene (108-88-3)

Reason Code:

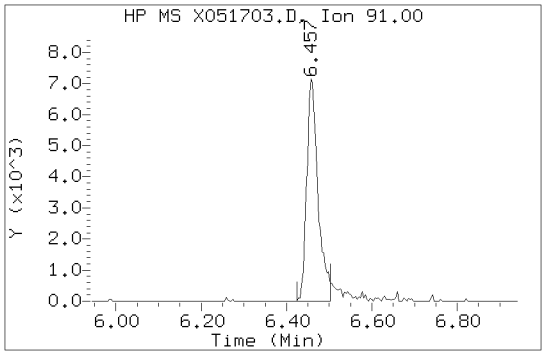
BEFORE

MASS
91
AREA
13263
HEIGHT
7147
18-May-2023
13:42
linh
pham



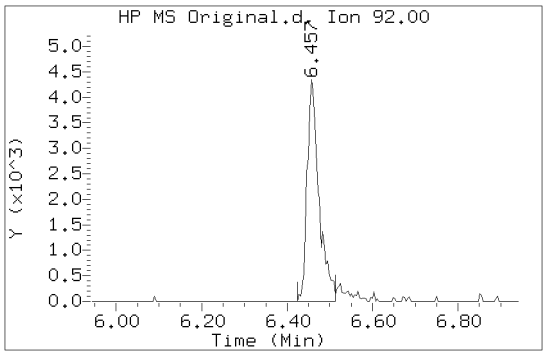
AFTER

MASS
91
AREA
13263
HEIGHT
7147
18-May-2023
13:42
linh
pham



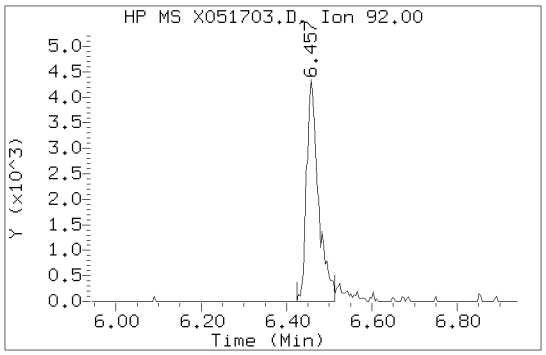
BEFORE

MASS
92
AREA
8443
HEIGHT
4346
18-May-2023
13:42
linh
pham



AFTER

MASS
92
AREA
8443
HEIGHT
4346
18-May-2023
13:42
linh
pham



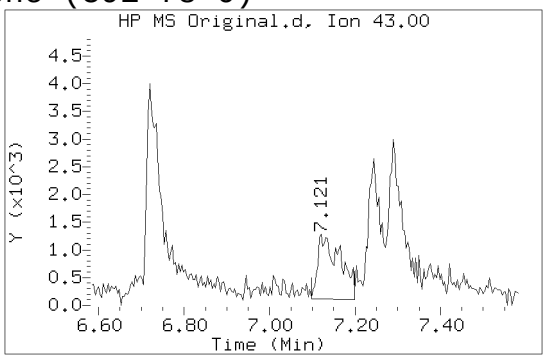
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

2-Hexanone (591-78-6)

Reason Code:

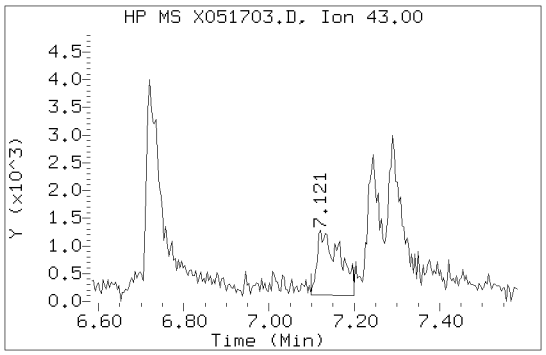
BEFORE

MASS
43
AREA
4224
HEIGHT
1179
18-May-2023
13:42
linh
pham



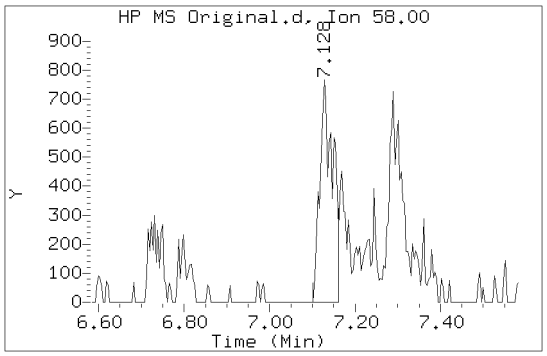
AFTER

MASS
43
AREA
4224
HEIGHT
1179
18-May-2023
13:42
linh
pham



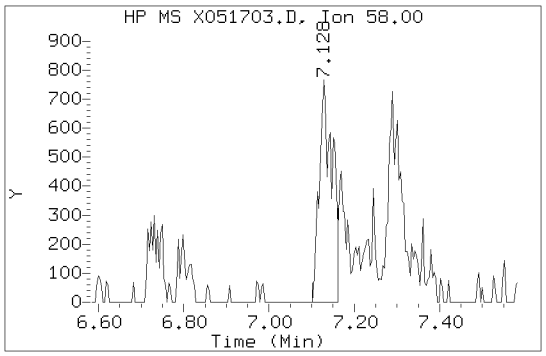
BEFORE

MASS
58
AREA
1632
HEIGHT
766
18-May-2023
13:42
linh
pham



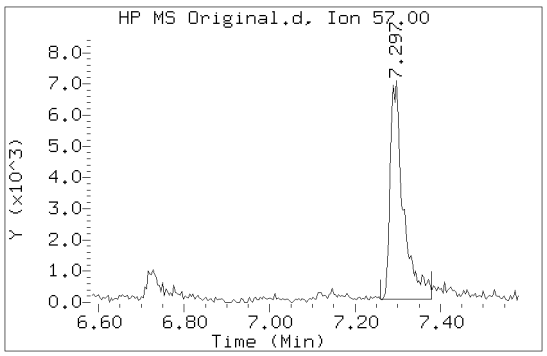
AFTER

MASS
58
AREA
1632
HEIGHT
766
18-May-2023
13:42
linh
pham



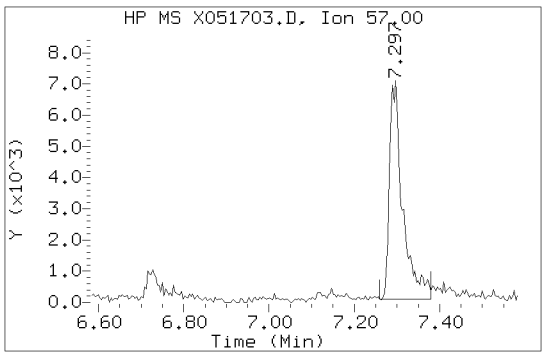
BEFORE

MASS
57
AREA
15046
HEIGHT
7006
18-May-2023
13:42
linh
pham



AFTER

MASS
57
AREA
15046
HEIGHT
7006
18-May-2023
13:42
linh
pham

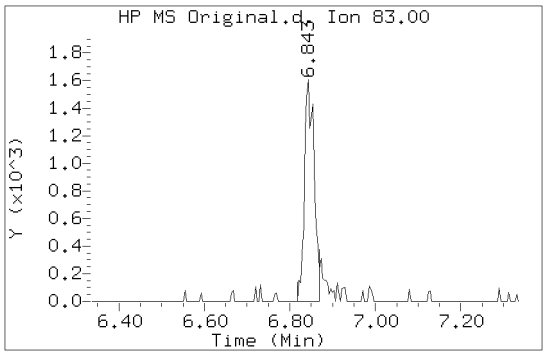


1,1,2-Trichloroethane (79-00-5)

Reason Code:

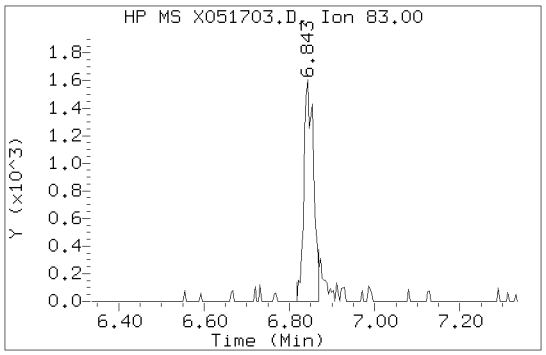
BEFORE

MASS
83
AREA
2580
HEIGHT
1606
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
2580
HEIGHT
1606
18-May-2023
13:42
linh
pham



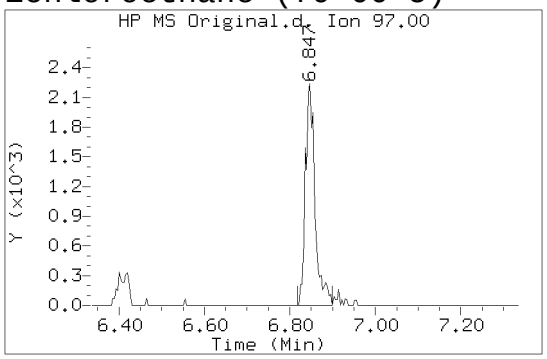
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,2-Trichloroethane (79-00-5)

Reason Code:

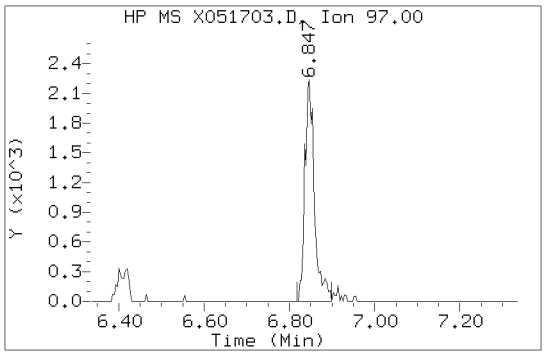
BEFORE

MASS
97
AREA
3533
HEIGHT
2239
18-May-2023
13:42
linh
pham



AFTER

MASS
97
AREA
3533
HEIGHT
2239
18-May-2023
13:42
linh
pham

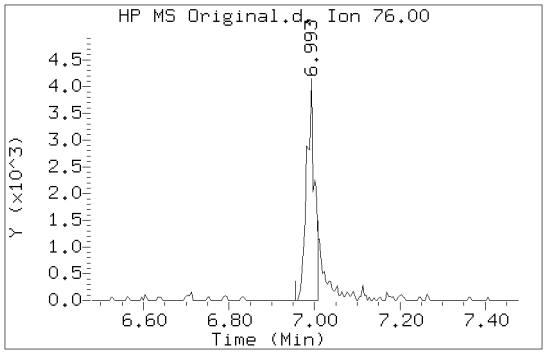


1,3-Dichloropropane (142-28-9)

Reason Code:

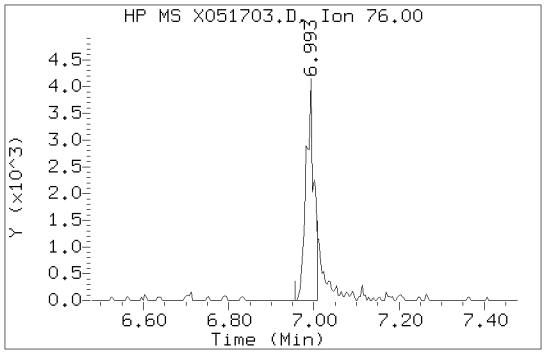
BEFORE

MASS
76
AREA
5321
HEIGHT
4147
18-May-2023
13:42
linh
pham



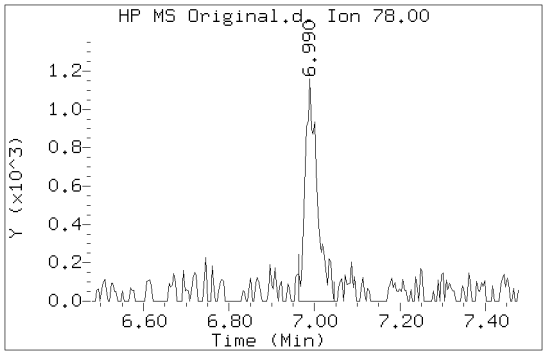
AFTER

MASS
76
AREA
5321
HEIGHT
4147
18-May-2023
13:42
linh
pham



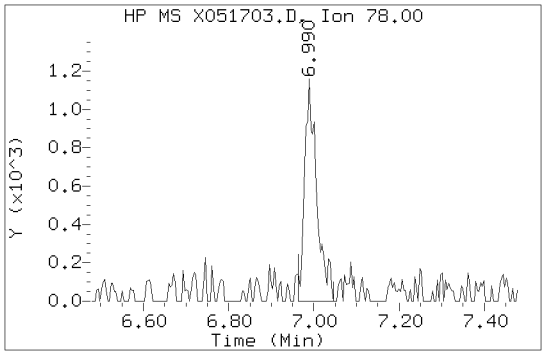
BEFORE

MASS
78
AREA
2324
HEIGHT
1159
18-May-2023
13:42
linh
pham



AFTER

MASS
78
AREA
2324
HEIGHT
1159
18-May-2023
13:42
linh
pham

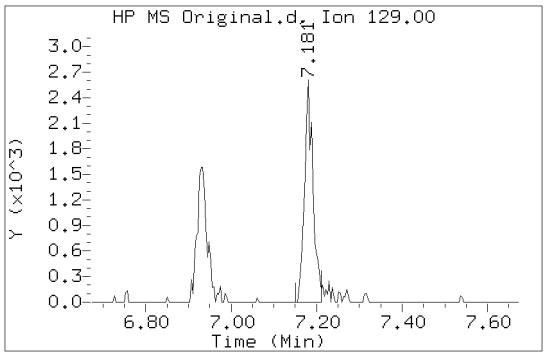


Dibromochloromethane (124-48-1)

Reason Code:

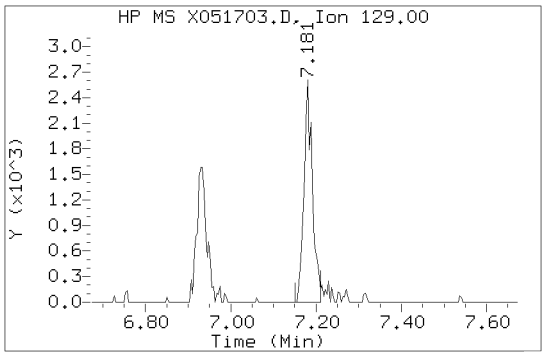
BEFORE

MASS
129
AREA
3630
HEIGHT
2609
18-May-2023
13:42
linh
pham



AFTER

MASS
129
AREA
3630
HEIGHT
2609
18-May-2023
13:42
linh
pham



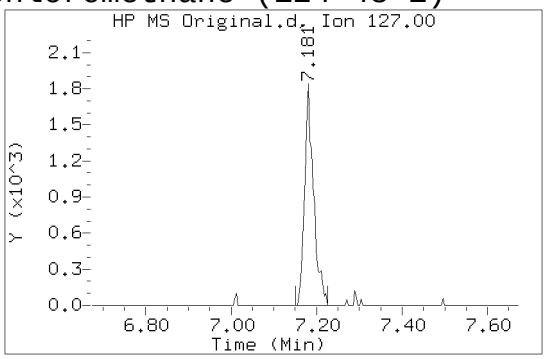
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Dibromochloromethane (124-48-1)

Reason Code:

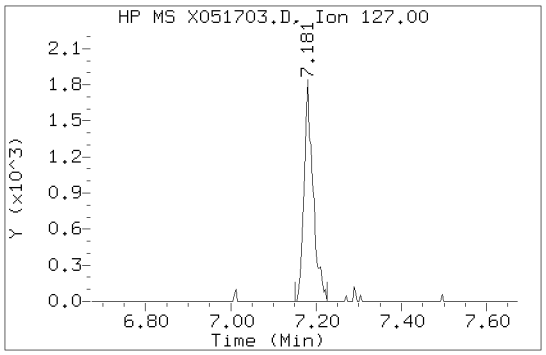
BEFORE

MASS
127
AREA
2711
HEIGHT
1842
18-May-2023
13:42
linh
pham



AFTER

MASS
127
AREA
2711
HEIGHT
1842
18-May-2023
13:42
linh
pham

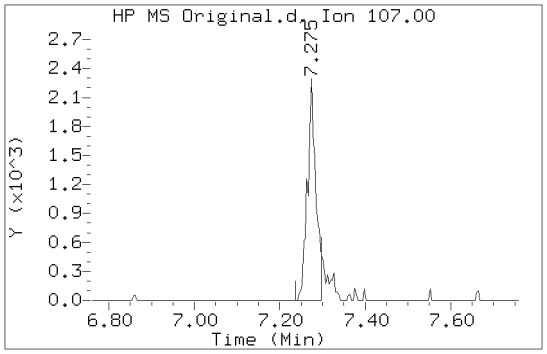


1,2-Dibromoethane (106-93-4)

Reason Code:

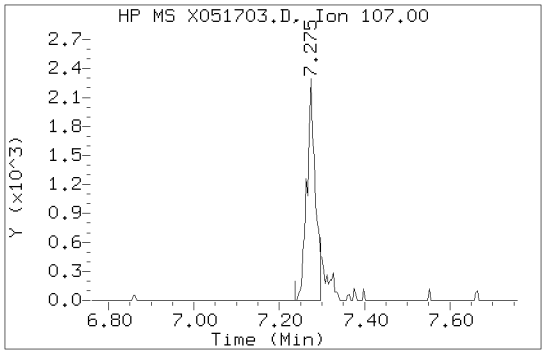
BEFORE

MASS
107
AREA
3173
HEIGHT
2295
18-May-2023
13:42
linh
pham



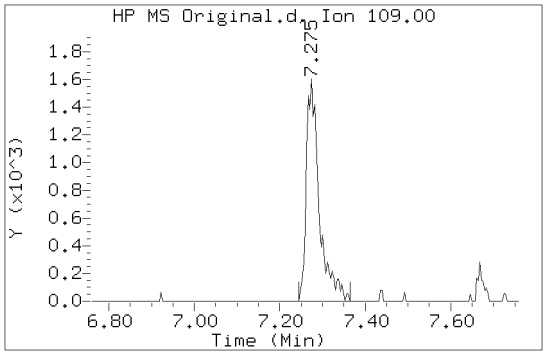
AFTER

MASS
107
AREA
3173
HEIGHT
2295
18-May-2023
13:42
linh
pham



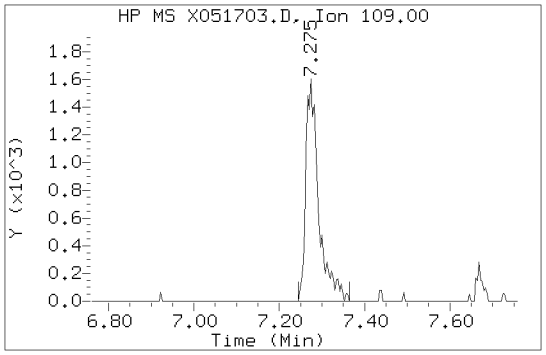
BEFORE

MASS
109
AREA
3389
HEIGHT
1604
18-May-2023
13:42
linh
pham



AFTER

MASS
109
AREA
3389
HEIGHT
1604
18-May-2023
13:42
linh
pham

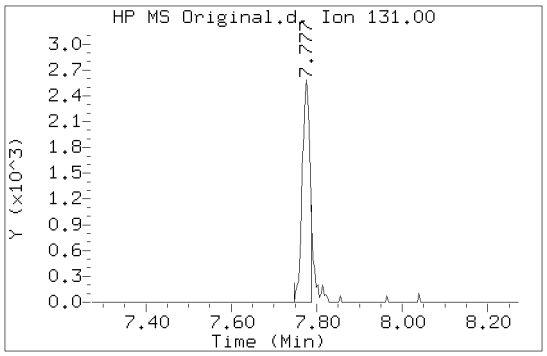


1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

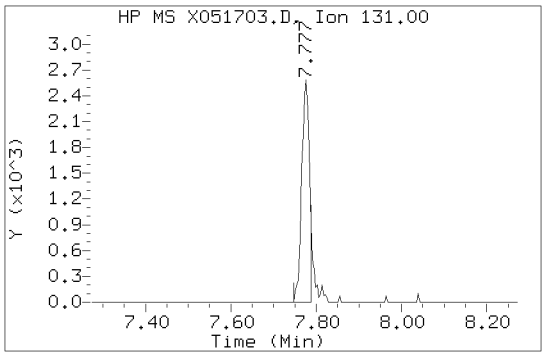
BEFORE

MASS
131
AREA
3316
HEIGHT
2585
18-May-2023
13:42
linh
pham



AFTER

MASS
131
AREA
3316
HEIGHT
2585
18-May-2023
13:42
linh
pham



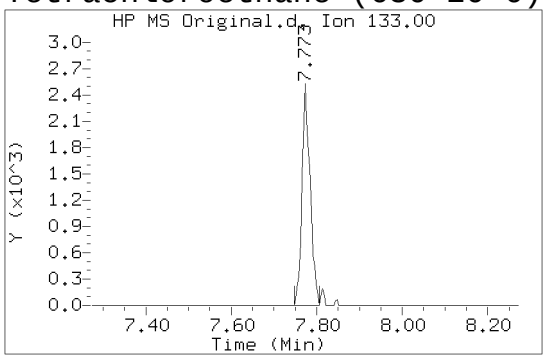
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

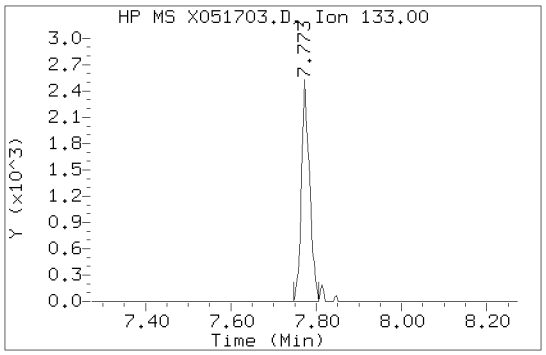
BEFORE

MASS
133
AREA
3452
HEIGHT
2529
18-May-2023
13:42
linh
pham



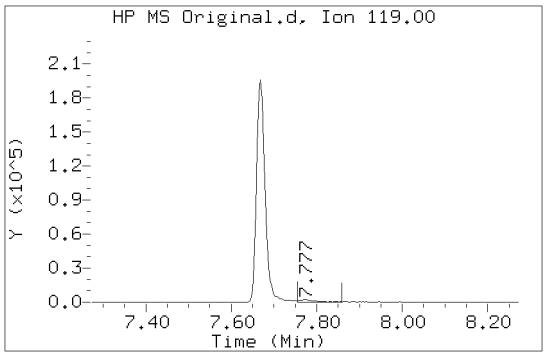
AFTER

MASS
133
AREA
3452
HEIGHT
2529
18-May-2023
13:42
linh
pham



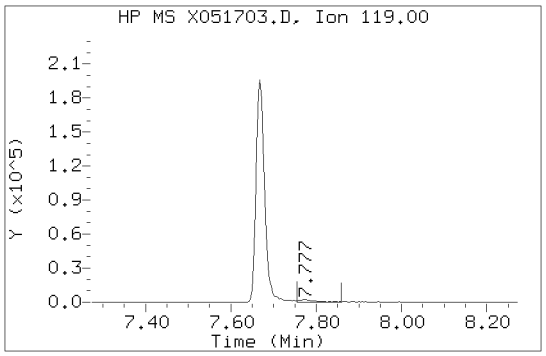
BEFORE

MASS
119
AREA
5616
HEIGHT
2260
18-May-2023
13:42
linh
pham



AFTER

MASS
119
AREA
5616
HEIGHT
2260
18-May-2023
13:42
linh
pham

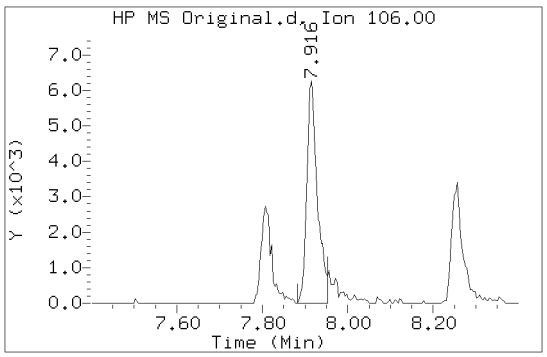


m,p-Xylenes ()

Reason Code:

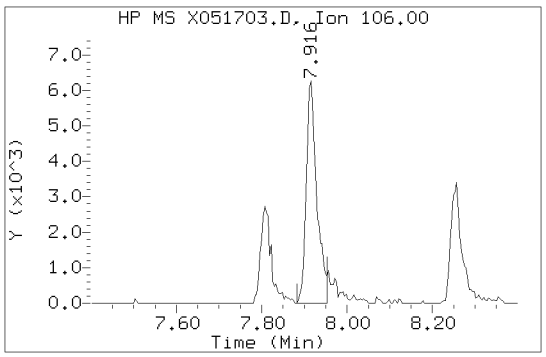
BEFORE

MASS
106
AREA
10900
HEIGHT
6266
18-May-2023
13:42
linh
pham



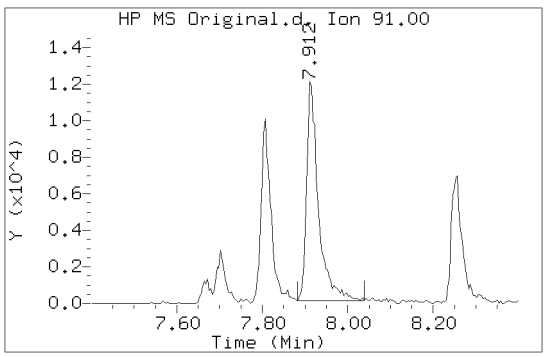
AFTER

MASS
106
AREA
10900
HEIGHT
6266
18-May-2023
13:42
linh
pham



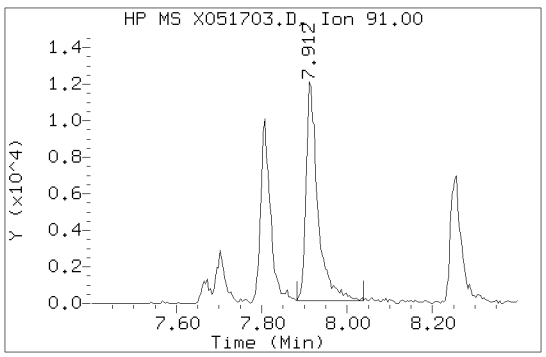
BEFORE

MASS
91
AREA
23148
HEIGHT
11994
18-May-2023
13:42
linh
pham



AFTER

MASS
91
AREA
23148
HEIGHT
11994
18-May-2023
13:42
linh
pham

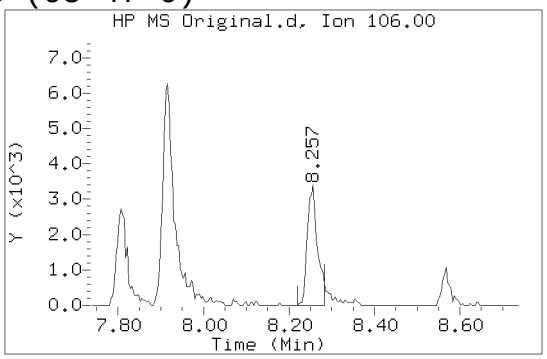


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

o-Xylene (95-47-6)

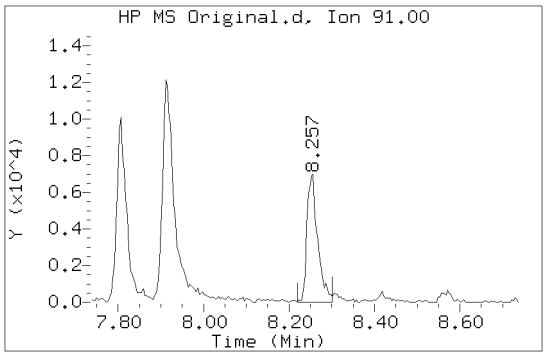
BEFORE

MASS
106
AREA
5647
HEIGHT
3402
18-May-2023
13:42
linh
pham



BEFORE

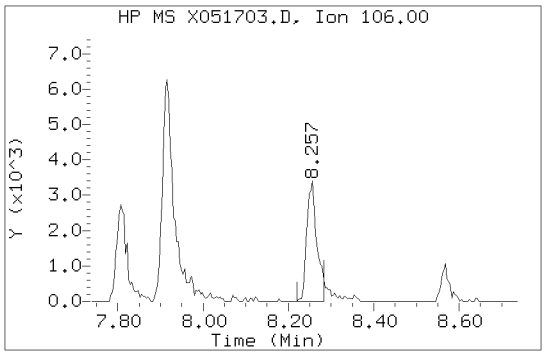
MASS
91
AREA
12247
HEIGHT
6972
18-May-2023
13:42
linh
pham



Reason Code:

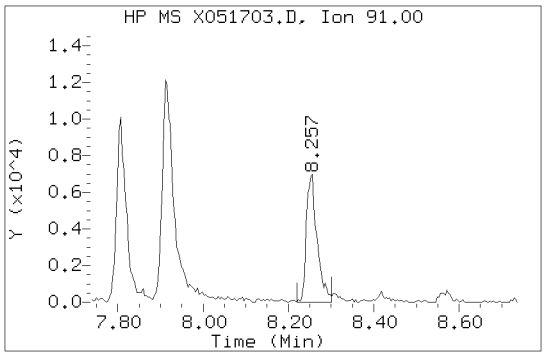
AFTER

MASS
106
AREA
5647
HEIGHT
3402
18-May-2023
13:42
linh
pham



AFTER

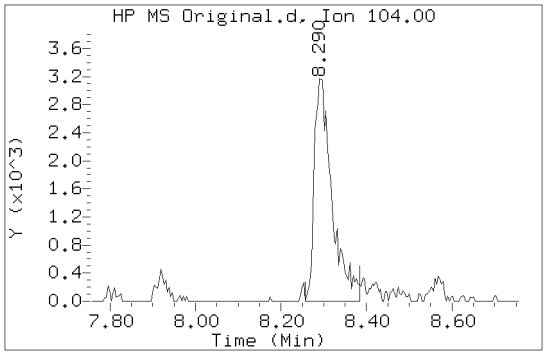
MASS
91
AREA
12247
HEIGHT
6972
18-May-2023
13:42
linh
pham



Styrene (100-42-5)

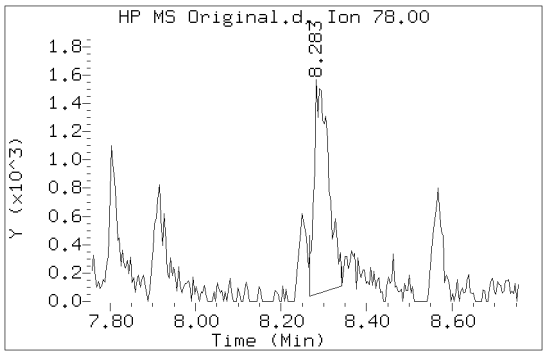
BEFORE

MASS
104
AREA
9111
HEIGHT
3167
18-May-2023
13:42
linh
pham



BEFORE

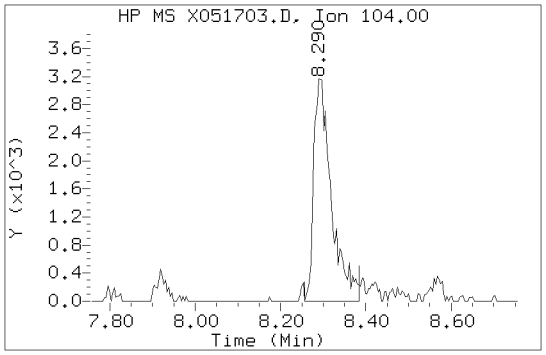
MASS
78
AREA
3542
HEIGHT
1516
18-May-2023
13:42
linh
pham



Reason Code:

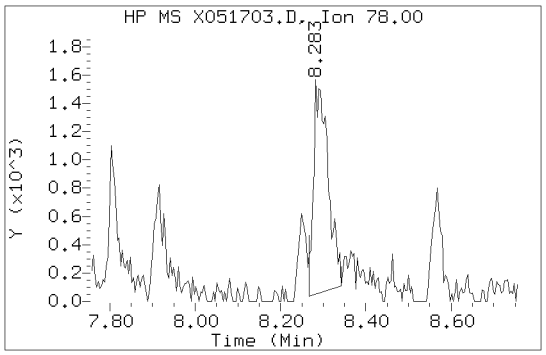
AFTER

MASS
104
AREA
9111
HEIGHT
3167
18-May-2023
13:42
linh
pham



AFTER

MASS
78
AREA
3542
HEIGHT
1516
18-May-2023
13:42
linh
pham



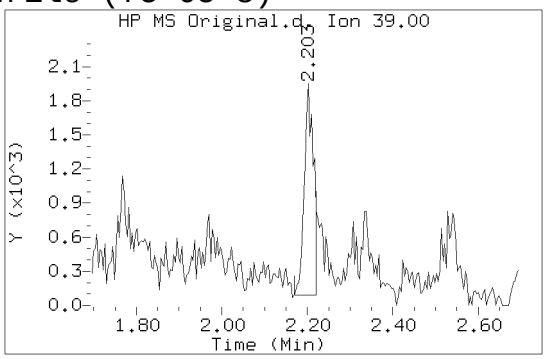
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Acetonitrile (75-05-8)

Reason Code:

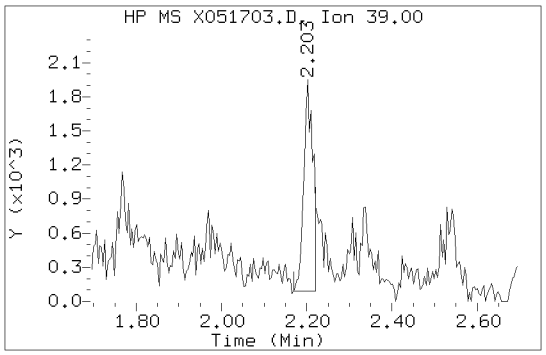
BEFORE

MASS
39
AREA
2789
HEIGHT
1859
18-May-2023
13:42
linh
pham



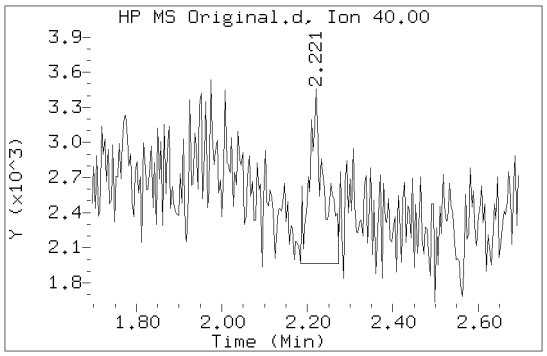
AFTER

MASS
39
AREA
2789
HEIGHT
1859
18-May-2023
13:42
linh
pham



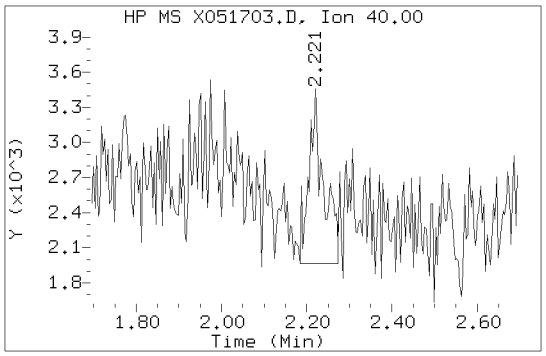
BEFORE

MASS
40
AREA
3559
HEIGHT
1493
18-May-2023
13:42
linh
pham



AFTER

MASS
40
AREA
3559
HEIGHT
1493
18-May-2023
13:42
linh
pham

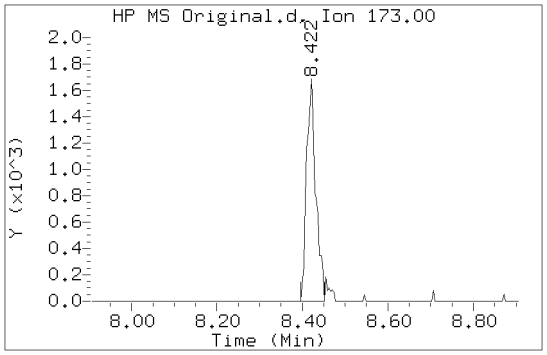


Bromoform (75-25-2)

Reason Code:

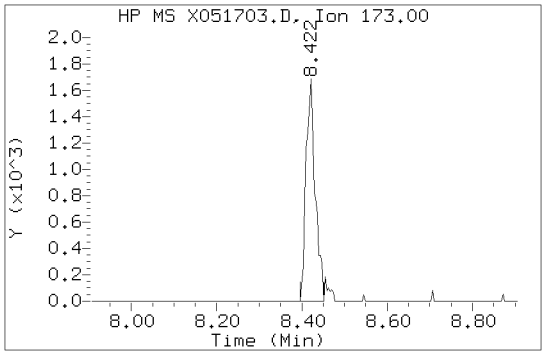
BEFORE

MASS
173
AREA
2554
HEIGHT
1686
18-May-2023
13:42
linh
pham



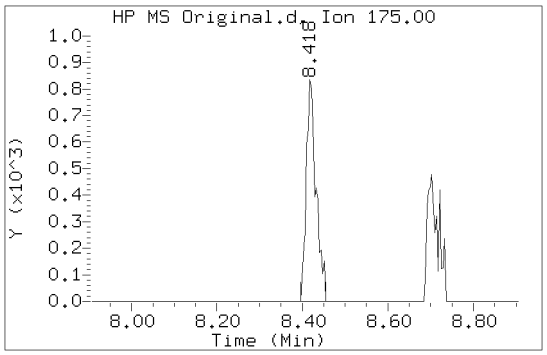
AFTER

MASS
173
AREA
2554
HEIGHT
1686
18-May-2023
13:42
linh
pham



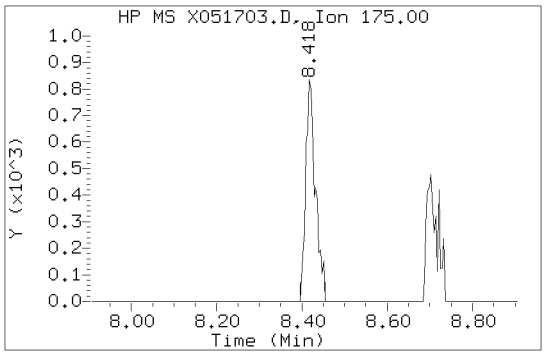
BEFORE

MASS
175
AREA
1334
HEIGHT
835
18-May-2023
13:42
linh
pham



AFTER

MASS
175
AREA
1334
HEIGHT
835
18-May-2023
13:42
linh
pham



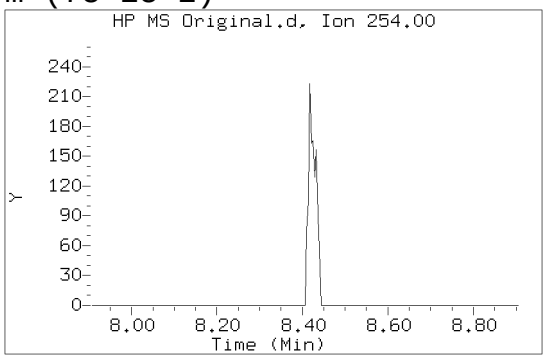
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Bromoform (75-25-2)

Reason Code:

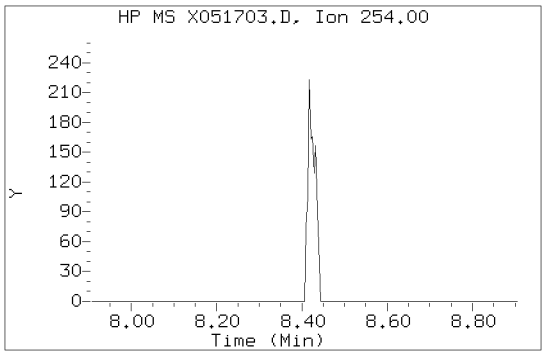
BEFORE

MASS
254
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
254
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

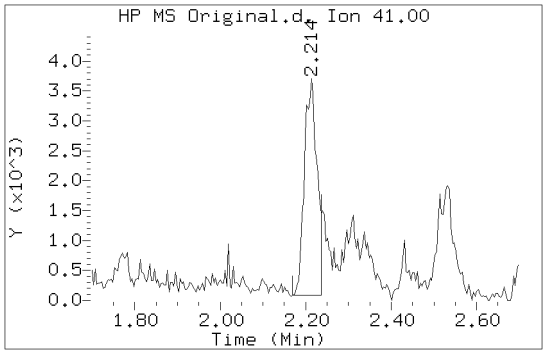


Allyl Chloride (107-05-1)

Reason Code:

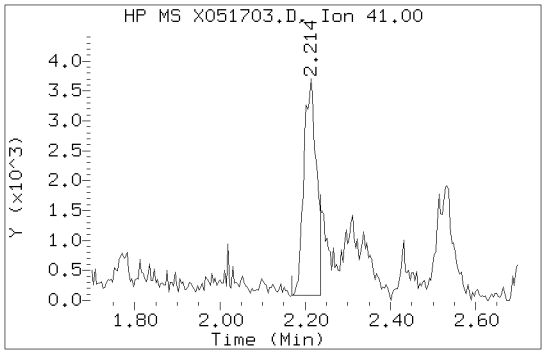
BEFORE

MASS
41
AREA
7486
HEIGHT
3617
18-May-2023
13:42
linh
pham



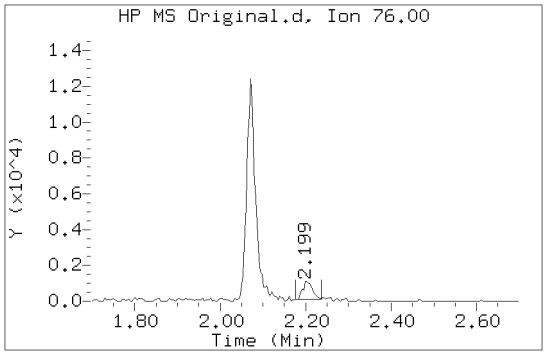
AFTER

MASS
41
AREA
7486
HEIGHT
3617
18-May-2023
13:42
linh
pham



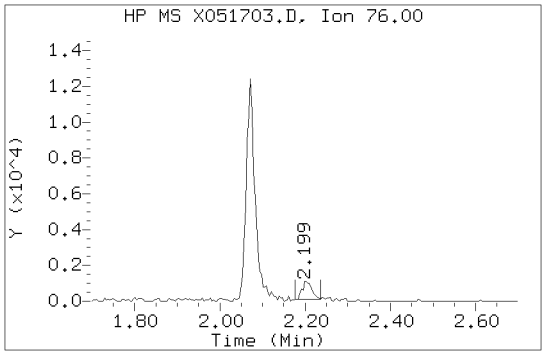
BEFORE

MASS
76
AREA
1615
HEIGHT
1007
18-May-2023
13:42
linh
pham



AFTER

MASS
76
AREA
1615
HEIGHT
1007
18-May-2023
13:42
linh
pham

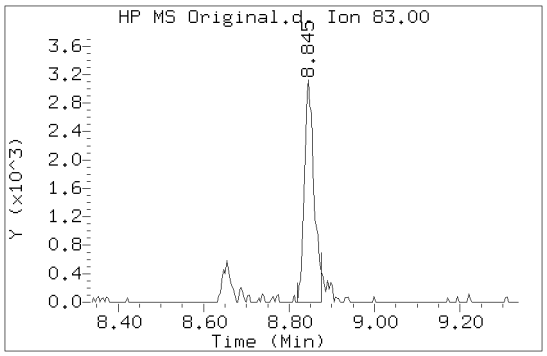


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

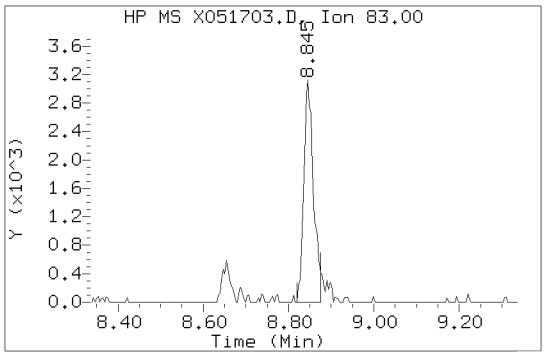
BEFORE

MASS
83
AREA
5038
HEIGHT
3125
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
5038
HEIGHT
3125
18-May-2023
13:42
linh
pham

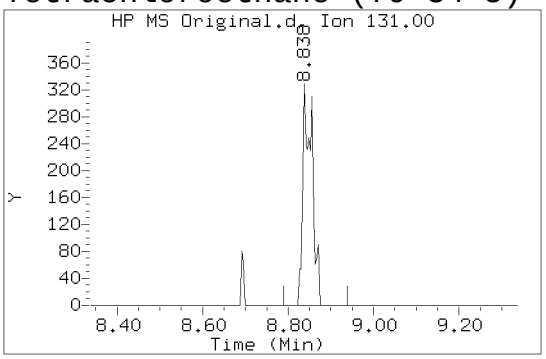


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,2,2-Tetrachloroethane (79-34-5)

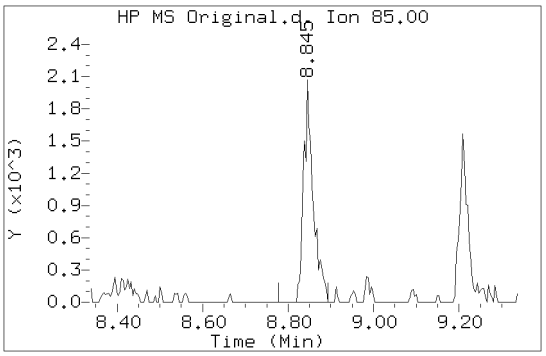
BEFORE

MASS
131
AREA
503
HEIGHT
329
18-May-2023
13:42
linh
pham



BEFORE

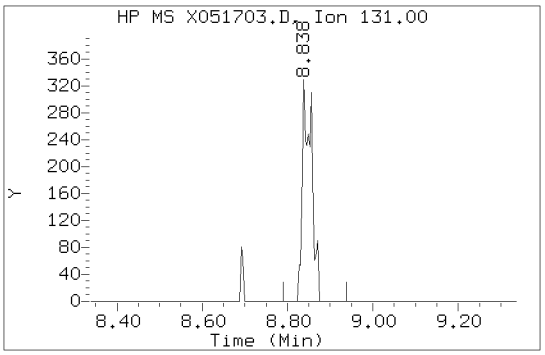
MASS
85
AREA
3304
HEIGHT
2070
18-May-2023
13:42
linh
pham



Reason Code:

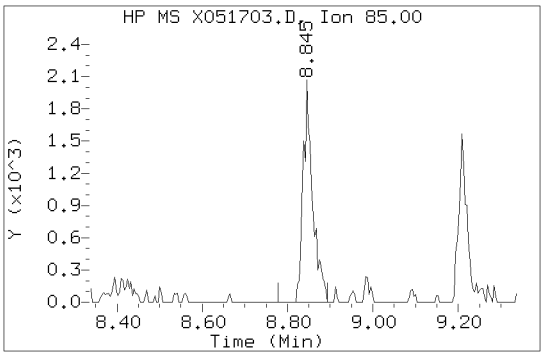
AFTER

MASS
131
AREA
503
HEIGHT
329
18-May-2023
13:42
linh
pham



AFTER

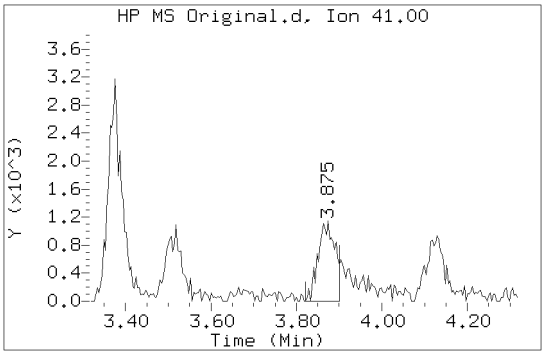
MASS
85
AREA
3304
HEIGHT
2070
18-May-2023
13:42
linh
pham



Methacrylonitrile (126-98-7)

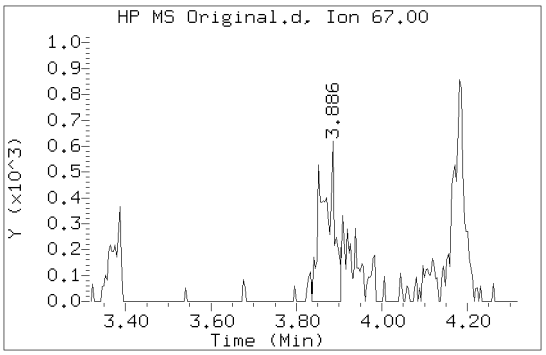
BEFORE

MASS
41
AREA
3101
HEIGHT
1149
18-May-2023
13:42
linh
pham



BEFORE

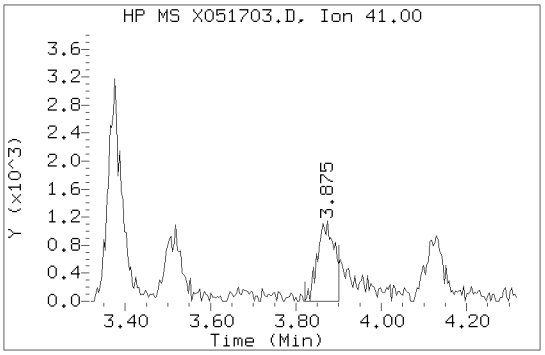
MASS
67
AREA
1235
HEIGHT
620
18-May-2023
13:42
linh
pham



Reason Code:

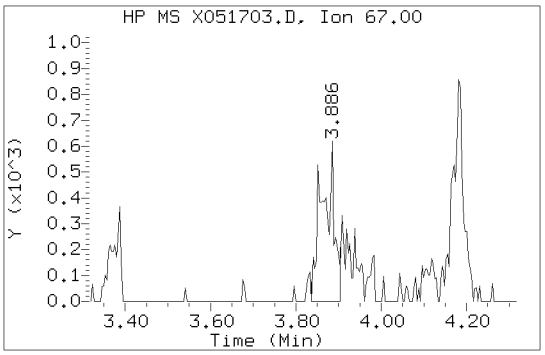
AFTER

MASS
41
AREA
3101
HEIGHT
1149
18-May-2023
13:42
linh
pham



AFTER

MASS
67
AREA
1235
HEIGHT
620
18-May-2023
13:42
linh
pham



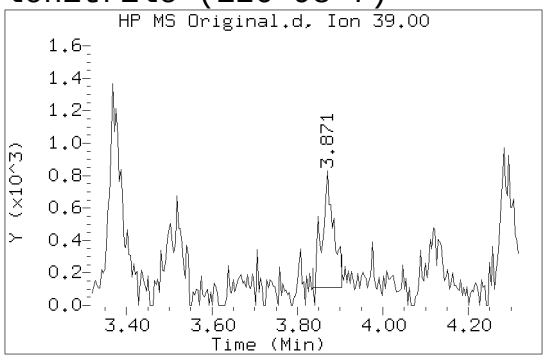
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Methacrylonitrile (126-98-7)

Reason Code:

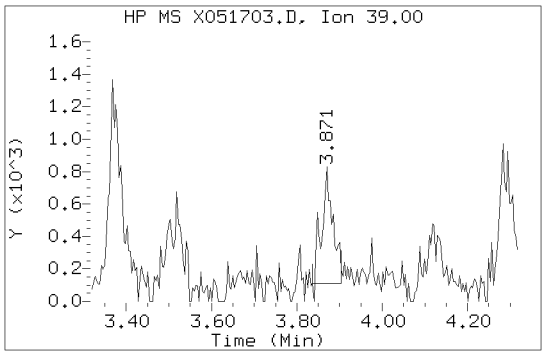
BEFORE

MASS
39
AREA
1293
HEIGHT
719
18-May-2023
13:42
linh
pham



AFTER

MASS
39
AREA
1293
HEIGHT
719
18-May-2023
13:42
linh
pham

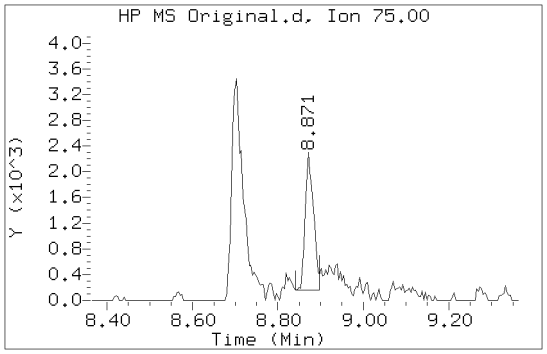


1,2,3-Trichloropropane (96-18-4)

Reason Code:

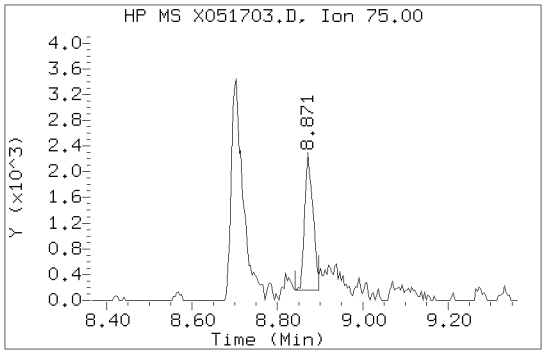
BEFORE

MASS
75
AREA
2929
HEIGHT
2142
18-May-2023
13:42
linh
pham



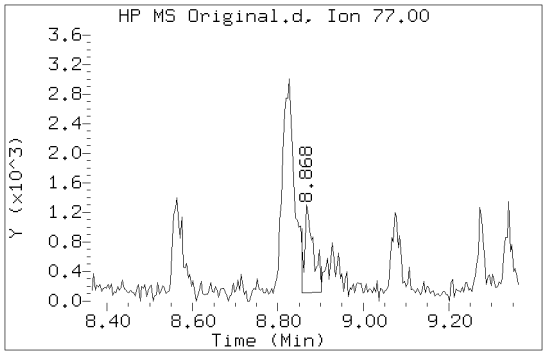
AFTER

MASS
75
AREA
2929
HEIGHT
2142
18-May-2023
13:42
linh
pham



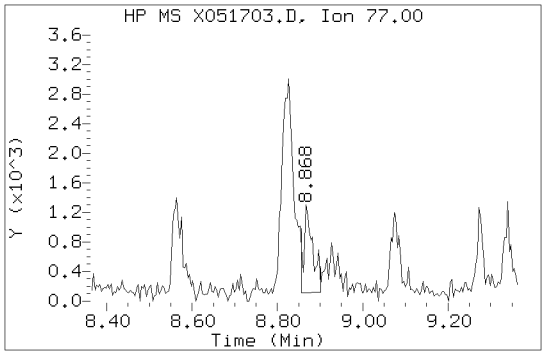
BEFORE

MASS
77
AREA
1742
HEIGHT
1192
18-May-2023
13:42
linh
pham



AFTER

MASS
77
AREA
1742
HEIGHT
1192
18-May-2023
13:42
linh
pham

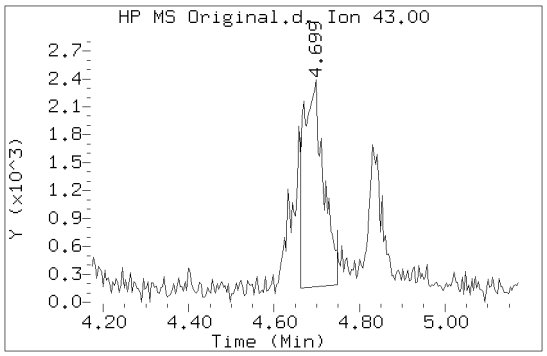


Isobutyl Alcohol (78-83-1)

Reason Code:

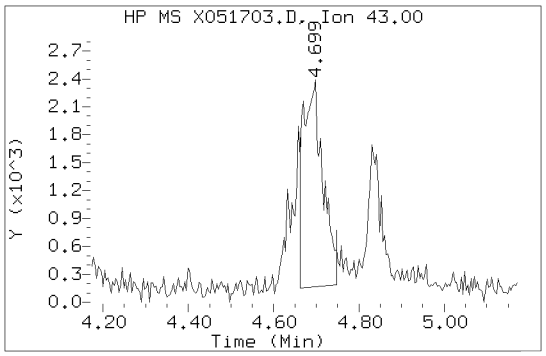
BEFORE

MASS
43
AREA
7294
HEIGHT
2221
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
7294
HEIGHT
2221
18-May-2023
13:42
linh
pham

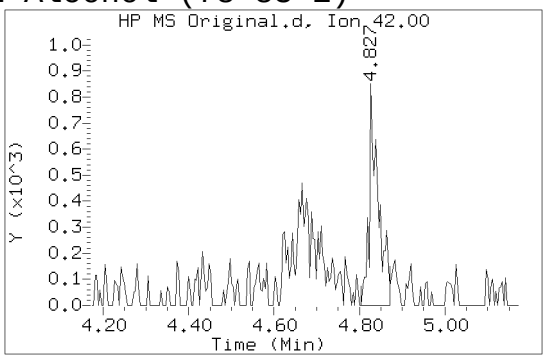


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Isobutyl Alcohol (78-83-1)

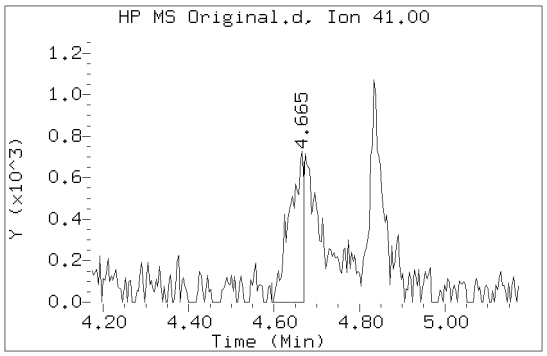
BEFORE

MASS
42
AREA
1251
HEIGHT
851
18-May-2023
13:42
linh
pham



BEFORE

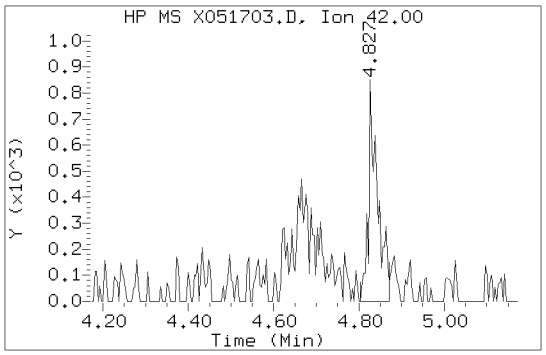
MASS
41
AREA
1645
HEIGHT
729
18-May-2023
13:42
linh
pham



Reason Code:

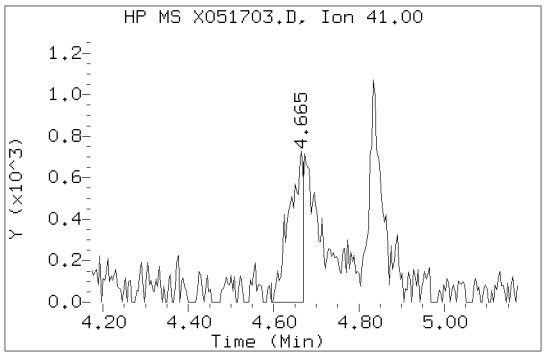
AFTER

MASS
42
AREA
1251
HEIGHT
851
18-May-2023
13:42
linh
pham



AFTER

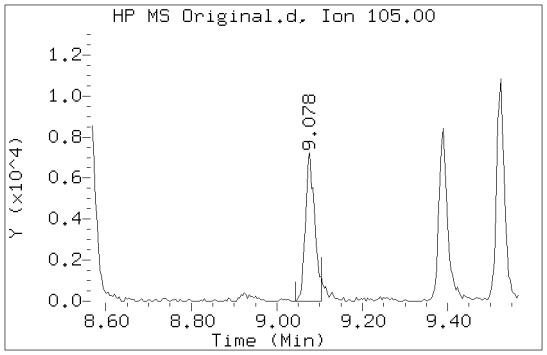
MASS
41
AREA
1645
HEIGHT
729
18-May-2023
13:42
linh
pham



1,3,5-Trimethylbenzene (108-67-8)

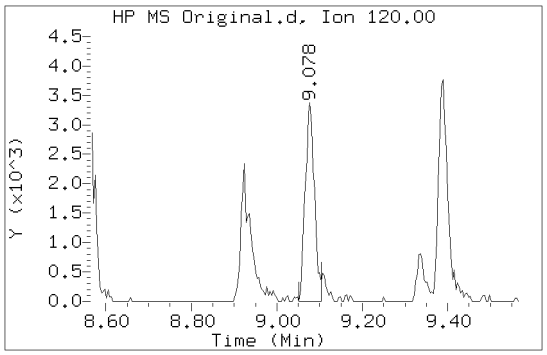
BEFORE

MASS
105
AREA
11219
HEIGHT
7248
18-May-2023
13:42
linh
pham



BEFORE

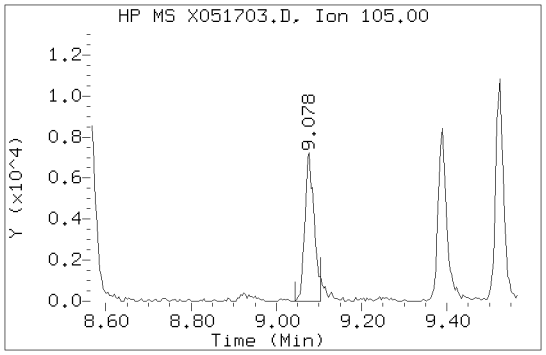
MASS
120
AREA
5185
HEIGHT
3372
18-May-2023
13:42
linh
pham



Reason Code:

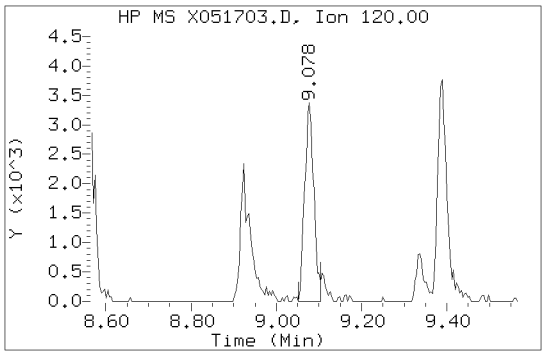
AFTER

MASS
105
AREA
11219
HEIGHT
7248
18-May-2023
13:42
linh
pham



AFTER

MASS
120
AREA
5185
HEIGHT
3372
18-May-2023
13:42
linh
pham



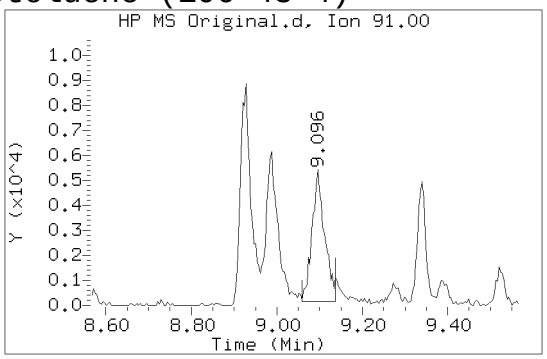
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

4-Chlorotoluene (106-43-4)

Reason Code:

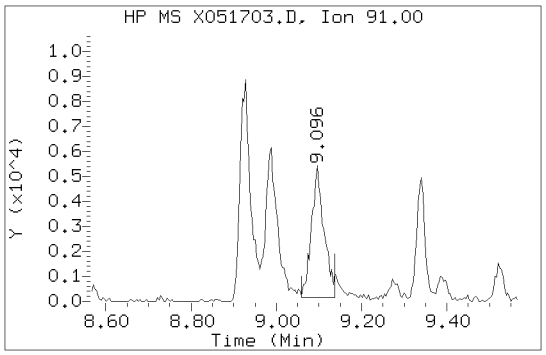
BEFORE

MASS
91
AREA
10933
HEIGHT
5281
18-May-2023
13:42
linh
pham



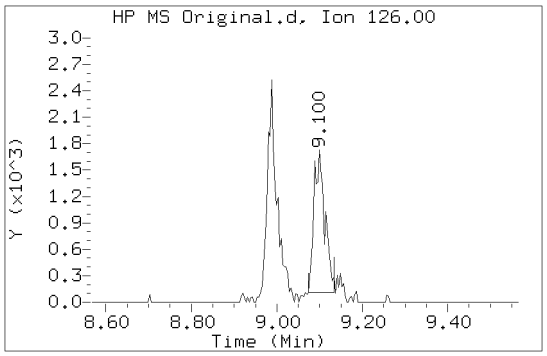
AFTER

MASS
91
AREA
10933
HEIGHT
5281
18-May-2023
13:42
linh
pham



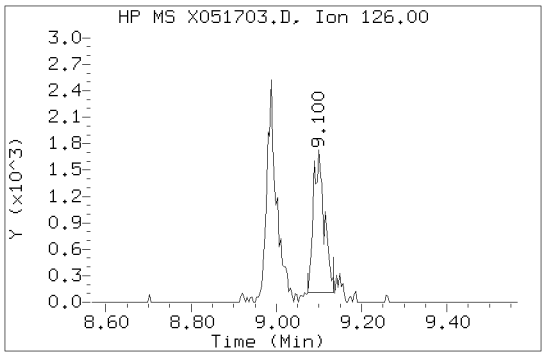
BEFORE

MASS
126
AREA
2859
HEIGHT
1622
18-May-2023
13:42
linh
pham



AFTER

MASS
126
AREA
2859
HEIGHT
1622
18-May-2023
13:42
linh
pham

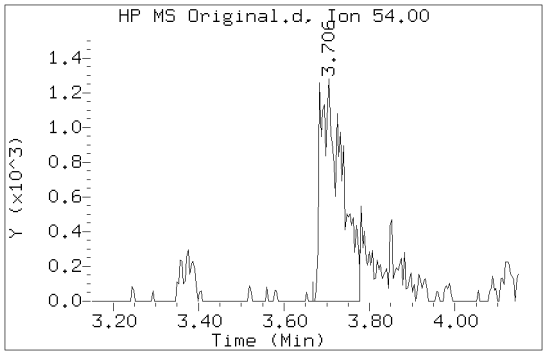


Propionitrile (107-12-0)

Reason Code:

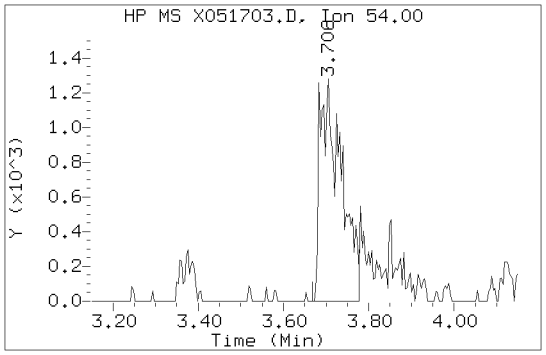
BEFORE

MASS
54
AREA
4468
HEIGHT
1280
18-May-2023
13:42
linh
pham



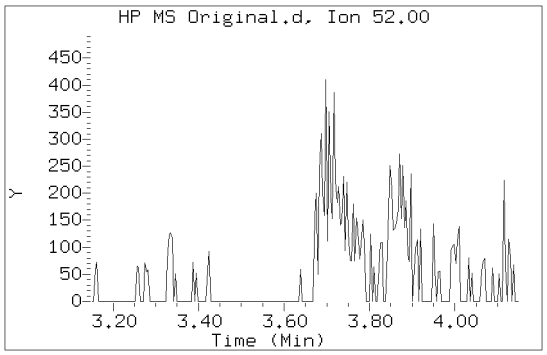
AFTER

MASS
54
AREA
4468
HEIGHT
1280
18-May-2023
13:42
linh
pham



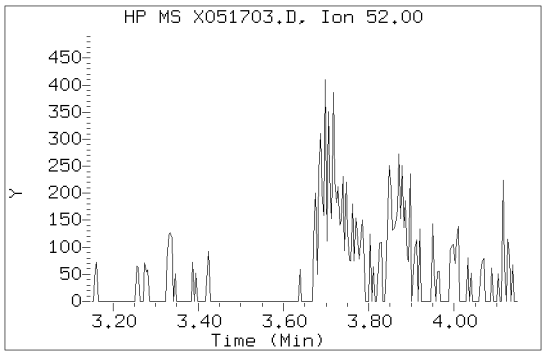
BEFORE

MASS
52
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
52
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



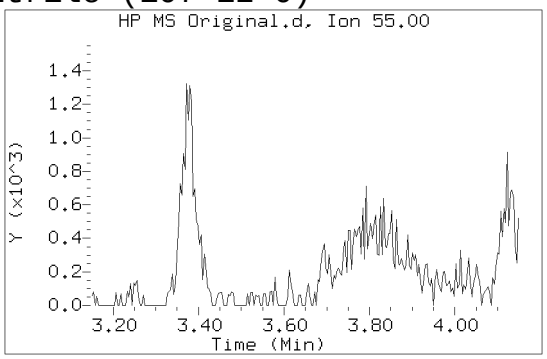
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Propionitrile (107-12-0)

Reason Code:

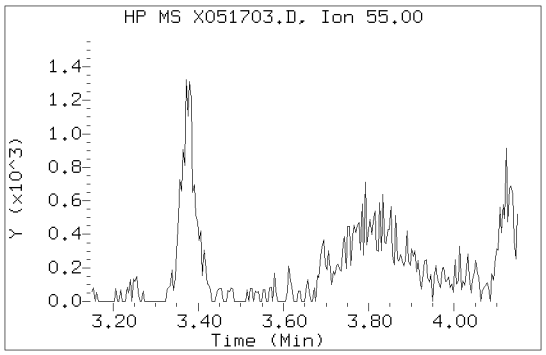
BEFORE

MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

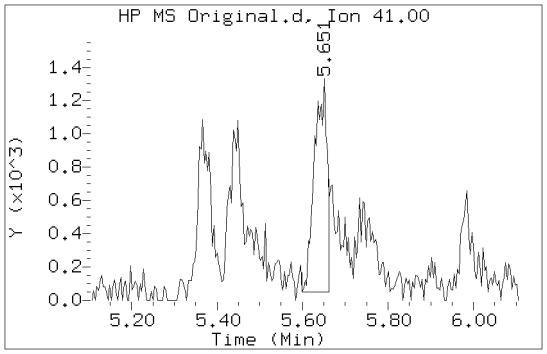


Methyl Methacrylate (80-62-6)

Reason Code:

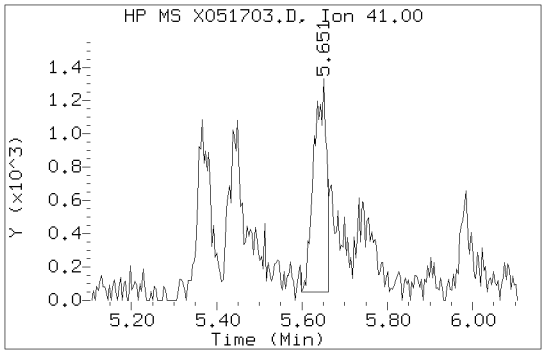
BEFORE

MASS
41
AREA
2610
HEIGHT
1281
18-May-2023
13:42
linh
pham



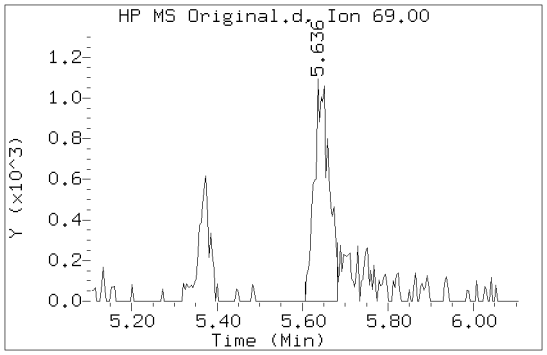
AFTER

MASS
41
AREA
2610
HEIGHT
1281
18-May-2023
13:42
linh
pham



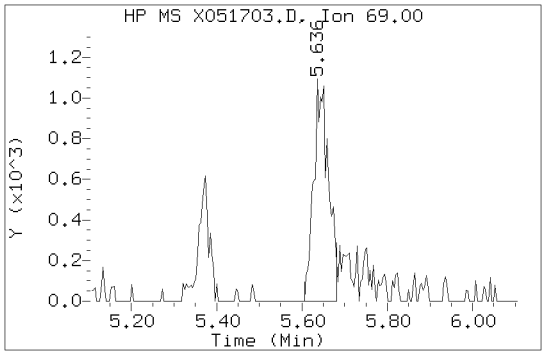
BEFORE

MASS
69
AREA
2617
HEIGHT
1094
18-May-2023
13:42
linh
pham



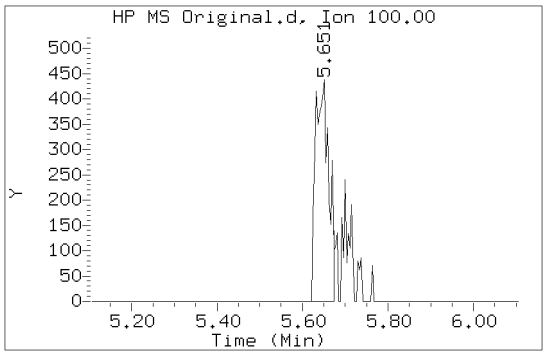
AFTER

MASS
69
AREA
2617
HEIGHT
1094
18-May-2023
13:42
linh
pham



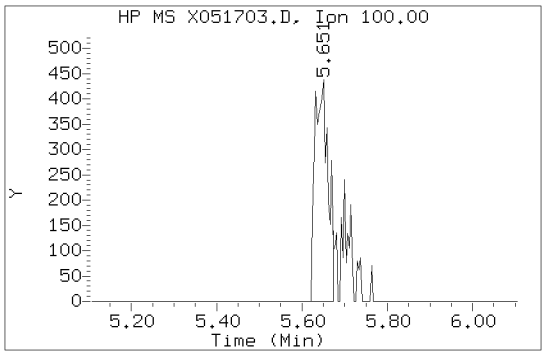
BEFORE

MASS
100
AREA
938
HEIGHT
438
18-May-2023
13:42
linh
pham



AFTER

MASS
100
AREA
938
HEIGHT
438
18-May-2023
13:42
linh
pham



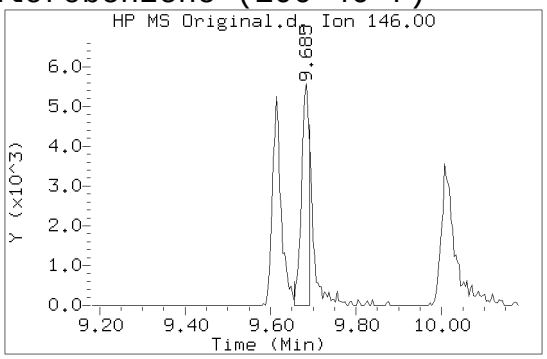
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,4-Dichlorobenzene (106-46-7)

Reason Code:

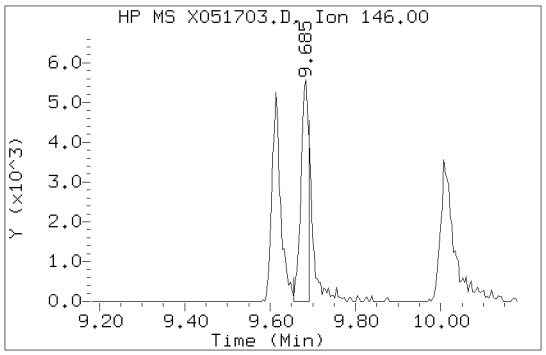
BEFORE

MASS
146
AREA
7361
HEIGHT
5575
18-May-2023
13:42
linh
pham



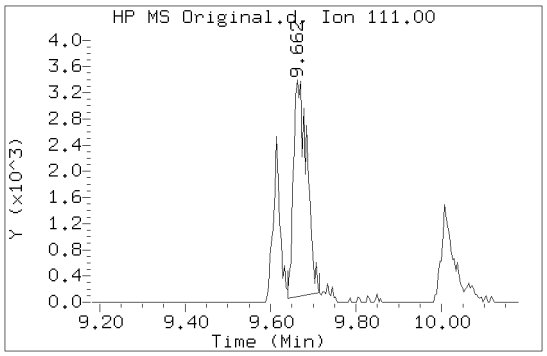
AFTER

MASS
146
AREA
7361
HEIGHT
5575
18-May-2023
13:42
linh
pham



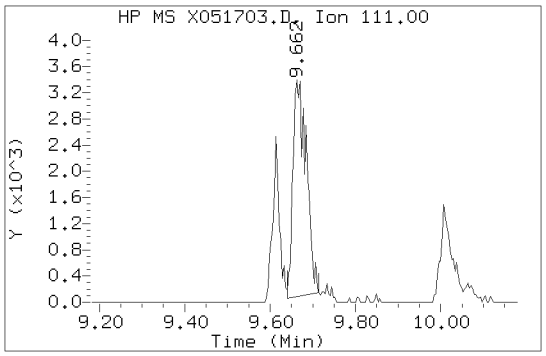
BEFORE

MASS
111
AREA
7290
HEIGHT
3306
18-May-2023
13:42
linh
pham



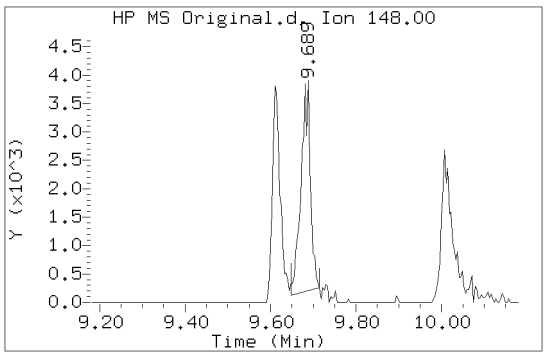
AFTER

MASS
111
AREA
7290
HEIGHT
3306
18-May-2023
13:42
linh
pham



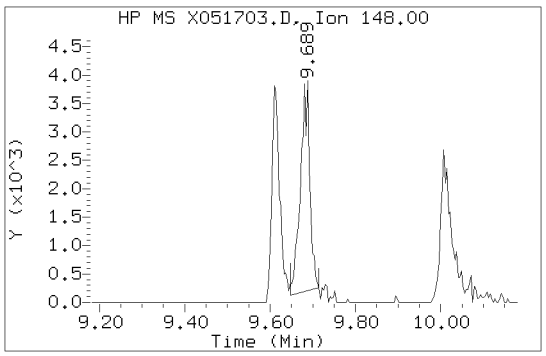
BEFORE

MASS
148
AREA
5780
HEIGHT
3699
18-May-2023
13:42
linh
pham



AFTER

MASS
148
AREA
5780
HEIGHT
3699
18-May-2023
13:42
linh
pham

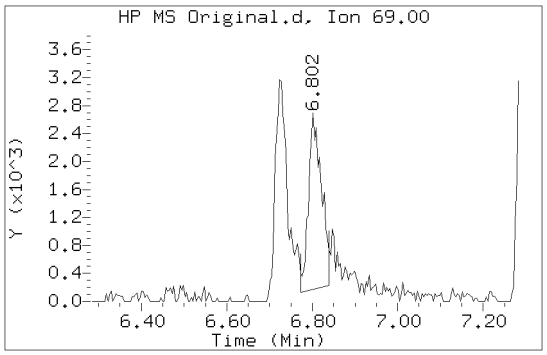


Ethyl Methacrylate (97-63-2)

Reason Code:

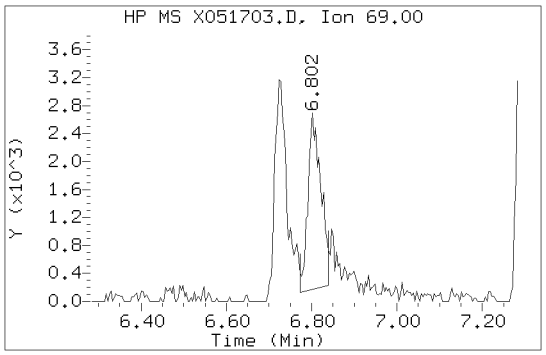
BEFORE

MASS
69
AREA
5358
HEIGHT
2519
18-May-2023
13:42
linh
pham



AFTER

MASS
69
AREA
5358
HEIGHT
2519
18-May-2023
13:42
linh
pham



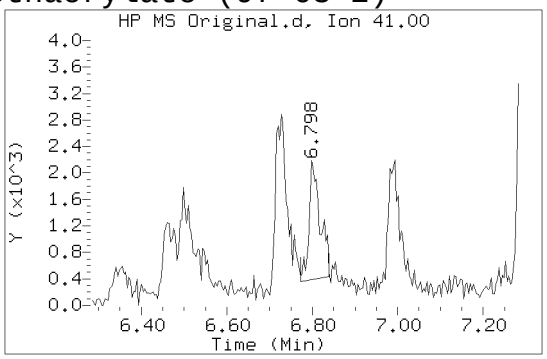
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Methacrylate (97-63-2)

Reason Code:

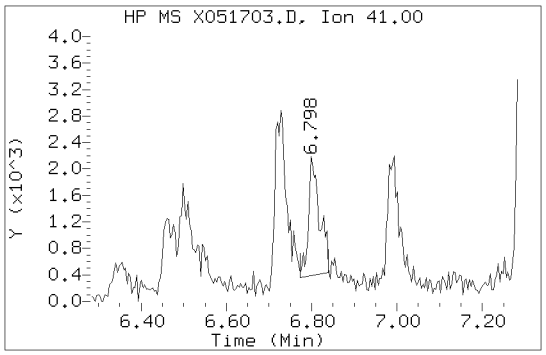
BEFORE

MASS
41
AREA
3237
HEIGHT
1798
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
3237
HEIGHT
1798
18-May-2023
13:42
linh
pham

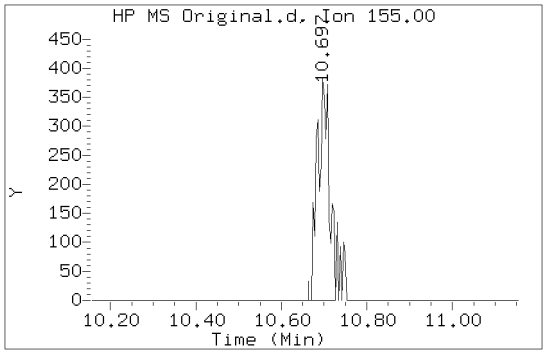


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

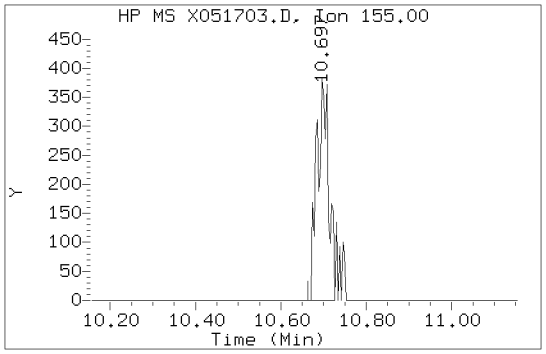
BEFORE

MASS
155
AREA
725
HEIGHT
382
18-May-2023
13:42
linh
pham



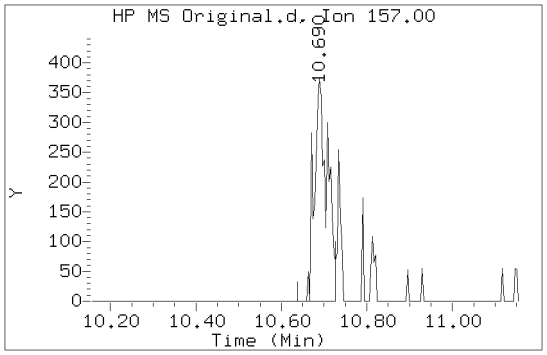
AFTER

MASS
155
AREA
725
HEIGHT
382
18-May-2023
13:42
linh
pham



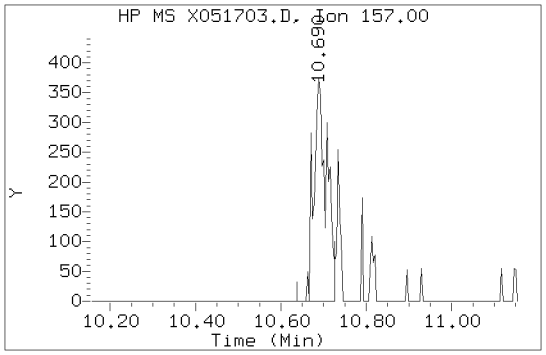
BEFORE

MASS
157
AREA
793
HEIGHT
373
18-May-2023
13:42
linh
pham



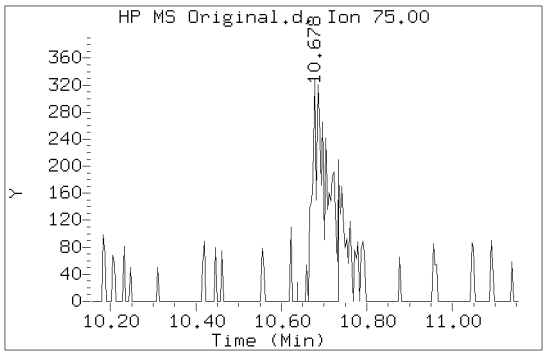
AFTER

MASS
157
AREA
793
HEIGHT
373
18-May-2023
13:42
linh
pham



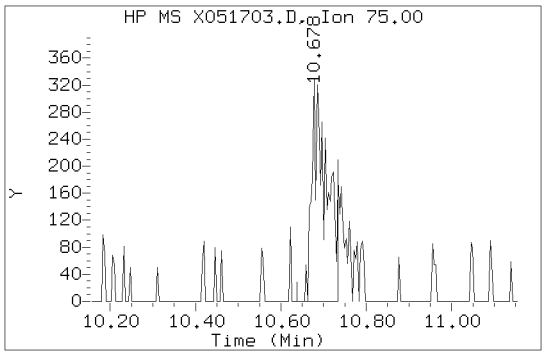
BEFORE

MASS
75
AREA
800
HEIGHT
328
18-May-2023
13:42
linh
pham



AFTER

MASS
75
AREA
800
HEIGHT
328
18-May-2023
13:42
linh
pham



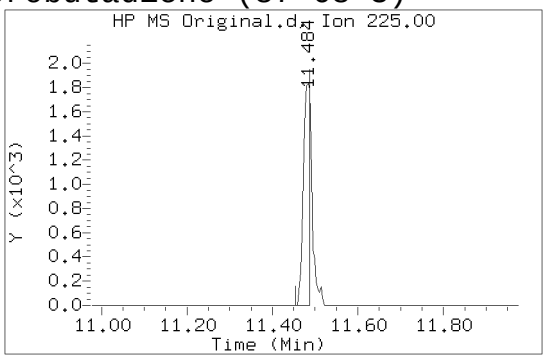
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Hexachlorobutadiene (87-68-3)

Reason Code:

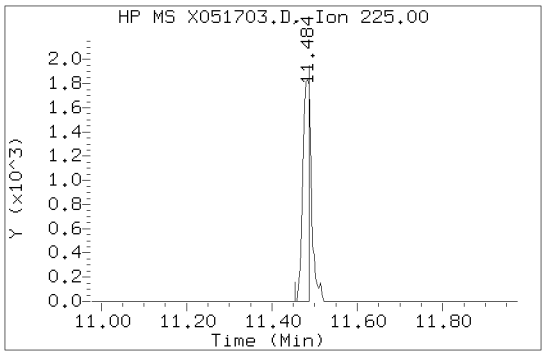
BEFORE

MASS
225
AREA
2100
HEIGHT
1832
18-May-2023
13:42
linh
pham



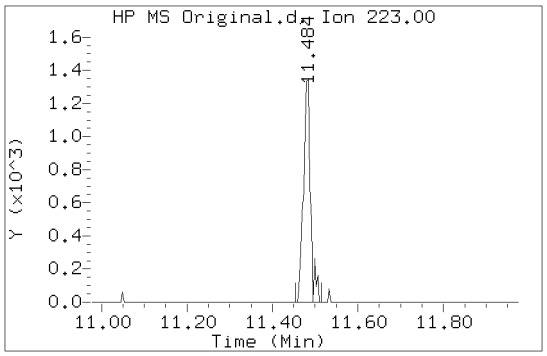
AFTER

MASS
225
AREA
2100
HEIGHT
1832
18-May-2023
13:42
linh
pham



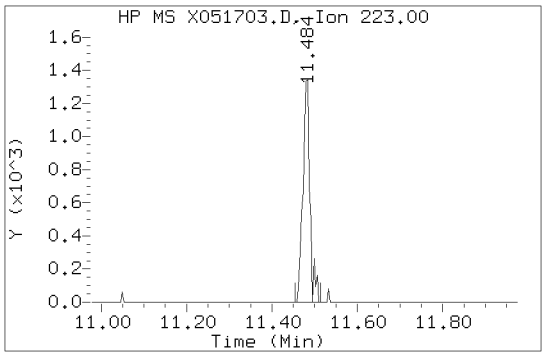
BEFORE

MASS
223
AREA
1589
HEIGHT
1342
18-May-2023
13:42
linh
pham



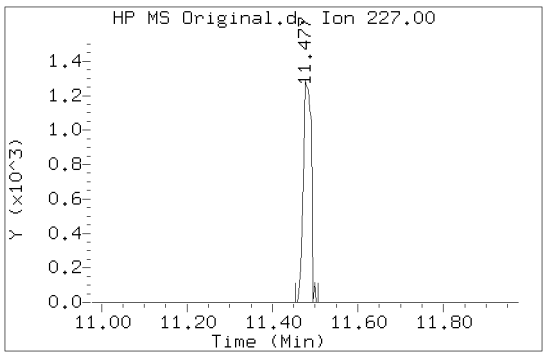
AFTER

MASS
223
AREA
1589
HEIGHT
1342
18-May-2023
13:42
linh
pham



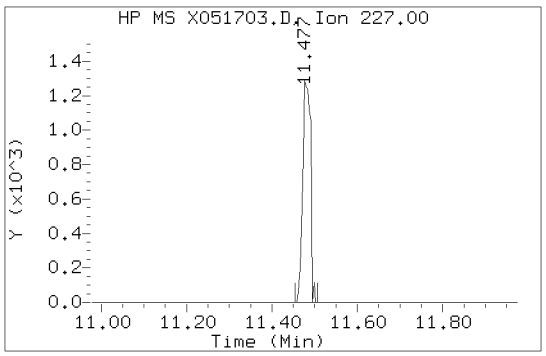
BEFORE

MASS
227
AREA
1710
HEIGHT
1287
18-May-2023
13:42
linh
pham



AFTER

MASS
227
AREA
1710
HEIGHT
1287
18-May-2023
13:42
linh
pham

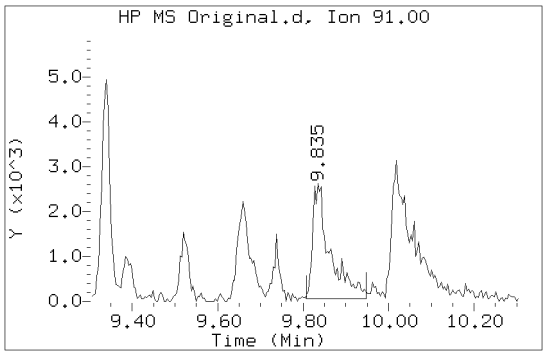


Benzyl Chloride (100-44-7)

Reason Code:

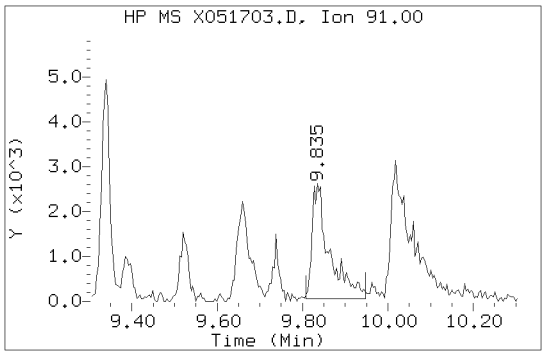
BEFORE

MASS
91
AREA
7194
HEIGHT
2572
18-May-2023
13:42
linh
pham



AFTER

MASS
91
AREA
7194
HEIGHT
2572
18-May-2023
13:42
linh
pham

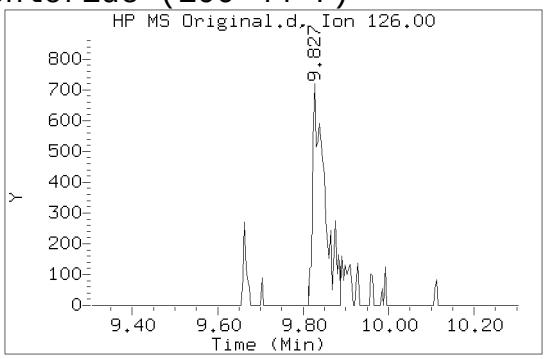


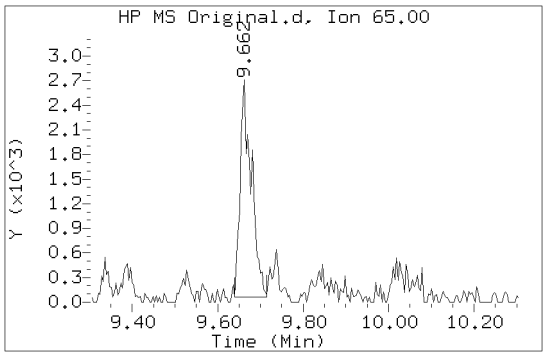
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Benzyl Chloride (100-44-7)

BEFORE

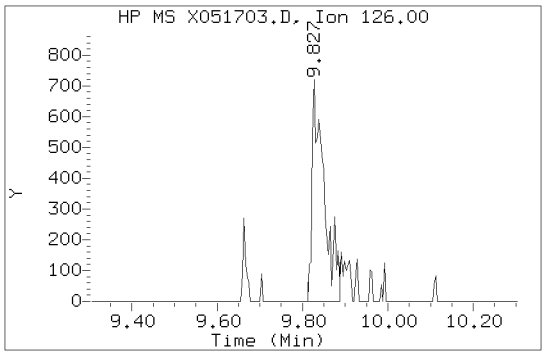
MASS
126
AREA
1409
HEIGHT
720
18-May-2023
13:42
linh
pham

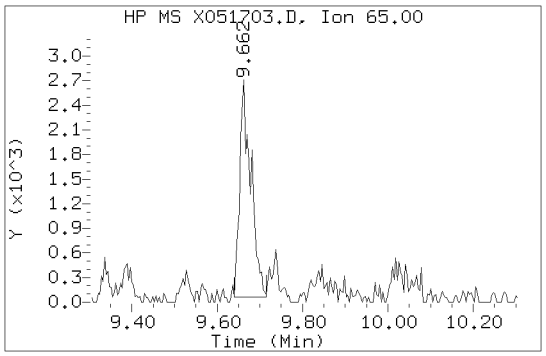




AFTER

MASS
126
AREA
1409
HEIGHT
720
18-May-2023
13:42
linh
pham



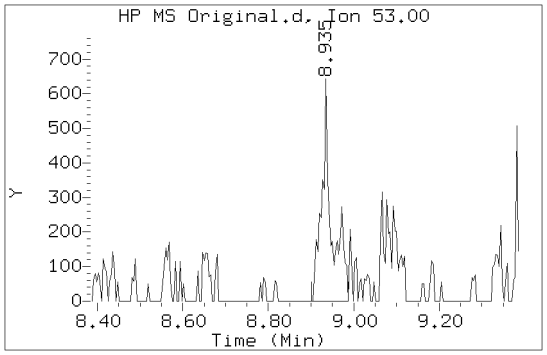


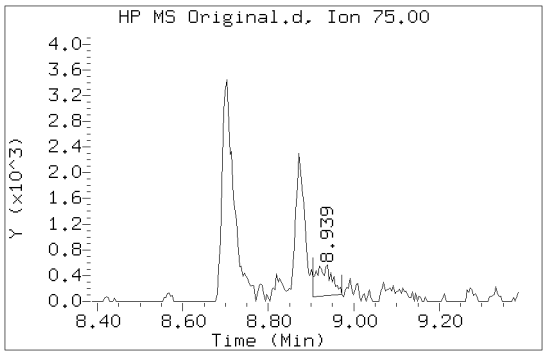
Reason Code:

trans-1,4-Dichloro-2-butene (110-57-6)

BEFORE

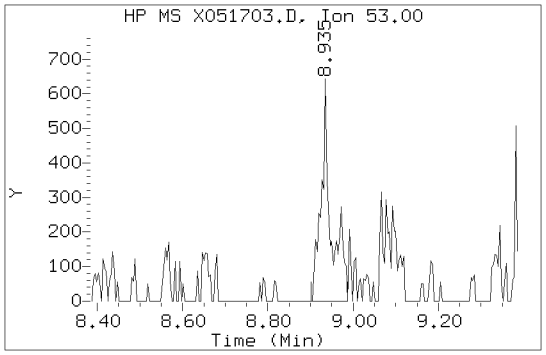
MASS
53
AREA
1031
HEIGHT
643
18-May-2023
13:42
linh
pham

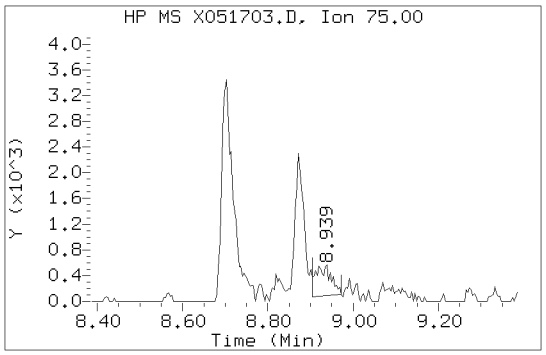




AFTER

MASS
53
AREA
1031
HEIGHT
643
18-May-2023
13:42
linh
pham





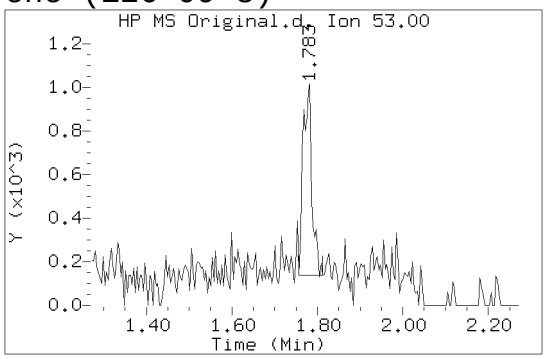
Reason Code:

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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

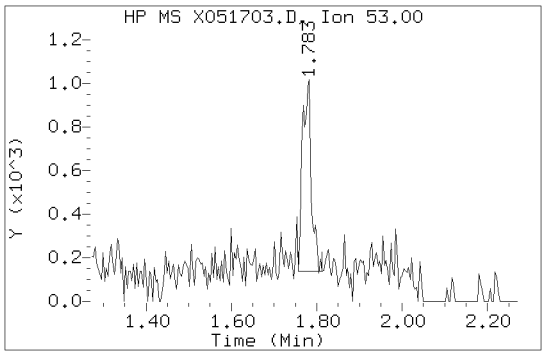
Chloroprene (126-99-8)

Reason Code:

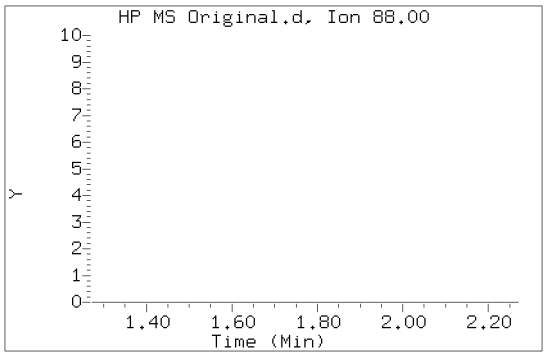
BEFORE
MASS
53
AREA
1289
HEIGHT
879
18-May-2023
13:42
linh
pham



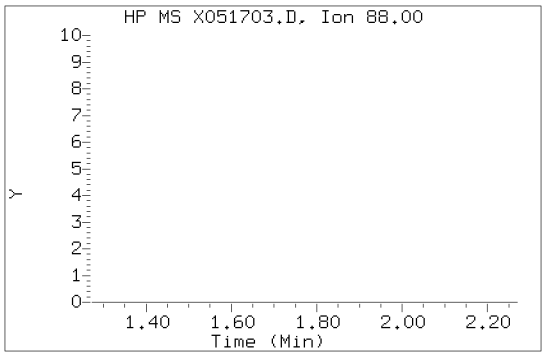
AFTER
MASS
53
AREA
1289
HEIGHT
879
18-May-2023
13:42
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



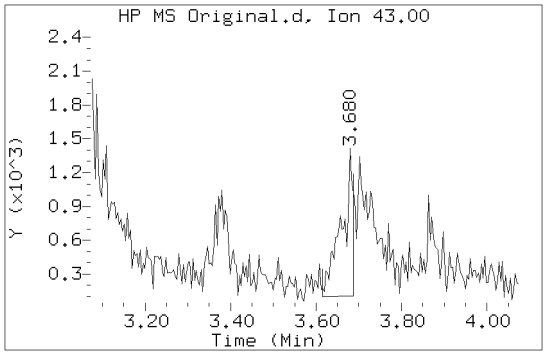
AFTER
MASS
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AREA
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HEIGHT
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18-May-2023
13:42
linh
pham



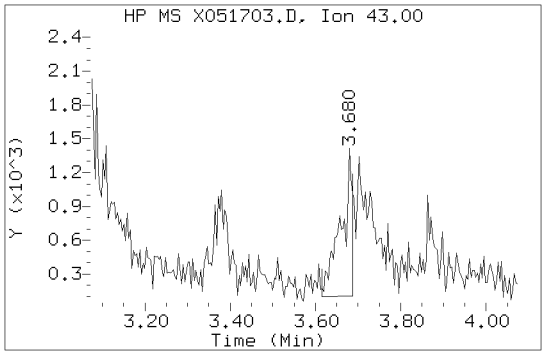
Ethyl Acetate (141-78-6)

Reason Code:

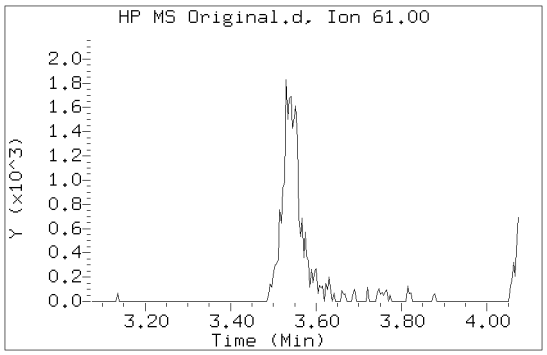
BEFORE
MASS
43
AREA
2361
HEIGHT
1314
18-May-2023
13:42
linh
pham



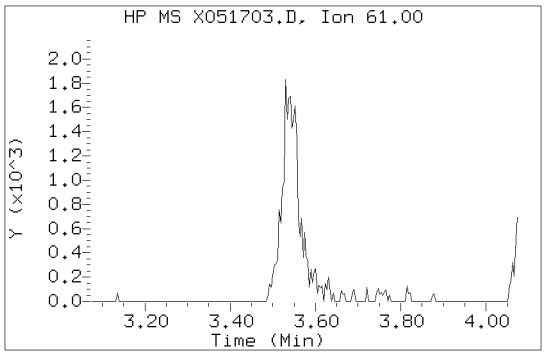
AFTER
MASS
43
AREA
2361
HEIGHT
1314
18-May-2023
13:42
linh
pham



BEFORE
MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER
MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

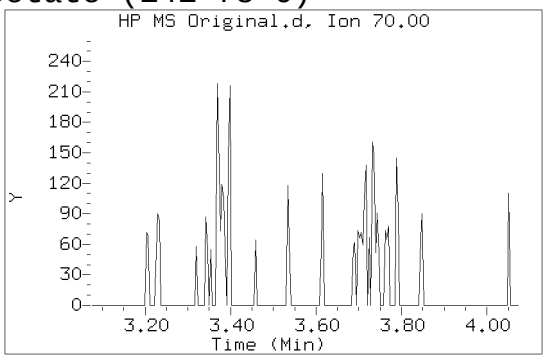


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Inj Date : 17-MAY-2023 12:59
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LabSampID : VSTD000.5

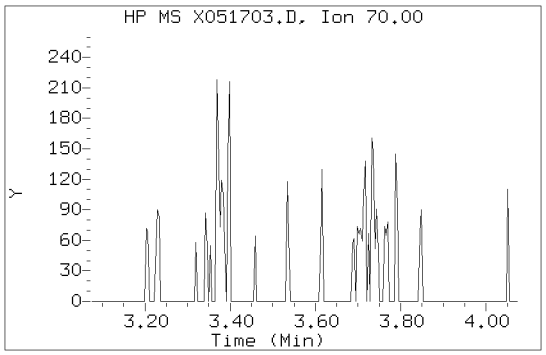
Ethyl Acetate (141-78-6)

Reason Code:

BEFORE
MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



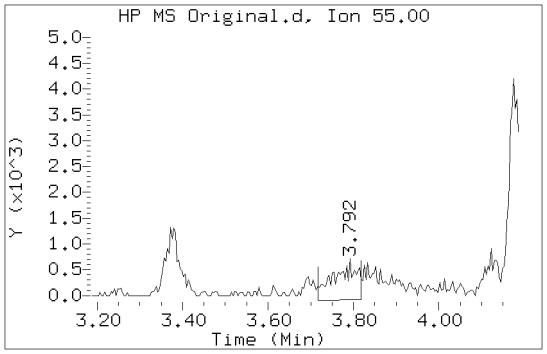
AFTER
MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



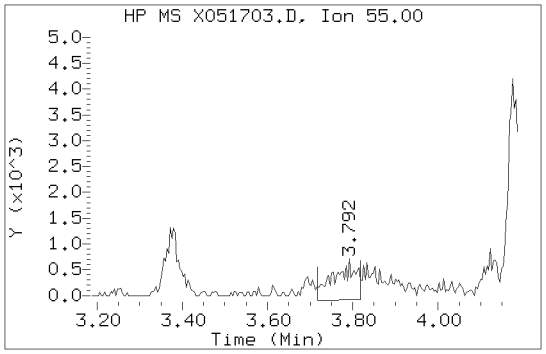
Methyl Acrylate (96-33-3)

Reason Code:

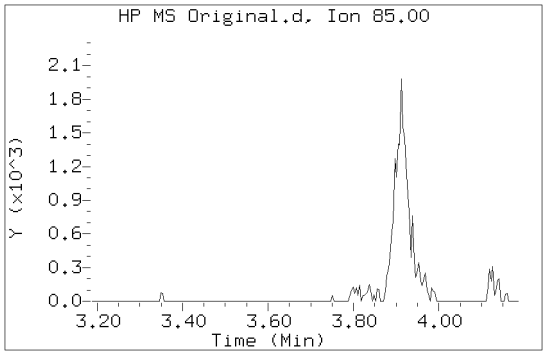
BEFORE
MASS
55
AREA
2822
HEIGHT
791
18-May-2023
13:42
linh
pham



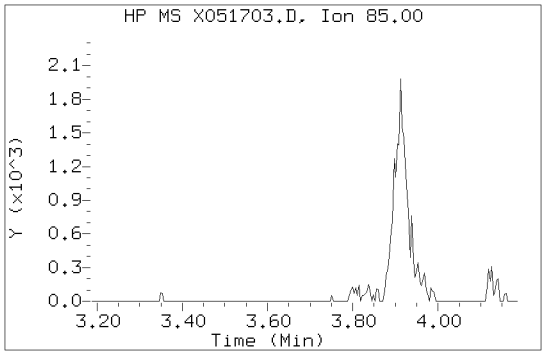
AFTER
MASS
55
AREA
2822
HEIGHT
791
18-May-2023
13:42
linh
pham



BEFORE
MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



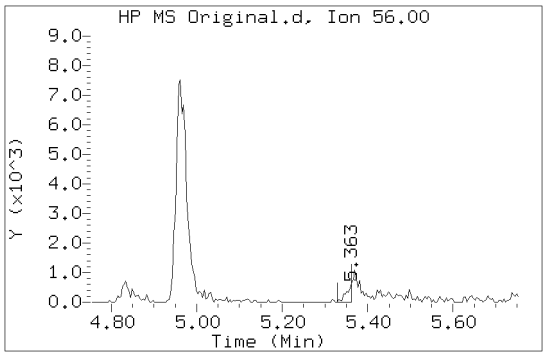
AFTER
MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



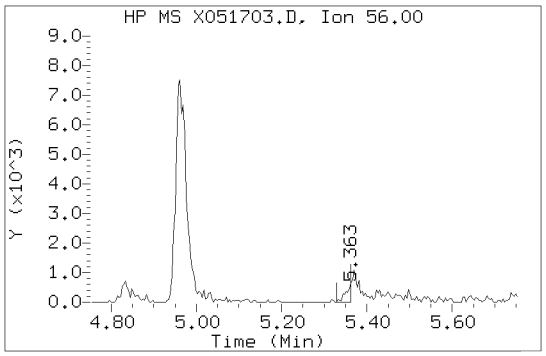
n-Butanol (71-36-3)

Reason Code:

BEFORE
MASS
56
AREA
566
HEIGHT
636
18-May-2023
13:42
linh
pham



AFTER
MASS
56
AREA
566
HEIGHT
636
18-May-2023
13:42
linh
pham



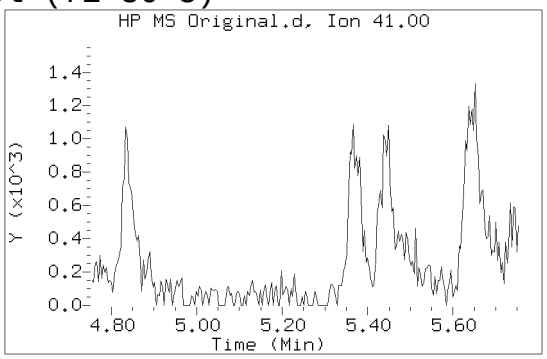
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butanol (71-36-3)

Reason Code:

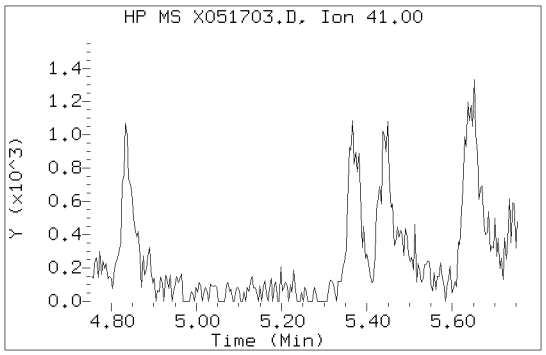
BEFORE

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

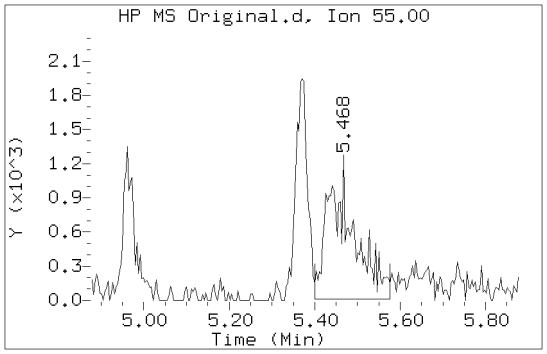


Ethyl Acrylate (140-88-5)

Reason Code:

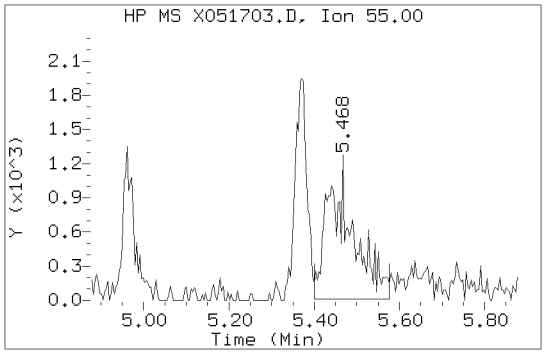
BEFORE

MASS
55
AREA
5171
HEIGHT
1265
18-May-2023
13:42
linh
pham



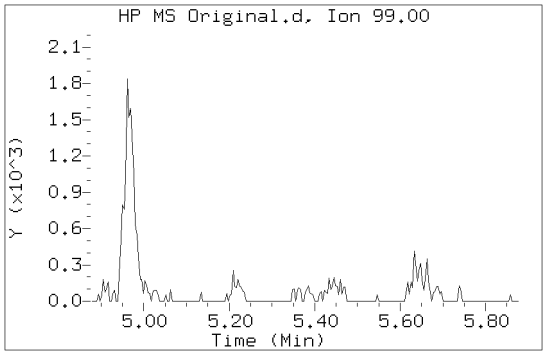
AFTER

MASS
55
AREA
5171
HEIGHT
1265
18-May-2023
13:42
linh
pham



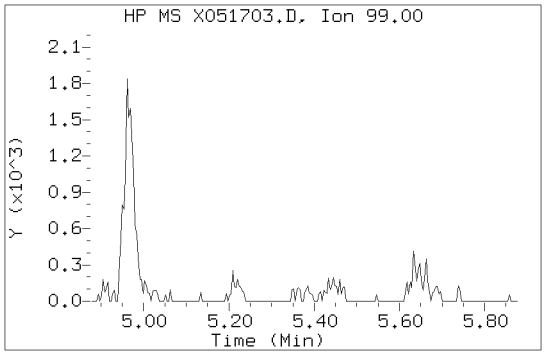
BEFORE

MASS
99
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

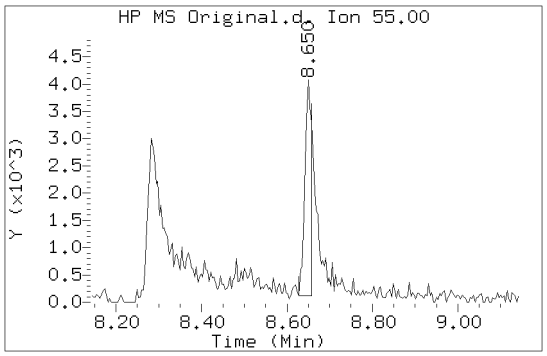


Cyclohexanone (108-94-1)

Reason Code:

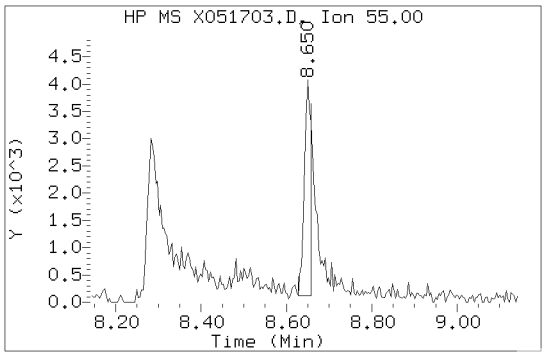
BEFORE

MASS
55
AREA
4234
HEIGHT
3960
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
4234
HEIGHT
3960
18-May-2023
13:42
linh
pham



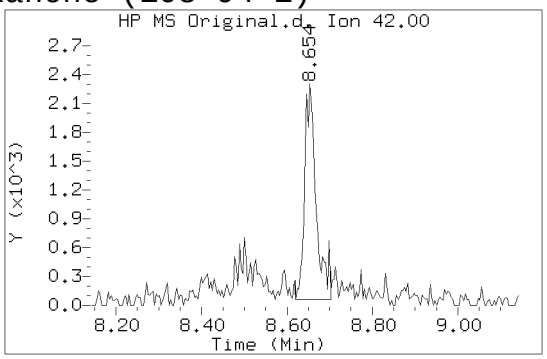
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Cyclohexanone (108-94-1)

Reason Code:

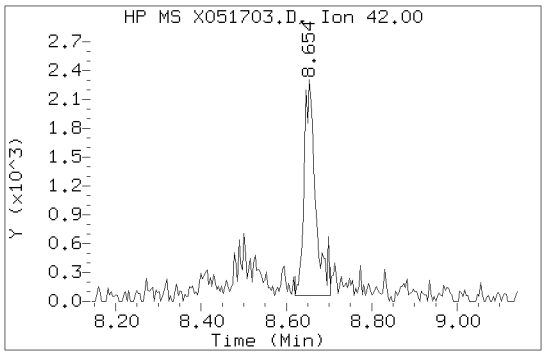
BEFORE

MASS
42
AREA
4224
HEIGHT
2244
18-May-2023
13:42
linh
pham



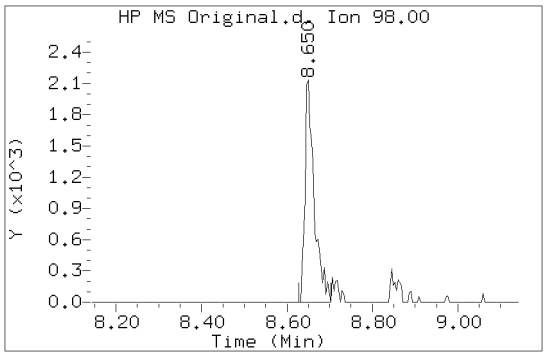
AFTER

MASS
42
AREA
4224
HEIGHT
2244
18-May-2023
13:42
linh
pham



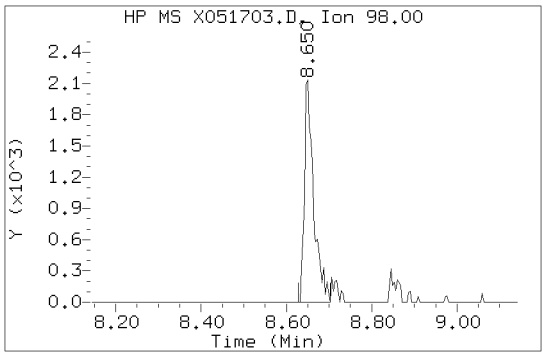
BEFORE

MASS
98
AREA
3244
HEIGHT
2134
18-May-2023
13:42
linh
pham



AFTER

MASS
98
AREA
3244
HEIGHT
2134
18-May-2023
13:42
linh
pham

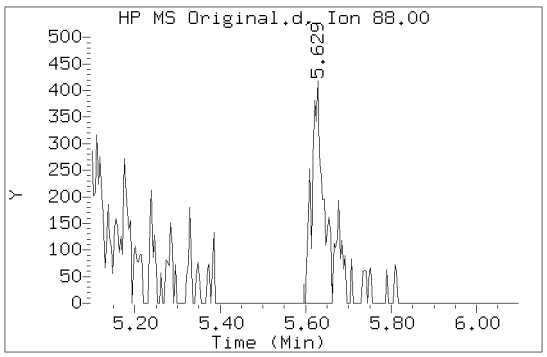


1,4-Dioxane ()

Reason Code:

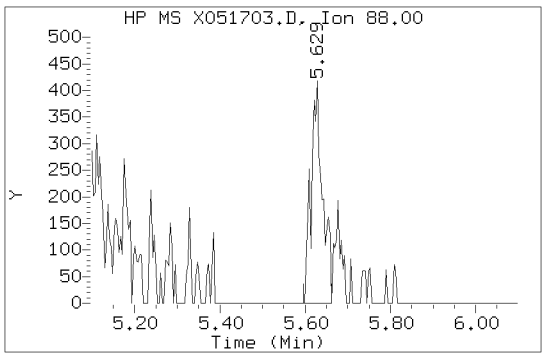
BEFORE

MASS
88
AREA
777
HEIGHT
418
18-May-2023
13:42
linh
pham



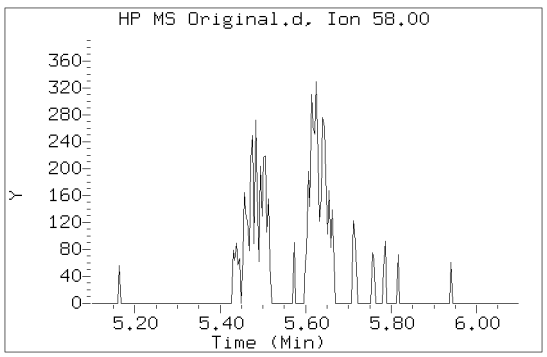
AFTER

MASS
88
AREA
777
HEIGHT
418
18-May-2023
13:42
linh
pham



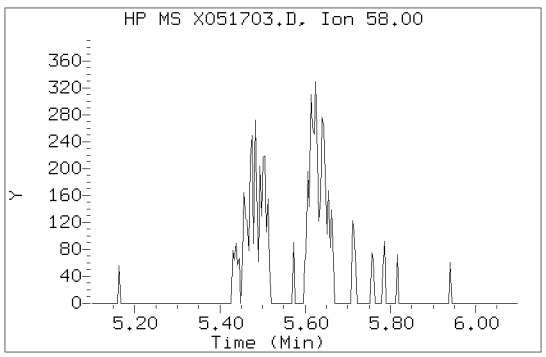
BEFORE

MASS
58
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

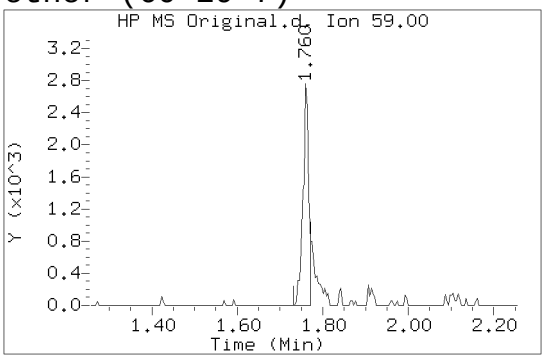


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

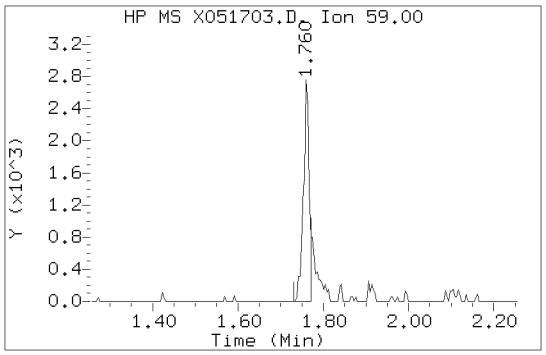
Diethyl ether (60-29-7)

Reason Code:

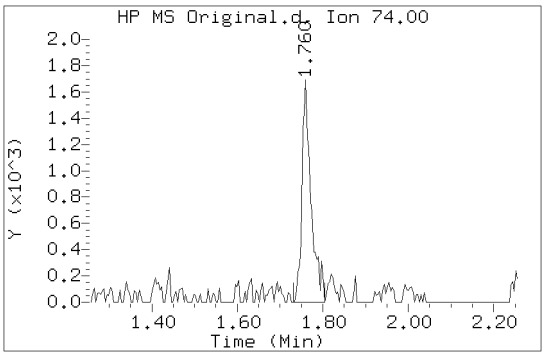
BEFORE
MASS
59
AREA
2635
HEIGHT
2761
18-May-2023
13:42
linh
pham



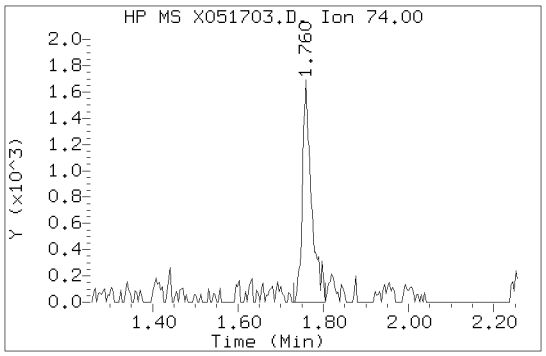
AFTER
MASS
59
AREA
2635
HEIGHT
2761
18-May-2023
13:42
linh
pham



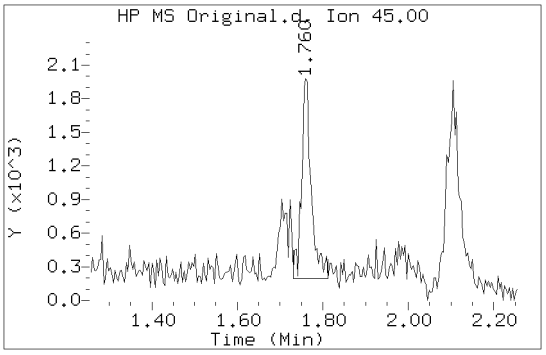
BEFORE
MASS
74
AREA
2561
HEIGHT
1692
18-May-2023
13:42
linh
pham



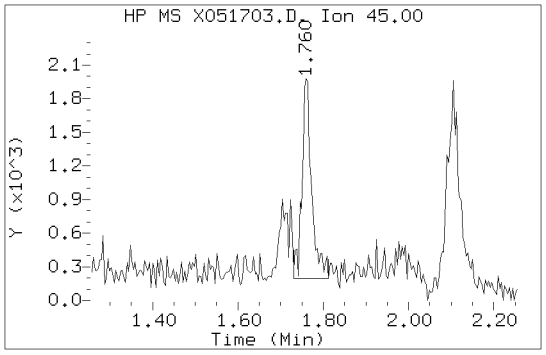
AFTER
MASS
74
AREA
2561
HEIGHT
1692
18-May-2023
13:42
linh
pham



BEFORE
MASS
45
AREA
2921
HEIGHT
1787
18-May-2023
13:42
linh
pham



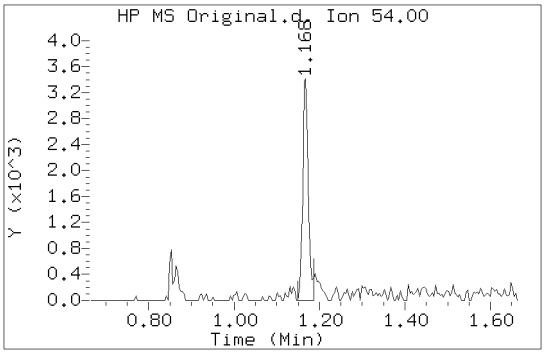
AFTER
MASS
45
AREA
2921
HEIGHT
1787
18-May-2023
13:42
linh
pham



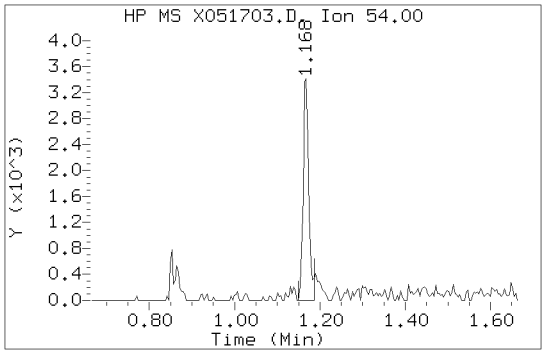
1,3-Butadiene (106-99-0)

Reason Code:

BEFORE
MASS
54
AREA
3237
HEIGHT
3414
18-May-2023
13:42
linh
pham



AFTER
MASS
54
AREA
3237
HEIGHT
3414
18-May-2023
13:42
linh
pham



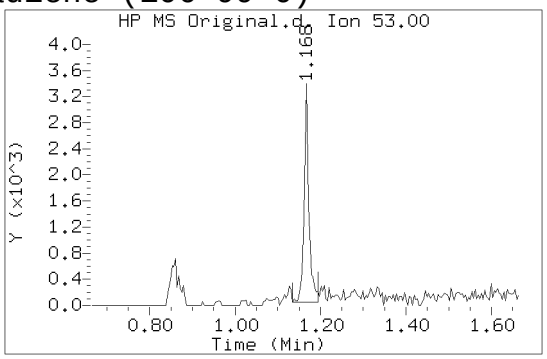
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,3-Butadiene (106-99-0)

Reason Code:

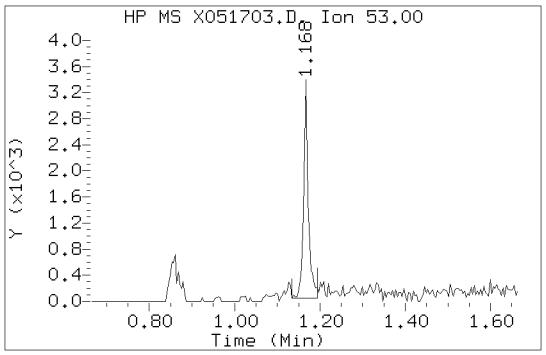
BEFORE

MASS
53
AREA
2654
HEIGHT
3348
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
2654
HEIGHT
3348
18-May-2023
13:42
linh
pham

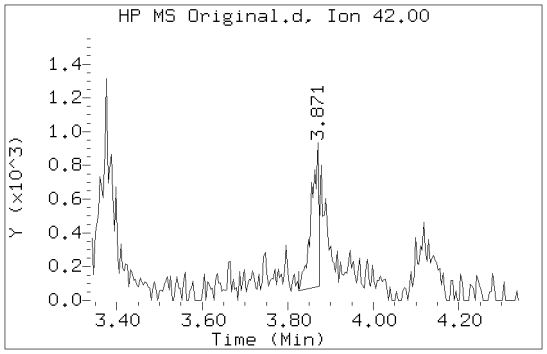


Tetrahydrofuran (109-99-9)

Reason Code:

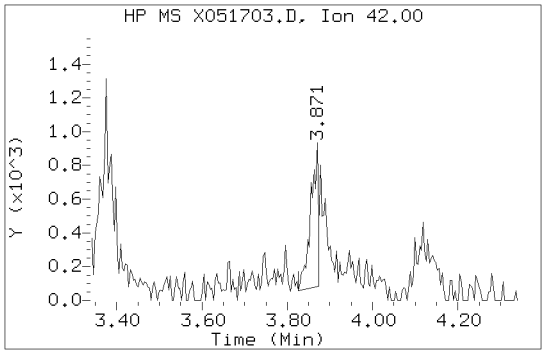
BEFORE

MASS
42
AREA
1066
HEIGHT
856
18-May-2023
13:42
linh
pham



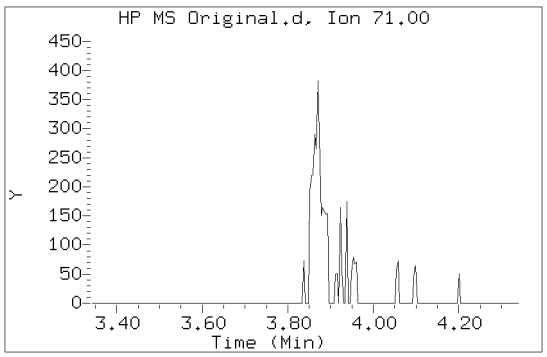
AFTER

MASS
42
AREA
1066
HEIGHT
856
18-May-2023
13:42
linh
pham



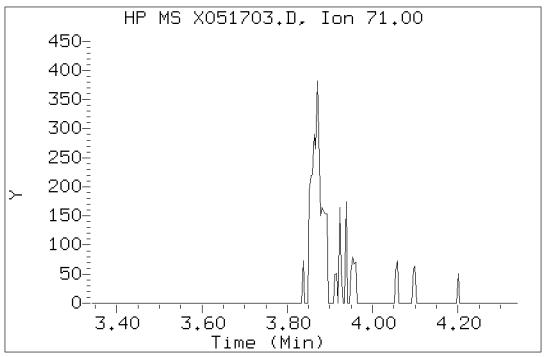
BEFORE

MASS
71
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
71
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

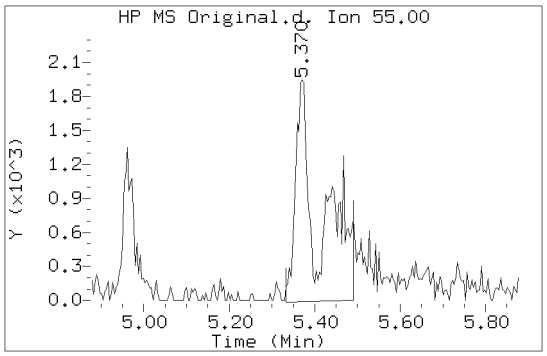


Methylcyclohexane (108-87-2)

Reason Code:

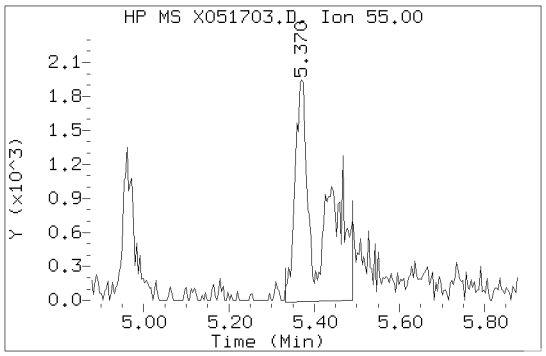
BEFORE

MASS
55
AREA
7580
HEIGHT
1957
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
7580
HEIGHT
1957
18-May-2023
13:42
linh
pham



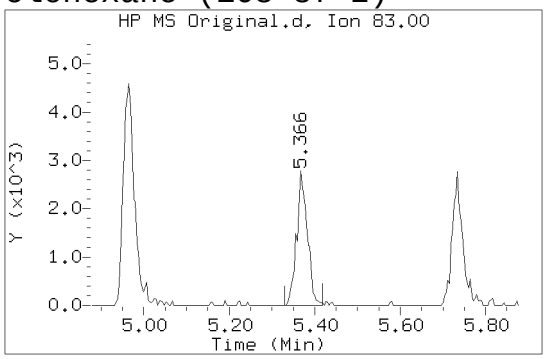
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Methylcyclohexane (108-87-2)

Reason Code:

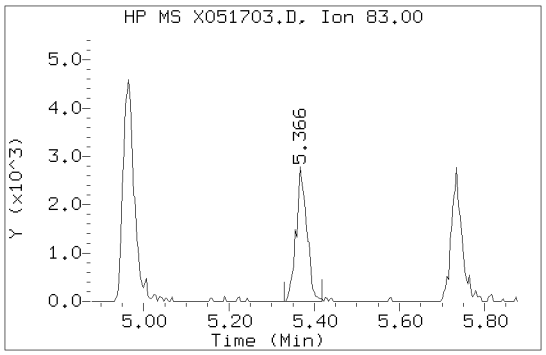
BEFORE

MASS
83
AREA
4922
HEIGHT
2785
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
4922
HEIGHT
2785
18-May-2023
13:42
linh
pham

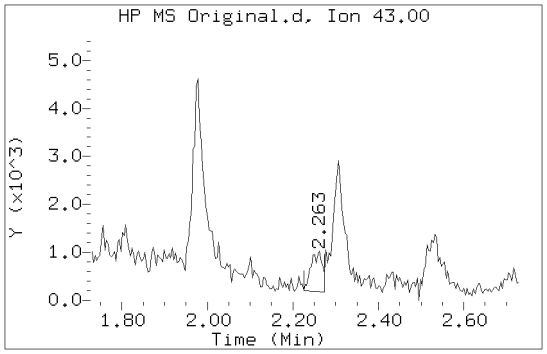


Methyl Acetate (79-20-9)

Reason Code:

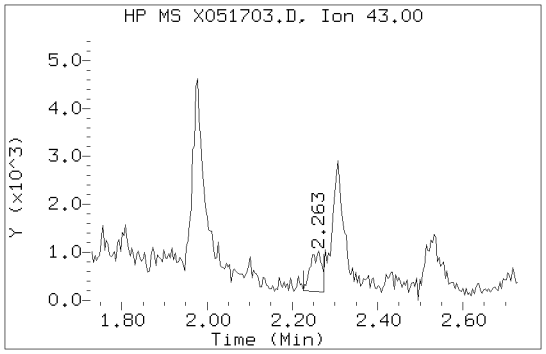
BEFORE

MASS
43
AREA
1535
HEIGHT
843
18-May-2023
13:42
linh
pham



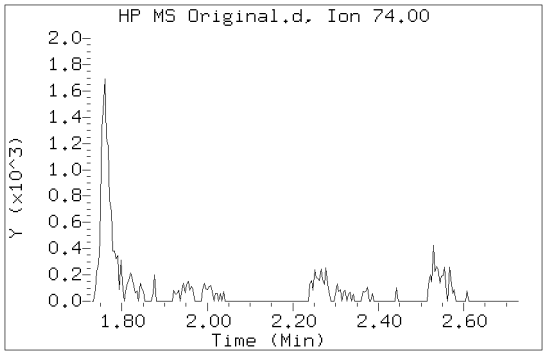
AFTER

MASS
43
AREA
1535
HEIGHT
843
18-May-2023
13:42
linh
pham



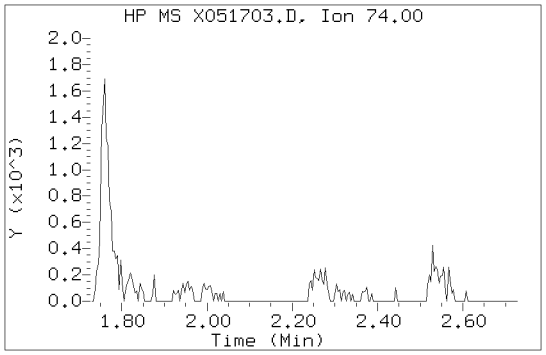
BEFORE

MASS
74
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
74
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

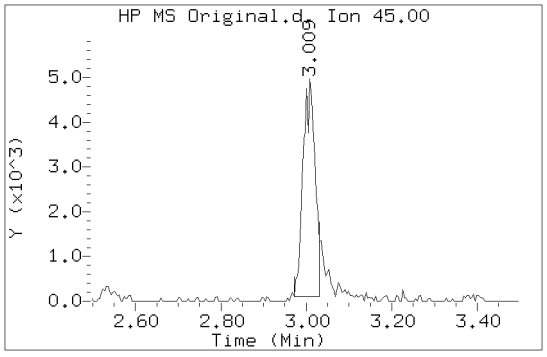


Diisopropyl ether (108-20-3)

Reason Code:

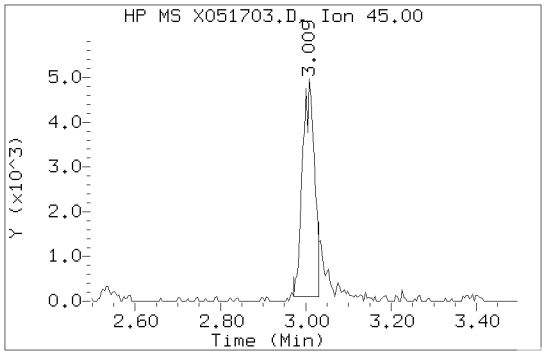
BEFORE

MASS
45
AREA
9672
HEIGHT
4867
18-May-2023
13:42
linh
pham



AFTER

MASS
45
AREA
9672
HEIGHT
4867
18-May-2023
13:42
linh
pham



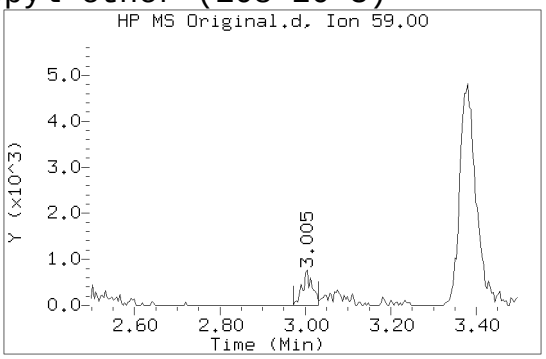
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Diisopropyl ether (108-20-3)

Reason Code:

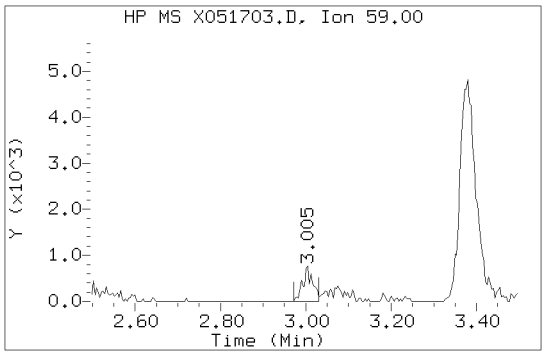
BEFORE

MASS
59
AREA
1226
HEIGHT
761
18-May-2023
13:42
linh
pham



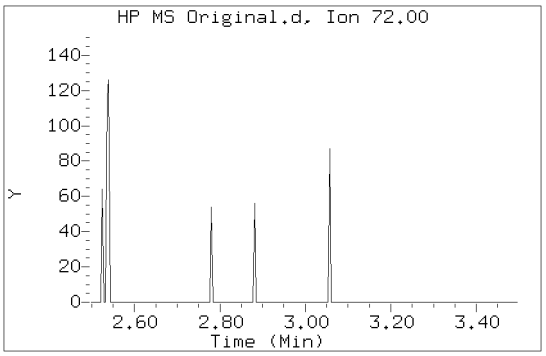
AFTER

MASS
59
AREA
1226
HEIGHT
761
18-May-2023
13:42
linh
pham



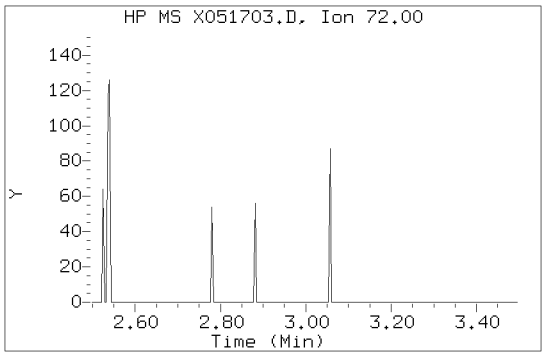
BEFORE

MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

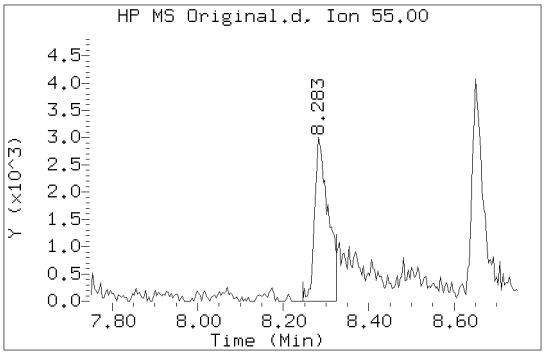


Butyl acrylate (141-32-2)

Reason Code:

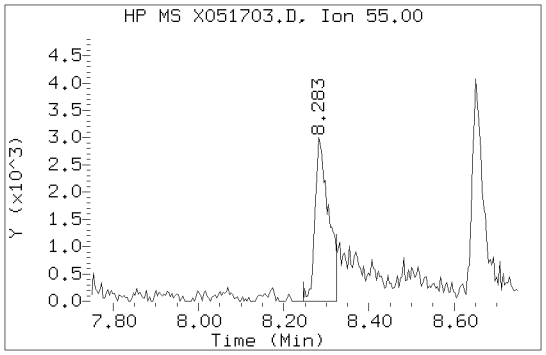
BEFORE

MASS
55
AREA
6616
HEIGHT
3009
18-May-2023
13:42
linh
pham



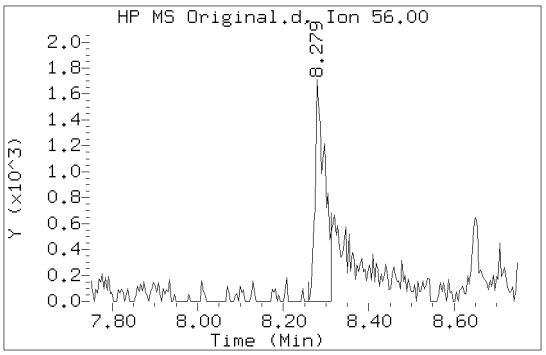
AFTER

MASS
55
AREA
6616
HEIGHT
3009
18-May-2023
13:42
linh
pham



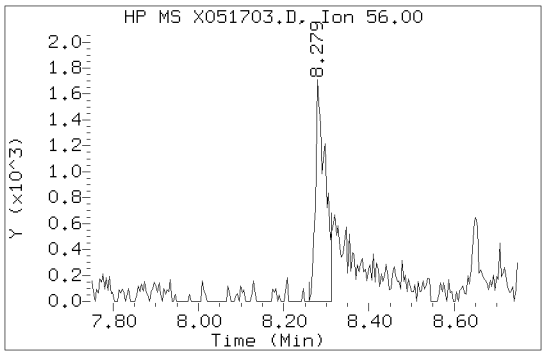
BEFORE

MASS
56
AREA
2725
HEIGHT
1710
18-May-2023
13:42
linh
pham



AFTER

MASS
56
AREA
2725
HEIGHT
1710
18-May-2023
13:42
linh
pham



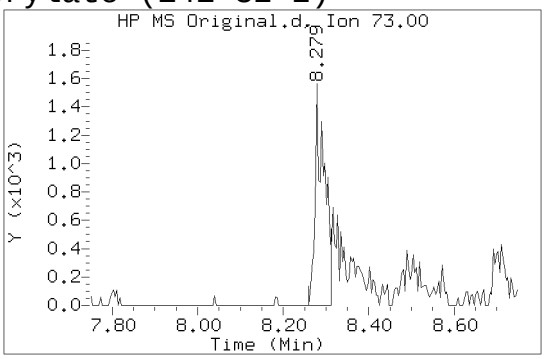
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Butyl acrylate (141-32-2)

Reason Code:

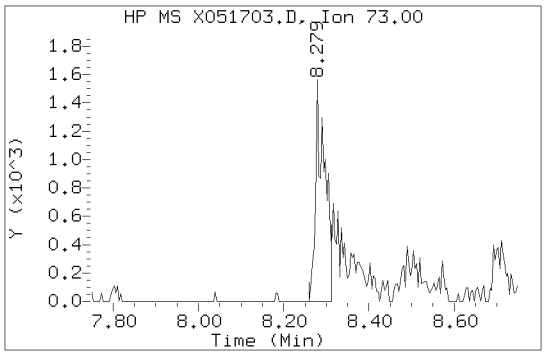
BEFORE

MASS
73
AREA
2368
HEIGHT
1564
18-May-2023
13:42
linh
pham



AFTER

MASS
73
AREA
2368
HEIGHT
1564
18-May-2023
13:42
linh
pham

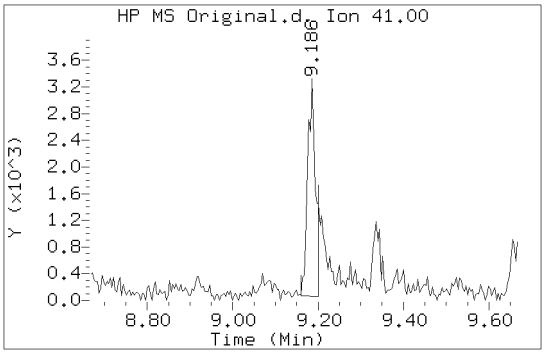


Butyl methacrylate (97-88-1)

Reason Code:

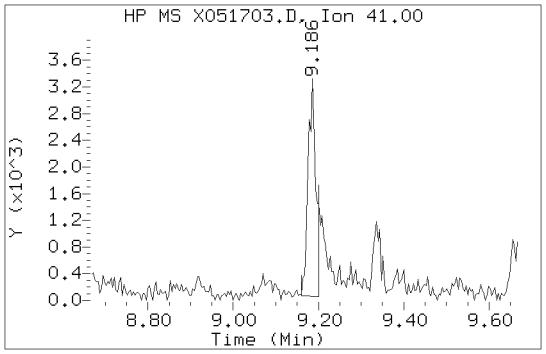
BEFORE

MASS
41
AREA
4156
HEIGHT
3265
18-May-2023
13:42
linh
pham



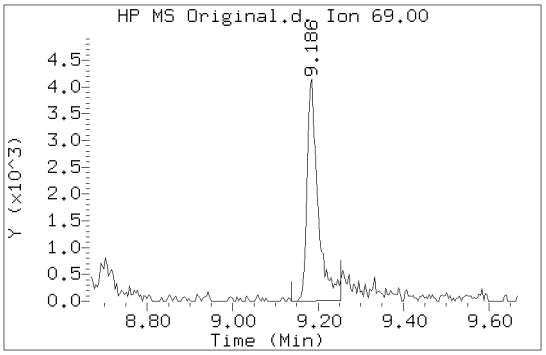
AFTER

MASS
41
AREA
4156
HEIGHT
3265
18-May-2023
13:42
linh
pham



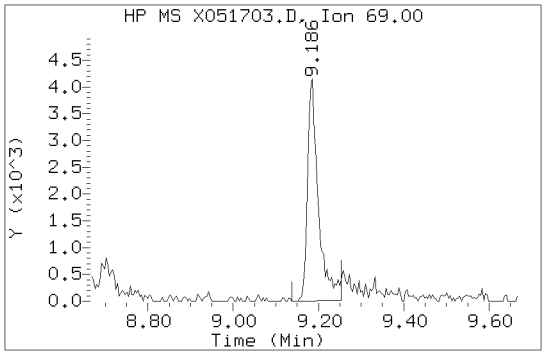
BEFORE

MASS
69
AREA
7379
HEIGHT
4141
18-May-2023
13:42
linh
pham



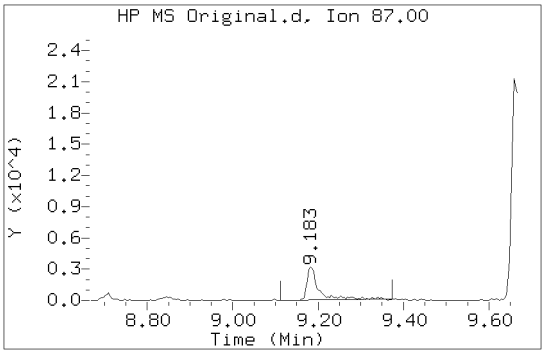
AFTER

MASS
69
AREA
7379
HEIGHT
4141
18-May-2023
13:42
linh
pham



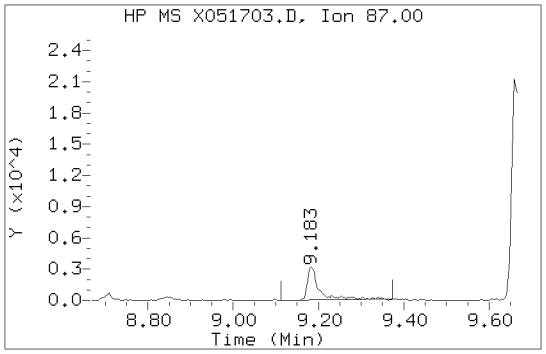
BEFORE

MASS
87
AREA
6001
HEIGHT
3151
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
6001
HEIGHT
3151
18-May-2023
13:42
linh
pham



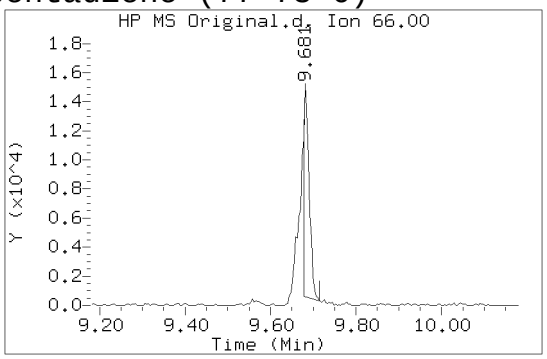
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Dicyclopentadiene (77-73-6)

Reason Code:

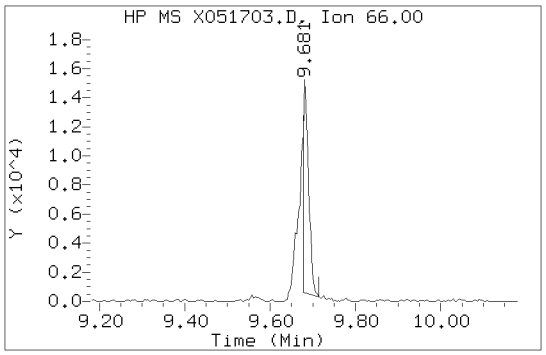
BEFORE

MASS
66
AREA
13612
HEIGHT
14665
18-May-2023
13:42
linh
pham



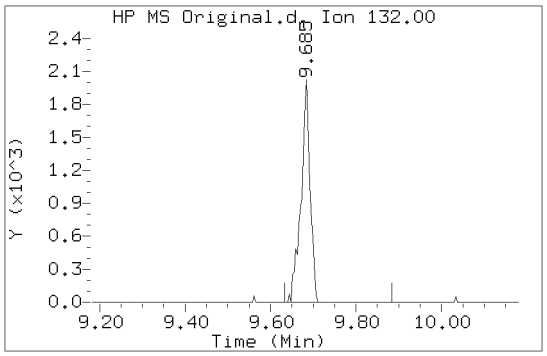
AFTER

MASS
66
AREA
13612
HEIGHT
14665
18-May-2023
13:42
linh
pham



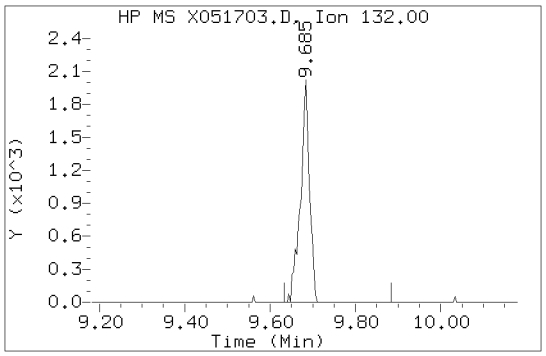
BEFORE

MASS
132
AREA
3055
HEIGHT
2023
18-May-2023
13:42
linh
pham



AFTER

MASS
132
AREA
3055
HEIGHT
2023
18-May-2023
13:42
linh
pham

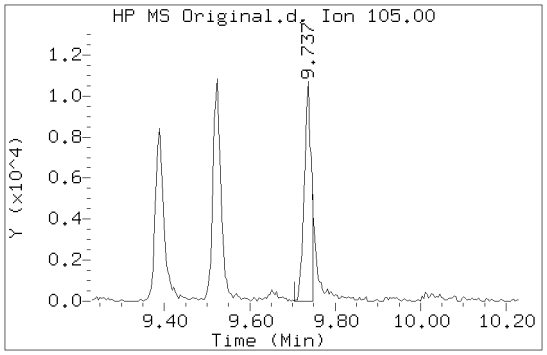


1,2,3-Trimethylbenzene (526-73-8)

Reason Code:

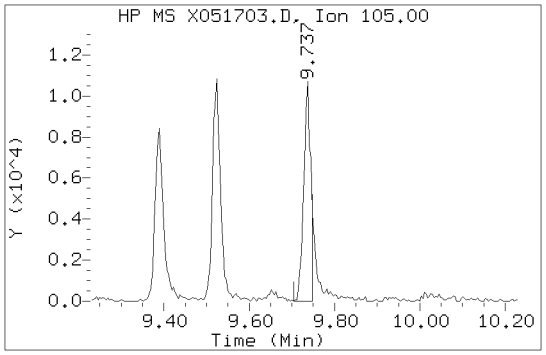
BEFORE

MASS
105
AREA
12493
HEIGHT
10720
18-May-2023
13:42
linh
pham



AFTER

MASS
105
AREA
12493
HEIGHT
10720
18-May-2023
13:42
linh
pham

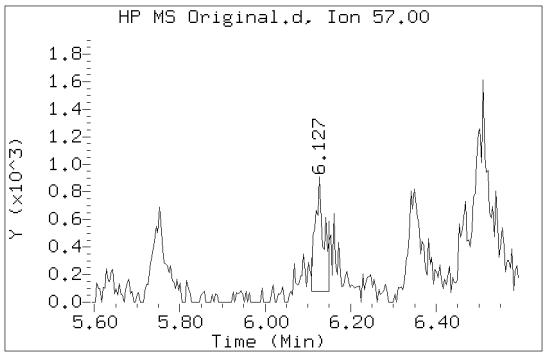


Epichlorohydrin (106-89-8)

Reason Code:

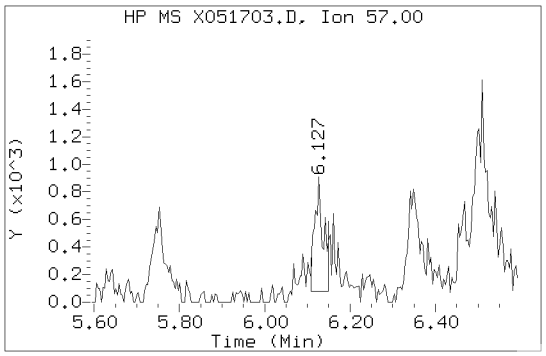
BEFORE

MASS
57
AREA
1178
HEIGHT
828
18-May-2023
13:42
linh
pham



AFTER

MASS
57
AREA
1178
HEIGHT
828
18-May-2023
13:42
linh
pham



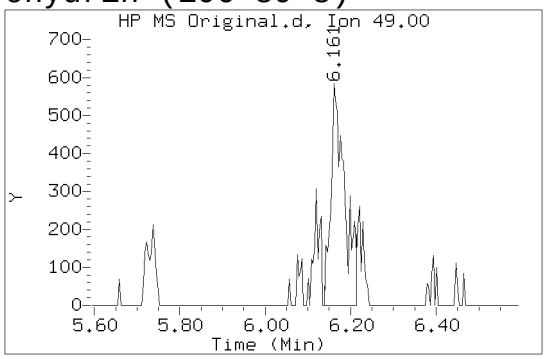
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Epichlorohydrin (106-89-8)

Reason Code:

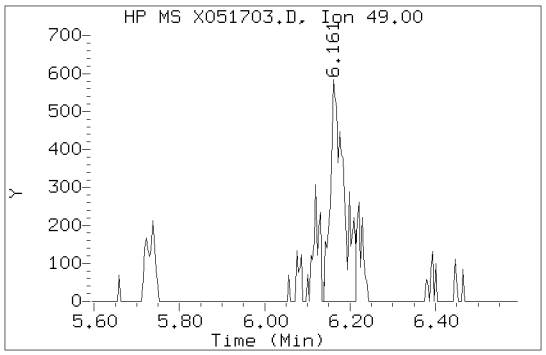
BEFORE

MASS
49
AREA
1308
HEIGHT
584
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
1308
HEIGHT
584
18-May-2023
13:42
linh
pham

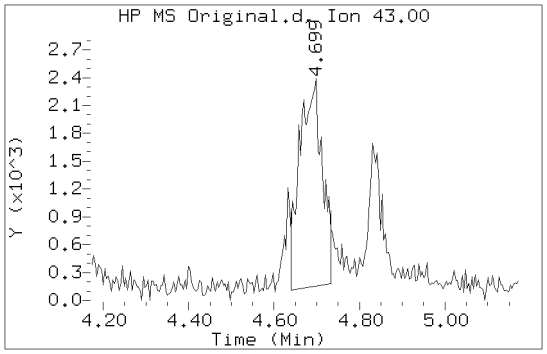


Isopropyl acetate (108-21-4)

Reason Code:

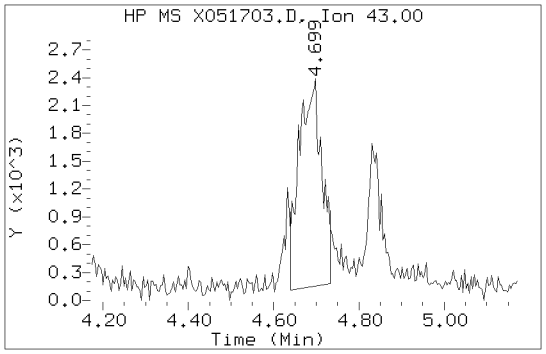
BEFORE

MASS
43
AREA
8344
HEIGHT
2233
18-May-2023
13:42
linh
pham



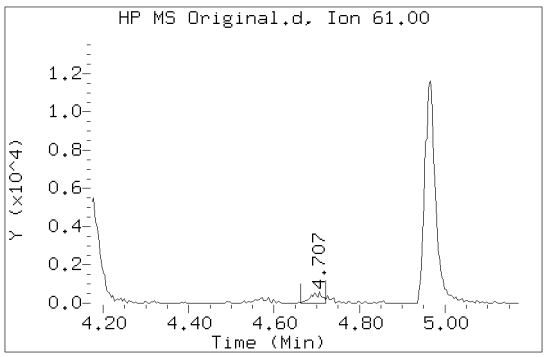
AFTER

MASS
43
AREA
8344
HEIGHT
2233
18-May-2023
13:42
linh
pham



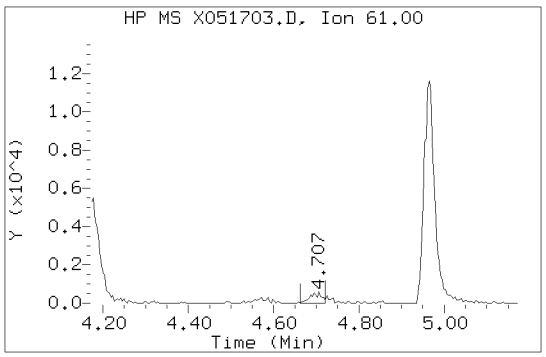
BEFORE

MASS
61
AREA
1043
HEIGHT
617
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
1043
HEIGHT
617
18-May-2023
13:42
linh
pham

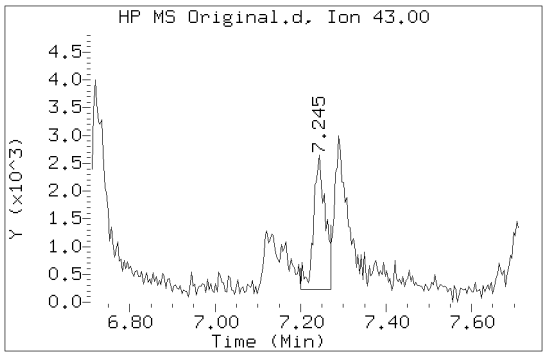


n-Butyl acetate (123-86-4)

Reason Code:

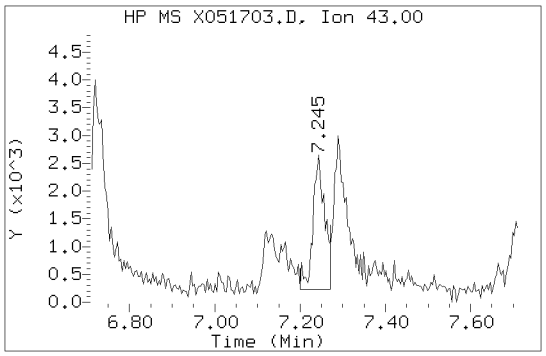
BEFORE

MASS
43
AREA
4641
HEIGHT
2413
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
4641
HEIGHT
2413
18-May-2023
13:42
linh
pham



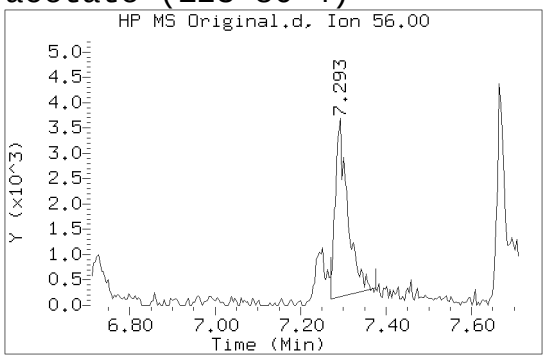
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butyl acetate (123-86-4)

Reason Code:

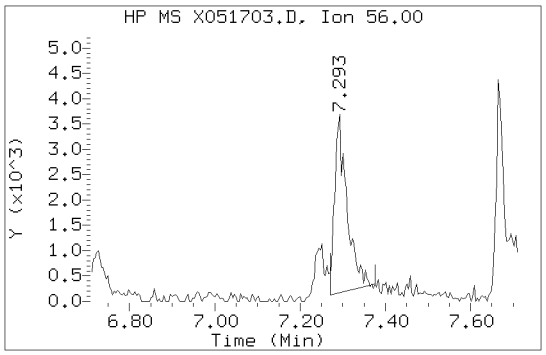
BEFORE

MASS
56
AREA
7102
HEIGHT
3530
18-May-2023
13:42
linh
pham



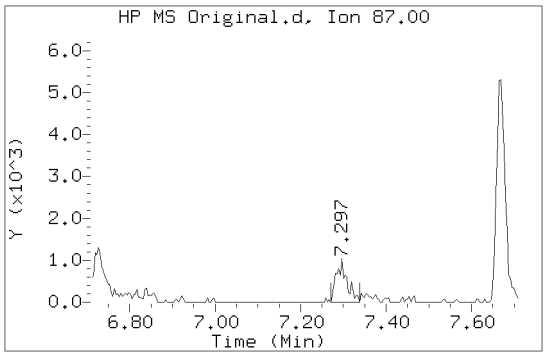
AFTER

MASS
56
AREA
7102
HEIGHT
3530
18-May-2023
13:42
linh
pham



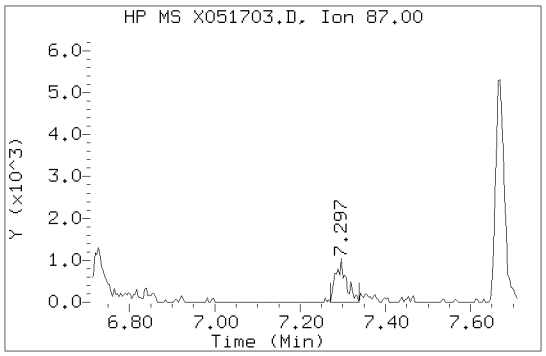
BEFORE

MASS
87
AREA
1765
HEIGHT
1036
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
1765
HEIGHT
1036
18-May-2023
13:42
linh
pham

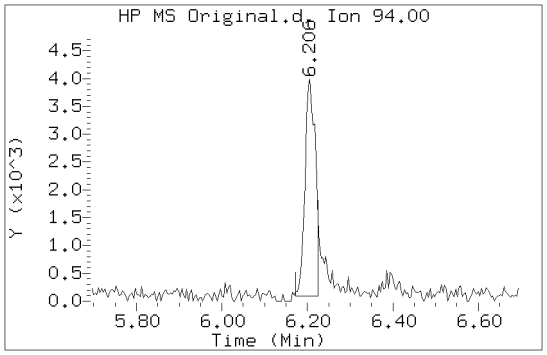


Dimethyl Disulfide (624-92-0)

Reason Code:

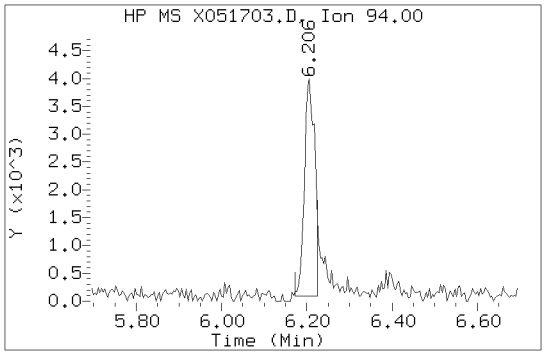
BEFORE

MASS
94
AREA
6593
HEIGHT
3899
18-May-2023
13:42
linh
pham



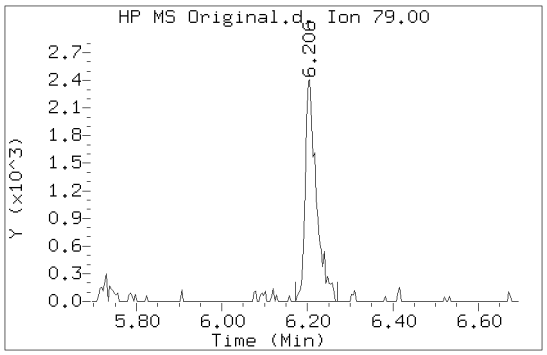
AFTER

MASS
94
AREA
6593
HEIGHT
3899
18-May-2023
13:42
linh
pham



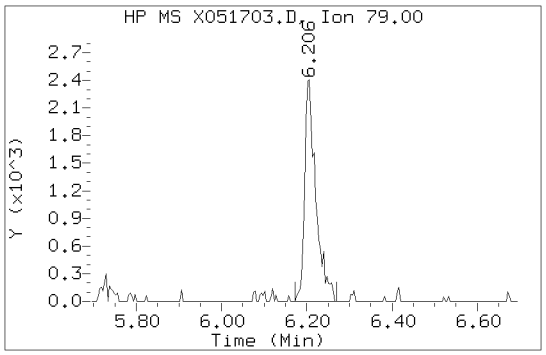
BEFORE

MASS
79
AREA
4432
HEIGHT
2407
18-May-2023
13:42
linh
pham



AFTER

MASS
79
AREA
4432
HEIGHT
2407
18-May-2023
13:42
linh
pham

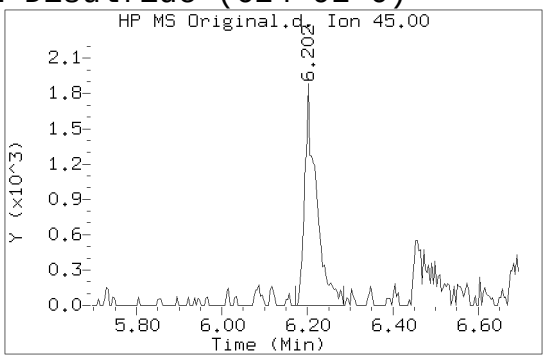


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

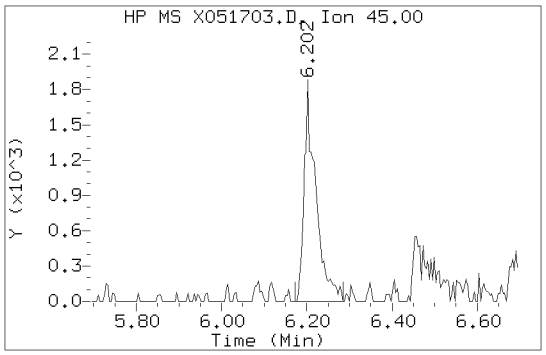
Dimethyl Disulfide (624-92-0)

Reason Code:

BEFORE
MASS
45
AREA
3622
HEIGHT
1883
18-May-2023
13:42
linh
pham



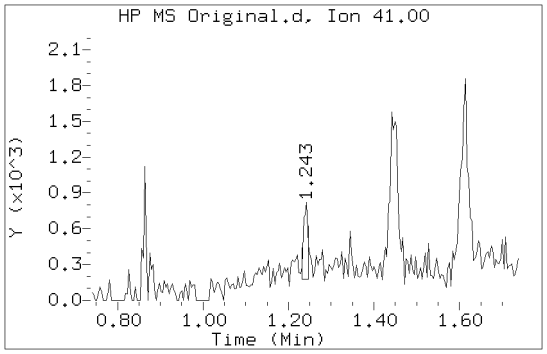
AFTER
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3622
HEIGHT
1883
18-May-2023
13:42
linh
pham



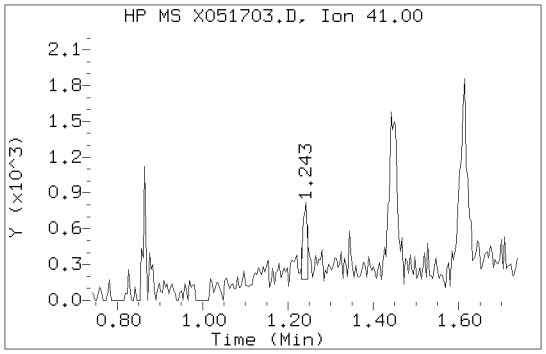
Isobutylene (115-11-7)

Reason Code:

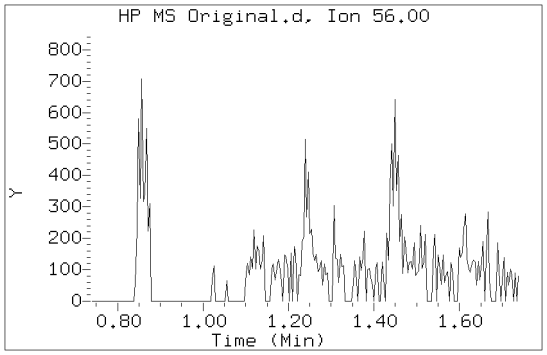
BEFORE
MASS
41
AREA
467
HEIGHT
644
18-May-2023
13:42
linh
pham



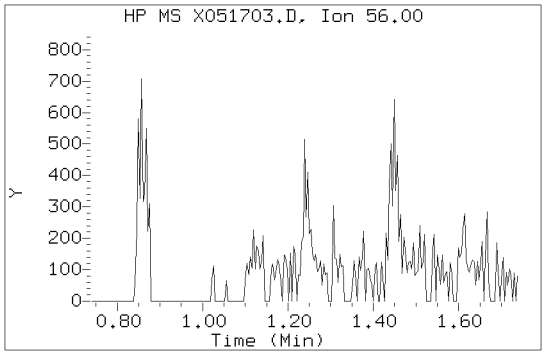
AFTER
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41
AREA
467
HEIGHT
644
18-May-2023
13:42
linh
pham



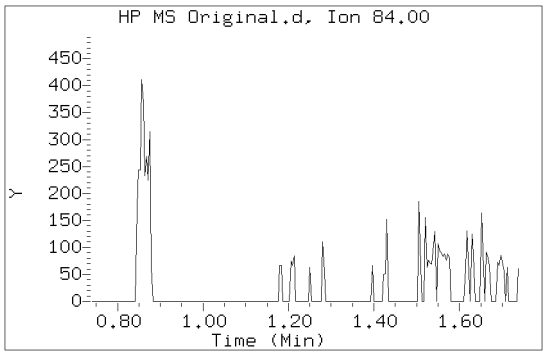
BEFORE
MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



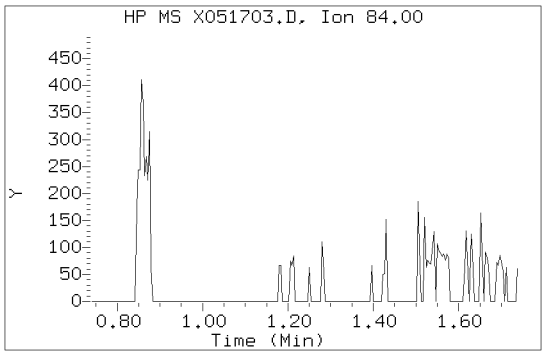
AFTER
MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



BEFORE
MASS
84
AREA
0
HEIGHT
0
18-May-2023
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linh
pham



AFTER
MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



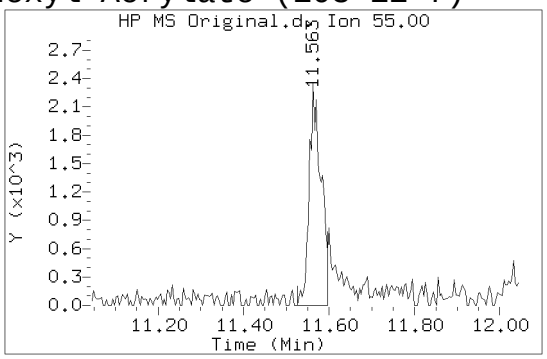
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

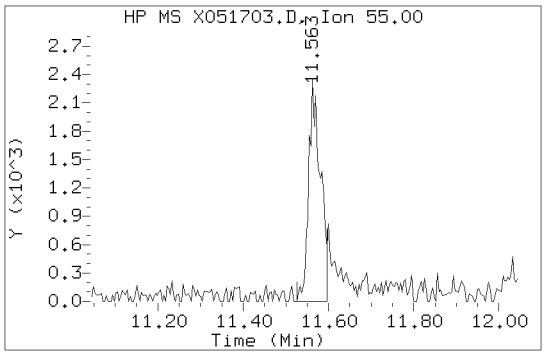
BEFORE

MASS
55
AREA
4540
HEIGHT
2345
18-May-2023
13:42
linh
pham



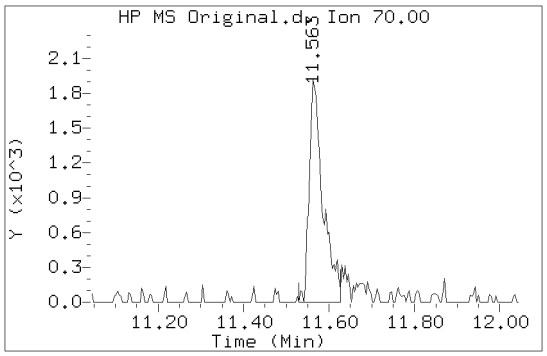
AFTER

MASS
55
AREA
4540
HEIGHT
2345
18-May-2023
13:42
linh
pham



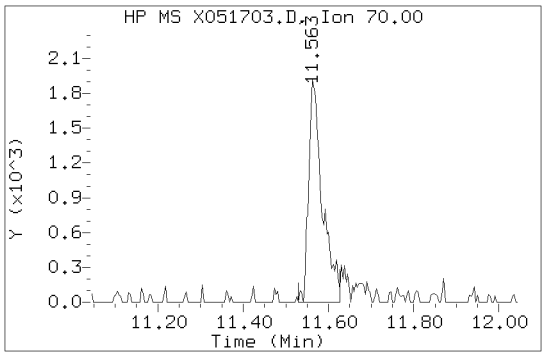
BEFORE

MASS
70
AREA
4304
HEIGHT
1916
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
4304
HEIGHT
1916
18-May-2023
13:42
linh
pham

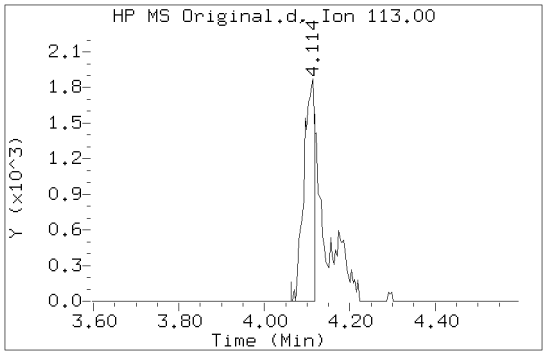


Dibromofluoromethane (1868-53-7)

Reason Code:

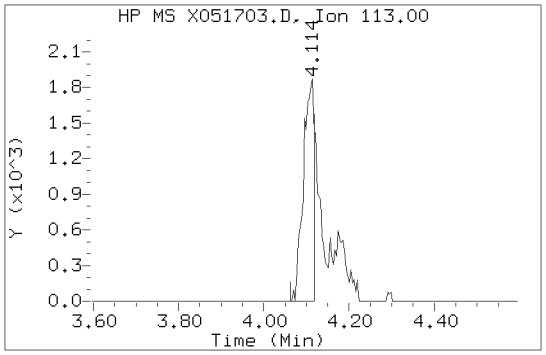
BEFORE

MASS
113
AREA
3260
HEIGHT
1872
18-May-2023
13:42
linh
pham



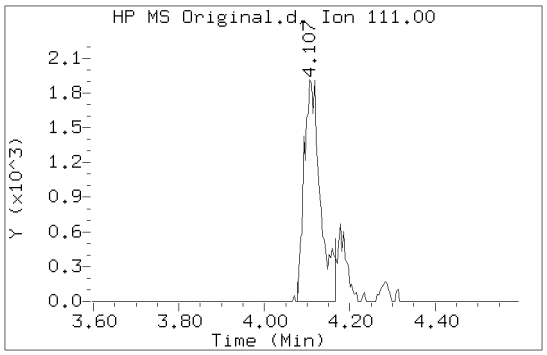
AFTER

MASS
113
AREA
3260
HEIGHT
1872
18-May-2023
13:42
linh
pham



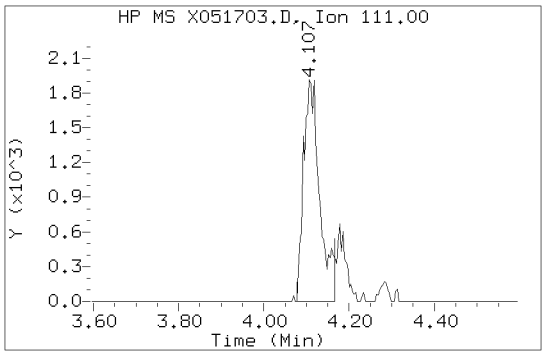
BEFORE

MASS
111
AREA
5100
HEIGHT
1915
18-May-2023
13:42
linh
pham



AFTER

MASS
111
AREA
5100
HEIGHT
1915
18-May-2023
13:42
linh
pham



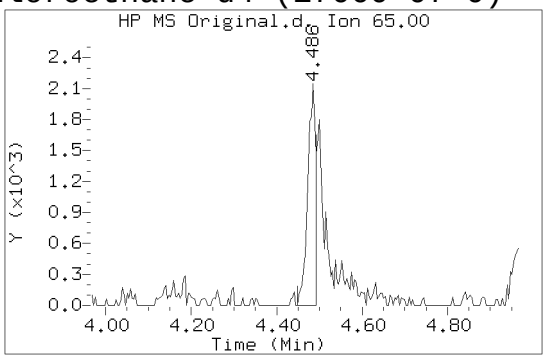
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LabSampID : VSTD000.5

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

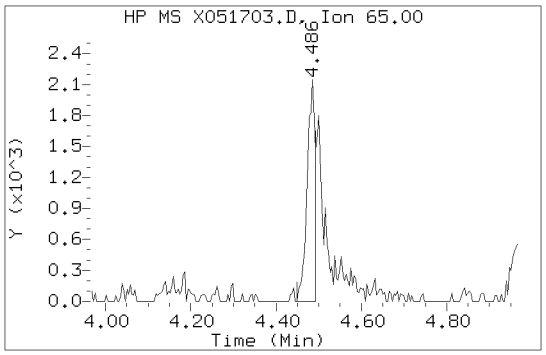
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18-May-2023
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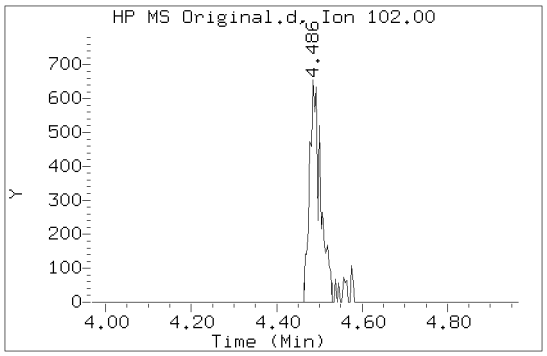
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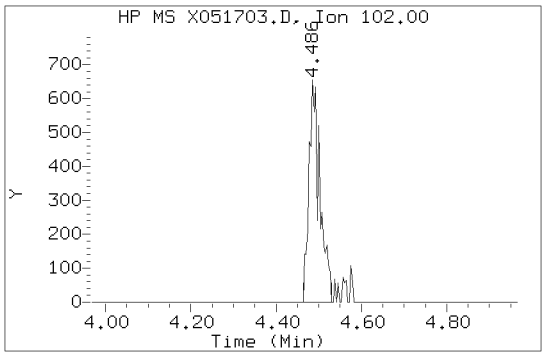
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AFTER

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18-May-2023
13:42
linh
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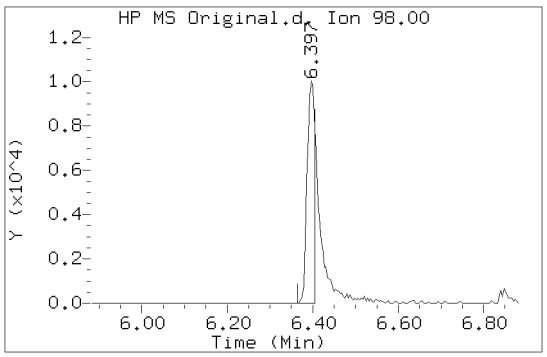


Toluene-d8 (2037-26-5)

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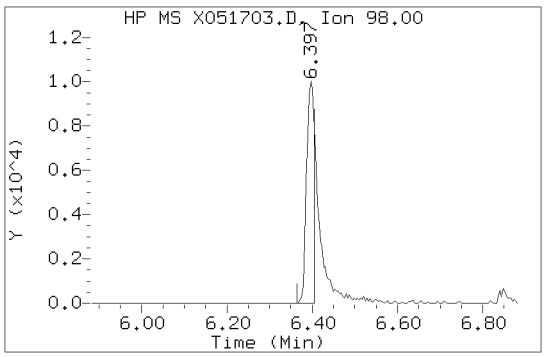
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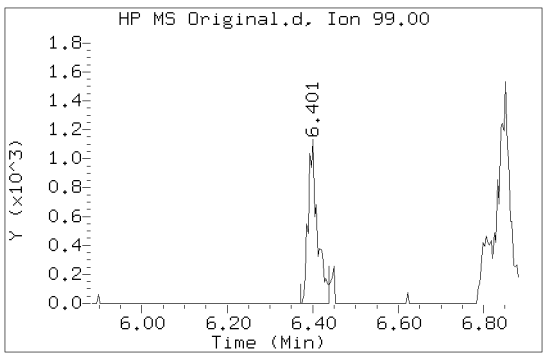
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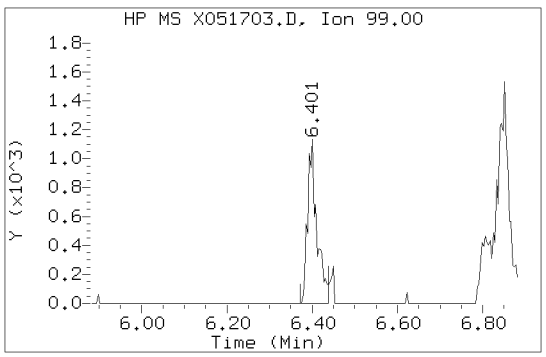
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AFTER

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13:42
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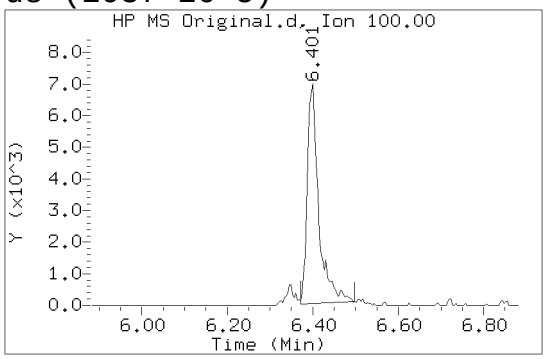
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LabSampID : VSTD000.5

Toluene-d8 (2037-26-5)

Reason Code:

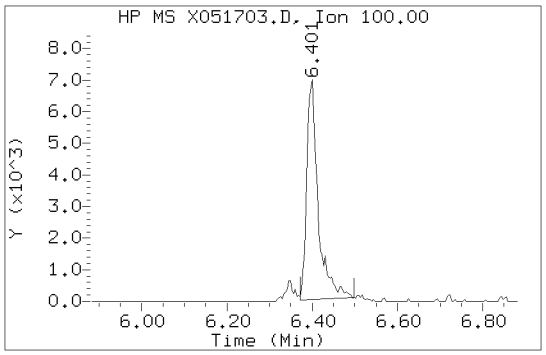
BEFORE

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AFTER

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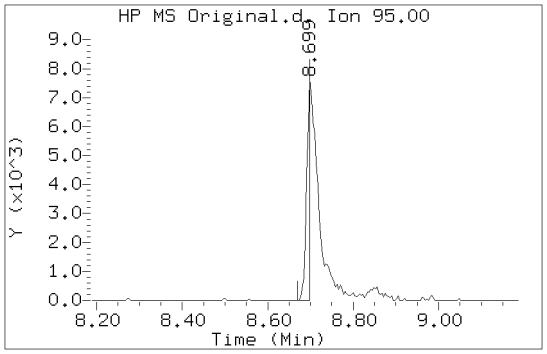


4-Bromofluorobenzene (460-00-4)

Reason Code:

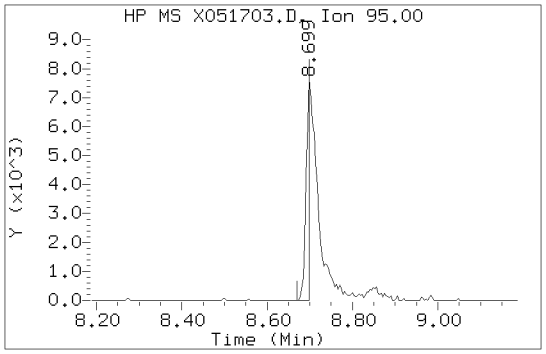
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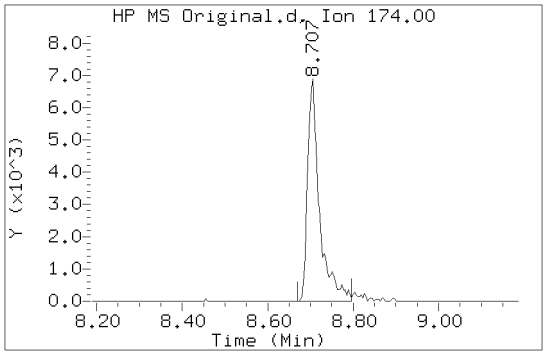
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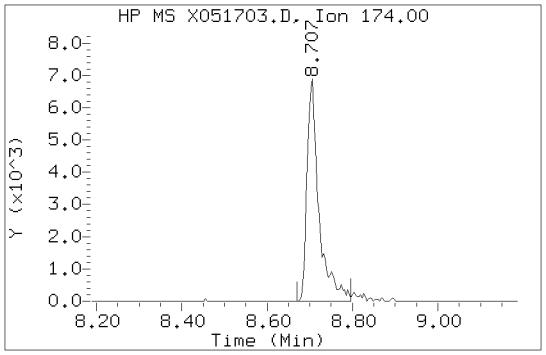
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18-May-2023
13:42
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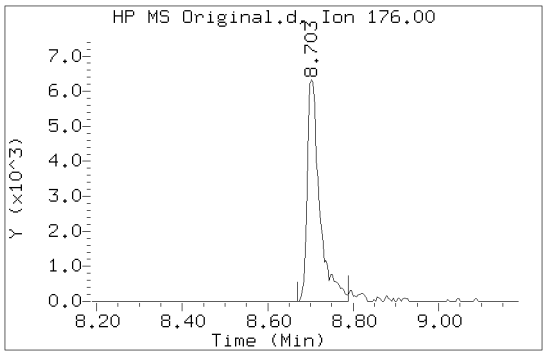
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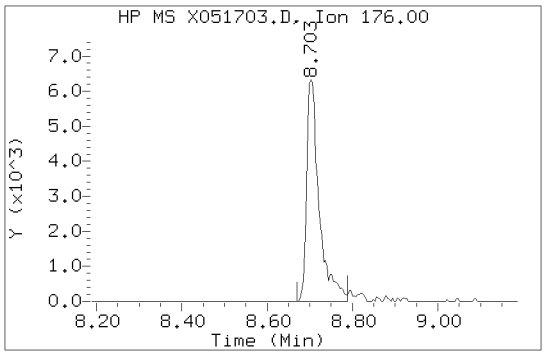
BEFORE

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18-May-2023
13:42
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AFTER

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HEIGHT
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18-May-2023
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pham



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
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Inj Date : 17-MAY-2023 13:20
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Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
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Cal Date : 17-MAY-2023 12:59 Cal File: X051703.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.181	4.181	(1.000)	564526	50.0000	
135	1,4-Dioxane	88	5.624	5.624	(1.345)	1650	20.0000	21.58(aM)
140	1,3-Butadiene	54	1.164	1.164	(0.278)	6276	1.00000	1.05(aM)
25	Methacrylonitrile	41	3.863	3.863	(0.924)	4830	1.00000	0.95(aM)
12	Isobutyl Alcohol	43	4.691	4.691	(1.122)	12926	20.0000	17.56(aM)
13	Acetonitrile	39	2.206	2.206	(0.528)	5197	10.0000	9.56(a)
14	Allyl Chloride	41	2.209	2.209	(0.528)	14400	1.00000	1.05
72	trans-1,4-Dichloro-2-butene	53	8.920	8.920	(1.163)	1686	1.00000	0.85(aM)
23	Chloroprene	53	1.775	1.775	(0.424)	2382	1.00000	1.04(aM)
130	Ethyl Acetate	43	3.679	3.679	(0.880)	4516	1.00000	1.12(aM)
40	Methyl Methacrylate	41	5.632	5.632	(1.347)	4552	1.00000	0.92(aM)
49	Ethyl Methacrylate	69	6.798	6.798	(1.369)	9539	1.00000	1.04(aM)
131	Methyl Acrylate	55	3.765	3.765	(0.900)	4572	1.00000	0.83(aM)
132	n-Butanol	56	5.351	5.351	(1.280)	1207	20.0000	75.08(aM)
136	n-Hexane	57	2.776	2.776	(0.664)	5002	1.00000	0.98(a)
139	Diethyl ether	59	1.763	1.763	(0.422)	5478	1.00000	1.13(a)
142	Tetrahydrofuran	42	3.874	3.874	(0.926)	1894	2.00000	2.03(aM)
145	alpha-Methylstyrene	118	9.272	9.272	(0.960)	9051	1.00000	0.94(a)
156	Diisopropyl ether	45	3.004	3.004	(0.719)	17844	1.00000	1.04(Ta)
162	Butyl acrylate	55	8.275	8.275	(1.079)	10665	1.00000	0.84(a)

167 Ethanol	45	1.707	1.707 (0.408)	1978	20.0000	28.26
200 Dimethyl Disulfide	94	6.202	6.202 (0.809)	12375	1.00000	0.97(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	164 Dicyclopentadiene	66	9.684	9.684	(1.002)	21949	1.00000	0.94(aM)
	166 1,2,3-Trimethylbenzene	105	9.733	9.733	(1.007)	19454	1.00000	0.97(a)
	205 2-Ethylhexyl Acrylate	55	11.566	11.566	(1.197)	8208	1.00000	1.00(aM)
	86 Benzyl Chloride	91	9.830	9.830	(1.282)	11369	1.00000	0.84(a)
	134 Cyclohexanone	55	8.653	8.653	(0.896)	6460	20.0000	23.63(a)
	133 Ethyl Acrylate	55	5.430	5.430	(1.299)	9158	1.00000	2.01(aM)
	163 Butyl methacrylate	41	9.182	9.182	(0.950)	6822	1.00000	0.89(aM)
	188 Isopropyl acetate	43	4.691	4.691	(0.945)	15042	1.00000	0.97(aM)
	189 n-Butyl acetate	43	7.233	7.233	(0.943)	8796	1.00000	0.89(aM)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	5723	1.00000	1.67(a)
	3 Chloromethane	50	1.081	1.081	(0.259)	8690	1.00000	1.09(a)
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	8147	1.00000	1.08(a)
	6 Bromomethane	94	1.344	1.344	(0.321)	4982	1.00000	1.53(aM)
	7 Chloroethane	64	1.404	1.404	(0.336)	5208	1.00000	1.11(a)
	8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	8110	1.00000	1.03(a)
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	5297	1.00000	1.06(a)
	15 Iodomethane	142	2.026	2.026	(0.485)	6806	2.00000	3.33(a)
	18 Methyl tert-butyl ether	73	2.539	2.539	(0.607)	16715	1.00000	1.07(a)
	19 Carbon Disulfide	76	2.071	2.071	(0.495)	30844	2.00000	1.97(a)
	20 trans-1,2-Dichloroethene	96	2.539	2.539	(0.607)	5399	1.00000	1.04(a)
	22 1,1-Dichloroethane	63	2.925	2.925	(0.700)	9596	1.00000	1.01(a)
	24 2-Butanone	43	3.668	3.668	(0.877)	3693	2.00000	1.96(aM)
	26 2,2-Dichloropropane	77	3.514	3.514	(0.840)	7909	1.00000	0.82(a)
	27 cis-1,2-Dichloroethene	96	3.533	3.533	(0.845)	6146	1.00000	1.01(a)
	28 Chloroform	83	3.915	3.915	(0.936)	9735	1.00000	1.03(a)
	29 Bromochloromethane	128	3.803	3.803	(0.909)	3643	1.00000	1.13(a)
$	30 Dibromofluoromethane	113	4.106	4.106	(0.982)	6379	1.00000	0.41(a)
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	7233	1.00000	1.00(a)
	32 1,1-Dichloropropene	75	4.290	4.290	(0.864)	7077	1.00000	1.00(aM)
	33 1,2-Dichloroethane	62	4.575	4.575	(0.921)	7809	1.00000	1.11(a)
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	6891	1.00000	1.06(a)
$	35 1,2-Dichloroethane-d4	65	4.485	4.485	(1.073)	6358	1.00000	0.70(aM)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	893837	50.0000	
	37 Benzene	78	4.522	4.522	(0.911)	22755	1.00000	1.00(a)
	38 Trichloroethene	130	5.216	5.216	(1.051)	5980	1.00000	0.97(a)
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	7475	1.00000	0.96(a)
	42 1,2-Dichloropropane	63	5.445	5.445	(1.097)	6891	1.00000	1.06(aM)
	44 Dibromomethane	93	5.561	5.561	(1.120)	3764	1.00000	0.95(a)
	45 4-Methyl-2-Pentanone	43	6.344	6.344	(0.827)	12993	2.00000	2.13(a)
	46 cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	10279	1.00000	0.98(a)
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	885131	50.0000	
$	48 Toluene-d8	98	6.397	6.397	(0.834)	24865	1.00000	1.10(aM)
	50 Toluene	91	6.457	6.457	(0.842)	25140	1.00000	1.01(a)
	51 trans-1,3-Dichloropropene	75	6.693	6.693	(1.348)	7228	1.00000	0.87(a)
	52 2-Hexanone	43	7.116	7.116	(0.928)	8213	2.00000	1.97(a)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	5211	1.00000	1.02(a)
	54 1,3-Dichloropropane	76	6.985	6.985	(0.911)	10320	1.00000	0.97(a)
	55 Dibromochloromethane	129	7.180	7.180	(0.936)	6524	1.00000	0.94(a)
	56 Tetrachloroethene	164	6.933	6.933	(0.904)	4688	1.00000	0.97(a)
	57 1,2-Dibromoethane	107	7.270	7.270	(0.948)	5984	1.00000	0.96(a)
	58 1-Chlorohexane	55	7.701	7.701	(1.551)	5794	1.00000	2.86(aH)
	59 Chlorobenzene	112	7.694	7.694	(1.003)	17748	1.00000	1.03(a)

60 1,1,1,2-Tetrachloroethane	131	7.776	7.776 (1.014)	5738	1.00000	0.95(a)
61 Ethylbenzene	106	7.806	7.806 (1.018)	8513	1.00000	1.00(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	62 m,p-Xylenes	106	7.915	7.915	(1.032)	20761	2.00000	1.97(a)
	63 o-Xylene	106	8.252	8.252	(1.076)	9905	1.00000	0.96(a)
	64 Styrene	104	8.282	8.282	(1.080)	15809	1.00000	0.91(a)
	66 Bromoform	173	8.417	8.417	(1.098)	4518	1.00000	0.97(Ta)
	67 Isopropylbenzene	105	8.567	8.567	(1.117)	24396	1.00000	0.98(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	8792	1.00000	1.48(a)
$	69 4-Bromofluorobenzene	95	8.698	8.698	(1.134)	9746	1.00000	1.14(aM)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	440773	50.0000	
	71 1,2,3-Trichloropropane	75	8.875	8.875	(0.919)	5746	1.00000	1.01(aM)
	73 n-Propylbenzene	91	8.920	8.920	(0.923)	24736	1.00000	0.90(a)
	74 Bromobenzene	156	8.818	8.818	(0.913)	6826	1.00000	0.99(a)
	75 1,3,5-Trimethylbenzene	105	9.069	9.069	(0.939)	19876	1.00000	1.00(a)
	76 2-Chlorotoluene	91	8.980	8.980	(0.929)	18286	1.00000	1.03(a)
	77 4-Chlorotoluene	91	9.088	9.088	(0.941)	19569	1.00000	1.00(a)
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	16606	1.00000	0.99(a)
	79 1,2,4-Trimethylbenzene	105	9.384	9.384	(0.971)	20414	1.00000	1.00(a)
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	20958	1.00000	0.90(a)
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	18357	1.00000	0.91(a)
	83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	11974	1.00000	0.96(a)
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	13439	1.00000	1.03(a)
	88 1,2-Dichlorobenzene	146	10.007	10.007	(1.036)	12949	1.00000	1.05(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.696	10.696	(1.107)	1225	1.00000	0.60(a)
	93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	7522	1.00000	0.90(a)
M	94 1,2-Dichloroethylene (total)	96				11545	2.00000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.986)	6417	1.00000	0.90(aH)
	138 Freon TF	101	1.925	1.925	(0.460)	4639	1.00000	0.75(a)
	147 Methylcyclohexane	55	5.373	5.373	(1.082)	14156	1.00000	1.02(aM)
	146 Methyl Acetate	43	2.262	2.262	(0.541)	2887	1.00000	0.86(a)
	148 Tert-Butyl alcohol	59	2.434	2.434	(0.582)	11698	20.0000	20.98(a)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

01209585

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D

Date : 17-MAY-2023 13:20

Client ID: VSTD001

Instrument: voa6.i

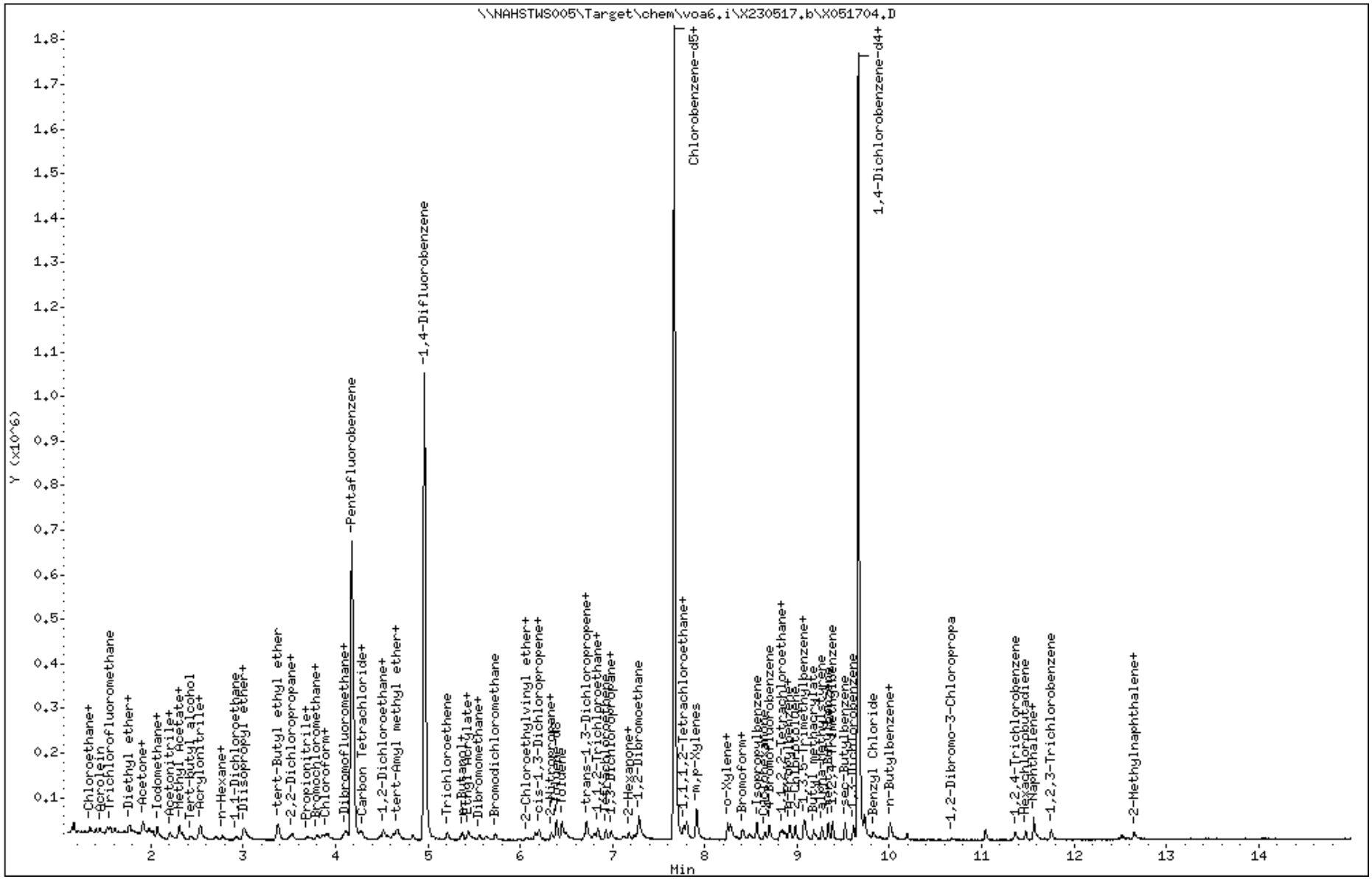
Sample Info: VSTD001;VSTD001;1;3;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18

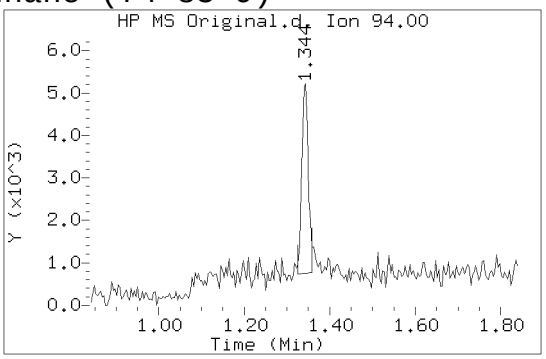


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Bromomethane (74-83-9)

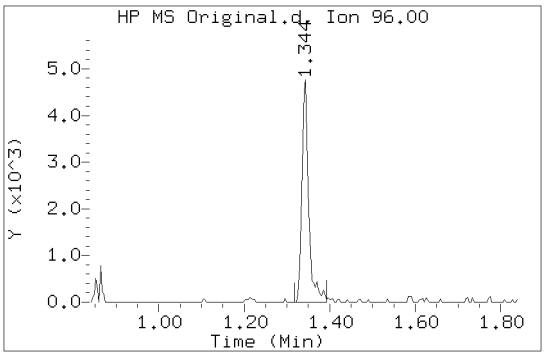
BEFORE

MASS
94
AREA
4982
HEIGHT
4459
18-May-2023
13:42
linh
pham



BEFORE

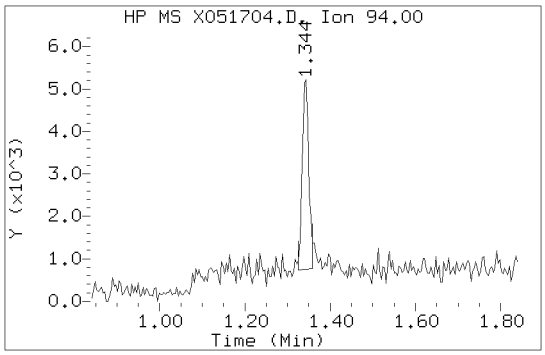
MASS
96
AREA
5442
HEIGHT
4762
18-May-2023
13:42
linh
pham



Reason Code:

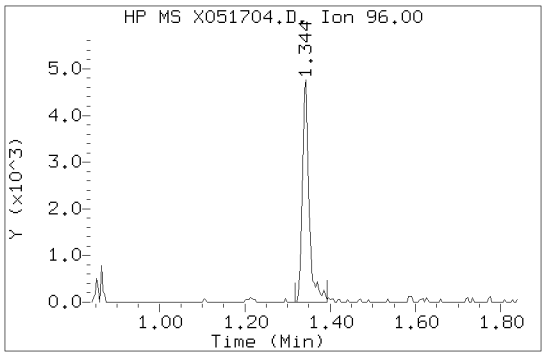
AFTER

MASS
94
AREA
4982
HEIGHT
4459
18-May-2023
13:42
linh
pham



AFTER

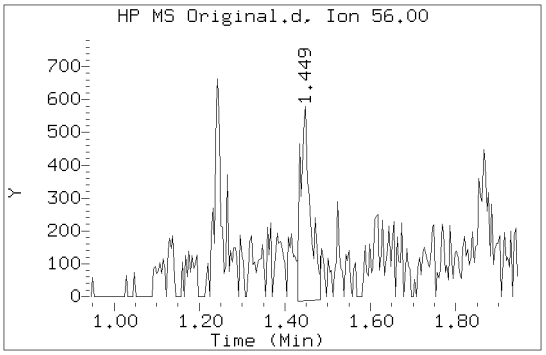
MASS
96
AREA
5442
HEIGHT
4762
18-May-2023
13:42
linh
pham



Acrolein (107-02-8)

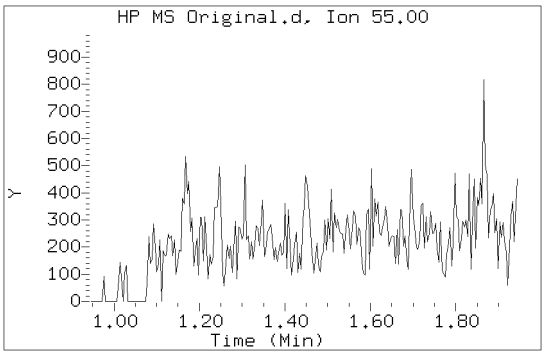
BEFORE

MASS
56
AREA
977
HEIGHT
591
18-May-2023
13:42
linh
pham



BEFORE

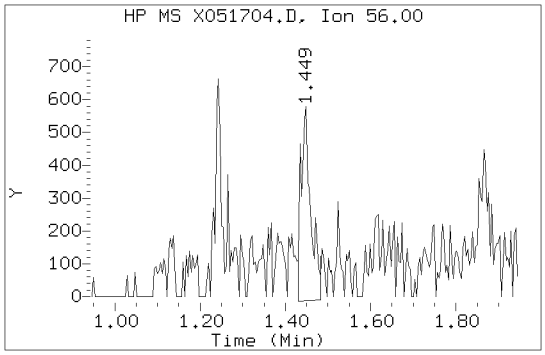
MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



Reason Code:

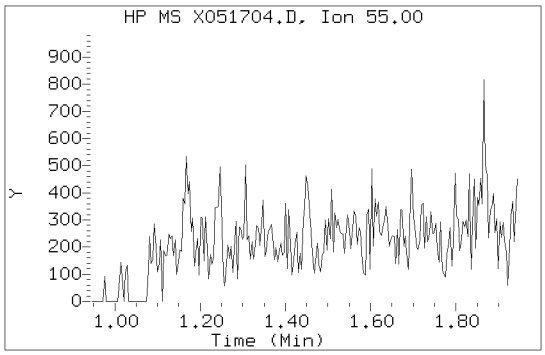
AFTER

MASS
56
AREA
977
HEIGHT
591
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



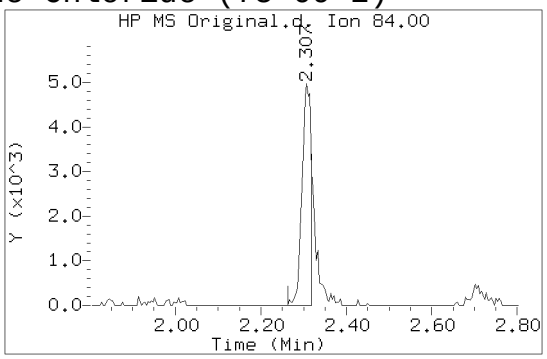
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Methylene Chloride (75-09-2)

Reason Code:

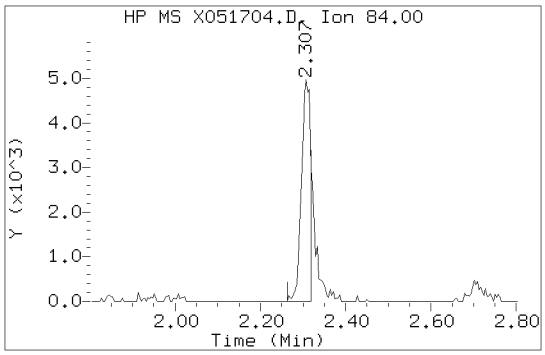
BEFORE

MASS
84
AREA
7319
HEIGHT
4968
18-May-2023
13:42
linh
pham



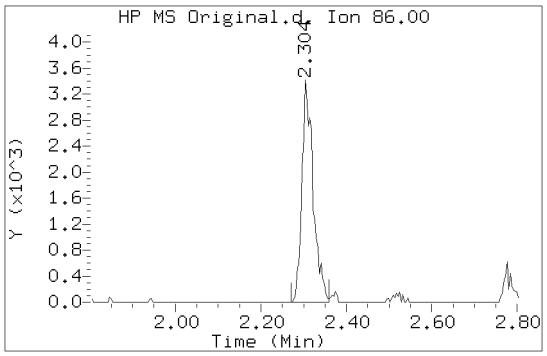
AFTER

MASS
84
AREA
7319
HEIGHT
4968
18-May-2023
13:42
linh
pham



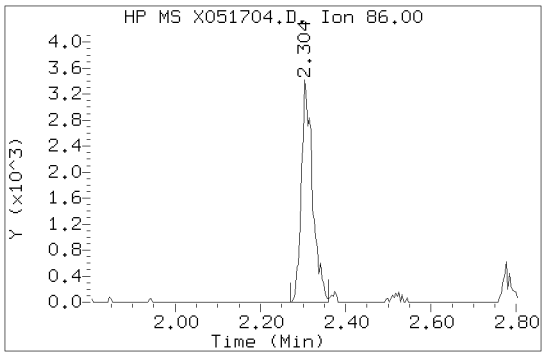
BEFORE

MASS
86
AREA
6375
HEIGHT
3418
18-May-2023
13:42
linh
pham



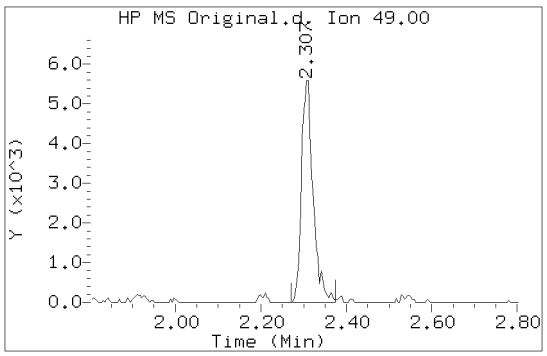
AFTER

MASS
86
AREA
6375
HEIGHT
3418
18-May-2023
13:42
linh
pham



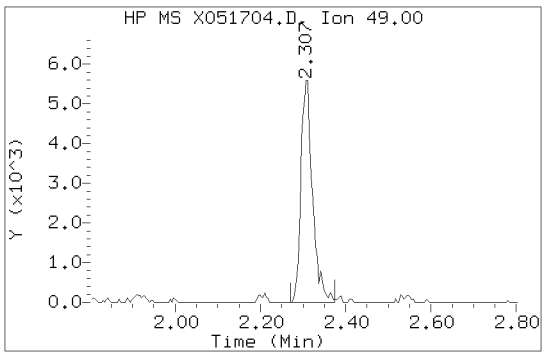
BEFORE

MASS
49
AREA
10775
HEIGHT
5585
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
10775
HEIGHT
5585
18-May-2023
13:42
linh
pham

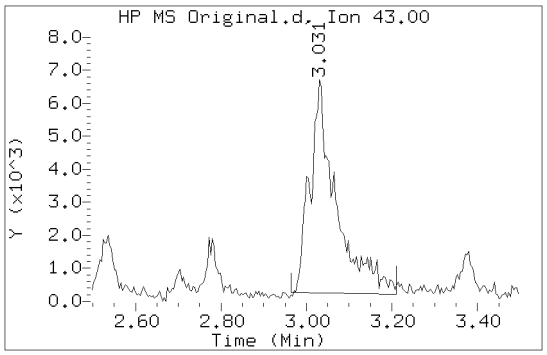


Vinyl Acetate (108-05-4)

Reason Code:

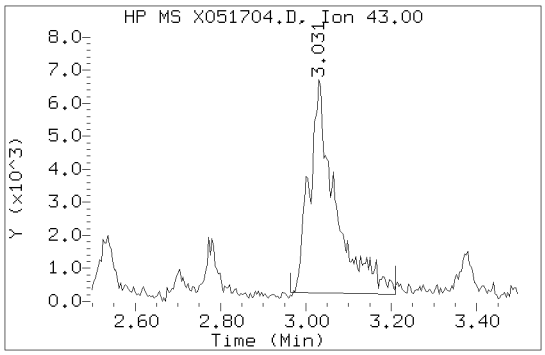
BEFORE

MASS
43
AREA
27619
HEIGHT
6461
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
27619
HEIGHT
6461
18-May-2023
13:42
linh
pham

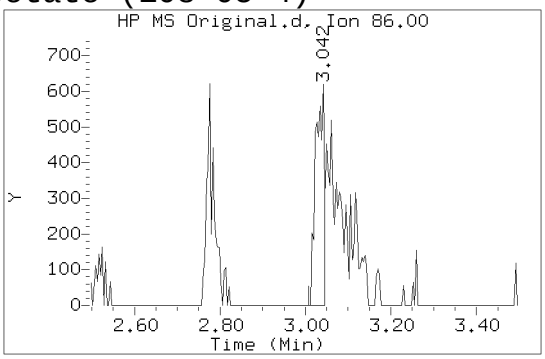


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Vinyl Acetate (108-05-4)

BEFORE

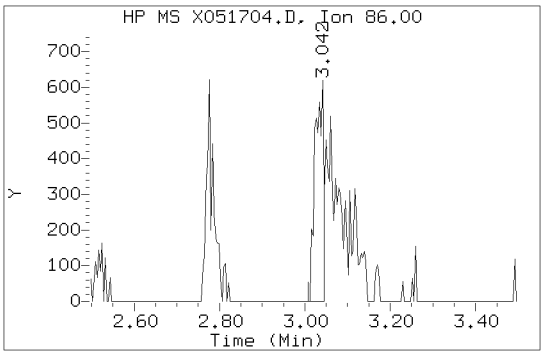
MASS
86
AREA
855
HEIGHT
619
18-May-2023
13:42
linh
pham



AFTER

MASS
86
AREA
855
HEIGHT
619
18-May-2023
13:42
linh
pham

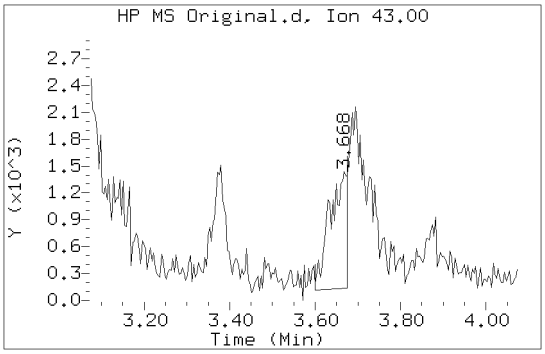
Reason Code:



2-Butanone (78-93-3)

BEFORE

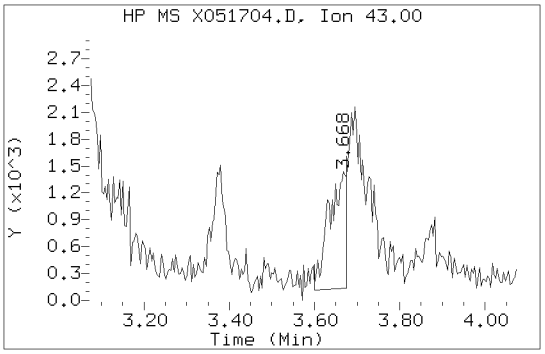
MASS
43
AREA
3693
HEIGHT
1304
18-May-2023
13:42
linh
pham



AFTER

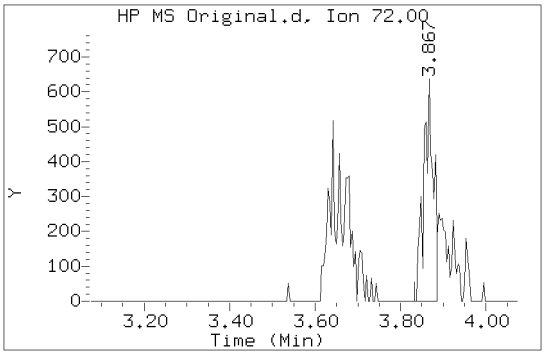
MASS
43
AREA
3693
HEIGHT
1304
18-May-2023
13:42
linh
pham

Reason Code:



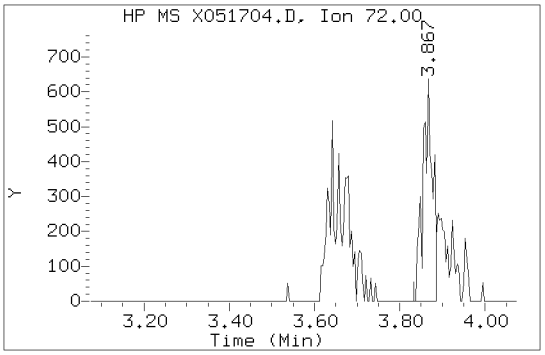
BEFORE

MASS
72
AREA
1004
HEIGHT
637
18-May-2023
13:42
linh
pham



AFTER

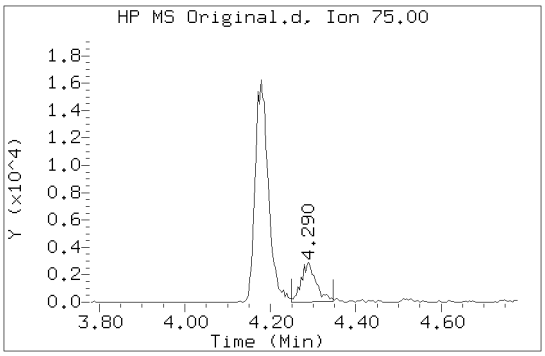
MASS
72
AREA
1004
HEIGHT
637
18-May-2023
13:42
linh
pham



1,1-Dichloropropene (563-58-6)

BEFORE

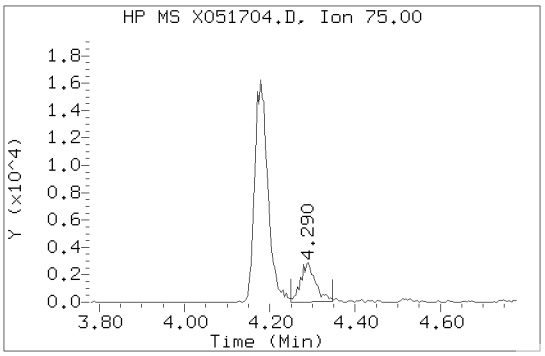
MASS
75
AREA
7077
HEIGHT
2910
18-May-2023
13:42
linh
pham



AFTER

MASS
75
AREA
7077
HEIGHT
2910
18-May-2023
13:42
linh
pham

Reason Code:

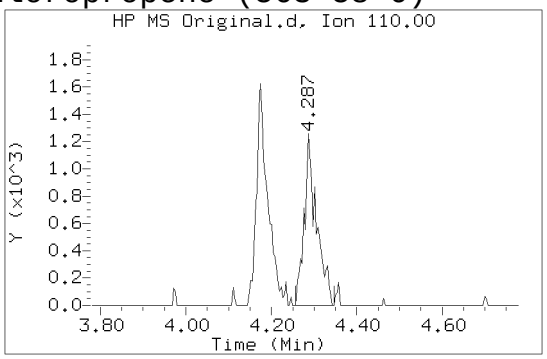


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

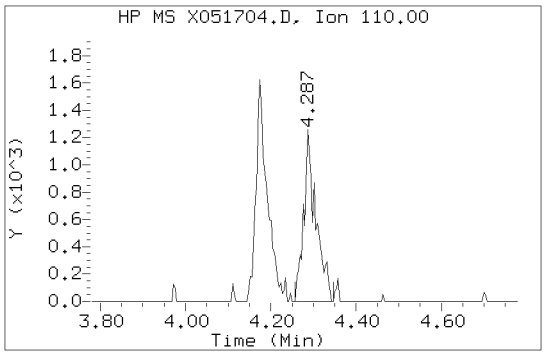
1,1-Dichloropropene (563-58-6)

Reason Code:

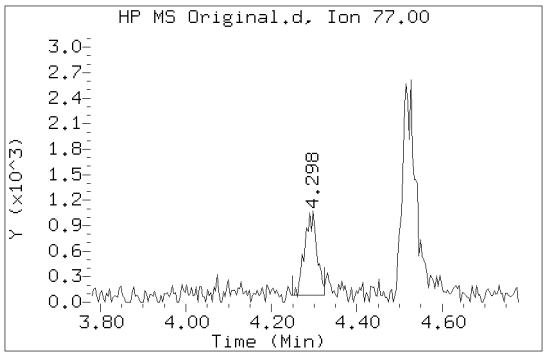
BEFORE
MASS
110
AREA
2518
HEIGHT
1259
18-May-2023
13:42
linh
pham



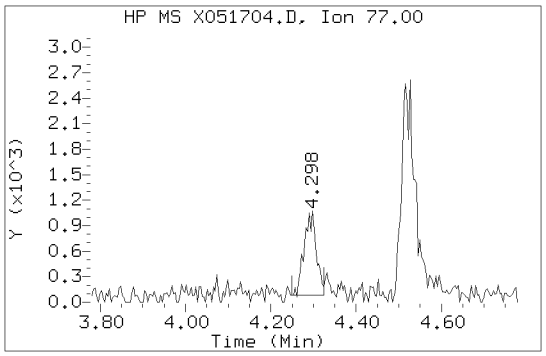
AFTER
MASS
110
AREA
2518
HEIGHT
1259
18-May-2023
13:42
linh
pham



BEFORE
MASS
77
AREA
1982
HEIGHT
990
18-May-2023
13:42
linh
pham



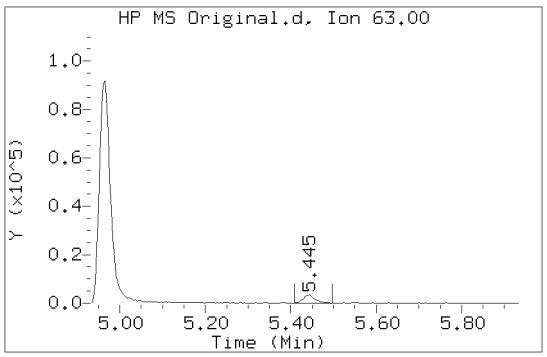
AFTER
MASS
77
AREA
1982
HEIGHT
990
18-May-2023
13:42
linh
pham



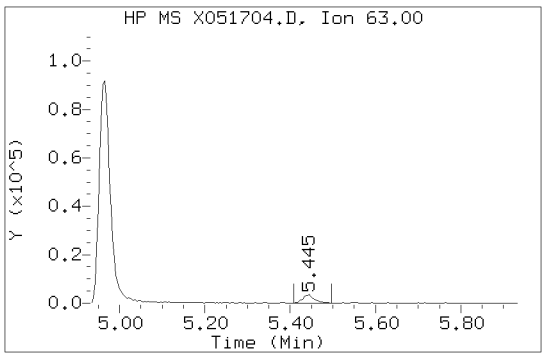
1,2-Dichloropropane (78-87-5)

Reason Code:

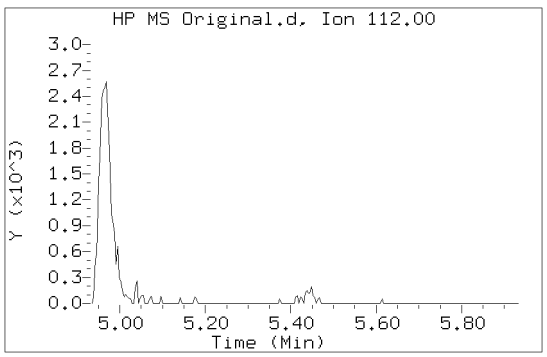
BEFORE
MASS
63
AREA
6891
HEIGHT
3798
18-May-2023
13:42
linh
pham



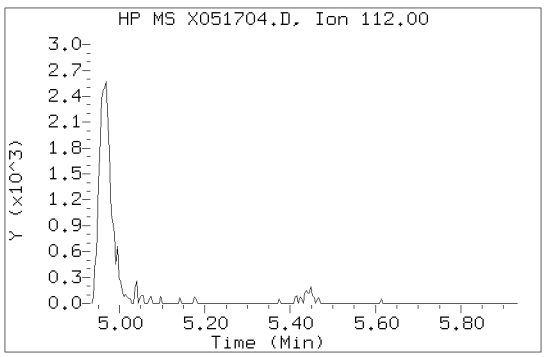
AFTER
MASS
63
AREA
6891
HEIGHT
3798
18-May-2023
13:42
linh
pham



BEFORE
MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER
MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

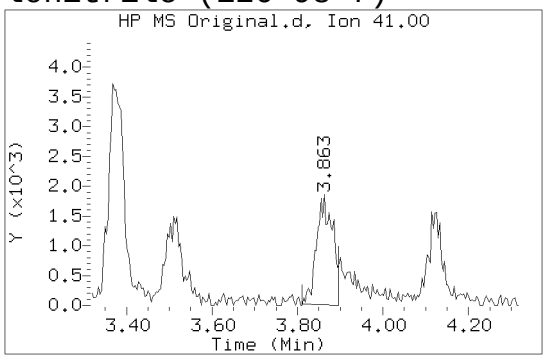


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

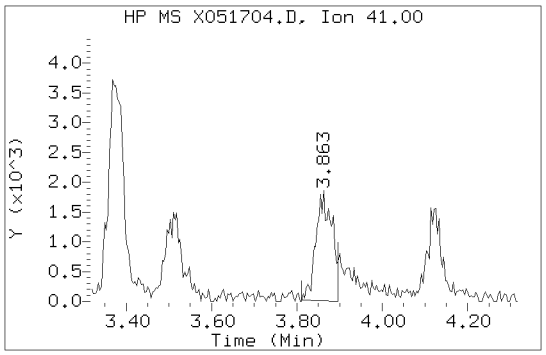
Methacrylonitrile (126-98-7)

Reason Code:

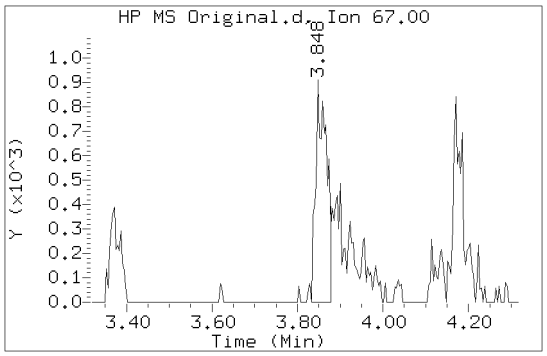
BEFORE
MASS
41
AREA
4830
HEIGHT
1846
18-May-2023
13:42
linh
pham



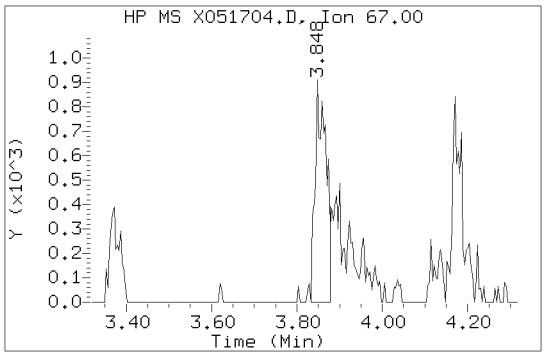
AFTER
MASS
41
AREA
4830
HEIGHT
1846
18-May-2023
13:42
linh
pham



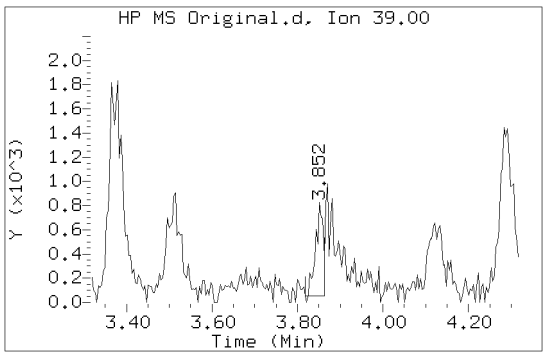
BEFORE
MASS
67
AREA
1602
HEIGHT
911
18-May-2023
13:42
linh
pham



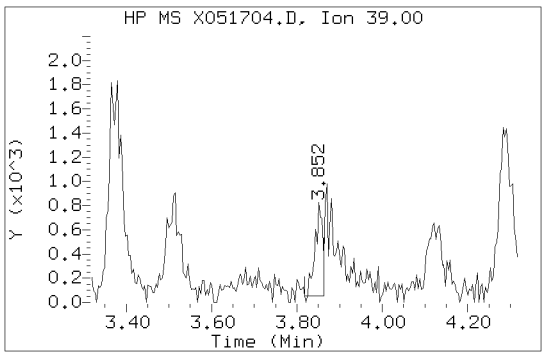
AFTER
MASS
67
AREA
1602
HEIGHT
911
18-May-2023
13:42
linh
pham



BEFORE
MASS
39
AREA
933
HEIGHT
777
18-May-2023
13:42
linh
pham



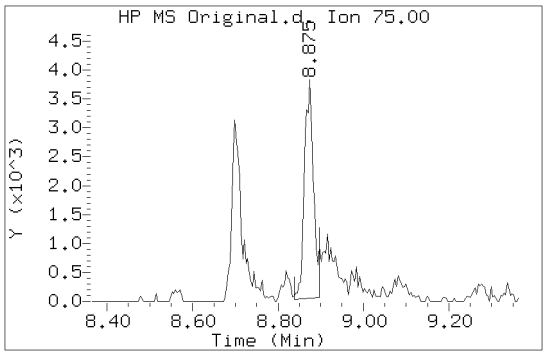
AFTER
MASS
39
AREA
933
HEIGHT
777
18-May-2023
13:42
linh
pham



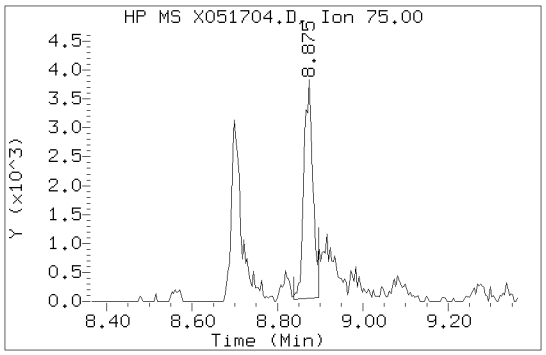
1,2,3-Trichloropropane (96-18-4)

Reason Code:

BEFORE
MASS
75
AREA
5746
HEIGHT
3778
18-May-2023
13:42
linh
pham



AFTER
MASS
75
AREA
5746
HEIGHT
3778
18-May-2023
13:42
linh
pham



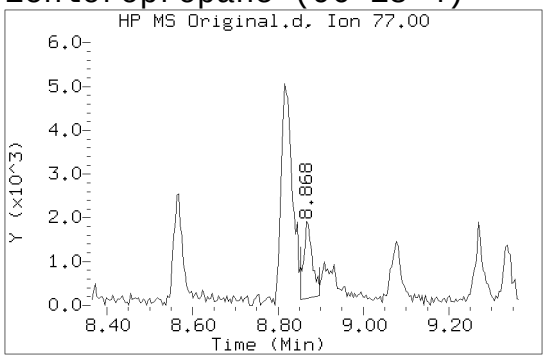
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

1,2,3-Trichloropropane (96-18-4)

Reason Code:

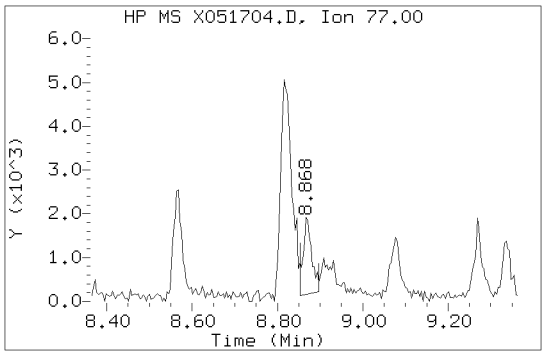
BEFORE

MASS
77
AREA
2594
HEIGHT
1753
18-May-2023
13:42
linh
pham



AFTER

MASS
77
AREA
2594
HEIGHT
1753
18-May-2023
13:42
linh
pham

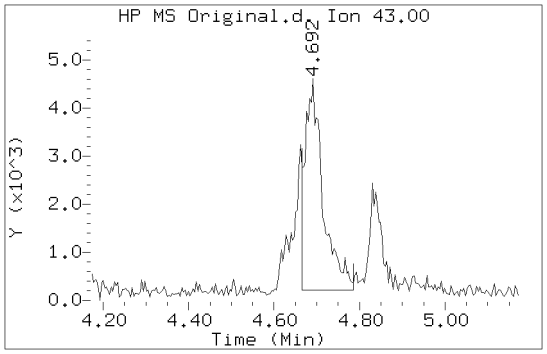


Isobutyl Alcohol (78-83-1)

Reason Code:

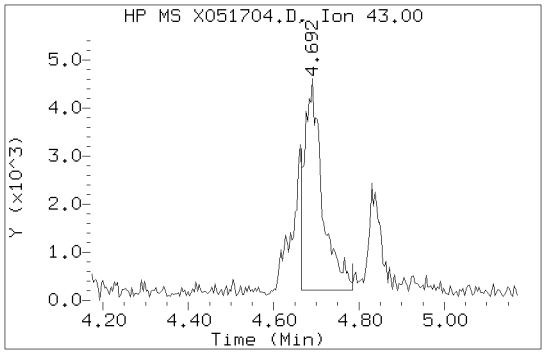
BEFORE

MASS
43
AREA
12926
HEIGHT
4397
18-May-2023
13:42
linh
pham



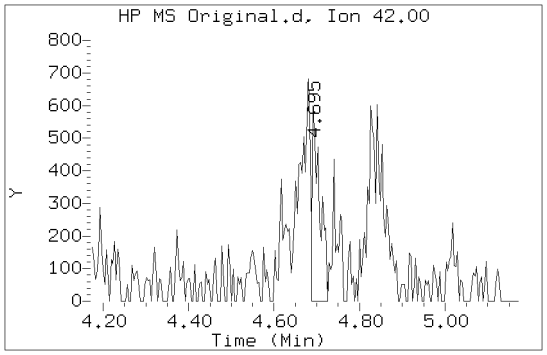
AFTER

MASS
43
AREA
12926
HEIGHT
4397
18-May-2023
13:42
linh
pham



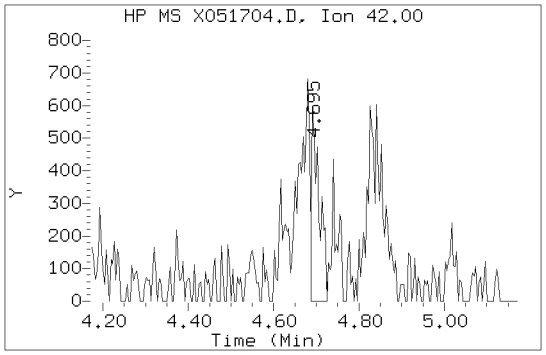
BEFORE

MASS
42
AREA
752
HEIGHT
495
18-May-2023
13:42
linh
pham



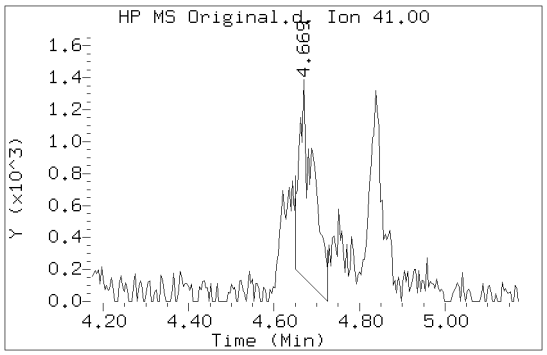
AFTER

MASS
42
AREA
752
HEIGHT
495
18-May-2023
13:42
linh
pham



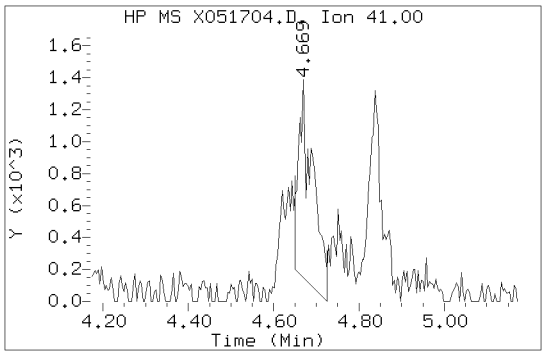
BEFORE

MASS
41
AREA
2978
HEIGHT
1238
18-May-2023
13:42
linh
pham



AFTER

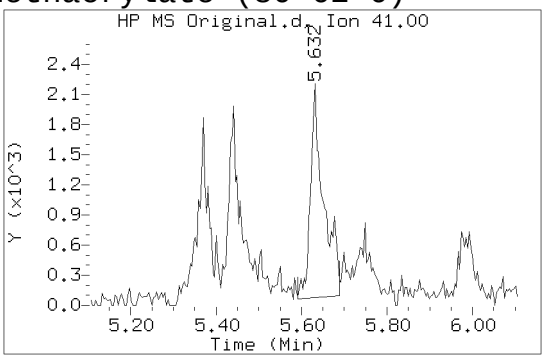
MASS
41
AREA
2978
HEIGHT
1238
18-May-2023
13:42
linh
pham



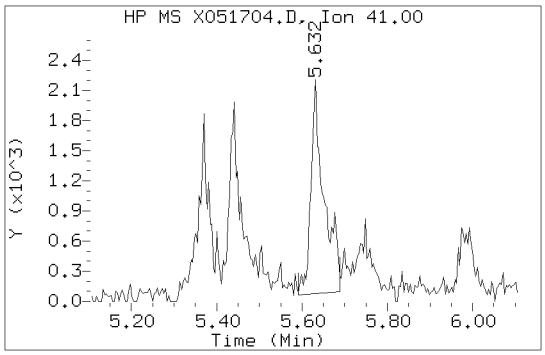
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Methyl Methacrylate (80-62-6)

BEFORE
MASS
41
AREA
4552
HEIGHT
2129
18-May-2023
13:42
linh
pham

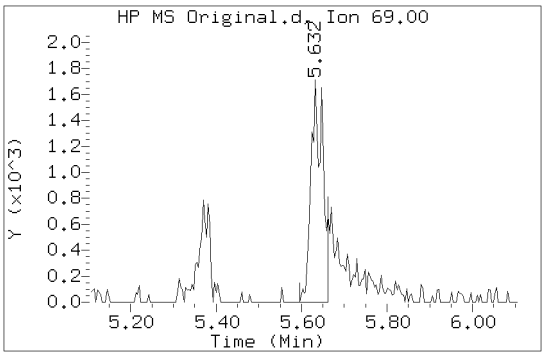


AFTER
MASS
41
AREA
4552
HEIGHT
2129
18-May-2023
13:42
linh
pham

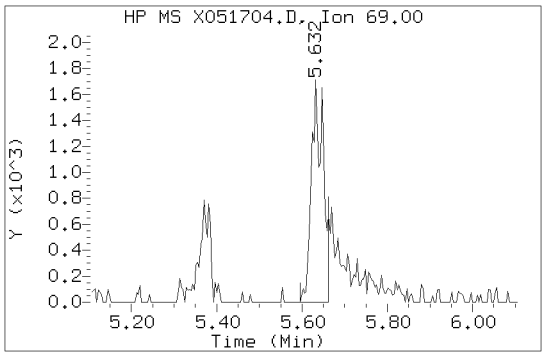


Reason Code:

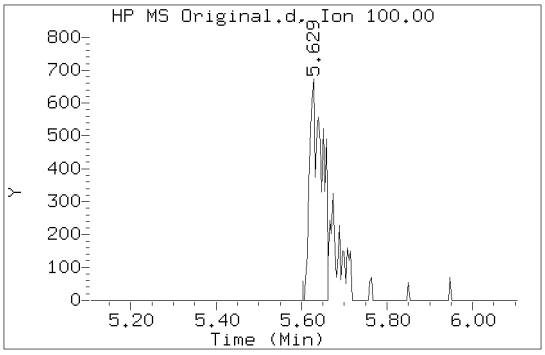
BEFORE
MASS
69
AREA
3262
HEIGHT
1712
18-May-2023
13:42
linh
pham



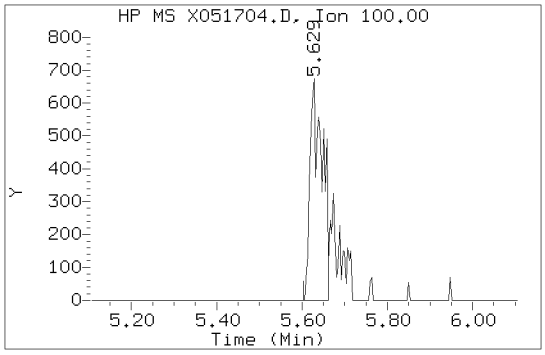
AFTER
MASS
69
AREA
3262
HEIGHT
1712
18-May-2023
13:42
linh
pham



BEFORE
MASS
100
AREA
1367
HEIGHT
674
18-May-2023
13:42
linh
pham



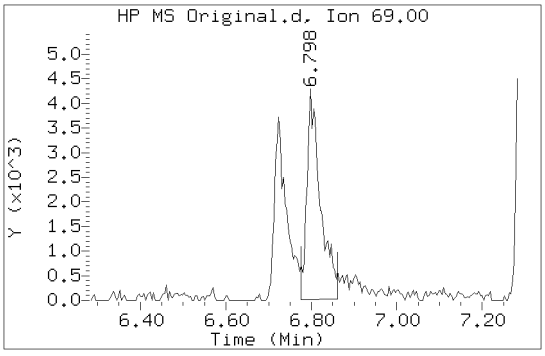
AFTER
MASS
100
AREA
1367
HEIGHT
674
18-May-2023
13:42
linh
pham



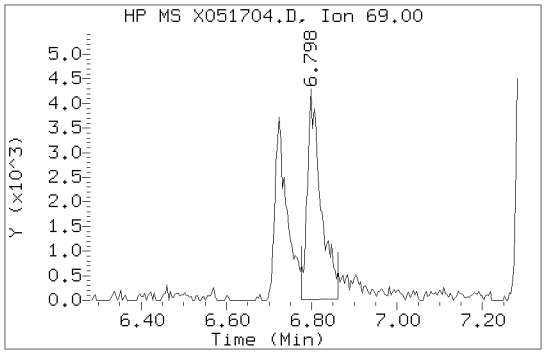
Ethyl Methacrylate (97-63-2)

Reason Code:

BEFORE
MASS
69
AREA
9539
HEIGHT
4281
18-May-2023
13:42
linh
pham



AFTER
MASS
69
AREA
9539
HEIGHT
4281
18-May-2023
13:42
linh
pham



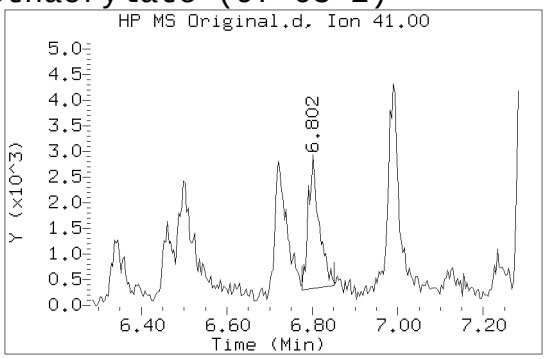
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Ethyl Methacrylate (97-63-2)

Reason Code:

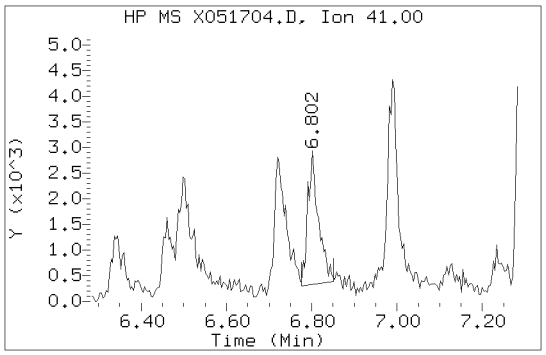
BEFORE

MASS
41
AREA
4568
HEIGHT
2613
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
4568
HEIGHT
2613
18-May-2023
13:42
linh
pham

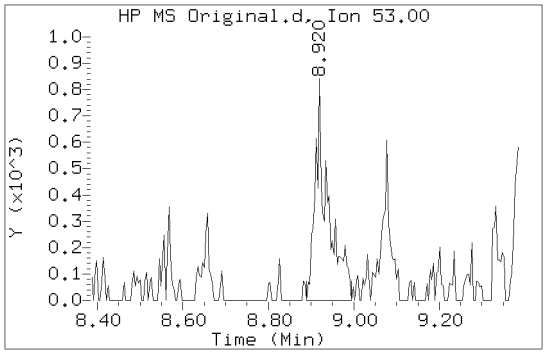


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

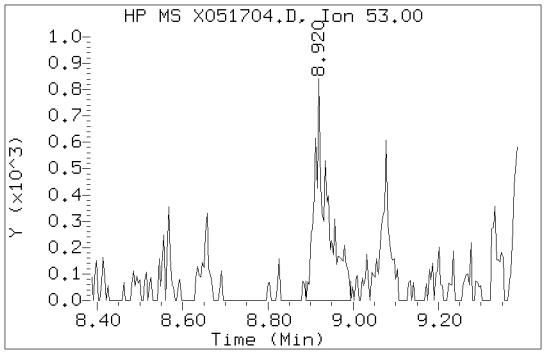
BEFORE

MASS
53
AREA
1686
HEIGHT
841
18-May-2023
13:42
linh
pham



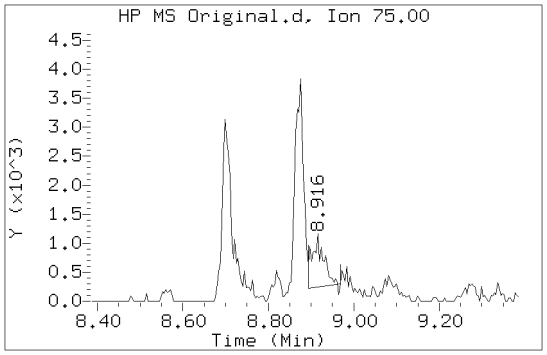
AFTER

MASS
53
AREA
1686
HEIGHT
841
18-May-2023
13:42
linh
pham



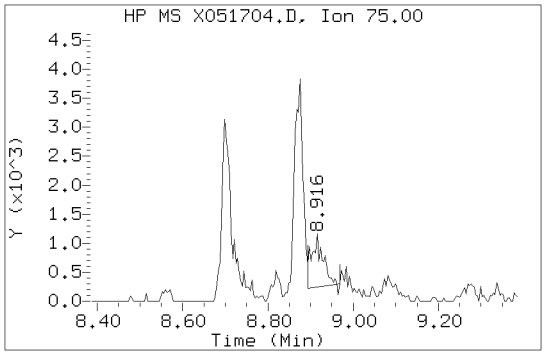
BEFORE

MASS
75
AREA
1706
HEIGHT
923
18-May-2023
13:42
linh
pham



AFTER

MASS
75
AREA
1706
HEIGHT
923
18-May-2023
13:42
linh
pham

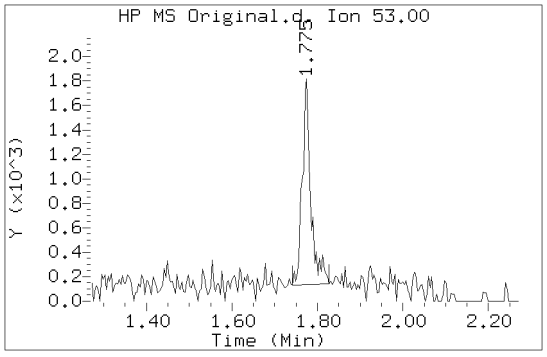


Chloroprene (126-99-8)

Reason Code:

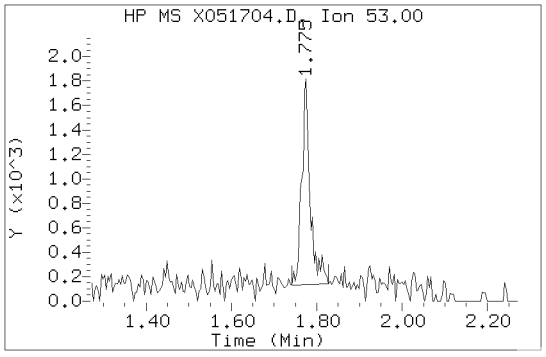
BEFORE

MASS
53
AREA
2382
HEIGHT
1680
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
2382
HEIGHT
1680
18-May-2023
13:42
linh
pham



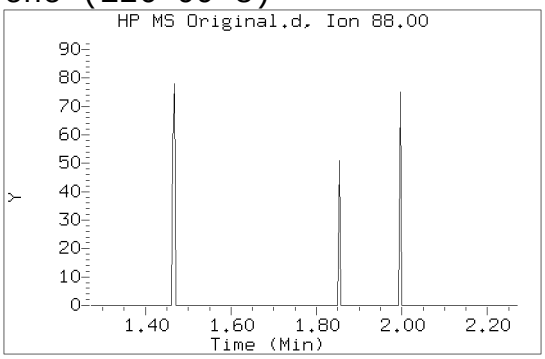
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Chloroprene (126-99-8)

Reason Code:

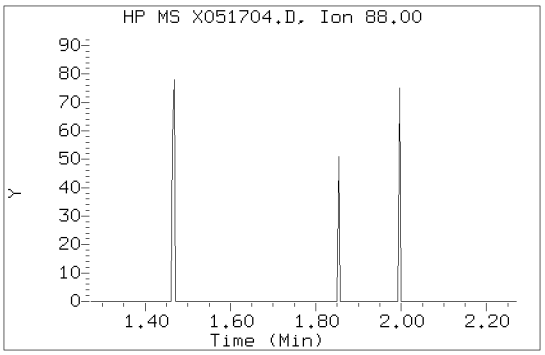
BEFORE

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

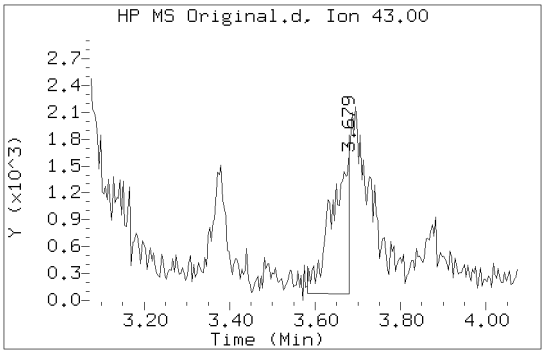


Ethyl Acetate (141-78-6)

Reason Code:

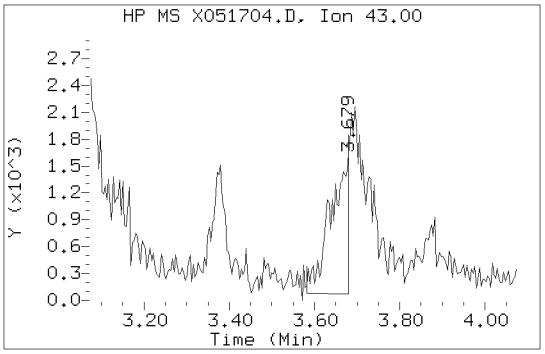
BEFORE

MASS
43
AREA
4516
HEIGHT
1560
18-May-2023
13:42
linh
pham



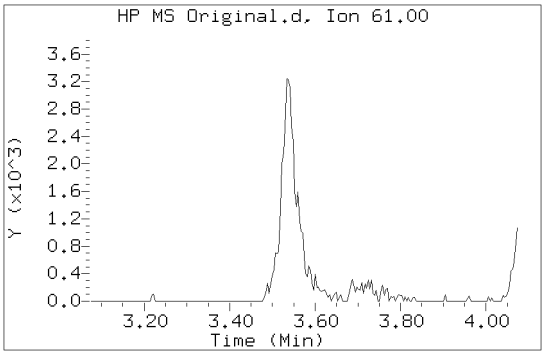
AFTER

MASS
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AREA
4516
HEIGHT
1560
18-May-2023
13:42
linh
pham



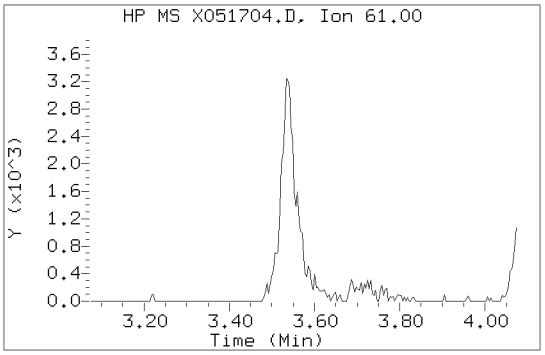
BEFORE

MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



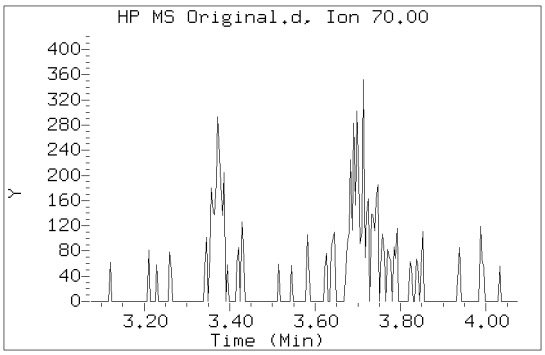
AFTER

MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



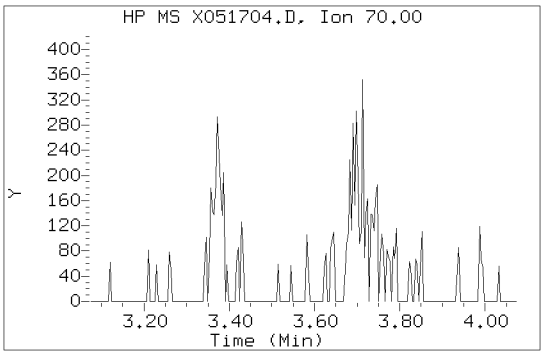
BEFORE

MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



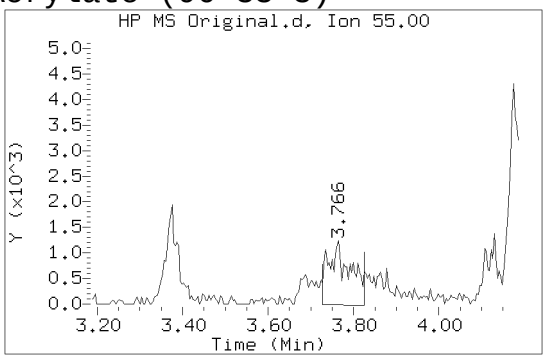
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Methyl Acrylate (96-33-3)

Reason Code:

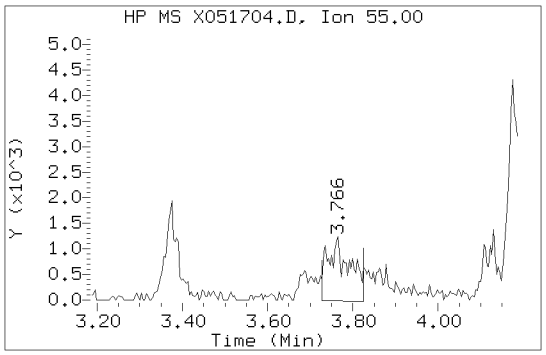
BEFORE

MASS
55
AREA
4572
HEIGHT
1254
18-May-2023
13:42
linh
pham



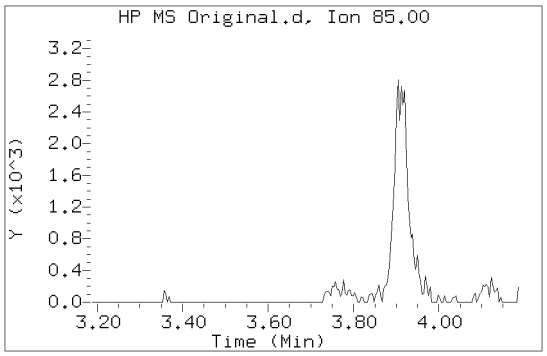
AFTER

MASS
55
AREA
4572
HEIGHT
1254
18-May-2023
13:42
linh
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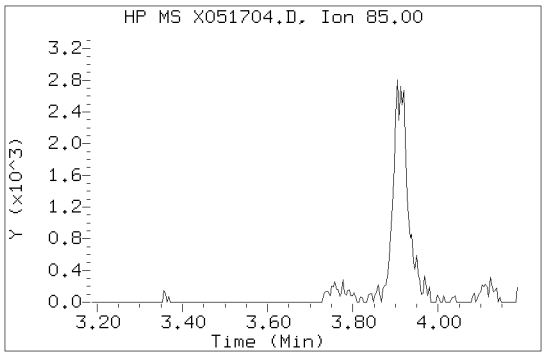
BEFORE

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

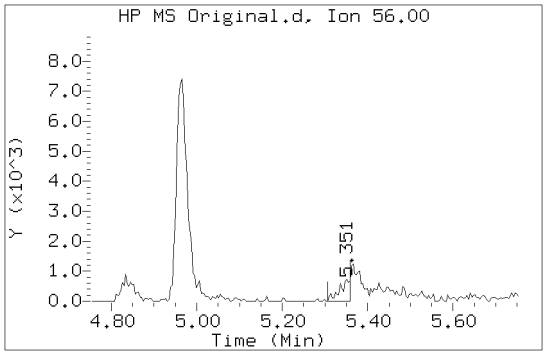


n-Butanol (71-36-3)

Reason Code:

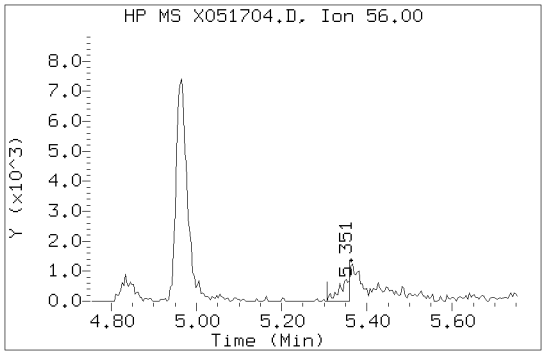
BEFORE

MASS
56
AREA
1207
HEIGHT
723
18-May-2023
13:42
linh
pham



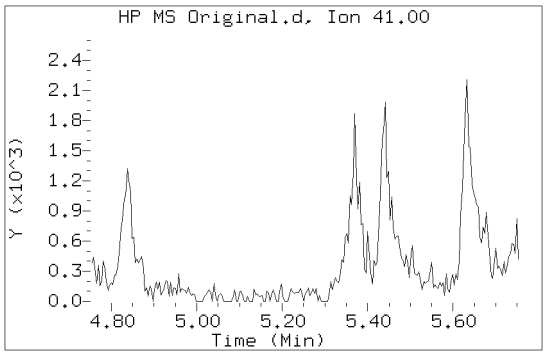
AFTER

MASS
56
AREA
1207
HEIGHT
723
18-May-2023
13:42
linh
pham



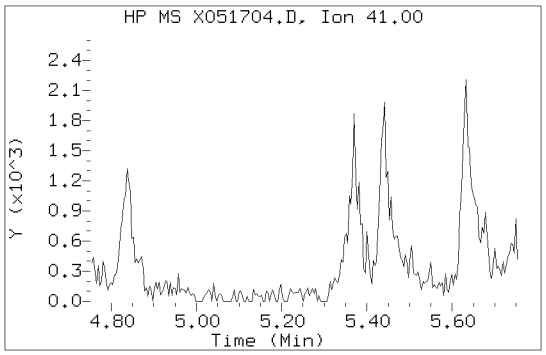
BEFORE

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



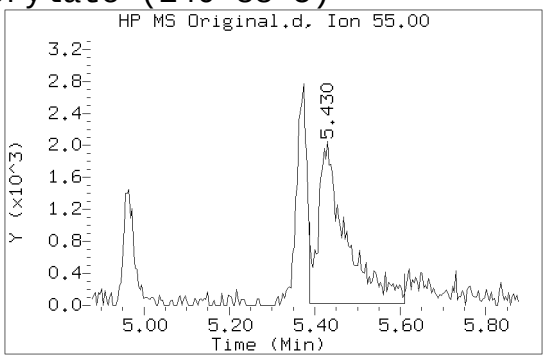
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Ethyl Acrylate (140-88-5)

Reason Code:

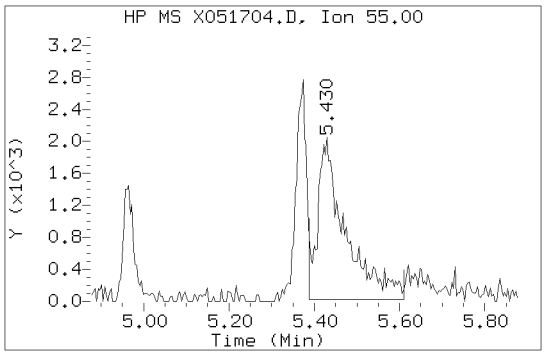
BEFORE

MASS
55
AREA
9158
HEIGHT
2029
18-May-2023
13:42
linh
pham



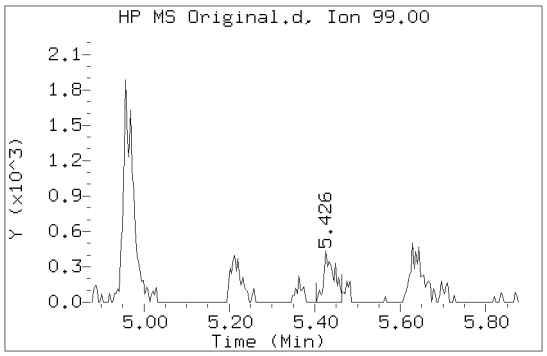
AFTER

MASS
55
AREA
9158
HEIGHT
2029
18-May-2023
13:42
linh
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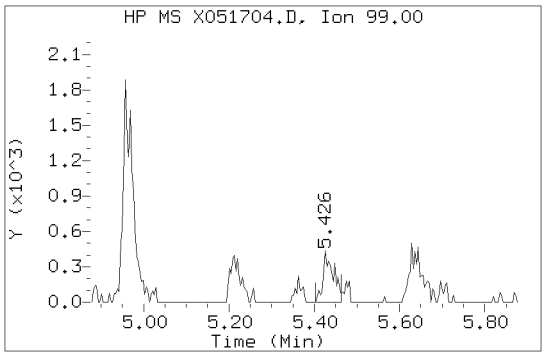
BEFORE

MASS
99
AREA
734
HEIGHT
437
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
734
HEIGHT
437
18-May-2023
13:42
linh
pham

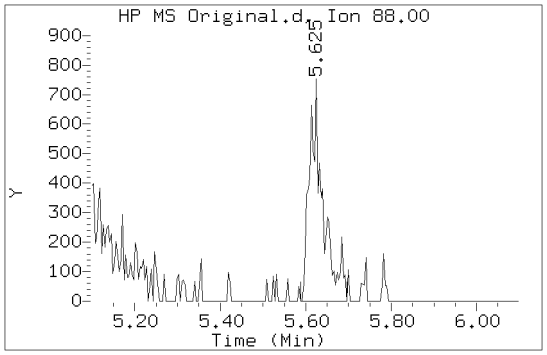


1,4-Dioxane ()

Reason Code:

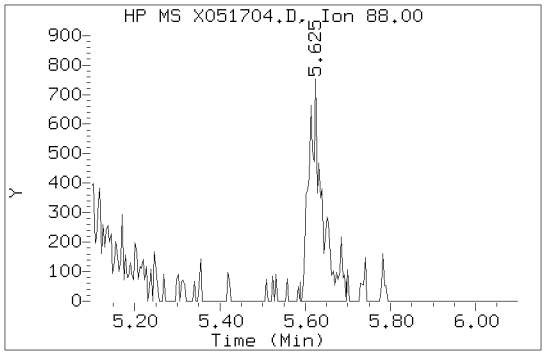
BEFORE

MASS
88
AREA
1650
HEIGHT
753
18-May-2023
13:42
linh
pham



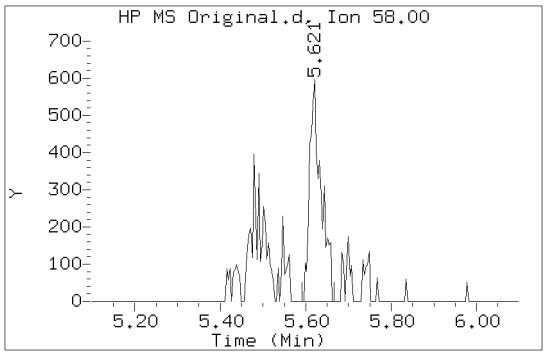
AFTER

MASS
88
AREA
1650
HEIGHT
753
18-May-2023
13:42
linh
pham



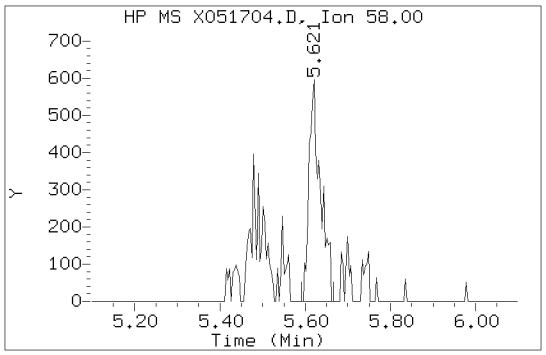
BEFORE

MASS
58
AREA
1111
HEIGHT
596
18-May-2023
13:42
linh
pham



AFTER

MASS
58
AREA
1111
HEIGHT
596
18-May-2023
13:42
linh
pham



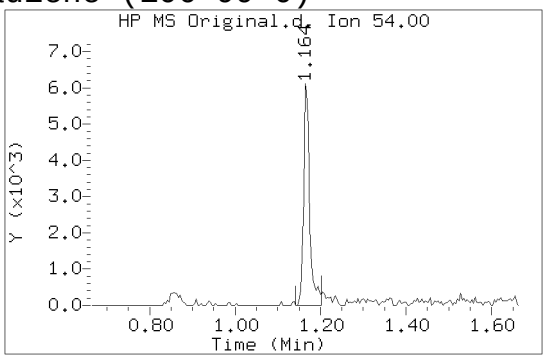
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

1,3-Butadiene (106-99-0)

Reason Code:

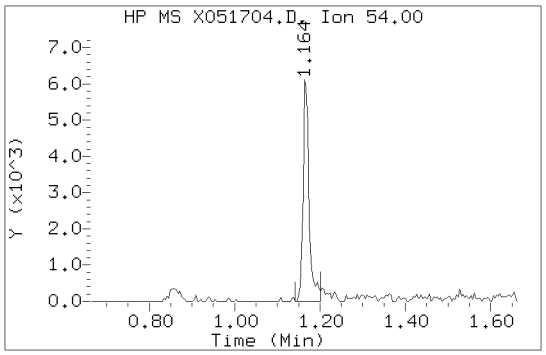
BEFORE

MASS
54
AREA
6276
HEIGHT
6116
18-May-2023
13:42
linh
pham



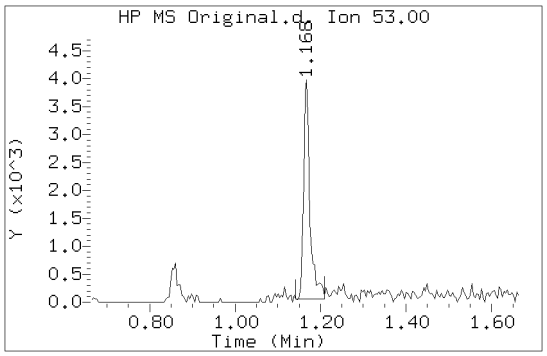
AFTER

MASS
54
AREA
6276
HEIGHT
6116
18-May-2023
13:42
linh
pham



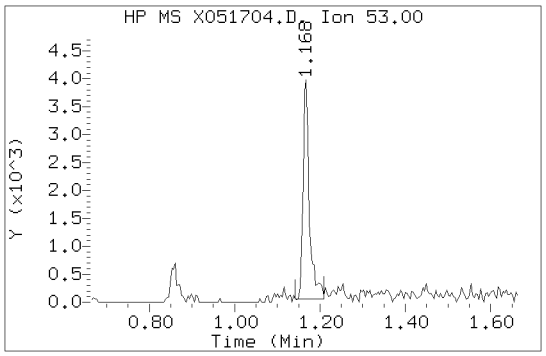
BEFORE

MASS
53
AREA
4170
HEIGHT
3916
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
4170
HEIGHT
3916
18-May-2023
13:42
linh
pham

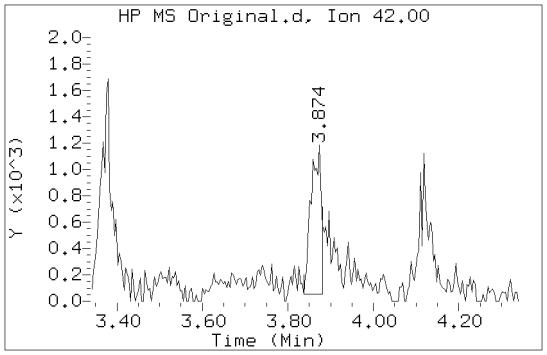


Tetrahydrofuran (109-99-9)

Reason Code:

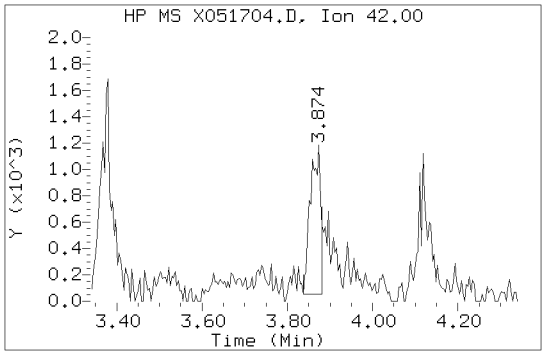
BEFORE

MASS
42
AREA
1894
HEIGHT
1132
18-May-2023
13:42
linh
pham



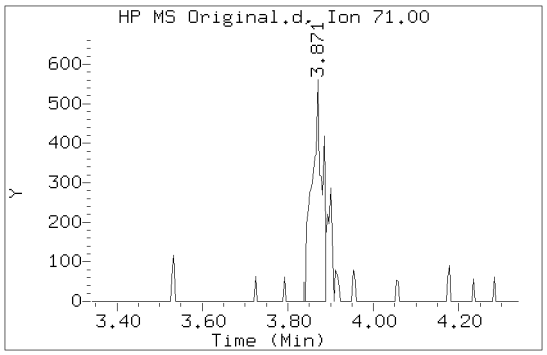
AFTER

MASS
42
AREA
1894
HEIGHT
1132
18-May-2023
13:42
linh
pham



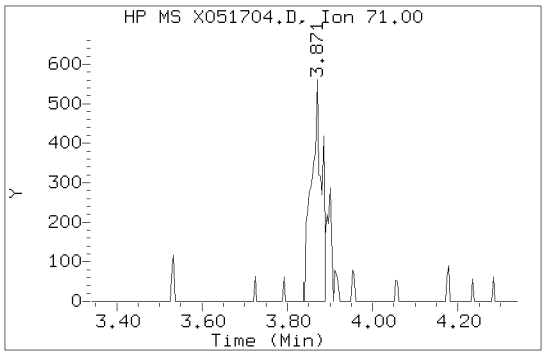
BEFORE

MASS
71
AREA
921
HEIGHT
561
18-May-2023
13:42
linh
pham



AFTER

MASS
71
AREA
921
HEIGHT
561
18-May-2023
13:42
linh
pham

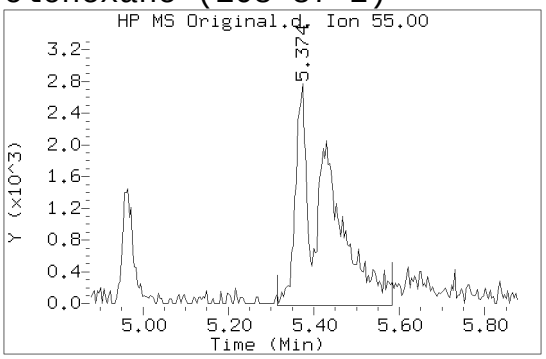


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

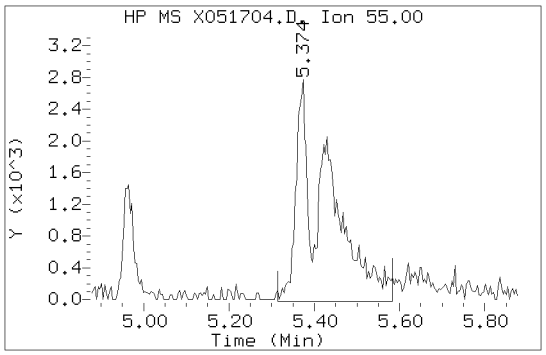
Methylcyclohexane (108-87-2)

Reason Code:

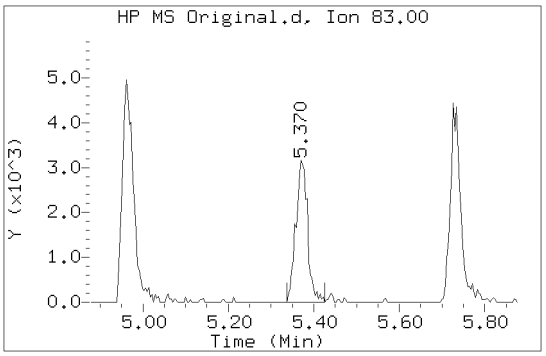
BEFORE
MASS
55
AREA
14156
HEIGHT
2794
18-May-2023
13:42
linh
pham



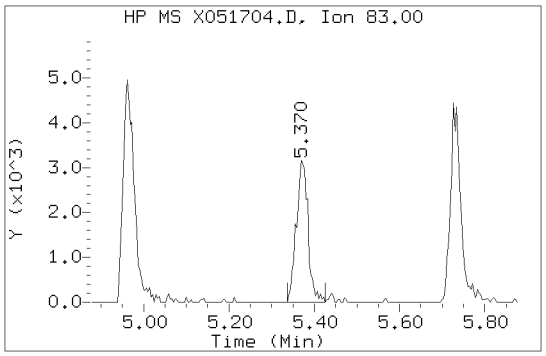
AFTER
MASS
55
AREA
14156
HEIGHT
2794
18-May-2023
13:42
linh
pham



BEFORE
MASS
83
AREA
6166
HEIGHT
3161
18-May-2023
13:42
linh
pham



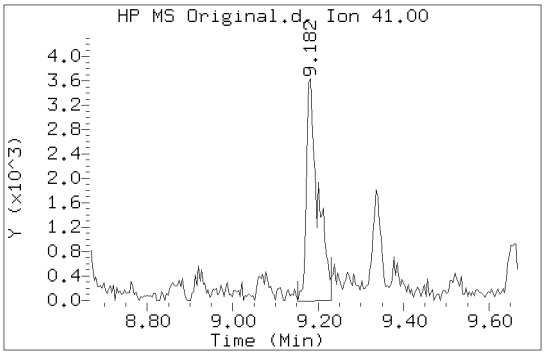
AFTER
MASS
83
AREA
6166
HEIGHT
3161
18-May-2023
13:42
linh
pham



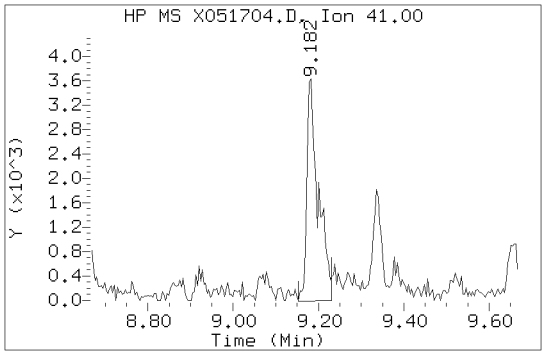
Butyl methacrylate (97-88-1)

Reason Code:

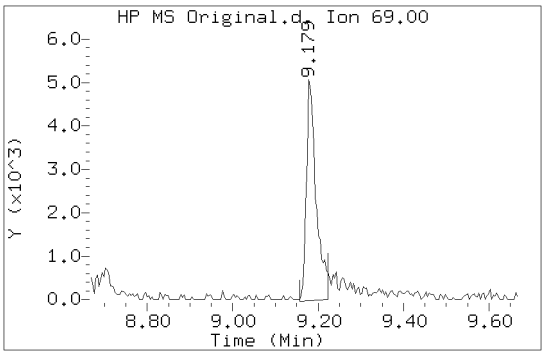
BEFORE
MASS
41
AREA
6822
HEIGHT
3642
18-May-2023
13:42
linh
pham



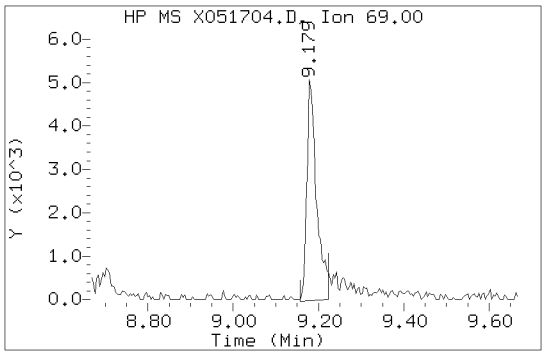
AFTER
MASS
41
AREA
6822
HEIGHT
3642
18-May-2023
13:42
linh
pham



BEFORE
MASS
69
AREA
8151
HEIGHT
5089
18-May-2023
13:42
linh
pham



AFTER
MASS
69
AREA
8151
HEIGHT
5089
18-May-2023
13:42
linh
pham



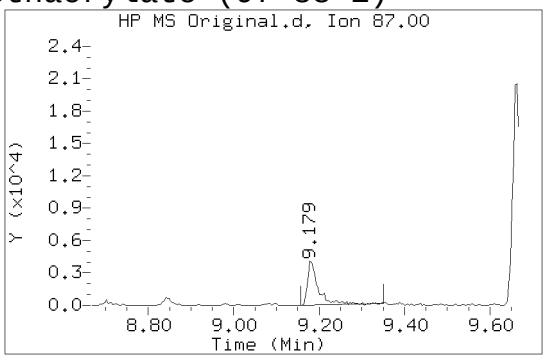
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Butyl methacrylate (97-88-1)

Reason Code:

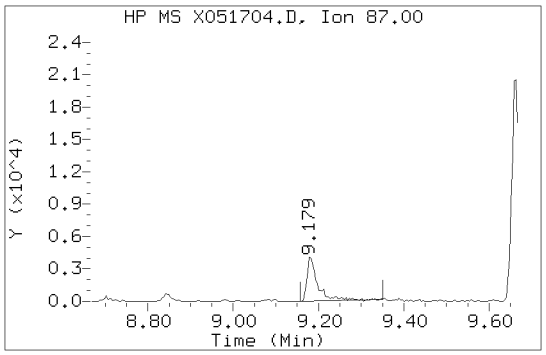
BEFORE

MASS
87
AREA
6953
HEIGHT
4093
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
6953
HEIGHT
4093
18-May-2023
13:42
linh
pham

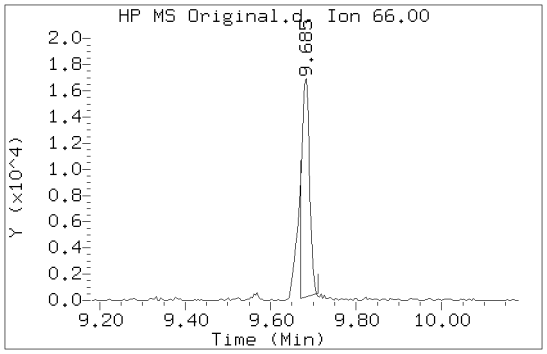


Dicyclopentadiene (77-73-6)

Reason Code:

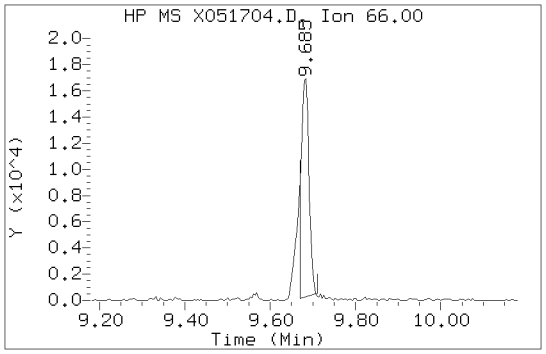
BEFORE

MASS
66
AREA
21949
HEIGHT
16633
18-May-2023
13:42
linh
pham



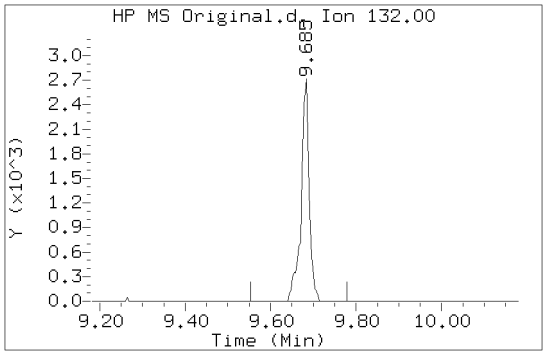
AFTER

MASS
66
AREA
21949
HEIGHT
16633
18-May-2023
13:42
linh
pham



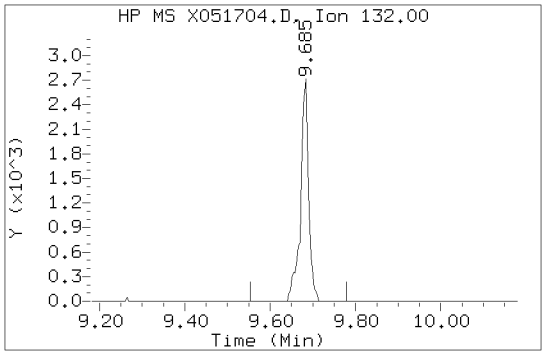
BEFORE

MASS
132
AREA
3685
HEIGHT
2716
18-May-2023
13:42
linh
pham



AFTER

MASS
132
AREA
3685
HEIGHT
2716
18-May-2023
13:42
linh
pham

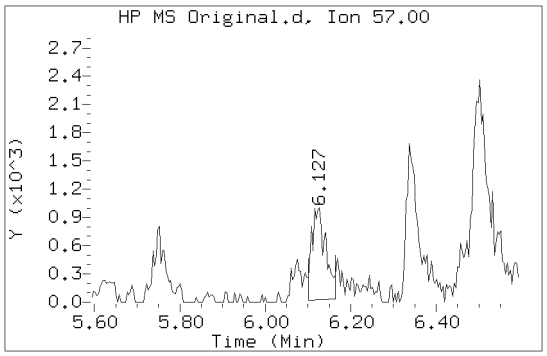


Epichlorohydrin (106-89-8)

Reason Code:

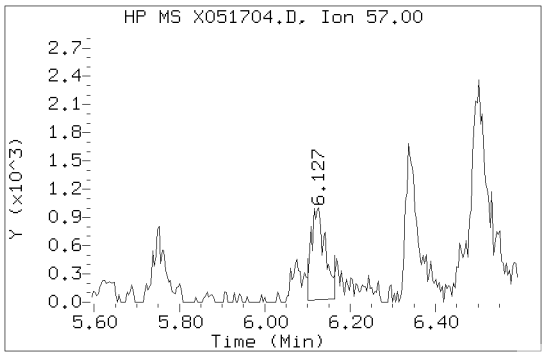
BEFORE

MASS
57
AREA
2264
HEIGHT
978
18-May-2023
13:42
linh
pham



AFTER

MASS
57
AREA
2264
HEIGHT
978
18-May-2023
13:42
linh
pham

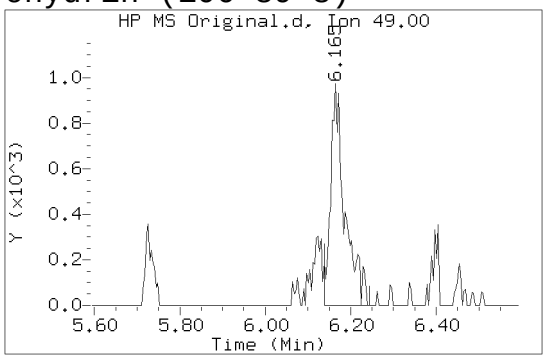


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Epichlorohydrin (106-89-8)

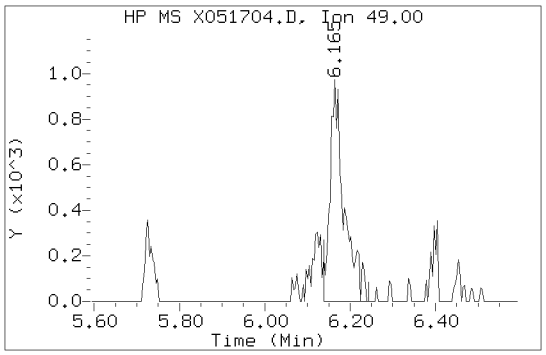
BEFORE

MASS
49
AREA
2250
HEIGHT
973
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
2250
HEIGHT
973
18-May-2023
13:42
linh
pham

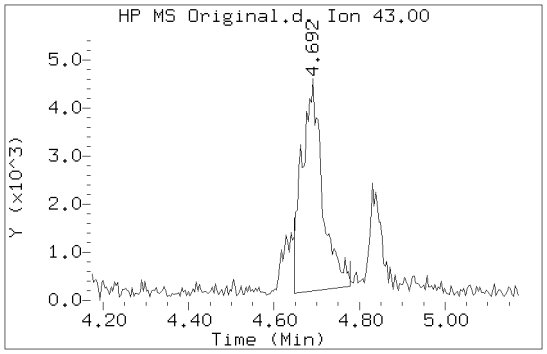


Reason Code:

Isopropyl acetate (108-21-4)

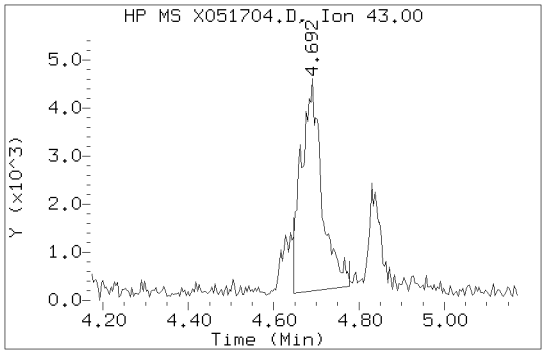
BEFORE

MASS
43
AREA
15042
HEIGHT
4413
18-May-2023
13:42
linh
pham



AFTER

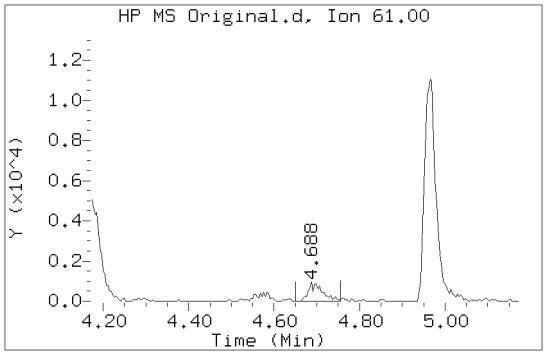
MASS
43
AREA
15042
HEIGHT
4413
18-May-2023
13:42
linh
pham



Reason Code:

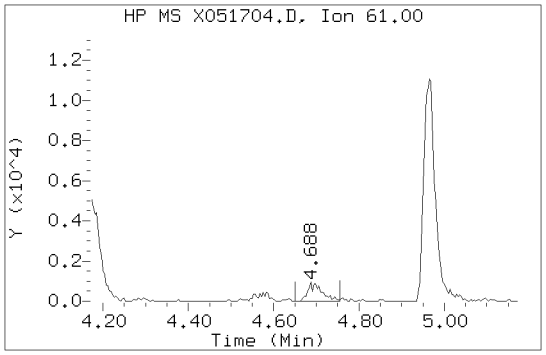
BEFORE

MASS
61
AREA
2124
HEIGHT
964
18-May-2023
13:42
linh
pham



AFTER

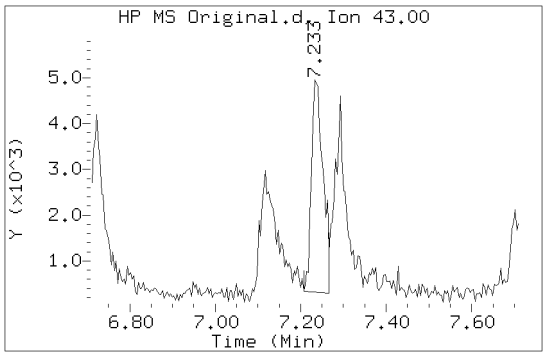
MASS
61
AREA
2124
HEIGHT
964
18-May-2023
13:42
linh
pham



n-Butyl acetate (123-86-4)

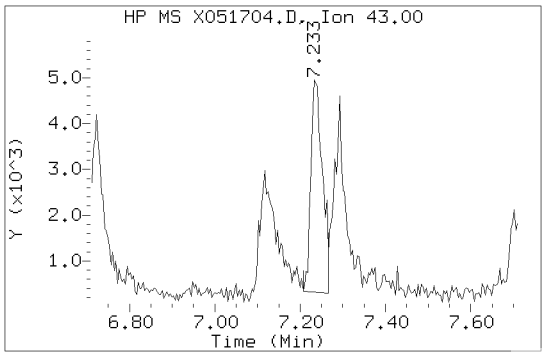
BEFORE

MASS
43
AREA
8796
HEIGHT
4635
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
8796
HEIGHT
4635
18-May-2023
13:42
linh
pham



Reason Code:

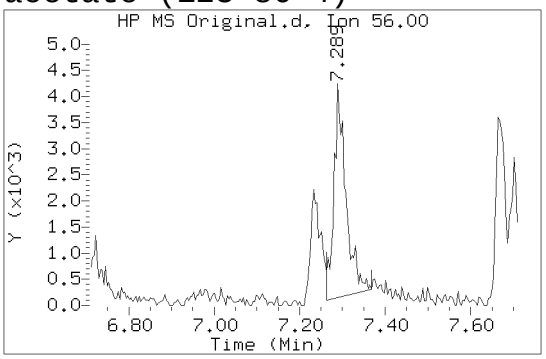
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

n-Butyl acetate (123-86-4)

Reason Code:

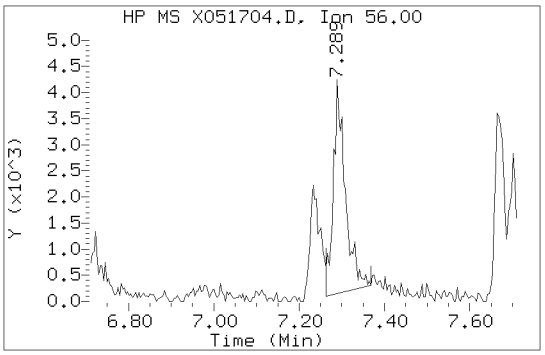
BEFORE

MASS
56
AREA
7927
HEIGHT
4092
18-May-2023
13:42
linh
pham



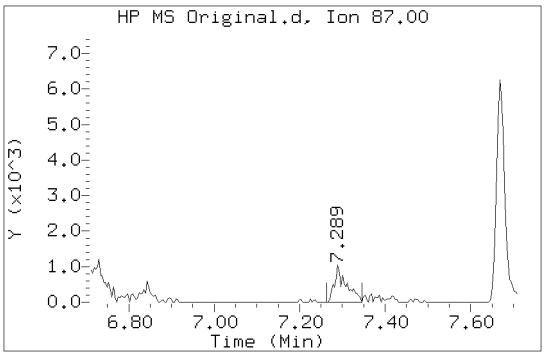
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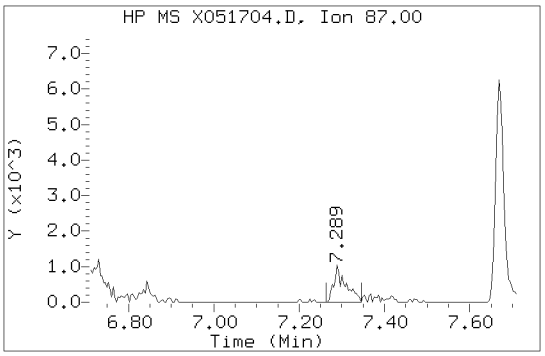
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AFTER

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13:42
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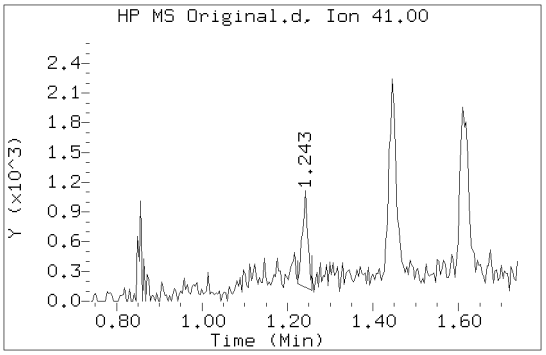


Isobutylene (115-11-7)

Reason Code:

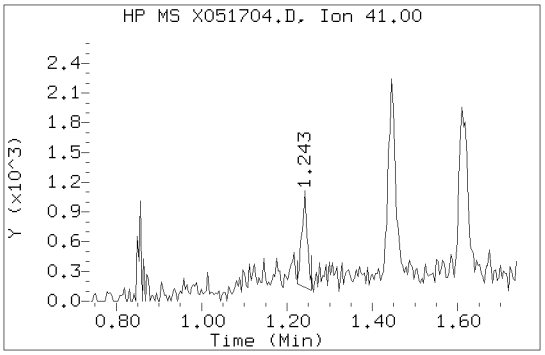
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18-May-2023
13:42
linh
pham



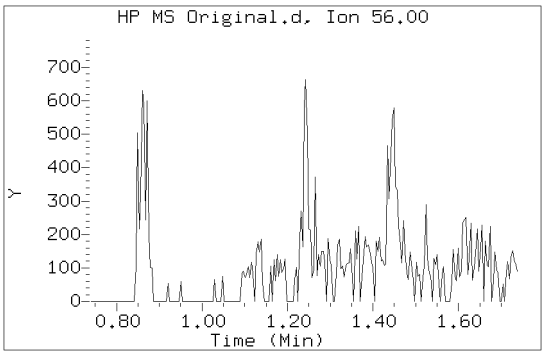
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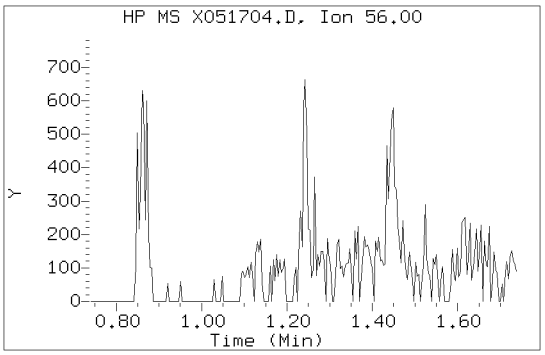
BEFORE

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AREA
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18-May-2023
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AFTER

MASS
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AREA
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HEIGHT
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18-May-2023
13:42
linh
pham

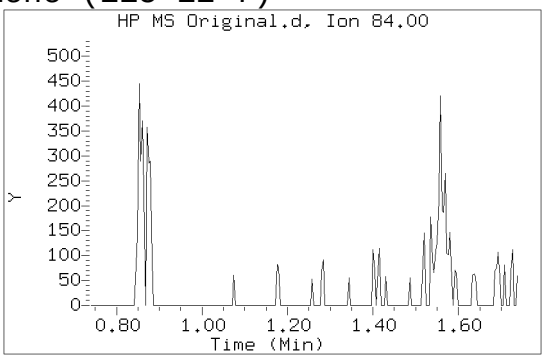


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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

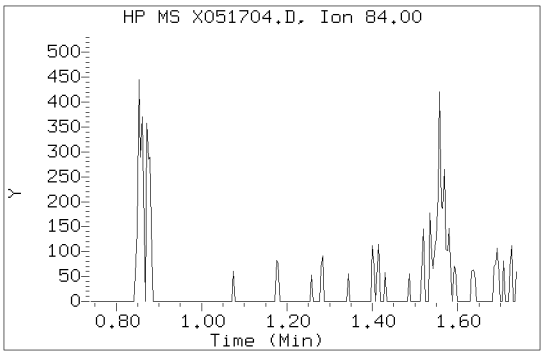
Isobutylene (115-11-7)

Reason Code:

BEFORE
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HEIGHT
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18-May-2023
13:42
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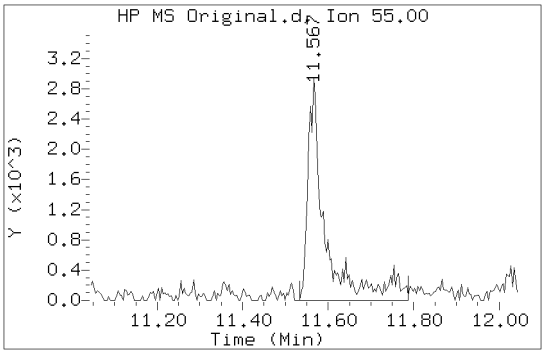
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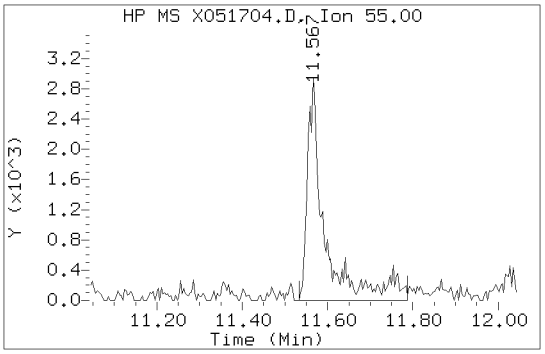
2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

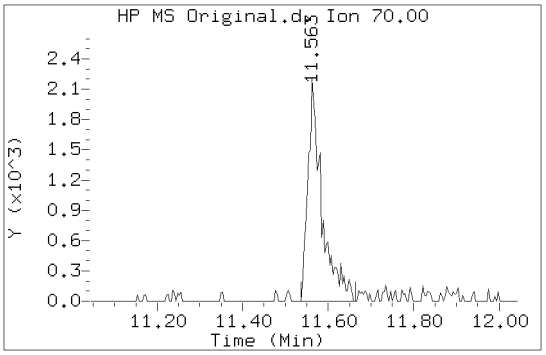
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AREA
8208
HEIGHT
2934
18-May-2023
13:42
linh
pham



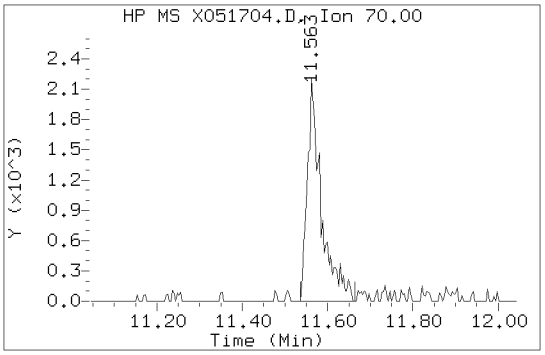
AFTER
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AREA
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HEIGHT
2934
18-May-2023
13:42
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BEFORE
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5036
HEIGHT
2202
18-May-2023
13:42
linh
pham



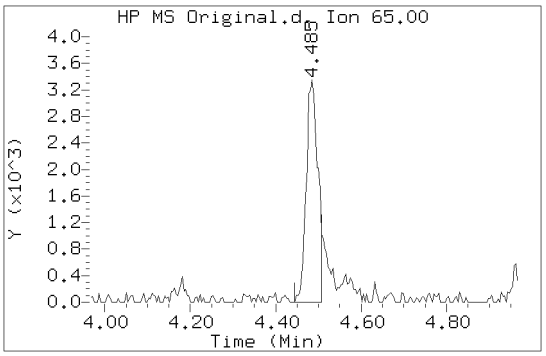
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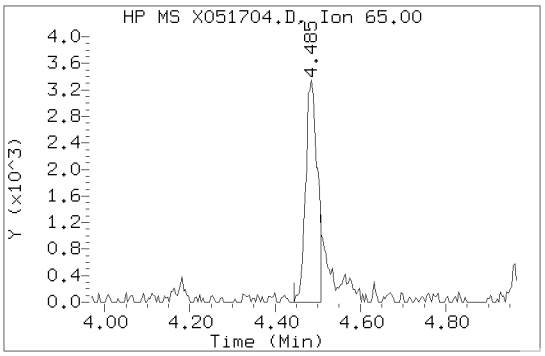
1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

BEFORE
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65
AREA
6358
HEIGHT
3350
18-May-2023
13:42
linh
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AFTER
MASS
65
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HEIGHT
3350
18-May-2023
13:42
linh
pham



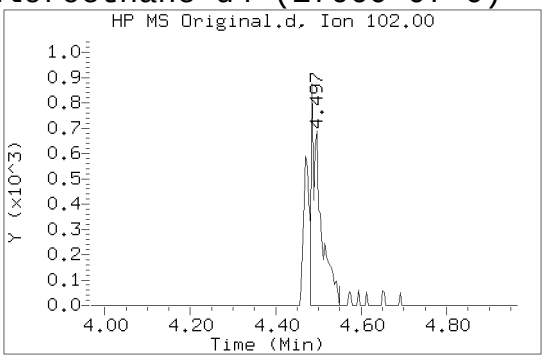
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

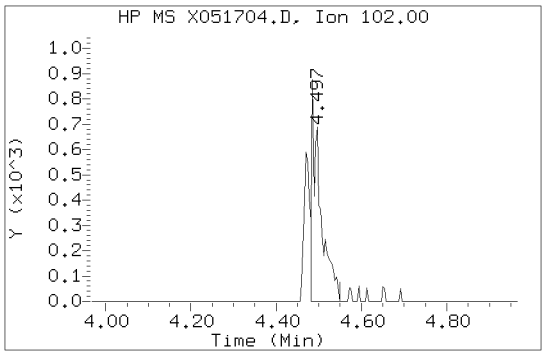
BEFORE

MASS
102
AREA
1212
HEIGHT
689
18-May-2023
13:42
linh
pham



AFTER

MASS
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AREA
1212
HEIGHT
689
18-May-2023
13:42
linh
pham

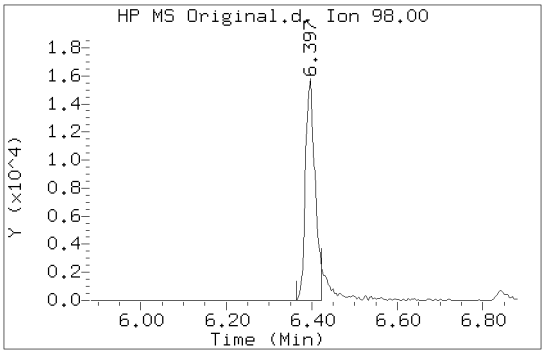


Toluene-d8 (2037-26-5)

Reason Code:

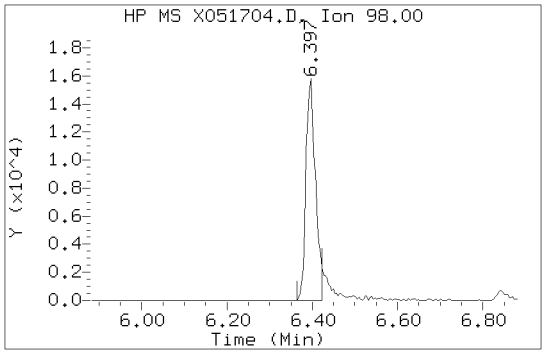
BEFORE

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13:42
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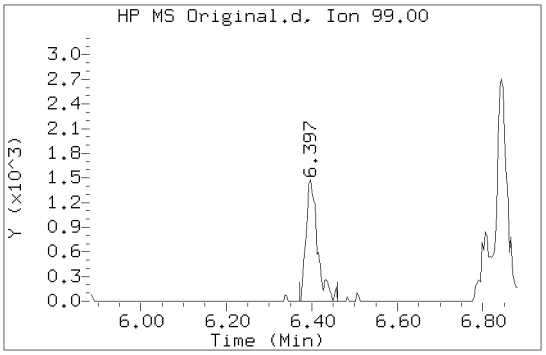
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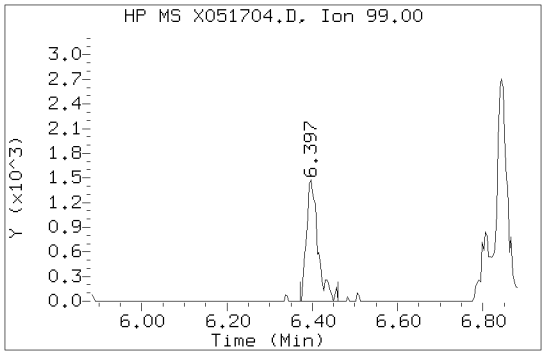
BEFORE

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HEIGHT
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18-May-2023
13:42
linh
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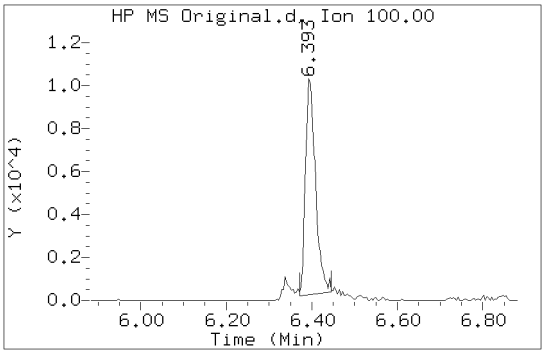
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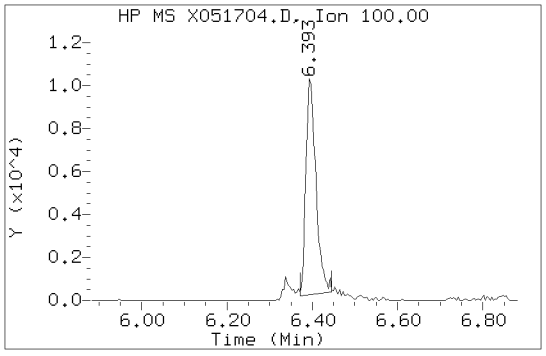
BEFORE

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18-May-2023
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AFTER

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13:42
linh
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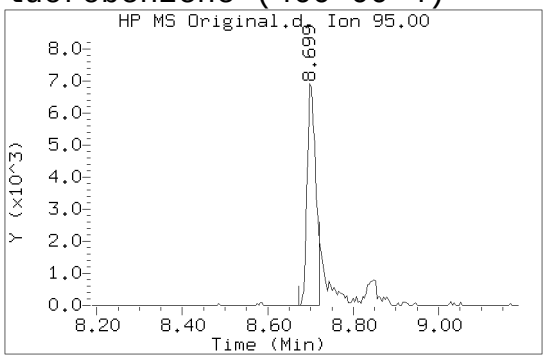
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

4-Bromofluorobenzene (460-00-4)

Reason Code:

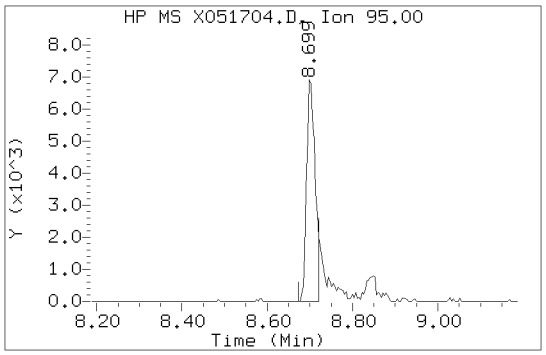
BEFORE

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HEIGHT
6910
18-May-2023
13:42
linh
pham



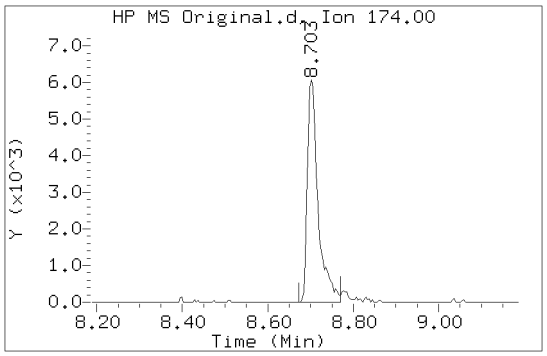
AFTER

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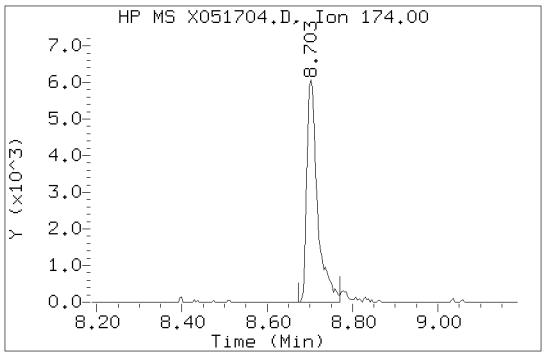
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18-May-2023
13:42
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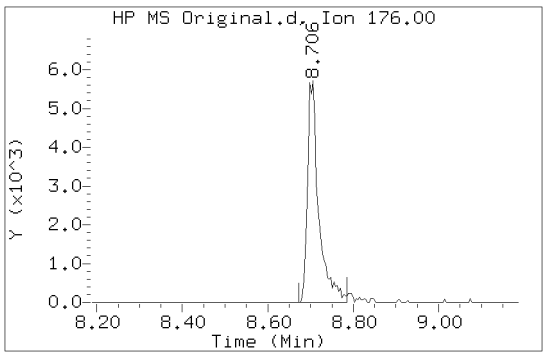
AFTER

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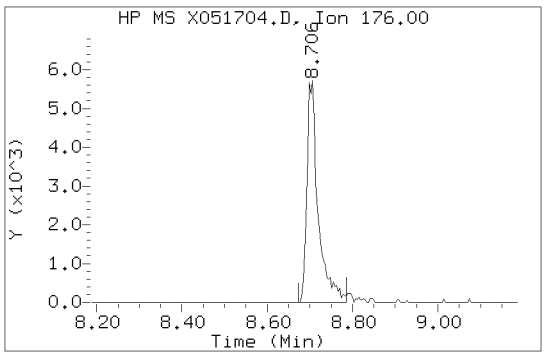
BEFORE

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18-May-2023
13:42
linh
pham



AFTER

MASS
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10496
HEIGHT
5718
18-May-2023
13:42
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
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Inj Date : 17-MAY-2023 13:41
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 13:20 Cal File: X051704.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	568359	50.0000	
135 1,4-Dioxane	88	5.617	5.617	(1.345)	3173	40.0000	41.22(a)
140 1,3-Butadiene	54	1.167	1.167	(0.280)	12021	2.00000	1.99(a)
25 Methacrylonitrile	41	3.855	3.855	(0.923)	10385	2.00000	2.04
12 Isobutyl Alcohol	43	4.687	4.687	(1.122)	31747	40.0000	42.85
13 Acetonitrile	39	2.202	2.202	(0.527)	11460	20.0000	20.94
14 Allyl Chloride	41	2.206	2.206	(0.528)	28510	2.00000	2.06
72 trans-1,4-Dichloro-2-butene	53	8.904	8.904	(1.161)	3844	2.00000	1.99
23 Chloroprene	53	1.778	1.778	(0.426)	4779	2.00000	2.08(aM)
130 Ethyl Acetate	43	3.656	3.656	(0.875)	8258	2.00000	2.04(TaM)
40 Methyl Methacrylate	41	5.628	5.628	(1.347)	10525	2.00000	2.11(M)
49 Ethyl Methacrylate	69	6.794	6.794	(1.368)	18175	2.00000	1.98(a)
131 Methyl Acrylate	55	3.731	3.731	(0.893)	10492	2.00000	1.89(aM)
132 n-Butanol	56	5.309	5.309	(1.271)	2750	40.0000	83.79(a)
136 n-Hexane	57	2.772	2.772	(0.664)	9316	2.00000	1.91(a)
139 Diethyl ether	59	1.756	1.756	(0.420)	9688	2.00000	1.99(a)
142 Tetrahydrofuran	42	3.851	3.851	(0.922)	3723	4.00000	3.97(aM)
145 alpha-Methylstyrene	118	9.264	9.264	(0.959)	20051	2.00000	2.05(a)
156 Diisopropyl ether	45	3.000	3.000	(0.718)	35047	2.00000	2.03(Ta)
162 Butyl acrylate	55	8.267	8.267	(1.078)	25259	2.00000	2.04(a)

167 Ethanol	45	1.707	1.707 (0.409)	3325	40.0000	48.17
200 Dimethyl Disulfide	94	6.202	6.202 (0.809)	23973	2.00000	1.93(a)

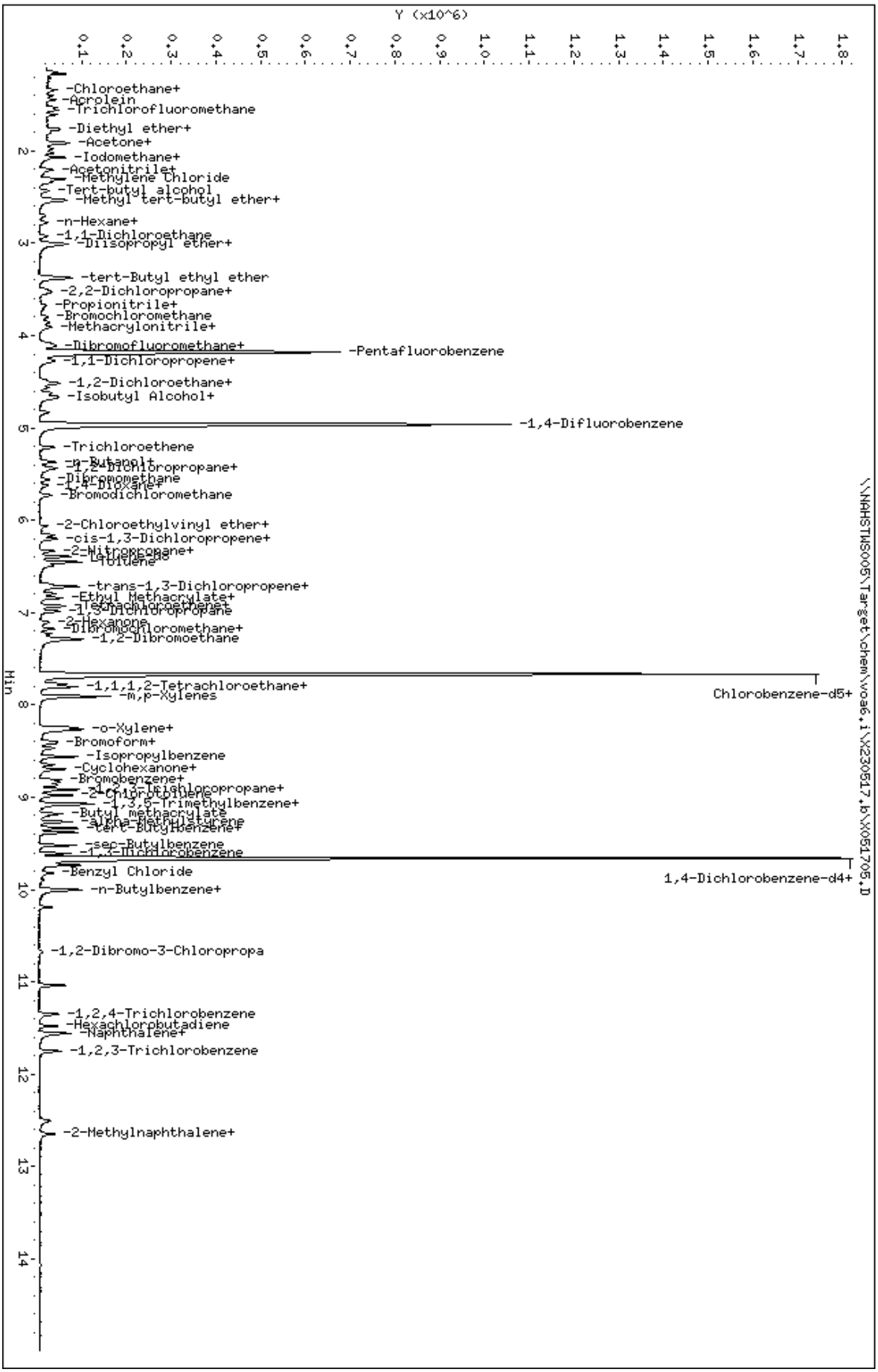
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	182 Epichlorohydrin	57	6.115	6.115	(1.232)	5056	8.00000	8.64
	164 Dicyclopentadiene	66	9.680	9.680	(1.002)	46675	2.00000	1.98(aM)
	166 1,2,3-Trimethylbenzene	105	9.733	9.733	(1.007)	40790	2.00000	2.02(a)
	205 2-Ethylhexyl Acrylate	55	11.555	11.555	(1.196)	15456	2.00000	1.86(aM)
	86 Benzyl Chloride	91	9.823	9.823	(1.281)	25013	2.00000	1.89(aM)
	134 Cyclohexanone	55	8.650	8.650	(0.895)	13177	40.0000	47.87(a)
	133 Ethyl Acrylate	55	5.411	5.411	(1.295)	23488	2.00000	2.96(aM)
	163 Butyl methacrylate	41	9.178	9.178	(0.950)	15022	2.00000	1.94(aM)
	188 Isopropyl acetate	43	4.687	4.687	(0.944)	32143	2.00000	2.08(a)
	189 n-Butyl acetate	43	7.229	7.229	(0.943)	18653	2.00000	1.93(aH)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	10464	2.00000	2.52(a)
	3 Chloromethane	50	1.081	1.081	(0.259)	16505	2.00000	2.06(a)
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	14835	2.00000	1.97(a)
	6 Bromomethane	94	1.340	1.340	(0.321)	9450	2.00000	2.66(aM)
	7 Chloroethane	64	1.403	1.403	(0.336)	9524	2.00000	2.02(a)
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	15379	2.00000	1.94(a)
	10 Acetone	43	1.973	1.973	(0.472)	14791	4.00000	3.44(a)
	11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	10296	2.00000	2.05(a)
	15 Iodomethane	142	2.026	2.026	(0.485)	16693	4.00000	4.74(a)
	17 Methylene Chloride	84	2.303	2.303	(0.551)	10192	2.00000	1.71(aM)
	18 Methyl tert-butyl ether	73	2.539	2.539	(0.608)	30946	2.00000	1.97(a)
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	62025	4.00000	3.94(a)
	20 trans-1,2-Dichloroethene	96	2.535	2.535	(0.607)	11367	2.00000	2.18(a)
	21 Vinyl Acetate	43	3.015	3.015	(0.722)	51720	4.00000	3.57(aM)
	22 1,1-Dichloroethane	63	2.925	2.925	(0.700)	20992	2.00000	2.20(a)
	24 2-Butanone	43	3.656	3.656	(0.875)	7176	4.00000	3.79(aM)
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	15835	2.00000	1.95(a)
	27 cis-1,2-Dichloroethene	96	3.533	3.533	(0.846)	13645	2.00000	2.23(a)
	28 Chloroform	83	3.907	3.907	(0.935)	21205	2.00000	2.24(a)
	29 Bromochloromethane	128	3.791	3.791	(0.908)	6921	2.00000	2.14(a)
$	30 Dibromofluoromethane	113	4.102	4.102	(0.982)	11532	2.00000	1.41(a)
	31 1,1,1-Trichloroethane	97	4.084	4.084	(0.978)	14642	2.00000	2.01(a)
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	13477	2.00000	1.91(a)
	33 1,2-Dichloroethane	62	4.564	4.564	(0.919)	14500	2.00000	2.06(a)
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	13874	2.00000	2.12(a)
$	35 1,2-Dichloroethane-d4	65	4.485	4.485	(1.074)	10804	2.00000	1.51(aM)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	896747	50.0000	
	37 Benzene	78	4.515	4.515	(0.909)	48481	2.00000	2.12(a)
	38 Trichloroethene	130	5.208	5.208	(1.049)	11895	2.00000	1.93(a)
	39 Bromodichloromethane	83	5.729	5.729	(1.154)	16415	2.00000	2.10(a)
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	13761	2.00000	2.12(a)
	44 Dibromomethane	93	5.557	5.557	(1.119)	8737	2.00000	2.22(a)
	45 4-Methyl-2-Pentanone	43	6.333	6.333	(0.826)	25612	4.00000	4.29(a)
	46 cis-1,3-Dichloropropene	75	6.164	6.164	(1.242)	21003	2.00000	2.01(a)
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	867389	50.0000	
$	48 Toluene-d8	98	6.393	6.393	(0.834)	45477	2.00000	2.05(a)
	50 Toluene	91	6.453	6.453	(0.842)	52309	2.00000	2.14(a)
	51 trans-1,3-Dichloropropene	75	6.696	6.696	(1.349)	17455	2.00000	2.09(a)
	52 2-Hexanone	43	7.101	7.101	(0.926)	18084	4.00000	4.42(a)
	53 1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	11409	2.00000	2.29(a)
	54 1,3-Dichloropropane	76	6.989	6.989	(0.912)	23895	2.00000	2.31(a)
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	14840	2.00000	2.20(a)

56	Tetrachloroethene	164	6.929	6.929 (0.904)	9672	2.00000	2.05(a)
57	1,2-Dibromoethane	107	7.263	7.263 (0.947)	13465	2.00000	2.22(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
58	1-Chlorohexane	55	7.697	7.697	(1.550)	10048	2.00000	3.60(aH)
59	Chlorobenzene	112	7.697	7.697	(1.004)	35403	2.00000	2.10(a)
60	1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	13053	2.00000	2.20(a)
61	Ethylbenzene	106	7.802	7.802	(1.018)	17353	2.00000	2.09(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	44787	4.00000	4.34(a)
63	o-Xylene	106	8.248	8.248	(1.076)	21417	2.00000	2.12(a)
64	Styrene	104	8.275	8.275	(1.079)	34917	2.00000	2.06(a)
66	Bromoform	173	8.417	8.417	(1.098)	9629	2.00000	2.11(a)
67	Isopropylbenzene	105	8.563	8.563	(1.117)	49912	2.00000	2.06(a)
68	1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	17448	2.00000	2.55(aM)
$ 69	4-Bromofluorobenzene	95	8.694	8.694	(1.134)	17649	2.00000	2.12(aM)
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	447826	50.0000	
71	1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	12721	2.00000	2.22(a)
73	n-Propylbenzene	91	8.916	8.916	(0.923)	57997	2.00000	2.08(a)
74	Bromobenzene	156	8.811	8.811	(0.912)	14174	2.00000	2.02(a)
75	1,3,5-Trimethylbenzene	105	9.069	9.069	(0.939)	42416	2.00000	2.11(a)
76	2-Chlorotoluene	91	8.976	8.976	(0.929)	41354	2.00000	2.29(a)
77	4-Chlorotoluene	91	9.077	9.077	(0.939)	43013	2.00000	2.16(a)
78	tert-Butylbenzene	119	9.336	9.336	(0.966)	34986	2.00000	2.06(a)
79	1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	42096	2.00000	2.04(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	47003	2.00000	1.99(a)
82	p-Isopropyltoluene	119	9.650	9.650	(0.999)	40079	2.00000	1.96(a)
83	1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	26091	2.00000	2.07(a)
84	1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	28468	2.00000	2.14(a)
87	n-Butylbenzene	91	10.007	10.007	(1.036)	31335	2.00000	1.79(a)
88	1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	25933	2.00000	2.07(a)
89	1,2-Dibromo-3-Chloropropane	155	10.678	10.678	(1.105)	2511	2.00000	1.55(a)
90	1,2,4-Trichlorobenzene	180	11.356	11.356	(1.175)	17357	2.00000	2.00(a)
93	1,2,3-Trichlorobenzene	180	11.750	11.750	(1.216)	17611	2.00000	2.07(a)
M 94	1,2-Dichloroethylene (total)	96				25012	4.00000	(a)
141	Cyclohexane	56	4.114	4.114	(0.985)	13243	2.00000	1.86(aH)
138	Freon TF	101	1.913	1.913	(0.458)	8897	2.00000	1.87(a)
147	Methylcyclohexane	55	5.366	5.366	(1.081)	26075	2.00000	1.89(aM)
146	Methyl Acetate	43	2.243	2.243	(0.537)	6701	2.00000	1.99(a)
148	Tert-Butyl alcohol	59	2.434	2.434	(0.583)	24680	40.0000	43.96(a)
149	Isopropyl Alcohol	45	2.097	2.097	(0.502)	14345	40.0000	41.26

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTMS005\Target\chem\voa6.i\X230517.b\X051705.D
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Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

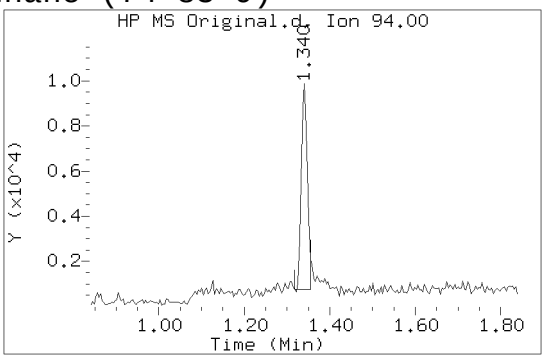
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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InstruID : voa6.i
LabSampID : VSTD002

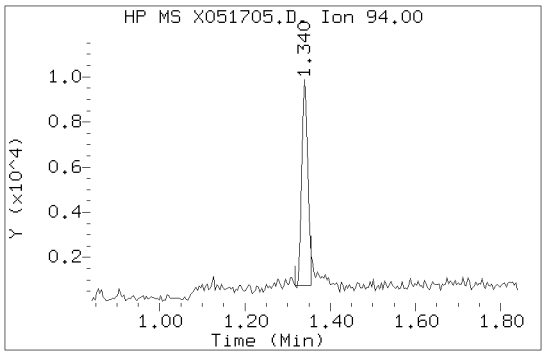
Bromomethane (74-83-9)

Reason Code:

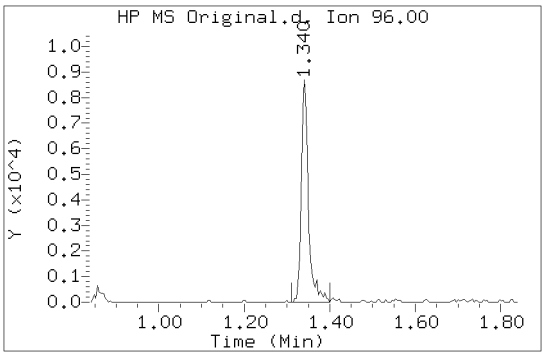
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18-May-2023
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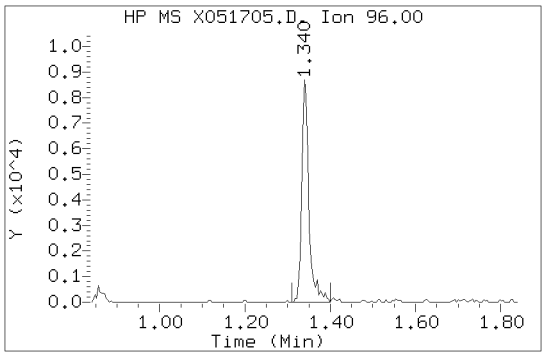
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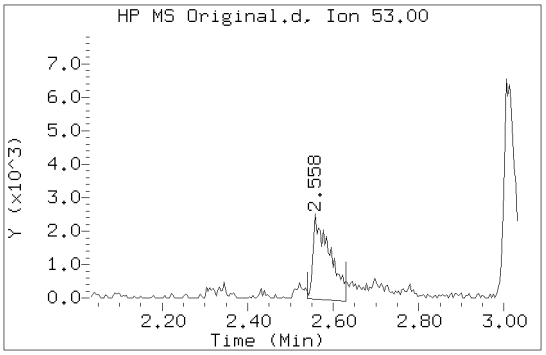
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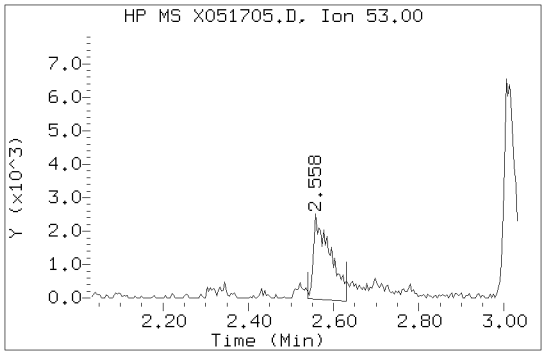
Acrylonitrile (107-13-1)

Reason Code:

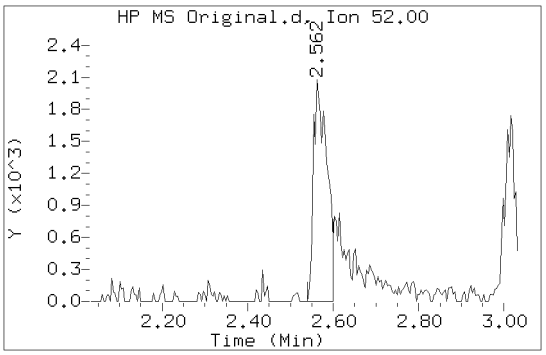
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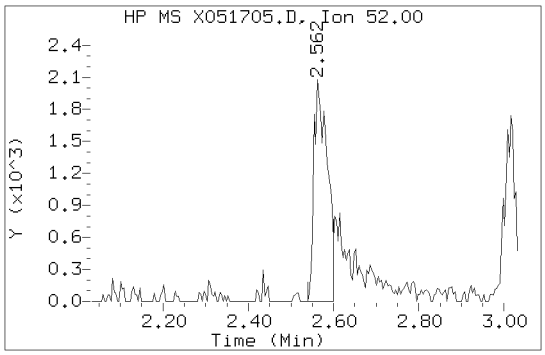
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BEFORE
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AFTER
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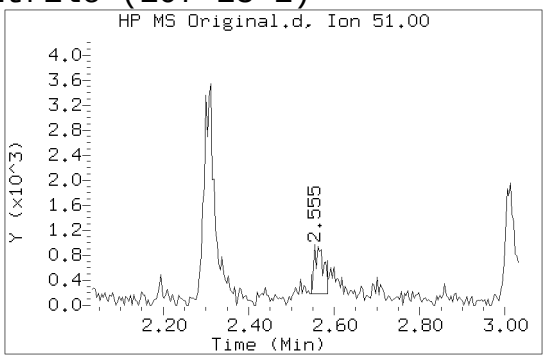
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InstruID : voa6.i
LabSampID : VSTD002

Acrylonitrile (107-13-1)

Reason Code:

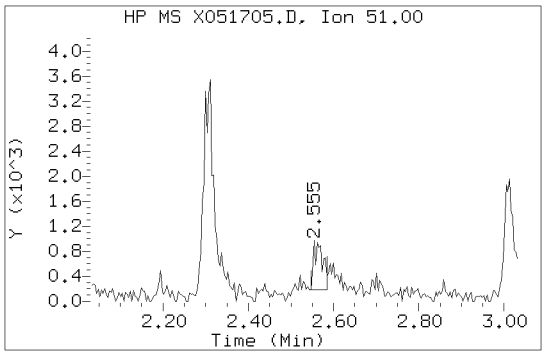
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AFTER

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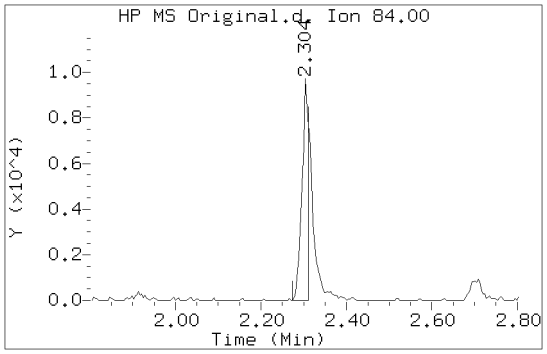


Methylene Chloride (75-09-2)

Reason Code:

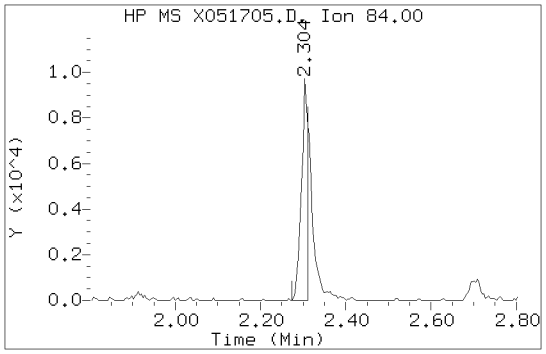
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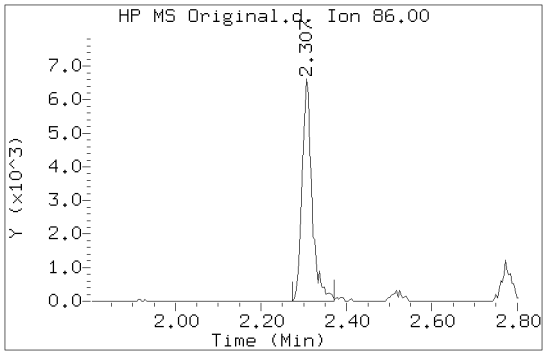
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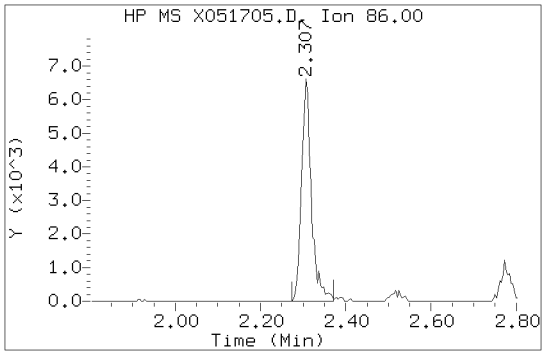
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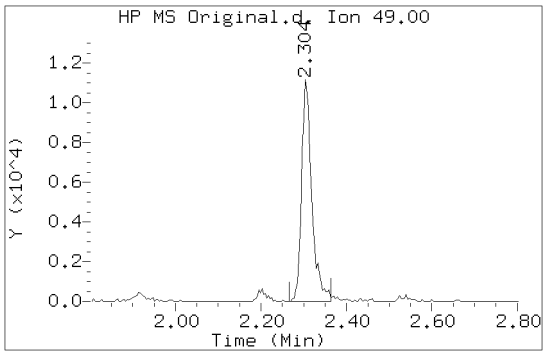
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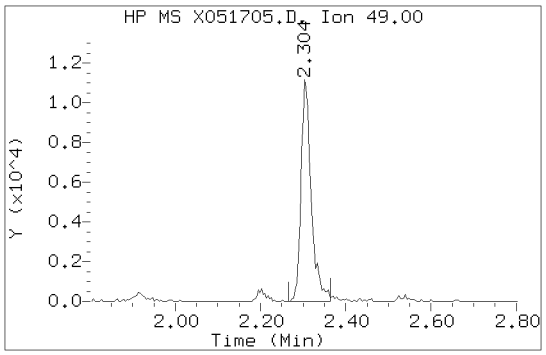
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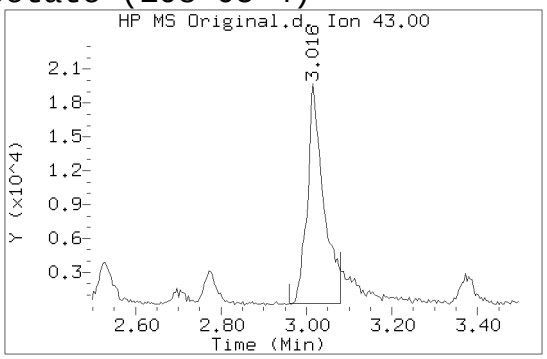
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Vinyl Acetate (108-05-4)

Reason Code:

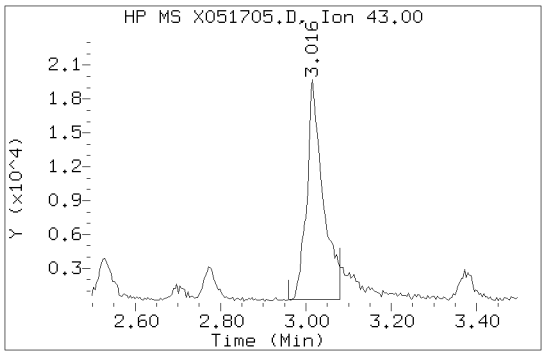
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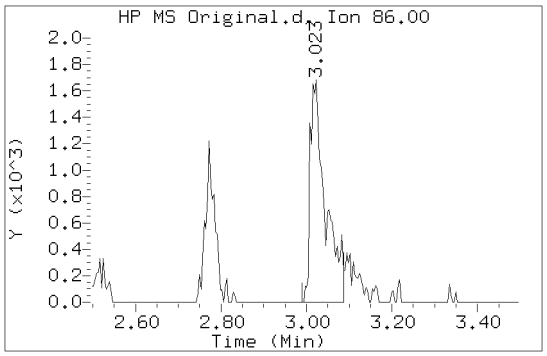
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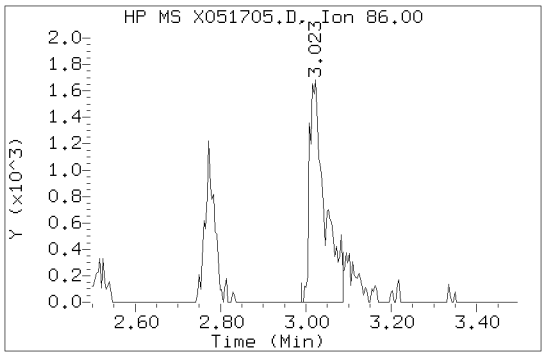
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AFTER

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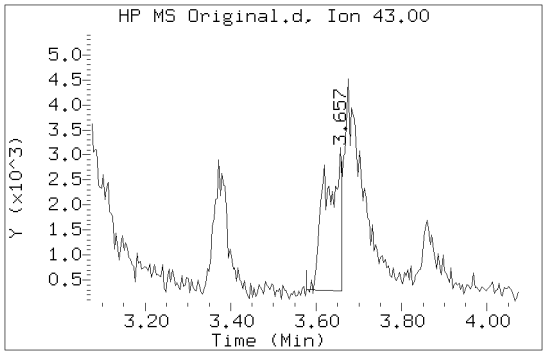


2-Butanone (78-93-3)

Reason Code:

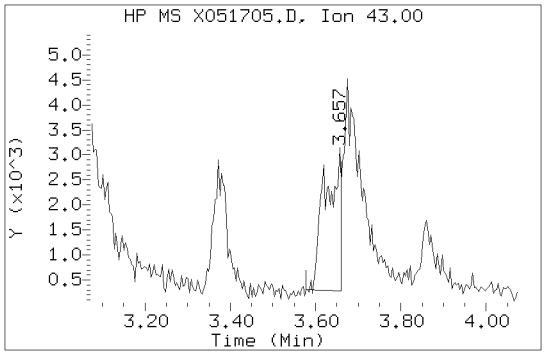
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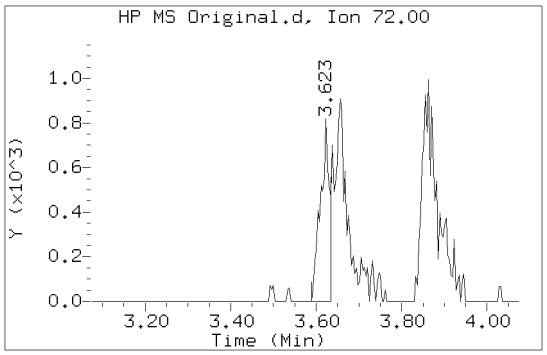
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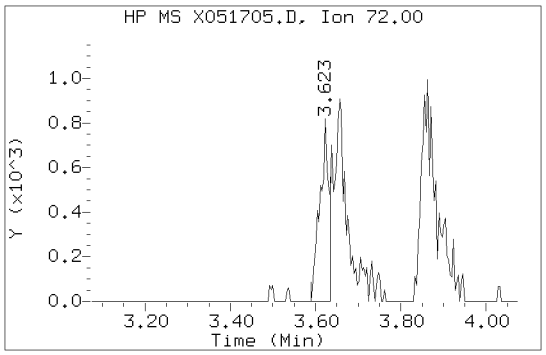
BEFORE

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AFTER

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linh
pham



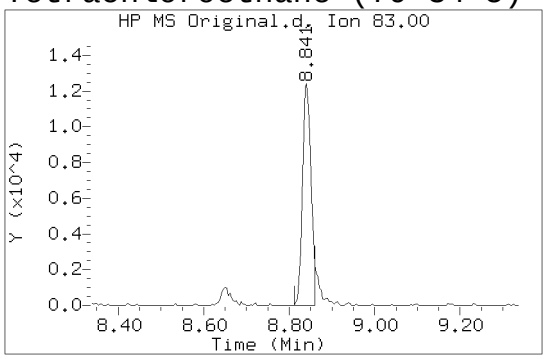
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

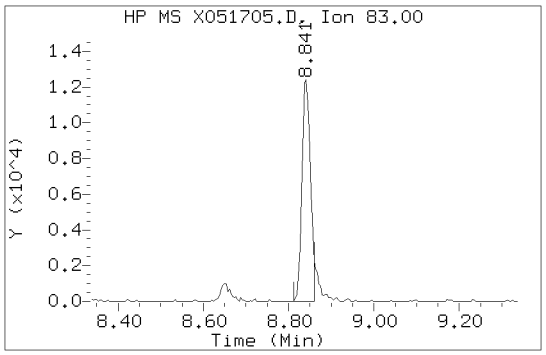
BEFORE

MASS
83
AREA
17448
HEIGHT
12410
18-May-2023
13:42
linh
pham



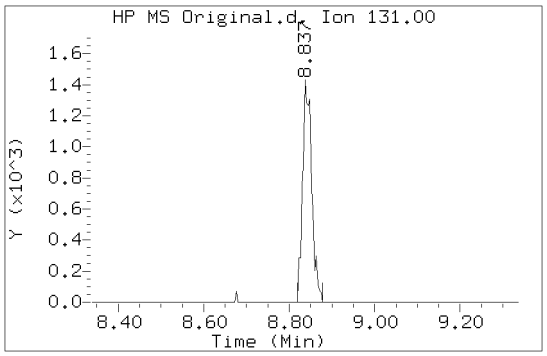
AFTER

MASS
83
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17448
HEIGHT
12410
18-May-2023
13:42
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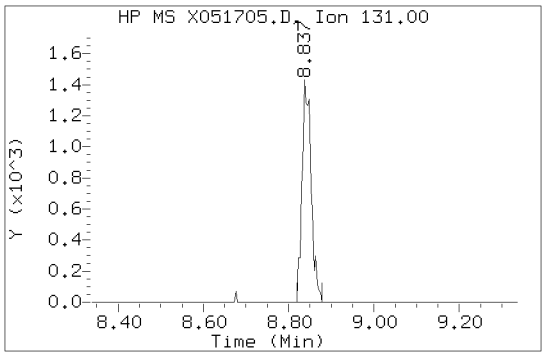
BEFORE

MASS
131
AREA
2148
HEIGHT
1431
18-May-2023
13:42
linh
pham



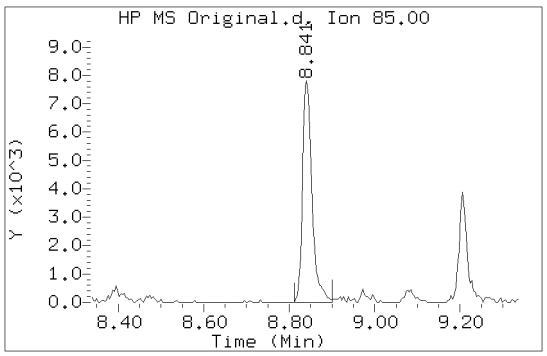
AFTER

MASS
131
AREA
2148
HEIGHT
1431
18-May-2023
13:42
linh
pham



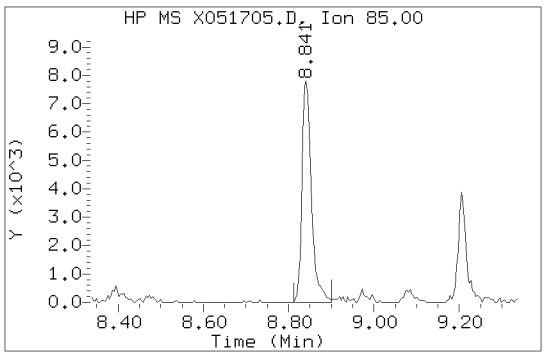
BEFORE

MASS
85
AREA
12201
HEIGHT
7811
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
12201
HEIGHT
7811
18-May-2023
13:42
linh
pham

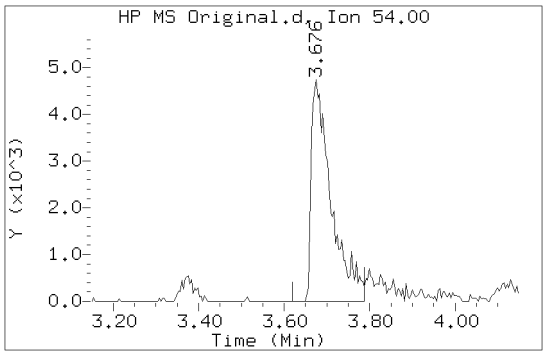


Propionitrile (107-12-0)

Reason Code:

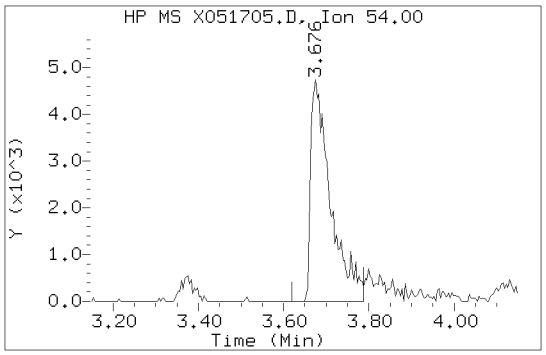
BEFORE

MASS
54
AREA
15274
HEIGHT
4742
18-May-2023
13:42
linh
pham



AFTER

MASS
54
AREA
15274
HEIGHT
4742
18-May-2023
13:42
linh
pham

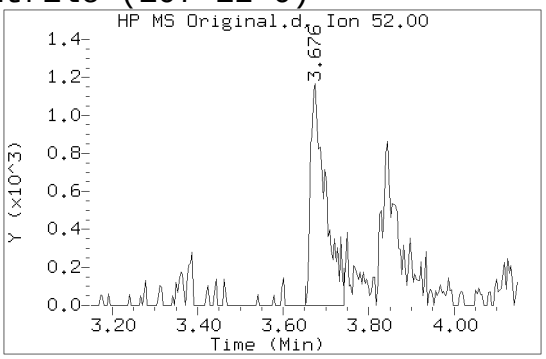


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Propionitrile (107-12-0)

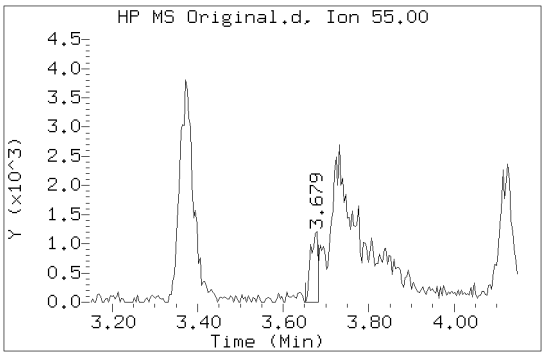
BEFORE

MASS
52
AREA
2822
HEIGHT
1167
18-May-2023
13:42
linh
pham



BEFORE

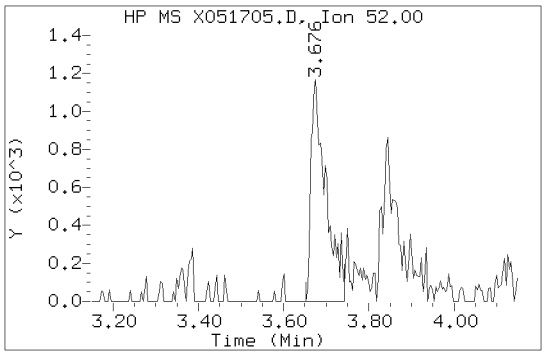
MASS
55
AREA
1433
HEIGHT
1207
18-May-2023
13:42
linh
pham



Reason Code:

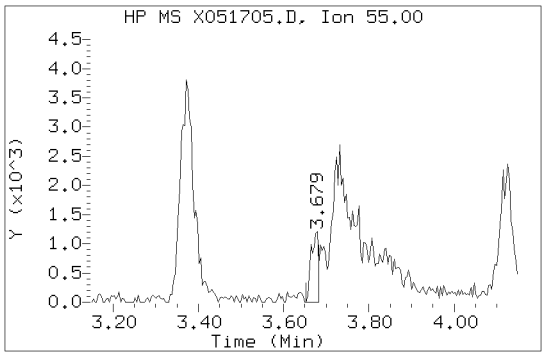
AFTER

MASS
52
AREA
2822
HEIGHT
1167
18-May-2023
13:42
linh
pham



AFTER

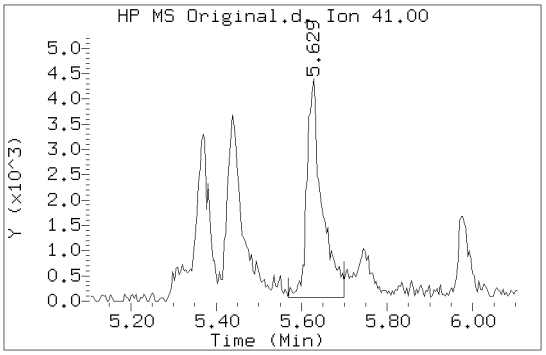
MASS
55
AREA
1433
HEIGHT
1207
18-May-2023
13:42
linh
pham



Methyl Methacrylate (80-62-6)

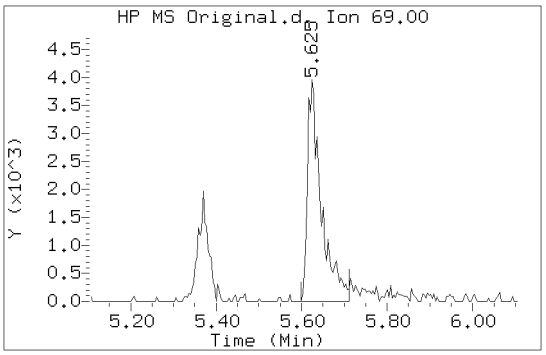
BEFORE

MASS
41
AREA
10525
HEIGHT
4313
18-May-2023
13:42
linh
pham



BEFORE

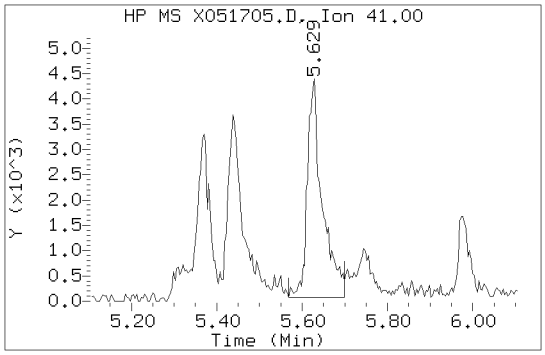
MASS
69
AREA
8892
HEIGHT
3961
18-May-2023
13:42
linh
pham



Reason Code:

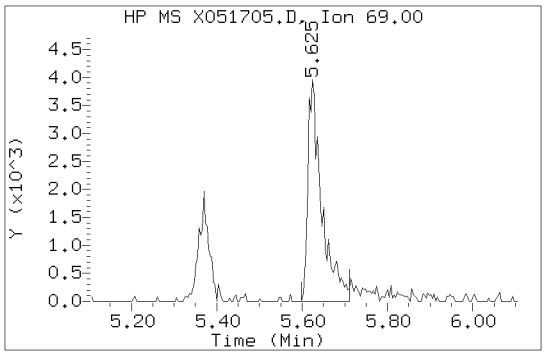
AFTER

MASS
41
AREA
10525
HEIGHT
4313
18-May-2023
13:42
linh
pham



AFTER

MASS
69
AREA
8892
HEIGHT
3961
18-May-2023
13:42
linh
pham



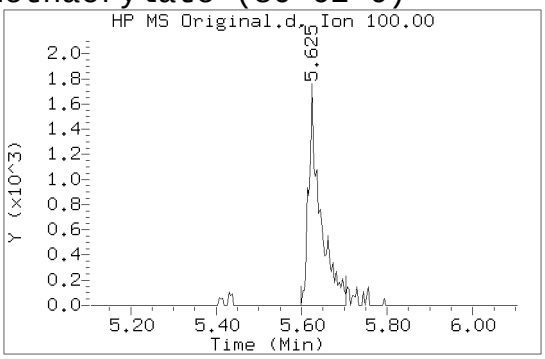
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Methyl Methacrylate (80-62-6)

Reason Code:

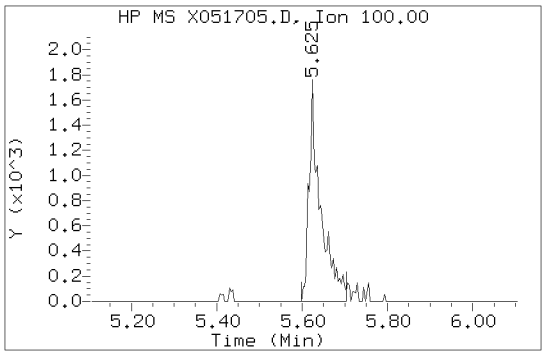
BEFORE

MASS
100
AREA
3307
HEIGHT
1761
18-May-2023
13:42
linh
pham



AFTER

MASS
100
AREA
3307
HEIGHT
1761
18-May-2023
13:42
linh
pham

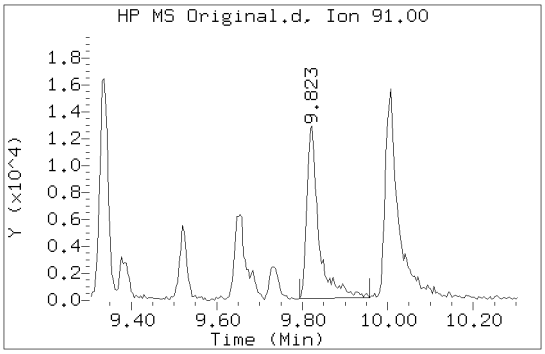


Benzyl Chloride (100-44-7)

Reason Code:

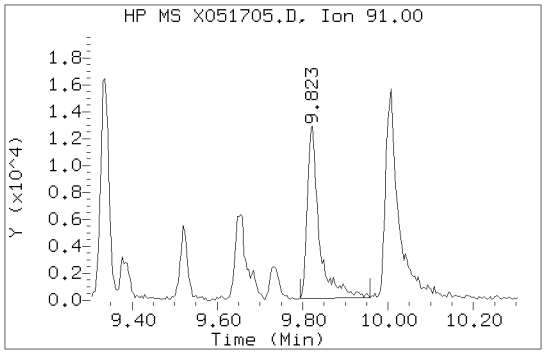
BEFORE

MASS
91
AREA
25013
HEIGHT
12765
18-May-2023
13:42
linh
pham



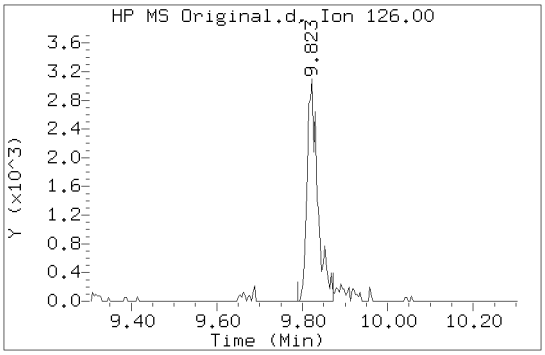
AFTER

MASS
91
AREA
25013
HEIGHT
12765
18-May-2023
13:42
linh
pham



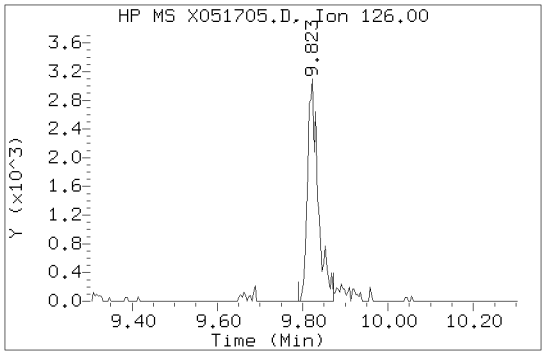
BEFORE

MASS
126
AREA
5340
HEIGHT
3099
18-May-2023
13:42
linh
pham



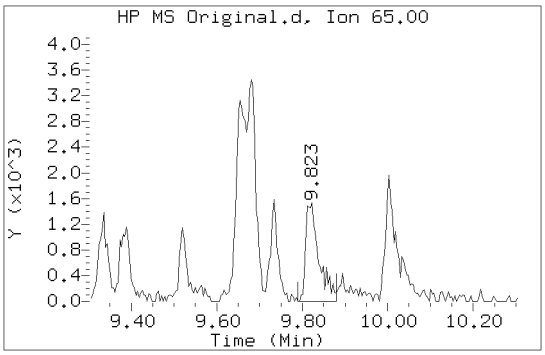
AFTER

MASS
126
AREA
5340
HEIGHT
3099
18-May-2023
13:42
linh
pham



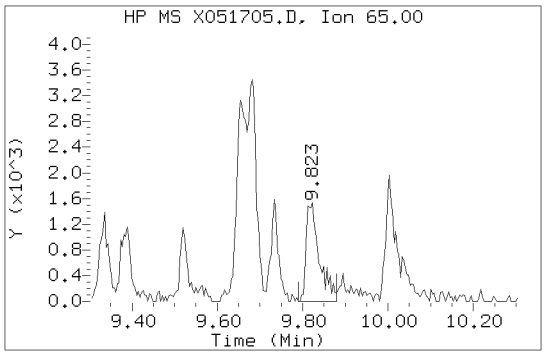
BEFORE

MASS
65
AREA
3307
HEIGHT
1541
18-May-2023
13:42
linh
pham



AFTER

MASS
65
AREA
3307
HEIGHT
1541
18-May-2023
13:42
linh
pham

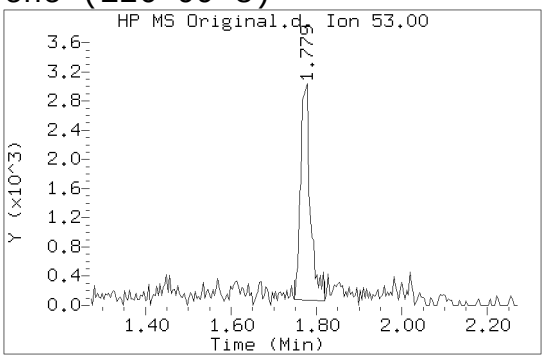


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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

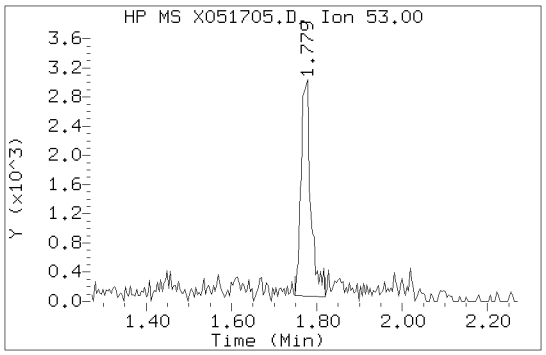
Chloroprene (126-99-8)

Reason Code:

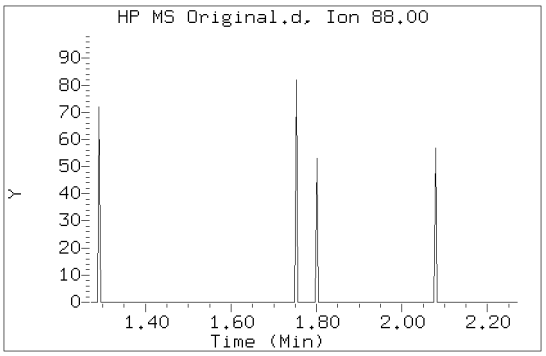
BEFORE
MASS
53
AREA
4779
HEIGHT
2965
18-May-2023
13:42
linh
pham



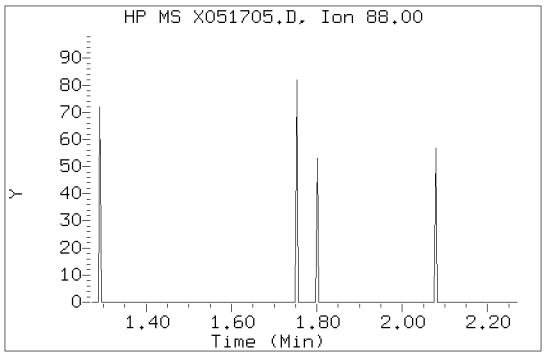
AFTER
MASS
53
AREA
4779
HEIGHT
2965
18-May-2023
13:42
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



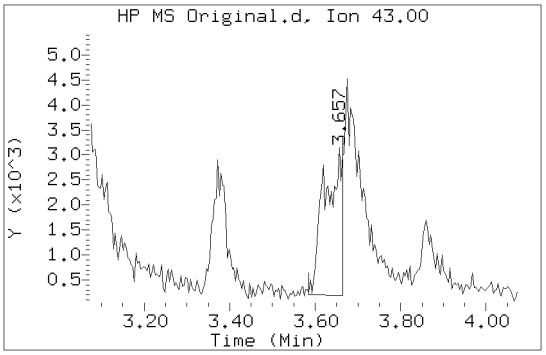
AFTER
MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



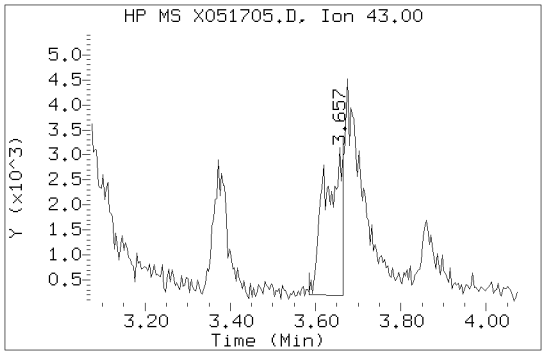
Ethyl Acetate (141-78-6)

Reason Code:

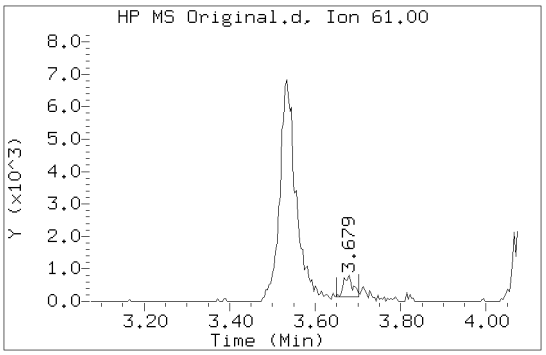
BEFORE
MASS
43
AREA
8258
HEIGHT
2948
18-May-2023
13:42
linh
pham



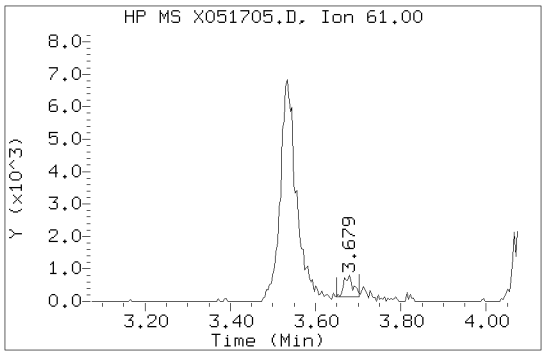
AFTER
MASS
43
AREA
8258
HEIGHT
2948
18-May-2023
13:42
linh
pham



BEFORE
MASS
61
AREA
1001
HEIGHT
665
18-May-2023
13:42
linh
pham



AFTER
MASS
61
AREA
1001
HEIGHT
665
18-May-2023
13:42
linh
pham

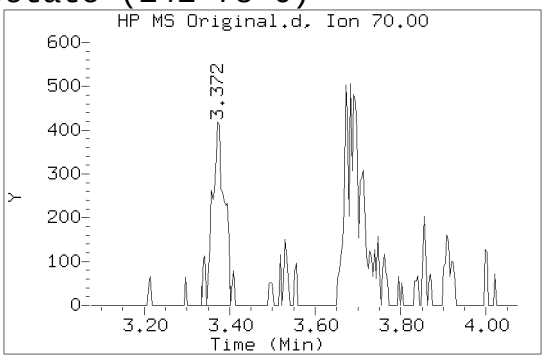


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

BEFORE

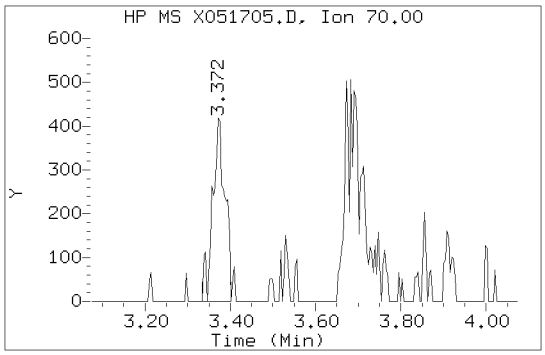
MASS
70
AREA
837
HEIGHT
418
18-May-2023
13:42
linh
pham



Reason Code:

AFTER

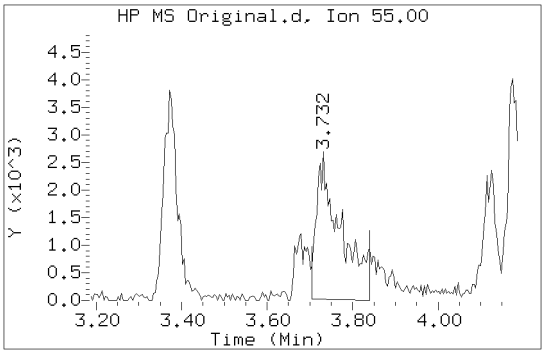
MASS
70
AREA
837
HEIGHT
418
18-May-2023
13:42
linh
pham



Methyl Acrylate (96-33-3)

BEFORE

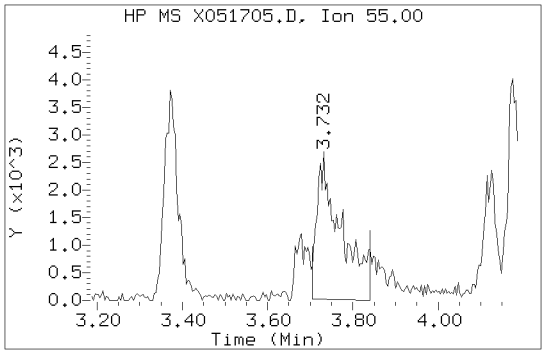
MASS
55
AREA
10492
HEIGHT
2678
18-May-2023
13:42
linh
pham



Reason Code:

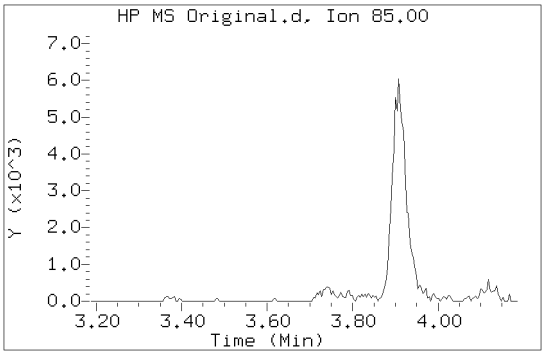
AFTER

MASS
55
AREA
10492
HEIGHT
2678
18-May-2023
13:42
linh
pham



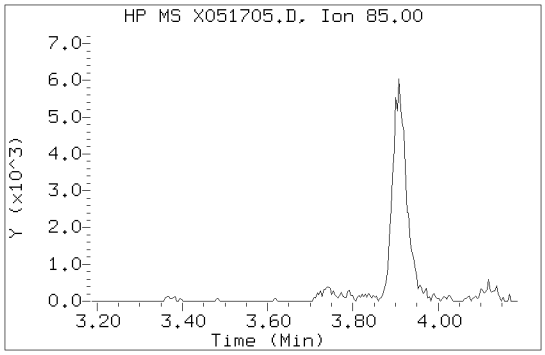
BEFORE

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

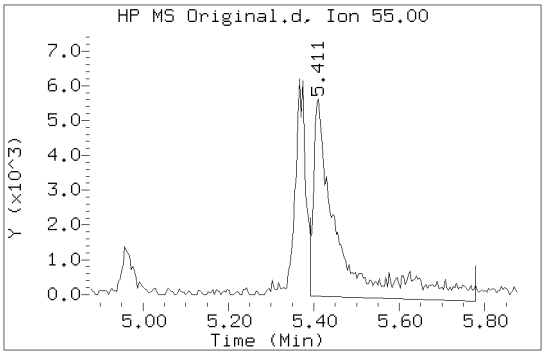
MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



Ethyl Acrylate (140-88-5)

BEFORE

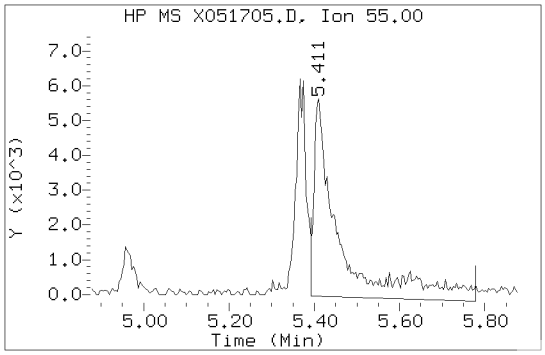
MASS
55
AREA
23488
HEIGHT
5673
18-May-2023
13:42
linh
pham



Reason Code:

AFTER

MASS
55
AREA
23488
HEIGHT
5673
18-May-2023
13:42
linh
pham



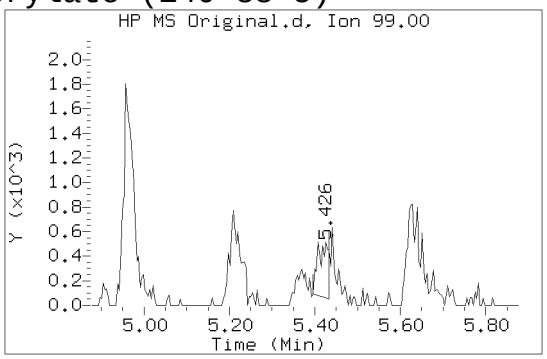
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Ethyl Acrylate (140-88-5)

Reason Code:

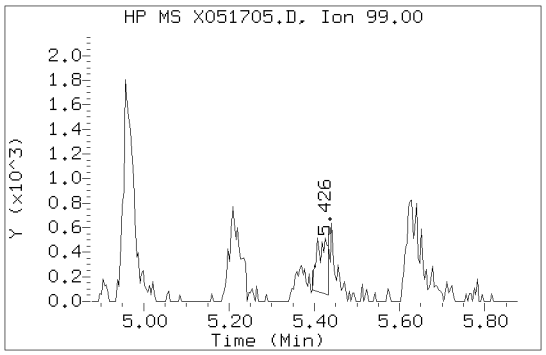
BEFORE

MASS
99
AREA
776
HEIGHT
460
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
776
HEIGHT
460
18-May-2023
13:42
linh
pham

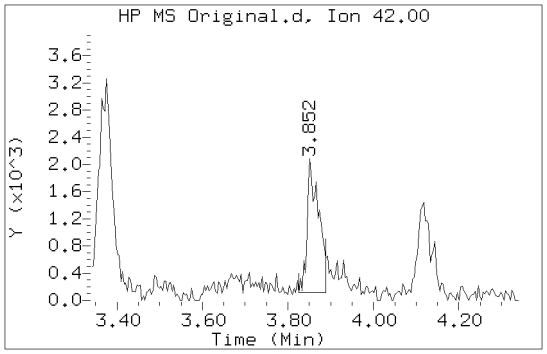


Tetrahydrofuran (109-99-9)

Reason Code:

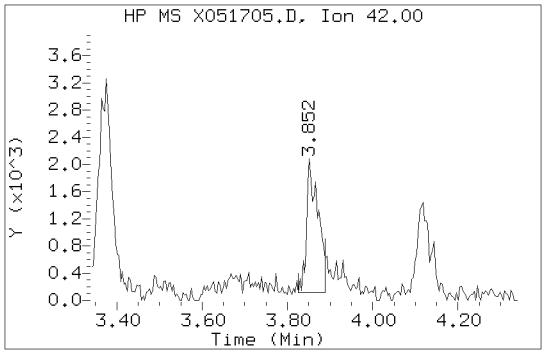
BEFORE

MASS
42
AREA
3723
HEIGHT
1971
18-May-2023
13:42
linh
pham



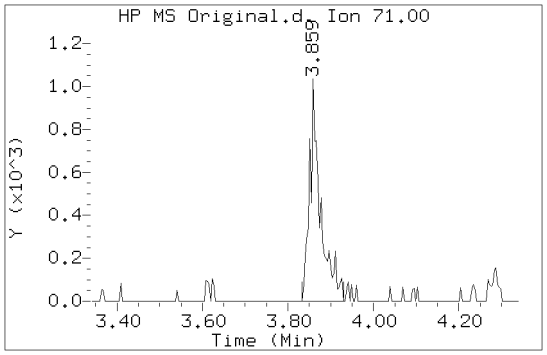
AFTER

MASS
42
AREA
3723
HEIGHT
1971
18-May-2023
13:42
linh
pham



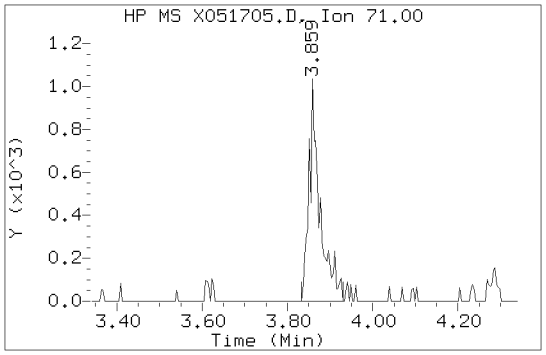
BEFORE

MASS
71
AREA
1826
HEIGHT
1036
18-May-2023
13:42
linh
pham



AFTER

MASS
71
AREA
1826
HEIGHT
1036
18-May-2023
13:42
linh
pham

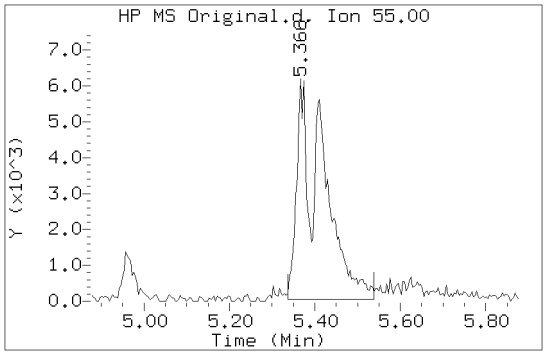


Methylcyclohexane (108-87-2)

Reason Code:

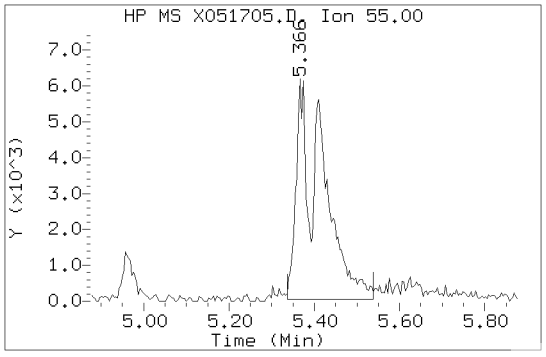
BEFORE

MASS
55
AREA
26075
HEIGHT
6146
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
26075
HEIGHT
6146
18-May-2023
13:42
linh
pham



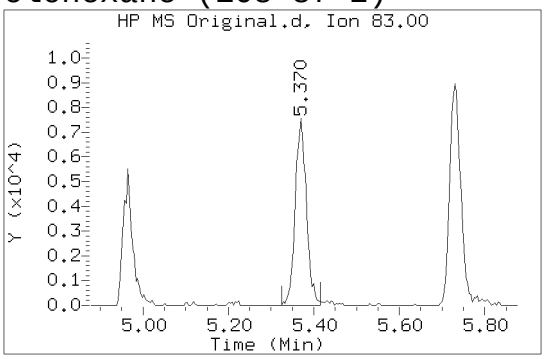
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Methylcyclohexane (108-87-2)

Reason Code:

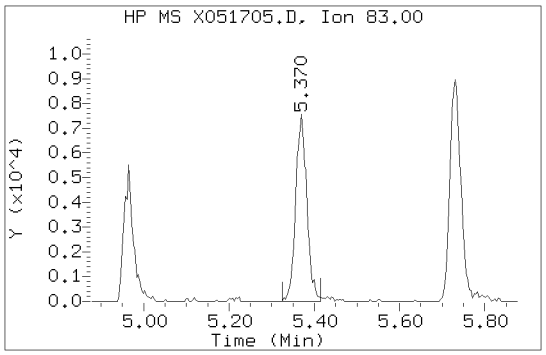
BEFORE

MASS
83
AREA
13937
HEIGHT
7565
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
13937
HEIGHT
7565
18-May-2023
13:42
linh
pham

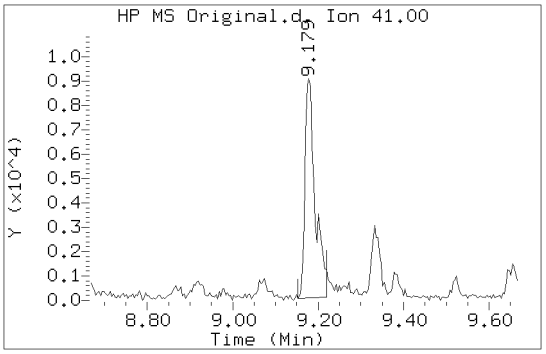


Butyl methacrylate (97-88-1)

Reason Code:

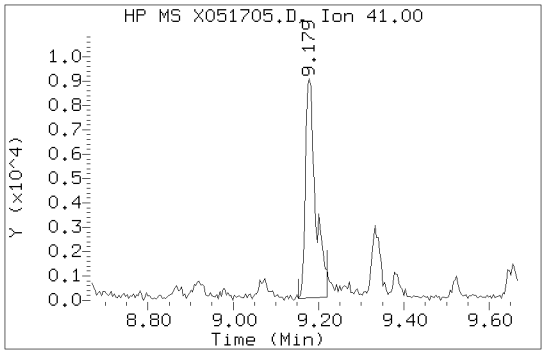
BEFORE

MASS
41
AREA
15022
HEIGHT
8999
18-May-2023
13:42
linh
pham



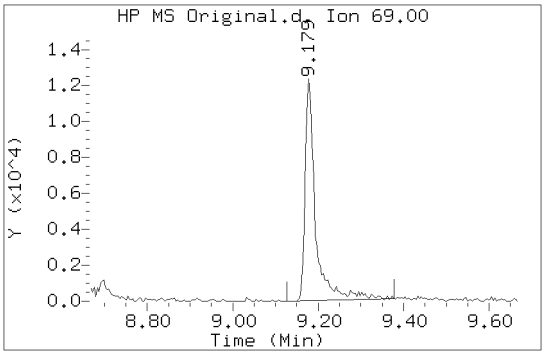
AFTER

MASS
41
AREA
15022
HEIGHT
8999
18-May-2023
13:42
linh
pham



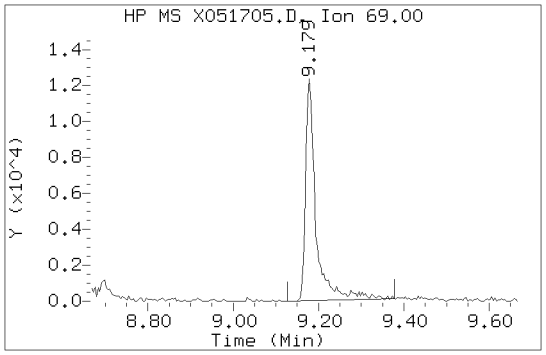
BEFORE

MASS
69
AREA
20885
HEIGHT
12333
18-May-2023
13:42
linh
pham



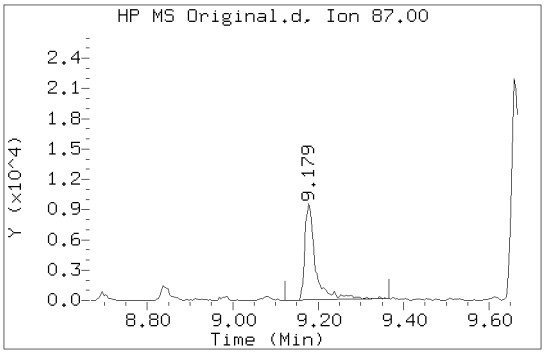
AFTER

MASS
69
AREA
20885
HEIGHT
12333
18-May-2023
13:42
linh
pham



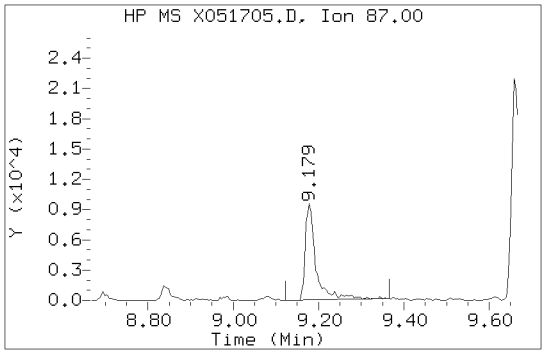
BEFORE

MASS
87
AREA
16659
HEIGHT
9565
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
16659
HEIGHT
9565
18-May-2023
13:42
linh
pham



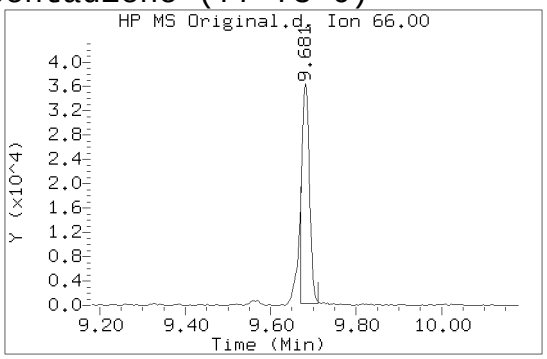
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Dicyclopentadiene (77-73-6)

Reason Code:

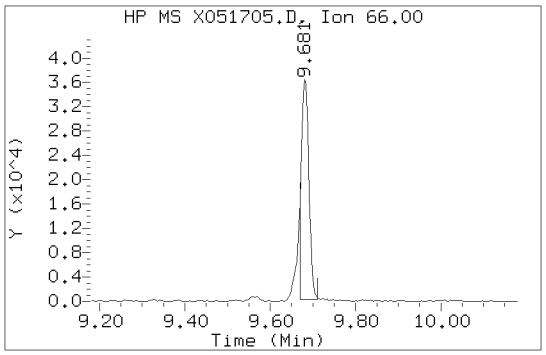
BEFORE

MASS
66
AREA
46675
HEIGHT
36119
18-May-2023
13:42
linh
pham



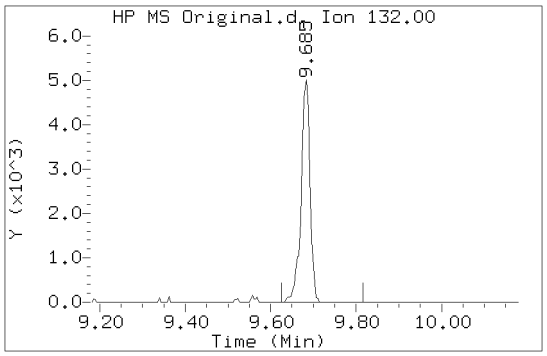
AFTER

MASS
66
AREA
46675
HEIGHT
36119
18-May-2023
13:42
linh
pham



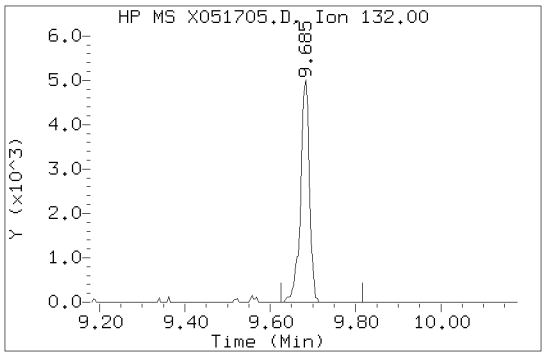
BEFORE

MASS
132
AREA
7535
HEIGHT
5009
18-May-2023
13:42
linh
pham



AFTER

MASS
132
AREA
7535
HEIGHT
5009
18-May-2023
13:42
linh
pham

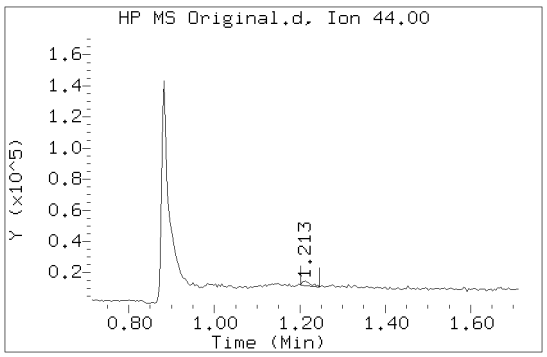


Acetaldehyde (75-07-0)

Reason Code:

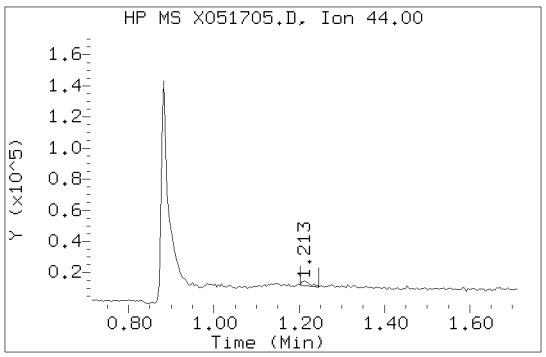
BEFORE

MASS
44
AREA
4725
HEIGHT
3209
18-May-2023
13:42
linh
pham



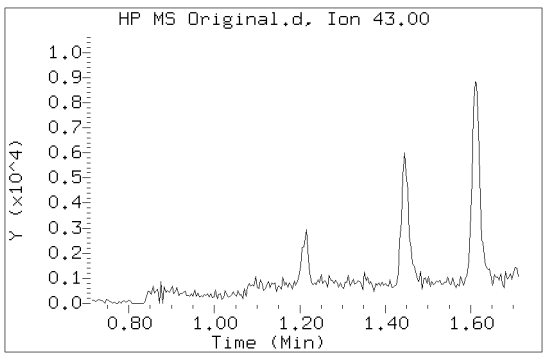
AFTER

MASS
44
AREA
4725
HEIGHT
3209
18-May-2023
13:42
linh
pham



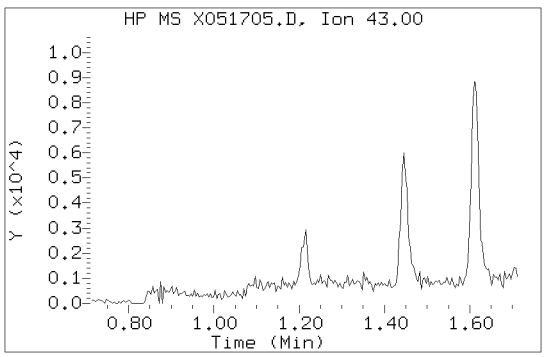
BEFORE

MASS
43
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



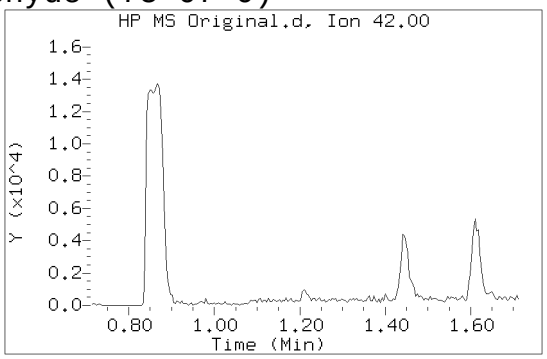
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Acetaldehyde (75-07-0)

Reason Code:

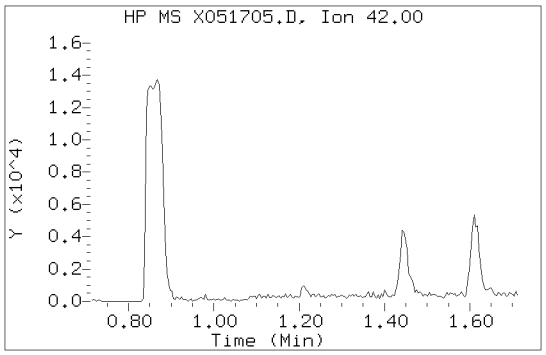
BEFORE

MASS
42
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

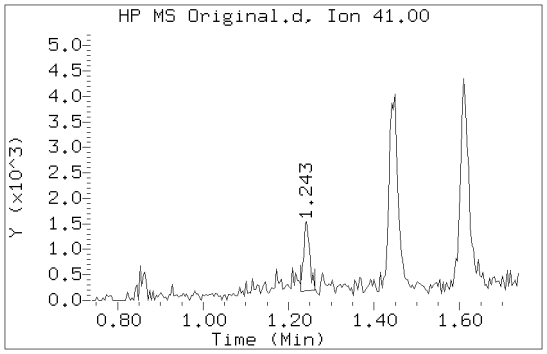


Isobutylene (115-11-7)

Reason Code:

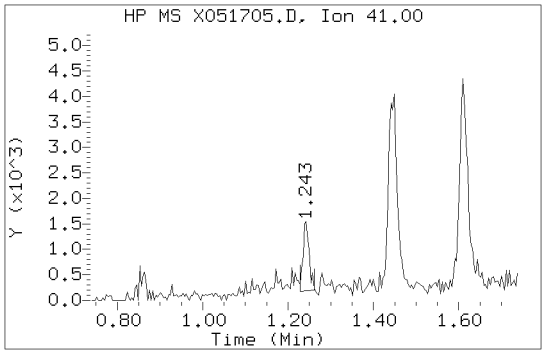
BEFORE

MASS
41
AREA
1402
HEIGHT
1361
18-May-2023
13:42
linh
pham



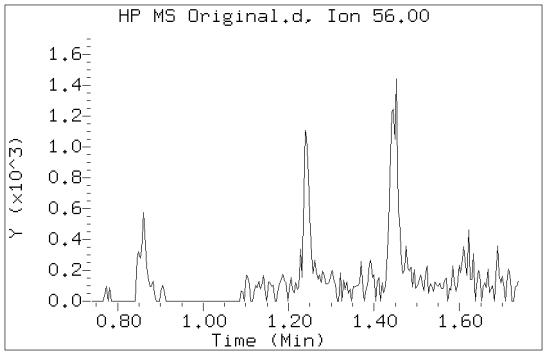
AFTER

MASS
41
AREA
1402
HEIGHT
1361
18-May-2023
13:42
linh
pham



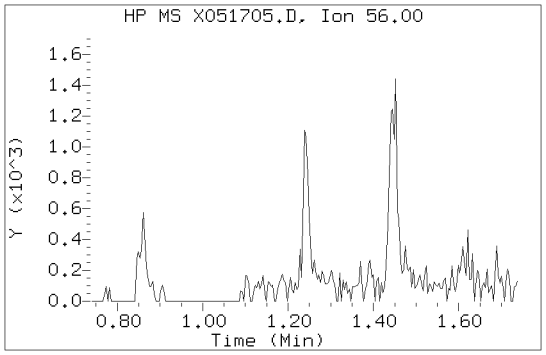
BEFORE

MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



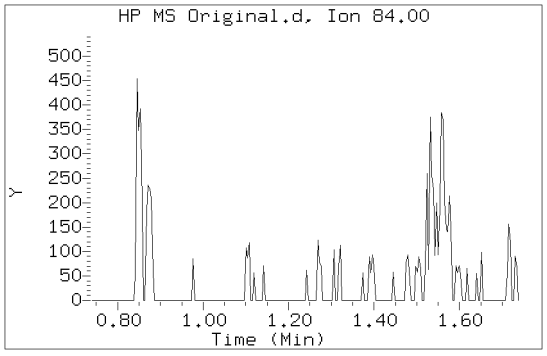
AFTER

MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



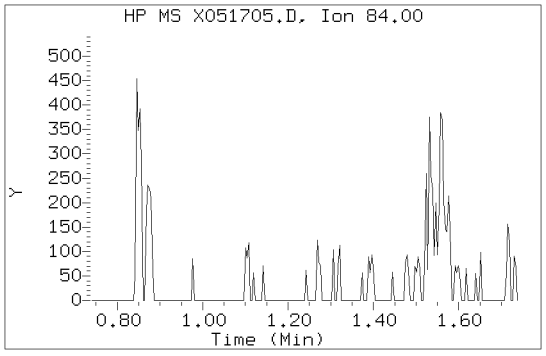
BEFORE

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



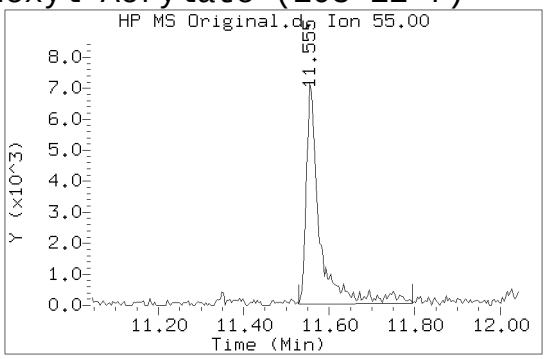
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

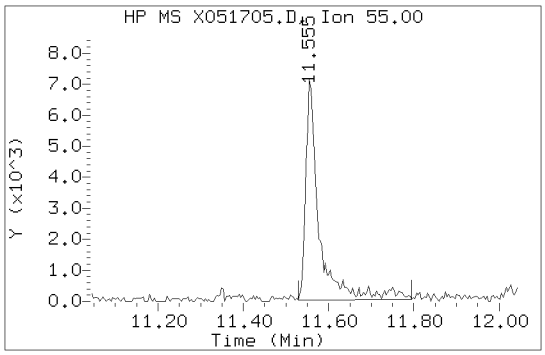
BEFORE

MASS
55
AREA
15456
HEIGHT
7093
18-May-2023
13:42
linh
pham



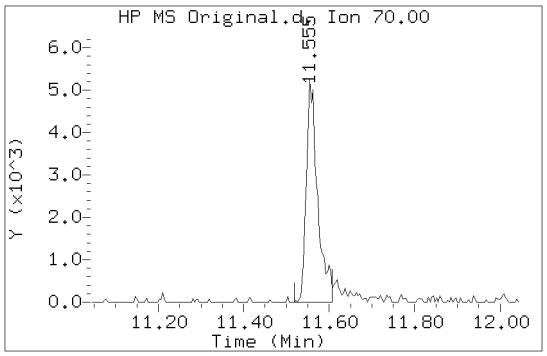
AFTER

MASS
55
AREA
15456
HEIGHT
7093
18-May-2023
13:42
linh
pham



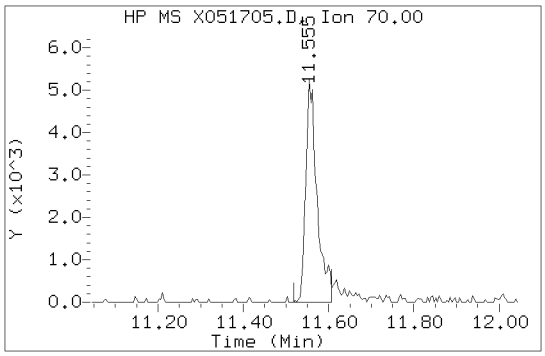
BEFORE

MASS
70
AREA
9667
HEIGHT
5242
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
9667
HEIGHT
5242
18-May-2023
13:42
linh
pham

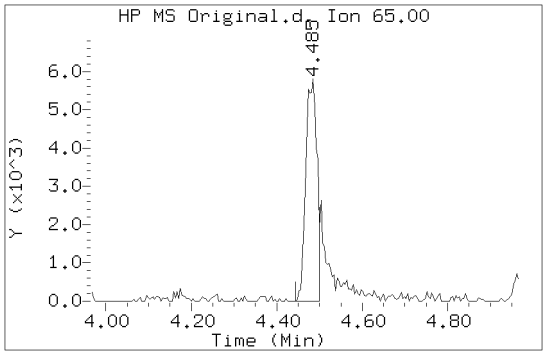


1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

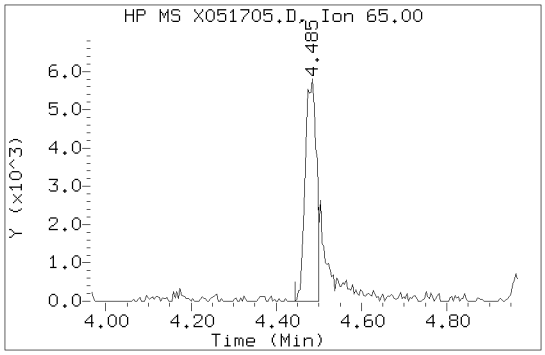
BEFORE

MASS
65
AREA
10804
HEIGHT
5806
18-May-2023
13:42
linh
pham



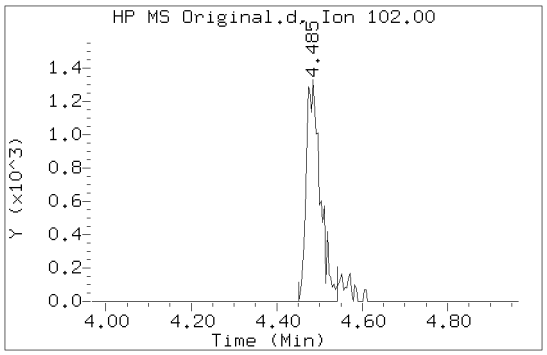
AFTER

MASS
65
AREA
10804
HEIGHT
5806
18-May-2023
13:42
linh
pham



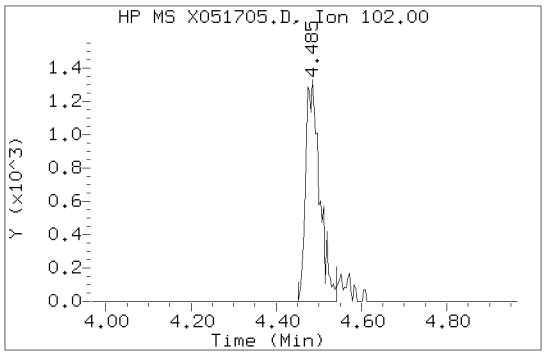
BEFORE

MASS
102
AREA
3074
HEIGHT
1329
18-May-2023
13:42
linh
pham



AFTER

MASS
102
AREA
3074
HEIGHT
1329
18-May-2023
13:42
linh
pham



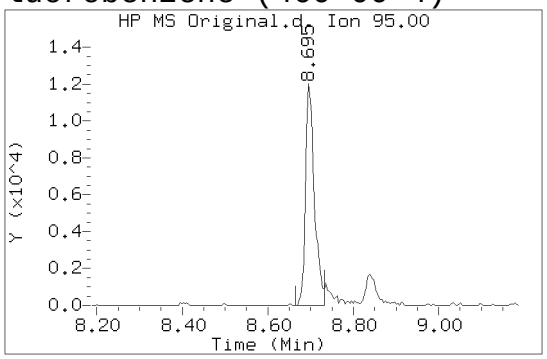
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LabSampID : VSTD002

4-Bromofluorobenzene (460-00-4)

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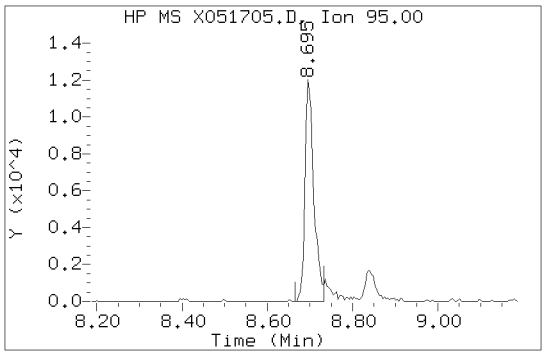
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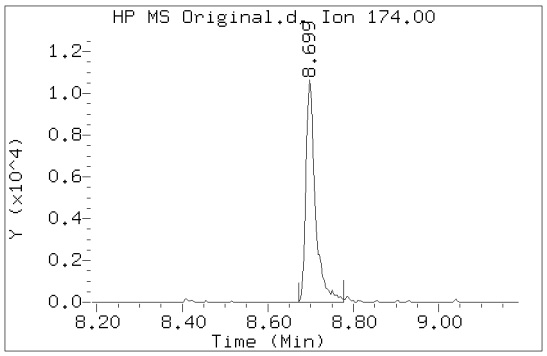
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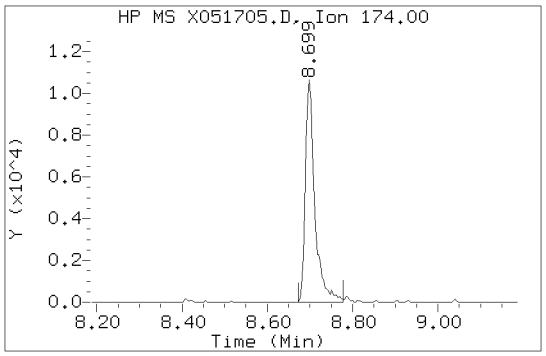
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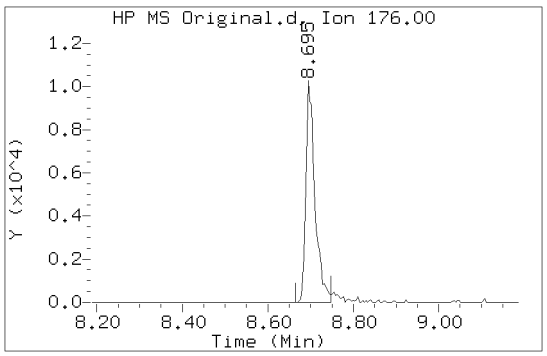
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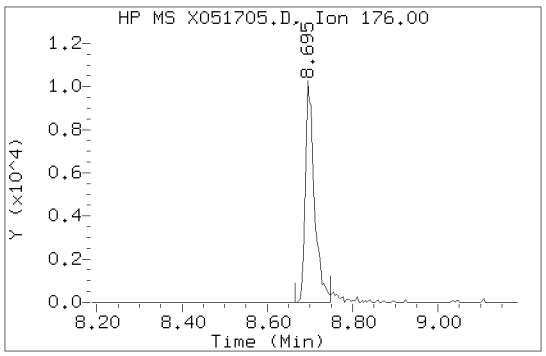
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
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Inj Date : 17-MAY-2023 14:02
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : V6;WATER;0;1;
Comment   :
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Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	575612	50.0000	
135 1,4-Dioxane	88	5.610	5.610	(1.343)	7791	100.000	99.94(a)
140 1,3-Butadiene	54	1.167	1.167	(0.280)	25381	5.00000	4.16(aM)
25 Methacrylonitrile	41	3.844	3.844	(0.920)	25116	5.00000	4.89
12 Isobutyl Alcohol	43	4.676	4.676	(1.119)	74032	100.000	98.66
13 Acetonitrile	39	2.202	2.202	(0.527)	25582	50.0000	46.16
14 Allyl Chloride	41	2.202	2.202	(0.527)	63860	5.00000	4.56
72 trans-1,4-Dichloro-2-butene	53	8.897	8.897	(1.160)	8414	5.00000	4.29
23 Chloroprene	53	1.771	1.771	(0.424)	9821	5.00000	4.22(aM)
130 Ethyl Acetate	43	3.600	3.600	(0.862)	14059	5.00000	3.44(TaM)
40 Methyl Methacrylate	41	5.617	5.617	(1.345)	24473	5.00000	4.86
49 Ethyl Methacrylate	69	6.790	6.790	(1.368)	44678	5.00000	4.69(a)
131 Methyl Acrylate	55	3.705	3.705	(0.887)	27646	5.00000	4.93(aM)
132 n-Butanol	56	5.291	5.291	(1.266)	9680	100.000	122.42(a)
136 n-Hexane	57	2.772	2.772	(0.664)	19066	5.00000	3.96(a)
139 Diethyl ether	59	1.756	1.756	(0.420)	23079	5.00000	4.69(a)
142 Tetrahydrofuran	42	3.851	3.851	(0.922)	10207	10.0000	10.75
145 alpha-Methylstyrene	118	9.264	9.264	(0.959)	41638	5.00000	4.26(a)
156 Diisopropyl ether	45	2.997	2.997	(0.717)	80718	5.00000	4.63(Ta)
162 Butyl acrylate	55	8.260	8.260	(1.077)	58400	5.00000	4.65(a)

167 Ethanol	45	1.703	1.703 (0.408)	7435	100.000	108.15
200 Dimethyl Disulfide	94	6.202	6.202 (0.809)	55123	5.00000	4.38(a)

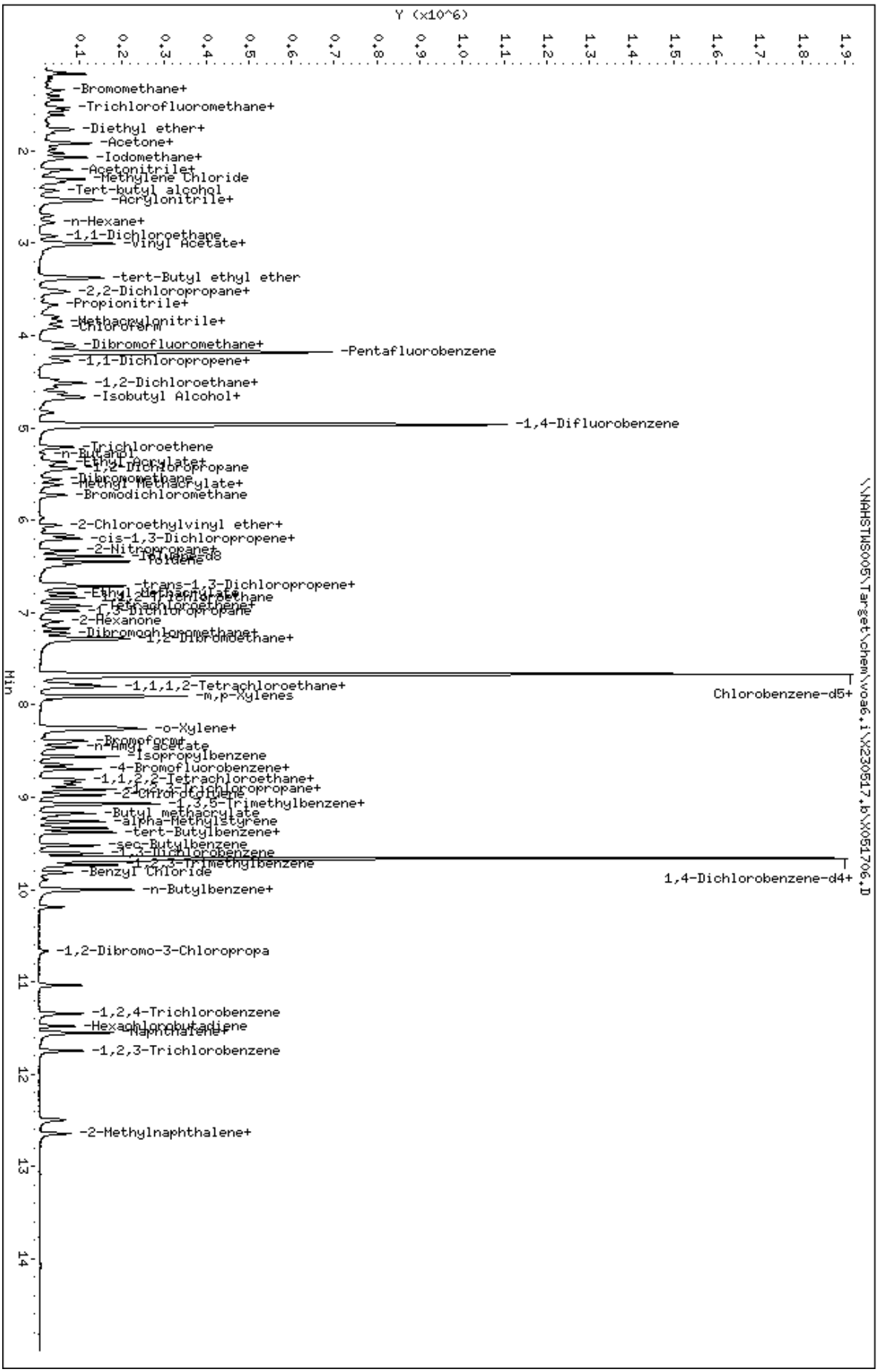
		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	182 Epichlorohydrin	57	6.104	6.104	(1.230)	11378	20.0000	18.70
	164 Dicyclopentadiene	66	9.681	9.681	(1.002)	99989	5.00000	4.23(aM)
	166 1,2,3-Trimethylbenzene	105	9.733	9.733	(1.007)	88116	5.00000	4.36(a)
	205 2-Ethylhexyl Acrylate	55	11.551	11.551	(1.196)	34625	5.00000	4.16(aM)
	86 Benzyl Chloride	91	9.816	9.816	(1.280)	58489	5.00000	4.35(aM)
	134 Cyclohexanone	55	8.646	8.646	(0.895)	28595	100.000	104.31(a)
	133 Ethyl Acrylate	55	5.396	5.396	(1.292)	55584	5.00000	5.05(M)
	163 Butyl methacrylate	41	9.174	9.174	(0.950)	32854	5.00000	4.25(aM)
	188 Isopropyl acetate	43	4.676	4.676	(0.942)	76066	5.00000	4.74(a)
	189 n-Butyl acetate	43	7.218	7.218	(0.941)	46239	5.00000	4.71(aH)
	2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	22495	5.00000	4.63(a)
	3 Chloromethane	50	1.081	1.081	(0.259)	35696	5.00000	4.41(a)
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	32813	5.00000	4.30(a)
	6 Bromomethane	94	1.340	1.340	(0.321)	20042	5.00000	5.28
	7 Chloroethane	64	1.404	1.404	(0.336)	21963	5.00000	4.61(a)
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	32123	5.00000	4.00(a)
	9 Acrolein	56	1.449	1.449	(0.347)	3889	10.0000	8.07(aM)
	10 Acetone	43	1.977	1.977	(0.473)	25117	10.0000	8.72
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	21385	5.00000	4.21(a)
	15 Iodomethane	142	2.026	2.026	(0.485)	43279	10.0000	8.46
	16 Acrylonitrile	53	2.551	2.551	(0.611)	17751	10.0000	9.33(a)
	17 Methylene Chloride	84	2.307	2.307	(0.552)	31334	5.00000	5.19
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	75920	5.00000	4.79(a)
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	135113	10.0000	8.48
	20 trans-1,2-Dichloroethene	96	2.536	2.536	(0.607)	23759	5.00000	4.51(a)
	21 Vinyl Acetate	43	3.008	3.008	(0.720)	146396	10.0000	9.99
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	44261	5.00000	4.58(a)
	24 2-Butanone	43	3.600	3.600	(0.862)	15924	10.0000	8.31(M)
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	32480	5.00000	4.28(a)
	27 cis-1,2-Dichloroethene	96	3.533	3.533	(0.846)	30060	5.00000	4.85(a)
	28 Chloroform	83	3.908	3.908	(0.935)	44879	5.00000	4.69(a)
	29 Bromochloromethane	128	3.795	3.795	(0.908)	15175	5.00000	4.64(a)
$	30 Dibromofluoromethane	113	4.099	4.099	(0.981)	30264	5.00000	5.03
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	32878	5.00000	4.46(a)
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	30493	5.00000	4.15(a)
	33 1,2-Dichloroethane	62	4.560	4.560	(0.918)	33658	5.00000	4.62(a)
	34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	28933	5.00000	4.27(aM)
$	35 1,2-Dichloroethane-d4	65	4.477	4.477	(1.072)	29580	5.00000	4.87(aM)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	932210	50.0000	
	37 Benzene	78	4.515	4.515	(0.909)	103238	5.00000	4.35(a)
	38 Trichloroethene	130	5.208	5.208	(1.049)	28239	5.00000	4.41(a)
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	37494	5.00000	4.61(a)
	42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	31894	5.00000	4.73(a)
	44 Dibromomethane	93	5.553	5.553	(1.119)	18900	5.00000	4.62(a)
	45 4-Methyl-2-Pentanone	43	6.329	6.329	(0.825)	57467	10.0000	9.47
	46 cis-1,3-Dichloropropene	75	6.161	6.161	(1.241)	47681	5.00000	4.39(a)
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	881514	50.0000	
$	48 Toluene-d8	98	6.389	6.389	(0.833)	119669	5.00000	5.32
	50 Toluene	91	6.449	6.449	(0.841)	111957	5.00000	4.52(a)
	51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.347)	39645	5.00000	4.57(a)
	52 2-Hexanone	43	7.094	7.094	(0.925)	37760	10.0000	9.10(H)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	24499	5.00000	4.85(a)

54	1,3-Dichloropropane	76	6.982	6.982 (0.911)	49707	5.00000	4.72(a)
55	Dibromochloromethane	129	7.176	7.176 (0.936)	31758	5.00000	4.63(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	21227	5.00000	4.42(a)
	57 1,2-Dibromoethane	107	7.263	7.263	(0.947)	28720	5.00000	4.66(a)
	58 1-Chlorohexane	55	7.698	7.698	(1.550)	19611	5.00000	5.15(H)
	59 Chlorobenzene	112	7.694	7.694	(1.003)	78288	5.00000	4.57(a)
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	26950	5.00000	4.48(a)
	61 Ethylbenzene	106	7.802	7.802	(1.018)	35228	5.00000	4.18(a)
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	93356	10.0000	8.90(a)
	63 o-Xylene	106	8.245	8.245	(1.075)	45752	5.00000	4.46(a)
	64 Styrene	104	8.267	8.267	(1.078)	79308	5.00000	4.62(a)
	66 Bromoform	173	8.410	8.410	(1.097)	22090	5.00000	4.76(a)
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	104613	5.00000	4.25(a)
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	40039	5.00000	5.40
$	69 4-Bromofluorobenzene	95	8.691	8.691	(1.133)	42837	5.00000	5.06
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	448137	50.0000	
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	27423	5.00000	4.78(a)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	115202	5.00000	4.14(a)
	74 Bromobenzene	156	8.811	8.811	(0.912)	33236	5.00000	4.75(a)
	75 1,3,5-Trimethylbenzene	105	9.070	9.070	(0.939)	83708	5.00000	4.16(a)
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	78603	5.00000	4.35(a)
	77 4-Chlorotoluene	91	9.077	9.077	(0.939)	87904	5.00000	4.43(a)
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	67322	5.00000	3.97(a)
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	87010	5.00000	4.22(a)
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	90348	5.00000	3.82(a)
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	79651	5.00000	3.90(a)
	83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	55362	5.00000	4.39(a)
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	59461	5.00000	4.48(a)
	87 n-Butylbenzene	91	9.999	9.999	(1.035)	65525	5.00000	3.75(a)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	56187	5.00000	4.48(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.670	10.670	(1.104)	6381	5.00000	4.44(a)
	90 1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	37189	5.00000	4.28(a)
	92 Naphthalene	128	11.551	11.551	(1.196)	94513	5.00000	4.38(a)
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	35649	5.00000	4.19(a)
M	94 1,2-Dichloroethylene (total)	96				53819	10.0000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	28246	5.00000	3.92(aH)
	138 Freon TF	101	1.917	1.917	(0.459)	18404	5.00000	4.32(a)
	147 Methylcyclohexane	55	5.396	5.396	(1.087)	54469	5.00000	3.79(aM)
	146 Methyl Acetate	43	2.247	2.247	(0.538)	16281	5.00000	4.78(a)
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	54877	100.000	96.53
	149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	33341	100.000	94.69(T)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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Client ID: VSTD005
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Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

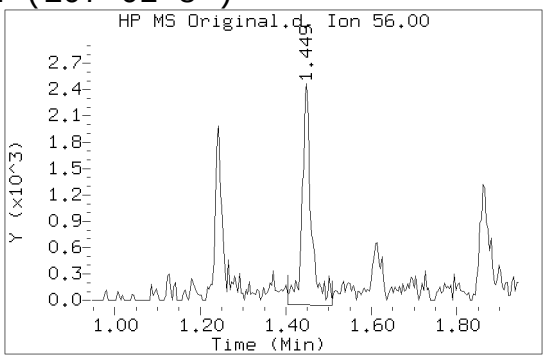
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LabSampID : VSTD005

Acrolein (107-02-8)

Reason Code:

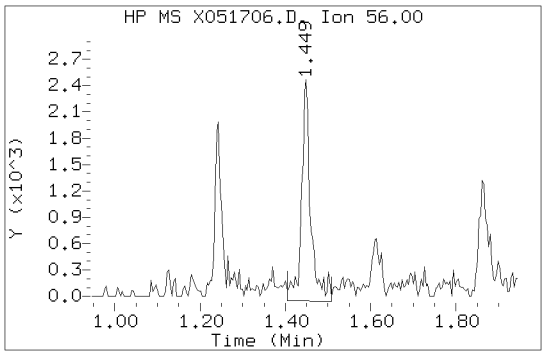
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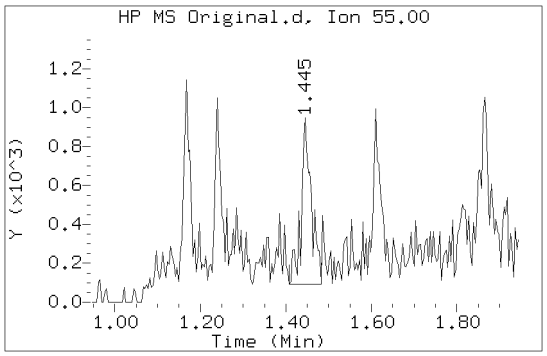
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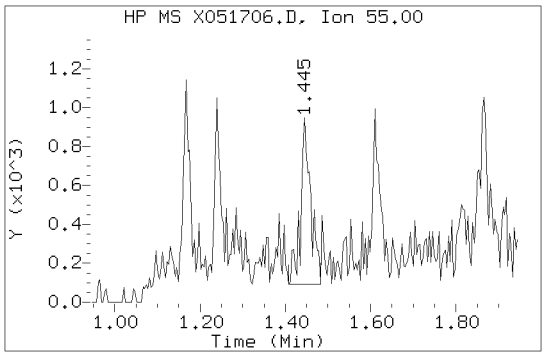
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AFTER

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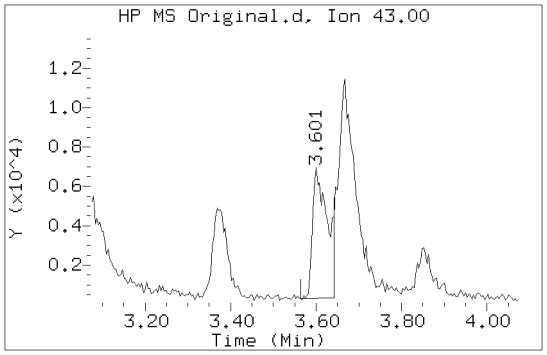


2-Butanone (78-93-3)

Reason Code:

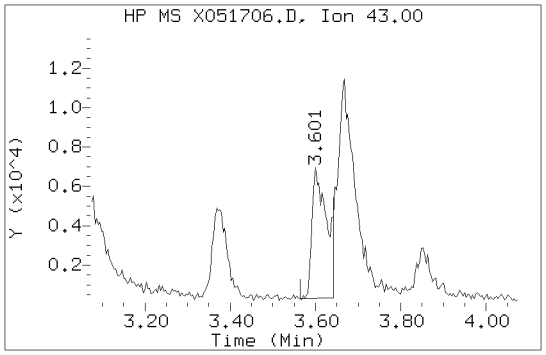
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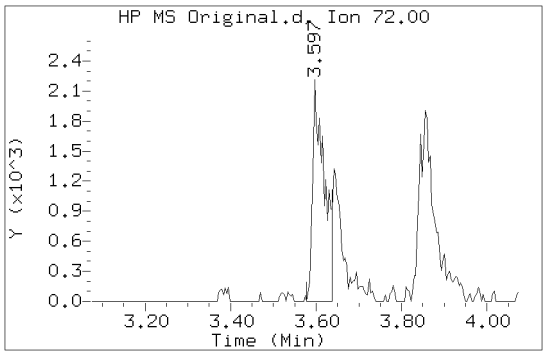
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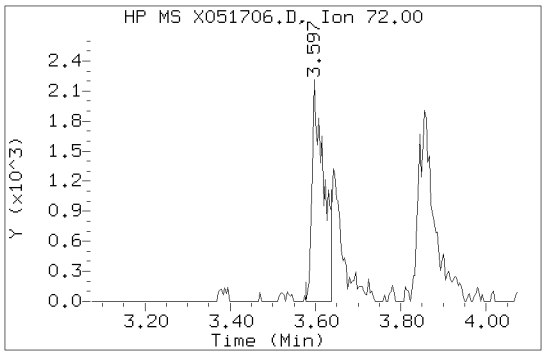
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AREA
4231
HEIGHT
2213
18-May-2023
13:42
linh
pham



AFTER

MASS
72
AREA
4231
HEIGHT
2213
18-May-2023
13:42
linh
pham

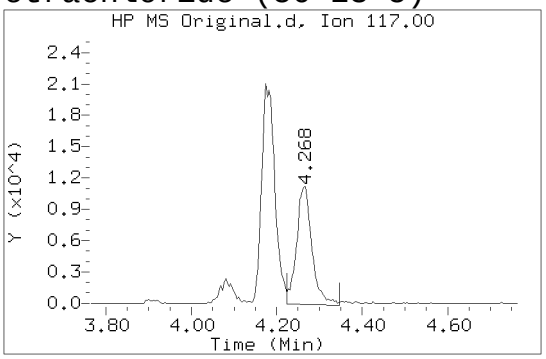


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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Carbon Tetrachloride (56-23-5)

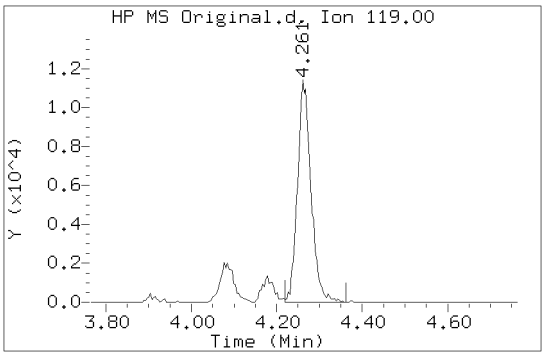
BEFORE

MASS
117
AREA
28933
HEIGHT
11295
18-May-2023
13:42
linh
pham



BEFORE

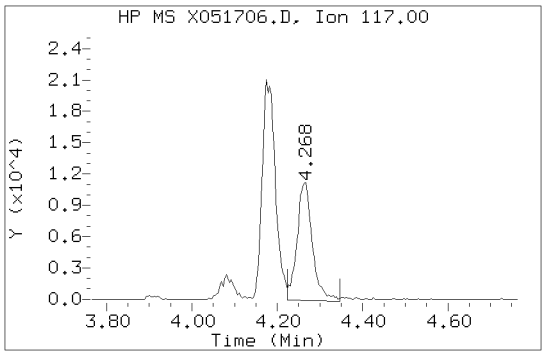
MASS
119
AREA
25597
HEIGHT
11427
18-May-2023
13:42
linh
pham



Reason Code:

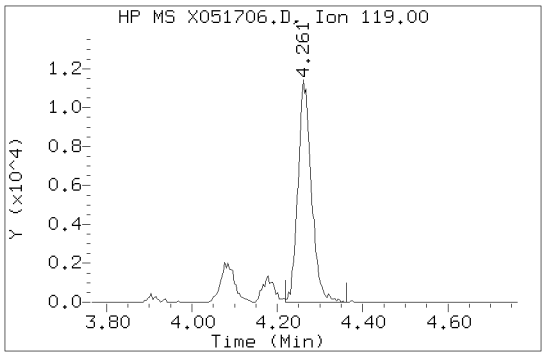
AFTER

MASS
117
AREA
28933
HEIGHT
11295
18-May-2023
13:42
linh
pham



AFTER

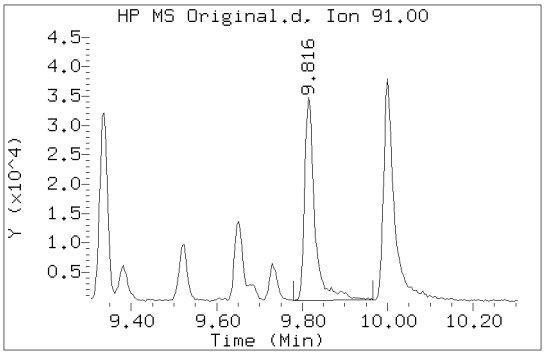
MASS
119
AREA
25597
HEIGHT
11427
18-May-2023
13:42
linh
pham



Benzyl Chloride (100-44-7)

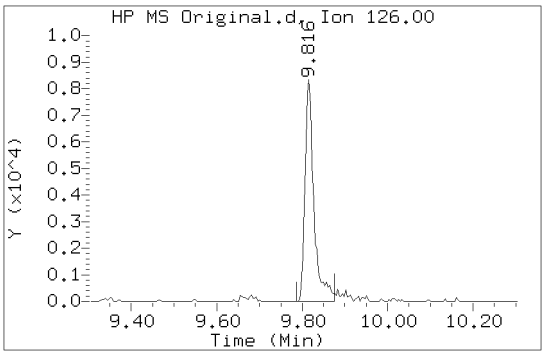
BEFORE

MASS
91
AREA
58489
HEIGHT
34563
18-May-2023
13:42
linh
pham



BEFORE

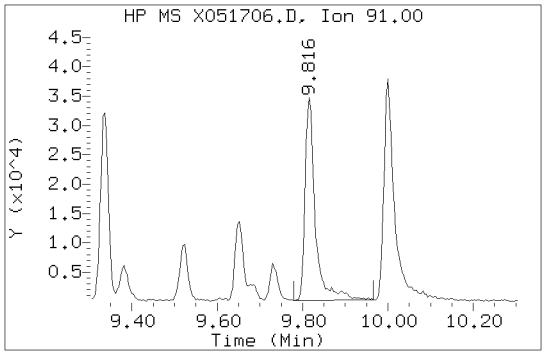
MASS
126
AREA
12237
HEIGHT
8341
18-May-2023
13:42
linh
pham



Reason Code:

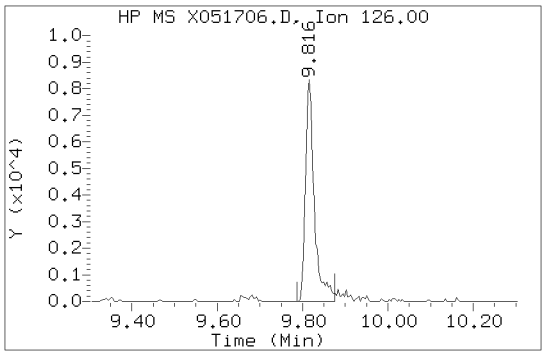
AFTER

MASS
91
AREA
58489
HEIGHT
34563
18-May-2023
13:42
linh
pham



AFTER

MASS
126
AREA
12237
HEIGHT
8341
18-May-2023
13:42
linh
pham



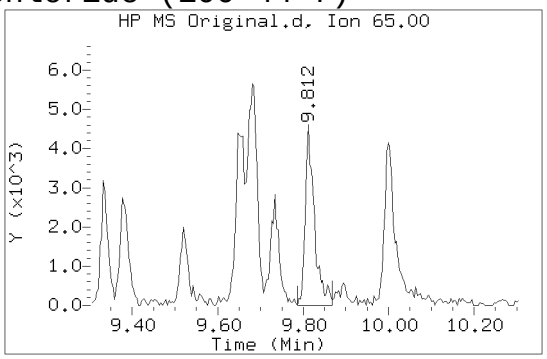
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Benzyl Chloride (100-44-7)

Reason Code:

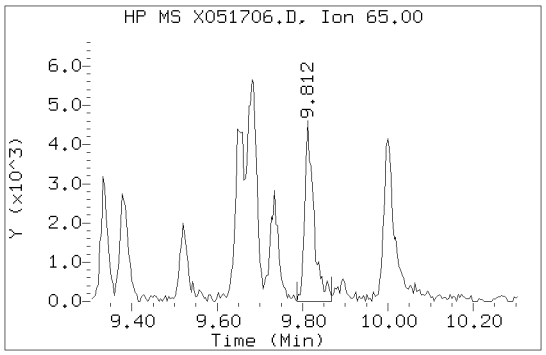
BEFORE

MASS
65
AREA
6923
HEIGHT
4605
18-May-2023
13:42
linh
pham



AFTER

MASS
65
AREA
6923
HEIGHT
4605
18-May-2023
13:42
linh
pham

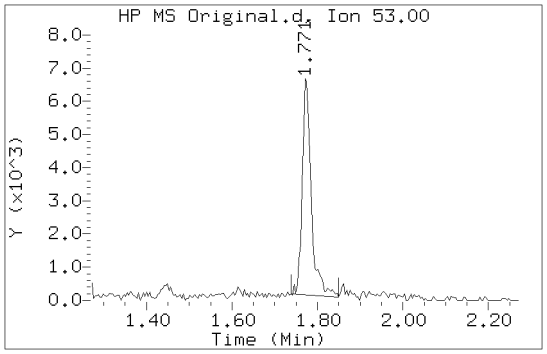


Chloroprene (126-99-8)

Reason Code:

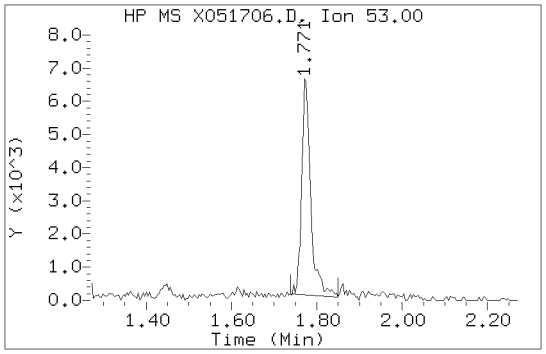
BEFORE

MASS
53
AREA
9821
HEIGHT
6510
18-May-2023
13:42
linh
pham



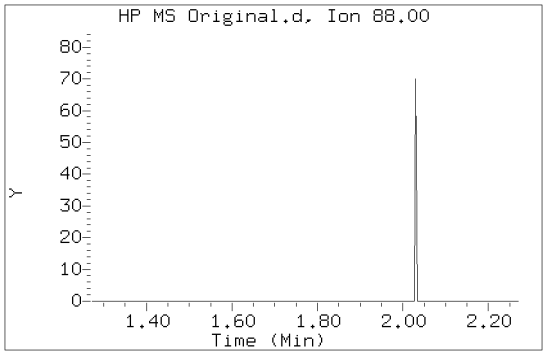
AFTER

MASS
53
AREA
9821
HEIGHT
6510
18-May-2023
13:42
linh
pham



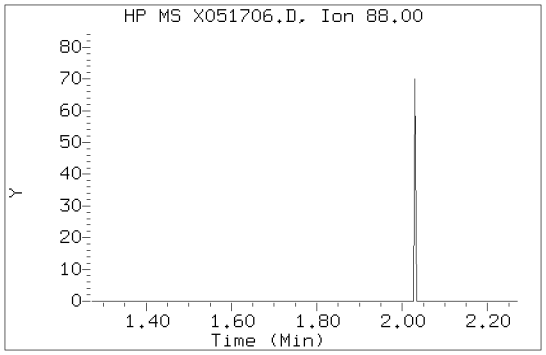
BEFORE

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

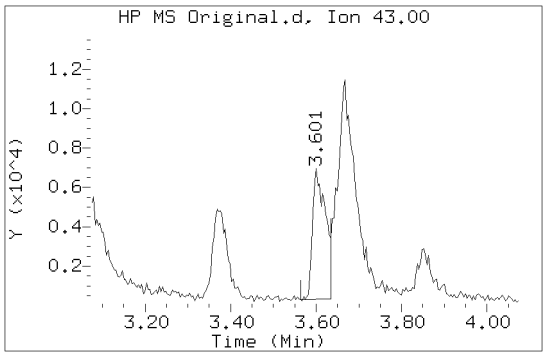


Ethyl Acetate (141-78-6)

Reason Code:

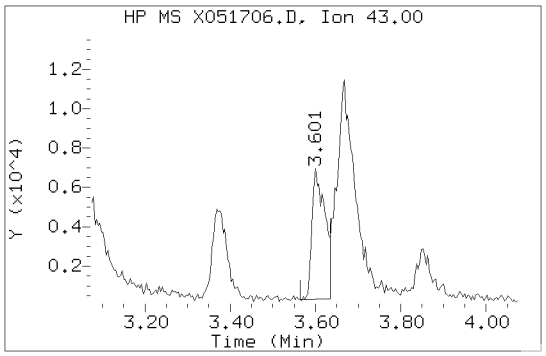
BEFORE

MASS
43
AREA
14059
HEIGHT
6630
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
14059
HEIGHT
6630
18-May-2023
13:42
linh
pham



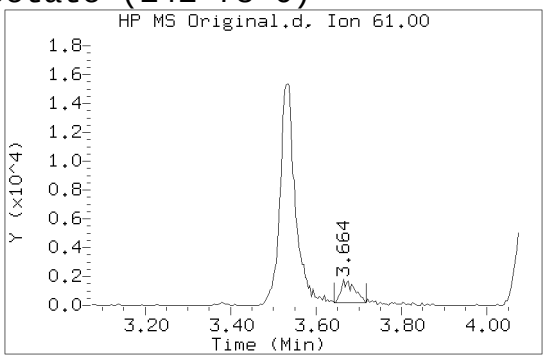
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Ethyl Acetate (141-78-6)

Reason Code:

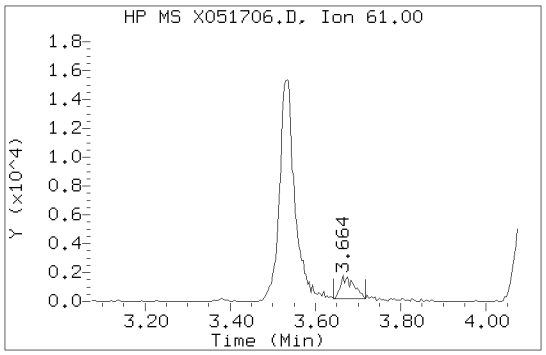
BEFORE

MASS
61
AREA
3344
HEIGHT
1655
18-May-2023
13:42
linh
pham



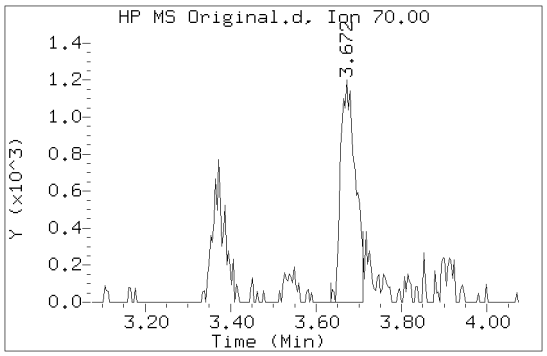
AFTER

MASS
61
AREA
3344
HEIGHT
1655
18-May-2023
13:42
linh
pham



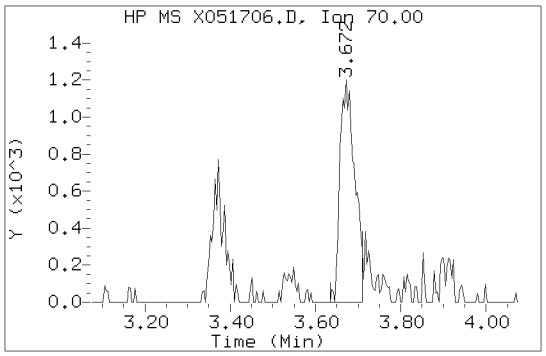
BEFORE

MASS
70
AREA
2895
HEIGHT
1201
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
2895
HEIGHT
1201
18-May-2023
13:42
linh
pham

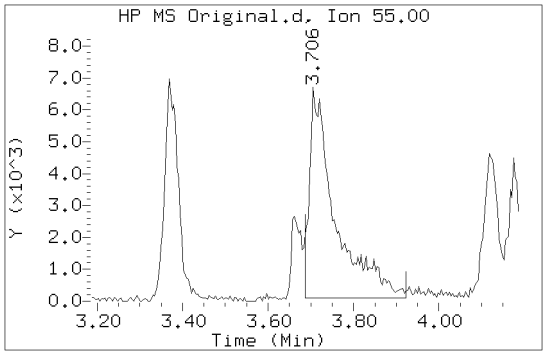


Methyl Acrylate (96-33-3)

Reason Code:

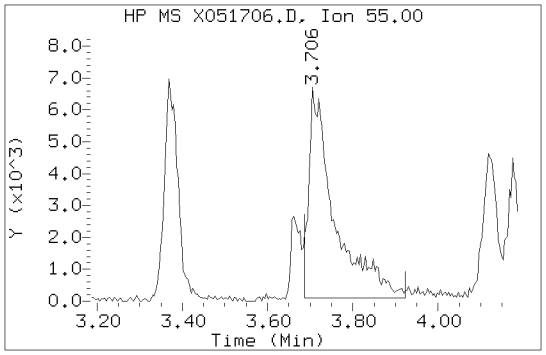
BEFORE

MASS
55
AREA
27646
HEIGHT
6609
18-May-2023
13:42
linh
pham



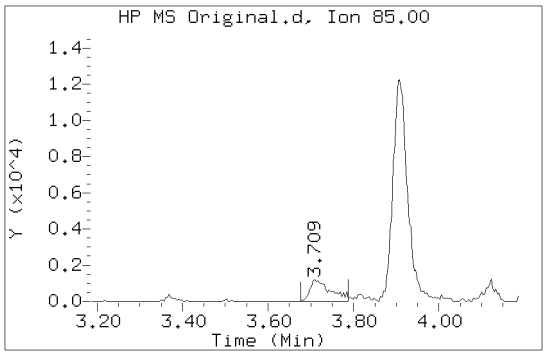
AFTER

MASS
55
AREA
27646
HEIGHT
6609
18-May-2023
13:42
linh
pham



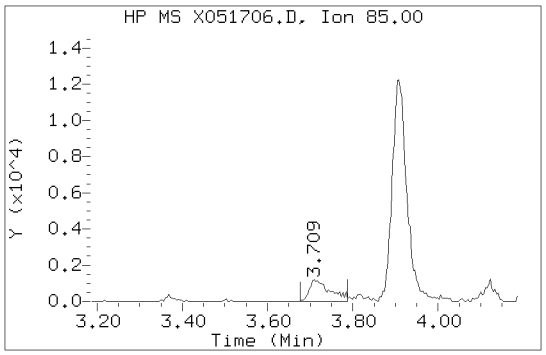
BEFORE

MASS
85
AREA
3986
HEIGHT
1204
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
3986
HEIGHT
1204
18-May-2023
13:42
linh
pham



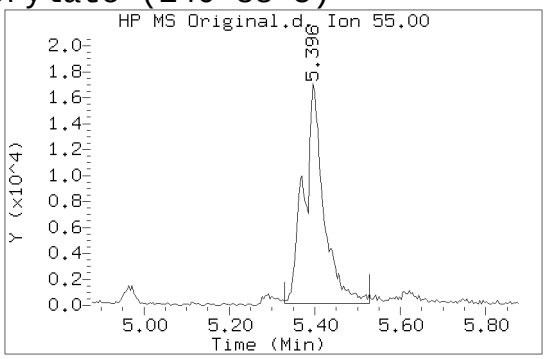
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Ethyl Acrylate (140-88-5)

Reason Code:

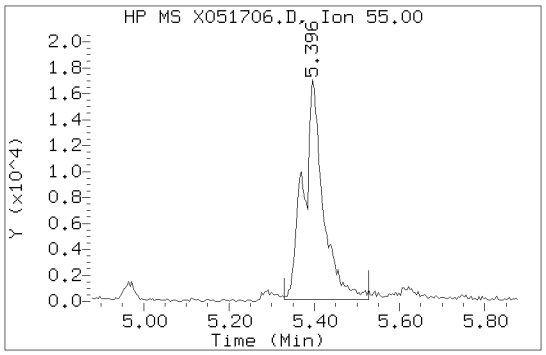
BEFORE

MASS
55
AREA
55584
HEIGHT
16945
18-May-2023
13:42
linh
pham



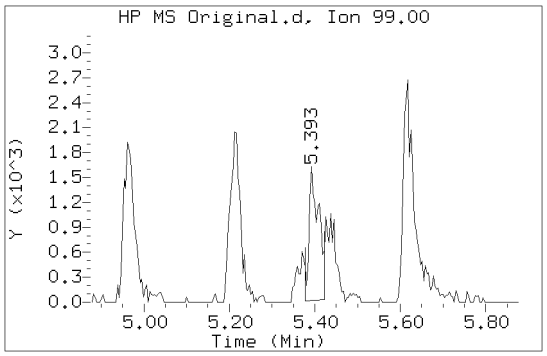
AFTER

MASS
55
AREA
55584
HEIGHT
16945
18-May-2023
13:42
linh
pham



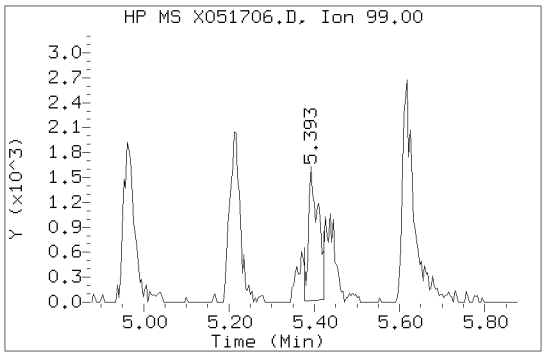
BEFORE

MASS
99
AREA
2612
HEIGHT
1609
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
2612
HEIGHT
1609
18-May-2023
13:42
linh
pham

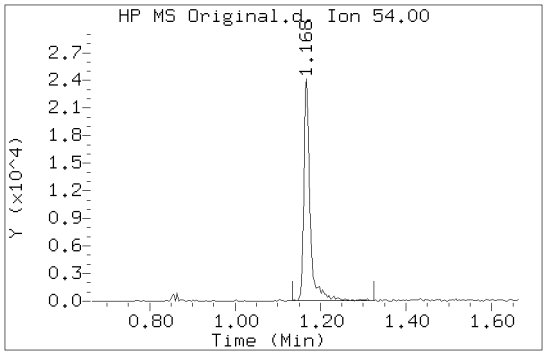


1,3-Butadiene (106-99-0)

Reason Code:

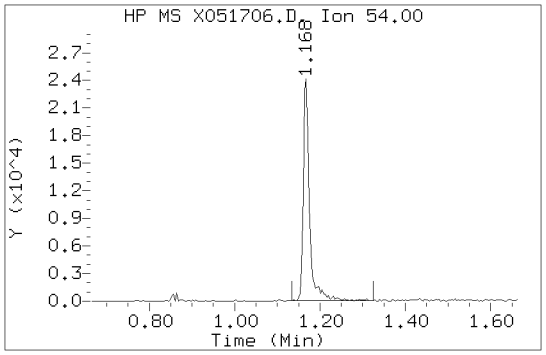
BEFORE

MASS
54
AREA
25381
HEIGHT
24090
18-May-2023
13:42
linh
pham



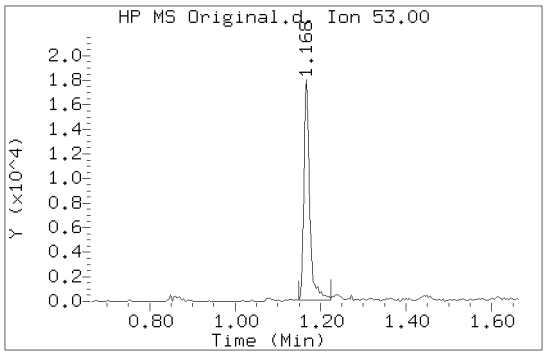
AFTER

MASS
54
AREA
25381
HEIGHT
24090
18-May-2023
13:42
linh
pham



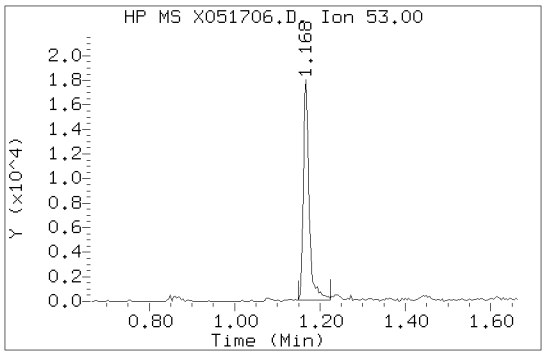
BEFORE

MASS
53
AREA
17532
HEIGHT
17927
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
17532
HEIGHT
17927
18-May-2023
13:42
linh
pham

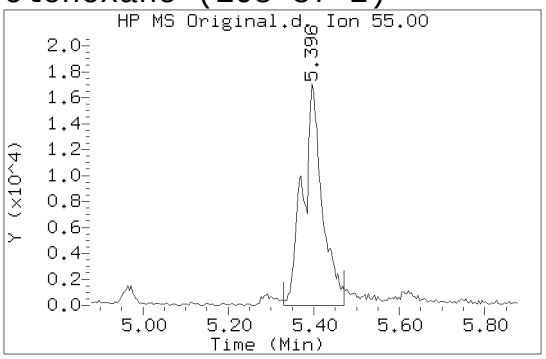


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

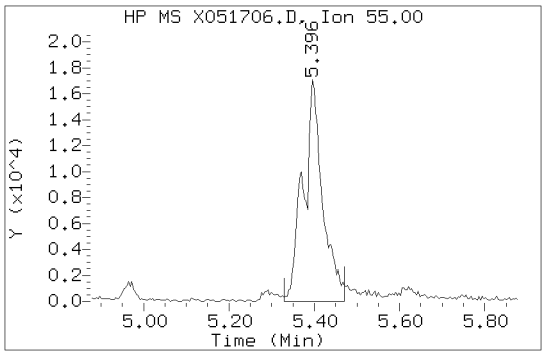
Methylcyclohexane (108-87-2)

Reason Code:

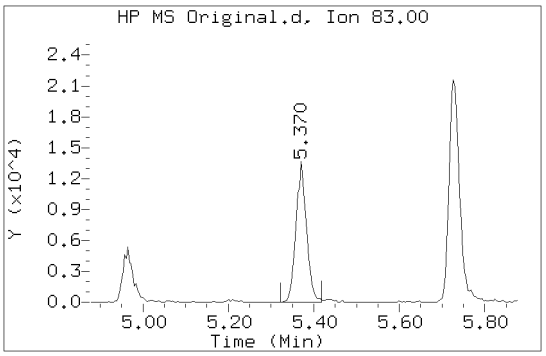
BEFORE
MASS
55
AREA
54469
HEIGHT
17080
18-May-2023
13:42
linh
pham



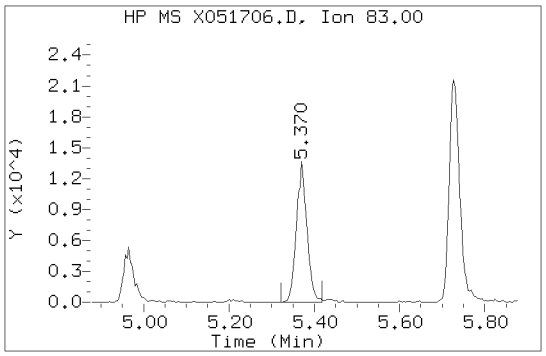
AFTER
MASS
55
AREA
54469
HEIGHT
17080
18-May-2023
13:42
linh
pham



BEFORE
MASS
83
AREA
23902
HEIGHT
13676
18-May-2023
13:42
linh
pham



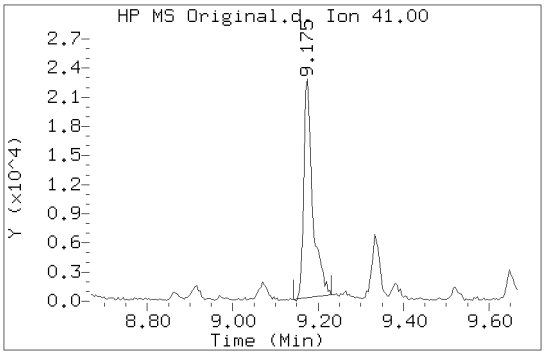
AFTER
MASS
83
AREA
23902
HEIGHT
13676
18-May-2023
13:42
linh
pham



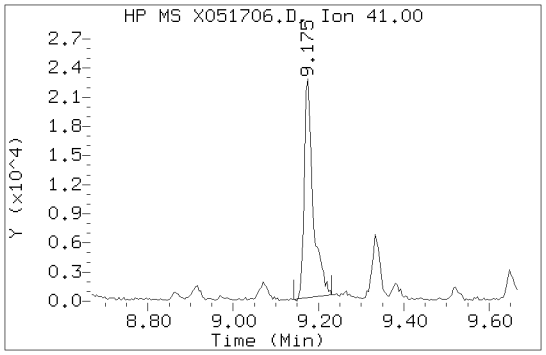
Butyl methacrylate (97-88-1)

Reason Code:

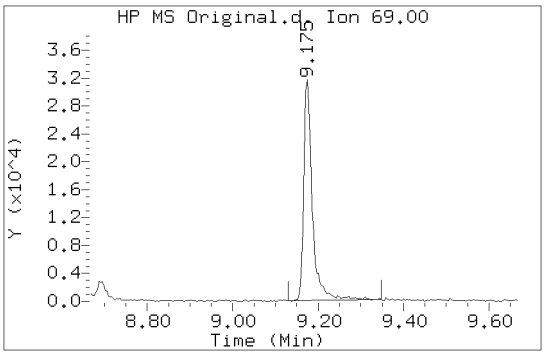
BEFORE
MASS
41
AREA
32854
HEIGHT
22485
18-May-2023
13:42
linh
pham



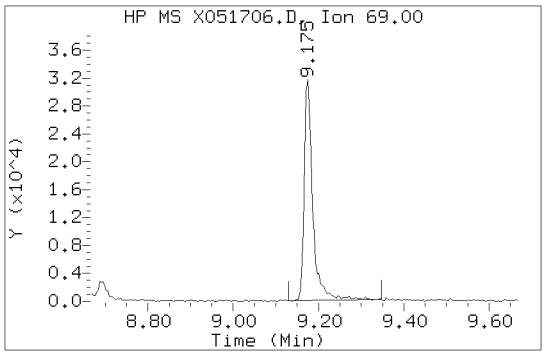
AFTER
MASS
41
AREA
32854
HEIGHT
22485
18-May-2023
13:42
linh
pham



BEFORE
MASS
69
AREA
45047
HEIGHT
31613
18-May-2023
13:42
linh
pham



AFTER
MASS
69
AREA
45047
HEIGHT
31613
18-May-2023
13:42
linh
pham

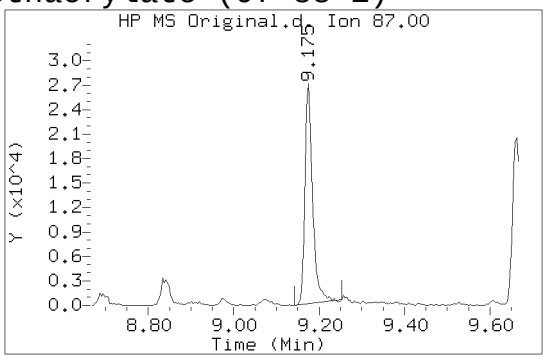


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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Butyl methacrylate (97-88-1)

BEFORE

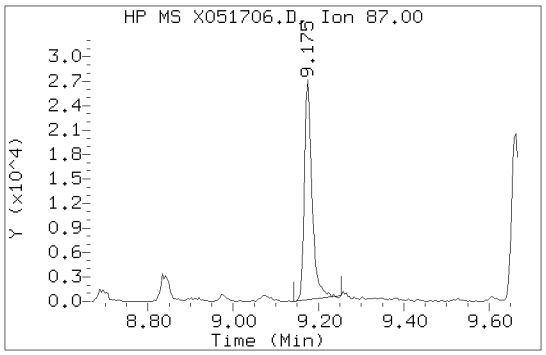
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HEIGHT
26973
18-May-2023
13:42
linh
pham



AFTER

MASS
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HEIGHT
26973
18-May-2023
13:42
linh
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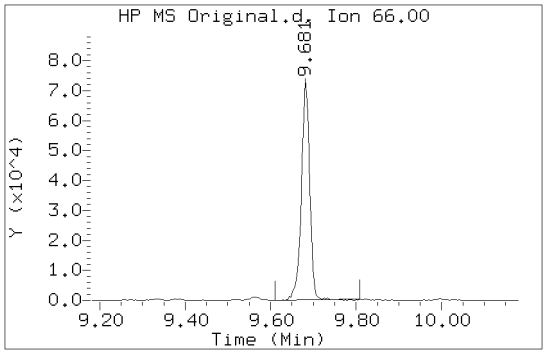
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Dicyclopentadiene (77-73-6)

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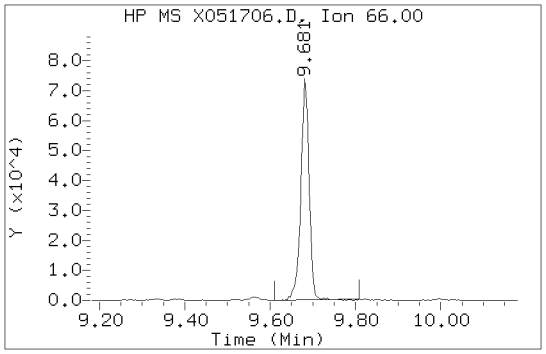
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18-May-2023
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linh
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AFTER

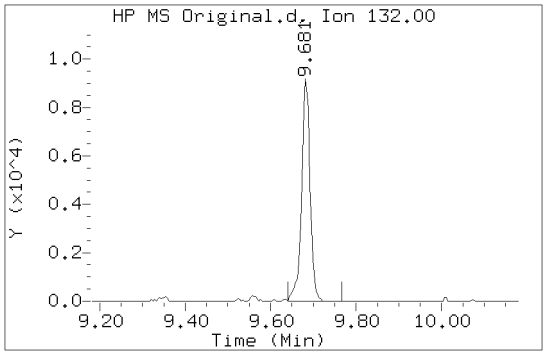
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Reason Code:



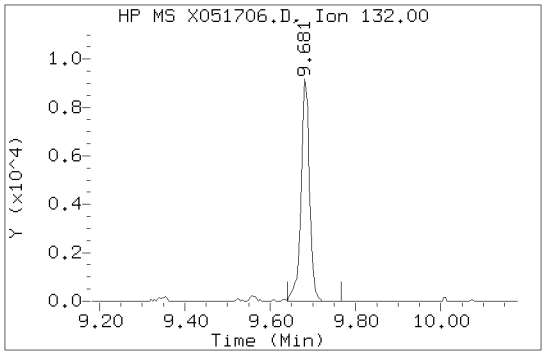
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AFTER

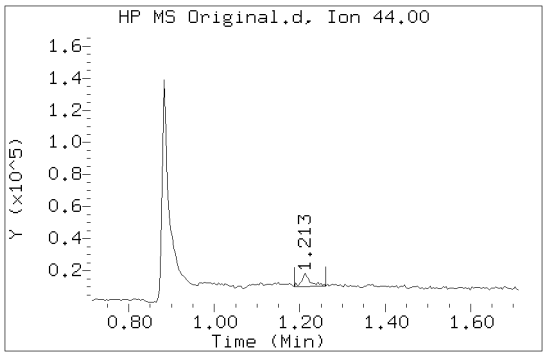
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Acetaldehyde (75-07-0)

BEFORE

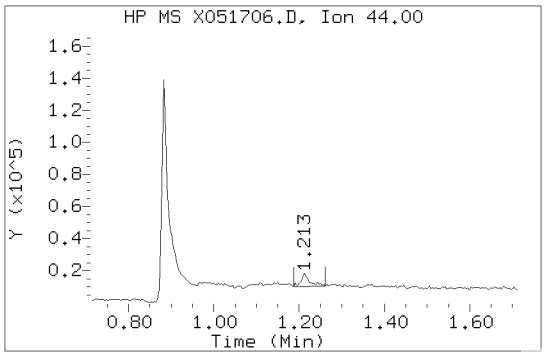
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AFTER

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18-May-2023
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linh
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Reason Code:



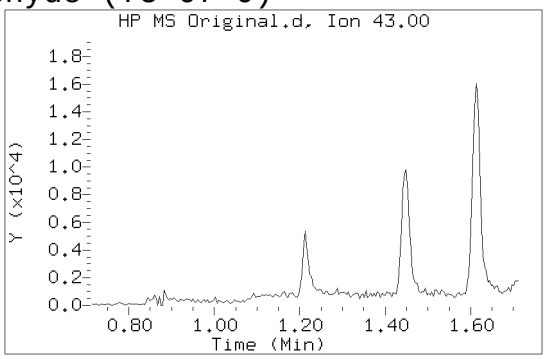
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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Acetaldehyde (75-07-0)

Reason Code:

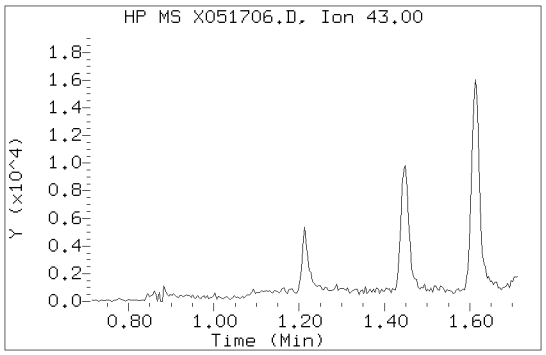
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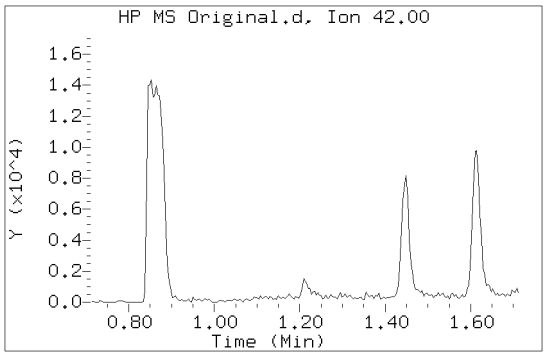
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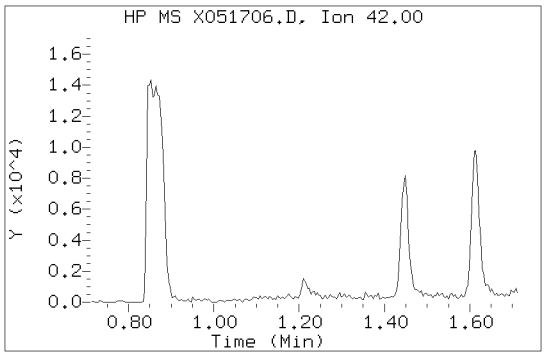
BEFORE

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AREA
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0
18-May-2023
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AFTER

MASS
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AREA
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HEIGHT
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18-May-2023
13:42
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pham

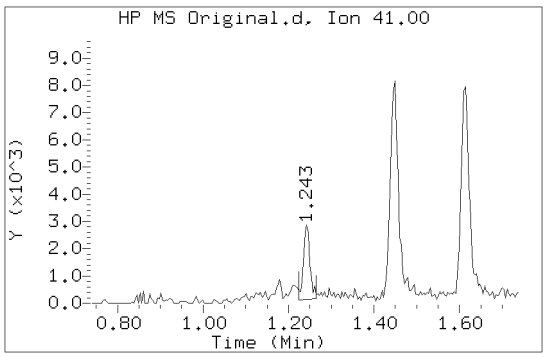


Isobutylene (115-11-7)

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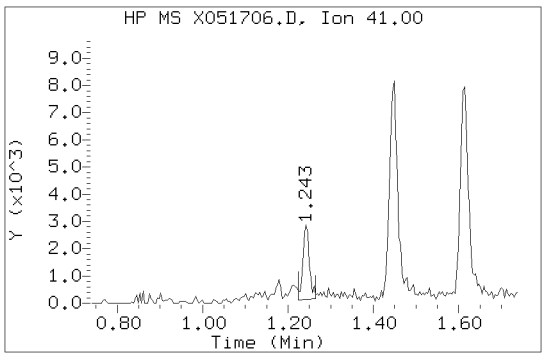
BEFORE

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2738
18-May-2023
13:42
linh
pham



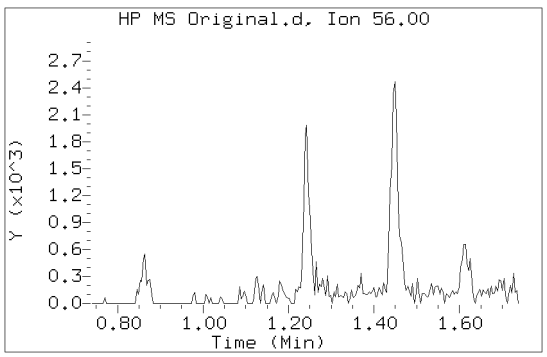
AFTER

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3019
HEIGHT
2738
18-May-2023
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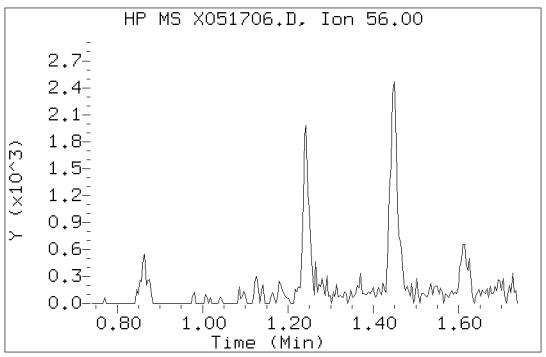
BEFORE

MASS
56
AREA
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HEIGHT
0
18-May-2023
13:42
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AFTER

MASS
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AREA
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HEIGHT
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18-May-2023
13:42
linh
pham



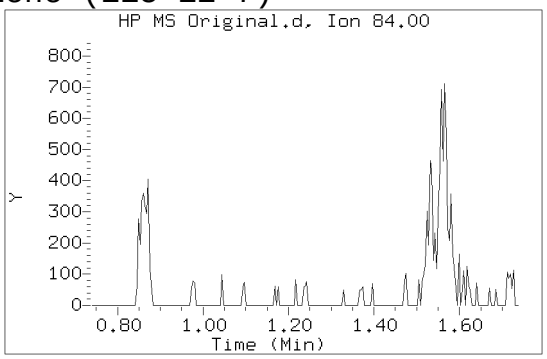
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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Isobutylene (115-11-7)

Reason Code:

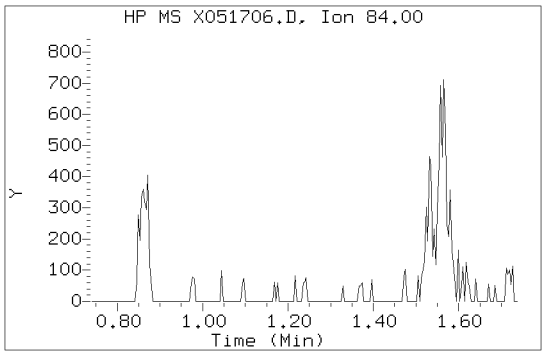
BEFORE

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0
18-May-2023
13:42
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pham



AFTER

MASS
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HEIGHT
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18-May-2023
13:42
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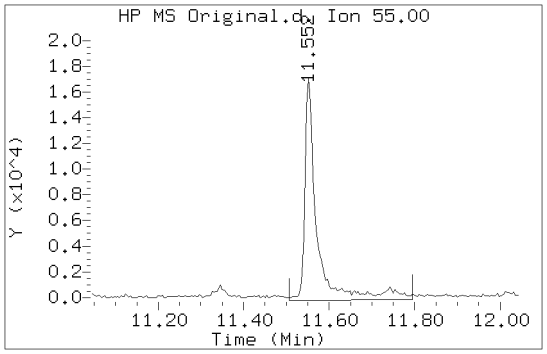


2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

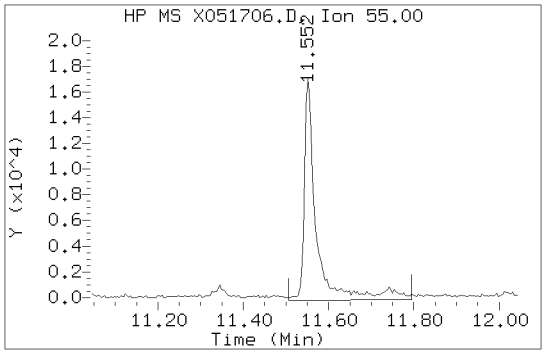
BEFORE

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34625
HEIGHT
17246
18-May-2023
13:42
linh
pham



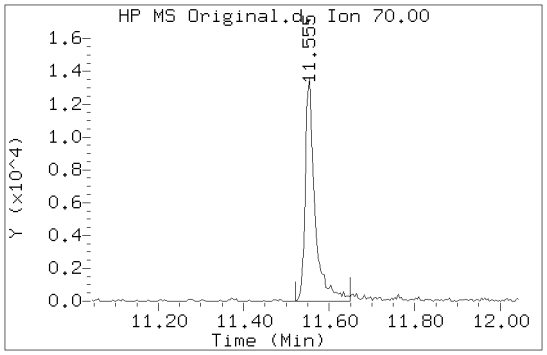
AFTER

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18-May-2023
13:42
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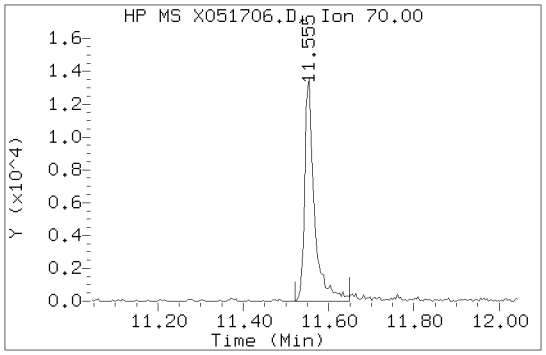
BEFORE

MASS
70
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13540
18-May-2023
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AFTER

MASS
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18-May-2023
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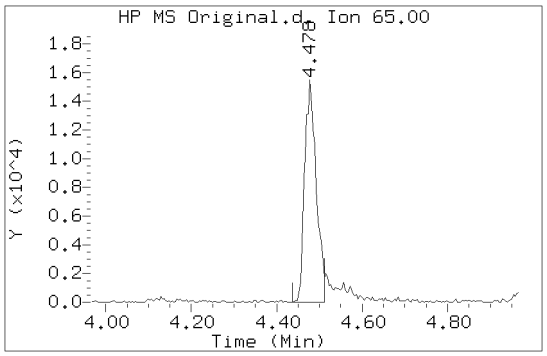


1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

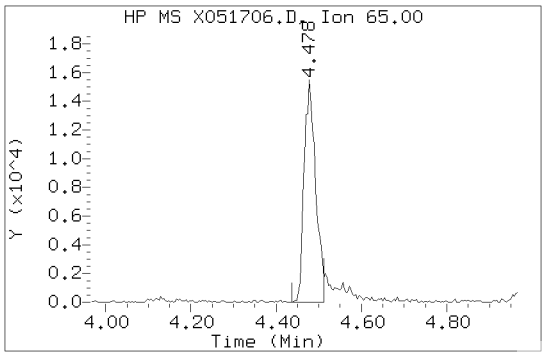
BEFORE

MASS
65
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HEIGHT
15493
18-May-2023
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AFTER

MASS
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18-May-2023
13:42
linh
pham



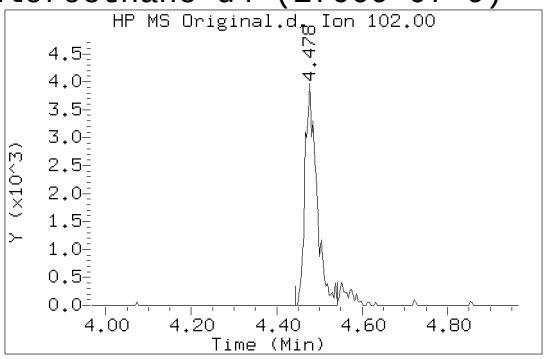
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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

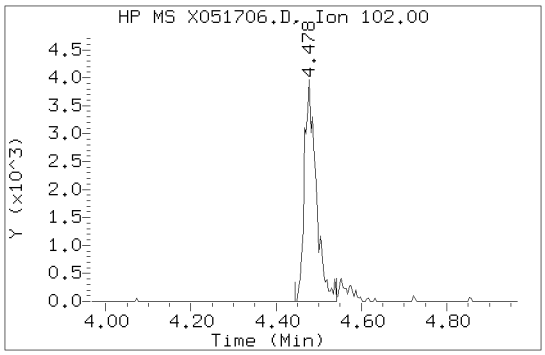
BEFORE

MASS
102
AREA
7711
HEIGHT
3965
18-May-2023
13:42
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pham



AFTER

MASS
102
AREA
7711
HEIGHT
3965
18-May-2023
13:42
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051707.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051707.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 17-MAY-2023 14:23
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:02 Cal File: X051706.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	578759	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	29040	400.000	370.49(a)
140 1,3-Butadiene	54	1.167	1.167	(0.280)	126285	20.0000	20.61
25 Methacrylonitrile	41	3.821	3.821	(0.915)	100457	20.0000	19.47
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	307677	400.000	407.83
13 Acetonitrile	39	2.202	2.202	(0.527)	107763	200.000	193.40
14 Allyl Chloride	41	2.202	2.202	(0.527)	269170	20.0000	19.15
4 Propionitrile	54	3.653	3.653	(0.874)	162030	200.000	204.15(a)
72 trans-1,4-Dichloro-2-butene	53	8.889	8.889	(1.159)	42270	20.0000	22.06
194 Acetaldehyde	44	1.212	1.212	(0.290)	37259	80.0000	86.43(M)
23 Chloroprene	53	1.771	1.771	(0.424)	47990	20.0000	20.54(M)
130 Ethyl Acetate	43	3.581	3.581	(0.857)	80009	20.0000	19.47(M)
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	99816	20.0000	19.73
49 Ethyl Methacrylate	69	6.786	6.786	(1.368)	181158	20.0000	19.68
131 Methyl Acrylate	55	3.690	3.690	(0.883)	107874	20.0000	19.15
132 n-Butanol	56	5.261	5.261	(1.259)	50896	400.000	351.76(a)
136 n-Hexane	57	2.772	2.772	(0.664)	108733	20.0000	22.15
139 Diethyl ether	59	1.756	1.756	(0.420)	92698	20.0000	18.74
142 Tetrahydrofuran	42	3.844	3.844	(0.920)	36967	40.0000	38.74
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	198492	20.0000	19.86

156	Diisopropyl ether	45	3.000	3.000 (0.718)	340156	20.0000	19.42
162	Butyl acrylate	55	8.252	8.252 (1.076)	253533	20.0000	20.67

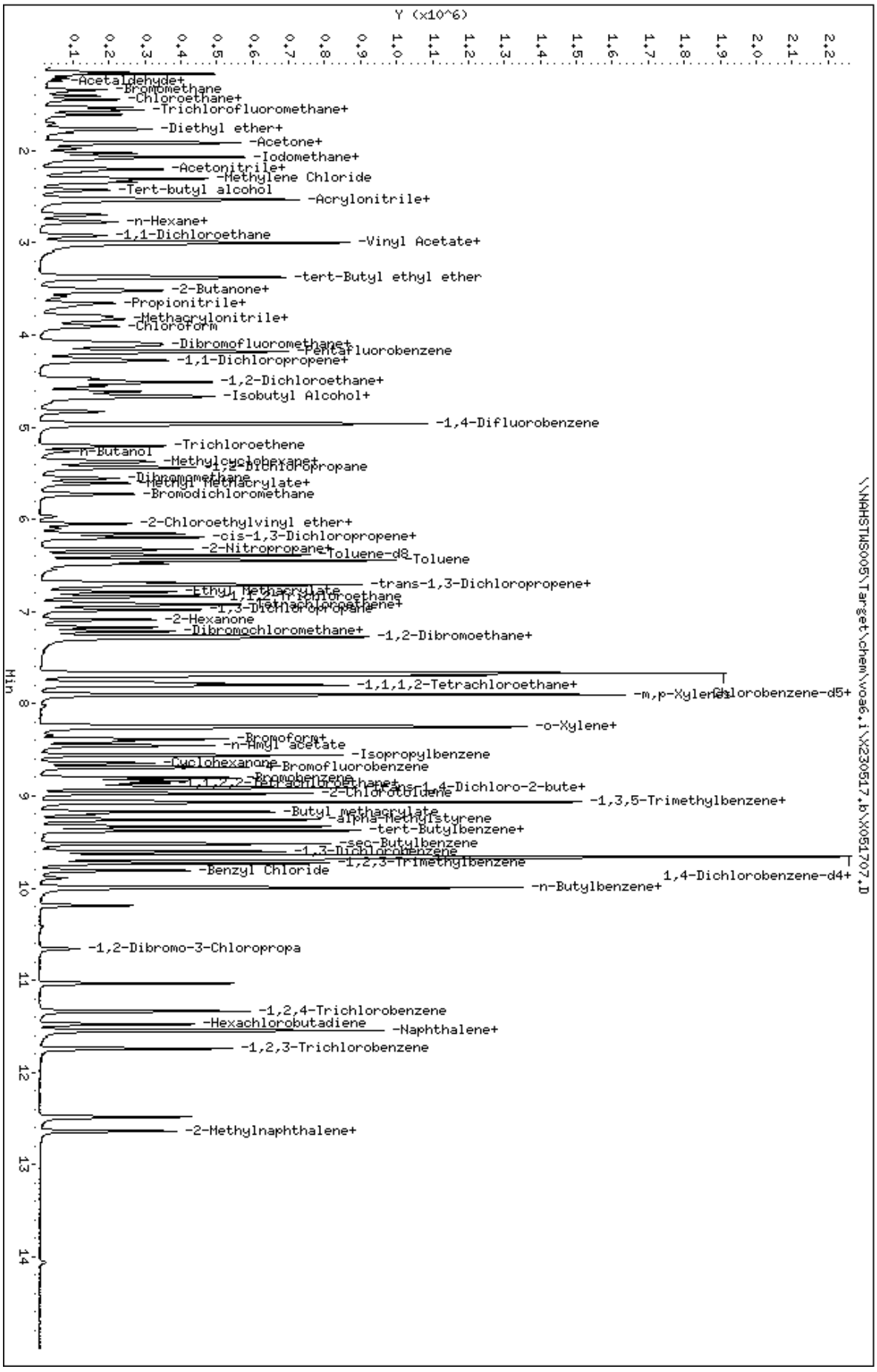
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.703	1.703	(0.408)	27907	400.000	407.79
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	241078	20.0000	19.61
	182 Epichlorohydrin	57	6.097	6.097	(1.229)	47092	80.0000	80.11
	164 Dicyclopentadiene	66	9.680	9.680	(1.002)	426618	20.0000	17.68(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	369921	20.0000	17.91
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	140691	20.0000	16.55(M)
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	267737	20.0000	20.37
	134 Cyclohexanone	55	8.642	8.642	(0.894)	113707	400.000	406.78(a)
	202 Isobutylene	41	1.242	1.242	(0.297)	13487	20.0000	17.22(M)
	133 Ethyl Acrylate	55	5.381	5.381	(1.288)	241025	20.0000	17.15
	163 Butyl methacrylate	41	9.167	9.167	(0.949)	157094	20.0000	19.87(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.942)	309723	20.0000	19.97
	189 n-Butyl acetate	43	7.214	7.214	(0.941)	223924	20.0000	23.35(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	119708	20.0000	21.79
	3 Chloromethane	50	1.077	1.077	(0.258)	153387	20.0000	18.88
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	155556	20.0000	20.29
	6 Bromomethane	94	1.340	1.340	(0.321)	79030	20.0000	19.94
	7 Chloroethane	64	1.403	1.403	(0.336)	96780	20.0000	20.22
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	169259	20.0000	20.97
	9 Acrolein	56	1.448	1.448	(0.347)	15808	40.0000	32.64
	10 Acetone	43	1.973	1.973	(0.472)	87346	40.0000	40.88
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	103706	20.0000	20.32
	15 Iodomethane	142	2.026	2.026	(0.485)	256751	40.0000	37.86
	16 Acrylonitrile	53	2.536	2.536	(0.607)	82278	40.0000	43.05
	17 Methylene Chloride	84	2.303	2.303	(0.551)	125412	20.0000	20.67
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	304630	20.0000	19.13
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	652552	40.0000	40.75
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	107912	20.0000	20.38
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	623449	40.0000	42.32
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	197910	20.0000	20.39
	24 2-Butanone	43	3.581	3.581	(0.857)	77277	40.0000	40.12
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	149611	20.0000	20.74
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	124631	20.0000	20.01
	28 Chloroform	83	3.904	3.904	(0.935)	191992	20.0000	19.95
	29 Bromochloromethane	128	3.795	3.795	(0.908)	65473	20.0000	19.95
$	30 Dibromofluoromethane	113	4.099	4.099	(0.981)	109945	20.0000	20.42
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	152070	20.0000	20.52
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	143218	20.0000	20.20
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	135236	20.0000	19.21
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	127702	20.0000	19.50
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	114636	20.0000	20.08
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	900866	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	457008	20.0000	19.93
	38 Trichloroethene	130	5.208	5.208	(1.050)	122539	20.0000	19.83
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	157512	20.0000	20.08
	41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.219)	105693	40.0000	40.57
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	127700	20.0000	19.60
	44 Dibromomethane	93	5.553	5.553	(1.119)	78462	20.0000	19.85
	45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	247195	40.0000	41.72
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	210755	20.0000	20.10
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	861482	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	441663	20.0000	20.12

50	Toluene	91	6.445	6.445 (0.841)	505120	20.0000	20.89
51	trans-1,3-Dichloropropene	75	6.681	6.681 (1.347)	169967	20.0000	20.30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.086	7.086	(0.924)	182993	40.0000	45.12(H)
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	107960	20.0000	21.87
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	222544	20.0000	21.66
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	141494	20.0000	21.12
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	94999	20.0000	20.28
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	128163	20.0000	21.30
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	103587	20.0000	19.93
	59 Chlorobenzene	112	7.694	7.694	(1.003)	329302	20.0000	19.67
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	118191	20.0000	20.12
	61 Ethylbenzene	106	7.799	7.799	(1.017)	162799	20.0000	19.79
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	412946	40.0000	40.32
	63 o-Xylene	106	8.241	8.241	(1.075)	202744	20.0000	20.24
	64 Styrene	104	8.260	8.260	(1.077)	346344	20.0000	20.66
	66 Bromoform	173	8.410	8.410	(1.097)	90600	20.0000	20.01
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	474265	20.0000	19.74
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	169748	20.0000	21.26
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	164318	20.0000	19.88
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	458358	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	125134	20.0000	21.33
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	569332	20.0000	20.04
	74 Bromobenzene	156	8.803	8.803	(0.911)	144613	20.0000	20.21
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	398387	20.0000	19.36
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	361067	20.0000	19.57
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	404251	20.0000	19.92
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	329770	20.0000	19.04
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	408909	20.0000	19.42
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	468363	20.0000	19.39
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	410042	20.0000	19.64
	83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	245182	20.0000	19.01
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	260950	20.0000	19.25
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	363588	20.0000	20.34
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	248024	20.0000	19.34
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.659	(1.103)	27687	20.0000	19.94
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	176512	20.0000	19.90
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	72746	20.0000	19.06
	92 Naphthalene	128	11.543	11.543	(1.195)	417168	20.0000	18.94
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	163693	20.0000	18.84
M	94 1,2-Dichloroethylene (total)	96				232543	40.0000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	149533	20.0000	20.64
	138 Freon TF	101	1.917	1.917	(0.459)	93083	20.0000	22.85
	147 Methylcyclohexane	55	5.381	5.381	(1.085)	235529	20.0000	17.00
	146 Methyl Acetate	43	2.232	2.232	(0.534)	72992	20.0000	21.34
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	224056	400.000	391.97
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	139558	400.000	394.19

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

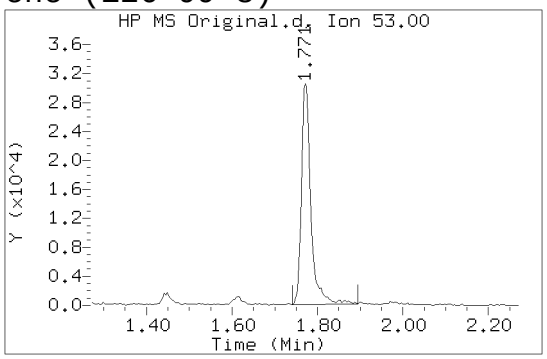
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LabSampID : VSTD020

Chloroprene (126-99-8)

Reason Code:

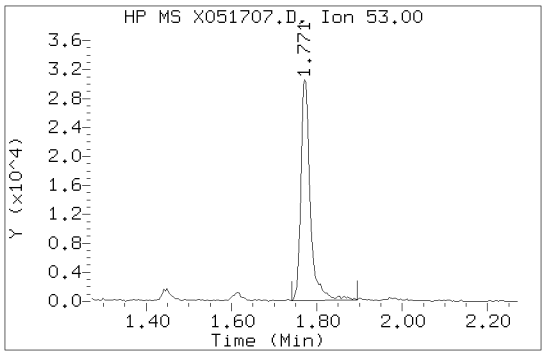
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18-May-2023
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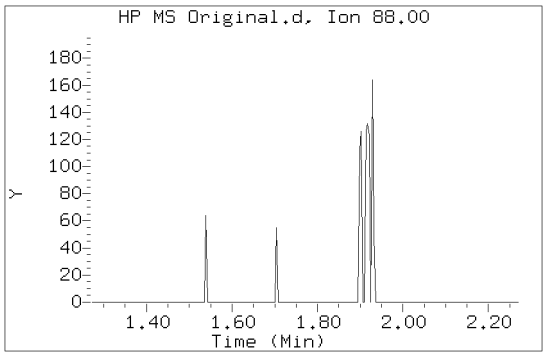
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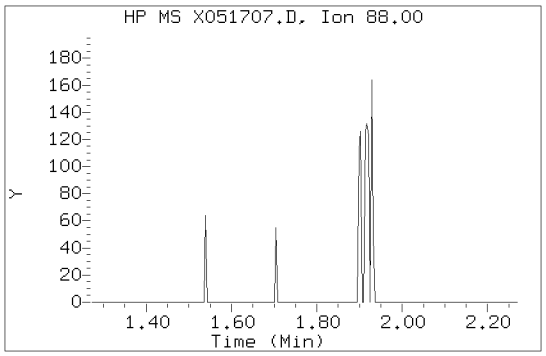
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AFTER

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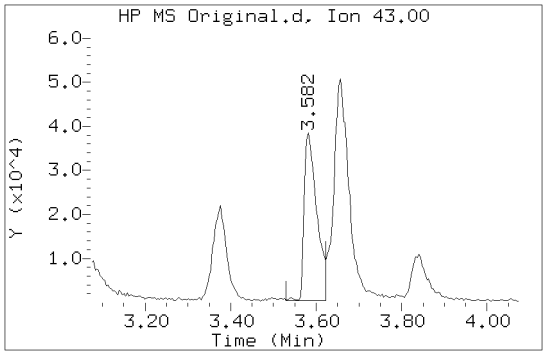


Ethyl Acetate (141-78-6)

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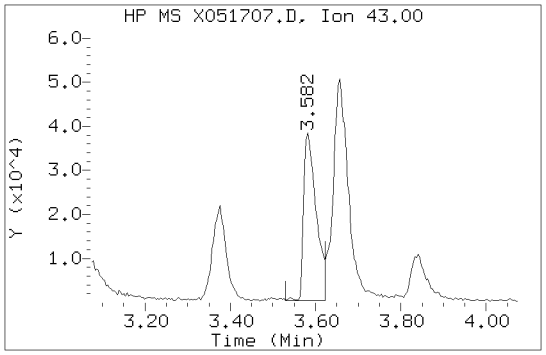
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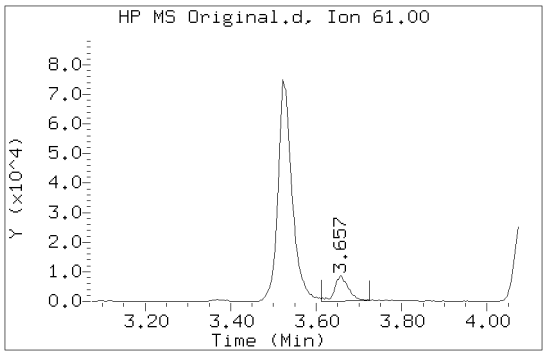
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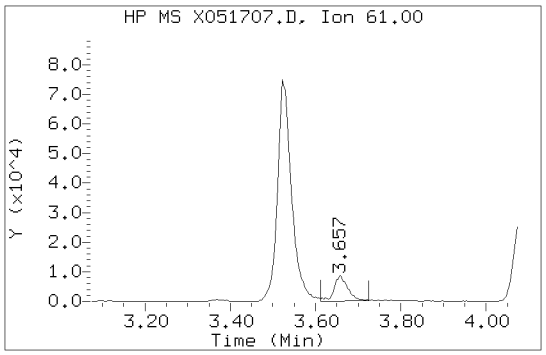
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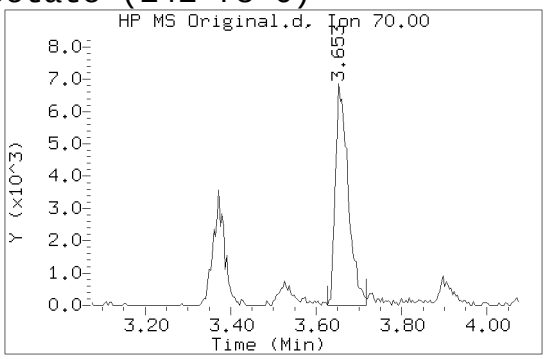
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InstruID : voa6.i
LabSampID : VSTD020

Ethyl Acetate (141-78-6)

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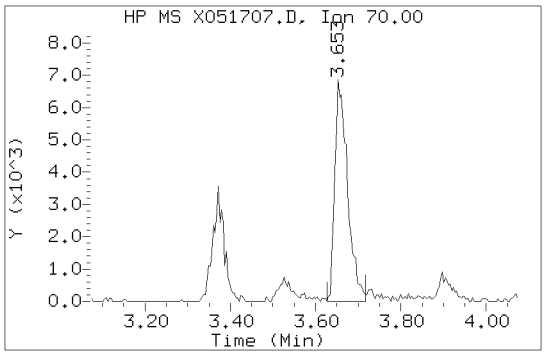
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AFTER

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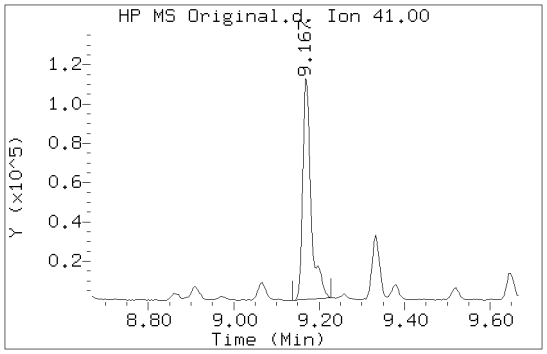


Butyl methacrylate (97-88-1)

Reason Code:

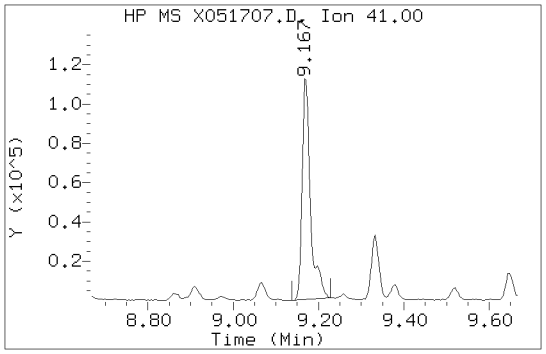
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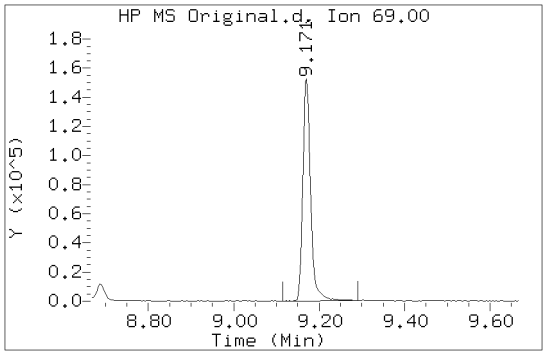
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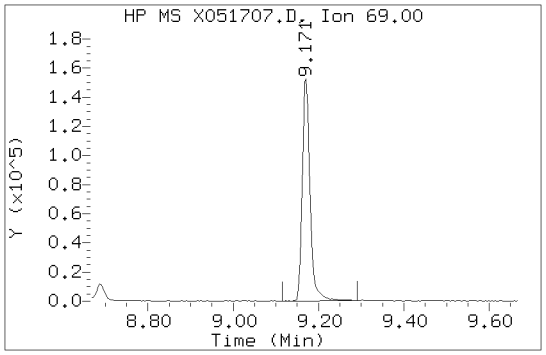
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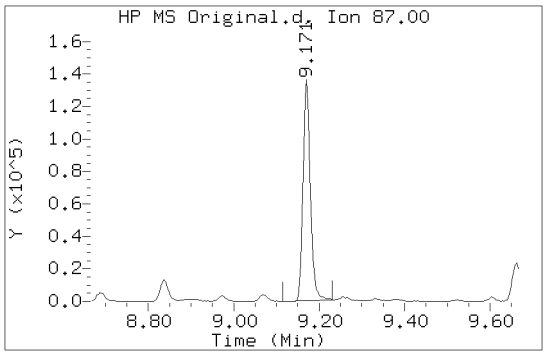
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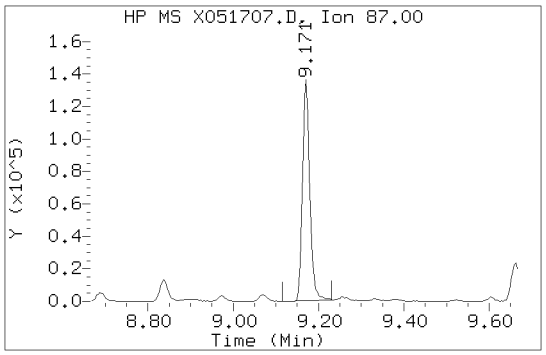
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AFTER

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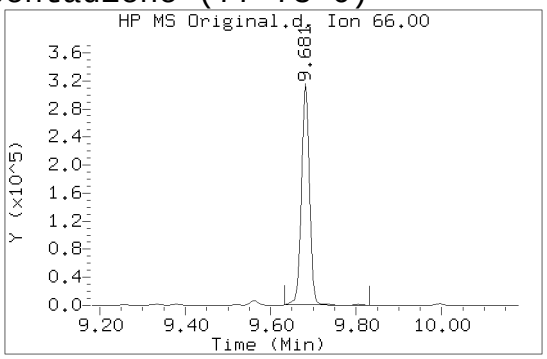


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Inj Date : 17-MAY-2023 14:23
InstruID : voa6.i
LabSampID : VSTD020

Dicyclopentadiene (77-73-6)

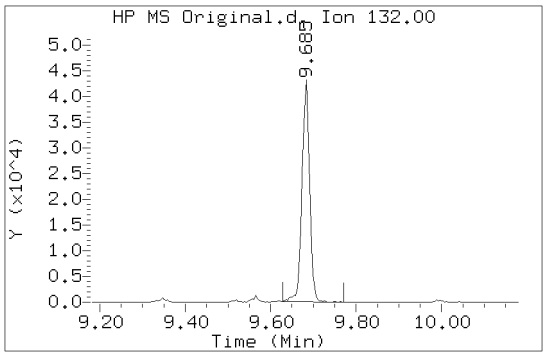
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BEFORE

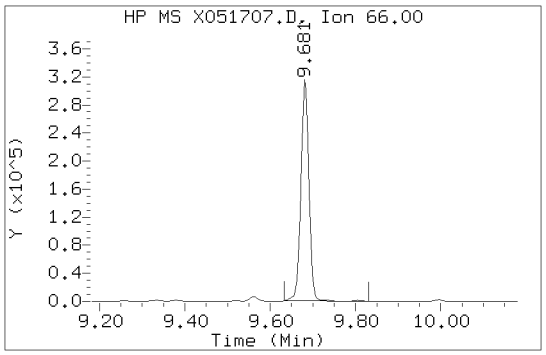
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Reason Code:

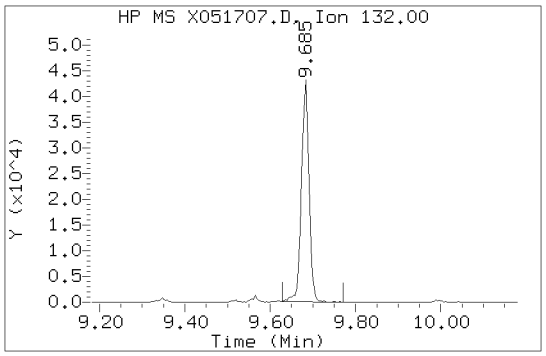
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AFTER

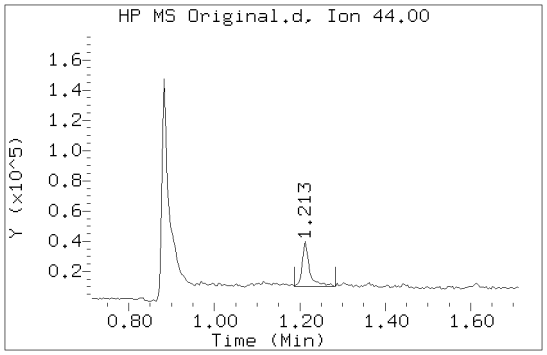
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Acetaldehyde (75-07-0)

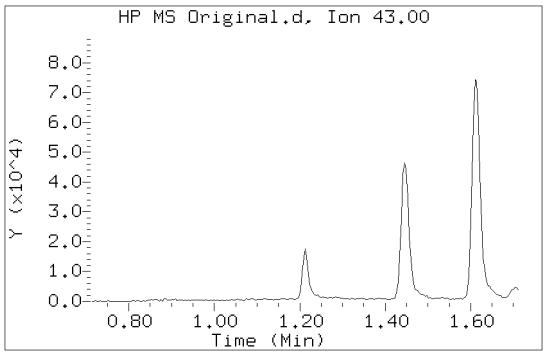
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BEFORE

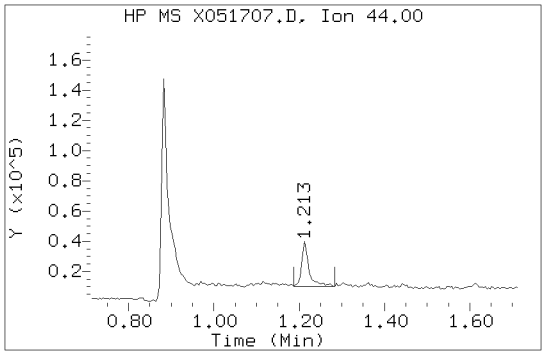
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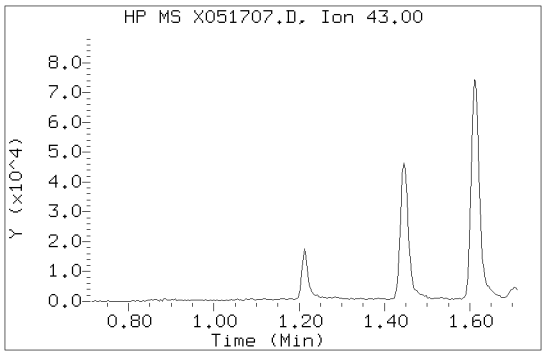
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AFTER

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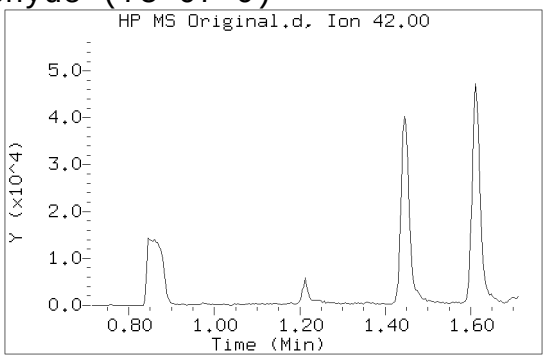
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InstruID : voa6.i
LabSampID : VSTD020

Acetaldehyde (75-07-0)

Reason Code:

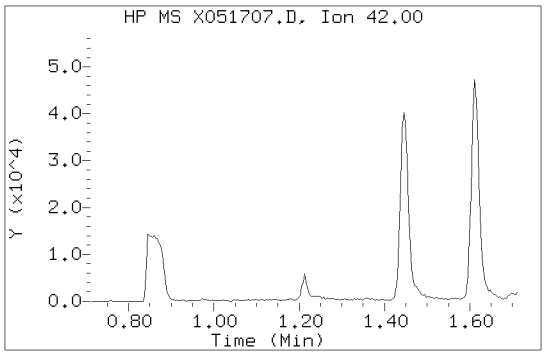
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AFTER

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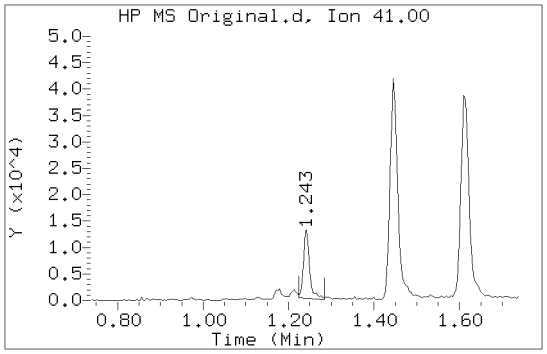


Isobutylene (115-11-7)

Reason Code:

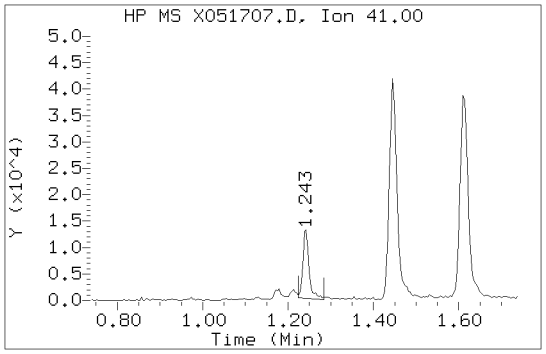
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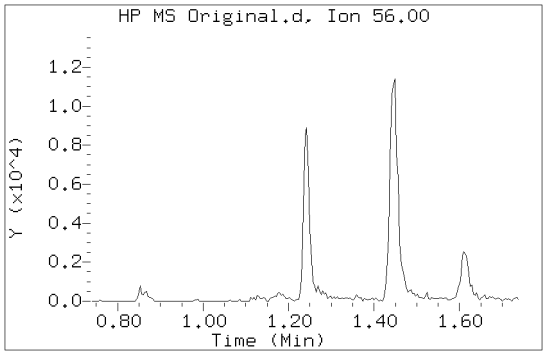
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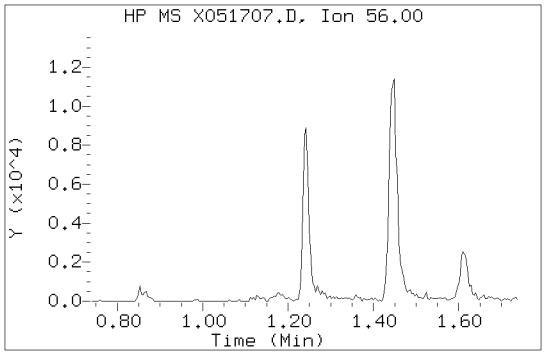
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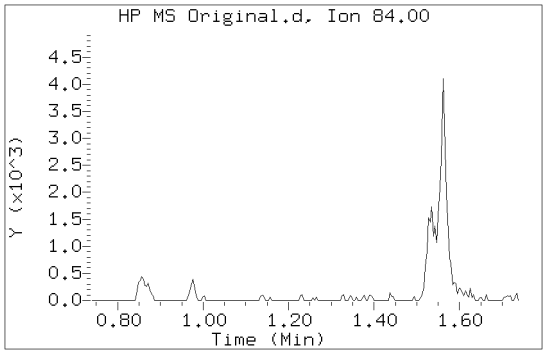
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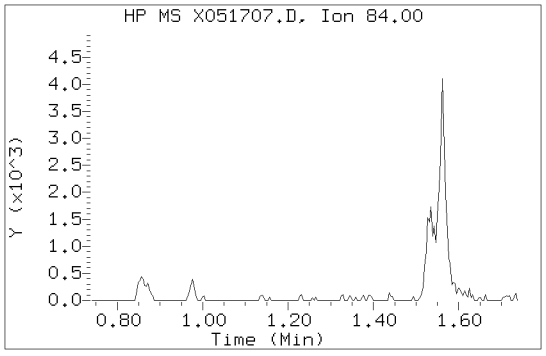
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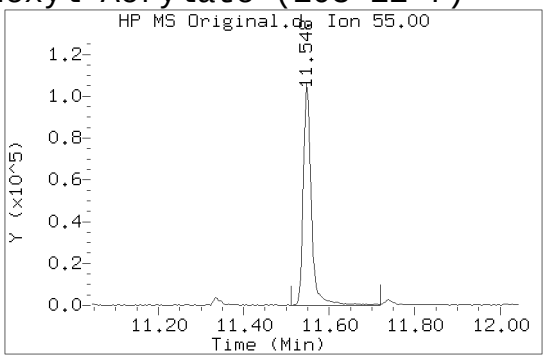
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2-Ethylhexyl Acrylate (103-11-7)

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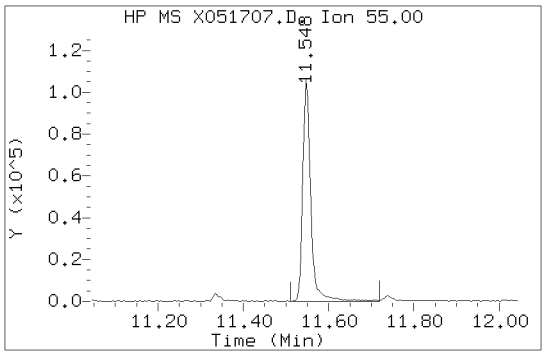
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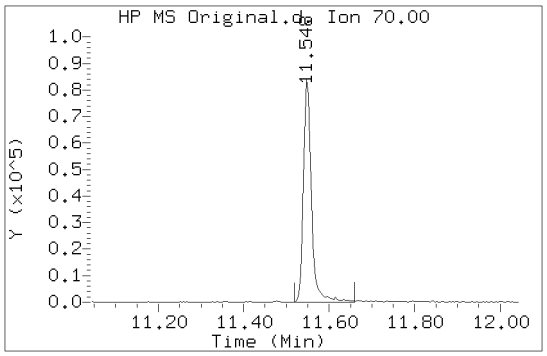
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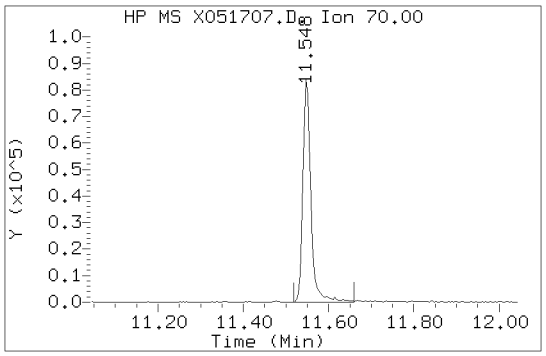
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051708.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051708.D
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Inj Date : 17-MAY-2023 14:44
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : V6;WATER;0;1;
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Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	595193	50.0000	
135 1,4-Dioxane	88	5.594	5.594	(1.339)	74308	1000.00	921.84
140 1,3-Butadiene	54	1.163	1.163	(0.279)	286736	50.0000	45.51
25 Methacrylonitrile	41	3.818	3.818	(0.914)	243471	50.0000	45.88
12 Isobutyl Alcohol	43	4.676	4.676	(1.119)	748234	1000.00	964.42
13 Acetonitrile	39	2.194	2.194	(0.525)	292706	500.000	510.82
14 Allyl Chloride	41	2.194	2.194	(0.525)	704271	50.0000	48.72
4 Propionitrile	54	3.645	3.645	(0.873)	382951	500.000	469.19
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	100808	50.0000	51.81
194 Acetaldehyde	44	1.212	1.212	(0.290)	79325	200.000	193.13(M)
23 Chloroprene	53	1.771	1.771	(0.424)	103468	50.0000	43.06(M)
130 Ethyl Acetate	43	3.574	3.574	(0.856)	196163	50.0000	46.44(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	243447	50.0000	46.79
49 Ethyl Methacrylate	69	6.783	6.783	(1.367)	437234	50.0000	47.70
131 Methyl Acrylate	55	3.686	3.686	(0.882)	266111	50.0000	45.93
132 n-Butanol	56	5.253	5.253	(1.258)	150551	1000.00	883.82
136 n-Hexane	57	2.772	2.772	(0.664)	263012	50.0000	48.86
139 Diethyl ether	59	1.756	1.756	(0.420)	239471	50.0000	47.09
142 Tetrahydrofuran	42	3.844	3.844	(0.920)	88570	100.000	90.27
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	501118	50.0000	50.50

156 Diisopropyl ether	45	2.997	2.997 (0.717)	882875	50.0000	49.02
162 Butyl acrylate	55	8.248	8.248 (1.076)	633975	50.0000	50.90

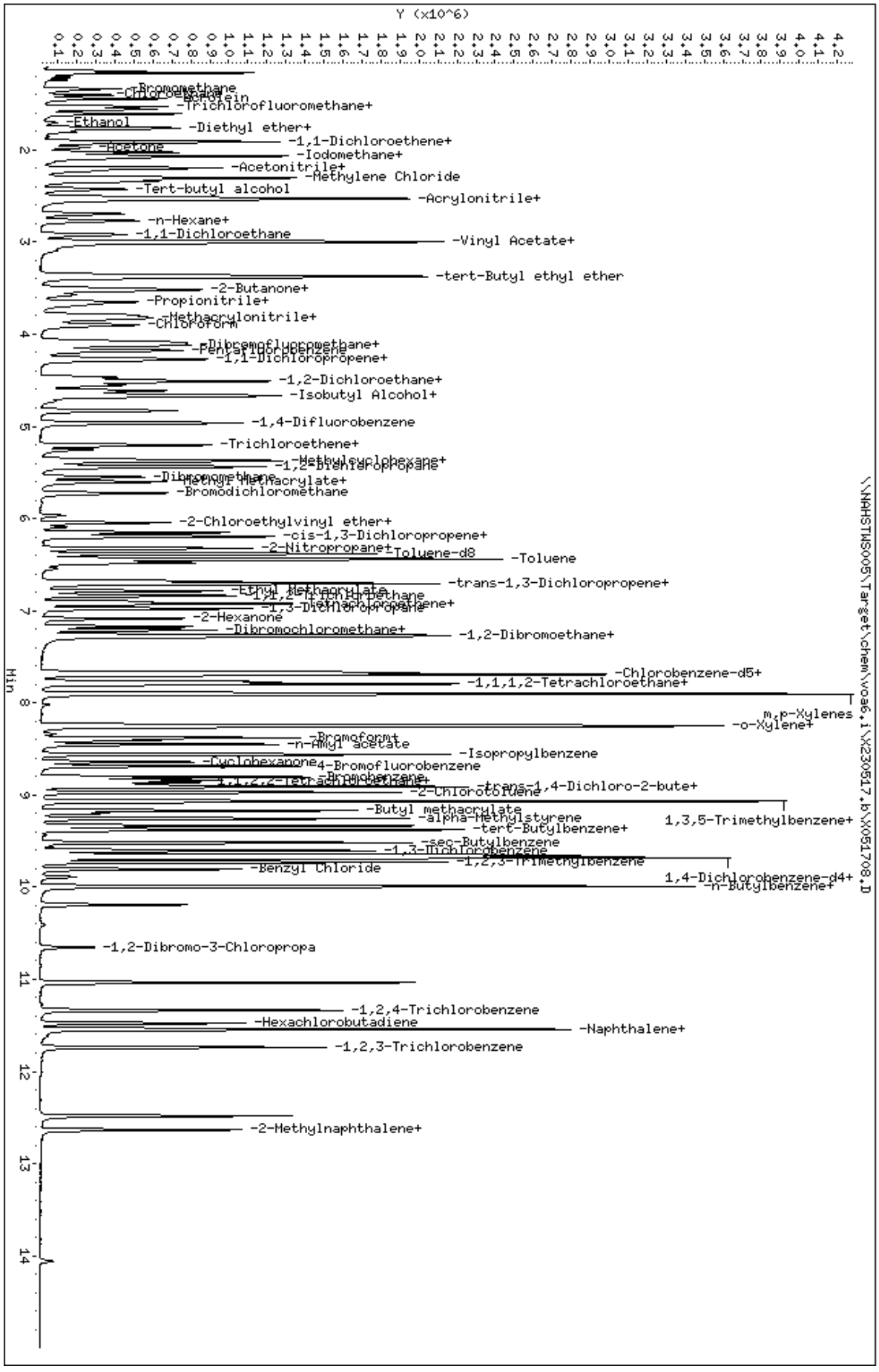
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.703	1.703	(0.408)	71440	1000.00	1017.31
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	634967	50.0000	50.86
	182 Epichlorohydrin	57	6.093	6.093	(1.228)	107309	200.000	183.34
	164 Dicyclopentadiene	66	9.680	9.680	(1.002)	1220809	50.0000	50.95(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1004441	50.0000	48.99
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	433426	50.0000	51.35
	86 Benzyl Chloride	91	9.804	9.804	(1.279)	649842	50.0000	48.69
	134 Cyclohexanone	55	8.642	8.642	(0.894)	275540	1000.00	993.24
	202 Isobutylene	41	1.238	1.238	(0.297)	39260	50.0000	48.74(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	723023	50.0000	47.33
	163 Butyl methacrylate	41	9.167	9.167	(0.949)	385260	50.0000	49.08(M)
	188 Isopropyl acetate	43	4.676	4.676	(0.943)	748621	50.0000	48.49
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	514140	50.0000	52.79(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	254046	50.0000	44.30
	3 Chloromethane	50	1.077	1.077	(0.258)	368551	50.0000	44.13
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	367893	50.0000	46.66
	6 Bromomethane	94	1.340	1.340	(0.321)	192549	50.0000	46.88
	7 Chloroethane	64	1.403	1.403	(0.336)	230278	50.0000	46.79
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	375073	50.0000	45.18
	9 Acrolein	56	1.445	1.445	(0.346)	49904	100.000	100.20
	10 Acetone	43	1.973	1.973	(0.472)	208973	100.000	100.88
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	243715	50.0000	46.43
	15 Iodomethane	142	2.026	2.026	(0.485)	735694	100.000	98.02
	16 Acrylonitrile	53	2.532	2.532	(0.606)	203454	100.000	103.52
	17 Methylene Chloride	84	2.303	2.303	(0.551)	297300	50.0000	47.65
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	763338	50.0000	46.62
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	1501525	100.000	91.18
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	257127	50.0000	47.23
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1517700	100.000	100.19
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	472513	50.0000	47.33
	24 2-Butanone	43	3.574	3.574	(0.856)	199974	100.000	100.95
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	349452	50.0000	47.52
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	299782	50.0000	46.81
	28 Chloroform	83	3.904	3.904	(0.935)	463293	50.0000	46.83
	29 Bromochloromethane	128	3.791	3.791	(0.908)	158337	50.0000	46.91
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	254583	50.0000	47.05
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	350824	50.0000	46.04
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	346111	50.0000	49.04
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	338178	50.0000	48.25
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	307318	50.0000	47.13
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	280472	50.0000	48.41
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	897054	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	1123795	50.0000	49.24
	38 Trichloroethene	130	5.205	5.205	(1.049)	307157	50.0000	49.93
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	379000	50.0000	48.52
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.218)	264356	100.000	101.91
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	320296	50.0000	49.38
	44 Dibromomethane	93	5.549	5.549	(1.119)	190636	50.0000	48.43
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	635668	100.000	105.63
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	522271	50.0000	50.04
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	874941	50.0000	
$	48 Toluene-d8	98	6.382	6.382	(0.832)	1036092	50.0000	46.47(M)

50 Toluene	91	6.442	6.442 (0.840)	1211286	50.0000	49.34
51 trans-1,3-Dichloropropene	75	6.678	6.678 (1.346)	433165	50.0000	51.97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.083	7.083	(0.924)	399899	100.000	97.10(H)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	239813	50.0000	47.83
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	537773	50.0000	51.54
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	348094	50.0000	51.16
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	236445	50.0000	49.71
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	315026	50.0000	51.56
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	242669	50.0000	44.39
	59 Chlorobenzene	112	7.690	7.690	(1.003)	812099	50.0000	47.78
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	294115	50.0000	49.31
	61 Ethylbenzene	106	7.795	7.795	(1.017)	411455	50.0000	49.27
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	1040462	100.000	100.04
	63 o-Xylene	106	8.241	8.241	(1.075)	502515	50.0000	49.41
	64 Styrene	104	8.256	8.256	(1.077)	868032	50.0000	50.98
	66 Bromoform	173	8.406	8.406	(1.096)	224608	50.0000	48.84
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1200405	50.0000	49.20
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	392411	50.0000	49.02
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	375781	50.0000	44.77
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	455175	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	280438	50.0000	48.15
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	1427156	50.0000	50.59
	74 Bromobenzene	156	8.803	8.803	(0.911)	358510	50.0000	50.46
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	1008115	50.0000	49.34
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	887083	50.0000	48.42
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	986873	50.0000	48.98
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	816679	50.0000	47.48
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1011293	50.0000	48.37
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	1152215	50.0000	48.04
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	1032140	50.0000	49.80
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	619472	50.0000	48.37
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	642198	50.0000	47.71
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	905156	50.0000	51.00
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	617677	50.0000	48.52
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	65906	50.0000	48.26
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	464402	50.0000	52.72
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	186659	50.0000	49.25
	92 Naphthalene	128	11.540	11.540	(1.194)	1096619	50.0000	50.14
	93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	431199	50.0000	49.97
M	94 1,2-Dichloroethylene (total)	96				556909	100.000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	351855	50.0000	47.24
	138 Freon TF	101	1.913	1.913	(0.458)	212562	50.0000	48.35
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	723023	50.0000	52.41
	146 Methyl Acetate	43	2.228	2.228	(0.533)	179385	50.0000	50.99
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	521203	1000.00	886.65
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	336770	1000.00	924.98

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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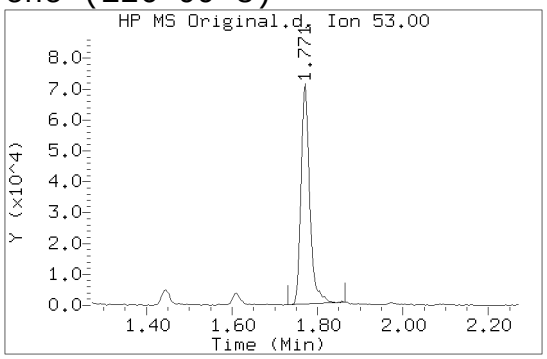
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Inj Date : 17-MAY-2023 14:44
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LabSampID : VSTD050

Chloroprene (126-99-8)

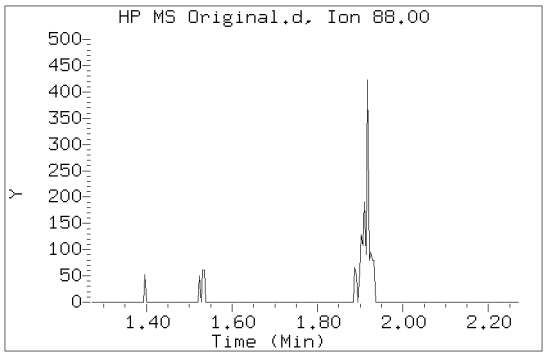
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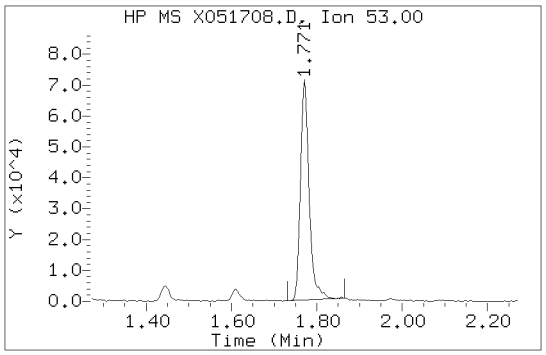
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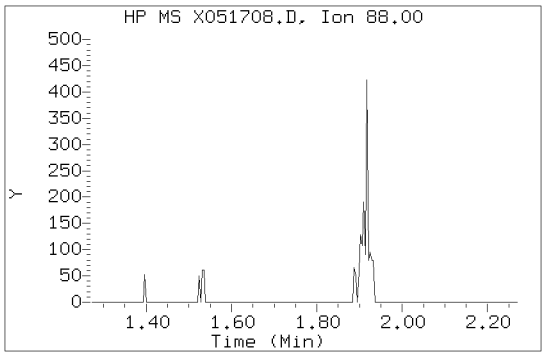
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AFTER

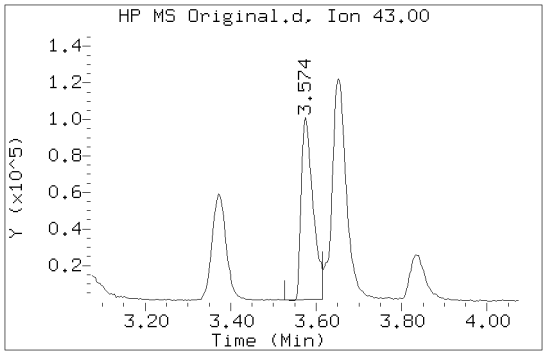
MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



Ethyl Acetate (141-78-6)

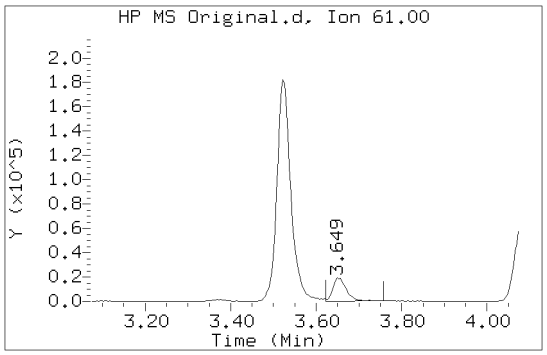
BEFORE

MASS
43
AREA
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HEIGHT
99556
18-May-2023
13:42
linh
pham



BEFORE

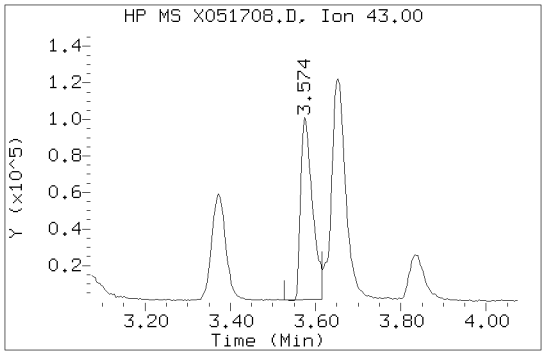
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61
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41616
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19419
18-May-2023
13:42
linh
pham



Reason Code:

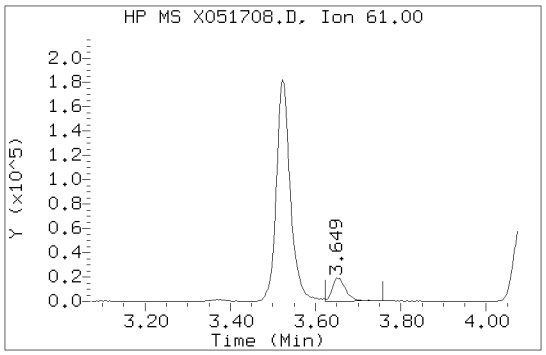
AFTER

MASS
43
AREA
196163
HEIGHT
99556
18-May-2023
13:42
linh
pham



AFTER

MASS
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AREA
41616
HEIGHT
19419
18-May-2023
13:42
linh
pham



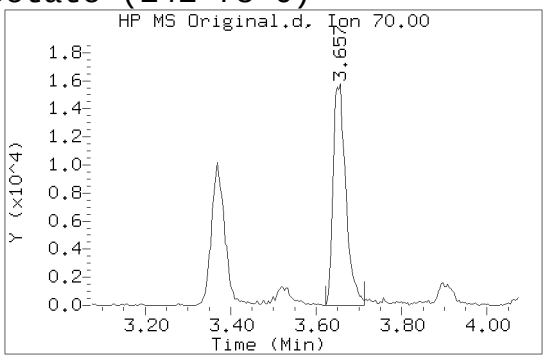
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Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

Ethyl Acetate (141-78-6)

Reason Code:

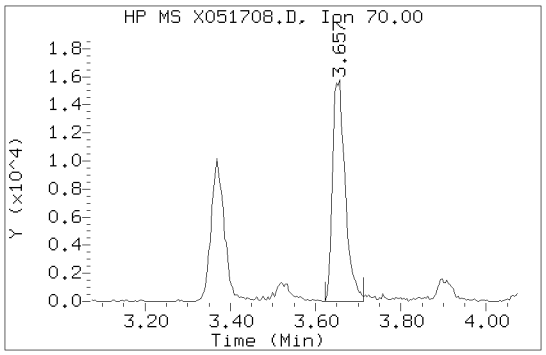
BEFORE

MASS
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AREA
32625
HEIGHT
15790
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
32625
HEIGHT
15790
18-May-2023
13:42
linh
pham

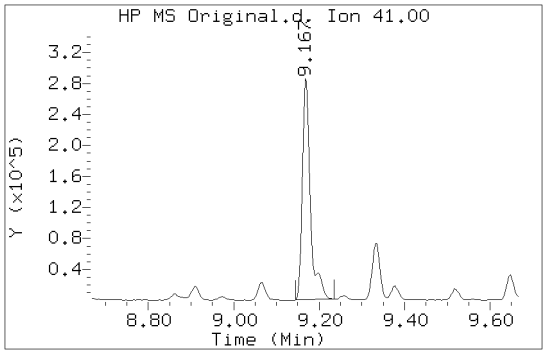


Butyl methacrylate (97-88-1)

Reason Code:

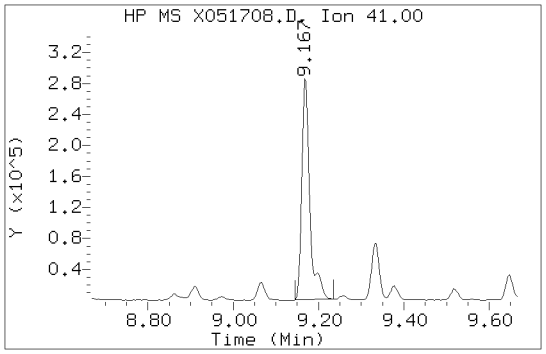
BEFORE

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AREA
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HEIGHT
285042
18-May-2023
13:42
linh
pham



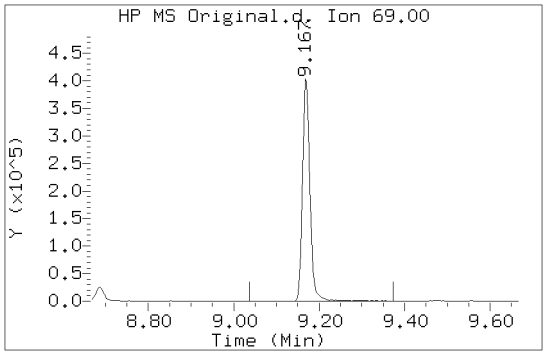
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AREA
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HEIGHT
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18-May-2023
13:42
linh
pham



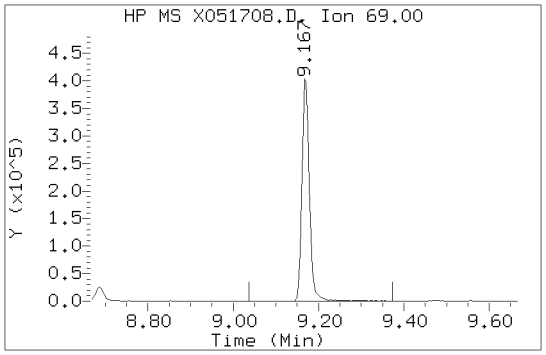
BEFORE

MASS
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AREA
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HEIGHT
403141
18-May-2023
13:42
linh
pham



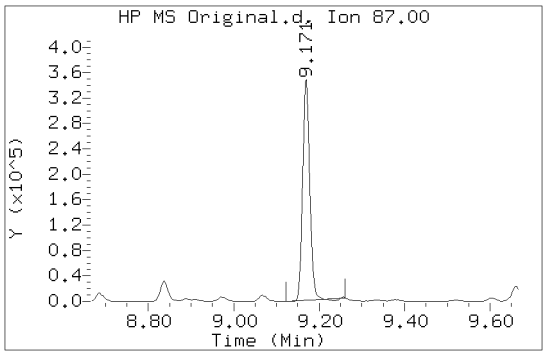
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HEIGHT
403141
18-May-2023
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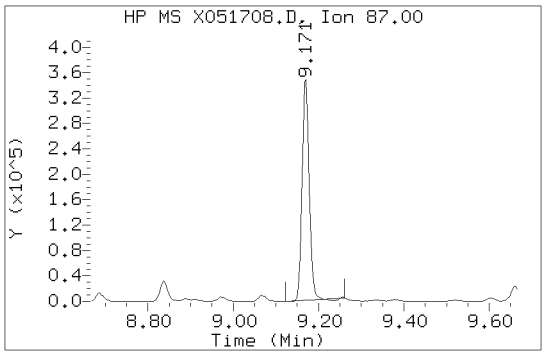
BEFORE

MASS
87
AREA
410205
HEIGHT
347120
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
410205
HEIGHT
347120
18-May-2023
13:42
linh
pham



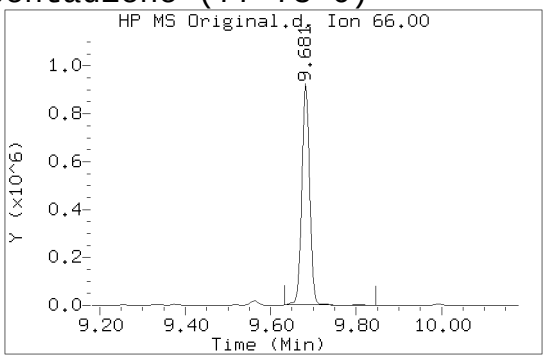
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051708.D
Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

Dicyclopentadiene (77-73-6)

Reason Code:

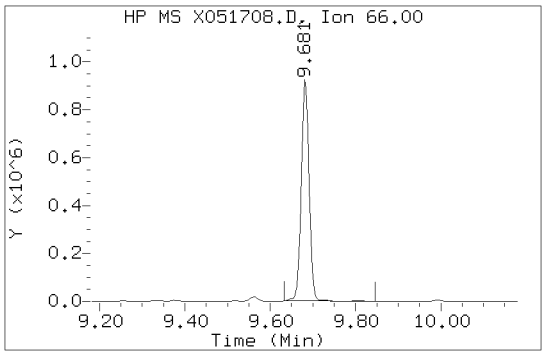
BEFORE

MASS
66
AREA
1220809
HEIGHT
924408
18-May-2023
13:42
linh
pham



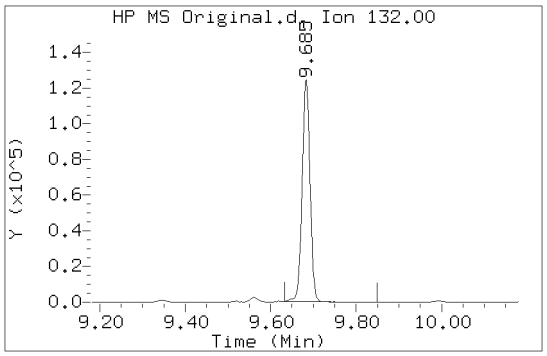
AFTER

MASS
66
AREA
1220809
HEIGHT
924408
18-May-2023
13:42
linh
pham



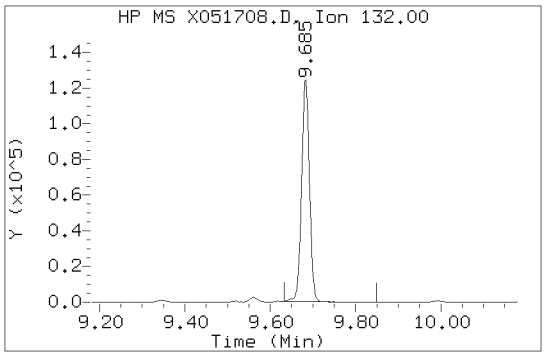
BEFORE

MASS
132
AREA
164013
HEIGHT
124222
18-May-2023
13:42
linh
pham



AFTER

MASS
132
AREA
164013
HEIGHT
124222
18-May-2023
13:42
linh
pham

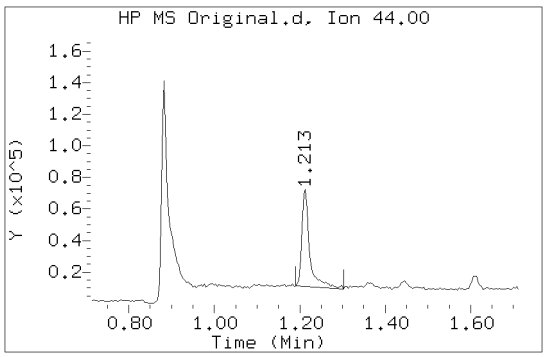


Acetaldehyde (75-07-0)

Reason Code:

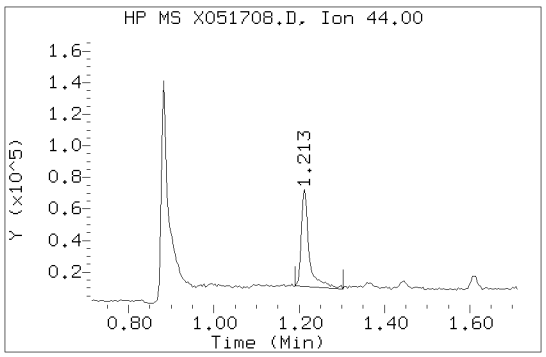
BEFORE

MASS
44
AREA
79325
HEIGHT
61418
18-May-2023
13:42
linh
pham



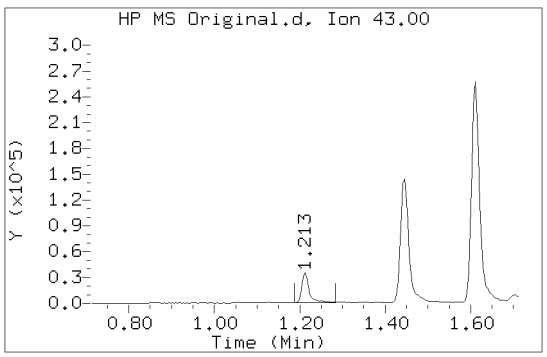
AFTER

MASS
44
AREA
79325
HEIGHT
61418
18-May-2023
13:42
linh
pham



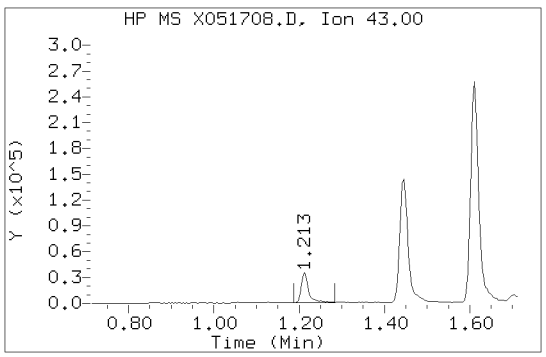
BEFORE

MASS
43
AREA
43672
HEIGHT
34949
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
43672
HEIGHT
34949
18-May-2023
13:42
linh
pham



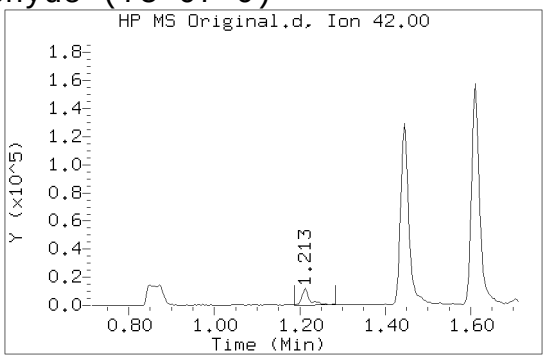
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Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

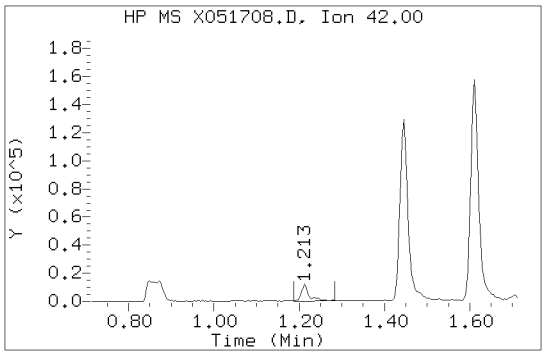
BEFORE

MASS
42
AREA
15506
HEIGHT
12241
18-May-2023
13:42
linh
pham



AFTER

MASS
42
AREA
15506
HEIGHT
12241
18-May-2023
13:42
linh
pham

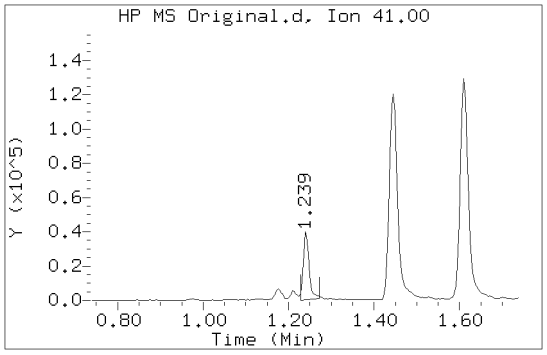


Isobutylene (115-11-7)

Reason Code:

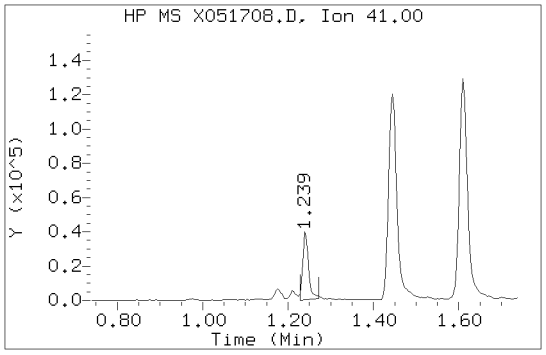
BEFORE

MASS
41
AREA
39260
HEIGHT
39627
18-May-2023
13:42
linh
pham



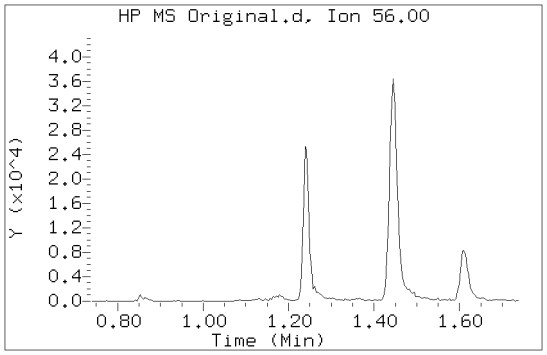
AFTER

MASS
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AREA
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HEIGHT
39627
18-May-2023
13:42
linh
pham



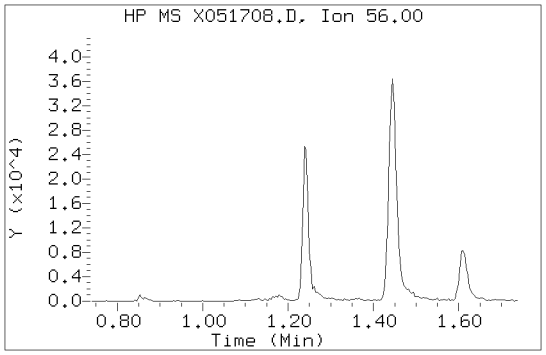
BEFORE

MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



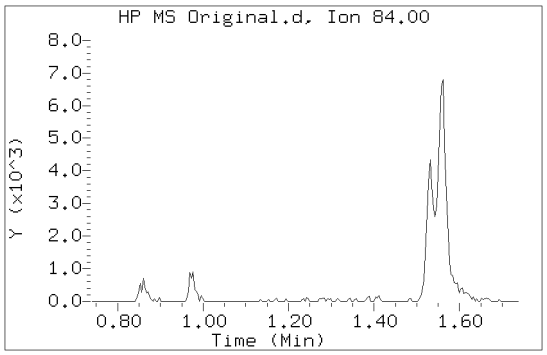
AFTER

MASS
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AREA
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HEIGHT
0
18-May-2023
13:42
linh
pham



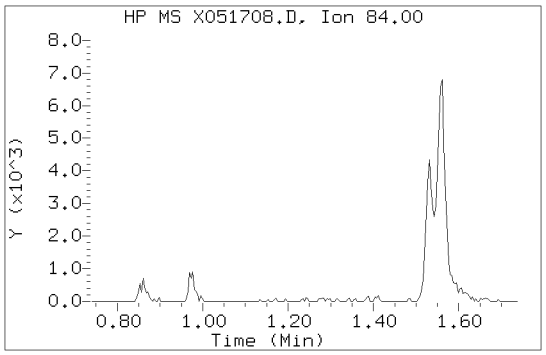
BEFORE

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

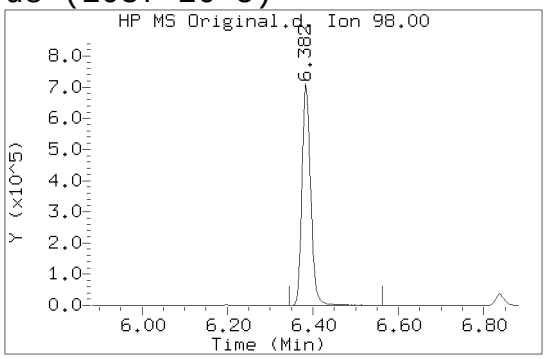


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Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

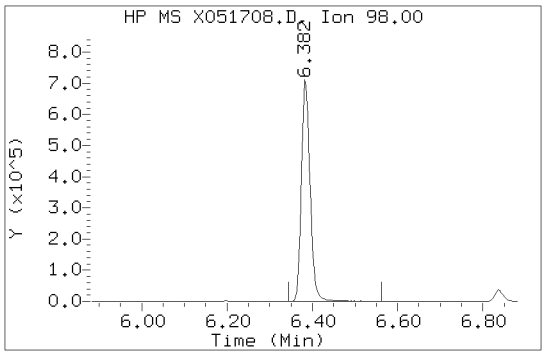
Toluene-d8 (2037-26-5)

Reason Code:

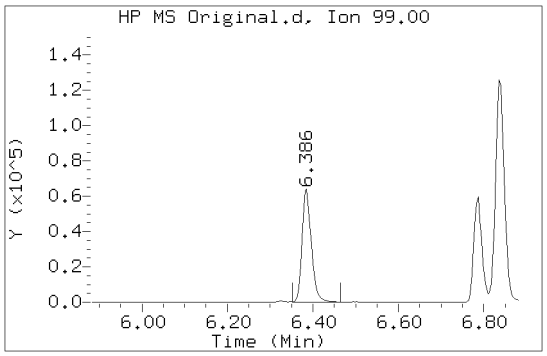
BEFORE
MASS
98
AREA
1036092
HEIGHT
711204
18-May-2023
13:42
linh
pham



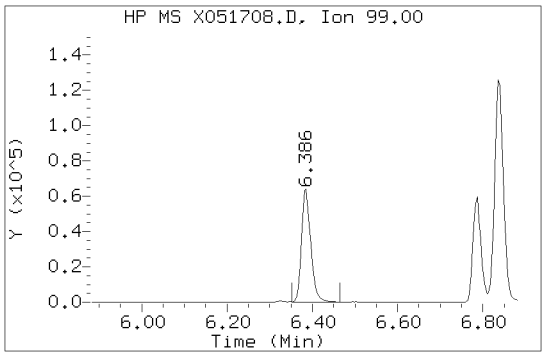
AFTER
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HEIGHT
711204
18-May-2023
13:42
linh
pham



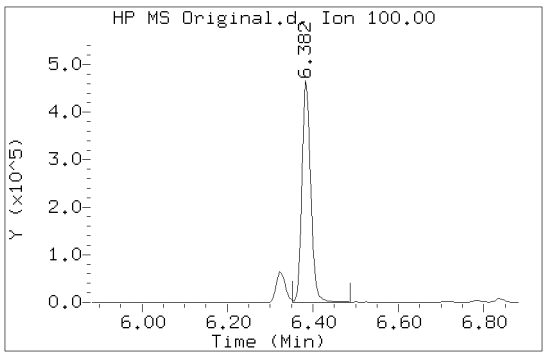
BEFORE
MASS
99
AREA
99286
HEIGHT
64168
18-May-2023
13:42
linh
pham



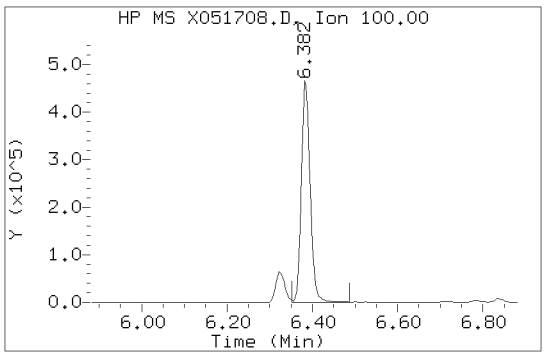
AFTER
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64168
18-May-2023
13:42
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pham



BEFORE
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100
AREA
682341
HEIGHT
466011
18-May-2023
13:42
linh
pham



AFTER
MASS
100
AREA
682341
HEIGHT
466011
18-May-2023
13:42
linh
pham



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051709.D
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Inj Date : 17-MAY-2023 15:05
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V6;WATER;0;1;
Comment :
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Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	574355	50.0000	
135	1,4-Dioxane	88	5.594	5.594	(1.339)	150705	2000.00	1937.43
140	1,3-Butadiene	54	1.164	1.164	(0.279)	636878	100.000	104.76
25	Methacrylonitrile	41	3.814	3.814	(0.913)	491187	100.000	95.93
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	1560686	2000.00	2084.59
13	Acetonitrile	39	2.198	2.198	(0.526)	565643	1000.00	1022.97
14	Allyl Chloride	41	2.194	2.194	(0.525)	1393448	100.000	99.90
4	Propionitrile	54	3.649	3.649	(0.873)	767054	1000.00	973.89
72	trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	195691	100.000	103.96
194	Acetaldehyde	44	1.212	1.212	(0.290)	156941	400.000	409.88(M)
23	Chloroprene	53	1.771	1.771	(0.424)	243284	100.000	104.92(M)
130	Ethyl Acetate	43	3.574	3.574	(0.856)	408001	100.000	100.09(M)
40	Methyl Methacrylate	41	5.602	5.602	(1.341)	513919	100.000	102.36
49	Ethyl Methacrylate	69	6.783	6.783	(1.366)	878906	100.000	95.37
131	Methyl Acrylate	55	3.683	3.683	(0.882)	612135	100.000	109.50
132	n-Butanol	56	5.250	5.250	(1.257)	321653	2000.00	1874.02
136	n-Hexane	57	2.768	2.768	(0.663)	634405	100.000	100.12
139	Diethyl ether	59	1.756	1.756	(0.420)	480696	100.000	97.95
142	Tetrahydrofuran	42	3.840	3.840	(0.919)	180333	200.000	190.47
145	alpha-Methylstyrene	118	9.257	9.257	(0.958)	1071212	100.000	107.73

156	Diisopropyl ether	45	2.997	2.997 (0.717)	1720400	100.000	98.99
162	Butyl acrylate	55	8.249	8.249 (1.076)	1236994	100.000	102.66

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.703	1.703	(0.408)	127476	2000.00	1882.39
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	1398099	100.000	115.75
	182 Epichlorohydrin	57	6.089	6.089	(1.226)	249645	400.000	424.19
	164 Dicyclopentadiene	66	9.681	9.681	(1.002)	2484950	100.000	103.49(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	2099638	100.000	102.19
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	1070555	100.000	126.59(M)
	86 Benzyl Chloride	91	9.804	9.804	(1.279)	1410699	100.000	109.26
	134 Cyclohexanone	55	8.642	8.642	(0.894)	539320	2000.00	1940.46
	202 Isobutylene	41	1.239	1.239	(0.297)	84023	100.000	108.11(M)
	133 Ethyl Acrylate	55	5.373	5.373	(1.286)	1505762	100.000	100.51
	163 Butyl methacrylate	41	9.167	9.167	(0.949)	823175	100.000	104.65(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.941)	1560686	100.000	100.55
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	997979	100.000	105.91(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	559449	100.000	100.30
	3 Chloromethane	50	1.077	1.077	(0.258)	798841	100.000	99.13
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	780278	100.000	102.57
	6 Bromomethane	94	1.336	1.336	(0.320)	393567	100.000	99.00
	7 Chloroethane	64	1.404	1.404	(0.336)	465504	100.000	98.02
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	838856	100.000	104.73
	9 Acrolein	56	1.441	1.441	(0.345)	102170	200.000	212.60
	10 Acetone	43	1.970	1.970	(0.472)	403846	200.000	206.39
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	524314	100.000	103.52
	15 Iodomethane	142	2.026	2.026	(0.485)	1590979	200.000	202.56
	16 Acrylonitrile	53	2.532	2.532	(0.606)	406664	200.000	214.43
	17 Methylene Chloride	84	2.303	2.303	(0.551)	571682	100.000	94.95
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	1515821	100.000	95.94
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	3182424	200.000	200.27
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	522283	100.000	99.42
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	2918253	200.000	199.64
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	936700	100.000	97.24
	24 2-Butanone	43	3.574	3.574	(0.856)	428665	200.000	224.26
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	728556	100.000	103.03
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	599318	100.000	96.99
	28 Chloroform	83	3.900	3.900	(0.934)	913956	100.000	95.73
	29 Bromochloromethane	128	3.791	3.791	(0.908)	312939	100.000	96.09
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	556227	100.000	107.62
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	800215	100.000	108.84
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	768167	100.000	108.24
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	684507	100.000	97.14
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	683689	100.000	104.28
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	577397	100.000	103.81
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	902001	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	2344684	100.000	102.17
	38 Trichloroethene	130	5.201	5.201	(1.048)	643829	100.000	104.09
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	788403	100.000	100.39
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	569223	200.000	218.23
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	640235	100.000	98.18
	44 Dibromomethane	93	5.550	5.550	(1.118)	402973	100.000	101.82
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	1217264	200.000	209.07
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1079966	100.000	102.91
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	846541	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	2169362	100.000	100.57

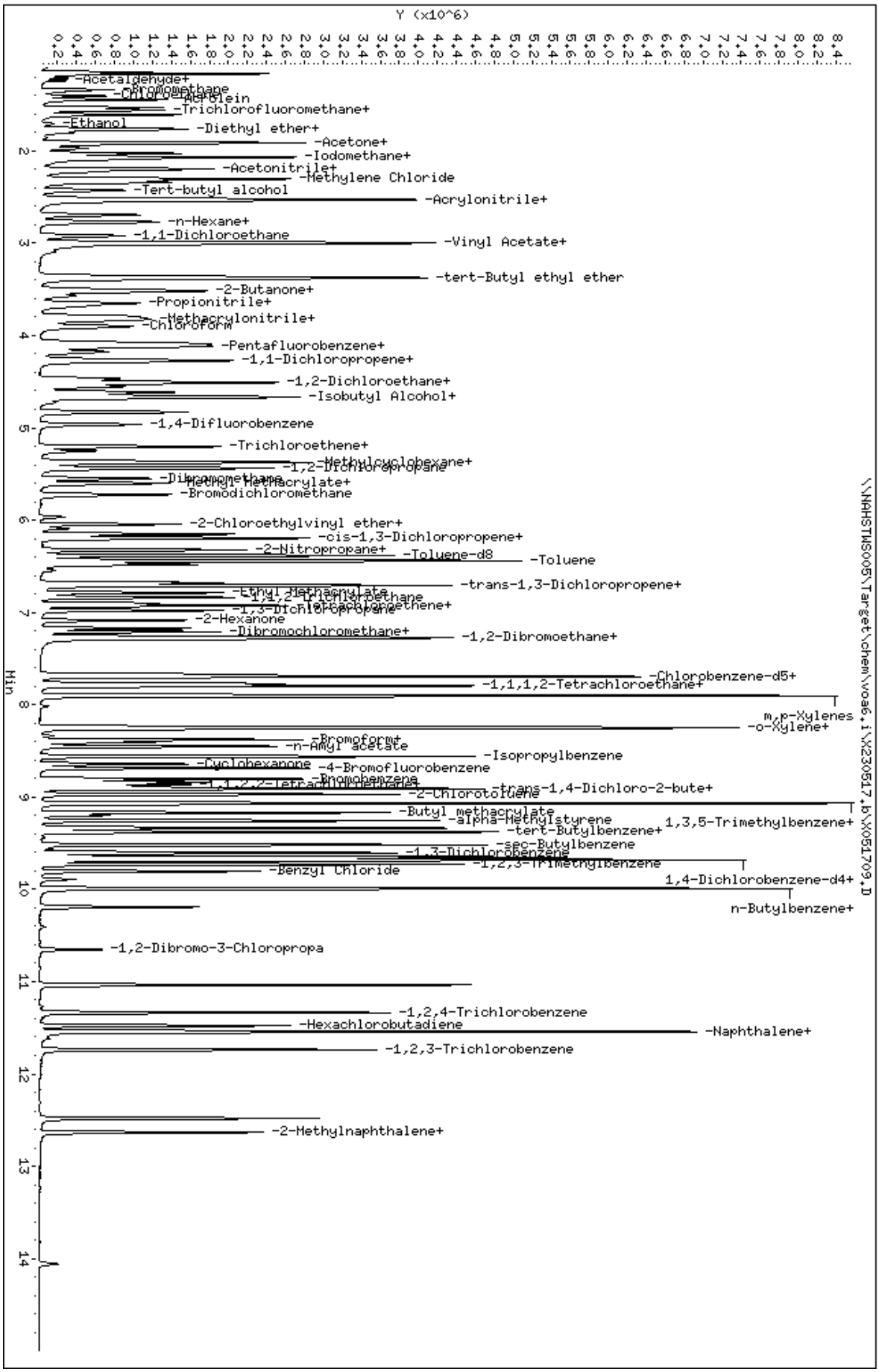
50	Toluene	91	6.445	6.445 (0.841)	2487121	100.000	104.70
51	trans-1,3-Dichloropropene	75	6.678	6.678 (1.345)	855285	100.000	102.05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.083	7.083	(0.924)	781769	200.000	196.19(H)
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	475227	100.000	97.96
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	972523	100.000	96.34
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	677178	100.000	102.87
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	508010	100.000	110.39
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	595442	100.000	100.73
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	542958	100.000	96.52
	59 Chlorobenzene	112	7.690	7.690	(1.003)	1648952	100.000	100.28
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	590826	100.000	102.39
	61 Ethylbenzene	106	7.799	7.799	(1.017)	857255	100.000	106.10
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	2112501	200.000	209.93
	63 o-Xylene	106	8.241	8.241	(1.075)	1015079	100.000	103.16
	64 Styrene	104	8.256	8.256	(1.077)	1714637	100.000	104.09
	66 Bromoform	173	8.406	8.406	(1.096)	440996	100.000	99.12
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	2536383	100.000	107.46
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	757153	100.000	94.05
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	764056	100.000	94.09
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	456123	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	552019	100.000	94.59
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	3077203	100.000	108.85
	74 Bromobenzene	156	8.803	8.803	(0.911)	722656	100.000	101.51
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	2198203	100.000	107.36
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	1802793	100.000	98.20
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	2085233	100.000	103.28
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	1855129	100.000	107.63
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	2196632	100.000	104.85
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	2685646	100.000	111.74
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	2366261	100.000	113.94
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	1315794	100.000	102.52
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	1362299	100.000	101.00
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	2100037	100.000	118.10
	88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	1296454	100.000	101.63
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	141877	100.000	104.05
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	1031885	100.000	116.91
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	468220	100.000	123.29
	92 Naphthalene	128	11.540	11.540	(1.194)	2523803	100.000	115.15
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	985609	100.000	114.00
M	94 1,2-Dichloroethylene (total)	96				1121601	200.000	(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	856612	100.000	119.18
	138 Freon TF	101	1.913	1.913	(0.458)	505340	100.000	100.17
	147 Methylcyclohexane	55	5.373	5.373	(1.082)	1505762	100.000	108.55(A)
	146 Methyl Acetate	43	2.228	2.228	(0.533)	357187	100.000	105.23
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	1044646	2000.00	1841.58
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	676128	2000.00	1924.44

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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Column phase: DB624

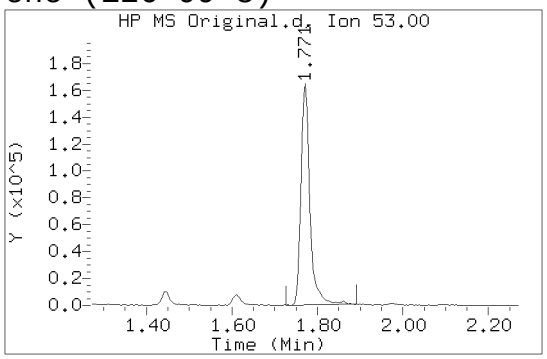
Instrument: voa6.i
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Column diameter: 0.18

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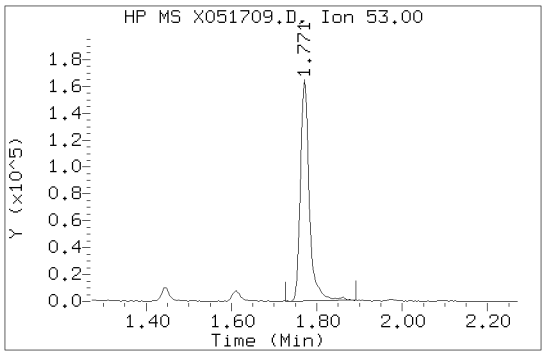
Chloroprene (126-99-8)

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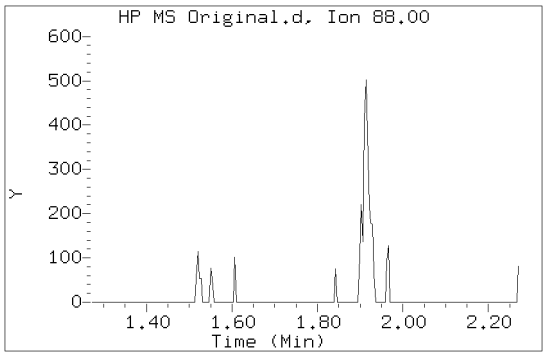
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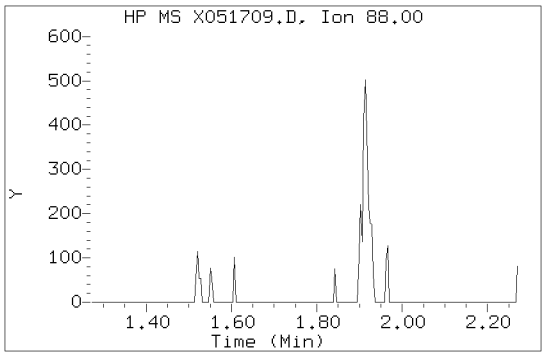
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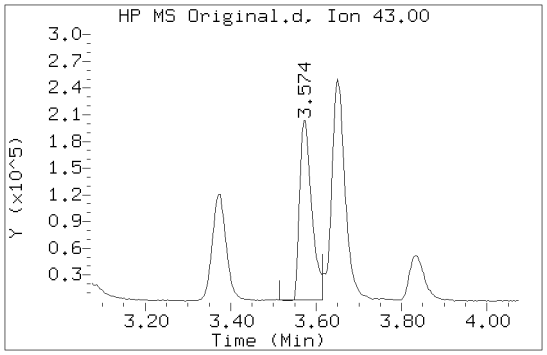
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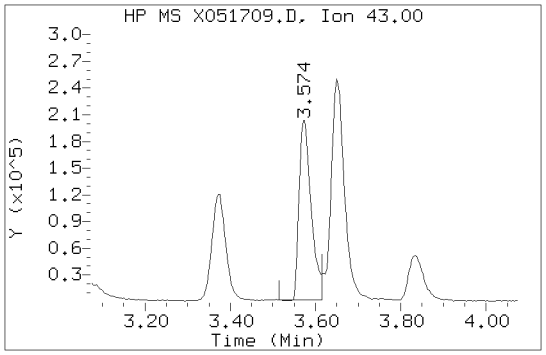
Ethyl Acetate (141-78-6)

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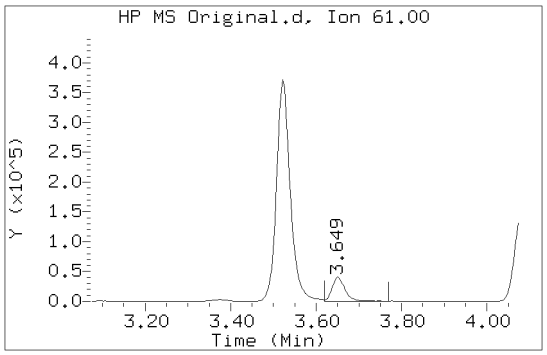
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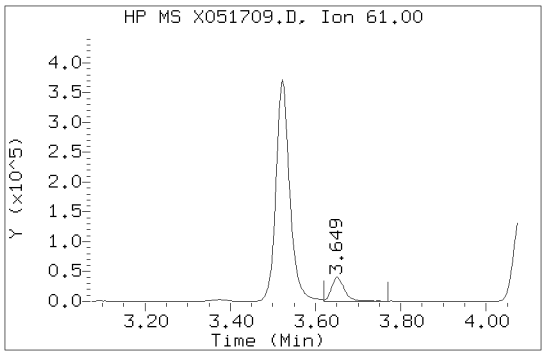
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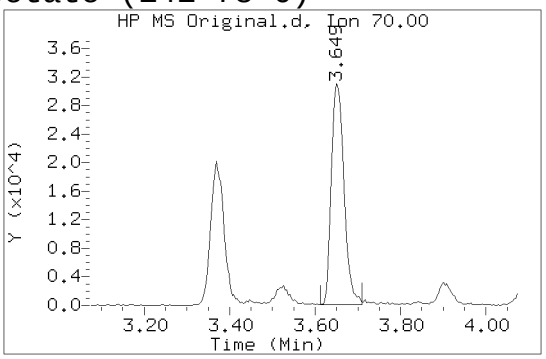


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LabSampID : VSTD100

Ethyl Acetate (141-78-6)

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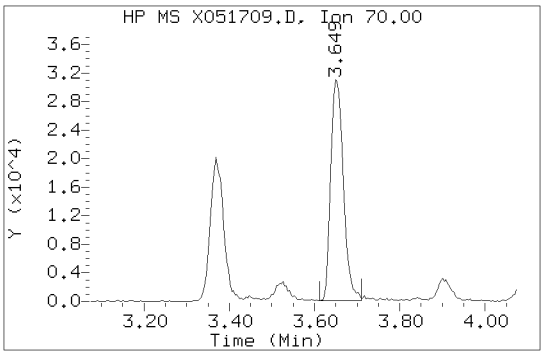
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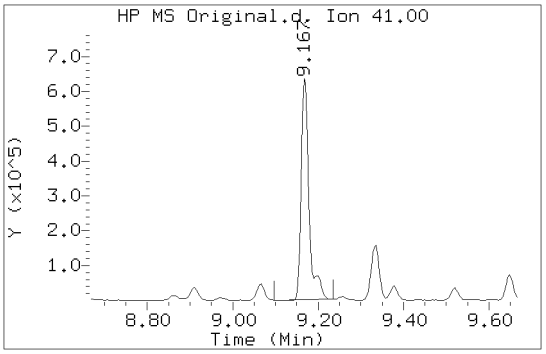
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Butyl methacrylate (97-88-1)

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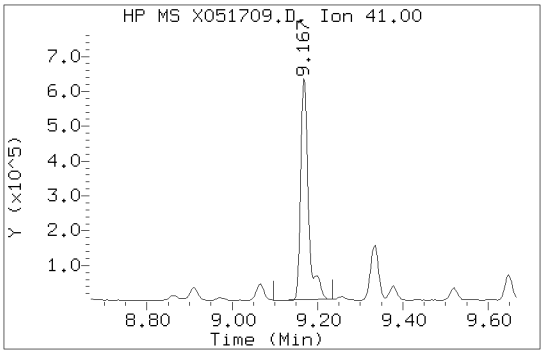
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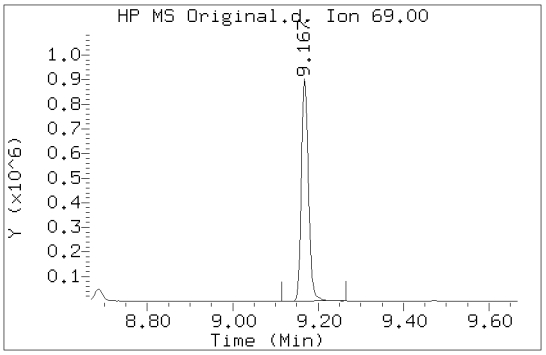
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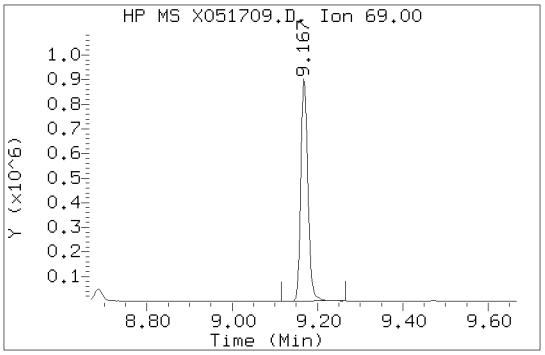
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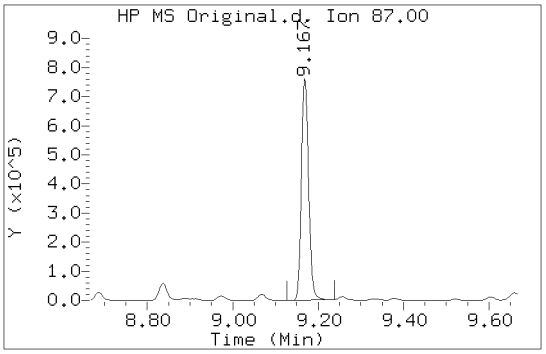
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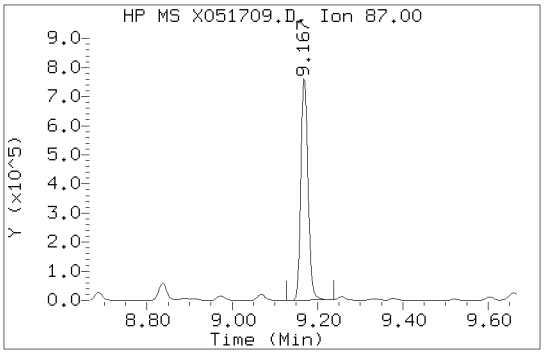
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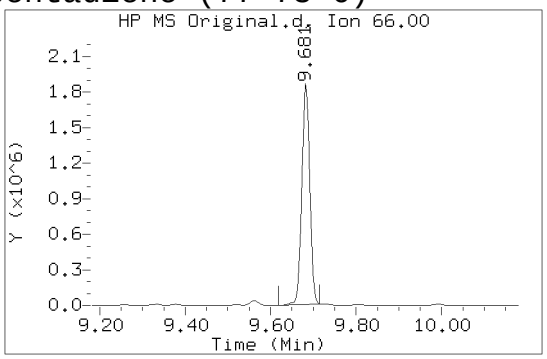
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LabSampID : VSTD100

Dicyclopentadiene (77-73-6)

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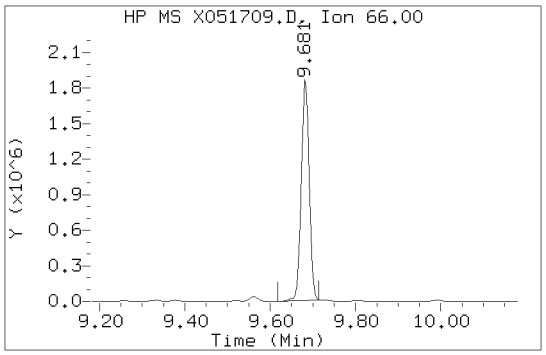
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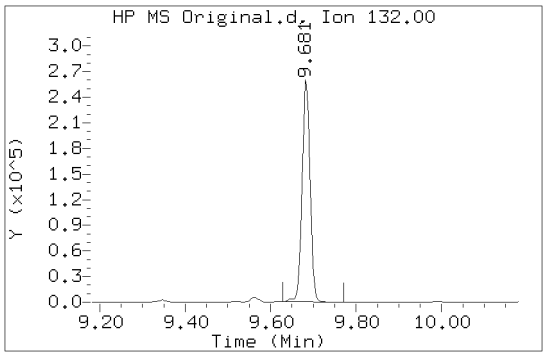
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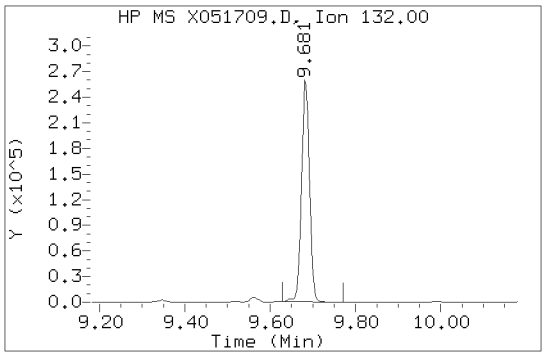
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AFTER

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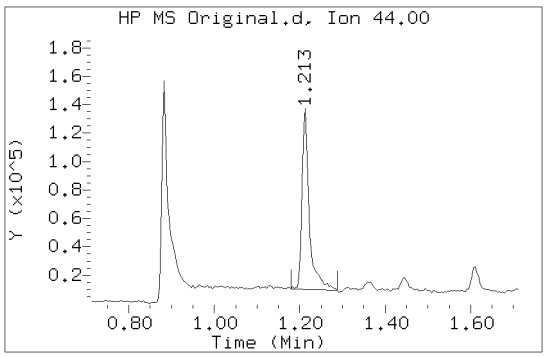


Acetaldehyde (75-07-0)

Reason Code:

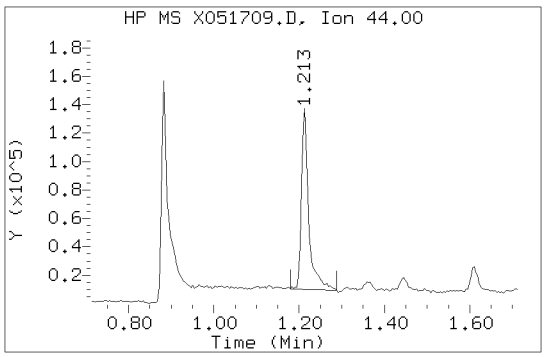
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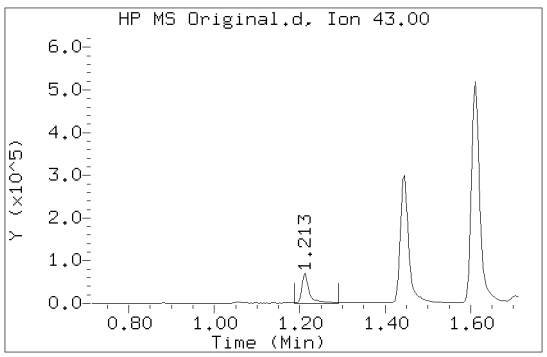
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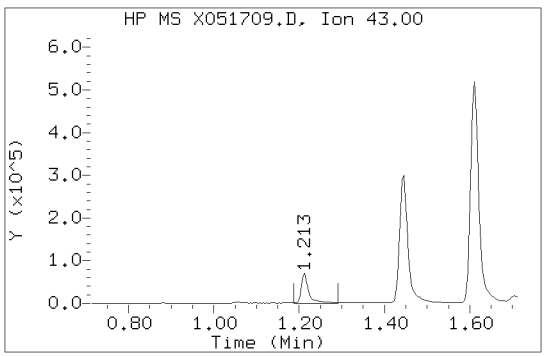
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AFTER

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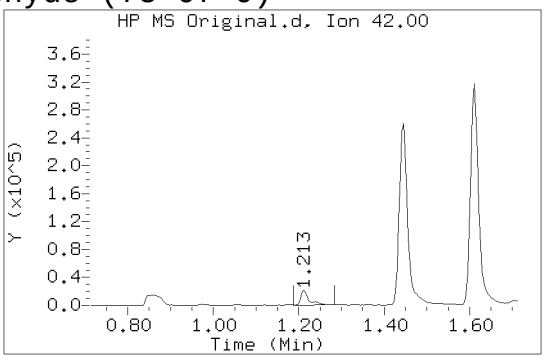
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LabSampID : VSTD100

Acetaldehyde (75-07-0)

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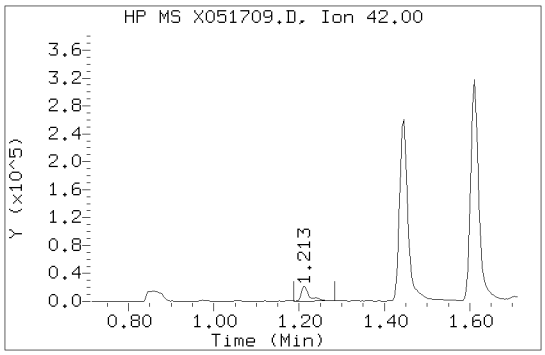
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AFTER

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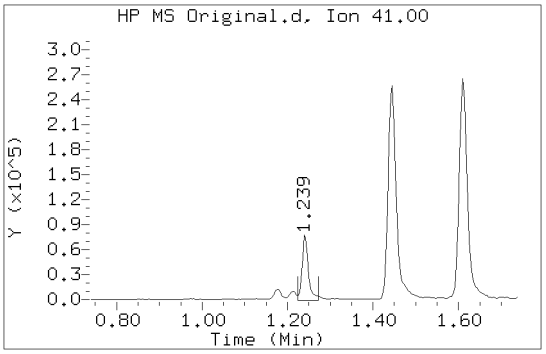


Isobutylene (115-11-7)

Reason Code:

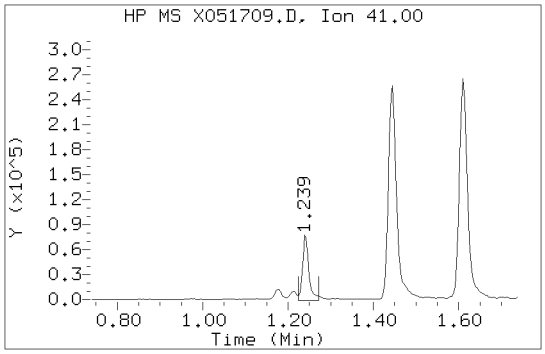
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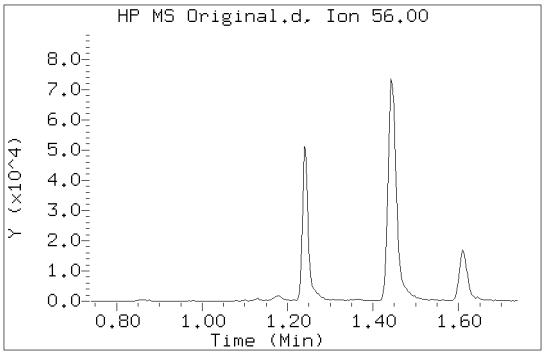
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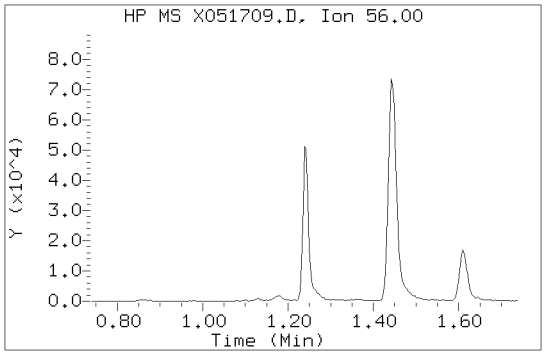
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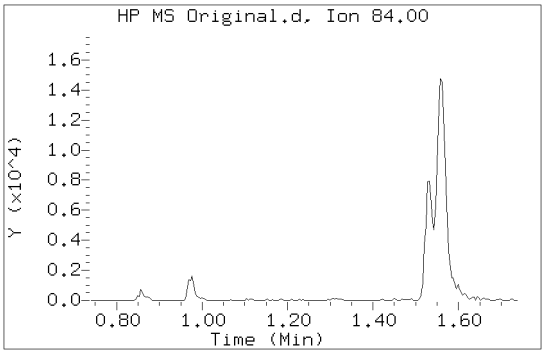
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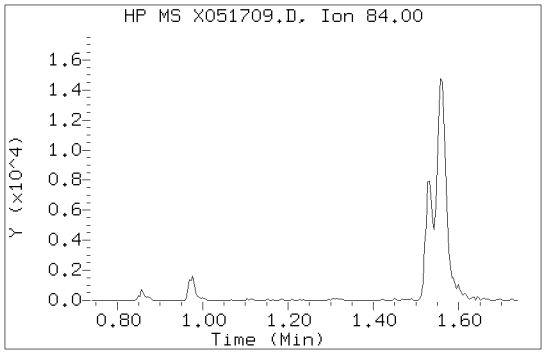
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AFTER

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18-May-2023
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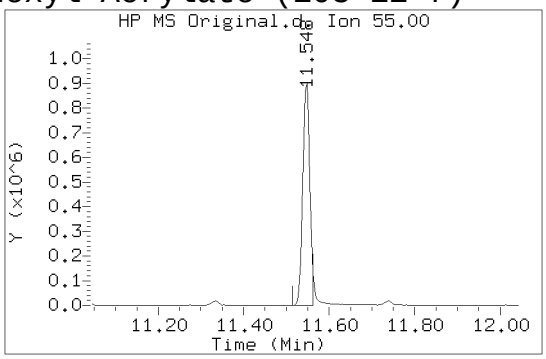
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Inj Date : 17-MAY-2023 15:05
InstruID : voa6.i
LabSampID : VSTD100

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

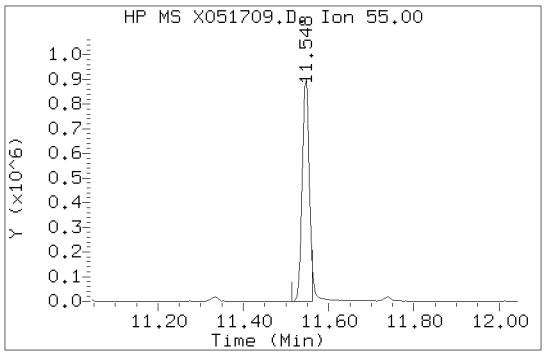
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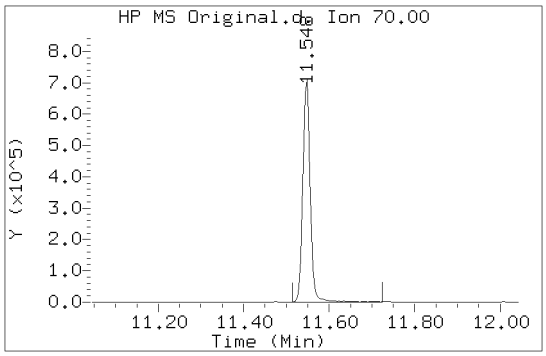
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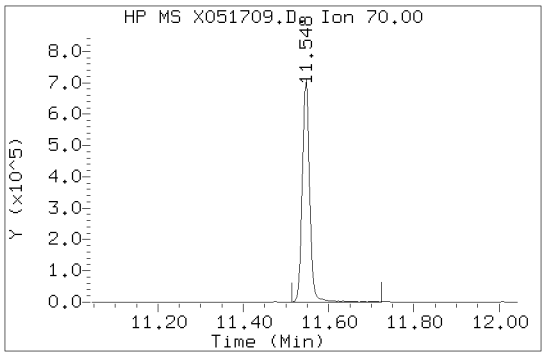
BEFORE

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AFTER

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051710.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051710.D
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Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 15:05 Cal File: X051709.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	556501	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.339)	228306	3000.00	3029.21
140 1,3-Butadiene	54	1.164	1.164	(0.279)	918869	150.000	156.00
25 Methacrylonitrile	41	3.818	3.818	(0.914)	752149	150.000	151.61
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	2330517	3000.00	3212.72
13 Acetonitrile	39	2.195	2.195	(0.525)	848220	1500.00	1583.22
14 Allyl Chloride	41	2.195	2.195	(0.525)	2089661	150.000	154.62
4 Propionitrile	54	3.649	3.649	(0.873)	1191075	1500.00	1560.77
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	317846	150.000	153.45
194 Acetaldehyde	44	1.209	1.209	(0.289)	227240	600.000	619.08(M)
23 Chloroprene	53	1.767	1.767	(0.423)	345305	150.000	153.70
130 Ethyl Acetate	43	3.570	3.570	(0.855)	630195	150.000	159.57(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	778067	150.000	159.94
49 Ethyl Methacrylate	69	6.787	6.787	(1.367)	1355454	150.000	148.03
131 Methyl Acrylate	55	3.683	3.683	(0.882)	935544	150.000	172.72
132 n-Butanol	56	5.253	5.253	(1.258)	523242	3000.00	3100.03
136 n-Hexane	57	2.768	2.768	(0.663)	865594	150.000	119.77
139 Diethyl ether	59	1.756	1.756	(0.420)	718599	150.000	151.13
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	278604	300.000	303.71
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	1578122	150.000	158.56

156 Diisopropyl ether	45	2.997	2.997 (0.717)	2541448	150.000	150.93
162 Butyl acrylate	55	8.249	8.249 (1.076)	2075045	150.000	156.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.707	1.707	(0.409)	201113	3000.00	3065.97
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	1955918	150.000	147.17
	182 Epichlorohydrin	57	6.093	6.093	(1.227)	344684	600.000	589.47
	164 Dicyclopentadiene	66	9.684	9.684	(1.002)	3879408	150.000	161.43(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	3159121	150.000	153.62
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	1323514	150.000	156.36(M)
	86 Benzyl Chloride	91	9.804	9.804	(1.279)	2164329	150.000	152.33
	134 Cyclohexanone	55	8.642	8.642	(0.894)	845318	3000.00	3038.99
	202 Isobutylene	41	1.239	1.239	(0.297)	117191	150.000	155.63(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	2266239	150.000	155.35
	163 Butyl methacrylate	41	9.171	9.171	(0.949)	1244153	150.000	158.03(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.941)	2330517	150.000	151.12
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	1531113	150.000	147.67(H)
	2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	843502	150.000	155.72
	3 Chloromethane	50	1.077	1.077	(0.258)	1215050	150.000	155.61
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	1133406	150.000	153.77
	6 Bromomethane	94	1.332	1.332	(0.319)	597056	150.000	154.86
	7 Chloroethane	64	1.400	1.400	(0.335)	669573	150.000	145.52
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	1226596	150.000	158.05
	9 Acrolein	56	1.441	1.441	(0.345)	152553	300.000	327.63
	10 Acetone	43	1.973	1.973	(0.472)	561504	300.000	298.07
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	755499	150.000	153.95
	15 Iodomethane	142	2.026	2.026	(0.485)	2478075	300.000	299.18
	16 Acrylonitrile	53	2.528	2.528	(0.605)	595427	300.000	324.03
	17 Methylene Chloride	84	2.300	2.300	(0.550)	837832	150.000	143.62
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	2290915	150.000	149.66
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	5075676	300.000	329.66
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	766419	150.000	150.57
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	4425499	300.000	312.46
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	1374928	150.000	147.32
	24 2-Butanone	43	3.570	3.570	(0.855)	640020	300.000	345.57
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	1056504	150.000	154.35
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	887608	150.000	148.26
	28 Chloroform	83	3.904	3.904	(0.935)	1351772	150.000	146.13
	29 Bromochloromethane	128	3.788	3.788	(0.907)	466584	150.000	147.87
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	755598	150.000	151.23
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	1095998	150.000	153.86
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	1059537	150.000	150.27
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	1064458	150.000	152.04
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	945448	150.000	145.15
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	823824	150.000	153.08
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	896199	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	3477739	150.000	152.52
	38 Trichloroethene	130	5.201	5.201	(1.048)	952156	150.000	154.94
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	1149104	150.000	147.27
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	793583	300.000	306.22
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	941597	150.000	145.33
	44 Dibromomethane	93	5.550	5.550	(1.118)	556458	150.000	141.51
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	1716863	300.000	267.97
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1552973	150.000	148.95
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	931532	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	3069084	150.000	129.30

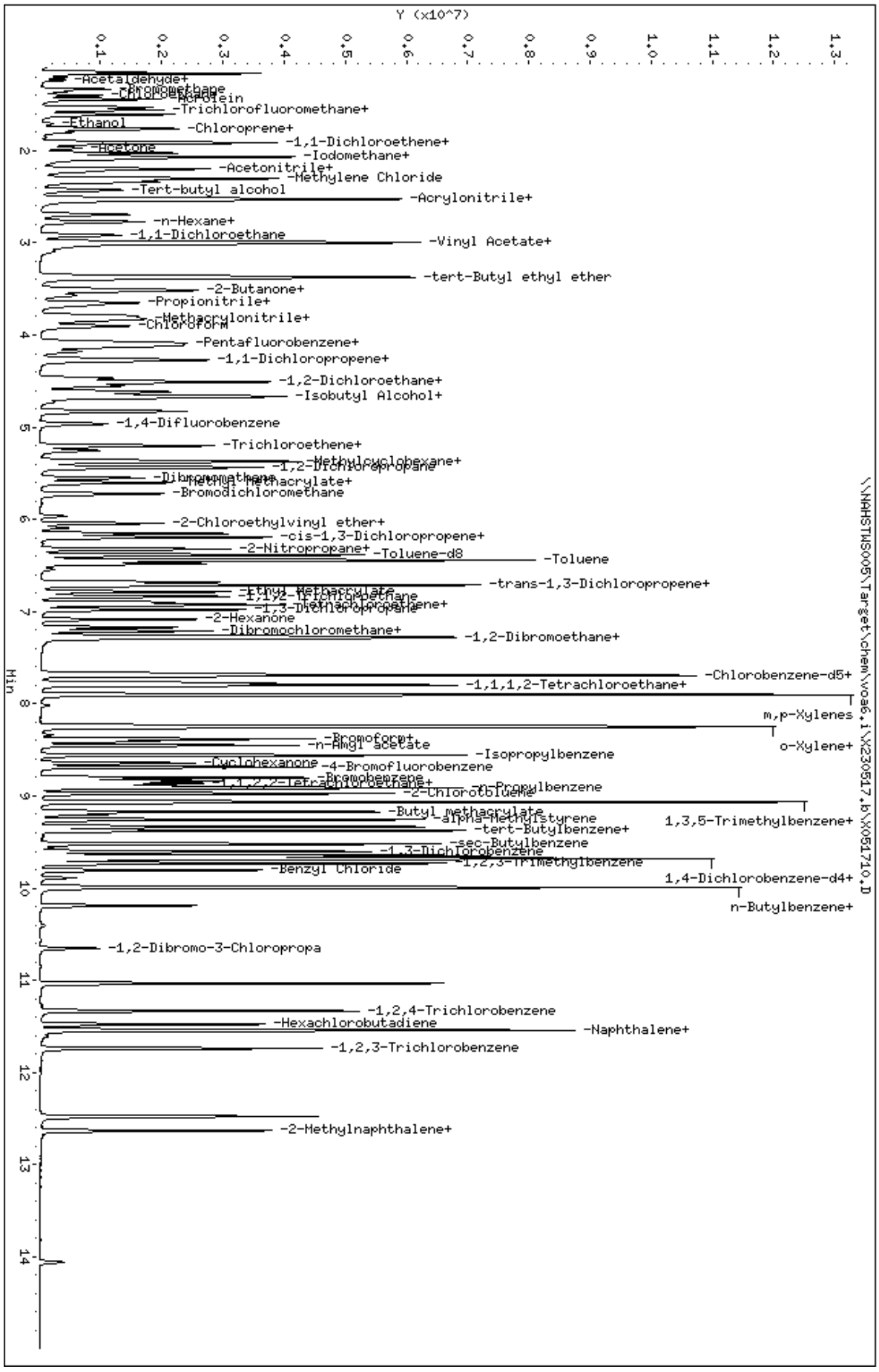
50	Toluene	91	6.442	6.442 (0.840)	3639869	150.000	139.25
51	trans-1,3-Dichloropropene	75	6.678	6.678 (1.345)	1305000	150.000	156.72

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.083	7.083	(0.924)	1306404	300.000	297.94(H)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	734241	150.000	137.55
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	1605845	150.000	144.57
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	1004799	150.000	138.71
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	755444	150.000	149.18
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	902010	150.000	138.67
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	864100	150.000	153.50
	59 Chlorobenzene	112	7.690	7.690	(1.003)	2686659	150.000	148.48
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	915748	150.000	144.22
	61 Ethylbenzene	106	7.795	7.795	(1.017)	1285426	150.000	144.57
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	3259199	300.000	294.33
	63 o-Xylene	106	8.241	8.241	(1.075)	1571194	150.000	145.11
	64 Styrene	104	8.256	8.256	(1.077)	2677361	150.000	147.70
	66 Bromoform	173	8.406	8.406	(1.096)	717111	150.000	146.47
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	3783380	150.000	145.66
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	1240541	150.000	153.74
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	1186439	150.000	132.77
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	456526	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	903182	150.000	154.63
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	4550786	150.000	160.84
	74 Bromobenzene	156	8.803	8.803	(0.911)	1122870	150.000	157.59
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	3170322	150.000	154.70
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	2723799	150.000	148.24
	77 4-Chlorotoluene	91	9.066	9.066	(0.938)	3041274	150.000	150.50
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	2650611	150.000	153.65
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	3174928	150.000	151.41
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	3774828	150.000	156.92
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	3331697	150.000	160.28
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	1944348	150.000	151.37
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	2021762	150.000	149.76
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	2927654	150.000	164.49
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	1900248	150.000	148.83
	89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.102)	212665	150.000	156.00
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	1461685	150.000	165.46
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	631292	150.000	166.09
	92 Naphthalene	128	11.540	11.540	(1.194)	3329380	150.000	151.78
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	1330866	150.000	153.79
M	94 1,2-Dichloroethylene (total)	96				1654027	300.000	(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	1091141	150.000	156.68
	138 Freon TF	101	1.913	1.913	(0.458)	701824	150.000	123.24
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	2266239	150.000	164.43(A)
	146 Methyl Acetate	43	2.228	2.228	(0.533)	543898	150.000	165.38
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	1651095	3000.00	3004.06
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	1074903	3000.00	3157.62

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051710.D
Date : 17-MAY-2023 15:26
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

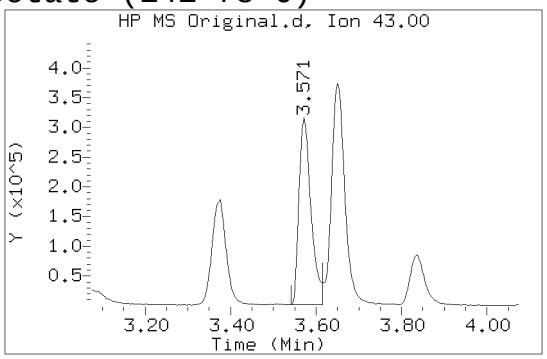
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Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

Ethyl Acetate (141-78-6)

Reason Code:

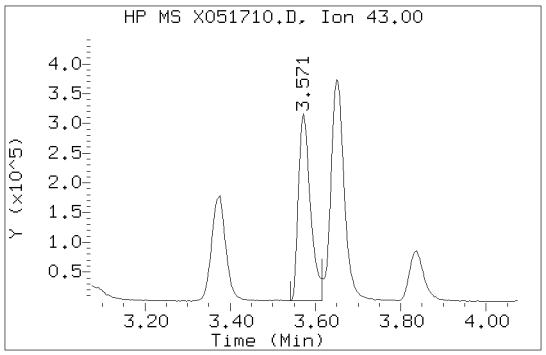
BEFORE

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43
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HEIGHT
315524
18-May-2023
13:42
linh
pham



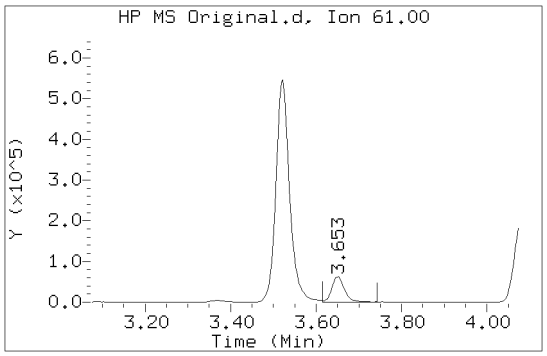
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HEIGHT
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13:42
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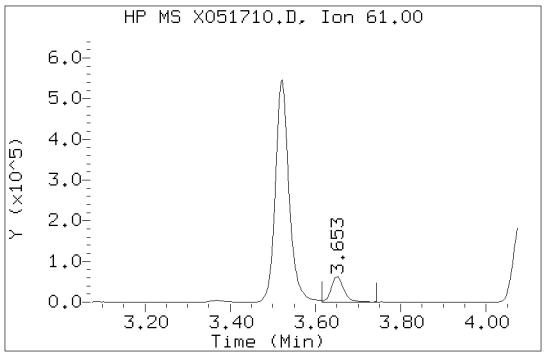
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62452
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13:42
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pham



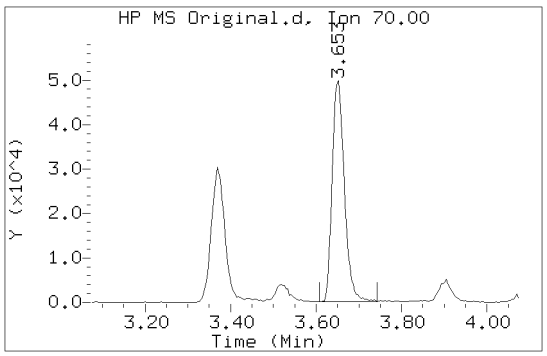
AFTER

MASS
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HEIGHT
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18-May-2023
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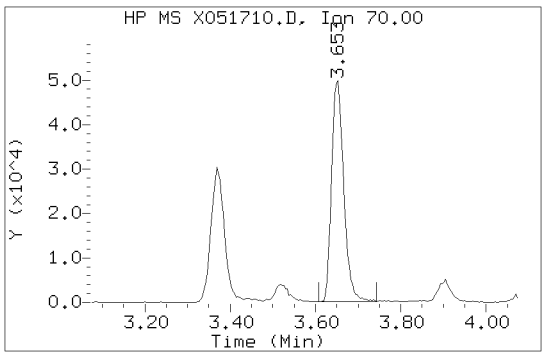
BEFORE

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49803
18-May-2023
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AFTER

MASS
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HEIGHT
49803
18-May-2023
13:42
linh
pham

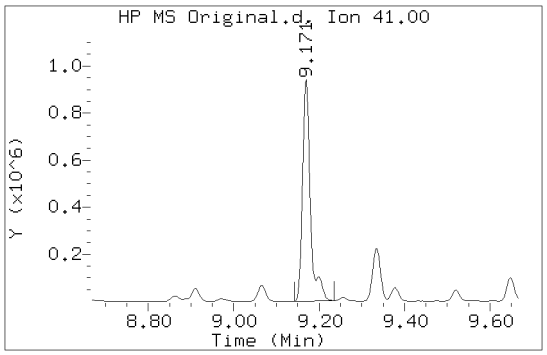


Butyl methacrylate (97-88-1)

Reason Code:

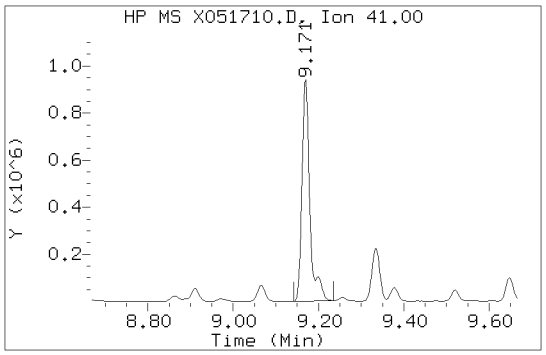
BEFORE

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41
AREA
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HEIGHT
940012
18-May-2023
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AFTER

MASS
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AREA
1244153
HEIGHT
940012
18-May-2023
13:42
linh
pham



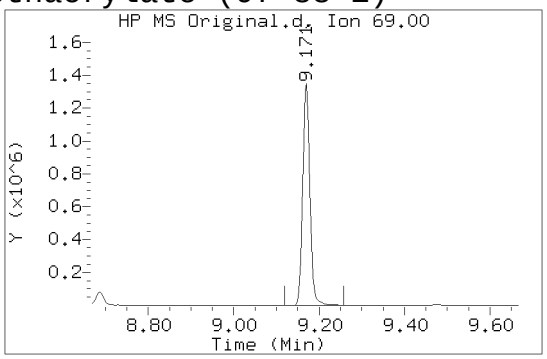
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Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

Butyl methacrylate (97-88-1)

Reason Code:

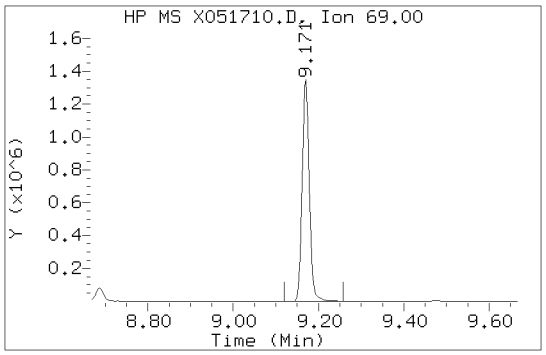
BEFORE

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69
AREA
1620174
HEIGHT
1347810
18-May-2023
13:42
linh
pham



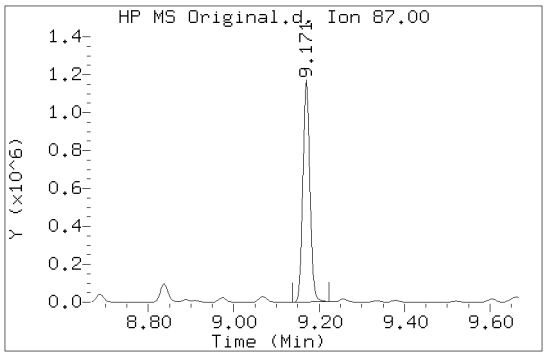
AFTER

MASS
69
AREA
1620174
HEIGHT
1347810
18-May-2023
13:42
linh
pham



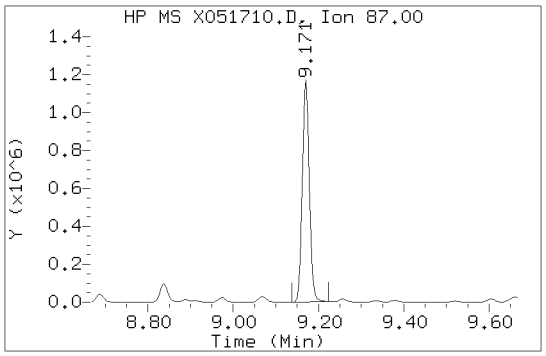
BEFORE

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87
AREA
1382484
HEIGHT
1171829
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
1382484
HEIGHT
1171829
18-May-2023
13:42
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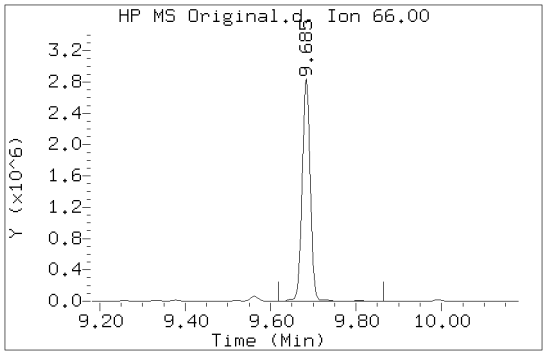


Dicyclopentadiene (77-73-6)

Reason Code:

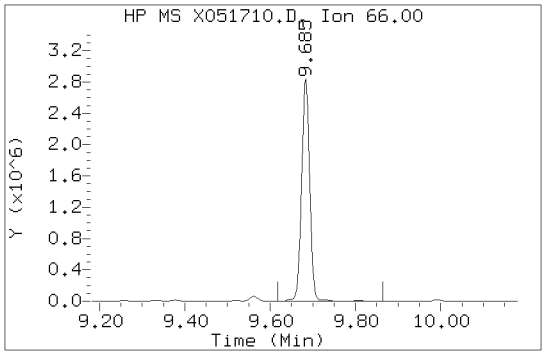
BEFORE

MASS
66
AREA
3879408
HEIGHT
2838824
18-May-2023
13:42
linh
pham



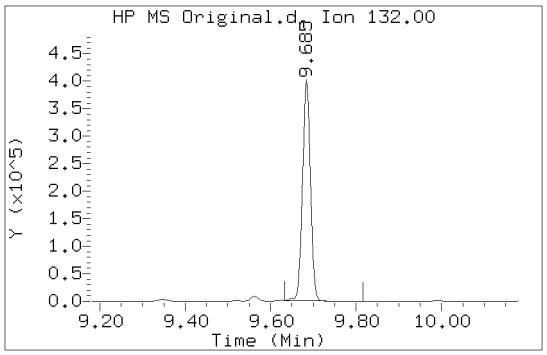
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HEIGHT
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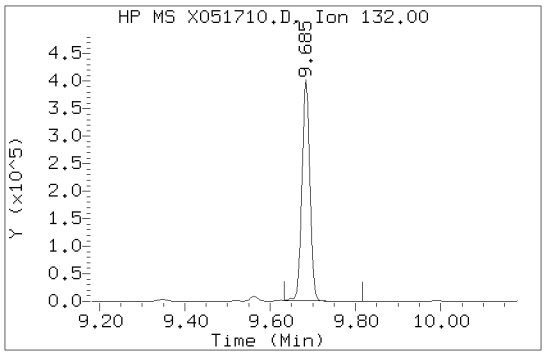
BEFORE

MASS
132
AREA
533677
HEIGHT
401583
18-May-2023
13:42
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AFTER

MASS
132
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533677
HEIGHT
401583
18-May-2023
13:42
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pham

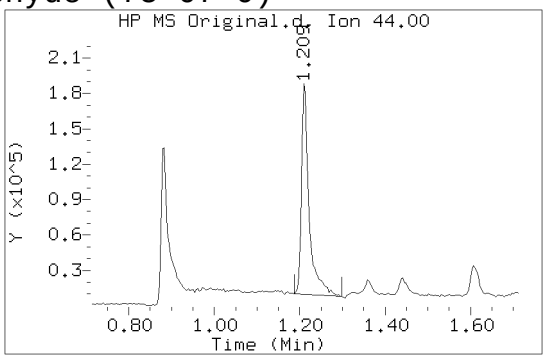


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Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

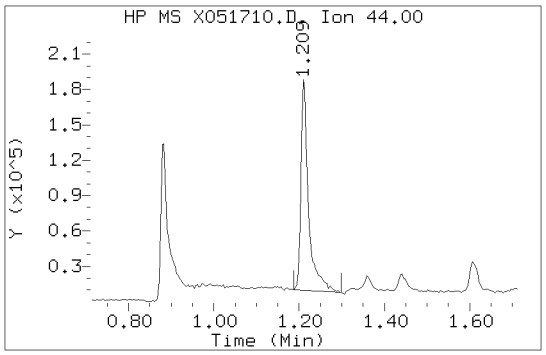
Acetaldehyde (75-07-0)

Reason Code:

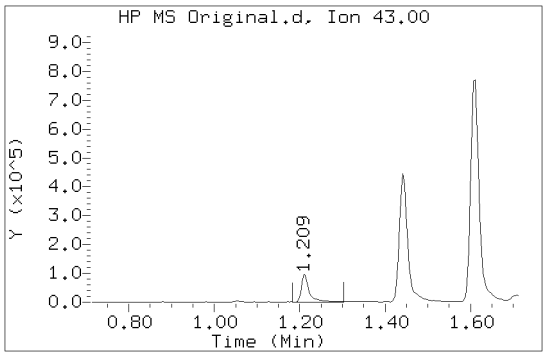
BEFORE
MASS
44
AREA
227240
HEIGHT
178408
18-May-2023
13:42
linh
pham



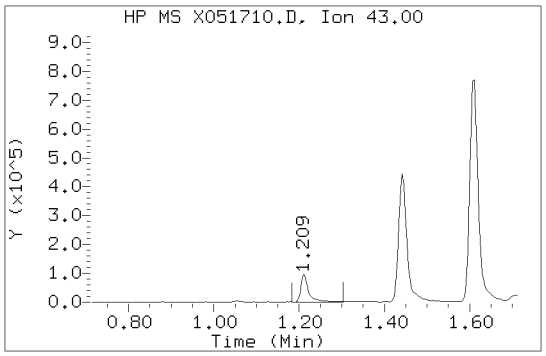
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178408
18-May-2023
13:42
linh
pham



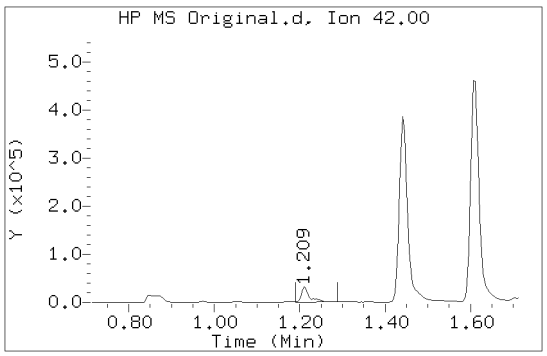
BEFORE
MASS
43
AREA
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HEIGHT
95773
18-May-2023
13:42
linh
pham



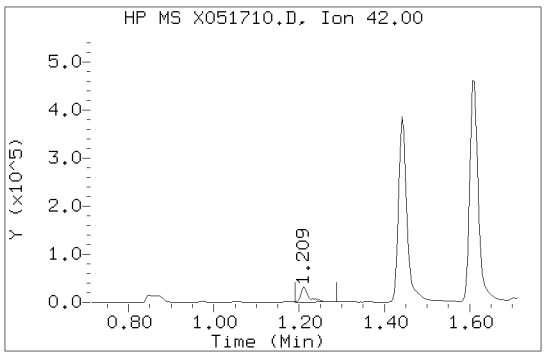
AFTER
MASS
43
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122960
HEIGHT
95773
18-May-2023
13:42
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BEFORE
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42
AREA
42386
HEIGHT
31132
18-May-2023
13:42
linh
pham



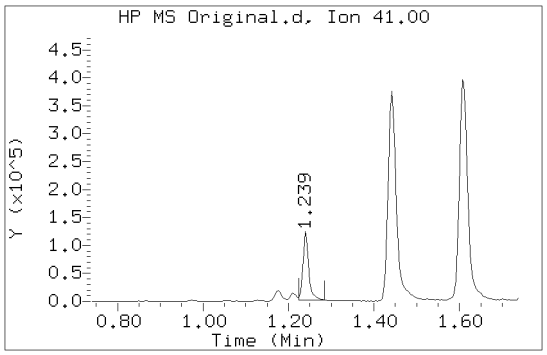
AFTER
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42
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HEIGHT
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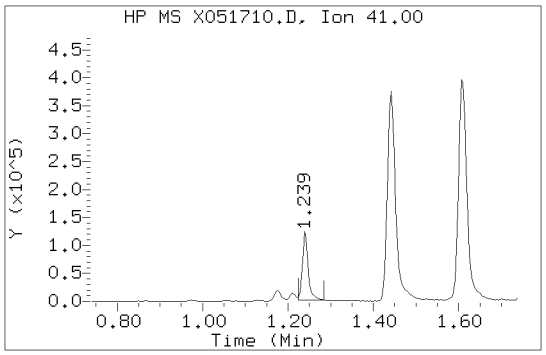
Isobutylene (115-11-7)

Reason Code:

BEFORE
MASS
41
AREA
117191
HEIGHT
121869
18-May-2023
13:42
linh
pham



AFTER
MASS
41
AREA
117191
HEIGHT
121869
18-May-2023
13:42
linh
pham



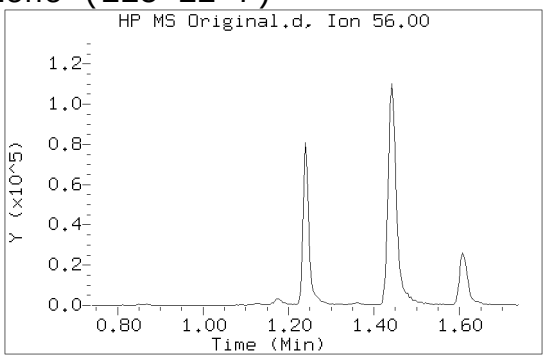
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051710.D
Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

Isobutylene (115-11-7)

Reason Code:

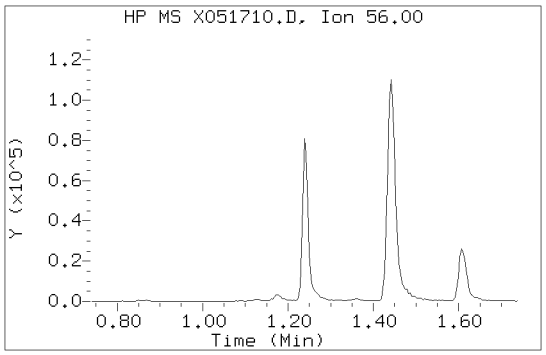
BEFORE

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56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



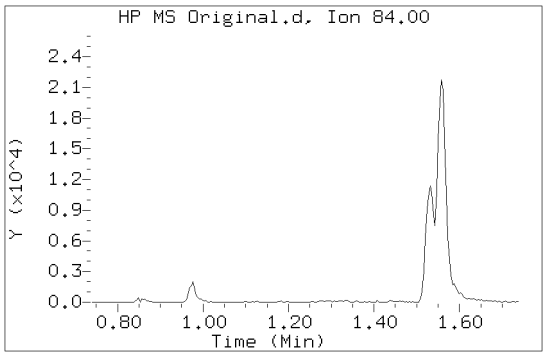
AFTER

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18-May-2023
13:42
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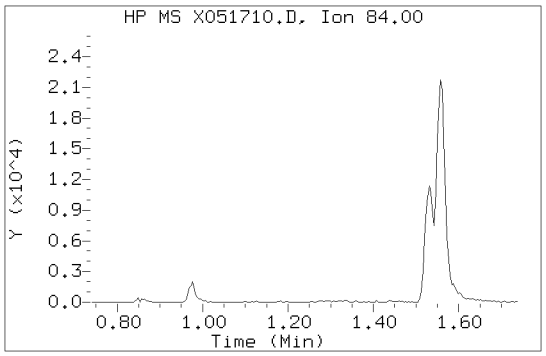
BEFORE

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84
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HEIGHT
0
18-May-2023
13:42
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AFTER

MASS
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HEIGHT
0
18-May-2023
13:42
linh
pham

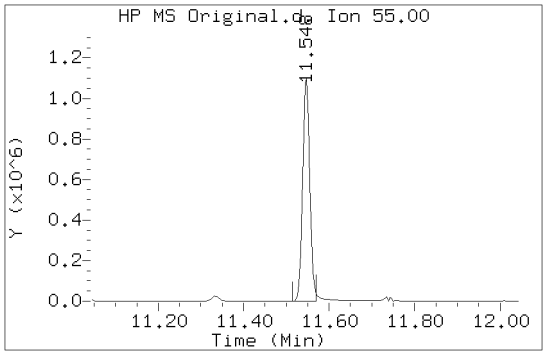


2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

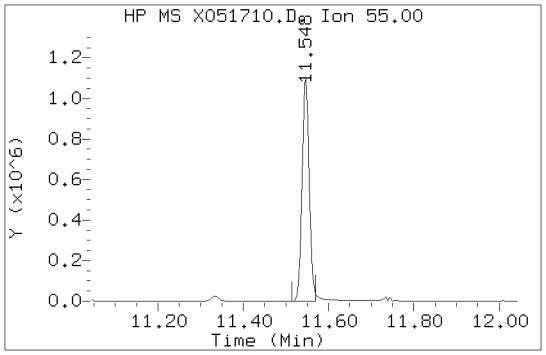
BEFORE

MASS
55
AREA
1323514
HEIGHT
1095822
18-May-2023
13:42
linh
pham



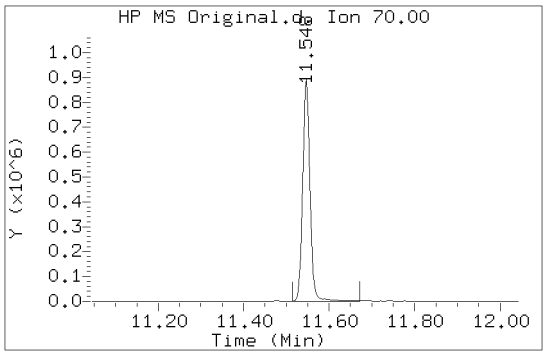
AFTER

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18-May-2023
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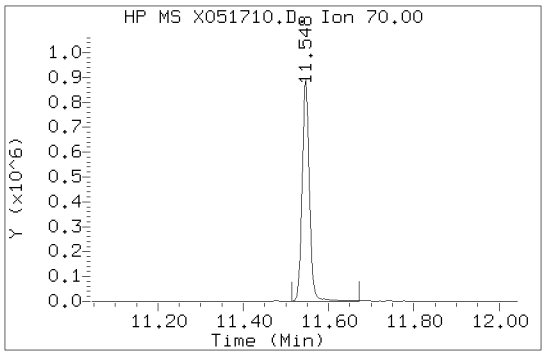
BEFORE

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70
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1094875
HEIGHT
891074
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
1094875
HEIGHT
891074
18-May-2023
13:42
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051711.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051711.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 17-MAY-2023 15:47
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 15:26 Cal File: X051710.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	575301	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	308206	4000.00	3955.71
140 1,3-Butadiene	54	1.164	1.164	(0.279)	1240077	200.000	203.65(A)
25 Methacrylonitrile	41	3.814	3.814	(0.913)	982149	200.000	191.51
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	2962148	4000.00	3950.01
13 Acetonitrile	39	2.194	2.194	(0.525)	1099277	2000.00	1984.78
14 Allyl Chloride	41	2.194	2.194	(0.525)	2688697	200.000	192.45
4 Propionitrile	54	3.649	3.649	(0.873)	1551389	2000.00	1966.49
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	433084	200.000	202.63(A)
194 Acetaldehyde	44	1.209	1.209	(0.289)	294948	800.000	780.67(M)
23 Chloroprene	53	1.767	1.767	(0.423)	459018	200.000	197.65
130 Ethyl Acetate	43	3.570	3.570	(0.855)	840211	200.000	205.79(AM)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	994102	200.000	197.68
49 Ethyl Methacrylate	69	6.787	6.787	(1.368)	1774509	200.000	196.06
131 Methyl Acrylate	55	3.679	3.679	(0.881)	1226368	200.000	219.02(A)
132 n-Butanol	56	5.253	5.253	(1.258)	702850	4000.00	4007.65(A)
136 n-Hexane	57	2.768	2.768	(0.663)	1146601	200.000	127.07
139 Diethyl ether	59	1.756	1.756	(0.420)	965882	200.000	196.50
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	358657	400.000	378.20
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	2216747	200.000	196.58

156 Diisopropyl ether	45	2.997	2.997 (0.717)	3282435	200.000	188.57
162 Butyl acrylate	55	8.249	8.249 (1.076)	2742517	200.000	200.46(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.707	1.707	(0.409)	271159	4000.00	3999.19
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	2657537	200.000	193.79
	182 Epichlorohydrin	57	6.093	6.093	(1.228)	485179	800.000	839.42(A)
	164 Dicyclopentadiene	66	9.684	9.684	(1.002)	5862638	200.000	215.30(AM)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	4693237	200.000	201.42(A)
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	1922507	200.000	200.46(A)
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	3371958	200.000	230.01(A)
	134 Cyclohexanone	55	8.642	8.642	(0.894)	1113172	4000.00	3532.03
	202 Isobutylene	41	1.239	1.239	(0.297)	146298	200.000	187.94(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	2966598	200.000	196.35
	163 Butyl methacrylate	41	9.171	9.171	(0.949)	2060657	200.000	231.01(AM)
	188 Isopropyl acetate	43	4.672	4.672	(0.942)	2963534	200.000	194.41
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	2068504	200.000	193.34(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	1100606	200.000	196.38
	3 Chloromethane	50	1.077	1.077	(0.258)	1642174	200.000	203.44(A)
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	1503217	200.000	197.28
	6 Bromomethane	94	1.329	1.329	(0.318)	787052	200.000	197.40
	7 Chloroethane	64	1.400	1.400	(0.335)	860698	200.000	180.95
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	1563856	200.000	194.93
	9 Acrolein	56	1.437	1.437	(0.344)	196569	400.000	408.36(A)
	10 Acetone	43	1.970	1.970	(0.472)	771960	400.000	397.84
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	1000583	200.000	197.23
	15 Iodomethane	142	2.026	2.026	(0.485)	3137706	400.000	347.68
	16 Acrylonitrile	53	2.528	2.528	(0.605)	808513	400.000	425.62(A)
	17 Methylene Chloride	84	2.299	2.299	(0.550)	1096267	200.000	181.78
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	2988752	200.000	188.86
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	6265168	400.000	393.62
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	1006944	200.000	191.36
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	5734192	400.000	391.64
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	1815635	200.000	188.18
	24 2-Butanone	43	3.570	3.570	(0.855)	851204	400.000	444.58(A)
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	1382720	200.000	195.50
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	1165294	200.000	188.28
	28 Chloroform	83	3.900	3.900	(0.934)	1775812	200.000	185.70
	29 Bromochloromethane	128	3.788	3.788	(0.907)	588978	200.000	180.56
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	1008592	200.000	195.52
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	1447733	200.000	196.59
	32 1,1-Dichloropropene	75	4.275	4.275	(0.862)	1450289	200.000	208.09(A)
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	1309874	200.000	189.27
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	1301809	200.000	202.19(A)
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	1089460	200.000	195.96
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	885864	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	4421772	200.000	196.19
	38 Trichloroethene	130	5.205	5.205	(1.049)	1275318	200.000	209.95(A)
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	1525884	200.000	197.84
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.218)	1113726	400.000	434.77(A)
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	1252495	200.000	195.57
	44 Dibromomethane	93	5.549	5.549	(1.119)	750316	200.000	193.04
	45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	2326966	400.000	351.99
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	2158565	200.000	209.44(A)
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	961189	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	4375608	200.000	178.65

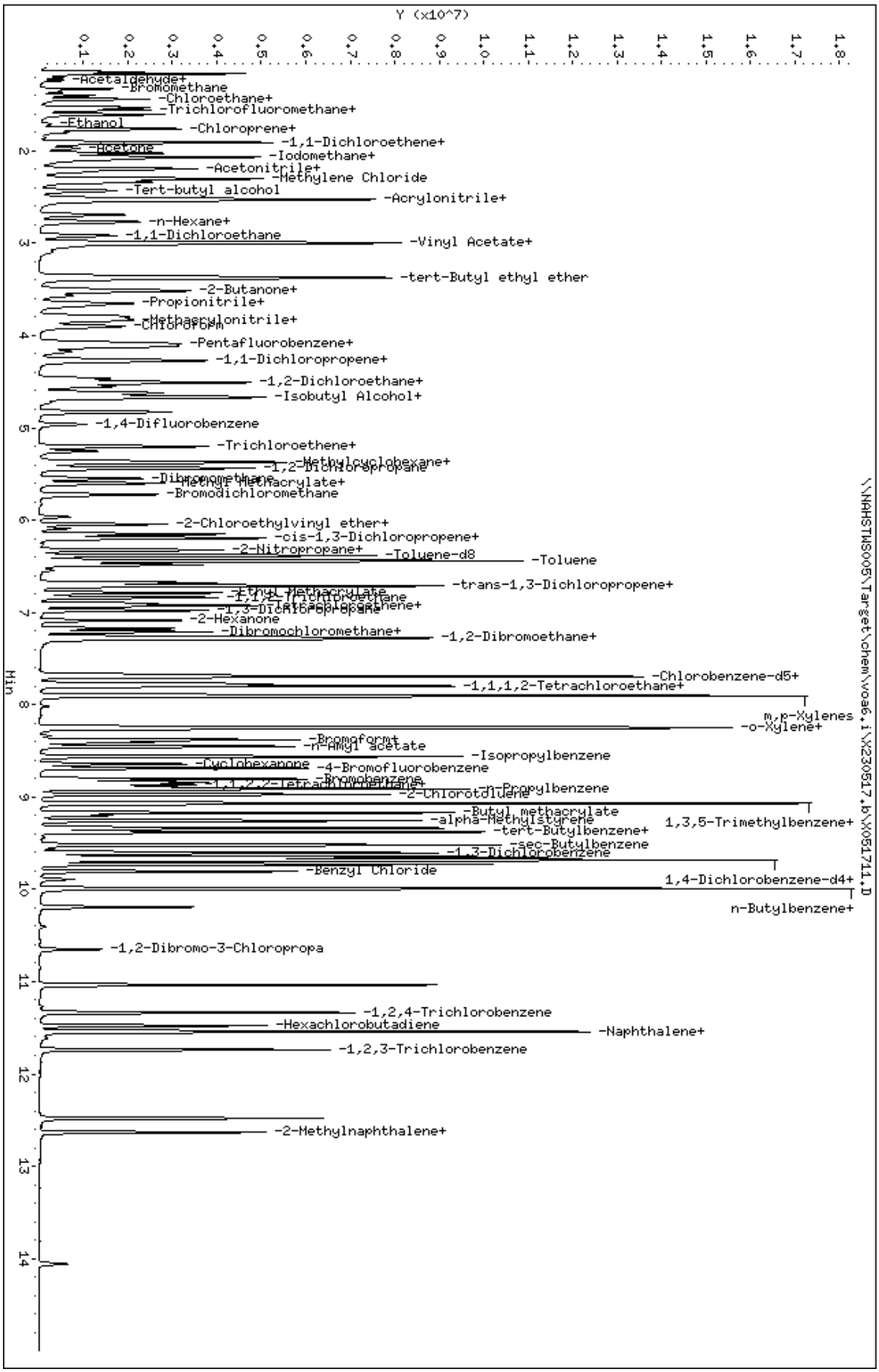
50	Toluene	91	6.445	6.445 (0.841)	4892665	200.000	181.41
51	trans-1,3-Dichloropropene	75	6.678	6.678 (1.346)	1762080	200.000	214.08(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.086	7.086	(0.924)	1602869	400.000	354.27(H)
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	954306	200.000	173.26
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	1941667	200.000	169.42
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	1364034	200.000	182.50
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	972911	200.000	186.20
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	1217783	200.000	181.44
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	1116920	200.000	200.15(A)
	59 Chlorobenzene	112	7.690	7.690	(1.003)	3516975	200.000	188.37
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	1237724	200.000	188.91
	61 Ethylbenzene	106	7.799	7.799	(1.017)	1737875	200.000	189.43
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	4280462	400.000	374.63
	63 o-Xylene	106	8.237	8.237	(1.074)	2140967	200.000	191.63
	64 Styrene	104	8.256	8.256	(1.077)	3596350	200.000	192.28
	66 Bromoform	173	8.406	8.406	(1.096)	959521	200.000	189.94
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	5170407	200.000	192.93
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	1649045	200.000	180.30
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	1661161	200.000	180.16
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	517274	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	1205893	200.000	182.21
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	6208704	200.000	193.67
	74 Bromobenzene	156	8.803	8.803	(0.911)	1520154	200.000	188.30
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	4459402	200.000	192.05
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	3700996	200.000	177.77
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	4297645	200.000	187.70
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	3971944	200.000	203.21(A)
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	4785228	200.000	201.41(A)
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	5990030	200.000	219.76(A)
	82 p-Isopropyltoluene	119	9.650	9.650	(0.999)	5063968	200.000	215.01(A)
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	2974100	200.000	204.34(A)
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	3022015	200.000	197.56
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	4466388	200.000	221.48(A)
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	2796933	200.000	193.33
	89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.102)	298660	200.000	193.43
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	2030116	200.000	202.82(A)
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	872086	200.000	202.49(A)
	92 Naphthalene	128	11.536	11.536	(1.194)	4700011	200.000	189.10
	93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	1835393	200.000	187.19
M	94 1,2-Dichloroethylene (total)	96				2172238	400.000	(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	1459472	200.000	202.72(A)
	138 Freon TF	101	1.910	1.910	(0.457)	933585	200.000	133.62
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	2966598	200.000	217.76(A)
	146 Methyl Acetate	43	2.228	2.228	(0.533)	699726	200.000	205.81(A)
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	2191222	4000.00	3856.51
	149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	1382086	4000.00	3927.32

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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Instrument: voa6.i
Operator: PC
Column diameter: 0.18

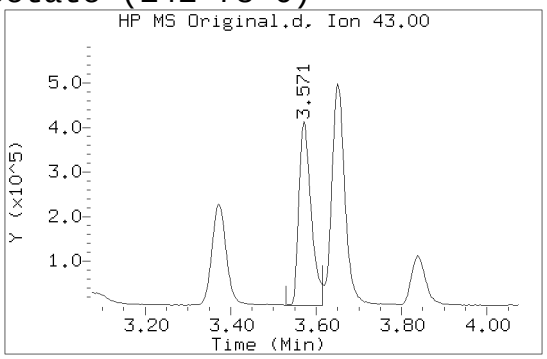
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Ethyl Acetate (141-78-6)

Reason Code:

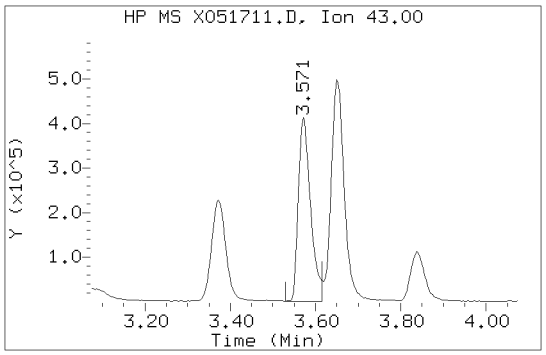
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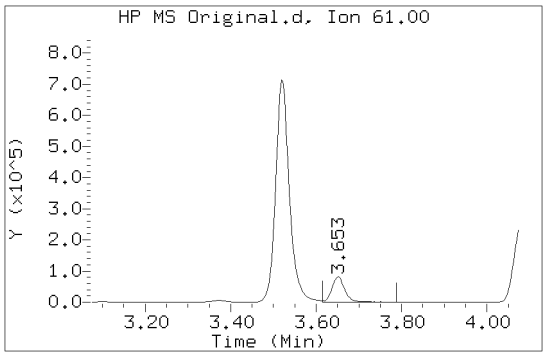
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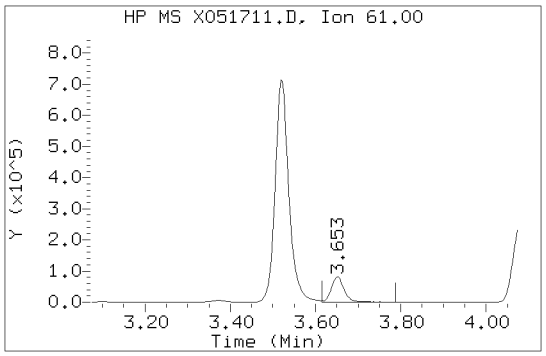
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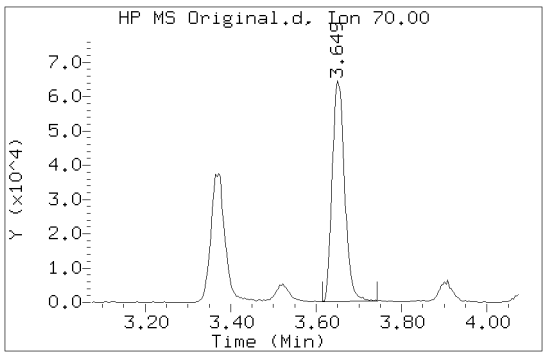
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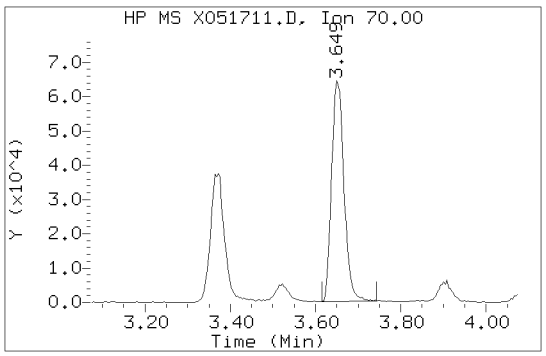
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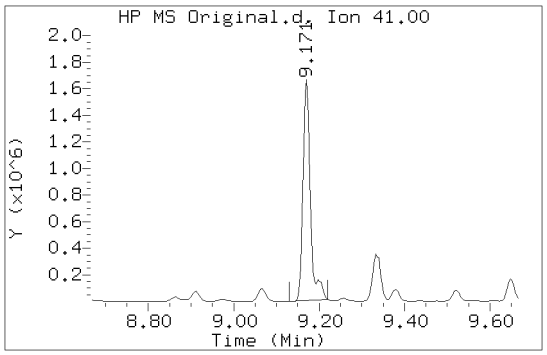


Butyl methacrylate (97-88-1)

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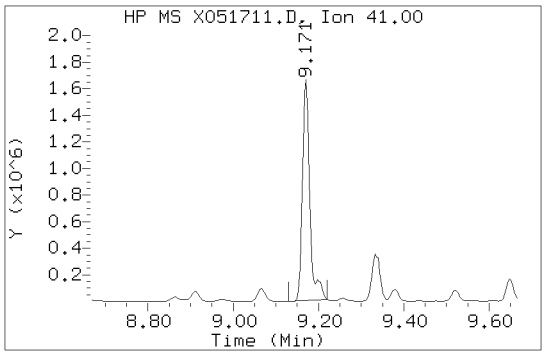
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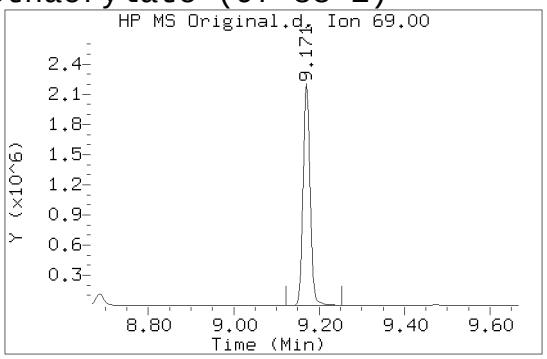


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Butyl methacrylate (97-88-1)

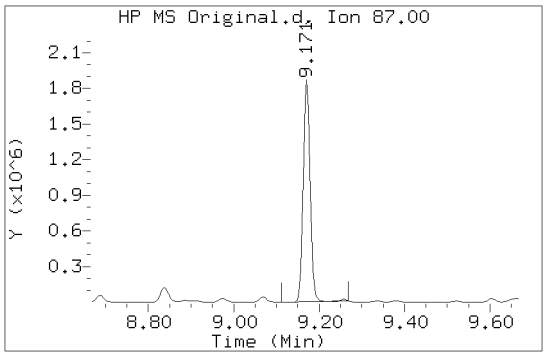
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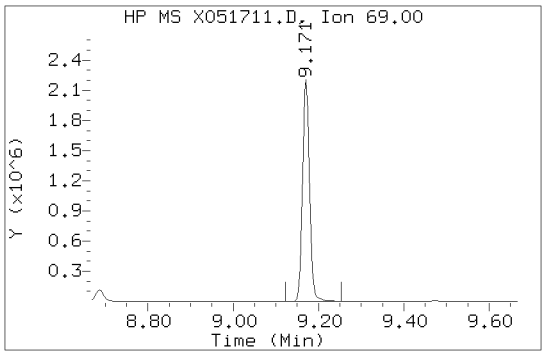
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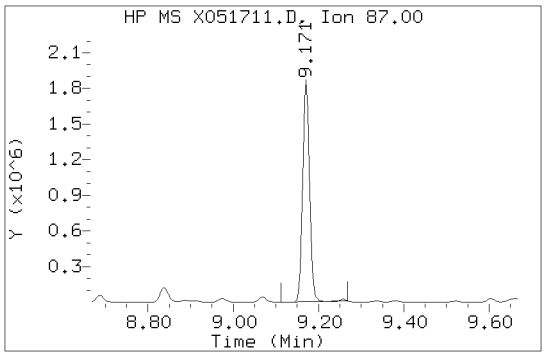
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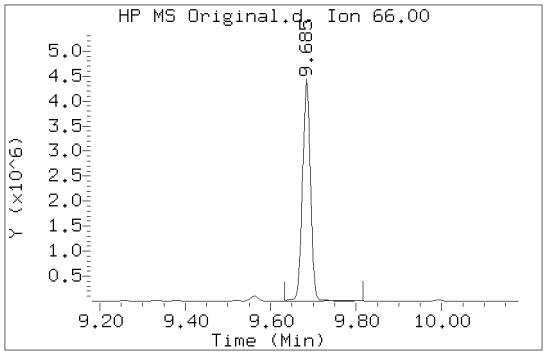
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Dicyclopentadiene (77-73-6)

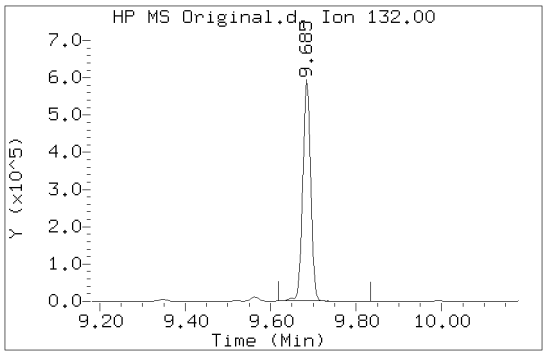
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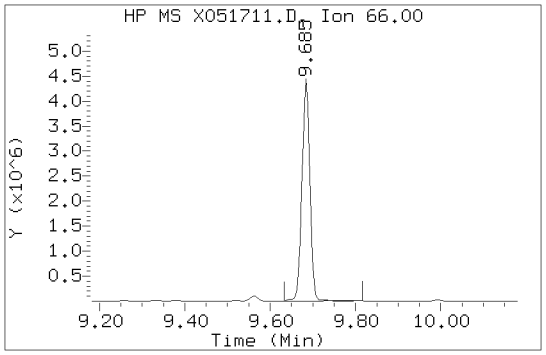
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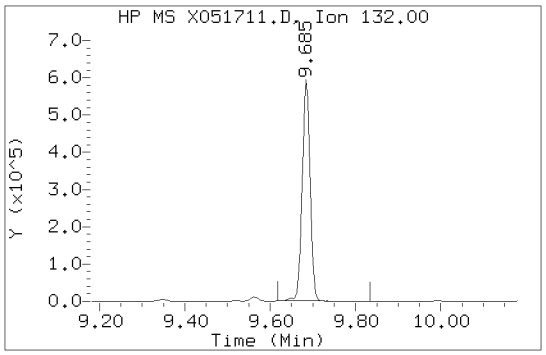
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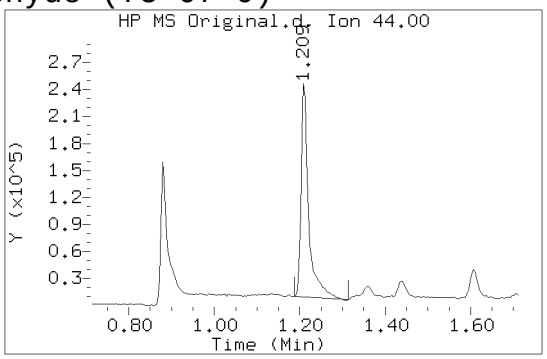
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LabSampID : VSTD200

Acetaldehyde (75-07-0)

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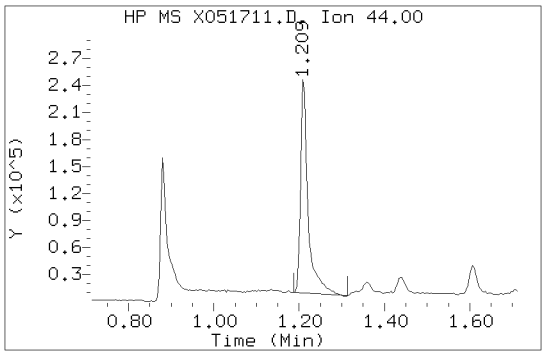
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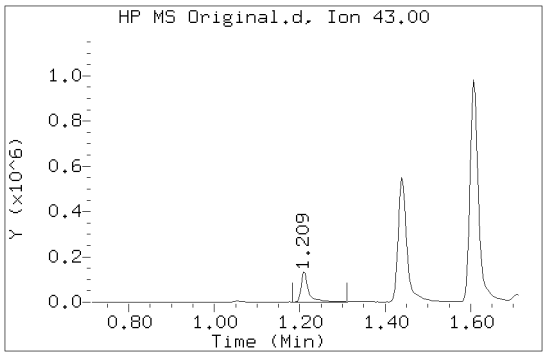
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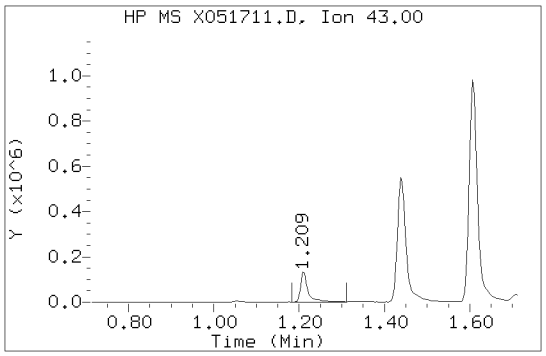
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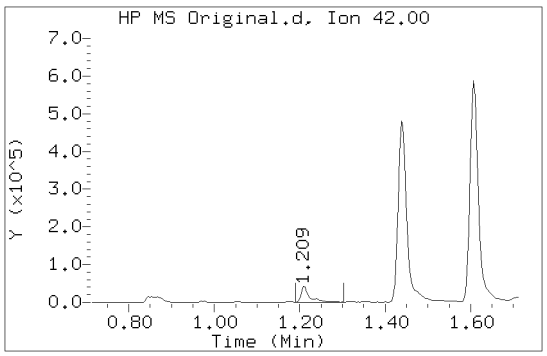
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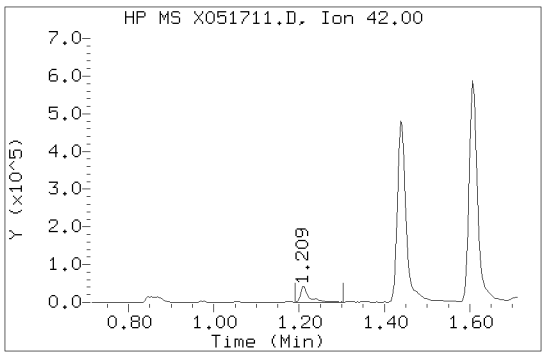
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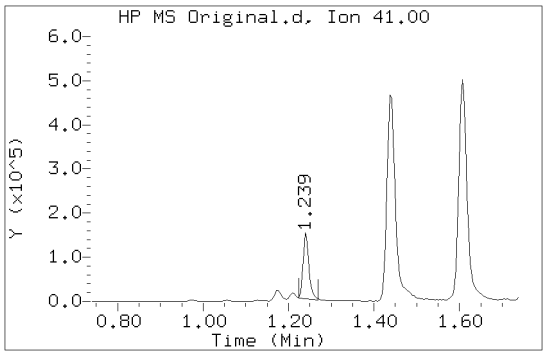


Isobutylene (115-11-7)

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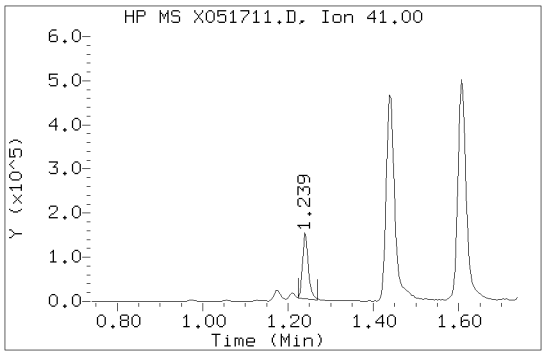
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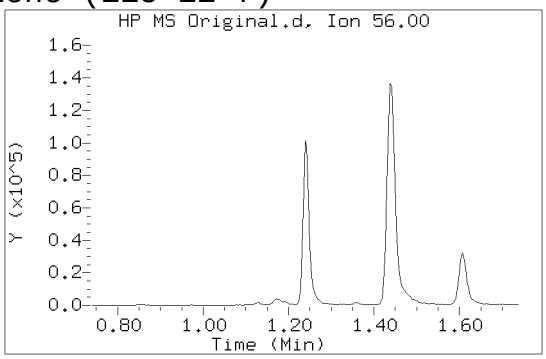
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Isobutylene (115-11-7)

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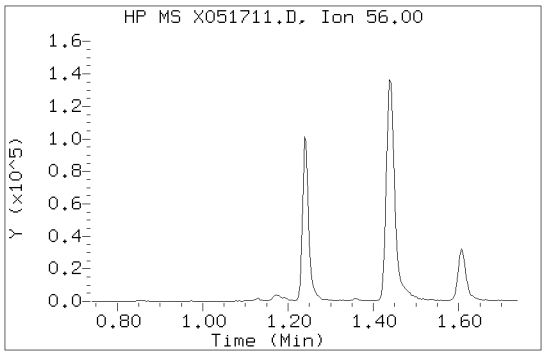
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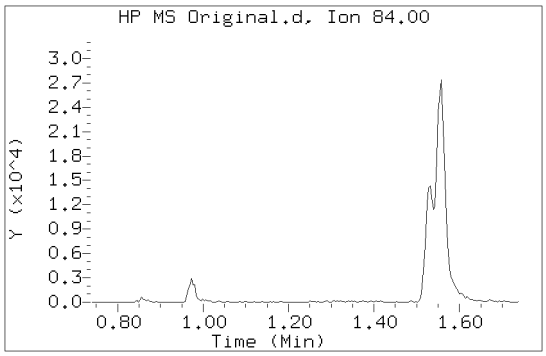
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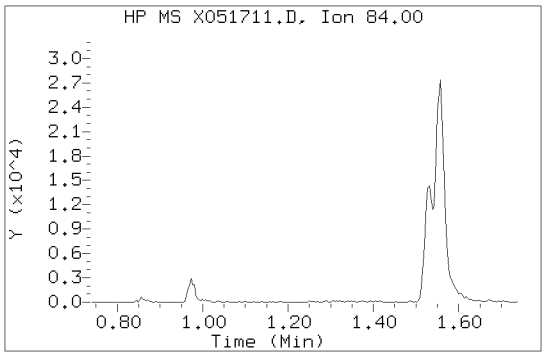
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AFTER

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ALS Laboratory Group

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Als bottle: 14 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.177	(1.000)	605858	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	85434	1041.21	1041.21
140 1,3-Butadiene	54	1.164	1.164	(0.279)	313186	48.8401	48.84
25 Methacrylonitrile	41	3.818	3.814	(0.914)	259925	48.1276	48.12
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	833146	1054.96	1054.96
13 Acetonitrile	39	2.198	2.194	(0.526)	303699	520.683	520.68
14 Allyl Chloride	41	2.198	2.194	(0.526)	756356	51.4089	51.40
4 Propionitrile	54	3.649	3.649	(0.873)	400147	481.632	481.63
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	104877	52.5292	52.52
194 Acetaldehyde	44	1.212	1.209	(0.290)	79351	189.567	189.56(M)
23 Chloroprene	53	1.771	1.767	(0.424)	114605	46.8595	46.85(M)
130 Ethyl Acetate	43	3.574	3.570	(0.856)	207512	48.2633	48.26(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	292158	55.1664	55.16
49 Ethyl Methacrylate	69	6.783	6.787	(1.366)	435786	45.5360	45.53
131 Methyl Acrylate	55	3.686	3.679	(0.882)	280799	47.6201	47.62
132 n-Butanol	56	5.253	5.253	(1.258)	171293	979.866	979.86
136 n-Hexane	57	2.768	2.768	(0.663)	276764	50.3101	50.31
139 Diethyl ether	59	1.756	1.756	(0.420)	234885	45.3772	45.37
142 Tetrahydrofuran	42	3.844	3.840	(0.920)	97513	97.6405	97.64
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	519601	49.1676	49.16

156	Diisopropyl ether	45	2.997	2.997 (0.717)	840058	45.8263	45.82
162	Butyl acrylate	55	8.249	8.249 (1.076)	646901	50.6163	50.61

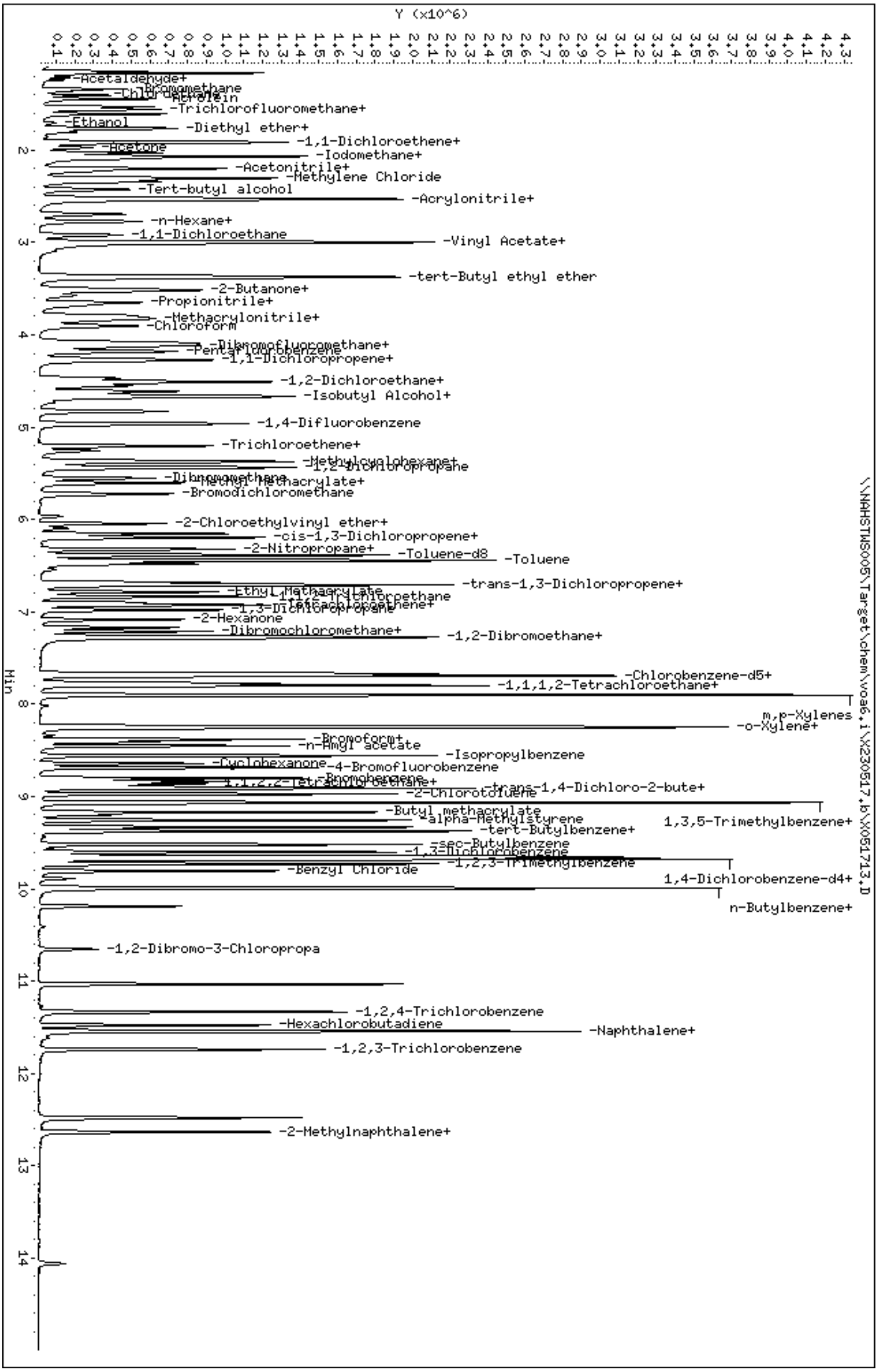
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	167 Ethanol	45	1.703	1.707	(0.408)	71425	999.173	999.17
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	624359	48.7375	48.73
	182 Epichlorohydrin	57	6.093	6.093	(1.227)	118982	194.678	194.67
	164 Dicyclopentadiene	66	9.681	9.684	(1.002)	1210663	47.4435	47.44(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1011845	46.3388	46.33
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.196)	434758	48.3720	48.37
	86 Benzyl Chloride	91	9.804	9.808	(1.279)	774949	56.5875	56.58
	134 Cyclohexanone	55	8.642	8.642	(0.895)	303859	1028.47	1028.47
	202 Isobutylene	41	1.239	1.239	(0.297)	36582	44.6245	44.62(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	791647	50.8040	50.80
	163 Butyl methacrylate	41	9.171	9.171	(0.950)	421622	50.4363	50.43(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.941)	834631	51.7801	51.78
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	499534	49.9825	49.98
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	301896	51.6218	51.62
	3 Chloromethane	50	1.077	1.077	(0.258)	390973	45.9944	45.99
	5 Vinyl Chloride	62	1.145	1.141	(0.274)	381971	47.6024	47.60
	6 Bromomethane	94	1.340	1.329	(0.321)	215083	51.4213	51.42
	7 Chloroethane	64	1.404	1.400	(0.336)	232629	46.4417	46.44
	8 Trichlorofluoromethane	101	1.561	1.557	(0.374)	394571	46.7022	46.70
	9 Acrolein	56	1.445	1.437	(0.346)	45272	89.3080	89.30
	10 Acetone	43	1.973	1.970	(0.472)	225682	107.296	107.29
	11 1,1-Dichloroethene	96	1.913	1.910	(0.458)	251500	47.0765	47.07
	15 Iodomethane	142	2.026	2.026	(0.485)	680448	89.7052	89.70
	16 Acrylonitrile	53	2.532	2.528	(0.606)	209858	104.903	104.90
	17 Methylene Chloride	84	2.303	2.299	(0.551)	295217	46.4833	46.48
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	770398	46.2285	46.22
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	1636452	97.6276	97.62
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	261999	47.2815	47.28
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	1538749	99.7949	99.79
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	469044	46.1629	46.16
	24 2-Butanone	43	3.574	3.570	(0.856)	217644	107.943	107.94
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	369927	49.4326	49.43
	27 cis-1,2-Dichloroethene	96	3.525	3.521	(0.844)	303896	46.6260	46.62
	28 Chloroform	83	3.904	3.900	(0.935)	483298	47.9927	47.99
	29 Bromochloromethane	128	3.791	3.788	(0.908)	164662	47.9337	47.93
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	282259	51.3297	51.32
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	382810	49.3624	49.36
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	368251	49.9699	49.96
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	366564	50.0928	50.09
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	322787	47.4121	47.41
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	300903	51.0542	51.05
*	36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	936722	50.0000	
	37 Benzene	78	4.511	4.507	(0.909)	1175345	49.3189	49.31
	38 Trichloroethene	130	5.205	5.205	(1.048)	310734	48.3792	48.37
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	424187	52.0124	52.01
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	264822	97.7687	97.76
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	359715	53.1184	53.11
	44 Dibromomethane	93	5.550	5.549	(1.118)	212439	51.6906	51.69
	45 4-Methyl-2-Pentanone	43	6.322	6.325	(0.824)	590518	95.6214	95.62
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	530753	48.7038	48.70
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	897923	50.0000	
$	48 Toluene-d8	98	6.382	6.385	(0.832)	1095579	47.8850	47.88

50 Toluene	91	6.442	6.445 (0.840)	1207105	47.9120	47.91
51 trans-1,3-Dichloropropene	75	6.678	6.678 (1.345)	438434	50.3762	50.37

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	52	2-Hexanone	43	7.083	7.086	(0.924)	406057	96.0731	96.07
	53	1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	254039	49.3737	49.37
	54	1,3-Dichloropropane	76	6.978	6.978	(0.910)	500943	46.7895	46.78
	55	Dibromochloromethane	129	7.173	7.173	(0.935)	330266	47.3014	47.30
	56	Tetrachloroethene	164	6.925	6.925	(0.903)	238239	48.8094	48.80
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	306248	48.8454	48.84
	58	1-Chlorohexane	55	7.694	7.694	(1.550)	248535	43.5783	43.57
	59	Chlorobenzene	112	7.690	7.690	(1.003)	826826	47.4077	47.40
	60	1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	300603	49.1138	49.11
	61	Ethylbenzene	106	7.799	7.799	(1.017)	425571	49.6580	49.65
	62	m,p-Xylenes	106	7.900	7.904	(1.030)	1048935	98.2737	98.27
	63	o-Xylene	106	8.237	8.237	(1.074)	511213	48.9831	48.98
	64	Styrene	104	8.256	8.256	(1.077)	877898	50.2454	50.24
	66	Bromoform	173	8.406	8.406	(1.096)	233123	49.3994	49.39
	67	Isopropylbenzene	105	8.560	8.560	(1.116)	1190478	47.5520	47.55
	68	1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	413642	48.5219	48.52
$	69	4-Bromofluorobenzene	95	8.687	8.687	(1.133)	412962	47.9451	47.94
*	70	1,4-Dichlorobenzene-d4	152	9.658	9.662	(1.000)	484770	50.0000	
	71	1,2,3-Trichloropropane	75	8.863	8.863	(0.918)	302139	48.7153	48.71
	73	n-Propylbenzene	91	8.908	8.912	(0.922)	1461231	48.6381	48.63
	74	Bromobenzene	156	8.803	8.803	(0.912)	365734	48.3407	48.34
	75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	1060981	48.7584	48.75
	76	2-Chlorotoluene	91	8.972	8.972	(0.929)	898591	46.0562	46.05
	77	4-Chlorotoluene	91	9.066	9.069	(0.939)	1050697	48.9671	48.96
	78	tert-Butylbenzene	119	9.332	9.336	(0.966)	852534	46.5417	46.54
	79	1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1054574	47.3634	47.36
	81	sec-Butylbenzene	105	9.519	9.519	(0.986)	1209361	47.3457	47.34
	82	p-Isopropyltoluene	119	9.647	9.650	(0.999)	1091077	49.4337	49.43
	83	1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	650504	47.6926	47.69
	84	1,4-Dichlorobenzene	146	9.681	9.680	(1.002)	674194	47.0320	47.03
	87	n-Butylbenzene	91	9.992	9.992	(1.035)	957333	50.6562	50.65
	88	1,2-Dichlorobenzene	146	9.992	9.992	(1.035)	633083	46.6958	46.69
	89	1,2-Dibromo-3-Chloropropane	155	10.655	10.651	(1.103)	74847	51.4851	51.48
	90	1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	489140	52.1456	52.14
	91	Hexachlorobutadiene	225	11.476	11.476	(1.188)	208990	51.7815	51.78
	92	Naphthalene	128	11.540	11.536	(1.195)	1150310	49.3858	49.38
	93	1,2,3-Trichlorobenzene	180	11.739	11.738	(1.215)	444341	48.3579	48.35
M	94	1,2-Dichloroethylene (total)	96				565895	93.9074	93.90
M	95	Xylenes (total)	106				1560148	147.257	147.25
	141	Cyclohexane	56	4.118	4.118	(0.986)	376107	49.6076	49.60
	138	Freon TF	101	1.913	1.910	(0.458)	230845	51.2315	51.23
	147	Methylcyclohexane	55	5.377	5.377	(1.083)	791647	54.9561	54.95
	146	Methyl Acetate	43	2.232	2.228	(0.534)	194695	54.3777	54.37
	148	Tert-Butyl alcohol	59	2.427	2.431	(0.581)	562324	939.765	939.76
	149	Isopropyl Alcohol	45	2.093	2.097	(0.501)	401876	1084.37	1084.37

QC Flag Legend

M - Compound response manually integrated.



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Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

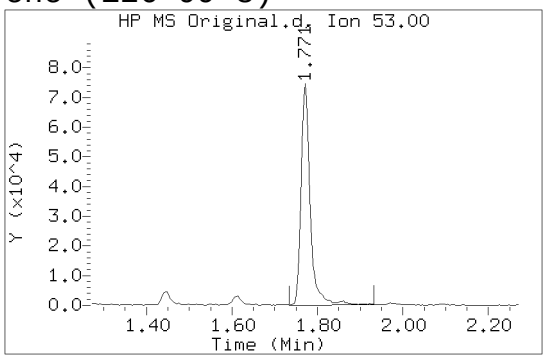
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LabSampID : ICV

Chloroprene (126-99-8)

Reason Code:

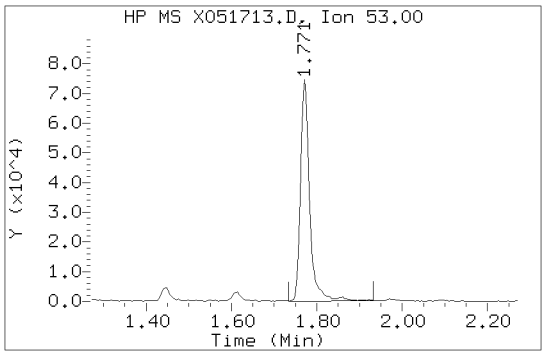
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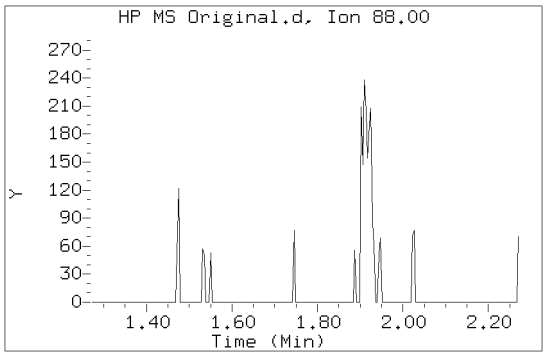
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18-May-2023
13:43
linh
pham



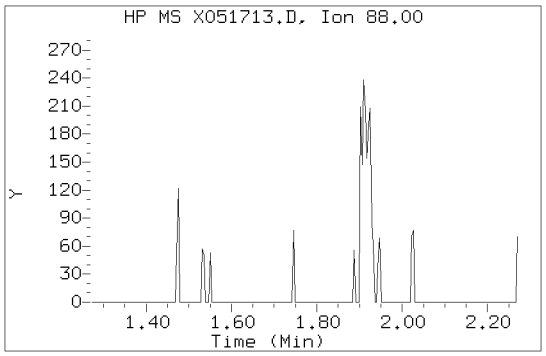
BEFORE

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham

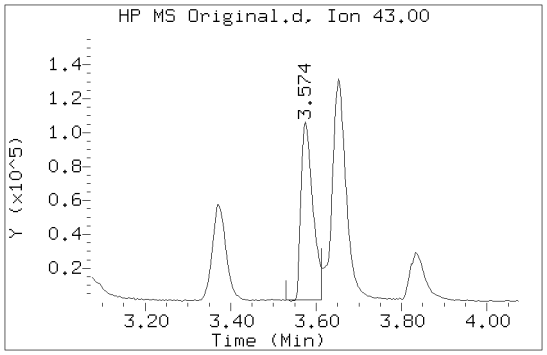


Ethyl Acetate (141-78-6)

Reason Code:

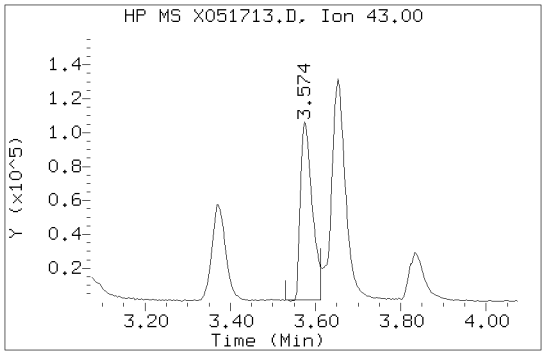
BEFORE

MASS
43
AREA
207512
HEIGHT
105273
18-May-2023
13:43
linh
pham



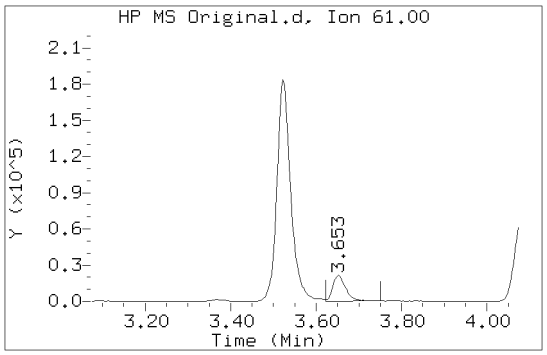
AFTER

MASS
43
AREA
207512
HEIGHT
105273
18-May-2023
13:43
linh
pham



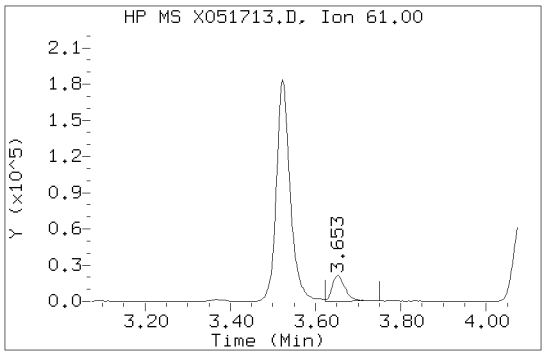
BEFORE

MASS
61
AREA
43828
HEIGHT
21319
18-May-2023
13:43
linh
pham



AFTER

MASS
61
AREA
43828
HEIGHT
21319
18-May-2023
13:43
linh
pham



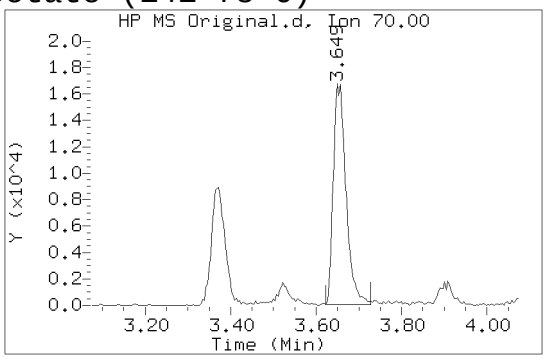
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Inj Date : 17-MAY-2023 16:29
InstruID : voa6.i
LabSampID : ICV

Ethyl Acetate (141-78-6)

Reason Code:

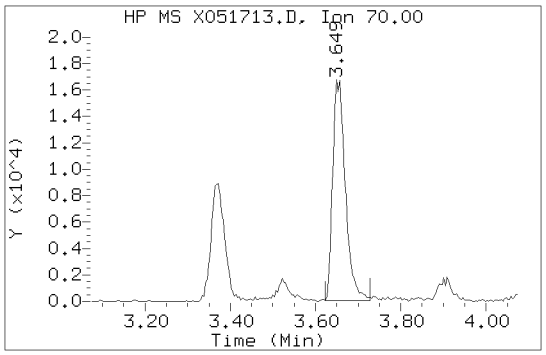
BEFORE

MASS
70
AREA
34528
HEIGHT
16715
18-May-2023
13:43
linh
pham



AFTER

MASS
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AREA
34528
HEIGHT
16715
18-May-2023
13:43
linh
pham

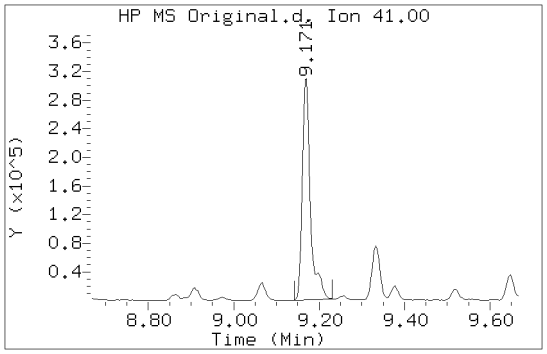


Butyl methacrylate (97-88-1)

Reason Code:

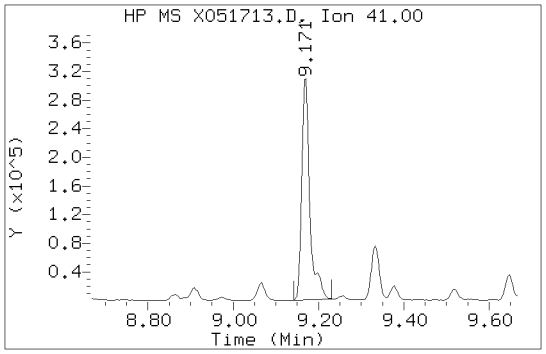
BEFORE

MASS
41
AREA
421622
HEIGHT
308974
18-May-2023
13:43
linh
pham



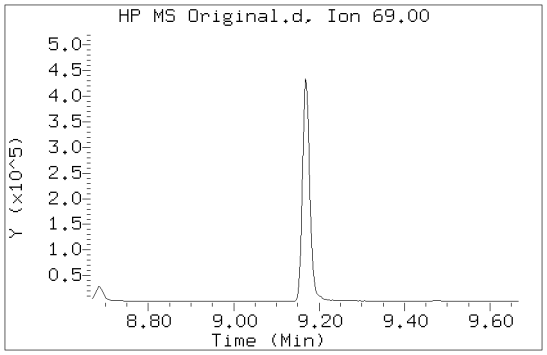
AFTER

MASS
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AREA
421622
HEIGHT
308974
18-May-2023
13:43
linh
pham



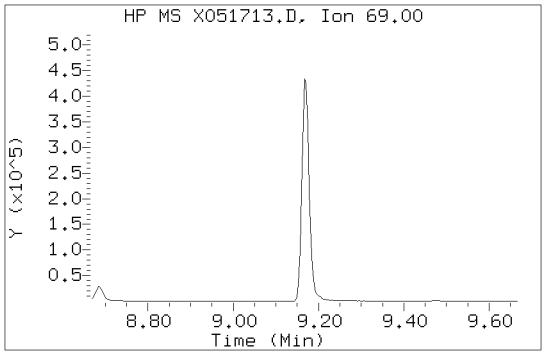
BEFORE

MASS
69
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



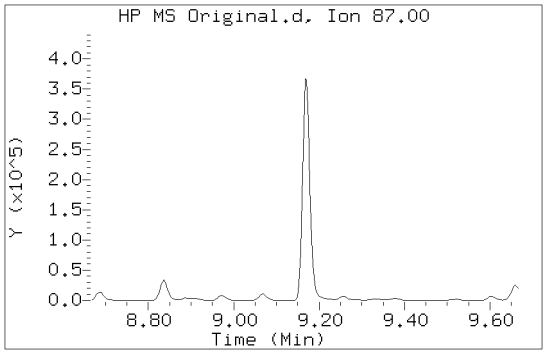
AFTER

MASS
69
AREA
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HEIGHT
0
18-May-2023
13:43
linh
pham



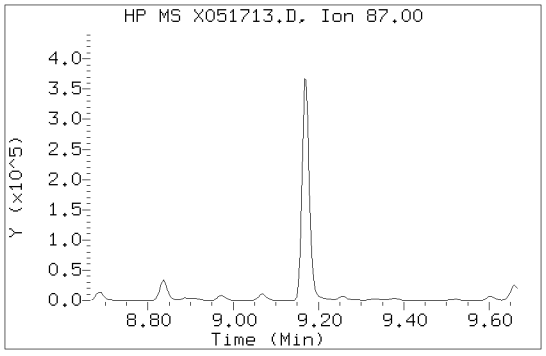
BEFORE

MASS
87
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



AFTER

MASS
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AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



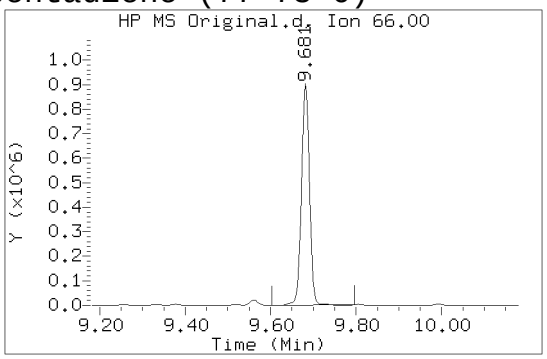
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Inj Date : 17-MAY-2023 16:29
InstruID : voa6.i
LabSampID : ICV

Dicyclopentadiene (77-73-6)

Reason Code:

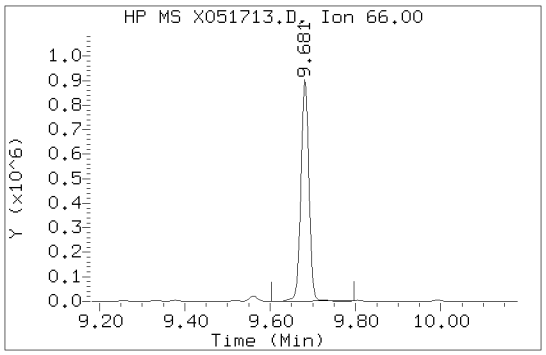
BEFORE

MASS
66
AREA
1210663
HEIGHT
902638
18-May-2023
13:43
linh
pham



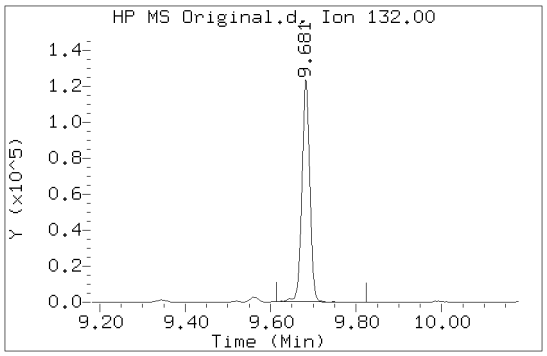
AFTER

MASS
66
AREA
1210663
HEIGHT
902638
18-May-2023
13:43
linh
pham



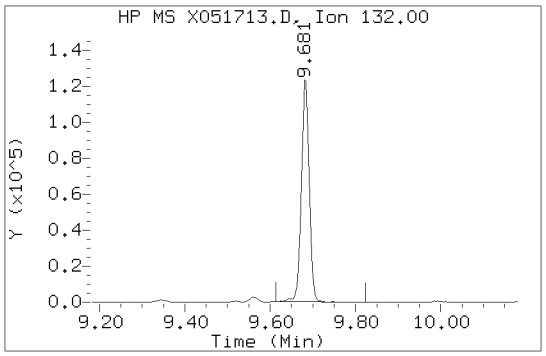
BEFORE

MASS
132
AREA
162759
HEIGHT
123157
18-May-2023
13:43
linh
pham



AFTER

MASS
132
AREA
162759
HEIGHT
123157
18-May-2023
13:43
linh
pham

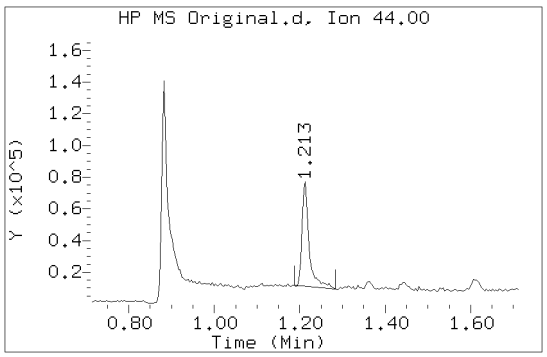


Acetaldehyde (75-07-0)

Reason Code:

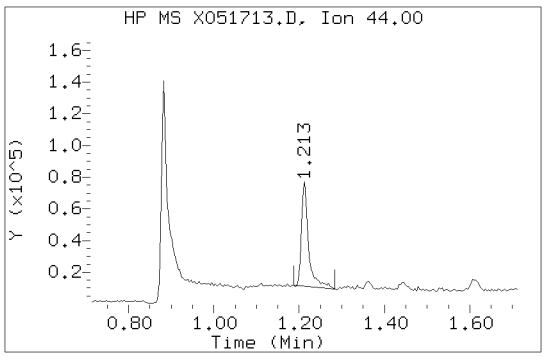
BEFORE

MASS
44
AREA
79351
HEIGHT
65950
18-May-2023
13:43
linh
pham



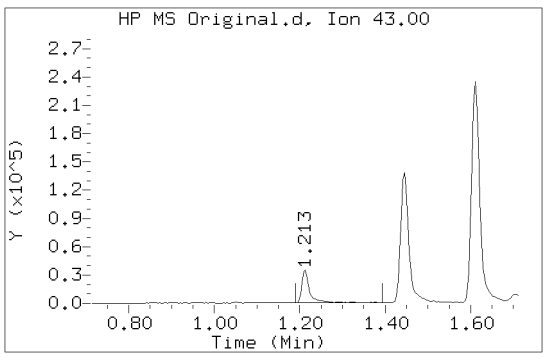
AFTER

MASS
44
AREA
79351
HEIGHT
65950
18-May-2023
13:43
linh
pham



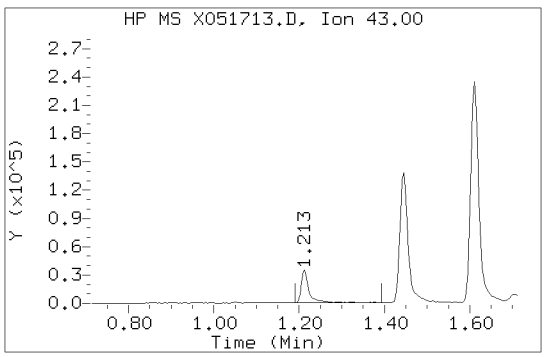
BEFORE

MASS
43
AREA
46507
HEIGHT
34773
18-May-2023
13:43
linh
pham



AFTER

MASS
43
AREA
46507
HEIGHT
34773
18-May-2023
13:43
linh
pham

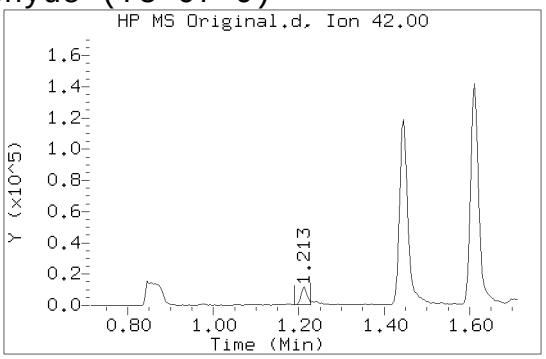


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Inj Date : 17-MAY-2023 16:29
InstruID : voa6.i
LabSampID : ICV

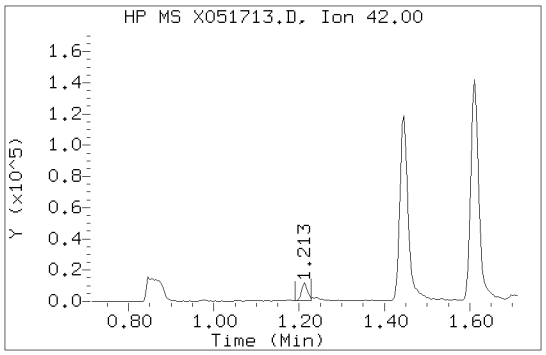
Acetaldehyde (75-07-0)

Reason Code:

BEFORE
MASS
42
AREA
11777
HEIGHT
11595
18-May-2023
13:43
linh
pham



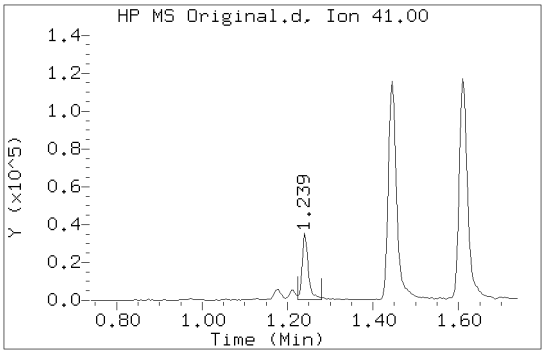
AFTER
MASS
42
AREA
11777
HEIGHT
11595
18-May-2023
13:43
linh
pham



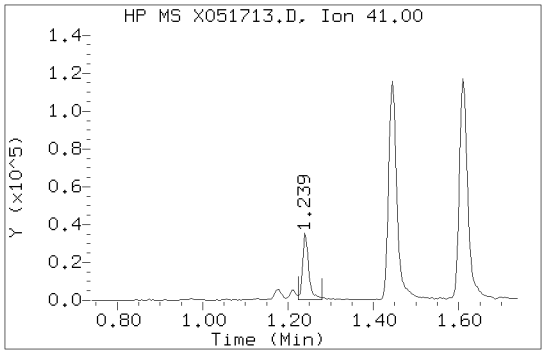
Isobutylene (115-11-7)

Reason Code:

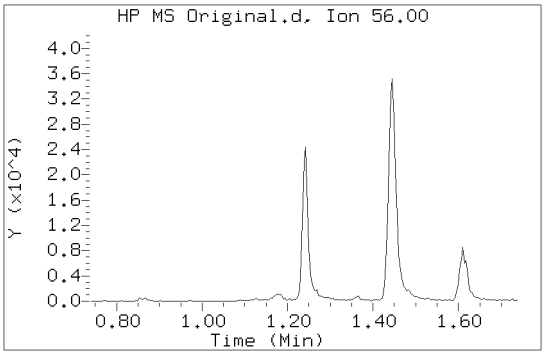
BEFORE
MASS
41
AREA
36582
HEIGHT
35043
18-May-2023
13:43
linh
pham



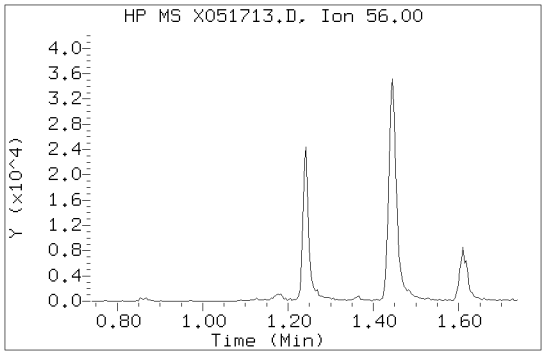
AFTER
MASS
41
AREA
36582
HEIGHT
35043
18-May-2023
13:43
linh
pham



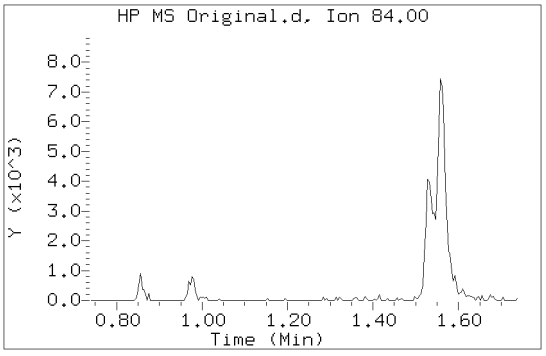
BEFORE
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56
AREA
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HEIGHT
0
18-May-2023
13:43
linh
pham



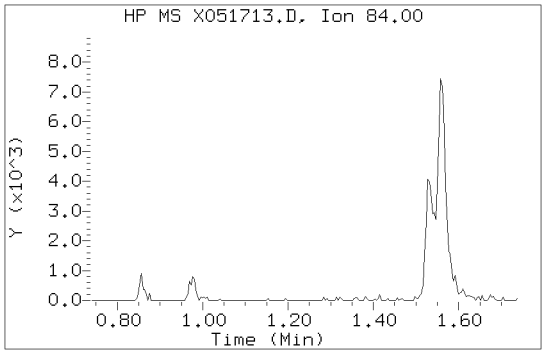
AFTER
MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



BEFORE
MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



AFTER
MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



01209707

right solutions.
right partner.

Raw Data VOA6 436190

Volatiles by EPA 8260

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052401.D Page 1
Report Date: 24-May-2023 11:10

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052401.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 24-MAY-2023 10:15
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\bfb.m
Meth Date : 14-Mar-2023 15:45 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
8.687	8.889	(0.000)	95	219456			0.00- 100.00	100.00
8.687	8.889	(0.000)	50	40464			15.00- 40.00	18.44
8.687	8.889	(0.000)	75	104128			30.00- 60.00	47.45
8.687	8.889	(0.000)	96	15280			5.00- 9.00	6.96
8.687	8.889	(0.000)	173	1159			0.00- 2.00	0.65
8.687	8.889	(0.000)	174	179392			50.00- 0.00	81.74
8.687	8.889	(0.000)	175	12662			5.00- 9.00	7.06
8.687	8.889	(0.000)	176	176768			95.00- 101.00	98.54
8.687	8.889	(0.000)	177	11382			5.00- 9.00	6.44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.44
75	30.00 - 60.00% of mass 95	47.45
96	5.00 - 9.00% of mass 95	6.96
173	Less than 2.00% of mass 174	0.53 (0.65)
174	Greater than 50.00% of mass 95	81.74
175	5.00 - 9.00% of mass 174	5.77 (7.06)
176	95.00 - 101.00% of mass 174	80.55 (98.54)
177	5.00 - 9.00% of mass 176	5.19 (6.44)

Data File: X052401.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2096	64.90	125	96.90	475	134.80	356
37.00	10022	65.90	131	98.00	933	137.00	315
38.00	9057	66.90	757	98.90	66	139.70	202
39.10	4846	68.00	21832	101.90	74	141.00	1869
40.00	2431	69.00	24408	103.00	162	142.00	249
41.00	1065	70.00	2906	103.90	1078	142.90	1779
42.10	1990	70.90	452	104.90	558	144.80	216
43.00	1256	72.00	778	105.80	1000	145.80	262
44.00	2812	73.00	9080	106.80	649	147.00	150
45.10	2308	74.00	33168	108.90	246	147.80	543
46.00	163	75.00	104128	109.80	138	148.90	108
47.00	2308	76.00	9219	110.60	91	149.80	93
48.00	1443	77.00	1841	111.10	222	151.80	51
49.00	8275	77.90	982	111.90	211	153.00	100
50.00	40464	78.90	5340	113.00	212	153.90	216
51.10	12015	79.90	1892	114.90	175	155.00	542
52.10	767	80.90	4799	115.80	669	156.80	349
52.80	213	81.90	1215	116.90	1655	158.90	189
54.00	171	83.00	413	117.80	879	160.60	240
55.10	3553	84.90	230	118.80	1032	168.70	59
56.00	3039	85.70	195	119.70	125	171.80	118
57.10	6078	86.90	8671	123.00	79	172.90	1159
58.10	593	88.00	9592	123.80	164	173.90	179392
59.00	91	90.90	945	126.90	219	174.90	12662
59.90	2025	92.00	5684	128.00	741	175.90	176768
61.00	9444	93.00	8630	128.80	467	176.90	11382
62.00	9200	94.00	23440	129.70	337	177.80	207
63.00	7474	95.00	219456	131.00	349		
64.00	583	96.00	15280	133.00	51		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052401.D Page 1

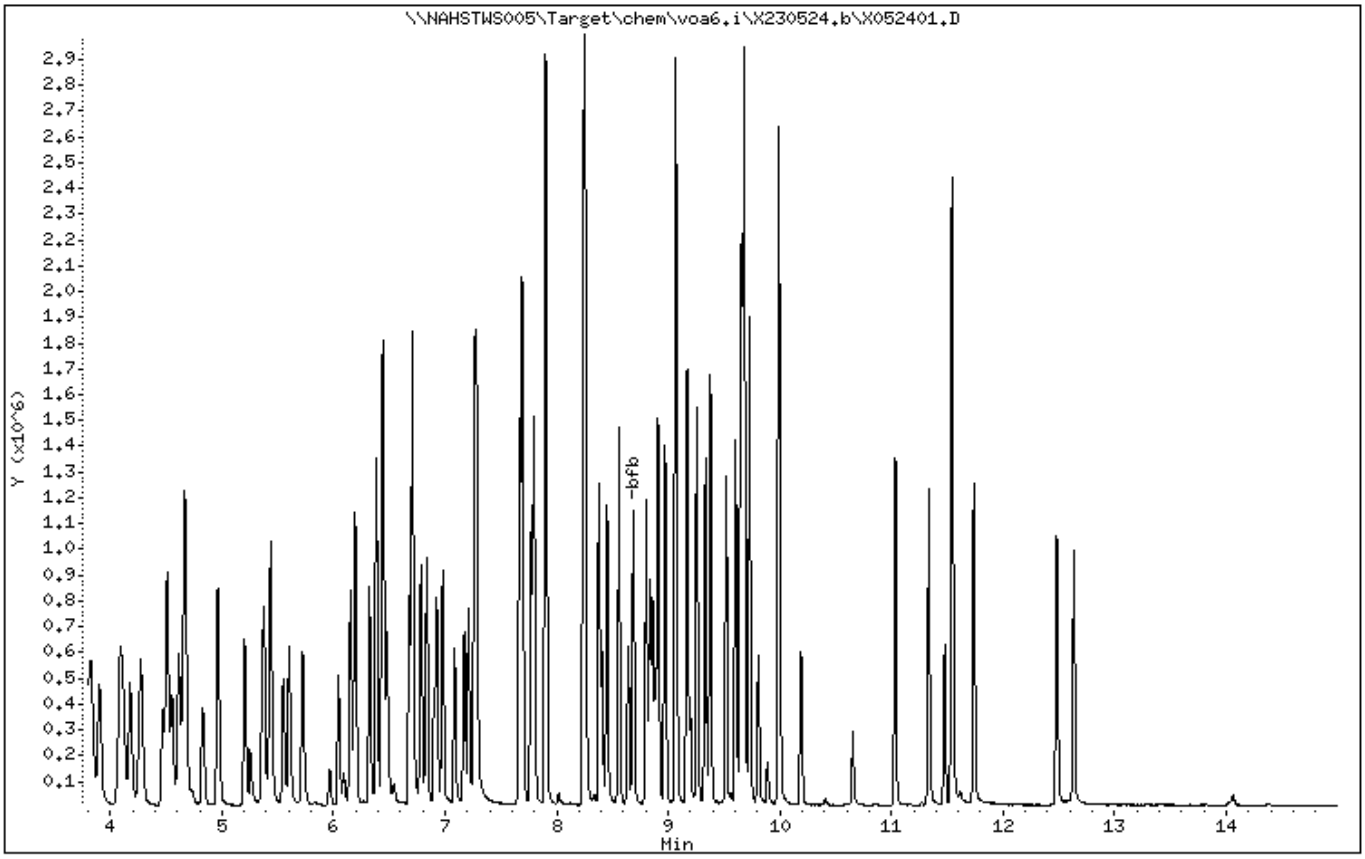
Date : 24-MAY-2023 10:15

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052401.D

Date : 24-MAY-2023 10:15

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

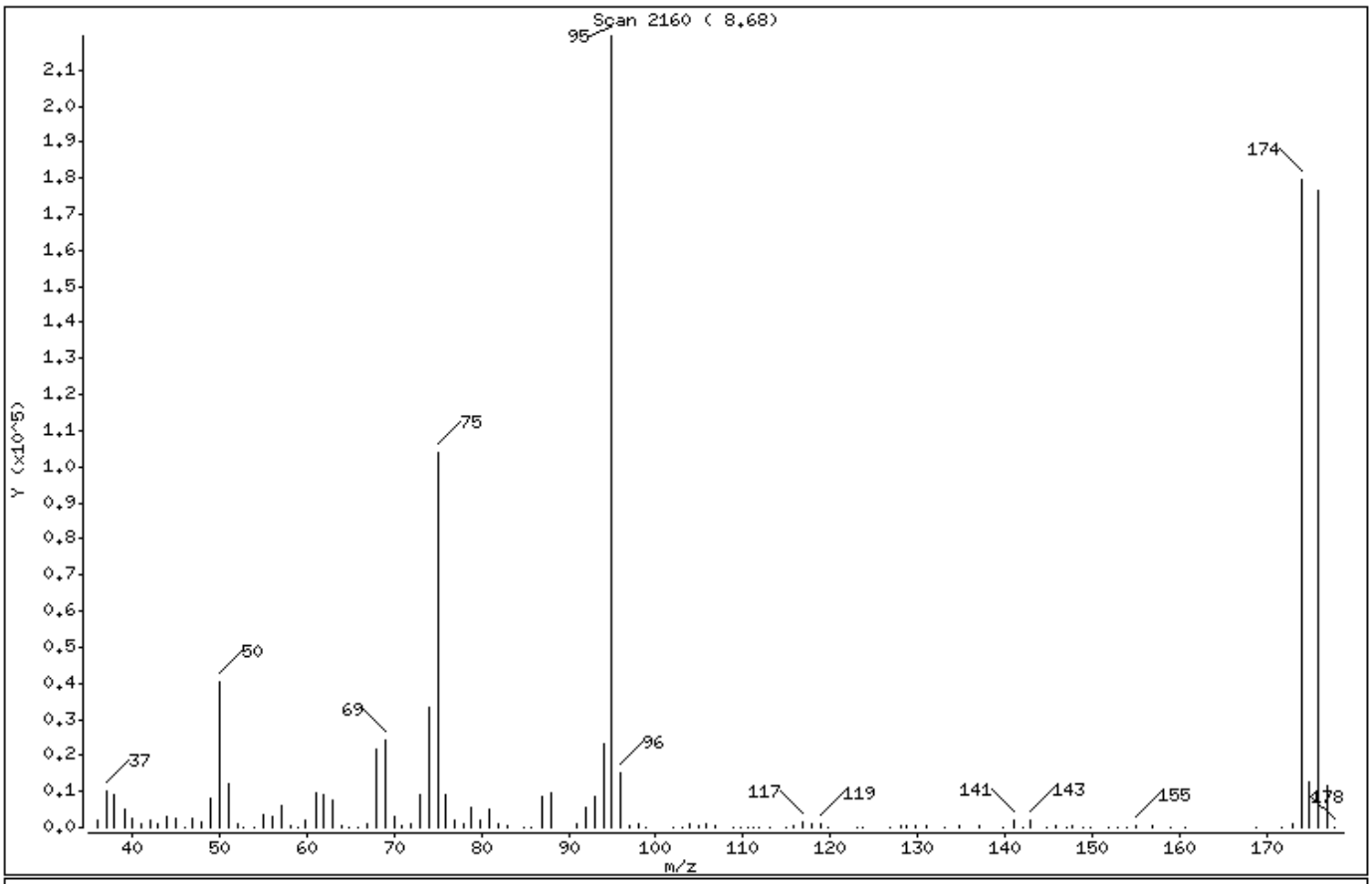
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.44
75	30.00 - 60.00% of mass 95	47.45
96	5.00 - 9.00% of mass 95	6.96
173	Less than 2.00% of mass 174	0.53 (0.65)
174	Greater than 50.00% of mass 95	81.74
175	5.00 - 9.00% of mass 174	5.77 (7.06)
176	95.00 - 101.00% of mass 174	80.55 (98.54)
177	5.00 - 9.00% of mass 176	5.19 (6.44)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052401.D Page 3

Date : 24-MAY-2023 10:15

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X052401.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2096	64.90	125	96.90	475	134.80	356
37.00	10022	65.90	131	98.00	933	137.00	315
38.00	9057	66.90	757	98.90	66	139.70	202
39.10	4846	68.00	21832	101.90	74	141.00	1869
40.00	2431	69.00	24408	103.00	162	142.00	249
41.00	1065	70.00	2906	103.90	1078	142.90	1779
42.10	1990	70.90	452	104.90	558	144.80	216
43.00	1256	72.00	778	105.80	1000	145.80	262
44.00	2812	73.00	9080	106.80	649	147.00	150
45.10	2308	74.00	33168	108.90	246	147.80	543
46.00	163	75.00	104128	109.80	138	148.90	108
47.00	2308	76.00	9219	110.60	91	149.80	93
48.00	1443	77.00	1841	111.10	222	151.80	51
49.00	8275	77.90	982	111.90	211	153.00	100
50.00	40464	78.90	5340	113.00	212	153.90	216
51.10	12015	79.90	1892	114.90	175	155.00	542
52.10	767	80.90	4799	115.80	669	156.80	349
52.80	213	81.90	1215	116.90	1655	158.90	189
54.00	171	83.00	413	117.80	879	160.60	240
55.10	3553	84.90	230	118.80	1032	168.70	59
56.00	3039	85.70	195	119.70	125	171.80	118
57.10	6078	86.90	8671	123.00	79	172.90	1159
58.10	593	88.00	9592	123.80	164	173.90	179392
59.00	91	90.90	945	126.90	219	174.90	12662
59.90	2025	92.00	5684	128.00	741	175.90	176768
61.00	9444	93.00	8630	128.80	467	176.90	11382
62.00	9200	94.00	23440	129.70	337	177.80	207
63.00	7474	95.00	219456	131.00	349		
64.00	583	96.00	15280	133.00	51		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052402.D Page 1
Report Date: 26-May-2023 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052402.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 24-MAY-2023 10:36
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\8260W.m
Meth Date : 26-May-2023 16:22 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	534541	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	72175	1000.00	996.97
140 1,3-Butadiene	54	1.164	1.164	(0.279)	265572	50.0000	46.94
25 Methacrylonitrile	41	3.821	3.821	(0.915)	260150	50.0000	54.59
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	816037	1000.00	1171.15
13 Acetonitrile	39	2.198	2.198	(0.526)	335218	500.000	651.39
14 Allyl Chloride	41	2.198	2.198	(0.526)	655010	50.0000	50.46
4 Propionitrile	54	3.649	3.649	(0.873)	374259	500.000	510.57
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	115180	50.0000	62.34
194 Acetaldehyde	44	1.212	1.212	(0.290)	63964	200.000	172.05(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	256671	50.0000	54.93
49 Ethyl Methacrylate	69	6.783	6.783	(1.366)	446967	50.0000	51.62
136 n-Hexane	57	2.772	2.772	(0.664)	253392	50.0000	51.96
156 Diisopropyl ether	45	2.997	2.997	(0.717)	888177	50.0000	54.91
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1172252	50.0000	56.58
205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.196)	491139	50.0000	57.59
2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	252291	50.0000	48.92
3 Chloromethane	50	1.077	1.077	(0.258)	302117	50.0000	40.28
5 Vinyl Chloride	62	1.145	1.145	(0.274)	336699	50.0000	47.55
6 Bromomethane	94	1.340	1.340	(0.321)	199496	50.0000	54.04

7	Chloroethane	64	1.404	1.404 (0.336)	215001	50.0000	48.64
8	Trichlorofluoromethane	101	1.561	1.561 (0.374)	421775	50.0000	56.58

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052402.D Page 2
Report Date: 26-May-2023 16:22

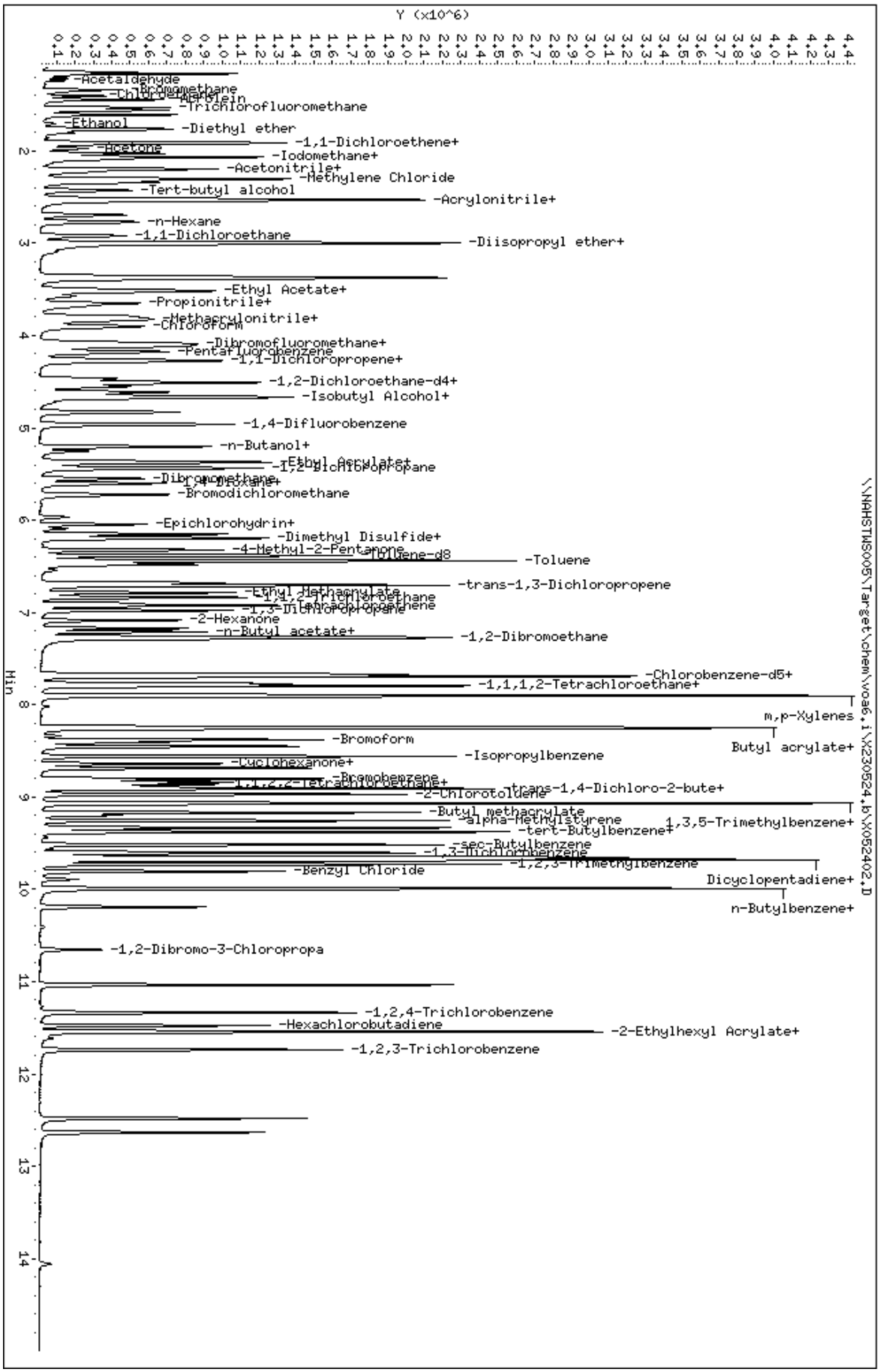
		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	9 Acrolein	56	1.445	1.445	(0.346)	49510	100.000	110.69
	10 Acetone	43	1.973	1.973	(0.472)	207871	100.000	112.20
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	245637	50.0000	52.11
	15 Iodomethane	142	2.026	2.026	(0.485)	674800	100.000	99.95
	16 Acrylonitrile	53	2.532	2.532	(0.606)	200122	100.000	113.38
	17 Methylene Chloride	84	2.303	2.303	(0.551)	284511	50.0000	50.77
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	807341	50.0000	54.90
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	1358512	100.000	91.85
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	263466	50.0000	53.88
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1601021	100.000	117.68
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	458629	50.0000	51.16
	24 2-Butanone	43	3.574	3.574	(0.856)	209217	100.000	117.60(M)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	408405	50.0000	61.93
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	301863	50.0000	52.49
	28 Chloroform	83	3.904	3.904	(0.935)	499999	50.0000	56.27
	29 Bromochloromethane	128	3.791	3.791	(0.908)	157913	50.0000	52.10
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	264619	50.0000	54.59
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	400761	50.0000	58.57
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	354678	50.0000	53.19
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	391690	50.0000	59.16(M)
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	338511	50.0000	54.95
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	303606	50.0000	58.45
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	847507	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	1085775	50.0000	50.35
	38 Trichloroethene	130	5.205	5.205	(1.048)	297858	50.0000	51.25
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	393943	50.0000	53.38
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	229822	100.000	93.77
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	296829	50.0000	48.44
	44 Dibromomethane	93	5.550	5.550	(1.118)	194108	50.0000	52.20
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	563508	100.000	98.60
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	505871	50.0000	51.30
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	830890	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	998058	50.0000	47.14
	50 Toluene	91	6.442	6.442	(0.840)	1222479	50.0000	52.43
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	445189	50.0000	56.53
	52 2-Hexanone	43	7.083	7.083	(0.924)	405521	100.000	103.68
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	245611	50.0000	51.58
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	498881	50.0000	50.35
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	342524	50.0000	53.01
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	237736	50.0000	52.63
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	313637	50.0000	54.05
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	255514	50.0000	49.26
	59 Chlorobenzene	112	7.690	7.690	(1.003)	834605	50.0000	51.71
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	306418	50.0000	54.10
	61 Ethylbenzene	106	7.799	7.799	(1.017)	419366	50.0000	52.88
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	1076747	100.000	109.01
	63 o-Xylene	106	8.237	8.237	(1.074)	515321	50.0000	53.36
	64 Styrene	104	8.256	8.256	(1.077)	904293	50.0000	55.93
	66 Bromoform	173	8.406	8.406	(1.096)	241922	50.0000	55.39
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1239458	50.0000	53.50
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	427551	50.0000	52.83
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	398235	50.0000	49.96

*	70	1,4-Dichlorobenzene-d4	152	9.658	9.658 (1.000)	459907	50.0000	
	71	1,2,3-Trichloropropane	75	8.860	8.860 (0.917)	311665	50.0000	52.96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	1519866	50.0000	53.32	
	74 Bromobenzene	156	8.803	8.803	(0.912)	375776	50.0000	52.35	
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	1089113	50.0000	52.75	
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	941307	50.0000	50.85	
	77 4-Chlorotoluene	91	9.066	9.066	(0.939)	1113221	50.0000	54.68	
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	886044	50.0000	50.98	
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1122059	50.0000	53.11	
	81 sec-Butylbenzene	105	9.519	9.519	(0.986)	1256513	50.0000	51.85	
	82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	1110677	50.0000	53.04	
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	662419	50.0000	51.19	
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	709163	50.0000	52.14	
	87 n-Butylbenzene	91	9.992	9.992	(1.035)	1037410	50.0000	57.86	
	88 1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	669386	50.0000	52.04	
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	72382	50.0000	52.48	
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	464578	50.0000	52.20	
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	201086	50.0000	52.51	
	92 Naphthalene	128	11.540	11.540	(1.195)	1185590	50.0000	53.65	
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	439579	50.0000	50.42	
M	94 1,2-Dichloroethylene (total)	96				565329	100.000		(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	342604	50.0000	51.21	
	138 Freon TF	101	1.913	1.913	(0.458)	230159	50.0000	57.04	
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	700225	50.0000	53.72	
	146 Methyl Acetate	43	2.228	2.228	(0.533)	175129	50.0000	55.43	
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	544425	1000.00	1031.24	
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	306345	1000.00	936.88	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052402.D
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Client ID: CCV
Sample Info: CCV,CCV,2,,
Purge Volume: 5.0
Column phase: DB624

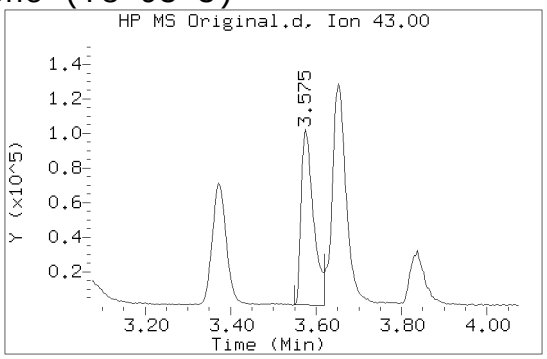
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Inj Date : 24-MAY-2023 10:36
InstruID : voa6.i
LabSampID : CCV

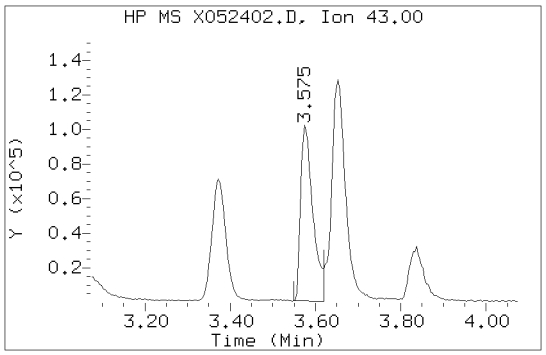
2-Butanone (78-93-3)

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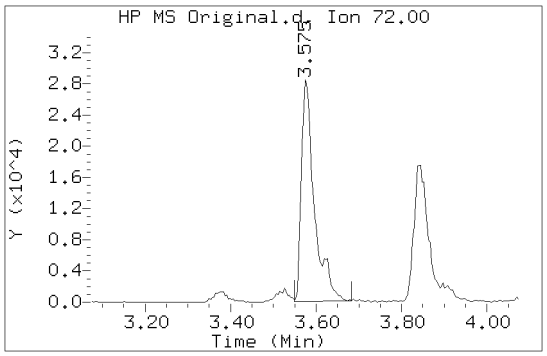
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MASS
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HEIGHT
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26-May-2023
16:21
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pham



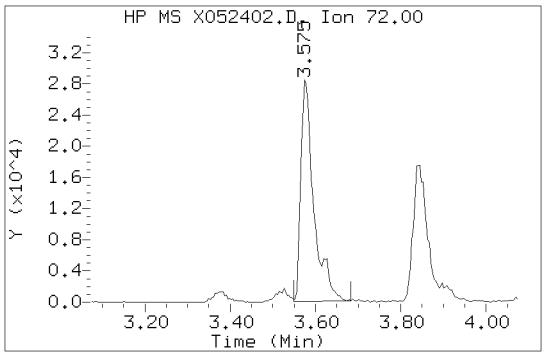
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BEFORE
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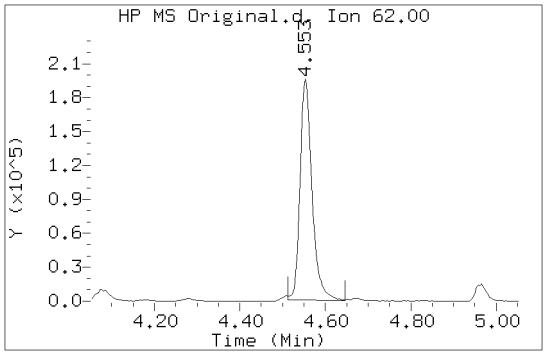
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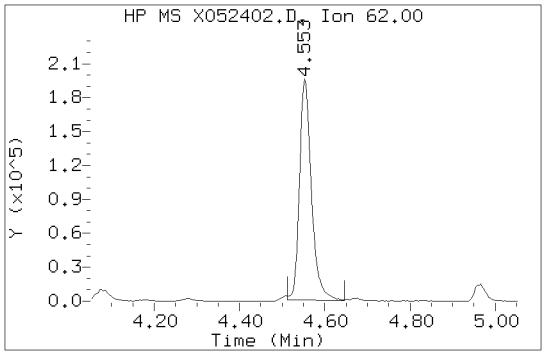
1,2-Dichloroethane (107-06-2)

Reason Code:

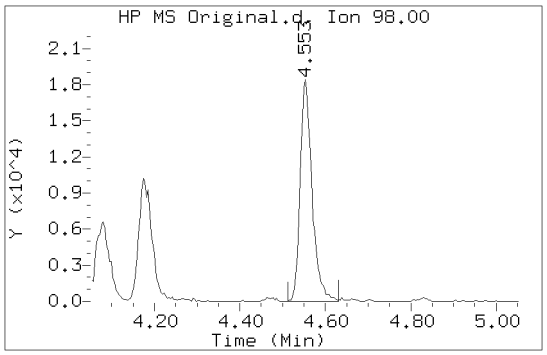
BEFORE
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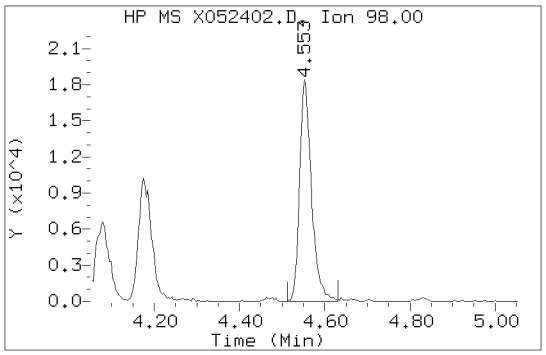
AFTER
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HEIGHT
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linh
pham



BEFORE
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98
AREA
36447
HEIGHT
18416
26-May-2023
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linh
pham



AFTER
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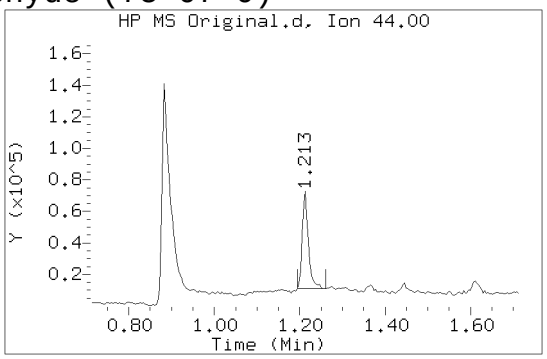


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Inj Date : 24-MAY-2023 10:36
InstruID : voa6.i
LabSampID : CCV

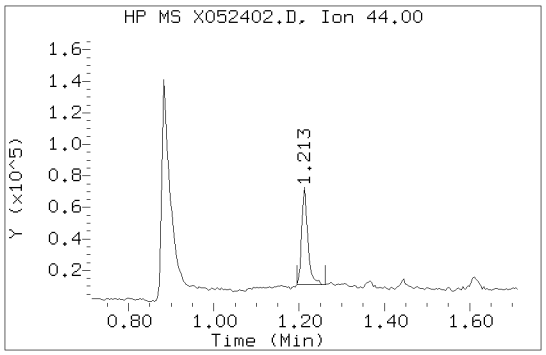
Acetaldehyde (75-07-0)

Reason Code:

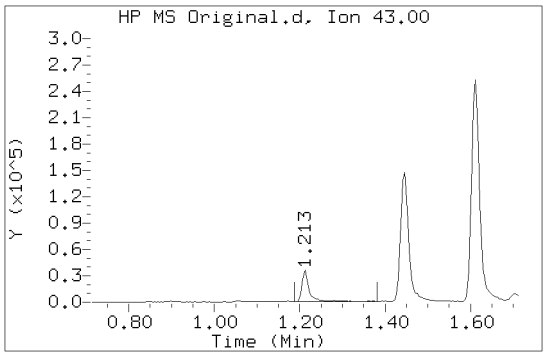
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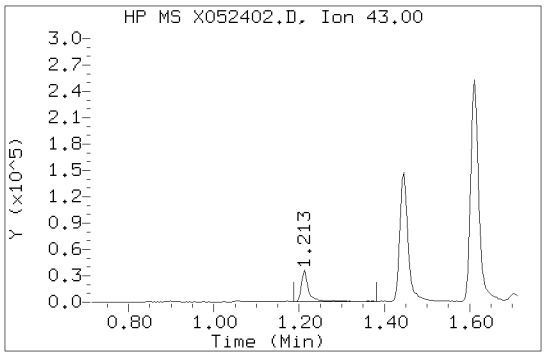
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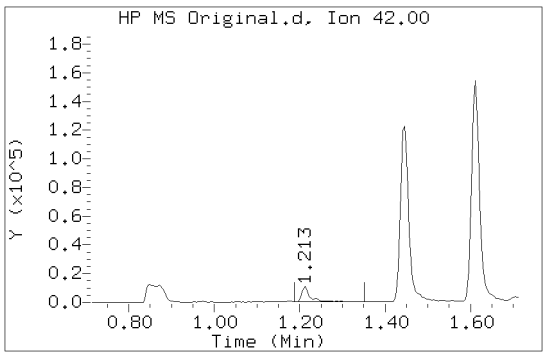
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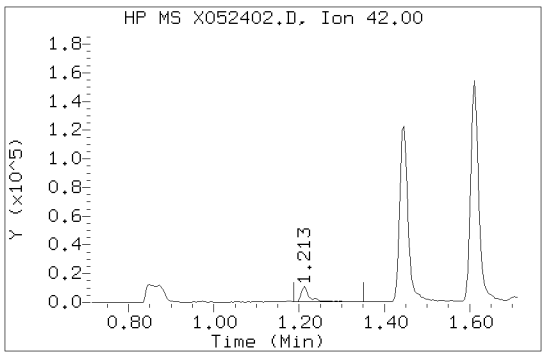
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ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052404.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 24-MAY-2023 11:18
Operator : PC Inst ID: voa6.i
Smp Info : CCB;CCB;;;
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\8260W.m
Meth Date : 26-May-2023 16:22 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	567128	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	264459	51.3778	51.37
$ 35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	300759	54.5459	54.54
* 36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	846234	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	750763	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	1004079	52.4880	52.48
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	340209	47.2407	47.24
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	360135	50.0000	

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052404.D

Page 1

Date : 24-MAY-2023 11:18

Client ID: CCB

Instrument: voa6.i

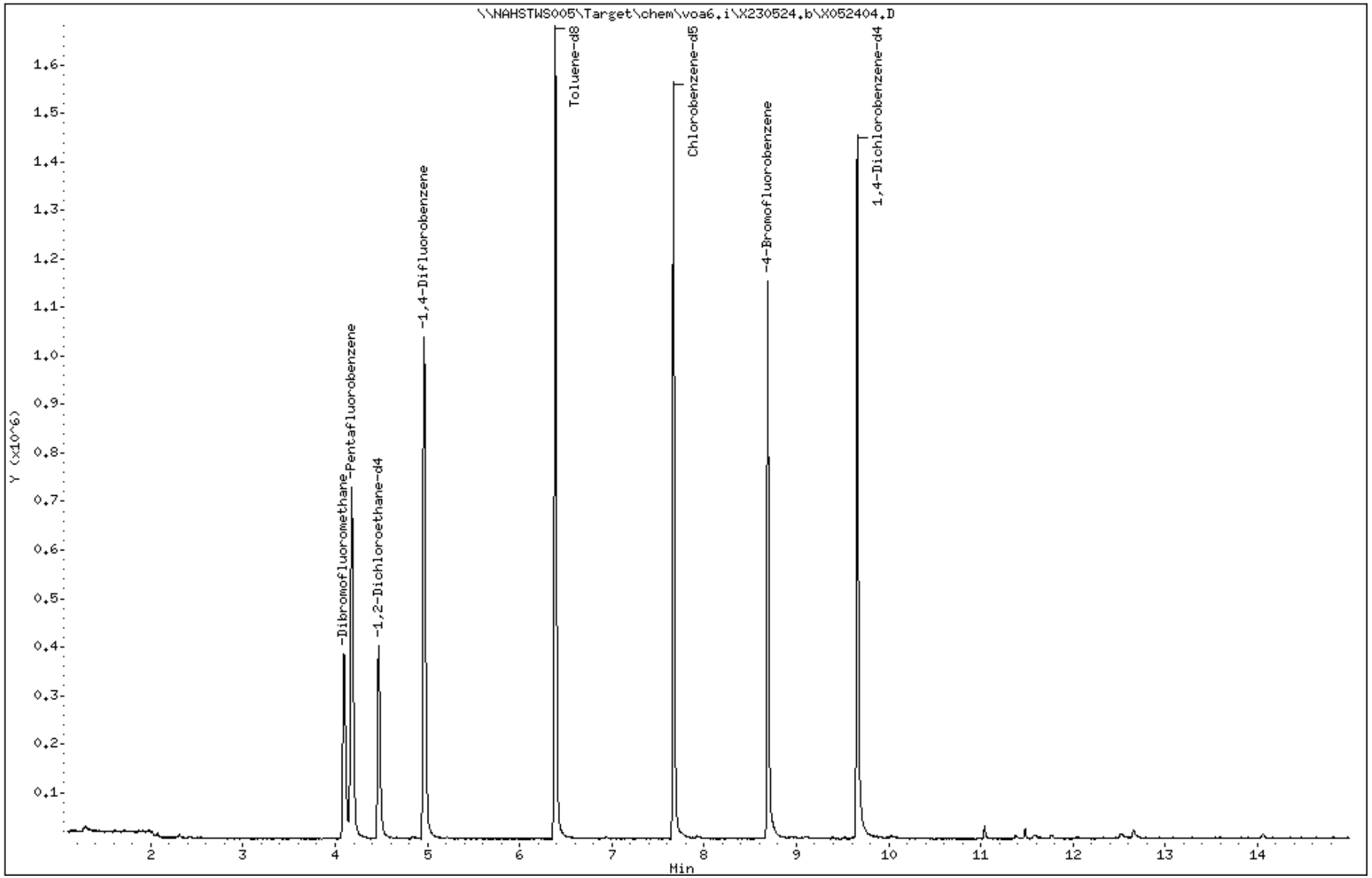
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Purge Volume: 5.0

Operator: PC

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Column diameter: 0.18



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InstruID : voa6.i
LabSampID : CCB

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052405.D
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Meth Date : 26-May-2023 16:22 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	525000	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	27533	387.234	387.23(a)
140	1,3-Butadiene	54	1.167	1.164	(0.280)	103095	18.5534	18.55
25	Methacrylonitrile	41	3.825	3.821	(0.916)	100708	21.5190	21.51
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	305948	447.070	447.06
13	Acetonitrile	39	2.198	2.198	(0.526)	124320	245.970	245.97
14	Allyl Chloride	41	2.198	2.198	(0.526)	250666	19.6616	19.66
4	Propionitrile	54	3.649	3.649	(0.873)	148568	206.363	206.36(a)
72	trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	42294	23.8406	23.84
194	Acetaldehyde	44	1.212	1.212	(0.290)	26275	64.2488	64.24(M)
40	Methyl Methacrylate	41	5.606	5.602	(1.342)	97362	21.2157	21.21
49	Ethyl Methacrylate	69	6.787	6.783	(1.367)	170478	20.1280	20.12
136	n-Hexane	57	2.772	2.772	(0.664)	105478	23.6217	23.62
156	Diisopropyl ether	45	3.001	2.997	(0.718)	332636	20.9405	20.94
166	1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	423680	21.1256	21.12
205	2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	159878	19.3676	19.36
2	Dichlorodifluoromethane	85	0.973	0.972	(0.233)	97087	19.5582	19.55
3	Chloromethane	50	1.081	1.077	(0.259)	124642	16.9213	16.92
5	Vinyl Chloride	62	1.145	1.145	(0.274)	130021	18.6992	18.69
6	Bromomethane	94	1.340	1.340	(0.321)	85406	23.7069	23.70

7	Chloroethane	64	1.404	1.404 (0.336)	85805	19.7683	19.76
8	Trichlorofluoromethane	101	1.561	1.561 (0.374)	168033	22.9519	22.95

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052405.D Page 2
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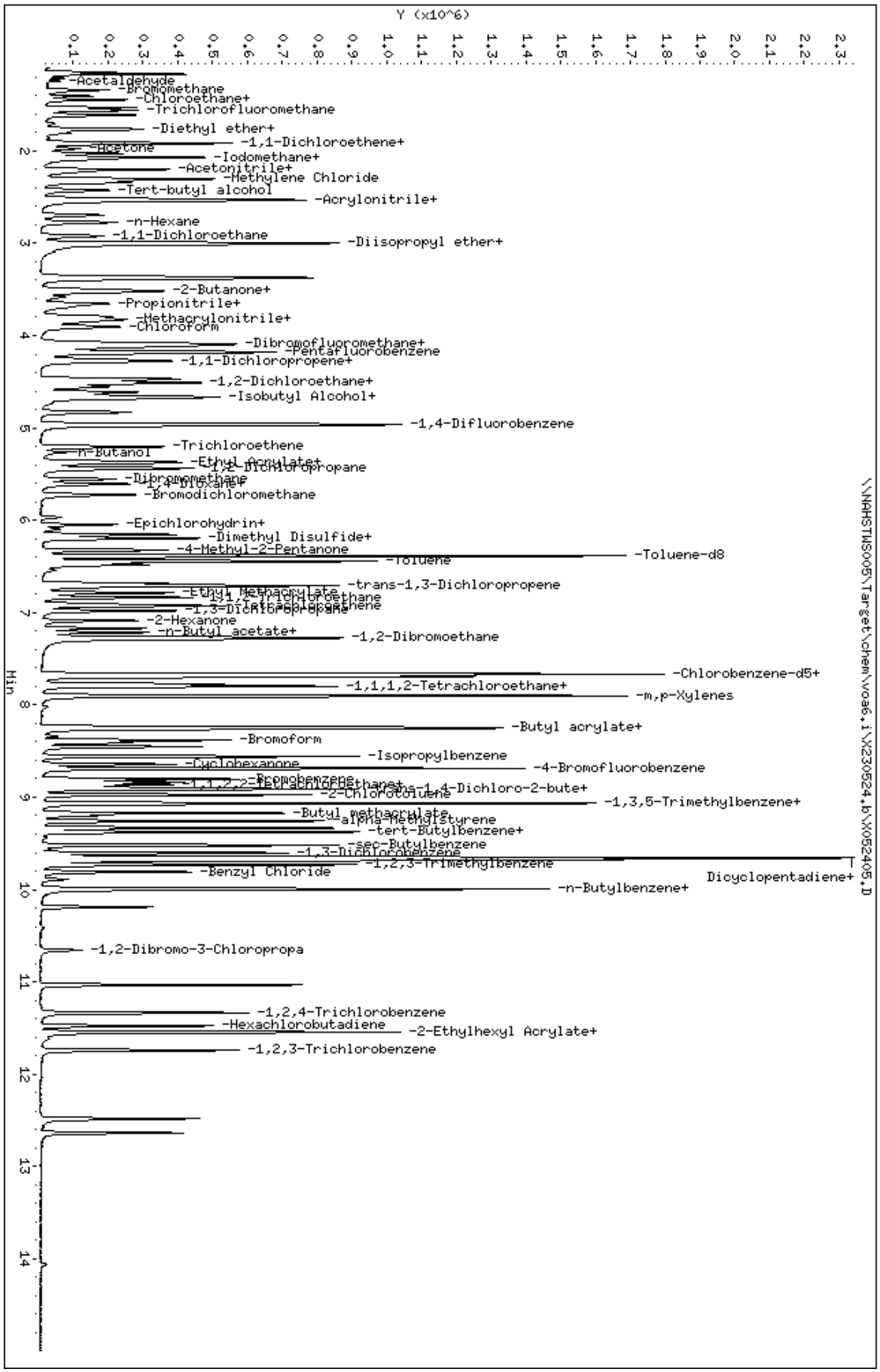
			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
	9	Acrolein	56	1.445	1.445	(0.346)	16704	38.0271	38.02
	10	Acetone	43	1.973	1.973	(0.472)	87702	45.7156	45.71
	11	1,1-Dichloroethene	96	1.913	1.913	(0.458)	98021	21.1737	21.17
	15	Iodomethane	142	2.026	2.026	(0.485)	226492	36.9053	36.90
	16	Acrylonitrile	53	2.536	2.532	(0.607)	71558	41.2791	41.27
	17	Methylene Chloride	84	2.303	2.303	(0.551)	111352	20.2332	20.23
	18	Methyl tert-butyl ether	73	2.536	2.532	(0.607)	315132	21.8222	21.82
	19	Carbon Disulfide	76	2.071	2.067	(0.496)	536591	36.9423	36.94
	20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	99495	20.7207	20.72
	21	Vinyl Acetate	43	2.997	2.997	(0.717)	599457	44.8652	44.86
	22	1,1-Dichloroethane	63	2.922	2.918	(0.699)	181762	20.6440	20.64
	24	2-Butanone	43	3.582	3.574	(0.857)	70393	40.2893	40.28
	26	2,2-Dichloropropane	77	3.510	3.507	(0.840)	159693	24.4694	24.46
	27	cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	115228	20.4020	20.40
	28	Chloroform	83	3.904	3.904	(0.935)	196417	22.5087	22.50
	29	Bromochloromethane	128	3.795	3.791	(0.908)	61075	20.5174	20.51
$	30	Dibromofluoromethane	113	4.095	4.095	(0.980)	253617	53.2559	53.25
	31	1,1,1-Trichloroethane	97	4.084	4.076	(0.978)	157812	23.4836	23.48
	32	1,1-Dichloropropene	75	4.279	4.279	(0.862)	140670	21.5683	21.56
	33	1,2-Dichloroethane	62	4.552	4.552	(0.917)	153058	23.6337	23.63
	34	Carbon Tetrachloride	117	4.260	4.260	(0.858)	135264	22.4495	22.44
$	35	1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	291440	57.1186	57.11(M)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	829010	50.0000	
	37	Benzene	78	4.511	4.507	(0.909)	412474	19.5567	19.55
	38	Trichloroethene	130	5.205	5.205	(1.048)	118349	20.8202	20.82
	39	Bromodichloromethane	83	5.722	5.726	(1.153)	151904	21.0460	21.04
	41	2-Chloroethylvinyl ether	63	6.048	6.044	(1.218)	83704	34.9175	34.91
	42	1,2-Dichloropropane	63	5.433	5.433	(1.094)	112855	18.8303	18.83
	44	Dibromomethane	93	5.553	5.550	(1.119)	75963	20.8848	20.88
	45	4-Methyl-2-Pentanone	43	6.326	6.322	(0.825)	214912	39.1652	39.16
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	192203	19.9288	19.92
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	797850	50.0000	
$	48	Toluene-d8	98	6.386	6.386	(0.833)	952873	46.8715	46.87
	50	Toluene	91	6.446	6.442	(0.841)	464060	20.7296	20.72
	51	trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	164429	21.3477	21.34
	52	2-Hexanone	43	7.087	7.083	(0.924)	152810	40.6897	40.68
	53	1,1,2-Trichloroethane	83	6.839	6.835	(0.892)	92164	20.1593	20.15
	54	1,3-Dichloropropane	76	6.982	6.978	(0.911)	191016	20.0793	20.07
	55	Dibromochloromethane	129	7.173	7.173	(0.935)	128568	20.7234	20.72
	56	Tetrachloroethene	164	6.925	6.925	(0.903)	92489	21.3255	21.32
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	119960	21.5330	21.53
	58	1-Chlorohexane	55	7.694	7.694	(1.550)	104029	21.5833	21.58
	59	Chlorobenzene	112	7.694	7.690	(1.003)	318006	20.5205	20.52
	60	1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	117207	21.5517	21.55
	61	Ethylbenzene	106	7.799	7.799	(1.017)	157561	20.6911	20.69
	62	m,p-Xylenes	106	7.900	7.900	(1.030)	408257	43.0467	43.04
	63	o-Xylene	106	8.241	8.237	(1.075)	192345	20.7416	20.74
	64	Styrene	104	8.260	8.256	(1.077)	337150	21.7167	21.71
	66	Bromoform	173	8.410	8.406	(1.097)	89124	21.2544	21.25
	67	Isopropylbenzene	105	8.560	8.560	(1.116)	475780	21.3880	21.38
	68	1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	163171	21.0440	21.04
$	69	4-Bromofluorobenzene	95	8.687	8.687	(1.133)	368475	48.1460	48.14

*	70	1,4-Dichlorobenzene-d4	152	9.662	9.658 (1.000)	445241	50.0000	
	71	1,2,3-Trichloropropane	75	8.863	8.860 (0.917)	129855	22.7960	22.79

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
73	n-Propylbenzene	91	8.912	8.908	(0.922)	577101	20.9146	20.91
74	Bromobenzene	156	8.803	8.803	(0.911)	139536	20.0805	20.08
75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	409593	20.4944	20.49
76	2-Chlorotoluene	91	8.972	8.972	(0.929)	354096	19.7600	19.76
77	4-Chlorotoluene	91	9.070	9.066	(0.939)	414407	21.0278	21.02
78	tert-Butylbenzene	119	9.336	9.332	(0.966)	339666	20.1894	20.18
79	1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	412491	20.1707	20.17
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	494042	21.0586	21.05
82	p-Isopropyltoluene	119	9.647	9.647	(0.998)	432057	21.3132	21.31
83	1,3-Dichlorobenzene	146	9.606	9.602	(0.994)	246482	19.6755	19.67
84	1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	268765	20.4137	20.41
87	n-Butylbenzene	91	9.992	9.992	(1.034)	395530	22.7871	22.78
88	1,2-Dichlorobenzene	146	9.992	9.988	(1.034)	249034	19.9994	19.99
89	1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	27331	20.2706	20.27
90	1,2,4-Trichlorobenzene	180	11.337	11.334	(1.173)	166718	19.3512	19.35
91	Hexachlorobutadiene	225	11.476	11.476	(1.188)	77686	20.9572	20.95
92	Naphthalene	128	11.544	11.540	(1.195)	413972	19.3508	19.35
93	1,2,3-Trichlorobenzene	180	11.742	11.739	(1.215)	160524	19.0209	19.02
M 94	1,2-Dichloroethylene (total)	96				214723	41.1227	41.12
M 95	Xylenes (total)	106				600602	63.7884	63.78
141	Cyclohexane	56	4.118	4.118	(0.986)	132998	20.2439	20.24
138	Freon TF	101	1.917	1.913	(0.459)	95512	25.7544	25.75
147	Methylcyclohexane	55	5.385	5.377	(1.085)	256399	20.1118	20.11
146	Methyl Acetate	43	2.236	2.228	(0.535)	65779	21.2014	21.20
148	Tert-Butyl alcohol	59	2.427	2.427	(0.581)	220946	426.118	426.11
149	Isopropyl Alcohol	45	2.093	2.093	(0.501)	117672	366.413	366.41

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



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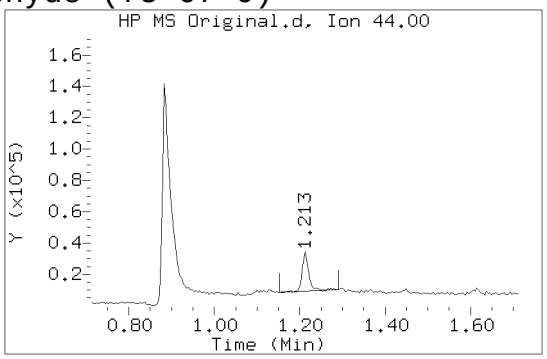
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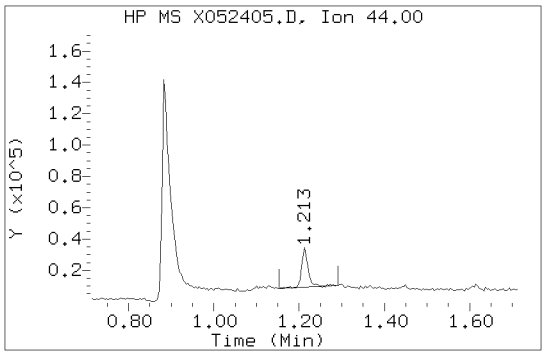
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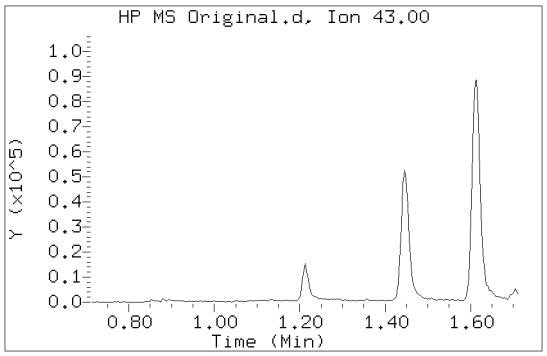
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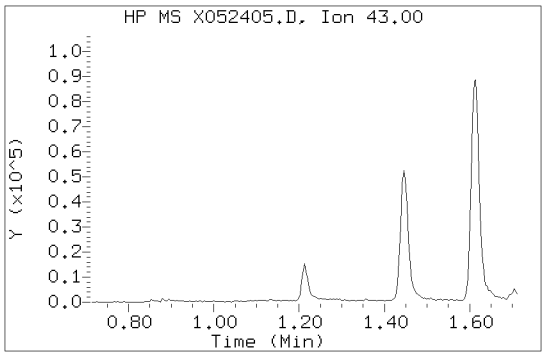
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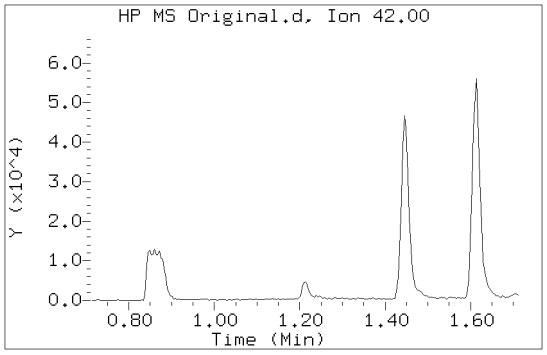
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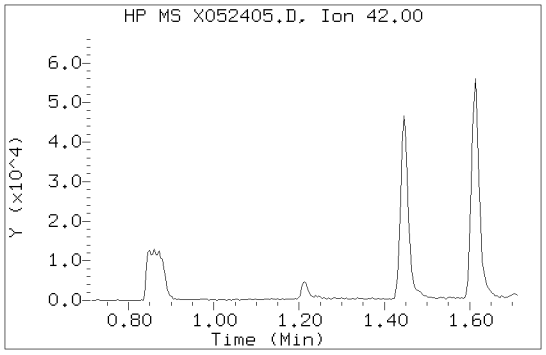
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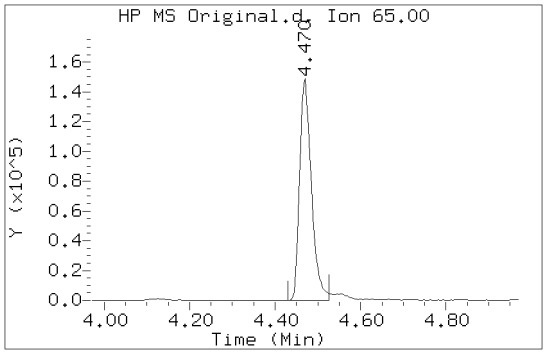
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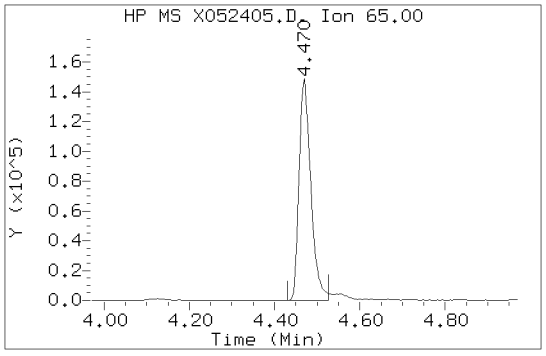
1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

BEFORE
MASS
65
AREA
291440
HEIGHT
148800
26-May-2023
16:21
linh
pham



AFTER
MASS
65
AREA
291440
HEIGHT
148800
26-May-2023
16:21
linh
pham



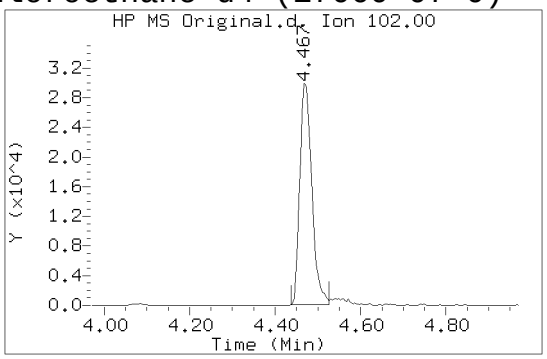
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052405.D
Inj Date : 24-MAY-2023 11:39
InstruID : voa6.i
LabSampID : VLCSW-230524

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

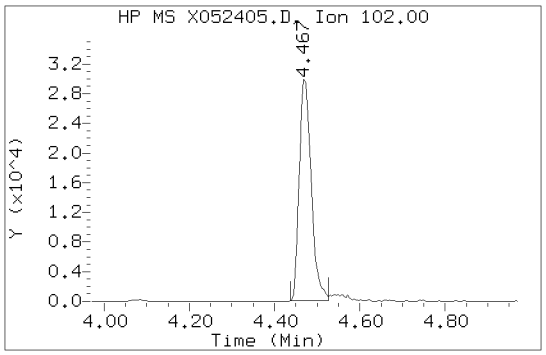
BEFORE

MASS
102
AREA
59826
HEIGHT
29788
26-May-2023
16:21
linh
pham



AFTER

MASS
102
AREA
59826
HEIGHT
29788
26-May-2023
16:21
linh
pham



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052407.D
Lab Smp Id: VBLKW-230524 Client Smp ID: VBLKW-230524
Inj Date : 24-MAY-2023 12:21
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-230524;VBLKW-230524;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\8260W.m
Meth Date : 26-May-2023 16:22 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	555260	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	258465	51.2850	51.28
$ 35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	297484	55.1098	55.10
* 36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	830523	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	722549	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	980450	53.2541	53.25
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	329904	47.5985	47.59
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	354170	50.0000	

01209734

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052407.D

Date : 24-MAY-2023 12:21

Client ID: VBLKW-230524

Instrument: voa6.i

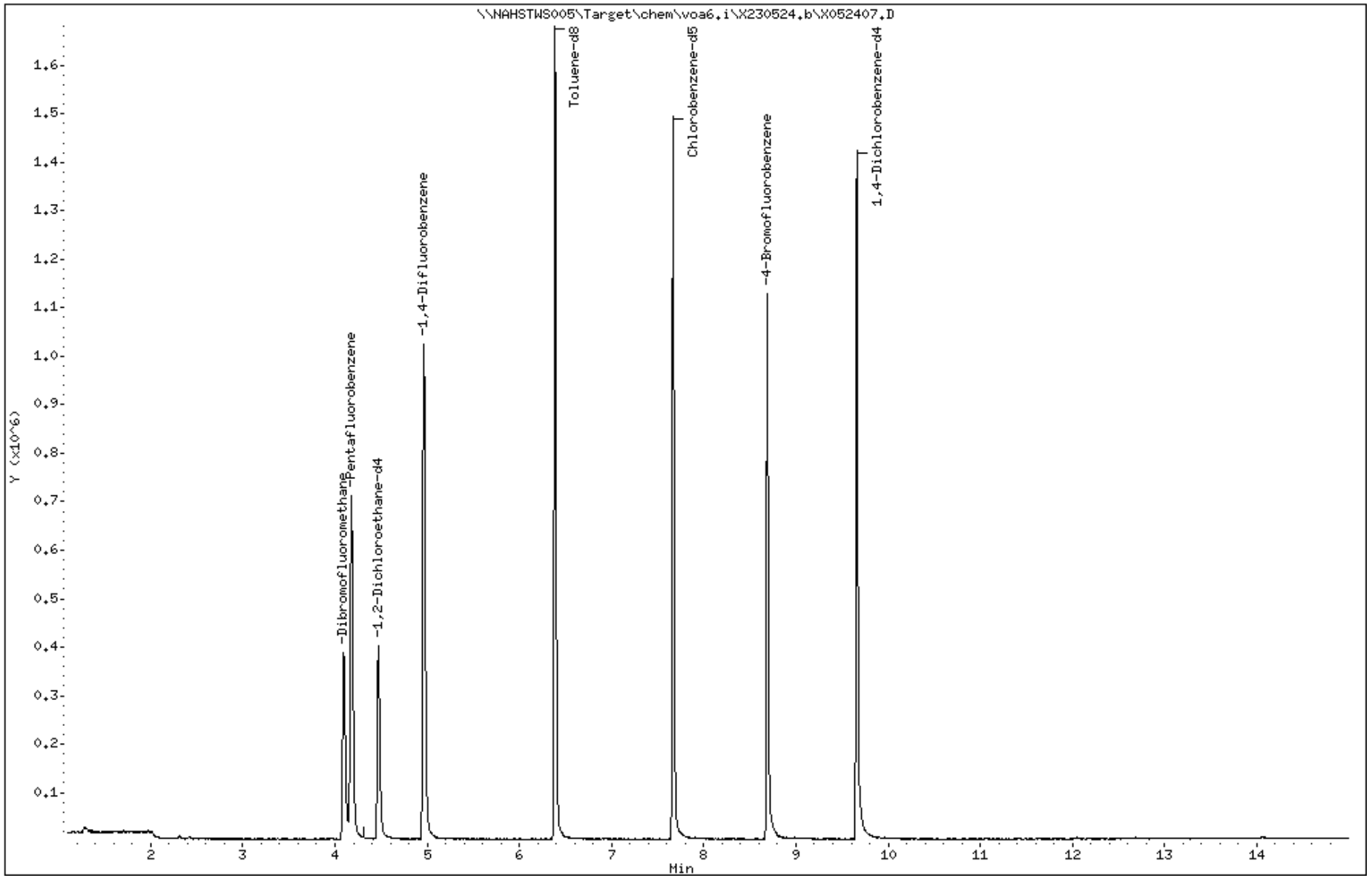
Sample Info: VBLKW-230524;VBLKW-230524;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052407.D
Inj Date : 24-MAY-2023 12:21
InstruID : voa6.i
LabSampID : VBLKW-230524

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052408.D
Lab Smp Id: HS23051522-03 Client Smp ID: HS23051522-03
Inj Date : 24-MAY-2023 12:42
Operator : PC Inst ID: voa6.i
Smp Info : HS23051522-03;HS23051522-03;;;
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\8260W.m
Meth Date : 26-May-2023 16:22 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.177	4.178	(1.000)	538873	50.0000	
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	48243	6.41995	6.41
$	30 Dibromofluoromethane	113	4.099	4.095	(0.981)	251098	51.3393	51.33
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	285763	54.5436	54.54
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	806081	50.0000	
	42 1,2-Dichloropropane	63	4.965	5.433	(1.000)	145648	24.9933	24.99
*	47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	714750	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	962083	52.8267	52.82
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	327697	47.7960	47.79
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	356907	50.0000	

01209737

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052408.D

Date : 24-MAY-2023 12:42

Client ID: HS23051522-03

Instrument: voa6.i

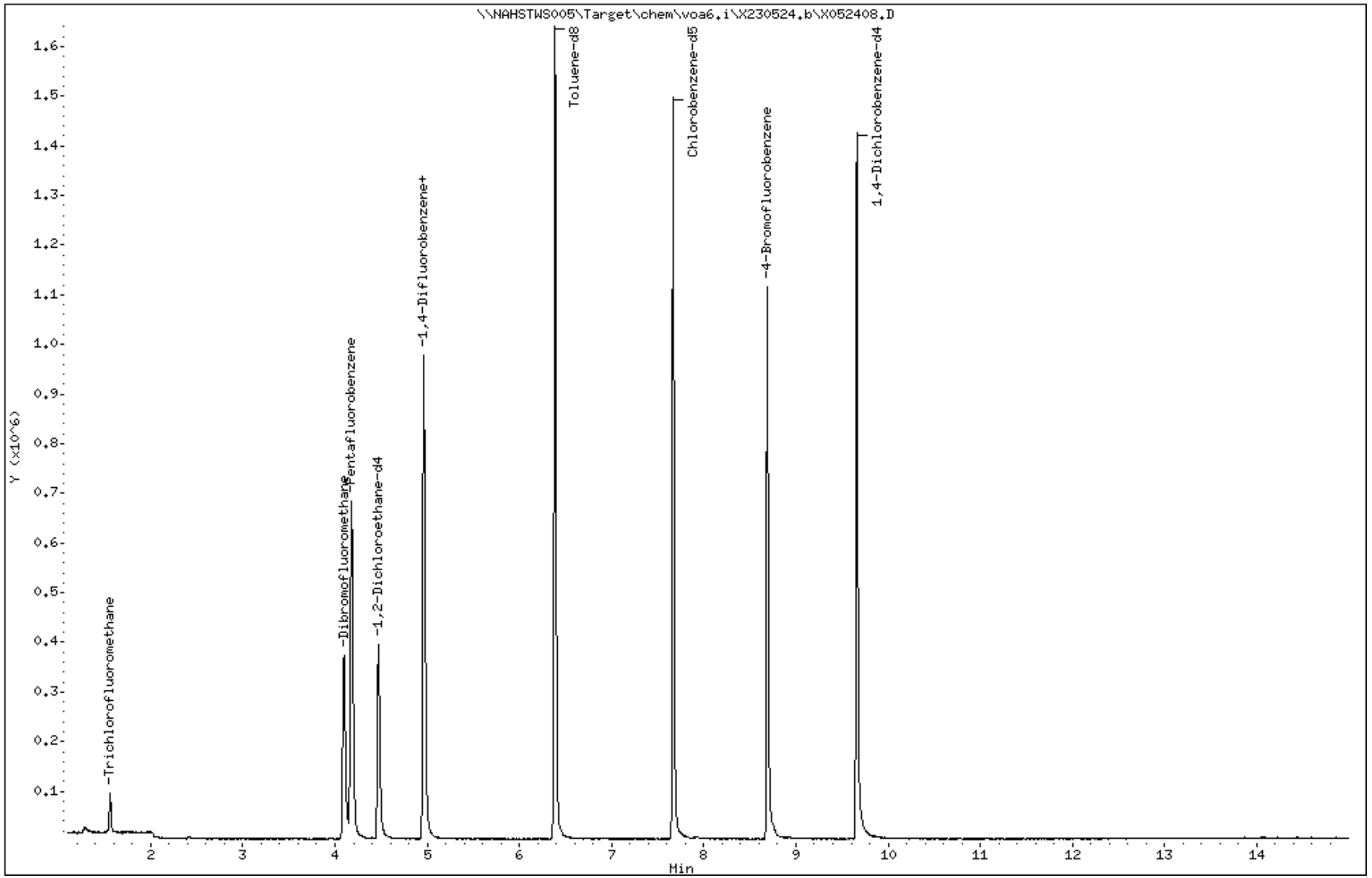
Sample Info: HS23051522-03;HS23051522-03;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052408.D

Date : 24-MAY-2023 12:42

Client ID: HS23051522-03

Instrument: voa6.i

Sample Info: HS23051522-03;HS23051522-03;;;

Purge Volume: 5.0

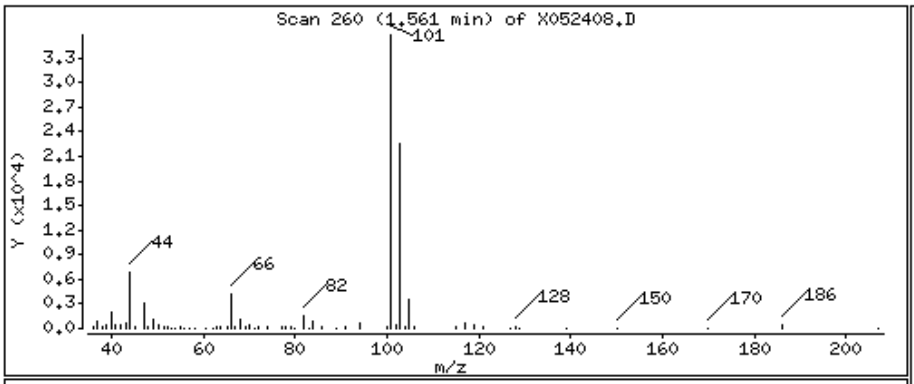
Operator: PC

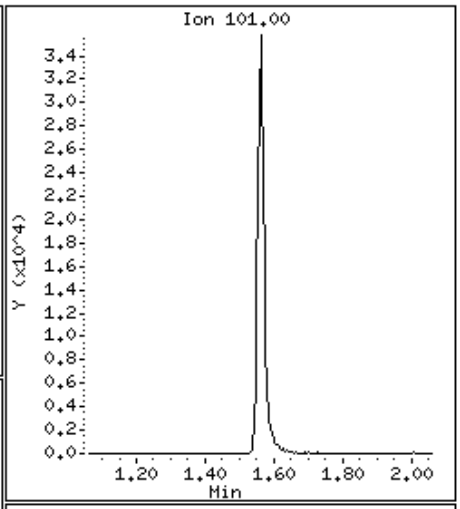
Column phase: DB624

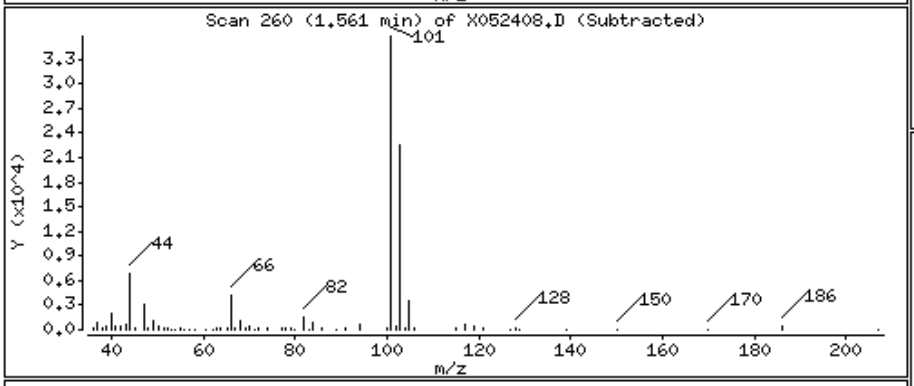
Column diameter: 0.18

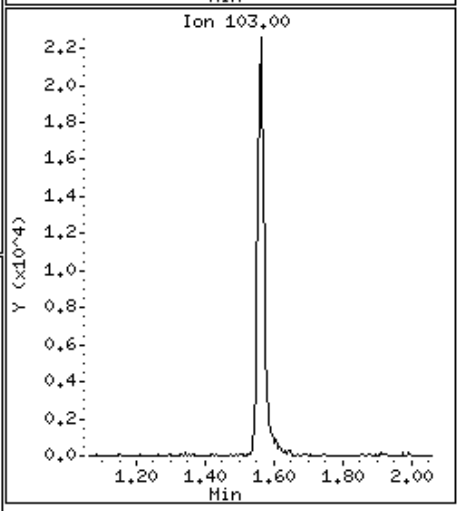
8 Trichlorofluoromethane

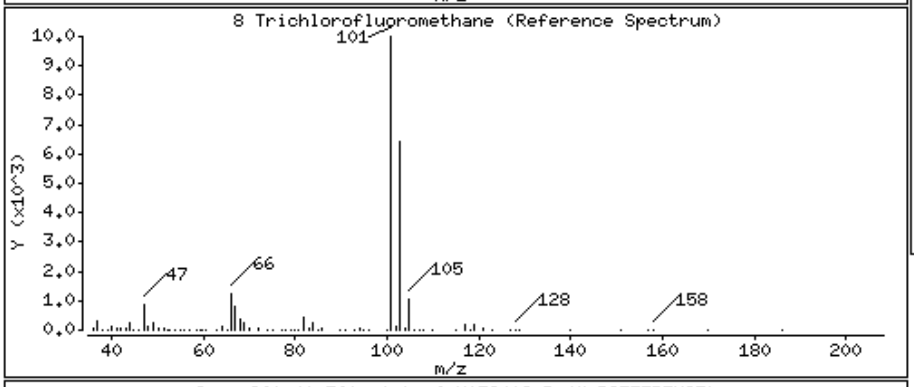
Concentration: 6.41 ug/l

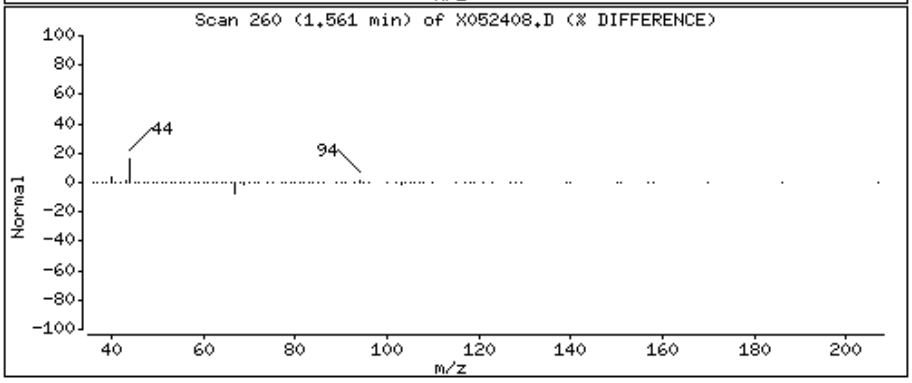












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052408.D

Date : 24-MAY-2023 12:42

Client ID: HS23051522-03

Instrument: voa6.i

Sample Info: HS23051522-03;HS23051522-03;;;

Purge Volume: 5.0

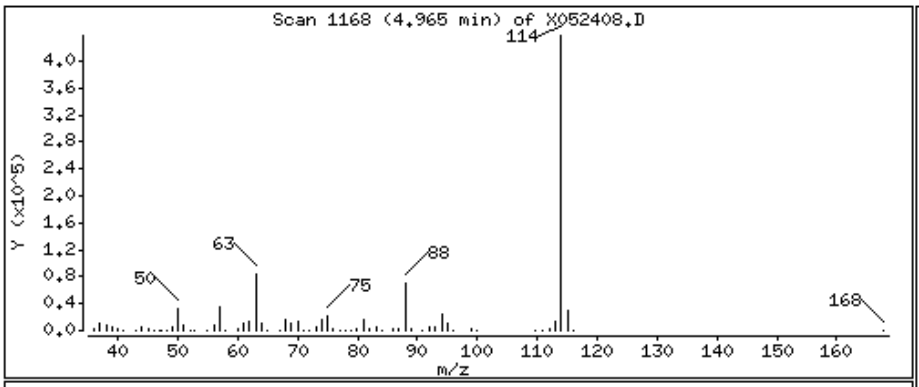
Operator: PC

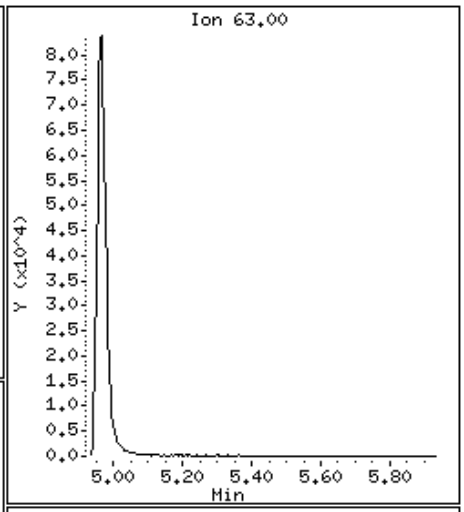
Column phase: DB624

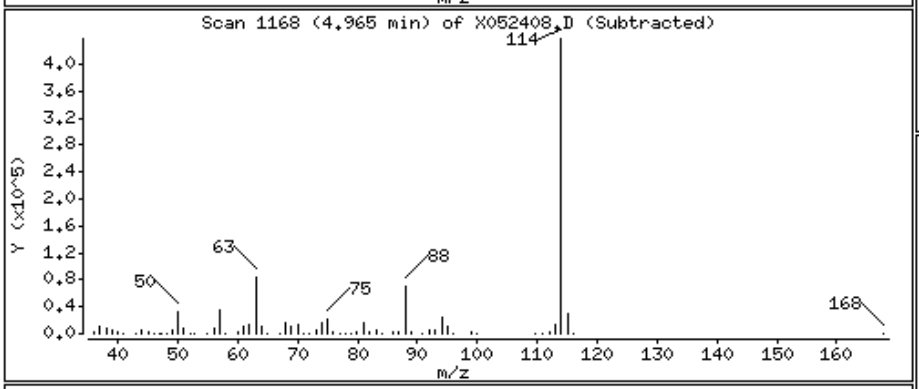
Column diameter: 0.18

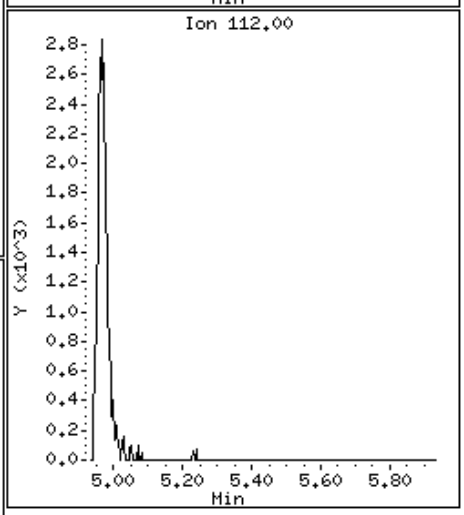
42 1,2-Dichloropropane

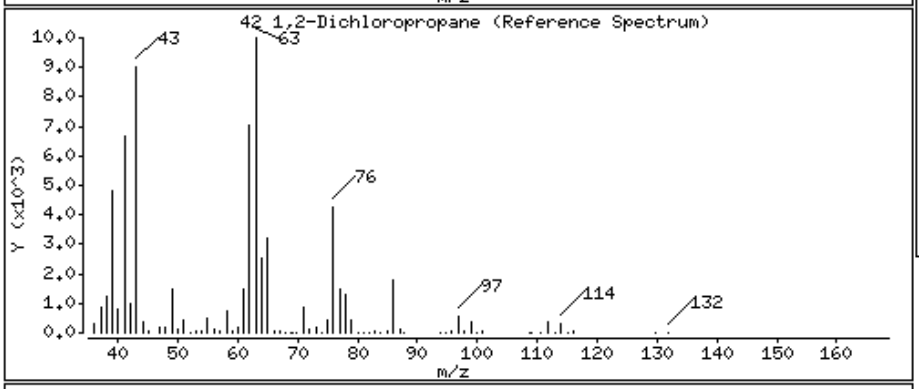
Concentration: 24.99 ug/l

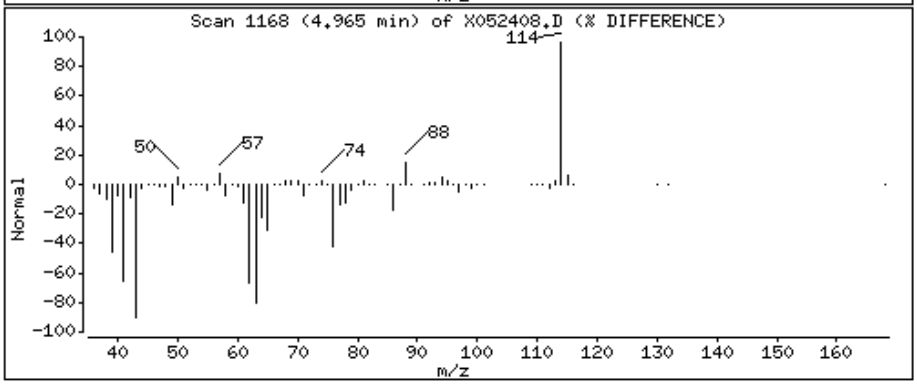












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052408.D
Inj Date : 24-MAY-2023 12:42
InstruID : voa6.i
LabSampID : HS23051522-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052410.D Page 1
Report Date: 26-May-2023 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052410.D
Lab Smp Id: HS23051522-01 Client Smp ID: HS23051522-01
Inj Date : 24-MAY-2023 13:24
Operator : PC Inst ID: voa6.i
Smp Info : HS23051522-01;HS23051522-01;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\8260W.m
Meth Date : 26-May-2023 16:22 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.178	(1.000)	540593	50.0000	
27 cis-1,2-Dichloroethene	96	3.536	3.522	(0.847)	7056	1.21328	1.21(a)
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	254064	51.7878	51.78
$ 35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	290506	55.2786	55.27
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	805141	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	716355	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	954460	52.2907	52.29
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	322864	46.9855	46.98
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	356531	50.0000	
M 94 1,2-Dichloroethylene (total)	96				7056	1.21328	1.21(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01209742

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052410.D

Date : 24-MAY-2023 13:24

Client ID: HS23051522-01

Instrument: voa6.i

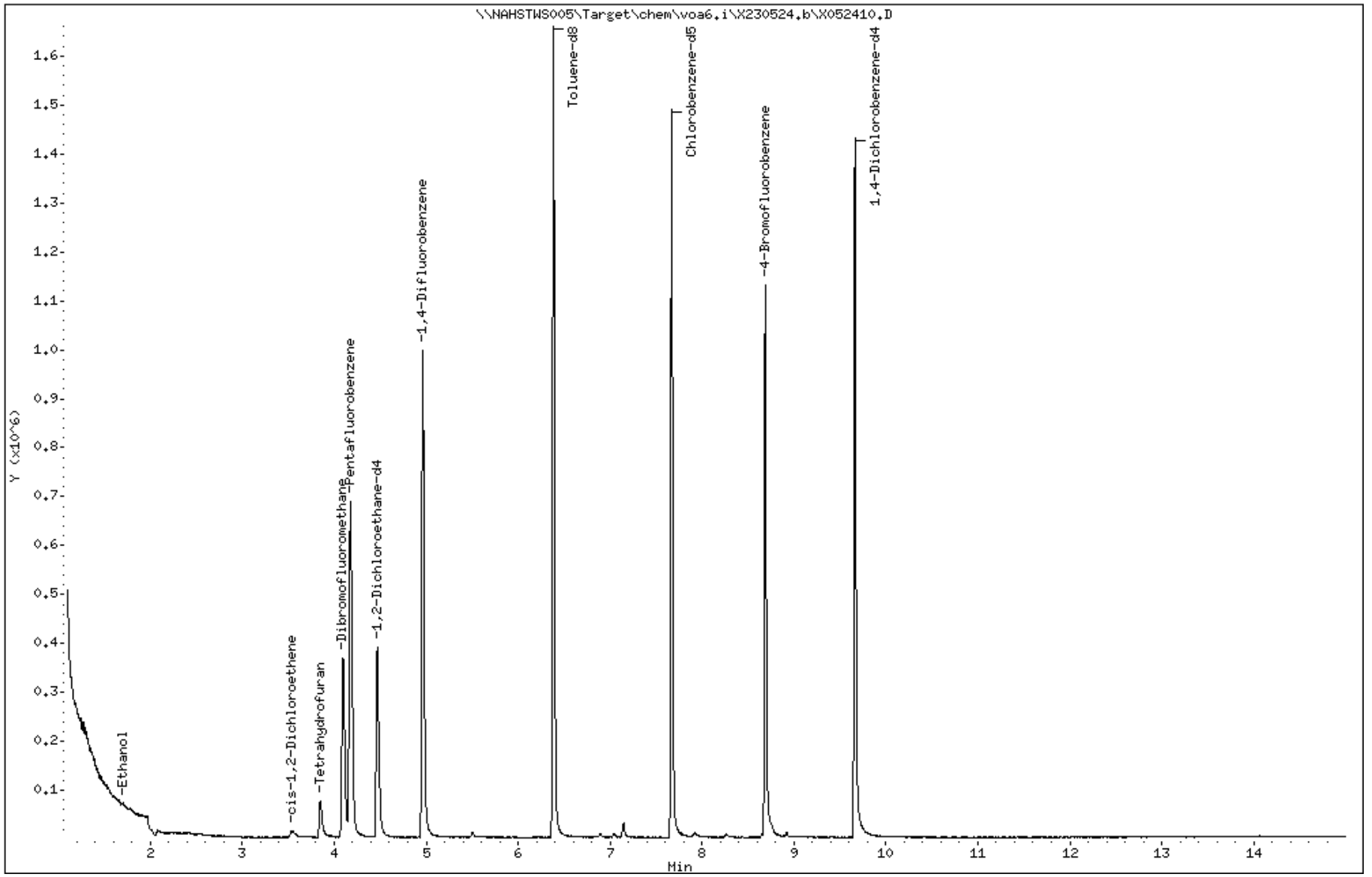
Sample Info: HS23051522-01;HS23051522-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052410.D

Date : 24-MAY-2023 13:24

Client ID: HS23051522-01

Instrument: voa6.i

Sample Info: HS23051522-01;HS23051522-01;;;

Purge Volume: 5.0

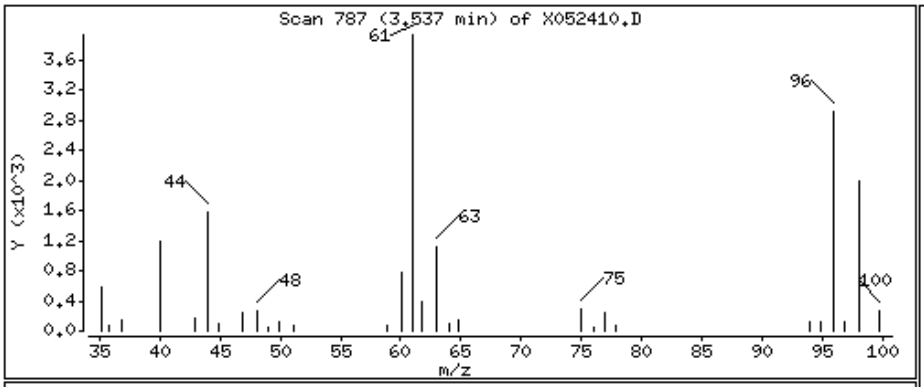
Operator: PC

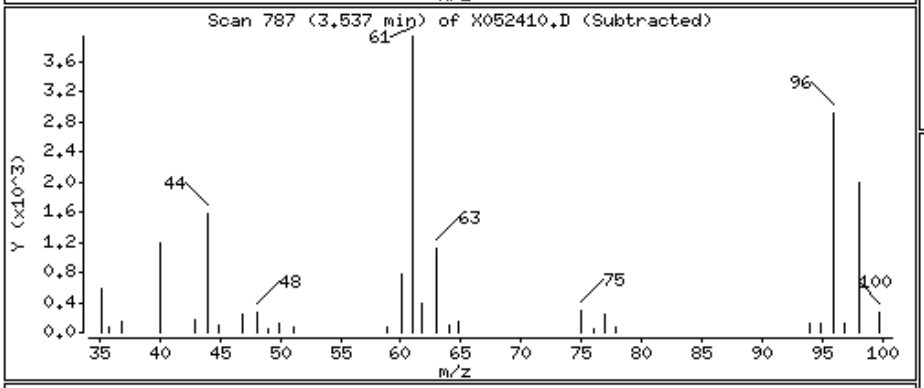
Column phase: DB624

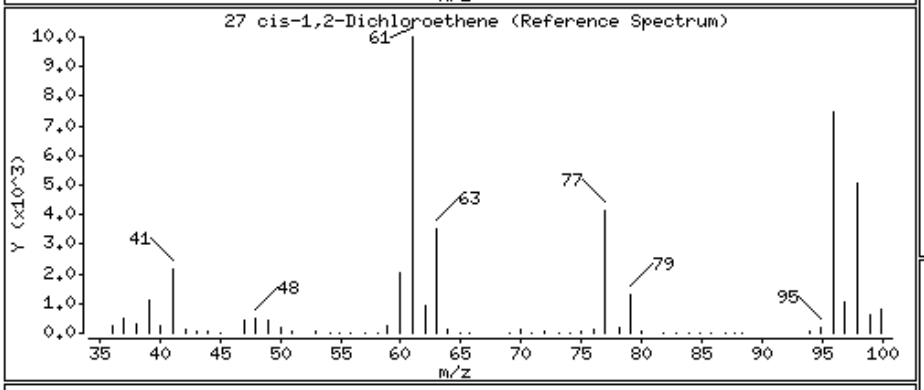
Column diameter: 0.18

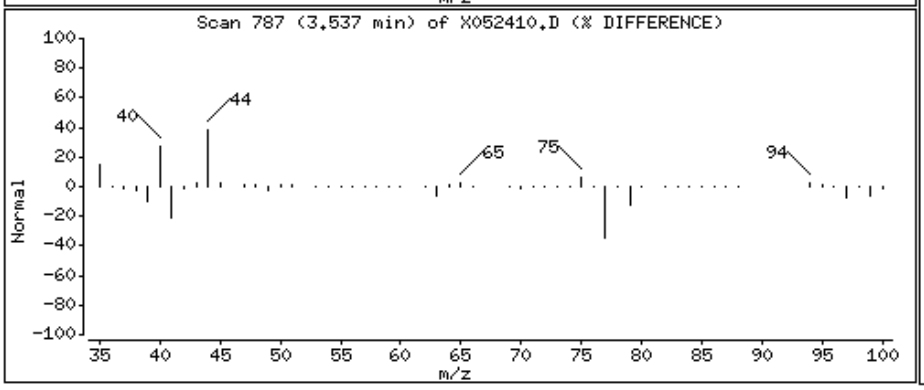
27 cis-1,2-Dichloroethene

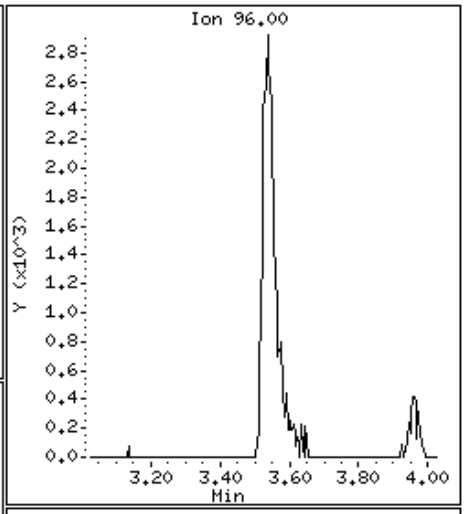
Concentration: 1.21 ug/l

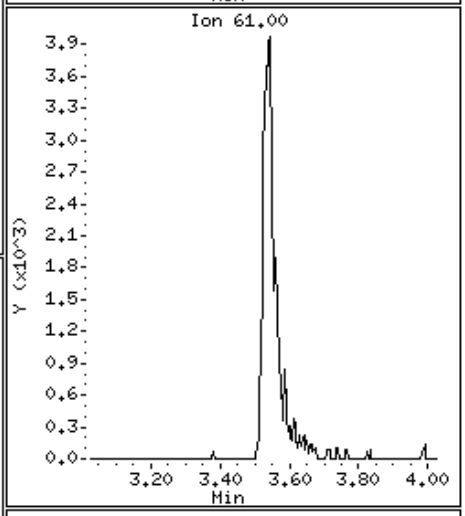


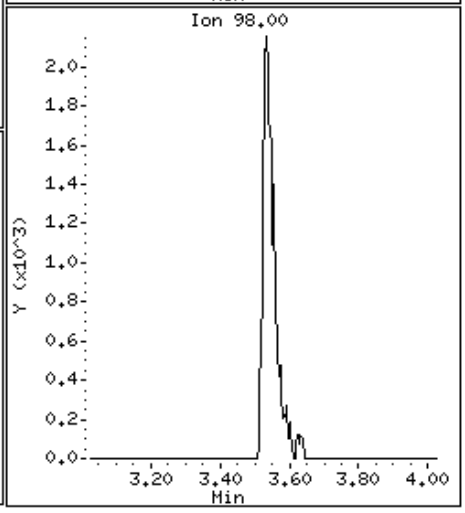












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052410.D
Inj Date : 24-MAY-2023 13:24
InstruID : voa6.i
LabSampID : HS23051522-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052413.D Page 1
Report Date: 26-May-2023 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052413.D
Lab Smp Id: HS23051522-01MS Client Smp ID: HS23051522-01MS
Inj Date : 24-MAY-2023 14:27
Operator : PC Inst ID: voa6.i
Smp Info : HS23051522-01MS;HS23051522-01MS;3;;MS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\8260W.m
Meth Date : 26-May-2023 16:22 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	557562	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	25737	340.835	340.83(a)
140	1,3-Butadiene	54	1.164	1.164	(0.279)	80423	13.6280	13.62
25	Methacrylonitrile	41	3.833	3.821	(0.917)	129165	25.9878	25.98
12	Isobutyl Alcohol	43	4.676	4.672	(1.119)	324194	446.066	446.06
13	Acetonitrile	39	2.198	2.198	(0.526)	134139	249.898	249.89
14	Allyl Chloride	41	2.198	2.198	(0.526)	244851	18.0839	18.08
4	Propionitrile	54	3.649	3.649	(0.873)	131253	171.665	171.66(a)
72	trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	41808	24.4281	24.42
194	Acetaldehyde	44	1.212	1.212	(0.290)	31132	73.2124	73.21(M)
40	Methyl Methacrylate	41	5.602	5.602	(1.341)	104110	21.3613	21.36
49	Ethyl Methacrylate	69	6.783	6.783	(1.367)	190566	22.3040	22.30
136	n-Hexane	57	2.768	2.772	(0.663)	106071	22.4227	22.42
156	Diisopropyl ether	45	3.000	2.997	(0.718)	344581	20.4256	20.42
166	1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	479034	25.5158	25.51
205	2-Ethylhexyl Acrylate	55	11.547	11.547	(1.196)	177365	22.9523	22.95
2	Dichlorodifluoromethane	85	0.972	0.972	(0.233)	33169	6.72340	6.72
3	Chloromethane	50	1.077	1.077	(0.258)	99184	12.6788	12.67
5	Vinyl Chloride	62	1.145	1.145	(0.274)	108386	14.6774	14.67
6	Bromomethane	94	1.336	1.340	(0.320)	45684	12.0719	12.07

7	Chloroethane	64	1.404	1.404 (0.336)	66146	14.3491	14.34(M)
8	Trichlorofluoromethane	101	1.557	1.561 (0.373)	166915	21.4677	21.46

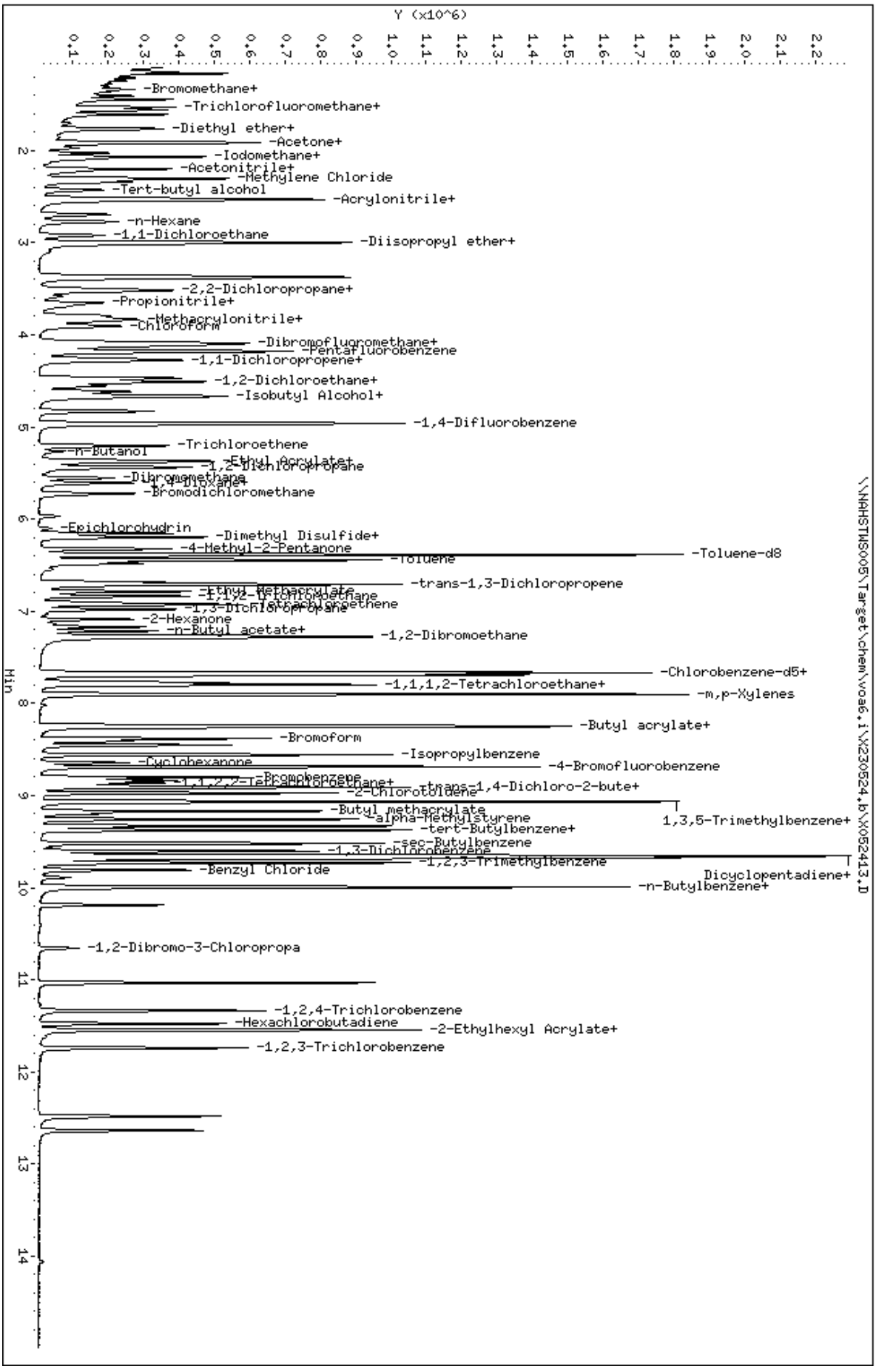
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	9 Acrolein	56	1.445	1.445	(0.346)	19590	41.9926	41.99
	10 Acetone	43	1.973	1.973	(0.472)	63070	29.5496	29.54
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	101302	20.6045	20.60
	15 Iodomethane	142	2.026	2.026	(0.485)	179175	28.2095	28.20
	16 Acrylonitrile	53	2.536	2.532	(0.607)	60266	32.7349	32.73
	17 Methylene Chloride	84	2.303	2.303	(0.551)	108587	18.5785	18.57
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	321539	20.9655	20.96
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	566739	36.7392	36.73
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	104092	20.4120	20.41
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	574166	40.4628	40.46
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	184873	19.7711	19.77
	24 2-Butanone	43	3.585	3.574	(0.858)	64961	35.0090	35.00
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	164383	23.7074	23.70
	27 cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	121903	20.3233	20.32
	28 Chloroform	83	3.904	3.904	(0.935)	199146	21.4887	21.48
	29 Bromochloromethane	128	3.795	3.791	(0.908)	61261	19.3780	19.37
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	257736	50.9233	50.92
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	165318	23.1638	23.16
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	146149	22.2135	22.21
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	152217	23.2994	23.29
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	145214	23.8912	23.89
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	288803	53.2654	53.26
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	836286	50.0000	
	37 Benzene	78	4.511	4.507	(0.909)	420344	19.7565	19.75
	38 Trichloroethene	130	5.205	5.205	(1.049)	118704	20.7010	20.70
	39 Bromodichloromethane	83	5.726	5.726	(1.154)	152781	20.9834	20.98
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	112692	18.6395	18.63
	44 Dibromomethane	93	5.550	5.550	(1.119)	73653	20.0735	20.07
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	211534	39.9587	39.95
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	186270	19.1456	19.14
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	769715	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	1014180	51.7107	51.71
	50 Toluene	91	6.445	6.442	(0.841)	478993	22.1788	22.17
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.346)	161212	20.7479	20.74
	52 2-Hexanone	43	7.086	7.083	(0.924)	147101	40.6013	40.60
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	90727	20.5703	20.57
	54 1,3-Dichloropropane	76	6.982	6.978	(0.911)	188830	20.5750	20.57
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	126081	21.0654	21.06
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	103377	24.7072	24.70
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	115910	21.5665	21.56
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	122755	24.9335	24.93
	59 Chlorobenzene	112	7.690	7.690	(1.003)	327750	21.9223	21.92
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.773	(1.014)	117795	22.4515	22.45
	61 Ethylbenzene	106	7.799	7.799	(1.017)	169288	23.0437	23.04
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	438640	47.9409	47.94
	63 o-Xylene	106	8.237	8.237	(1.074)	205618	22.9834	22.98
	64 Styrene	104	8.260	8.256	(1.077)	349335	23.3240	23.32
	66 Bromoform	173	8.410	8.406	(1.097)	87650	21.6670	21.66
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	533951	24.8804	24.88
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	154533	21.2859	21.28
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	369533	50.0491	50.04
*	70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	416796	50.0000	

71	1,2,3-Trichloropropane	75	8.863	8.860 (0.918)	120958	22.6833	22.68
73	n-Propylbenzene	91	8.908	8.908 (0.922)	645352	24.9843	24.98

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	74 Bromobenzene	156	8.803	8.803	(0.912)	145384	22.3499	22.34
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	456244	24.3866	24.38
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	386610	23.0468	23.04
	77 4-Chlorotoluene	91	9.069	9.066	(0.939)	449702	24.3761	24.37
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	389086	24.7052	24.70
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	462023	24.1347	24.13
	81 sec-Butylbenzene	105	9.519	9.519	(0.986)	569811	25.9458	25.94
	82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	490214	25.8325	25.83
	83 1,3-Dichlorobenzene	146	9.606	9.602	(0.995)	266943	22.7631	22.76
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	284936	23.1189	23.11
	87 n-Butylbenzene	91	9.992	9.992	(1.035)	461687	28.4138	28.41
	88 1,2-Dichlorobenzene	146	9.992	9.988	(1.035)	265555	22.7816	22.78
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	24036	19.0234	19.02
	90 1,2,4-Trichlorobenzene	180	11.337	11.334	(1.174)	180366	22.3641	22.36
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	87126	25.1078	25.10
	92 Naphthalene	128	11.540	11.540	(1.195)	426749	21.3095	21.30
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	173297	21.9358	21.93
M	94 1,2-Dichloroethylene (total)	96				225995	40.7354	40.73
M	95 Xylenes (total)	106				644258	70.9243	70.92
	141 Cyclohexane	56	4.118	4.118	(0.986)	154508	22.1445	22.14
	138 Freon TF	101	1.913	1.913	(0.458)	107213	27.1639	27.16
	147 Methylcyclohexane	55	5.381	5.377	(1.085)	286474	22.2754	22.27
	146 Methyl Acetate	43	2.236	2.228	(0.535)	63022	19.1265	19.12
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	197443	358.552	358.55
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	103934	304.735	304.73

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



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Instrument: voa6.i
Operator: PC
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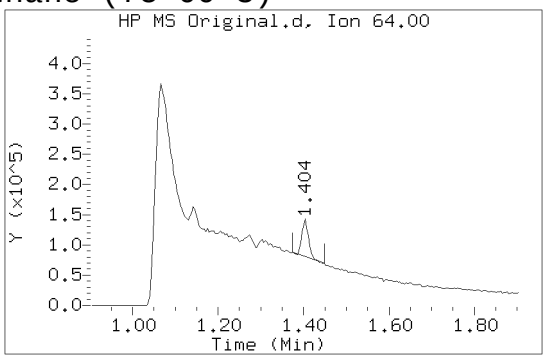
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Chloroethane (75-00-3)

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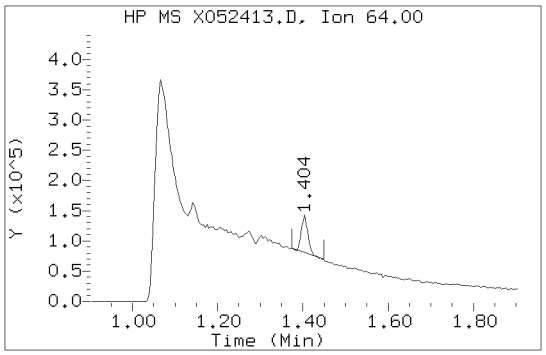
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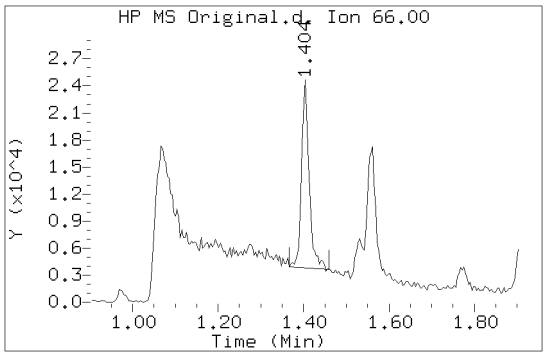
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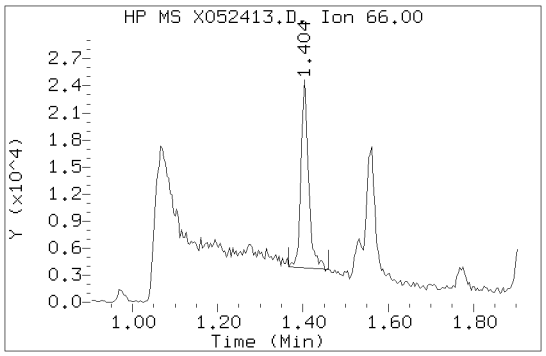
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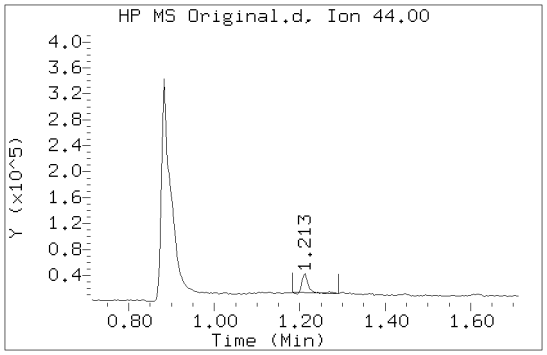


Acetaldehyde (75-07-0)

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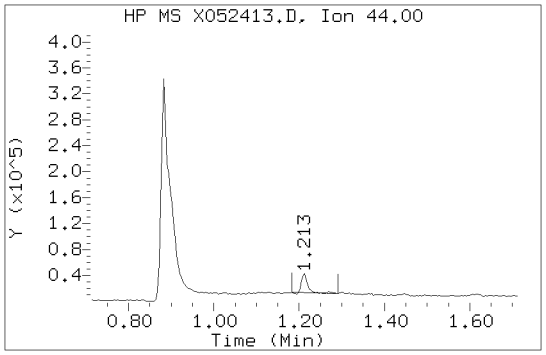
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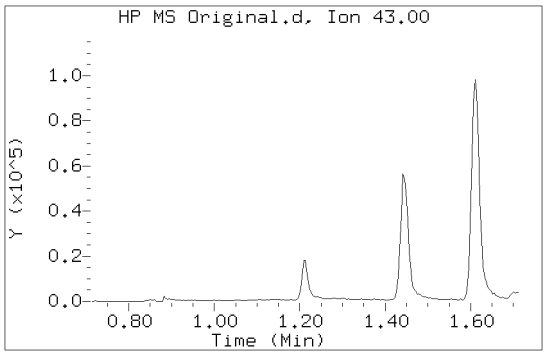
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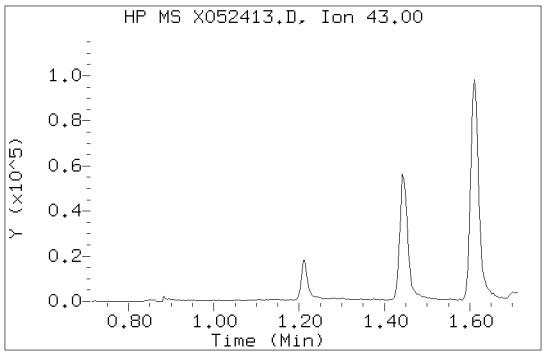
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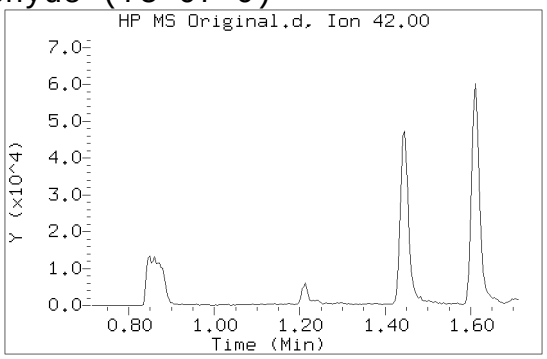
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Acetaldehyde (75-07-0)

Reason Code:

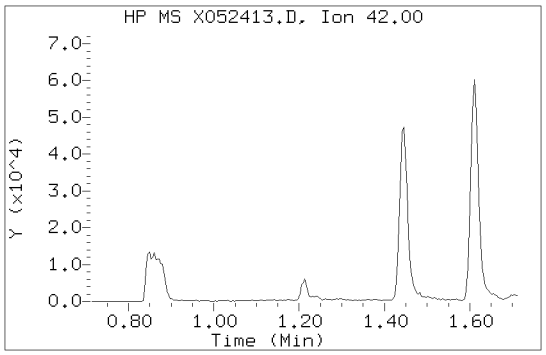
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Report Date: 26-May-2023 16:22

ALS Laboratory Group

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Inj Date : 24-MAY-2023 14:48
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Misc Info : V6;WATER;0;1;
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Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	557943	50.0000	
135	1,4-Dioxane	88	5.602	5.598	(1.341)	26185	346.531	346.53(a)
140	1,3-Butadiene	54	1.167	1.164	(0.280)	75363	12.7618	12.76
25	Methacrylonitrile	41	3.833	3.821	(0.917)	137393	27.6244	27.62
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	326875	449.447	449.44
13	Acetonitrile	39	2.198	2.198	(0.526)	130345	242.664	242.66
14	Allyl Chloride	41	2.198	2.198	(0.526)	248317	18.3274	18.32
4	Propionitrile	54	3.649	3.649	(0.873)	135332	176.879	176.87(a)
72	trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	41817	23.9379	23.93
194	Acetaldehyde	44	1.212	1.212	(0.290)	30574	71.6046	71.60(M)
40	Methyl Methacrylate	41	5.606	5.602	(1.342)	105556	21.6432	21.64
49	Ethyl Methacrylate	69	6.783	6.783	(1.366)	193049	22.3246	22.32
136	n-Hexane	57	2.772	2.772	(0.664)	103199	21.8272	21.82
156	Diisopropyl ether	45	2.997	2.997	(0.717)	346044	20.4983	20.49
166	1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	471024	24.4766	24.47
205	2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	176262	22.2527	22.25
2	Dichlorodifluoromethane	85	0.972	0.972	(0.233)	31720	6.45351	6.45
3	Chloromethane	50	1.081	1.077	(0.259)	84863	10.8407	10.84
5	Vinyl Chloride	62	1.145	1.145	(0.274)	103457	14.0004	14.00
6	Bromomethane	94	1.340	1.340	(0.321)	38211	10.1338	10.13

7	Chloroethane	64	1.404	1.404 (0.336)	70970	15.3851	15.38(M)
8	Trichlorofluoromethane	101	1.561	1.561 (0.374)	157972	20.3036	20.30

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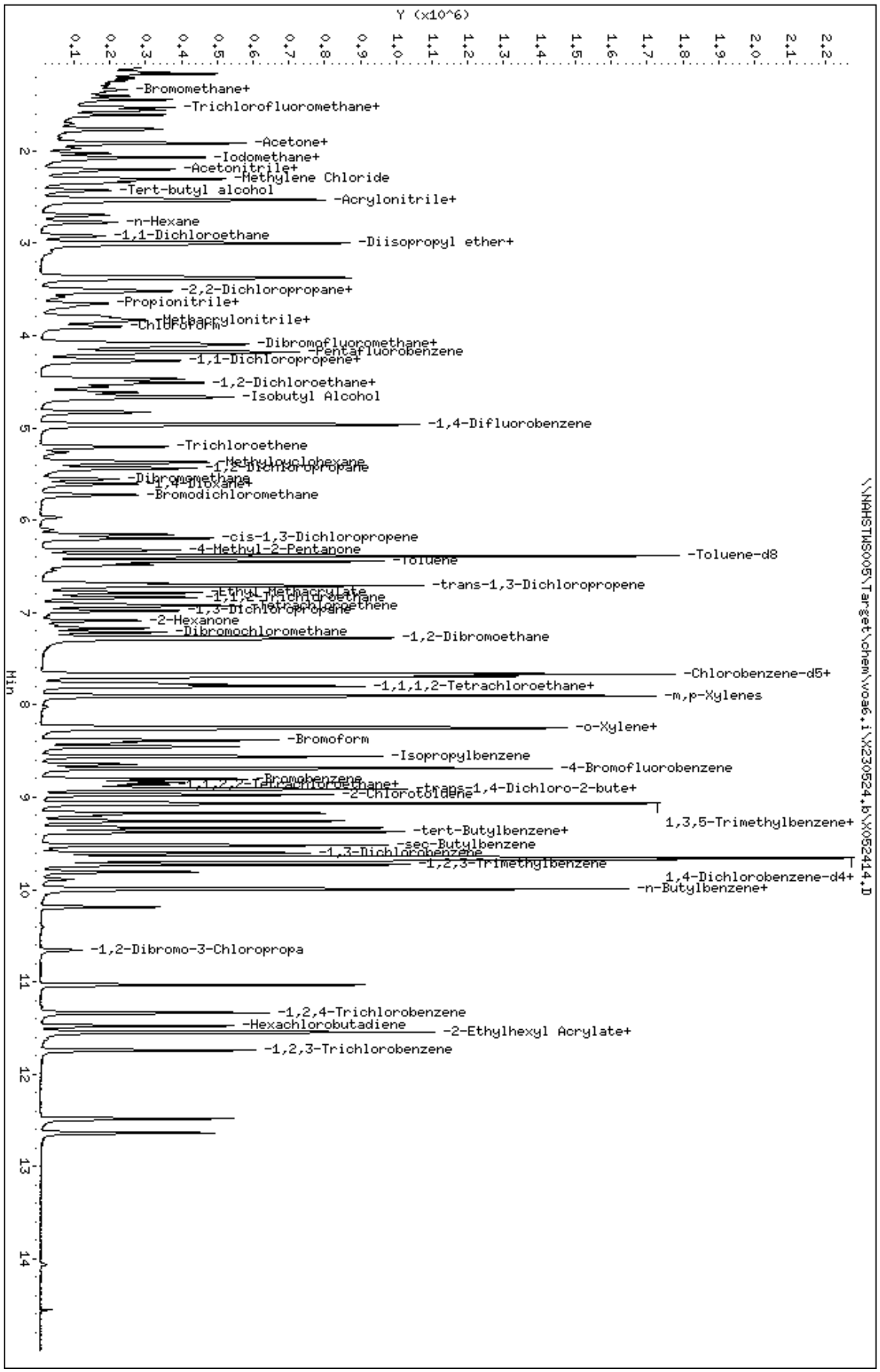
			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
	9	Acrolein	56	1.445	1.445	(0.346)	18812	40.2974	40.29
	10	Acetone	43	1.973	1.973	(0.472)	64958	30.5407	30.54
	11	1,1-Dichloroethene	96	1.913	1.913	(0.458)	96069	19.5268	19.52
	15	Iodomethane	142	2.026	2.026	(0.485)	178726	28.1282	28.12
	16	Acrylonitrile	53	2.536	2.532	(0.607)	58996	32.0232	32.02
	17	Methylene Chloride	84	2.303	2.303	(0.551)	106053	18.1326	18.13
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	326811	21.2947	21.29
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	549168	35.5759	35.57
	20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	100187	19.6329	19.63
	21	Vinyl Acetate	43	2.997	2.997	(0.717)	577344	40.6590	40.65
	22	1,1-Dichloroethane	63	2.922	2.918	(0.699)	178329	19.0582	19.05
	24	2-Butanone	43	3.585	3.574	(0.858)	64817	34.9075	34.90
	26	2,2-Dichloropropane	77	3.507	3.507	(0.839)	157163	22.6368	22.63
	27	cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	121909	20.3104	20.31
	28	Chloroform	83	3.904	3.904	(0.935)	195216	21.0502	21.05
	29	Bromochloromethane	128	3.795	3.791	(0.908)	60513	19.1283	19.12
$	30	Dibromofluoromethane	113	4.095	4.095	(0.980)	258358	51.0128	51.01
	31	1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	161090	22.5560	22.55
	32	1,1-Dichloropropene	75	4.279	4.279	(0.862)	142092	21.3387	21.33
	33	1,2-Dichloroethane	62	4.556	4.552	(0.918)	151232	22.8719	22.87
	34	Carbon Tetrachloride	117	4.264	4.260	(0.859)	138226	22.4697	22.46
$	35	1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	297531	54.8513	54.85
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	846402	50.0000	
	37	Benzene	78	4.511	4.507	(0.909)	409492	19.0164	19.01
	38	Trichloroethene	130	5.205	5.205	(1.048)	115868	19.9649	19.96
	39	Bromodichloromethane	83	5.726	5.726	(1.153)	150054	20.3625	20.36
	42	1,2-Dichloropropane	63	5.433	5.433	(1.094)	107988	17.6480	17.64
	44	Dibromomethane	93	5.550	5.550	(1.118)	74747	20.1282	20.12
	45	4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	224431	41.5353	41.53
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	185462	18.8347	18.83
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	785646	50.0000	
$	48	Toluene-d8	98	6.385	6.386	(0.833)	1021895	51.0475	51.04
	50	Toluene	91	6.445	6.442	(0.841)	470089	21.3251	21.32
	51	trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	162135	20.6173	20.61
	52	2-Hexanone	43	7.086	7.083	(0.924)	152279	41.1782	41.17
	53	1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	92117	20.4620	20.46
	54	1,3-Dichloropropane	76	6.978	6.978	(0.910)	184762	19.7235	19.72
	55	Dibromochloromethane	129	7.173	7.173	(0.935)	126141	20.6480	20.64
	56	Tetrachloroethene	164	6.925	6.925	(0.903)	99967	23.4077	23.40
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	118055	21.5202	21.52
	58	1-Chlorohexane	55	7.694	7.694	(1.550)	115972	23.3971	23.39
	59	Chlorobenzene	112	7.690	7.690	(1.003)	315200	20.6554	20.65
	60	1,1,1,2-Tetrachloroethane	131	7.772	7.773	(1.014)	113612	21.2152	21.21
	61	Ethylbenzene	106	7.795	7.799	(1.017)	161760	21.5725	21.57
	62	m,p-Xylenes	106	7.904	7.900	(1.031)	425137	45.5229	45.52
	63	o-Xylene	106	8.241	8.237	(1.075)	202627	22.1898	22.18
	64	Styrene	104	8.260	8.256	(1.077)	337099	22.0507	22.05
	66	Bromoform	173	8.410	8.406	(1.097)	88136	21.3453	21.34
	67	Isopropylbenzene	105	8.560	8.560	(1.116)	517033	23.6036	23.60
	68	1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	158339	21.2779	21.27
$	69	4-Bromofluorobenzene	95	8.687	8.687	(1.133)	376811	50.0000	49.99
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.658	(1.000)	427226	50.0000	

71 1,2,3-Trichloropropane	75	8.863	8.860 (0.917)	116781	21.3653	21.36(M)
73 n-Propylbenzene	91	8.908	8.908 (0.922)	626683	23.6692	23.66

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
74	Bromobenzene	156	8.803	8.803	(0.911)	143056	21.4552	21.45
75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	439801	22.9338	22.93
76	2-Chlorotoluene	91	8.972	8.972	(0.929)	373516	21.7227	21.72
77	4-Chlorotoluene	91	9.070	9.066	(0.939)	432880	22.8914	22.89
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	375203	23.2421	23.24
79	1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	444780	22.6667	22.66
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	542864	24.1153	24.11
82	p-Isopropyltoluene	119	9.647	9.647	(0.998)	473569	24.3461	24.34
83	1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	258896	21.5379	21.53
84	1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	281191	22.2581	22.25
87	n-Butylbenzene	91	9.992	9.992	(1.034)	442925	26.5936	26.59
88	1,2-Dichlorobenzene	146	9.992	9.988	(1.034)	260759	21.8240	21.82
89	1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	25362	19.5925	19.59
90	1,2,4-Trichlorobenzene	180	11.337	11.334	(1.173)	177009	21.4120	21.41
91	Hexachlorobutadiene	225	11.476	11.476	(1.188)	84889	23.8660	23.86
92	Naphthalene	128	11.544	11.540	(1.195)	435258	21.2037	21.20
93	1,2,3-Trichlorobenzene	180	11.742	11.739	(1.215)	169594	20.9430	20.94
M 94	1,2-Dichloroethylene (total)	96				222096	39.9433	39.94
M 95	Xylenes (total)	106				627764	67.7127	67.71
141	Cyclohexane	56	4.125	4.118	(0.987)	148480	21.2660	21.26
138	Freon TF	101	1.913	1.913	(0.458)	97695	24.8204	24.82
147	Methylcyclohexane	55	5.381	5.377	(1.084)	286797	22.0340	22.03
146	Methyl Acetate	43	2.236	2.228	(0.535)	65589	19.8920	19.89
148	Tert-Butyl alcohol	59	2.427	2.427	(0.581)	209025	379.325	379.32
149	Isopropyl Alcohol	45	2.097	2.093	(0.502)	113316	332.016	332.01

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



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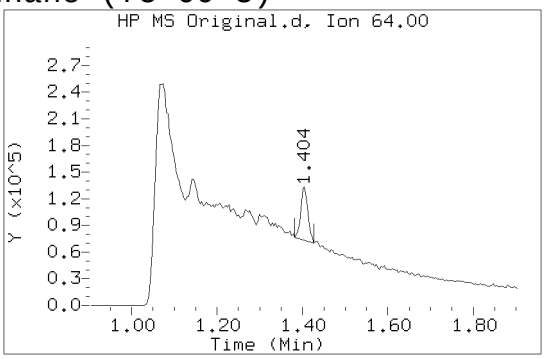
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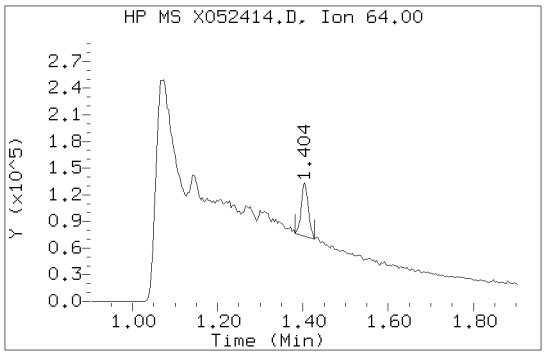
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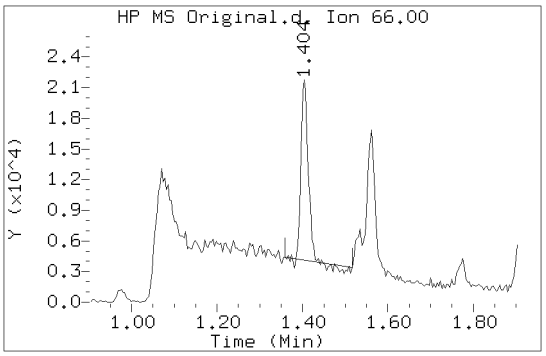
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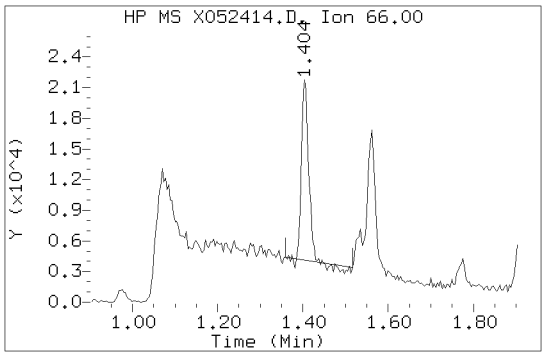
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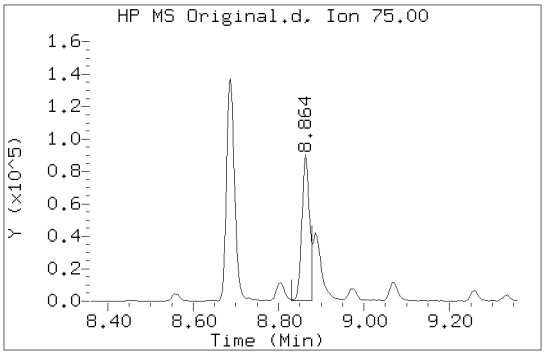
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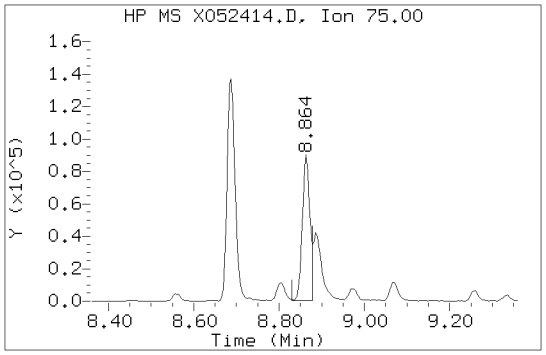
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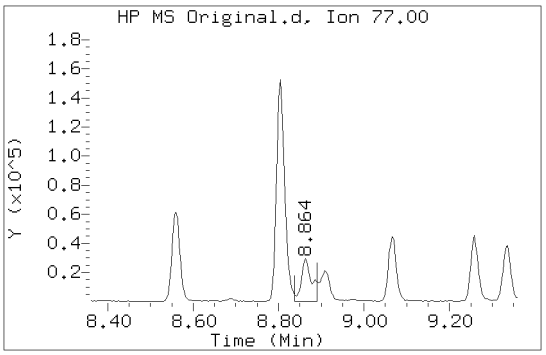
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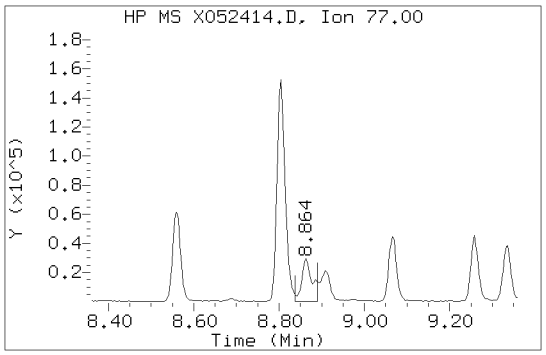
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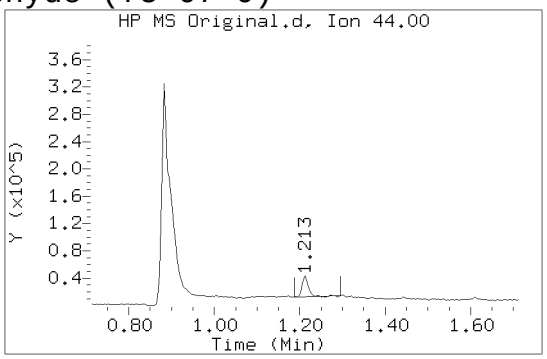


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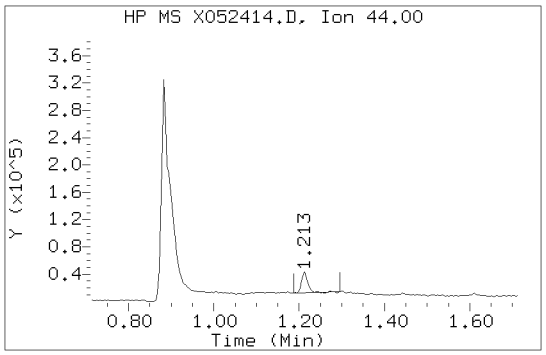
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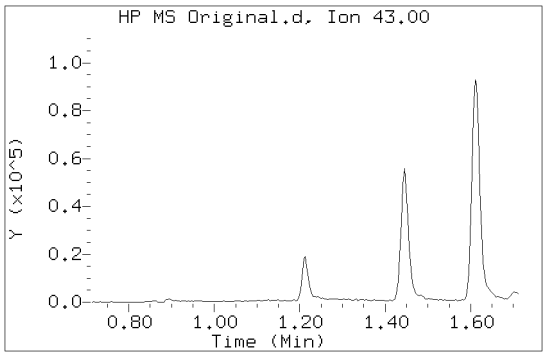
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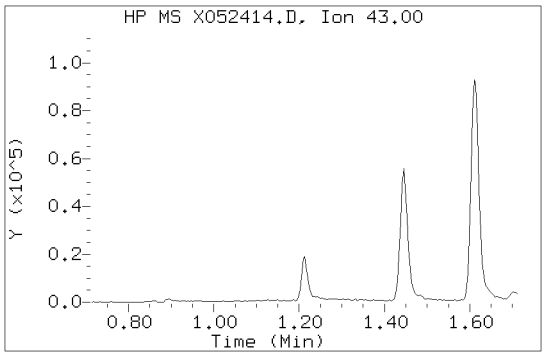
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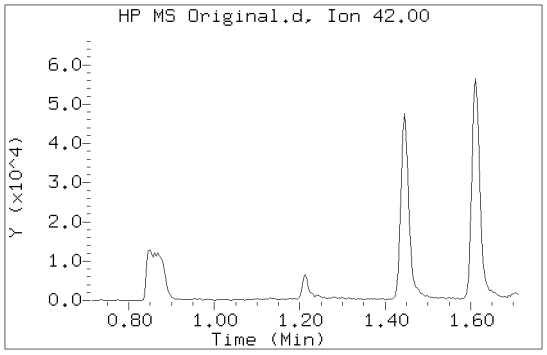
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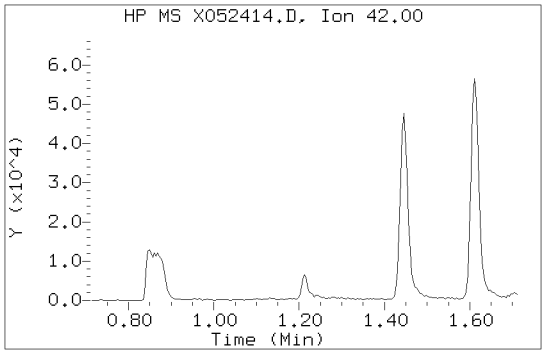
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Report Date: 26-May-2023 16:23

ALS Laboratory Group

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Smp Info : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
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Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	497682	50.0000	
135 1,4-Dioxane	88	5.594	5.594	(1.339)	63877	1000.00	947.70
140 1,3-Butadiene	54	1.164	1.164	(0.279)	246485	50.0000	46.79
25 Methacrylonitrile	41	3.818	3.818	(0.914)	234900	50.0000	52.94
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	740632	1000.00	1141.66
13 Acetonitrile	39	2.198	2.198	(0.526)	292051	500.000	609.54
14 Allyl Chloride	41	2.198	2.198	(0.526)	568957	50.0000	47.07
4 Propionitrile	54	3.645	3.645	(0.873)	341860	500.000	500.91
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	99930	50.0000	56.25
194 Acetaldehyde	44	1.212	1.212	(0.290)	65167	200.000	189.51(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	226594	50.0000	52.08
49 Ethyl Methacrylate	69	6.786	6.786	(1.367)	405136	50.0000	48.86
136 n-Hexane	57	2.768	2.768	(0.663)	235360	50.0000	51.85
156 Diisopropyl ether	45	3.000	3.000	(0.718)	778756	50.0000	51.71
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1073419	50.0000	52.82
205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	431842	50.0000	51.63
2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	229823	50.0000	47.88
3 Chloromethane	50	1.077	1.077	(0.258)	220744	50.0000	31.61
5 Vinyl Chloride	62	1.145	1.145	(0.274)	304767	50.0000	46.23
6 Bromomethane	94	1.340	1.340	(0.321)	167594	50.0000	48.79

7	Chloroethane	64	1.403	1.403 (0.336)	208764	50.0000	50.73
8	Trichlorofluoromethane	101	1.561	1.561 (0.374)	402688	50.0000	58.02

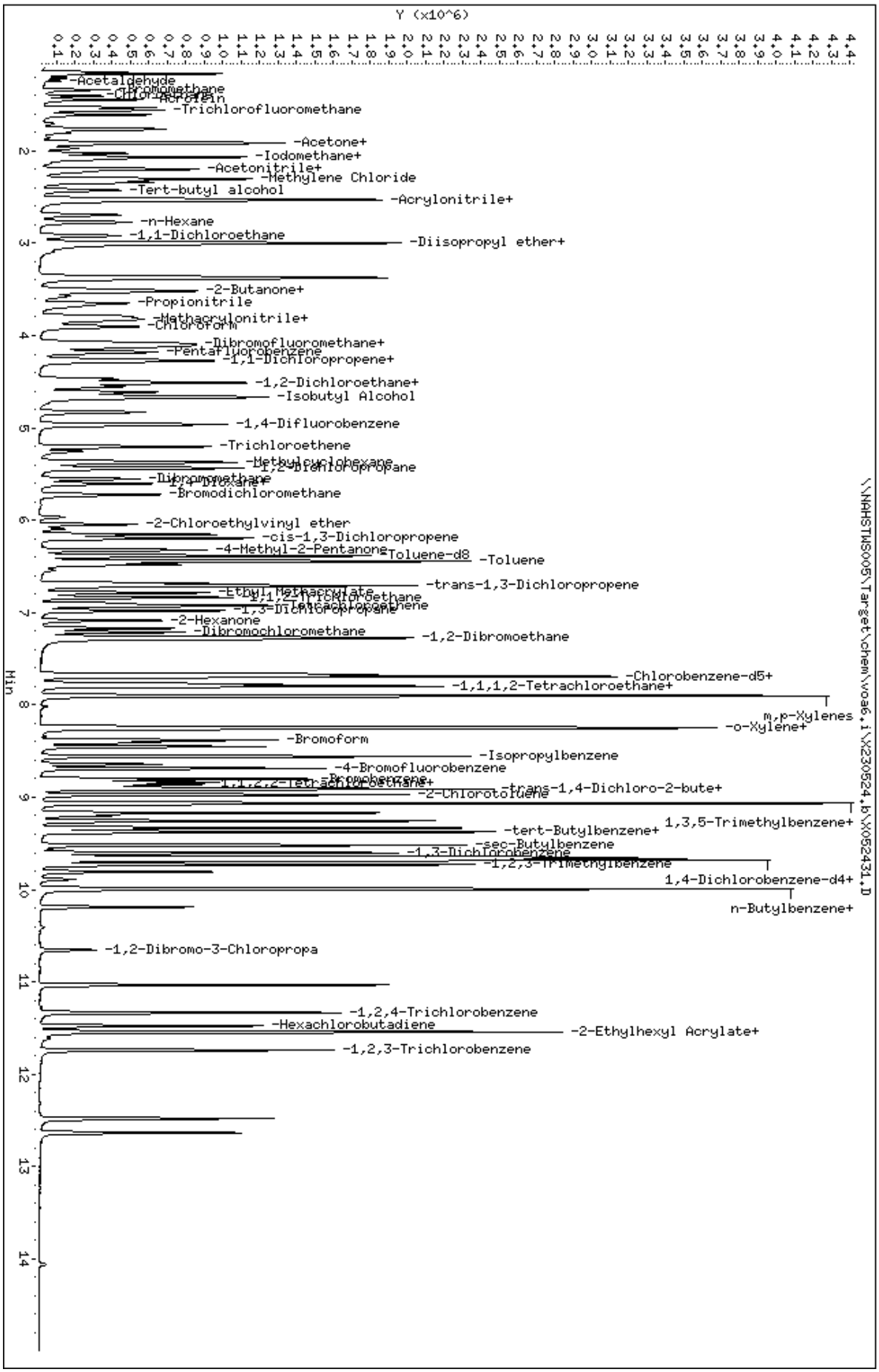
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	9 Acrolein	56	1.445	1.445	(0.346)	39739	100.000	95.43
	10 Acetone	43	1.973	1.973	(0.472)	160746	100.000	92.45
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	239394	50.0000	54.55
	15 Iodomethane	142	2.026	2.026	(0.485)	468867	100.000	76.19
	16 Acrylonitrile	53	2.532	2.532	(0.606)	174713	100.000	106.31
	17 Methylene Chloride	84	2.303	2.303	(0.551)	262294	50.0000	50.27
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	712323	50.0000	52.03
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	1248667	100.000	90.68
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	241753	50.0000	53.11
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1198272	100.000	94.60
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	425434	50.0000	50.97
	24 2-Butanone	43	3.574	3.574	(0.856)	176547	100.000	106.59
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	336708	50.0000	54.80
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	278918	50.0000	52.09
	28 Chloroform	83	3.900	3.900	(0.934)	472252	50.0000	57.08
	29 Bromochloromethane	128	3.791	3.791	(0.908)	148655	50.0000	52.68
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	265316	50.0000	58.85
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	384590	50.0000	60.37
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	339260	50.0000	53.14
	33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	361967	50.0000	57.09
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	325111	50.0000	55.12
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	307063	50.0000	63.53
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	811483	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	1018014	50.0000	49.30
	38 Trichloroethene	130	5.205	5.205	(1.048)	291844	50.0000	52.45
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	368411	50.0000	52.14
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	204036	100.000	86.95
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	271306	50.0000	46.24
	44 Dibromomethane	93	5.549	5.549	(1.118)	181290	50.0000	50.91
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	500327	100.000	91.05
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	454386	50.0000	48.13
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	798904	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	1018726	50.0000	50.04
	50 Toluene	91	6.445	6.445	(0.841)	1159179	50.0000	51.71
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	399295	50.0000	52.95
	52 2-Hexanone	43	7.086	7.086	(0.924)	354397	100.000	94.24
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	230230	50.0000	50.29
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	464807	50.0000	48.79
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	316120	50.0000	50.88
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	231645	50.0000	53.34
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	296138	50.0000	53.08
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	255616	50.0000	51.39
	59 Chlorobenzene	112	7.694	7.694	(1.003)	788749	50.0000	50.82
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	287471	50.0000	52.78
	61 Ethylbenzene	106	7.799	7.799	(1.017)	397612	50.0000	52.14
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	1028438	100.000	108.29
	63 o-Xylene	106	8.237	8.237	(1.074)	497053	50.0000	53.52
	64 Styrene	104	8.256	8.256	(1.077)	864594	50.0000	55.61
	66 Bromoform	173	8.406	8.406	(1.096)	224616	50.0000	53.49
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1239984	50.0000	55.66
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	381482	50.0000	48.09
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	403779	50.0000	52.68

*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662 (1.000)	451106	50.0000	
	71	1,2,3-Trichloropropane	75	8.863	8.863 (0.917)	282973	50.0000	49.02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	1514239	50.0000	54.16	
	74 Bromobenzene	156	8.803	8.803	(0.911)	358261	50.0000	50.88	
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	1086361	50.0000	53.65	
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	914080	50.0000	50.34	
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	1070155	50.0000	53.59	
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	902027	50.0000	52.91	
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1098993	50.0000	53.04	
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	1299031	50.0000	54.65	
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	1138338	50.0000	55.42	
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	641135	50.0000	50.51	
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	680585	50.0000	51.02	
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	1044562	50.0000	59.39	
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	653286	50.0000	51.78	
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	63199	50.0000	46.68	
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	442930	50.0000	50.74	
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	190969	50.0000	50.84	
	92 Naphthalene	128	11.540	11.540	(1.194)	1097527	50.0000	50.63	
	93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	427086	50.0000	49.94	
M	94 1,2-Dichloroethylene (total)	96				520671	100.000	(a)	
	141 Cyclohexane	56	4.121	4.121	(0.987)	340788	50.0000	54.71	
	138 Freon TF	101	1.913	1.913	(0.458)	226082	50.0000	59.75	
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	599476	50.0000	48.03	
	146 Methyl Acetate	43	2.232	2.232	(0.534)	158225	50.0000	53.79	
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	472106	1000.00	960.48	
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	259668	1000.00	852.95	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\x230524.b\x052431.D
Date : 24-MAY-2023 20:46
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

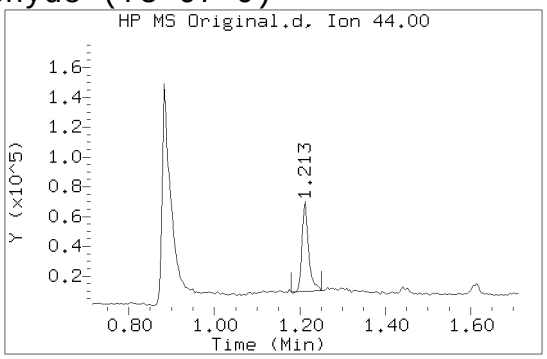
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230524.b\X052431.D
Inj Date : 24-MAY-2023 20:46
InstruID : voa6.i
LabSampID : CCV-END

Acetaldehyde (75-07-0)

Reason Code:

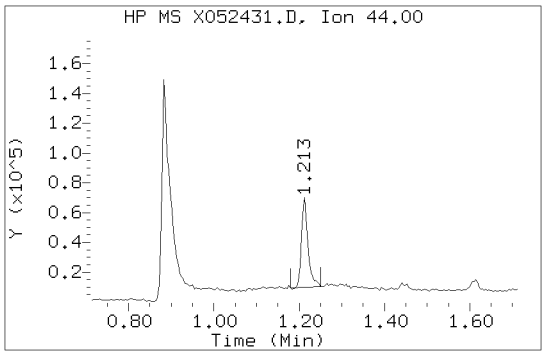
BEFORE

MASS
44
AREA
65167
HEIGHT
60228
26-May-2023
16:21
linh
pham



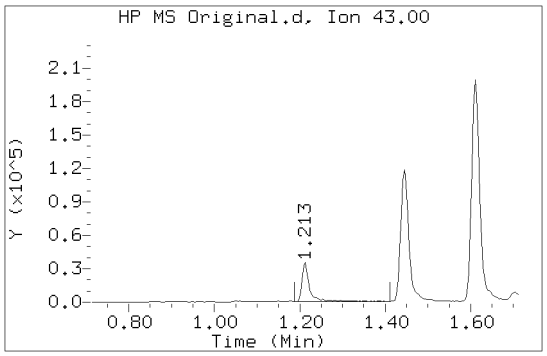
AFTER

MASS
44
AREA
65167
HEIGHT
60228
26-May-2023
16:21
linh
pham



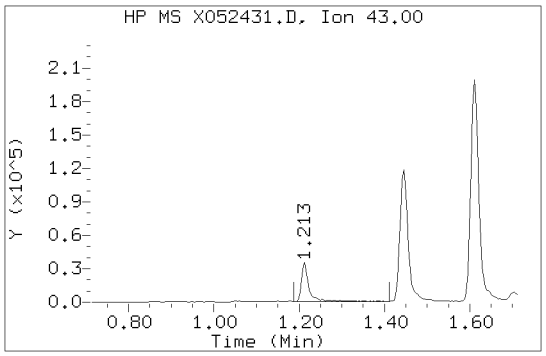
BEFORE

MASS
43
AREA
45180
HEIGHT
35328
26-May-2023
16:21
linh
pham



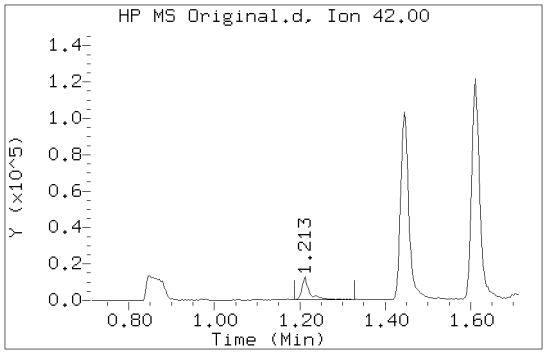
AFTER

MASS
43
AREA
45180
HEIGHT
35328
26-May-2023
16:21
linh
pham



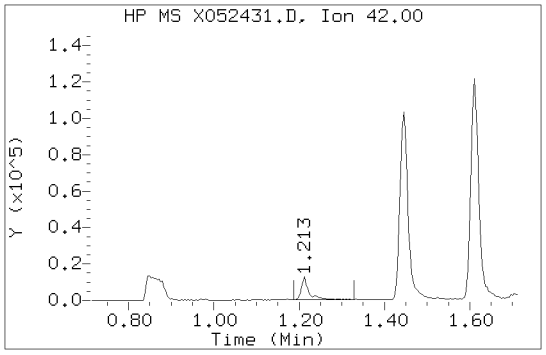
BEFORE

MASS
42
AREA
16002
HEIGHT
12560
26-May-2023
16:21
linh
pham



AFTER

MASS
42
AREA
16002
HEIGHT
12560
26-May-2023
16:21
linh
pham



HS23051522-MSSEMI-SW8270SIM

ALS WO# HS23051522

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Form 1

Organic Analysis Data Sheet

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Semi-Volatiles by EPA 8270SIM

HS23051522-01		Collected	Received	Matrix	Basis
LH18/24-SP650_052223		05/22/23 13:00	05/23/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.018	a	0.010	0.010	0.010	1	05/30/23 12:42	SV-	05	194323

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Semi-Volatiles by EPA 8270SIM

MBLK-194323	Collected	Received	Matrix	Basis
MBLK-194323	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.030	U	0.010	0.030	0.030	1	05/30/23 13:00	SV-	06	194323

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Form 2

System Monitoring Compound Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

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Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
SV-6_436574_194323

Semi-Volatiles by EPA 8270SIM

HS23051522-01	Analyzed 05/30/23	Conc Units ug/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.076	0.08	94.5	40-140	
4-Terphenyl-d14	0.066	0.08	82.9	40-140	
Nitrobenzene-d5	0.087	0.08	109	40-140	

MBLK-194323	Analyzed 05/30/23	Conc Units ug/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.07649	0.08	95.6	40-140	
4-Terphenyl-d14	0.07211	0.08	90.1	40-140	
Nitrobenzene-d5	0.09642	0.08	121	40-140	

LCS-194323	Analyzed 05/30/23	Conc Units ug/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.07086	0.08	88.6	40-140	
4-Terphenyl-d14	0.07088	0.08	88.6	40-140	
Nitrobenzene-d5	0.0982	0.08	123	40-140	

LCSD-194323	Analyzed 05/30/23	Conc Units ug/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.0762	0.08	95.3	40-140	
4-Terphenyl-d14	0.07444	0.08	93.1	40-140	
Nitrobenzene-d5	0.09418	0.08	118	40-140	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

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Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
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Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Semi-Volatiles by EPA 8270SIM

SV-6_436574_194323		QC ID	LCS-194323			LCSD-194323					
QC Matrix	Aqueous	Run Date	05/30/23			05/30/23					
Prep Method	SW3510	Units	Run Time	13:18			13:36				
Prep Batch	194323 05/25/23	ug/L	Prep Amt	1000 mL			1000 mL				
Analyte		%R Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,4-Dioxane		40-140	0.08	0.07622	95		0.07303	91.0		20	4.28	
2-Fluorobiphenyl		40-140	0.08	0.07086	89		0.0762	95.0		20	7.27	
4-Terphenyl-d14		40-140	0.08	0.07088	89		0.07444	93.0		20	4.91	
Nitrobenzene-d5		40-140	0.08	0.0982	123		0.09418	118.0		20	4.17	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

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Form 4

Method Blank Summary

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
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Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

Semi-Volatiles by EPA 8270SIM

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-194323	06.D	05/30/23 13:00	SV-6_436574_194323
LH18/24-SP650_052223	SAMP	HS23051522-01	05.D	05/30/23 12:42	SV-6_436574_194323
LCS-194323	LCS	LCS-194323	07.D	05/30/23 13:18	SV-6_436574_194323
LCSD-194323	LCSD	LCSD-194323	08.D	05/30/23 13:36	SV-6_436574_194323

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Form 5

Instrument Performance Check

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
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www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
SV-6_427063

Tune File 01.D 01/26/23 10:28

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	66.8 (66.77)
68	Less than 2.0% of mass 69	0.7 (1.46) 1
69	Mass 69 RA	46 (45.99)
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	25.0 - 75.0% of mass 198	51.7 (51.66)
197	Less than 1.0% of mass 198	0.6 (0.64)
198	Base peak, 100% RA	100 (100)
199	5.0 - 9.0% of mass 198	6.8 (6.75)
275	10.0 - 30.0% of mass 198	22.3 (22.35)
365	Greater than 0.75% of mass	2.9 (2.89)
441	Present, but less than mass	9.8 (71.9)
442	40.0 - 110.0% of mass 198	66.1 (66.06)
443	15.0 - 24.0% of mass 442	13.6 (20.62) 2

Value is % of mass 1) 69 2) 442 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	ICAL1	01/26/23 17:04	18	1 4-DX-0.01
2	ICAL2	01/26/23 17:22	19	1 4-DX-0.03
3	ICAL3	01/26/23 17:40	20	1 4-DX-0.05
4	ICAL4	01/26/23 17:58	21	1 4-DX-0.08
5	ICAL5	01/26/23 18:16	22	1 4-DX-0.1
6	ICAL6	01/26/23 18:34	23	1 4-DX-0.15
7	ICAL7	01/26/23 18:51	24	1 4-DX-0.2
8	ICAL8	01/26/23 19:09	25	1 4-DX-0.5
9	ICV	01/26/23 19:27	26	1 4-DX-ICV

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
SV-6_436574

Tune File 01.D 05/30/23 10:18

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	70.5 (70.46)
68	Less than 2.0% of mass 69	0.9 (1.57) 1
69	Mass 69 RA	56.2 (56.23)
70	Less than 2.0% of mass 69	0.3 (0.47) 1
127	25.0 - 75.0% of mass 198	38.1 (38.15)
197	Less than 1.0% of mass 198	0 (0)
198	Base peak, 100% RA	100 (100)
199	5.0 - 9.0% of mass 198	6.3 (6.31)
275	10.0 - 30.0% of mass 198	28.6 (28.62)
365	Greater than 0.75% of mass	4.1 (4.06)
441	Present, but less than mass	14.6 (78.6)
442	40.0 - 110.0% of mass 198	94.4 (94.43)
443	15.0 - 24.0% of mass 442	18.6 (19.74) 2

Value is % of mass 1) 69 2) 442 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	05/30/23 11:49	03A	14DX-0.08
2	SAMP	05/30/23 12:42	05	LH18/24-SP650_052223
3	MBLK	05/30/23 13:00	06	MBLK-194323
4	LCS	05/30/23 13:18	07	LCS-194323
5	LCSD	05/30/23 13:36	08	LCSD-194323
6	CCV	05/30/23 14:03	09	CCV-END

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Form 6

Initial Calibration Data

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID SV-6_427063

ICAL Start Date 10-MAR-2022 1025
ICAL End Date 26-JAN-2023 1909

Calibration Files

Level 1 ..SV6.i\230126.b\18.D
Level 2 ..SV6.i\230126.b\19.D
Level 3 ..SV6.i\230126.b\20.D
Level 4 ..SV6.i\230126.b\21.D
Level 5 ..SV6.i\230126.b\22.D
Level 6 ..SV6.i\230126.b\23.D
Level 7 ..SV6.i\230126.b\24.D
Level 8 ..SV6.i\230126.b\25.D

Compound	Level 1 0.010 Level 7 0.200	Level 2 0.030 Level 8 0.500	Level 3 0.050	Level 4 0.080	Level 5 0.100	Level 6 0.150	Curve	b	m1	m2	%RSD or R^2	Q
1,4-Dioxane	0.46310 0.34382	0.38441 0.32997	0.40793	0.33224	0.32371	0.33309	AVRG		0.36478		13.63385	
	0.34382	0.32997					AVRG		0.36478		13.63385	
Nitrobenzene-d5	0.25894 0.30550	0.28069 0.29426	0.30421	0.28403	0.28044	0.30017	AVRG		0.28853		5.44076	
2-Fluorobiphenyl	1.34238 1.34111	1.24919 1.36027	1.26097	1.30443	1.30577	1.33599	AVRG		1.31252		3.06364	
158 4-Terphenyl-d14	1097 24628	2568 48596	5479	7348	8150	13832	QUAD	0.15559	0.48409	-0.00721	0.99726	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

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Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID SV-6_427063

Instrument ID SV6.i ICAL Date 26-JAN-2023
Lab File ID 26.D ICAL Time 1758
?VAL? ?VAL? Conc Units ug/L
Analysis Type SV Level LOW

Compound	CONC Added	CONC Recovered	% Recovered	Limits	Q
1,4-Dioxane	0.08000	0.03481	43.51	40-140	
Nitrobenzene-d5	0.08000	0.07196	89.95	40-140	
2-Fluorobiphenyl	0.08000	0.07917	98.96	40-140	
158 4-Terphenyl-d14	0.08000	0.08903	111.29	40-140	

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right solutions.
right partner.

Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID SV-6_436574

Instrument ID SV6.i Injection Date 30-MAY-2023 1149
Lab File ID 03A.D ICAL Date(s) 10-MAR-2022 26-JAN-2023
Analysis Type WATER ICAL Times 1025 1909
Lab Sample ID 14DX-0.08 Quant Type ISTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF0.080	CCV RRF0.080	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Nitrobenzene-d5	0.28853	0.34253	0.34253	0.010	18.71721	20.0	Averaged	
2-Fluorobiphenyl	1.31252	1.37682	1.37682	0.010	4.89901	20.0	Averaged	
158 4-Terphenyl-d14	0.08000	0.06456	1.28490	0.010	-19.30289	20.0	Quadratic	
1,4-Dioxane	0.36478	0.42897	0.42897	0.010	17.59572	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23051522

RunID SV-6_436574

Instrument ID SV6.i Injection Date 30-MAY-2023 1403
Lab File ID 09.D ICAL Date(s) 10-MAR-2022 26-JAN-2023
Analysis Type WATER ICAL Times 1025 1909
Lab Sample ID 14DX-0.08 Quant Type ISTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF0.080	CCV RRF0.080	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Nitrobenzene-d5	0.28853	0.34484	0.34484	0.010	19.51614	20.0	Averaged	
2-Fluorobiphenyl	1.31252	1.38617	1.38617	0.010	5.61167	20.0	Averaged	
158 4-Terphenyl-d14	0.08000	0.07417	1.54186	0.010	-7.28236	20.0	Quadratic	
1,4-Dioxane	0.36478	0.38300	0.38300	0.010	4.99271	20.0	Averaged	

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Form 12

Preparation Log

Semi-VolatilesEPA 3510

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 12 - Preparation Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
194323

Semi-VolatilesEPA 3510

Prep Batch 194323 **Prep Method** **Prep Date** 05/25/23

	Matrix	Type	Lab Sample ID	Initial Amt (mL)	Final Amt (mL)	Client Sample ID
1	Aqueous	MBLK	MBLK-194323	1000	1	MBLK-194323
2	Aqueous	LCS	LCS-194323	1000	1	LCS-194323
3	Aqueous	LCSD	LCSD-194323	1000	1	LCSD-194323
4	Water	SAMP	HS23051522-01	1000	1	LH18/24-SP650_052223

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Analysis Run Log

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
SV-6_427063

Run ID SV-6_427063 **Start Date** 01/26/23 **EndDate** 01/26/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:28	DFTPP	TUNE	DFTPP	01.D	01/26/23	1
17:04	1 4-DX-0.01	ICAL1	1 4-DX-0.01	18.D	01/26/23	1
17:22	1 4-DX-0.03	ICAL2	1 4-DX-0.03	19.D	01/26/23	1
17:40	1 4-DX-0.05	ICAL3	1 4-DX-0.05	20.D	01/26/23	1
17:58	1 4-DX-0.08	ICAL4	1 4-DX-0.08	21.D	01/26/23	1
18:16	1 4-DX-0.1	ICAL5	1 4-DX-0.1	22.D	01/26/23	1
18:34	1 4-DX-0.15	ICAL6	1 4-DX-0.15	23.D	01/26/23	1
18:51	1 4-DX-0.2	ICAL7	1 4-DX-0.2	24.D	01/26/23	1
19:09	1 4-DX-0.5	ICAL8	1 4-DX-0.5	25.D	01/26/23	1
19:27	1 4-DX-ICV	ICV	1 4-DX-ICV	26.D	01/26/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23051522

RunID
SV-6_436574

Run ID SV-6_436574 **Start Date** 05/30/23 **EndDate** 05/30/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:18	DFTPP	TUNE	DFTPP	01.D	05/30/23	1
11:49	14DX-0.08	CCV	14DX-0.08	03A.D	05/30/23	1
12:42	LH18/24-SP650_052223	SAMP	HS23051522-01	05.D	05/30/23	1
13:00	MBLK-194323	MBLK	MBLK-194323	06.D	05/30/23	1
13:18	LCS-194323	LCS	LCS-194323	07.D	05/30/23	1
13:36	LCSD-194323	LCSD	LCSD-194323	08.D	05/30/23	1
14:03	CCV-END	CCV	CCV-END	09.D	05/30/23	1

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right partner.

Raw Data SV-6 427063

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\nahstws005\Target\chem\SV6.i\230126.b\01.D Page 1
Report Date: 26-Jan-2023 10:45

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230126.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 26-JAN-2023 10:28
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230126.b\DFTPP.m
Meth Date : 27-Sep-2022 15:32 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7053

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
5.512	6.357	-0.845	198	193536			0.00- 100.00	100.00
5.512	6.357	-0.845	51	129216			10.00- 80.00	66.77
5.512	6.357	-0.845	68	1295			0.00- 2.00	1.46
5.512	6.357	-0.845	69	89000			0.00- 0.00	45.99
5.512	6.357	-0.845	70	442			0.00- 2.00	0.50
5.512	6.357	-0.845	127	99984			10.00- 80.00	51.66
5.512	6.357	-0.845	197	1243			0.00- 2.00	0.64
5.512	6.357	-0.845	199	13064			5.00- 9.00	6.75
5.512	6.357	-0.845	275	43248			10.00- 60.00	22.35
5.512	6.357	-0.845	365	5595			1.00- 100.00	2.89
5.512	6.357	-0.845	441	18955			0.01- 99.99	71.90
5.512	6.357	-0.845	442	127856			50.00- 150.00	66.06
5.512	6.357	-0.845	443	26364			15.00- 24.00	20.62

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	66.77
68	Less than 2.00% of mass 69	0.67 (1.46)
69	Mass 69 relative abundance	45.99
70	Less than 2.00% of mass 69	0.23 (0.50)
127	10.00 - 80.00% of mass 198	51.66
197	Less than 2.00% of mass 198	0.64
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 60.00% of mass 198	22.35
365	1.00 - 100.00% of mass 198	2.89
441	Present, but less than mass 443	9.79
442	50.00 - 150.00% of mass 198	66.06
443	15.00 - 24.00% of mass 442	13.62 (20.62)

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	217	119.00	229	192.00	2286	275.00	43248
37.00	514	120.00	376	193.00	2572	276.00	5775
38.00	1355	121.00	179	194.00	592	277.00	3723
39.00	8934	122.00	1920	195.00	298	278.00	656
40.00	412	123.00	2801	196.00	5470	279.00	78
41.00	185	124.00	1231	197.00	1243	282.00	81
44.00	120	125.00	1201	198.00	193536	283.00	451
45.00	317	126.00	425	199.00	13064	284.00	151
47.00	16	127.00	99984	200.00	968	285.00	595
48.00	34	128.00	7552	201.00	759	289.00	103
49.00	524	129.00	37992	203.00	1495	290.00	117
50.00	32504	130.00	3182	204.00	7454	292.00	119
51.00	129216	131.00	656	205.00	11707	293.00	847
52.00	6384	132.00	349	206.00	49064	294.00	141
53.00	300	133.00	185	207.00	6667	295.00	152
55.00	505	134.00	959	208.00	1729	296.00	12631
56.00	3218	135.00	3285	209.00	569	297.00	1881
57.00	8074	136.00	1288	210.00	823	298.00	84
58.00	366	137.00	1637	211.00	2069	301.00	93
59.00	160	138.00	313	212.00	111	302.00	145
60.00	93	139.00	94	215.00	452	303.00	1444
61.00	1093	140.00	374	216.00	1121	304.00	374
62.00	1414	141.00	4740	217.00	13752	308.00	182
63.00	4094	142.00	1585	218.00	1740	310.00	122
64.00	617	143.00	1133	219.00	136	313.00	96
65.00	1764	144.00	318	221.00	8835	314.00	596
68.00	1295	145.00	268	222.00	1698	315.00	1450
69.00	89000	146.00	897	223.00	3084	316.00	747
70.00	442	147.00	2321	224.00	28120	317.00	100
73.00	734	148.00	6303	225.00	7126	321.00	402
74.00	9210	149.00	1351	226.00	705	322.00	114
75.00	14469	150.00	311	227.00	11425	323.00	3809
76.00	5296	151.00	788	228.00	1723	324.00	667
77.00	109104	152.00	130	229.00	2473	327.00	745
78.00	7193	153.00	1484	230.00	306	328.00	397
79.00	5737	154.00	1179	231.00	1030	332.00	213
80.00	4513	155.00	2909	232.00	122	333.00	360
81.00	6984	156.00	4204	233.00	200	334.00	2281
82.00	1737	157.00	875	234.00	792	335.00	664
83.00	1608	158.00	888	235.00	804	341.00	420
84.00	100	159.00	574	236.00	604	342.00	94
85.00	1106	160.00	1418	237.00	980	346.00	876
86.00	1911	161.00	2169	239.00	463	347.00	90
87.00	861	162.00	610	240.00	349	352.00	1204
88.00	416	163.00	130	241.00	678	353.00	726

89.00	111	164.00	264	242.00	1520	354.00	1096
91.00	1346	165.00	1722	243.00	1675	355.00	167
92.00	1546	166.00	1430	244.00	21280	365.00	5595
93.00	10758	167.00	11430	245.00	2833	366.00	846
94.00	730	168.00	5437	246.00	4112	371.00	204
95.00	254	169.00	910	247.00	793	372.00	1924
96.00	578	170.00	314	248.00	155	373.00	483
97.00	185	171.00	347	249.00	677	383.00	611
98.00	8469	172.00	876	250.00	96	384.00	89
99.00	6391	173.00	1222	251.00	119	390.00	303
100.00	554	174.00	2109	252.00	140	391.00	101
101.00	3920	175.00	4009	253.00	539	392.00	78
102.00	95	176.00	942	254.00	897	402.00	723
103.00	1112	177.00	1540	255.00	101648	403.00	979
104.00	2172	178.00	586	256.00	15149	404.00	375
105.00	2141	179.00	6883	257.00	1243	421.00	1045
106.00	701	180.00	5020	258.00	6329	422.00	904
107.00	29928	181.00	2480	259.00	1058	423.00	6439
108.00	4427	182.00	418	260.00	95	424.00	1320
109.00	761	183.00	203	261.00	118	425.00	81
110.00	50136	184.00	508	264.00	117	439.00	85
111.00	8075	185.00	3541	265.00	2500	441.00	18952
112.00	1093	186.00	26968	266.00	460	442.00	127856
113.00	321	187.00	7777	270.00	85	443.00	26360
115.00	85	188.00	712	271.00	285	444.00	2474
116.00	1538	189.00	1516	272.00	355	445.00	113
117.00	28128	190.00	294	273.00	3179		
118.00	1966	191.00	810	274.00	7971		

Data File: \\nahstws005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP

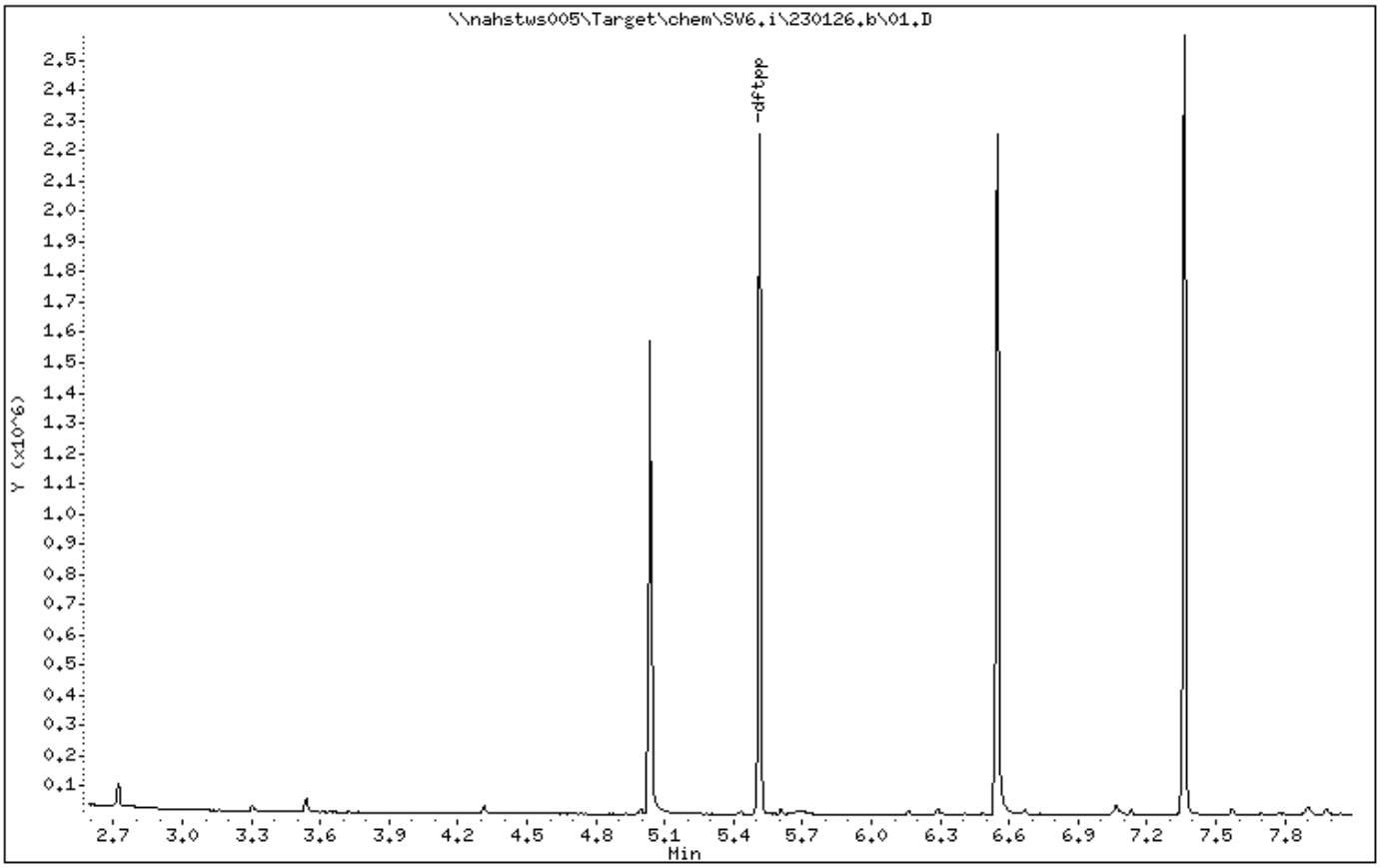
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File : \\nahstws005\Target\chem\SV6.i\230126.b\01.D
Inj Date : 26-JAN-2023 10:28
InstruID : SV6.i
LabSampID : DFTPP

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Lab Smp Id: 1 4-DX-0.01 Client Smp ID: 1 4-DX-0.01
Inj Date : 26-JAN-2023 17:04
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.01;1 4-DX-0.01
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	5528	0.10000	(aM)
* 45 Naphthalene-d8	136	4.743	4.743	(1.000)	19696	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.864)	510	0.01000	0.008974(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	10608	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	1424	0.01000	0.01023(QM)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	20838	0.10000	
* 182 Chrysene-d12	240	10.746	10.746	(1.000)	9014	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	1097	0.01000	0.02144(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	8255	0.10000	
1 1,4-Dioxane	58	1.865	1.865	(0.515)	256	0.01000	0.01270(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209801

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D

Date : 26-JAN-2023 17:04

Client ID: 1 4-DX-0.01

Instrument: SV6.i

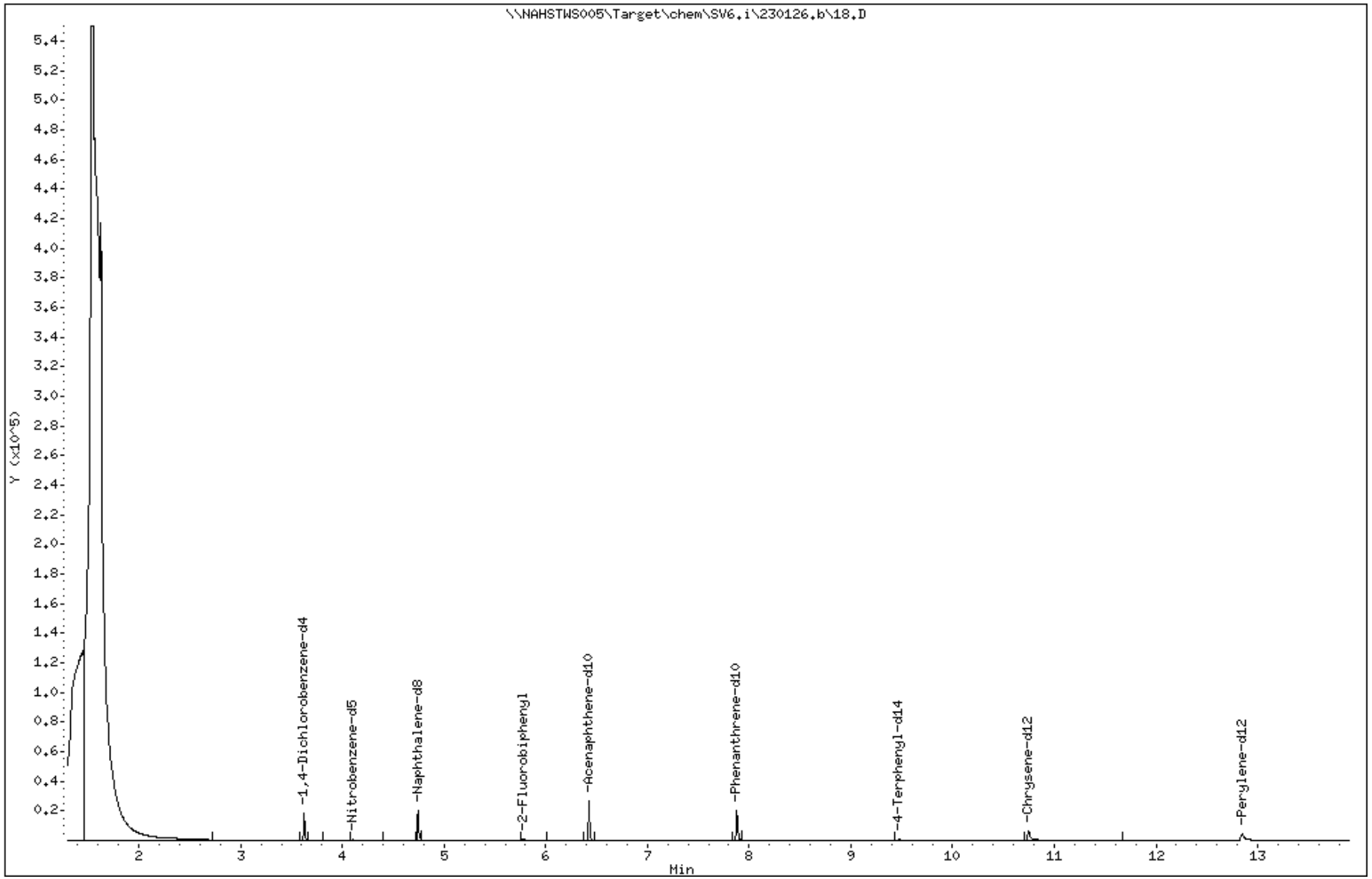
Sample Info: 1 4-DX-0.01;1 4-DX-0.01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



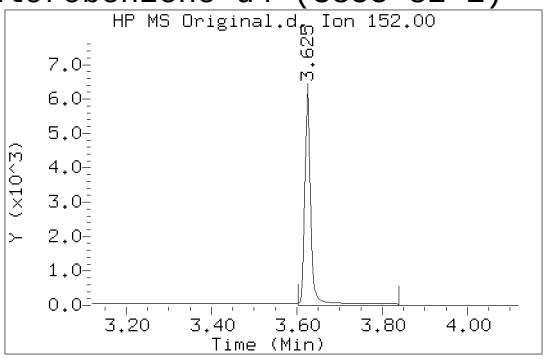
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

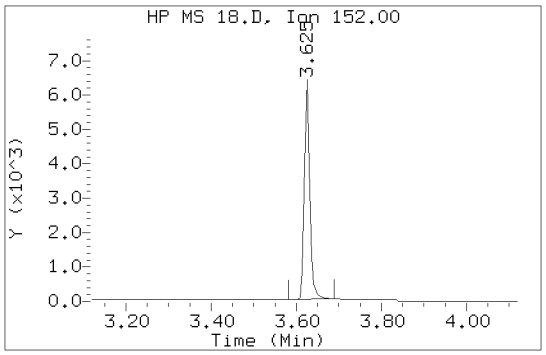
BEFORE

MASS
152
AREA
6387
HEIGHT
6448
26-Jan-2023
17:20
ALSHS
Server



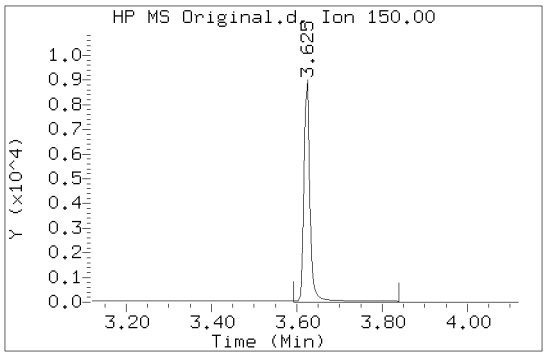
AFTER

MASS
152
AREA
5528
HEIGHT
6387
27-Jan-2023
11:55



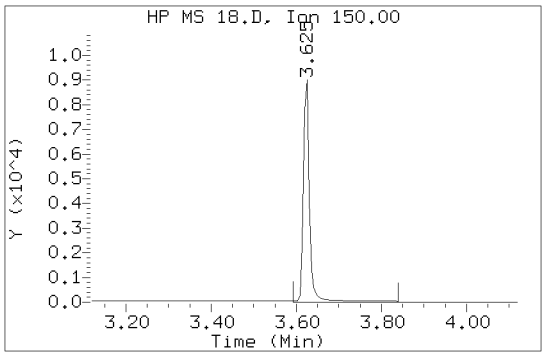
BEFORE

MASS
150
AREA
9160
HEIGHT
9004
26-Jan-2023
17:20
ALSHS
Server



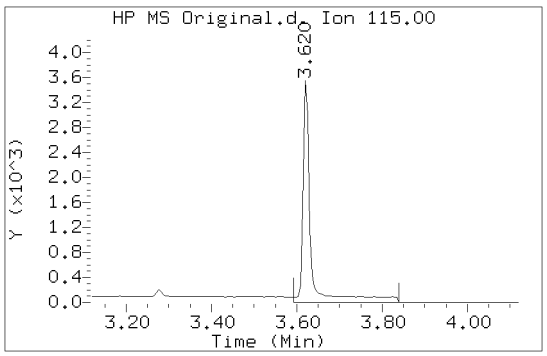
AFTER

MASS
150
AREA
9160
HEIGHT
9004
27-Jan-2023
11:55



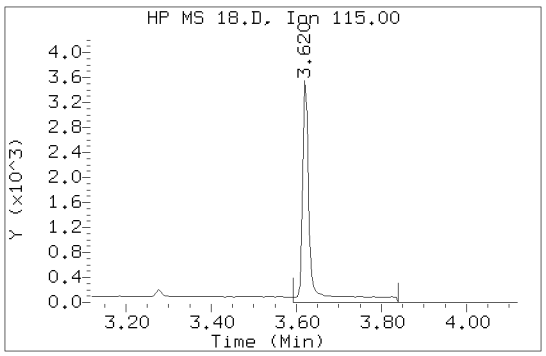
BEFORE

MASS
115
AREA
4488
HEIGHT
3548
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
115
AREA
4488
HEIGHT
3548
27-Jan-2023
11:55

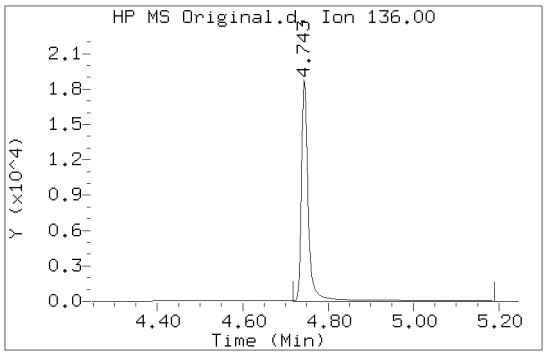


Naphthalene-d8 (1146-65-2)

Reason Code:

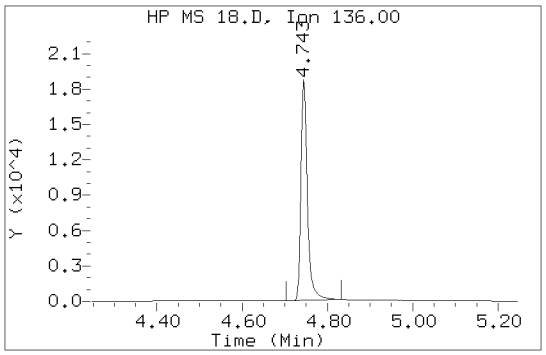
BEFORE

MASS
136
AREA
22286
HEIGHT
18792
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
136
AREA
19696
HEIGHT
18700
27-Jan-2023
11:55



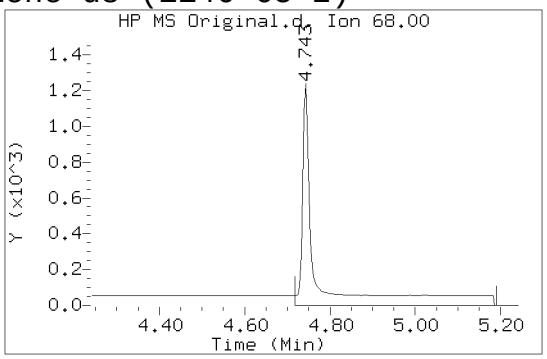
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

Naphthalene-d8 (1146-65-2)

Reason Code:

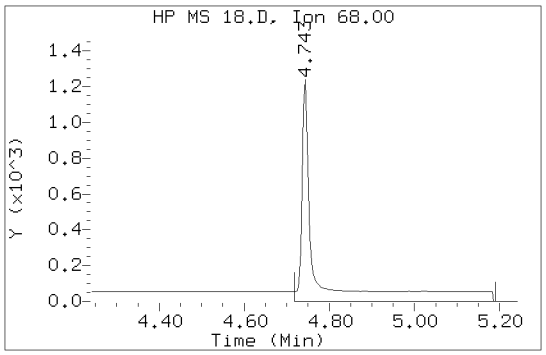
BEFORE

MASS
68
AREA
2767
HEIGHT
1239
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
68
AREA
2767
HEIGHT
1239
27-Jan-2023
11:55

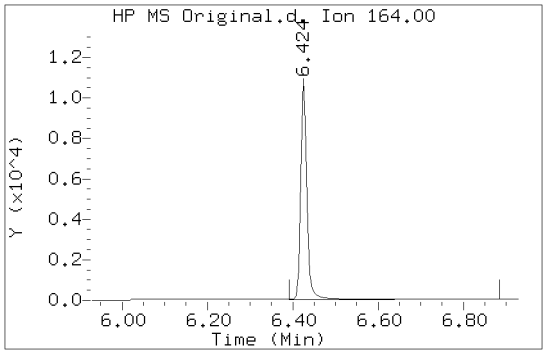


Acenaphthene-d10 (15067-26-2)

Reason Code:

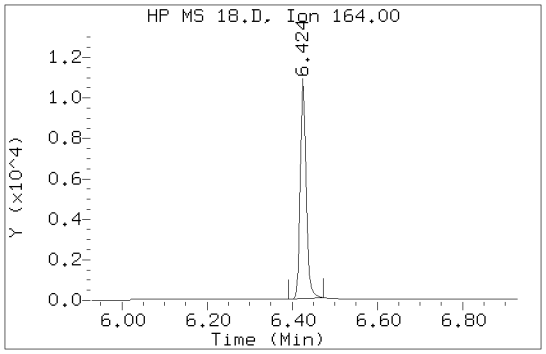
BEFORE

MASS
164
AREA
11469
HEIGHT
10928
26-Jan-2023
17:20
ALSHS
Server



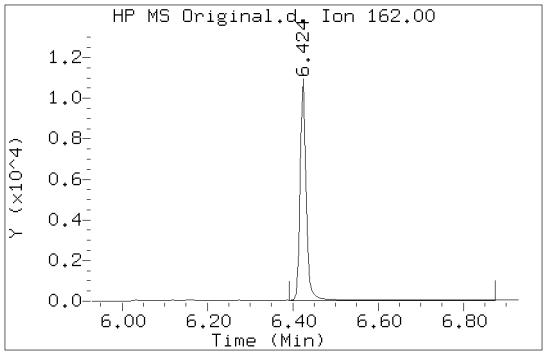
AFTER

MASS
164
AREA
10608
HEIGHT
10870
27-Jan-2023
11:55



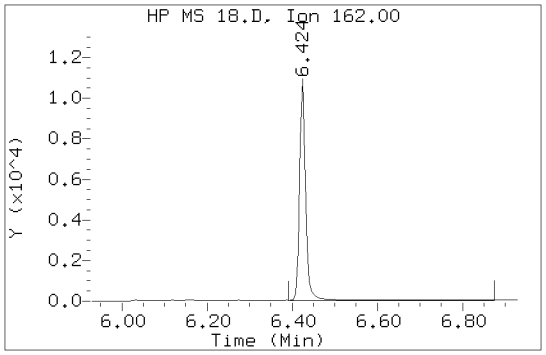
BEFORE

MASS
162
AREA
11331
HEIGHT
10930
26-Jan-2023
17:20
ALSHS
Server



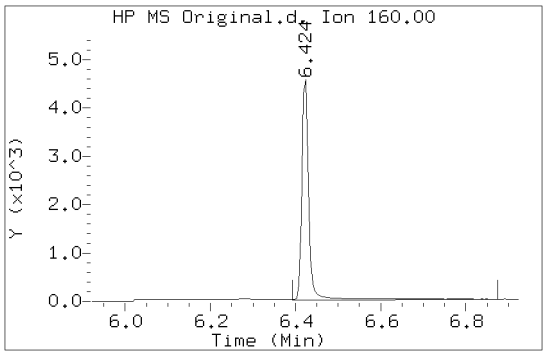
AFTER

MASS
162
AREA
11331
HEIGHT
10930
27-Jan-2023
11:55



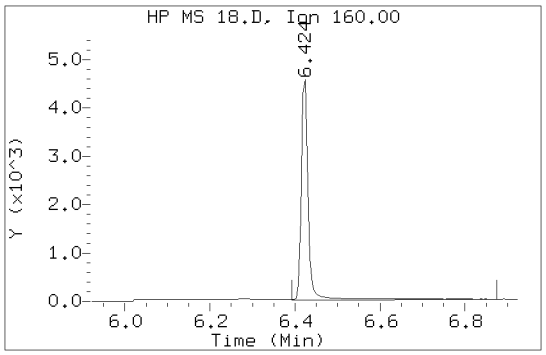
BEFORE

MASS
160
AREA
5258
HEIGHT
4564
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
160
AREA
5258
HEIGHT
4564
27-Jan-2023
11:55

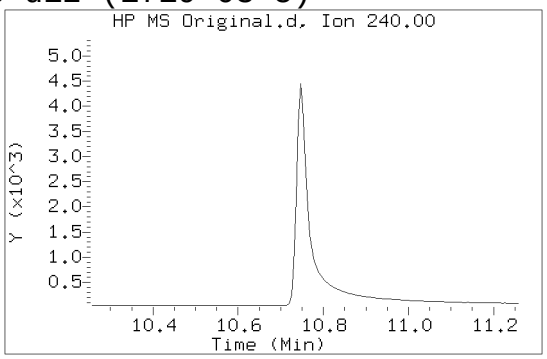


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

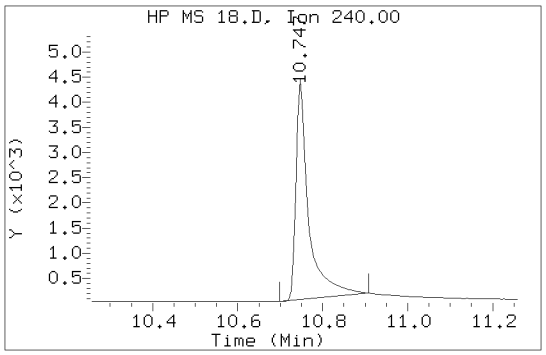
Chrysene-d12 (1719-03-5)

Reason Code:

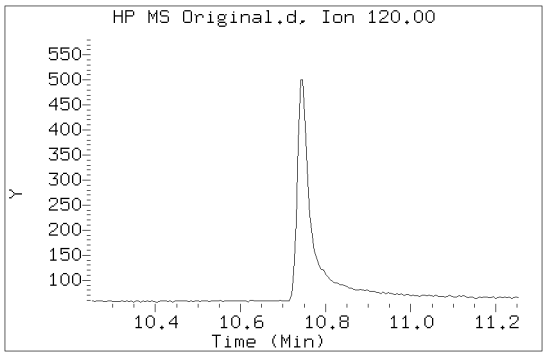
BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



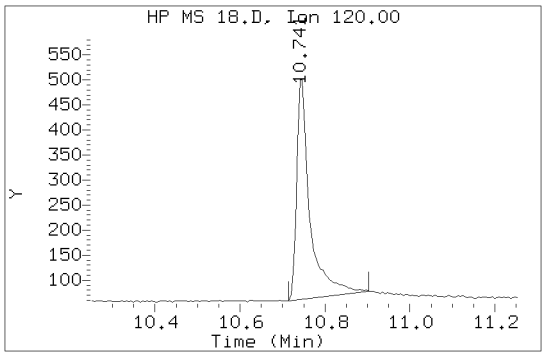
AFTER
MASS
240
AREA
9014
HEIGHT
4367
27-Jan-2023
11:55



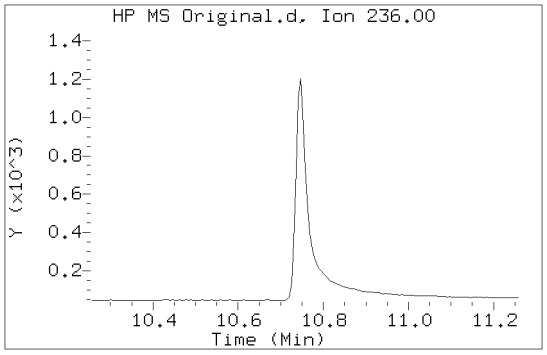
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



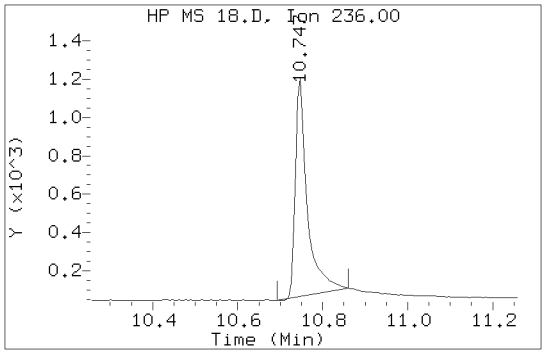
AFTER
MASS
120
AREA
950
HEIGHT
438
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



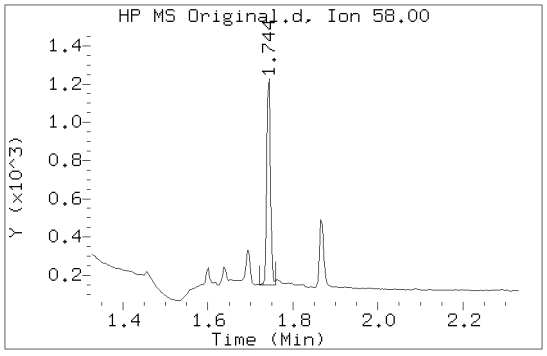
AFTER
MASS
236
AREA
2221
HEIGHT
1136
27-Jan-2023
11:55



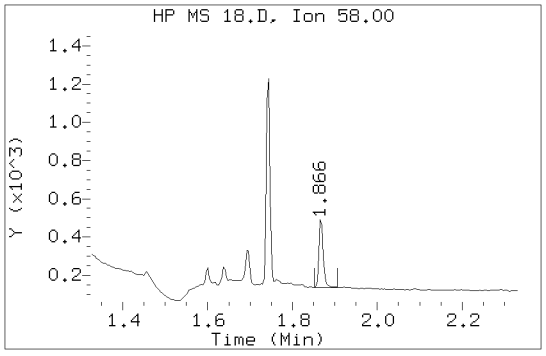
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
659
HEIGHT
1077
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
58
AREA
256
HEIGHT
354
27-Jan-2023
11:55

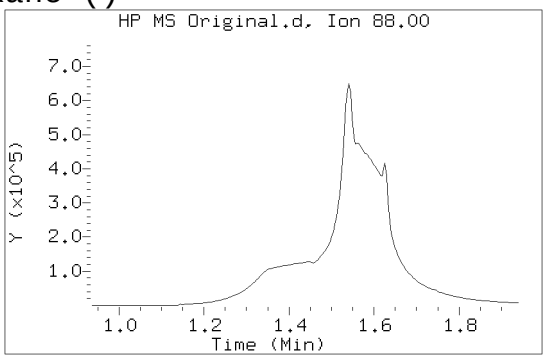


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

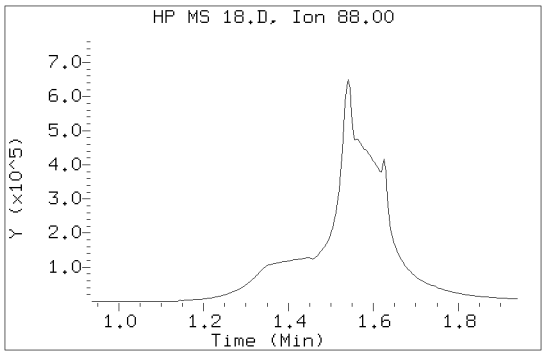
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



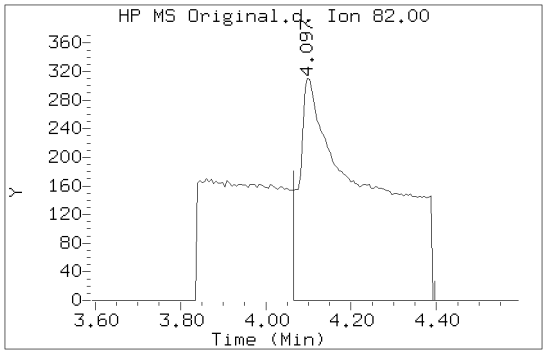
AFTER
MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



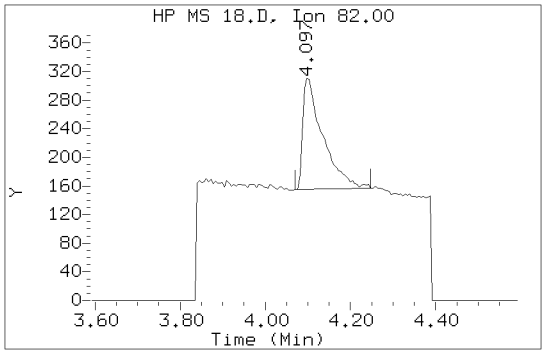
Nitrobenzene-d5 (4165-60-0)

Reason Code:

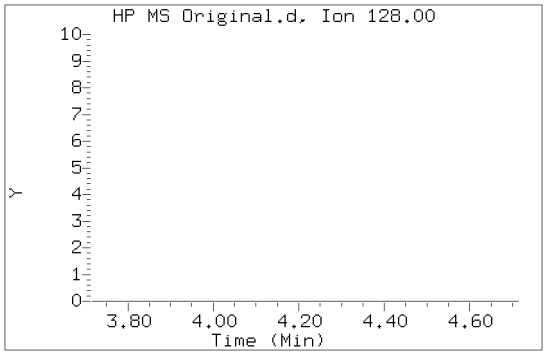
BEFORE
MASS
82
AREA
3499
HEIGHT
310
26-Jan-2023
17:20
ALSHS
Server



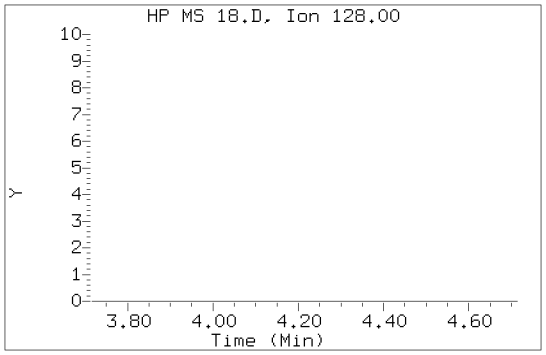
AFTER
MASS
82
AREA
510
HEIGHT
154
27-Jan-2023
11:55



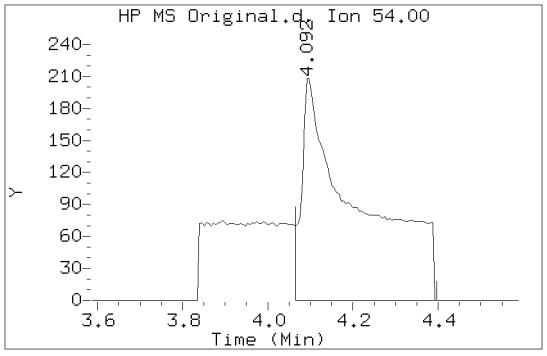
BEFORE
MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



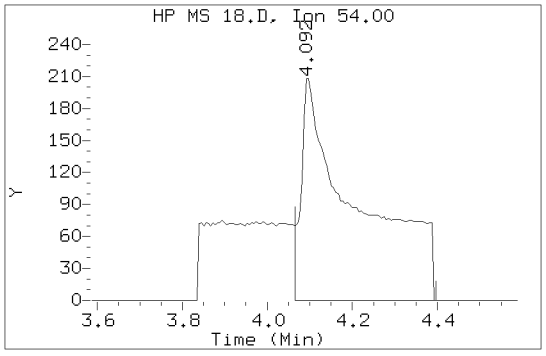
AFTER
MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



BEFORE
MASS
54
AREA
1900
HEIGHT
208
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
54
AREA
1900
HEIGHT
208
27-Jan-2023
11:55



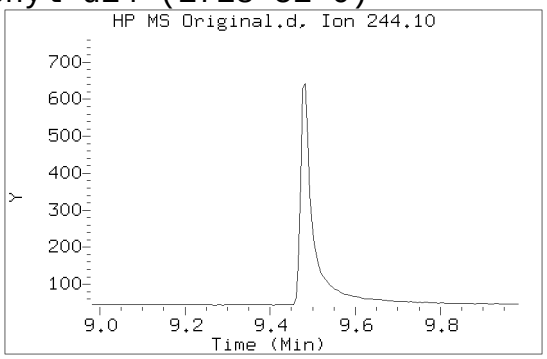
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

4-Terphenyl-d14 (1718-51-0)

Reason Code:

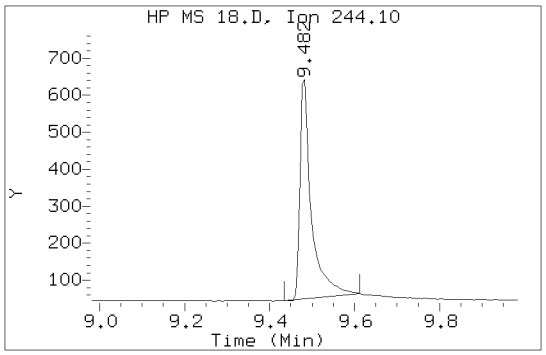
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



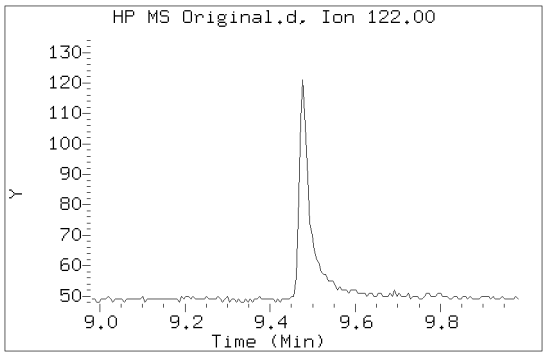
AFTER

MASS
244.1
AREA
1097
HEIGHT
592
27-Jan-2023
11:55



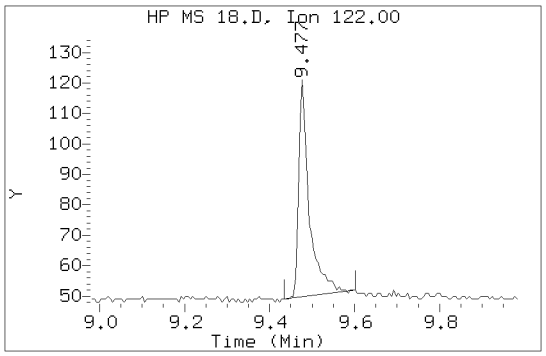
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



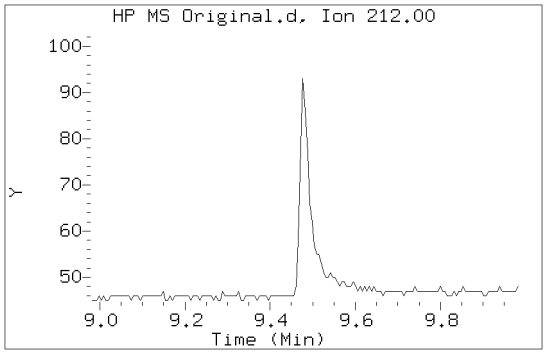
AFTER

MASS
122
AREA
121
HEIGHT
71
27-Jan-2023
11:55



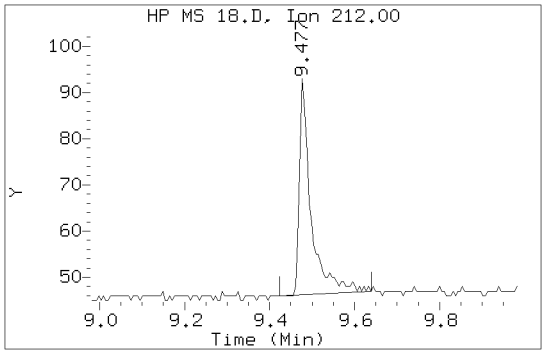
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
212
AREA
88
HEIGHT
46
27-Jan-2023
11:55

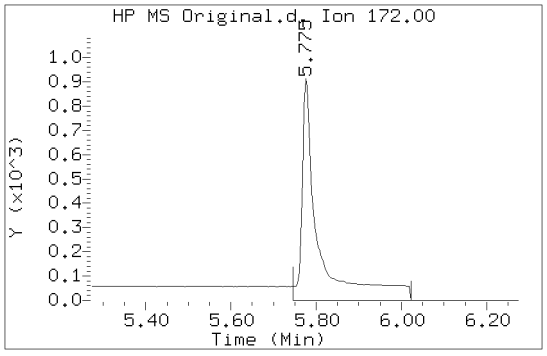


2-Fluorobiphenyl (321-60-8)

Reason Code:

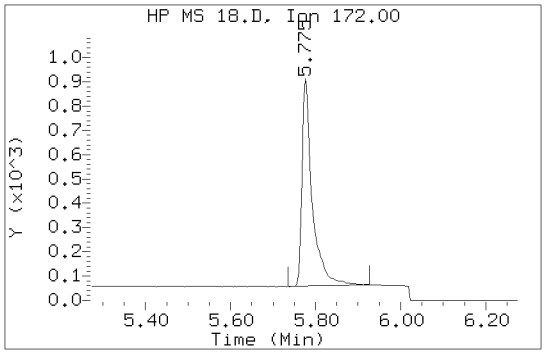
BEFORE

MASS
172
AREA
2433
HEIGHT
913
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
172
AREA
1424
HEIGHT
854
27-Jan-2023
11:55



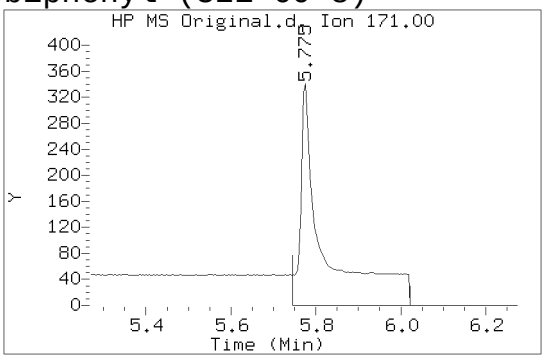
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

2-Fluorobiphenyl (321-60-8)

Reason Code:

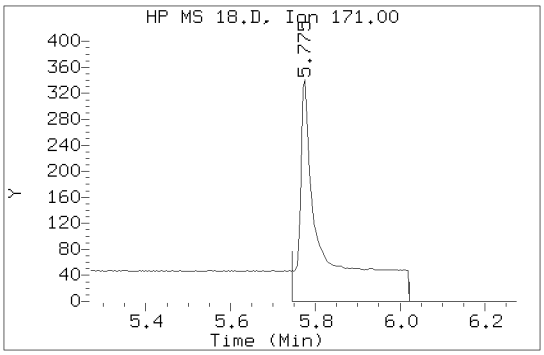
BEFORE

MASS
171
AREA
1276
HEIGHT
341
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
171
AREA
1276
HEIGHT
341
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Lab Smp Id: 1 4-DX-0.03 Client Smp ID: 1 4-DX-0.03
Inj Date : 26-JAN-2023 17:22
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.03;1 4-DX-0.03
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:04 Cal File: 18.D
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	4353	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	15379	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.863)	1295	0.03000	0.02918(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	8264	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	3097	0.03000	0.02855(M)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	15308	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5688	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	2568	0.03000	0.03727(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	5361	0.10000	
1 1,4-Dioxane	58	1.847	1.847	(0.510)	502	0.03000	0.03161(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209809

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D

Date : 26-JAN-2023 17:22

Client ID: 1 4-DX-0.03

Instrument: SV6.i

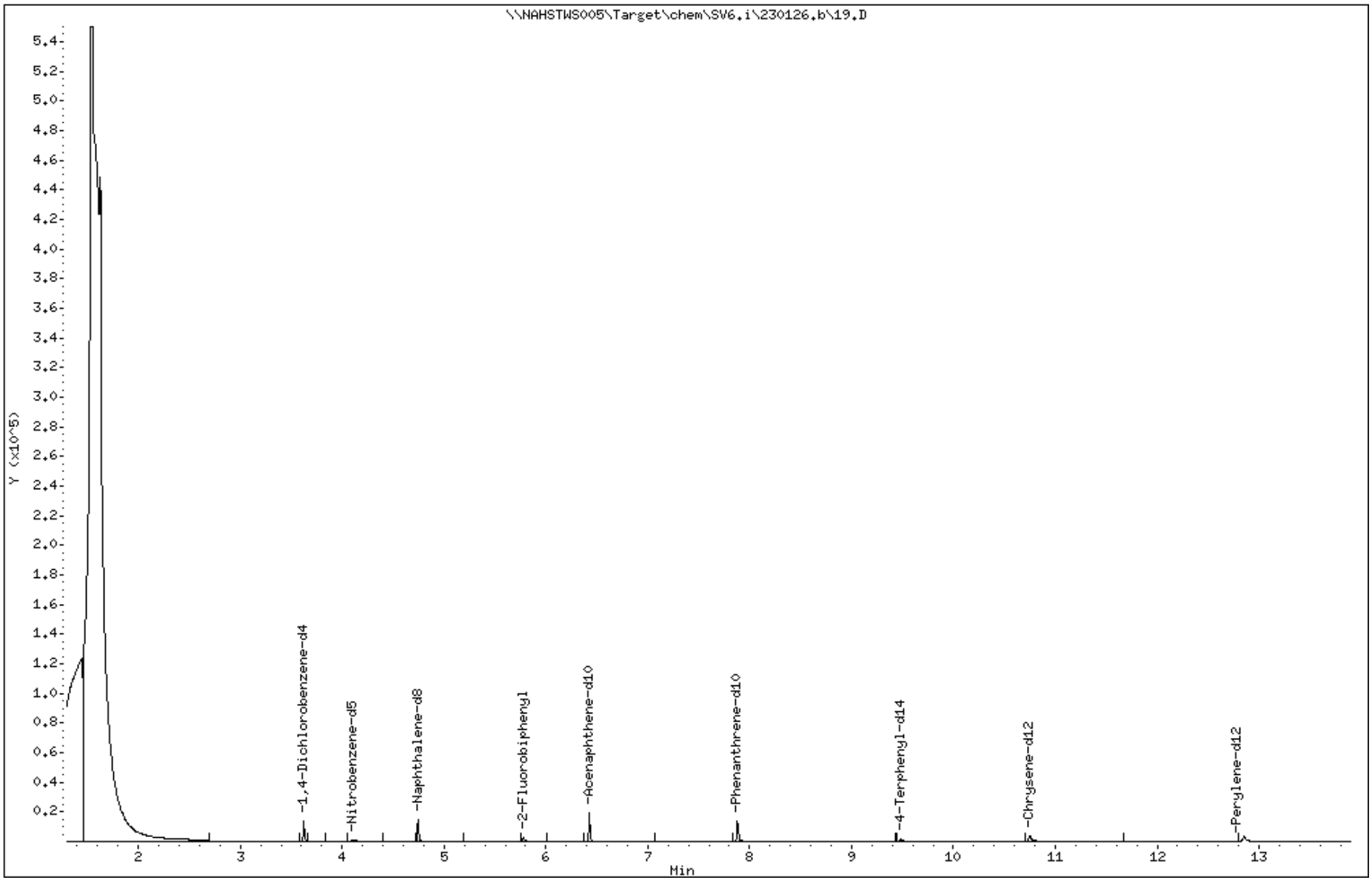
Sample Info: 1 4-DX-0.03;1 4-DX-0.03

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

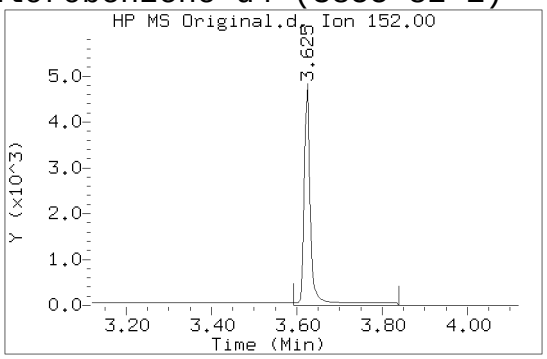


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

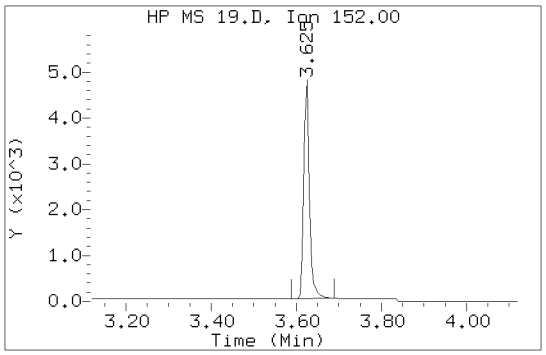
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

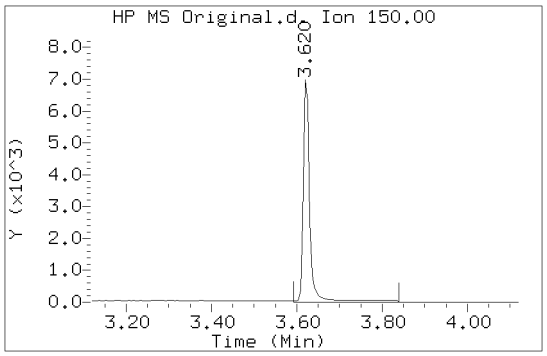
BEFORE
MASS
152
AREA
5196
HEIGHT
4837
26-Jan-2023
17:37
ALSHS
Server



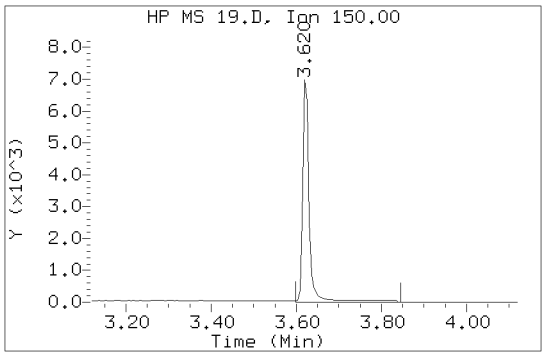
AFTER
MASS
152
AREA
4353
HEIGHT
4780
27-Jan-2023
11:55



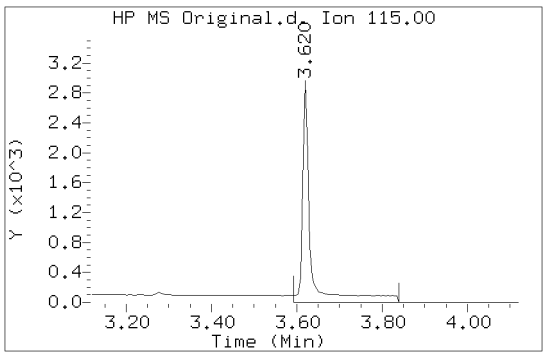
BEFORE
MASS
150
AREA
7408
HEIGHT
6977
26-Jan-2023
17:37
ALSHS
Server



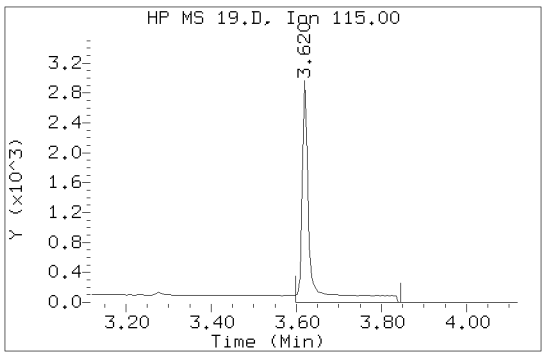
AFTER
MASS
150
AREA
7392
HEIGHT
6977
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
3884
HEIGHT
2965
26-Jan-2023
17:37
ALSHS
Server



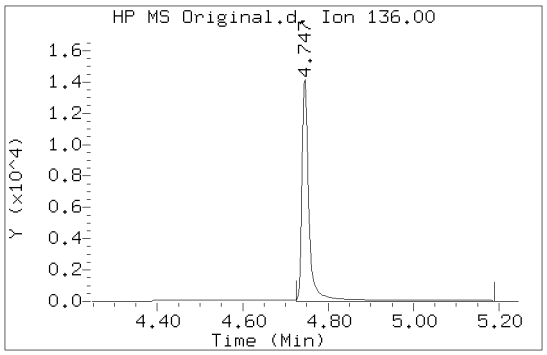
AFTER
MASS
115
AREA
3855
HEIGHT
2965
27-Jan-2023
11:55



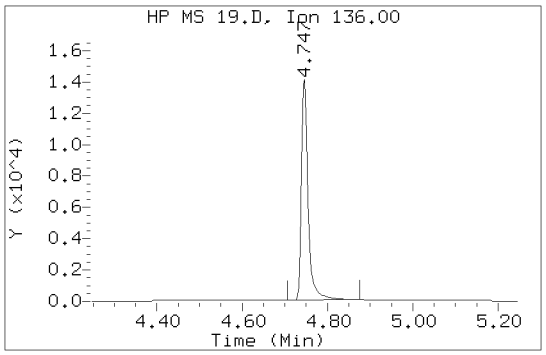
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
17657
HEIGHT
14146
26-Jan-2023
17:37
ALSHS
Server



AFTER
MASS
136
AREA
15379
HEIGHT
14070
27-Jan-2023
11:55



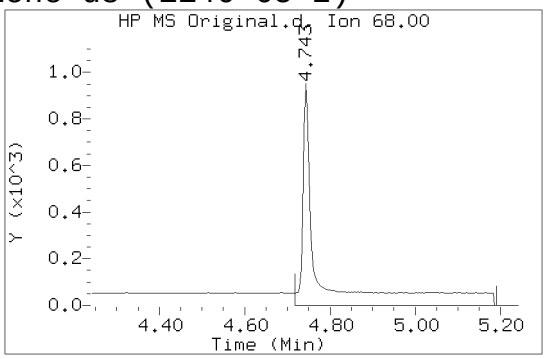
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Naphthalene-d8 (1146-65-2)

Reason Code:

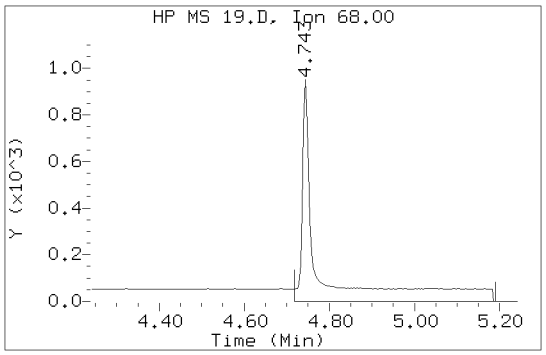
BEFORE

MASS
68
AREA
2456
HEIGHT
951
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
68
AREA
2456
HEIGHT
951
27-Jan-2023
11:55

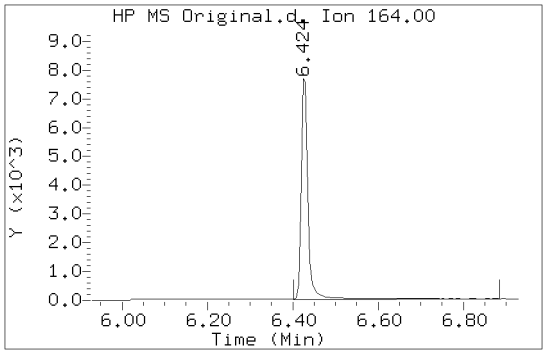


Acenaphthene-d10 (15067-26-2)

Reason Code:

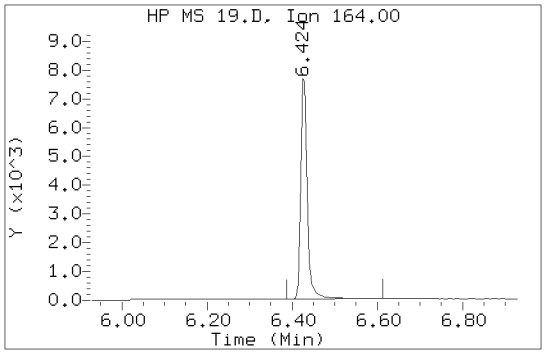
BEFORE

MASS
164
AREA
8776
HEIGHT
7674
26-Jan-2023
17:37
ALSHS
Server



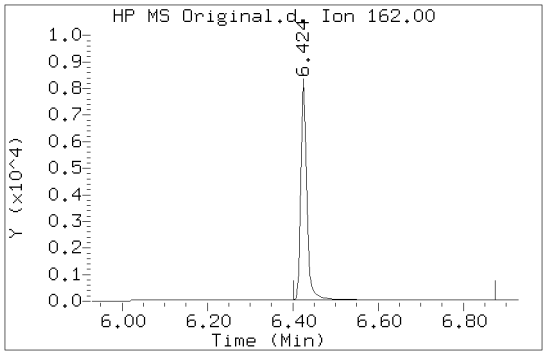
AFTER

MASS
164
AREA
8264
HEIGHT
7645
27-Jan-2023
11:55



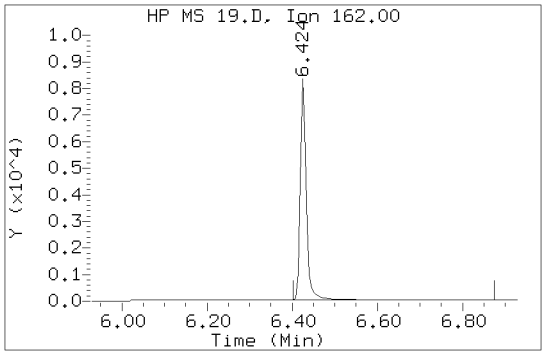
BEFORE

MASS
162
AREA
8262
HEIGHT
8311
26-Jan-2023
17:37
ALSHS
Server



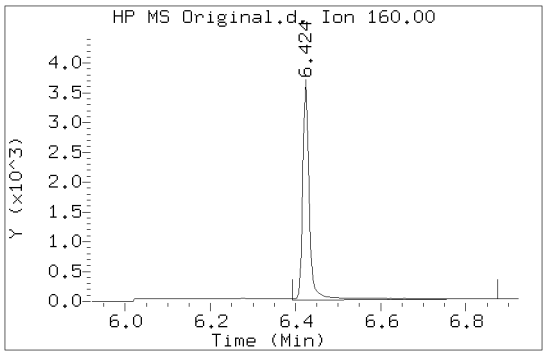
AFTER

MASS
162
AREA
8262
HEIGHT
8311
27-Jan-2023
11:55



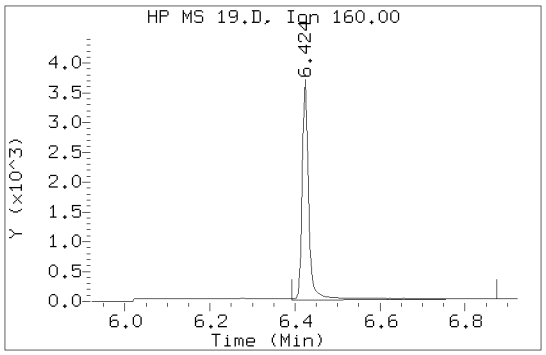
BEFORE

MASS
160
AREA
4094
HEIGHT
3698
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
160
AREA
4094
HEIGHT
3698
27-Jan-2023
11:55



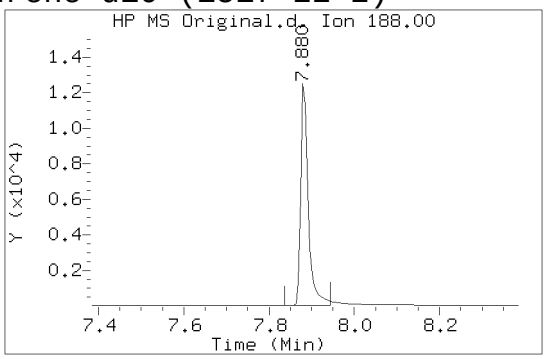
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Phenanthrene-d10 (1517-22-2)

Reason Code:

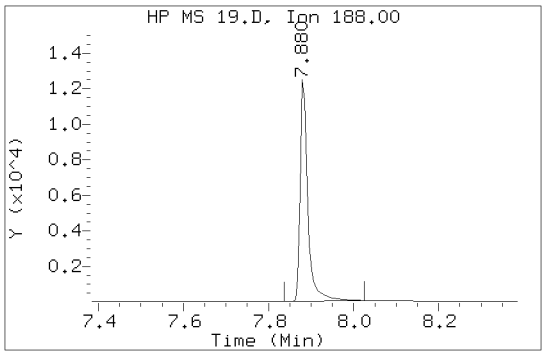
BEFORE

MASS
188
AREA
15125
HEIGHT
12466
26-Jan-2023
17:37
ALSHS
Server



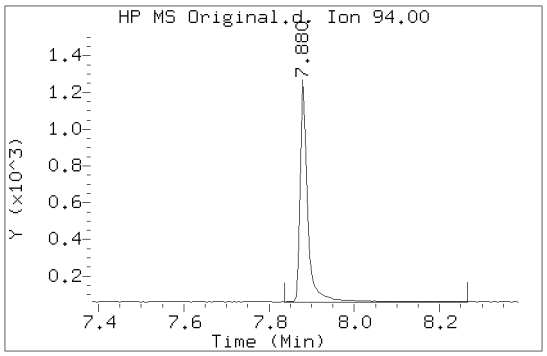
AFTER

MASS
188
AREA
15308
HEIGHT
12454
27-Jan-2023
11:55



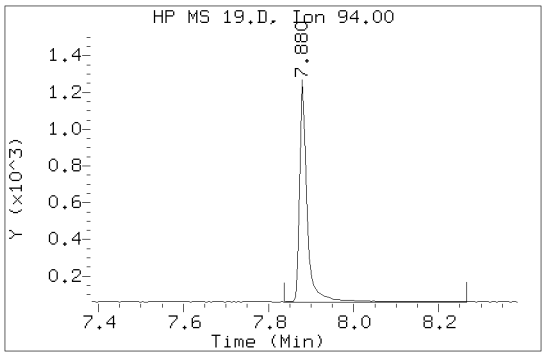
BEFORE

MASS
94
AREA
1509
HEIGHT
1209
26-Jan-2023
17:37
ALSHS
Server



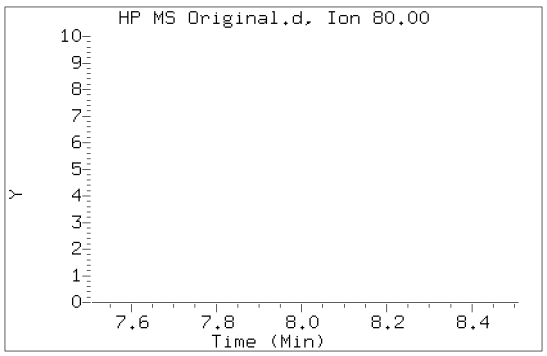
AFTER

MASS
94
AREA
1509
HEIGHT
1209
27-Jan-2023
11:55



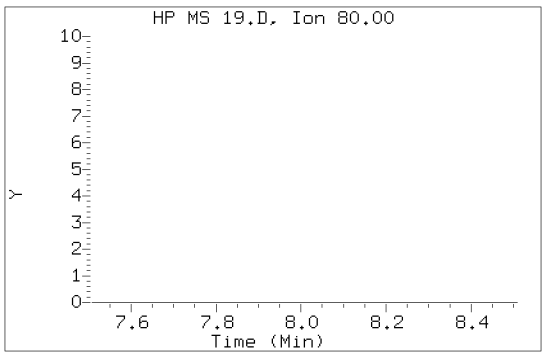
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

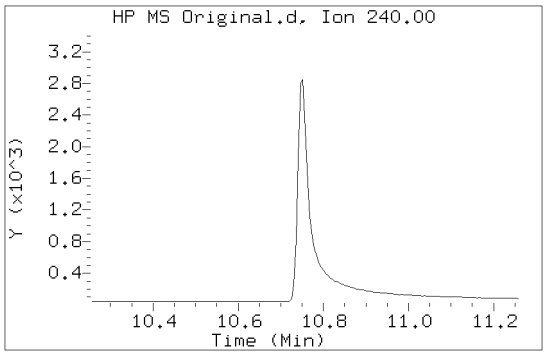


Chrysene-d12 (1719-03-5)

Reason Code:

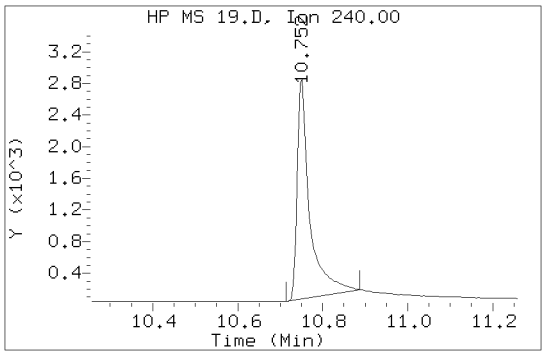
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
240
AREA
5688
HEIGHT
2769
27-Jan-2023
11:55



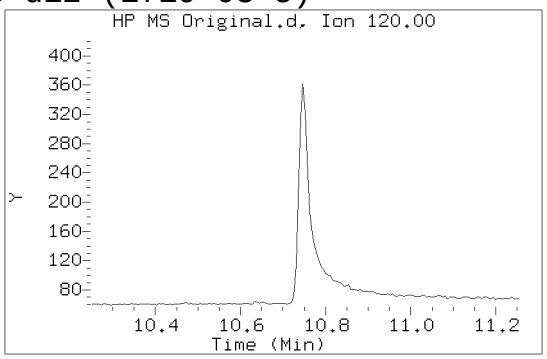
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Chrysene-d12 (1719-03-5)

Reason Code:

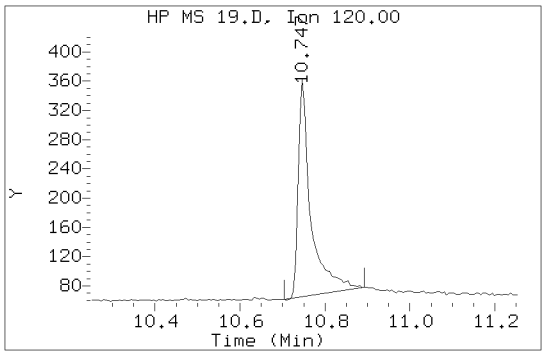
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



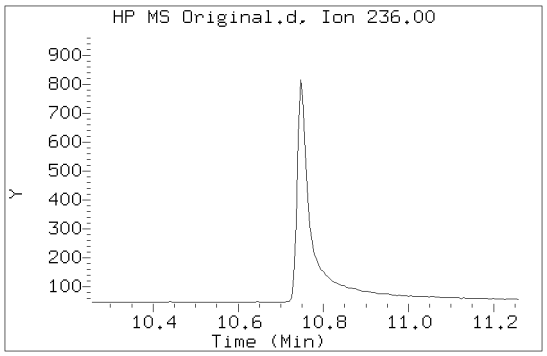
AFTER

MASS
120
AREA
608
HEIGHT
296
27-Jan-2023
11:55



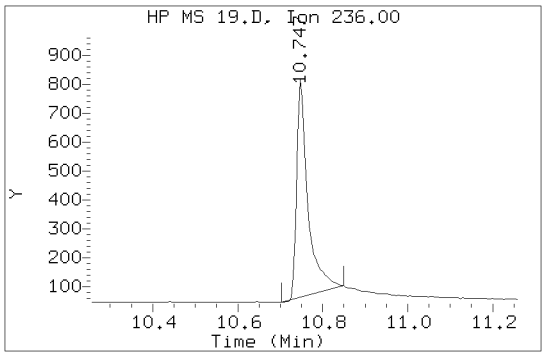
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
236
AREA
1382
HEIGHT
752
27-Jan-2023
11:55

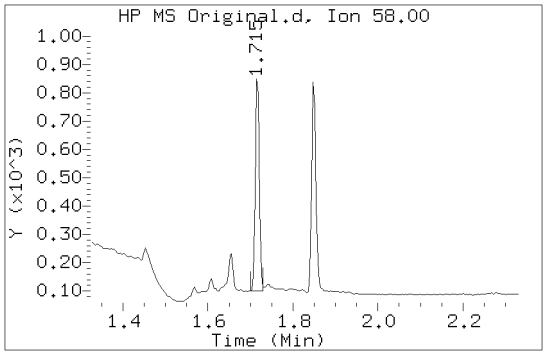


1,4-Dioxane ()

Reason Code:

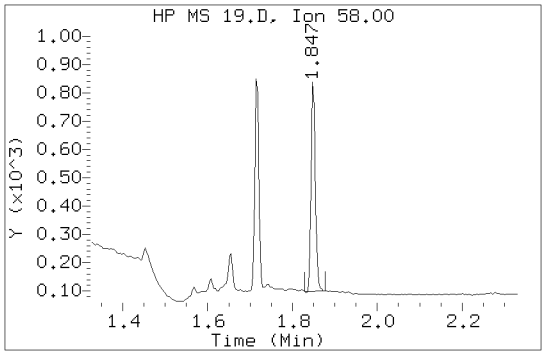
BEFORE

MASS
58
AREA
485
HEIGHT
748
26-Jan-2023
17:37
ALSHS
Server



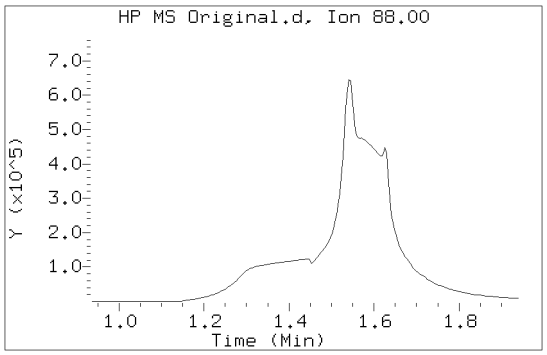
AFTER

MASS
58
AREA
502
HEIGHT
737
27-Jan-2023
11:55



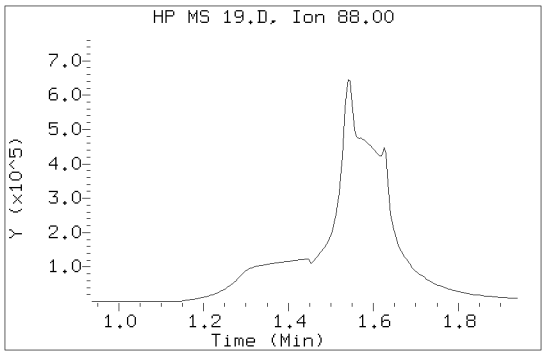
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



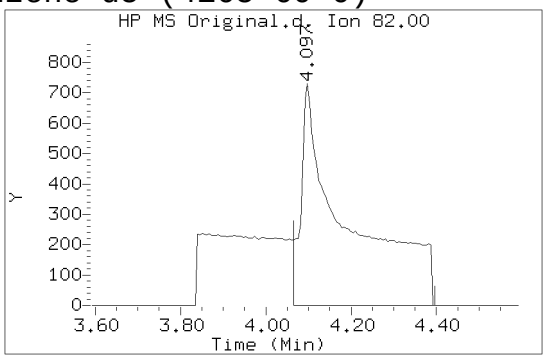
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Nitrobenzene-d5 (4165-60-0)

Reason Code:

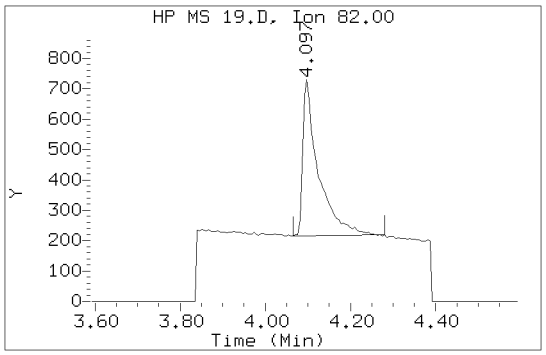
BEFORE

MASS
82
AREA
5467
HEIGHT
730
26-Jan-2023
17:37
ALSHS
Server



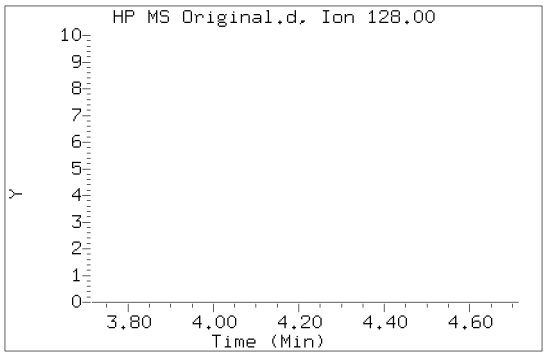
AFTER

MASS
82
AREA
1295
HEIGHT
513
27-Jan-2023
11:55



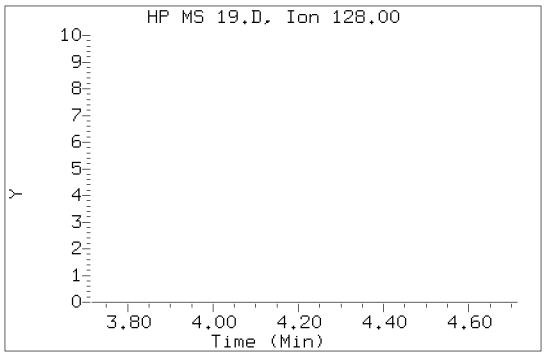
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



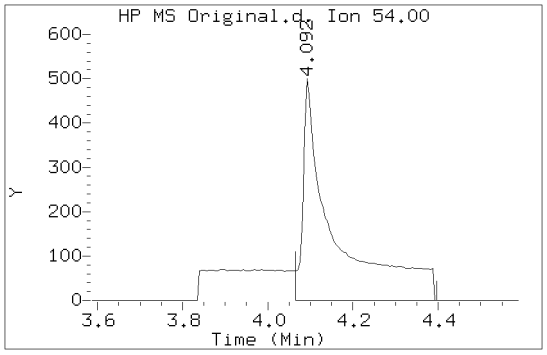
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



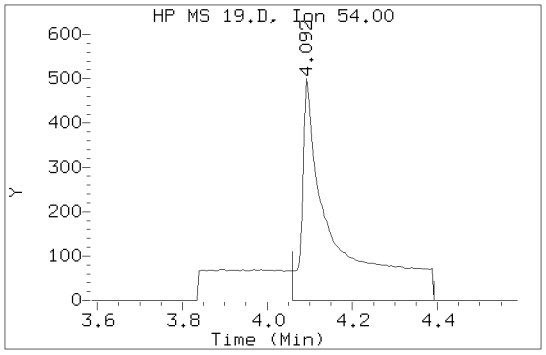
BEFORE

MASS
54
AREA
2509
HEIGHT
500
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
54
AREA
2544
HEIGHT
500
27-Jan-2023
11:55

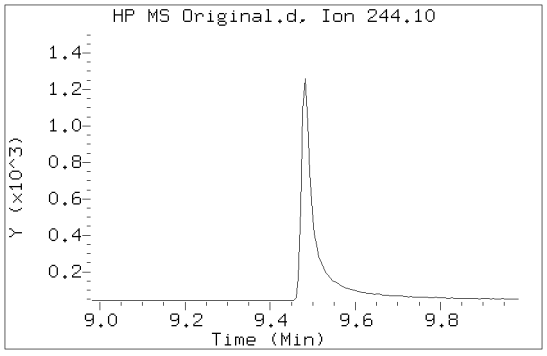


4-Terphenyl-d14 (1718-51-0)

Reason Code:

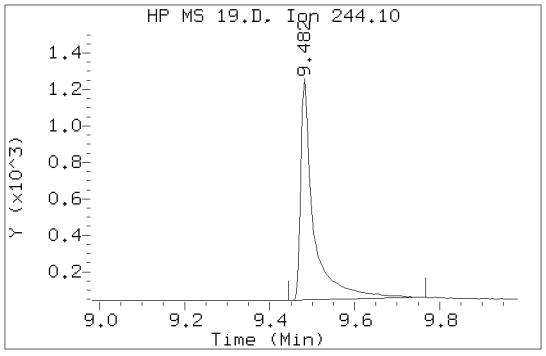
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
244.1
AREA
2568
HEIGHT
1213
27-Jan-2023
11:55

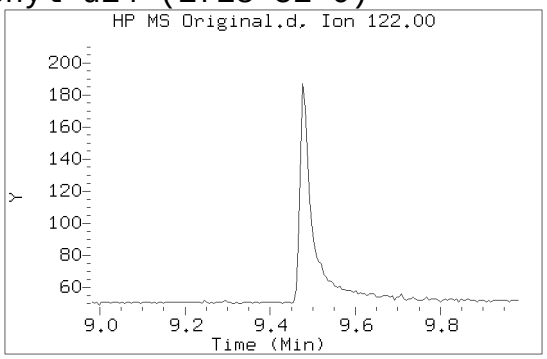


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

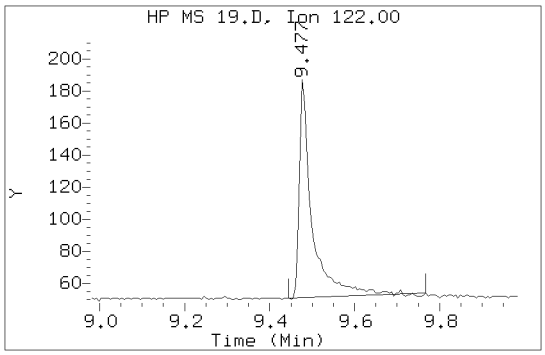
4-Terphenyl-d14 (1718-51-0)

Reason Code:

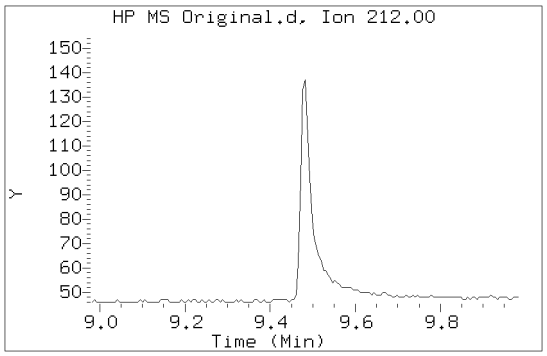
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



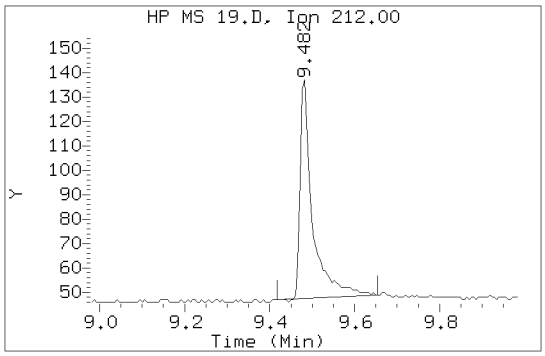
AFTER
MASS
122
AREA
277
HEIGHT
135
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



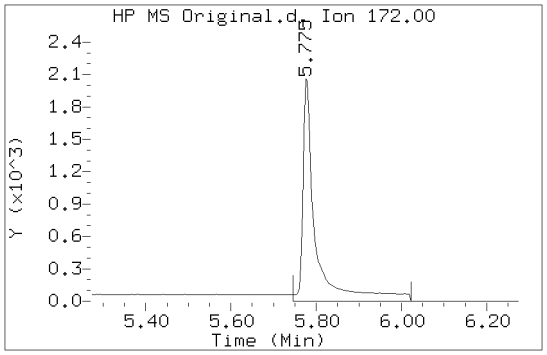
AFTER
MASS
212
AREA
180
HEIGHT
89
27-Jan-2023
11:55



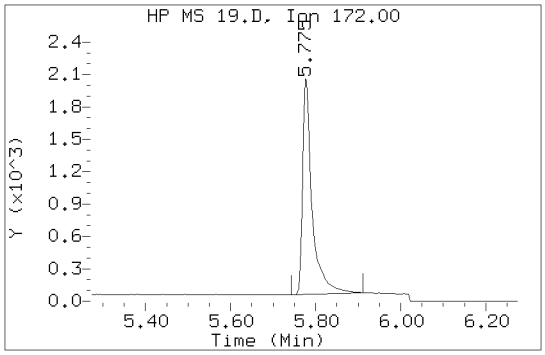
2-Fluorobiphenyl (321-60-8)

Reason Code:

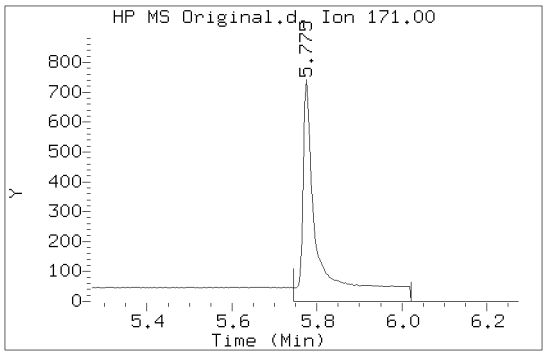
BEFORE
MASS
172
AREA
4259
HEIGHT
2059
26-Jan-2023
17:37
ALSHS
Server



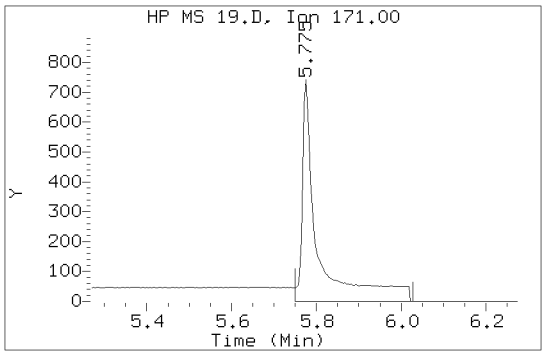
AFTER
MASS
172
AREA
3097
HEIGHT
1996
27-Jan-2023
11:55



BEFORE
MASS
171
AREA
1881
HEIGHT
742
26-Jan-2023
17:37
ALSHS
Server



AFTER
MASS
171
AREA
1882
HEIGHT
742
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Lab Smp Id: 1 4-DX-0.05 Client Smp ID: 1 4-DX-0.05
Inj Date : 26-JAN-2023 17:40
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.05;1 4-DX-0.05
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:22 Cal File: 19.D
Als bottle: 19 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	6207	0.10000	(aM)
* 45 Naphthalene-d8	136	4.743	4.743	(1.000)	21643	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.864)	3292	0.05000	0.05272(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	12005	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	7569	0.05000	0.04804(M)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	22930	0.10000	(M)
* 182 Chrysene-d12	240	10.746	10.746	(1.000)	10096	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.476	9.476	(0.882)	5479	0.05000	0.04162(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	8682	0.10000	
1 1,4-Dioxane	58	1.873	1.873	(0.517)	1266	0.05000	0.05591(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209817

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D

Date : 26-JAN-2023 17:40

Client ID: 1 4-DX-0.05

Instrument: SV6.i

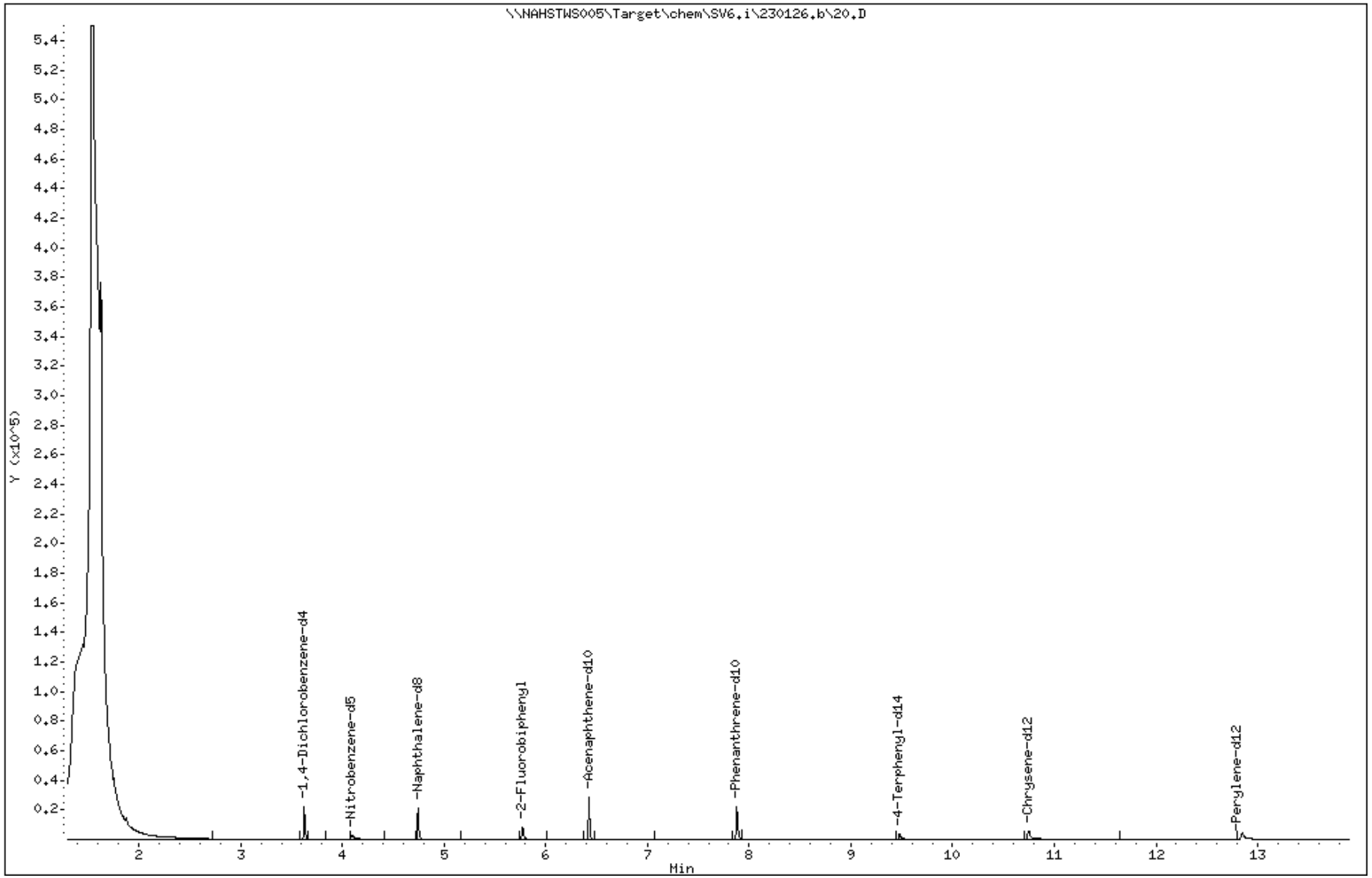
Sample Info: 1 4-DX-0.05;1 4-DX-0.05

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

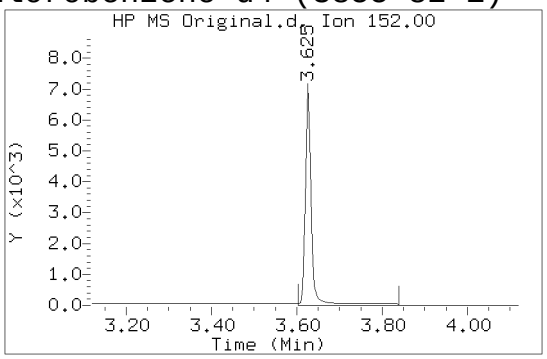


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

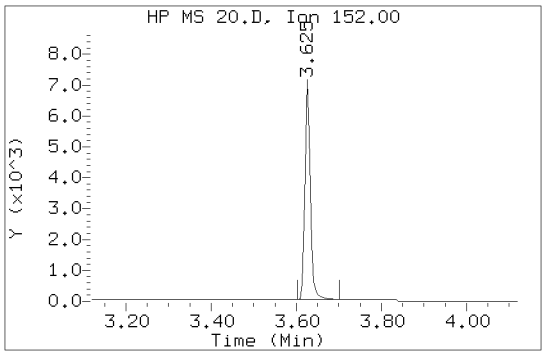
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

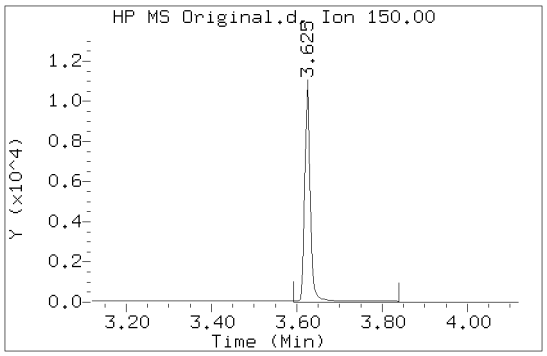
BEFORE
MASS
152
AREA
7036
HEIGHT
7174
26-Jan-2023
17:55
ALSHS
Server



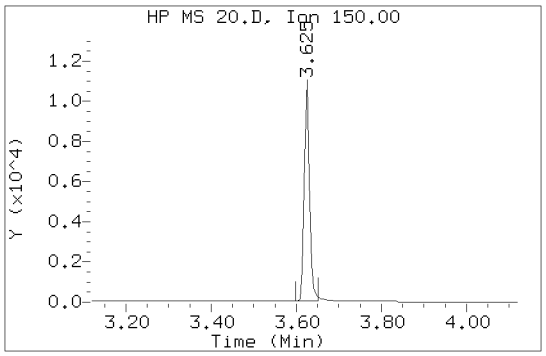
AFTER
MASS
152
AREA
6207
HEIGHT
7117
27-Jan-2023
11:55



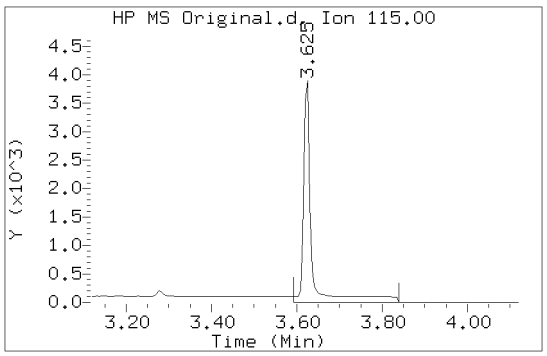
BEFORE
MASS
150
AREA
10220
HEIGHT
11063
26-Jan-2023
17:55
ALSHS
Server



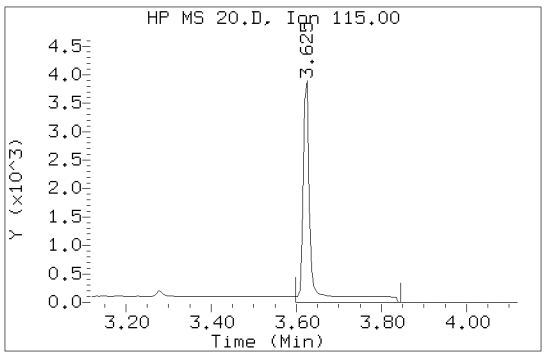
AFTER
MASS
150
AREA
9269
HEIGHT
11013
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
5002
HEIGHT
3896
26-Jan-2023
17:55
ALSHS
Server



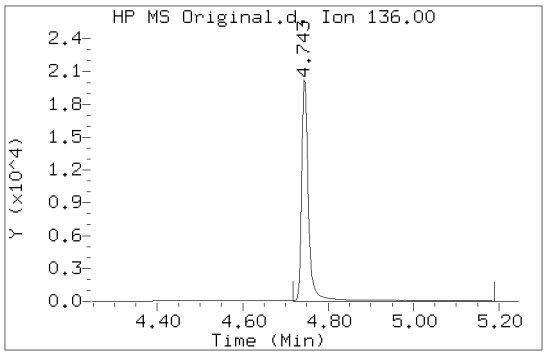
AFTER
MASS
115
AREA
4971
HEIGHT
3896
27-Jan-2023
11:55



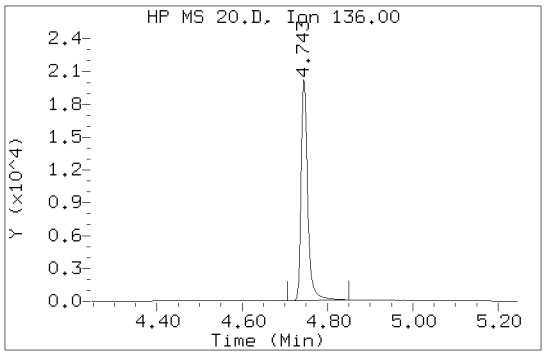
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
24227
HEIGHT
20256
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
136
AREA
21643
HEIGHT
20170
27-Jan-2023
11:55



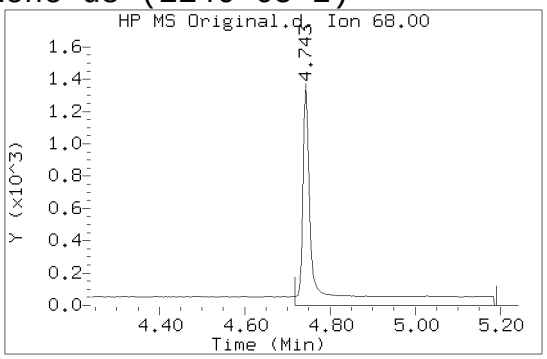
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Naphthalene-d8 (1146-65-2)

Reason Code:

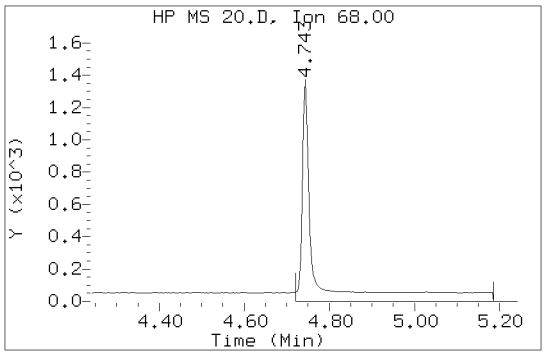
BEFORE

MASS
68
AREA
2898
HEIGHT
1372
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
68
AREA
2886
HEIGHT
1372
27-Jan-2023
11:55

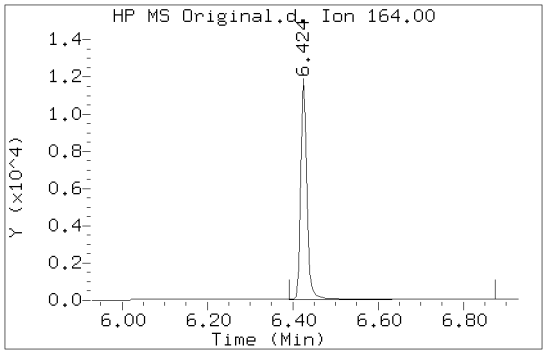


Acenaphthene-d10 (15067-26-2)

Reason Code:

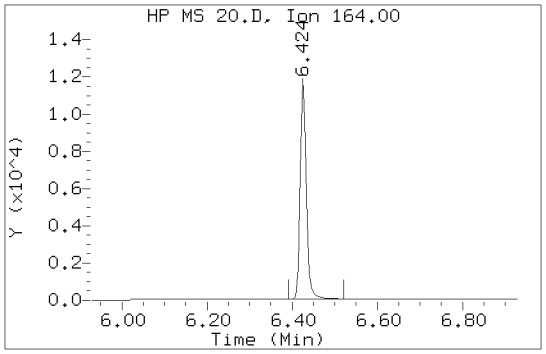
BEFORE

MASS
164
AREA
12674
HEIGHT
11880
26-Jan-2023
17:55
ALSHS
Server



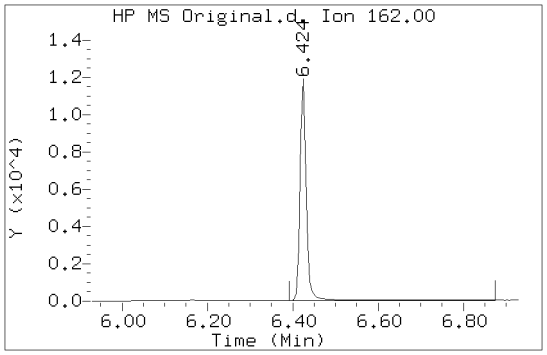
AFTER

MASS
164
AREA
12005
HEIGHT
11845
27-Jan-2023
11:55



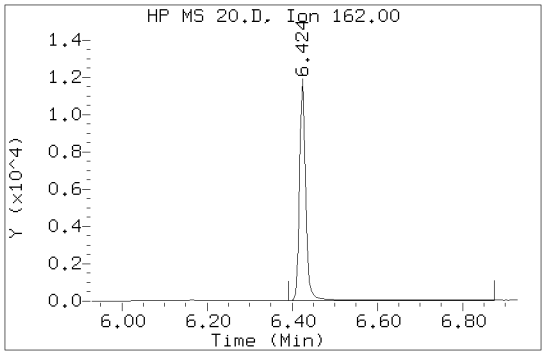
BEFORE

MASS
162
AREA
12561
HEIGHT
11898
26-Jan-2023
17:55
ALSHS
Server



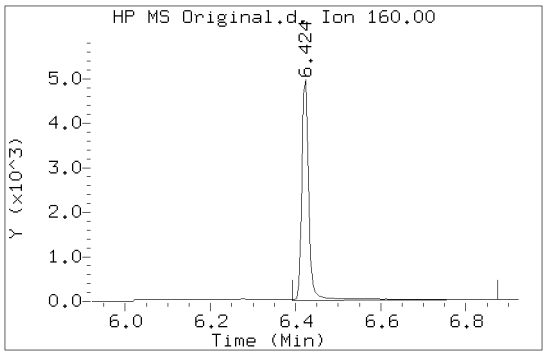
AFTER

MASS
162
AREA
12561
HEIGHT
11898
27-Jan-2023
11:55



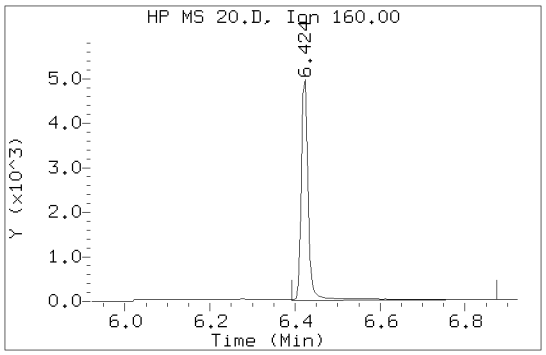
BEFORE

MASS
160
AREA
5755
HEIGHT
4956
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
160
AREA
5755
HEIGHT
4956
27-Jan-2023
11:55



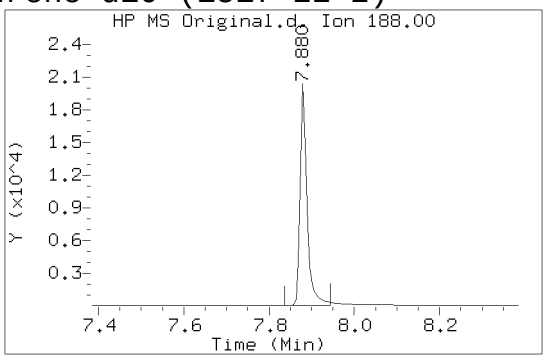
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Phenanthrene-d10 (1517-22-2)

Reason Code:

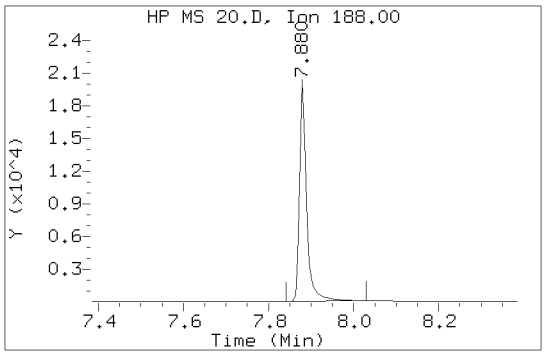
BEFORE

MASS
188
AREA
22670
HEIGHT
20338
26-Jan-2023
17:55
ALSHS
Server



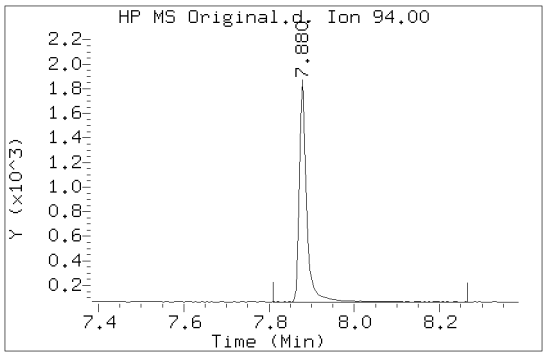
AFTER

MASS
188
AREA
22930
HEIGHT
20327
27-Jan-2023
11:55



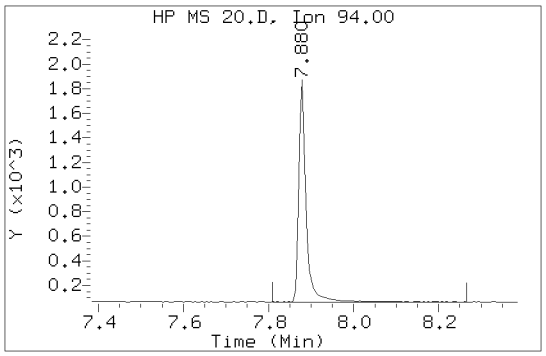
BEFORE

MASS
94
AREA
2147
HEIGHT
1806
26-Jan-2023
17:55
ALSHS
Server



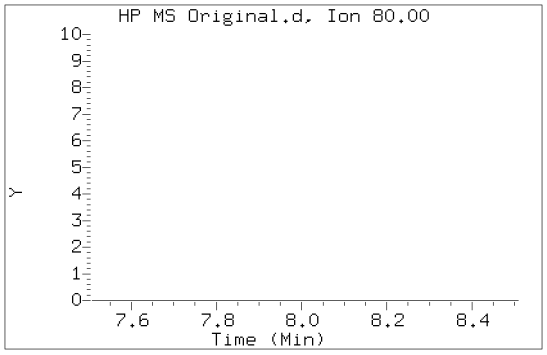
AFTER

MASS
94
AREA
2147
HEIGHT
1806
27-Jan-2023
11:55



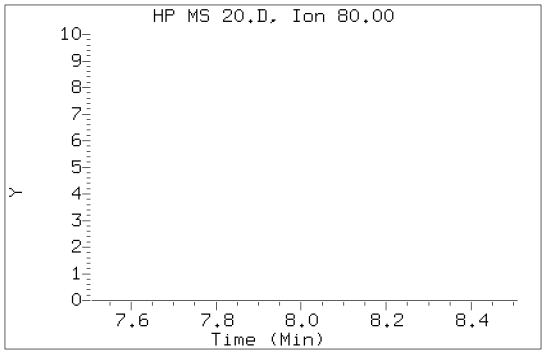
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

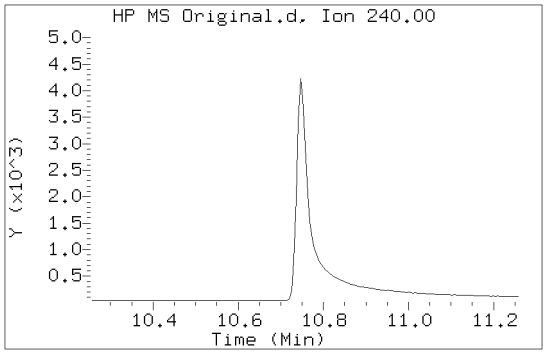


Chrysene-d12 (1719-03-5)

Reason Code:

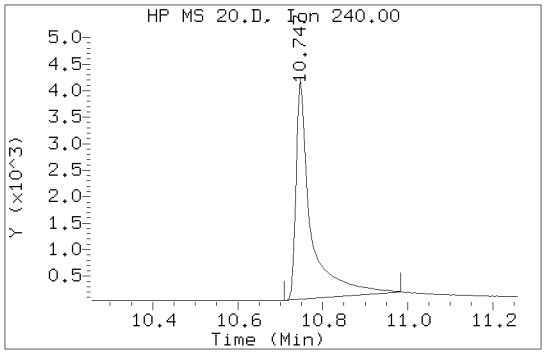
BEFORE

MASS
240
AREA
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HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
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AREA
10096
HEIGHT
4158
27-Jan-2023
11:55

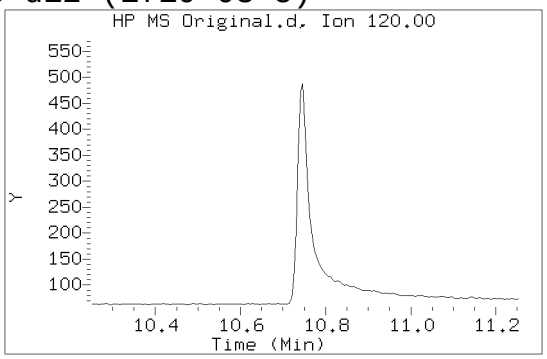


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

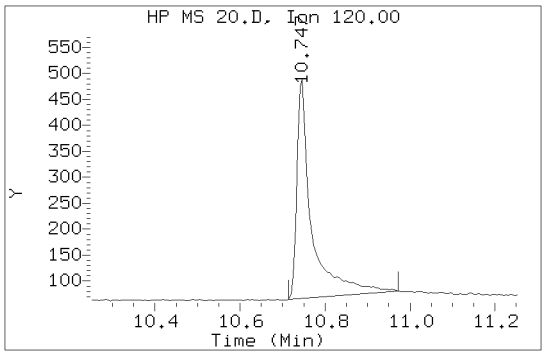
Chrysene-d12 (1719-03-5)

Reason Code:

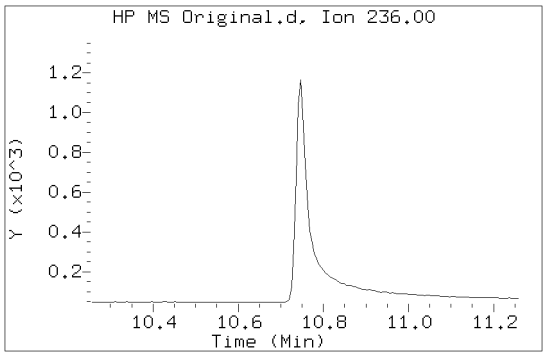
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



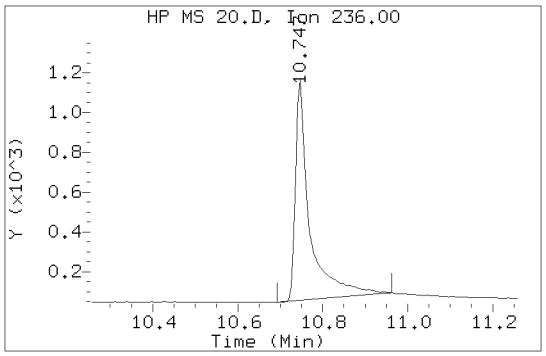
AFTER
MASS
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AREA
1018
HEIGHT
420
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



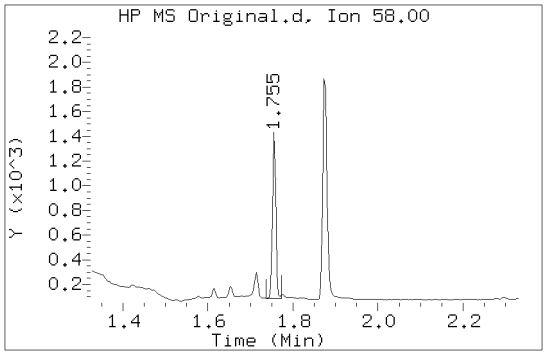
AFTER
MASS
236
AREA
2566
HEIGHT
1106
27-Jan-2023
11:55



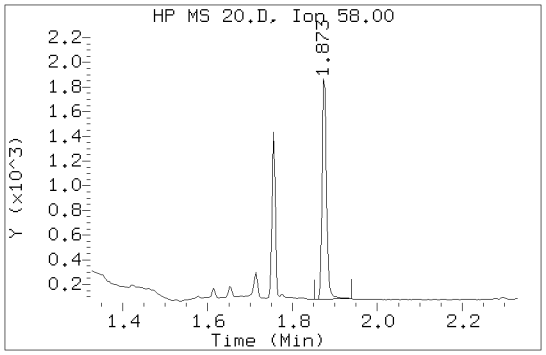
1,4-Dioxane ()

Reason Code:

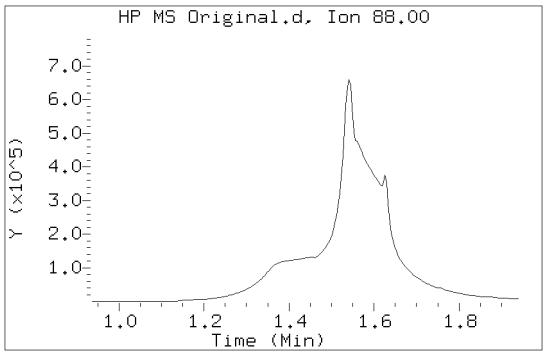
BEFORE
MASS
58
AREA
732
HEIGHT
1346
26-Jan-2023
17:55
ALSHS
Server



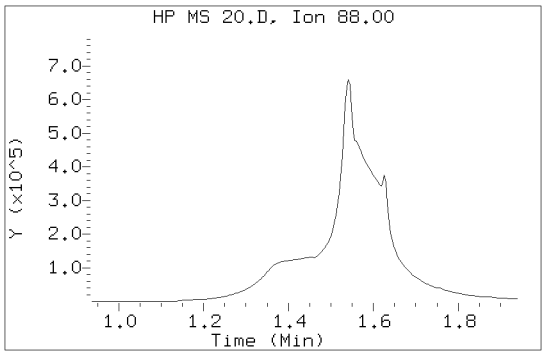
AFTER
MASS
58
AREA
1266
HEIGHT
1783
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



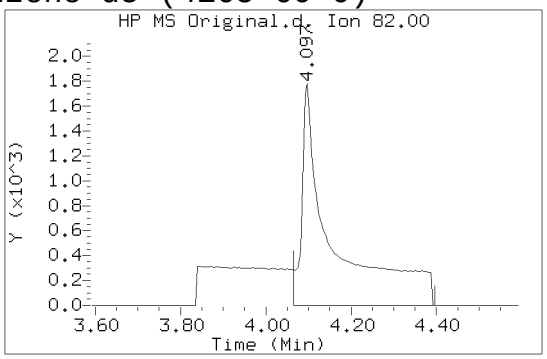
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Nitrobenzene-d5 (4165-60-0)

Reason Code:

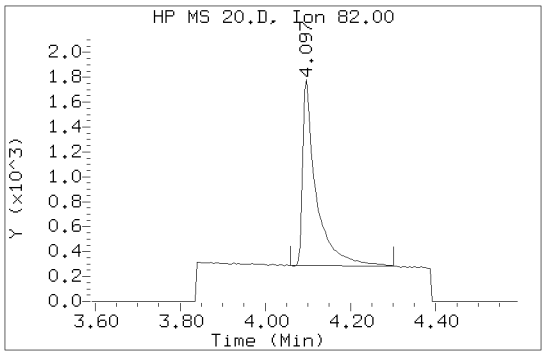
BEFORE

MASS
82
AREA
8797
HEIGHT
1780
26-Jan-2023
17:55
ALSHS
Server



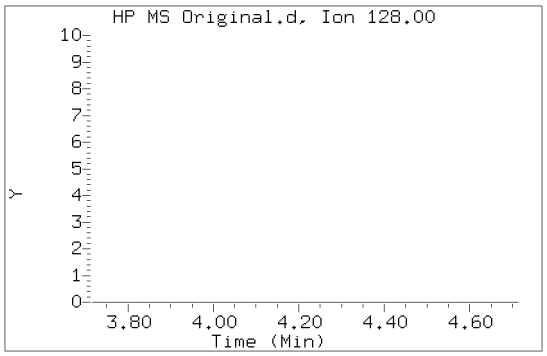
AFTER

MASS
82
AREA
3292
HEIGHT
1493
27-Jan-2023
11:55



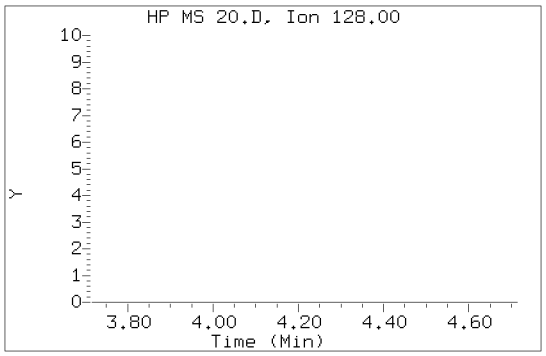
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



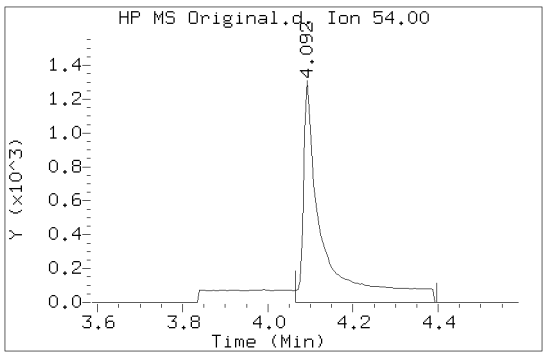
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



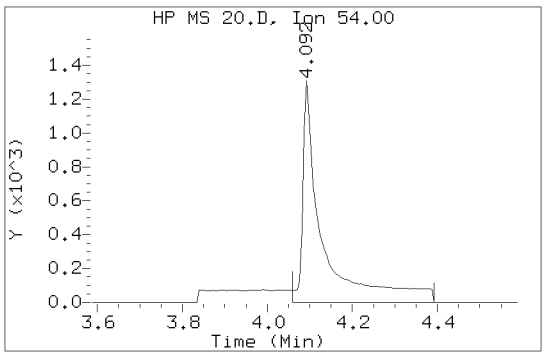
BEFORE

MASS
54
AREA
4158
HEIGHT
1309
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
54
AREA
4202
HEIGHT
1309
27-Jan-2023
11:55

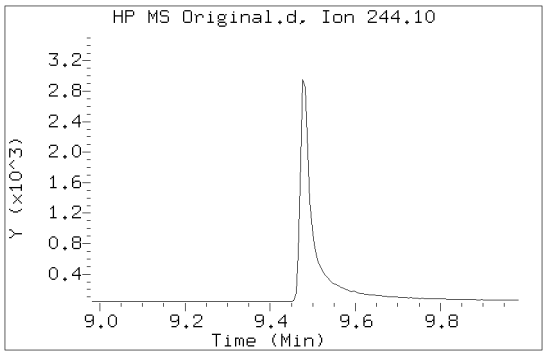


4-Terphenyl-d14 (1718-51-0)

Reason Code:

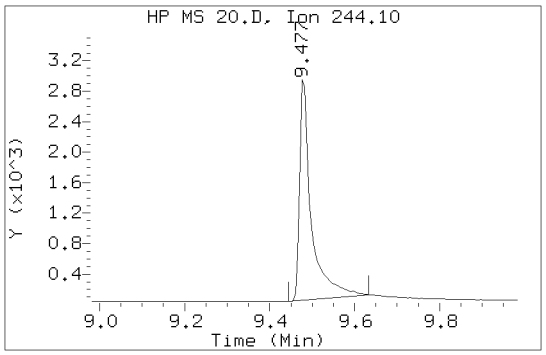
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
244.1
AREA
5479
HEIGHT
2890
27-Jan-2023
11:55



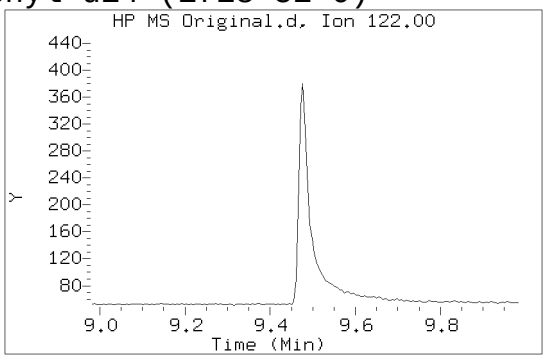
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

4-Terphenyl-d14 (1718-51-0)

Reason Code:

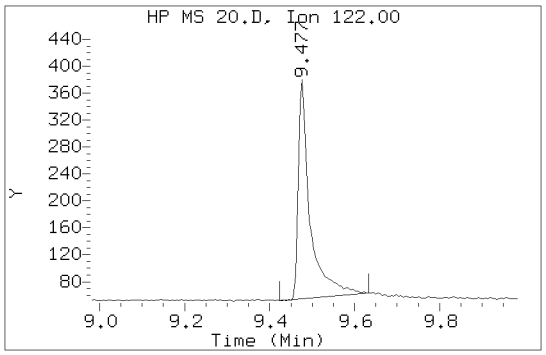
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



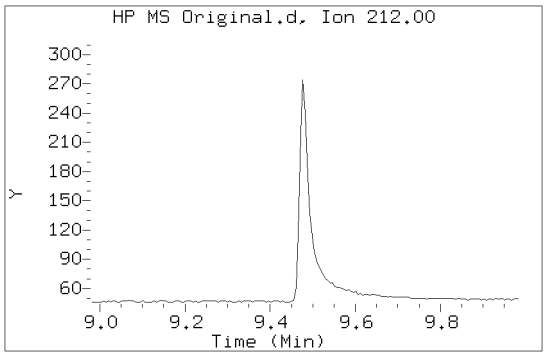
AFTER

MASS
122
AREA
621
HEIGHT
325
27-Jan-2023
11:55



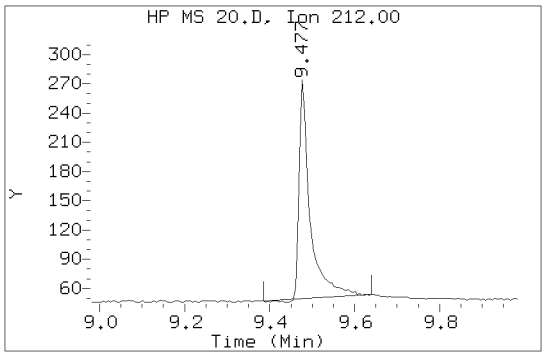
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
212
AREA
394
HEIGHT
224
27-Jan-2023
11:55

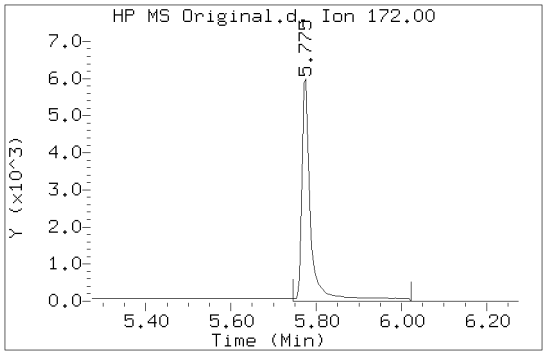


2-Fluorobiphenyl (321-60-8)

Reason Code:

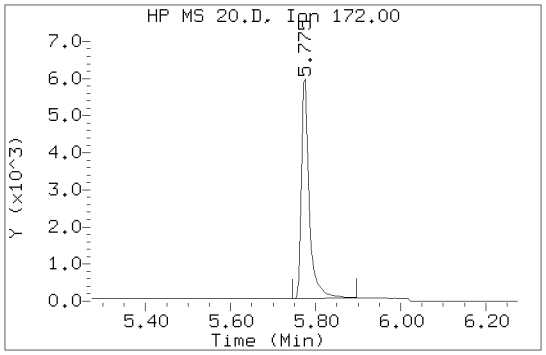
BEFORE

MASS
172
AREA
8878
HEIGHT
5991
26-Jan-2023
17:55
ALSHS
Server



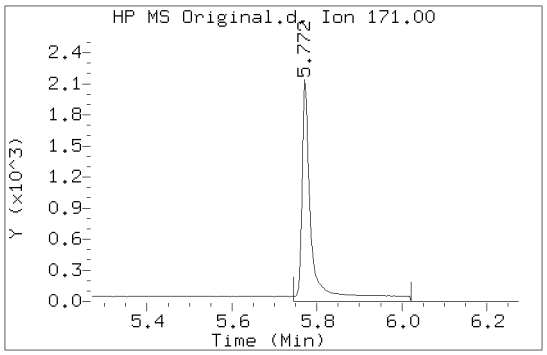
AFTER

MASS
172
AREA
7569
HEIGHT
5923
27-Jan-2023
11:55



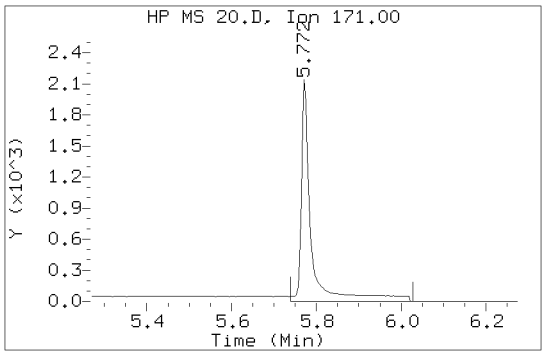
BEFORE

MASS
171
AREA
3461
HEIGHT
2140
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
171
AREA
3502
HEIGHT
2140
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Lab Smp Id: 1 4-DX-0.08 Client Smp ID: 1 4-DX-0.08
Inj Date : 26-JAN-2023 17:58
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.08;1 4-DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:40 Cal File: 20.D
Als bottle: 20 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4575	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	15544	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	3532	0.08000	0.07875(M)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	8772	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	9154	0.08000	0.07951(M)
* 126 Phenanthrene-d10	188	7.885	7.885	(1.000)	17186	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	6062	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	7348	0.08000	0.07318(M)
* 198 Perylene-d12	264	12.852	12.852	(1.000)	5003	0.10000	
1 1,4-Dioxane	58	1.843	1.843	(0.509)	1216	0.08000	0.07286(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209825

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D

Date : 26-JAN-2023 17:58

Client ID: 1 4-DX-0.08

Instrument: SV6.i

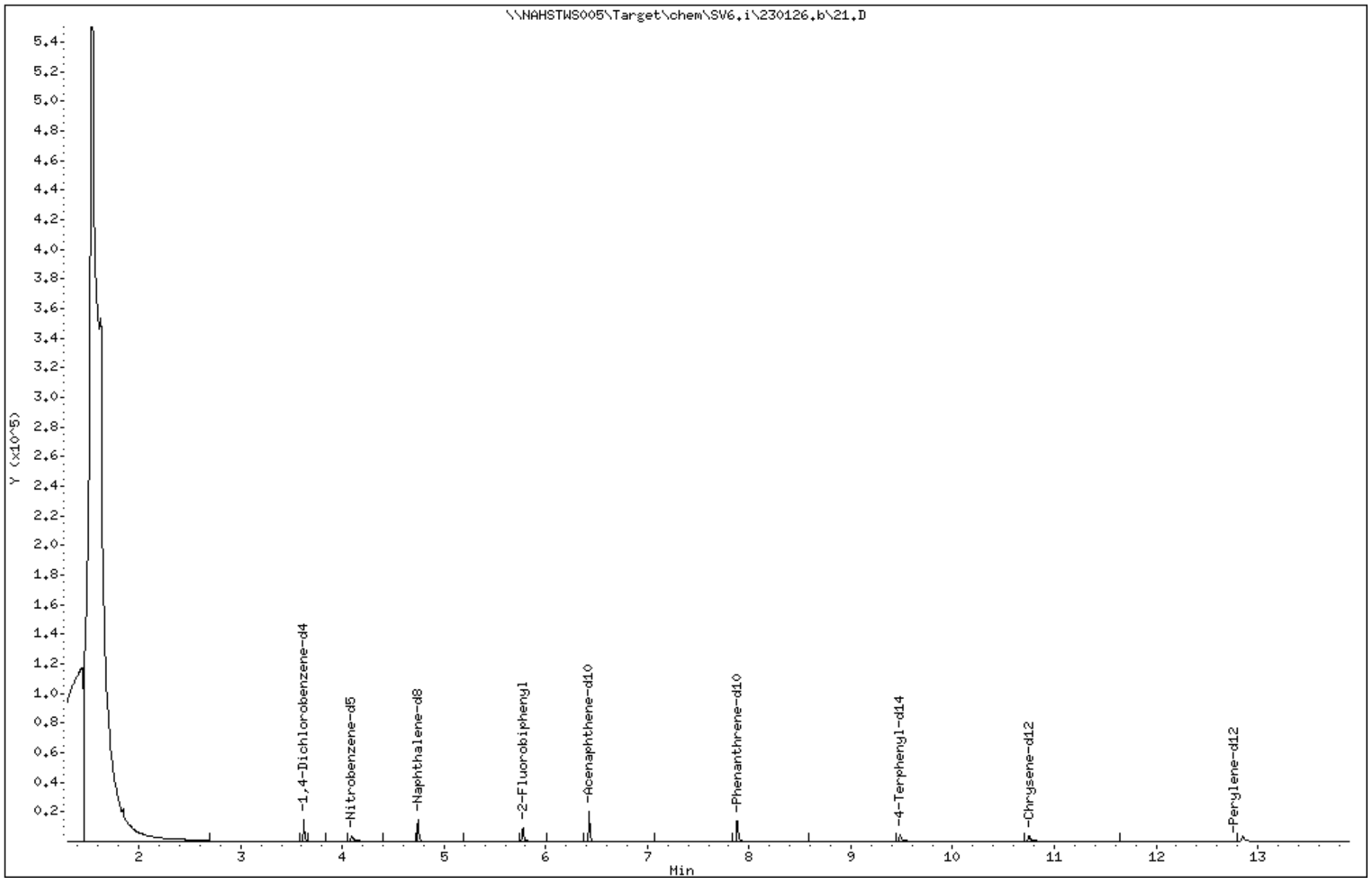
Sample Info: 1 4-DX-0.08;1 4-DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



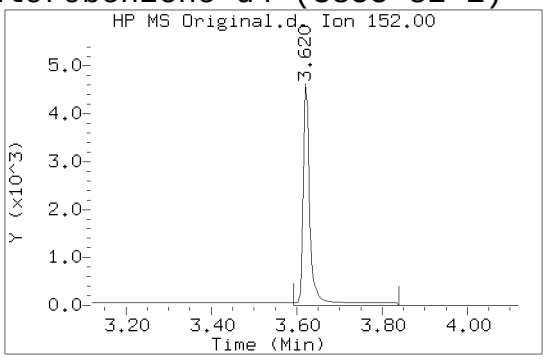
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

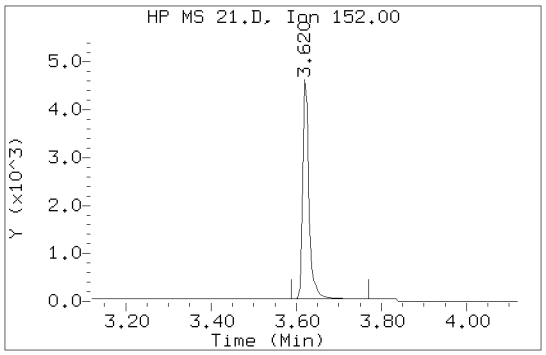
BEFORE

MASS
152
AREA
5358
HEIGHT
4629
26-Jan-2023
18:12
ALSHS
Server



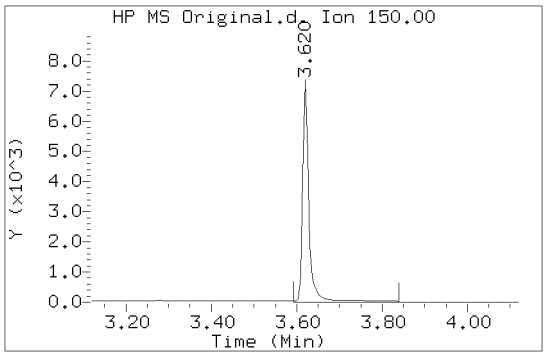
AFTER

MASS
152
AREA
4575
HEIGHT
4577
27-Jan-2023
11:55



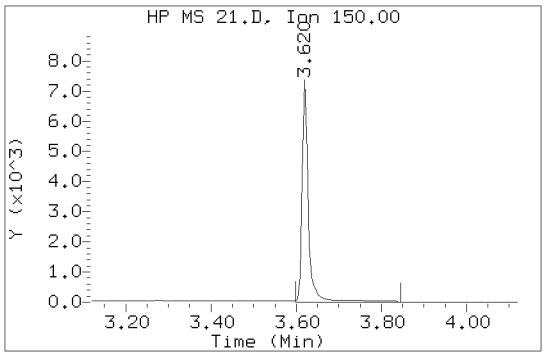
BEFORE

MASS
150
AREA
7614
HEIGHT
7372
26-Jan-2023
18:12
ALSHS
Server



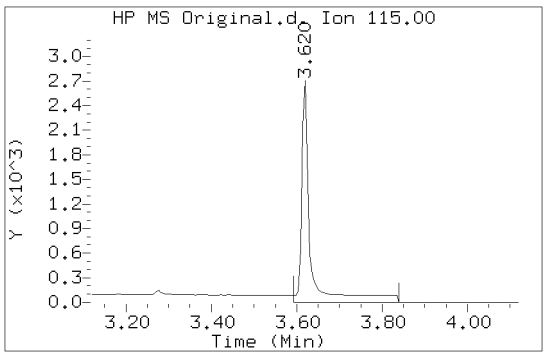
AFTER

MASS
150
AREA
7598
HEIGHT
7372
27-Jan-2023
11:55



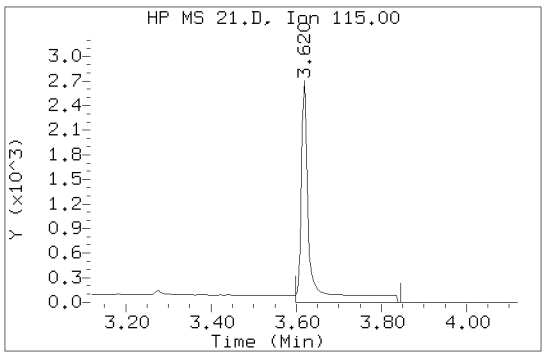
BEFORE

MASS
115
AREA
3820
HEIGHT
2704
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
115
AREA
3792
HEIGHT
2704
27-Jan-2023
11:55

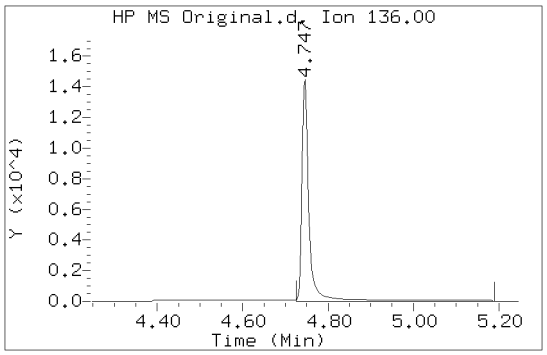


Naphthalene-d8 (1146-65-2)

Reason Code:

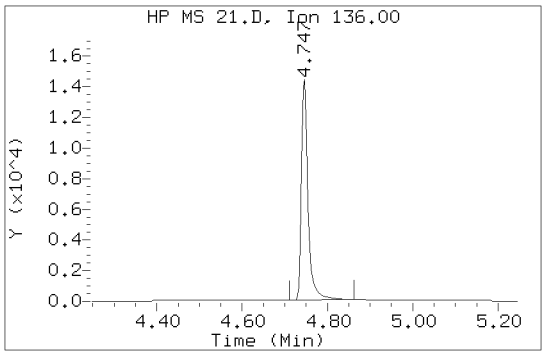
BEFORE

MASS
136
AREA
17931
HEIGHT
14466
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
136
AREA
15544
HEIGHT
14387
27-Jan-2023
11:55



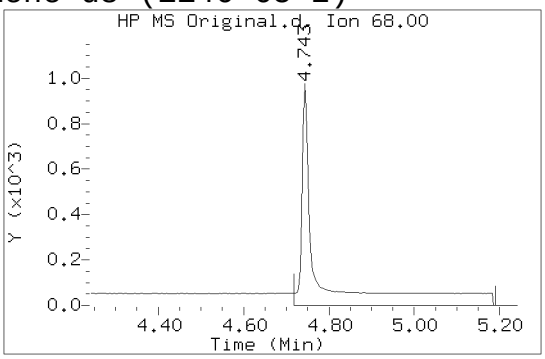
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

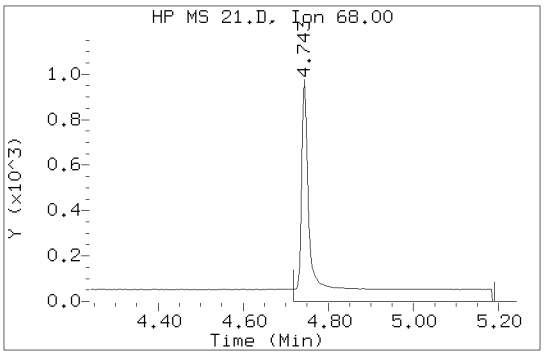
BEFORE

MASS
68
AREA
2481
HEIGHT
976
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
68
AREA
2481
HEIGHT
976
27-Jan-2023
11:55

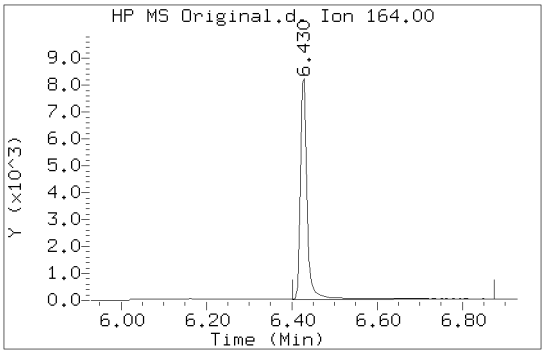


Acenaphthene-d10 (15067-26-2)

Reason Code:

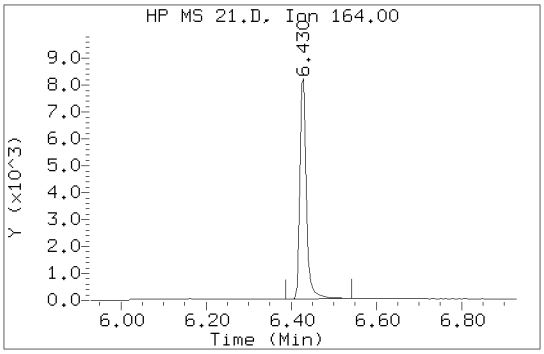
BEFORE

MASS
164
AREA
9409
HEIGHT
8212
26-Jan-2023
18:12
ALSHS
Server



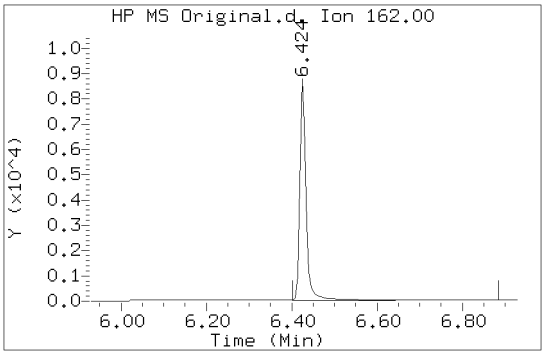
AFTER

MASS
164
AREA
8772
HEIGHT
8177
27-Jan-2023
11:55



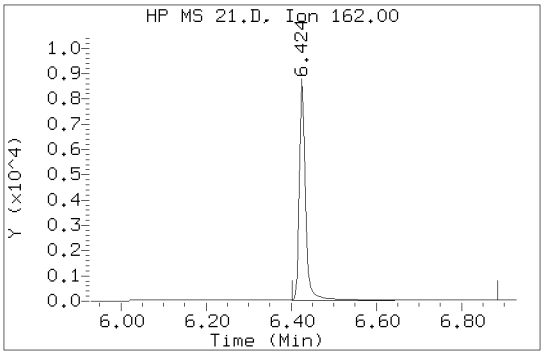
BEFORE

MASS
162
AREA
9264
HEIGHT
8767
26-Jan-2023
18:12
ALSHS
Server



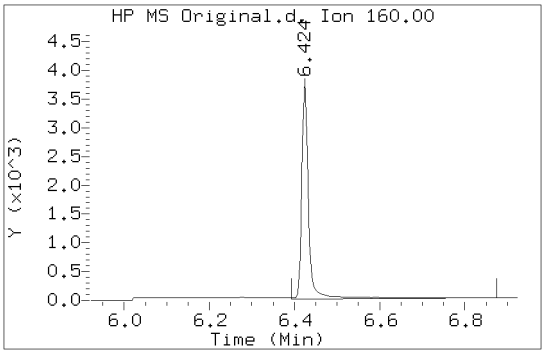
AFTER

MASS
162
AREA
9264
HEIGHT
8767
27-Jan-2023
11:55



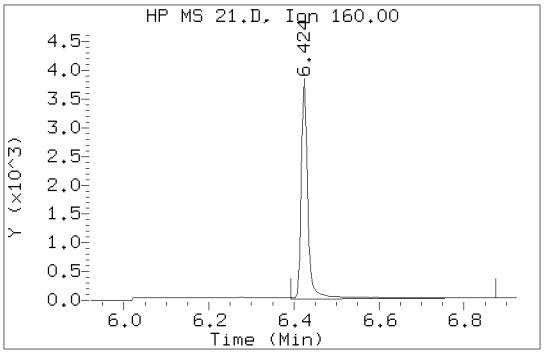
BEFORE

MASS
160
AREA
4244
HEIGHT
3833
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
160
AREA
4244
HEIGHT
3833
27-Jan-2023
11:55



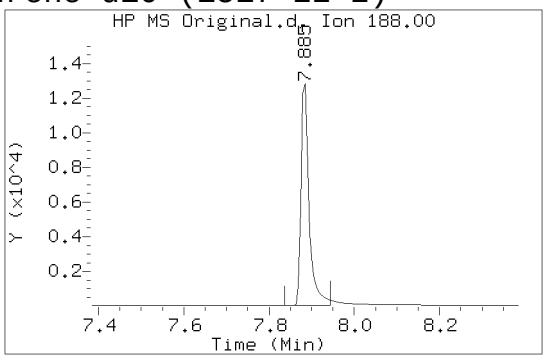
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Phenanthrene-d10 (1517-22-2)

Reason Code:

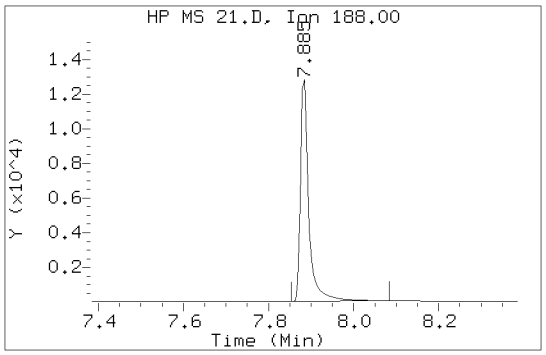
BEFORE

MASS
188
AREA
16671
HEIGHT
12786
26-Jan-2023
18:12
ALSHS
Server



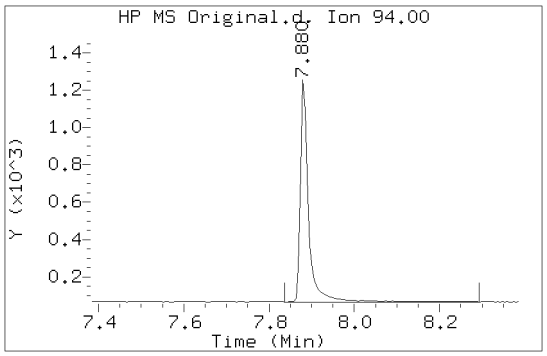
AFTER

MASS
188
AREA
17186
HEIGHT
12781
27-Jan-2023
11:55



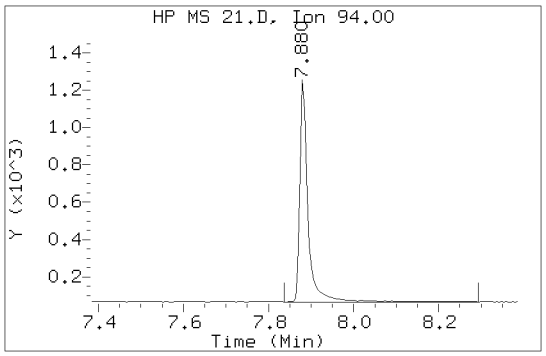
BEFORE

MASS
94
AREA
1592
HEIGHT
1191
26-Jan-2023
18:12
ALSHS
Server



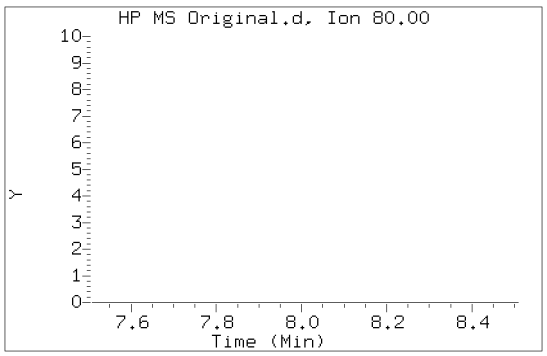
AFTER

MASS
94
AREA
1592
HEIGHT
1191
27-Jan-2023
11:55



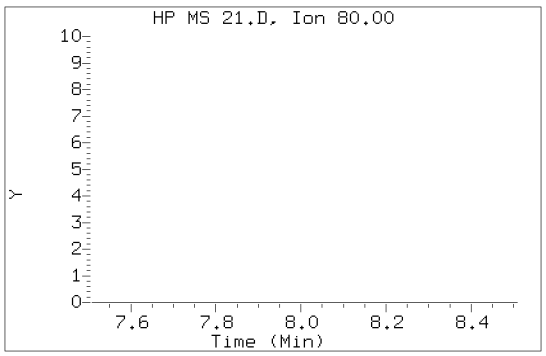
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

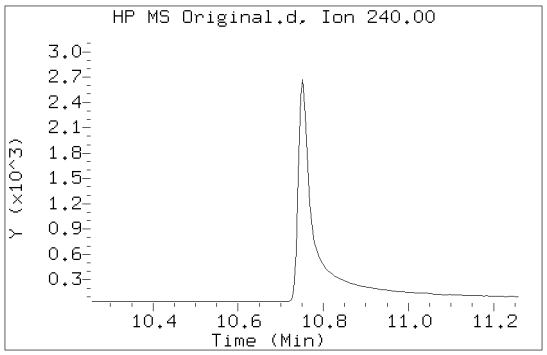


Chrysene-d12 (1719-03-5)

Reason Code:

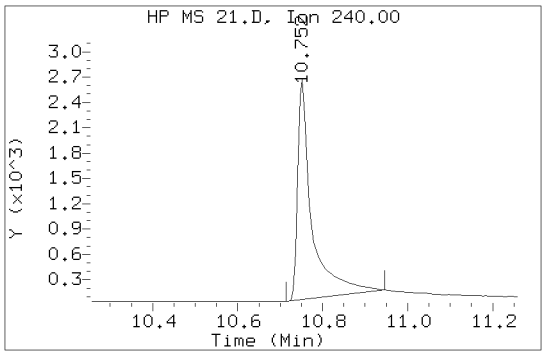
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
240
AREA
6062
HEIGHT
2601
27-Jan-2023
11:55



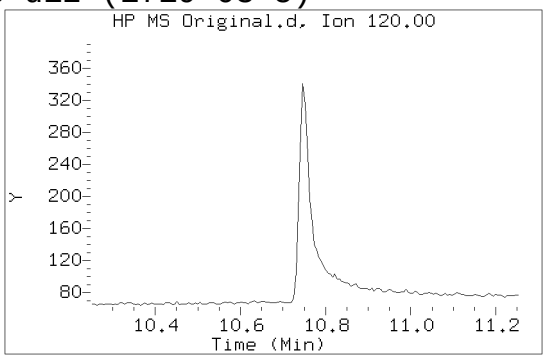
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Chrysene-d12 (1719-03-5)

Reason Code:

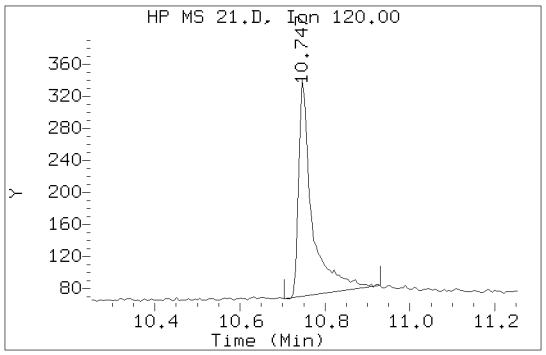
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



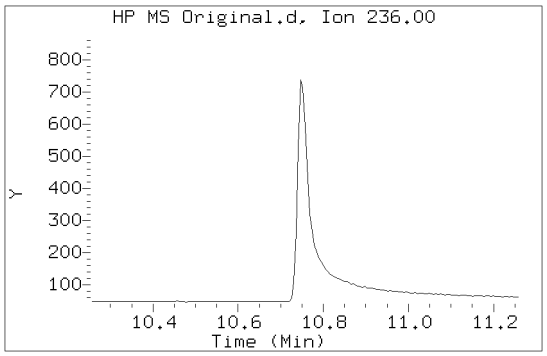
AFTER

MASS
120
AREA
595
HEIGHT
270
27-Jan-2023
11:55



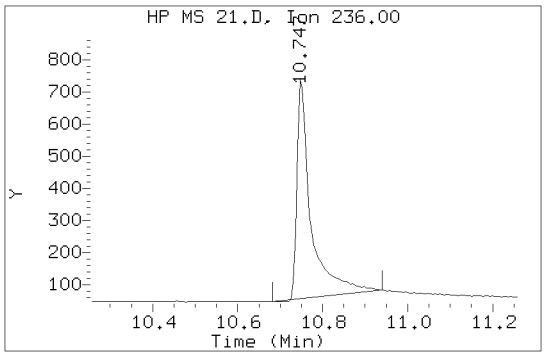
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
236
AREA
1567
HEIGHT
680
27-Jan-2023
11:55

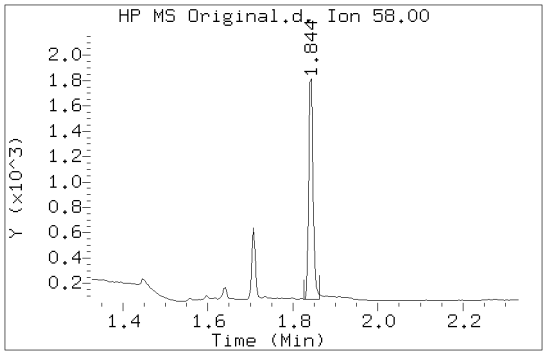


1,4-Dioxane ()

Reason Code:

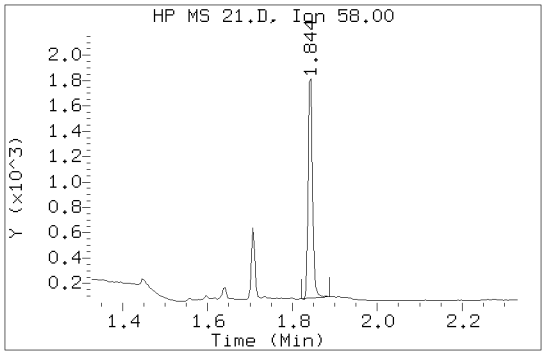
BEFORE

MASS
58
AREA
1228
HEIGHT
1738
26-Jan-2023
18:12
ALSHS
Server



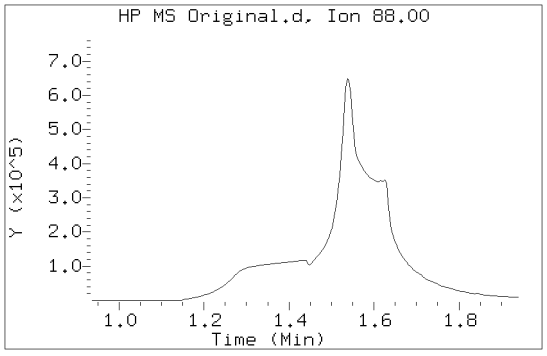
AFTER

MASS
58
AREA
1216
HEIGHT
1728
27-Jan-2023
11:55



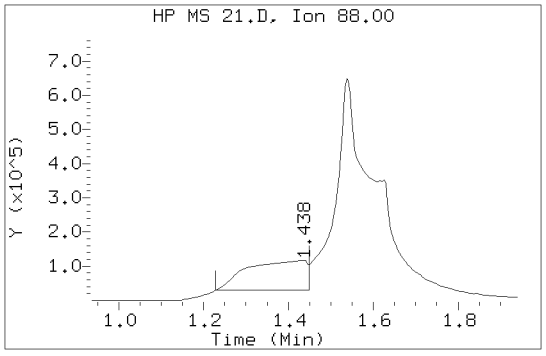
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
88
AREA
856918
HEIGHT
87976
27-Jan-2023
11:55



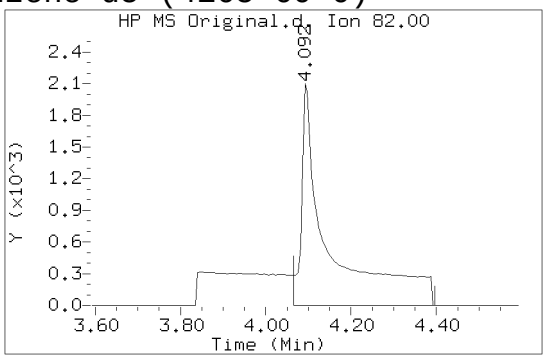
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

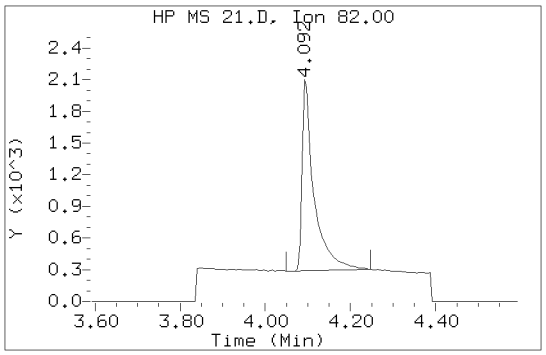
BEFORE

MASS
82
AREA
9169
HEIGHT
2100
26-Jan-2023
18:12
ALSHS
Server



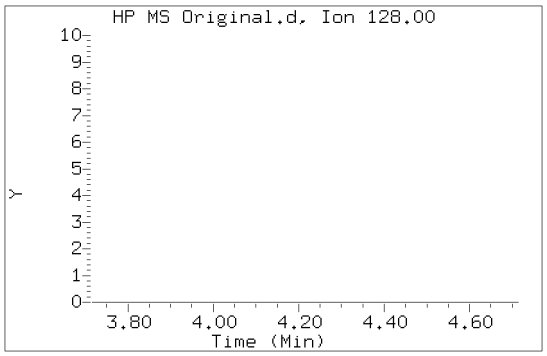
AFTER

MASS
82
AREA
3532
HEIGHT
1809
27-Jan-2023
11:55



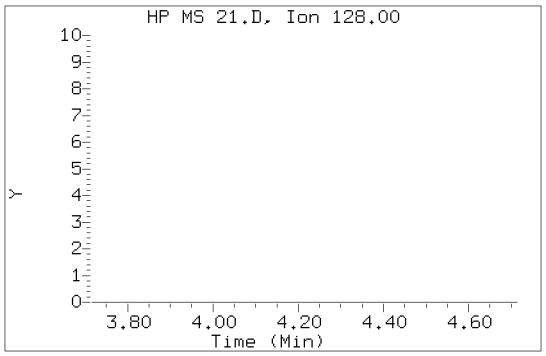
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



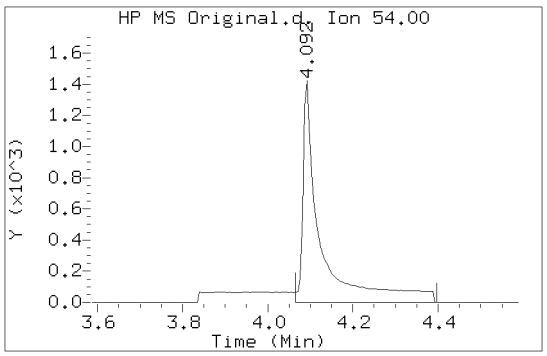
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



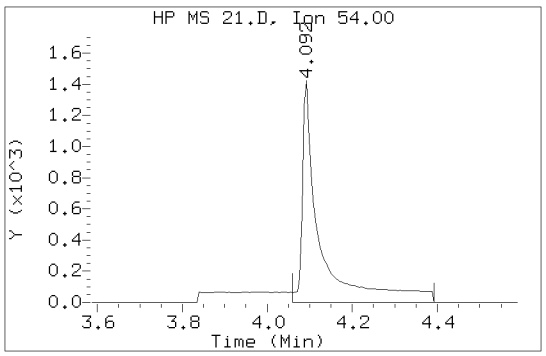
BEFORE

MASS
54
AREA
4059
HEIGHT
1423
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
54
AREA
4100
HEIGHT
1423
27-Jan-2023
11:55

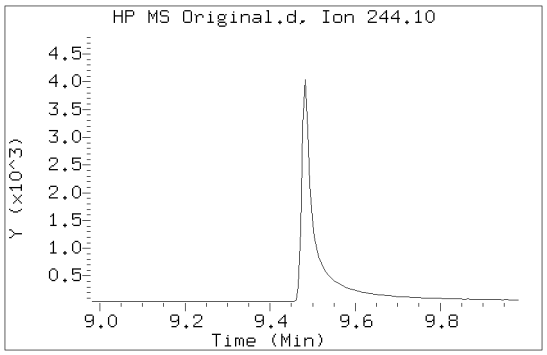


4-Terphenyl-d14 (1718-51-0)

Reason Code:

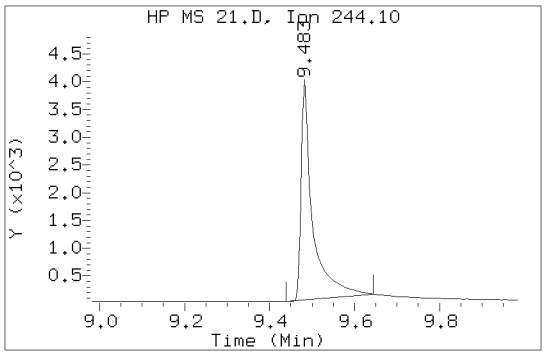
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
244.1
AREA
7348
HEIGHT
3964
27-Jan-2023
11:55



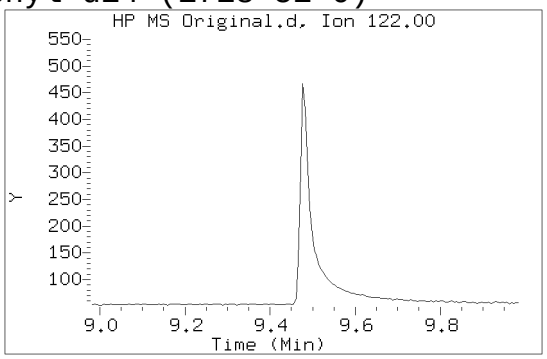
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

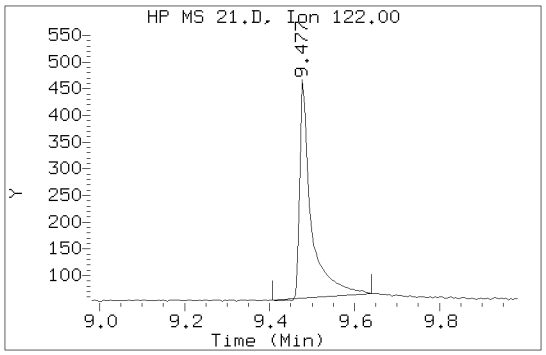
BEFORE

MASS
122
AREA
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HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



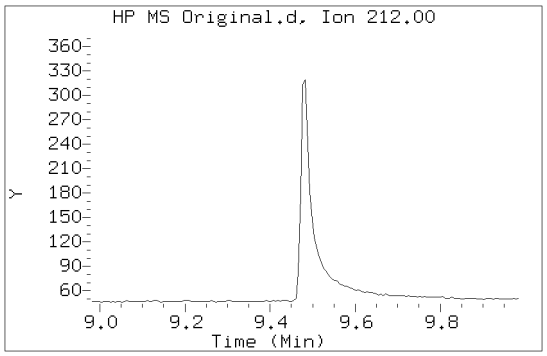
AFTER

MASS
122
AREA
760
HEIGHT
409
27-Jan-2023
11:55



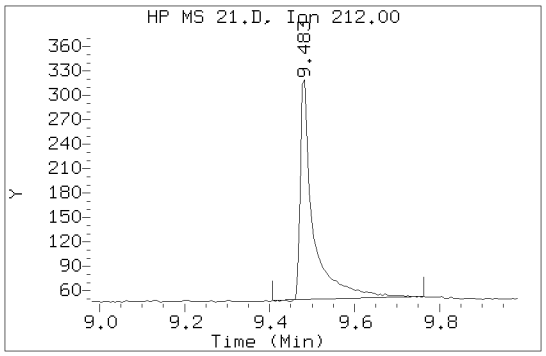
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
212
AREA
569
HEIGHT
269
27-Jan-2023
11:55

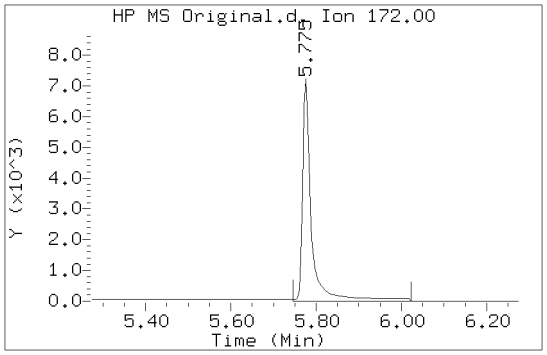


2-Fluorobiphenyl (321-60-8)

Reason Code:

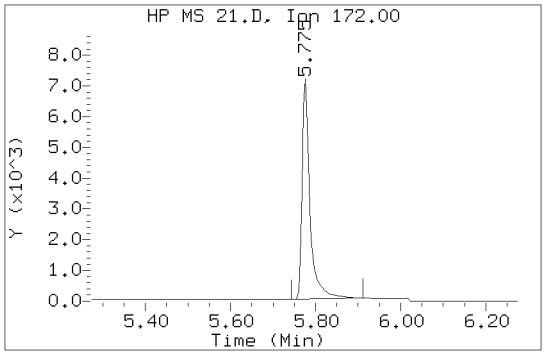
BEFORE

MASS
172
AREA
10503
HEIGHT
7226
26-Jan-2023
18:12
ALSHS
Server



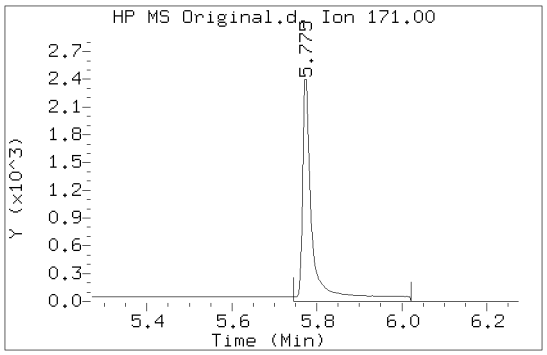
AFTER

MASS
172
AREA
9154
HEIGHT
7158
27-Jan-2023
11:55



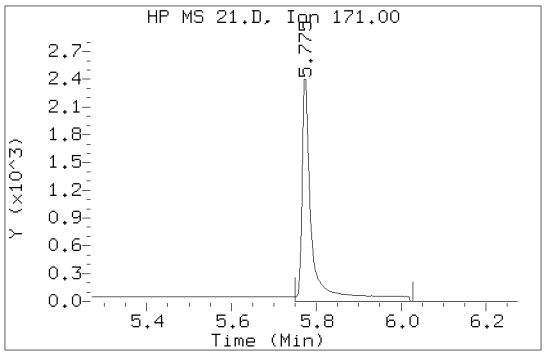
BEFORE

MASS
171
AREA
4003
HEIGHT
2395
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
171
AREA
4016
HEIGHT
2395
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Lab Smp Id: 1 4-DX-0.1 Client Smp ID: 1 4-DX-0.1
Inj Date : 26-JAN-2023 18:16
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.1;1 4-DX-0.1
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:58 Cal File: 21.D
Als bottle: 21 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4328	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	14841	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	4162	0.10000	0.09720(M)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	8212	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	10723	0.10000	0.09949(M)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15031	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5170	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	8150	0.10000	0.09008(M)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	4432	0.10000	
1 1,4-Dioxane	58	1.836	1.836	(0.507)	1401	0.10000	0.08874(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209833

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D

Date : 26-JAN-2023 18:16

Client ID: 1 4-DX-0.1

Instrument: SV6.i

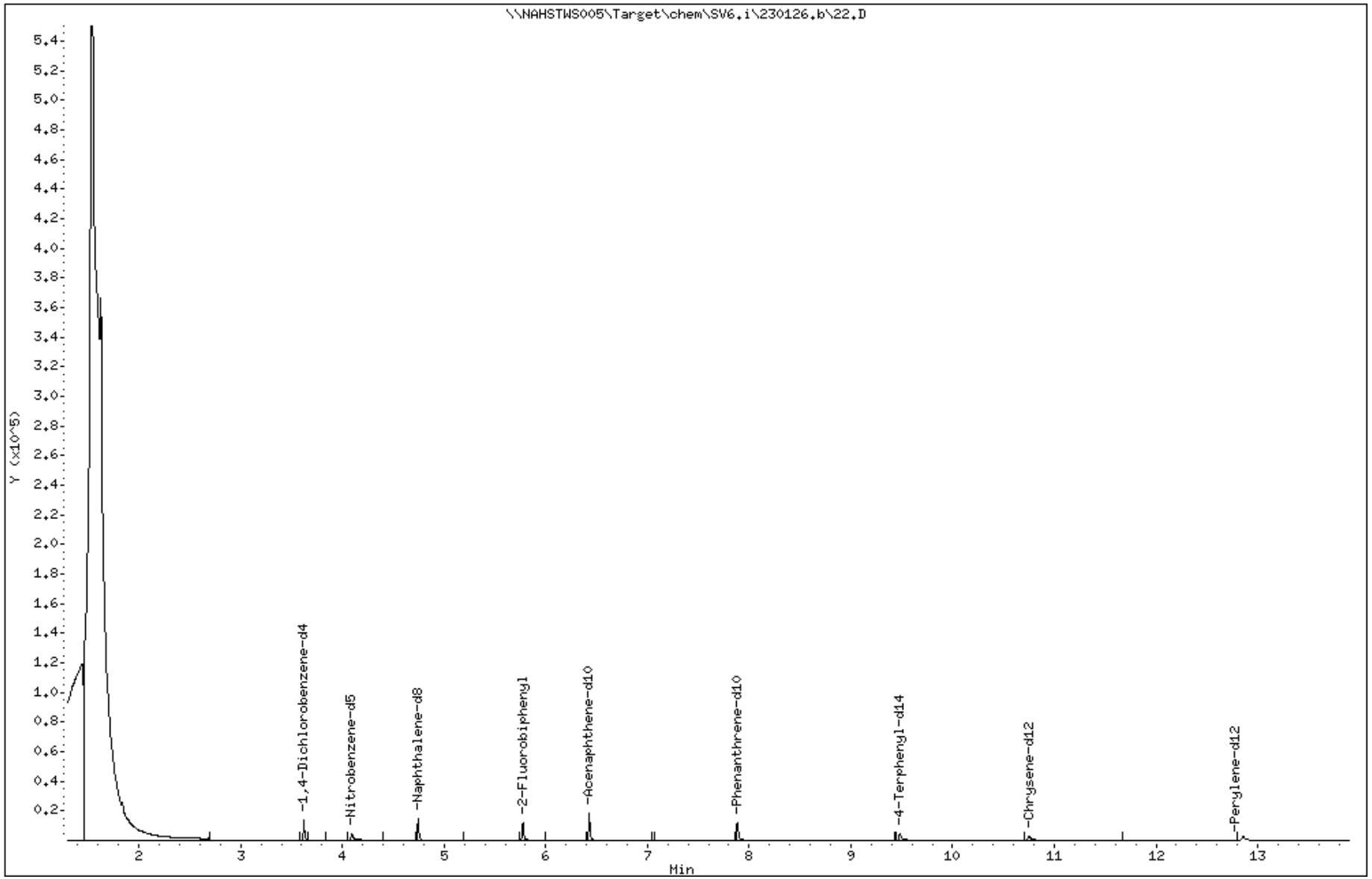
Sample Info: 1 4-DX-0.1;1 4-DX-0.1

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



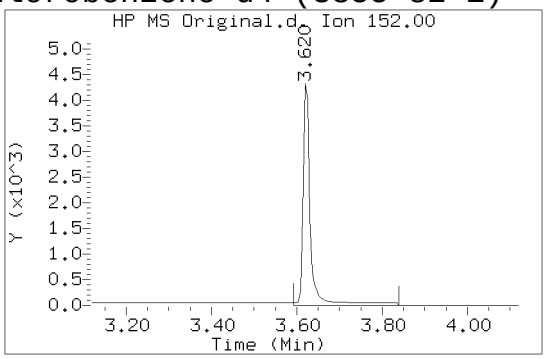
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

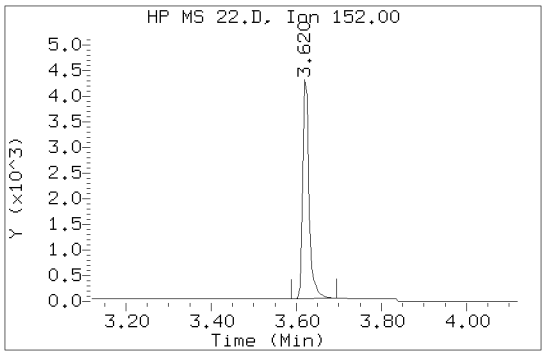
BEFORE

MASS
152
AREA
5152
HEIGHT
4327
26-Jan-2023
18:32
ALSHS
Server



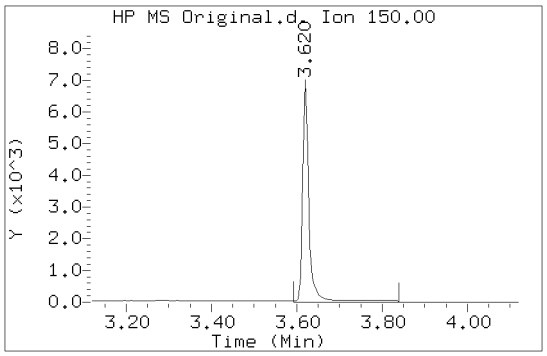
AFTER

MASS
152
AREA
4328
HEIGHT
4273
27-Jan-2023
11:55



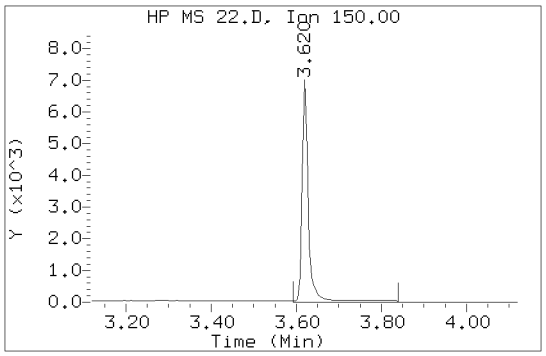
BEFORE

MASS
150
AREA
7314
HEIGHT
7012
26-Jan-2023
18:32
ALSHS
Server



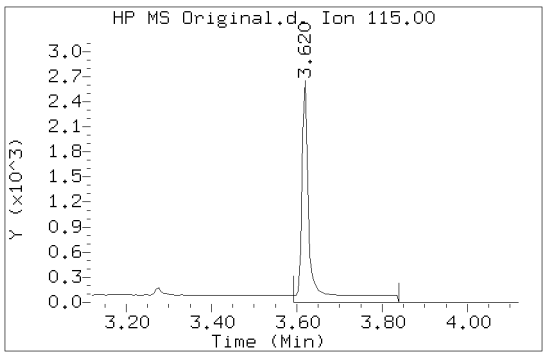
AFTER

MASS
150
AREA
7314
HEIGHT
7012
27-Jan-2023
11:55



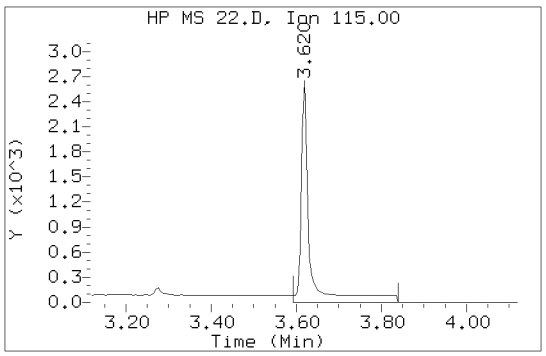
BEFORE

MASS
115
AREA
3675
HEIGHT
2651
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
115
AREA
3675
HEIGHT
2651
27-Jan-2023
11:55

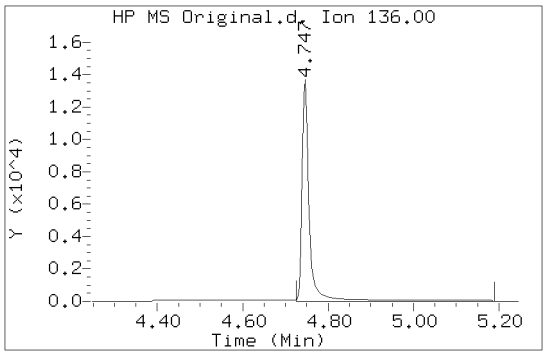


Naphthalene-d8 (1146-65-2)

Reason Code:

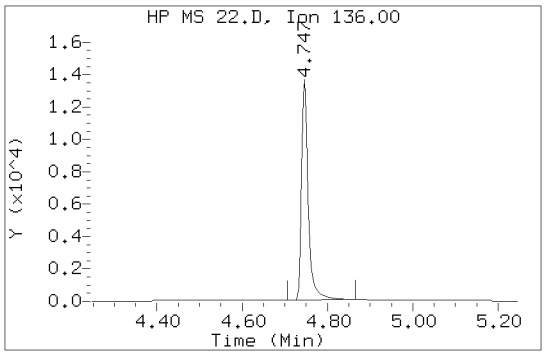
BEFORE

MASS
136
AREA
17167
HEIGHT
13688
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
136
AREA
14841
HEIGHT
13609
27-Jan-2023
11:55



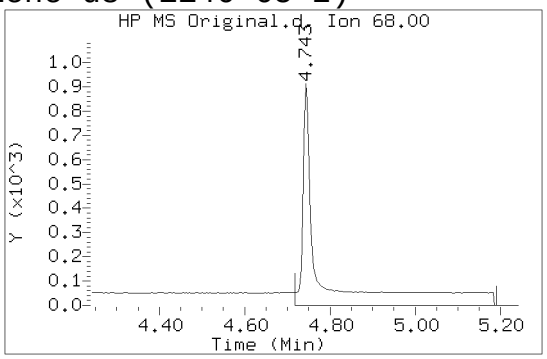
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Naphthalene-d8 (1146-65-2)

Reason Code:

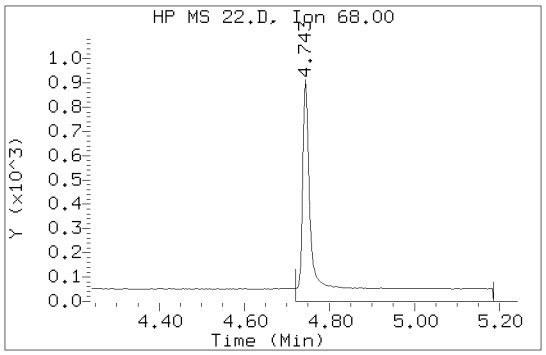
BEFORE

MASS
68
AREA
2417
HEIGHT
913
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
68
AREA
2405
HEIGHT
913
27-Jan-2023
11:55

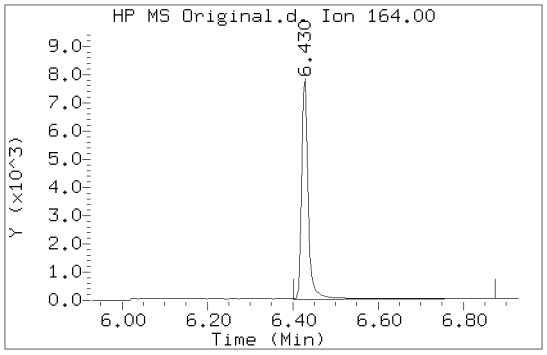


Acenaphthene-d10 (15067-26-2)

Reason Code:

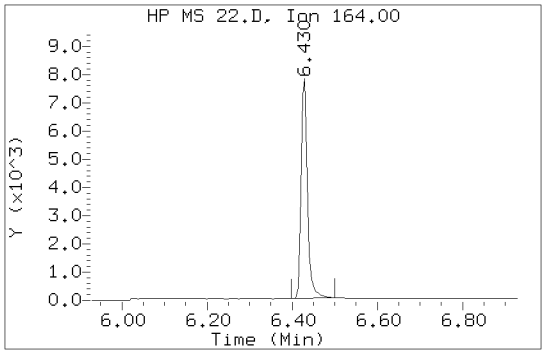
BEFORE

MASS
164
AREA
8927
HEIGHT
7829
26-Jan-2023
18:32
ALSHS
Server



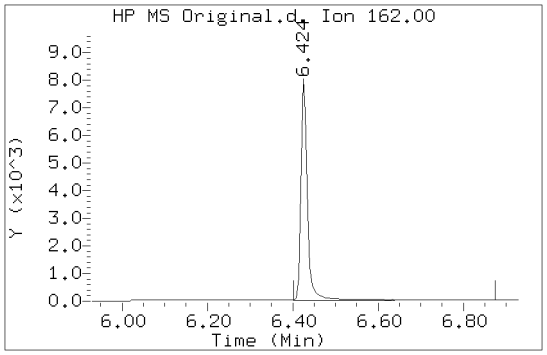
AFTER

MASS
164
AREA
8212
HEIGHT
7787
27-Jan-2023
11:55



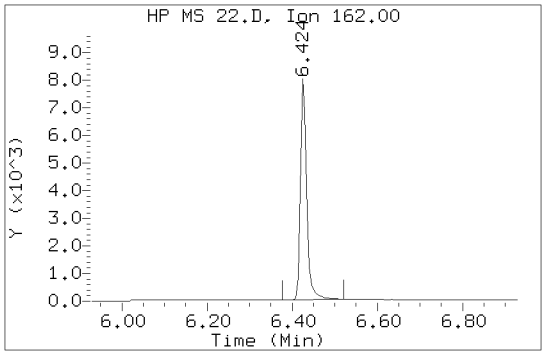
BEFORE

MASS
162
AREA
8833
HEIGHT
8026
26-Jan-2023
18:32
ALSHS
Server



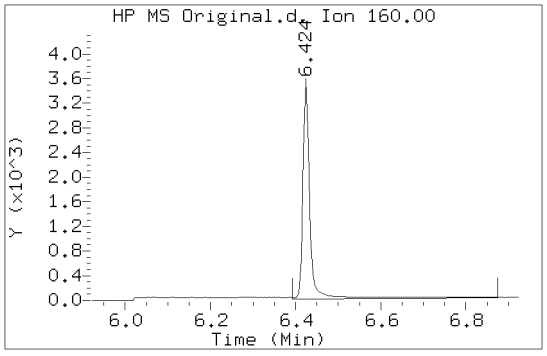
AFTER

MASS
162
AREA
8207
HEIGHT
7991
27-Jan-2023
11:55



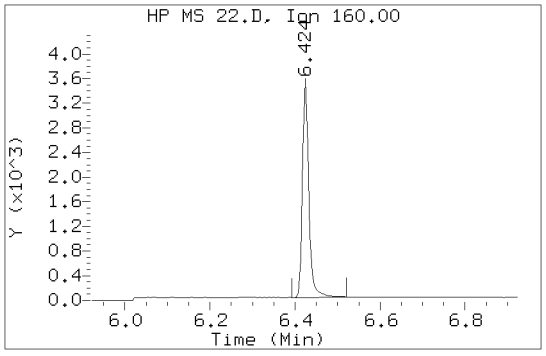
BEFORE

MASS
160
AREA
4049
HEIGHT
3576
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
160
AREA
3560
HEIGHT
3549
27-Jan-2023
11:55



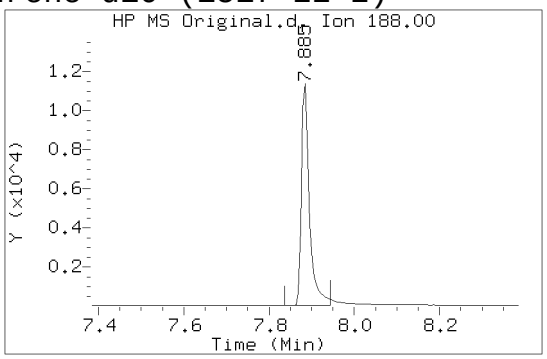
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Phenanthrene-d10 (1517-22-2)

Reason Code:

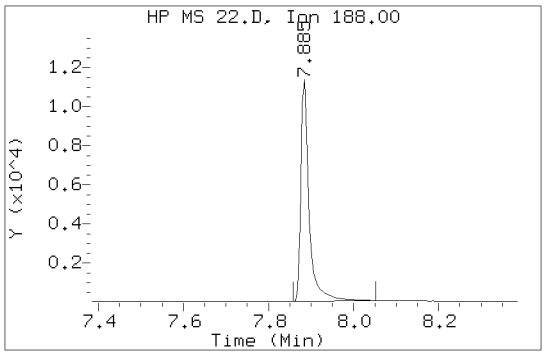
BEFORE

MASS
188
AREA
14633
HEIGHT
11338
26-Jan-2023
18:32
ALSHS
Server



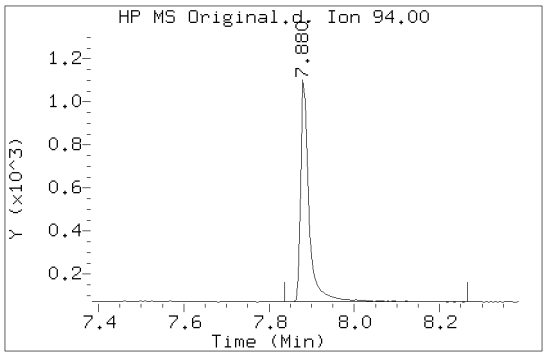
AFTER

MASS
188
AREA
15031
HEIGHT
11331
27-Jan-2023
11:55



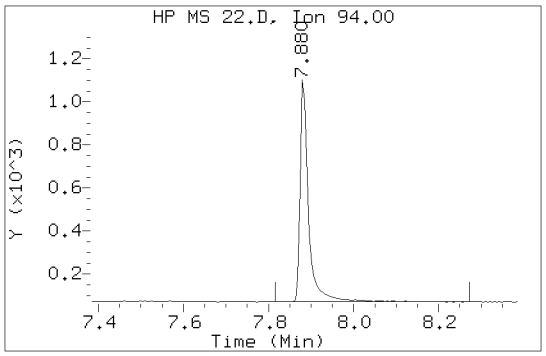
BEFORE

MASS
94
AREA
1412
HEIGHT
1030
26-Jan-2023
18:32
ALSHS
Server



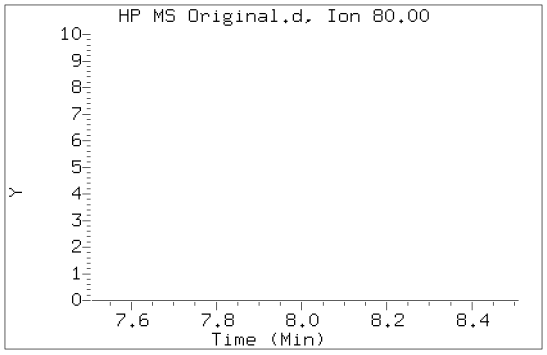
AFTER

MASS
94
AREA
1413
HEIGHT
1030
27-Jan-2023
11:55



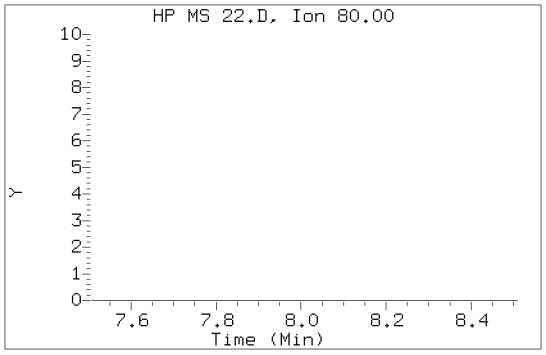
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

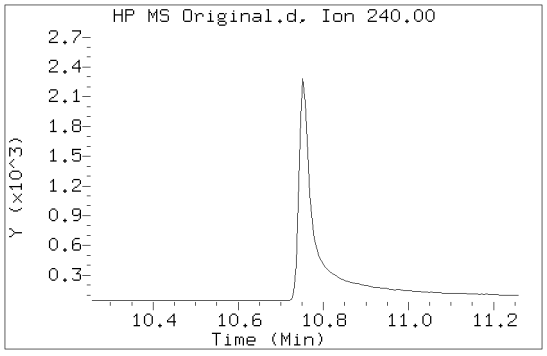


Chrysene-d12 (1719-03-5)

Reason Code:

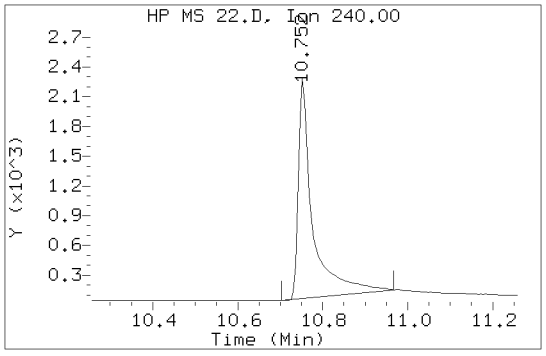
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
240
AREA
5170
HEIGHT
2215
27-Jan-2023
11:55

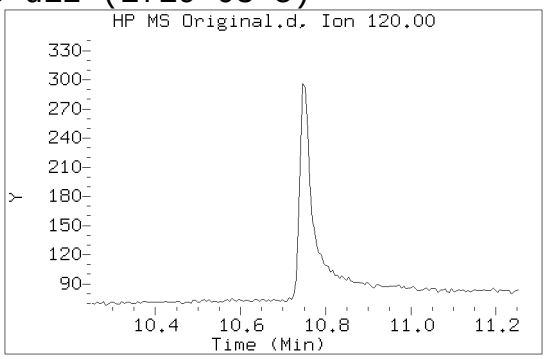


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Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

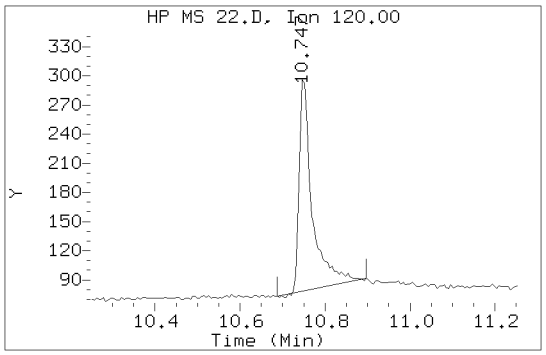
Chrysene-d12 (1719-03-5)

Reason Code:

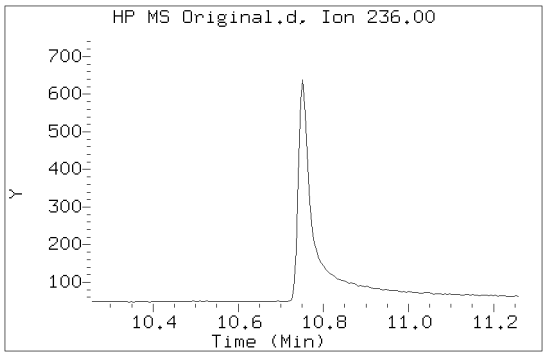
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



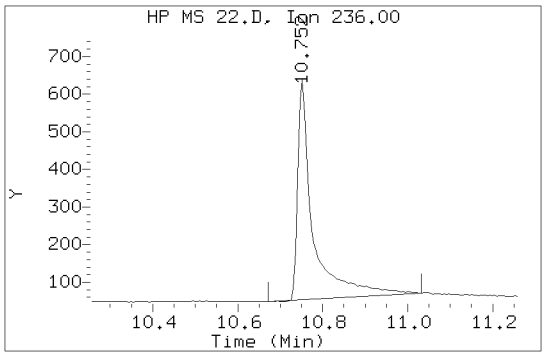
AFTER
MASS
120
AREA
457
HEIGHT
217
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



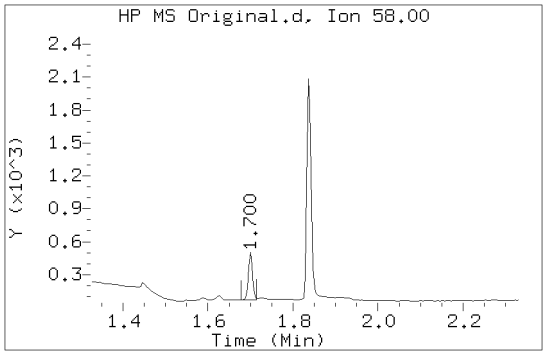
AFTER
MASS
236
AREA
1462
HEIGHT
584
27-Jan-2023
11:55



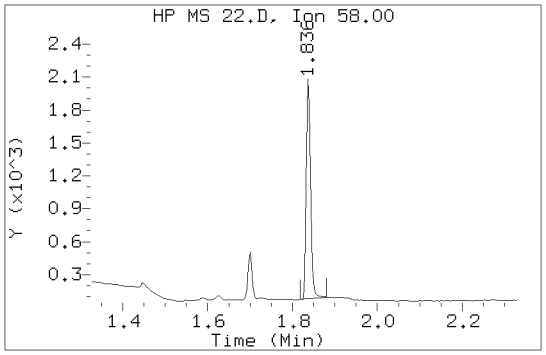
1,4-Dioxane ()

Reason Code:

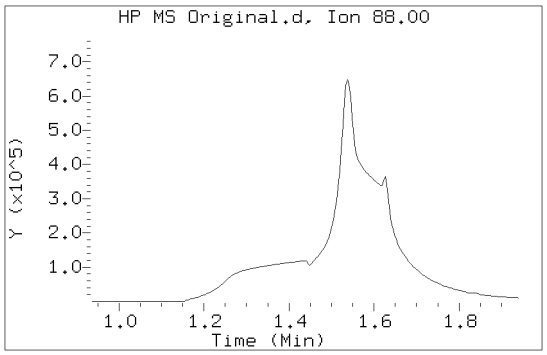
BEFORE
MASS
58
AREA
298
HEIGHT
432
26-Jan-2023
18:32
ALSHS
Server



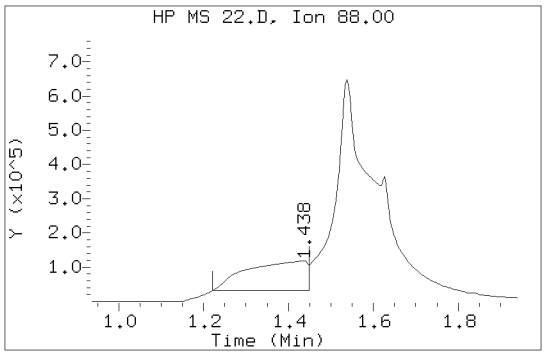
AFTER
MASS
58
AREA
1401
HEIGHT
2002
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER
MASS
88
AREA
862672
HEIGHT
87864
27-Jan-2023
11:55



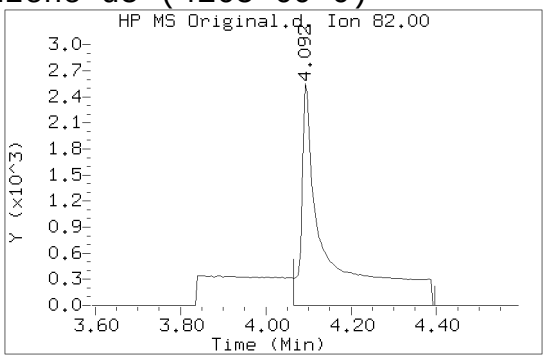
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Nitrobenzene-d5 (4165-60-0)

Reason Code:

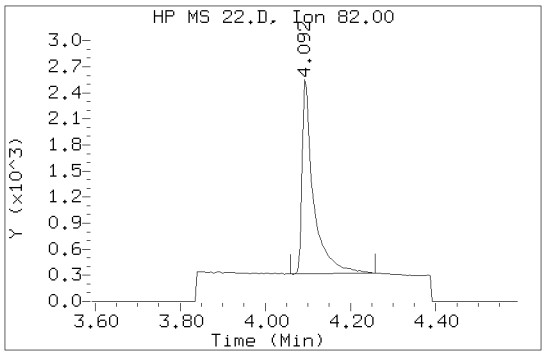
BEFORE

MASS
82
AREA
10301
HEIGHT
2551
26-Jan-2023
18:32
ALSHS
Server



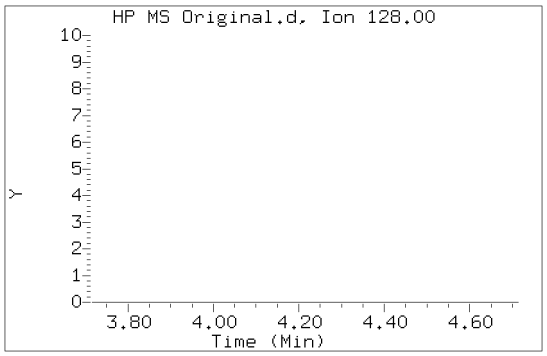
AFTER

MASS
82
AREA
4162
HEIGHT
2234
27-Jan-2023
11:55



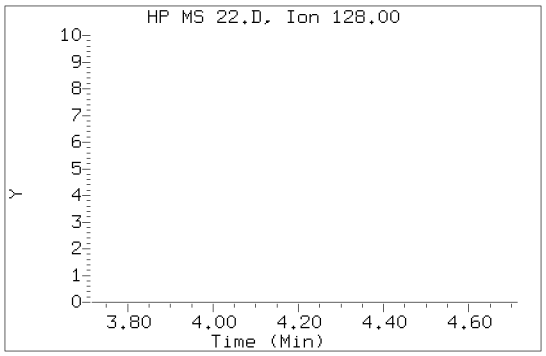
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



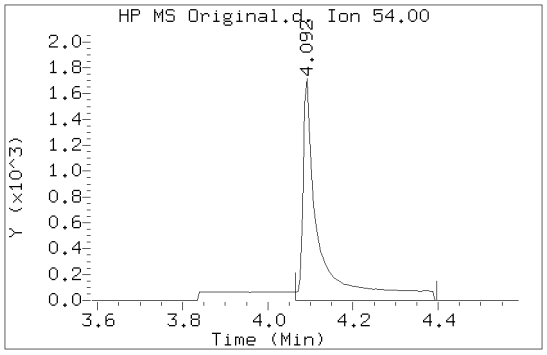
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



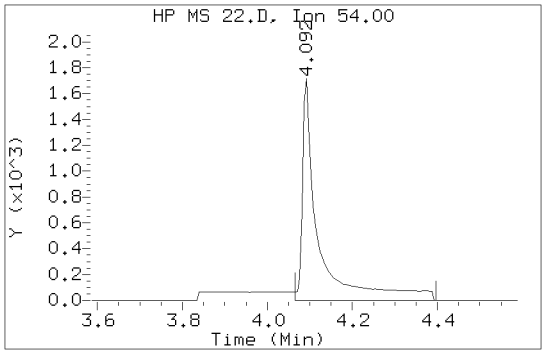
BEFORE

MASS
54
AREA
4483
HEIGHT
1715
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
54
AREA
4483
HEIGHT
1715
27-Jan-2023
11:55

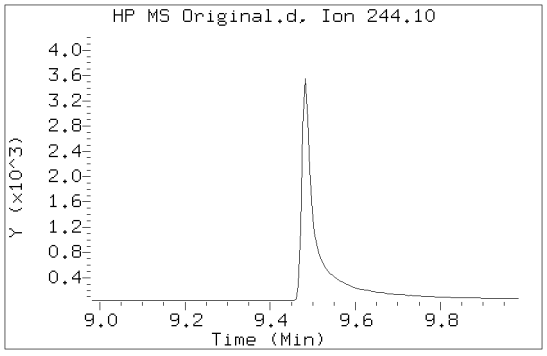


4-Terphenyl-d14 (1718-51-0)

Reason Code:

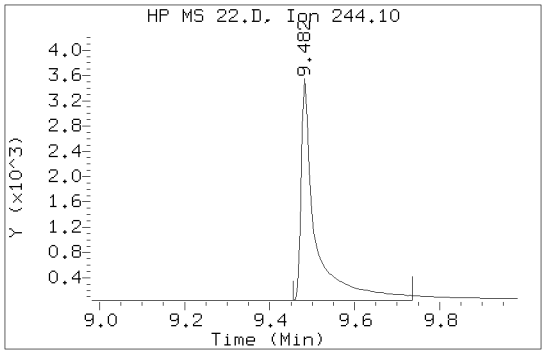
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
244.1
AREA
8150
HEIGHT
3504
27-Jan-2023
11:55

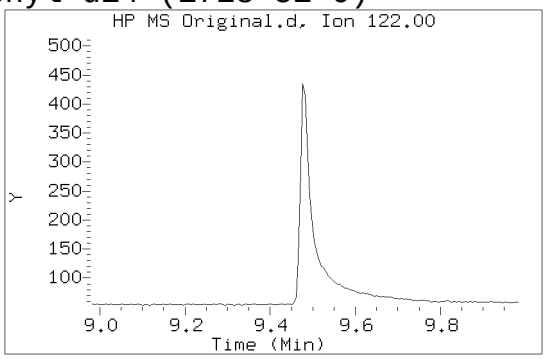


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Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

4-Terphenyl-d14 (1718-51-0)

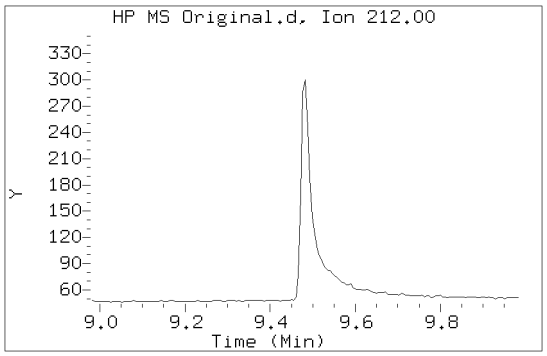
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



BEFORE

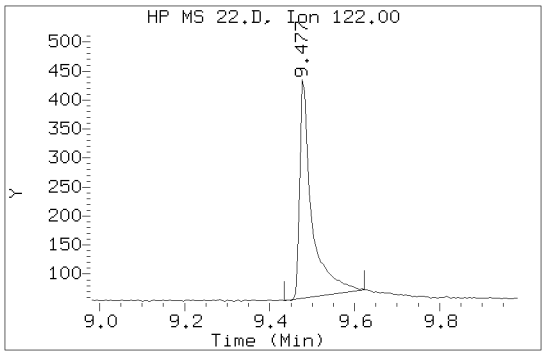
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



Reason Code:

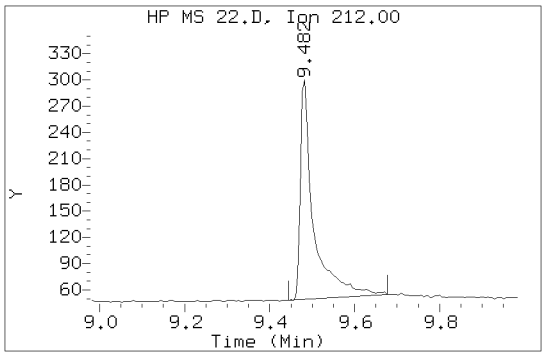
AFTER

MASS
122
AREA
740
HEIGHT
376
27-Jan-2023
11:55



AFTER

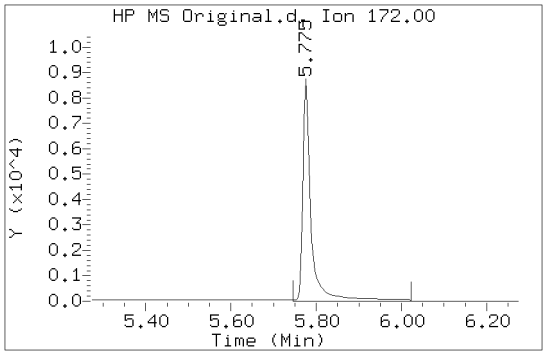
MASS
212
AREA
543
HEIGHT
250
27-Jan-2023
11:55



2-Fluorobiphenyl (321-60-8)

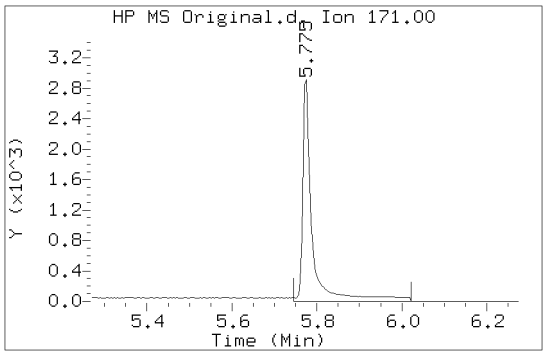
BEFORE

MASS
172
AREA
12027
HEIGHT
8749
26-Jan-2023
18:32
ALSHS
Server



BEFORE

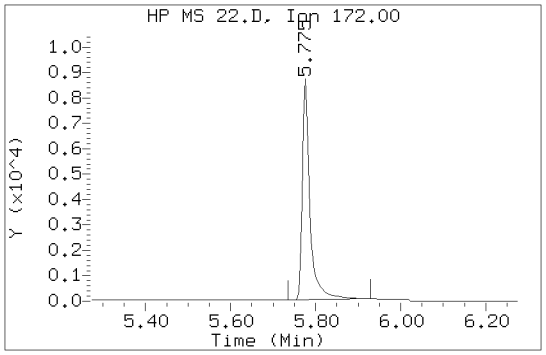
MASS
171
AREA
4538
HEIGHT
2913
26-Jan-2023
18:32
ALSHS
Server



Reason Code:

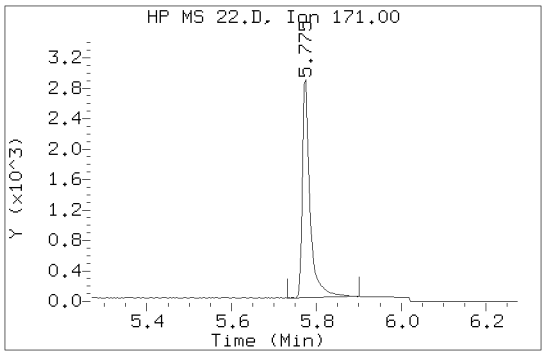
AFTER

MASS
172
AREA
10723
HEIGHT
8683
27-Jan-2023
11:55



AFTER

MASS
171
AREA
3612
HEIGHT
2862
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Lab Smp Id: 1 4-DX-0.15 Client Smp ID: 1 4-DX-0.15
Inj Date : 26-JAN-2023 18:34
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.15;1 4-DX-0.15
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:16 Cal File: 22.D
Als bottle: 22 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4099	0.10000	(aQM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	14161	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	6376	0.15000	0.1560(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	7780	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	15591	0.15000	0.1527(AM)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15586	0.10000	
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	4829	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	13832	0.15000	0.1483(M)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	4032	0.10000	
1 1,4-Dioxane	58	1.836	1.836	(0.507)	2048	0.15000	0.1370(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01209842

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D

Date : 26-JAN-2023 18:34

Client ID: 1 4-DX-0.15

Instrument: SV6.i

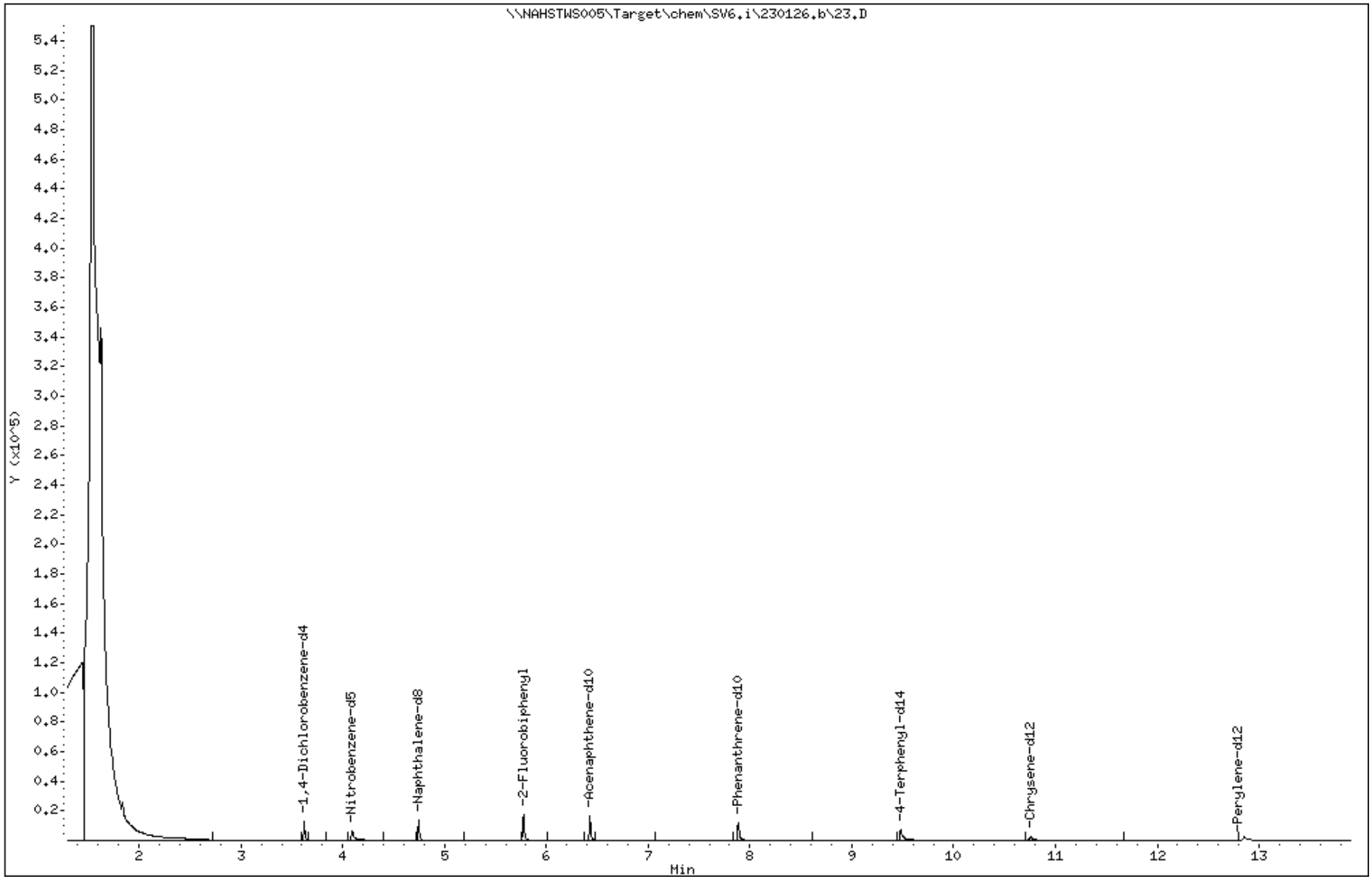
Sample Info: 1 4-DX-0.15;1 4-DX-0.15

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



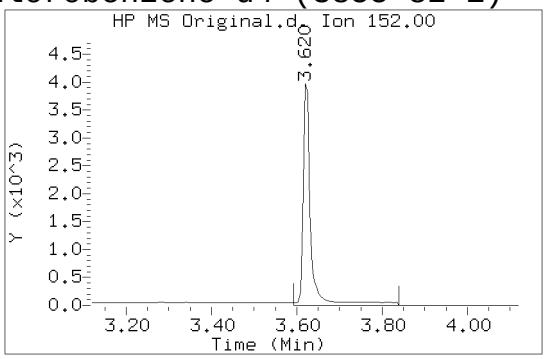
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

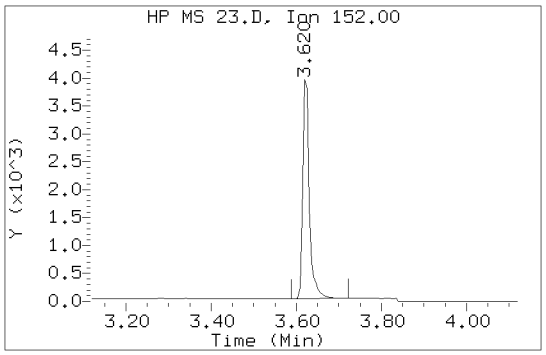
BEFORE

MASS
152
AREA
4880
HEIGHT
3972
26-Jan-2023
18:48
ALSHS
Server



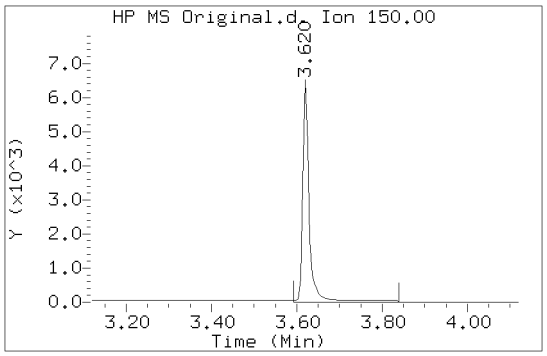
AFTER

MASS
152
AREA
4099
HEIGHT
3920
27-Jan-2023
11:55



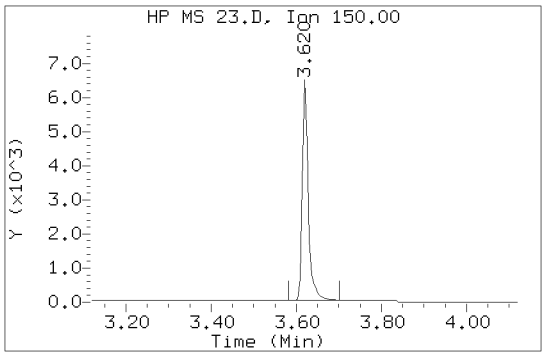
BEFORE

MASS
150
AREA
6931
HEIGHT
6517
26-Jan-2023
18:48
ALSHS
Server



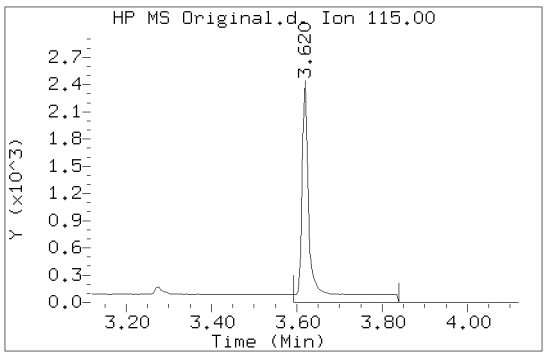
AFTER

MASS
150
AREA
6120
HEIGHT
6464
27-Jan-2023
11:55



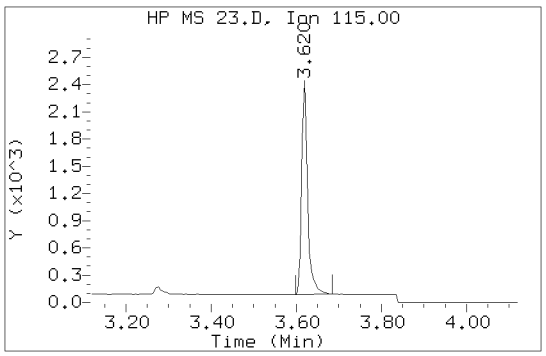
BEFORE

MASS
115
AREA
3520
HEIGHT
2443
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
115
AREA
2245
HEIGHT
2356
27-Jan-2023
11:55

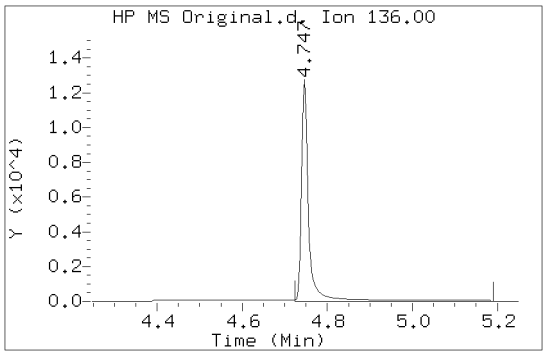


Naphthalene-d8 (1146-65-2)

Reason Code:

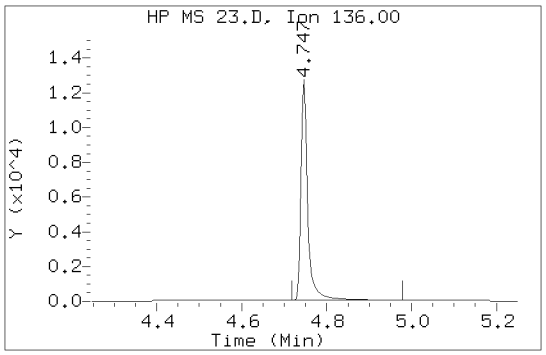
BEFORE

MASS
136
AREA
16171
HEIGHT
12754
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
136
AREA
14161
HEIGHT
12688
27-Jan-2023
11:55



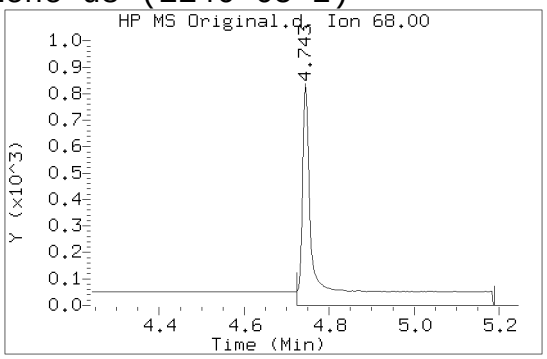
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

Naphthalene-d8 (1146-65-2)

Reason Code:

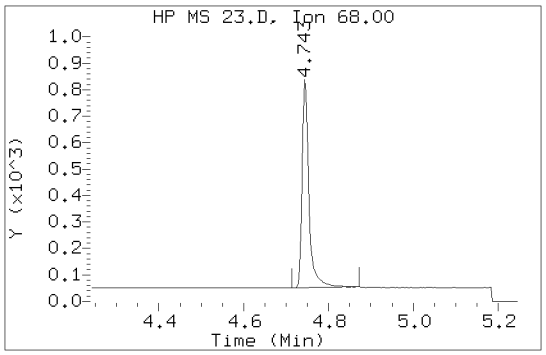
BEFORE

MASS
68
AREA
2330
HEIGHT
838
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
68
AREA
874
HEIGHT
786
27-Jan-2023
11:55

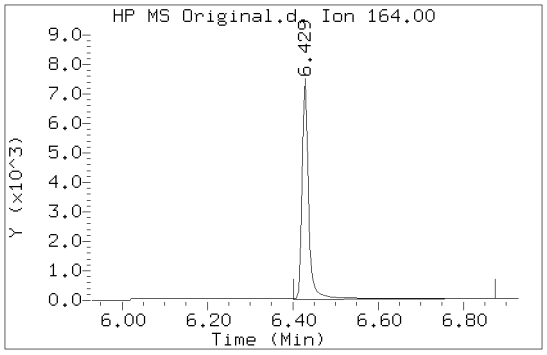


Acenaphthene-d10 (15067-26-2)

Reason Code:

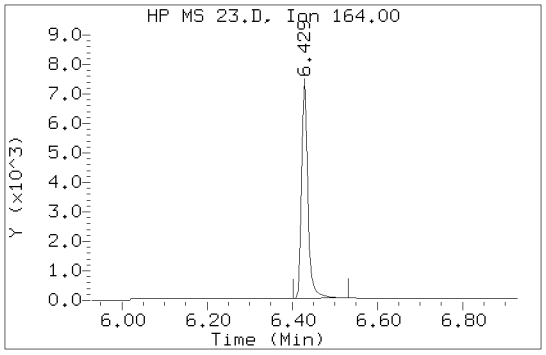
BEFORE

MASS
164
AREA
8455
HEIGHT
7488
26-Jan-2023
18:48
ALSHS
Server



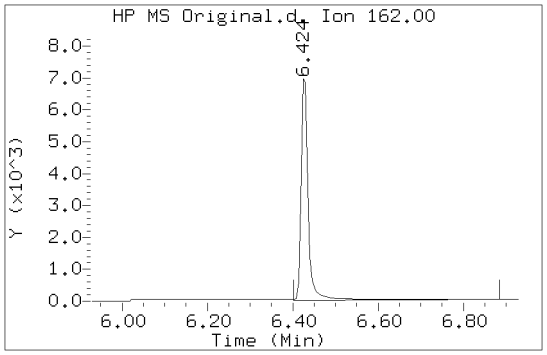
AFTER

MASS
164
AREA
7780
HEIGHT
7452
27-Jan-2023
11:55



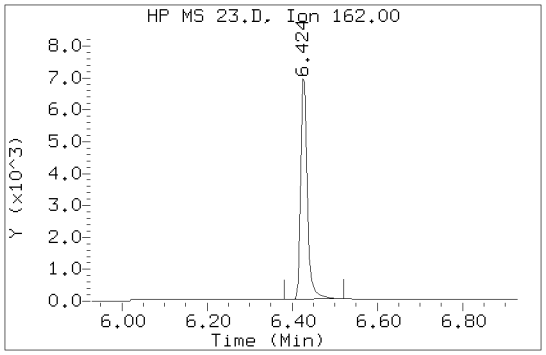
BEFORE

MASS
162
AREA
8373
HEIGHT
6943
26-Jan-2023
18:48
ALSHS
Server



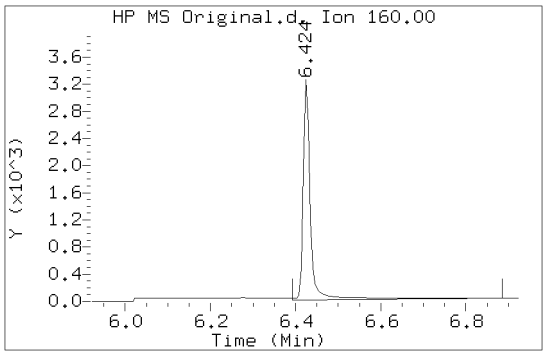
AFTER

MASS
162
AREA
7710
HEIGHT
6908
27-Jan-2023
11:55



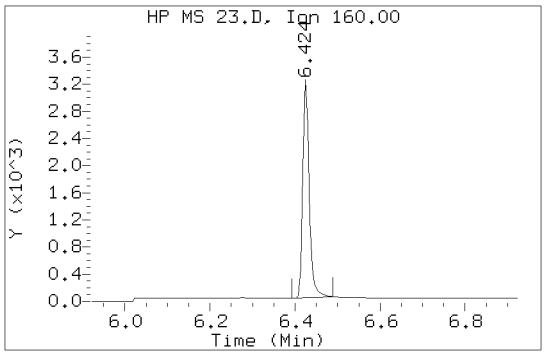
BEFORE

MASS
160
AREA
3831
HEIGHT
3245
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
160
AREA
3286
HEIGHT
3212
27-Jan-2023
11:55



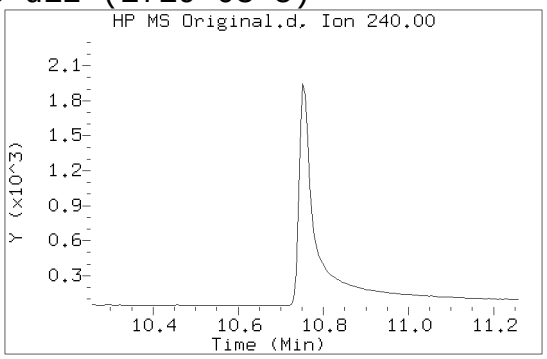
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

Chrysene-d12 (1719-03-5)

Reason Code:

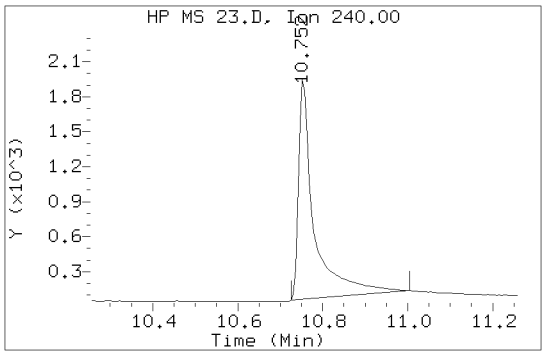
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



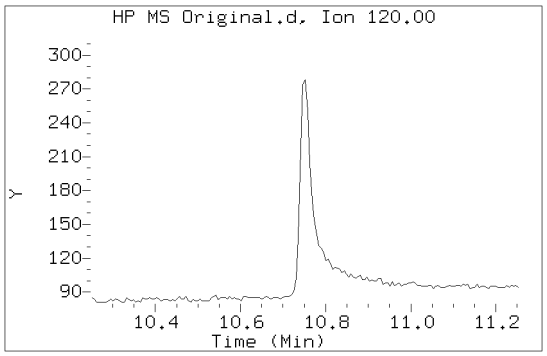
AFTER

MASS
240
AREA
4829
HEIGHT
1883
27-Jan-2023
11:55



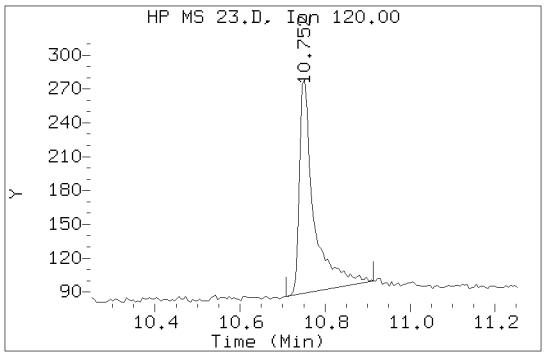
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



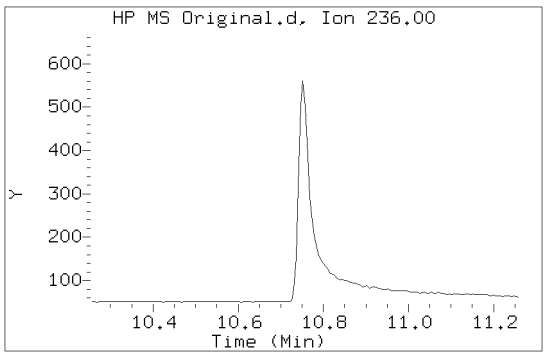
AFTER

MASS
120
AREA
446
HEIGHT
189
27-Jan-2023
11:55



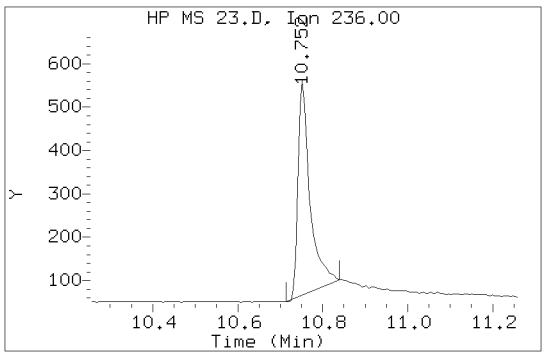
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
236
AREA
965
HEIGHT
494
27-Jan-2023
11:55

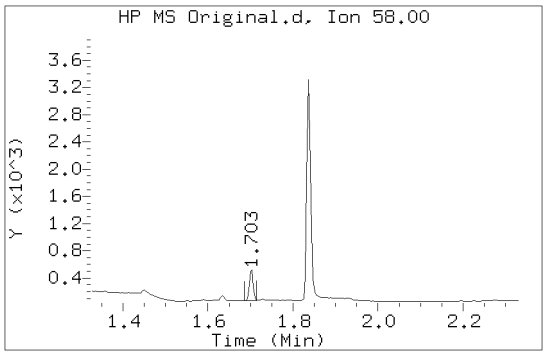


1,4-Dioxane ()

Reason Code:

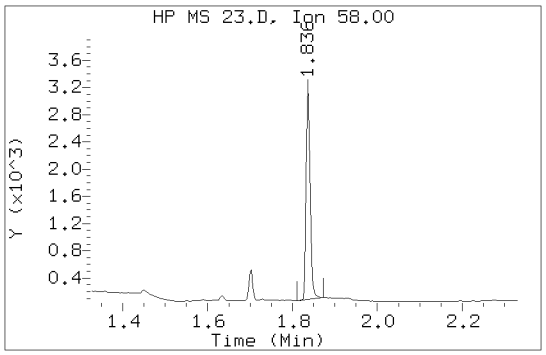
BEFORE

MASS
58
AREA
291
HEIGHT
448
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
58
AREA
2048
HEIGHT
3226
27-Jan-2023
11:55

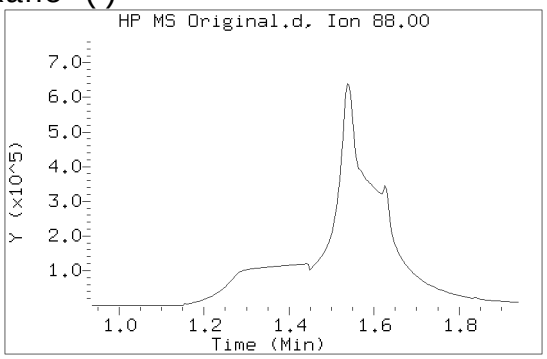


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

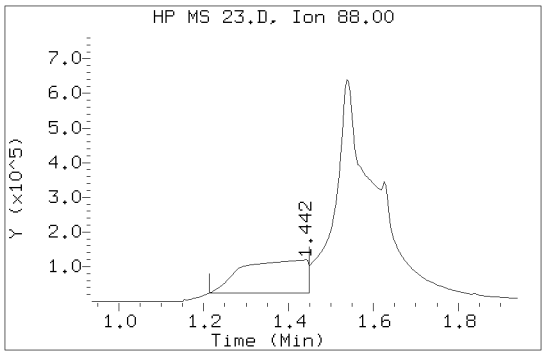
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



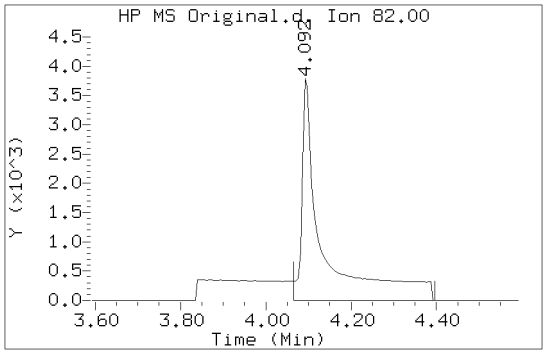
AFTER
MASS
88
AREA
1010072
HEIGHT
96120
27-Jan-2023
11:55



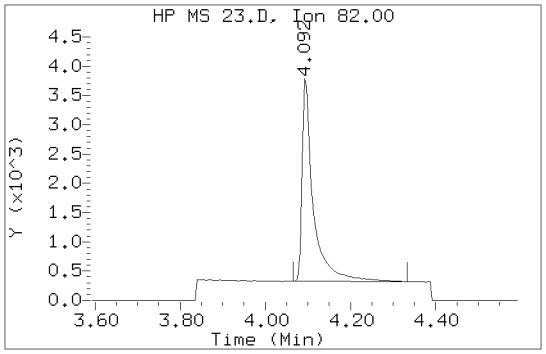
Nitrobenzene-d5 (4165-60-0)

Reason Code:

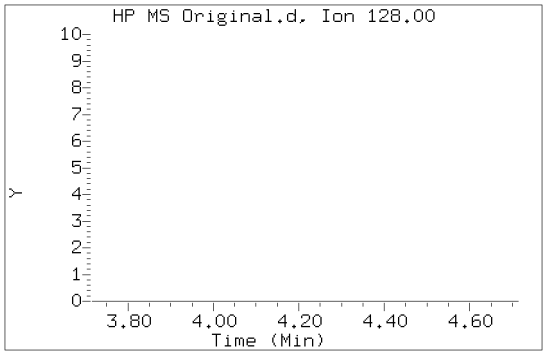
BEFORE
MASS
82
AREA
12644
HEIGHT
3788
26-Jan-2023
18:48
ALSHS
Server



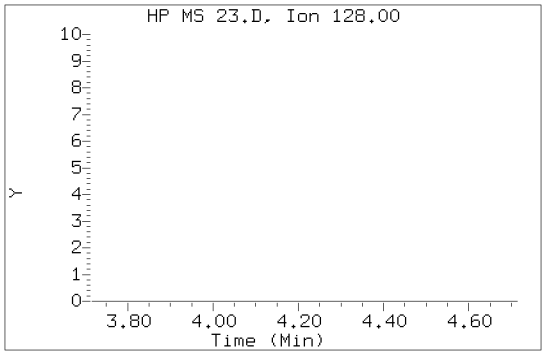
AFTER
MASS
82
AREA
6376
HEIGHT
3464
27-Jan-2023
11:55



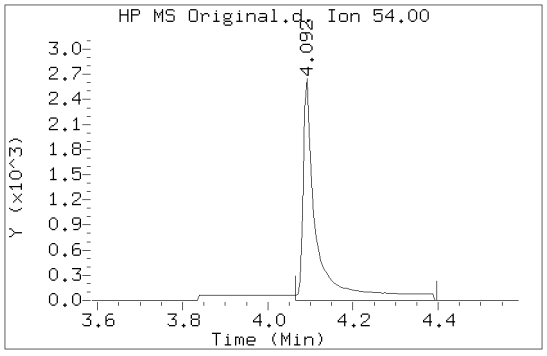
BEFORE
MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



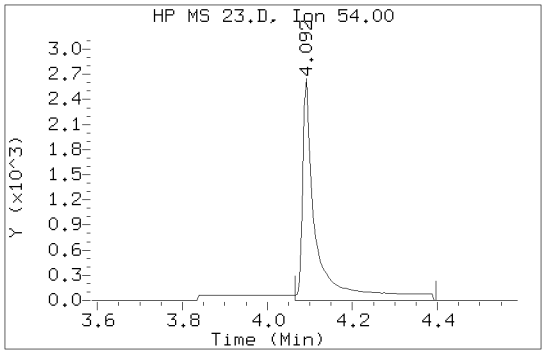
AFTER
MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



BEFORE
MASS
54
AREA
5958
HEIGHT
2647
26-Jan-2023
18:48
ALSHS
Server



AFTER
MASS
54
AREA
5958
HEIGHT
2647
27-Jan-2023
11:55



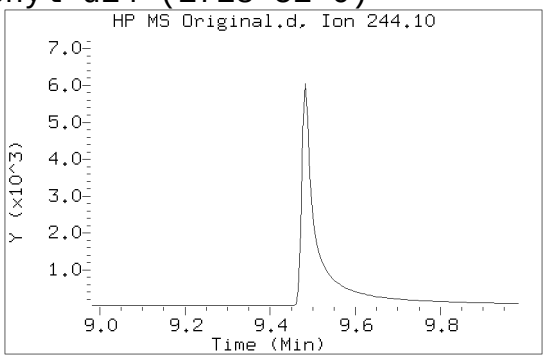
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

4-Terphenyl-d14 (1718-51-0)

Reason Code:

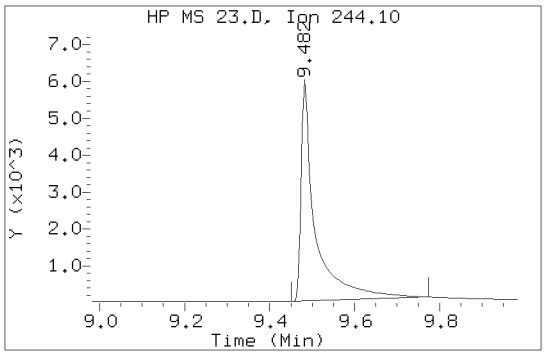
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



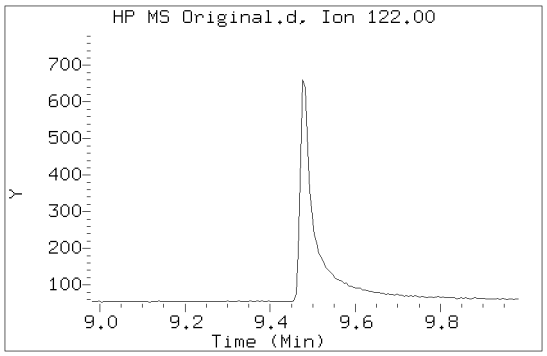
AFTER

MASS
244.1
AREA
13832
HEIGHT
5991
27-Jan-2023
11:55



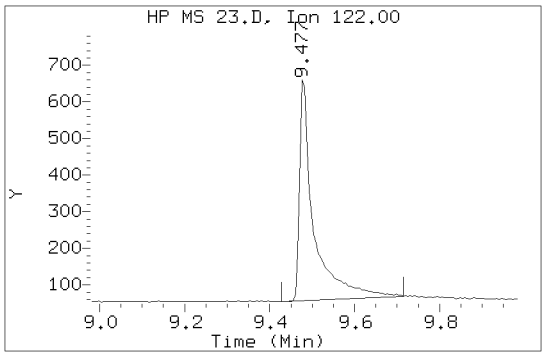
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



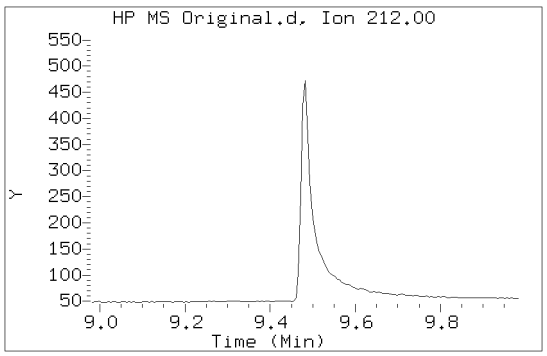
AFTER

MASS
122
AREA
1402
HEIGHT
602
27-Jan-2023
11:55



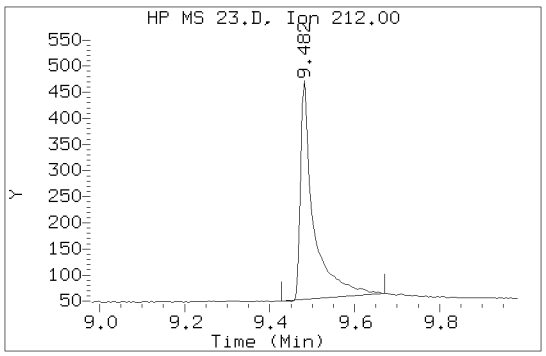
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
212
AREA
891
HEIGHT
418
27-Jan-2023
11:55

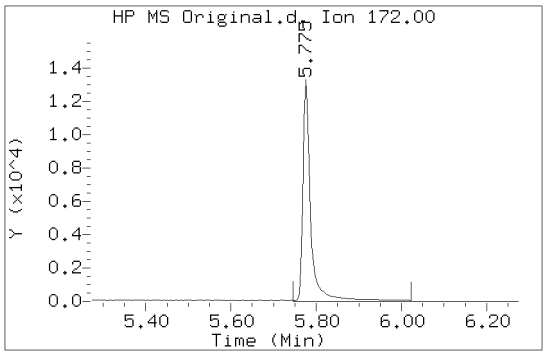


2-Fluorobiphenyl (321-60-8)

Reason Code:

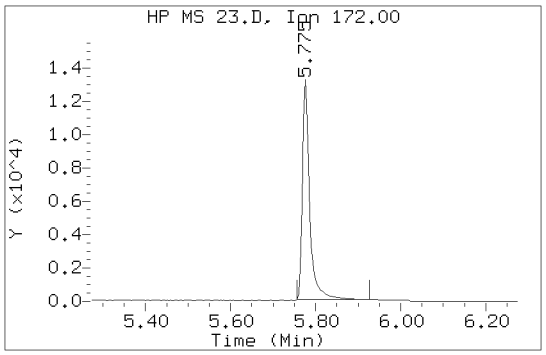
BEFORE

MASS
172
AREA
17229
HEIGHT
13310
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
172
AREA
15591
HEIGHT
13200
27-Jan-2023
11:55



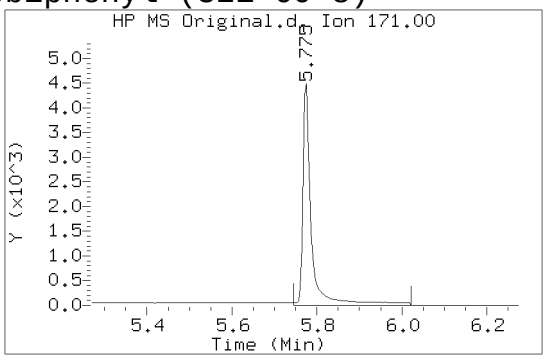
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

2-Fluorobiphenyl (321-60-8)

Reason Code:

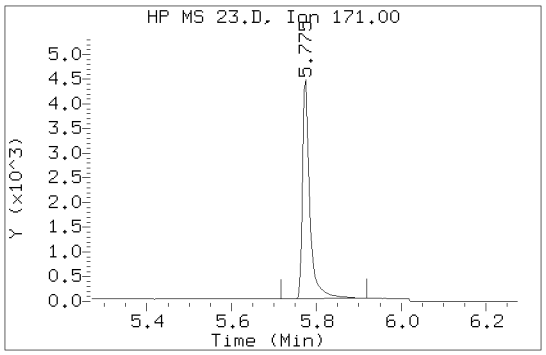
BEFORE

MASS
171
AREA
6311
HEIGHT
4491
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
171
AREA
5369
HEIGHT
4439
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Lab Smp Id: 1 4-DX-0.2 Client Smp ID: 1 4-DX-0.2
Inj Date : 26-JAN-2023 18:51
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.2;1 4-DX-0.2
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:34 Cal File: 23.D
Als bottle: 23 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	5356	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	18077	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	11045	0.20000	0.2118(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	10240	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	27466	0.20000	0.2044(AM)
* 126 Phenanthrene-d10	188	7.885	7.885	(1.000)	19448	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5776	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	24628	0.20000	0.2089(AM)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	5116	0.10000	
1 1,4-Dioxane	58	1.854	1.854	(0.512)	3683	0.20000	0.1885(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01209851

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D

Date : 26-JAN-2023 18:51

Client ID: 1 4-DX-0.2

Instrument: SV6.i

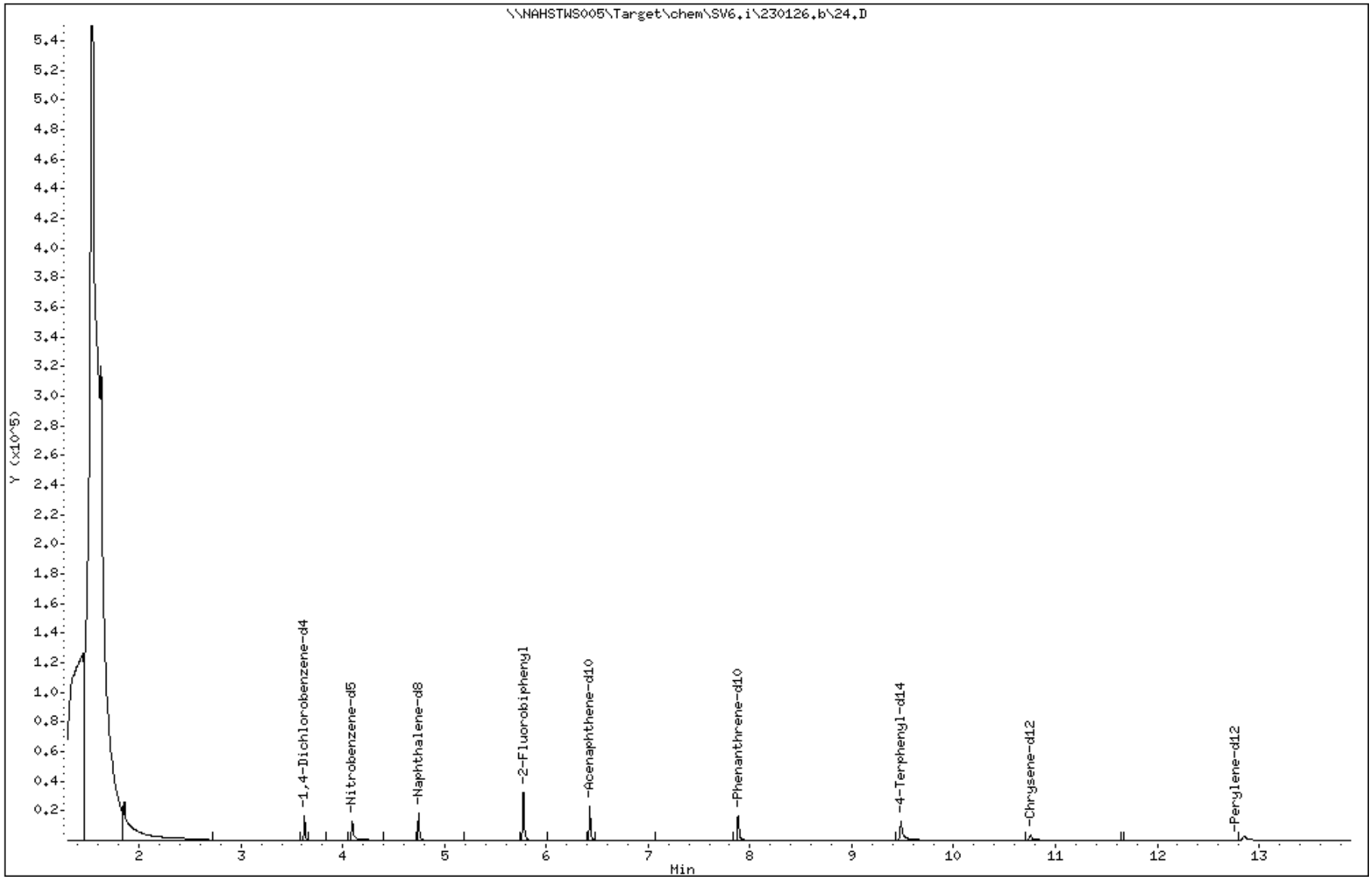
Sample Info: 1 4-DX-0.2;1 4-DX-0.2

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



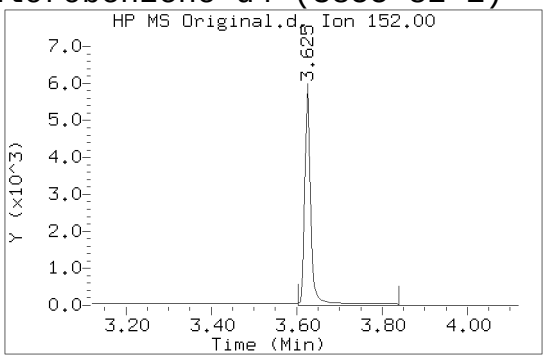
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

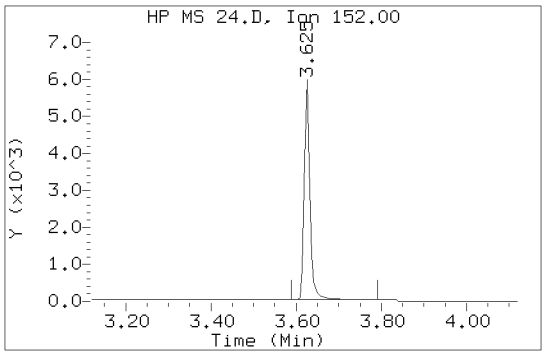
BEFORE

MASS
152
AREA
6088
HEIGHT
5993
26-Jan-2023
19:06
ALSHS
Server



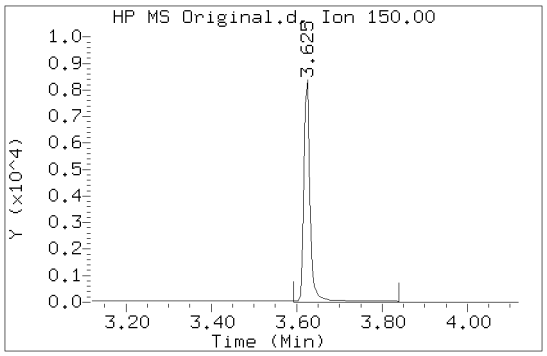
AFTER

MASS
152
AREA
5356
HEIGHT
5942
27-Jan-2023
11:55



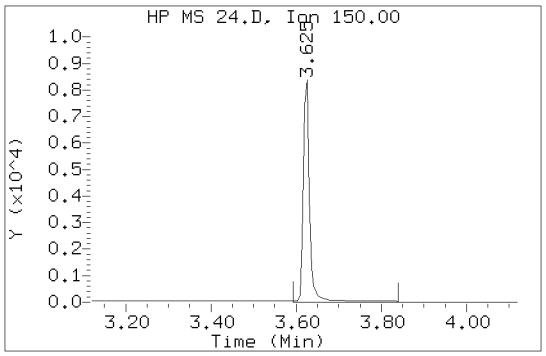
BEFORE

MASS
150
AREA
8795
HEIGHT
8381
26-Jan-2023
19:06
ALSHS
Server



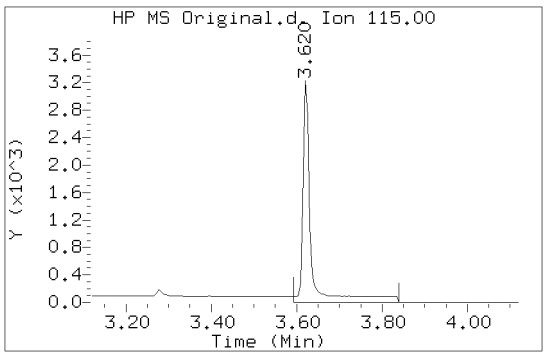
AFTER

MASS
150
AREA
8795
HEIGHT
8381
27-Jan-2023
11:55



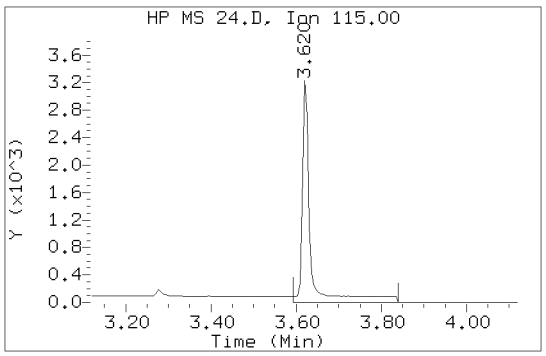
BEFORE

MASS
115
AREA
4214
HEIGHT
3230
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
115
AREA
4214
HEIGHT
3230
27-Jan-2023
11:55

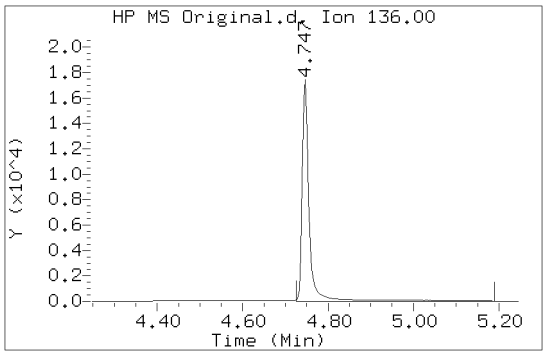


Naphthalene-d8 (1146-65-2)

Reason Code:

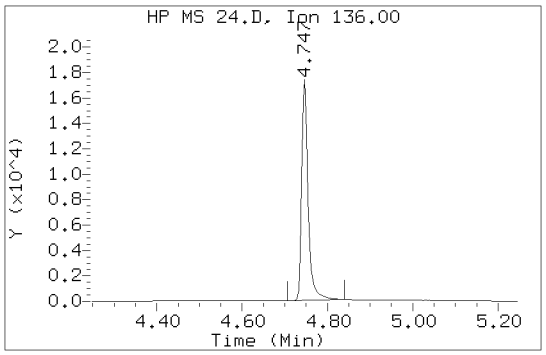
BEFORE

MASS
136
AREA
20575
HEIGHT
17440
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
136
AREA
18077
HEIGHT
17352
27-Jan-2023
11:55



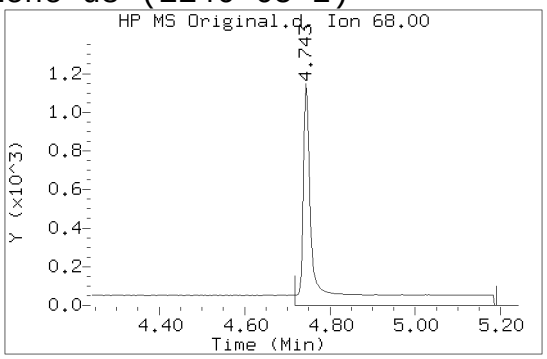
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Naphthalene-d8 (1146-65-2)

Reason Code:

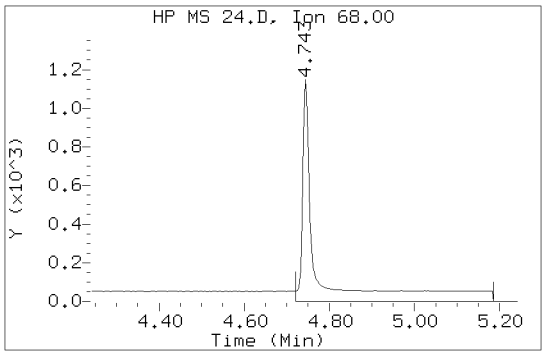
BEFORE

MASS
68
AREA
2661
HEIGHT
1148
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
68
AREA
2649
HEIGHT
1148
27-Jan-2023
11:55

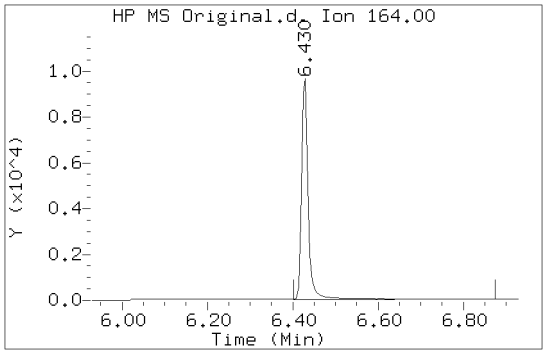


Acenaphthene-d10 (15067-26-2)

Reason Code:

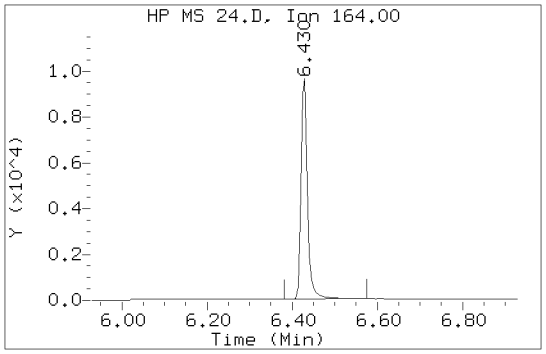
BEFORE

MASS
164
AREA
10835
HEIGHT
9644
26-Jan-2023
19:06
ALSHS
Server



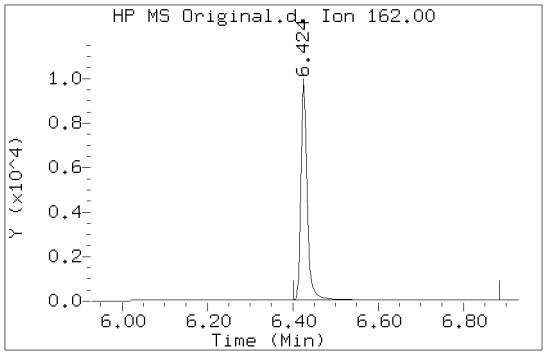
AFTER

MASS
164
AREA
10240
HEIGHT
9610
27-Jan-2023
11:55



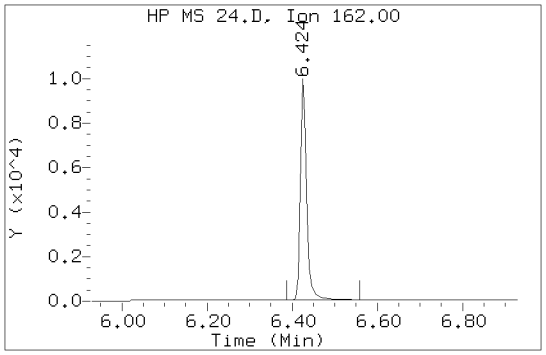
BEFORE

MASS
162
AREA
10270
HEIGHT
9933
26-Jan-2023
19:06
ALSHS
Server



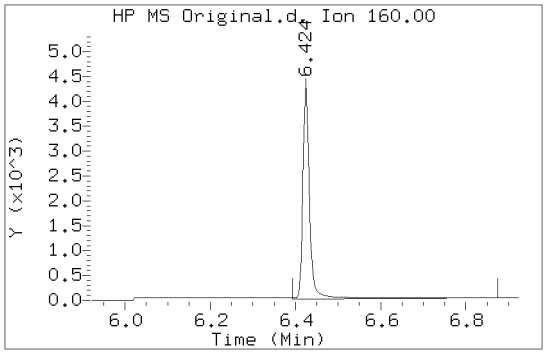
AFTER

MASS
162
AREA
10161
HEIGHT
9932
27-Jan-2023
11:55



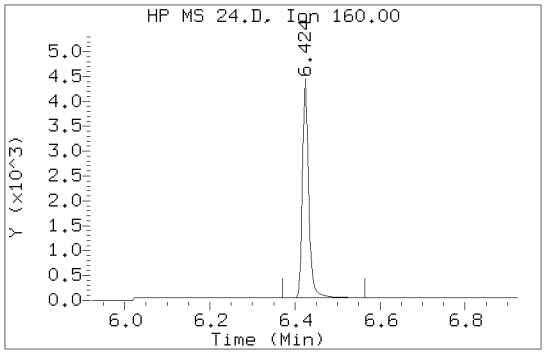
BEFORE

MASS
160
AREA
4853
HEIGHT
4435
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
160
AREA
4390
HEIGHT
4408
27-Jan-2023
11:55



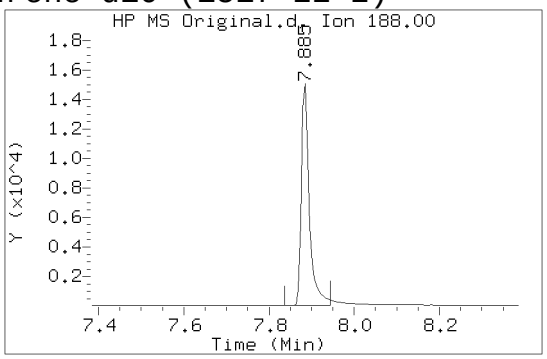
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Phenanthrene-d10 (1517-22-2)

Reason Code:

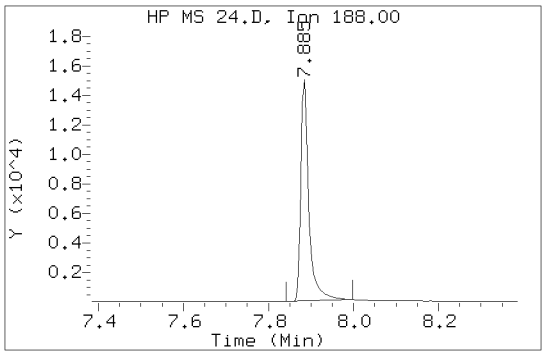
BEFORE

MASS
188
AREA
19386
HEIGHT
15029
26-Jan-2023
19:06
ALSHS
Server



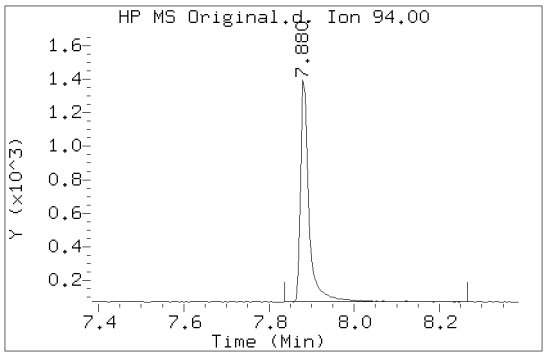
AFTER

MASS
188
AREA
19448
HEIGHT
14998
27-Jan-2023
11:55



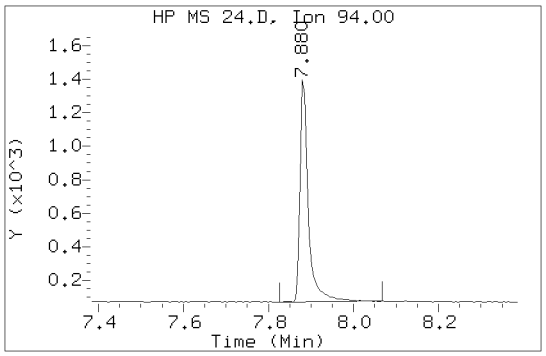
BEFORE

MASS
94
AREA
1839
HEIGHT
1327
26-Jan-2023
19:06
ALSHS
Server



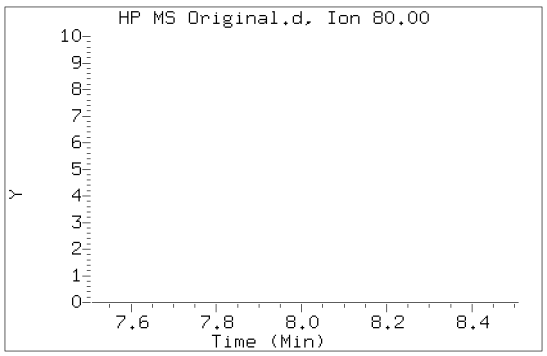
AFTER

MASS
94
AREA
1800
HEIGHT
1326
27-Jan-2023
11:55



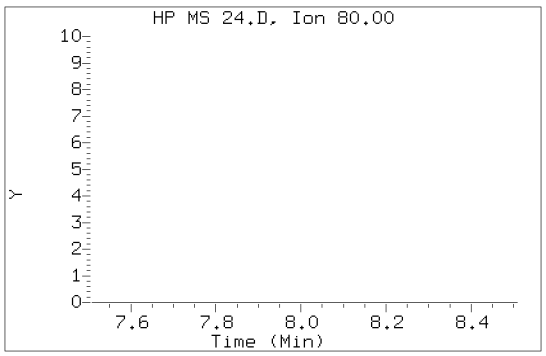
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

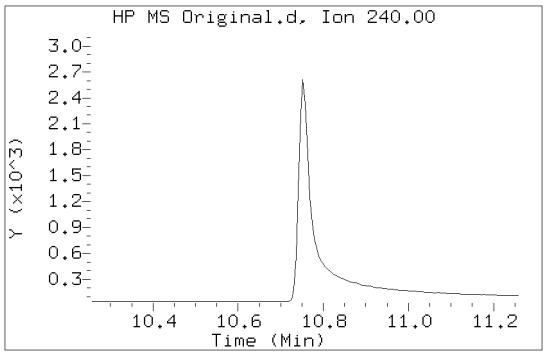


Chrysene-d12 (1719-03-5)

Reason Code:

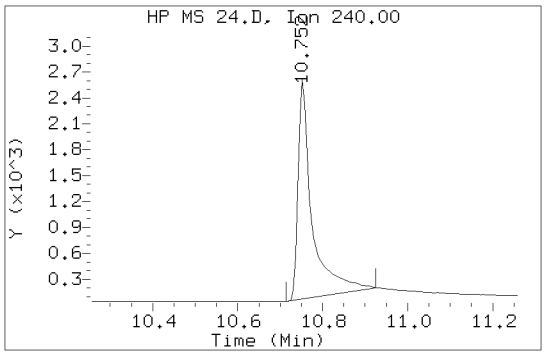
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
240
AREA
5776
HEIGHT
2533
27-Jan-2023
11:55

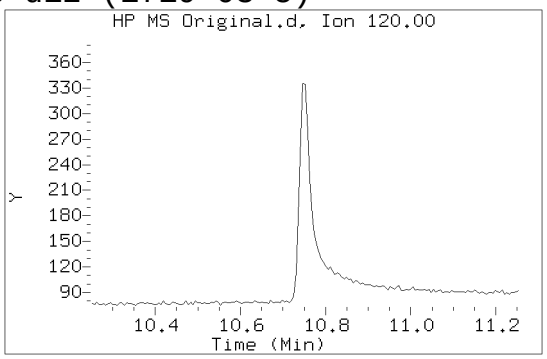


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

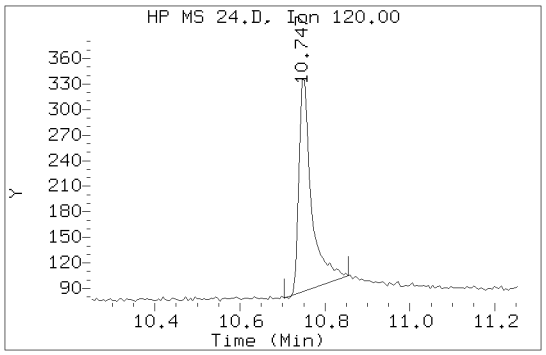
Chrysene-d12 (1719-03-5)

Reason Code:

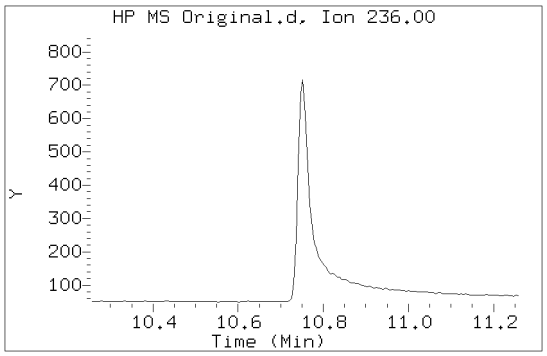
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



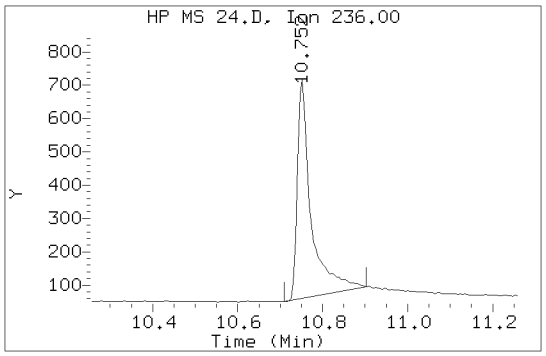
AFTER
MASS
120
AREA
511
HEIGHT
248
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



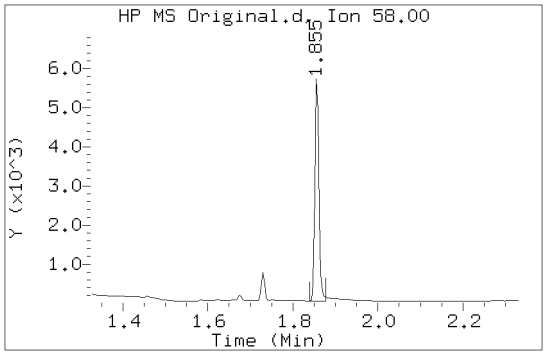
AFTER
MASS
236
AREA
1471
HEIGHT
655
27-Jan-2023
11:55



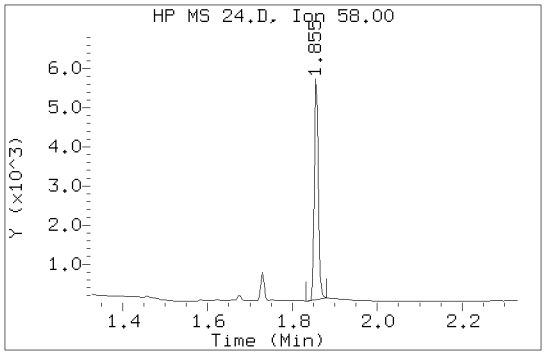
1,4-Dioxane ()

Reason Code:

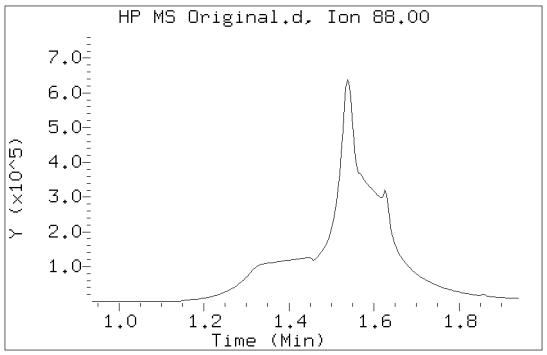
BEFORE
MASS
58
AREA
3790
HEIGHT
5675
26-Jan-2023
19:06
ALSHS
Server



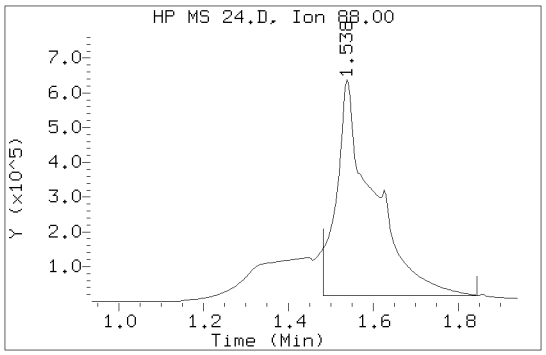
AFTER
MASS
58
AREA
3683
HEIGHT
5638
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER
MASS
88
AREA
3747570
HEIGHT
620736
27-Jan-2023
11:55



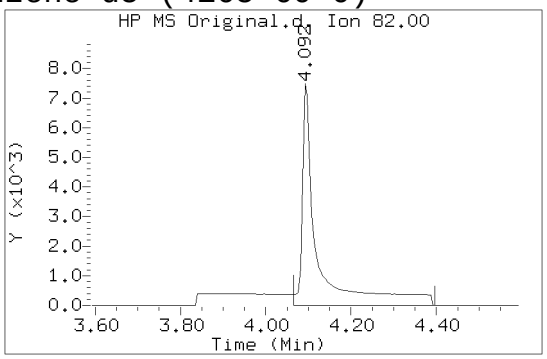
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Nitrobenzene-d5 (4165-60-0)

Reason Code:

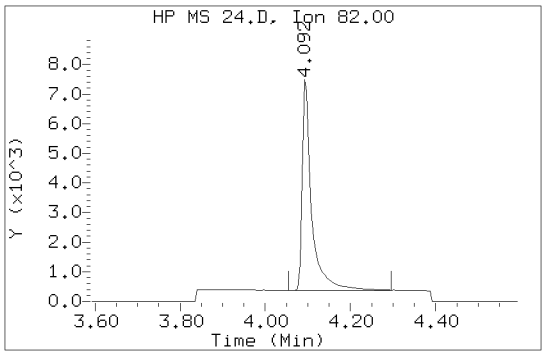
BEFORE

MASS
82
AREA
18228
HEIGHT
7484
26-Jan-2023
19:06
ALSHS
Server



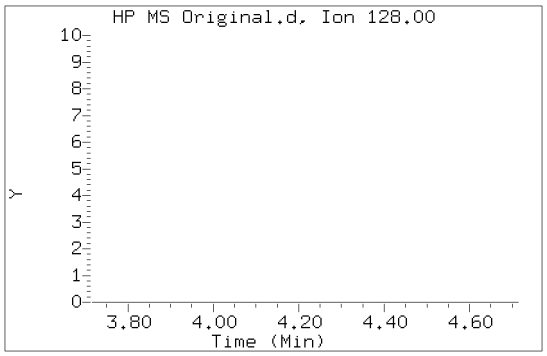
AFTER

MASS
82
AREA
11045
HEIGHT
7114
27-Jan-2023
11:55



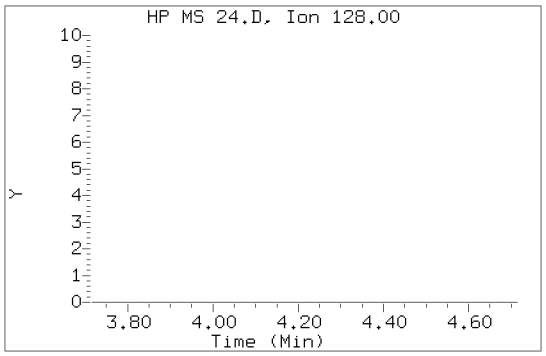
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



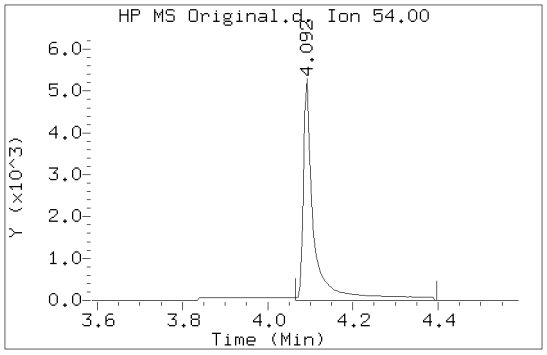
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



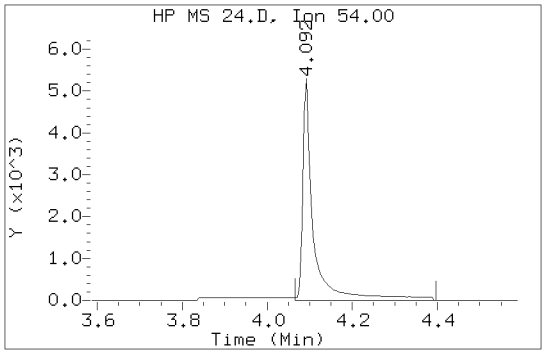
BEFORE

MASS
54
AREA
9366
HEIGHT
5295
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
54
AREA
9366
HEIGHT
5295
27-Jan-2023
11:55

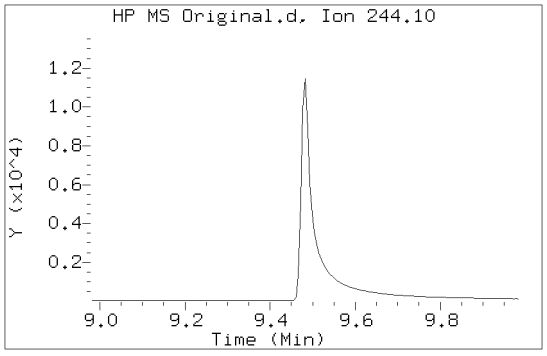


4-Terphenyl-d14 (1718-51-0)

Reason Code:

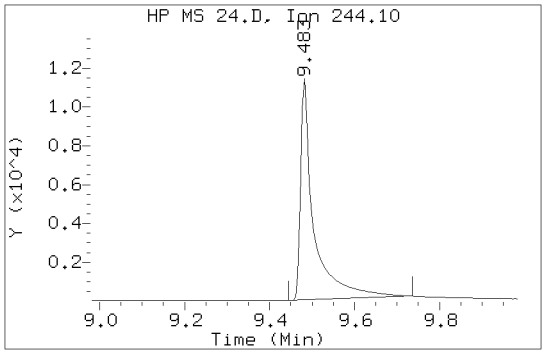
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
244.1
AREA
24628
HEIGHT
11383
27-Jan-2023
11:55



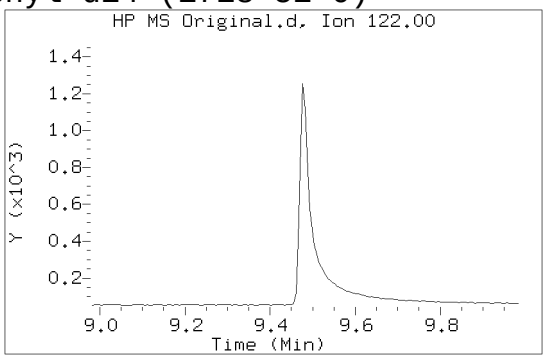
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

4-Terphenyl-d14 (1718-51-0)

Reason Code:

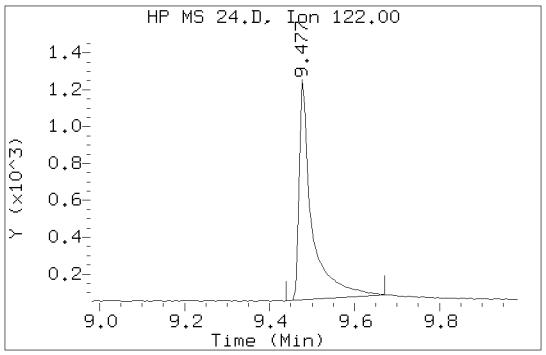
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



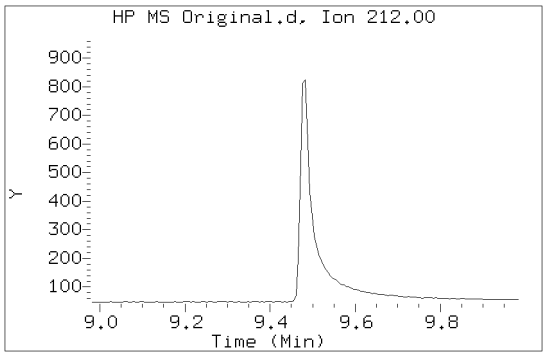
AFTER

MASS
122
AREA
2466
HEIGHT
1193
27-Jan-2023
11:55



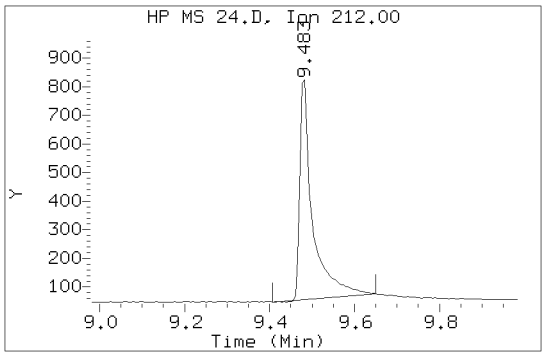
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
212
AREA
1594
HEIGHT
767
27-Jan-2023
11:55

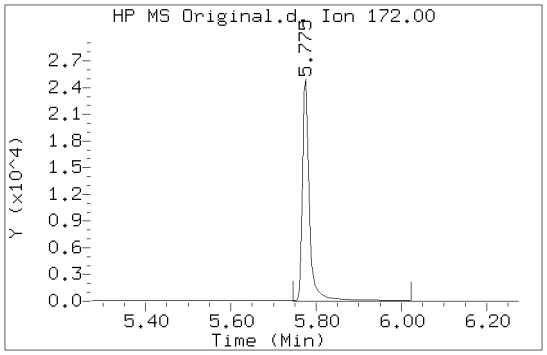


2-Fluorobiphenyl (321-60-8)

Reason Code:

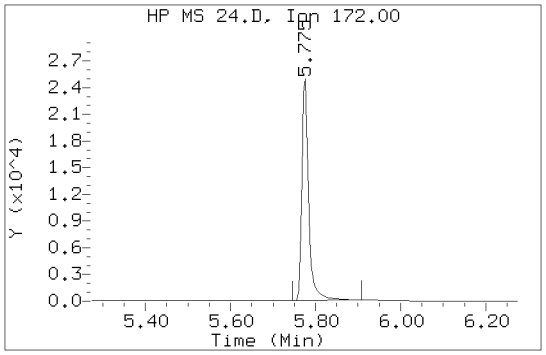
BEFORE

MASS
172
AREA
29099
HEIGHT
24976
26-Jan-2023
19:06
ALSHS
Server



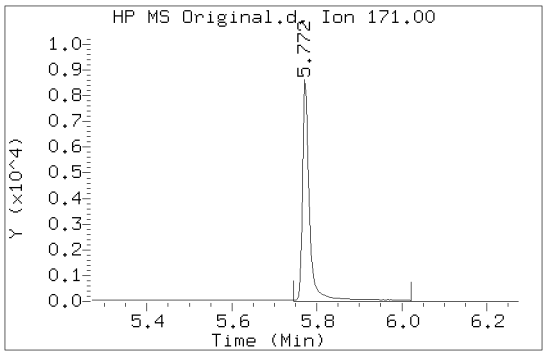
AFTER

MASS
172
AREA
27466
HEIGHT
24904
27-Jan-2023
11:55



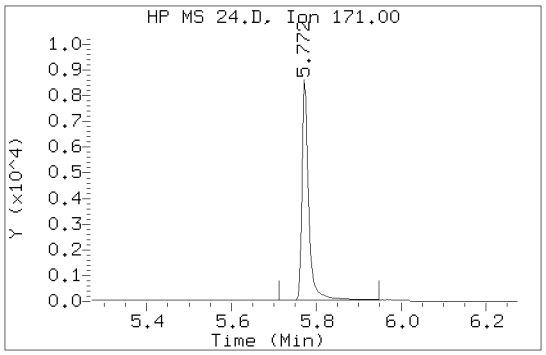
BEFORE

MASS
171
AREA
10346
HEIGHT
8624
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
171
AREA
9413
HEIGHT
8573
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D Page 1
Report Date: 27-Jan-2023 11:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Lab Smp Id: 1 4-DX-0.5 Client Smp ID: 1 4-DX-0.5
Inj Date : 26-JAN-2023 19:09
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.5;1 4-DX-0.5
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:56 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:51 Cal File: 24.D
Als bottle: 24 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	3987	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	13771	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	20261	0.50000	0.5099(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	7556	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	51391	0.50000	0.5182(AM)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15367	0.10000	
* 182 Chrysene-d12	240	10.757	10.757	(1.000)	3979	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.881)	48596	0.50000	0.4992(AM)
* 198 Perylene-d12	264	12.862	12.862	(1.000)	3426	0.10000	
1 1,4-Dioxane	58	1.828	1.828	(0.505)	6578	0.50000	0.4523(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01209860

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D

Date : 26-JAN-2023 19:09

Client ID: 1 4-DX-0.5

Instrument: SV6.i

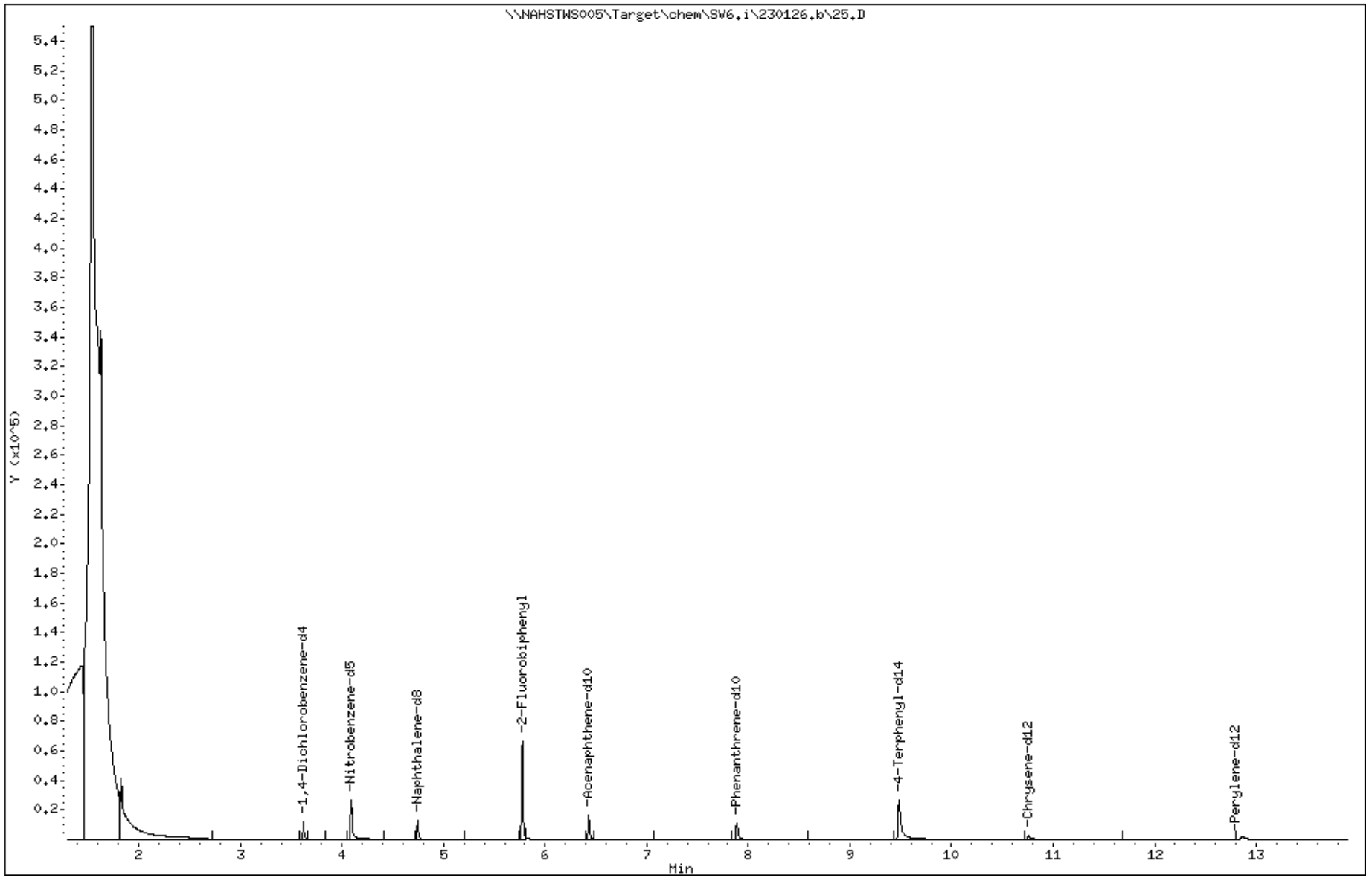
Sample Info: 1 4-DX-0.5;1 4-DX-0.5

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

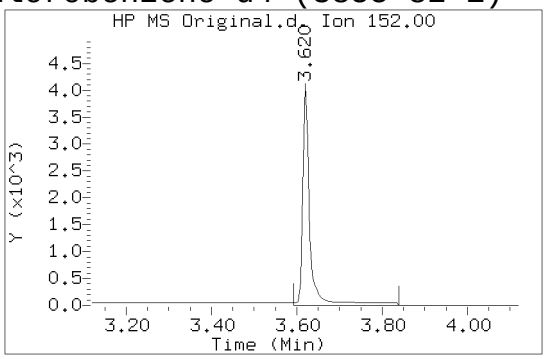


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

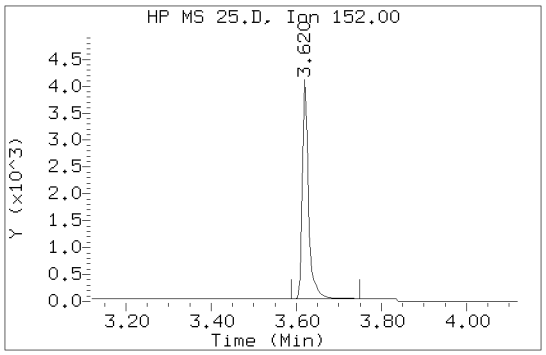
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

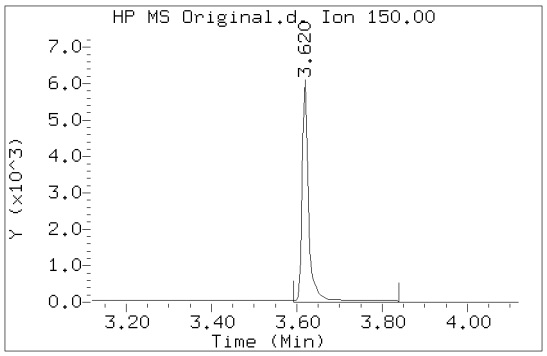
BEFORE
MASS
152
AREA
4746
HEIGHT
4125
26-Jan-2023
19:25
ALSHS
Server



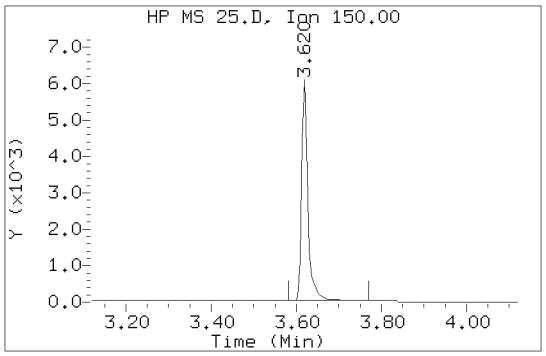
AFTER
MASS
152
AREA
3987
HEIGHT
4075
27-Jan-2023
11:55



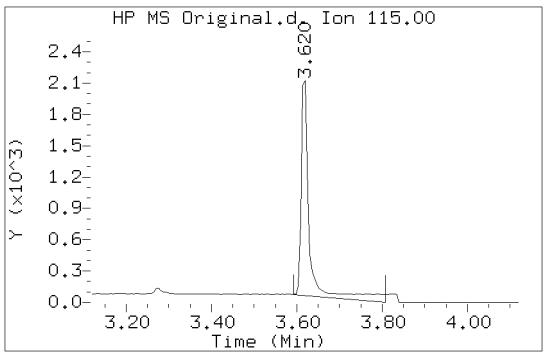
BEFORE
MASS
150
AREA
6719
HEIGHT
6101
26-Jan-2023
19:25
ALSHS
Server



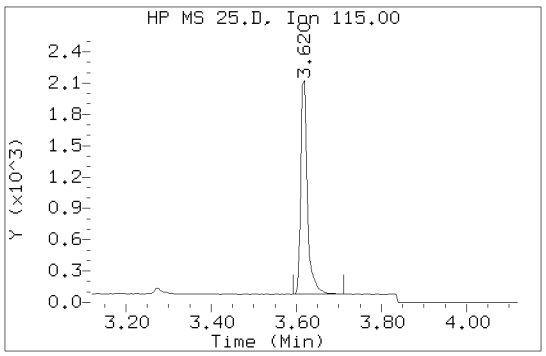
AFTER
MASS
150
AREA
5981
HEIGHT
6052
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
2721
HEIGHT
2057
26-Jan-2023
19:25
ALSHS
Server



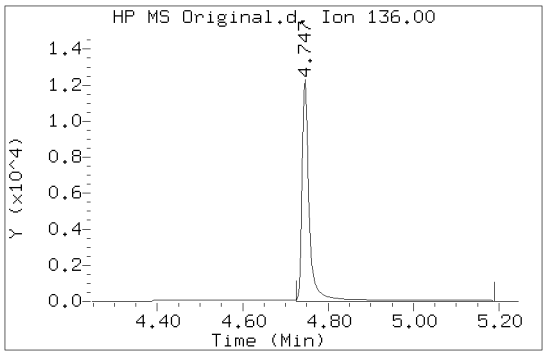
AFTER
MASS
115
AREA
2196
HEIGHT
2045
27-Jan-2023
11:55



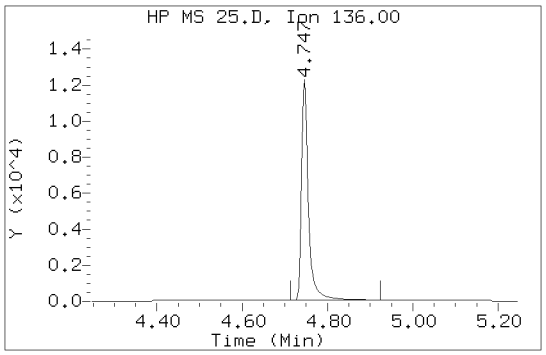
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
15738
HEIGHT
12301
26-Jan-2023
19:25
ALSHS
Server



AFTER
MASS
136
AREA
13771
HEIGHT
12236
27-Jan-2023
11:55



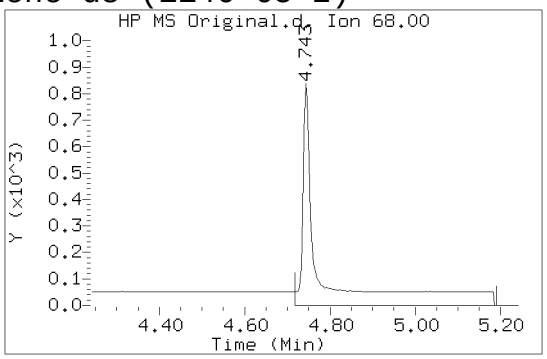
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

Naphthalene-d8 (1146-65-2)

Reason Code:

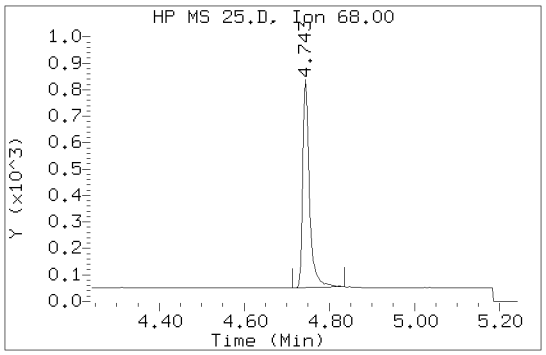
BEFORE

MASS
68
AREA
2324
HEIGHT
838
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
68
AREA
859
HEIGHT
785
27-Jan-2023
11:55

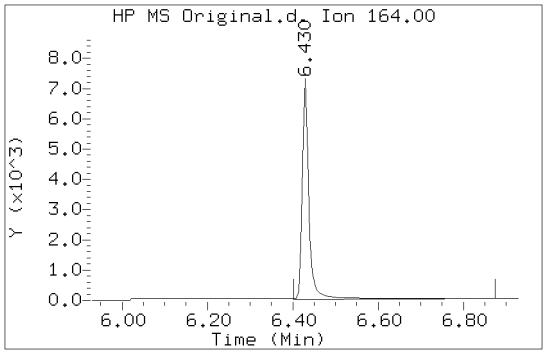


Acenaphthene-d10 (15067-26-2)

Reason Code:

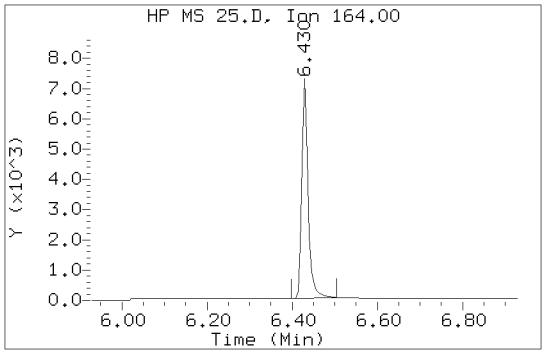
BEFORE

MASS
164
AREA
8287
HEIGHT
7297
26-Jan-2023
19:25
ALSHS
Server



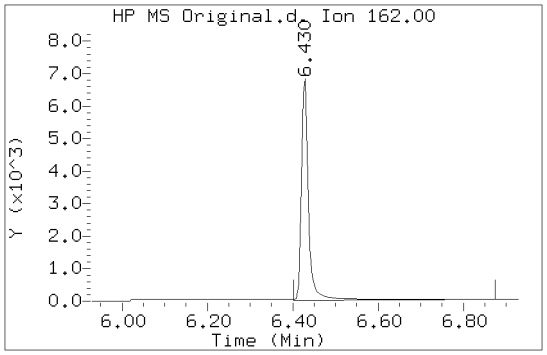
AFTER

MASS
164
AREA
7556
HEIGHT
7256
27-Jan-2023
11:55



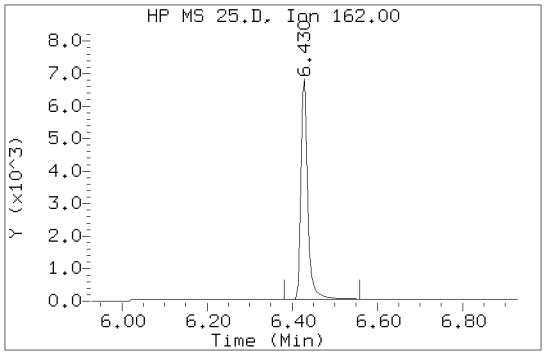
BEFORE

MASS
162
AREA
8184
HEIGHT
6810
26-Jan-2023
19:25
ALSHS
Server



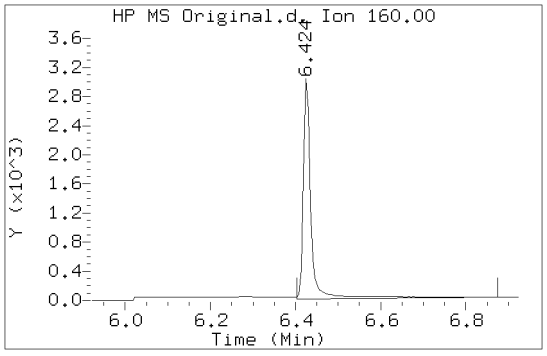
AFTER

MASS
162
AREA
7631
HEIGHT
6780
27-Jan-2023
11:55



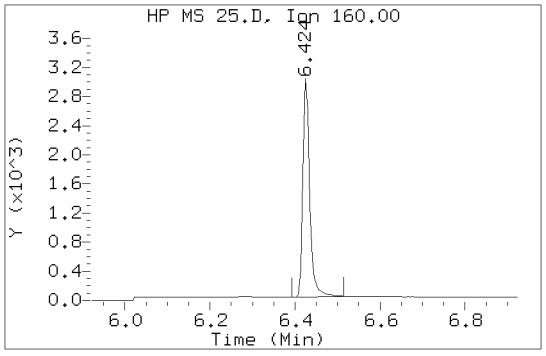
BEFORE

MASS
160
AREA
3710
HEIGHT
3023
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
160
AREA
3264
HEIGHT
2996
27-Jan-2023
11:55

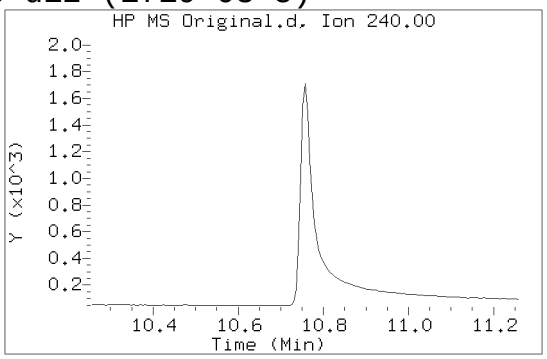


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

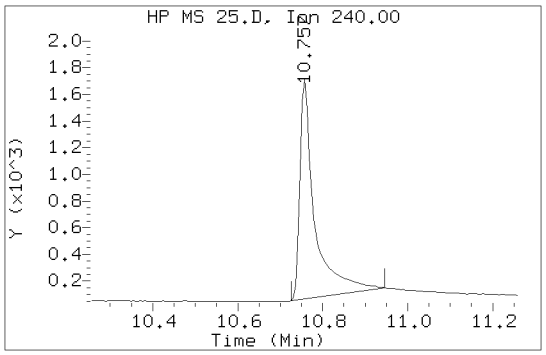
Chrysene-d12 (1719-03-5)

Reason Code:

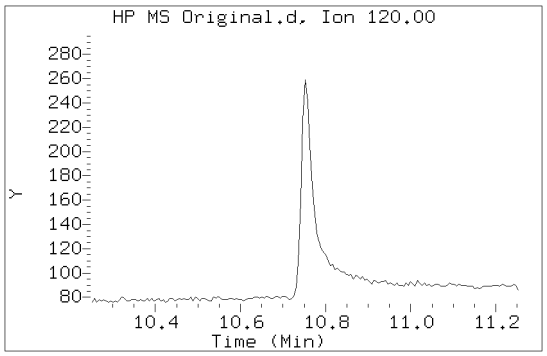
BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



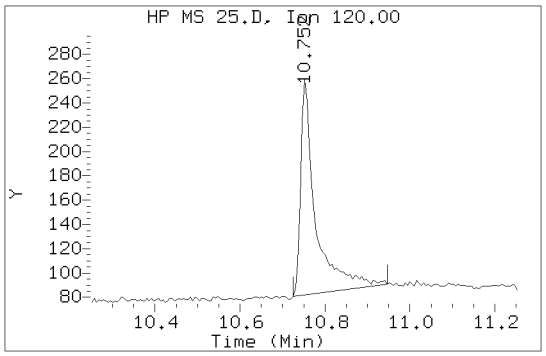
AFTER
MASS
240
AREA
3979
HEIGHT
1644
27-Jan-2023
11:55



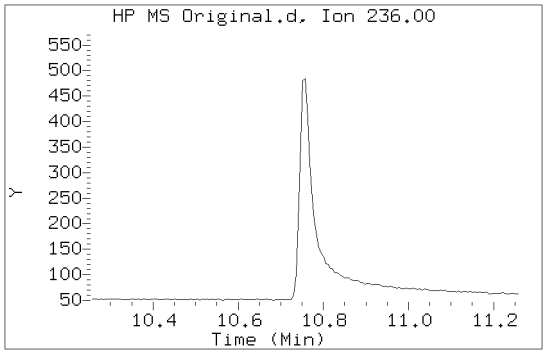
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



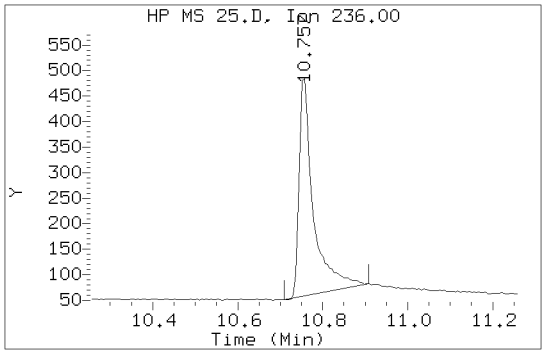
AFTER
MASS
120
AREA
428
HEIGHT
176
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



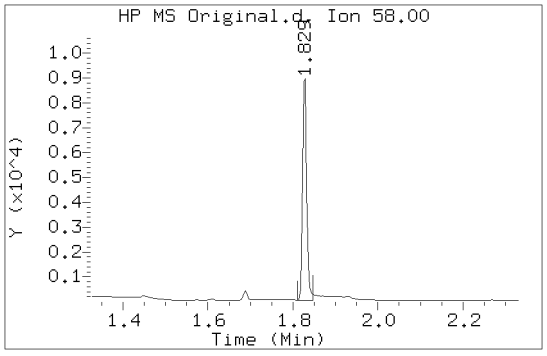
AFTER
MASS
236
AREA
988
HEIGHT
425
27-Jan-2023
11:55



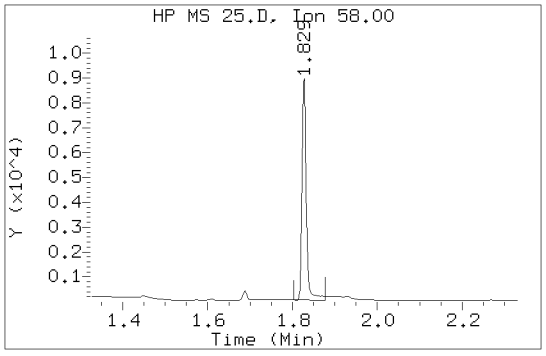
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
6279
HEIGHT
8907
26-Jan-2023
19:25
ALSHS
Server



AFTER
MASS
58
AREA
6578
HEIGHT
8904
27-Jan-2023
11:55



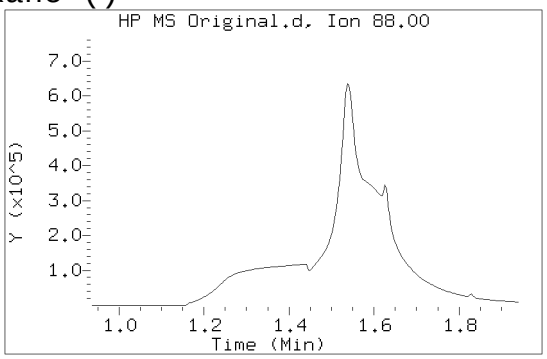
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

1,4-Dioxane ()

Reason Code:

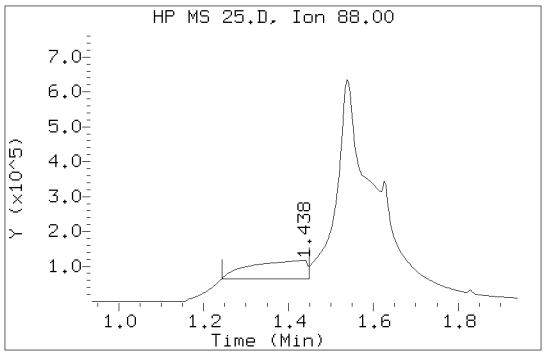
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
88
AREA
479995
HEIGHT
52208
27-Jan-2023
11:55

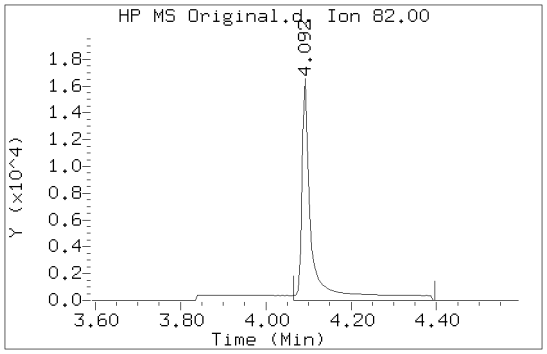


Nitrobenzene-d5 (4165-60-0)

Reason Code:

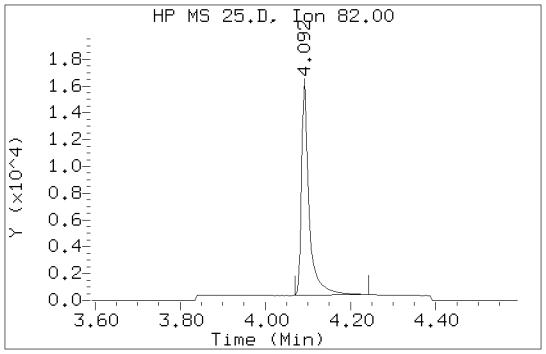
BEFORE

MASS
82
AREA
27706
HEIGHT
16544
26-Jan-2023
19:25
ALSHS
Server



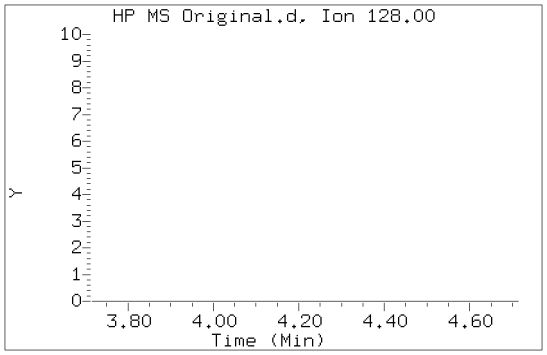
AFTER

MASS
82
AREA
20261
HEIGHT
16172
27-Jan-2023
11:55



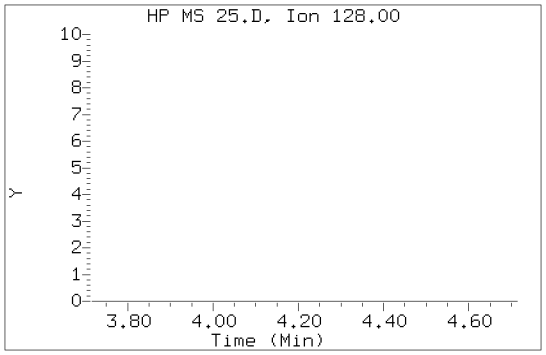
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



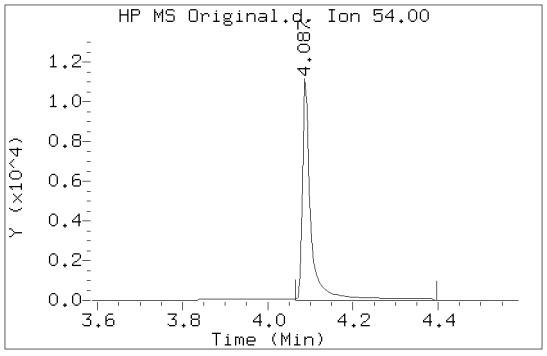
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



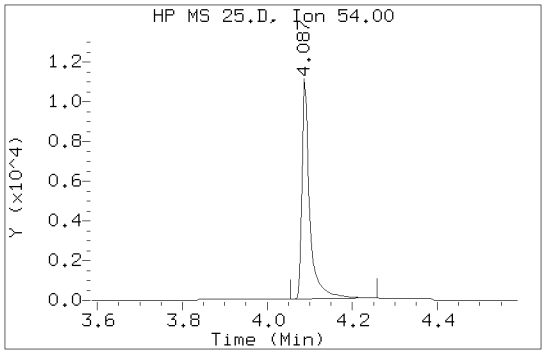
BEFORE

MASS
54
AREA
16018
HEIGHT
11163
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
54
AREA
14306
HEIGHT
11091
27-Jan-2023
11:55

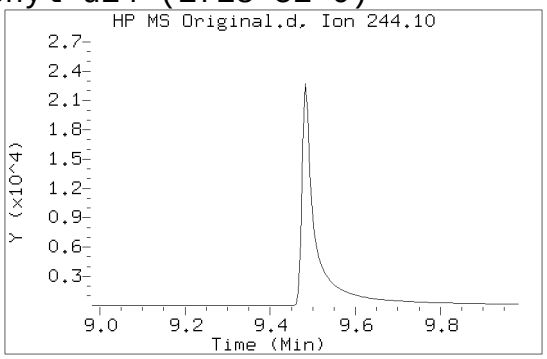


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

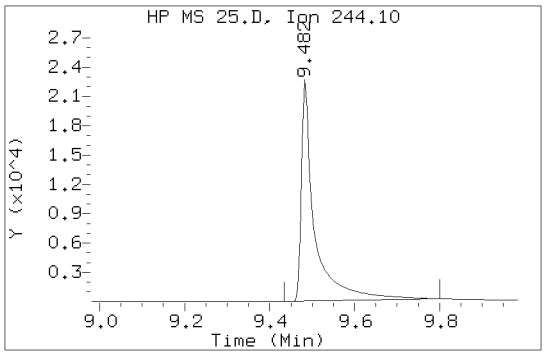
4-Terphenyl-d14 (1718-51-0)

Reason Code:

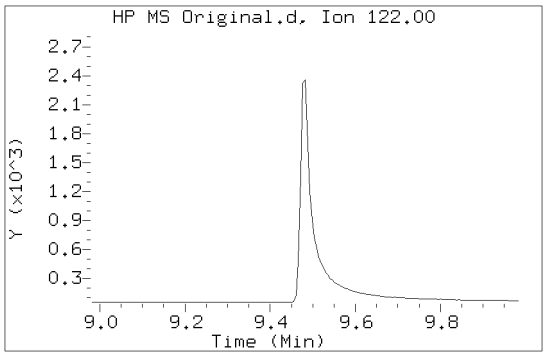
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



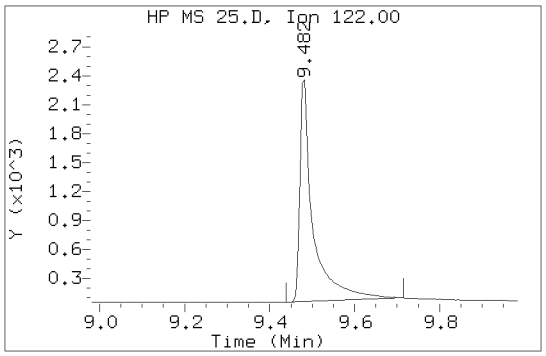
AFTER
MASS
244.1
AREA
48596
HEIGHT
22641
27-Jan-2023
11:55



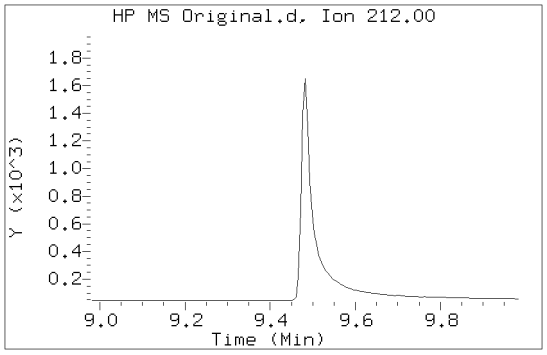
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



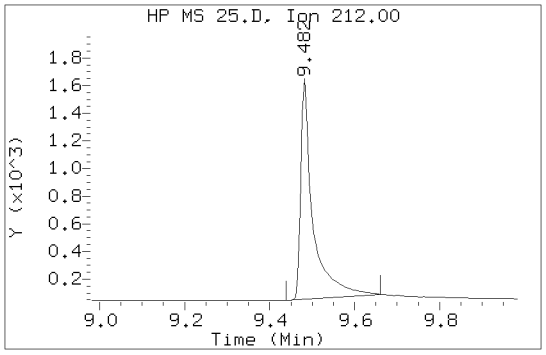
AFTER
MASS
122
AREA
4888
HEIGHT
2294
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



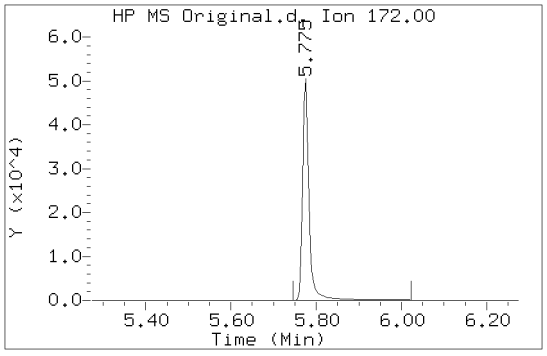
AFTER
MASS
212
AREA
3128
HEIGHT
1592
27-Jan-2023
11:55



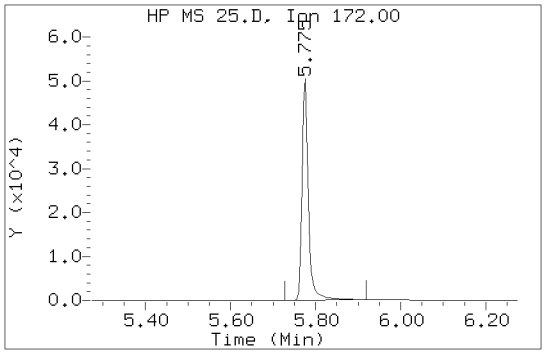
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
53226
HEIGHT
50504
26-Jan-2023
19:25
ALSHS
Server



AFTER
MASS
172
AREA
51391
HEIGHT
50425
27-Jan-2023
11:55



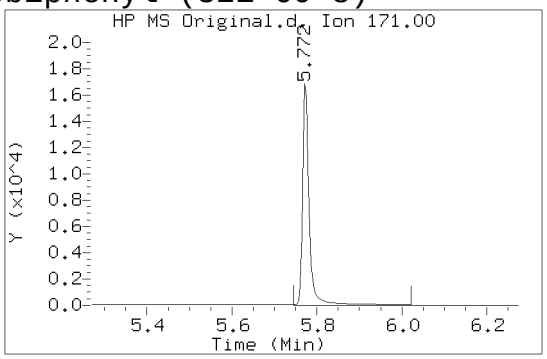
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

2-Fluorobiphenyl (321-60-8)

Reason Code:

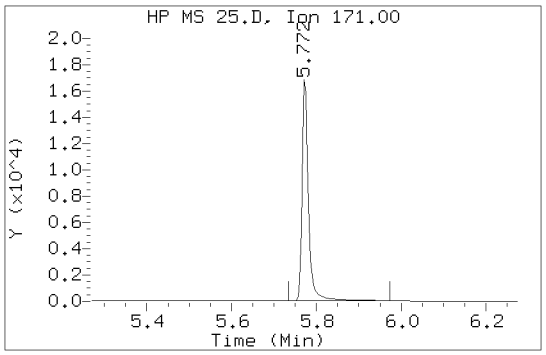
BEFORE

MASS
171
AREA
18570
HEIGHT
16864
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
171
AREA
17611
HEIGHT
16814
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Lab Smp Id: 1 4-DX-ICV Client Smp ID: 1 4-DX-ICV
Inj Date : 26-JAN-2023 19:27
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-ICV;1 4-DX-ICV;3;;METHSPIKE
Misc Info : not used
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 01-Feb-2023 16:17 Linh.Pham Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 25 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.620	(1.000)	2394	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	7860	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.091	(0.862)	1632	0.07196	0.07196(M)
* 86 Acenaphthene-d10	164	6.429	6.430	(1.000)	4607	0.10000	(QM)
$ 69 2-Fluorobiphenyl	172	5.779	5.775	(0.899)	4787	0.07917	0.07917(M)
* 126 Phenanthrene-d10	188	7.890	7.885	(1.000)	7915	0.10000	(M)
* 182 Chrysene-d12	240	10.762	10.757	(1.000)	1871	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.487	9.482	(0.882)	2907	0.08903	0.08903(M)
* 198 Perylene-d12	264	12.862	12.863	(1.000)	1224	0.10000	
1 1,4-Dioxane	58	1.799	1.829	(0.497)	304	0.03481	0.03481(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01209868

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D

Date : 26-JAN-2023 19:27

Client ID: 1 4-DX-ICV

Instrument: SV6.i

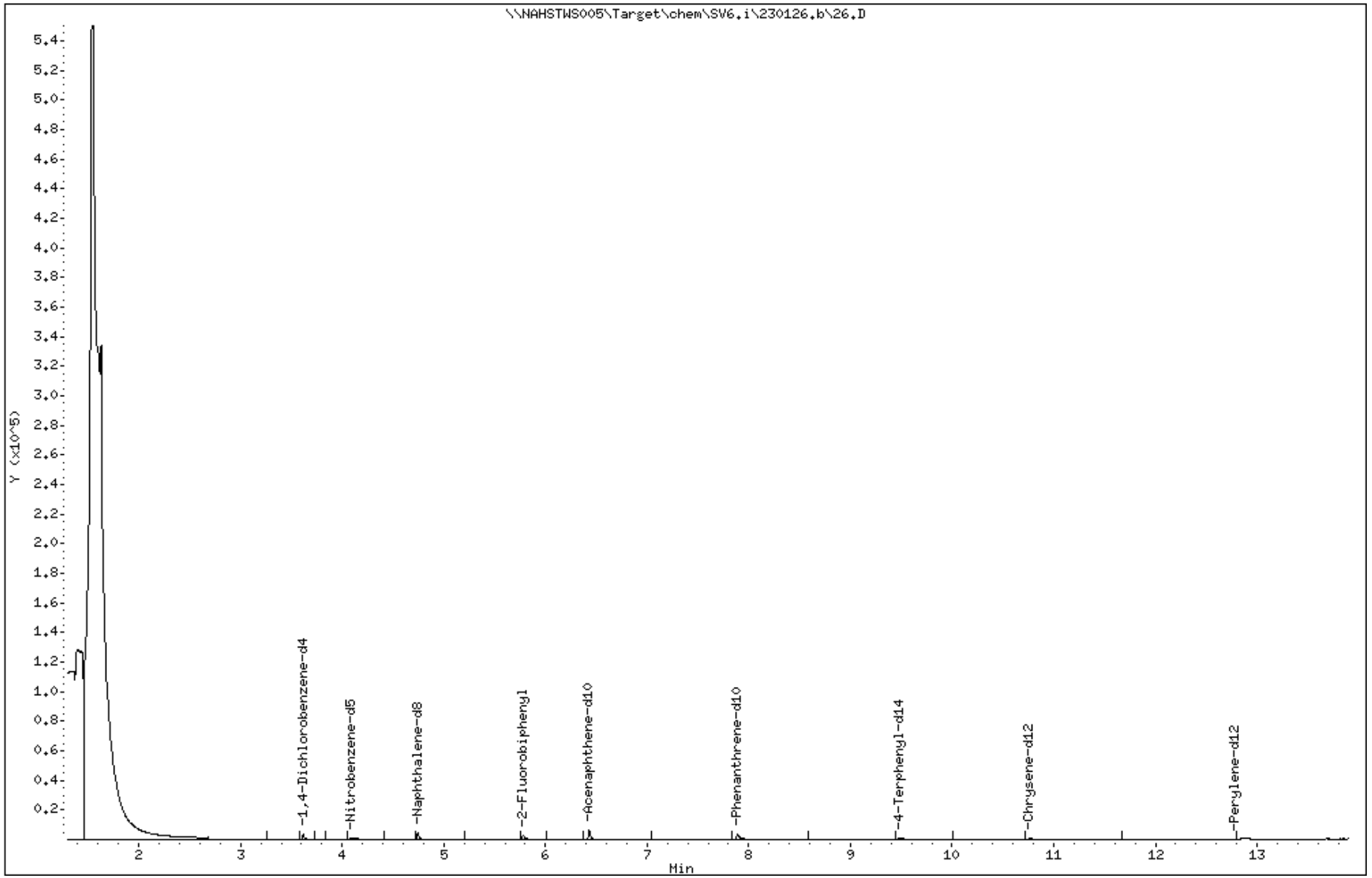
Sample Info: 1 4-DX-ICV;1 4-DX-ICV;3;;METHSPIKE

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



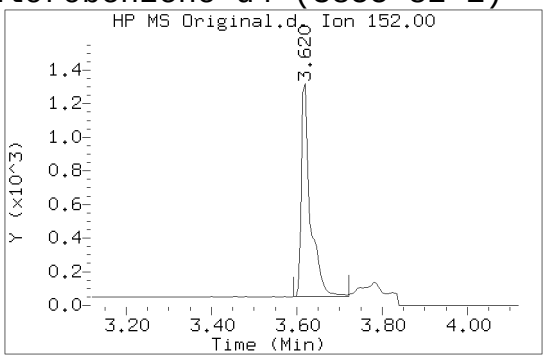
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

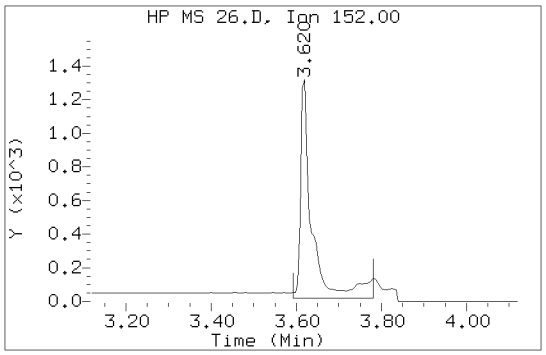
BEFORE

MASS
152
AREA
1846
HEIGHT
1267
26-Jan-2023
19:42
ALSHS
Server



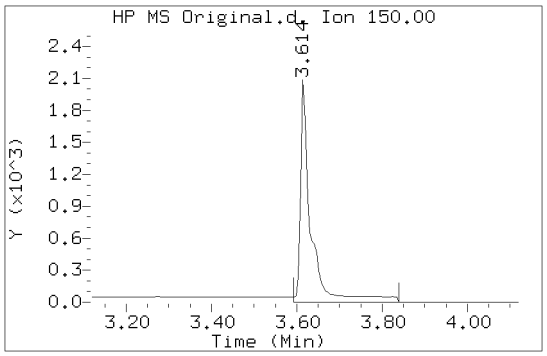
AFTER

MASS
152
AREA
2394
HEIGHT
1299
01-Feb-2023
16:40
ALSHS
Ser



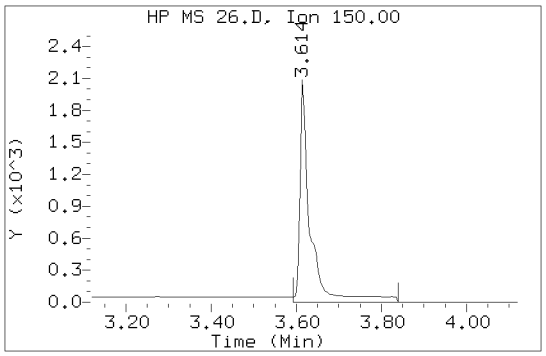
BEFORE

MASS
150
AREA
3511
HEIGHT
2086
26-Jan-2023
19:42
ALSHS
Server



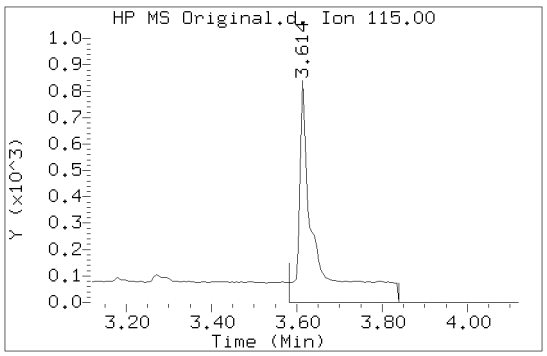
AFTER

MASS
150
AREA
3511
HEIGHT
2086
01-Feb-2023
16:40
ALSHS
Ser



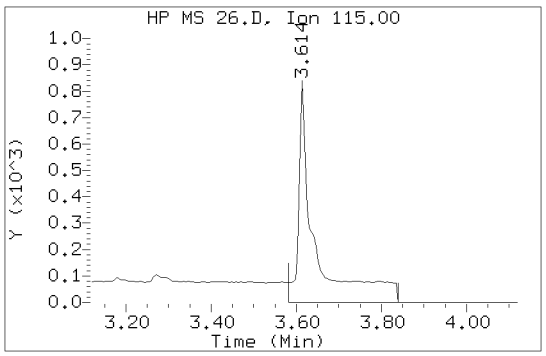
BEFORE

MASS
115
AREA
2199
HEIGHT
840
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
115
AREA
2199
HEIGHT
840
01-Feb-2023
16:40
ALSHS
Ser

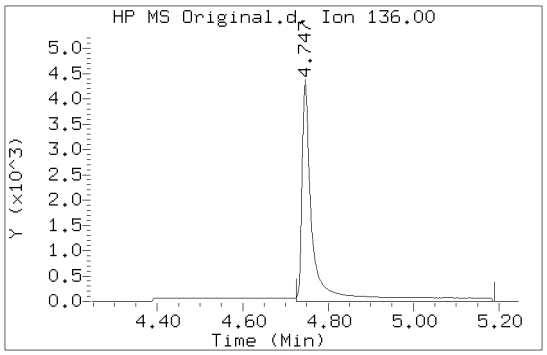


Naphthalene-d8 (1146-65-2)

Reason Code:

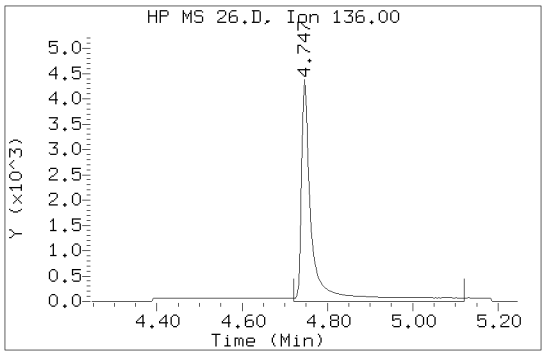
BEFORE

MASS
136
AREA
8101
HEIGHT
4379
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
136
AREA
7860
HEIGHT
4379
01-Feb-2023
16:40
ALSHS
Ser



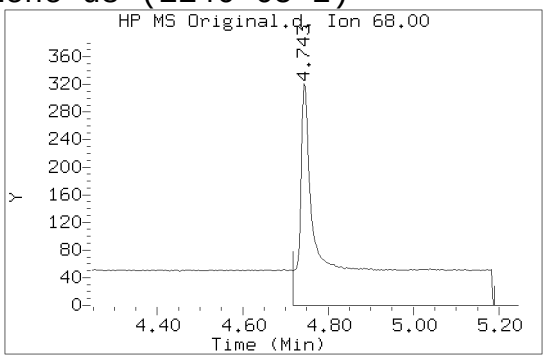
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Naphthalene-d8 (1146-65-2)

Reason Code:

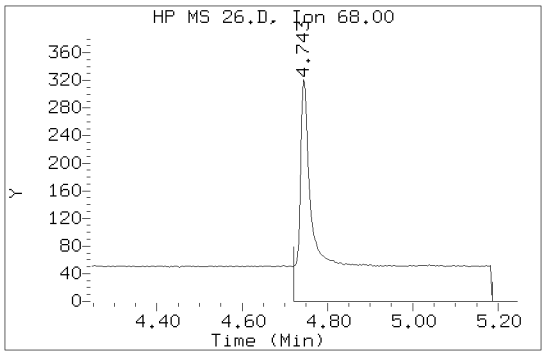
BEFORE

MASS
68
AREA
1835
HEIGHT
321
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
68
AREA
1824
HEIGHT
321
01-Feb-2023
16:40
ALSHS
Ser

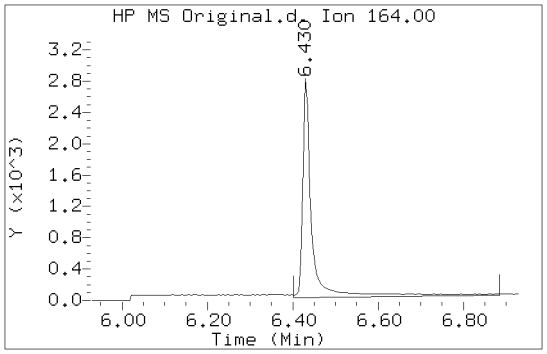


Acenaphthene-d10 (15067-26-2)

Reason Code:

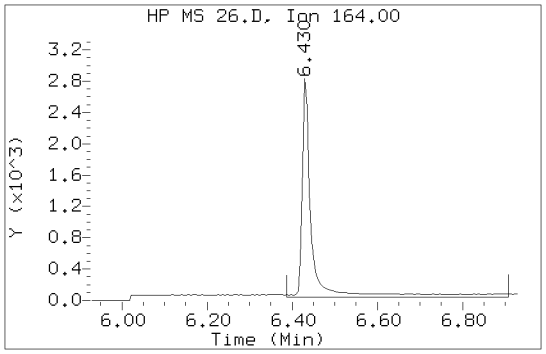
BEFORE

MASS
164
AREA
4223
HEIGHT
2796
26-Jan-2023
19:42
ALSHS
Server



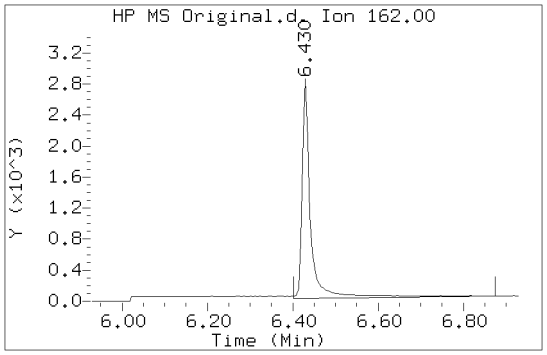
AFTER

MASS
164
AREA
4607
HEIGHT
2791
01-Feb-2023
16:40
ALSHS
Ser



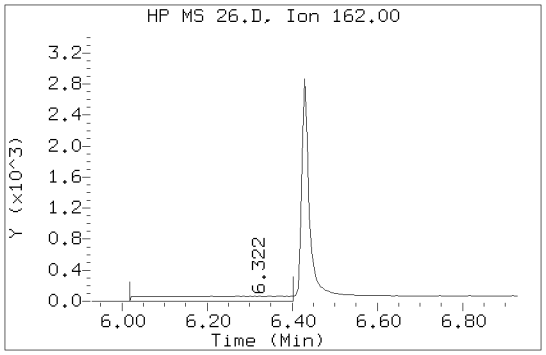
BEFORE

MASS
162
AREA
4065
HEIGHT
2834
26-Jan-2023
19:42
ALSHS
Server



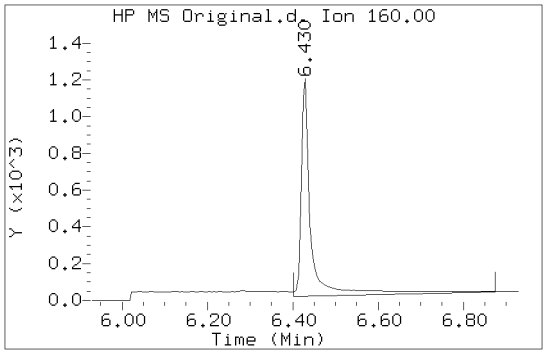
AFTER

MASS
162
AREA
1418
HEIGHT
65
01-Feb-2023
16:40
ALSHS
Ser



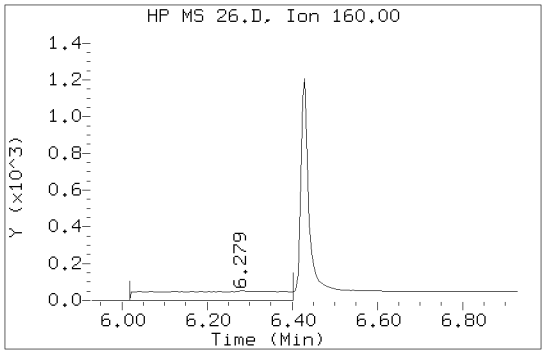
BEFORE

MASS
160
AREA
1922
HEIGHT
1183
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
160
AREA
1101
HEIGHT
52
01-Feb-2023
16:40
ALSHS
Ser



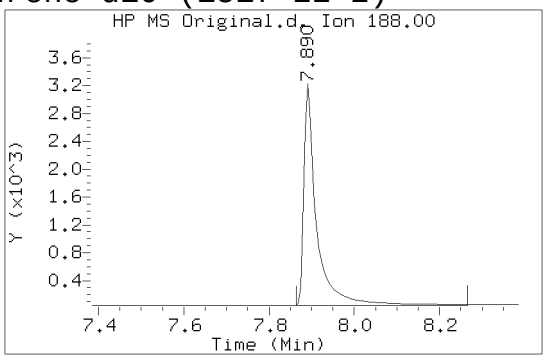
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Phenanthrene-d10 (1517-22-2)

Reason Code:

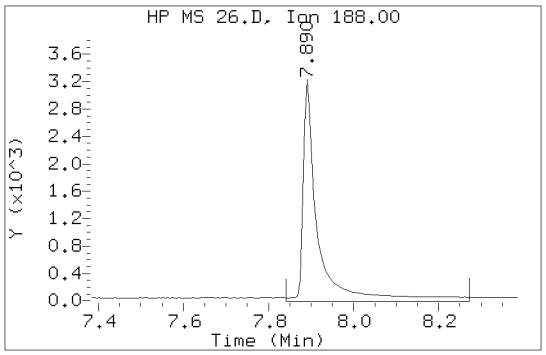
BEFORE

MASS
188
AREA
6555
HEIGHT
3181
26-Jan-2023
19:42
ALSHS
Server



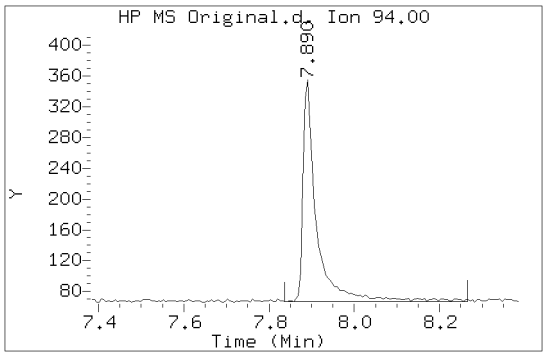
AFTER

MASS
188
AREA
7915
HEIGHT
3233
01-Feb-2023
16:40
ALSHS
Ser



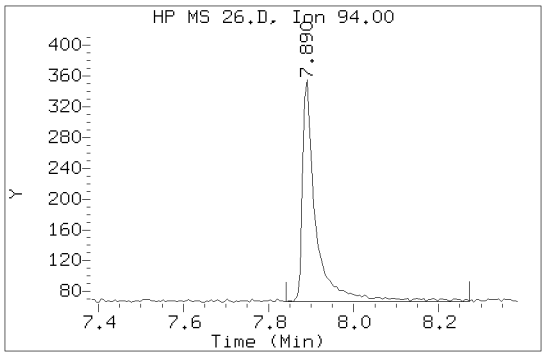
BEFORE

MASS
94
AREA
632
HEIGHT
288
26-Jan-2023
19:42
ALSHS
Server



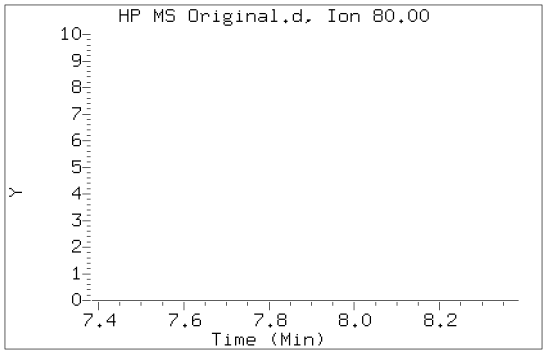
AFTER

MASS
94
AREA
632
HEIGHT
288
01-Feb-2023
16:40
ALSHS
Ser



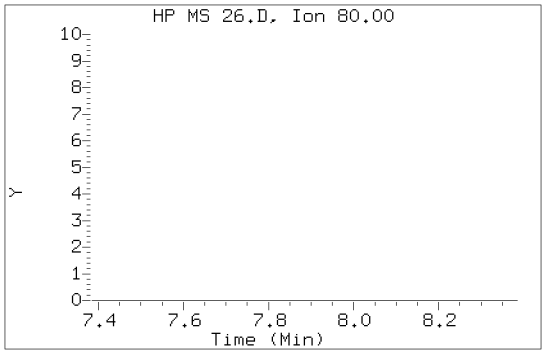
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser

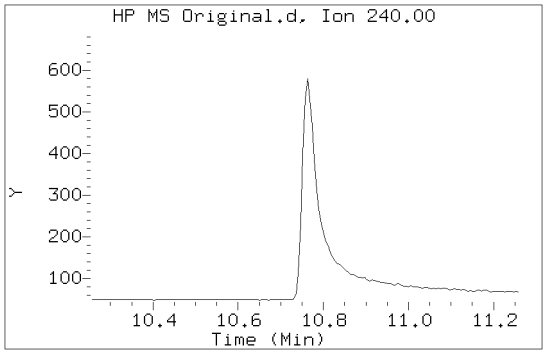


Chrysene-d12 (1719-03-5)

Reason Code:

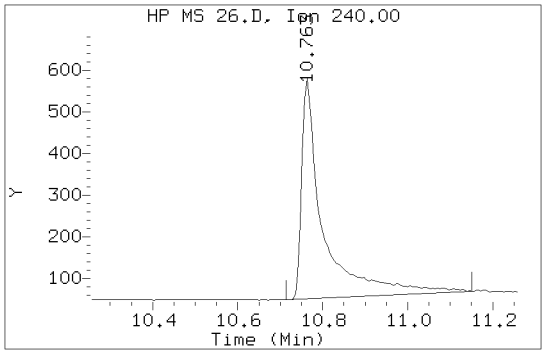
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

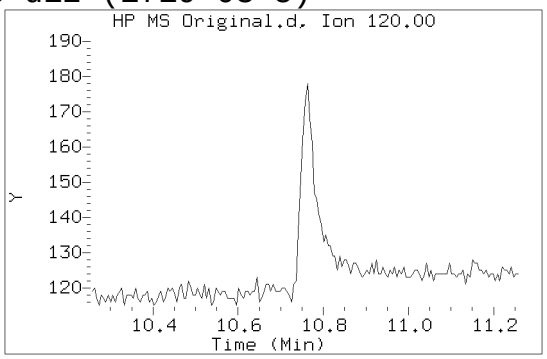
MASS
240
AREA
1871
HEIGHT
529
01-Feb-2023
16:40
ALSHS
Ser



Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

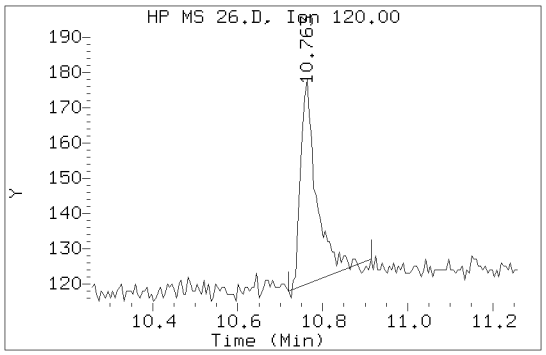
Chrysene-d12 (1719-03-5)

BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server

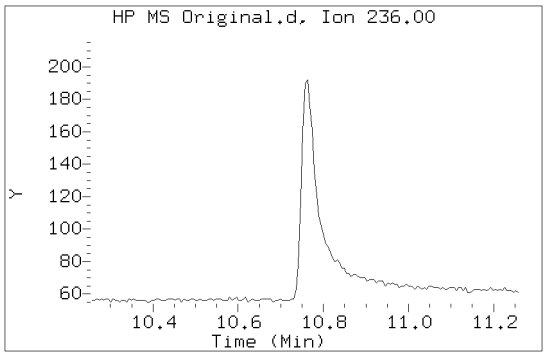


Reason Code:

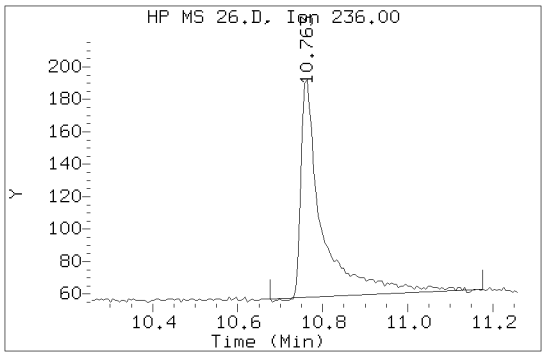
AFTER
MASS
120
AREA
144
HEIGHT
57
01-Feb-2023
16:40
ALSHS
Ser



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server

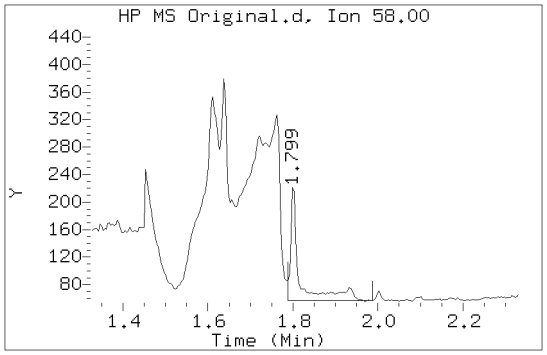


AFTER
MASS
236
AREA
459
HEIGHT
133
01-Feb-2023
16:40
ALSHS
Ser



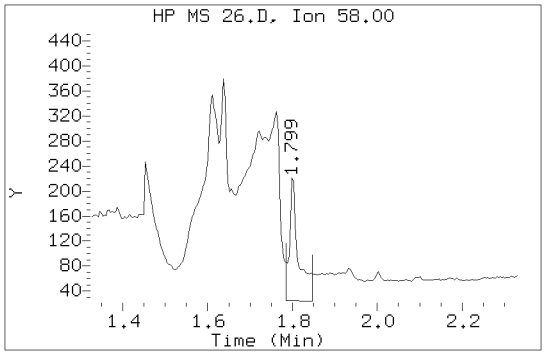
1,4-Dioxane ()

BEFORE
MASS
58
AREA
236
HEIGHT
164
26-Jan-2023
19:42
ALSHS
Server

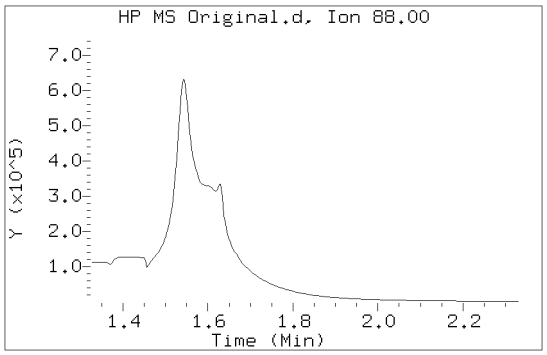


Reason Code:

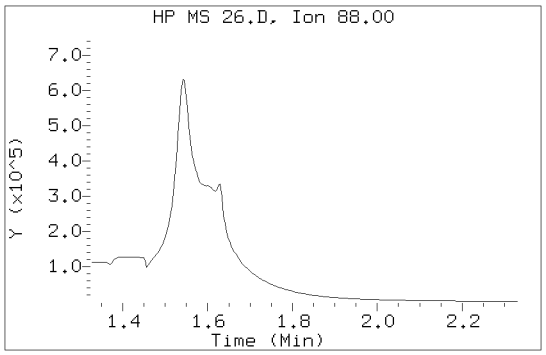
AFTER
MASS
58
AREA
304
HEIGHT
196
01-Feb-2023
16:40
ALSHS
Ser



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER
MASS
88
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser



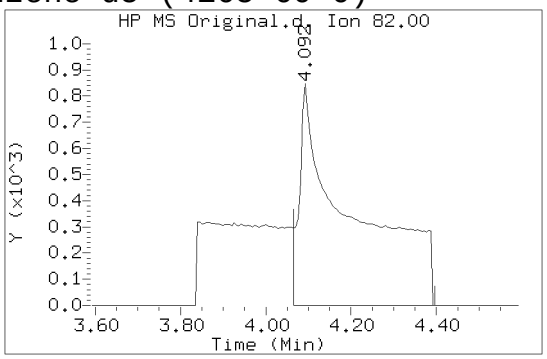
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Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Nitrobenzene-d5 (4165-60-0)

Reason Code:

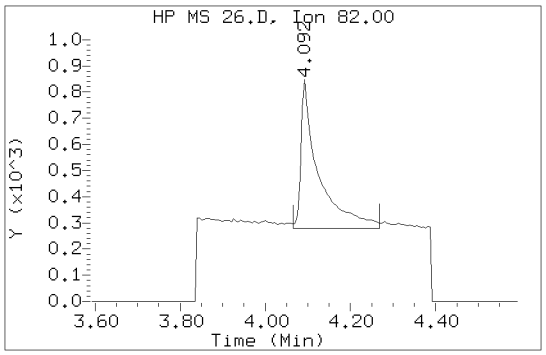
BEFORE

MASS
82
AREA
7163
HEIGHT
847
26-Jan-2023
19:42
ALSHS
Server



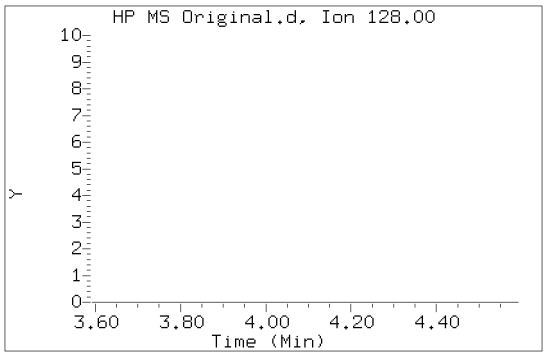
AFTER

MASS
82
AREA
1632
HEIGHT
568
01-Feb-2023
16:40
ALSHS
Ser



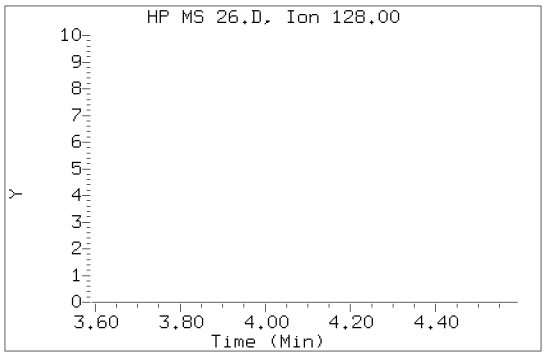
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



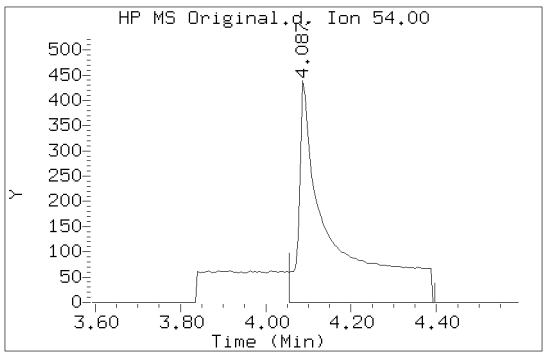
AFTER

MASS
128
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser



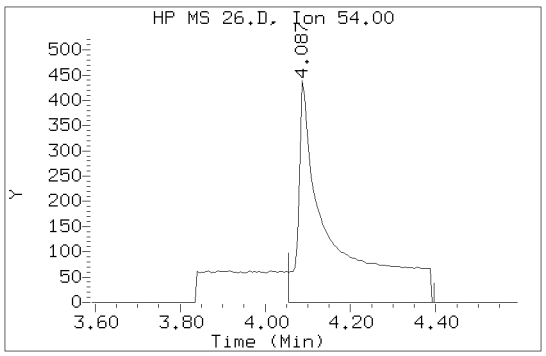
BEFORE

MASS
54
AREA
2316
HEIGHT
439
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
54
AREA
2316
HEIGHT
439
01-Feb-2023
16:40
ALSHS
Ser

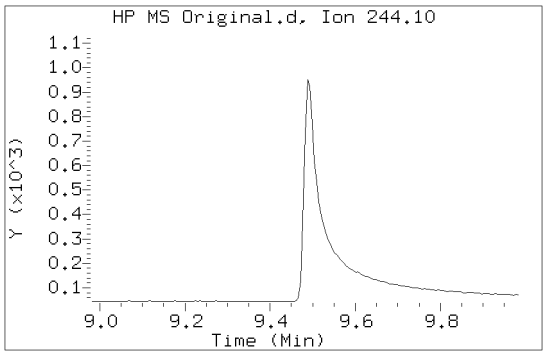


4-Terphenyl-d14 (1718-51-0)

Reason Code:

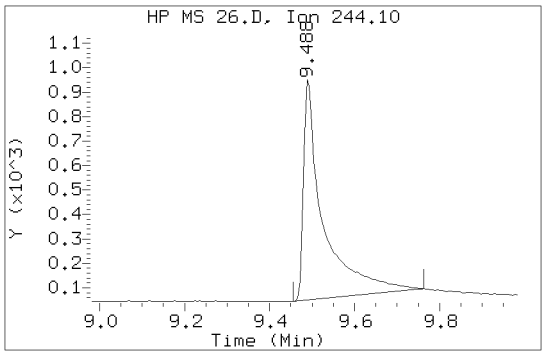
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
244.1
AREA
2907
HEIGHT
899
01-Feb-2023
16:40
ALSHS
Ser



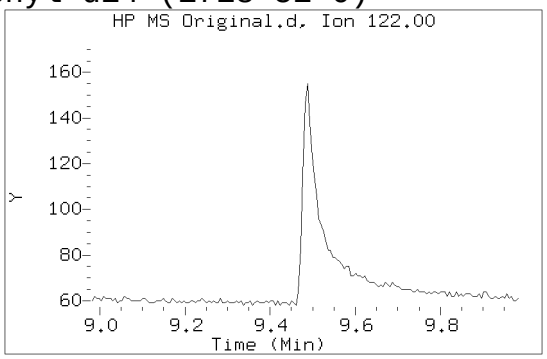
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

4-Terphenyl-d14 (1718-51-0)

Reason Code:

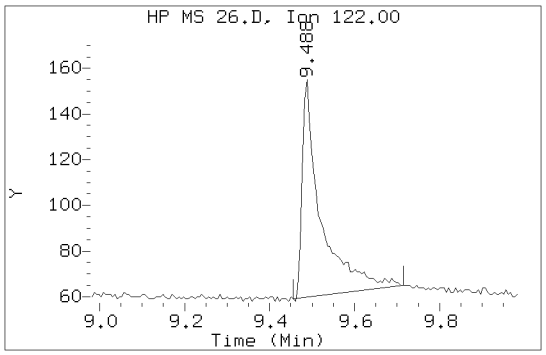
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



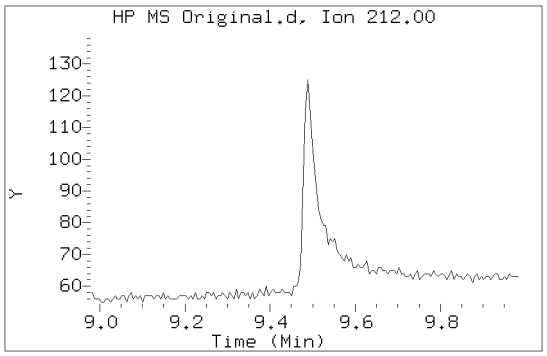
AFTER

MASS
122
AREA
290
HEIGHT
95
01-Feb-2023
16:40
ALSHS
Ser



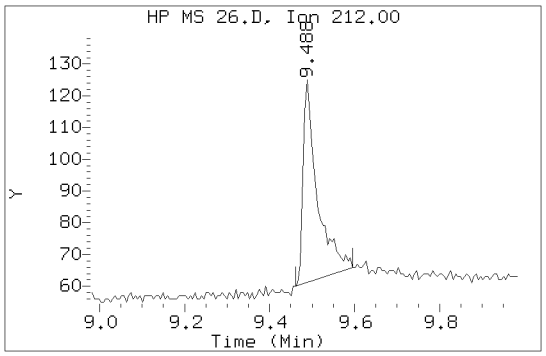
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
212
AREA
148
HEIGHT
63
01-Feb-2023
16:40
ALSHS
Ser

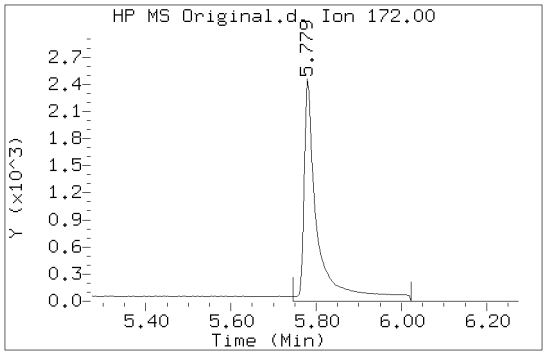


2-Fluorobiphenyl (321-60-8)

Reason Code:

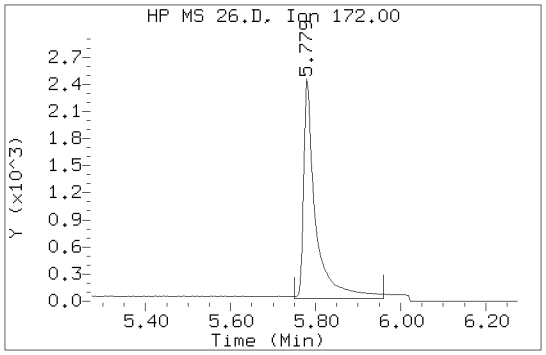
BEFORE

MASS
172
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HEIGHT
2461
26-Jan-2023
19:42
ALSHS
Server



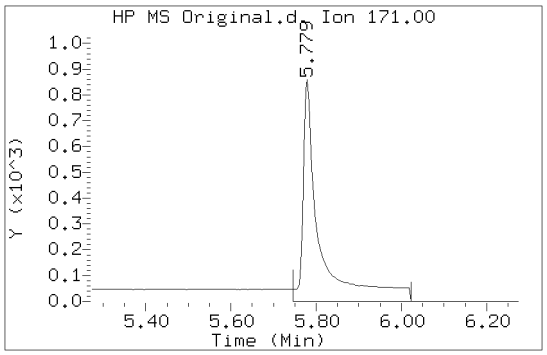
AFTER

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AREA
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HEIGHT
2431
01-Feb-2023
16:40
ALSHS
Ser



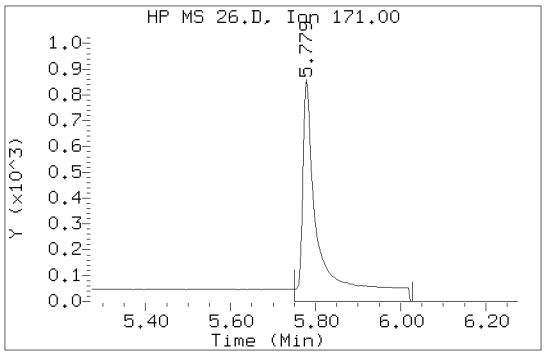
BEFORE

MASS
171
AREA
2318
HEIGHT
859
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
171
AREA
2322
HEIGHT
859
01-Feb-2023
16:40
ALSHS
Ser



01209875

right solutions.
right partner.

Raw Data SV-6 436574

Semi-Volatiles by EPA 8270SIM

Workorder

HS23051522

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

05/31/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Data File: \\nahstws005\Target\chem\SV6.i\230530.b\01.D Page 1
Report Date: 30-May-2023 10:32

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230530.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 30-MAY-2023 10:18
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230530.b\DFTPP.m
Meth Date : 14-Mar-2023 15:59 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7015

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.368	6.357	-1.989	198	250496			0.00- 100.00	100.00
4.368	6.357	-1.989	51	176504			10.00- 80.00	70.46
4.368	6.357	-1.989	68	2212			0.00- 2.00	1.57
4.368	6.357	-1.989	69	140864			0.00- 0.00	56.23
4.368	6.357	-1.989	70	658			0.00- 2.00	0.47
4.368	6.357	-1.989	127	95560			10.00- 80.00	38.15
4.368	6.357	-1.989	197	0	0.0	0.0	0.00- 2.00	0.00
4.368	6.357	-1.989	199	15798			5.00- 9.00	6.31
4.368	6.357	-1.989	275	71704			10.00- 60.00	28.62
4.368	6.357	-1.989	365	10165			1.00- 100.00	4.06
4.368	6.357	-1.989	441	36696			0.01- 99.99	78.60
4.368	6.357	-1.989	442	236544			50.00- 150.00	94.43
4.368	6.357	-1.989	443	46688			15.00- 24.00	19.74

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	70.46
68	Less than 2.00% of mass 69	0.88 (1.57)
69	Mass 69 relative abundance	56.23
70	Less than 2.00% of mass 69	0.26 (0.47)
127	10.00 - 80.00% of mass 198	38.15
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.31
275	10.00 - 60.00% of mass 198	28.62
365	1.00 - 100.00% of mass 198	4.06
441	Present, but less than mass 443	14.65
442	50.00 - 150.00% of mass 198	94.43
443	15.00 - 24.00% of mass 442	18.64 (19.74)

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 334: 4.373 min. (SUB)
Location of Maximum: 198.00
Number of points: 305

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	326	126.10	693	204.10	10338	286.00	356
36.00	414	127.10	95560	205.00	16880	288.90	155
37.00	816	128.00	6877	206.10	71936	290.00	252
38.10	1867	129.00	37936	207.10	9301	291.00	171
39.10	12761	130.00	3450	208.00	2597	292.00	333
40.00	626	131.10	672	209.00	806	293.00	1541
41.10	167	132.00	392	210.00	1127	294.00	353
45.00	469	132.90	176	211.10	2609	294.90	406
49.00	507	134.00	975	212.00	506	296.00	21704
50.00	44400	135.00	2855	213.00	231	297.00	3227
51.10	176448	136.00	946	214.10	201	298.00	221
52.00	8431	137.00	1556	215.00	1091	301.00	281
53.00	414	138.00	453	216.00	1926	302.00	347
54.90	681	139.00	162	217.00	20056	303.10	2346
56.00	4919	140.00	474	218.00	2452	304.00	639
57.00	11734	141.00	4776	219.40	566	307.90	327
58.00	429	142.00	1654	220.00	421	308.90	257
59.00	558	143.00	1193	221.00	10816	310.00	214
61.00	1978	144.10	254	222.00	4775	312.90	370
62.00	2172	145.00	265	223.00	4683	314.00	927
63.00	5527	146.00	1074	224.00	41752	315.00	2676
64.00	772	147.00	2464	225.00	10616	316.00	1467
65.00	2843	148.00	6329	226.10	1242	316.80	249
65.90	201	149.00	1182	227.00	18664	321.00	579
67.00	238	150.00	187	228.00	2580	322.00	407
68.00	2212	151.00	603	229.00	3934	323.00	6865
69.00	140864	151.90	427	229.90	537	324.00	1661
70.00	658	153.00	1821	231.00	1339	325.00	162
73.00	1064	154.00	1305	231.90	354	325.90	301
74.00	12100	155.10	3123	233.00	234	326.90	1435
75.00	21368	156.00	4368	233.90	1331	328.00	734
76.10	7118	157.00	737	234.90	1482	328.80	256
77.10	140608	158.00	925	235.90	911	332.00	390
78.10	9627	159.00	664	236.90	1456	333.00	1102
79.00	8627	160.00	1381	237.90	290	334.00	4293
80.00	6923	161.00	2638	238.90	947	335.00	1208
81.00	10313	162.10	682	239.90	586	341.00	823
82.00	2438	162.80	313	241.00	1313	341.90	230
83.00	2622	163.80	283	242.00	1898	346.00	1693
83.90	69	165.00	2324	243.00	2402	346.80	289
85.00	2517	166.00	1812	244.00	30232	351.10	219
86.00	2422	167.00	11267	245.10	3385	352.00	2160
87.00	1204	168.00	4373	246.00	6968	353.00	1481
88.00	384	169.00	910	247.00	1336	354.00	1979
89.10	214	170.00	460	248.00	277	354.90	268

91.00	2207	171.00	527	248.90	1349	365.00	10165
92.00	2158	172.00	1058	250.00	253	365.90	1665
93.00	14144	173.00	1259	251.00	452	369.90	208
94.00	974	174.00	2379	252.10	533	370.90	399
95.00	347	175.00	4613	252.90	1035	372.00	4149
96.00	704	176.00	1326	255.00	166528	373.00	768
96.90	304	177.00	1837	256.00	23592	383.00	1013
98.00	10104	178.00	864	257.00	1795	384.00	264
99.00	7672	179.00	9615	258.00	9606	390.00	531
100.00	719	180.00	6359	259.00	1603	391.00	246
101.00	4607	181.00	3216	260.00	337	392.00	185
101.90	212	181.90	539	260.90	349	401.00	238
103.00	1323	182.90	434	262.80	391	402.00	1718
104.00	2811	184.00	711	263.90	448	403.00	2304
105.00	2836	185.00	4028	265.00	4447	404.00	659
105.90	970	186.10	34424	266.00	466	421.00	2017
107.00	37168	187.10	10337	266.80	284	422.00	1959
108.00	5315	188.10	950	268.80	160	423.00	13184
109.00	812	189.00	2198	269.90	317	424.00	2903
110.00	60176	190.00	331	271.00	549	424.90	359
111.00	8610	191.00	1084	272.10	821	431.60	176
112.00	1215	192.00	2935	273.00	5231	433.50	294
113.10	219	192.90	3360	274.00	13808	435.20	252
116.00	1526	194.00	807	275.00	71704	435.90	234
117.00	25384	195.10	487	276.00	9870	441.00	36696
118.00	1800	196.00	6737	277.00	6445	442.00	236544
118.90	197	198.00	250496	278.00	1289	443.00	46688
120.10	272	199.00	15798	279.00	221	444.00	3918
122.00	2389	200.00	1396	281.80	237	444.90	258
123.00	2980	201.50	1364	283.10	586		
124.00	1278	202.10	274	284.00	471		
125.00	1352	203.00	2219	285.00	953		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230530.b\03A.D Page 1
Report Date: 31-May-2023 17:07

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230530.b\03A.D
Lab Smp Id: 14DX-0.08 Client Smp ID: 14DX-0.08
Inj Date : 30-MAY-2023 11:49
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230530.b\DXSIM.m
Meth Date : 31-May-2023 17:04 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	2.521	2.521	(1.000)	4674	0.10000	(aM)
* 45 Naphthalene-d8	136	3.575	3.575	(1.000)	12320	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.961	2.961	(0.828)	3376	0.08000	0.09497(QM)
* 86 Acenaphthene-d10	164	5.207	5.207	(1.000)	7225	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.596	4.596	(0.883)	7958	0.08000	0.08392
* 126 Phenanthrene-d10	188	6.620	6.620	(1.000)	18334	0.10000	(M)
* 182 Chrysene-d12	240	9.170	9.170	(1.000)	9850	0.10000	(MH)
$ 158 4-Terphenyl-d14	244	8.201	8.201	(0.885)	10125	0.08000	0.06456
* 198 Perylene-d12	264	10.802	10.802	(1.000)	9798	0.10000	(M)
1 1,4-Dioxane	58	1.003	1.003	(0.398)	1604	0.08000	0.09408(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

01209881

Data File: \\NAHSTWS005\Target\chem\SV6.i\230530.b\03A.D

Date : 30-MAY-2023 11:49

Client ID: 14DX-0.08

Instrument: SV6.i

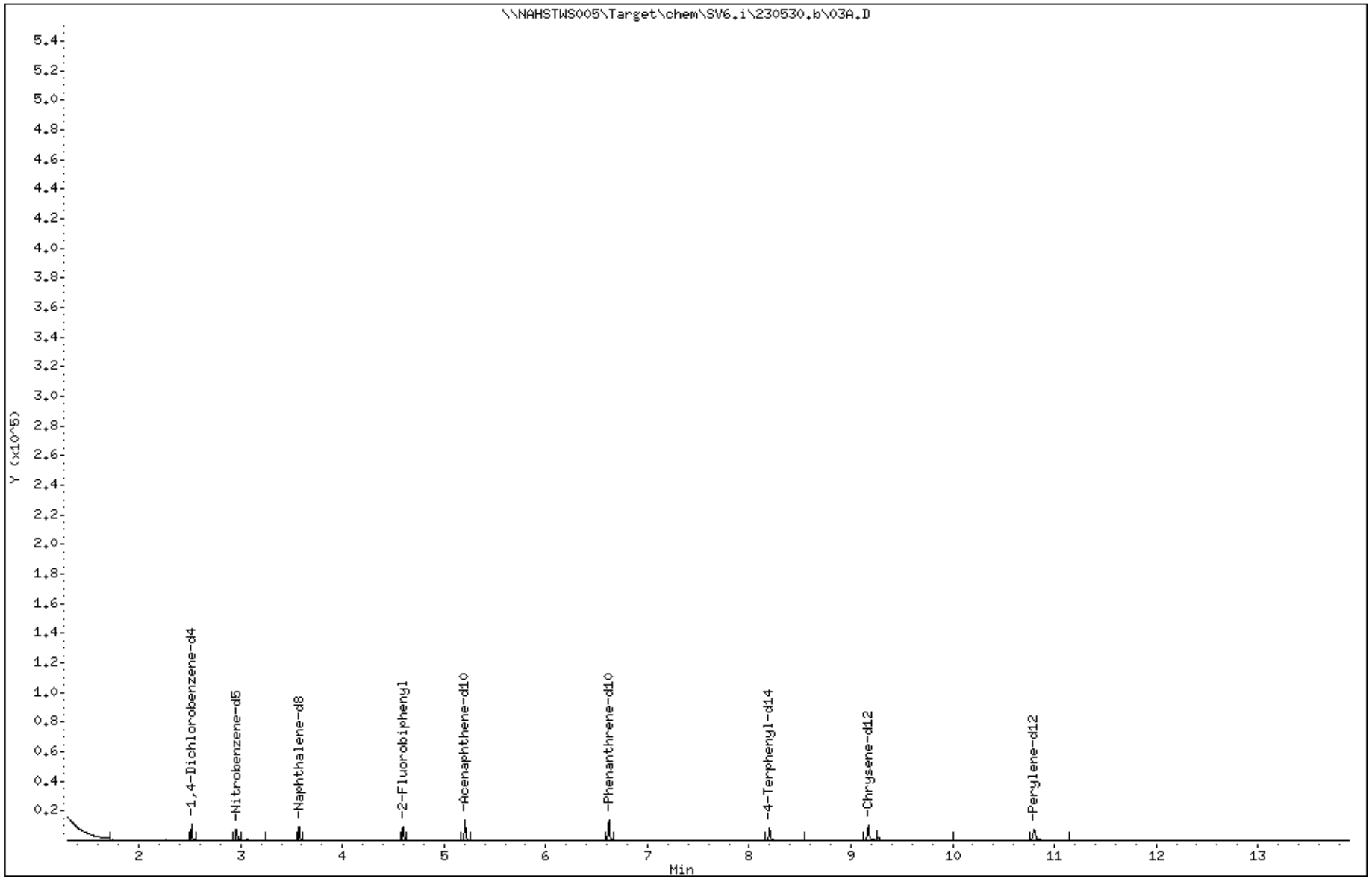
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



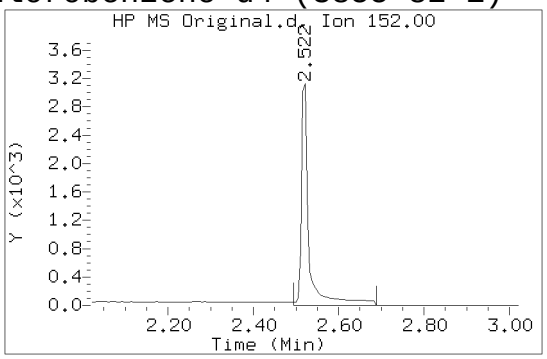
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Inj Date : 30-MAY-2023 11:49
InstruID : SV6.i
LabSampID : 14DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

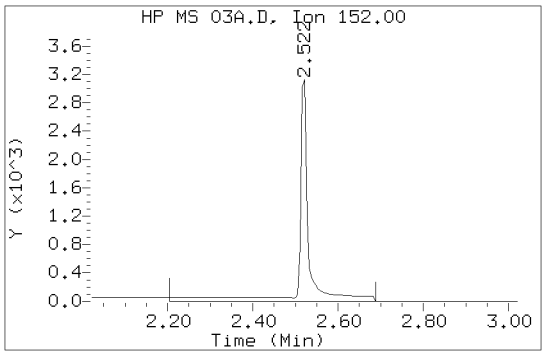
BEFORE

MASS
152
AREA
3792
HEIGHT
3127
30-May-2023
12:04
ALSHS
Server



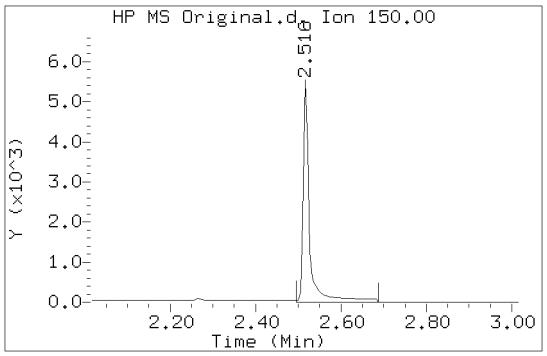
AFTER

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AREA
4674
HEIGHT
3128
31-May-2023
17:07
ALSHS
Ser



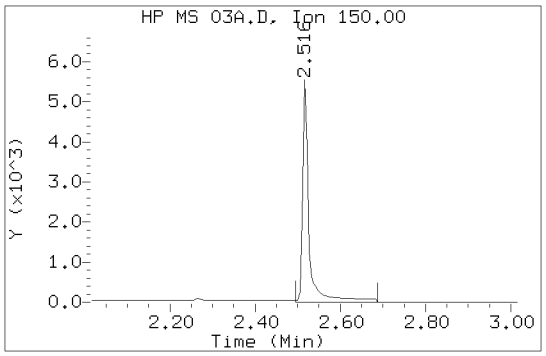
BEFORE

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AREA
5658
HEIGHT
5547
30-May-2023
12:04
ALSHS
Server



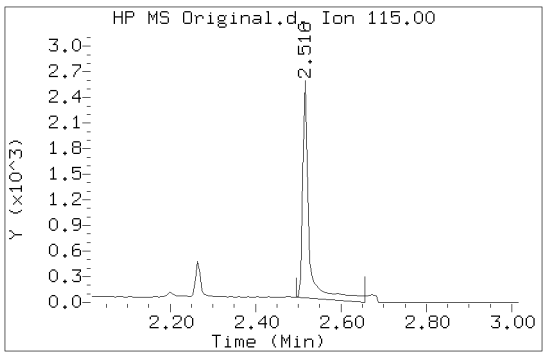
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5547
31-May-2023
17:07
ALSHS
Ser



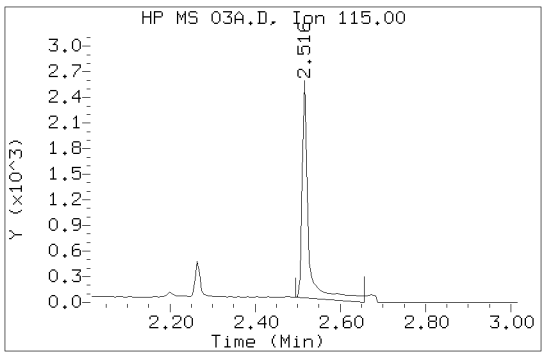
BEFORE

MASS
115
AREA
2610
HEIGHT
2544
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
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AREA
2610
HEIGHT
2544
31-May-2023
17:07
ALSHS
Ser

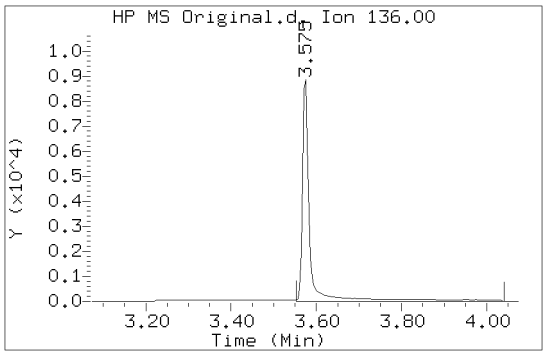


Naphthalene-d8 (1146-65-2)

Reason Code:

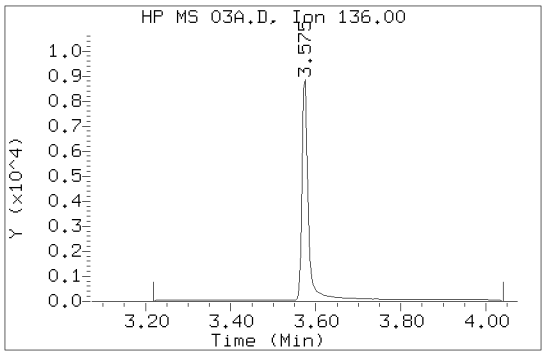
BEFORE

MASS
136
AREA
11133
HEIGHT
8857
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
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AREA
12320
HEIGHT
8861
31-May-2023
17:07
ALSHS
Ser



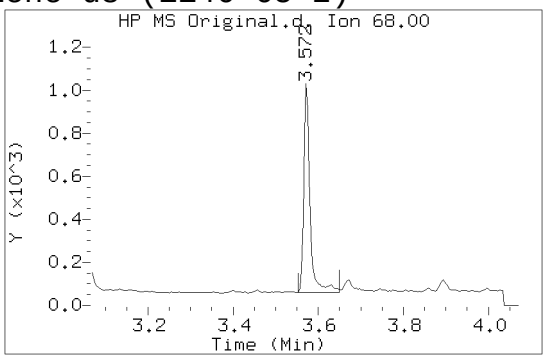
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Inj Date : 30-MAY-2023 11:49
InstruID : SV6.i
LabSampID : 14DX-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

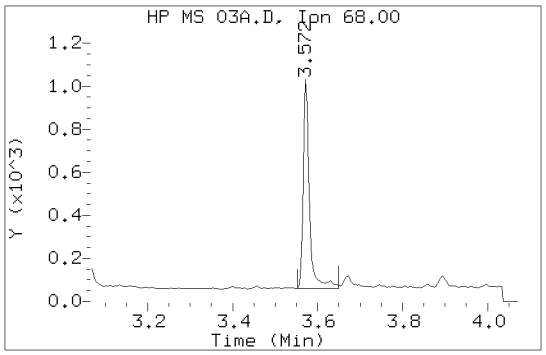
BEFORE

MASS
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AREA
993
HEIGHT
970
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
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AREA
993
HEIGHT
970
31-May-2023
17:07
ALSHS
Ser

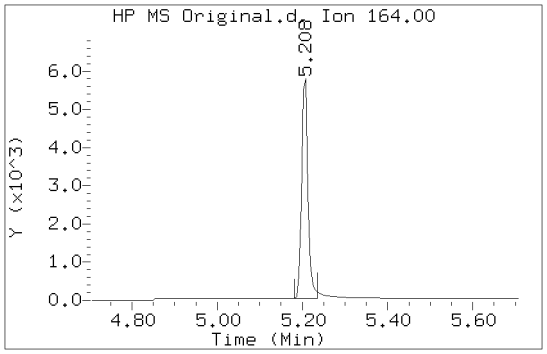


Acenaphthene-d10 (15067-26-2)

Reason Code:

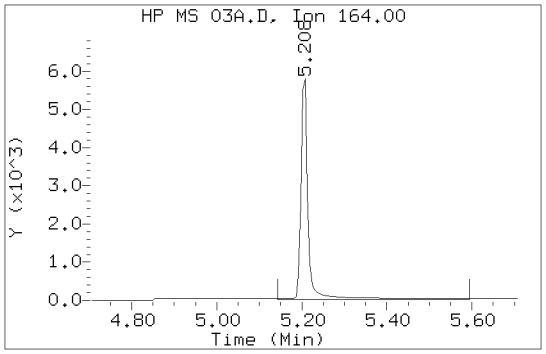
BEFORE

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HEIGHT
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30-May-2023
12:04
ALSHS
Server



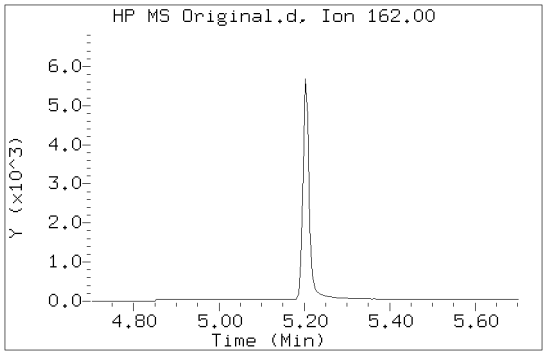
AFTER

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AREA
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31-May-2023
17:07
ALSHS
Ser



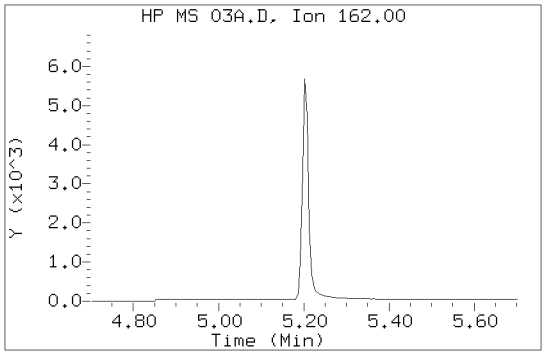
BEFORE

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30-May-2023
12:04
ALSHS
Server



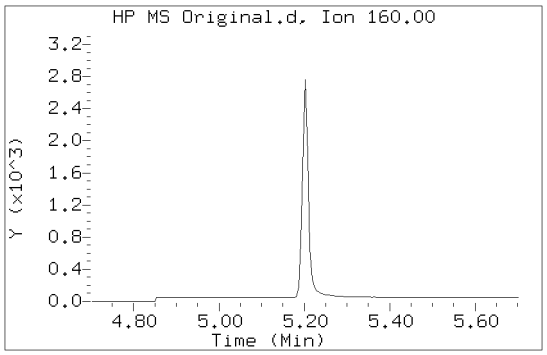
AFTER

MASS
162
AREA
8063
HEIGHT
5684
31-May-2023
17:07
ALSHS
Ser



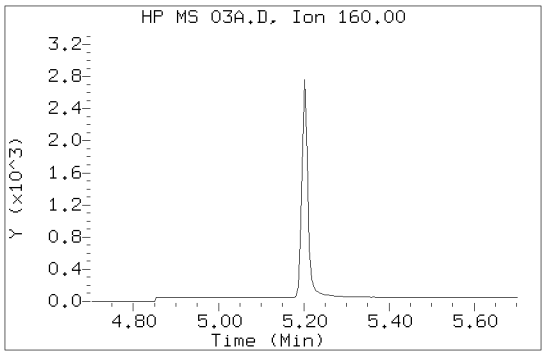
BEFORE

MASS
160
AREA
4772
HEIGHT
2760
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
160
AREA
4772
HEIGHT
2760
31-May-2023
17:07
ALSHS
Ser



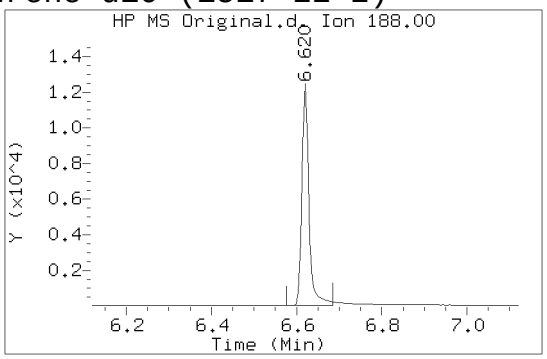
Data File : \\NAHSTWS005\Target\chem\SV6.i\230530.b\03A.D
Inj Date : 30-MAY-2023 11:49
InstruID : SV6.i
LabSampID : 14DX-0.08

Phenanthrene-d10 (1517-22-2)

Reason Code:

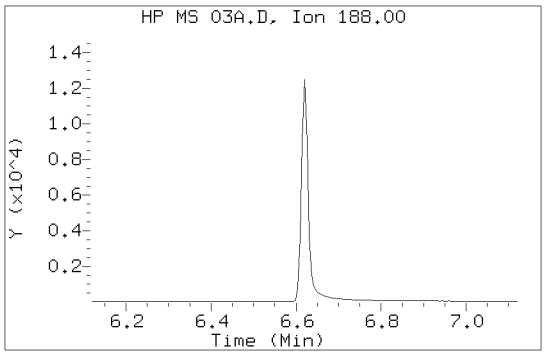
BEFORE

MASS
188
AREA
14026
HEIGHT
12441
30-May-2023
12:04
ALSHS
Server



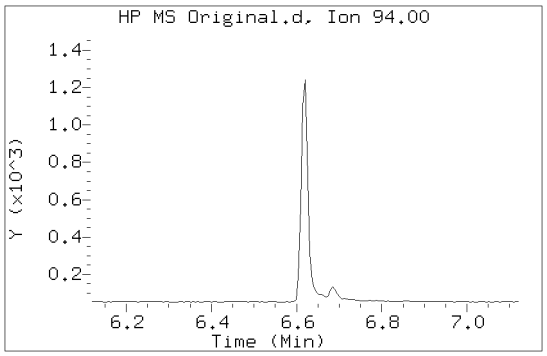
AFTER

MASS
188
AREA
18334
HEIGHT
12507
31-May-2023
17:07
ALSHS
Ser



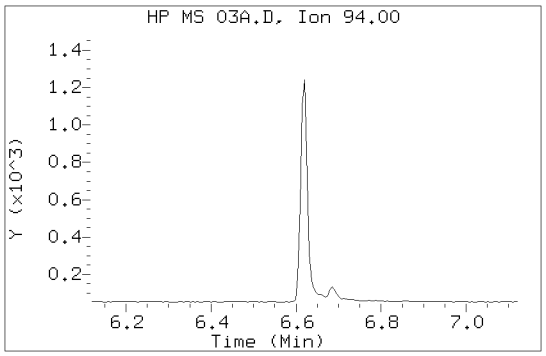
BEFORE

MASS
94
AREA
1576
HEIGHT
1188
30-May-2023
12:04
ALSHS
Server



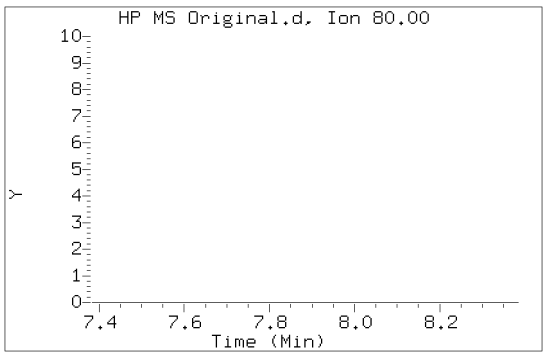
AFTER

MASS
94
AREA
1576
HEIGHT
1188
31-May-2023
17:07
ALSHS
Ser



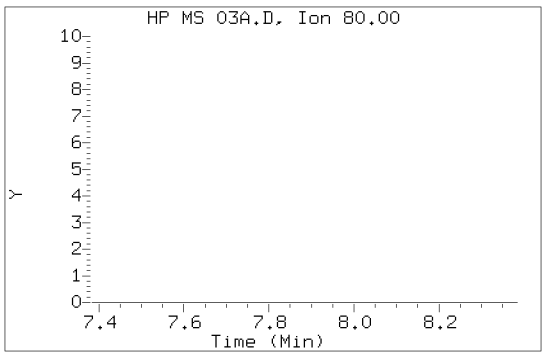
BEFORE

MASS
80
AREA
0
HEIGHT
0
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
31-May-2023
17:07
ALSHS
Ser

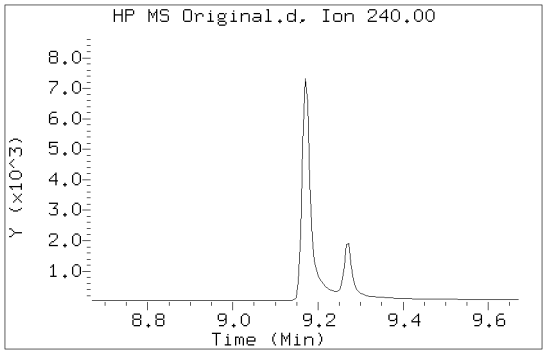


Chrysene-d12 (1719-03-5)

Reason Code:

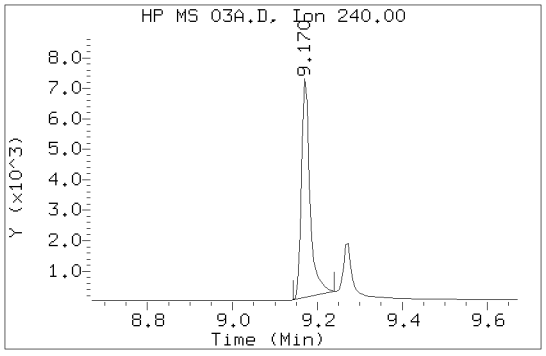
BEFORE

MASS
240
AREA
6060
HEIGHT
1924
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
240
AREA
9850
HEIGHT
7166
31-May-2023
17:07
ALSHS
Ser

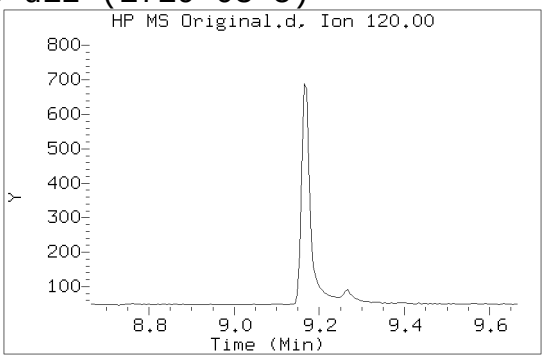


Data File : \\NAHSTWS005\Target\chem\SV6.i\230530.b\03A.D
Inj Date : 30-MAY-2023 11:49
InstruID : SV6.i
LabSampID : 14DX-0.08

Chrysene-d12 (1719-03-5)

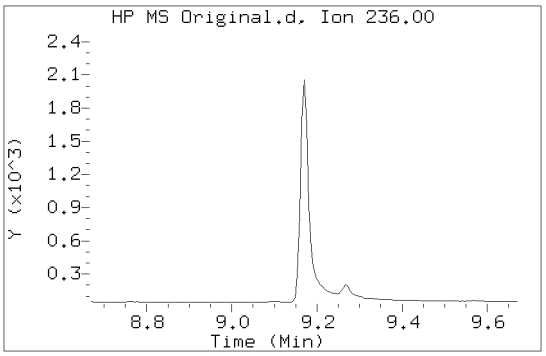
BEFORE

MASS
120
AREA
2123
HEIGHT
93
30-May-2023
12:04
ALSHS
Server



BEFORE

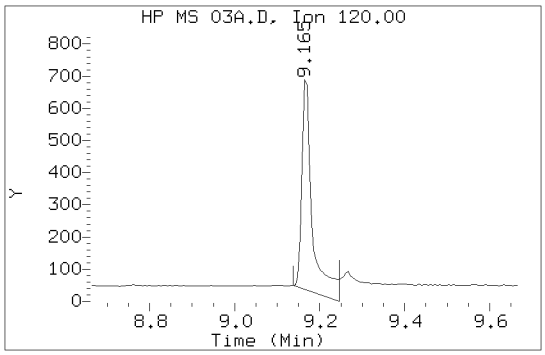
MASS
236
AREA
2567
HEIGHT
201
30-May-2023
12:04
ALSHS
Server



Reason Code:

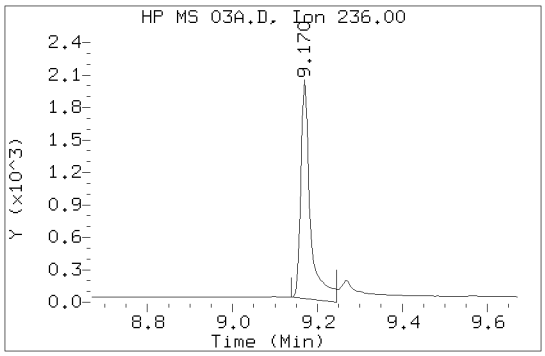
AFTER

MASS
120
AREA
1113
HEIGHT
652
31-May-2023
17:07
ALSHS
Ser



AFTER

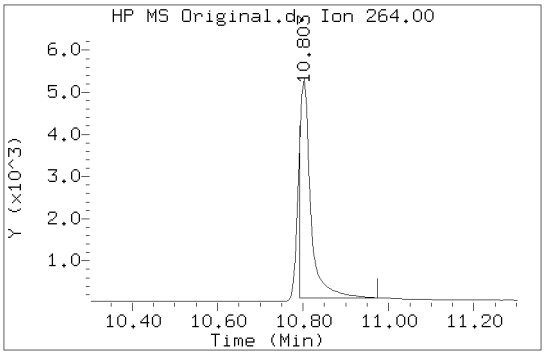
MASS
236
AREA
3140
HEIGHT
2022
31-May-2023
17:07
ALSHS
Ser



Perylene-d12 (1520-96-3)

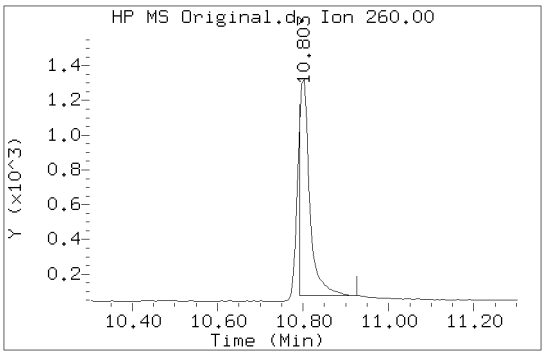
BEFORE

MASS
264
AREA
9138
HEIGHT
5193
30-May-2023
12:04
ALSHS
Server



BEFORE

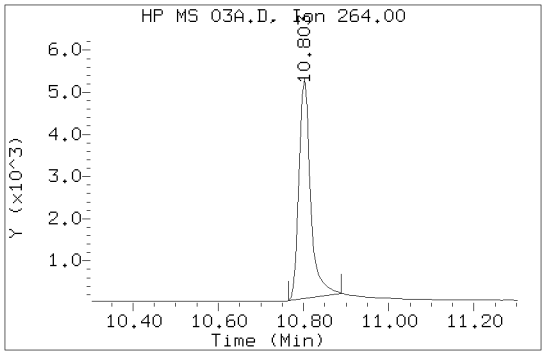
MASS
260
AREA
2074
HEIGHT
1243
30-May-2023
12:04
ALSHS
Server



Reason Code:

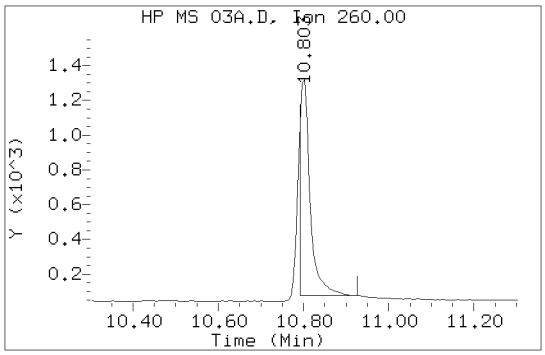
AFTER

MASS
264
AREA
9798
HEIGHT
5205
31-May-2023
17:07
ALSHS
Ser



AFTER

MASS
260
AREA
2074
HEIGHT
1243
31-May-2023
17:07
ALSHS
Ser



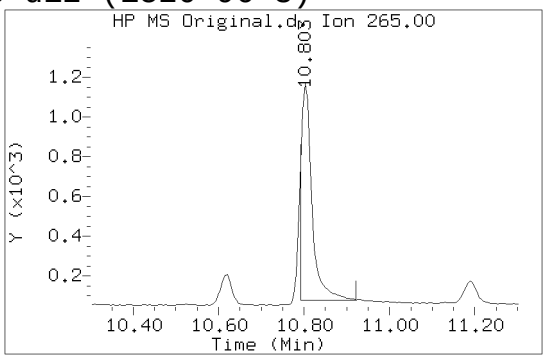
Data File : \\NAHSTWS005\Target\chem\SV6.i\230530.b\03A.D
Inj Date : 30-MAY-2023 11:49
InstruID : SV6.i
LabSampID : 14DX-0.08

Perylene-d12 (1520-96-3)

Reason Code:

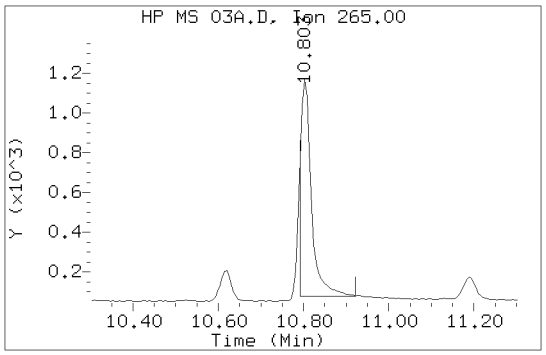
BEFORE

MASS
265
AREA
1908
HEIGHT
1088
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
265
AREA
1908
HEIGHT
1088
31-May-2023
17:07
ALSHS
Ser

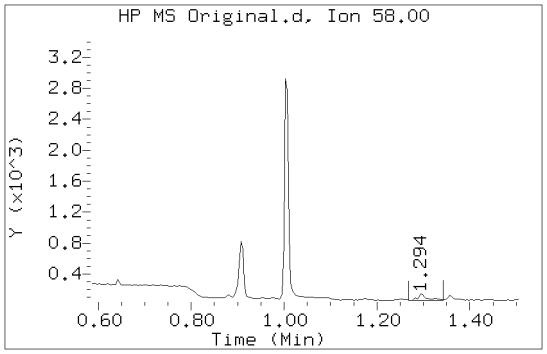


1,4-Dioxane ()

Reason Code:

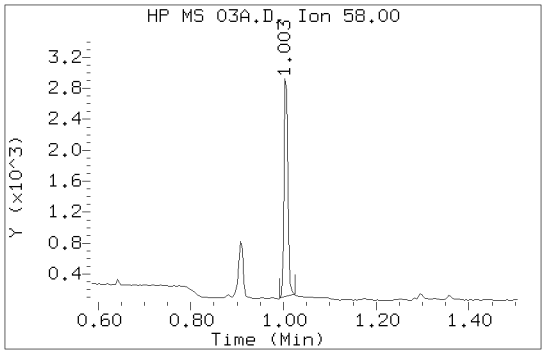
BEFORE

MASS
58
AREA
105
HEIGHT
84
30-May-2023
12:04
ALSHS
Server



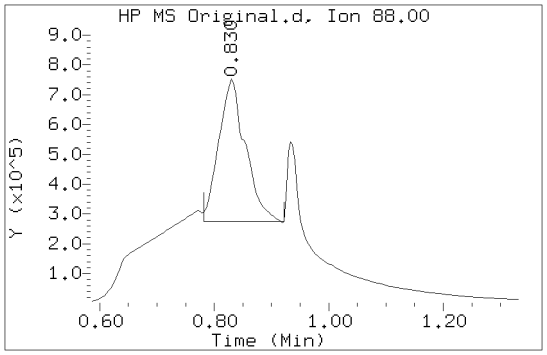
AFTER

MASS
58
AREA
1604
HEIGHT
2814
31-May-2023
17:07
ALSHS
Ser



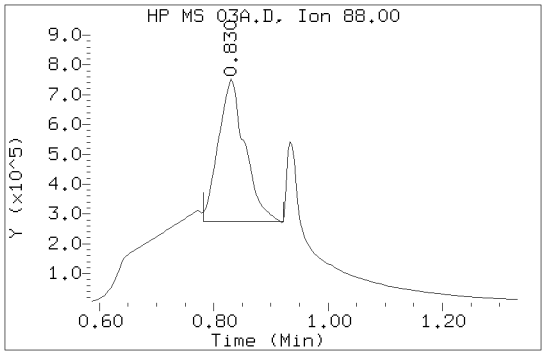
BEFORE

MASS
88
AREA
1540915
HEIGHT
477888
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
88
AREA
1540915
HEIGHT
477888
31-May-2023
17:07
ALSHS
Ser

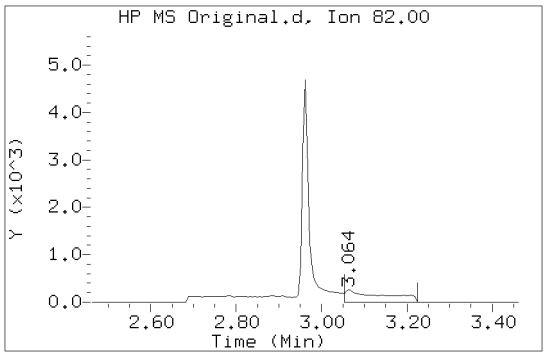


Nitrobenzene-d5 (4165-60-0)

Reason Code:

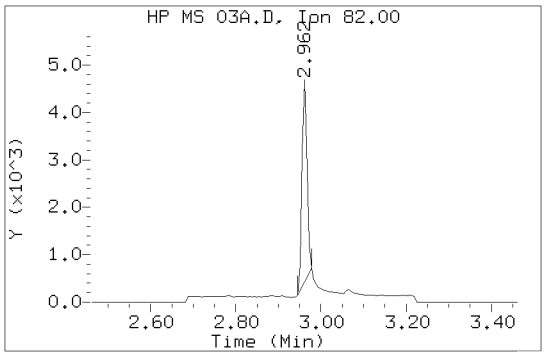
BEFORE

MASS
82
AREA
1622
HEIGHT
270
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
82
AREA
3376
HEIGHT
4254
31-May-2023
17:07
ALSHS
Ser



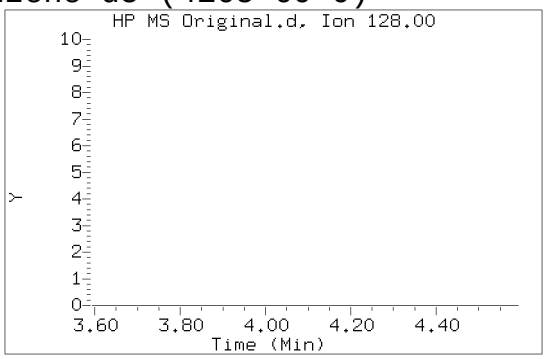
Data File : \\NAHSTWS005\Target\chem\SV6.i\230530.b\03A.D
Inj Date : 30-MAY-2023 11:49
InstruID : SV6.i
LabSampID : 14DX-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

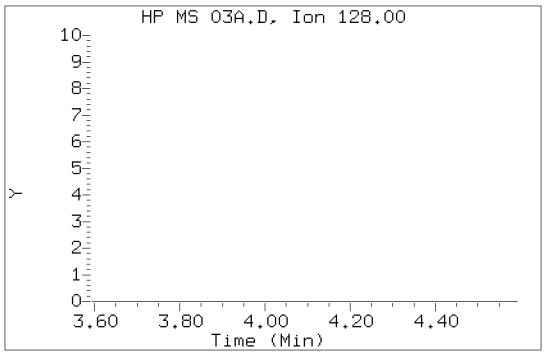
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-May-2023
12:04
ALSHS
Server



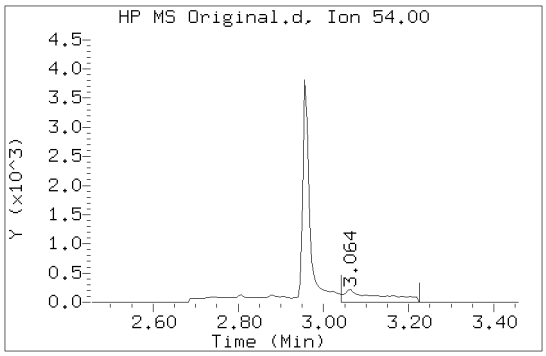
AFTER

MASS
128
AREA
0
HEIGHT
0
31-May-2023
17:07
ALSHS
Ser



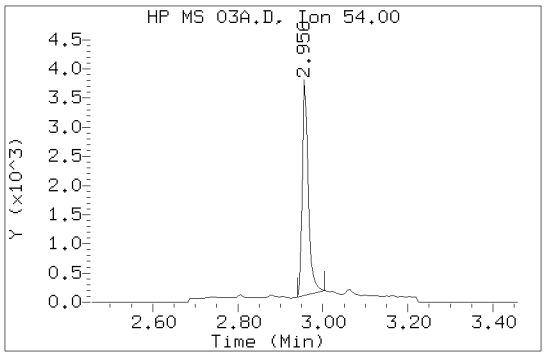
BEFORE

MASS
54
AREA
1285
HEIGHT
223
30-May-2023
12:04
ALSHS
Server



AFTER

MASS
54
AREA
3537
HEIGHT
3696
31-May-2023
17:07
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230530.b\05.D
Lab Smp Id: HS23050522-01 Client Smp ID: HS23050522-01
Inj Date : 30-MAY-2023 12:42
Operator : LG Inst ID: SV6.i
Smp Info : HS23050522-01
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230530.b\DXSIM.m
Meth Date : 30-May-2023 13:31 jiayi.lu Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.537	2.516	(1.000)	5140	0.10000	(aM)
* 45 Naphthalene-d8	136	3.577	3.573	(1.000)	12294	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.154	2.725	(0.882)	3771	0.10631	0.1063(M)
* 86 Acenaphthene-d10	164	5.210	5.210	(1.000)	6323	0.10000	
$ 69 2-Fluorobiphenyl	172	4.605	4.596	(0.884)	6277	0.07564	0.07564(M)
* 126 Phenanthrene-d10	188	6.643	6.622	(1.000)	14214	0.10000	
* 182 Chrysene-d12	240	9.172	9.172	(1.000)	11885	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.203	8.201	(0.894)	12662	0.06631	0.06631(M)
* 198 Perylene-d12	264	10.810	10.804	(1.000)	11726	0.10000	
1 1,4-Dioxane	58	0.988	0.859	(0.390)	334	0.01781	0.01781(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209889

Data File: \\nahstws005\Target\chem\SV6.i\230530.b\05.D

Date : 30-MAY-2023 12:42

Client ID: HS23050522-01

Instrument: SV6.i

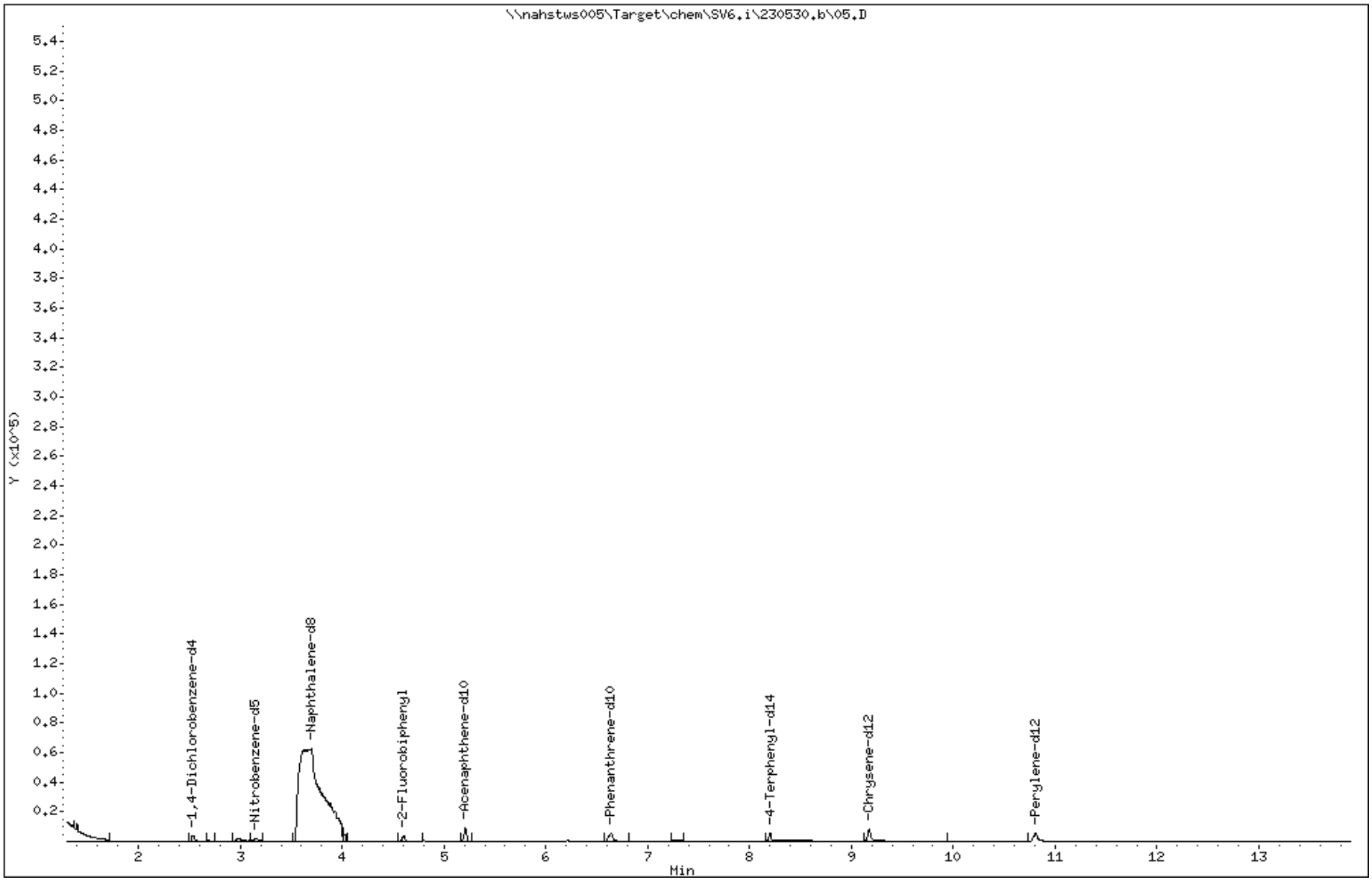
Sample Info: HS23050522-01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\230530.b\05.D

Date : 30-MAY-2023 12:42

Client ID: HS23050522-01

Instrument: SV6.i

Sample Info: HS23050522-01

Purge Volume: 1000.0

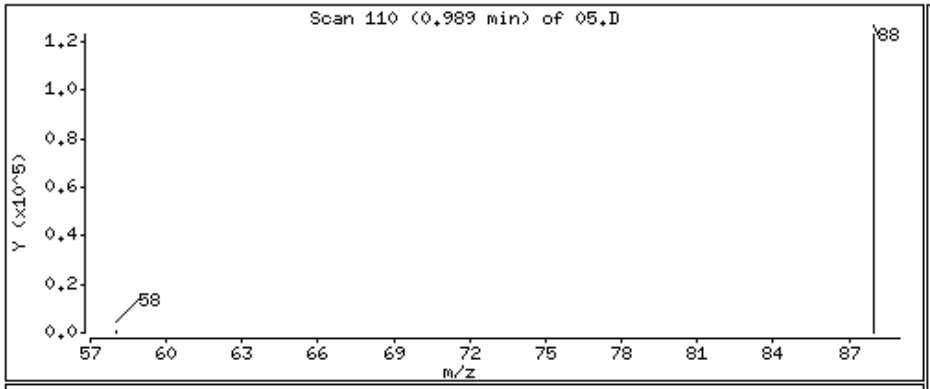
Operator: LG

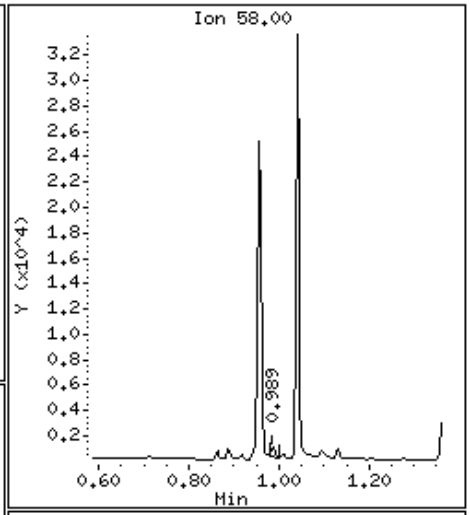
Column phase: RTX-5SIL MS

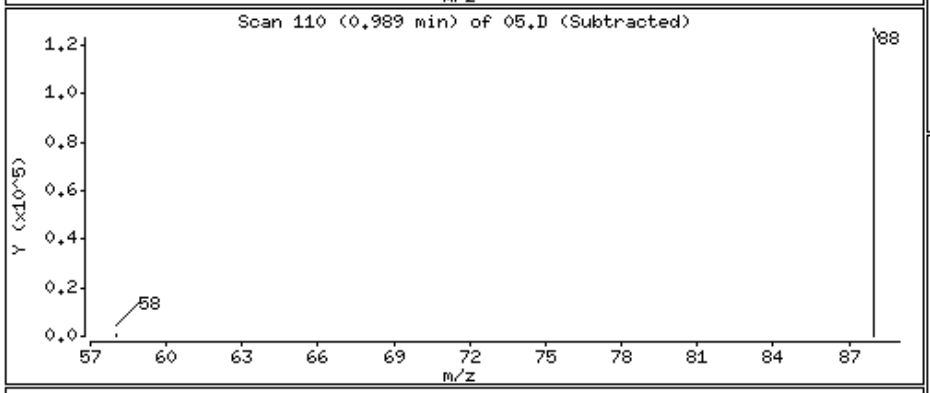
Column diameter: 0.28

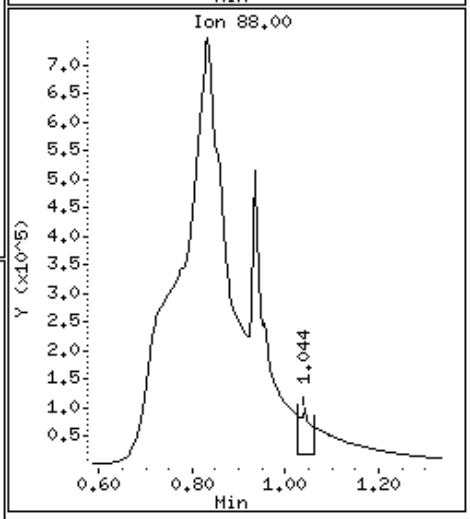
1 1,4-Dioxane

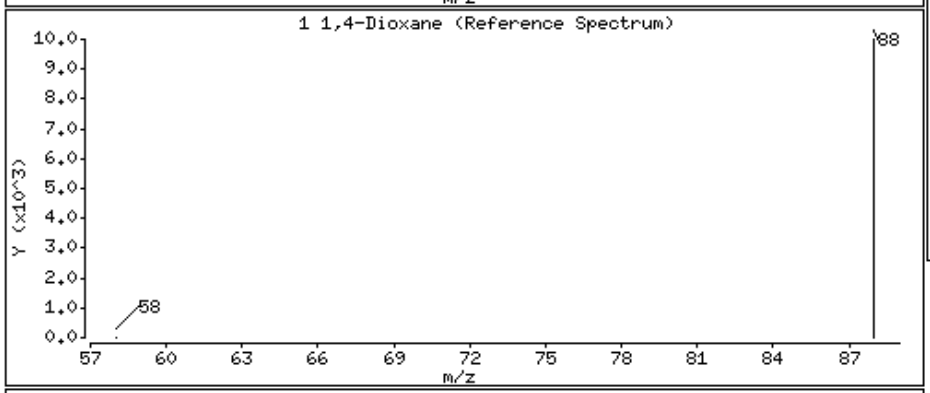
Concentration: 0.01781 ug/L

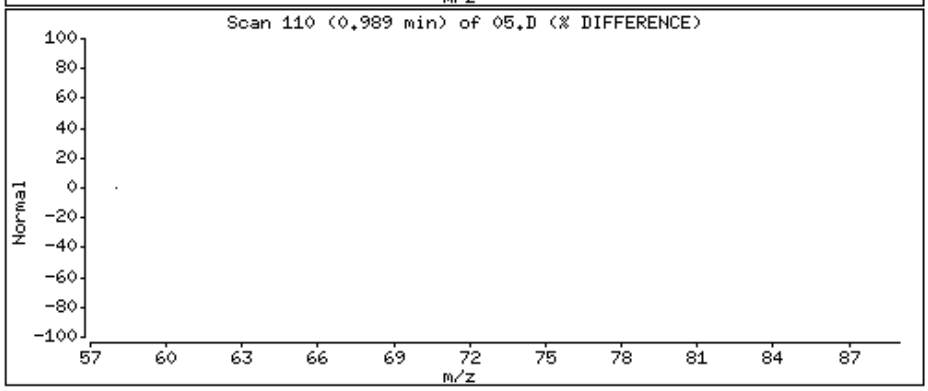












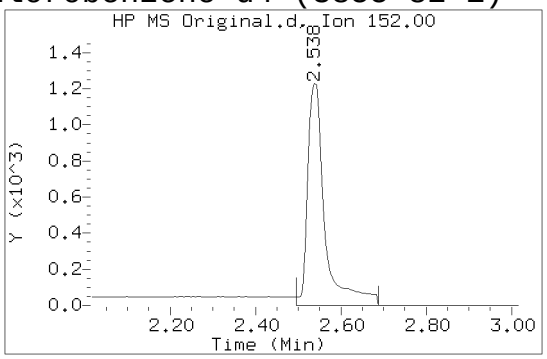
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Inj Date : 30-MAY-2023 12:42
InstruID : SV6.i
LabSampID : HS23050522-01

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

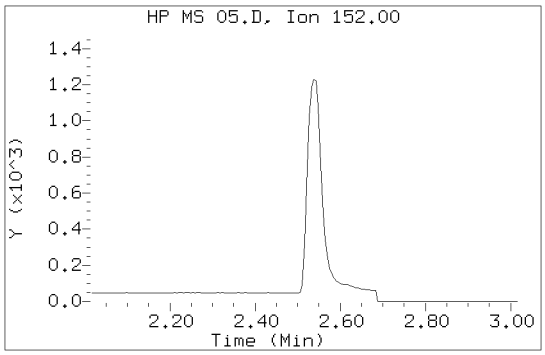
BEFORE

MASS
152
AREA
3456
HEIGHT
1228
30-May-2023
12:57
ALSHS
Server



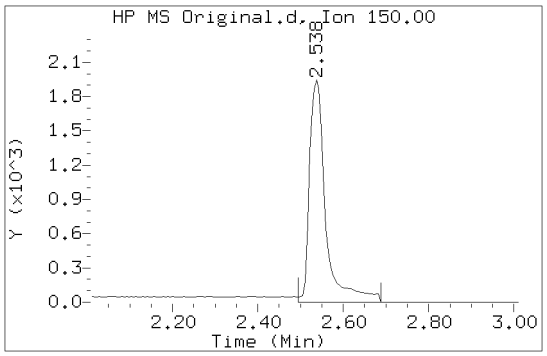
AFTER

MASS
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AREA
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HEIGHT
1228
30-May-2023
14:04
ALSHS
Se



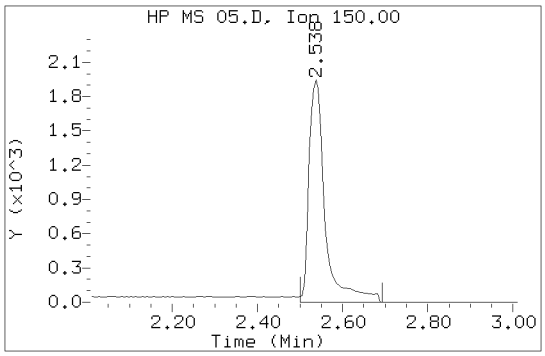
BEFORE

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AREA
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HEIGHT
1946
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12:57
ALSHS
Server



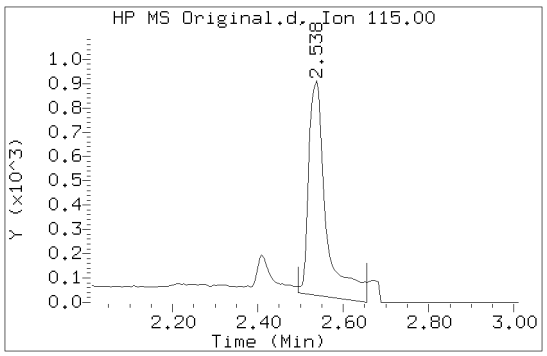
AFTER

MASS
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AREA
5128
HEIGHT
1946
30-May-2023
14:04
ALSHS
Se



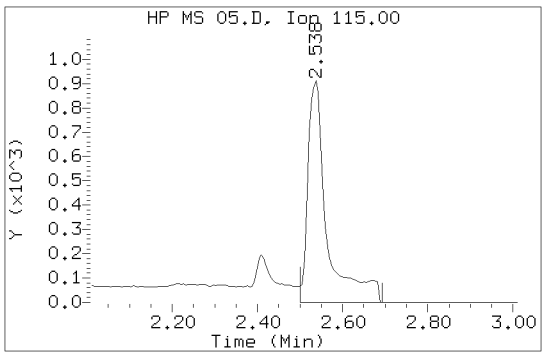
BEFORE

MASS
115
AREA
2531
HEIGHT
883
30-May-2023
12:57
ALSHS
Server



AFTER

MASS
115
AREA
2844
HEIGHT
912
30-May-2023
14:04
ALSHS
Se

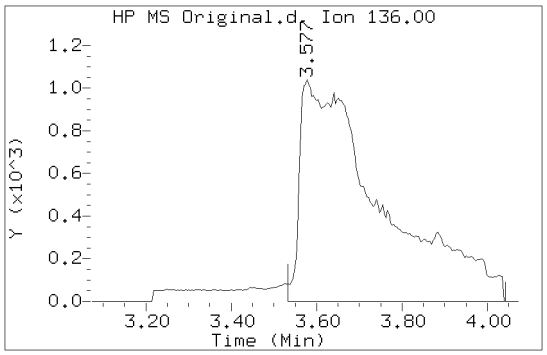


Naphthalene-d8 (1146-65-2)

Reason Code:

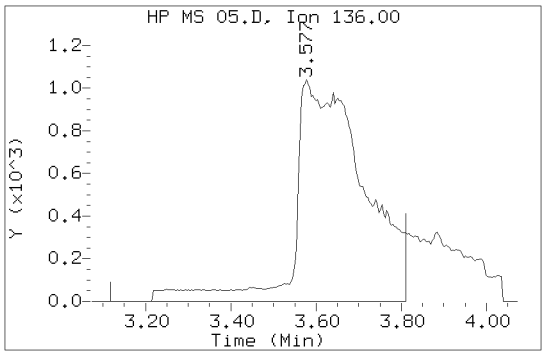
BEFORE

MASS
136
AREA
13794
HEIGHT
1040
30-May-2023
12:57
ALSHS
Server



AFTER

MASS
136
AREA
12294
HEIGHT
1040
30-May-2023
14:04
ALSHS
Se

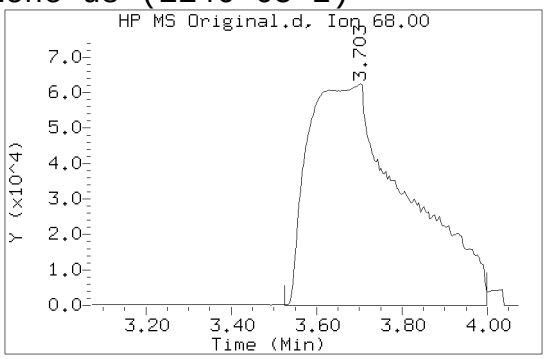


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Inj Date : 30-MAY-2023 12:42
InstruID : SV6.i
LabSampID : HS23050522-01

Naphthalene-d8 (1146-65-2)

BEFORE

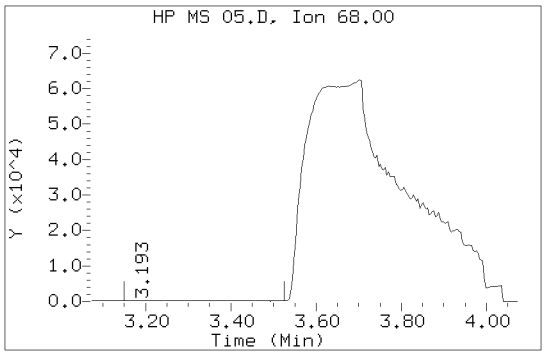
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68
AREA
1001721
HEIGHT
62501
30-May-2023
12:57
ALSHS
Server



Reason Code:

AFTER

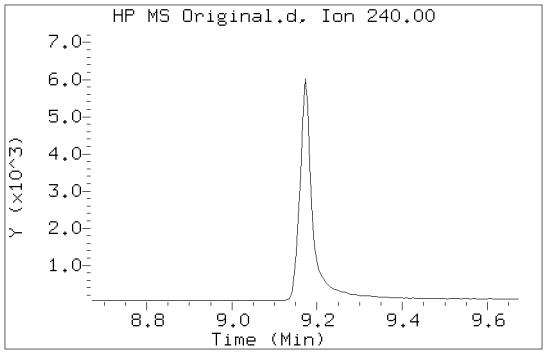
MASS
68
AREA
410
HEIGHT
61
30-May-2023
14:04
ALSHS
Se



Chrysene-d12 (1719-03-5)

BEFORE

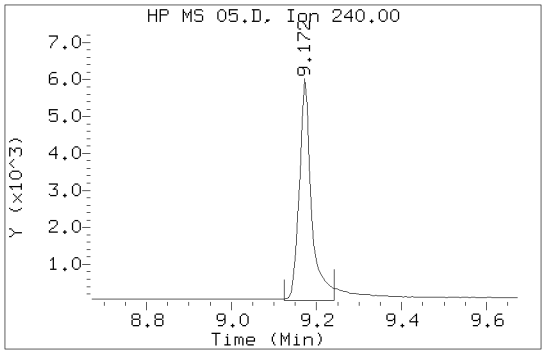
MASS
240
AREA
0
HEIGHT
0
30-May-2023
12:57
ALSHS
Server



Reason Code:

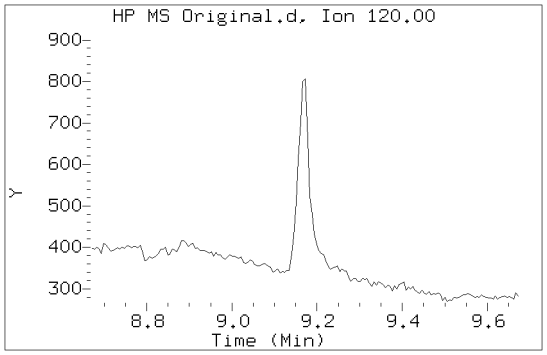
AFTER

MASS
240
AREA
11885
HEIGHT
5995
30-May-2023
14:04
ALSHS
Se



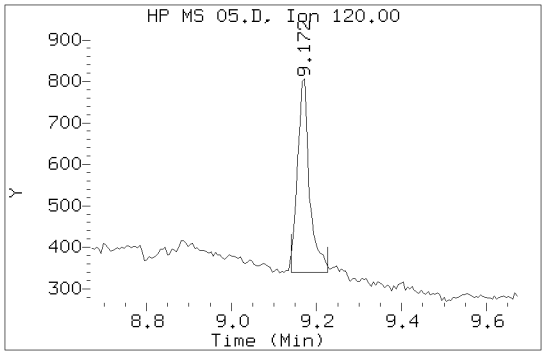
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-May-2023
12:57
ALSHS
Server



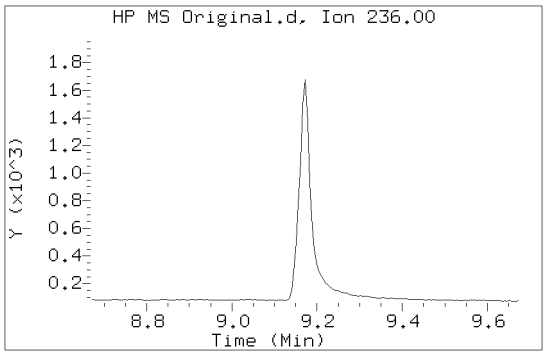
AFTER

MASS
120
AREA
917
HEIGHT
466
30-May-2023
14:04
ALSHS
Se



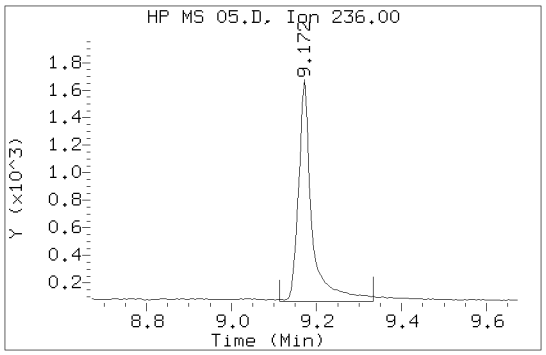
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-May-2023
12:57
ALSHS
Server



AFTER

MASS
236
AREA
3521
HEIGHT
1609
30-May-2023
14:04
ALSHS
Se



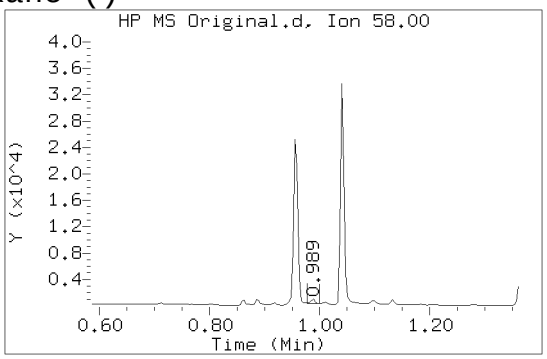
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\05.D
Inj Date : 30-MAY-2023 12:42
InstruID : SV6.i
LabSampID : HS23050522-01

1,4-Dioxane ()

Reason Code:

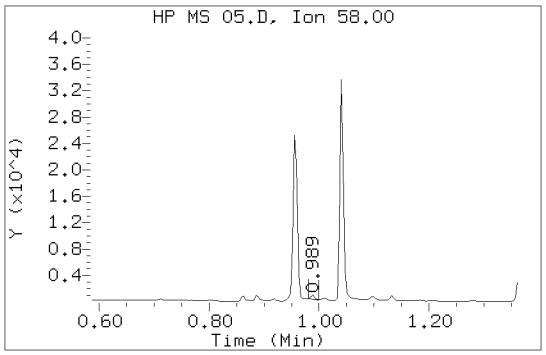
BEFORE

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AREA
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HEIGHT
694
30-May-2023
12:57
ALSHS
Server



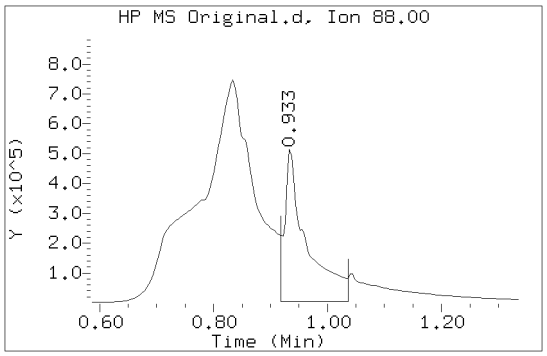
AFTER

MASS
58
AREA
334
HEIGHT
669
30-May-2023
14:04
ALSHS
Se



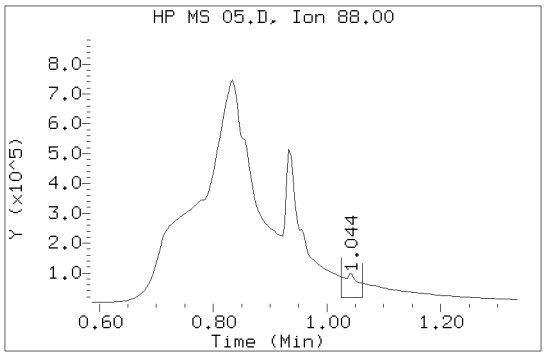
BEFORE

MASS
88
AREA
1371304
HEIGHT
510103
30-May-2023
12:57
ALSHS
Server



AFTER

MASS
88
AREA
152941
HEIGHT
80179
30-May-2023
14:04
ALSHS
Se

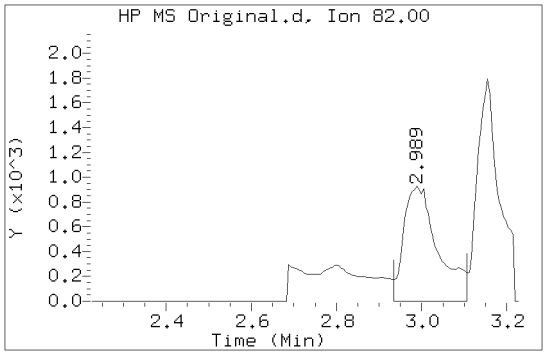


Nitrobenzene-d5 (4165-60-0)

Reason Code:

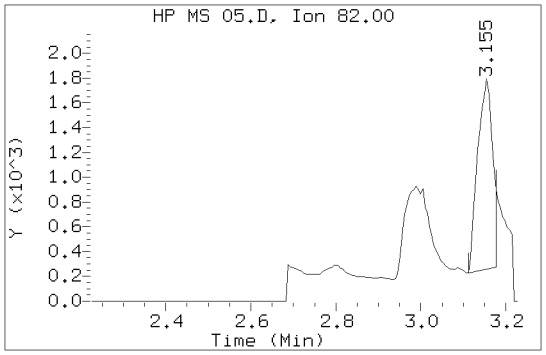
BEFORE

MASS
82
AREA
5229
HEIGHT
930
30-May-2023
12:57
ALSHS
Server



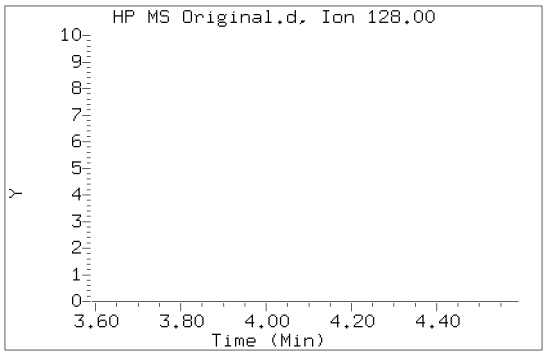
AFTER

MASS
82
AREA
3771
HEIGHT
1533
30-May-2023
14:04
ALSHS
Se



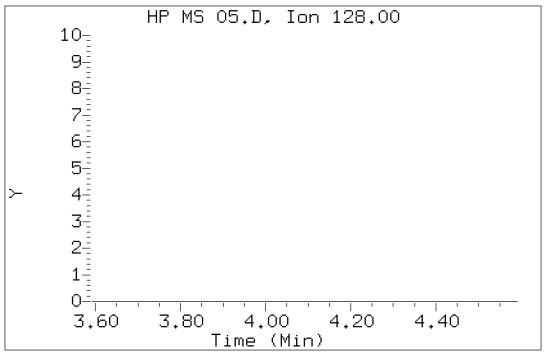
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-May-2023
12:57
ALSHS
Server



AFTER

MASS
128
AREA
0
HEIGHT
0
30-May-2023
14:04
ALSHS
Se

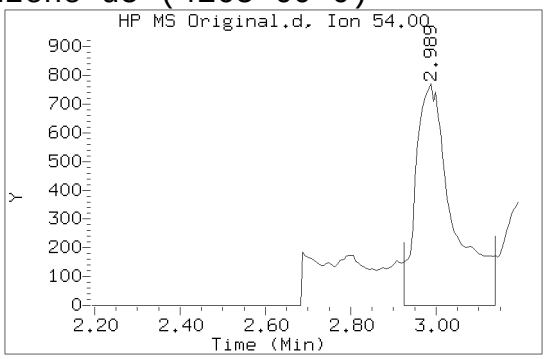


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Inj Date : 30-MAY-2023 12:42
InstruID : SV6.i
LabSampID : HS23050522-01

Nitrobenzene-d5 (4165-60-0)

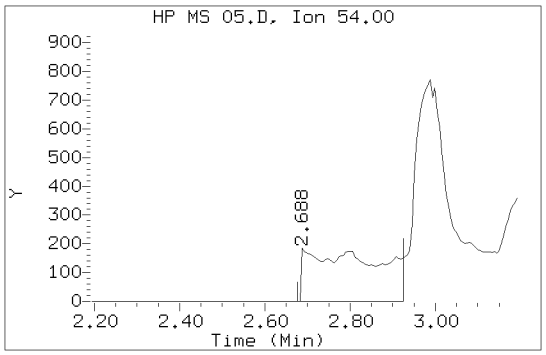
Reason Code:

BEFORE



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HEIGHT
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30-May-2023
12:57
ALSHS
Server

AFTER

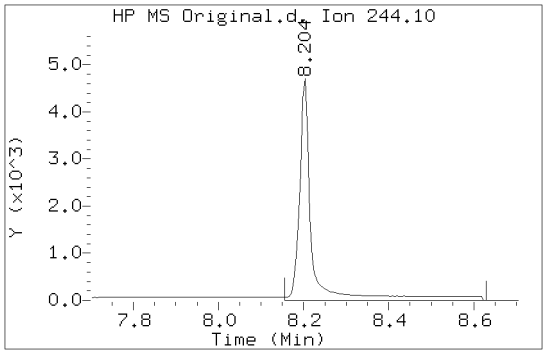


MASS
54
AREA
2121
HEIGHT
184
30-May-2023
14:04
ALSHS
Se

4-Terphenyl-d14 (1718-51-0)

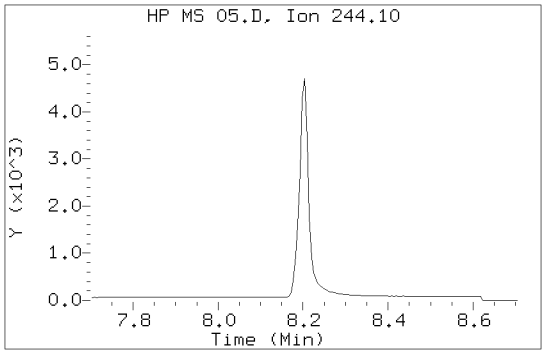
Reason Code:

BEFORE



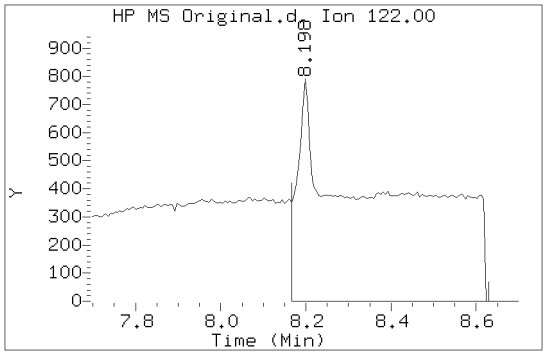
MASS
244.1
AREA
9632
HEIGHT
4705
30-May-2023
12:57
ALSHS
Server

AFTER



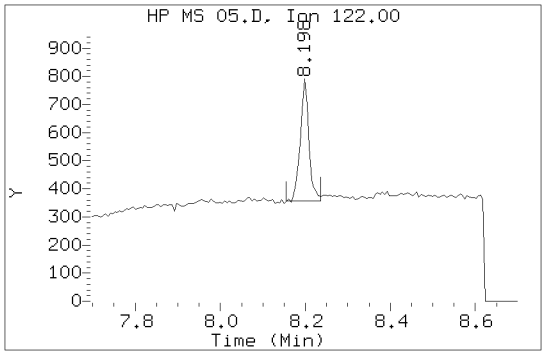
MASS
244.1
AREA
12662
HEIGHT
4705
30-May-2023
14:04
ALSHS
Se

BEFORE



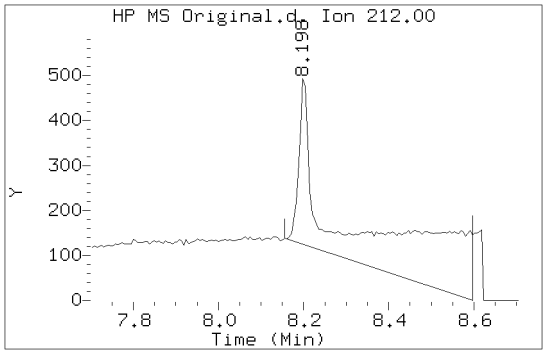
MASS
122
AREA
10800
HEIGHT
791
30-May-2023
12:57
ALSHS
Server

AFTER



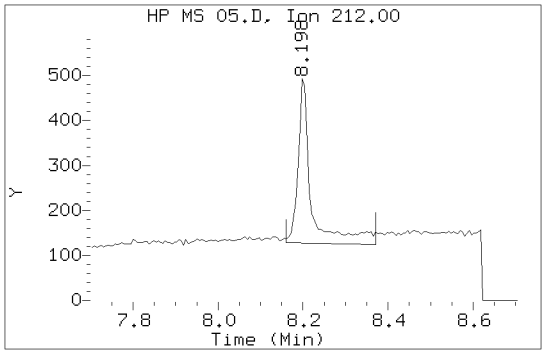
MASS
122
AREA
610
HEIGHT
435
30-May-2023
14:04
ALSHS
Se

BEFORE



MASS
212
AREA
2654
HEIGHT
368
30-May-2023
12:57
ALSHS
Server

AFTER



MASS
212
AREA
795
HEIGHT
365
30-May-2023
14:04
ALSHS
Se

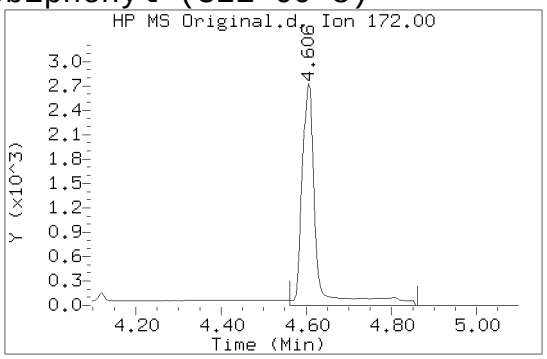
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\05.D
Inj Date : 30-MAY-2023 12:42
InstruID : SV6.i
LabSampID : HS23050522-01

2-Fluorobiphenyl (321-60-8)

Reason Code:

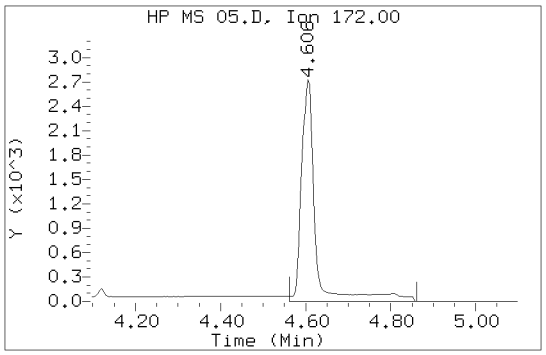
BEFORE

MASS
172
AREA
6277
HEIGHT
2728
30-May-2023
12:57
ALSHS
Server



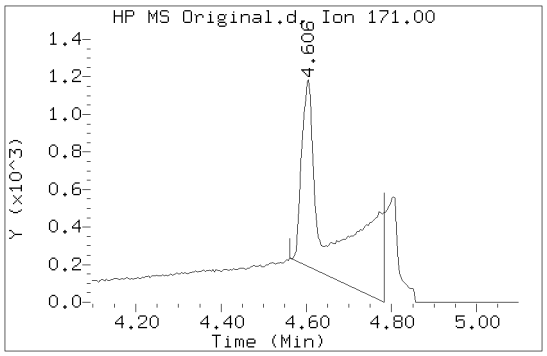
AFTER

MASS
172
AREA
6277
HEIGHT
2728
30-May-2023
14:04
ALSHS
Se



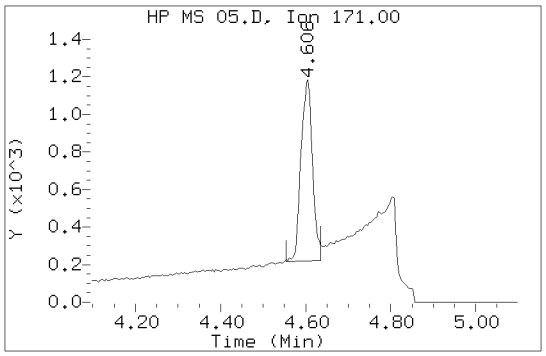
BEFORE

MASS
171
AREA
4528
HEIGHT
994
30-May-2023
12:57
ALSHS
Server



AFTER

MASS
171
AREA
1823
HEIGHT
964
30-May-2023
14:04
ALSHS
Se



Data File: \\nahstws005\Target\chem\SV6.i\230530.b\06.D Page 1
Report Date: 30-May-2023 13:40

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Lab Smp Id: MBLK-194323 Client Smp ID: MBLK-194323
Inj Date : 30-MAY-2023 13:00
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-194323
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230530.b\DXSIM.m
Meth Date : 30-May-2023 13:31 jiayi.lu Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.516	2.516	(1.000)	2961	0.10000	(aM)
* 45 Naphthalene-d8	136	3.577	3.573	(1.000)	6215	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.961	2.725	(0.828)	1729	0.09642	0.09642(M)
* 86 Acenaphthene-d10	164	5.204	5.210	(1.000)	4611	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.598	4.596	(0.884)	4629	0.07649	0.07649(M)
* 126 Phenanthrene-d10	188	6.622	6.622	(1.000)	10090	0.10000	(M)
* 182 Chrysene-d12	240	9.172	9.172	(1.000)	6392	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.203	8.201	(0.894)	7602	0.07211	0.07211(M)
* 198 Perylene-d12	264	10.804	10.804	(1.000)	7099	0.10000	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209897

Data File: \\nahstws005\Target\chem\SV6.i\230530.b\06.D

Date : 30-MAY-2023 13:00

Client ID: MBLK-194323

Instrument: SV6.i

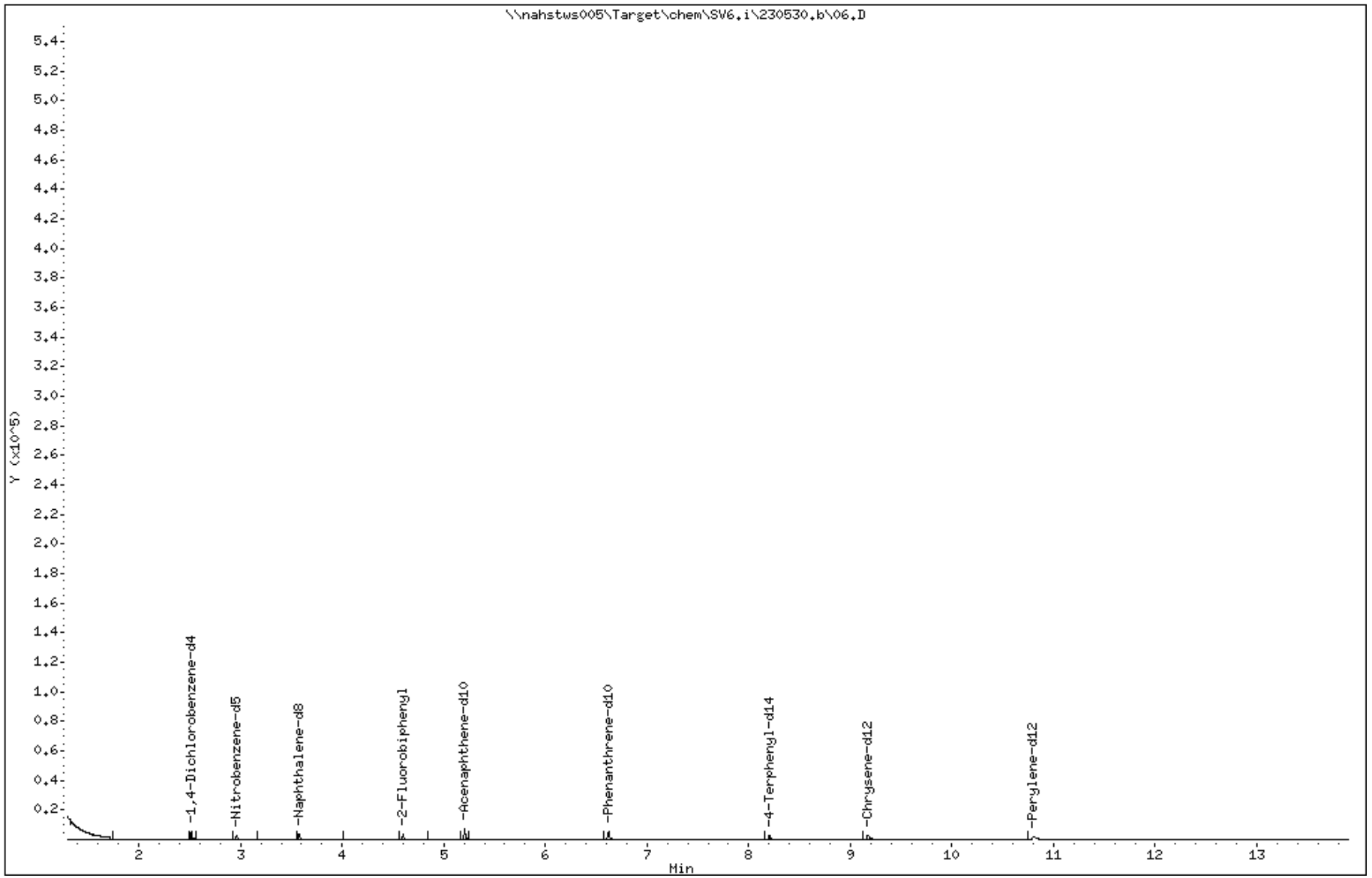
Sample Info: MBLK-194323

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



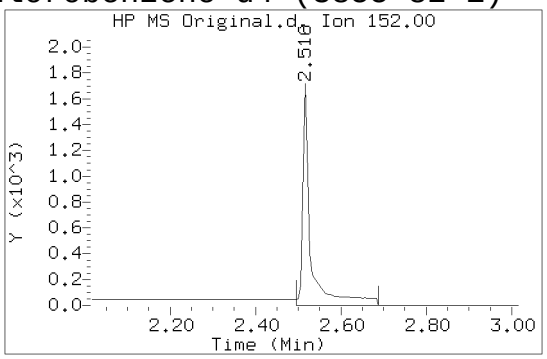
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Inj Date : 30-MAY-2023 13:00
InstruID : SV6.i
LabSampID : MBLK-194323

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

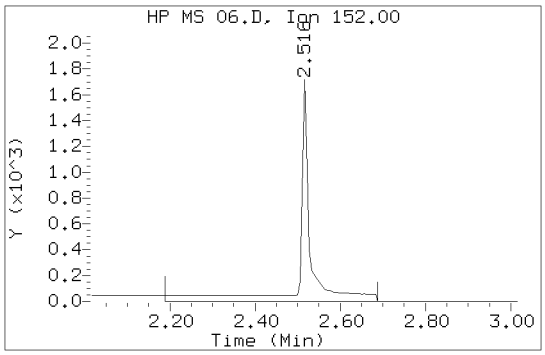
BEFORE

MASS
152
AREA
2180
HEIGHT
1717
30-May-2023
13:15
ALSHS
Server



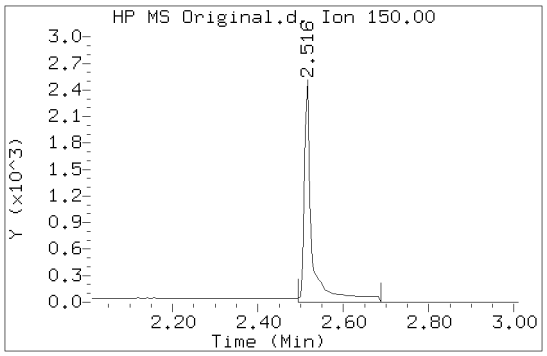
AFTER

MASS
152
AREA
2961
HEIGHT
1715
30-May-2023
13:40
ALSHS
Se



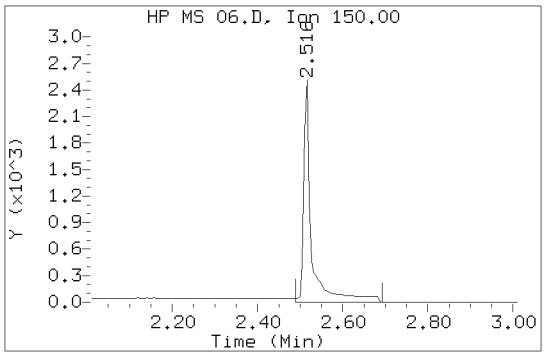
BEFORE

MASS
150
AREA
3148
HEIGHT
2515
30-May-2023
13:15
ALSHS
Server



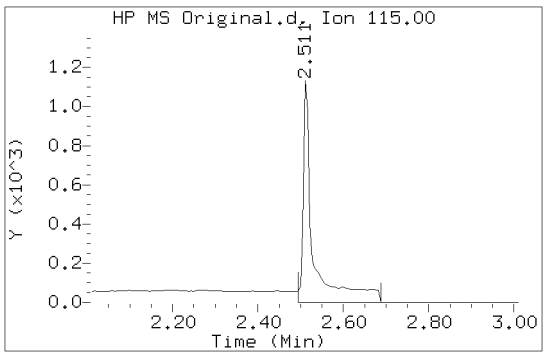
AFTER

MASS
150
AREA
3163
HEIGHT
2515
30-May-2023
13:40
ALSHS
Se



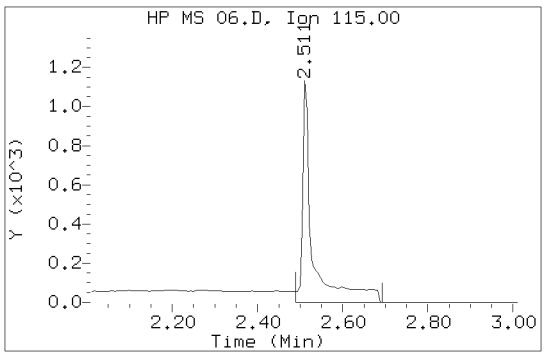
BEFORE

MASS
115
AREA
1819
HEIGHT
1132
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
115
AREA
1837
HEIGHT
1132
30-May-2023
13:40
ALSHS
Se

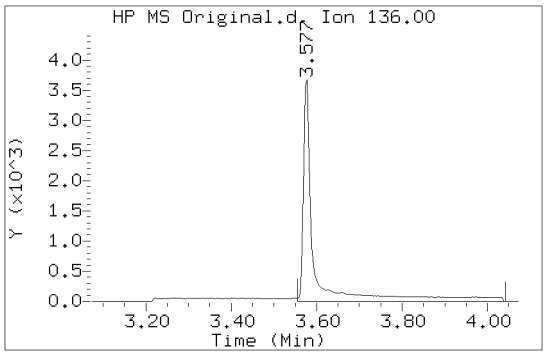


Naphthalene-d8 (1146-65-2)

Reason Code:

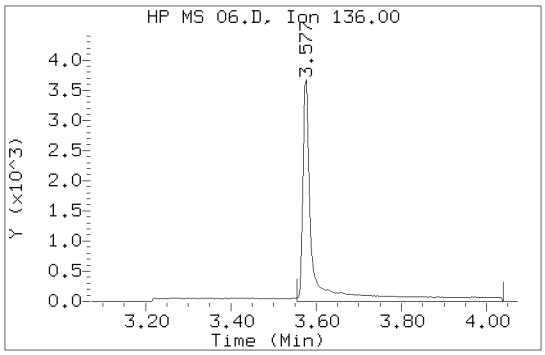
BEFORE

MASS
136
AREA
6288
HEIGHT
3675
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
136
AREA
6215
HEIGHT
3670
30-May-2023
13:40
ALSHS
Se



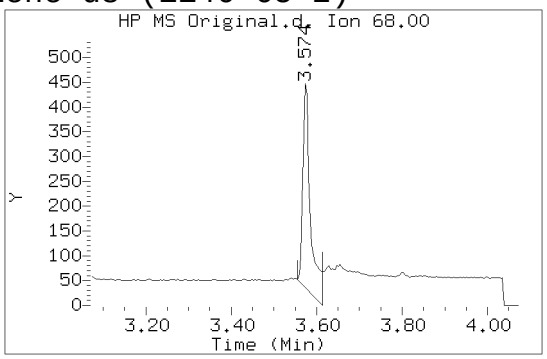
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Inj Date : 30-MAY-2023 13:00
InstruID : SV6.i
LabSampID : MBLK-194323

Naphthalene-d8 (1146-65-2)

Reason Code:

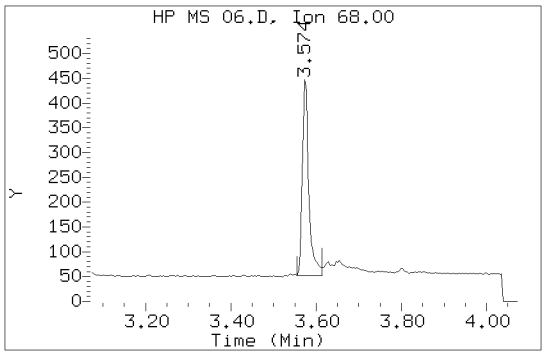
BEFORE

MASS
68
AREA
510
HEIGHT
411
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
68
AREA
412
HEIGHT
395
30-May-2023
13:40
ALSHS
Se

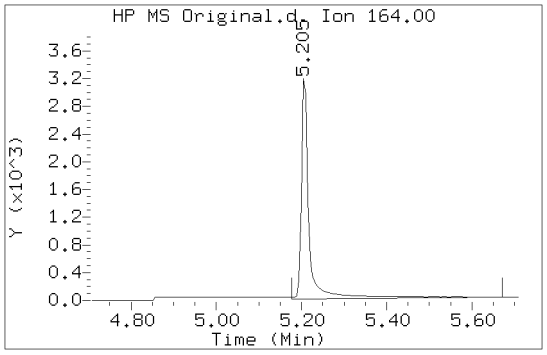


Acenaphthene-d10 (15067-26-2)

Reason Code:

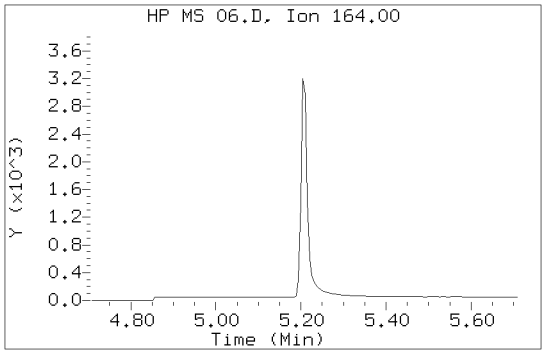
BEFORE

MASS
164
AREA
4140
HEIGHT
3178
30-May-2023
13:15
ALSHS
Server



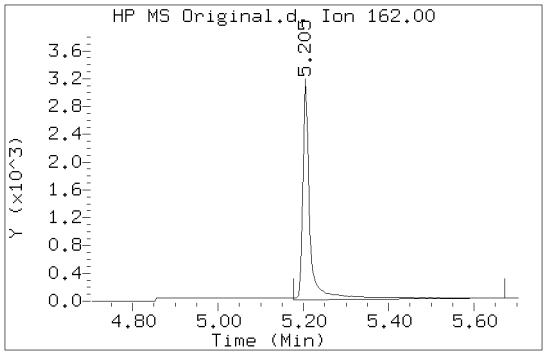
AFTER

MASS
164
AREA
4611
HEIGHT
3175
30-May-2023
13:40
ALSHS
Se



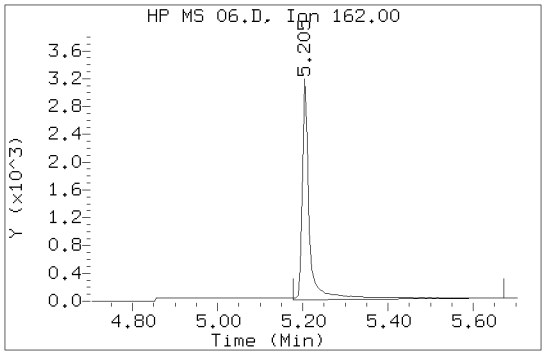
BEFORE

MASS
162
AREA
3900
HEIGHT
3177
30-May-2023
13:15
ALSHS
Server



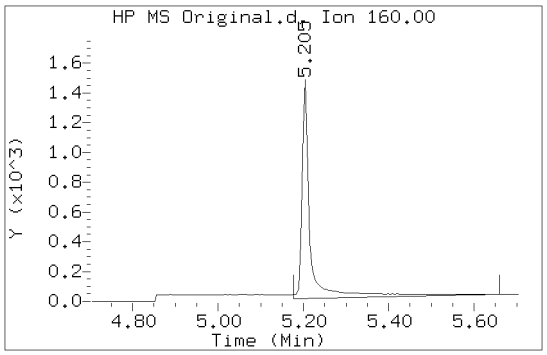
AFTER

MASS
162
AREA
3900
HEIGHT
3177
30-May-2023
13:40
ALSHS
Se



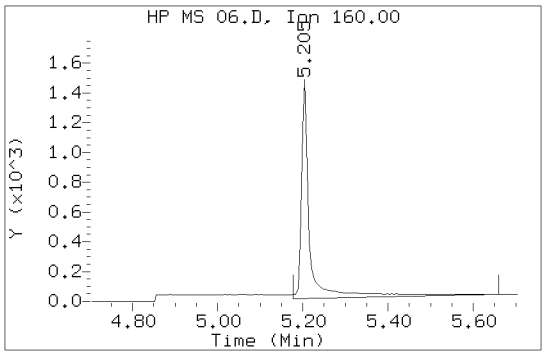
BEFORE

MASS
160
AREA
2026
HEIGHT
1469
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
160
AREA
2026
HEIGHT
1469
30-May-2023
13:40
ALSHS
Se



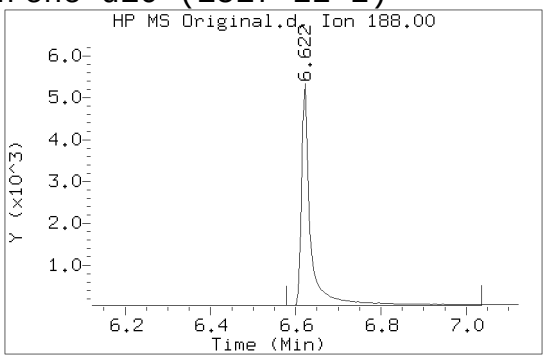
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Inj Date : 30-MAY-2023 13:00
InstruID : SV6.i
LabSampID : MBLK-194323

Phenanthrene-d10 (1517-22-2)

Reason Code:

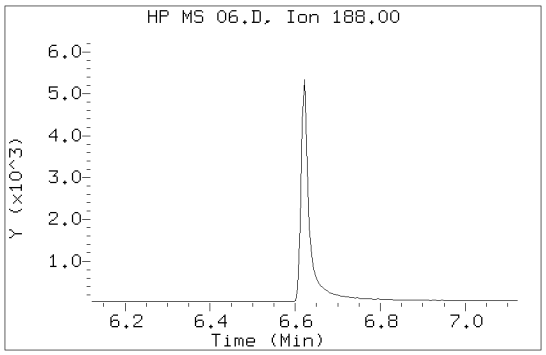
BEFORE

MASS
188
AREA
7804
HEIGHT
5293
30-May-2023
13:15
ALSHS
Server



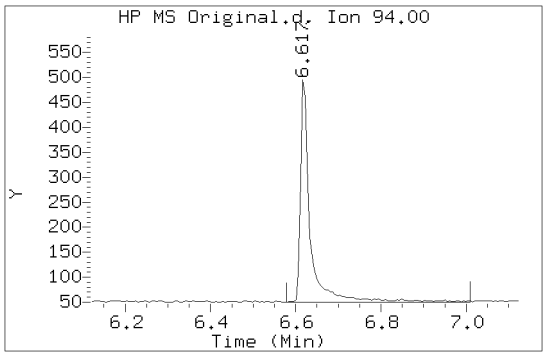
AFTER

MASS
188
AREA
10090
HEIGHT
5332
30-May-2023
13:40
ALSHS
Se



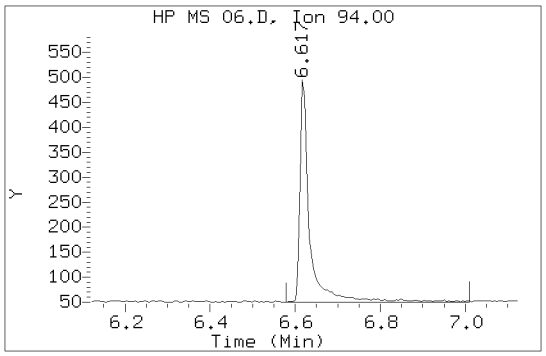
BEFORE

MASS
94
AREA
708
HEIGHT
445
30-May-2023
13:15
ALSHS
Server



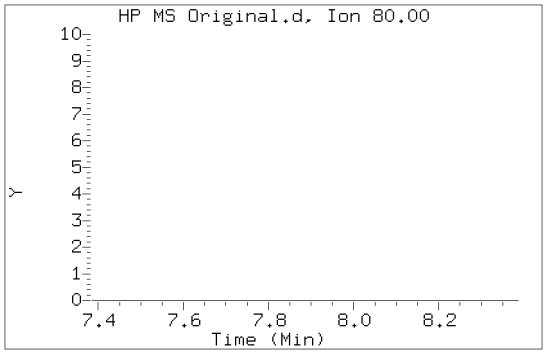
AFTER

MASS
94
AREA
708
HEIGHT
445
30-May-2023
13:40
ALSHS
Se



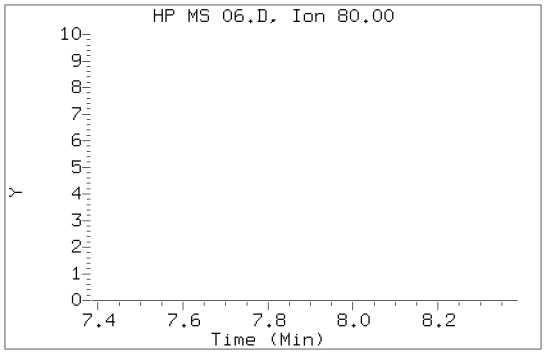
BEFORE

MASS
80
AREA
0
HEIGHT
0
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
30-May-2023
13:40
ALSHS
Se

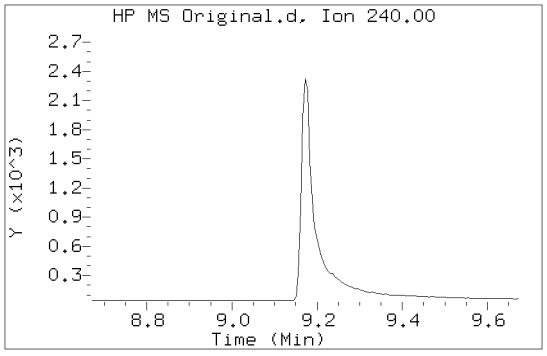


Chrysene-d12 (1719-03-5)

Reason Code:

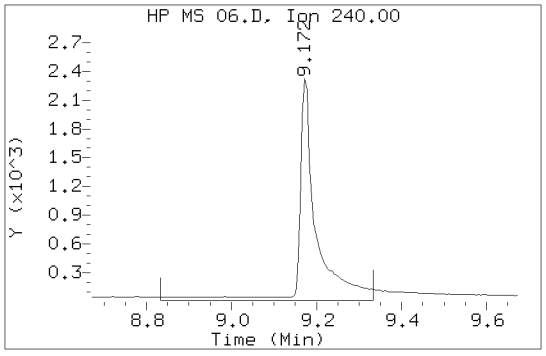
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
240
AREA
6392
HEIGHT
2315
30-May-2023
13:40
ALSHS
Se



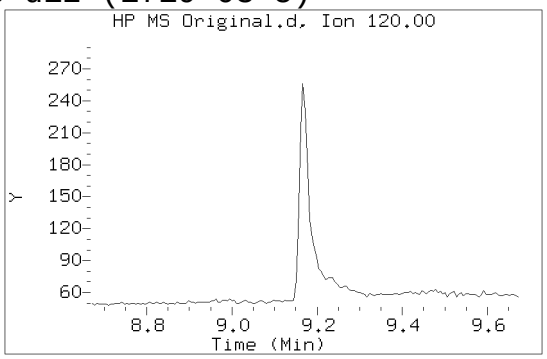
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Inj Date : 30-MAY-2023 13:00
InstruID : SV6.i
LabSampID : MBLK-194323

Chrysene-d12 (1719-03-5)

Reason Code:

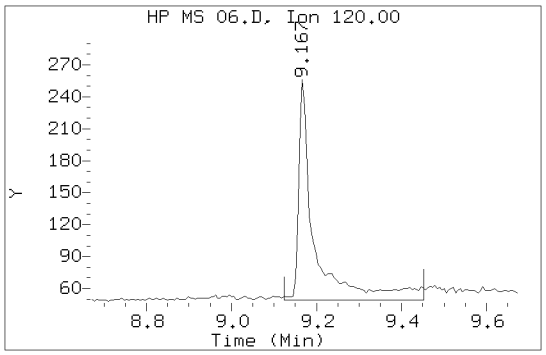
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-May-2023
13:15
ALSHS
Server



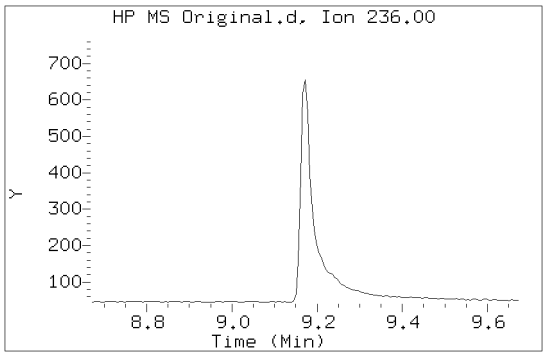
AFTER

MASS
120
AREA
537
HEIGHT
207
30-May-2023
13:40
ALSHS
Se



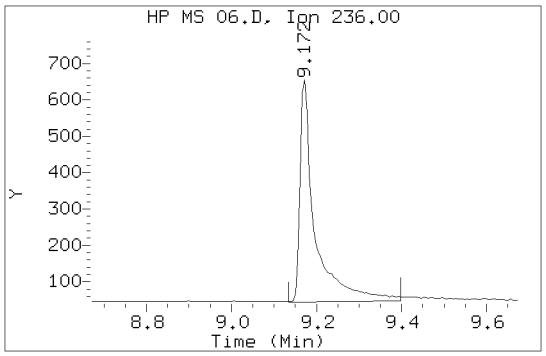
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
236
AREA
1503
HEIGHT
610
30-May-2023
13:40
ALSHS
Se

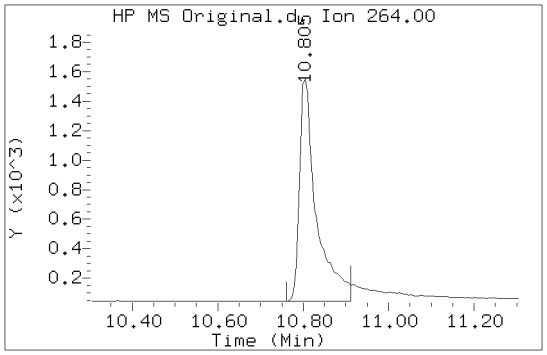


Perylene-d12 (1520-96-3)

Reason Code:

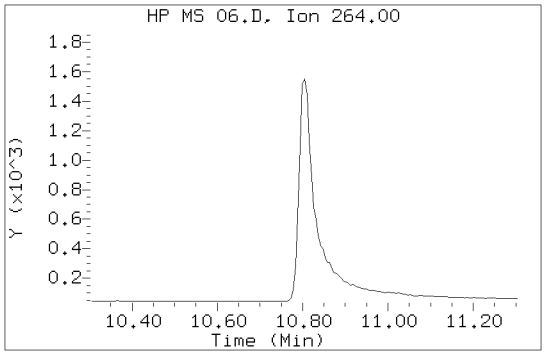
BEFORE

MASS
264
AREA
4127
HEIGHT
1505
30-May-2023
13:15
ALSHS
Server



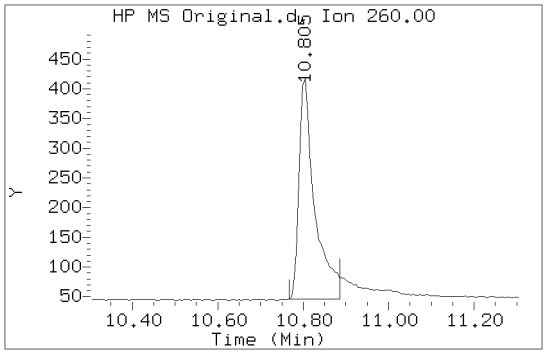
AFTER

MASS
264
AREA
7099
HEIGHT
1544
30-May-2023
13:40
ALSHS
Se



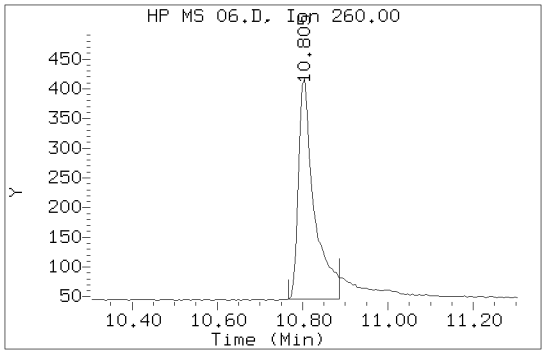
BEFORE

MASS
260
AREA
947
HEIGHT
371
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
260
AREA
947
HEIGHT
371
30-May-2023
13:40
ALSHS
Se



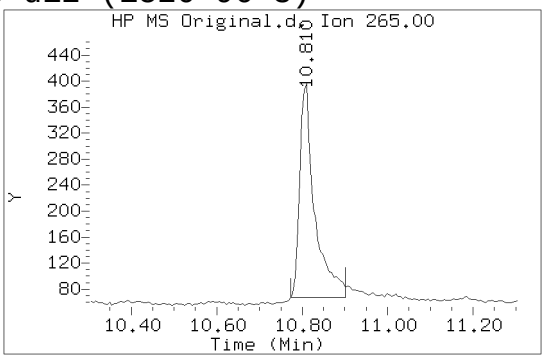
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Inj Date : 30-MAY-2023 13:00
InstruID : SV6.i
LabSampID : MBLK-194323

Perylene-d12 (1520-96-3)

Reason Code:

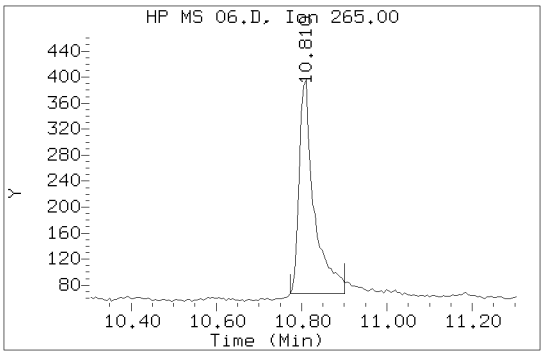
BEFORE

MASS
265
AREA
797
HEIGHT
329
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
265
AREA
797
HEIGHT
329
30-May-2023
13:40
ALSHS
Se

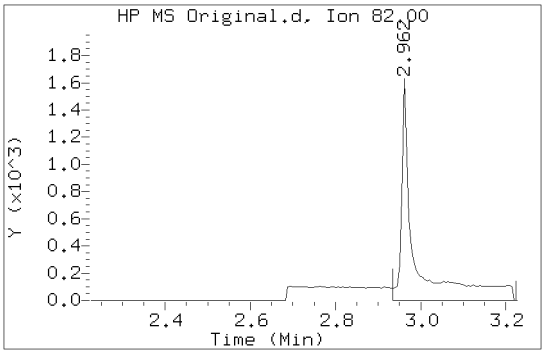


Nitrobenzene-d5 (4165-60-0)

Reason Code:

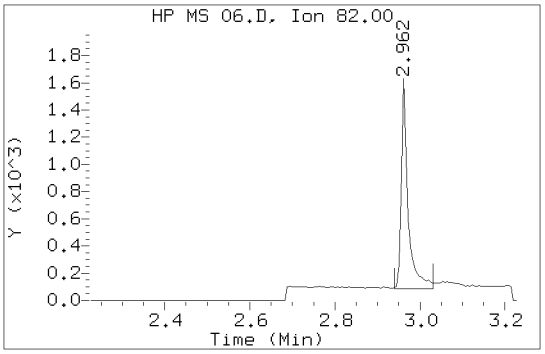
BEFORE

MASS
82
AREA
3461
HEIGHT
1630
30-May-2023
13:15
ALSHS
Server



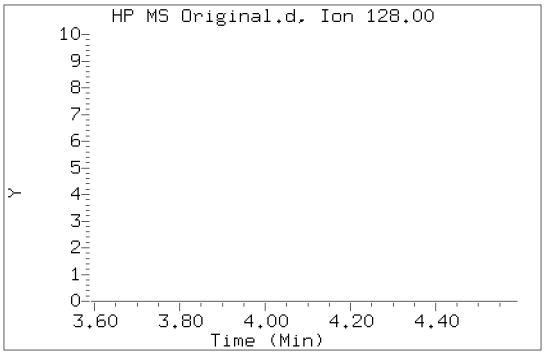
AFTER

MASS
82
AREA
1729
HEIGHT
1547
30-May-2023
13:40
ALSHS
Se



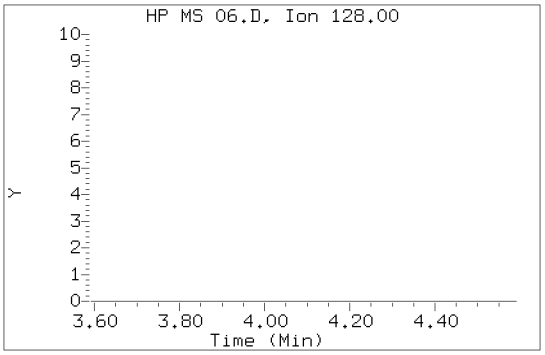
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-May-2023
13:15
ALSHS
Server



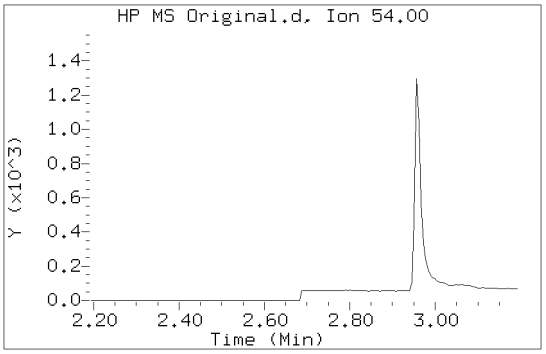
AFTER

MASS
128
AREA
0
HEIGHT
0
30-May-2023
13:40
ALSHS
Se



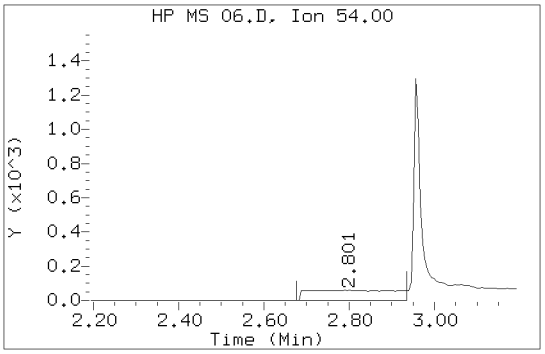
BEFORE

MASS
54
AREA
2537
HEIGHT
1296
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
54
AREA
856
HEIGHT
61
30-May-2023
13:40
ALSHS
Se

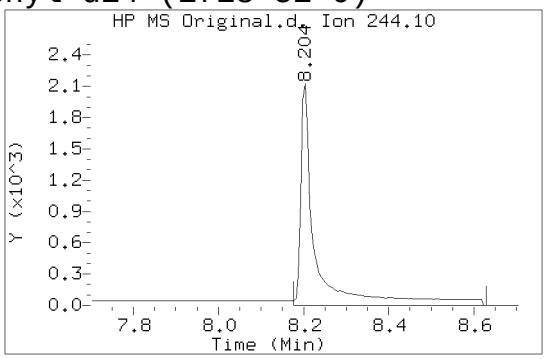


Data File : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Inj Date : 30-MAY-2023 13:00
InstruID : SV6.i
LabSampID : MBLK-194323

4-Terphenyl-d14 (1718-51-0)

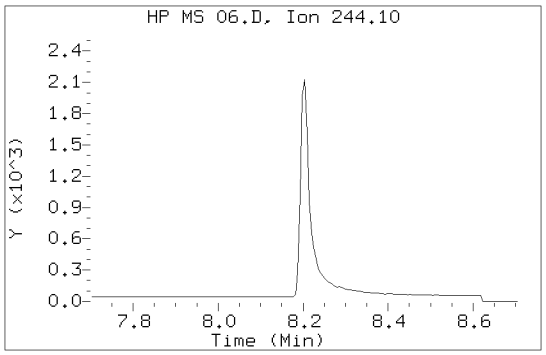
Reason Code:

BEFORE



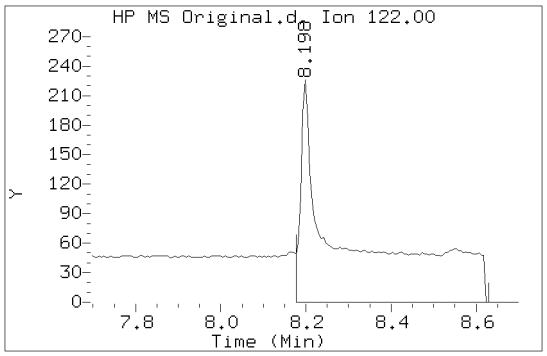
MASS
244.1
AREA
5183
HEIGHT
2125
30-May-2023
13:15
ALSHS
Server

AFTER



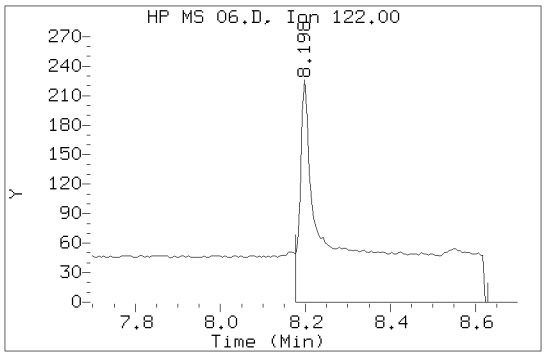
MASS
244.1
AREA
7602
HEIGHT
2128
30-May-2023
13:40
ALSHS
Se

BEFORE



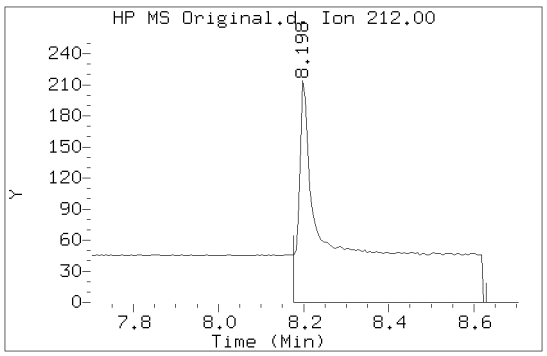
MASS
122
AREA
1608
HEIGHT
226
30-May-2023
13:15
ALSHS
Server

AFTER



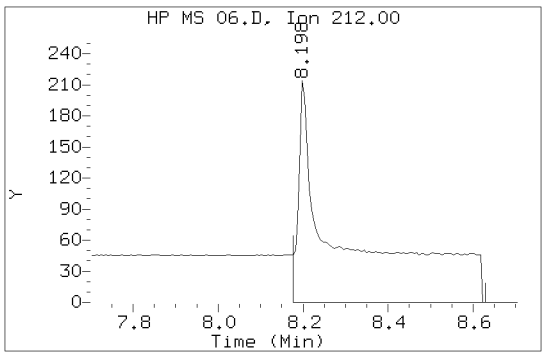
MASS
122
AREA
1608
HEIGHT
226
30-May-2023
13:40
ALSHS
Se

BEFORE



MASS
212
AREA
1538
HEIGHT
214
30-May-2023
13:15
ALSHS
Server

AFTER

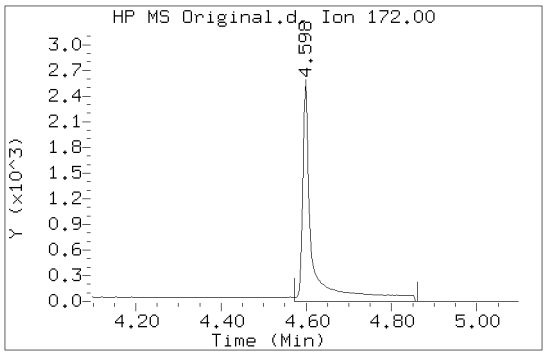


MASS
212
AREA
1538
HEIGHT
214
30-May-2023
13:40
ALSHS
Se

2-Fluorobiphenyl (321-60-8)

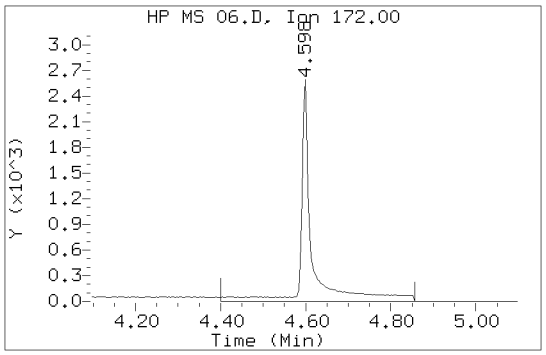
Reason Code:

BEFORE



MASS
172
AREA
4133
HEIGHT
2592
30-May-2023
13:15
ALSHS
Server

AFTER



MASS
172
AREA
4629
HEIGHT
2593
30-May-2023
13:40
ALSHS
Se

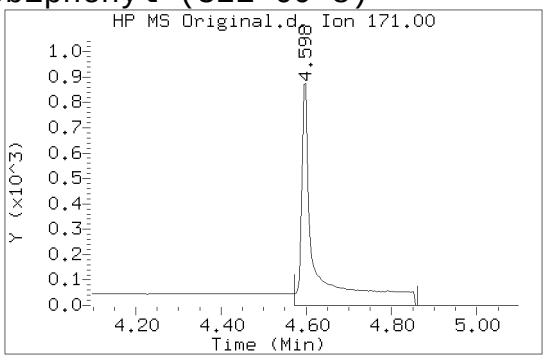
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\06.D
Inj Date : 30-MAY-2023 13:00
InstruID : SV6.i
LabSampID : MBLK-194323

2-Fluorobiphenyl (321-60-8)

Reason Code:

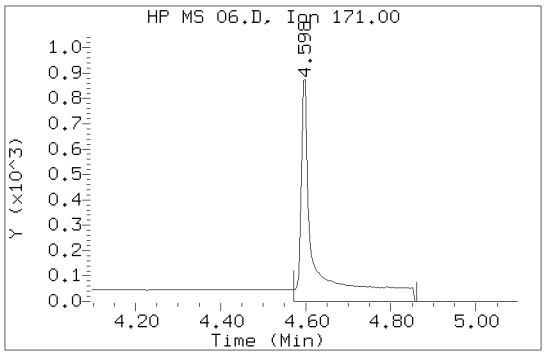
BEFORE

MASS
171
AREA
1939
HEIGHT
874
30-May-2023
13:15
ALSHS
Server



AFTER

MASS
171
AREA
1939
HEIGHT
874
30-May-2023
13:40
ALSHS
Se



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230530.b\07.D
Lab Smp Id: LCS-194323 Client Smp ID: LCS-194323
Inj Date : 30-MAY-2023 13:18
Operator : LG Inst ID: SV6.i
Smp Info : LCS-194323
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230530.b\DXSIM.m
Meth Date : 30-May-2023 13:31 jiayi.lu Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.516	2.516	(1.000)	3431	0.10000	(aM)
* 45 Naphthalene-d8	136	3.573	3.573	(1.000)	8005	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.961	2.725	(0.829)	2268	0.09820	0.09820(M)
* 86 Acenaphthene-d10	164	5.204	5.210	(1.000)	6670	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.594	4.596	(0.883)	6203	0.07086	0.07086(M)
* 126 Phenanthrene-d10	188	6.617	6.622	(1.000)	10492	0.10000	
* 182 Chrysene-d12	240	9.172	9.172	(1.000)	7798	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.198	8.201	(0.894)	9068	0.07088	0.07088(M)
* 198 Perylene-d12	264	10.799	10.804	(1.000)	7533	0.10000	(M)
1 1,4-Dioxane	58	1.003	0.859	(0.399)	954	0.07622	0.07622(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209906

Data File: \\nahstws005\Target\chem\SV6.i\230530.b\07.D

Date : 30-MAY-2023 13:18

Client ID: LCS-194323

Instrument: SV6.i

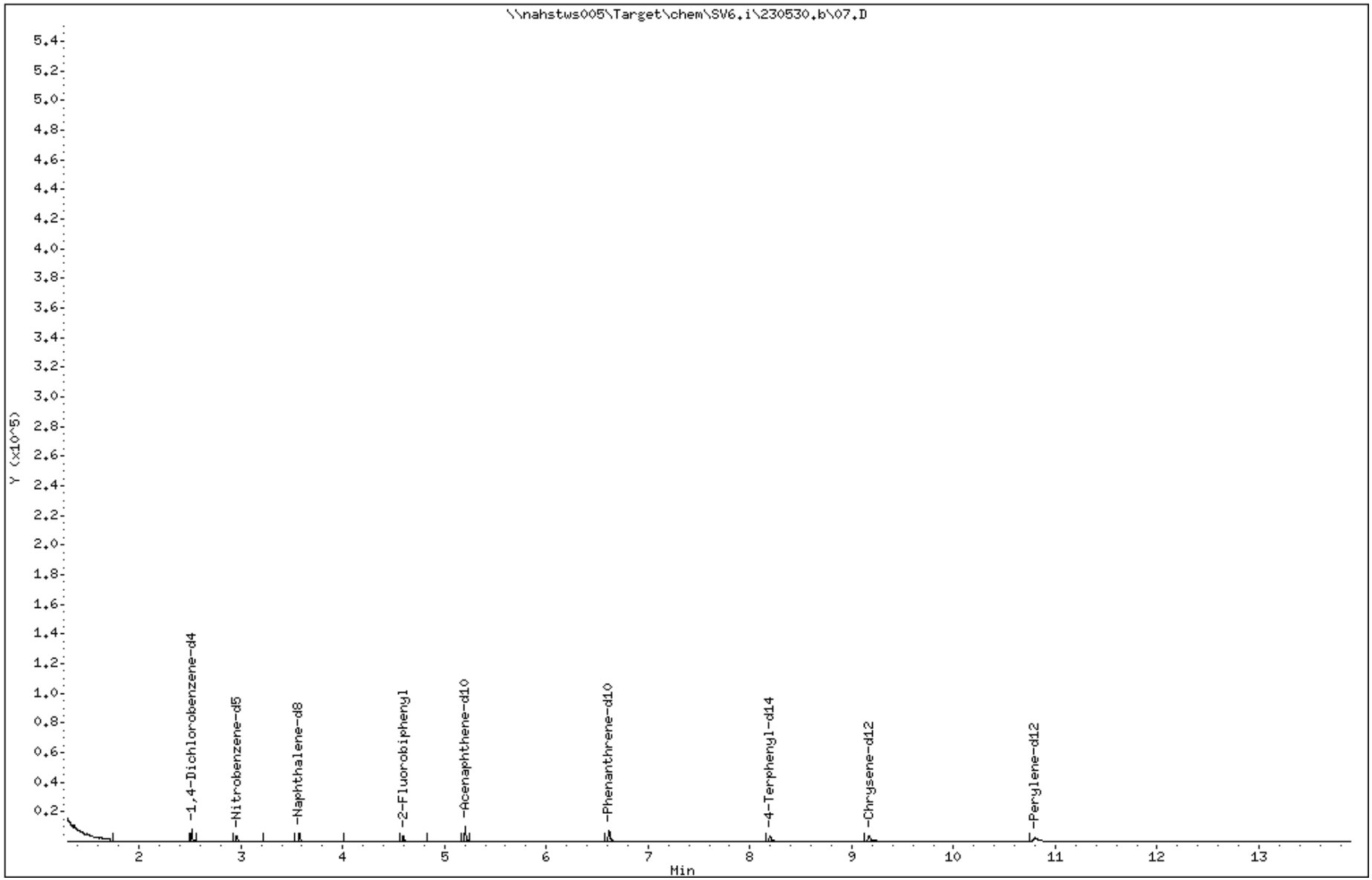
Sample Info: LCS-194323

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



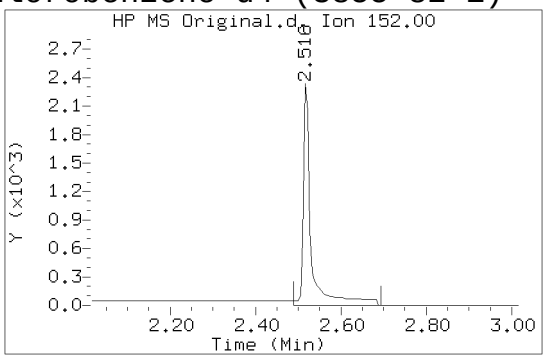
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\07.D
Inj Date : 30-MAY-2023 13:18
InstruID : SV6.i
LabSampID : LCS-194323

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

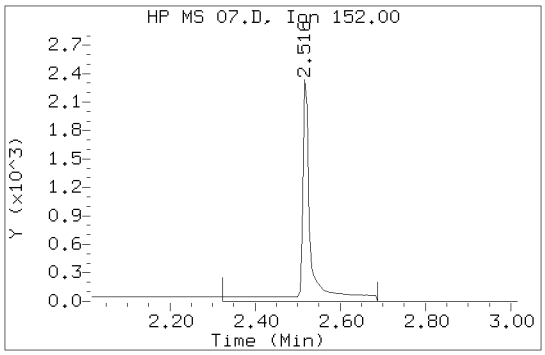
BEFORE

MASS
152
AREA
2928
HEIGHT
2336
30-May-2023
13:32
ALSHS
Server



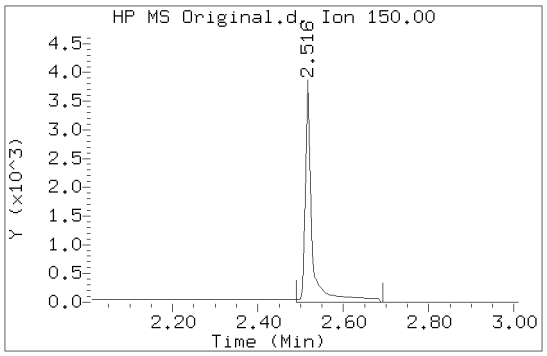
AFTER

MASS
152
AREA
3431
HEIGHT
2338
30-May-2023
14:02
ALSHS
Se



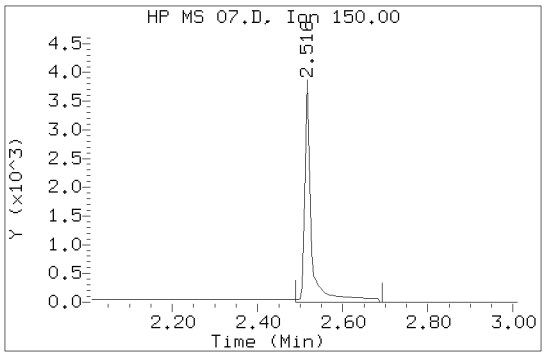
BEFORE

MASS
150
AREA
4261
HEIGHT
3869
30-May-2023
13:32
ALSHS
Server



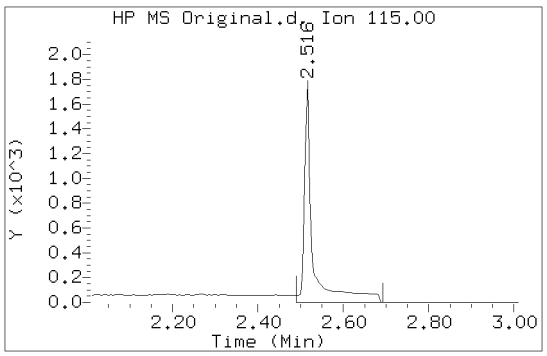
AFTER

MASS
150
AREA
4261
HEIGHT
3869
30-May-2023
14:02
ALSHS
Se



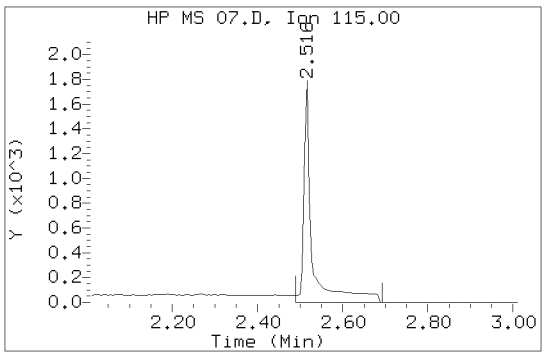
BEFORE

MASS
115
AREA
2377
HEIGHT
1789
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
115
AREA
2377
HEIGHT
1789
30-May-2023
14:02
ALSHS
Se

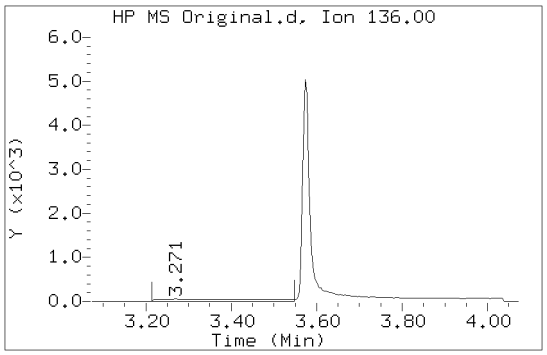


Naphthalene-d8 (1146-65-2)

Reason Code:

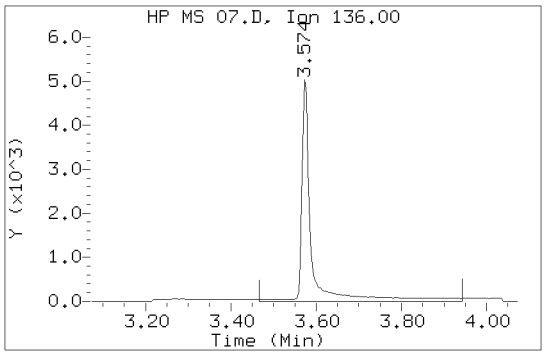
BEFORE

MASS
136
AREA
965
HEIGHT
53
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
136
AREA
8005
HEIGHT
5036
30-May-2023
14:02
ALSHS
Se



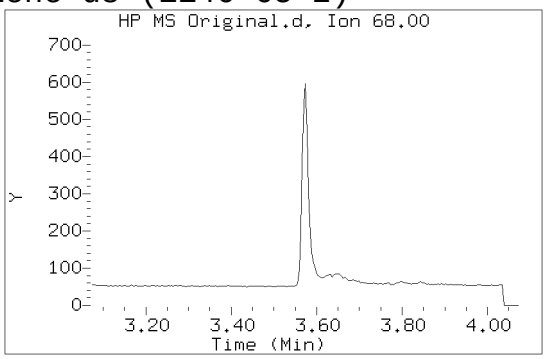
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\07.D
Inj Date : 30-MAY-2023 13:18
InstruID : SV6.i
LabSampID : LCS-194323

Naphthalene-d8 (1146-65-2)

Reason Code:

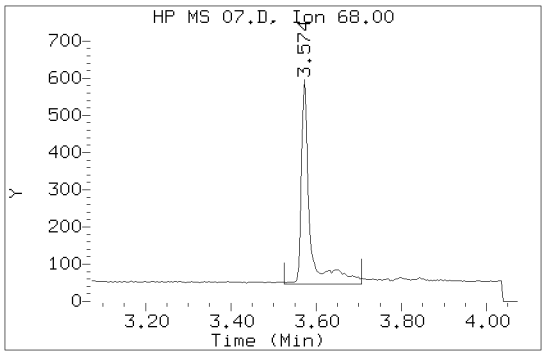
BEFORE

MASS
68
AREA
0
HEIGHT
0
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
68
AREA
774
HEIGHT
549
30-May-2023
14:02
ALSHS
Se

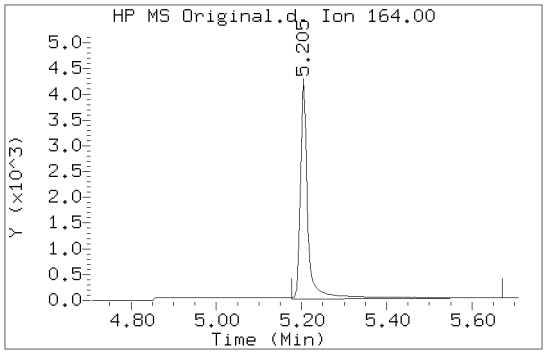


Acenaphthene-d10 (15067-26-2)

Reason Code:

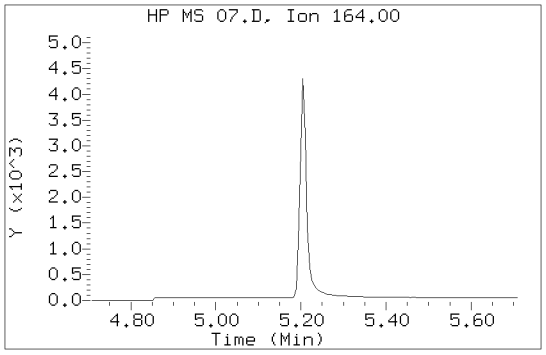
BEFORE

MASS
164
AREA
5484
HEIGHT
4282
30-May-2023
13:32
ALSHS
Server



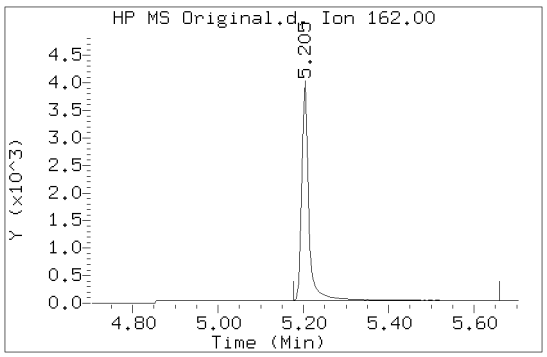
AFTER

MASS
164
AREA
6670
HEIGHT
4294
30-May-2023
14:02
ALSHS
Se



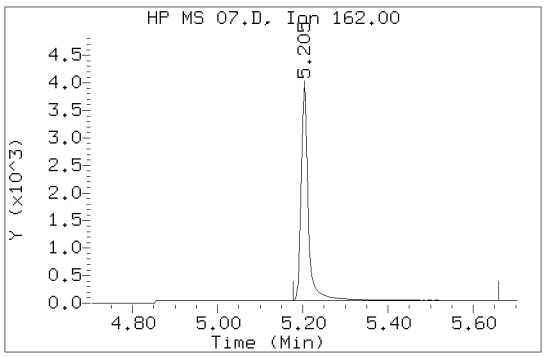
BEFORE

MASS
162
AREA
4727
HEIGHT
3986
30-May-2023
13:32
ALSHS
Server



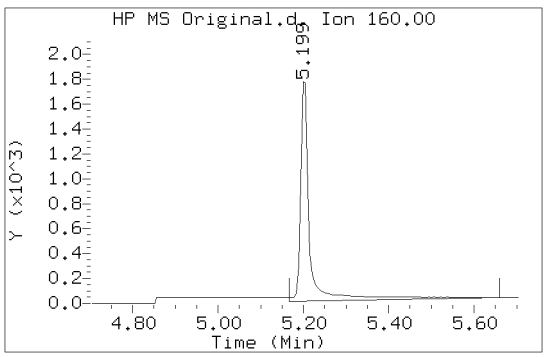
AFTER

MASS
162
AREA
4727
HEIGHT
3986
30-May-2023
14:02
ALSHS
Se



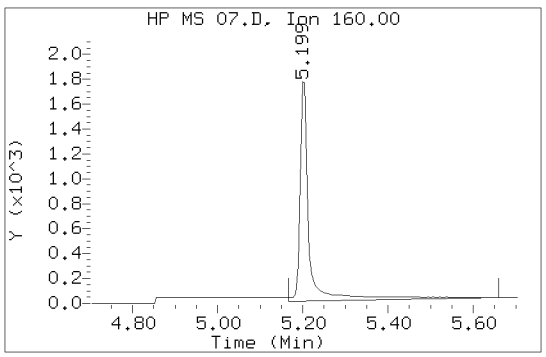
BEFORE

MASS
160
AREA
2669
HEIGHT
1760
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
160
AREA
2669
HEIGHT
1760
30-May-2023
14:02
ALSHS
Se

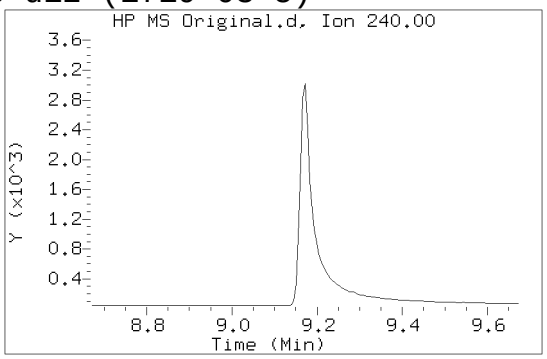


Data File : \\nahstws005\Target\chem\SV6.i\230530.b\07.D
Inj Date : 30-MAY-2023 13:18
InstruID : SV6.i
LabSampID : LCS-194323

Chrysene-d12 (1719-03-5)

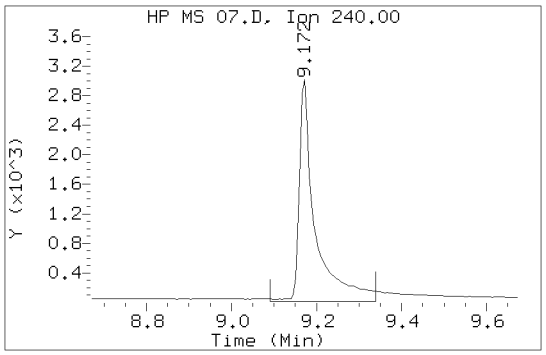
Reason Code:

BEFORE



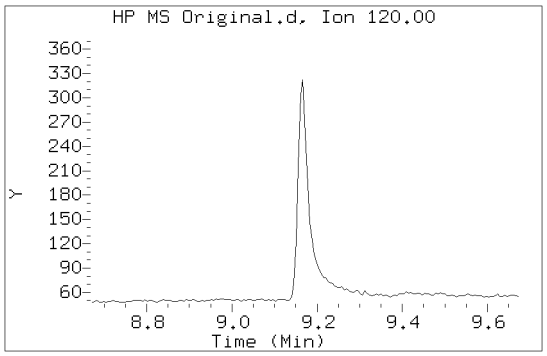
MASS
240
AREA
0
HEIGHT
0
30-May-2023
13:32
ALSHS
Server

AFTER



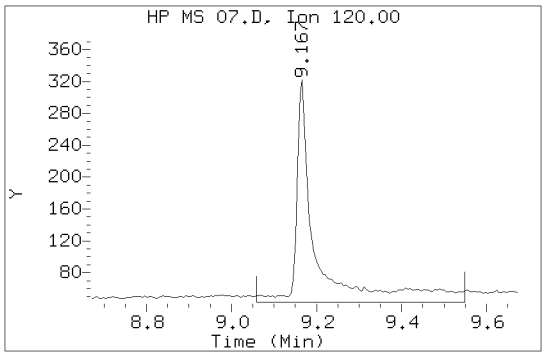
MASS
240
AREA
7798
HEIGHT
3003
30-May-2023
14:02
ALSHS
Se

BEFORE



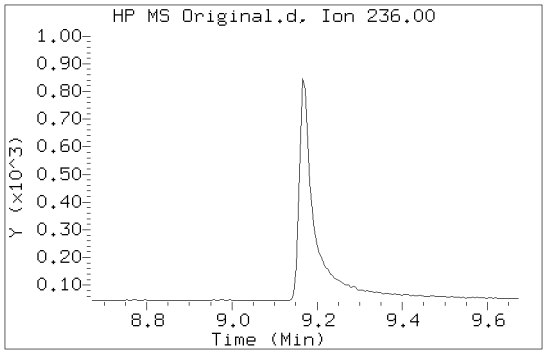
MASS
120
AREA
0
HEIGHT
0
30-May-2023
13:32
ALSHS
Server

AFTER



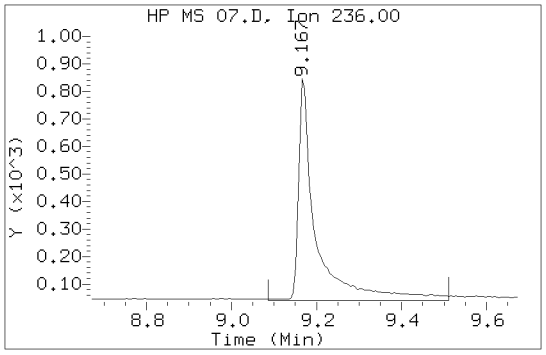
MASS
120
AREA
891
HEIGHT
279
30-May-2023
14:02
ALSHS
Se

BEFORE



MASS
236
AREA
0
HEIGHT
0
30-May-2023
13:32
ALSHS
Server

AFTER

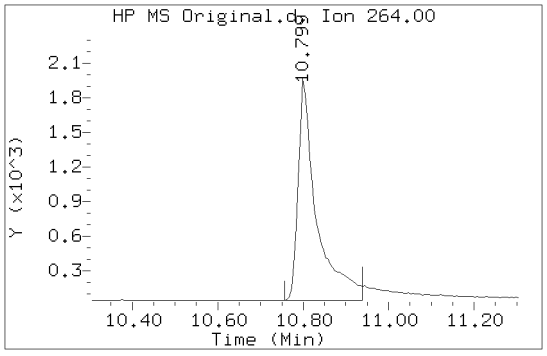


MASS
236
AREA
2292
HEIGHT
805
30-May-2023
14:02
ALSHS
Se

Perylene-d12 (1520-96-3)

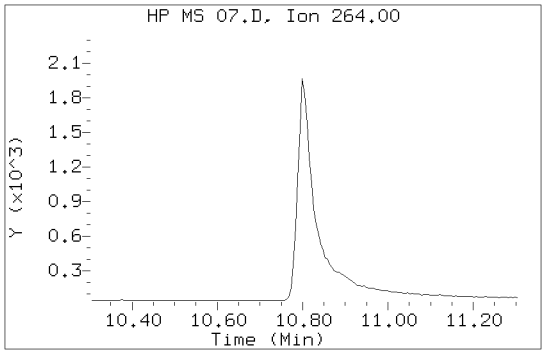
Reason Code:

BEFORE



MASS
264
AREA
5724
HEIGHT
1918
30-May-2023
13:32
ALSHS
Server

AFTER



MASS
264
AREA
7533
HEIGHT
1937
30-May-2023
14:02
ALSHS
Se

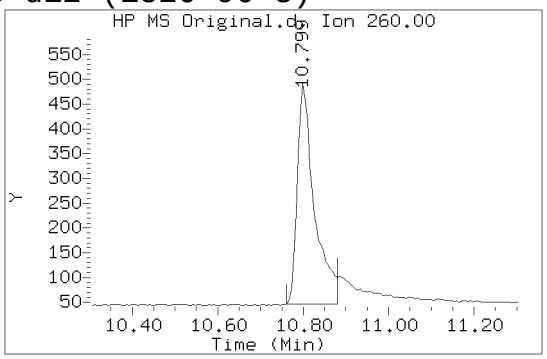
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\07.D
Inj Date : 30-MAY-2023 13:18
InstruID : SV6.i
LabSampID : LCS-194323

Perylene-d12 (1520-96-3)

Reason Code:

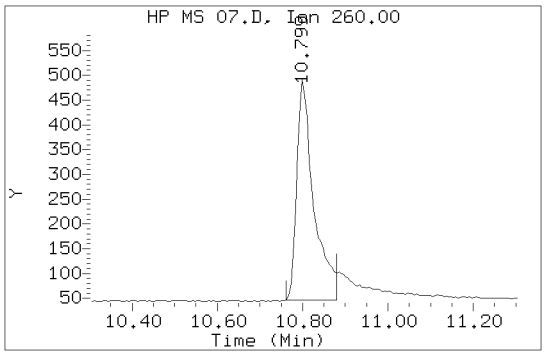
BEFORE

MASS
260
AREA
1232
HEIGHT
444
30-May-2023
13:32
ALSHS
Server



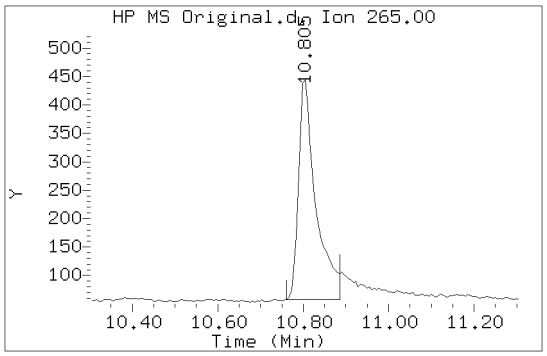
AFTER

MASS
260
AREA
1232
HEIGHT
444
30-May-2023
14:02
ALSHS
Se



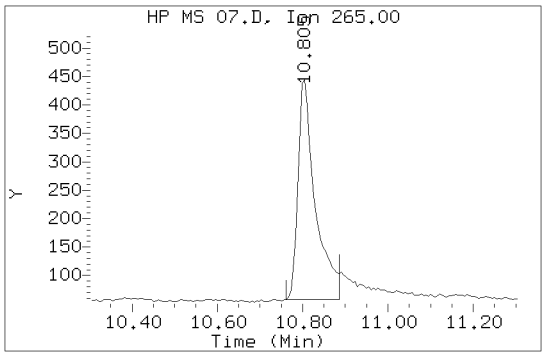
BEFORE

MASS
265
AREA
1085
HEIGHT
386
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
265
AREA
1085
HEIGHT
386
30-May-2023
14:02
ALSHS
Se

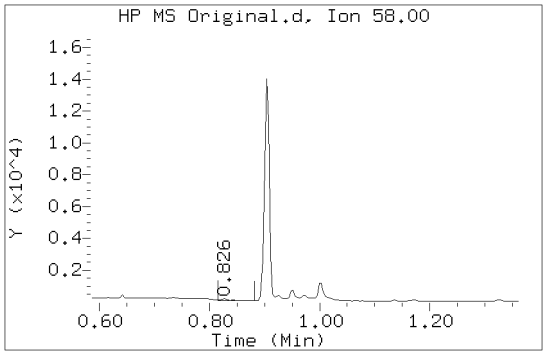


1,4-Dioxane ()

Reason Code:

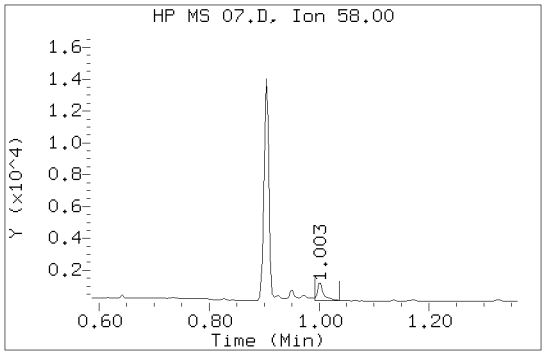
BEFORE

MASS
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AREA
163
HEIGHT
156
30-May-2023
13:32
ALSHS
Server



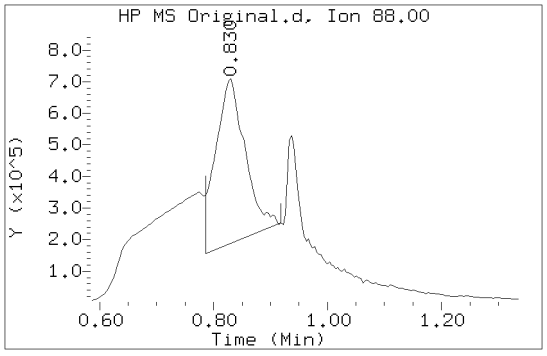
AFTER

MASS
58
AREA
954
HEIGHT
1115
30-May-2023
14:02
ALSHS
Se



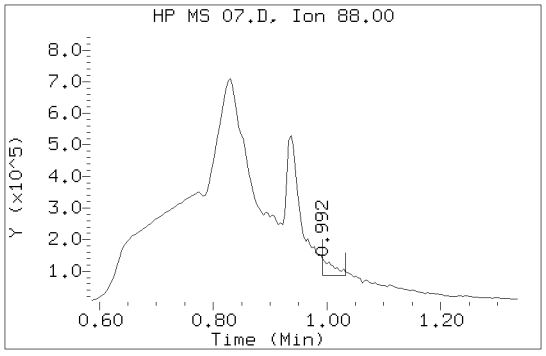
BEFORE

MASS
88
AREA
1894456
HEIGHT
521468
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
88
AREA
77718
HEIGHT
53419
30-May-2023
14:02
ALSHS
Se



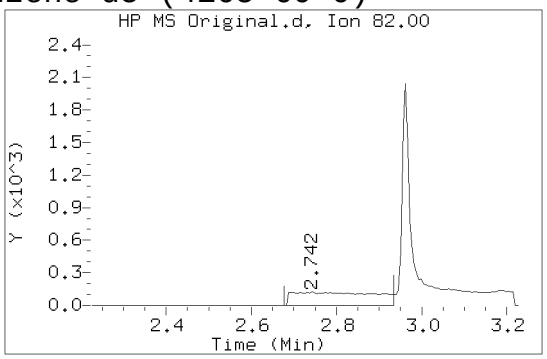
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Inj Date : 30-MAY-2023 13:18
InstruID : SV6.i
LabSampID : LCS-194323

Nitrobenzene-d5 (4165-60-0)

Reason Code:

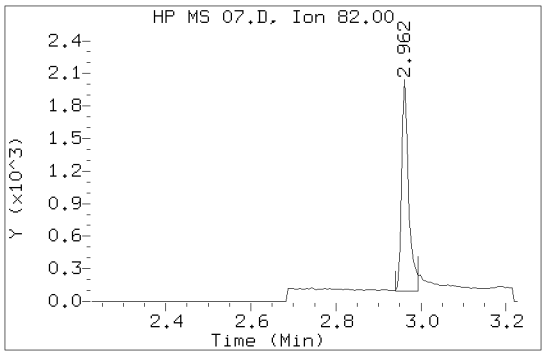
BEFORE

MASS
82
AREA
1666
HEIGHT
126
30-May-2023
13:32
ALSHS
Server



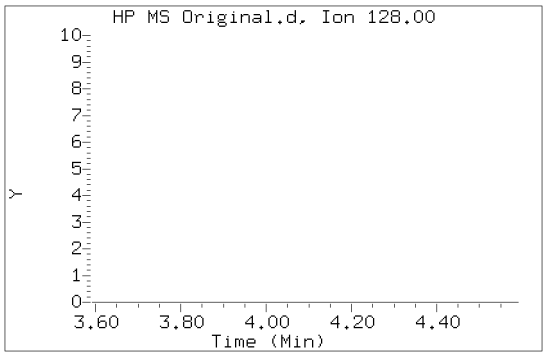
AFTER

MASS
82
AREA
2268
HEIGHT
1947
30-May-2023
14:02
ALSHS
Se



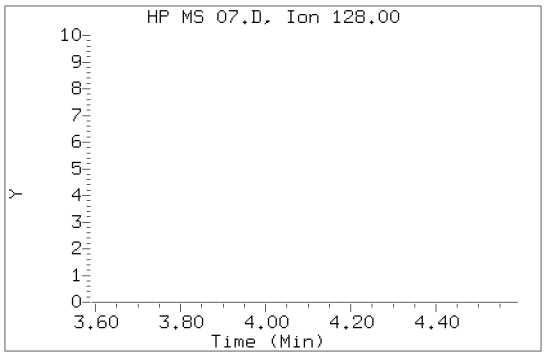
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-May-2023
13:32
ALSHS
Server



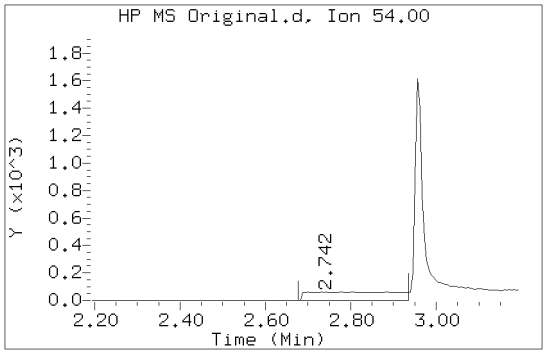
AFTER

MASS
128
AREA
0
HEIGHT
0
30-May-2023
14:02
ALSHS
Se



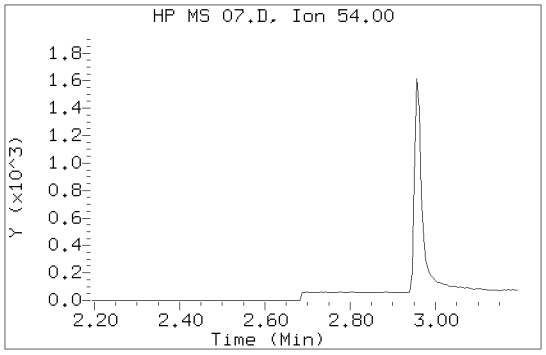
BEFORE

MASS
54
AREA
866
HEIGHT
60
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
54
AREA
2264
HEIGHT
1558
30-May-2023
14:02
ALSHS
Se

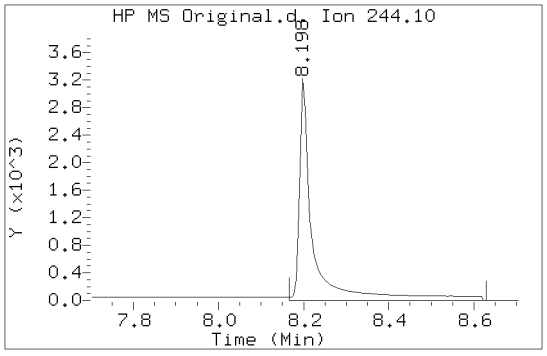


4-Terphenyl-d14 (1718-51-0)

Reason Code:

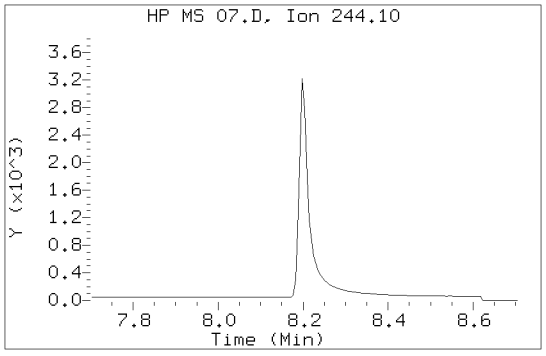
BEFORE

MASS
244.1
AREA
7176
HEIGHT
3221
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
244.1
AREA
9068
HEIGHT
3216
30-May-2023
14:02
ALSHS
Se

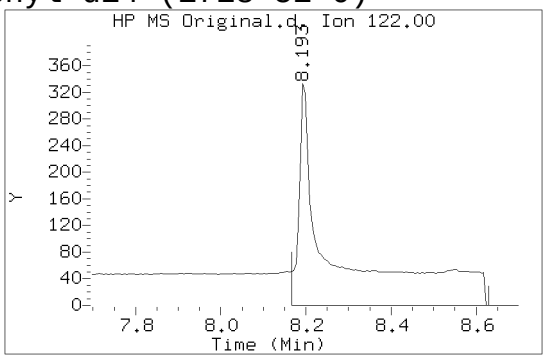


Data File : \\nahstws005\Target\chem\SV6.i\230530.b\07.D
Inj Date : 30-MAY-2023 13:18
InstruID : SV6.i
LabSampID : LCS-194323

4-Terphenyl-d14 (1718-51-0)

BEFORE

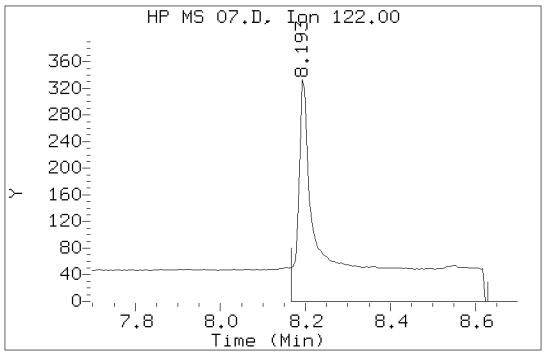
MASS
122
AREA
1841
HEIGHT
333
30-May-2023
13:32
ALSHS
Server



Reason Code:

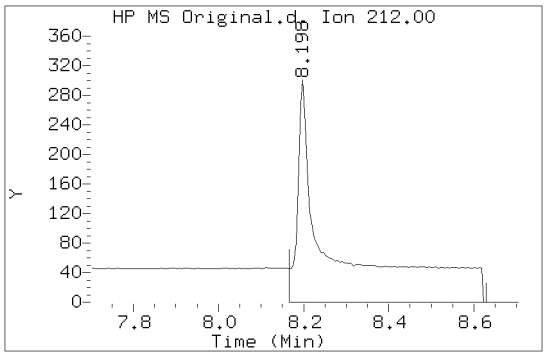
AFTER

MASS
122
AREA
1841
HEIGHT
333
30-May-2023
14:02
ALSHS
Se



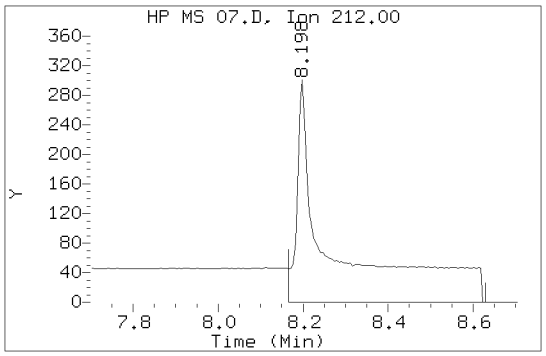
BEFORE

MASS
212
AREA
1728
HEIGHT
301
30-May-2023
13:32
ALSHS
Server



AFTER

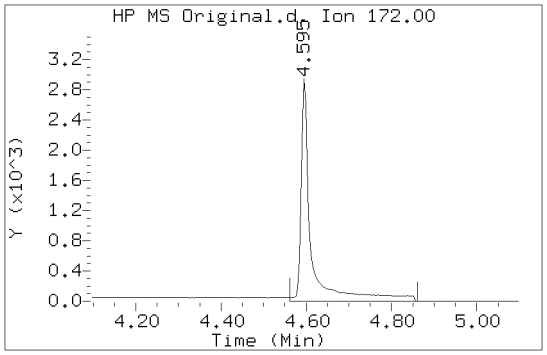
MASS
212
AREA
1728
HEIGHT
301
30-May-2023
14:02
ALSHS
Se



2-Fluorobiphenyl (321-60-8)

BEFORE

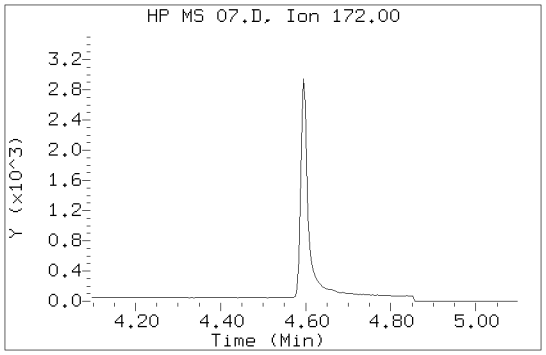
MASS
172
AREA
4891
HEIGHT
2944
30-May-2023
13:32
ALSHS
Server



Reason Code:

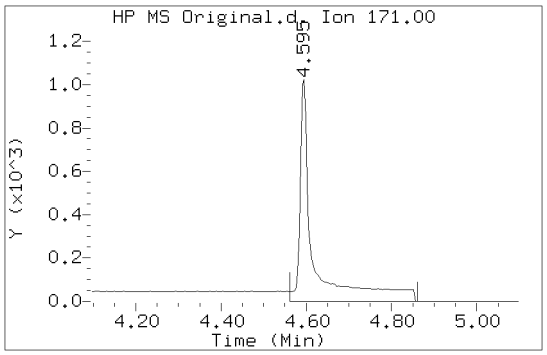
AFTER

MASS
172
AREA
6203
HEIGHT
2941
30-May-2023
14:02
ALSHS
Se



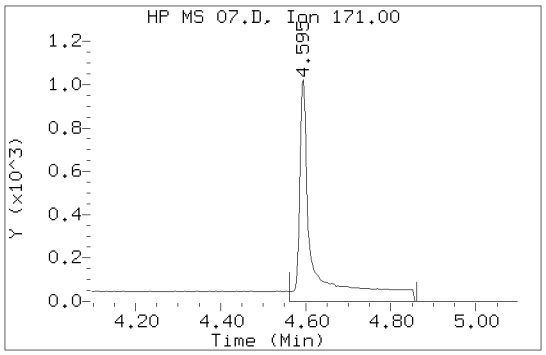
BEFORE

MASS
171
AREA
2223
HEIGHT
1023
30-May-2023
13:32
ALSHS
Server



AFTER

MASS
171
AREA
2223
HEIGHT
1023
30-May-2023
14:02
ALSHS
Se



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230530.b\08.D
Lab Smp Id: LCSD-194323 Client Smp ID: LCSD-194323
Inj Date : 30-MAY-2023 13:36
Operator : LG Inst ID: SV6.i
Smp Info : LCSD-194323
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230530.b\DXSIM.m
Meth Date : 30-May-2023 14:37 jiayi.lu Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 8 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.516	2.521	(1.000)	2804	0.10000	(aM)
* 45 Naphthalene-d8	136	3.577	3.575	(1.000)	7875	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.961	2.961	(0.828)	2140	0.09418	0.09418(M)
* 86 Acenaphthene-d10	164	5.204	5.207	(1.000)	5219	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.598	4.596	(0.884)	5220	0.07620	0.07620(M)
* 126 Phenanthrene-d10	188	6.622	6.620	(1.000)	9427	0.10000	(M)
* 182 Chrysene-d12	240	9.172	9.170	(1.000)	6511	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.203	8.201	(0.894)	8069	0.07444	0.07444(M)
* 198 Perylene-d12	264	10.804	10.802	(1.000)	7456	0.10000	(M)
1 1,4-Dioxane	58	0.995	1.003	(0.396)	747	0.07303	0.07303(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01209914

Data File: \\NAHSTWS005\Target\chem\SV6.i\230530.b\08.D

Date : 30-MAY-2023 13:36

Client ID: LCSD-194323

Instrument: SV6.i

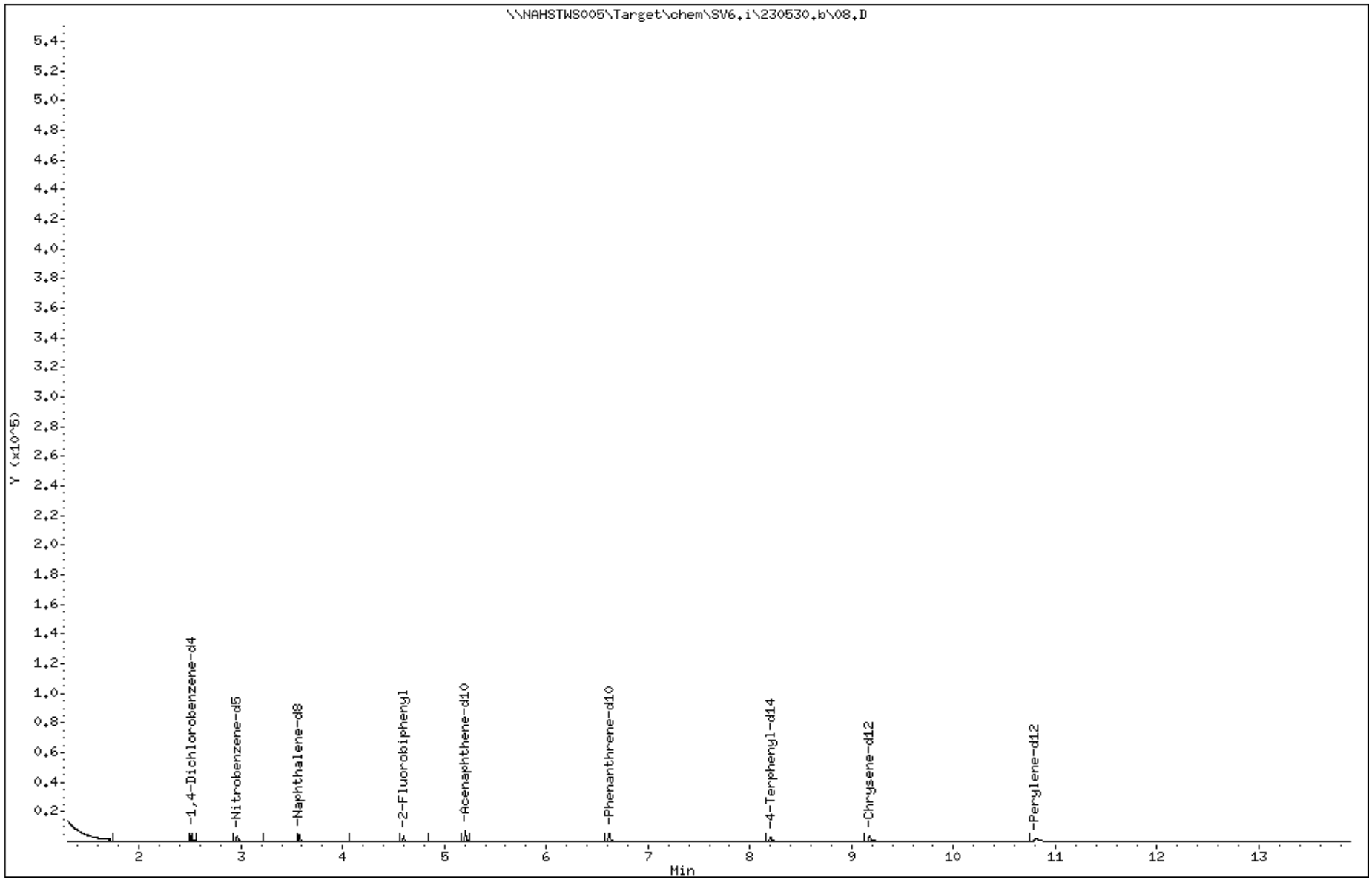
Sample Info: LCSD-194323

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



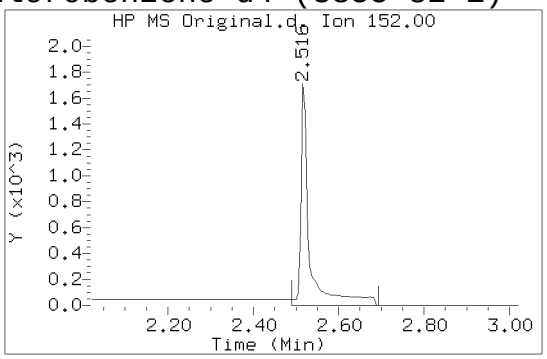
Data File : \\NAHSTWS005\Target\chem\SV6.i\230530.b\08.D
Inj Date : 30-MAY-2023 13:36
InstruID : SV6.i
LabSampID : LCSD-194323

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

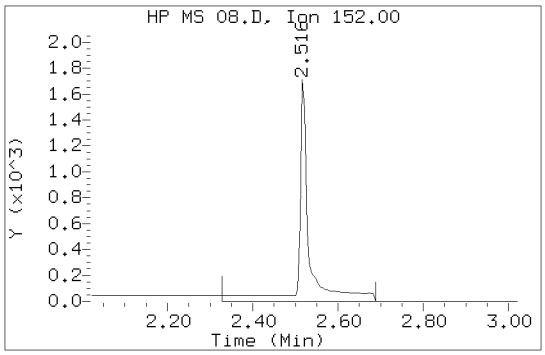
BEFORE

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152
AREA
2364
HEIGHT
1711
30-May-2023
13:51
ALSHS
Server



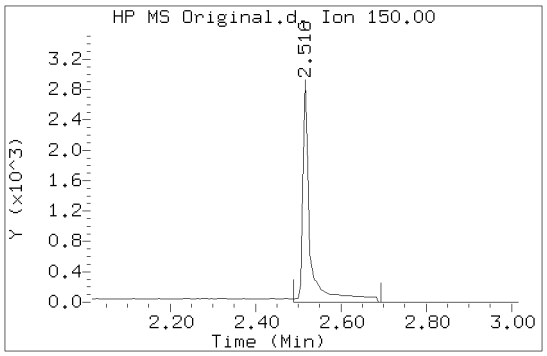
AFTER

MASS
152
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2804
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1711
30-May-2023
15:02



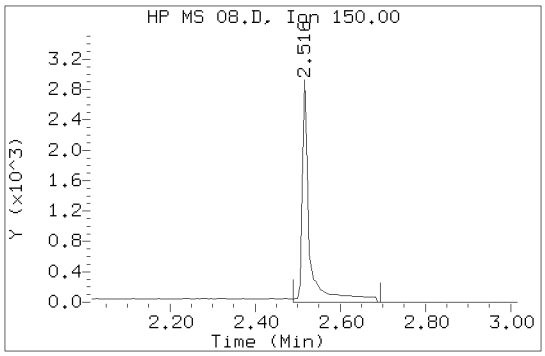
BEFORE

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HEIGHT
2927
30-May-2023
13:51
ALSHS
Server



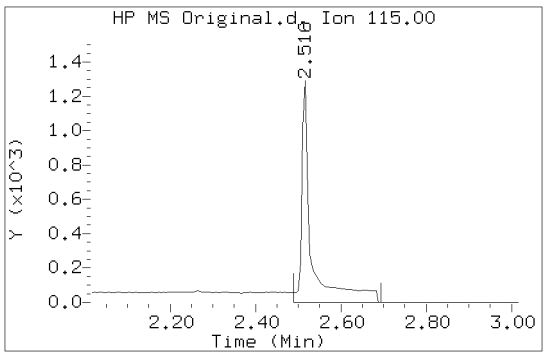
AFTER

MASS
150
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3451
HEIGHT
2927
30-May-2023
15:02



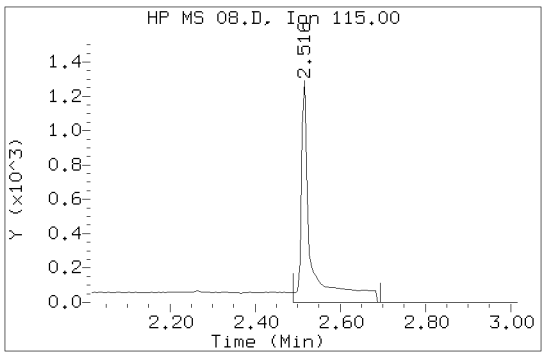
BEFORE

MASS
115
AREA
2008
HEIGHT
1291
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
115
AREA
2008
HEIGHT
1291
30-May-2023
15:02

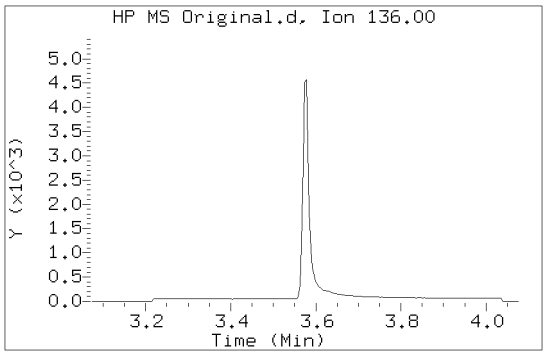


Naphthalene-d8 (1146-65-2)

Reason Code:

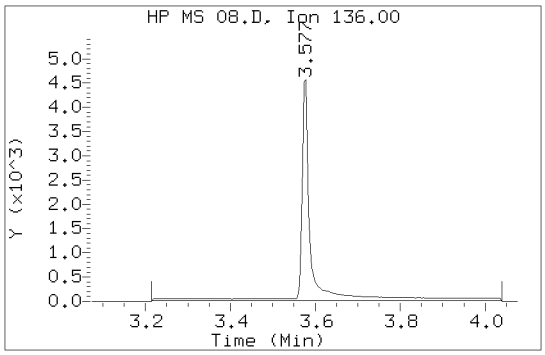
BEFORE

MASS
136
AREA
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HEIGHT
0
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
136
AREA
7875
HEIGHT
4563
30-May-2023
15:02

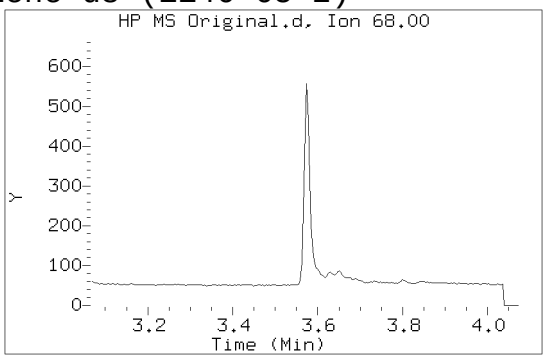


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Inj Date : 30-MAY-2023 13:36
InstruID : SV6.i
LabSampID : LCSD-194323

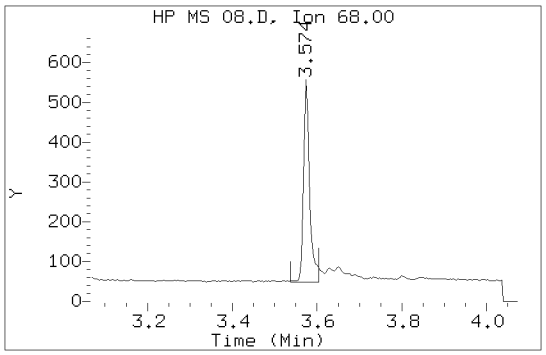
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
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AREA
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HEIGHT
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30-May-2023
13:51
ALSHS
Server



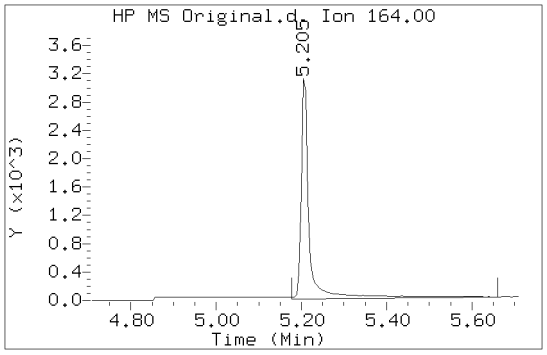
AFTER
MASS
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AREA
506
HEIGHT
508
30-May-2023
15:02



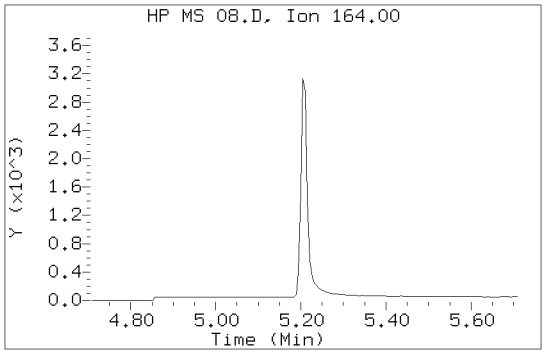
Acenaphthene-d10 (15067-26-2)

Reason Code:

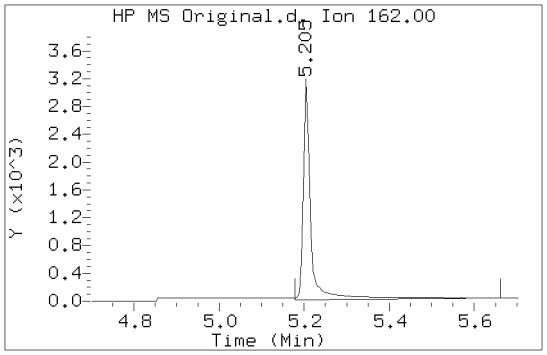
BEFORE
MASS
164
AREA
4195
HEIGHT
3109
30-May-2023
13:51
ALSHS
Server



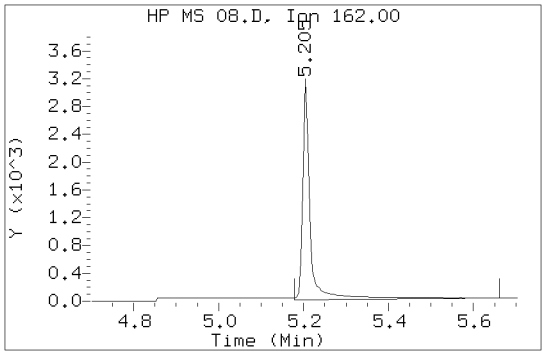
AFTER
MASS
164
AREA
5219
HEIGHT
3117
30-May-2023
15:02



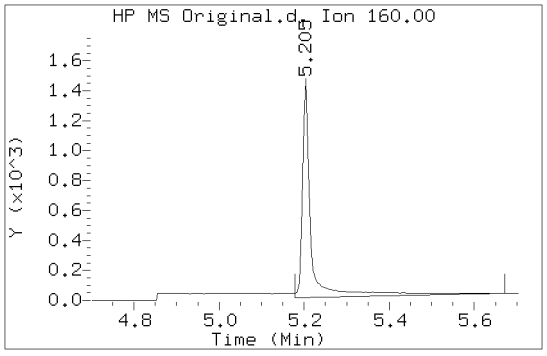
BEFORE
MASS
162
AREA
3933
HEIGHT
3176
30-May-2023
13:51
ALSHS
Server



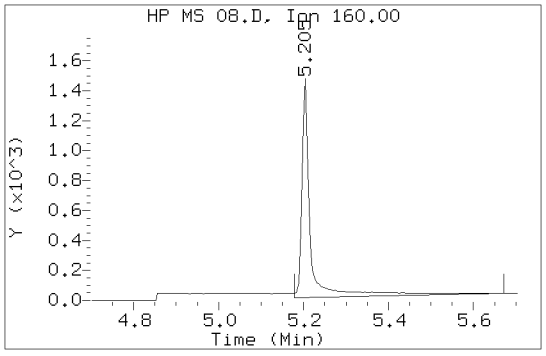
AFTER
MASS
162
AREA
3933
HEIGHT
3176
30-May-2023
15:02



BEFORE
MASS
160
AREA
2078
HEIGHT
1461
30-May-2023
13:51
ALSHS
Server



AFTER
MASS
160
AREA
2078
HEIGHT
1461
30-May-2023
15:02



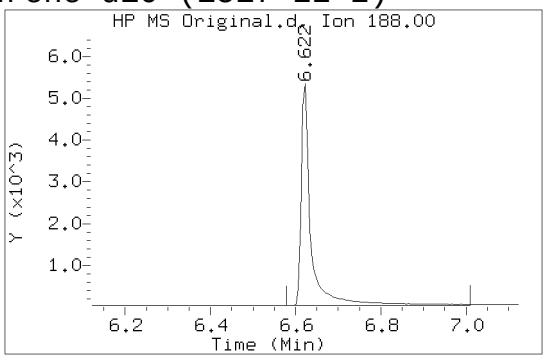
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Inj Date : 30-MAY-2023 13:36
InstruID : SV6.i
LabSampID : LCSD-194323

Phenanthrene-d10 (1517-22-2)

Reason Code:

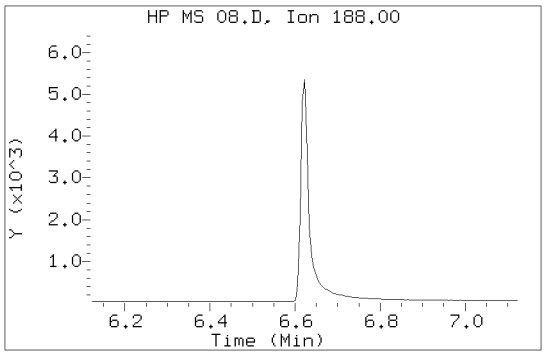
BEFORE

MASS
188
AREA
8370
HEIGHT
5308
30-May-2023
13:51
ALSHS
Server



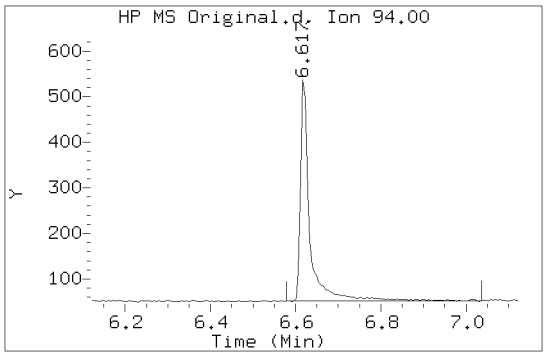
AFTER

MASS
188
AREA
9427
HEIGHT
5325
30-May-2023
15:02



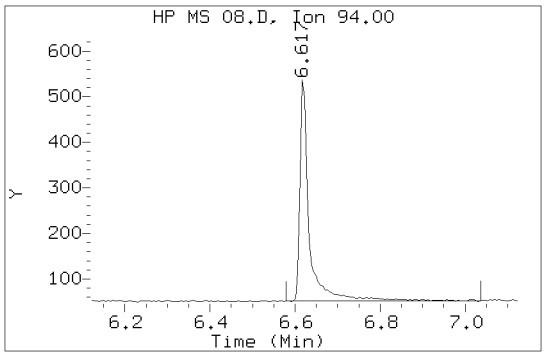
BEFORE

MASS
94
AREA
731
HEIGHT
485
30-May-2023
13:51
ALSHS
Server



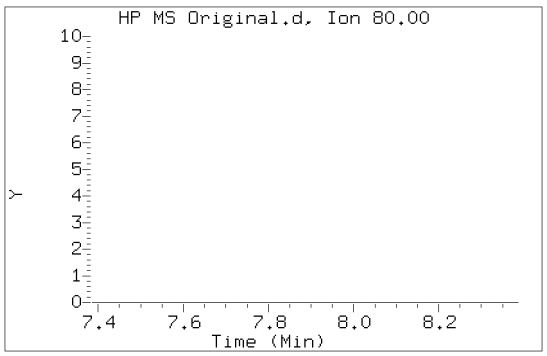
AFTER

MASS
94
AREA
731
HEIGHT
485
30-May-2023
15:02



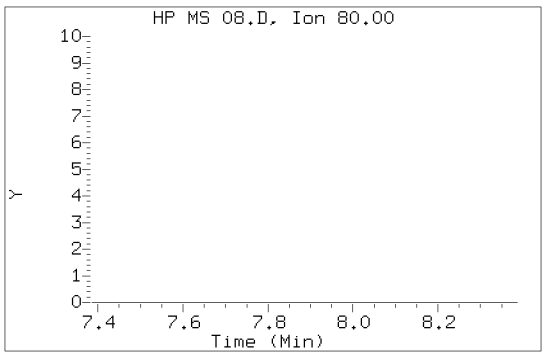
BEFORE

MASS
80
AREA
0
HEIGHT
0
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
30-May-2023
15:02

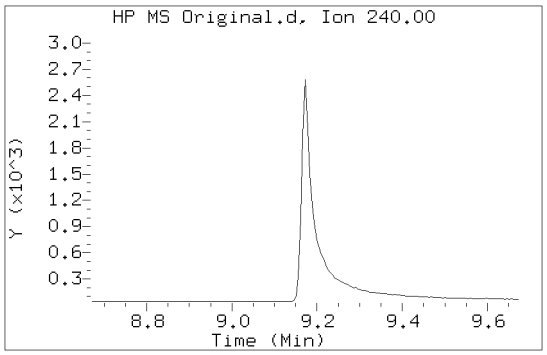


Chrysene-d12 (1719-03-5)

Reason Code:

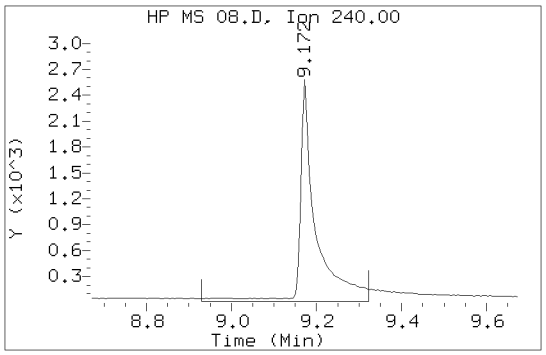
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
240
AREA
6511
HEIGHT
2568
30-May-2023
15:02

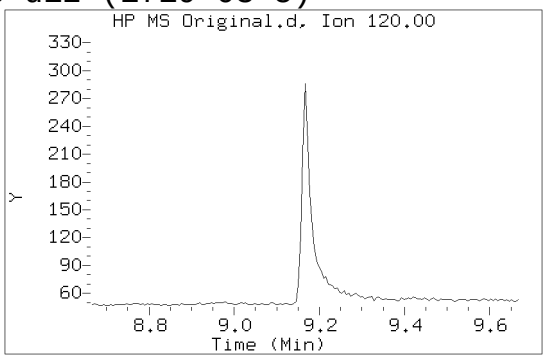


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Inj Date : 30-MAY-2023 13:36
InstruID : SV6.i
LabSampID : LCSD-194323

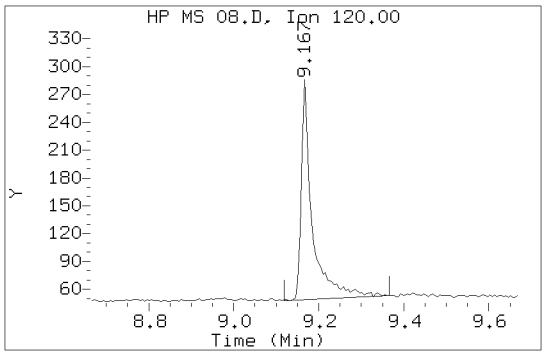
Chrysene-d12 (1719-03-5)

Reason Code:

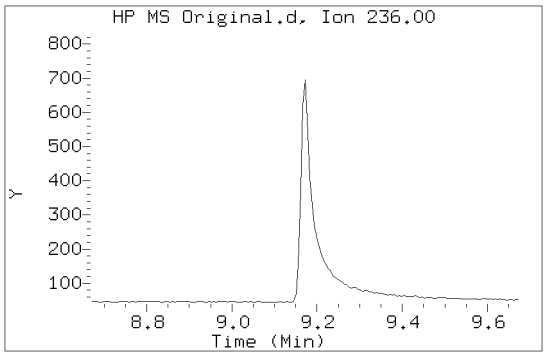
BEFORE
MASS
120
AREA
0
HEIGHT
0
30-May-2023
13:51
ALSHS
Server



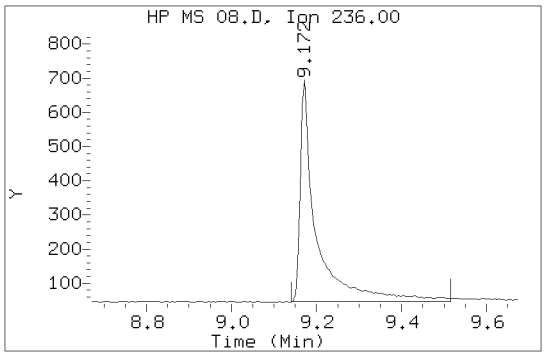
AFTER
MASS
120
AREA
420
HEIGHT
237
30-May-2023
15:02



BEFORE
MASS
236
AREA
0
HEIGHT
0
30-May-2023
13:51
ALSHS
Server



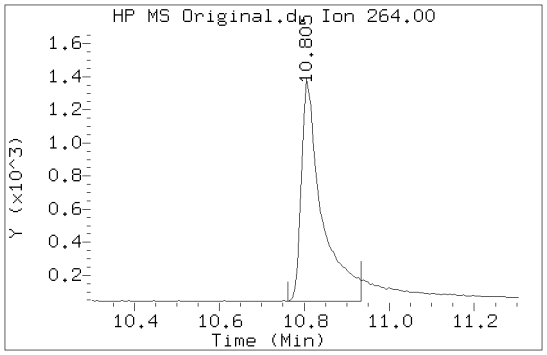
AFTER
MASS
236
AREA
1731
HEIGHT
649
30-May-2023
15:02



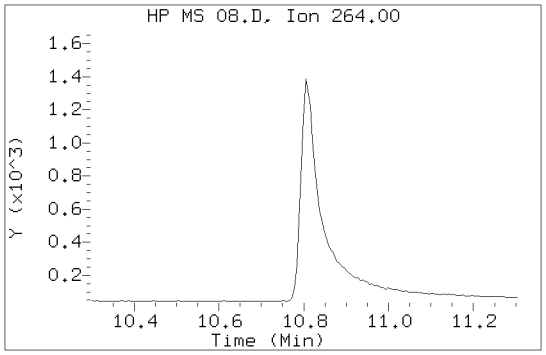
Perylene-d12 (1520-96-3)

Reason Code:

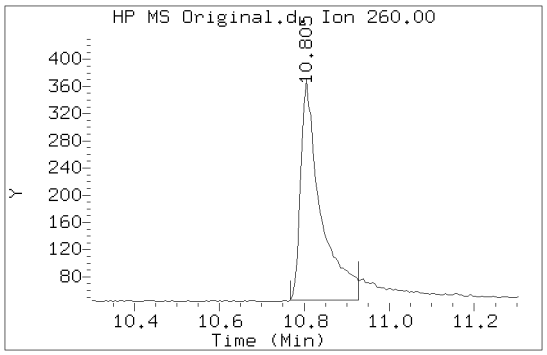
BEFORE
MASS
264
AREA
4484
HEIGHT
1342
30-May-2023
13:51
ALSHS
Server



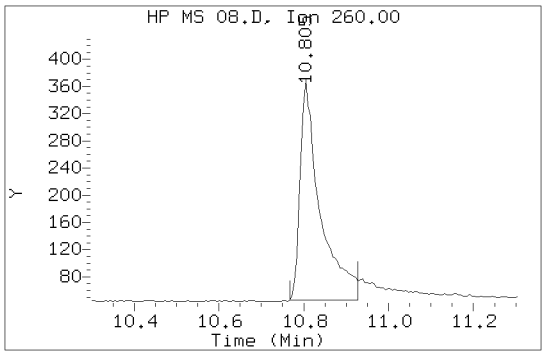
AFTER
MASS
264
AREA
7456
HEIGHT
1375
30-May-2023
15:02



BEFORE
MASS
260
AREA
1063
HEIGHT
324
30-May-2023
13:51
ALSHS
Server



AFTER
MASS
260
AREA
1063
HEIGHT
324
30-May-2023
15:02



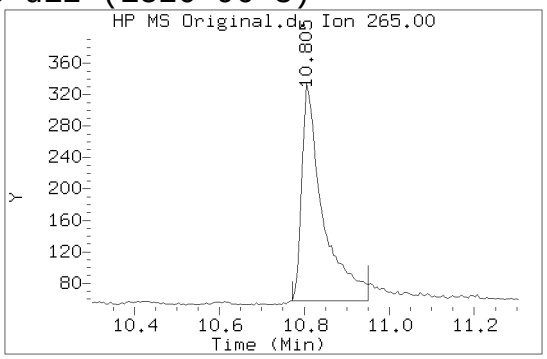
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Inj Date : 30-MAY-2023 13:36
InstruID : SV6.i
LabSampID : LCSD-194323

Perylene-d12 (1520-96-3)

Reason Code:

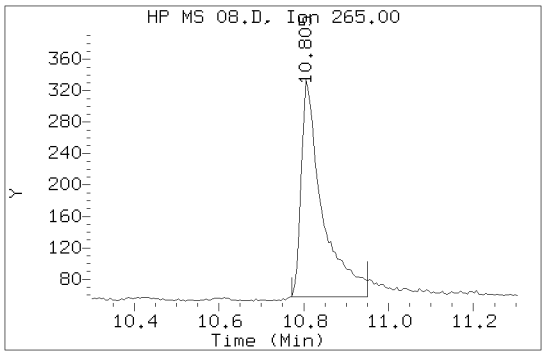
BEFORE

MASS
265
AREA
948
HEIGHT
276
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
265
AREA
948
HEIGHT
276
30-May-2023
15:02

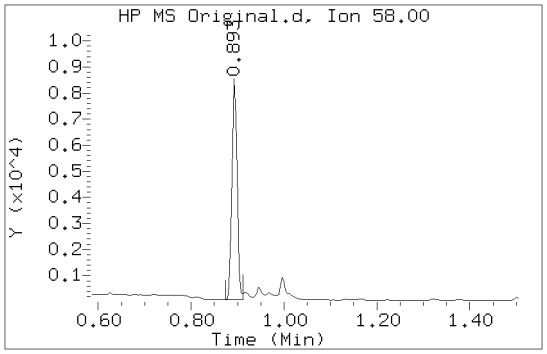


1,4-Dioxane ()

Reason Code:

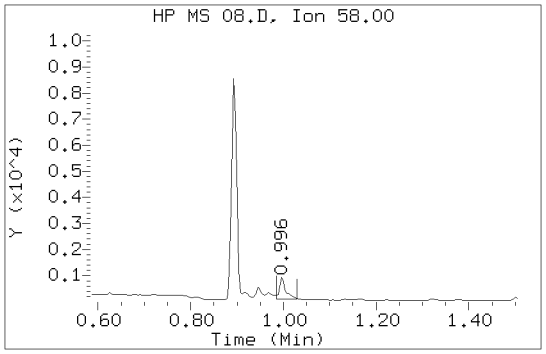
BEFORE

MASS
58
AREA
6620
HEIGHT
8471
30-May-2023
13:51
ALSHS
Server



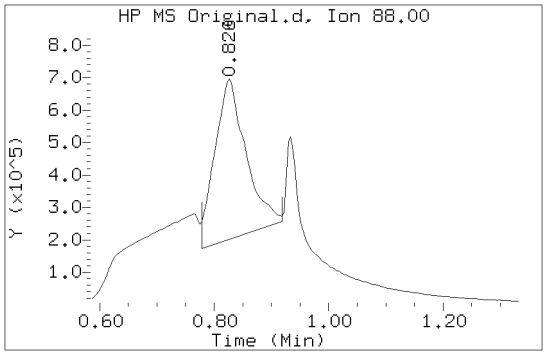
AFTER

MASS
58
AREA
747
HEIGHT
834
30-May-2023
15:02



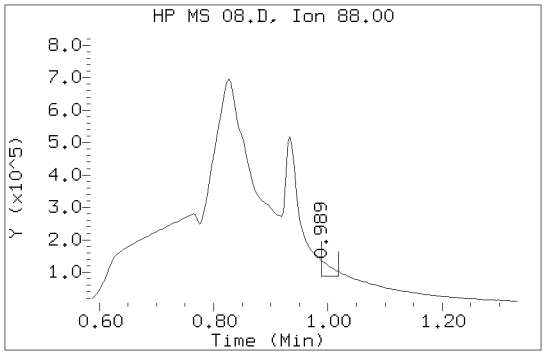
BEFORE

MASS
88
AREA
1868726
HEIGHT
493482
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
88
AREA
59689
HEIGHT
47879
30-May-2023
15:02

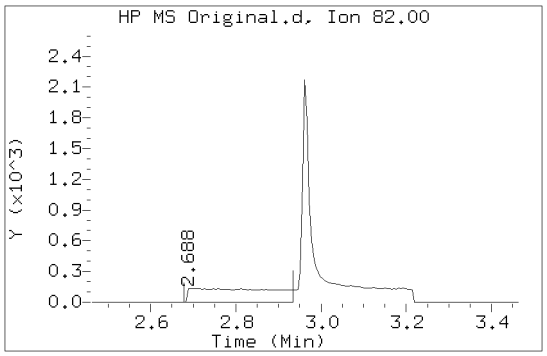


Nitrobenzene-d5 (4165-60-0)

Reason Code:

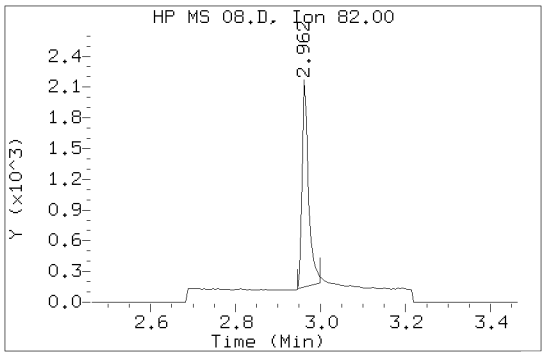
BEFORE

MASS
82
AREA
1876
HEIGHT
132
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
82
AREA
2140
HEIGHT
2021
30-May-2023
15:02

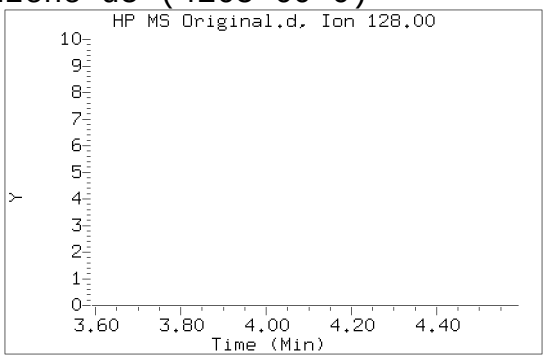


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Inj Date : 30-MAY-2023 13:36
InstruID : SV6.i
LabSampID : LCSD-194323

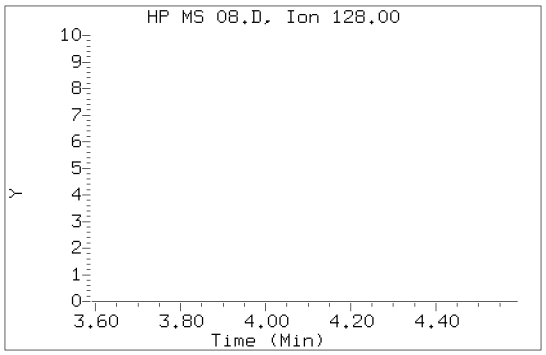
Nitrobenzene-d5 (4165-60-0)

Reason Code:

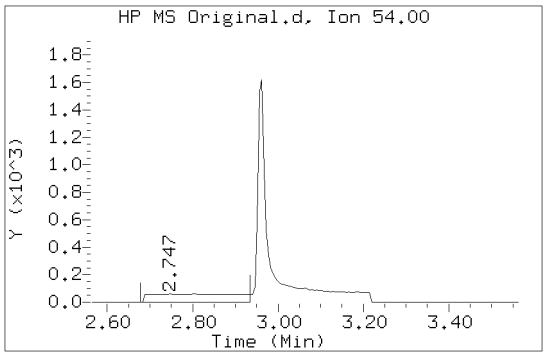
BEFORE
MASS
128
AREA
0
HEIGHT
0
30-May-2023
13:51
ALSHS
Server



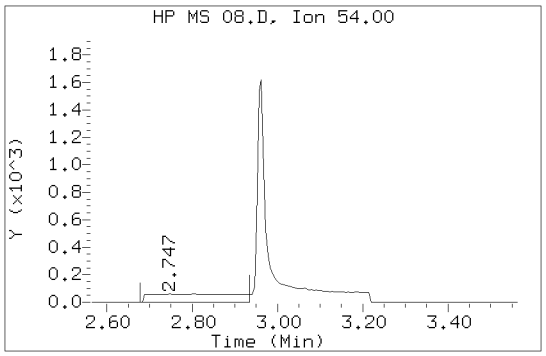
AFTER
MASS
128
AREA
0
HEIGHT
0
30-May-2023
15:02



BEFORE
MASS
54
AREA
856
HEIGHT
60
30-May-2023
13:51
ALSHS
Server



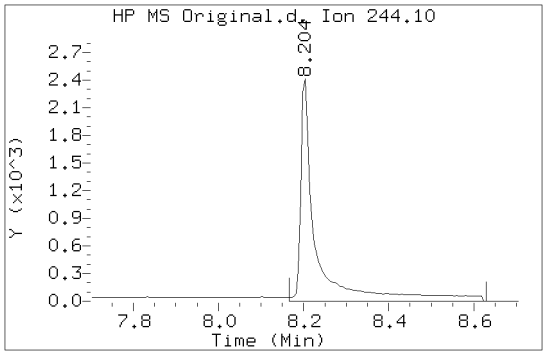
AFTER
MASS
54
AREA
856
HEIGHT
60
30-May-2023
15:02



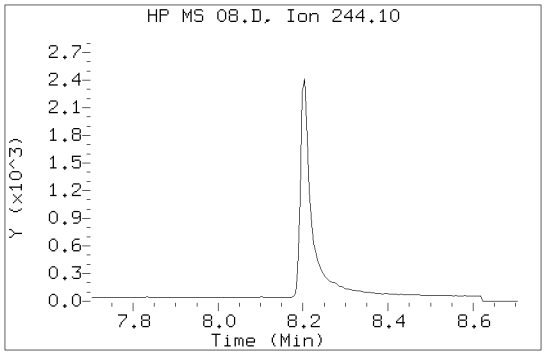
4-Terphenyl-d14 (1718-51-0)

Reason Code:

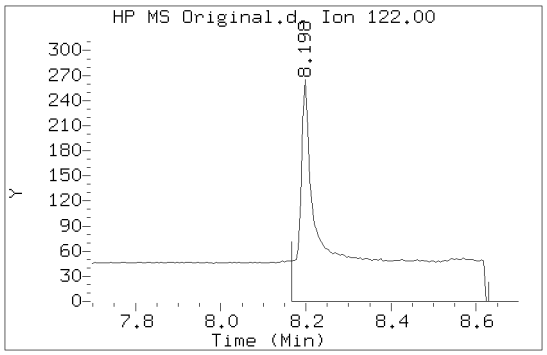
BEFORE
MASS
244.1
AREA
6048
HEIGHT
2413
30-May-2023
13:51
ALSHS
Server



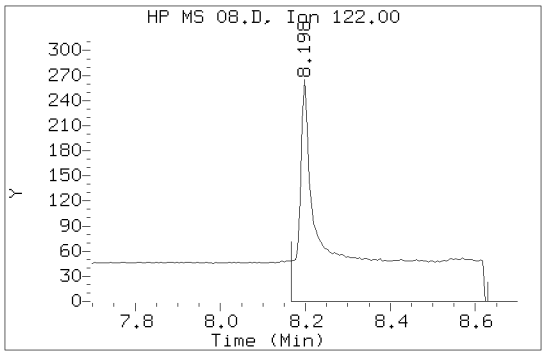
AFTER
MASS
244.1
AREA
8069
HEIGHT
2411
30-May-2023
15:02



BEFORE
MASS
122
AREA
1680
HEIGHT
265
30-May-2023
13:51
ALSHS
Server



AFTER
MASS
122
AREA
1680
HEIGHT
265
30-May-2023
15:02



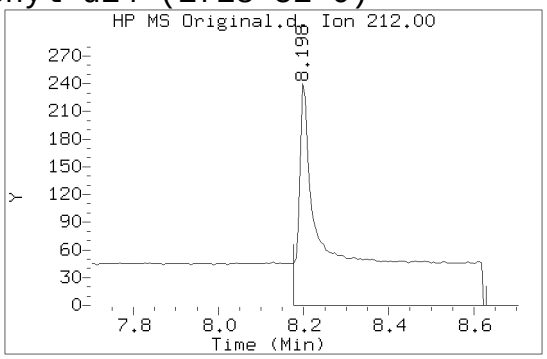
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Inj Date : 30-MAY-2023 13:36
InstruID : SV6.i
LabSampID : LCSD-194323

4-Terphenyl-d14 (1718-51-0)

Reason Code:

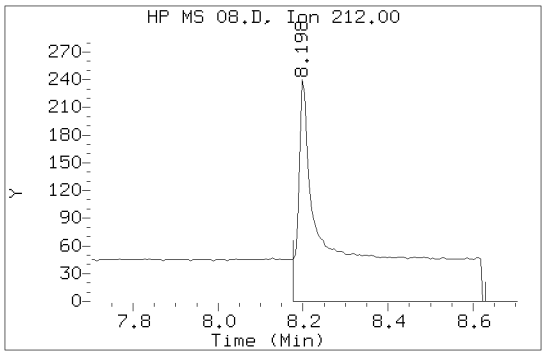
BEFORE

MASS
212
AREA
1592
HEIGHT
240
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
212
AREA
1592
HEIGHT
240
30-May-2023
15:02

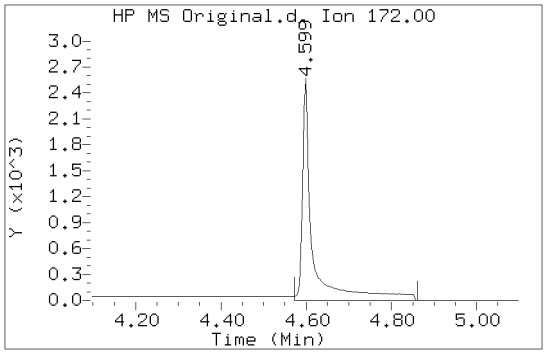


2-Fluorobiphenyl (321-60-8)

Reason Code:

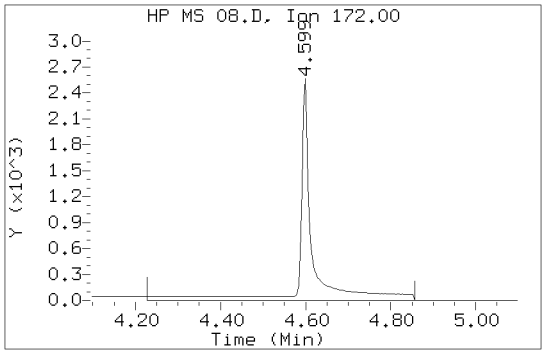
BEFORE

MASS
172
AREA
4306
HEIGHT
2565
30-May-2023
13:51
ALSHS
Server



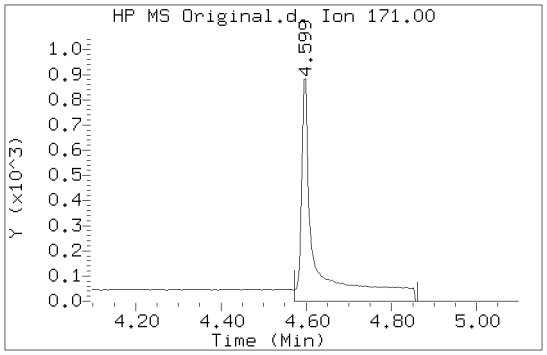
AFTER

MASS
172
AREA
5220
HEIGHT
2564
30-May-2023
15:02



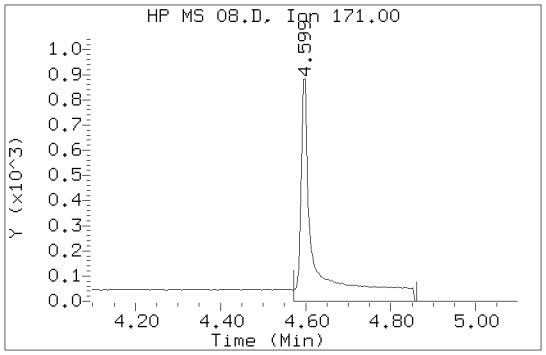
BEFORE

MASS
171
AREA
1997
HEIGHT
883
30-May-2023
13:51
ALSHS
Server



AFTER

MASS
171
AREA
1997
HEIGHT
883
30-May-2023
15:02



Data File: \\nahstws005\Target\chem\SV6.i\230530.b\09.D Page 1
Report Date: 30-May-2023 14:33

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230530.b\09.D
Lab Smp Id: 14DX-0.08 Client Smp ID: 14DX-0.08
Inj Date : 30-MAY-2023 14:03
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230530.b\DXSIM.m
Meth Date : 30-May-2023 14:31 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	2.516	2.516	(1.000)	2908	0.10000	(a)
* 45 Naphthalene-d8	136	3.577	3.577	(1.000)	8620	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.961	2.961	(0.828)	2378	0.08000	0.09561(QM)
* 86 Acenaphthene-d10	164	5.210	5.210	(1.000)	6233	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.598	4.598	(0.883)	6912	0.08000	0.08449(M)
* 126 Phenanthrene-d10	188	6.622	6.622	(1.000)	10258	0.10000	
* 182 Chrysene-d12	240	9.177	9.177	(1.000)	7632	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.203	8.203	(0.894)	9414	0.08000	0.07417(M)
* 198 Perylene-d12	264	10.810	10.810	(1.000)	5595	0.10000	
1 1,4-Dioxane	58	0.996	0.996	(0.396)	891	0.08000	0.08399(QH)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

01209923

Data File: \\nahstws005\Target\chem\SV6.i\230530.b\09.D

Date : 30-MAY-2023 14:03

Client ID: 14DX-0.08

Instrument: SV6.i

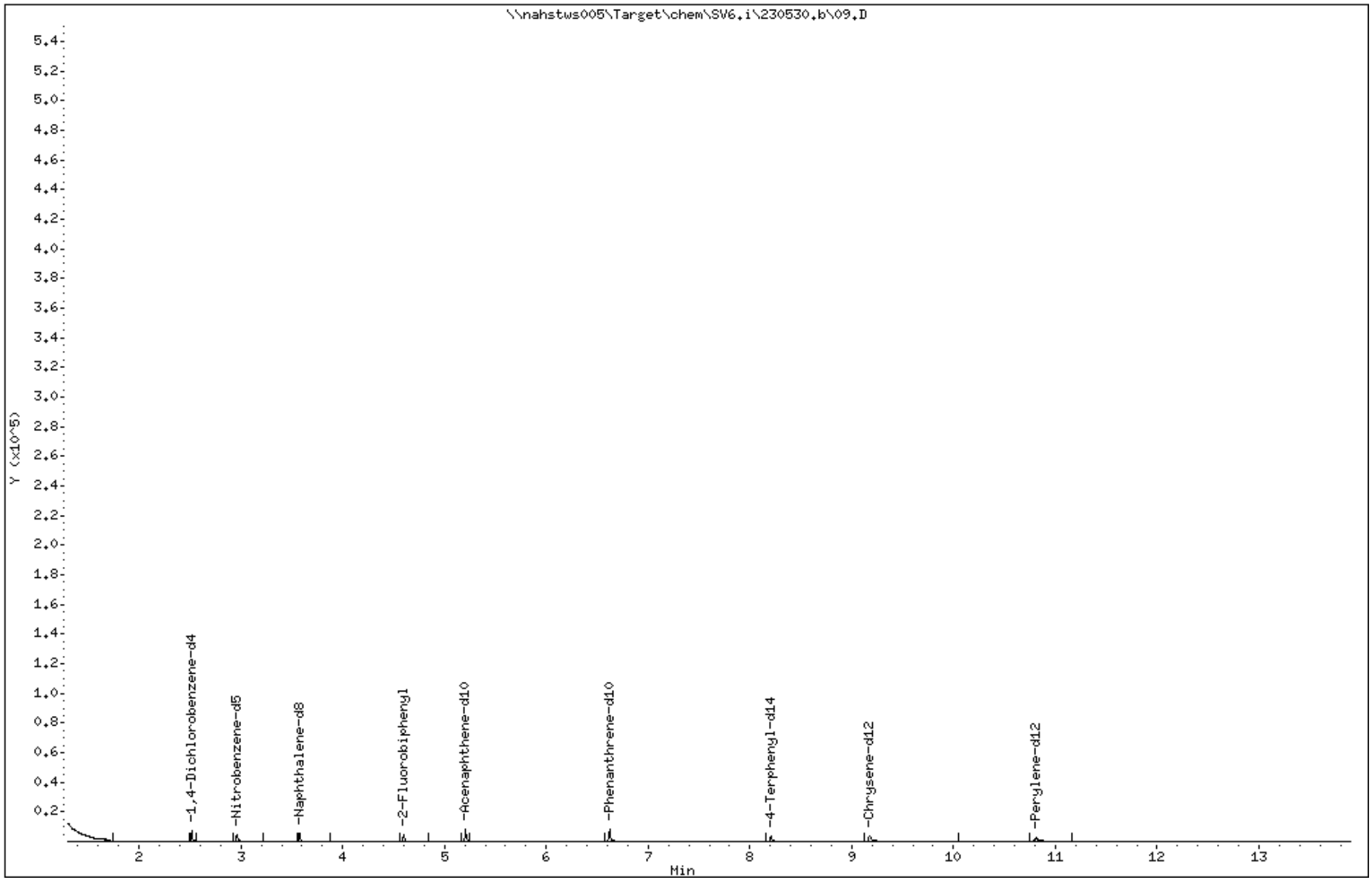
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



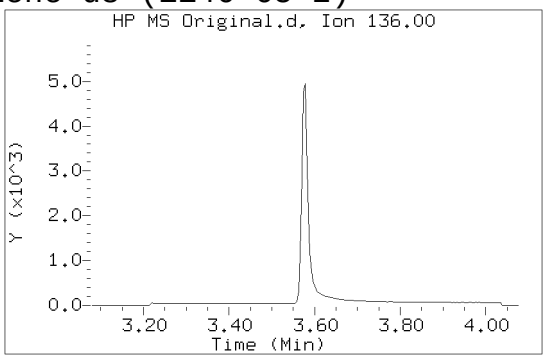
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\09.D
Inj Date : 30-MAY-2023 14:03
InstruID : SV6.i
LabSampID : 14DX-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

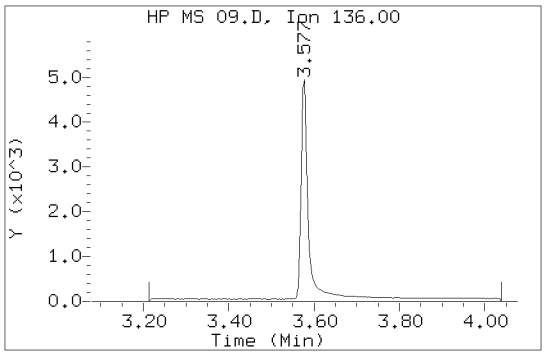
BEFORE

MASS
136
AREA
0
HEIGHT
0
30-May-2023
14:17
ALSHS
Server



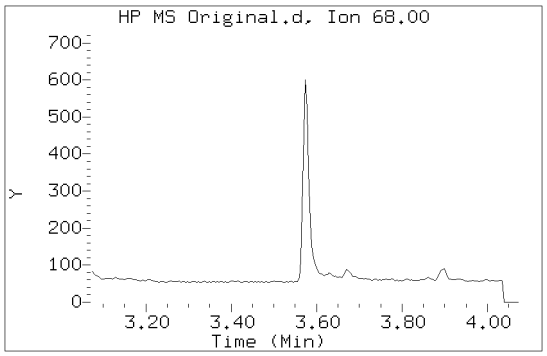
AFTER

MASS
136
AREA
8620
HEIGHT
4953
30-May-2023
14:33
ALSHS
Se



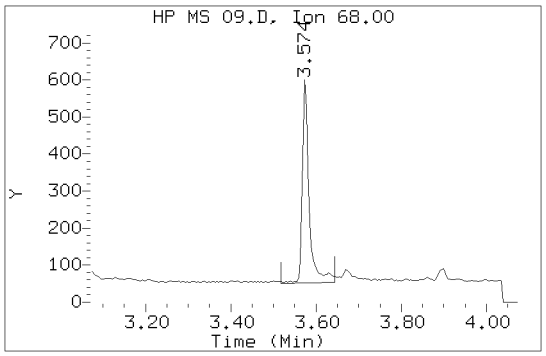
BEFORE

MASS
68
AREA
0
HEIGHT
0
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
68
AREA
609
HEIGHT
548
30-May-2023
14:33
ALSHS
Se

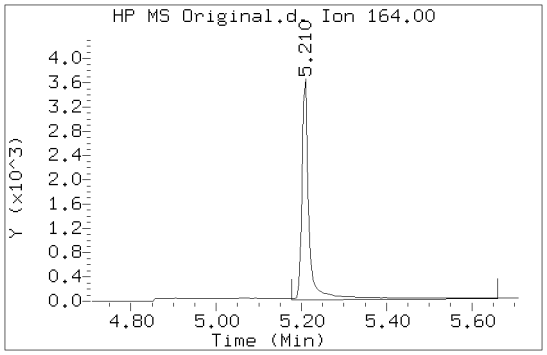


Acenaphthene-d10 (15067-26-2)

Reason Code:

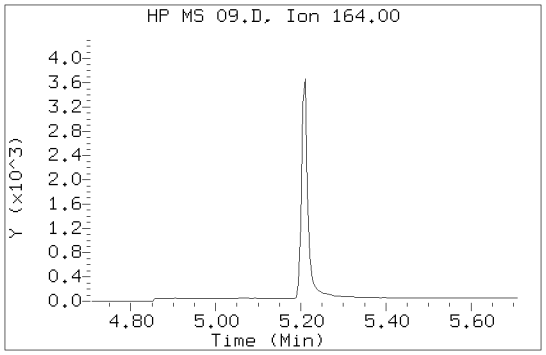
BEFORE

MASS
164
AREA
4515
HEIGHT
3642
30-May-2023
14:17
ALSHS
Server



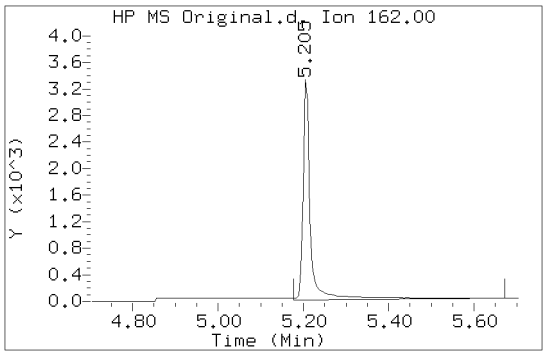
AFTER

MASS
164
AREA
6233
HEIGHT
3663
30-May-2023
14:33
ALSHS
Se



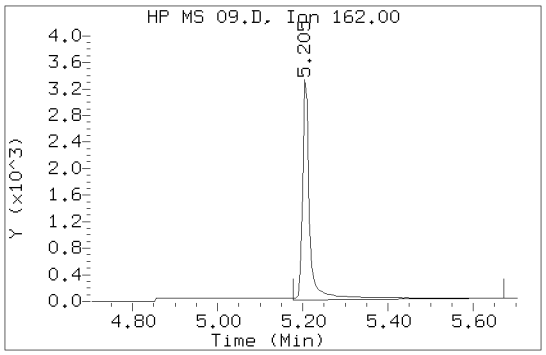
BEFORE

MASS
162
AREA
4184
HEIGHT
3318
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
162
AREA
4184
HEIGHT
3318
30-May-2023
14:33
ALSHS
Se



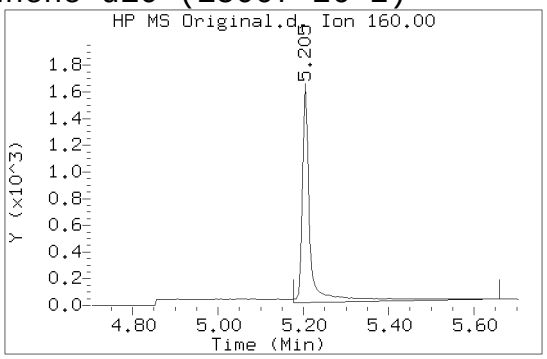
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\09.D
Inj Date : 30-MAY-2023 14:03
InstruID : SV6.i
LabSampID : 14DX-0.08

Acenaphthene-d10 (15067-26-2)

Reason Code:

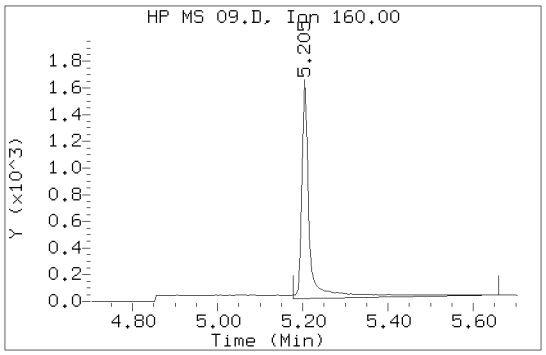
BEFORE

MASS
160
AREA
2204
HEIGHT
1642
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
160
AREA
2204
HEIGHT
1642
30-May-2023
14:33
ALSHS
Se

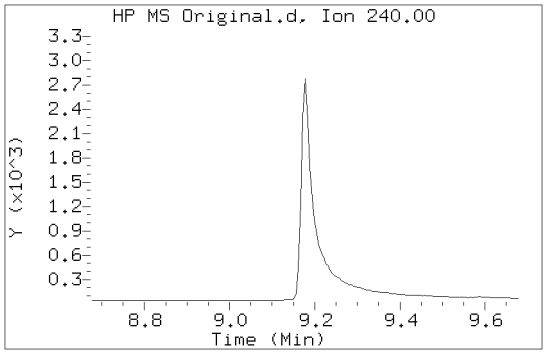


Chrysene-d12 (1719-03-5)

Reason Code:

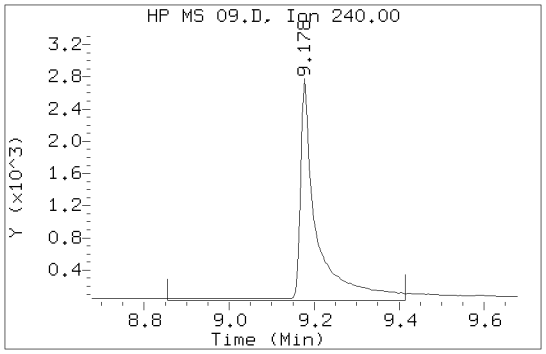
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-May-2023
14:17
ALSHS
Server



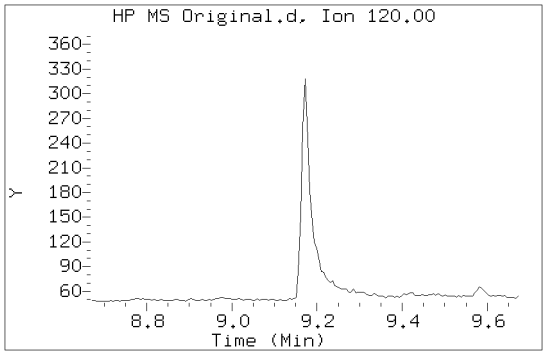
AFTER

MASS
240
AREA
7632
HEIGHT
2752
30-May-2023
14:33
ALSHS
Se



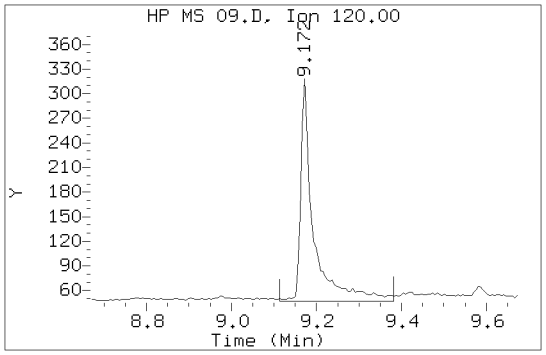
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-May-2023
14:17
ALSHS
Server



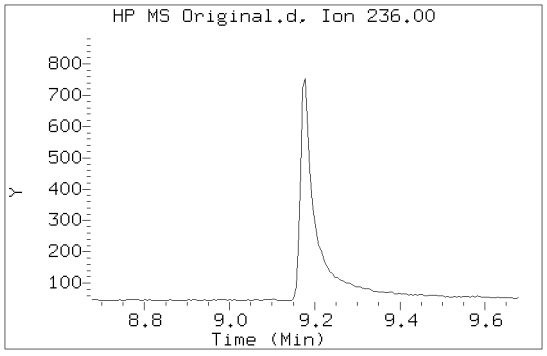
AFTER

MASS
120
AREA
564
HEIGHT
271
30-May-2023
14:33
ALSHS
Se



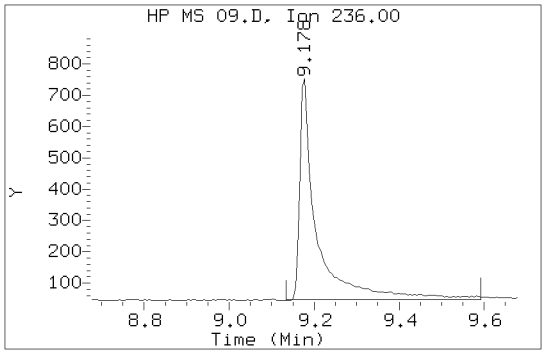
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
236
AREA
1975
HEIGHT
706
30-May-2023
14:33
ALSHS
Se



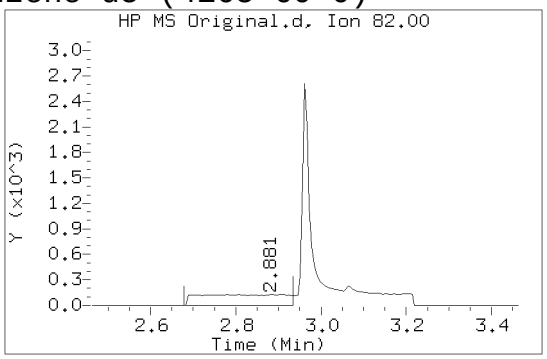
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\09.D
Inj Date : 30-MAY-2023 14:03
InstruID : SV6.i
LabSampID : 14DX-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

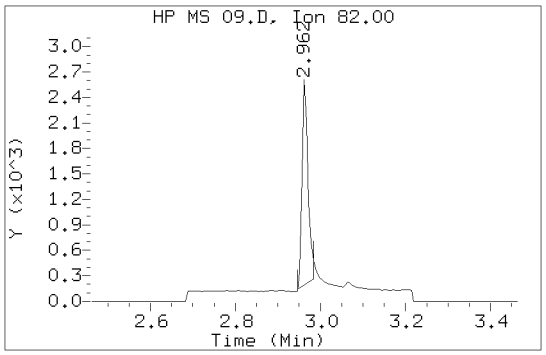
BEFORE

MASS
82
AREA
1822
HEIGHT
132
30-May-2023
14:17
ALSHS
Server



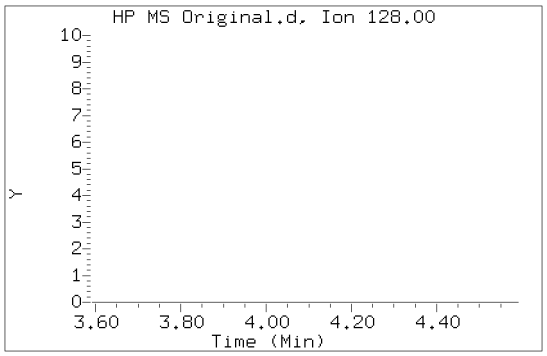
AFTER

MASS
82
AREA
2378
HEIGHT
2415
30-May-2023
14:33
ALSHS
Se



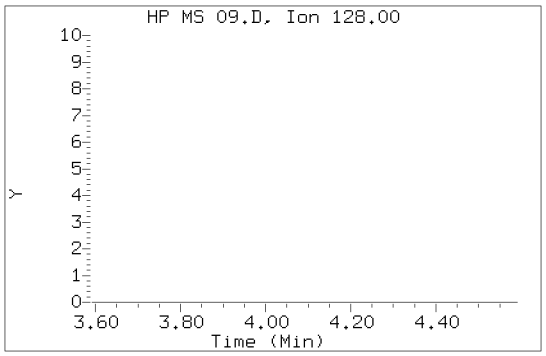
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-May-2023
14:17
ALSHS
Server



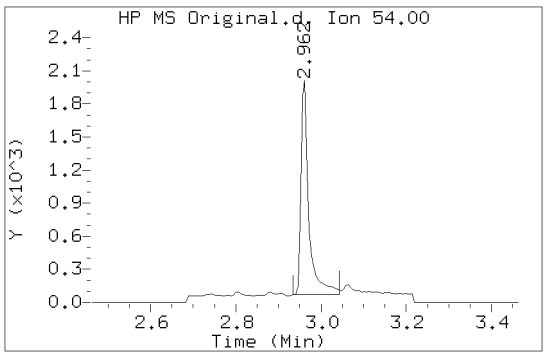
AFTER

MASS
128
AREA
0
HEIGHT
0
30-May-2023
14:33
ALSHS
Se



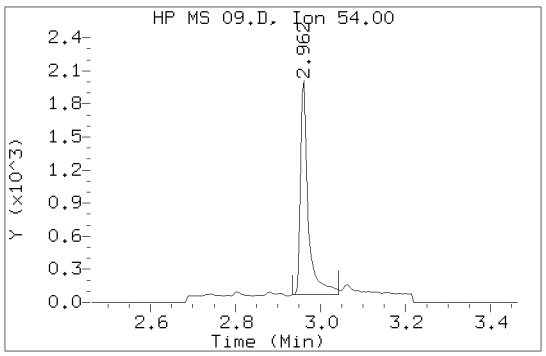
BEFORE

MASS
54
AREA
2510
HEIGHT
1944
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
54
AREA
2510
HEIGHT
1944
30-May-2023
14:33
ALSHS
Se

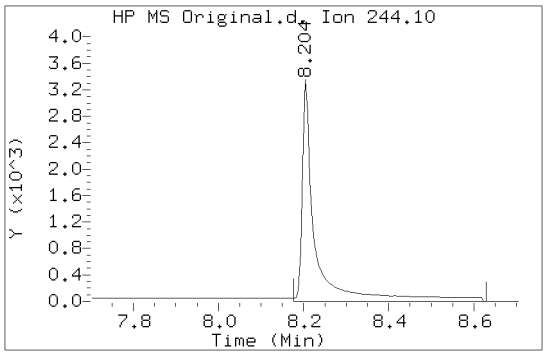


4-Terphenyl-d14 (1718-51-0)

Reason Code:

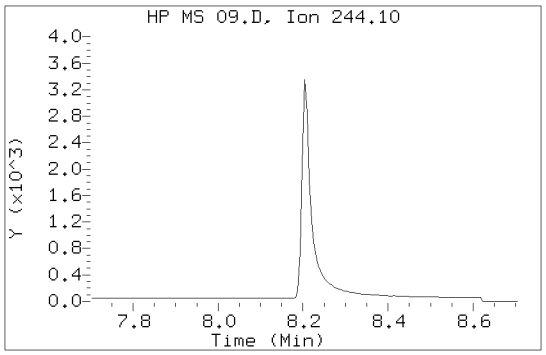
BEFORE

MASS
244.1
AREA
7145
HEIGHT
3353
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
244.1
AREA
9414
HEIGHT
3354
30-May-2023
14:33
ALSHS
Se



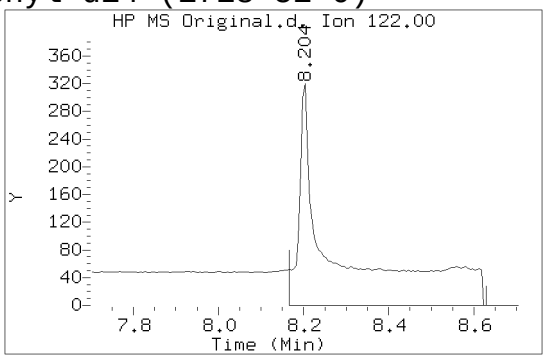
Data File : \\nahstws005\Target\chem\SV6.i\230530.b\09.D
Inj Date : 30-MAY-2023 14:03
InstruID : SV6.i
LabSampID : 14DX-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

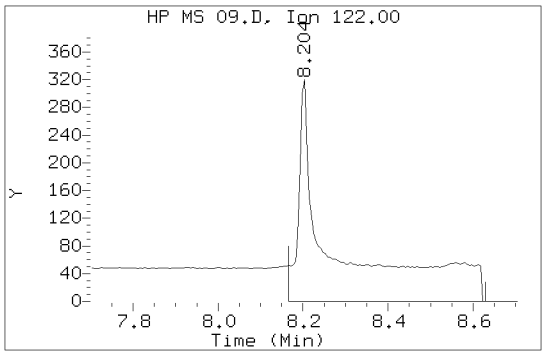
BEFORE

MASS
122
AREA
1829
HEIGHT
320
30-May-2023
14:17
ALSHS
Server



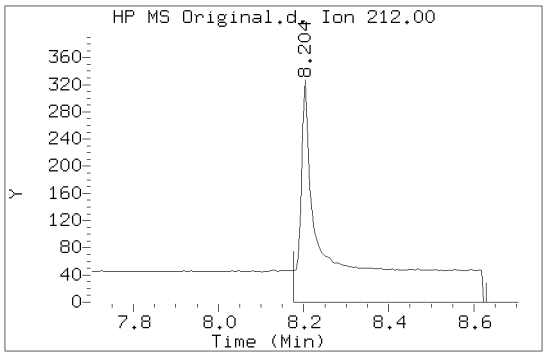
AFTER

MASS
122
AREA
1829
HEIGHT
320
30-May-2023
14:33
ALSHS
Se



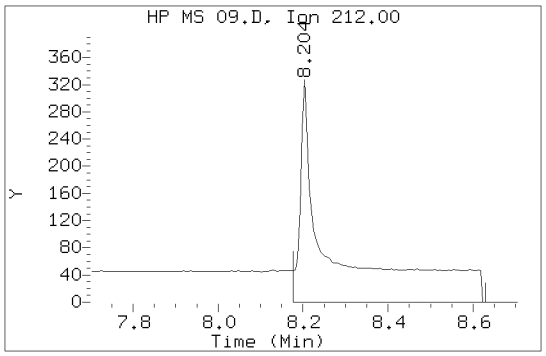
BEFORE

MASS
212
AREA
1697
HEIGHT
327
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
212
AREA
1697
HEIGHT
327
30-May-2023
14:33
ALSHS
Se

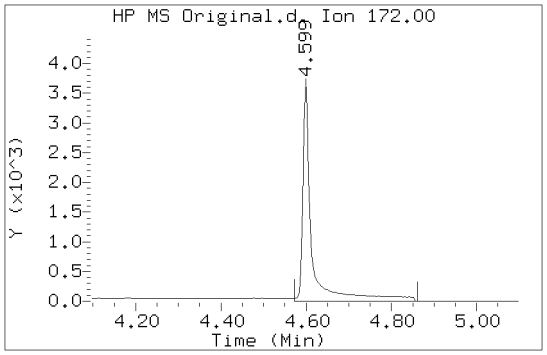


2-Fluorobiphenyl (321-60-8)

Reason Code:

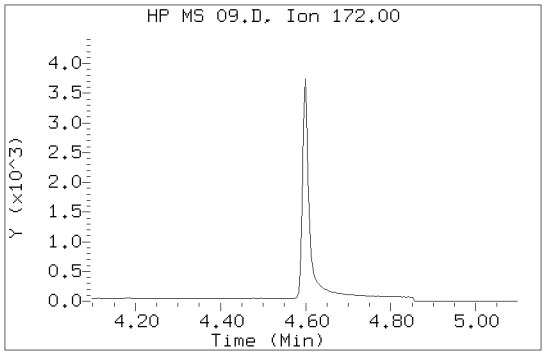
BEFORE

MASS
172
AREA
5477
HEIGHT
3739
30-May-2023
14:17
ALSHS
Server



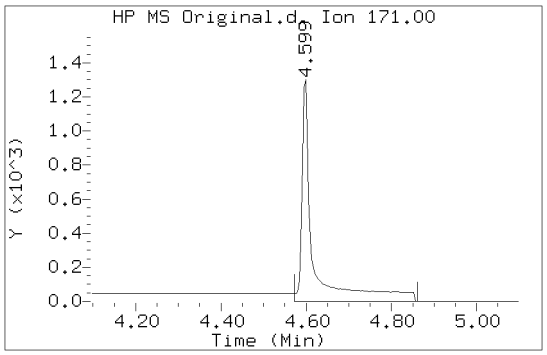
AFTER

MASS
172
AREA
6912
HEIGHT
3741
30-May-2023
14:33
ALSHS
Se



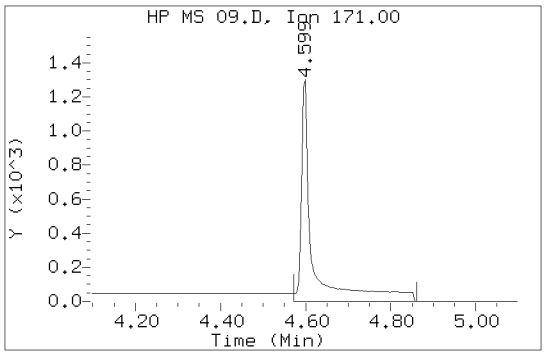
BEFORE

MASS
171
AREA
2409
HEIGHT
1301
30-May-2023
14:17
ALSHS
Server



AFTER

MASS
171
AREA
2409
HEIGHT
1301
30-May-2023
14:33
ALSHS
Se



HS23051522 - ME - ICP_W_DOD

ALS WO# HS23051522

ALS Houston, US Date: 02-Jun-23

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc. Instrument:ICPMS06
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		ArHe
24	Magnesium	Germanium		ArHe
27	Aluminum	Germanium		ArHe
39	Potassium	Germanium		ArHe
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
82	Selenium	Germanium		Ar
88	Strontium	Indium		Ar
95	Molybdenum	Indium		Ar
105	Palladium	Germanium		Ar
107	Silver	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Indium		Ar
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US

Date: 02-Jun-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522
Start Date: 30-May-2023 End Date: 30-May-2023

Run ID:ICPMS06_436532
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_436532_Tune	1	30-May-2023 00:00	ICPMS06_436532_Tune_1	
CAL BLK	1	30-May-2023 11:20	014CALB.d_7330085	AG BA PB SE
2/10/200	1	30-May-2023 11:22	015CALS.d_7330086	AG BA PB SE
5/25/500	1	30-May-2023 11:24	016CALS.d_7330087	AG BA PB SE
10/50/100	1	30-May-2023 11:26	017CALS.d_7330088	AG BA PB SE
100/500/10K	1	30-May-2023 11:28	018CALS.d_7330089	AG BA PB SE
200/1000/20K	1	30-May-2023 11:30	019CALS.d_7330090	AG BA PB SE
LLICV2	1	30-May-2023 11:38	023LCV2.d_7330094	AG BA PB SE
LLICV5	1	30-May-2023 11:40	024LCV5.d_7330095	AG BA PB SE
ICB	1	30-May-2023 11:42	025_ICB.d_7330096	AG BA PB SE
ICV	1	30-May-2023 11:44	026_ICV.d_7330097	AG BA PB SE
ICSA	1	30-May-2023 11:48	028ICSA.d_7330099	AG BA PB SE
ICSAB	1	30-May-2023 11:50	029ICSB.d_7330100	AG BA PB SE
CCV 1	1	30-May-2023 15:42	129_CCV.d_7330903	AG BA PB SE
CCB 1	1	30-May-2023 15:44	130_CCB.d_7330904	AG BA PB SE
MBLK-194431	1	30-May-2023 15:46	131SMPL.d_7330905	AG BA PB SE
LCS-194431	1	30-May-2023 15:48	132SMPL.d_7330906	AG BA PB SE
ZZZZZZSD	5	30-May-2023 15:52	134SMPL.d_7330908	AG BA PB SE
ZZZZZZMS	1	30-May-2023 15:54	135SMPL.d_7330909	AG BA PB SE
ZZZZZZMSD	1	30-May-2023 15:56	136SMPL.d_7330910	AG BA PB SE
ZZZZZZPDS	1	30-May-2023 15:58	137SMPL.d_7330911	AG BA PB SE
LH18/24-SP650_052223	1	30-May-2023 16:04	140SMPL.d_7330914	AG BA PB SE
CCV 2	1	30-May-2023 16:06	141_CCV.d_7331125	AG BA PB SE
CCB 2	1	30-May-2023 16:08	142_CCB.d_7331126	AG BA PB SE

ALS Houston, US Date: 02-Jun-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Run ID: ICPMS06_436532
Instrument: ICPMS06
Method: SW6020A

ICV Date: 30-May-2023 11:44 Seq: 7330097 ICV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Barium	100	99.404	99	90-110	
Lead	100	102.726	103	90-110	
Selenium	100	98.51	99	90-110	
Silver	100	99.466	100	90-110	

CCV1 Date: 30-May-2023 15:42 Seq: 7330903 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Barium	100	98.731	99	90-110	
Lead	100	99.955	100	90-110	
Selenium	100	98.31	98	90-110	
Silver	100	97.765	98	90-110	

CCV2 Date: 30-May-2023 16:06 Seq: 7331125 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Barium	100	97.481	98	90-110	
Lead	100	99.834	100	90-110	
Selenium	100	99.332	99	90-110	
Silver	100	98.401	98	90-110	

ALS Houston, US

Date: 02-Jun-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Run ID: ICPMS06_436532
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 30-May-2023 11:42		Seq: 7330096	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	5	1.9	5	U	
Lead	5	0.6	5	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB1	Date: 30-May-2023 15:44		Seq: 7330904	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	4	1.9	4	U	
Lead	2	0.6	2	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

MBLK-194431	Date: 30-May-2023 15:46		Seq: 7330905	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	5	1.9	5	U	
Lead	5	0.6	5	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB2	Date: 30-May-2023 16:08		Seq: 7331126	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	4	1.9	4	U	
Lead	2	0.6	2	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

ALS Houston, US Date: 02-Jun-23

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc. Run ID:ICPMS06_436532
Project: Longhorn GW Treatment Plant Monthly Effluent Samples Instrument:ICPMS06
WorkOrder: HS23051522 Method:SW6020A

ICSA	Date: 30-May-2023 11:48	Seq: 7330099	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Barium		0.76	0	
Lead		0.174	0	
Selenium		0.378	0	
Silver		0.171	0	

ICSAB	Date: 30-May-2023 11:50	Seq: 7330100	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Barium	100	102.2	102	
Lead	100	102.8	103	
Selenium	100	102.2	102	
Silver	100	99.05	99.1	

ALS Houston, US Date: 02-Jun-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Date Analyzed: 30-May-2023 15:56
Date Extracted: 30-May-2023 10:00
Units: ug/L

Matrix Spike: HS23051127-01MS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Barium	112.9	168.4	50.00	111	170.7	50.00	116	86-114	1.35	20
Lead	0.7410	49.92	50.00	98.4	49.91	50.00	98.3	88-115	0.0120	20
Selenium	2.268	52.59	50.00	101	52.82	50.00	101	80-120	0.431	20
Silver	5.000	47.52	50.00	95.0	47.19	50.00	94.3	85-116	0.691	20

ALS Houston, US Date: 02-Jun-23

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Date Analyzed: 30-May-2023 15:58
Date Extracted: 30-May-2023 10:00
Units: ug/L

Lab Sample ID: HS23051127-01PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Barium	112.9	217.2	100	104	80-120
Lead	0.741	99.13	100	98	80-120
Selenium	2.268	104.1	100	102	80-120
Silver	0	97.23	100	97	80-120

ALS Houston, US

Date: 02-Jun-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Date Analyzed: 30-May-2023 15:48
Date Extracted: 30-May-2023 10:00
Units: ug/L

Lab Sample ID: LCS-194431
Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Barium	50	48.08	96	86-114
Lead	50	48.48	97	88-115
Selenium	50	50.92	102	80-120
Silver	50	48.63	97	85-116

ALS Houston, US Date: 02-Jun-23

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23051522

Date Analyzed: 30-May-2023 15:52
Date Extracted: 30-May-2023 10:00
Units: ug/L

Lab Sample ID: HS23051127-01SD
Client Sample ID:

Analysis Method: SW6020A

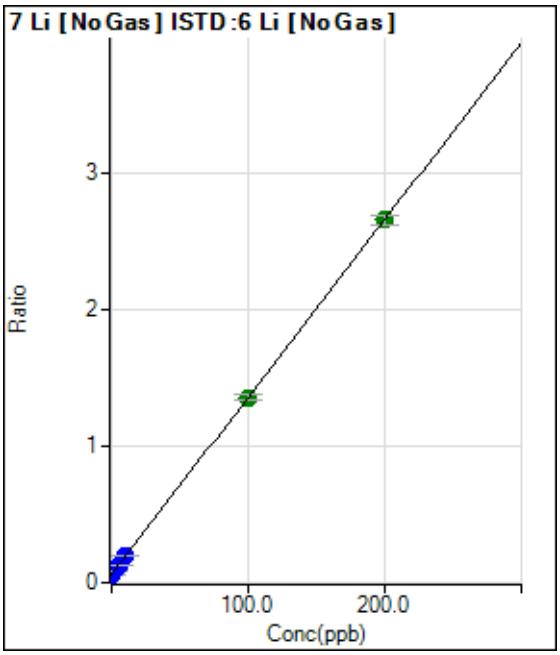
Analyte	Sample Result	C	SD Result	C	RPD	Q
Barium	112.9		112.2		1	
Lead	0.741	J	0	U	0	
Selenium	2.268	J	0	U	0	
Silver	0	U	0	U	0	

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\053023A.b\
Analysis File: 053023A.batch.bin
DA Date-Time: 5/30/2023 11:35:39 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	5/30/2023 11:20:34 AM
2	015CALS.d	2/10/200	5/30/2023 11:22:32 AM
3	016CALS.d	5/25/500	5/30/2023 11:24:30 AM
4	017CALS.d	10/50/100	5/30/2023 11:26:28 AM
5	018CALS.d	100/500/10K	5/30/2023 11:28:25 AM
6	019CALS.d	200/1000/20K	5/30/2023 11:30:18 AM

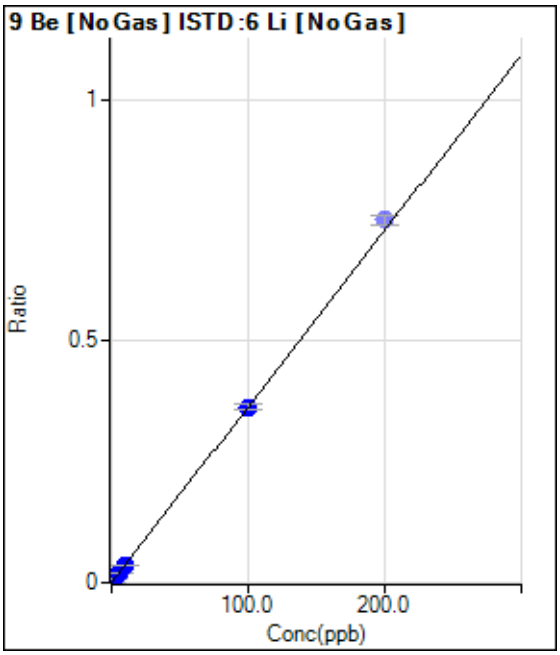
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58340.09	0.0605	P	2.4
2	☐	2.000	2.014	82427.67	0.0866	P	2.0
3	☐	5.000	5.257	119752.54	0.1286	P	0.6
4	☐	10.000	10.280	182919.06	0.1937	P	1.3
5	☐	100.000	99.898	1267901.94	1.3551	A	2.8
6	☐	200.000	200.030	2399604.81	2.6528	A	2.7

y = 0.0130 * x + 0.0605
R = 1.0000
DL = 0.3309
BEC = 4.665

Weight: <None>
Min Conc: <None>

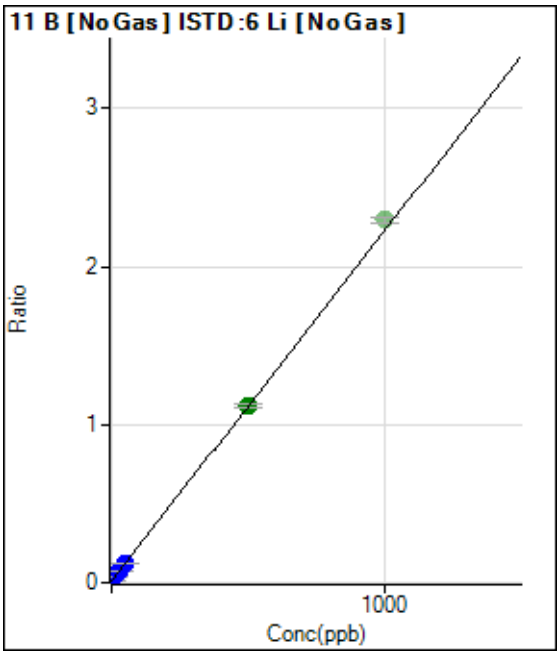


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	42.4
2	☐	2.000	1.975	6878.39	0.0072	P	2.3
3	☐	5.000	5.049	17155.57	0.0184	P	3.3
4	☐	10.000	10.086	34736.19	0.0368	P	1.8
5	☐	100.000	99.989	340981.02	0.3644	P	2.8
6	☑	200.000		679794.11	0.7516	P	2.3

y = 0.0036 * x + 2.6088E-005
R = 1.0000
DL = 0.009104
BEC = 0.007159

Weight: <None>
Min Conc: <None>

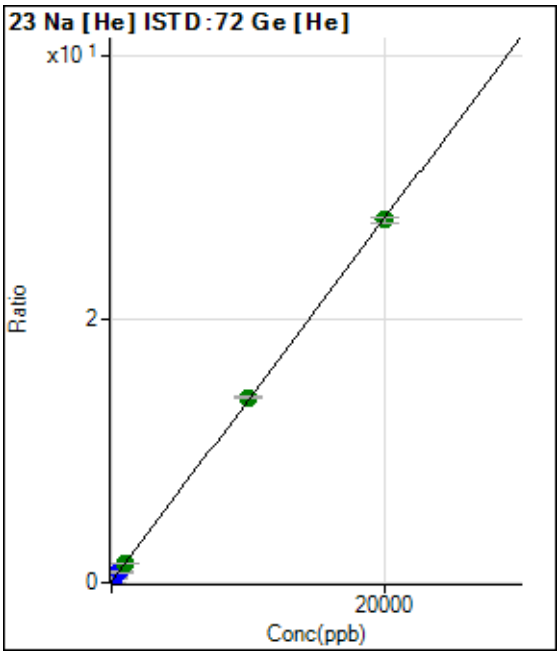
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9595.03	0.0099	P	1.9
2	☐	10.000	10.418	31433.45	0.0330	P	1.1
3	☐	25.000	26.050	62966.91	0.0676	P	1.9
4	☐	50.000	51.947	118005.76	0.1250	P	0.8
5	☐	500.000	499.744	1044770.32	1.1164	A	2.3
6	☑	1000.000		2075336.17	2.2941	A	1.5

y = 0.0022 * x + 0.0099
R = 1.0000
DL = 0.2598
BEC = 4.491

Weight: <None>
Min Conc: <None>

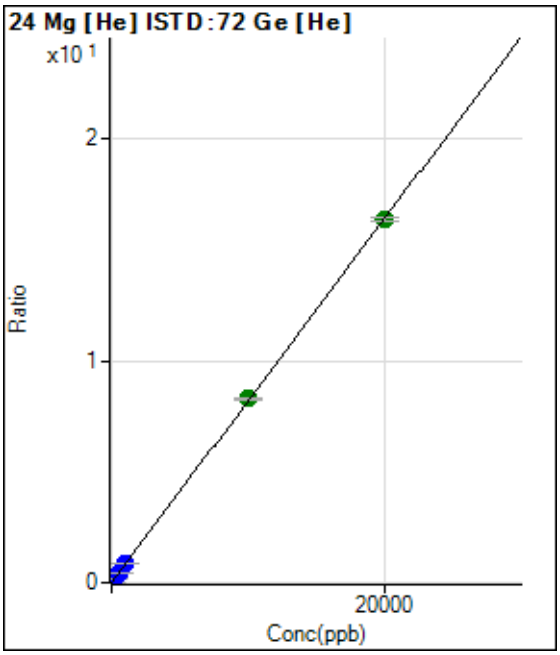


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46036.14	0.0687	P	2.2
2	☐	200.000	214.404	243879.32	0.3644	P	1.1
3	☐	500.000	533.775	540574.13	0.8048	P	0.8
4	☐	1000.000	1037.219	1002583.24	1.4990	A	2.9
5	☐	10000.00	10156.40	9387837.57	14.0740	A	0.8
6	☐	20000.00	19918.95	18225449.73	27.5361	A	1.8

y = 0.0014 * x + 0.0687
R = 1.0000
DL = 3.309
BEC = 49.86

Weight: <None>
Min Conc: <None>

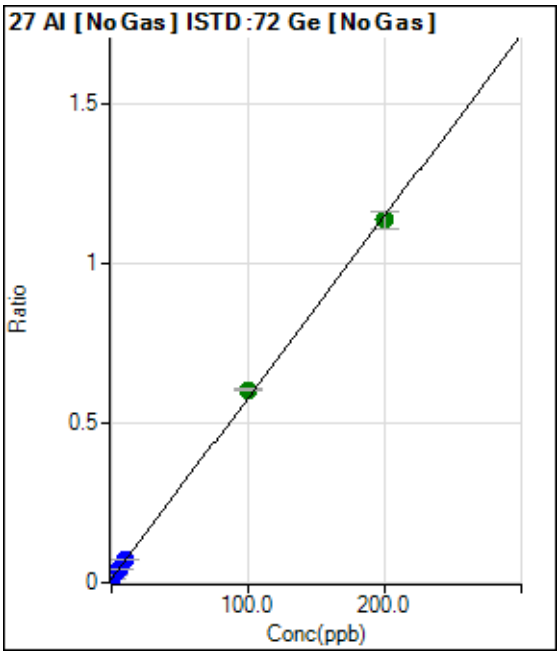
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	790.04	0.0012	P	5.8
2	☐	200.000	213.411	118073.92	0.1764	P	1.2
3	☐	500.000	532.446	294436.51	0.4384	P	0.9
4	☐	1000.000	1076.114	591824.61	0.8847	P	0.5
5	☐	10000.00	10120.75	5543689.71	8.3110	A	1.3
6	☐	20000.00	19934.87	10834694.01	16.3691	A	1.0

y = 8.2107E-004 * x + 0.0012
R = 1.0000
DL = 0.2501
BEC = 1.437

Weight: <None>
Min Conc: <None>

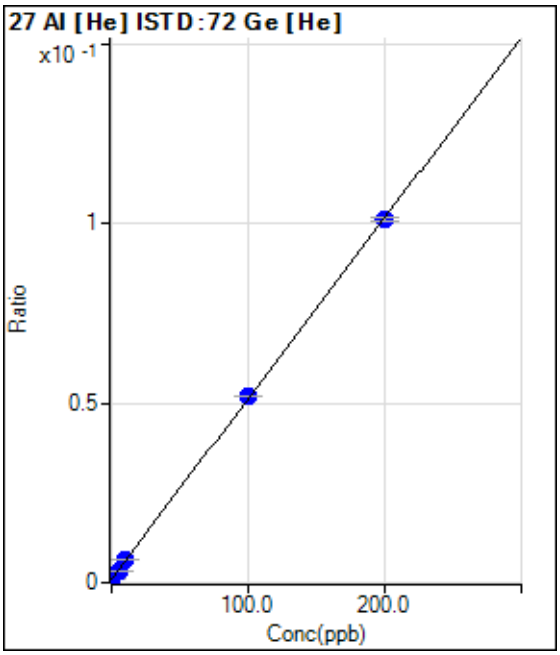


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30914.73	0.0113	P	1.6
2	☐	2.000	2.419	69338.95	0.0250	P	1.3
3	☐	5.000	5.517	117335.05	0.0426	P	1.3
4	☐	10.000	10.898	200944.19	0.0732	P	1.2
5	☐	100.000	104.047	1640854.19	0.6025	A	0.9
6	☐	200.000	197.914	3113082.87	1.1360	A	5.1

y = 0.0057 * x + 0.0113
R = 0.9997
DL = 0.09325
BEC = 1.983

Weight: <None>
Min Conc: <None>

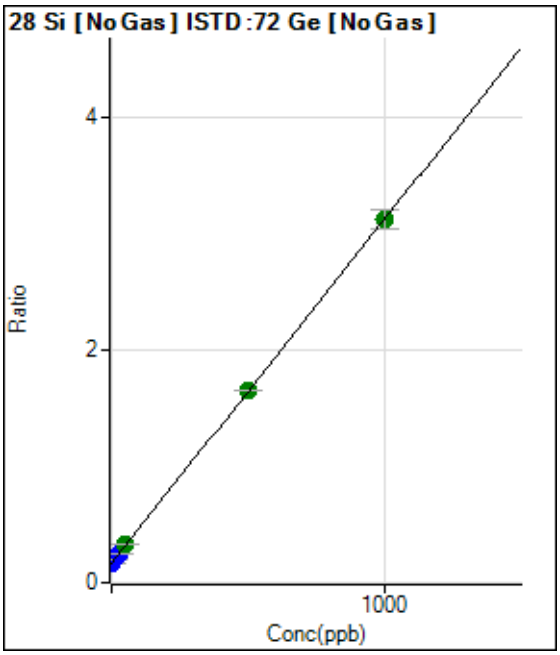
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.69	0.0010	P	9.3
2	☐	2.000	2.364	1440.10	0.0022	P	11.0
3	☐	5.000	4.807	2270.23	0.0034	P	4.8
4	☐	10.000	10.651	4224.04	0.0063	P	0.8
5	☐	100.000	101.848	34757.03	0.0521	P	0.1
6	☐	200.000	199.045	66793.62	0.1009	P	1.0

y = 5.0212E-004 * x + 9.6603E-004
R = 0.9999
DL = 0.537
BEC = 1.924

Weight: <None>
Min Conc: <None>

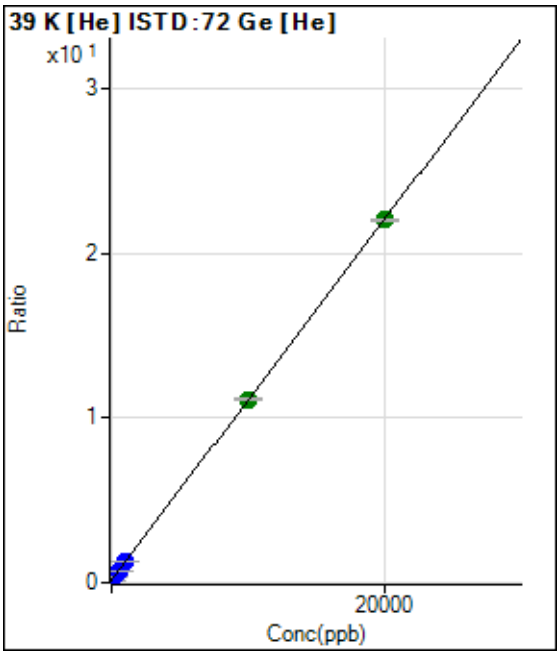


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	463001.29	0.1688	P	1.2
2	☐	10.000	10.233	551695.15	0.1991	P	0.9
3	☐	25.000	26.741	682362.31	0.2479	P	1.2
4	☐	50.000	56.267	920059.26	0.3352	A	1.6
5	☐	500.000	502.713	4508298.16	1.6554	A	0.5
6	☐	1000.000	998.284	8552736.75	3.1209	A	5.3

y = 0.0030 * x + 0.1688
R = 1.0000
DL = 2.058
BEC = 57.08

Weight: <None>
Min Conc: <None>

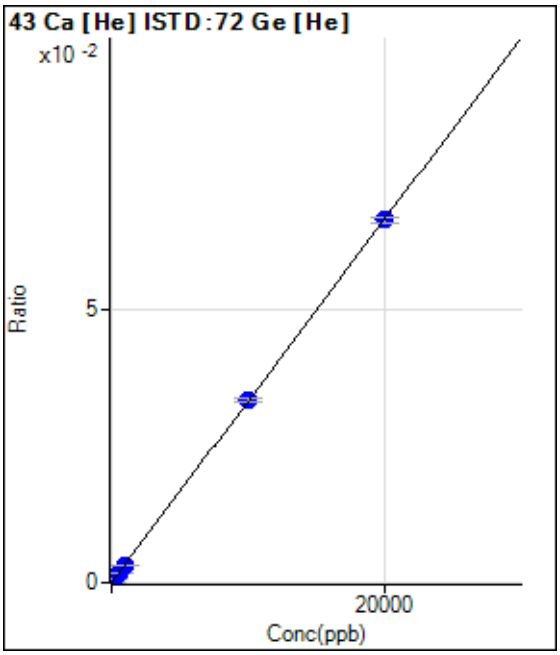
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94230.13	0.1407	P	1.2
2	☐	200.000	208.218	246808.13	0.3688	P	0.6
3	☐	500.000	511.445	470793.01	0.7009	P	0.5
4	☐	1000.000	1033.657	851445.17	1.2729	P	1.0
5	☐	10000.00	10040.17	7429268.43	11.1378	A	1.2
6	☐	20000.00	19977.86	14576880.61	22.0226	A	0.9

y = 0.0011 * x + 0.1407
R = 1.0000
DL = 4.757
BEC = 128.5

Weight: <None>
Min Conc: <None>

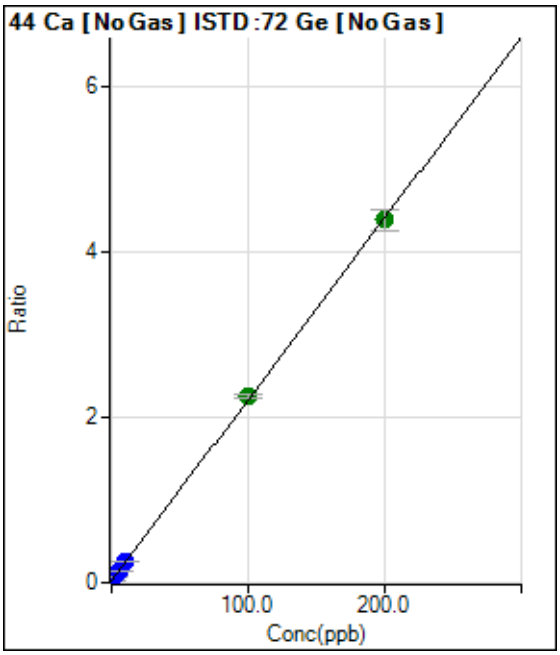


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	49.5
2	☐	200.000	209.385	486.69	0.0007	P	11.2
3	☐	500.000	505.110	1150.07	0.0017	P	5.0
4	☐	1000.000	933.638	2100.20	0.0031	P	2.4
5	☐	10000.00	10055.73	22358.46	0.0335	P	2.0
6	☐	20000.00	19975.22	44057.80	0.0666	P	1.8

y = 3.3304E-006 * x + 2.9798E-005
R = 1.0000
DL = 13.29
BEC = 8.947

Weight: <None>
Min Conc: <None>

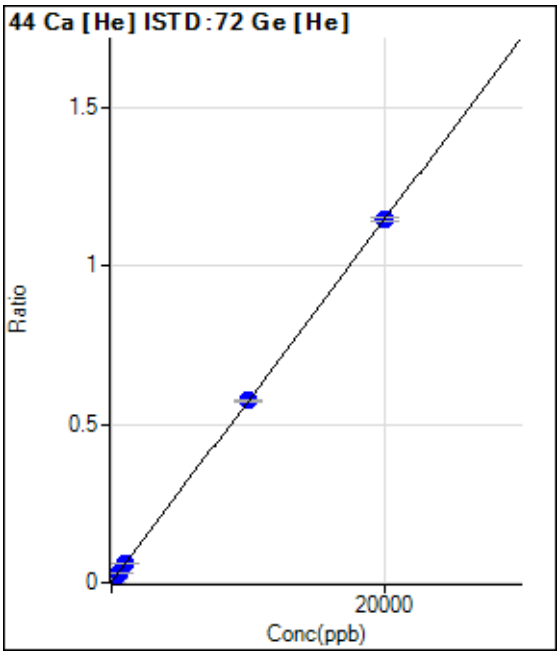
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	57650.97	0.0210	P	0.9
2	☐	2.000	2.108	186566.64	0.0673	P	0.2
3	☐	5.000	5.336	380370.32	0.1382	P	1.9
4	☐	10.000	10.852	711874.16	0.2593	P	0.8
5	☐	100.000	101.648	6135691.57	2.2530	A	1.8
6	☐	200.000	199.124	12038537.32	4.3935	A	5.7

y = 0.0220 * x + 0.0210
R = 1.0000
DL = 0.02639
BEC = 0.9571

Weight: <None>
Min Conc: <None>

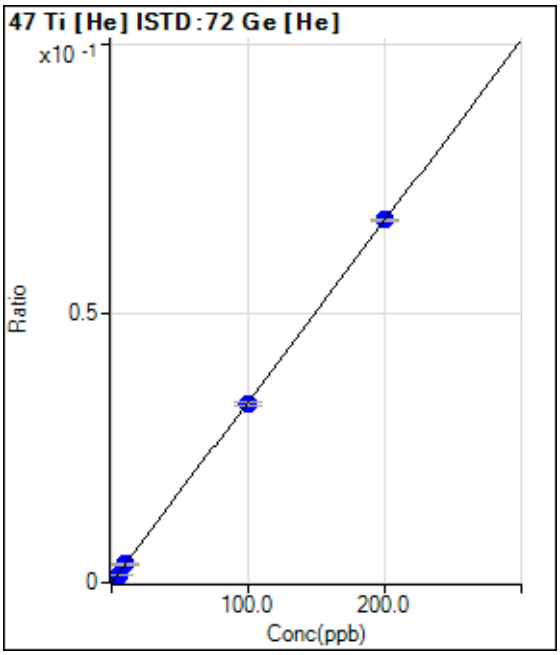


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	840.05	0.0013	P	5.9
2	☐	200.000	194.815	8296.04	0.0124	P	1.8
3	☐	500.000	497.867	19968.16	0.0297	P	2.1
4	☐	1000.000	1015.018	39670.71	0.0593	P	0.3
5	☐	10000.00	10042.02	383918.60	0.5756	P	1.1
6	☐	20000.00	19978.34	757152.72	1.1438	P	0.9

y = 5.7190E-005 * x + 0.0013
R = 1.0000
DL = 3.906
BEC = 21.94

Weight: <None>
Min Conc: <None>

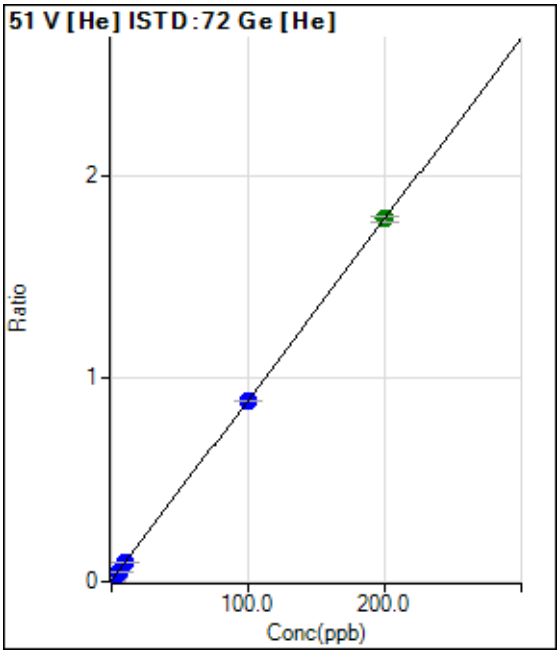
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	1.959	446.68	0.0007	P	15.3
3	☐	5.000	4.349	986.72	0.0015	P	4.8
4	☐	10.000	10.212	2296.90	0.0034	P	10.9
5	☐	100.000	98.997	22158.10	0.0332	P	2.5
6	☐	200.000	200.507	44529.04	0.0673	P	0.4

y = 3.3545E-004 * x + 9.9775E-006
R = 1.0000
DL = 0.07728
BEC = 0.02974

Weight: <None>
Min Conc: <None>

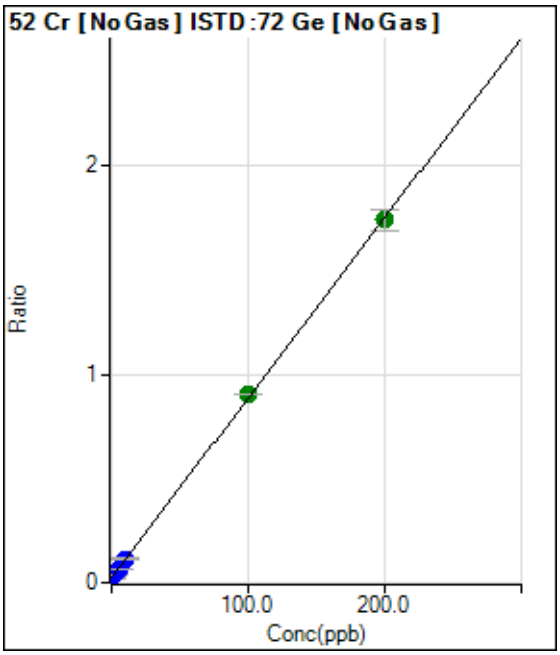


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3197.06	0.0048	P	5.2
2	☐	2.000	1.916	14608.92	0.0218	P	2.3
3	☐	5.000	4.876	32363.70	0.0482	P	2.0
4	☐	10.000	9.862	61923.58	0.0926	P	0.1
5	☐	100.000	99.722	595381.87	0.8926	P	0.3
6	☐	200.000	200.150	1182535.96	1.7866	A	1.8

y = 0.0089 * x + 0.0048
R = 1.0000
DL = 0.08435
BEC = 0.5364

Weight: <None>
Min Conc: <None>

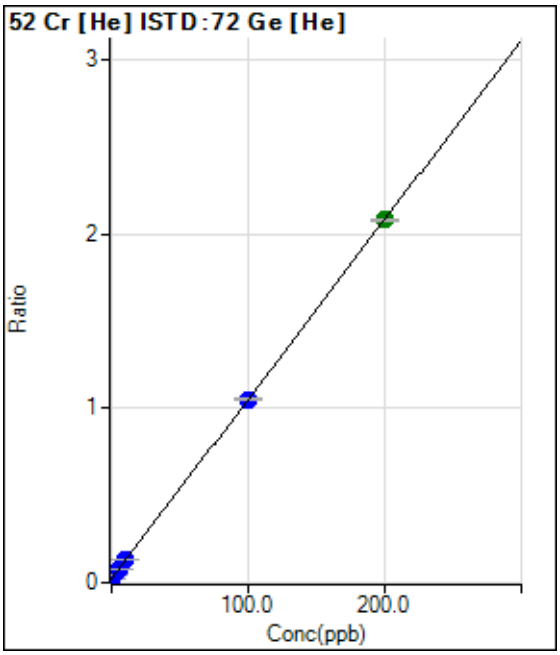
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63604.29	0.0232	P	1.7
2	☐	2.000	2.075	113843.53	0.0411	P	0.7
3	☐	5.000	5.170	186533.24	0.0678	P	1.9
4	☐	10.000	10.624	315153.21	0.1148	P	1.0
5	☐	100.000	101.871	2455202.78	0.9015	A	0.5
6	☐	200.000	199.028	4765524.09	1.7392	A	5.5

y = 0.0086 * x + 0.0232
R = 0.9999
DL = 0.1343
BEC = 2.689

Weight: <None>
Min Conc: <None>

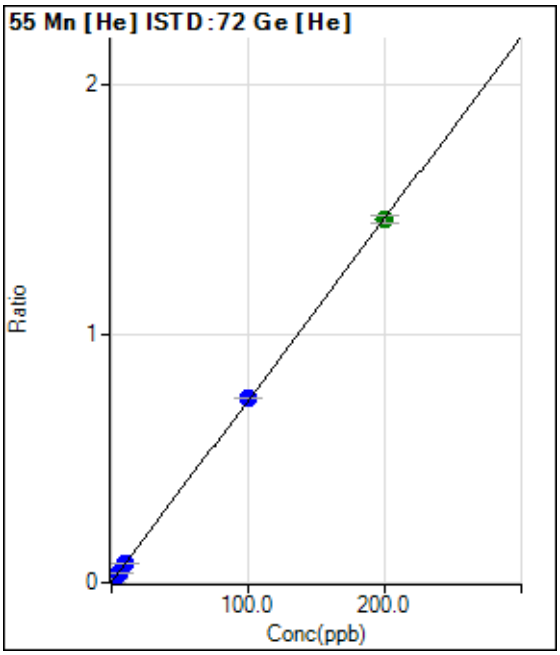


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14708.14	0.0220	P	1.6
2	☐	2.000	2.111	29268.25	0.0437	P	1.8
3	☐	5.000	5.046	49707.05	0.0740	P	3.0
4	☐	10.000	10.253	85422.66	0.1277	P	0.6
5	☐	100.000	100.076	703026.32	1.0539	P	0.4
6	☐	200.000	199.947	1379328.73	2.0838	A	0.5

y = 0.0103 * x + 0.0220
R = 1.0000
DL = 0.1024
BEC = 2.13

Weight: <None>
Min Conc: <None>

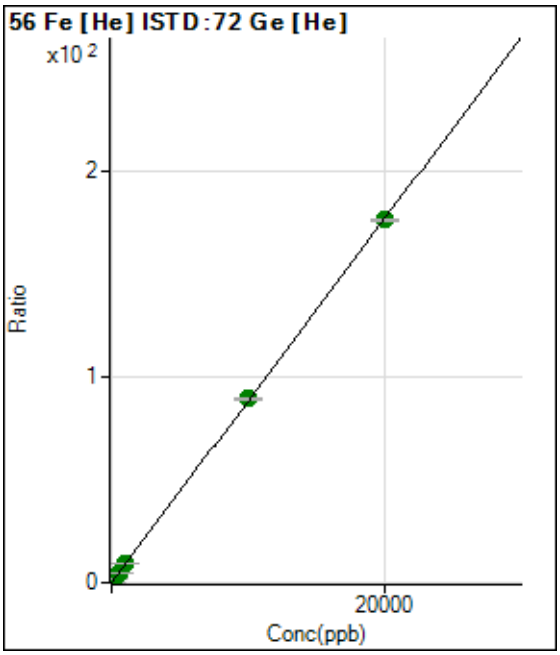
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1140.07	0.0017	P	9.2
2	☐	2.000	2.071	11271.52	0.0168	P	3.9
3	☐	5.000	5.041	25901.52	0.0386	P	2.9
4	☐	10.000	10.114	50603.83	0.0756	P	1.4
5	☐	100.000	101.369	495501.32	0.7428	P	0.6
6	☐	200.000	199.308	965576.13	1.4589	A	2.2

y = 0.0073 * x + 0.0017
R = 1.0000
DL = 0.06427
BEC = 0.233

Weight: <None>
Min Conc: <None>

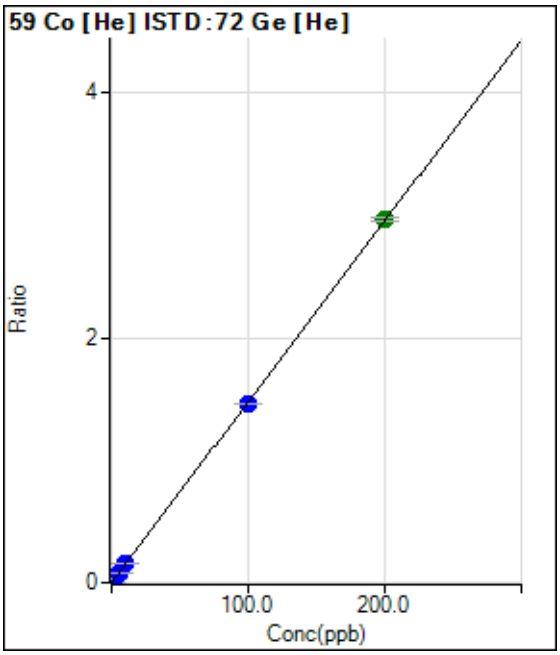


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24191.72	0.0361	P	3.3
2	☐	200.000	205.971	1243162.90	1.8575	A	0.5
3	☐	500.000	513.769	3075898.91	4.5793	A	2.7
4	☐	1000.000	1018.660	6050033.66	9.0440	A	0.8
5	☐	10000.00	10097.00	59581645.78	89.3228	A	0.8
6	☐	20000.00	19950.16	116800118.2	176.453	A	0.5

y = 0.0088 * x + 0.0361
R = 1.0000
DL = 0.404
BEC = 4.086

Weight: <None>
Min Conc: <None>

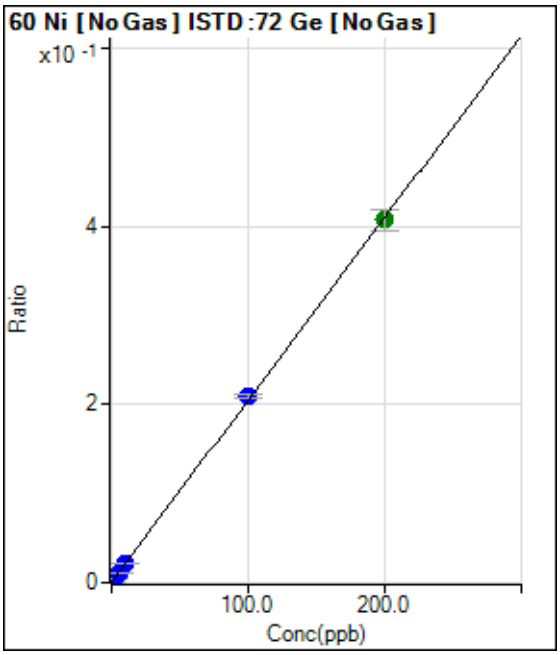
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0002	P	3.9
2	☐	2.000	1.981	19734.61	0.0295	P	4.1
3	☐	5.000	4.979	49543.44	0.0738	P	1.6
4	☐	10.000	10.148	100388.00	0.1501	P	0.6
5	☐	100.000	98.566	970814.08	1.4554	P	0.2
6	☐	200.000	200.710	1961459.81	2.9634	A	1.0

y = 0.0148 * x + 2.4893E-004
R = 1.0000
DL = 0.001968
BEC = 0.01686

Weight: <None>
Min Conc: <None>

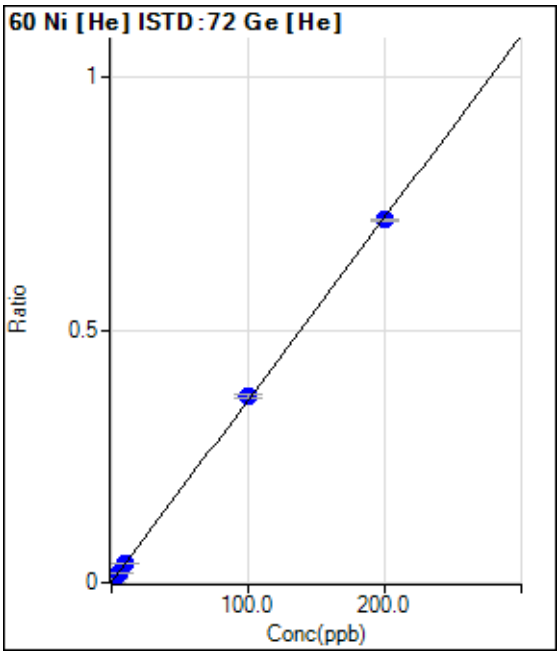


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1513.45	0.0006	P	9.1
2	☐	2.000	2.072	13283.38	0.0048	P	3.4
3	☐	5.000	5.087	30187.23	0.0110	P	1.8
4	☐	10.000	10.433	60149.85	0.0219	P	0.9
5	☐	100.000	102.127	570880.83	0.2096	P	1.4
6	☐	200.000	198.912	1117250.58	0.4078	A	5.6

y = 0.0020 * x + 5.5188E-004
R = 0.9999
DL = 0.0739
BEC = 0.2696

Weight: <None>
Min Conc: <None>

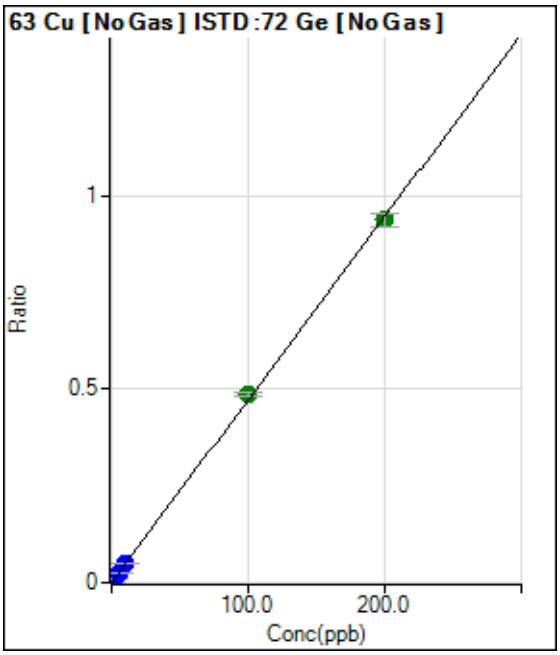
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	503.35	0.0008	P	11.5
2	☐	2.000	2.075	5507.86	0.0082	P	2.9
3	☐	5.000	5.083	12812.88	0.0191	P	2.7
4	☐	10.000	10.504	25838.24	0.0386	P	1.2
5	☐	100.000	102.326	246573.40	0.3697	P	1.6
6	☐	200.000	198.809	474939.49	0.7175	P	0.4

y = 0.0036 * x + 7.5188E-004
R = 0.9999
DL = 0.0721
BEC = 0.2086

Weight: <None>
Min Conc: <None>

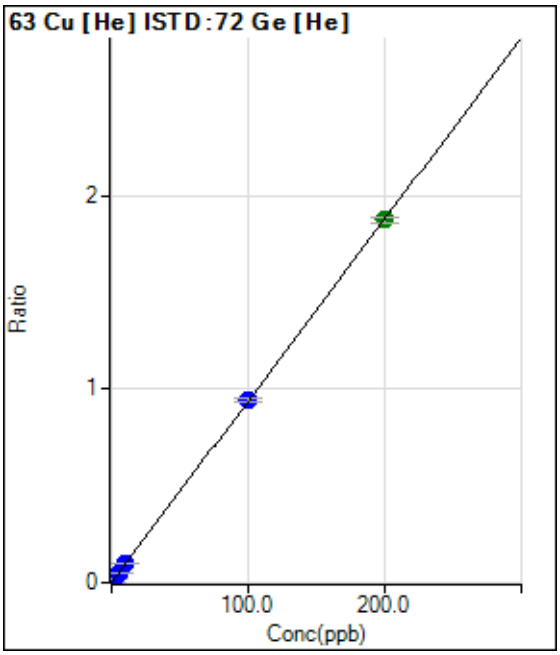


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1113.40	0.0004	P	9.4
2	☐	2.000	2.119	28867.81	0.0104	P	2.7
3	☐	5.000	5.261	69520.97	0.0253	P	2.1
4	☐	10.000	10.593	138442.62	0.0504	P	1.9
5	☐	100.000	103.137	1327675.50	0.4875	A	1.4
6	☐	200.000	198.394	2569956.01	0.9374	A	4.0

y = 0.0047 * x + 4.0575E-004
R = 0.9998
DL = 0.02426
BEC = 0.08591

Weight: <None>
Min Conc: <None>

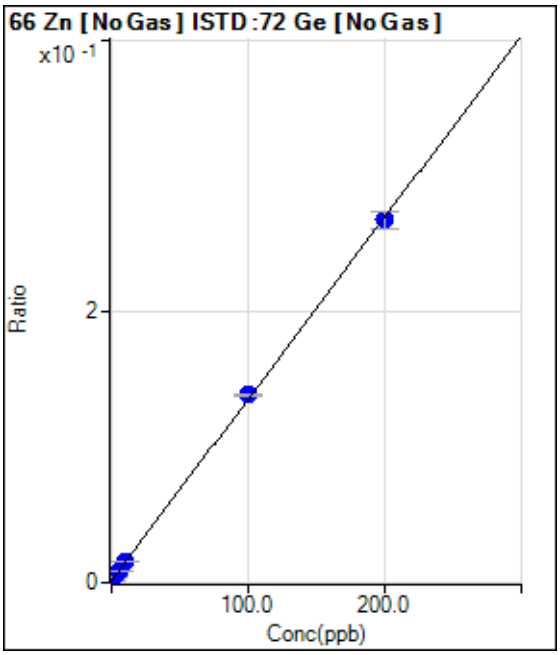
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0007	P	7.5
2	☐	2.000	2.070	13486.89	0.0202	P	0.7
3	☐	5.000	5.105	32669.58	0.0486	P	2.8
4	☐	10.000	10.214	64606.70	0.0966	P	0.4
5	☐	100.000	100.527	629729.56	0.9441	P	1.1
6	☐	200.000	199.723	1241068.60	1.8749	A	1.4

y = 0.0094 * x + 7.3155E-004
R = 1.0000
DL = 0.01747
BEC = 0.07796

Weight: <None>
Min Conc: <None>

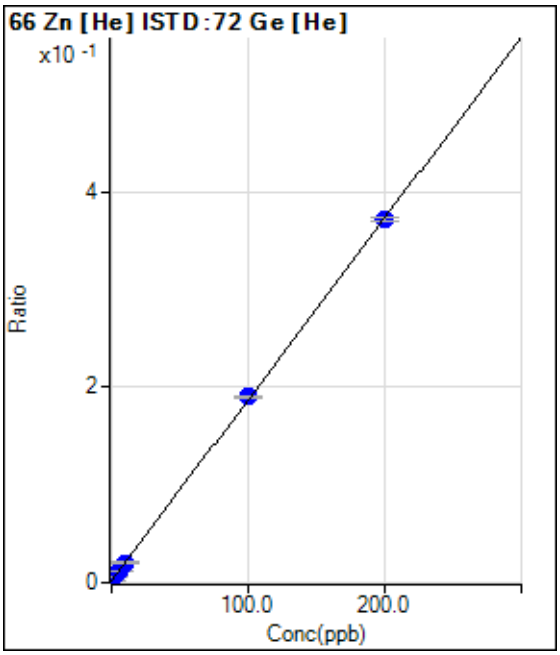


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4017.35	0.0015	P	8.1
2	☐	2.000	2.153	12042.19	0.0043	P	4.3
3	☐	5.000	5.120	22879.76	0.0083	P	0.8
4	☐	10.000	10.552	42761.12	0.0156	P	1.3
5	☐	100.000	102.498	377209.93	0.1385	P	1.4
6	☐	200.000	198.719	732274.96	0.2672	P	4.9

y = 0.0013 * x + 0.0015
R = 0.9999
DL = 0.2663
BEC = 1.095

Weight: <None>
Min Conc: <None>

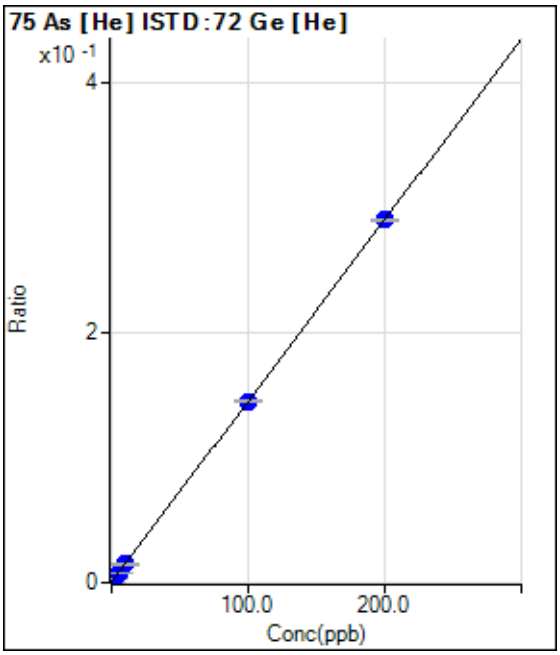
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1256.75	0.0019	P	4.5
2	☐	2.000	2.307	4117.37	0.0062	P	7.7
3	☐	5.000	5.042	7538.89	0.0112	P	4.1
4	☐	10.000	10.130	13820.59	0.0207	P	2.2
5	☐	100.000	101.546	126831.67	0.1901	P	0.3
6	☐	200.000	199.217	245711.90	0.3712	P	1.0

y = 0.0019 * x + 0.0019
R = 1.0000
DL = 0.1371
BEC = 1.012

Weight: <None>
Min Conc: <None>

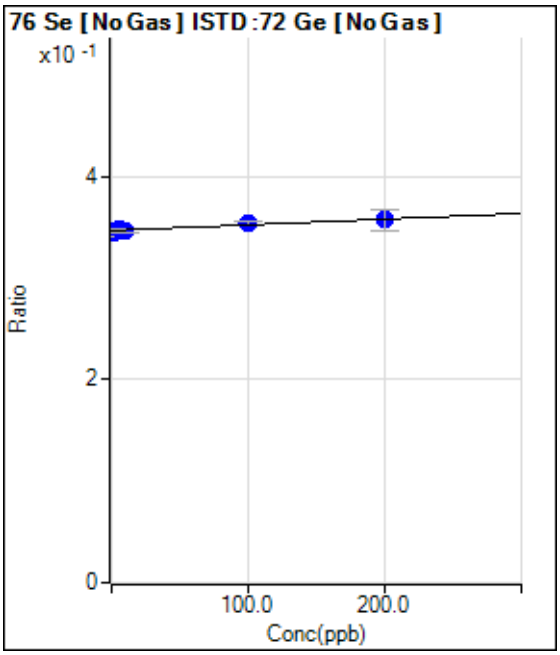


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	178.89	0.0003	P	8.8
2	☐	2.000	2.072	2192.42	0.0033	P	5.7
3	☐	5.000	4.862	4920.93	0.0073	P	3.0
4	☐	10.000	9.994	9882.54	0.0148	P	2.8
5	☐	100.000	99.870	96886.12	0.1452	P	0.6
6	☐	200.000	200.068	192420.43	0.2907	P	0.8

y = 0.0015 * x + 2.6707E-004
R = 1.0000
DL = 0.04851
BEC = 0.184

Weight: <None>
Min Conc: <None>

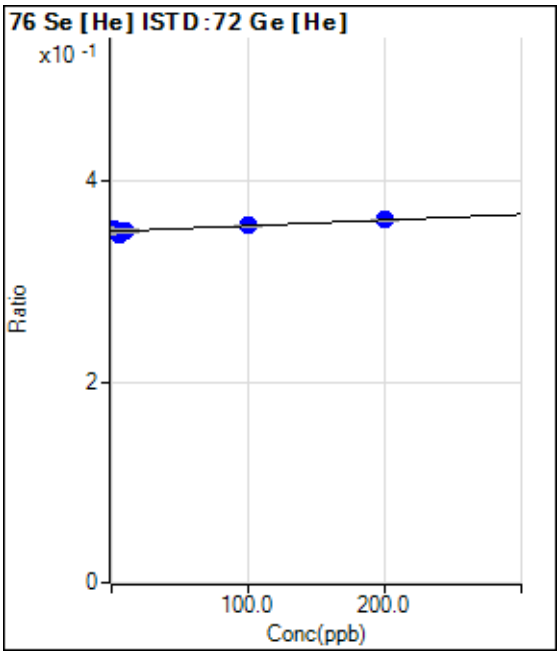
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	950931.16	0.3467	P	0.0
2	☐	2.000	-44.609	953797.49	0.3441	P	1.6
3	☐	5.000	14.290	956578.71	0.3475	P	0.4
4	☐	10.000	-1.446	951375.58	0.3466	P	1.0
5	☐	100.000	131.569	964114.31	0.3540	P	0.7
6	☐	200.000	185.022	978251.70	0.3570	P	5.6

y = 5.6117E-005 * x + 0.3467
R = 0.9574
DL = 7.19
BEC = 6177

Weight: <None>
Min Conc: <None>

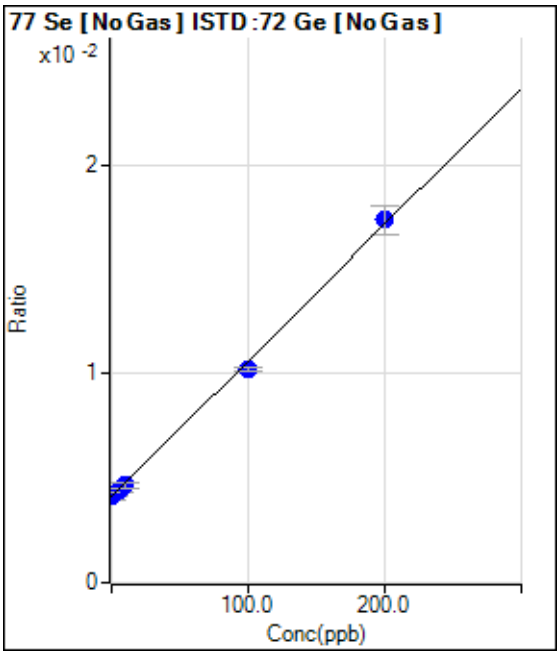


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	234448.87	0.3502	P	1.6
2	☐	2.000	52.936	236372.96	0.3532	P	0.9
3	☐	5.000	-45.761	233444.46	0.3475	P	0.6
4	☐	10.000	15.243	234805.62	0.3510	P	1.0
5	☐	100.000	99.010	237342.39	0.3558	P	0.2
6	☐	200.000	200.993	239373.59	0.3616	P	0.4

y = 5.7095E-005 * x + 0.3502
R = 0.9292
DL = 290.8
BEC = 6133

Weight: <None>
Min Conc: <None>

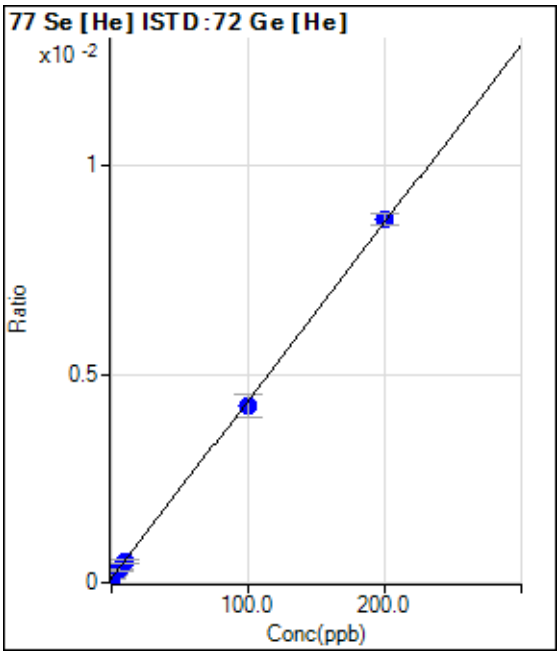
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11254.88	0.0041	P	6.2
2	☐	2.000	1.805	11701.96	0.0042	P	3.7
3	☐	5.000	5.209	12229.09	0.0044	P	3.4
4	☐	10.000	8.544	12799.63	0.0047	P	5.8
5	☐	100.000	93.424	27758.98	0.0102	P	1.3
6	☐	200.000	203.357	47527.51	0.0174	P	7.9

y = 6.5191E-005 * x + 0.0041
R = 0.9992
DL = 11.65
BEC = 62.94

Weight: <None>
Min Conc: <None>

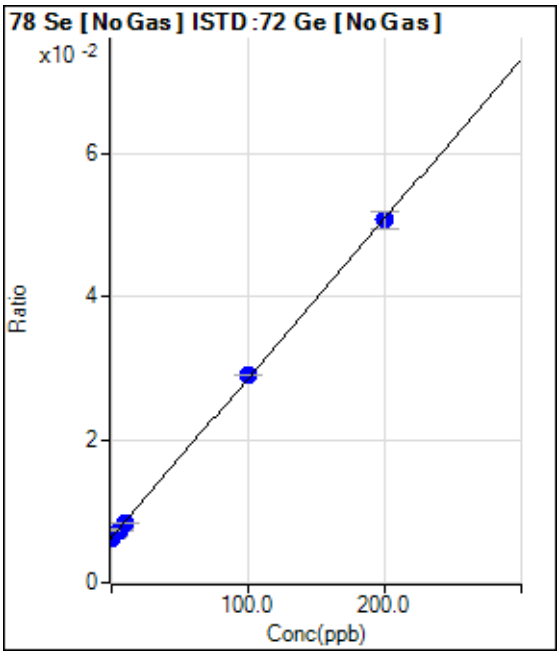


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	28.0
2	☐	2.000	2.454	140.00	0.0002	P	13.8
3	☐	5.000	4.882	210.01	0.0003	P	9.3
4	☐	10.000	9.705	346.68	0.0005	P	18.9
5	☐	100.000	96.947	2827.02	0.0042	P	13.4
6	☐	200.000	201.540	5758.01	0.0087	P	3.1

y = 4.2646E-005 * x + 1.0441E-004
R = 0.9998
DL = 2.057
BEC = 2.448

Weight: <None>
Min Conc: <None>

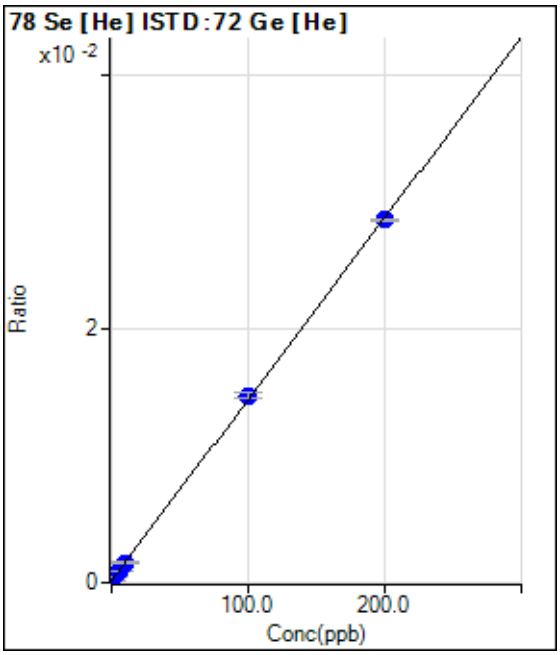
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17338.05	0.0063	P	1.1
2	☐	2.000	1.422	18396.18	0.0066	P	3.2
3	☐	5.000	4.423	20111.90	0.0073	P	3.2
4	☐	10.000	8.740	22702.74	0.0083	P	0.5
5	☐	100.000	101.758	79010.96	0.0290	P	0.5
6	☐	200.000	199.204	139076.30	0.0507	P	4.8

y = 2.2301E-004 * x + 0.0063
R = 0.9999
DL = 0.922
BEC = 28.34

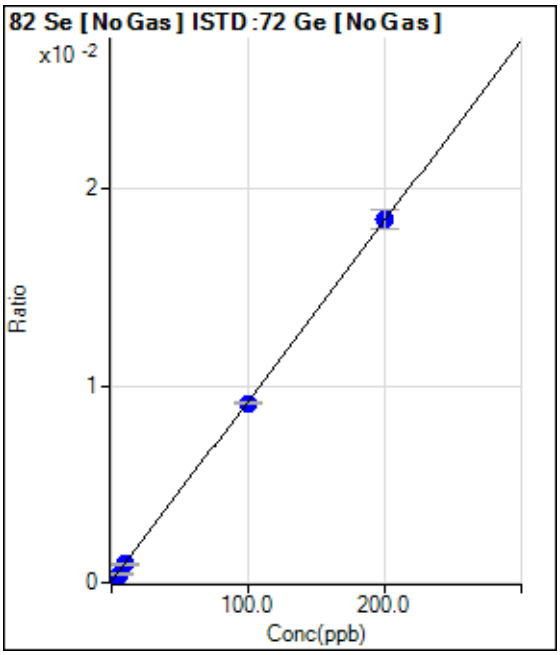
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.33	0.0002	P	9.3
2	☐	2.000	2.039	306.00	0.0005	P	8.4
3	☐	5.000	5.021	592.68	0.0009	P	4.1
4	☐	10.000	9.864	1052.04	0.0016	P	3.9
5	☐	100.000	101.833	9797.58	0.0147	P	3.1
6	☐	200.000	199.089	18901.90	0.0286	P	0.8

y = 1.4259E-004 * x + 1.6635E-004
R = 0.9999
DL = 0.3262
BEC = 1.167

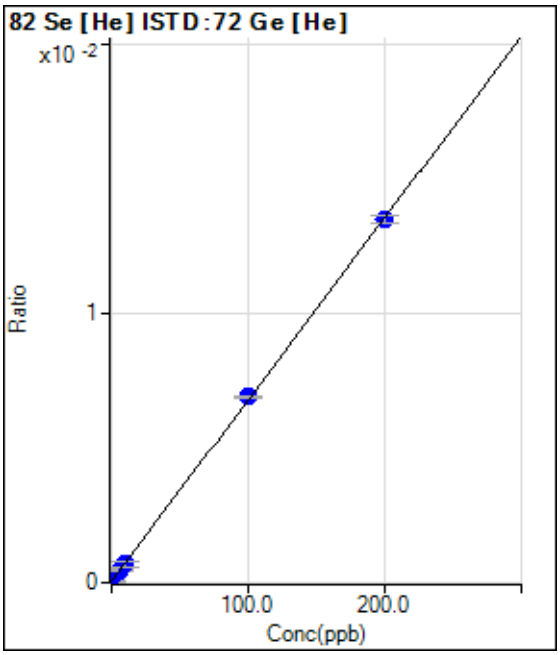
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	178.00	0.0001	P	53.7
2	☐	2.000	1.624	591.15	0.0002	P	16.2
3	☐	5.000	3.939	1170.96	0.0004	P	10.6
4	☐	10.000	9.827	2647.41	0.0010	P	8.7
5	☐	100.000	98.947	24821.30	0.0091	P	1.8
6	☐	200.000	200.565	50447.03	0.0184	P	5.4

y = 9.1468E-005 * x + 6.4781E-005
R = 1.0000
DL = 1.141
BEC = 0.7082

Weight: <None>
Min Conc: <None>

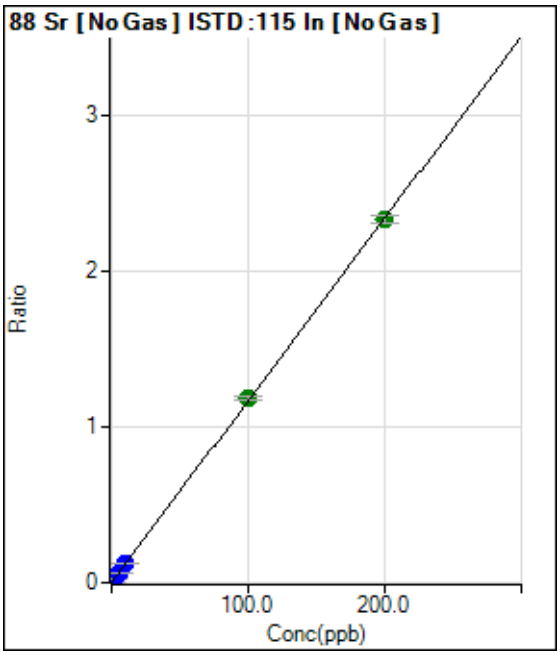


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0000	P	88.4
2	☐	2.000	3.395	183.34	0.0003	P	7.1
3	☐	5.000	5.880	296.68	0.0004	P	19.2
4	☐	10.000	9.516	460.02	0.0007	P	26.0
5	☐	100.000	101.835	4614.20	0.0069	P	1.0
6	☐	200.000	199.071	8923.09	0.0135	P	2.0

y = 6.7485E-005 * x + 4.4935E-005
R = 0.9999
DL = 1.766
BEC = 0.6658

Weight: <None>
Min Conc: <None>

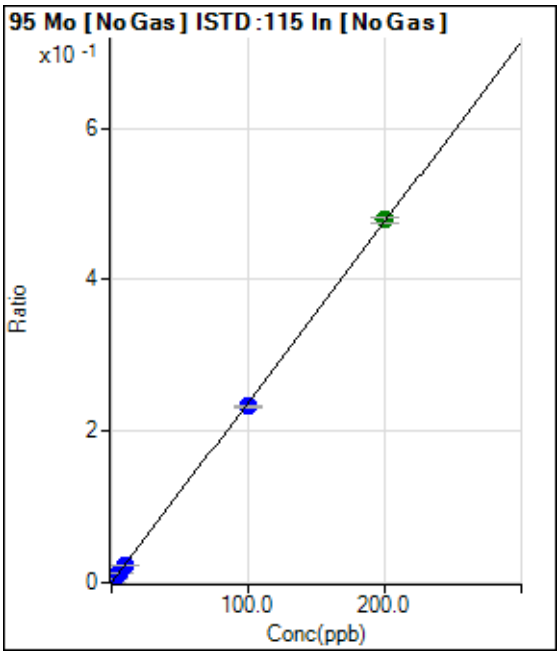
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1330.09	0.0004	P	6.5
2	☐	2.000	2.008	76943.97	0.0238	P	2.7
3	☐	5.000	4.966	187699.91	0.0583	P	1.1
4	☐	10.000	10.106	377151.06	0.1183	P	1.1
5	☐	100.000	101.308	3740263.69	1.1820	A	1.3
6	☐	200.000	199.341	7236729.89	2.3255	A	2.0

y = 0.0117 * x + 4.1226E-004
R = 1.0000
DL = 0.006908
BEC = 0.03535

Weight: <None>
Min Conc: <None>

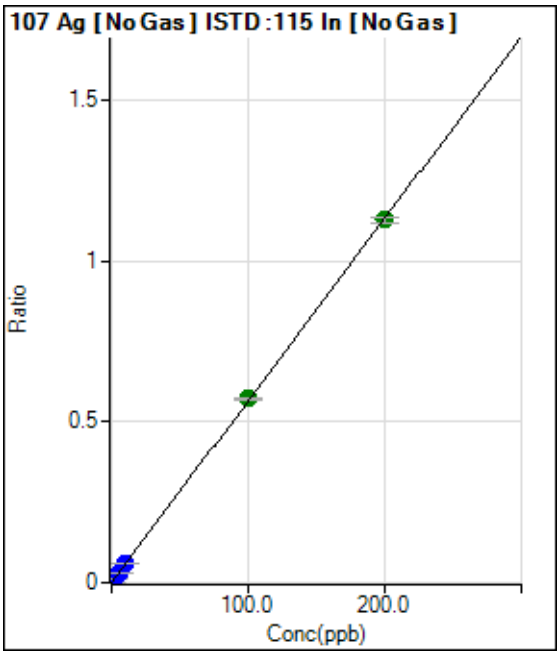


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.68	0.0001	P	11.9
2	☐	2.000	1.867	14538.17	0.0045	P	1.1
3	☐	5.000	4.862	37409.55	0.0116	P	3.0
4	☐	10.000	9.655	73449.08	0.0230	P	0.9
5	☐	100.000	97.732	736118.40	0.2326	P	1.0
6	☐	200.000	201.156	1489861.44	0.4788	A	1.7

y = 0.0024 * x + 5.7807E-005
R = 0.9999
DL = 0.008665
BEC = 0.02429

Weight: <None>
Min Conc: <None>

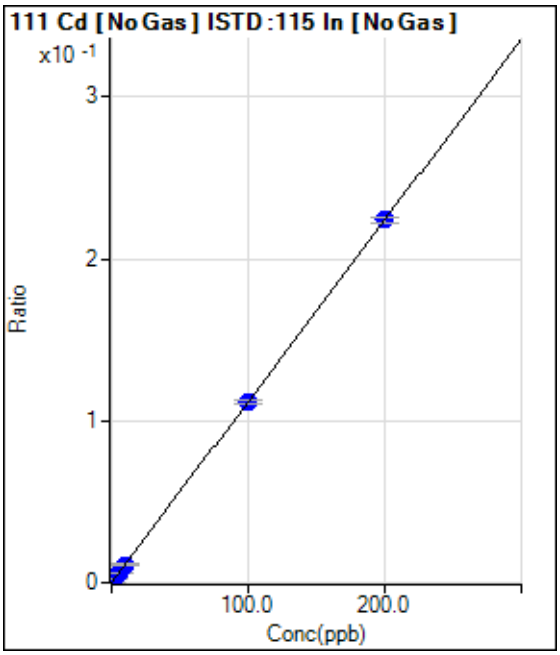
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	296.68	0.0001	P	16.9
2	☐	2.000	2.015	37112.47	0.0115	P	2.3
3	☐	5.000	5.060	92401.38	0.0287	P	2.2
4	☐	10.000	10.238	185024.17	0.0580	P	0.5
5	☐	100.000	101.209	1812366.43	0.5727	A	0.9
6	☐	200.000	199.382	3511020.47	1.1282	A	1.7

y = 0.0057 * x + 9.2005E-005
R = 1.0000
DL = 0.008236
BEC = 0.01626

Weight: <None>
Min Conc: <None>

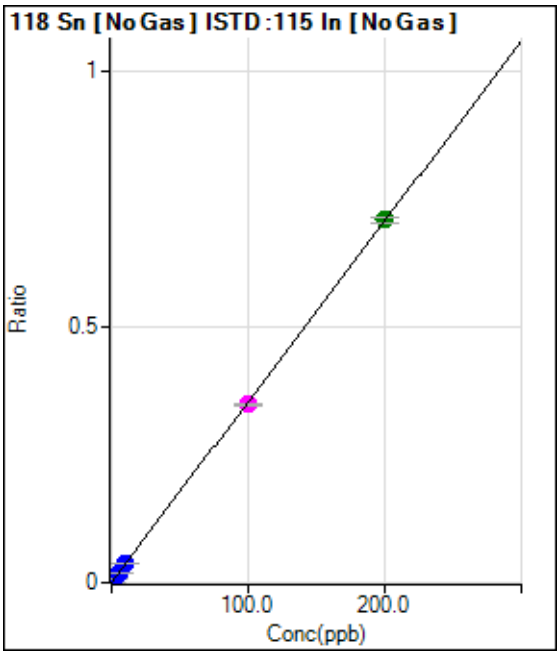


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-11.22	0.0000	P	-159.3
2	☐	2.000	1.937	6980.44	0.0022	P	7.9
3	☐	5.000	4.964	17857.95	0.0056	P	0.9
4	☐	10.000	10.072	35927.03	0.0113	P	1.6
5	☐	100.000	99.405	351913.44	0.1112	P	2.0
6	☐	200.000	200.295	697374.37	0.2241	P	1.3

y = 0.0011 * x - 3.4488E-006
R = 1.0000
DL = 0.01473
BEC = -0.003083

Weight: <None>
Min Conc: <None>

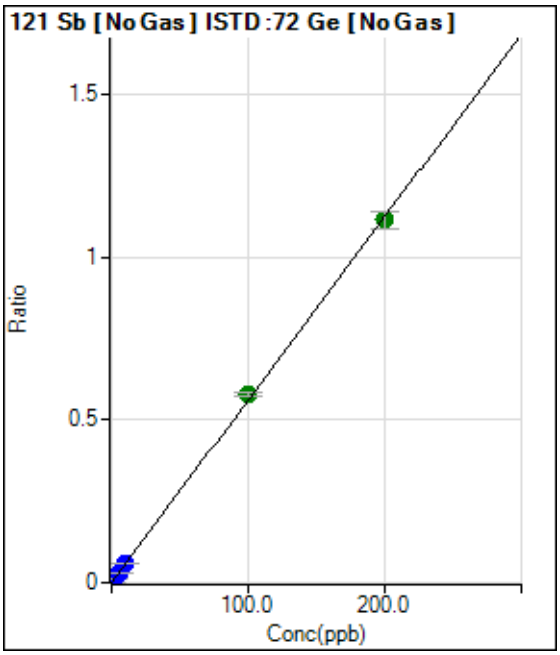
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1730.15	0.0005	P	1.3
2	☐	2.000	2.012	24624.57	0.0076	P	4.8
3	☐	5.000	4.907	57375.26	0.0178	P	1.6
4	☐	10.000	10.028	114439.48	0.0359	P	1.0
5	☐	100.000	98.436	1099737.64	0.3476	M	0.5
6	☐	200.000	200.783	2204351.17	0.7084	A	1.8

y = 0.0035 * x + 5.3602E-004
R = 1.0000
DL = 0.005992
BEC = 0.1521

Weight: <None>
Min Conc: <None>

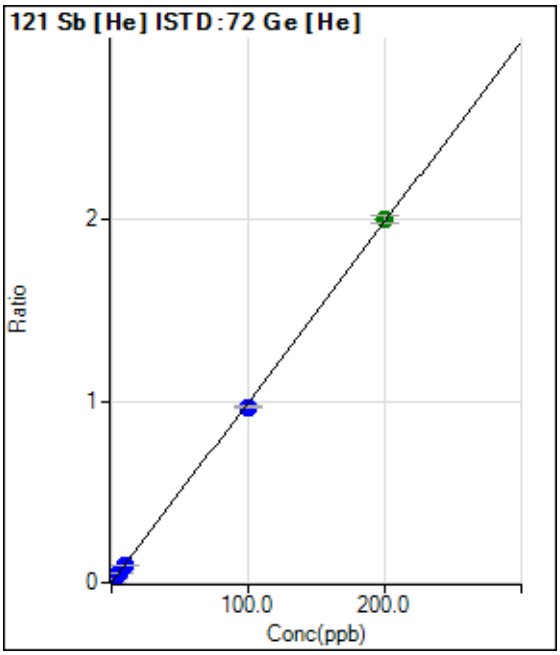


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	210.01	0.0001	P	30.1
2	☐	2.000	1.991	31230.81	0.0113	P	2.3
3	☐	5.000	5.001	77595.60	0.0282	P	1.1
4	☐	10.000	10.265	158610.79	0.0578	P	1.1
5	☐	100.000	102.980	1576476.02	0.5789	A	1.3
6	☐	200.000	198.497	3058020.16	1.1158	A	5.1

y = 0.0056 * x + 7.6625E-005
R = 0.9998
DL = 0.01232
BEC = 0.01363

Weight: <None>
Min Conc: <None>

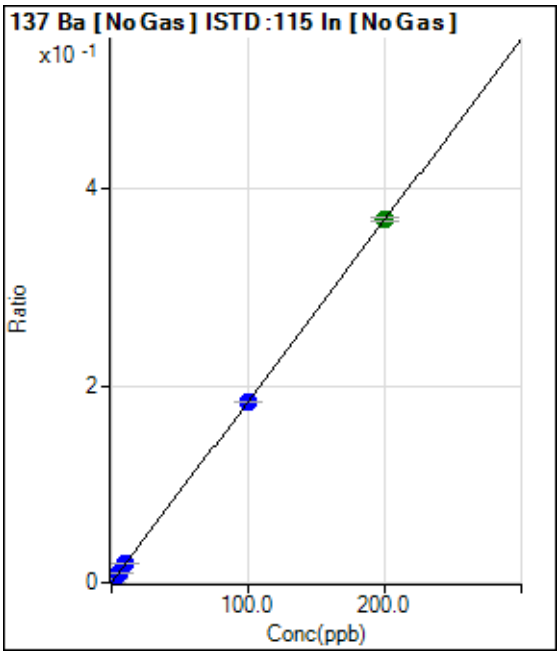
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	9.1
2	☐	2.000	1.911	12773.15	0.0191	P	1.8
3	☐	5.000	4.801	32099.61	0.0478	P	0.3
4	☐	10.000	9.733	64743.07	0.0968	P	0.3
5	☐	100.000	97.457	645811.58	0.9682	P	0.6
6	☐	200.000	201.291	1323497.92	1.9996	A	2.0

y = 0.0099 * x + 9.9591E-005
R = 0.9999
DL = 0.002739
BEC = 0.01003

Weight: <None>
Min Conc: <None>

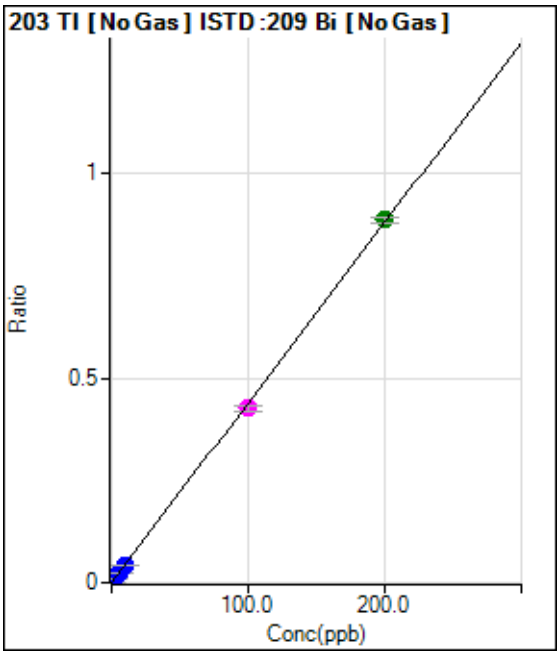


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	413.35	0.0001	P	11.0
2	☐	2.000	1.964	12089.19	0.0037	P	1.4
3	☐	5.000	5.065	30422.53	0.0095	P	2.5
4	☐	10.000	10.147	59988.49	0.0188	P	1.6
5	☐	100.000	99.661	581080.85	0.1836	P	0.9
6	☐	200.000	200.161	1147449.31	0.3687	A	1.0

y = 0.0018 * x + 1.2813E-004
R = 1.0000
DL = 0.02289
BEC = 0.06959

Weight: <None>
Min Conc: <None>

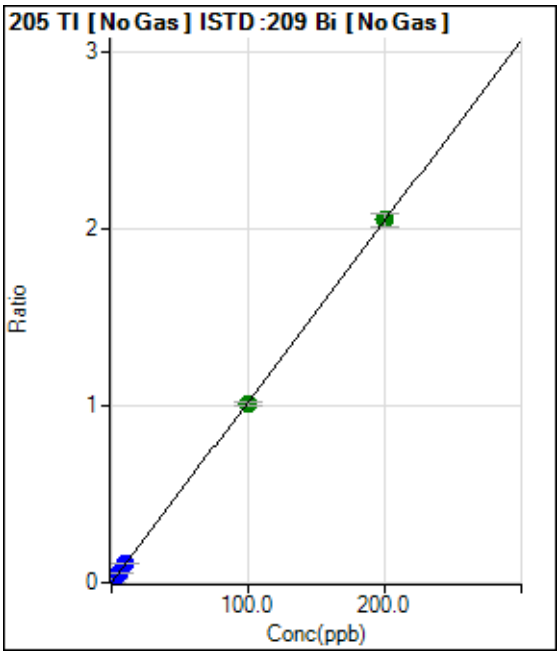
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0001	P	28.7
2	☐	2.000	2.138	25225.84	0.0095	P	2.1
3	☐	5.000	5.314	62281.85	0.0234	P	2.4
4	☐	10.000	9.923	117146.32	0.0437	P	3.6
5	☐	100.000	96.723	1118469.12	0.4252	M	3.7
6	☐	200.000	201.633	2285677.78	0.8863	A	1.9

y = 0.0044 * x + 6.1640E-005
R = 0.9998
DL = 0.01207
BEC = 0.01402

Weight: <None>
Min Conc: <None>

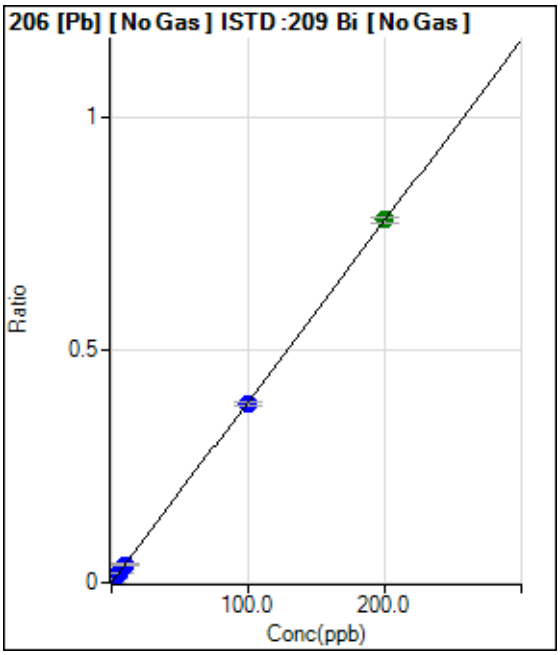


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0002	P	9.4
2	☐	2.000	2.183	59934.52	0.0225	P	2.9
3	☐	5.000	5.459	148679.30	0.0559	P	4.1
4	☐	10.000	10.284	282092.48	0.1052	P	3.4
5	☐	100.000	98.622	2650233.24	1.0071	A	2.0
6	☐	200.000	200.661	5282380.44	2.0488	A	3.6

y = 0.0102 * x + 1.8192E-004
R = 1.0000
DL = 0.005
BEC = 0.01782

Weight: <None>
Min Conc: <None>

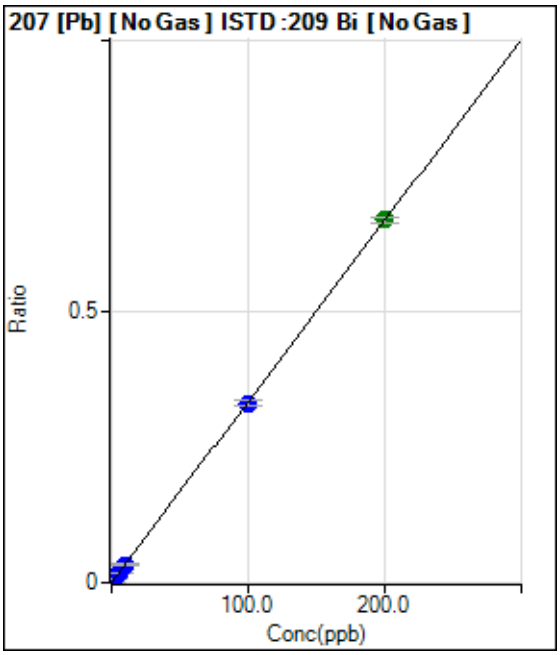
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.01	0.0001	P	11.0
2	☐	2.000	2.010	21074.79	0.0079	P	4.3
3	☐	5.000	5.039	52286.60	0.0197	P	3.4
4	☐	10.000	10.061	105037.61	0.0392	P	3.2
5	☐	100.000	98.864	1010145.95	0.3839	P	2.7
6	☐	200.000	200.564	2008439.24	0.7787	A	1.6

y = 0.0039 * x + 1.0047E-004
R = 1.0000
DL = 0.008504
BEC = 0.02588

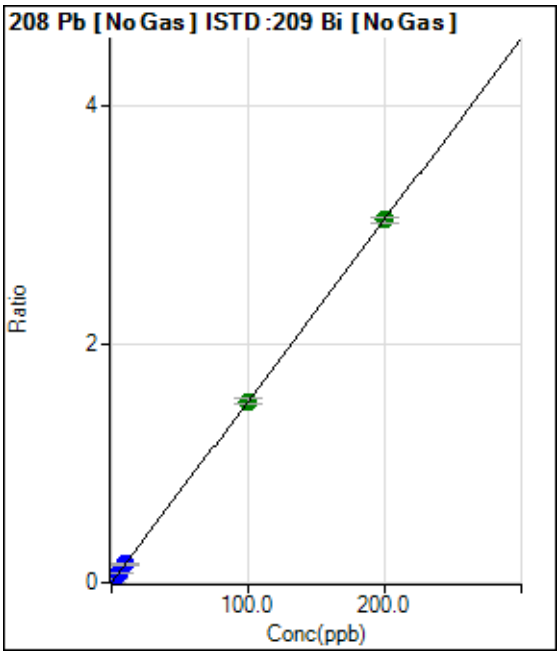
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.68	0.0001	P	31.5
2	☐	2.000	2.000	18050.00	0.0068	P	3.8
3	☐	5.000	4.968	44288.92	0.0167	P	4.5
4	☐	10.000	10.008	89712.66	0.0334	P	4.2
5	☐	100.000	99.074	868515.77	0.3302	P	3.7
6	☐	200.000	200.463	1722577.84	0.6679	A	1.8

y = 0.0033 * x + 1.0717E-004
R = 1.0000
DL = 0.03037
BEC = 0.03217

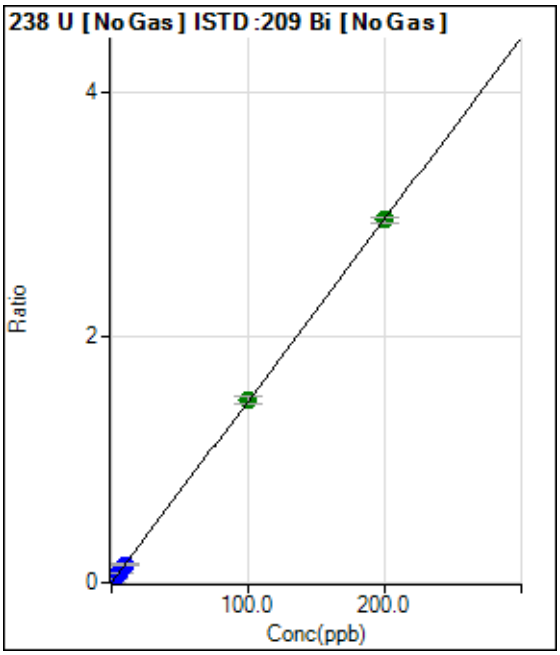
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1123.38	0.0004	P	11.1
2	☐	2.000	2.014	82915.45	0.0311	P	2.4
3	☐	5.000	5.052	205701.25	0.0773	P	2.8
4	☐	10.000	10.148	415619.78	0.1549	P	3.1
5	☐	100.000	100.117	4012458.35	1.5249	A	2.6
6	☐	200.000	199.933	7852937.02	3.0449	A	1.5

y = 0.0152 * x + 4.1840E-004
R = 1.0000
DL = 0.009183
BEC = 0.02748

Weight: <None>
Min Conc: <None>

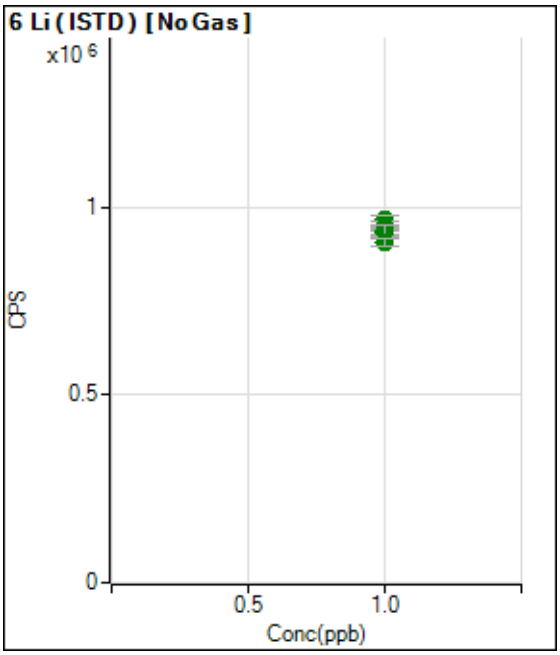


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0000	P	33.6
2	☐	2.000	1.993	78729.08	0.0295	P	0.4
3	☐	5.000	4.941	194534.65	0.0732	P	3.4
4	☐	10.000	9.947	394973.69	0.1472	P	3.2
5	☐	100.000	100.577	3916118.06	1.4885	A	3.5
6	☐	200.000	199.716	7622781.14	2.9558	A	1.9

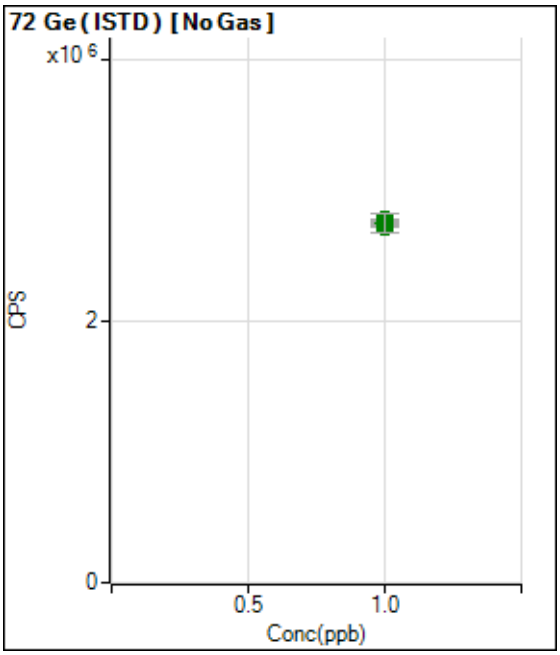
y = 0.0148 * x + 2.7249E-005
R = 1.0000
DL = 0.001854
BEC = 0.001841

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d

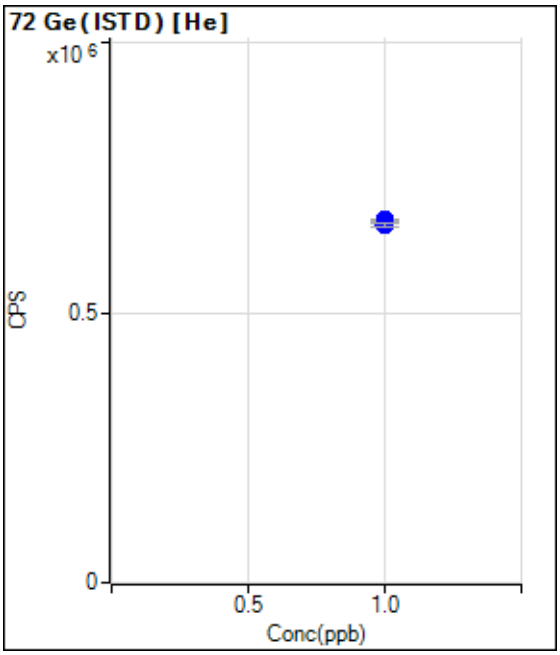


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		965311.47		A	2.6
2	☐	1.000		952398.30		A	1.8
3	☐	1.000		931348.95		A	1.1
4	☐	1.000		944414.84		A	0.3
5	☐	1.000		936176.51		A	3.2
6	☐	1.000		904869.95		A	2.6

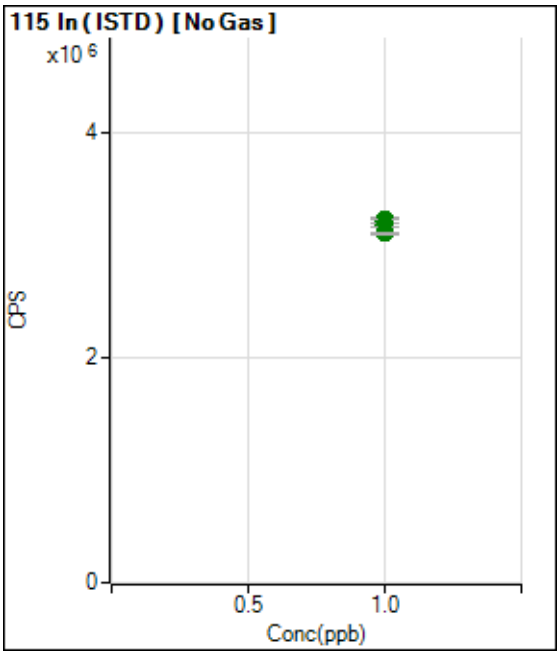


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2743180.79		A	0.5
2	☐	1.000		2771690.17		A	0.8
3	☐	1.000		2753171.63		A	1.2
4	☐	1.000		2745330.27		A	1.4
5	☐	1.000		2723309.85		A	0.9
6	☐	1.000		2745461.52		A	5.4

Calibration for 021_ICV.d

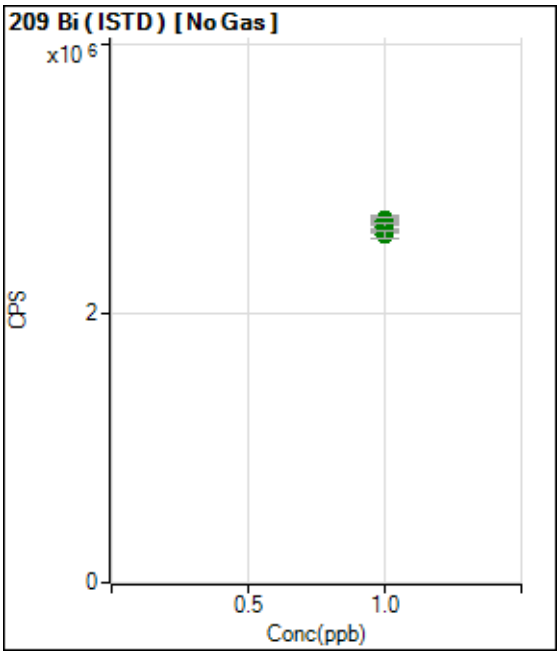


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		669605.57		P	0.8
2	☐	1.000		669281.74		P	1.0
3	☐	1.000		671697.57		P	0.3
4	☐	1.000		668948.17		P	1.0
5	☐	1.000		667044.89		P	0.3
6	☐	1.000		661927.12		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3228126.25		A	1.3
2	☐	1.000		3229088.23		A	1.2
3	☐	1.000		3217780.86		A	1.4
4	☐	1.000		3188818.94		A	0.9
5	☐	1.000		3164260.08		A	0.4
6	☐	1.000		3112201.64		A	0.7

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2690468.40		A	2.8
2	☐	1.000		2667120.79		A	0.6
3	☐	1.000		2660830.85		A	2.8
4	☐	1.000		2683560.06		A	2.3
5	☐	1.000		2632461.83		A	2.8
6	☐	1.000		2579700.43		A	2.4

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	014CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:20:34-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	58340	0.00
Be	9	1	No Gas	25	160.00
V	51	2	He	3197	0.16
Cr	52	2	He	14708	0.01
Fe	56	2	He	24192	0.01
Se	78	2	He	111	7.63
As	75	2	He	179	5.24
Ca	44	2	He	840	0.71
Na	23	2	He	46036	0.01
Mg	24	2	He	790	0.83
K	39	2	He	94230	0.00
Mn	55	2	He	1140	0.76
Co	59	2	He	167	2.08
Ni	60	2	He	503	2.24
Cu	63	2	He	490	1.67
Zn	66	2	He	1257	0.42
Al	27	2	He	647	1.38
B	11	1	No Gas	9595	0.01
Al	27	1	No Gas	30915	0.00
Si	28	1	No Gas	463001	0.00
Ag	107	1	No Gas	297	5.37
Sr	88	1	No Gas	1330	0.40
Mo	95	1	No Gas	187	6.63
Sn	118	1	No Gas	1730	0.00
Sb	121	1	No Gas	210	14.16
Ba	137	1	No Gas	413	2.44
Tl	205	1	No Gas	490	2.32
Tl	203	1	No Gas	167	18.47
Pb	208	1	No Gas	1123	0.73
U	238	1	No Gas	73	46.80
Ca	43	2	He	20	250.00
Sb	121	2	He	67	12.99
Ti	47	2	He	7	1299.04
Cu	63	1	No Gas	1113	0.89

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	965311	2.59

Calibration Blank Report

Ge	72	2	He	669606	0.80
Ge	72	1	No Gas	2743181	0.50
In	115	1	No Gas	3228126	1.32
Bi	209	1	No Gas	2690468	2.76

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:22:32-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	6878	0.02
V	51	2	He	14609	0.01
Cr	52	2	He	29268	0.00
Fe	56	2	He	1243163	0.00
Se	78	2	He	306	2.94
As	75	2	He	2192	0.29
Ca	44	2	He	8296	0.02
Na	23	2	He	243879	0.00
Mg	24	2	He	118074	0.00
K	39	2	He	246808	0.00
Mn	55	2	He	11272	0.03
Co	59	2	He	19735	0.02
Ni	60	2	He	5508	0.04
Cu	63	2	He	13487	0.00
Zn	66	2	He	4117	0.18
Al	27	2	He	1440	0.70
B	11	1	No Gas	31433	0.00
Al	27	1	No Gas	69339	0.00
Si	28	1	No Gas	551695	0.00
Ag	107	1	No Gas	37112	0.00
Cd	111	1	No Gas	6980	0.09
Sr	88	1	No Gas	76944	0.00
Mo	95	1	No Gas	14538	0.02
Sn	118	1	No Gas	24625	0.01
Sb	121	1	No Gas	31231	0.01
Ba	137	1	No Gas	12089	0.01
Tl	205	1	No Gas	59935	0.00
Tl	203	1	No Gas	25226	0.01
Pb	208	1	No Gas	82915	0.00
U	238	1	No Gas	78729	0.00
Ca	43	2	He	487	2.33
Sb	121	2	He	12773	0.01
Cu	63	1	No Gas	28868	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	952398	1.84	965311	98.66	70	120	
Ge	72	2	He	669282	0.99	669606	99.95	70	120	
Ge	72	1	No Gas	2771690	0.81	2743181	101.04	70	120	

Calibration Standard Report

In	115	1	No Gas	3229088	1.24	3228126	100.03	70	120	
Bi	209	1	No Gas	2667121	0.65	2690468	99.13	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	016CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:24:30-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	17156	0.01
V	51	2	He	32364	0.01
Cr	52	2	He	49707	0.01
Fe	56	2	He	3075899	0.00
Se	78	2	He	593	0.72
As	75	2	He	4921	0.06
Ca	44	2	He	19968	0.01
Na	23	2	He	540574	0.00
Mg	24	2	He	294437	0.00
K	39	2	He	470793	0.00
Mn	55	2	He	25902	0.01
Co	59	2	He	49543	0.00
Ni	60	2	He	12813	0.02
Cu	63	2	He	32670	0.01
Zn	66	2	He	7539	0.06
Al	27	2	He	2270	0.22
B	11	1	No Gas	62967	0.00
Al	27	1	No Gas	117335	0.00
Si	28	1	No Gas	682362	0.00
Ag	107	1	No Gas	92401	0.00
Cd	111	1	No Gas	17858	0.01
Sr	88	1	No Gas	187700	0.00
Mo	95	1	No Gas	37410	0.01
Sn	118	1	No Gas	57375	0.00
Sb	121	1	No Gas	77596	0.00
Ba	137	1	No Gas	30423	0.01
Tl	205	1	No Gas	148679	0.00
Tl	203	1	No Gas	62282	0.00
Pb	208	1	No Gas	205701	0.00
U	238	1	No Gas	194535	0.00
Ca	43	2	He	1150	0.46
Sb	121	2	He	32100	0.00
Cu	63	1	No Gas	69521	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	931349	1.10	965311	96.48	70	120	
Ge	72	2	He	671698	0.27	669606	100.31	70	120	
Ge	72	1	No Gas	2753172	1.23	2743181	100.36	70	120	

Calibration Standard Report

In	115	1	No Gas	3217781	1.42	3228126	99.68	70	120	
Bi	209	1	No Gas	2660831	2.83	2690468	98.90	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	017CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:26:28-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	34736	0.00
V	51	2	He	61924	0.00
Cr	52	2	He	85423	0.00
Fe	56	2	He	6050034	0.00
Se	78	2	He	1052	0.31
As	75	2	He	9883	0.02
Ca	44	2	He	39671	0.00
Na	23	2	He	1002583	0.00
Mg	24	2	He	591825	0.00
K	39	2	He	851445	0.00
Mn	55	2	He	50604	0.00
Co	59	2	He	100388	0.00
Ni	60	2	He	25838	0.01
Cu	63	2	He	64607	0.00
Zn	66	2	He	13821	0.02
Al	27	2	He	4224	0.04
B	11	1	No Gas	118006	0.00
Al	27	1	No Gas	200944	0.00
Si	28	1	No Gas	920059	0.00
Ag	107	1	No Gas	185024	0.00
Cd	111	1	No Gas	35927	0.01
Sr	88	1	No Gas	377151	0.00
Mo	95	1	No Gas	73449	0.00
Sn	118	1	No Gas	114439	0.00
Sb	121	1	No Gas	158611	0.00
Ba	137	1	No Gas	59988	0.00
Tl	205	1	No Gas	282092	0.00
Tl	203	1	No Gas	117146	0.00
Pb	208	1	No Gas	415620	0.00
U	238	1	No Gas	394974	0.00
Ca	43	2	He	2100	0.15
Sb	121	2	He	64743	0.00
Cu	63	1	No Gas	138443	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	944415	0.32	965311	97.84	70	120	
Ge	72	2	He	668948	1.03	669606	99.90	70	120	
Ge	72	1	No Gas	2745330	1.36	2743181	100.08	70	120	

Calibration Standard Report

In	115	1	No Gas	3188819	0.89	3228126	98.78	70	120	
Bi	209	1	No Gas	2683560	2.26	2690468	99.74	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	018CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:28:25-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	340981	0.00
V	51	2	He	595382	0.00
Cr	52	2	He	703026	0.00
Fe	56	2	He	59581646	0.00
Se	78	2	He	9798	0.03
As	75	2	He	96886	0.00
Ca	44	2	He	383919	0.00
Na	23	2	He	9387838	0.00
Mg	24	2	He	5543690	0.00
K	39	2	He	7429268	0.00
Mn	55	2	He	495501	0.00
Co	59	2	He	970814	0.00
Ni	60	2	He	246573	0.00
Cu	63	2	He	629730	0.00
Zn	66	2	He	126832	0.00
Al	27	2	He	34757	0.00
B	11	1	No Gas	1044770	0.00
Al	27	1	No Gas	1640854	0.00
Si	28	1	No Gas	4508298	0.00
Ag	107	1	No Gas	1812366	0.00
Cd	111	1	No Gas	351913	0.00
Sr	88	1	No Gas	3740264	0.00
Mo	95	1	No Gas	736118	0.00
Sn	118	1	No Gas	1099738	0.00
Sb	121	1	No Gas	1576476	0.00
Ba	137	1	No Gas	581081	0.00
Tl	205	1	No Gas	2650233	0.00
Tl	203	1	No Gas	1118469	0.00
Pb	208	1	No Gas	4012458	0.00
U	238	1	No Gas	3916118	0.00
Ca	43	2	He	22358	0.01
Sb	121	2	He	645812	0.00
Cu	63	1	No Gas	1327676	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	936177	3.16	965311	96.98	70	120	
Ge	72	2	He	667045	0.26	669606	99.62	70	120	
Ge	72	1	No Gas	2723310	0.85	2743181	99.28	70	120	

Calibration Standard Report

In	115	1	No Gas	3164260	0.37	3228126	98.02	70	120	
Bi	209	1	No Gas	2632462	2.82	2690468	97.84	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	019CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:30:18-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	679794	0.00
V	51	2	He	1182536	0.00
Cr	52	2	He	1379329	0.00
Fe	56	2	He	116800118	0.00
Se	78	2	He	18902	0.01
As	75	2	He	192420	0.00
Ca	44	2	He	757153	0.00
Na	23	2	He	18225450	0.00
Mg	24	2	He	10834694	0.00
K	39	2	He	14576881	0.00
Mn	55	2	He	965576	0.00
Co	59	2	He	1961460	0.00
Ni	60	2	He	474939	0.00
Cu	63	2	He	1241069	0.00
Zn	66	2	He	245712	0.00
Al	27	2	He	66794	0.00
B	11	1	No Gas	2075336	0.00
Al	27	1	No Gas	3113083	0.00
Si	28	1	No Gas	8552737	0.00
Ag	107	1	No Gas	3511020	0.00
Cd	111	1	No Gas	697374	0.00
Sr	88	1	No Gas	7236730	0.00
Mo	95	1	No Gas	1489861	0.00
Sn	118	1	No Gas	2204351	0.00
Sb	121	1	No Gas	3058020	0.00
Ba	137	1	No Gas	1147449	0.00
Tl	205	1	No Gas	5282380	0.00
Tl	203	1	No Gas	2285678	0.00
Pb	208	1	No Gas	7852937	0.00
U	238	1	No Gas	7622781	0.00
Ca	43	2	He	44058	0.01
Sb	121	2	He	1323498	0.00
Cu	63	1	No Gas	2569956	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	904870	2.64	965311	93.74	70	120	
Ge	72	2	He	661927	0.67	669606	98.85	70	120	
Ge	72	1	No Gas	2745462	5.39	2743181	100.08	70	120	

Calibration Standard Report

In	115	1	No Gas	3112202	0.71	3228126	96.41	70	120	
Bi	209	1	No Gas	2579700	2.41	2690468	95.88	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	023LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:38:48-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.935	1.935	1.66	84091	0.00	2	
Be	9	1	No Gas	1.997	1.997	0.58	7180	0.03	2	
V	51	2	He	1.754	1.754	2.27	13638	0.01	2	
Cr	52	2	He	2.011	2.011	1.80	28563	0.01	2	
Fe	56	2	He	206.912	206.912	1.32	1247814	0.02	200	
Se	78	2	He	2.302	2.302	11.74	331	0.70	2	
As	75	2	He	2.041	2.041	3.41	2160	0.09	2	
Ca	44	2	He	200.776	200.776	5.78	8516	2.36	200	
Na	23	2	He	217.087	217.087	1.08	246179	0.09	200	
Mg	24	2	He	212.704	212.704	2.30	117583	0.18	200	
K	39	2	He	213.705	213.705	0.94	250667	0.09	200	
Mn	55	2	He	2.022	2.022	3.93	11028	0.02	2	
Co	59	2	He	2.032	2.032	3.54	20235	0.01	2	
Ni	60	2	He	2.136	2.136	2.72	5655	0.04	2	
Cu	63	2	He	2.015	2.015	2.66	13137	0.02	2	
Zn	66	2	He	2.247	2.247	7.49	4041	0.06	2	
Al	27	2	He	1.897	1.897	14.37	1283	0.15	2	
B	11	1	No Gas	13.725	13.725	3.56	39647	0.03	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.455	2.455	5.67	68880	0.00	2	
Si	28	1	No Gas	12.554	12.554	10.97	562320	0.00	10	
Ag	107	1	No Gas	2.059	2.059	0.61	37096	0.01	2	
Cd	111	1	No Gas	2.063	2.063	2.18	7284	0.03	2	
Sr	88	1	No Gas	2.000	2.000	3.32	75003	0.00	2	
Mo	95	1	No Gas	1.996	1.996	3.74	15189	0.01	2	
Sn	118	1	No Gas	2.017	2.017	1.95	24166	0.01	2	
Sb	121	1	No Gas	2.033	2.033	0.75	31418	0.01	2	
Ba	137	1	No Gas	1.951	1.951	5.28	11756	0.02	2	
Tl	205	1	No Gas	2.317	2.317	2.58	62731	0.00	2	
Tl	203	1	No Gas	2.203	2.203	2.36	25650	0.01	2	
Pb	208	1	No Gas	2.042	2.042	4.09	82926	0.00	2	
U	238	1	No Gas	1.971	1.971	1.96	76854	0.00	2	
Ca	43	2	He	194.414	194.414	12.88	453	42.88	200	
Sb	121	2	He	1.973	1.973	5.11	13170	0.01	2	
Ti	47	2	He	1.795	1.795	29.72	410	0.44	200	
Cu	63	1	No Gas	2.142	2.142	1.81	28737	0.01	2	
Se	82	1	No Gas	1.675	1.675	20.05	595	0.28	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	983150	0.75	965311	101.85	70	120	
Ge	72	2	He	668821	1.05	669606	99.88	70	120	
Ge	72	1	No Gas	2731363	1.41	2743181	99.57	70	120	
In	115	1	No Gas	3159849	1.69	3228126	97.88	70	120	
Bi	209	1	No Gas	2632536	2.36	2690468	97.85	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	024LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:40:46-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	5.061	5.061	1.90	120156	0.00	5	
Be	9	1	No Gas	4.968	4.968	1.63	17284	0.03	5	
V	51	2	He	4.595	4.595	0.92	30634	0.01	5	
Cr	52	2	He	4.916	4.916	2.74	48727	0.01	5	
Fe	56	2	He	506.747	506.747	0.86	3029389	0.02	500	
Se	78	2	He	4.990	4.990	9.06	589	0.85	5	
As	75	2	He	4.987	4.987	2.48	5034	0.10	5	
Ca	44	2	He	507.331	507.331	2.74	20299	2.50	500	
Na	23	2	He	531.702	531.702	0.61	537787	0.10	500	
Mg	24	2	He	528.423	528.423	1.43	291744	0.18	500	
K	39	2	He	512.914	512.914	0.72	471106	0.11	500	
Mn	55	2	He	4.892	4.892	0.47	25127	0.02	5	
Co	59	2	He	4.949	4.949	1.53	49162	0.01	5	
Ni	60	2	He	5.241	5.241	0.42	13177	0.04	5	
Cu	63	2	He	5.054	5.054	1.57	32292	0.02	5	
Zn	66	2	He	5.016	5.016	1.85	7496	0.07	5	
Al	27	2	He	4.957	4.957	8.86	2317	0.21	5	
B	11	1	No Gas	28.335	28.335	2.98	69270	0.04	25	
Al	27	1	No Gas	5.315	5.315	1.00	114821	0.00	5	
Si	28	1	No Gas	26.481	26.481	3.01	684081	0.00	25	
Ag	107	1	No Gas	5.069	5.069	1.03	91743	0.01	5	
Cd	111	1	No Gas	4.939	4.939	0.40	17605	0.03	5	
Sr	88	1	No Gas	4.961	4.961	0.40	185788	0.00	5	
Mo	95	1	No Gas	4.724	4.724	0.54	36029	0.01	5	
Sn	118	1	No Gas	4.901	4.901	1.60	56790	0.01	5	
Sb	121	1	No Gas	5.027	5.027	2.13	78448	0.01	5	
Ba	137	1	No Gas	4.888	4.888	0.90	29103	0.02	5	
Tl	205	1	No Gas	5.406	5.406	1.45	145340	0.00	5	
Tl	203	1	No Gas	5.391	5.391	3.42	62339	0.01	5	
Pb	208	1	No Gas	5.052	5.052	2.61	202980	0.00	5	
U	238	1	No Gas	4.962	4.962	2.13	192800	0.00	5	
Ca	43	2	He	523.904	523.904	3.45	1190	44.02	500	
Sb	121	2	He	4.691	4.691	2.36	31318	0.01	5	
Ti	47	2	He	5.098	5.098	7.49	1153	0.44	5	
Cu	63	1	No Gas	5.197	5.197	0.75	69078	0.01	5	
Se	82	1	No Gas	4.588	4.588	3.92	1341	0.34	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	953301	1.04	965311	98.76	70	120	
Ge	72	2	He	670613	0.50	669606	100.15	70	120	
Ge	72	1	No Gas	2768340	0.64	2743181	100.92	70	120	

Sample Report

In	115	1	No Gas	3188186	1.56	3228126	98.76	70	120	
Bi	209	1	No Gas	2624839	1.20	2690468	97.56	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	025_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:42:44-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.119	111.2	58625	1.2	0.5	
Be	9	1	No Gas	0.000	4309.0	25	60.0	0.5	
V	51	2	He	-0.145	-22.8	2301	8.8	2.5	
Cr	52	2	He	0.143	33.5	15496	1.7	2.5	
Fe	56	2	He	0.326	1.7	25795	0.6	100	
Se	78	2	He	0.086	181.1	118	11.9	1	
As	75	2	He	0.031	89.3	207	12.6	2.5	
Ca	44	2	He	0.025	7505.9	830	7.9	100	
Na	23	2	He	0.123	173.4	45561	0.9	100	
Mg	24	2	He	0.467	8.4	1033	2.0	100	
K	39	2	He	4.624	16.3	96371	0.3	100	
Mn	55	2	He	0.016	305.6	1200	18.6	2.5	
Co	59	2	He	0.003	99.5	193	14.9	2.5	
Ni	60	2	He	0.015	98.4	533	7.1	2.5	
Cu	63	2	He	0.039	45.7	723	15.2	1	
Zn	66	2	He	0.101	126.1	1363	11.0	2.5	
Al	27	2	He	0.275	99.0	730	12.6	5	
B	11	1	No Gas	2.667	7.4	14988	2.3	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	0.252	12.0	34446	2.4	5	
Si	28	1	No Gas	2.248	38.3	475714	0.7	10	
Ag	107	1	No Gas	0.002	218.5	320	19.0	2.5	
Cd	111	1	No Gas	0.000	-26417.8	-11	-249.4	1	
Sr	88	1	No Gas	0.006	33.5	1517	3.6	2.5	
Mo	95	1	No Gas	0.029	30.4	400	16.4	2.5	
Sn	118	1	No Gas	0.068	12.6	2460	5.0	5	
Sb	121	1	No Gas	0.026	24.6	610	15.6	2.5	
Ba	137	1	No Gas	0.080	16.9	870	8.3	2.5	
Tl	205	1	No Gas	0.045	8.5	1667	6.4	1	
Tl	203	1	No Gas	0.057	19.4	817	16.2	1	
Pb	208	1	No Gas	0.004	88.4	1237	11.2	2.5	
U	238	1	No Gas	0.003	27.5	170	15.6	2.5	
Ca	43	2	He	-1.350	-516.0	17	91.7	100	
Sb	121	2	He	0.026	44.0	233	31.6	2.5	
Ti	47	2	He	0.015	294.3	10	100.0	2.5	
Se	82	1	No Gas	-0.690	-14.8	4	582.7	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	945884	1.74	965311	97.99	70	120	
Ge	72	2	He	661081	0.58	669606	98.73	70	120	
Ge	72	1	No Gas	2711866	1.24	2743181	98.86	70	120	
In	115	1	No Gas	3164799	1.13	3228126	98.04	70	120	
Bi	209	1	No Gas	2598688	0.62	2690468	96.59	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	026_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:44:42-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	99.608	3.072	1244955	3.13	100	99.6	90	110	
Be	9	1	No Gas	101.088	1.680	339383	1.08	100	101.1	90	110	
V	51	2	He	98.194	0.787	582157	0.46	100	98.2	90	110	
Cr	52	2	He	98.672	0.879	688449	0.20	100	98.7	90	110	
Fe	56	2	He	10023.992	1.479	58729787	0.52	10000	100.2	90	110	
Se	78	2	He	98.510	0.909	9415	1.77	100	98.5	90	110	
As	75	2	He	99.419	0.753	95771	1.19	100	99.4	90	110	
Ca	44	2	He	10020.533	0.245	380413	1.12	10000	100.2	90	110	
Na	23	2	He	9984.755	0.929	9164752	0.75	10000	99.8	90	110	
Mg	24	2	He	9954.743	1.518	5414030	0.73	10000	99.5	90	110	
K	39	2	He	9935.073	0.513	7300657	0.54	10000	99.4	90	110	
Mn	55	2	He	100.239	1.050	486509	0.29	100	100.2	90	110	
Co	59	2	He	98.168	1.179	960015	0.43	100	98.2	90	110	
Ni	60	2	He	101.006	1.932	241672	1.37	100	101.0	90	110	
Cu	63	2	He	98.773	1.579	614341	0.55	100	98.8	90	110	
Zn	66	2	He	100.196	2.548	124272	2.16	100	100.2	90	110	
Al	27	2	He	99.173	1.045	33621	0.46	100	99.2	90	110	
B	11	1	No Gas	500.947	4.808	1030915	4.80	500	100.2	90	110	
Al	27	1	No Gas	103.870	1.009	1618593	1.91	100	103.9	90	110	
Si	28	1	No Gas	502.220	1.803	4449596	0.51	500	100.4	90	110	
Ag	107	1	No Gas	99.466	0.082	1757781	0.31	100	99.5	90	110	
Cd	111	1	No Gas	98.307	0.644	343463	0.87	100	98.3	90	110	
Sr	88	1	No Gas	98.928	0.377	3604594	0.19	100	98.9	90	110	
Mo	95	1	No Gas	96.685	0.775	718693	0.95	100	96.7	90	110	
Sn	118	1	No Gas	98.427	1.119	1085261	1.39	100	98.4	90	110	
Sb	121	1	No Gas	100.805	1.302	1524672	0.97	100	100.8	90	110	
Ba	137	1	No Gas	99.404	1.453	572006	1.46	100	99.4	90	110	
Tl	205	1	No Gas	100.931	1.377	2590228	0.63	100	100.9	90	110	
Tl	203	1	No Gas	99.929	3.168	1103713	1.39	100	99.9	90	110	
Pb	208	1	No Gas	102.726	2.617	3931738	0.83	100	102.7	90	110	
U	238	1	No Gas	101.172	2.740	3762549	1.10	100	101.2	90	110	
Ca	43	2	He	10063.499	2.889	22215	1.93	10000	100.6	90	110	
Sb	121	2	He	96.252	0.955	633317	0.76	100	96.3	90	110	
Ti	47	2	He	99.805	3.214	22178	2.48	100	99.8	90	110	
Cu	63	1	No Gas	101.294	0.146	1288353	1.61	100	101.3	90	110	
Se	82	1	No Gas	100.049	1.276	24795	0.35	100	100.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	921356	1.94	965311	95.45	70	120	
Ge	72	2	He	662354	1.05	669606	98.92	70	120	
Ge	72	1	No Gas	2690744	1.63	2743181	98.09	70	120	
In	115	1	No Gas	3122823	0.29	3228126	96.74	70	120	
Bi	209	1	No Gas	2513613	1.82	2690468	93.43	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	028ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:48:38-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.641	14.8	63641	4.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.005	144.7	42	60.4	0	ICSA Main CR1 Failed
V	51	2	He	-0.022	-16.4	2947	1.8	0	ICSA Main CR1 Failed
Cr	52	2	He	1.451	9.1	23774	2.6	0	ICSA Main CR1 Failed
Fe	56	2	He	98975.824	2.3	563629605	1.3	0	
Se	78	2	He	0.378	72.4	142	18.6	0	ICSA Main CR1 Failed
As	75	2	He	0.242	13.6	399	8.5	0	ICSA Main CR1 Failed
Ca	44	2	He	96558.536	0.6	3557846	2.3	0	
Na	23	2	He	102168.353	1.8	90769949	0.6	0	
Mg	24	2	He	100137.851	1.6	52948366	0.3	0	
K	39	2	He	101344.269	1.6	71574256	0.3	0	
Mn	55	2	He	0.827	2.3	4991	0.2	0	ICSA Main CR1 Failed
Co	59	2	He	0.377	5.2	3744	6.6	0	ICSA Main CR1 Failed
Ni	60	2	He	0.913	3.8	2604	3.9	0	ICSA Main CR1 Failed
Cu	63	2	He	0.218	2.9	1790	0.6	0	ICSA Main CR1 Failed
Zn	66	2	He	2.200	10.1	3837	7.9	0	ICSA Main CR1 Failed
Al	27	2	He	98207.813	0.9	31758915	0.8	0	
B	11	1	No Gas	4.950	8.1	19327	1.8	0	
Al	27	1	No Gas	97541.305	2.2	1458972352	1.4	0	
Si	28	1	No Gas	26.938	5.9	653920	0.7	0	
Ag	107	1	No Gas	0.171	3.7	3077	1.8	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.403	9.2	1302	11.2	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.633	2.8	158117	1.6	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1932.509	1.6	13356410	1.4	0	
Sn	118	1	No Gas	0.069	4.0	2267	2.0	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.253	7.7	3941	6.3	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.760	5.4	4434	2.9	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.130	12.9	3404	12.8	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.138	6.9	1500	7.9	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.174	2.4	6901	1.2	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.011	12.5	413	9.2	0	ICSA Main CR1 Failed
Ca	43	2	He	98505.698	1.2	211299	0.9	0	
Sb	121	2	He	0.278	9.3	1843	8.7	0	ICSA Main CR1 Failed
Ti	47	2	He	2042.049	0.9	441170	0.7	0	
Se	82	1	No Gas	-0.307	-69.2	97	54.8	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	925267	2.47	965311	95.85	70	120	
Ge	72	2	He	644090	1.67	669606	96.19	70	120	
Ge	72	1	No Gas	2632493	1.64	2743181	95.96	70	120	
In	115	1	No Gas	2904797	2.22	3228126	89.98	70	120	
Bi	209	1	No Gas	2247034	1.63	2690468	83.52	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	029ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T11:50:39-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	94.213	2.020	1256294	2.60	100	94.2	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	95.002	0.547	339417	0.74	100	95.0	80	120	
V	51	2	He	99.749	1.014	583234	0.44	100	99.7	80	120	
Cr	52	2	He	100.004	1.003	688012	0.39	100	100.0	80	120	
Fe	56	2	He	110020.291	0.670	635587951	0.13	100	110020.3	80	120	
Se	78	2	He	102.181	3.721	9627	3.76	100	102.2	80	120	
As	75	2	He	101.061	1.179	96013	0.43	100	101.1	80	120	
Ca	44	2	He	107279.786	1.154	4008860	0.87	100	107279.8	80	120	
Na	23	2	He	113785.075	1.180	102543348	0.48	100	113785.1	80	120	
Mg	24	2	He	111160.117	0.506	59625267	0.31	100	111160.1	80	120	
K	39	2	He	112043.102	0.336	80263654	0.45	100	112043.1	80	120	
Mn	55	2	He	101.019	0.945	483590	0.23	100	101.0	80	120	
Co	59	2	He	96.612	0.935	931908	0.41	100	96.6	80	120	
Ni	60	2	He	97.953	0.645	231191	0.36	100	98.0	80	120	
Cu	63	2	He	94.287	0.933	578472	0.18	100	94.3	80	120	
Zn	66	2	He	98.927	0.802	121043	0.74	100	98.9	80	120	
Al	27	2	He	100047.966	1.700	32816819	0.95	100	100048.0	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	475.719	1.763	1042171	1.14	100	475.7	80	120	
Al	27	1	No Gas	99333.140	2.299	1498794858	0.07	100	99333.1	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	546.403	2.414	4738404	0.56	100	546.4	80	120	
Ag	107	1	No Gas	99.053	1.554	1622825	0.53	100	99.1	80	120	
Cd	111	1	No Gas	99.692	1.733	322897	0.81	100	99.7	80	120	
Sr	88	1	No Gas	109.542	2.182	3700354	2.11	100	109.5	80	120	
Mo	95	1	No Gas	2074.175	2.532	14289189	1.52	100	2074.2	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	100.659	0.869	1028942	0.77	100	100.7	80	120	
Sb	121	1	No Gas	97.947	0.876	1462406	2.04	100	97.9	80	120	
Ba	137	1	No Gas	102.215	1.874	545291	1.52	100	102.2	80	120	
Tl	205	1	No Gas	101.835	2.044	2331213	0.87	100	101.8	80	120	
Tl	203	1	No Gas	101.148	2.066	996742	0.76	100	101.1	80	120	
Pb	208	1	No Gas	102.778	2.110	3509462	0.84	100	102.8	80	120	
U	238	1	No Gas	105.995	0.728	3517446	1.57	100	106.0	80	120	
Ca	43	2	He	110118.971	0.656	239604	0.40	100	110119.0	80	120	
Sb	121	2	He	94.724	0.928	614742	0.49	100	94.7	80	120	
Ti	47	2	He	2165.678	1.005	474589	0.31	100	2165.7	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	98.619	2.888	1237636	0.76	100	98.6	80	120	
Se	82	1	No Gas	98.629	1.776	24140	4.15	100	98.6	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	980311	0.68	965311	101.55	70	120	
Ge	72	2	He	653292	0.78	669606	97.56	70	120	
Ge	72	1	No Gas	2656048	2.36	2743181	96.82	70	120	
In	115	1	No Gas	2895385	1.02	3228126	89.69	70	120	
Bi	209	1	No Gas	2242364	1.96	2690468	83.34	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	129_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:42:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	97.894	0.775	1309846	0.60	100	97.9	90	110	
Be	9	1	No Gas	99.876	1.742	358690	0.42	100	99.9	90	110	
V	51	2	He	96.955	1.395	616859	1.46	100	97.0	90	110	
Cr	52	2	He	96.865	0.751	725518	0.58	100	96.9	90	110	
Fe	56	2	He	9778.691	0.974	61485404	1.49	10000	97.8	90	110	
Se	78	2	He	98.310	1.559	10082	1.88	100	98.3	90	110	
As	75	2	He	99.645	0.761	102996	0.24	100	99.6	90	110	
Ca	44	2	He	9739.493	0.602	396768	0.70	10000	97.4	90	110	
Na	23	2	He	9959.289	0.569	9809571	0.85	10000	99.6	90	110	
Mg	24	2	He	9687.945	1.521	5653989	1.05	10000	96.9	90	110	
K	39	2	He	9736.579	1.613	7679216	1.20	10000	97.4	90	110	
Mn	55	2	He	99.117	0.719	516253	1.07	100	99.1	90	110	
Co	59	2	He	97.932	1.772	1027747	2.00	100	97.9	90	110	
Ni	60	2	He	99.207	0.858	254737	1.07	100	99.2	90	110	
Cu	63	2	He	97.906	0.392	653491	0.52	100	97.9	90	110	
Zn	66	2	He	102.469	0.738	136353	0.66	100	102.5	90	110	
Al	27	2	He	136.306	1.775	49331	1.97	100	136.3	90	110	CCV Main CR1-2 Failed
B	11	1	No Gas	511.697	3.510	1125988	2.17	500	102.3	90	110	
Al	27	1	No Gas	145.841	2.664	2453034	1.90	100	145.8	90	110	CCV Main CR1-2 Failed
Si	28	1	No Gas	787.133	3.246	7289377	1.86	5000	15.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.765	1.402	1869250	0.64	100	97.8	90	110	
Cd	111	1	No Gas	97.527	1.681	368655	1.38	100	97.5	90	110	
Sr	88	1	No Gas	98.378	1.849	3878153	1.19	100	98.4	90	110	
Mo	95	1	No Gas	93.778	1.619	754170	0.83	100	93.8	90	110	
Sn	118	1	No Gas	96.211	1.582	1147905	2.30	100	96.2	90	110	
Sb	121	1	No Gas	99.747	1.635	1637555	1.11	100	99.7	90	110	
Ba	137	1	No Gas	98.731	1.956	614653	1.19	100	98.7	90	110	
Tl	205	1	No Gas	102.148	4.330	2921870	3.11	100	102.1	90	110	
Tl	203	1	No Gas	100.147	4.391	1232891	1.96	100	100.1	90	110	
Pb	208	1	No Gas	99.955	3.463	4264374	0.47	100	100.0	90	110	
U	238	1	No Gas	96.208	2.493	3989047	0.75	100	96.2	90	110	
Ca	43	2	He	10064.580	1.242	23844	1.31	10000	100.6	90	110	
Sb	121	2	He	96.626	0.427	682230	0.22	100	96.6	90	110	
Ti	47	2	He	96.285	3.071	22963	3.11	100	96.3	90	110	
Cu	63	1	No Gas	100.476	0.693	1387050	0.85	100	100.5	90	110	
Se	82	1	No Gas	98.686	3.806	26545	2.79	100	98.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	985563	1.34	965311	102.10	70	120	
Ge	72	2	He	710725	0.54	669606	106.14	70	120	
Ge	72	1	No Gas	2920606	1.42	2743181	106.47	70	120	
In	115	1	No Gas	3378860	0.80	3228126	104.67	70	120	
Bi	209	1	No Gas	2802953	3.11	2690468	104.18	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	130_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:44:45-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.123	31.5	63814	1.8	0.5	
Be	9	1	No Gas	0.022	19.1	110	15.7	0.5	
V	51	2	He	0.199	6.2	4687	1.8	2.5	
Cr	52	2	He	-0.033	-164.5	15476	3.0	2.5	
Fe	56	2	He	4.371	11.4	53513	5.8	100	
Se	78	2	He	0.036	228.9	123	6.6	2	
As	75	2	He	0.074	44.5	268	12.2	2.5	
Ca	44	2	He	-2.142	-8.1	810	1.2	100	
Na	23	2	He	71.112	3.5	119361	2.3	100	
Mg	24	2	He	3.461	4.3	2877	2.8	100	
K	39	2	He	-4.803	-57.3	96925	2.4	100	
Mn	55	2	He	-0.046	-70.4	980	17.7	2.5	
Co	59	2	He	0.020	40.2	393	21.6	2.5	
Ni	60	2	He	-0.001	-434.7	537	1.1	2.5	
Cu	63	2	He	0.018	21.6	647	4.7	2	
Zn	66	2	He	-0.032	-234.4	1300	7.6	2.5	
Al	27	2	He	6.400	17.8	2990	13.5	5	CCB Main CR1 Failed
B	11	1	No Gas	14.184	4.3	42509	3.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	7.864	4.8	165631	2.8	5	CCB Main CR1 Failed
Si	28	1	No Gas	43.435	2.6	879945	1.0	10	CCB Main CR1 Failed
Ag	107	1	No Gas	0.024	16.0	800	7.8	2.5	
Cd	111	1	No Gas	0.023	45.2	79	52.8	1	
Sr	88	1	No Gas	0.052	11.1	3574	4.7	2.5	
Mo	95	1	No Gas	0.097	22.5	1010	15.6	2.5	
Sn	118	1	No Gas	0.085	22.1	2940	5.6	5	
Sb	121	1	No Gas	0.100	15.7	1890	12.5	2.5	
Ba	137	1	No Gas	0.144	40.2	1387	28.5	2.5	
Tl	205	1	No Gas	1.007	32.6	30079	31.4	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.014	33.9	12998	32.8	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.025	24.0	2287	10.6	2.5	
U	238	1	No Gas	0.031	28.4	1383	26.5	2.5	
Ca	43	2	He	3.649	231.2	30	66.7	100	
Sb	121	2	He	0.076	22.3	613	19.5	2.5	
Ti	47	2	He	0.026	245.6	13	114.6	2.5	
Cu	63	1	No Gas	0.120	19.4	2877	10.1	2.5	
Se	82	1	No Gas	-0.436	-56.3	74	89.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1028242	1.56	965311	106.52	70	120	
Ge	72	2	He	715536	0.61	669606	106.86	70	120	
Ge	72	1	No Gas	2960640	1.25	2743181	107.93	70	120	
In	115	1	No Gas	3521933	2.21	3228126	109.10	70	120	
Bi	209	1	No Gas	2879478	0.93	2690468	107.03	70	120	

Sample Report

Sample Table

Sample Name	MBLK-194431
Data File Name	131SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:46:47-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	-0.018	-0.018	-413.57	64416	0.00	2000	
Be	9	1	No Gas	0.005	0.005	35.15	47	0.01	2000	
V	51	2	He	0.170	0.170	7.91	4670	0.00	2000	
Cr	52	2	He	-0.677	-0.677	-10.21	11128	-0.01	2000	
Fe	56	2	He	1.356	1.356	11.58	35747	0.00	200000	
Se	78	2	He	-0.046	-0.046	-260.48	119	-0.04	2000	
As	75	2	He	0.042	0.042	81.32	243	0.02	2000	
Ca	44	2	He	1.958	1.958	208.36	1013	0.19	200000	
Na	23	2	He	44.261	44.261	4.42	96401	0.05	200000	
Mg	24	2	He	11.432	11.432	0.83	7849	0.15	200000	
K	39	2	He	-8.854	-8.854	-29.58	97315	-0.01	200000	
Mn	55	2	He	-0.031	-0.031	-36.09	1100	0.00	2000	
Co	59	2	He	-0.004	-0.004	-36.46	140	0.00	2000	
Ni	60	2	He	0.013	0.013	73.79	593	0.00	2000	
Cu	63	2	He	0.054	0.054	16.68	917	0.01	2000	
Zn	66	2	He	0.084	0.084	35.72	1510	0.01	2000	
Al	27	2	He	7.507	7.507	7.03	3517	0.21	2000	
B	11	1	No Gas	8.479	8.479	7.26	30688	0.03	2000	
Al	27	1	No Gas	8.126	8.126	2.32	176516	0.00	2000	
Si	28	1	No Gas	99.344	99.344	2.48	1421364	0.01	2000	
Ag	107	1	No Gas	0.011	0.011	39.44	563	0.00	2000	
Cd	111	1	No Gas	0.009	0.009	18.64	23	0.04	2000	
Sr	88	1	No Gas	0.023	0.023	15.09	2494	0.00	2000	
Mo	95	1	No Gas	0.023	0.023	17.55	407	0.01	2000	
Sn	118	1	No Gas	0.020	0.020	27.75	2200	0.00	2000	
Sb	121	1	No Gas	0.028	0.028	6.68	727	0.00	2000	
Ba	137	1	No Gas	0.089	0.089	7.82	1060	0.01	2000	
Tl	205	1	No Gas	0.080	0.080	20.43	2954	0.00	2000	
Tl	203	1	No Gas	0.076	0.076	15.65	1170	0.01	2000	
Pb	208	1	No Gas	0.000	0.000	13412.04	1243	0.00	2000	
U	238	1	No Gas	0.003	0.003	29.40	227	0.00	2000	
Ca	43	2	He	12.625	12.625	49.92	53	23.67	200000	
Sb	121	2	He	0.025	0.025	43.60	260	0.01	2000	
Ti	47	2	He	0.024	0.024	99.25	13	0.18	2000	
Cu	63	1	No Gas	0.115	0.115	12.75	2920	0.00	2000	
Zn	66	1	No Gas	0.136	0.136	52.32	5058	0.00	2000	
Se	82	1	No Gas	-0.527	-0.527	-25.74	51	-1.04	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1069794	3.16	965311	110.82	70	120	
Ge	72	2	He	742909	1.58	669606	110.95	70	120	

Sample Report

Ge	72	1	No Gas	3072842	0.71	2743181	112.02	70	120	
In	115	1	No Gas	3636666	0.80	3228126	112.66	70	120	
Bi	209	1	No Gas	2970235	1.09	2690468	110.40	70	120	

Sample Report

Sample Table

Sample Name	LCS-194431
Data File Name	132SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:48:47-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	-0.069	-0.069	-111.16	62625	0.00	2000	
Be	9	1	No Gas	49.301	49.301	1.43	188892	0.03	2000	
V	51	2	He	47.839	47.839	0.07	316148	0.02	2000	
Cr	52	2	He	47.004	47.004	0.59	371937	0.01	2000	
Fe	56	2	He	4907.729	4907.729	0.40	31884975	0.02	200000	
Se	78	2	He	50.916	50.916	0.83	5452	0.93	2000	
As	75	2	He	48.808	48.808	0.89	52208	0.09	2000	
Ca	44	2	He	4784.427	4784.427	0.47	201783	2.37	200000	
Na	23	2	He	4956.675	4956.675	0.82	5067933	0.10	200000	
Mg	24	2	He	5048.862	5048.862	0.51	3044009	0.17	200000	
K	39	2	He	4902.871	4902.871	1.78	4045436	0.12	200000	
Mn	55	2	He	49.294	49.294	0.20	265813	0.02	2000	
Co	59	2	He	47.753	47.753	1.16	517714	0.01	2000	
Ni	60	2	He	49.317	49.317	1.05	131073	0.04	2000	
Cu	63	2	He	49.371	49.371	0.71	340640	0.01	2000	
Zn	66	2	He	51.401	51.401	0.24	71334	0.07	2000	
Al	27	2	He	57.944	57.944	2.67	22068	0.26	2000	
B	11	1	No Gas	7.328	7.328	3.12	27507	0.03	2000	
Al	27	1	No Gas	58.963	58.963	3.02	1049166	0.01	2000	
Si	28	1	No Gas	107.785	107.785	3.46	1476860	0.01	2000	
Ag	107	1	No Gas	48.631	48.631	1.07	984446	0.00	2000	
Cd	111	1	No Gas	49.279	49.279	1.03	197210	0.02	2000	
Sr	88	1	No Gas	0.045	0.045	8.68	3367	0.00	2000	
Mo	95	1	No Gas	44.733	44.733	0.19	380968	0.01	2000	
Sn	118	1	No Gas	-0.012	-0.012	-57.65	1770	0.00	2000	
Sb	121	1	No Gas	49.423	49.423	0.70	841973	0.01	2000	
Ba	137	1	No Gas	48.077	48.077	1.27	317091	0.02	2000	
Tl	205	1	No Gas	42.683	42.683	3.20	1268074	0.00	2000	
Tl	203	1	No Gas	42.283	42.283	4.81	540558	0.01	2000	
Pb	208	1	No Gas	48.478	48.478	4.81	2147676	0.00	2000	
U	238	1	No Gas	0.003	0.003	30.68	217	0.00	2000	
Ca	43	2	He	4700.846	4700.846	3.56	11515	40.82	200000	
Sb	121	2	He	46.928	46.928	0.63	342271	0.01	2000	
Ti	47	2	He	48.113	48.113	0.51	11855	0.41	2000	
Cu	63	1	No Gas	51.249	51.249	2.13	734480	0.01	2000	
Zn	66	1	No Gas	51.435	51.435	1.83	212799	0.02	2000	
Se	82	1	No Gas	50.970	50.970	2.98	14320	0.36	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1051325	1.19	965311	108.91	70	120	
Ge	72	2	He	734086	0.26	669606	109.63	70	120	
Ge	72	1	No Gas	3030294	2.28	2743181	110.47	70	120	
In	115	1	No Gas	3576919	1.48	3228126	110.80	70	120	

Sample Report

Bi	209	1	No Gas	2910789	3.31	2690468	108.19	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01SD
Data File Name	134SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:52:44-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.668	8.340	12.49	82602	0.00	2000	
Be	9	1	No Gas	0.004	0.018	89.47	40	0.01	2000	
V	51	2	He	3.512	17.560	0.63	25774	0.01	2000	
Cr	52	2	He	0.009	0.046	70.93	15776	0.00	2000	
Fe	56	2	He	40.692	203.459	3.82	283098	0.01	200000	
Se	78	2	He	0.286	1.430	72.22	148	0.19	2000	
As	75	2	He	0.457	2.285	6.22	666	0.07	2000	
Ca	44	2	He	13441.880	67209.400	1.07	550623	2.44	200000	
Na	23	2	He	22402.816	112014.082	1.30	22139710	0.10	200000	
Mg	24	2	He	5202.448	26012.240	1.24	3055566	0.17	200000	
K	39	2	He	872.915	4364.574	1.37	784318	0.11	200000	
Mn	55	2	He	1.901	9.505	4.02	11155	0.02	2000	
Co	59	2	He	0.074	0.370	21.57	960	0.01	2000	
Ni	60	2	He	0.585	2.926	5.04	2047	0.03	2000	
Cu	63	2	He	1.316	6.579	2.55	9353	0.01	2000	
Zn	66	2	He	2.309	11.544	4.80	4404	0.05	2000	
Al	27	2	He	38.665	193.326	8.02	14577	0.27	2000	
B	11	1	No Gas	36.345	181.726	4.16	90981	0.04	2000	
Al	27	1	No Gas	37.372	186.859	2.24	656120	0.01	2000	
Si	28	1	No Gas	1565.369	7826.843	0.56	14076391	0.01	2000	
Ag	107	1	No Gas	-0.003	-0.014	-61.64	263	0.00	2000	
Cd	111	1	No Gas	0.011	0.055	17.11	31	0.04	2000	
Sr	88	1	No Gas	42.111	210.555	2.49	1712526	0.00	2000	
Mo	95	1	No Gas	0.298	1.491	4.48	2674	0.01	2000	
Sn	118	1	No Gas	-0.029	-0.145	-40.30	1510	0.00	2000	
Sb	121	1	No Gas	0.060	0.298	4.25	1207	0.00	2000	
Ba	137	1	No Gas	22.439	112.194	0.25	144416	0.02	2000	
Tl	205	1	No Gas	0.122	0.608	14.54	4024	0.00	2000	
Tl	203	1	No Gas	0.128	0.640	13.05	1763	0.01	2000	
Pb	208	1	No Gas	0.145	0.725	5.99	7431	0.00	2000	
U	238	1	No Gas	0.880	4.400	0.92	36903	0.00	2000	
Ca	43	2	He	13571.009	67855.045	3.49	32335	41.97	200000	
Sb	121	2	He	0.065	0.326	17.34	533	0.01	2000	
Ti	47	2	He	1.194	5.972	15.24	293	0.41	2000	
Cu	63	1	No Gas	1.548	7.742	2.10	22646	0.01	2000	
Zn	66	1	No Gas	2.332	11.658	4.72	13444	0.02	2000	
Se	82	1	No Gas	-0.010	-0.048	-5511.22	188	-0.01	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1007194	3.61	965311	104.34	70	120	
Ge	72	2	He	715150	1.27	669606	106.80	70	120	
Ge	72	1	No Gas	2933927	0.53	2743181	106.95	70	120	
In	115	1	No Gas	3484350	1.12	3228126	107.94	70	120	

Sample Report

Bi	209	1	No Gas	2827878	1.75	2690468	105.11	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01MS
Data File Name	135SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:54:43-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	8.445	8.445	5.64	170015	0.00	2000	
Be	9	1	No Gas	49.143	49.143	4.37	179194	0.03	2000	
V	51	2	He	62.375	62.375	0.20	394476	0.02	2000	
Cr	52	2	He	47.359	47.359	0.20	359428	0.01	2000	
Fe	56	2	He	5007.498	5007.498	0.64	31213437	0.02	200000	
Se	78	2	He	52.593	52.593	2.01	5399	0.97	2000	
As	75	2	He	50.870	50.870	0.56	52199	0.10	2000	
Ca	44	2	He	73161.709	73161.709	0.36	2947826	2.48	200000	
Na	23	2	He	119598.737	119598.737	0.52	116204128	0.10	200000	
Mg	24	2	He	31360.382	31360.382	0.48	18136437	0.17	200000	
K	39	2	He	9276.464	9276.464	0.82	7255466	0.13	200000	
Mn	55	2	He	58.760	58.760	1.68	303788	0.02	2000	
Co	59	2	He	46.692	46.692	0.60	485673	0.01	2000	
Ni	60	2	He	50.126	50.126	0.88	127808	0.04	2000	
Cu	63	2	He	52.094	52.094	0.47	344813	0.02	2000	
Zn	66	2	He	58.700	58.700	0.96	77974	0.08	2000	
Al	27	2	He	260.287	260.287	3.86	92740	0.28	2000	
B	11	1	No Gas	152.888	152.888	4.99	348553	0.04	2000	
Al	27	1	No Gas	247.805	247.805	3.04	4163655	0.01	2000	
Si	28	1	No Gas	8114.680	8114.680	1.54	70883504	0.01	2000	>LDR
Ag	107	1	No Gas	47.518	47.518	1.05	907250	0.01	2000	
Cd	111	1	No Gas	48.112	48.112	0.67	181565	0.03	2000	
Sr	88	1	No Gas	219.905	219.905	0.45	8653582	0.00	2000	
Mo	95	1	No Gas	47.759	47.759	0.76	383574	0.01	2000	
Sn	118	1	No Gas	0.029	0.029	47.01	2154	0.00	2000	
Sb	121	1	No Gas	49.470	49.470	0.63	815943	0.01	2000	
Ba	137	1	No Gas	168.361	168.361	1.16	1046172	0.02	2000	
Tl	205	1	No Gas	44.151	44.151	3.11	1218455	0.00	2000	
Tl	203	1	No Gas	43.027	43.027	2.64	511182	0.01	2000	
Pb	208	1	No Gas	49.917	49.917	2.87	2055013	0.00	2000	
U	238	1	No Gas	4.658	4.658	3.14	186341	0.00	2000	
Ca	43	2	He	74903.928	74903.928	1.10	175717	42.63	200000	
Sb	121	2	He	47.244	47.244	1.36	330593	0.01	2000	
Ti	47	2	He	56.690	56.690	4.00	13400	0.42	2000	
Cu	63	1	No Gas	55.484	55.484	0.21	769924	0.01	2000	
Zn	66	1	No Gas	60.280	60.280	1.30	240734	0.03	2000	
Se	82	1	No Gas	51.024	51.024	0.80	13882	0.37	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1001438	3.41	965311	103.74	70	120	
Ge	72	2	He	704315	0.39	669606	105.18	70	120	
Ge	72	1	No Gas	2933634	1.27	2743181	106.94	70	120	
In	115	1	No Gas	3373382	1.02	3228126	104.50	70	120	
Bi	209	1	No Gas	2703326	2.40	2690468	100.48	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01MSD
Data File Name	136SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:56:42-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	8.793	8.793	2.62	170437	0.01	2000	
Be	9	1	No Gas	49.869	49.869	1.77	177613	0.03	2000	
V	51	2	He	61.473	61.473	0.65	386936	0.02	2000	
Cr	52	2	He	46.898	46.898	1.47	354350	0.01	2000	
Fe	56	2	He	5037.715	5037.715	0.98	31248902	0.02	200000	
Se	78	2	He	52.820	52.820	0.58	5396	0.98	2000	
As	75	2	He	50.489	50.489	0.63	51560	0.10	2000	
Ca	44	2	He	72854.975	72854.975	0.38	2921292	2.49	200000	
Na	23	2	He	119334.101	119334.101	0.81	115385695	0.10	200000	
Mg	24	2	He	31255.715	31255.715	1.32	17987913	0.17	200000	
K	39	2	He	9082.516	9082.516	1.29	7071230	0.13	200000	
Mn	55	2	He	58.412	58.412	0.59	300520	0.02	2000	
Co	59	2	He	46.520	46.520	0.45	481543	0.01	2000	
Ni	60	2	He	49.247	49.247	1.25	124969	0.04	2000	
Cu	63	2	He	52.580	52.580	0.93	346344	0.02	2000	
Zn	66	2	He	59.043	59.043	1.53	78038	0.08	2000	
Al	27	2	He	249.170	249.170	3.65	88367	0.28	2000	
B	11	1	No Gas	154.163	154.163	1.37	343264	0.04	2000	
Al	27	1	No Gas	256.859	256.859	6.62	4184561	0.01	2000	
Si	28	1	No Gas	8302.364	8302.364	2.54	70356934	0.01	2000	>LDR
Ag	107	1	No Gas	47.191	47.191	0.82	886055	0.01	2000	
Cd	111	1	No Gas	48.562	48.562	1.39	180218	0.03	2000	
Sr	88	1	No Gas	219.169	219.169	1.43	8481232	0.00	2000	
Mo	95	1	No Gas	47.743	47.743	0.67	377081	0.01	2000	
Sn	118	1	No Gas	0.039	0.039	12.98	2234	0.00	2000	
Sb	121	1	No Gas	50.281	50.281	1.01	804694	0.01	2000	
Ba	137	1	No Gas	170.657	170.657	0.58	1042878	0.02	2000	
Tl	205	1	No Gas	44.418	44.418	3.52	1232437	0.00	2000	
Tl	203	1	No Gas	43.956	43.956	3.27	525001	0.01	2000	
Pb	208	1	No Gas	49.911	49.911	3.00	2065957	0.00	2000	
U	238	1	No Gas	4.664	4.664	3.90	187563	0.00	2000	
Ca	43	2	He	74719.609	74719.609	0.88	174445	42.83	200000	
Sb	121	2	He	47.356	47.356	1.28	329776	0.01	2000	
Ti	47	2	He	57.317	57.317	4.76	13484	0.43	2000	
Cu	63	1	No Gas	56.037	56.037	1.07	754452	0.01	2000	
Zn	66	1	No Gas	60.380	60.380	0.90	233981	0.03	2000	
Se	82	1	No Gas	51.821	51.821	2.82	13675	0.38	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	977365	1.64	965311	101.25	70	120	
Ge	72	2	He	700910	0.27	669606	104.68	70	120	
Ge	72	1	No Gas	2846562	1.40	2743181	103.77	70	120	
In	115	1	No Gas	3317297	0.34	3228126	102.76	70	120	
Bi	209	1	No Gas	2717995	2.23	2690468	101.02	70	120	

Sample Report

Sample Table

Sample Name	HS23051127-01PDS
Data File Name	137SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T15:58:41-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	8.730	8.730	0.46	167074	0.01	2000	
Be	9	1	No Gas	102.035	102.035	0.93	357872	0.03	2000	
V	51	2	He	111.158	111.158	1.63	688129	0.02	2000	
Cr	52	2	He	96.588	96.588	0.89	704519	0.01	2000	
Fe	56	2	He	10005.231	10005.231	2.19	61254291	0.02	200000	
Se	78	2	He	104.095	104.095	0.56	10388	1.00	2000	
As	75	2	He	101.499	101.499	1.44	102152	0.10	2000	
Ca	44	2	He	77999.926	77999.926	1.63	3087859	2.53	200000	
Na	23	2	He	124852.906	124852.906	1.39	119192092	0.10	200000	
Mg	24	2	He	36024.783	36024.783	1.35	20470396	0.18	200000	
K	39	2	He	14231.749	14231.749	1.37	10885409	0.13	200000	
Mn	55	2	He	108.657	108.657	1.47	550934	0.02	2000	
Co	59	2	He	93.840	93.840	1.51	958894	0.01	2000	
Ni	60	2	He	98.150	98.150	2.56	245385	0.04	2000	
Cu	63	2	He	99.171	99.171	1.00	644541	0.02	2000	
Zn	66	2	He	108.068	108.068	0.73	139964	0.08	2000	
Al	27	2	He	2112.366	2112.366	1.93	734661	0.29	2000	>LDR
B	11	1	No Gas	153.970	153.970	0.11	337655	0.05	2000	
Al	27	1	No Gas	2112.102	2112.102	0.77	34012174	0.01	2000	>LDR
Si	28	1	No Gas	8523.718	8523.718	6.39	71814571	0.01	2000	>LDR
Ag	107	1	No Gas	97.232	97.232	1.17	1804876	0.01	2000	
Cd	111	1	No Gas	98.630	98.630	1.14	361948	0.03	2000	
Sr	88	1	No Gas	218.500	218.500	0.60	8361562	0.00	2000	
Mo	95	1	No Gas	96.438	96.438	1.50	752926	0.01	2000	
Sn	118	1	No Gas	1.808	1.808	1.31	22667	0.01	2000	
Sb	121	1	No Gas	96.681	96.681	1.63	1538780	0.01	2000	
Ba	137	1	No Gas	217.195	217.195	0.31	1312406	0.02	2000	
Tl	205	1	No Gas	109.020	109.020	1.44	3047935	0.00	2000	
Tl	203	1	No Gas	108.423	108.423	1.71	1304830	0.01	2000	
Pb	208	1	No Gas	99.130	99.130	1.44	4134033	0.00	2000	
U	238	1	No Gas	4.638	4.638	2.66	188008	0.00	2000	
Ca	43	2	He	79940.013	79940.013	2.14	184254	43.39	200000	
Sb	121	2	He	92.245	92.245	1.43	634181	0.01	2000	
Ti	47	2	He	104.915	104.915	5.40	24355	0.43	2000	
Cu	63	1	No Gas	103.537	103.537	0.58	1385447	0.01	2000	
Zn	66	1	No Gas	111.056	111.056	0.53	424535	0.03	2000	
Se	82	1	No Gas	105.825	105.825	1.78	27587	0.38	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	962441	1.40	965311	99.70	70	120	
Ge	72	2	He	692100	1.08	669606	103.36	70	120	
Ge	72	1	No Gas	2830940	0.98	2743181	103.20	70	120	
In	115	1	No Gas	3280564	1.81	3228126	101.62	70	120	
Bi	209	1	No Gas	2738432	1.95	2690468	101.78	70	120	

Sample Report

Sample Table

Sample Name	HS23051522-01
Data File Name	140SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T16:04:38-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 194431
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	25.089	25.089	1.99	405781	0.01	2000	
Be	9	1	No Gas	0.000	0.000	-2690.13	27	0.00	2000	
V	51	2	He	0.817	0.817	7.54	8703	0.01	2000	
Cr	52	2	He	-0.078	-0.078	-77.99	15279	0.00	2000	
Fe	56	2	He	25.201	25.201	0.72	187014	0.01	200000	
Se	78	2	He	-0.041	-0.041	-428.89	116	-0.04	2000	
As	75	2	He	0.316	0.316	9.00	524	0.06	2000	
Ca	44	2	He	9661.176	9661.176	0.68	399877	2.42	200000	
Na	23	2	He	571736.921	571736.921	0.15	569368125	0.10	200000	>LDR
Mg	24	2	He	15799.519	15799.519	0.61	9368535	0.17	200000	
K	39	2	He	2494.890	2494.890	1.53	2074972	0.12	200000	
Mn	55	2	He	40.881	40.881	1.14	217047	0.02	2000	
Co	59	2	He	0.063	0.063	1.07	857	0.01	2000	
Ni	60	2	He	0.239	0.239	22.90	1167	0.02	2000	
Cu	63	2	He	0.694	0.694	6.74	5231	0.01	2000	
Zn	66	2	He	9.075	9.075	2.43	13504	0.07	2000	
Al	27	2	He	10.333	10.333	0.89	4444	0.23	2000	
B	11	1	No Gas	45.046	45.046	2.85	115386	0.04	2000	
Al	27	1	No Gas	11.143	11.143	4.29	211005	0.01	2000	
Si	28	1	No Gas	15751.887	15751.887	0.39	132326348	0.01	2000	>LDR
Ag	107	1	No Gas	-0.008	-0.008	-43.26	140	-0.01	2000	
Cd	111	1	No Gas	0.007	0.007	63.90	13	0.05	2000	
Sr	88	1	No Gas	261.454	261.454	0.84	9637055	0.00	2000	
Mo	95	1	No Gas	0.068	0.068	62.27	697	0.01	2000	
Sn	118	1	No Gas	0.021	0.021	56.00	1927	0.00	2000	
Sb	121	1	No Gas	0.166	0.166	11.90	2857	0.01	2000	
Ba	137	1	No Gas	128.733	128.733	2.36	749446	0.02	2000	
Tl	205	1	No Gas	0.018	0.018	21.91	883	0.00	2000	
Tl	203	1	No Gas	0.025	0.025	39.55	407	0.01	2000	
Pb	208	1	No Gas	0.017	0.017	15.56	1610	0.00	2000	
U	238	1	No Gas	0.011	0.011	22.36	447	0.00	2000	
Ca	43	2	He	10336.543	10336.543	2.64	24883	41.54	200000	
Sb	121	2	He	0.166	0.166	2.80	1263	0.01	2000	
Ti	47	2	He	2.130	2.130	6.58	523	0.41	2000	
Cu	63	1	No Gas	4.511	4.511	0.90	61443	0.01	2000	
Zn	66	1	No Gas	9.155	9.155	0.30	38793	0.02	2000	
Se	82	1	No Gas	1.066	1.066	39.52	461	0.23	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1052719	3.59	965311	109.05	70	120	
Ge	72	2	He	722115	0.95	669606	107.84	70	120	
Ge	72	1	No Gas	2830344	2.51	2743181	103.18	70	120	
In	115	1	No Gas	3159761	0.23	3228126	97.88	70	120	
Bi	209	1	No Gas	2392290	2.90	2690468	88.92	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	141_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T16:06:39-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	98.968	1.538	1326645	0.25	100	99.0	90	110	
Be	9	1	No Gas	101.964	1.024	367089	0.44	100	102.0	90	110	
V	51	2	He	95.872	1.405	600359	0.85	100	95.9	90	110	
Cr	52	2	He	96.592	1.103	712085	0.29	100	96.6	90	110	
Fe	56	2	He	9694.564	0.674	59994186	1.10	10000	96.9	90	110	
Se	78	2	He	99.332	2.360	10024	1.93	100	99.3	90	110	
As	75	2	He	98.718	0.998	100429	0.15	100	98.7	90	110	
Ca	44	2	He	9730.990	2.059	390143	1.50	10000	97.3	90	110	
Na	23	2	He	10006.850	1.029	9700300	0.34	10000	100.1	90	110	
Mg	24	2	He	9711.654	2.047	5578279	1.48	10000	97.1	90	110	
K	39	2	He	9757.435	1.972	7573725	1.14	10000	97.6	90	110	
Mn	55	2	He	99.481	1.352	509940	0.83	100	99.5	90	110	
Co	59	2	He	95.569	0.387	987114	0.57	100	95.6	90	110	
Ni	60	2	He	98.713	0.606	249473	0.81	100	98.7	90	110	
Cu	63	2	He	96.753	0.238	635637	1.07	100	96.8	90	110	
Zn	66	2	He	100.687	0.931	131890	0.70	100	100.7	90	110	
Al	27	2	He	111.021	1.985	39670	1.87	100	111.0	90	110	CCV Main CR1-2 Failed
B	11	1	No Gas	492.876	1.854	1087705	0.90	500	98.6	90	110	
Al	27	1	No Gas	113.421	1.736	1879521	0.53	100	113.4	90	110	CCV Main CR1-2 Failed
Si	28	1	No Gas	672.172	0.607	6181155	1.14	5000	13.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.401	1.144	1856044	1.62	100	98.4	90	110	
Cd	111	1	No Gas	96.881	0.432	361253	0.63	100	96.9	90	110	
Sr	88	1	No Gas	97.196	0.561	3779790	0.61	100	97.2	90	110	
Mo	95	1	No Gas	92.988	0.719	737711	0.54	100	93.0	90	110	
Sn	118	1	No Gas	99.413	1.732	1169921	2.31	100	99.4	90	110	
Sb	121	1	No Gas	98.808	0.823	1592155	1.47	100	98.8	90	110	
Ba	137	1	No Gas	97.481	0.415	598688	0.54	100	97.5	90	110	
Tl	205	1	No Gas	100.538	2.793	2802585	1.03	100	100.5	90	110	
Tl	203	1	No Gas	98.613	4.397	1183006	2.07	100	98.6	90	110	
Pb	208	1	No Gas	99.834	2.612	4151344	1.23	100	99.8	90	110	
U	238	1	No Gas	96.692	4.232	3905651	1.98	100	96.7	90	110	
Ca	43	2	He	9743.849	4.180	22716	3.28	10000	97.4	90	110	
Sb	121	2	He	95.990	0.523	667064	0.79	100	96.0	90	110	
Ti	47	2	He	94.637	2.116	22212	1.28	100	94.6	90	110	
Cu	63	1	No Gas	99.759	1.135	1351690	2.05	100	99.8	90	110	
Se	82	1	No Gas	99.391	1.577	26241	1.00	100	99.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	987920	1.34	965311	102.34	70	120	
Ge	72	2	He	699527	0.90	669606	104.47	70	120	
Ge	72	1	No Gas	2866332	1.33	2743181	104.49	70	120	
In	115	1	No Gas	3332970	0.77	3228126	103.25	70	120	
Bi	209	1	No Gas	2731055	2.47	2690468	101.51	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	142_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq Date Time	2023-05-30T16:08:32-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.106	49.8	60777	0.4	0.5	
Be	9	1	No Gas	0.036	9.2	155	8.5	0.5	
V	51	2	He	0.088	22.0	3912	3.0	2.5	
Cr	52	2	He	-0.031	-102.4	15232	1.5	2.5	
Fe	56	2	He	1.505	11.0	34805	3.1	100	
Se	78	2	He	-0.097	-247.6	107	22.5	2	
As	75	2	He	0.061	69.9	250	17.3	2.5	
Ca	44	2	He	-2.064	-85.4	800	9.0	100	
Na	23	2	He	149.321	2.3	193324	1.9	100	CCB Main CR1 Failed
Mg	24	2	He	3.398	11.5	2794	8.1	100	
K	39	2	He	0.058	799.7	99091	0.5	100	
Mn	55	2	He	0.067	60.9	1543	13.7	2.5	
Co	59	2	He	0.016	19.0	337	9.1	2.5	
Ni	60	2	He	-0.029	-113.7	457	18.2	2.5	
Cu	63	2	He	0.012	79.0	597	10.8	2	
Zn	66	2	He	-0.059	-71.4	1243	4.4	2.5	
Al	27	2	He	0.519	20.4	863	4.4	5	
B	11	1	No Gas	8.615	4.3	28521	3.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.418	9.0	39259	1.4	5	
Si	28	1	No Gas	4.371	23.9	522753	0.9	10	
Ag	107	1	No Gas	0.023	19.0	773	10.8	2.5	
Cd	111	1	No Gas	0.043	54.4	154	58.8	1	
Sr	88	1	No Gas	0.076	5.1	4481	3.0	2.5	
Mo	95	1	No Gas	0.117	19.3	1163	15.6	2.5	
Sn	118	1	No Gas	0.091	9.8	2967	4.3	5	
Sb	121	1	No Gas	0.162	12.8	2844	12.7	2.5	
Ba	137	1	No Gas	0.038	15.2	687	6.1	2.5	
Tl	205	1	No Gas	1.020	27.5	30443	29.1	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.010	27.3	12931	29.0	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.037	5.4	2830	5.1	2.5	
U	238	1	No Gas	0.043	13.4	1917	14.5	2.5	
Ca	43	2	He	16.655	51.4	60	33.3	100	
Sb	121	2	He	0.127	9.2	957	8.7	2.5	
Ti	47	2	He	-0.016	-156.7	3	173.2	2.5	
Cu	63	1	No Gas	0.074	10.5	2167	5.6	2.5	
Se	82	1	No Gas	-0.425	-42.0	74	62.4	2	

QC ISTD Table

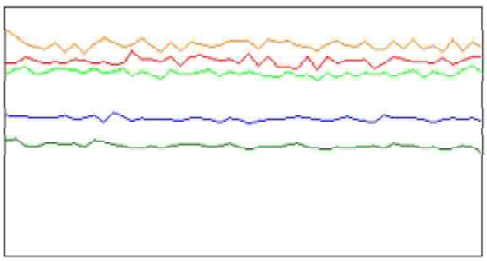
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	982900	1.24	965311	101.82	70	120	
Ge	72	2	He	703867	0.15	669606	105.12	70	120	
Ge	72	1	No Gas	2877039	0.92	2743181	104.88	70	120	
In	115	1	No Gas	3455473	0.70	3228126	107.04	70	120	
Bi	209	1	No Gas	2864275	2.03	2690468	106.46	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\053023A.b
Acq. Date-Time	5/30/2023 10:09:14 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	5000	3945	39451.38		
24	20000	14799	147992.15		
59	50000	27833	278325.25		
115	50000	42767	427670.94		
208	50000	22280	222803.86		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.140	5.000	
24	1.625	5.000	
59	1.561	5.000	
115	2.204	5.000	
208	2.404	5.000	

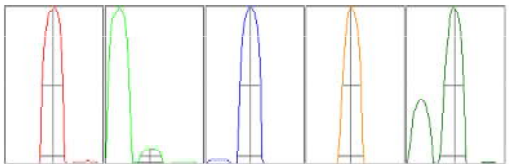
Mass	Background	Background (Required)	Background (Flag)
9	1.500		
24	1.000		
59	0.400		
115	1.000		
208	2.000		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.172 %
Doubly Charged	70 / 140 0.758 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	3926.33	9.00	8.90 - 9.10	
24	14617.72	23.90	23.90 - 24.10	
59	28165.33	58.90	58.90 - 59.10	
115	43701.88	114.90	114.90 - 115.10	
208	21878.23	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.65	0.742		
24	0.65	0.792		
59	0.61	0.740		
115	0.56	0.764		
208	0.60	0.785		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.50 L/min	Dilution Gas	0.56 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	14.6 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0004	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.6 mm

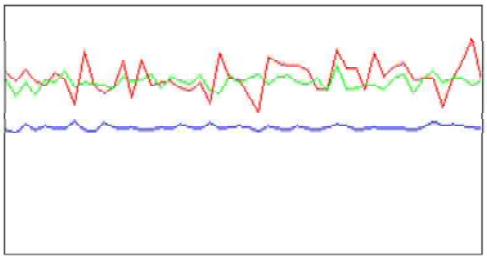
EM

Discriminator	4.5 mV	Analog HV	2996 V	Pulse HV	1658 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	200	143	1432.27		
24	1000	697	6965.53		
59	20000	10251	102512.50		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

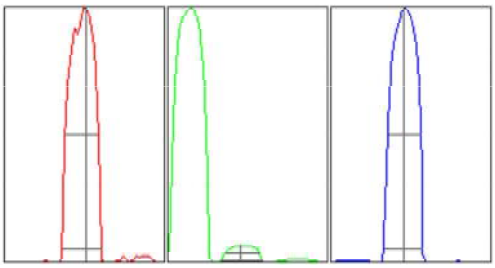
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	8.892	5.000	Fail
24	3.841	5.000	
59	1.949	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.100		
24	0.100		
59	0.200		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.433 %
Doubly Charged	70 / 140 0.899 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	146.26	9.05	8.90 - 9.10	
24	711.96	23.90	23.90 - 24.10	
59	10443.97	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.742		
24	0.65	0.784		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.61	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.50 L/min	Dilution Gas	0.56 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.6 V	Deflect	0.5 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.1 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0004	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.6 mm

EM

Discriminator	4.5 mV	Analog HV	2996 V	Pulse HV	1658 V

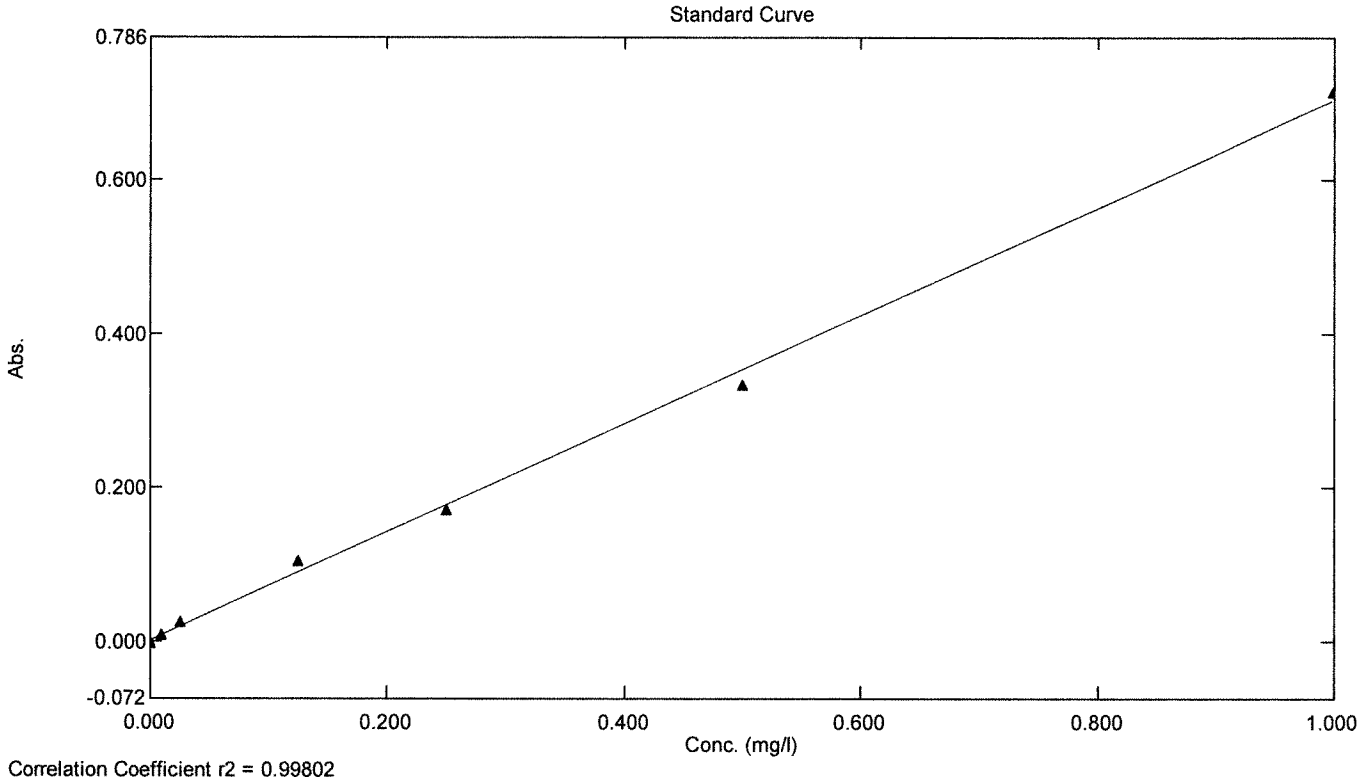
HS23051522 Wetchem Cr6_W

ALS WO# HS23051522

Standard Table Report

05/25/2023 06:58:38 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\05232023CR6_W.pho



Correlation Coefficient r2 = 0.99802

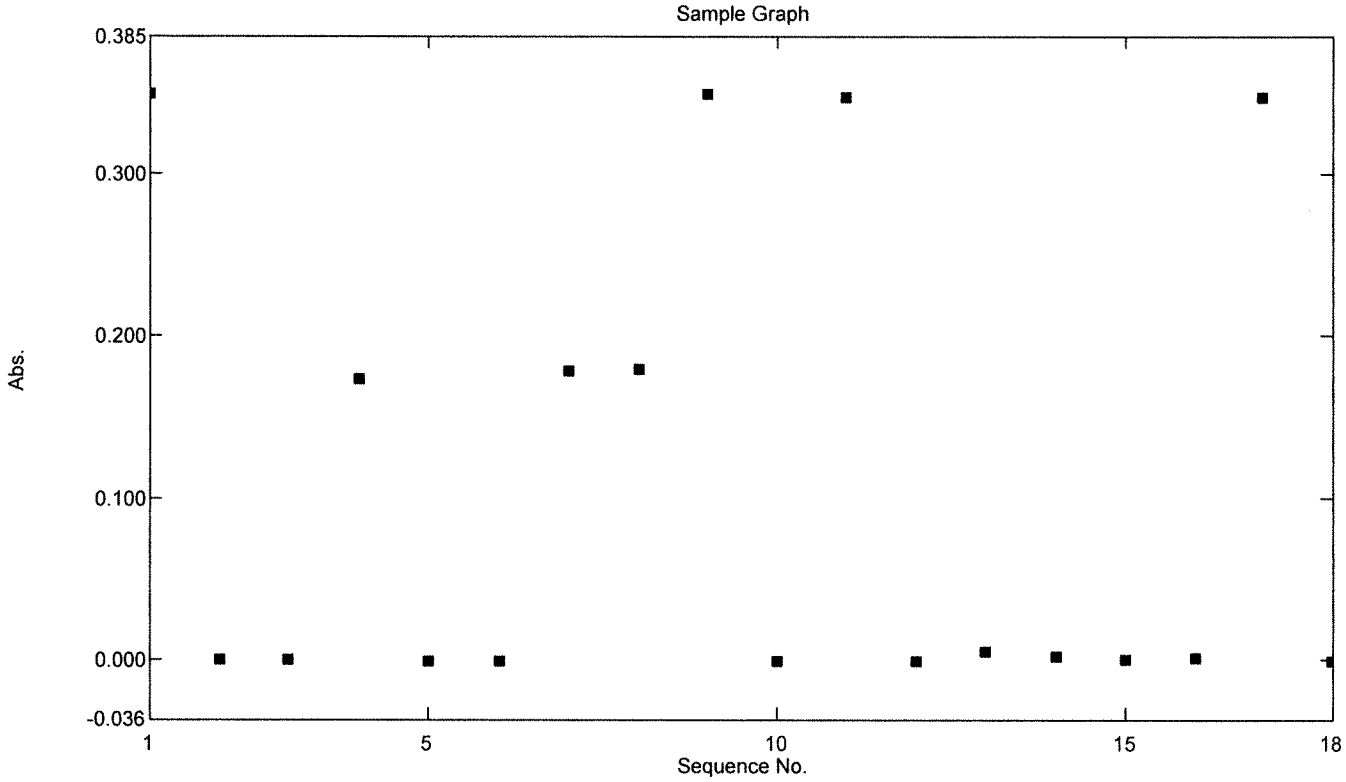
Standard Table

	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.009	1.000	
3	STD3	Standard		0.025	0.026	1.000	
4	STD4	Standard		0.125	0.105	1.000	
5	STD5	Standard		0.250	0.171	1.000	
6	STD6	Standard		0.500	0.334	1.000	
7	STD7	Standard		1.000	0.714	1.000	
8							

Sample Table Report

05/25/2023 06:58:39 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\05232023CR6_W.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		05/23/2023	10:14:25 AM	0.494	0.350	CCV- 321105802
2	CCB	Unknown		05/23/2023	10:14:34 AM	-0.003	0.000	LCS- 321105801
3	MBLK	Unknown		05/23/2023	10:14:40 AM	-0.003	0.000	
4	LCS	Unknown		05/23/2023	10:14:49 AM	0.243	0.173	
5	HS23051482.01	Unknown		05/23/2023	10:15:15 AM	-0.003	-0.000	PF= 50X
6	HS23051482.01BKG	Unknown		05/23/2023	10:15:48 AM	-0.005	-0.001	BKG= -0.008
7	HS23051482.01MS	Unknown		05/23/2023	10:16:22 AM	0.251	0.179	
8	HS23051482.01MSD	Unknown		05/23/2023	10:16:31 AM	0.253	0.180	
9	CCV2	Unknown		05/23/2023	10:16:45 AM	0.494	0.349	
10	CCB2	Unknown		05/23/2023	10:16:54 AM	-0.004	-0.000	
11	CCV3	Unknown		05/23/2023	10:48:49 AM	0.492	0.348	
12	CCB3	Unknown		05/23/2023	10:49:04 AM	-0.004	-0.001	
13	HS23051516.01	Unknown		05/23/2023	10:59:19 AM	0.004	0.005	
14	HS23051516.01BKG	Unknown		05/23/2023	10:59:50 AM	-0.001	0.002	BKG= 0
15	HS23051522.01	Unknown		05/23/2023	11:00:31 AM	-0.002	0.001	
16	HS23051522.01BKG	Unknown		05/23/2023	11:00:57 AM	-0.002	0.001	BKG= 0
17	CCV4	Unknown		05/23/2023	11:01:15 AM	0.491	0.347	
18	CCB4	Unknown		05/23/2023	11:01:29 AM	-0.005	-0.001	
19								

HS23051522-E2300500 Perchlorate Level IV

ALS WO# HS23051522

May 31, 2023 Service Request No:E2300500

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051522

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 23, 2023
For your reference, these analyses have been assigned our service request number **E2300500.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300500
Project:	HS23051522	**Date Received:**	05/23/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 05/23/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300265: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300500
Project: HS23051522

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300500-001	LH18/24-SP650_052223_AIX	5/22/2023	1300

Service Request Summary

Folder #: **E2300500**
Client Name: ALS Environmental - US
Project Name: HS23051522
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/23/23
Internal Due Date: 5/31/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051522
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300500-001	LH18/24-SP650_052223_AIX	Water	05/22/23 1300	**IV**

Service Request Summary

Folder #: **E2300500**
Client Name: ALS Environmental - US
Project Name: HS23051522
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/23/23
Internal Due Date: 5/31/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051522
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

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Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **21802**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23051522
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051522-02**	**LH18/24-SP650_052223_AIX**	**Water**	**22 May 2023 13:00**
	Provide Level II and Level IV reports in separate pdf			31 May 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: 5.23.23 10:25

Received By: _____ Date/Time: 9.24.23 1025

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist JC

Client/Project ALS

Thermometer ID 1231

Date/Time Received: 5.23.23 Initials: CG

Date/Time Logged in: 5.23.23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No

If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		5.23.23	1025	CG	1.3	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300499-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300499-002	LH18/24-SP650_052223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300500-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300501-001	LH18/24-SP140_052223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300512-001	50WW09_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300512-002	50WW08_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300512-003	50WW22_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300512-004	50WW13_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300512-005	50WW11_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300512-006	50WW06_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300512-007	50WW29_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	EQ2300265-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300265-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300265-03	DLCS		6850/ClO4			Liquid	10mL	
15	K2305800-001	LGAC-INF-052223	.01	6850/ClO4			Water	10mL	
16	K2305800-002	LGAC-INT1-052223	.01	6850/ClO4			Water	10mL	
17	R2304146-004	2305090957X BLM-38-620	.01	6850/ClO4			Water	10mL	
18	R2304146-009	2305090931B ST-1-630	.01	6850/ClO4			Water	10mL	
19	R2304203-004	2305100842X BLM-38-480	.01	6850/ClO4			Water	10mL	
20	R2304203-011	2305100858B 600-C-173	.01	6850/ClO4			Water	10mL	
21	R2304267-009	2305111350X WB-1-330	.01	6850/ClO4			Water	10mL	
22	R2304267-012	2305121010X WB-1-200	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300265-02	1.00µL	EQ2300265-02	1.00µL	EQ2300265-03	1.00µL	EQ2300265-03	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300499-001	100.00µL	E2300499-002	100.00µL	E2300500-001	100.00µL	E2300501-001	100.00µL	E2300512-001	100.00µL	E2300512-002	100.00µL
E2300512-003	100.00µL	E2300512-004	100.00µL	E2300512-005	100.00µL	E2300512-006	100.00µL	E2300512-007	100.00µL	EQ2300265-01	100.00µL
EQ2300265-01	100.00µL	EQ2300265-02	100.00µL	EQ2300265-02	100.00µL	EQ2300265-03	100.00µL	EQ2300265-03	100.00µL	K2305800-001	100.00µL
K2305800-002	100.00µL	R2304146-004	100.00µL	R2304146-009	100.00µL	R2304203-004	100.00µL	R2304203-011	100.00µL	R2304267-009	100.00µL
R2304267-012	100.00µL										

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 5/30/23 08:20
Finished: 5/30/23 09:20
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 05/30/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	5/22/23 1300
Sample Matrix:	Water	**Date Received:**	5/23/23
Sample Name:	LH18/24-SP650_052223_AIX	**Units:**	µg/L
Lab Code:	E2300500-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.244**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:07	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300265-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:38	420569	805870	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051522
Sample Matrix: Water

Service Request: E2300500
Date Analyzed: 5/30/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 420569

	Lab Control Sample EQ2300265-02			Duplicate Lab Control Sample EQ2300265-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.105	0.100	105	0.101	0.100	101	84 - 119	4	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.105**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:44	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.101**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:50	420569	805870	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

Initial Calibration - Detailed Report

Calibration ID: EC2300007 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
11	EC2300007-11	PERCHLORATE1	20230530-002	05/30/2023 15:08
01	EC2300007-01	PERCHLORATE2	20230530-003	05/30/2023 15:14
02	EC2300007-02	PERCHLORATE3	20230530-004	05/30/2023 15:21
03	EC2300007-03	PERCHLORATE4	20230530-005	05/30/2023 15:27
04	EC2300007-04	PERCHLORATE5	20230530-006	05/30/2023 15:33
05	EC2300007-05	PERCHLORATE6	20230530-007	05/30/2023 15:39
06	EC2300007-06	PERCHLORATE7	20230530-008	05/30/2023 15:45
07	EC2300007-07	PERCHLORATE8	20230530-009	05/30/2023 15:51
08	EC2300007-08	PERCHLORATE9	20230530-010	05/30/2023 15:57
09	EC2300007-09	PERCHLORATE10	20230530-011	05/30/2023 16:03

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 1.842** **Average RF = 0.1844**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5000	0.1845	02	0.7000	0.1911	03	1.0000	0.181	04	2.0000	0.1794
05	5.0000	0.1836	06	10.0000	0.1842	07	20.0000	0.1862	08	30.0000	0.1828
09	50.0000	0.1863	11								

Analyte

Perchlorate RSE = 1.74

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.5000	0.500	0.1	02	0.7000	0.726	3.7	03	1.0000	0.982	-1.8
04	2.0000	1.95	-2.7	05	5.0000	4.98	-0.4	06	10.0000	9.99	-0.1
07	20.0000	20.2	1.0	08	30.0000	29.8	-0.8	09	50.0000	50.5	1.1
11											

Initial Calibration Verification Summary Report

Calibration ID:	EC2300007	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230530-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300007-10	T	Average RF	10	10.045	ng/mL	0.4	<= 15

Insight Report

Printed at 5/31/2023 8:58:43 AM

Method File: I:\LCMS01\DATA\20230530\20230530.lcm
Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

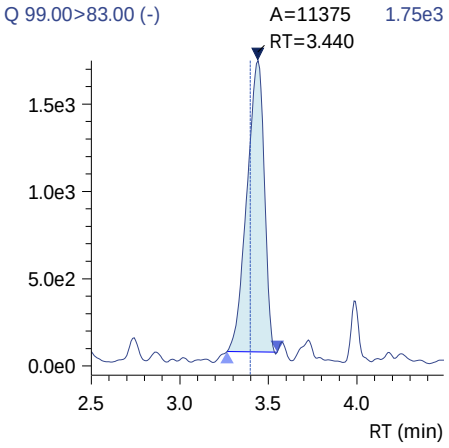
PERCHLORATE1

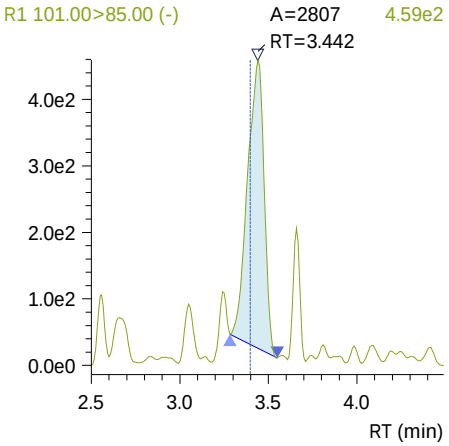
Sample ID: PERCHLORATE1
Date Acquired: 5/30/2023 3:08:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.440	11375	579508	0.1065	ng/mL	101.00 >85.00	24.68	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.437	579508	579508	1.0000	ng/mL	----	----	

Perchlorate

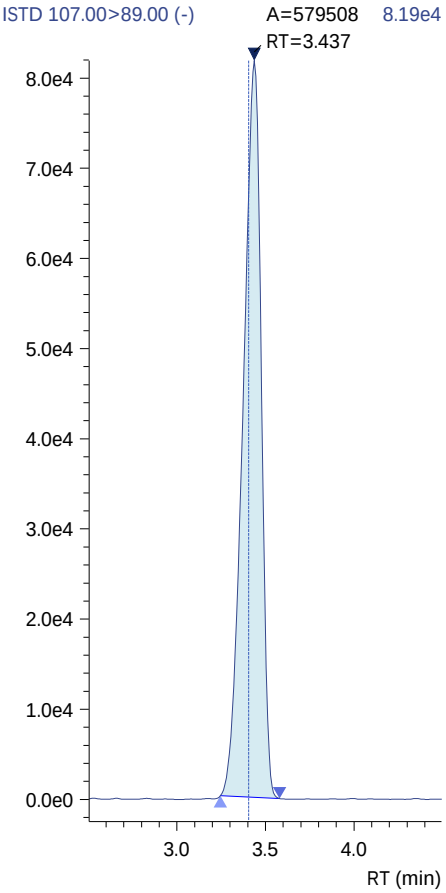
Conc 0.1065
R#1 24.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

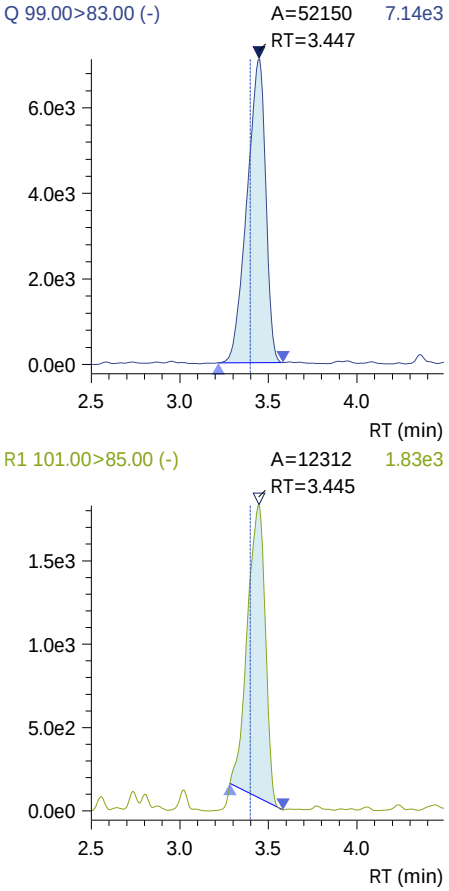
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 5/30/2023 3:14:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	52150	565411	0.5003	ng/mL	101.00 >85.00	23.61	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	565411	565411	1.0000	ng/mL	----	----	

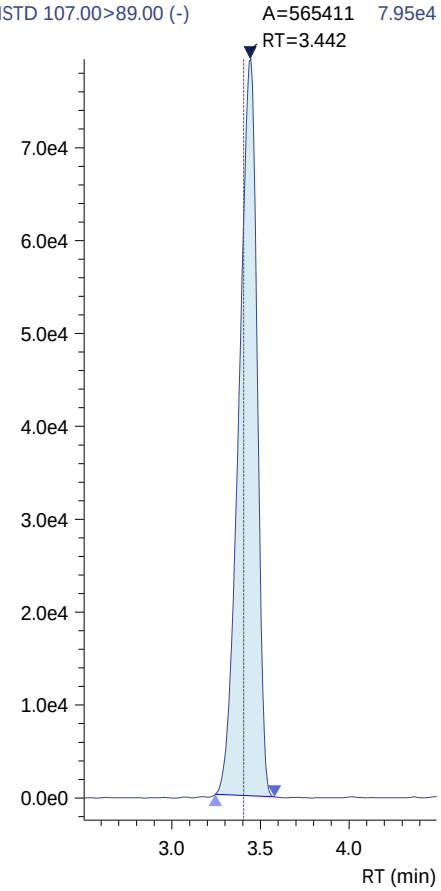
Perchlorate

Conc 0.5003
R#1 23.61 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

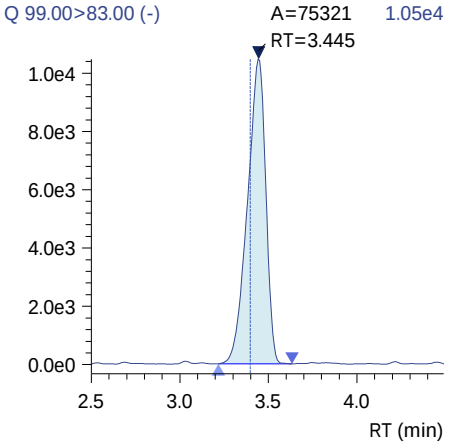
PERCHLORATE3

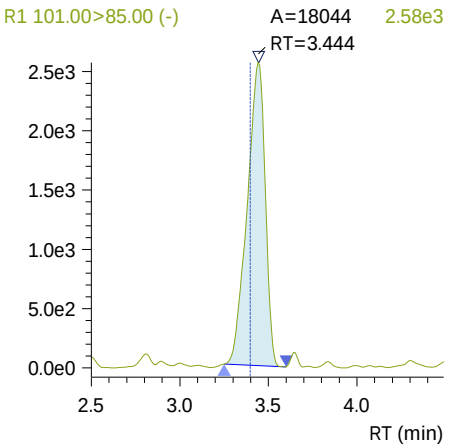
Sample ID: PERCHLORATE3
Date Acquired: 5/30/2023 3:21:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	75321	562984	0.7257	ng/mL	101.00 >85.00	23.96	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	562984	562984	1.0000	ng/mL	----	----	

Perchlorate

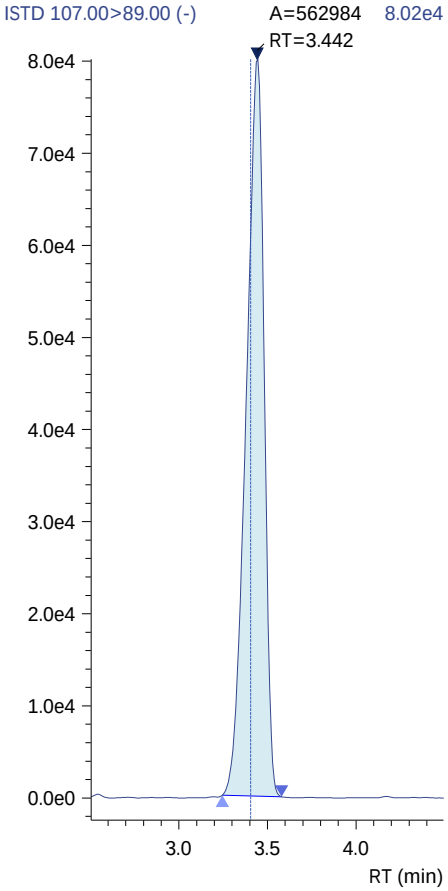
Conc 0.7257
R#1 23.96 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

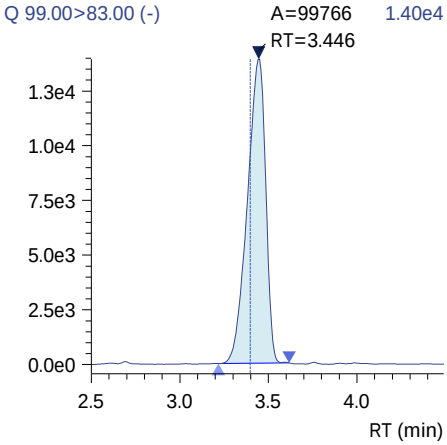
PERCHLORATE4

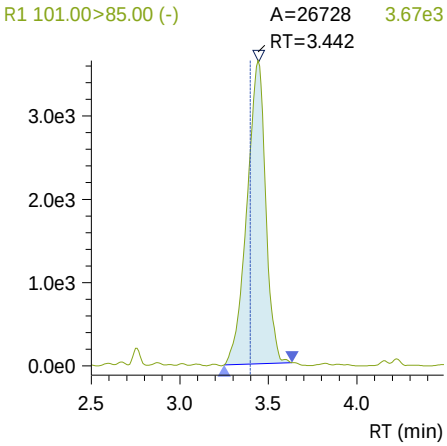
Sample ID: PERCHLORATE4
Date Acquired: 5/30/2023 3:27:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	99766	551315	0.9816	ng/mL	101.00 >85.00	26.79	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	551315	551315	1.0000	ng/mL	----	----	

Perchlorate

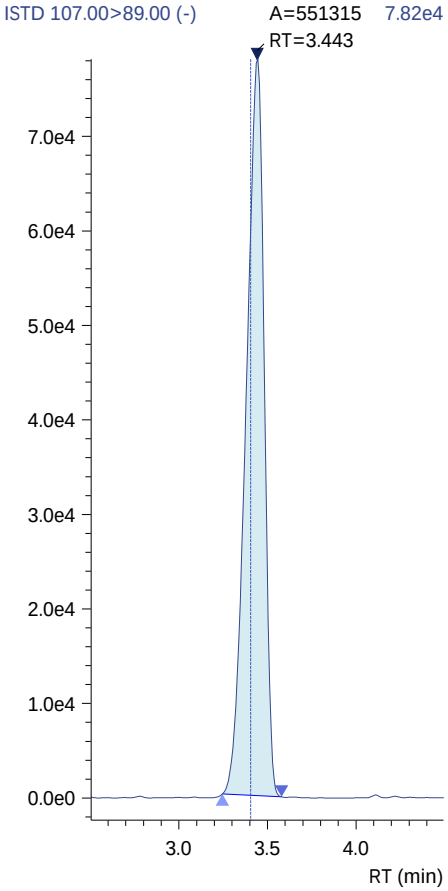
Conc 0.9816
R#1 26.79 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

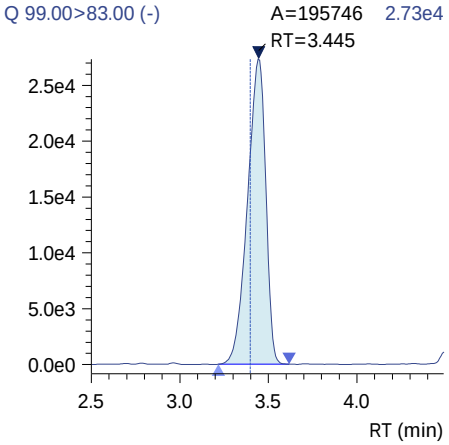
PERCHLORATE5

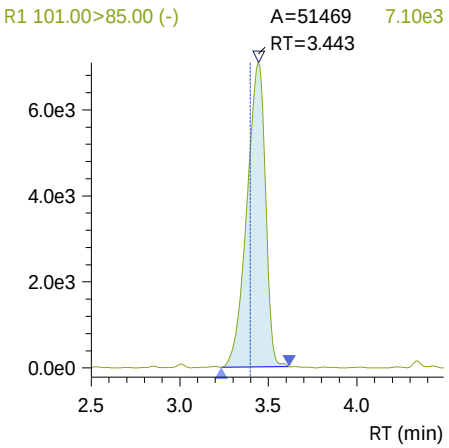
Sample ID: PERCHLORATE5
Date Acquired: 5/30/2023 3:33:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	195746	545560	1.9463	ng/mL	101.00 >85.00	26.29	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	545560	545560	1.0000	ng/mL	----	----	

Perchlorate

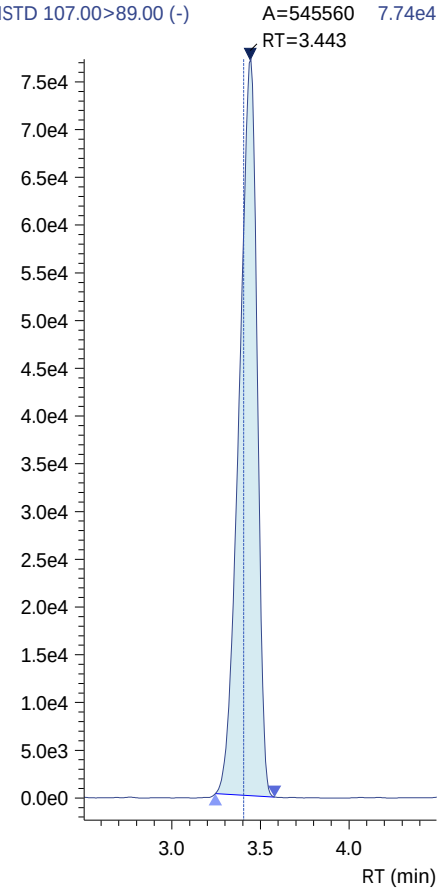
Conc 1.9463
R#1 26.29 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

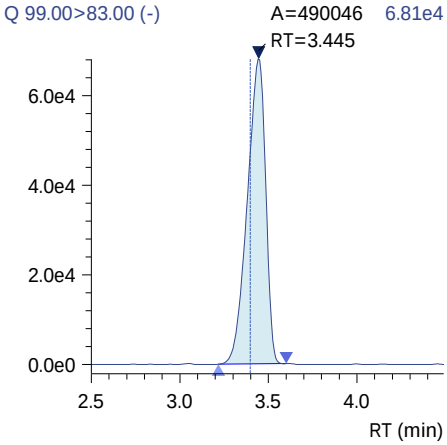
PERCHLORATE6

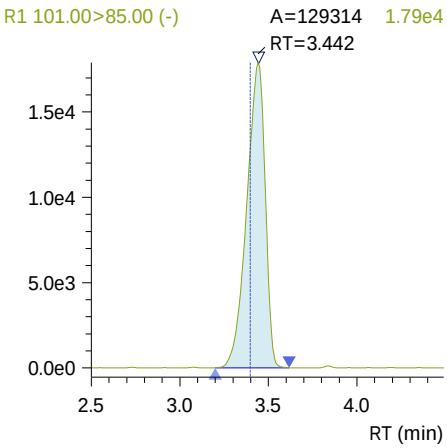
Sample ID: PERCHLORATE6
Date Acquired: 5/30/2023 3:39:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	490046	533799	4.9798	ng/mL	101.00 >85.00	26.39	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	533799	533799	1.0000	ng/mL	----	----	

Perchlorate

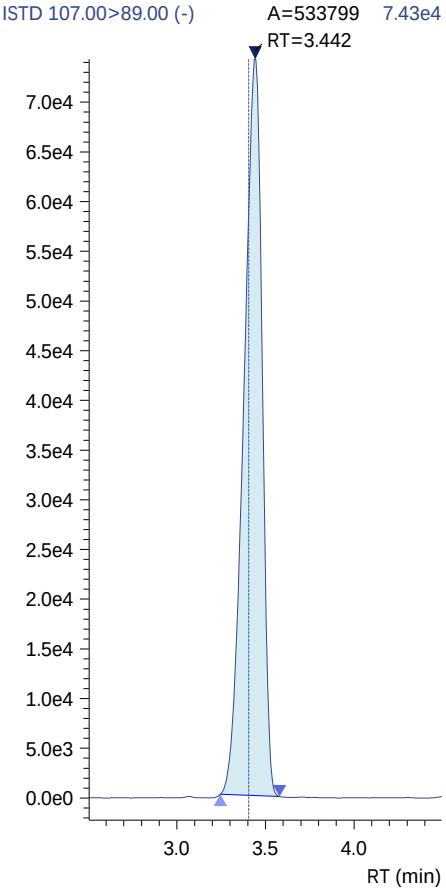
Conc 4.9798
R#1 26.39 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

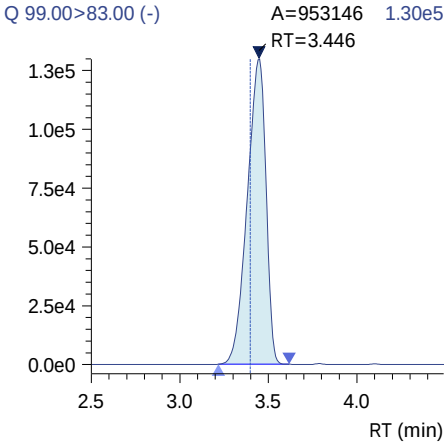
PERCHLORATE7

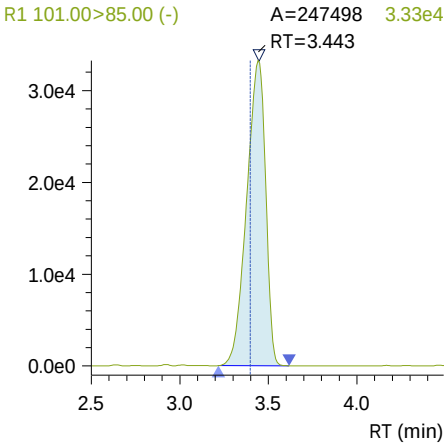
Sample ID: PERCHLORATE7
Date Acquired: 5/30/2023 3:45:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	953146	517404	9.9927	ng/mL	101.00 >85.00	25.97	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	517404	517404	1.0000	ng/mL	----	----	

Perchlorate

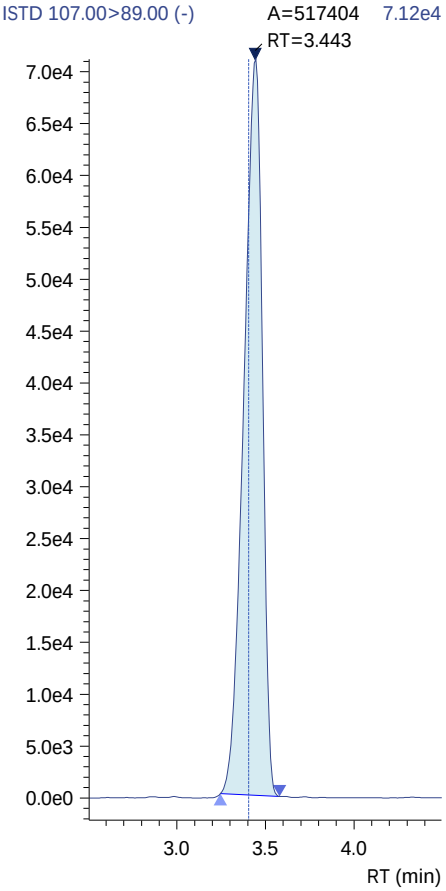
Conc 9.9927
R#1 25.97 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

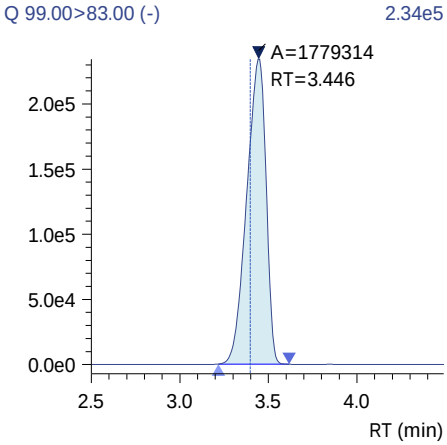
PERCHLORATE8

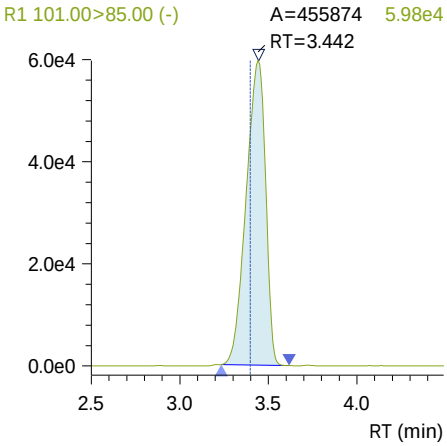
Sample ID: PERCHLORATE8
Date Acquired: 5/30/2023 3:51:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	1779314	477685	20.2052	ng/mL	101.00 >85.00	25.62	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.442	477685	477685	1.0000	ng/mL	----	----	

Perchlorate

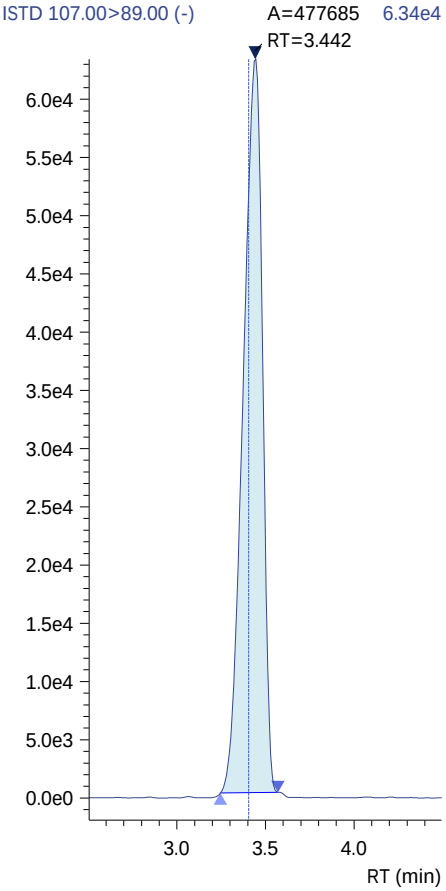
Conc 20.2052
R#1 25.62 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

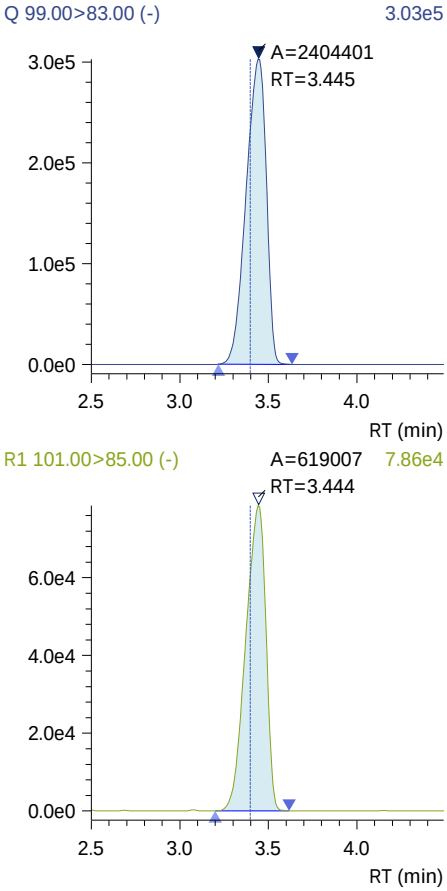
PERCHLORATE9

Sample ID: PERCHLORATE9
Date Acquired: 5/30/2023 3:57:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	2404401	438344	29.75 39	ng/mL	101.00 >85.00	25.75	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	438344	438344	1.0000	ng/mL	----	----	

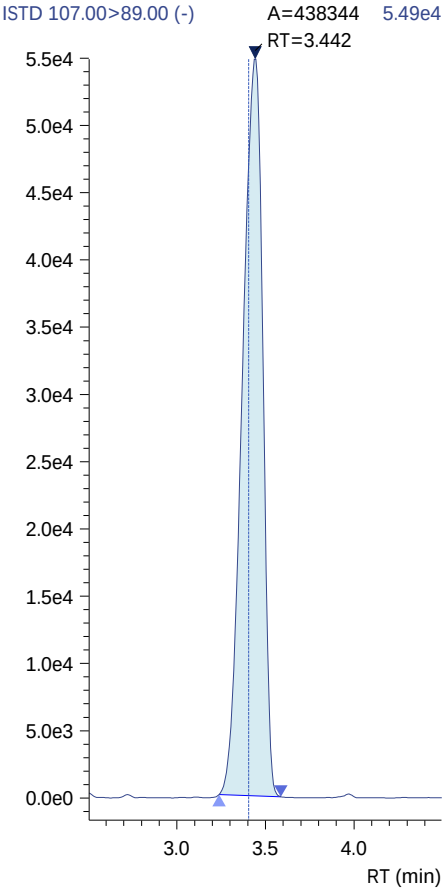
Perchlorate

Conc 29.7539
R#1 25.75 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

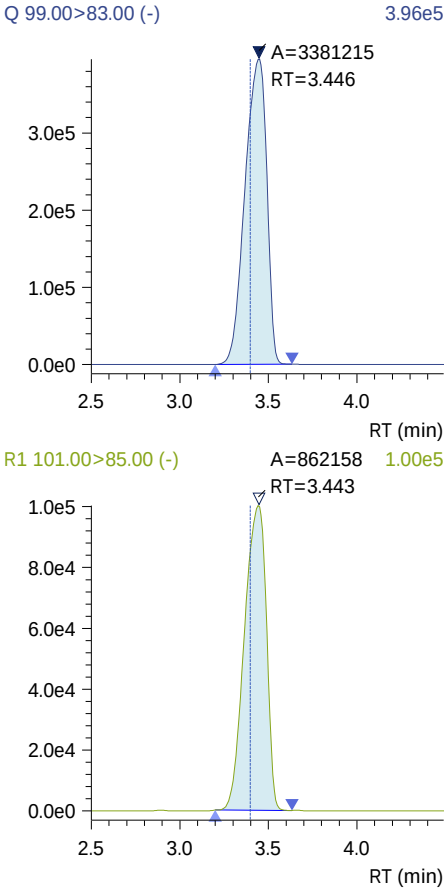
PERCHLORATE10

Sample ID: PERCHLORATE10
Date Acquired: 5/30/2023 4:03:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	3381215	362968	50.5309	ng/mL	101.00 >85.00	25.50	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.441	362968	362968	1.0000	ng/mL	----	----	

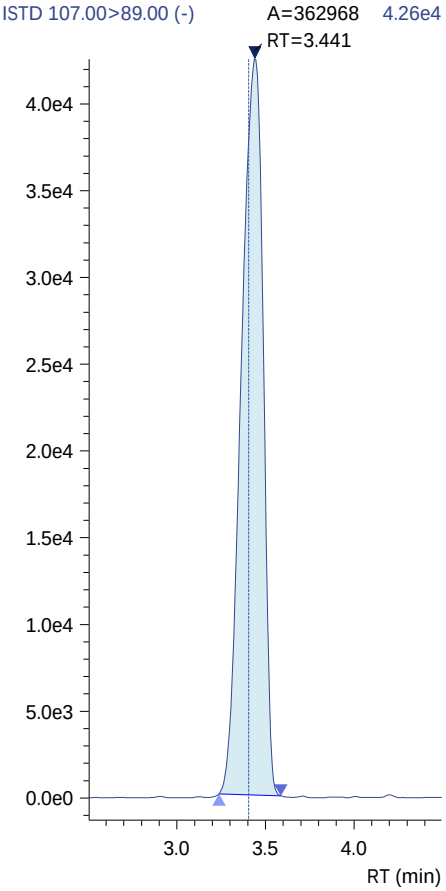
Perchlorate

Conc 50.5309
R#1 25.50 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

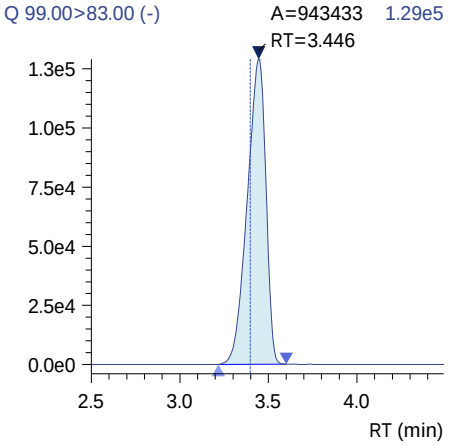
PERCHLORATEICV

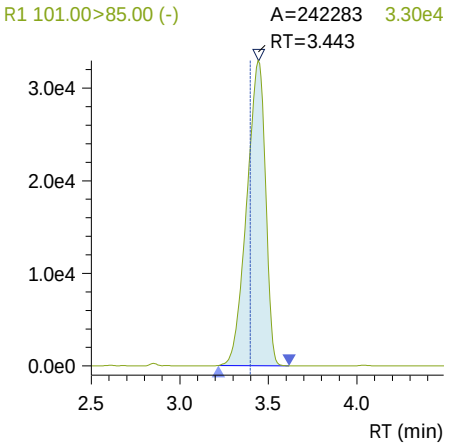
Sample ID: PERCHLORATEICV
Date Acquired: 5/30/2023 4:10:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	943433	509464	10.04 50	ng/mL	101.00 >85.00	25.68	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	509464	509464	1.0000	ng/mL	----	----	

Perchlorate

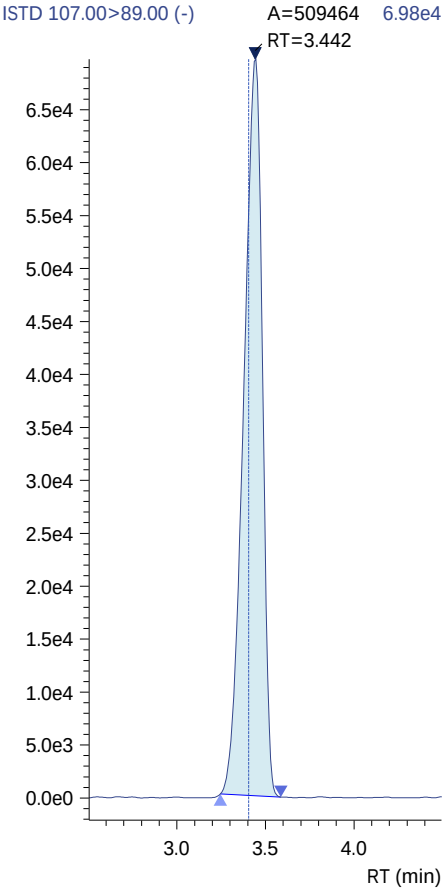
Conc 10.0450
R#1 25.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Analyzed:**	5/30/23 16:33

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-016	**Lab Code:**	EQ2300267-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-01	446,992	3.44
Method Blank	EQ2300265-01	521,804	3.44
Lab Control Sample	EQ2300265-02	512,245	3.44
Duplicate Lab Control Sample	EQ2300265-03	508,088	3.44
LH18/24-SP650_052223_AIX	E2300500-001	516,395	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Analyzed:**	5/30/23 17:18

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-024	**Lab Code:**	EQ2300267-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-02	438,284	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Analyzed:**	5/30/23 18:04

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-032	**Lab Code:**	EQ2300267-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-03	427,101	3.44

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300500
Project:	HS23051522	**Date Analyzed:**	5/30/23 18:56

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230530\20230530-041	**Lab Code:**	EQ2300267-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-04	409,761	3.44

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051522

Service Request: E2300500
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-016

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2102	14.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051522

Service Request: E2300500
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-024

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2106	14.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051522

Service Request: E2300500
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-032

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.5	0.1844	0.2115	14.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051522

Service Request: E2300500
Date Analyzed: 5/30/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230530\20230530-041

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2104	14.1	NA	± 15 %	Average RF

Insight Report

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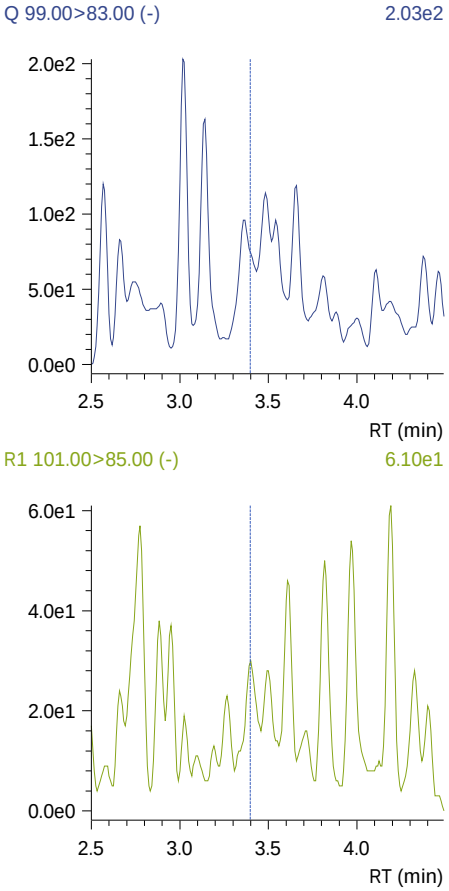
IB

Sample ID: IB
Date Acquired: 5/30/2023 4:15:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-013.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	541043	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	541043	541043	1.0000	ng/mL	----	----	

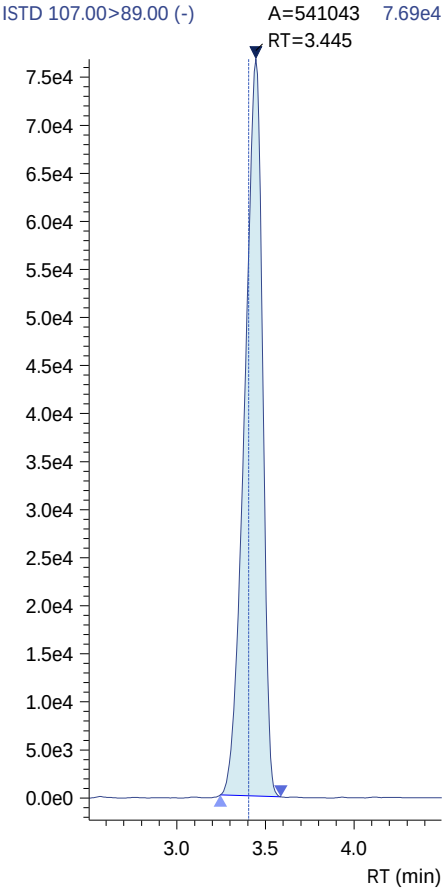
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

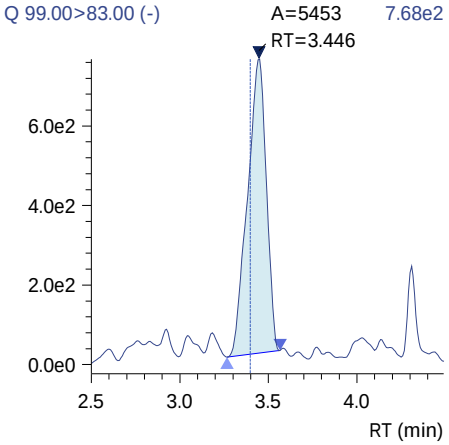
LODV

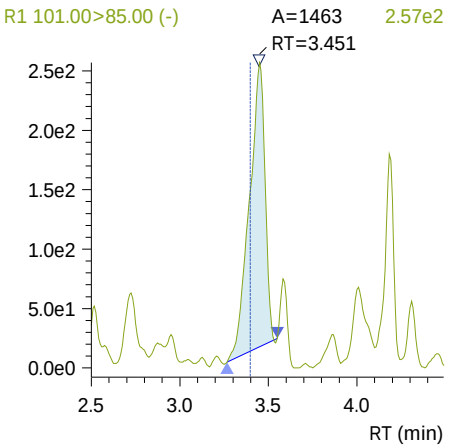
Sample ID: LODV
Date Acquired: 5/30/2023 4:21:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-014.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	5453	525947	0.0562	ng/mL	101.00 >85.00	26.83	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	525947	525947	1.0000	ng/mL	----	----	

Perchlorate

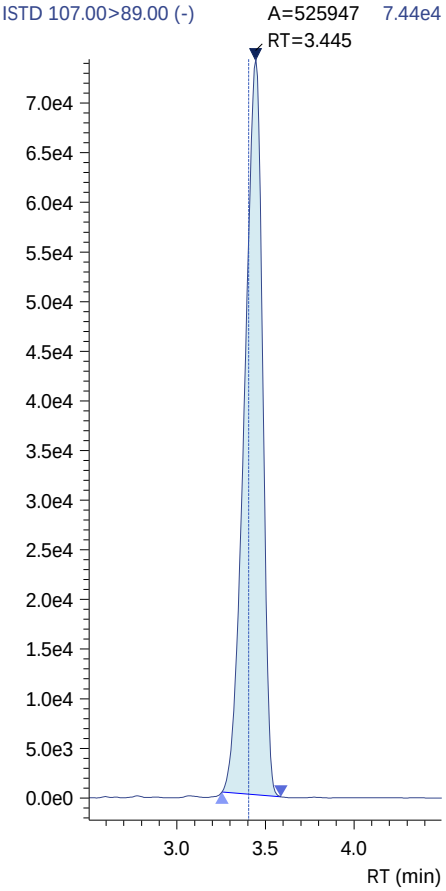
Conc 0.0562
R#1 26.83 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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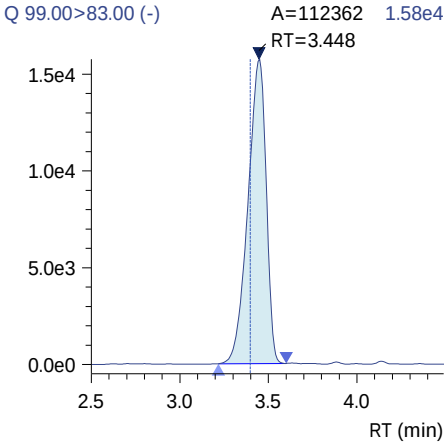
ICS

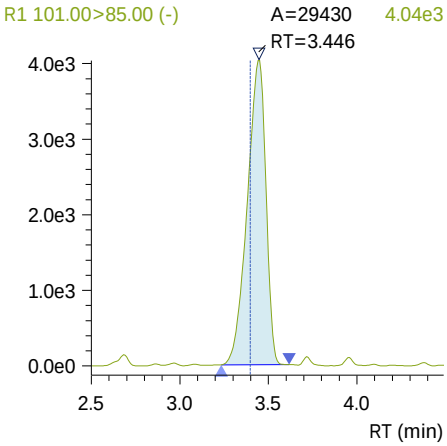
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Date Acquired: 5/30/2023 4:27:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-015.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.448	112362	575368	1.0593	ng/mL	101.00 >85.00	26.19	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	575368	575368	1.0000	ng/mL	----	----	

Perchlorate

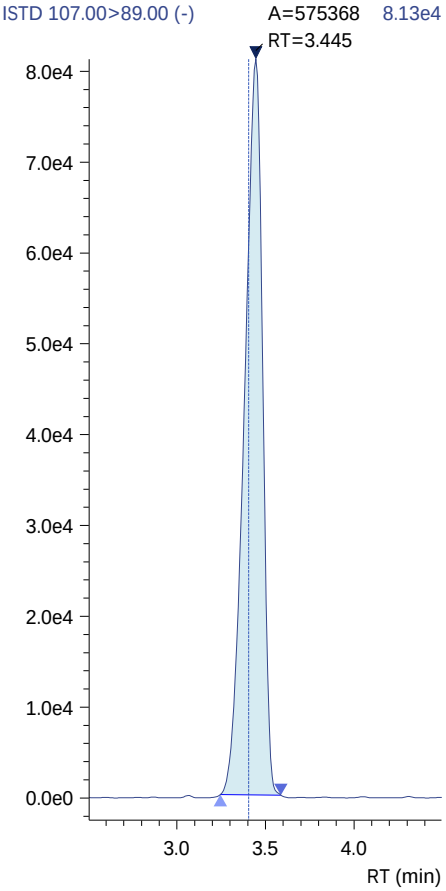
Conc 1.0593
R#1 26.19 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

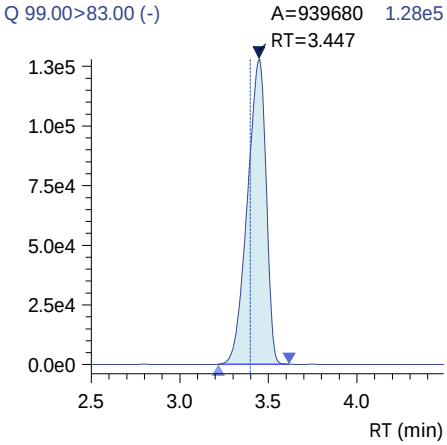
CCV

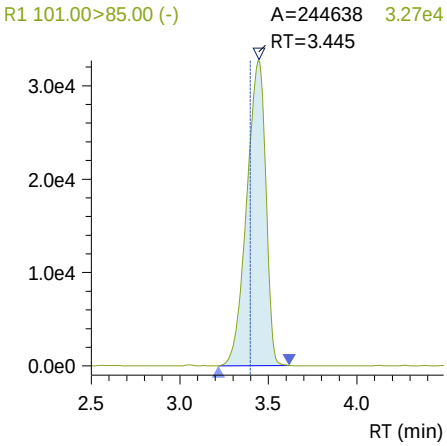
Sample ID: CCV
Date Acquired: 5/30/2023 4:33:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-016.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	939680	446992	11.40 33	ng/mL	101.00 >85.00	26.03	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.443	446992	446992	1.0000	ng/mL	----	----	

Perchlorate

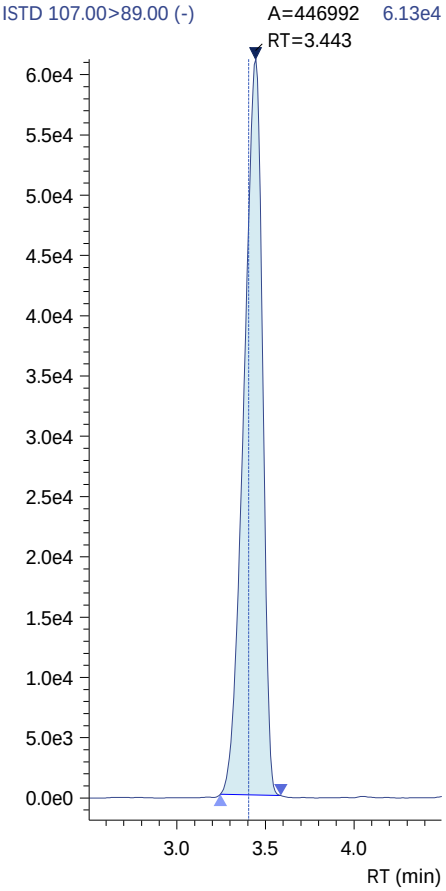
Conc 11.4033
R#1 26.03 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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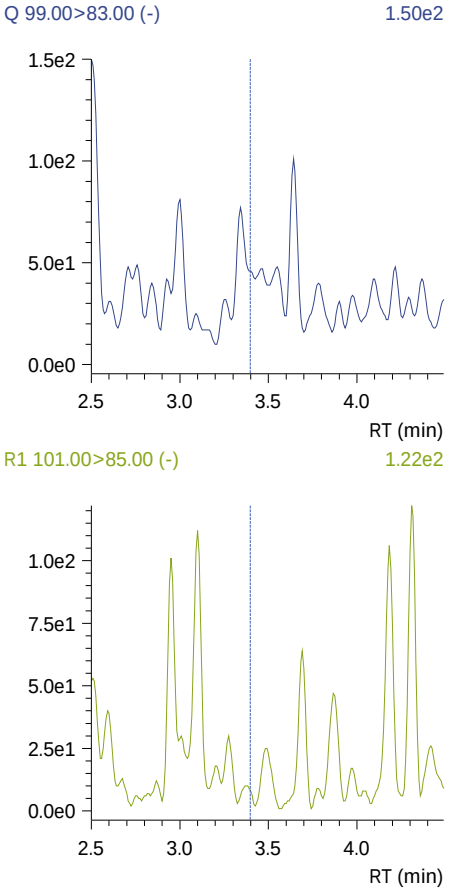
EQ2300265-01

Sample ID: EQ2300265-01
Date Acquired: 5/30/2023 4:38:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-017.lcd
Vial: 15 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	521804	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.444	521804	521804	1.0000	ng/mL	----	----	

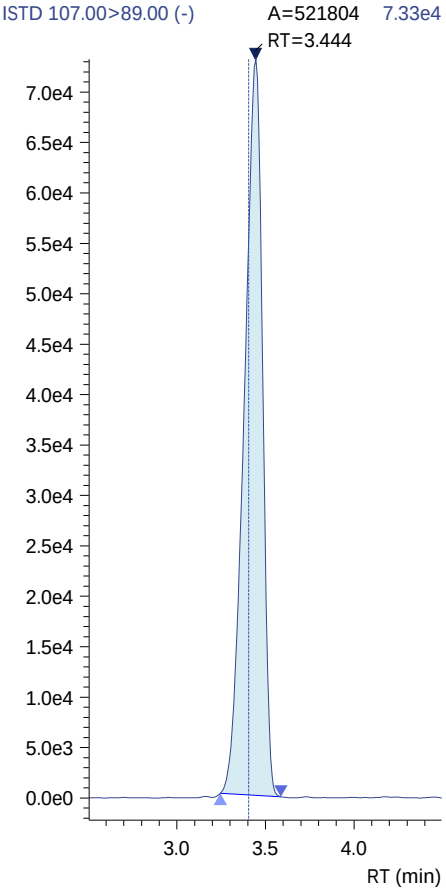
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

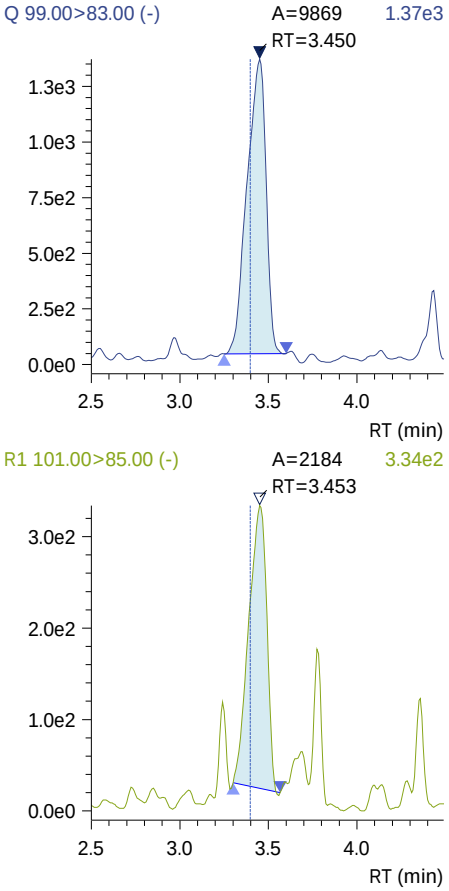
EQ2300265-02

Sample ID: EQ2300265-02
Date Acquired: 5/30/2023 4:44:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-018.lcd
Vial: 16 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.450	9869	512245	0.1045	ng/mL	101.00 >85.00	22.13	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	512245	512245	1.0000	ng/mL	----	----	

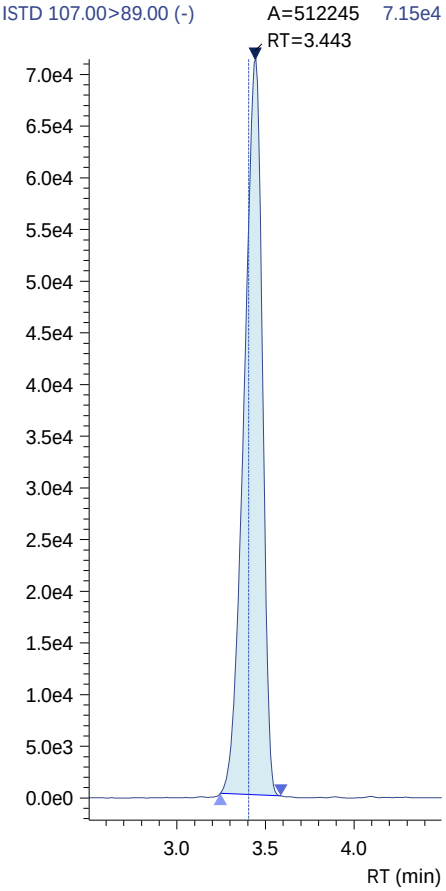
Perchlorate

Conc 0.1045
R#1 22.13 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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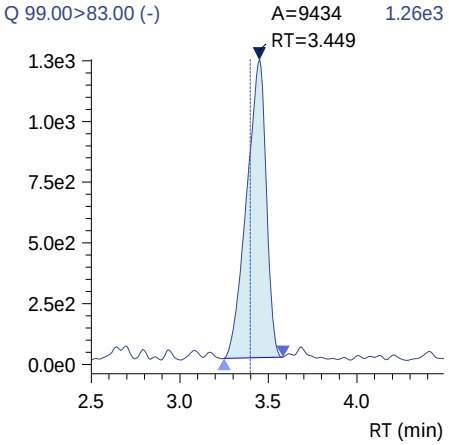
EQ2300265-03

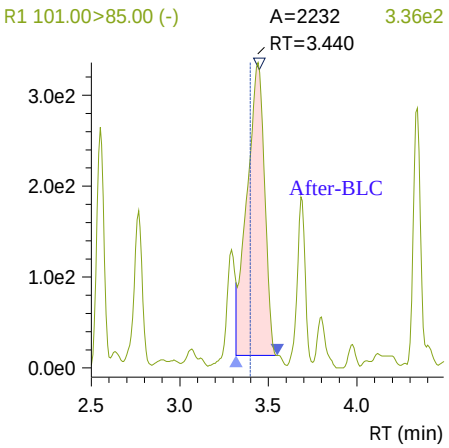
Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-019.lcd
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.449	9434	508088	0.1007	ng/mL	101.00 >85.00	23.65	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	508088	508088	1.0000	ng/mL	----	----	

Perchlorate

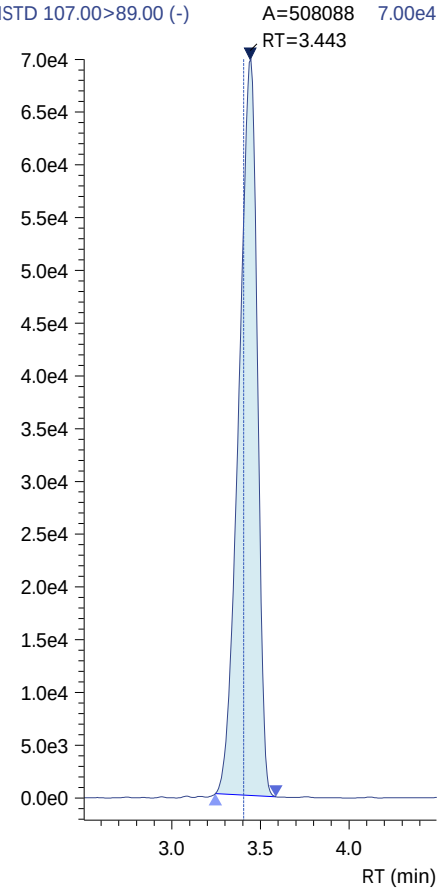
Conc 0.1007
R#1 23.65 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 9:00:07 AM

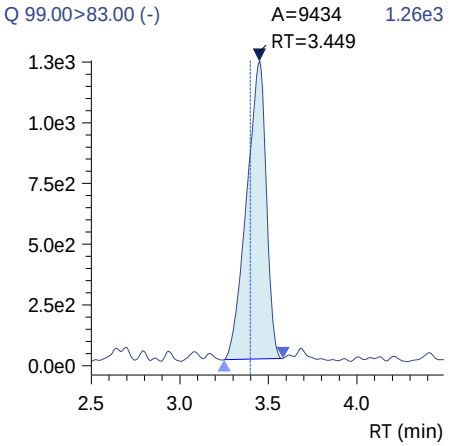
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Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

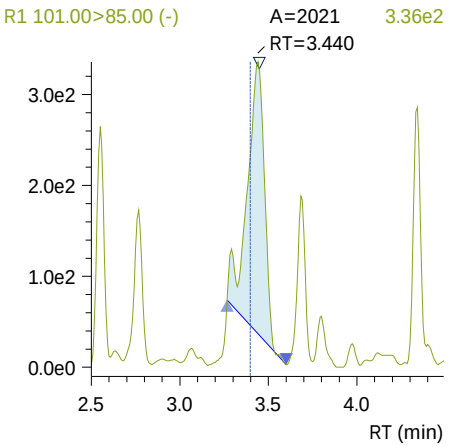
EQ2300265-03

Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-019.lcd
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

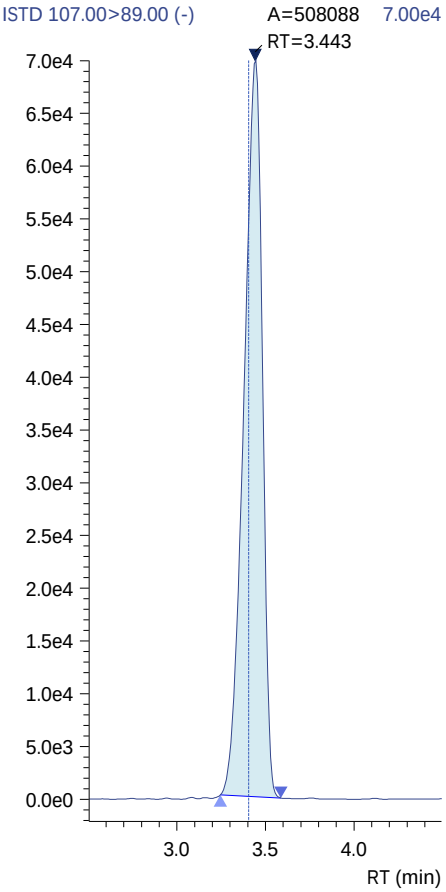
Conc 0.1007
R#1 21.42 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

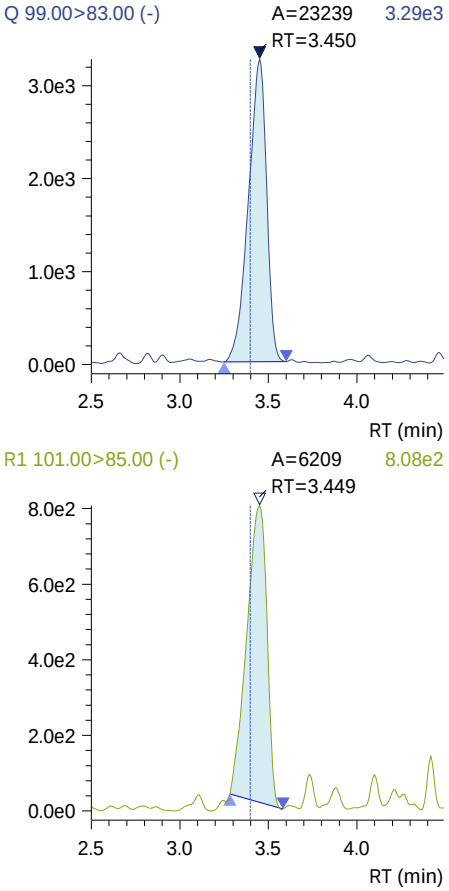
E2300500-001

Sample ID: E2300500-001
Date Acquired: 5/30/2023 5:07:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-022.lcd
Vial: 20 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.450	23239	516395	0.2441	ng/mL	101.00 >85.00	26.72	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.448	516395	516395	1.0000	ng/mL	----	----	

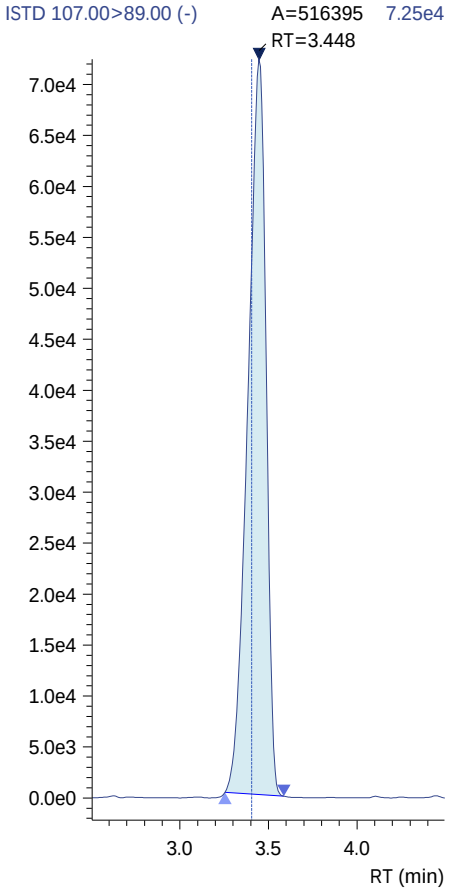
Perchlorate

Conc 0.2441
R#1 26.72 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23060692 Longhorn GW Treatment Plant
Weekly Samples Cover Page

ALS WO# HS23060692

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
T : +1 281 530 5656
F : +1 281 530 5887
www.alsglobal.com

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10450 Stancliff Rd. Suite 210
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F: +1 281 530 5887
alsglobal.com

right solutions.
right partner.

WorkOrder: HS23060692

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

16-Jun-2023

HS23060692 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS23060692

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 19, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23060692**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Jun 13, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
James Guin

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23060692

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23060692-01	LH18/24-SP650_061223	Water		12-Jun-2023 13:00	13-Jun-2023 09:30	☐
HS23060692-02	LH18/24-SP650_061223_AIX	Water		12-Jun-2023 13:00	13-Jun-2023 09:30	☐
HS23060692-03	LH18/24-SP650_061223_BIX	Water		12-Jun-2023 13:00	13-Jun-2023 09:30	☐

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23060692

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

WetChemistry by Method E415.1

Batch ID: R437997

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E350.3

Batch ID: R437846

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E365.3

Batch ID: R437698

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder:HS23060692
Sample ID: LH18/24-SP650_061223
Lab ID:HS23060692-01
Collection Date: 12-Jun-2023 13:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
AMMONIA AS N BY E350.3(ISE)		**Method:E350.3**						Analyst: AB
Nitrogen, Ammonia (As N)	**96**	a	**0.50**	**1.0**	**1.0**	**mg/L**	5	14-Jun-2023 14:53
ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978		**Method:E365.3**						Analyst: AB
Phosphorus, Total Orthophosphate (As P)	**1.84**	a	**0.0500**	**0.125**	**0.125**	**mg/L**	5	13-Jun-2023 12:31
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**498**	a	**25.0**	**50.0**	**50.0**	**mg/L**	50	16-Jun-2023 10:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Sample ID: LH18/24-SP650_061223_AIX
Collection Date: 12-Jun-2023 13:00

ANALYTICAL REPORT
WorkOrder:HS23060692
Lab ID:HS23060692-02
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	14-Jun-2023 14:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Sample ID: LH18/24-SP650_061223_BIX
Collection Date: 12-Jun-2023 13:00

ANALYTICAL REPORT
WorkOrder:HS23060692
Lab ID:HS23060692-03
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	14-Jun-2023 14:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23060692

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R437698 (0)	**Test Name :** ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978				**Matrix:** Water	
HS23060692-01	LH18/24-SP650_061223	12 Jun 2023 13:00			13 Jun 2023 12:31	5
Batch ID: R437840 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS23060692-02	LH18/24-SP650_061223_AIX	12 Jun 2023 13:00			14 Jun 2023 14:24	1
HS23060692-03	LH18/24-SP650_061223_BIX	12 Jun 2023 13:00			14 Jun 2023 14:24	1
Batch ID: R437846 (0)	**Test Name :** AMMONIA AS N BY E350.3(ISE)				**Matrix:** Water	
HS23060692-01	LH18/24-SP650_061223	12 Jun 2023 13:00			14 Jun 2023 14:53	5
Batch ID: R437997 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Water	
HS23060692-01	LH18/24-SP650_061223	12 Jun 2023 13:00			16 Jun 2023 10:26	50

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23060692

QC BATCH REPORT

Batch ID: R437698 (0) **Instrument:** UV-2450 **Method:** ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978

MBLK Sample ID: **MBLK-R437698** Units: **mg/L** Analysis Date: **13-Jun-2023 12:31**
Client ID: Run ID: **UV-2450_437698** SeqNo: **7358421** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.0250	0.0250								U

LCS Sample ID: **LCS-R437698** Units: **mg/L** Analysis Date: **13-Jun-2023 12:31**
Client ID: Run ID: **UV-2450_437698** SeqNo: **7358420** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.257	0.0250	0.25	0	103	85 - 115				

MS Sample ID: **HS23060692-01MS** Units: **mg/L** Analysis Date: **13-Jun-2023 12:31**
Client ID: **LH18/24-SP650_061223** Run ID: **UV-2450_437698** SeqNo: **7358422** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	3.23	0.125	1.25	1.845	111	80 - 120				

MSD Sample ID: **HS23060692-01MSD** Units: **mg/L** Analysis Date: **13-Jun-2023 12:31**
Client ID: **LH18/24-SP650_061223** Run ID: **UV-2450_437698** SeqNo: **7358426** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	3.245	0.125	1.25	1.845	112	80 - 120	3.23	0.463	20	

The following samples were analyzed in this batch: HS23060692-01

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23060692

QC BATCH REPORT

Batch ID: R437846 (0) **Instrument: WetChem_HS** **Method: AMMONIA AS N BY E350.3(ISE)**

MBLK Sample ID: **MBLK-R437846** Units: **mg/L** Analysis Date: **14-Jun-2023 14:53**
Client ID: Run ID: **WetChem_HS_437846** SeqNo: **7361545** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.20	0.20								U

LCS Sample ID: **LCS-R437846** Units: **mg/L** Analysis Date: **14-Jun-2023 14:53**
Client ID: Run ID: **WetChem_HS_437846** SeqNo: **7361544** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	9.8	0.20	10	0	98.0	80 - 120				

MS Sample ID: **HS23060725-01MS** Units: **mg/L** Analysis Date: **14-Jun-2023 14:53**
Client ID: Run ID: **WetChem_HS_437846** SeqNo: **7361547** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	11.88	0.20	10	1.878	100.0	80 - 120				

MSD Sample ID: **HS23060725-01MSD** Units: **mg/L** Analysis Date: **14-Jun-2023 14:53**
Client ID: Run ID: **WetChem_HS_437846** SeqNo: **7361546** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	11.9	0.20	10	1.878	100	80 - 120	11.88	0.177	20	

The following samples were analyzed in this batch: HS23060692-01

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23060692

QC BATCH REPORT

Batch ID: R437997 (0) **Instrument: TOC_05** **Method: TOTAL ORGANIC CARBON BY E415.1**

MBLK Sample ID: **MBLK-06152023** Units: **mg/L** Analysis Date: **16-Jun-2023 09:38**
Client ID: Run ID: **TOC_05_437997** SeqNo: **7365942** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-06152023** Units: **mg/L** Analysis Date: **16-Jun-2023 09:54**
Client ID: Run ID: **TOC_05_437997** SeqNo: **7365943** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	11.17	1.00	10	0	112	85 - 115				

LCSD Sample ID: **LCSD-06152023** Units: **mg/L** Analysis Date: **16-Jun-2023 10:10**
Client ID: Run ID: **TOC_05_437997** SeqNo: **7365944** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.9	1.00	10	0	109	85 - 115	11.17	2.45	20	

MS Sample ID: **HS23060692-01MS** Units: **mg/L** Analysis Date: **16-Jun-2023 10:42**
Client ID: **LH18/24-SP650_061223** Run ID: **TOC_05_437997** SeqNo: **7365946** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1008	50.0	500	497.6	102	80 - 120				

The following samples were analyzed in this batch: HS23060692-01

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS23060692**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 19-Jun-23

Sample Receipt Checklist

Work Order ID: HS23060692 **Date/Time Received:** 13-Jun-2023 09:30

Client Name: Bhate Environmental **Received by:** Corey Grandits

Completed By: /S/ Corey Grandits (eSignature) 13-Jun-2023 11:48 (Date/Time) **Reviewed by:** (eSignature) (Date/Time)

Matrices: W Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	2.7UC/2.6C	IR31
Cooler(s)/Kit(s):	48490	
Date/Time sample(s) sent to storage:	6/13/23	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

HS23060692

CHAIN OF CUSTODY

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Weekly Samples

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane Wacasey

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. NWO1312.0150.0 16.0001
Job: **GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES**	
Prepared By: Scott Beesinger	P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	AMMONIA-N	TOTAL ORGANIC CARBON	ORTHO-PHOSPHATE	PERCHLORATE							Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_061223	Water	06/12/23 / 13:00		3	X	X									H2SO4	
LH18/24-SP650_061223	Water	06/12/23 / 13:00		1			X								NONE	
LH18/24–SP650_061223_AIX	Water	06/12/23 / 13:00		1				X							NONE	
LH18/24-SP650_061223_BIX	Water	06/12/23 / 13:00		1				X							NONE	

Additional Remarks: **24 HR. TAT on Perchlorate Samples. Standard TAT on all other parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	06/12/23	13:30	CM	6.13.23	0930						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

48490 (241 2.7°


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Seal Broken By:
Date: 6/12/23
Time: 1330
Name:
Company:
Date:
REF: GWTr
RMA:
TUE - 13 JUN AA
PRIORITY OVERNIGHT
FedEx
TRK# 0221 5789 1999 5031
77099
TX-US
IAH
XA SGRA
3711191 12Jun2023 GGGA 581G2/29A0/C0B8

June 14, 2023 Service Request No:E2300534

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23060692

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory June 13, 2023
For your reference, these analyses have been assigned our service request number **E2300534.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental- US	**Service Request No.:**	E2300534
Project:	HS23060692	**Date Received:**	06/13/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 06/13/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300295: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300534
Project: HS23060692

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300534-001	LH18/24-SP650_061223_AIX	6/12/2023	1300
E2300534-002	LH18/24-SP650_061223_BIX	6/12/2023	1300

Service Request Summary

Folder #: **E2300534**
Client Name: ALS Environmental - US
Project Name: HS23060692
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/13/23
Internal Due Date: 6/14/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23060692
EDD: No EDD Specified

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300534-001	LH18/24-SP650_061223_AIX	Water	06/12/23 1300	**IV**
E2300534-002	LH18/24-SP650_061223_BIX	Water	06/12/23 1300	**IV**

Service Request Summary

Folder #: **E2300534**
Client Name: ALS Environmental - US
Project Name: HS23060692
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/13/23
Internal Due Date: 6/14/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23060692
EDD: No EDD Specified

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **22005**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23060692
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23060692-02**	**LH18/24-SP650_061223_AIX**	**Water**	**12 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			14 Jun 2023
2.	**HS23060692-03**	**LH18/24-SP650_061223_BIX**	**Water**	**12 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			14 Jun 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: NR Date/Time:

Received By: Date/Time: 6-13-23 1150

Cooler ID(s): Temperature(s):

ALS Environmental

Cooler Receipt Form

Project Chemist: IG

Client/Project: ALS

Thermometer ID: IR1

Date/Time Received: 6.13.23 Initials: IG

Date/Time Logged in: 6.13.23 Initials: IG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊗ ALS Courier ○ Client

2. Samples received in: ⊗ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ⊗ No
   Were they intact? ○ Yes ○ No ⊗ N/A
   Were they signed and dated? ○ Yes ○ No ⊗ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ⊗ Baggies ○ Bubble Wrap ○ Gel Packs ⊗ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6.13.23	1191	IG	4.7	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊗ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊗ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊗ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ⊗ Yes ○ No
10. Did sample labels and tags agree with custody documents? ⊗ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

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www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
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Phone (281)530-5656 Fax (281)530-5887
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Preparation Information Benchsheet

Prep Run#: 421425 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/13/23 12:21

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300534-001	LH18/24-SP650_061223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300534-002	LH18/24-SP650_061223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	EQ2300295-01	MB		6850/ClO4 DOD			Liquid	10mL	
4	EQ2300295-02	LCS		6850/ClO4 DOD			Liquid	10mL	
5	EQ2300295-03	DLCS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300295-02 1.00µL EQ2300295-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300534-001 100.00µL E2300534-002 100.00µL EQ2300295-01 100.00µL EQ2300295-02 100.00µL EQ2300295-03 100.00µL

Preparation Steps

Step: Preparation
Started: 6/13/23 12:21
Finished: 6/13/23 14:20
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	6/12/23 1300
Sample Matrix:	Water	**Date Received:**	6/13/23
Sample Name:	LH18/24-SP650_061223_AIX	**Units:**	µg/L
Lab Code:	E2300534-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.226**		0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:54	421425	807435	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	6/12/23 1300
Sample Matrix:	Water	**Date Received:**	6/13/23
Sample Name:	LH18/24-SP650_061223_BIX	**Units:**	µg/L
Lab Code:	E2300534-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**28.0**		0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:59	421425	807435	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300295-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:37	421425	807435	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23060692
Sample Matrix: Water

Service Request: E2300534
Date Analyzed: 6/14/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 421425

	Lab Control Sample EQ2300295-02			Duplicate Lab Control Sample EQ2300295-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0907	0.100	91	0.0908	0.100	91	84 - 119	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300295-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0907**	J	0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:43	421425	807435	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300295-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0908**	J	0.100	0.0500	0.0250	1	6/13/23	6/14/23 10:05	421425	807435	

HS23060692 Wetchem NIT-AMM_W- E350.3 - ISE

ALS WO# HS23060692

NFT-AMM-N-E350.3-ISE, NFT-AMM-N-FSE

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Logbook **32211**

Ion Selective Electrode Logbook

Analyst: AB				Date: 06/14/23	
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F					
Probe Calibration Date: 06/14/23		Cal Std ID: 322141605-10		Probe ID: NH3-Y	
Std Level		mV	Conc., mg/L:	Sodium Thiosulfate ID: –	
STD 1 (mg/L): 0.2		123.9	0.200	Std Level	mV / Conc., mg/L:
STD 2 (mg/L): 1		89.8	1.003	STD 4 (mg/L):	34.6 / 10.006
STD 3 (mg/L): 5		64.8	5.006	STD 5 (mg/L):	-6.2 / 50.022
LSC / MS Spike ID: 310X0073-16				ICAL Date & Slope:	98.3% / -54.0
ICV Cal STD ID: 322141605					
DPD Reagent ID: –					

WO # / SX #	Bottle #	Initial g or ml	Final Vol. ml	Dilution Factor	Initial Conc. mg/L	Final Conc. mg/L	Chlorine Check (+/–)	Comments
ICV		50mL	50mL		9.401			
ICB					0.007			
MBLC					0.007			
LCS					9.800			
HS2306692-01				5X	19.193			
~~672-01MS~~								NB 06/14/23
~~672-01MSD~~								↓
351-01					3.991			
~~468-01~~								NB 06/14/23
517-01		50mL	50mL		~~31~~	3857		↓
622-01					2.045			
726-01					1.878			
CCV					9.461			
CCB					0.007			
725-01MS					11.877			
725-01MSD					11.898			
705-01					1.959			
CCV2					9.493			
CCB2		↓	↓		0.008			

Batch ID: 437846, 437847 | Reported By: AB | Reviewed By:

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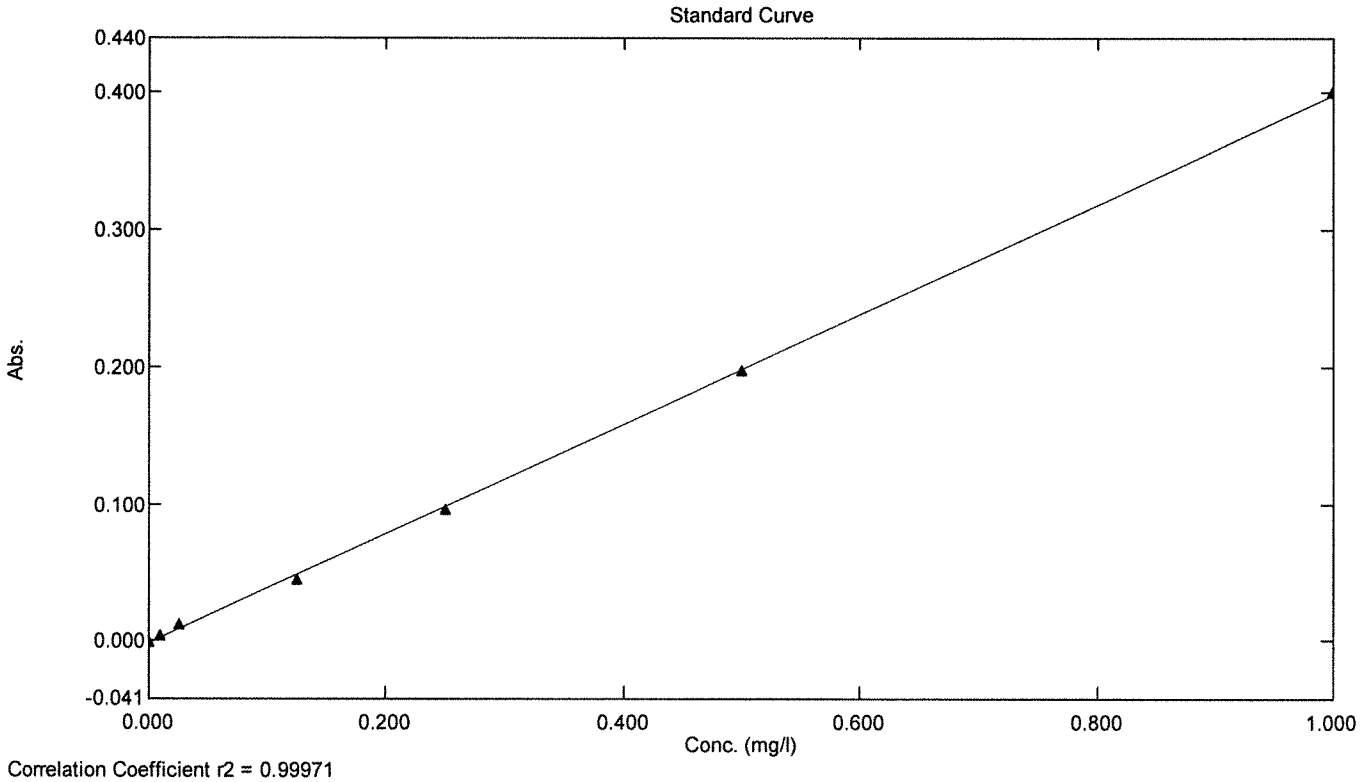
HS23060692 Wetchem P-ORTHO

ALS WO# HS23060692

Standard Table Report

06/21/2023 09:25:03 AM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3 METHOD)\2023\06132023_P_ORTHO_W.pho



Correlation Coefficient r2 = 0.99971

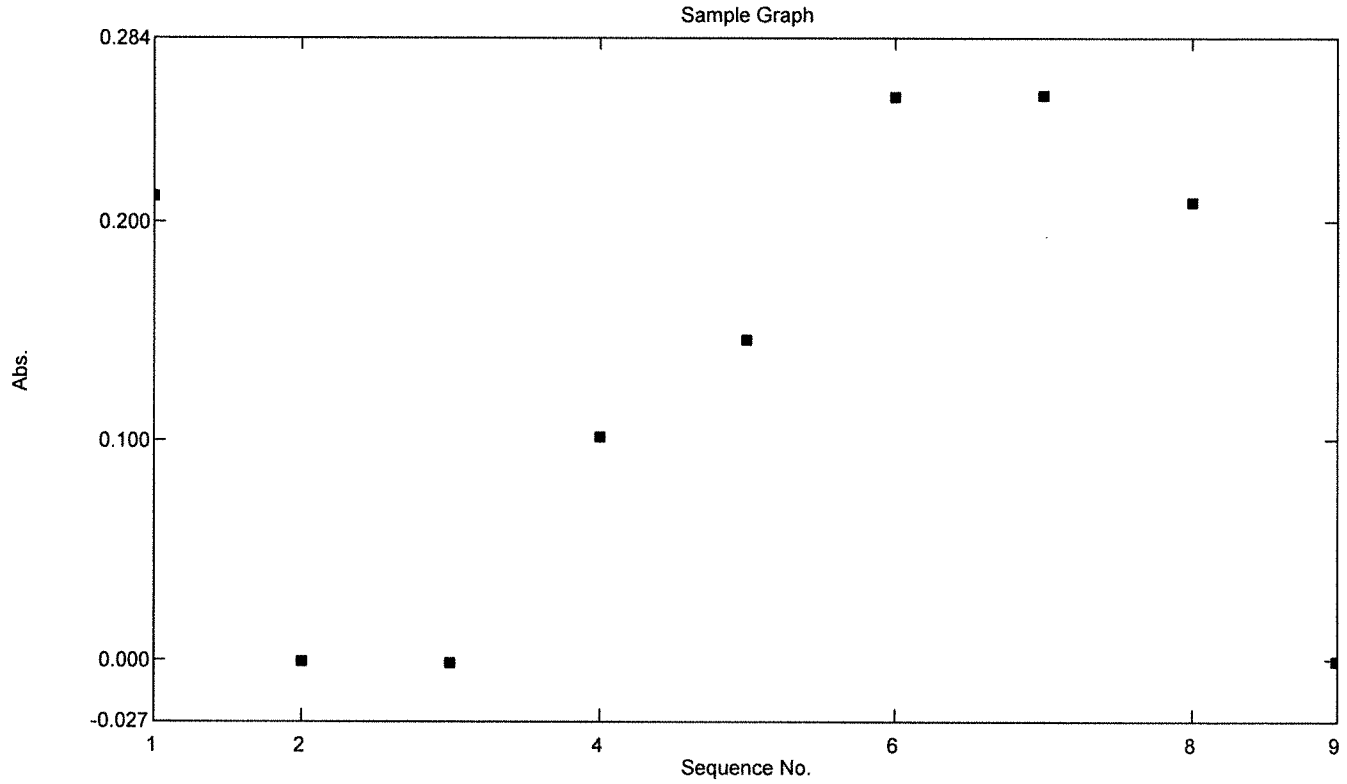
Standard Table

	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.005	1.000	
3	STD3	Standard		0.025	0.012	1.000	
4	STD4	Standard		0.125	0.045	1.000	
5	STD5	Standard		0.250	0.096	1.000	
6	STD6	Standard		0.500	0.197	1.000	
7	STD7	Standard		1.000	0.400	1.000	
8							

Sample Table Report

06/21/2023 09:25:05 AM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3 METHOD)\2023\06132023_P_ORTHO_W.pho



Sample Table

	Sample ID	Date	Time	Conc	WL650.	Comments
1	CCV	06/13/2023	12:20:10 PM	0.534	0.212	322141003 WC-13
2	CCB	06/13/2023	12:20:54 PM	0.001	-0.001	
3	MBLK	06/13/2023	12:21:00 PM	-0.001	-0.001	
4	LCS	06/13/2023	12:22:07 PM	0.257	0.101	322141002 WC-023
5	HS23060692.01	06/13/2023	12:24:58 PM	0.369	0.146	11N 3100606911 DF:5X
6	HS23060692.01MS	06/13/2023	12:27:59 PM	0.646	0.257	A.ACID 321106802 DF:5X
7	HS23060692.01MSD	06/13/2023	12:28:19 PM	0.649	0.258	DF:5X
8	CCV2	06/13/2023	12:28:31 PM	0.526	0.209	A.MOLYBDATE 322105108
9	CCB2	06/13/2023	12:29:04 PM	0.003	-0.000	
10						

HS23060692 Wetchem TOC_W

ALS WO# HS23060692

C:\TOC-L\Data\2023_03_27_001.CAL.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Standard	NPOC	CAL	321104406	03_27_2023	1.000		
2	Unknown	NPOC	ICV	3100606923	03_27_2023	1.000	NPOC:10.17mg/L	
3	Unknown	NPOC	ICB		03_27_2023	1.000	NPOC:0.2956mg/L	

	Status	Date / Time	Vial
1	Completed	3/27/2023 1	1, 2, 3, 4, 5,
2	Completed	3/27/2023 1:	8
3	Completed	3/27/2023 1:	9

TOC-Control L Report

2023_03_27_001.CAL.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

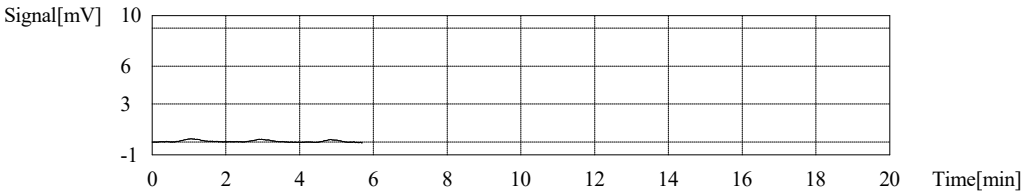
Sample Name:	CAL
Sample ID:	321104406
Cal. Curve:	03_27_2023.2023_03_27_11_08_53.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.7922	50uL	1.000	*******		3/27/2023 11:18:05 AM
2	0.5742	50uL	1.000	*******		3/27/2023 11:20:12 AM
3	0.5345	50uL	1.000	*******		3/27/2023 11:22:19 AM

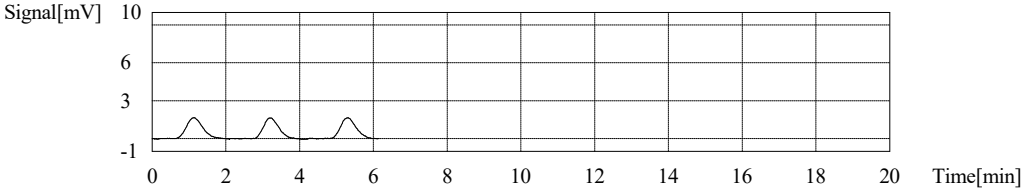
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	0.6336



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.247	50uL	1.000	*******		3/27/2023 11:31:10 AM
2	4.879	50uL	1.000	*******		3/27/2023 11:33:29 AM
3	4.801	50uL	1.000	*******		3/27/2023 11:35:39 AM

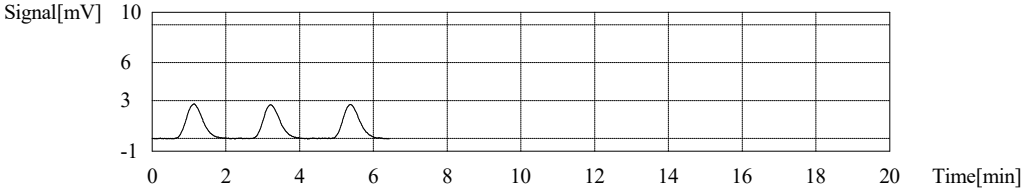
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	4.976



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.645	50uL	1.000	*******		3/27/2023 11:44:30 AM
2	8.568	50uL	1.000	*******		3/27/2023 11:46:55 AM
3	8.456	50uL	1.000	*******		3/27/2023 11:49:18 AM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	8.556



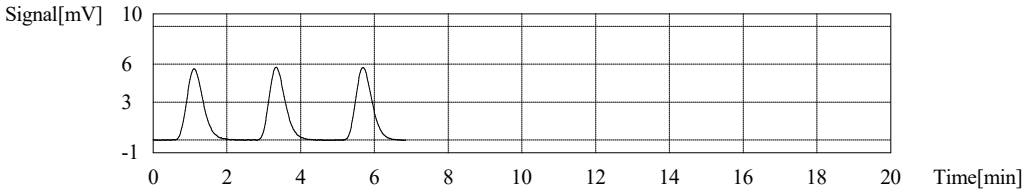
TOC-Control L Report

2023_03_27_001.CAL.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.62	50uL	1.000	*******		3/27/2023 11:58:17 AM
2	17.78	50uL	1.000	*******		3/27/2023 12:00:52 PM
3	17.85	50uL	1.000	*******		3/27/2023 12:03:21 PM

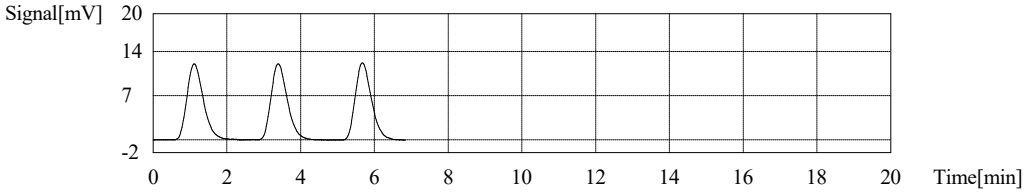
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 17.75



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	37.41	50uL	1.000	*******		3/27/2023 12:12:23 PM
2	37.21	50uL	1.000	*******		3/27/2023 12:14:55 PM
3	37.82	50uL	1.000	*******		3/27/2023 12:17:24 PM

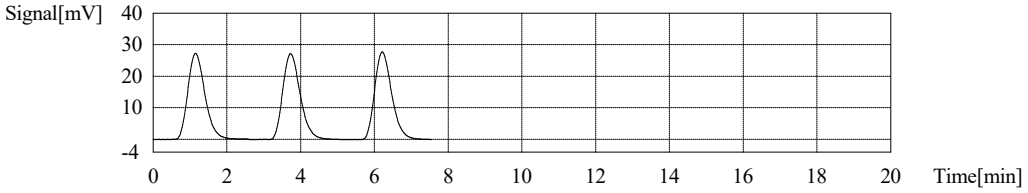
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 37.48



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	88.89	50uL	1.000	*******		3/27/2023 12:26:44 PM
2	90.49	50uL	1.000	*******		3/27/2023 12:29:28 PM
3	90.66	50uL	1.000	*******		3/27/2023 12:32:10 PM

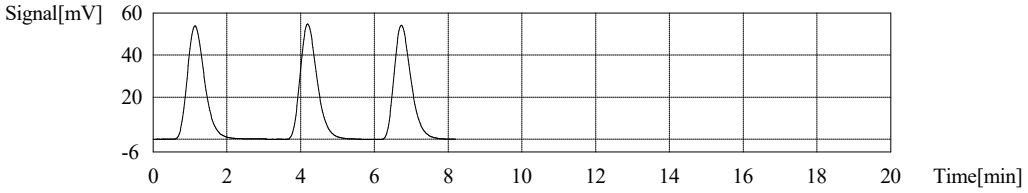
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 90.01



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	178.1	50uL	1.000	*******		3/27/2023 12:41:59 PM
2	177.1	50uL	1.000	*******		3/27/2023 12:44:49 PM
3	175.6	50uL	1.000	*******		3/27/2023 12:47:38 PM

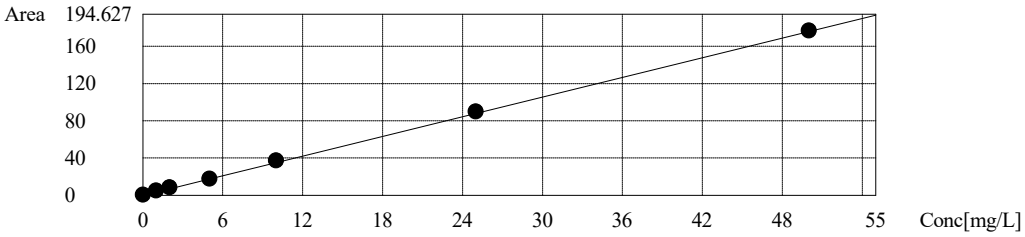
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 176.9



TOC-Control L Report

2023_03_27_001.CAL.tlx

Slope:	3.523
Intercept	0.000
r^2	0.9999
r	0.9999
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name:	ICV
Sample ID:	3100606923
Origin:	03_27_2023.cal
Status	Completed
Chk. Result	

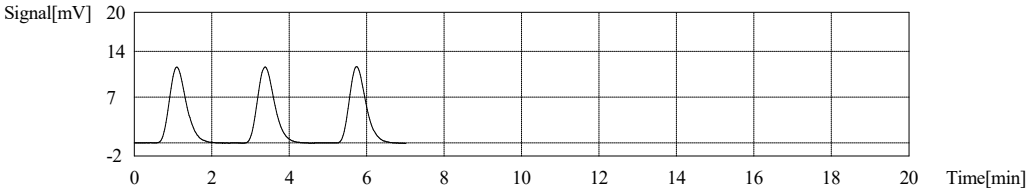
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.17mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.87	10.18mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	3/27/2023 12:56:39 PM
2	36.02	10.22mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	3/27/2023 12:59:15 PM
3	35.59	10.10mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	3/27/2023 1:01:50 PM

Mean Area	35.83
Mean Conc.	10.17mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	03_27_2023.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2956mg/L

1. Det

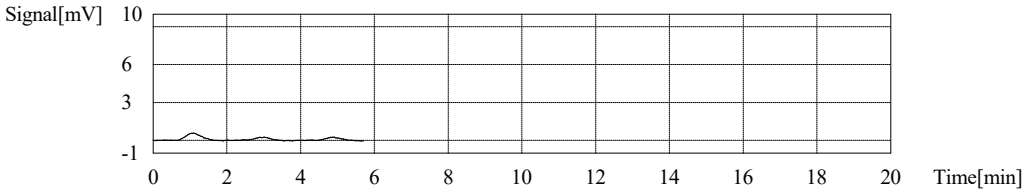
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.702	0.4831mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	3/27/2023 1:10:29 PM
2	0.6543	0.1857mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	3/27/2023 1:12:36 PM
3	0.7673	0.2178mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	3/27/2023 1:14:43 PM

TOC-Control L Report

2023_03_27_001.CAL.tlx

Mean Area	1.041
Mean Conc.	0.2956mg/L



C:\TOC-L\Data\2023_06_16_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Unknown	NPOC	CCV	321107307	03_27_2023	1.000	NPOC:25.04mg/L	
2	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.1826mg/L	
3	Unknown	NPOC	MBLK-06152023		03_27_2023	1.000	NPOC:0.04382mg/L	
4	Unknown	NPOC	LCS-06152023	3100606923	03_27_2023	1.000	NPOC:11.17mg/L	
5	Unknown	NPOC	LCSD-06152023		03_27_2023	1.000	NPOC:10.90mg/L	
6	Unknown	NPOC	HS23060692-01DF	TOC_W	03_27_2023	1.000	NPOC:9.951mg/L	
7	Unknown	NPOC	HS23060692-01MS		03_27_2023	1.000	NPOC:20.17mg/L	
8	Unknown	NPOC	HS23060820-01		03_27_2023	1.000	NPOC:2.639mg/L	
9	Unknown	NPOC	HS23060776-04		03_27_2023	1.000	NPOC:0.7646mg/L	
10	Unknown	NPOC	HS23060776-05		03_27_2023	1.000	NPOC:0.8844mg/L	
11	Unknown	NPOC	HS23060776-06		03_27_2023	1.000	NPOC:0.4289mg/L	
12	Unknown	NPOC	HS23060280-05		03_27_2023	1.000	NPOC:12.65mg/L	
13	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:25.40mg/L	
14	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.07507mg/L	
15	Unknown	NPOC	HS23060280-06		03_27_2023	1.000	NPOC:7.347mg/L	
16	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:25.26mg/L	
17	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.1334mg/L	

	Status	Date / Time	Vial
1	Completed	6/16/2023 9:	1
2	Completed	6/16/2023 9:	2
3	Completed	6/16/2023 9:	3
4	Completed	6/16/2023 9:	4
5	Completed	6/16/2023 1	5
6	Completed	6/16/2023 1	6
7	Completed	6/16/2023 1	7
8	Completed	6/16/2023 1	8
9	Completed	6/16/2023 1	9
10	Completed	6/16/2023 1	10
11	Completed	6/16/2023 1	11
12	Completed	6/16/2023 1	12
13	Completed	6/16/2023 1	1
14	Completed	6/16/2023 1	2
15	Completed	6/16/2023 1	13
16	Completed	6/16/2023 1:	1
17	Completed	6/16/2023 1:	2

TOC-Control L Report

2023_06_16_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 321107307
Origin: 03_27_2023.cal
Status: Completed
Chk. Result

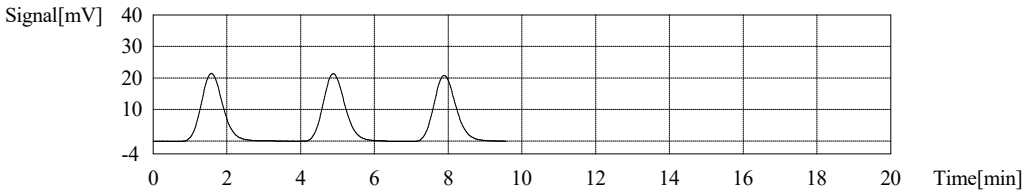
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	88.10	25.01mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:02:04 AM
2	88.56	25.14mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:05:20 AM
3	87.94	24.96mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:08:49 AM

Mean Area 88.20
Mean Conc. 25.04mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 03_27_2023.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1826mg/L

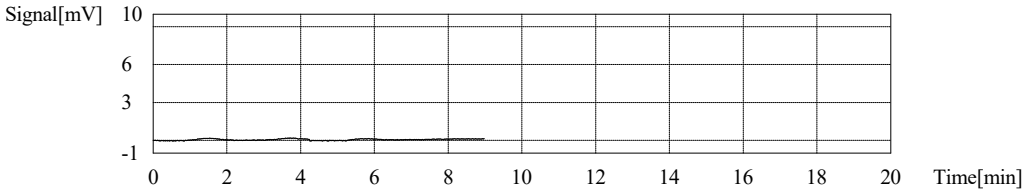
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7896	0.2241mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:17:48 AM
2	0.3098	0.08794mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:20:01 AM
3	0.8303	0.2357mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:25:01 AM

TOC-Control L Report

Mean Area 0.6432
Mean Conc. 0.1826mg/L



Sample

Sample Name: MBLK-06152023
Sample ID:
Origin: 03_27_2023.cal
Status Completed
Chk. Result

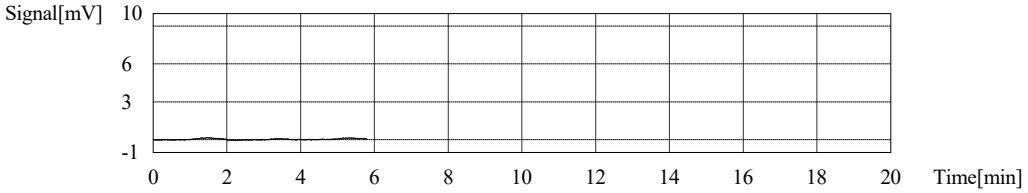
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04382mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3030	0.08601mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:33:45 AM
2	0.1601	0.04545mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:35:55 AM
3	0.000	0.000mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:38:03 AM

Mean Area 0.1544
Mean Conc. 0.04382mg/L



Sample

Sample Name: LCS-06152023
Sample ID: 3100606923
Origin: 03_27_2023.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.17mg/L

1. Det

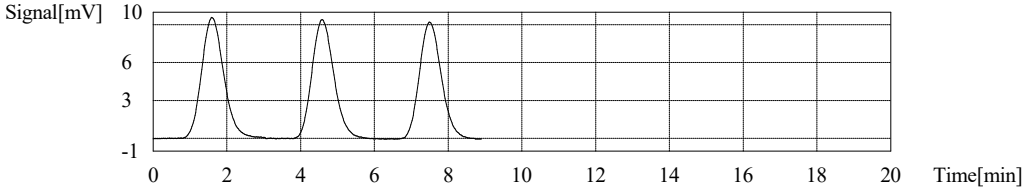
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.17	11.40mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:47:50 AM
2	39.22	11.13mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:50:59 AM
3	38.69	10.98mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 9:54:10 AM

TOC-Control L Report

2023_06_16_001.tlx

Mean Area 39.36
Mean Conc. 11.17mg/L



Sample

Sample Name: LCSD-06152023
Sample ID:
Origin: 03_27_2023.cal
Status Completed
Chk. Result

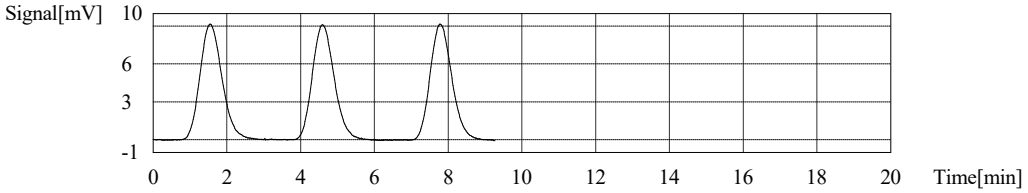
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	38.52	10.93mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:03:57 AM
2	38.25	10.86mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:07:22 AM
3	38.40	10.90mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:10:40 AM

Mean Area 38.39
Mean Conc. 10.90mg/L



Sample

Sample Name: HS23060692-01DF50
Sample ID: TOC_W
Origin: 03_27_2023.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.951mg/L

1. Det

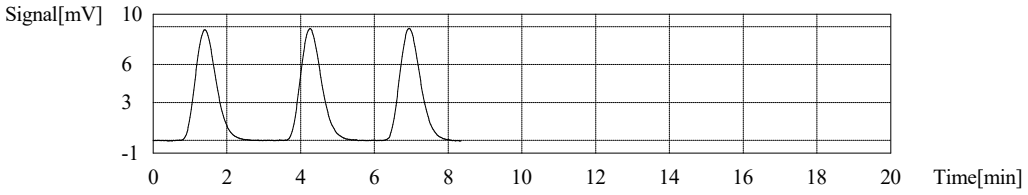
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.58	9.816mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:20:16 AM
2	35.20	9.992mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:23:10 AM
3	35.39	10.05mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:26:12 AM

TOC-Control L Report

2023_06_16_001.tlx

Mean Area 35.06
Mean Conc. 9.951mg/L



Sample

Sample Name: HS23060692-01MSDF50
Sample ID:
Origin: 03_27_2023.cal
Status Completed
Chk. Result

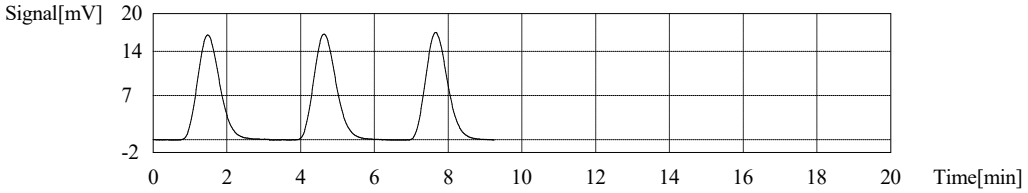
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.17mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	70.30	19.96mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:36:06 AM
2	71.23	20.22mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:39:23 AM
3	71.65	20.34mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 10:42:42 AM

Mean Area 71.06
Mean Conc. 20.17mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: 03_27_2023.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.40mg/L

1. Det

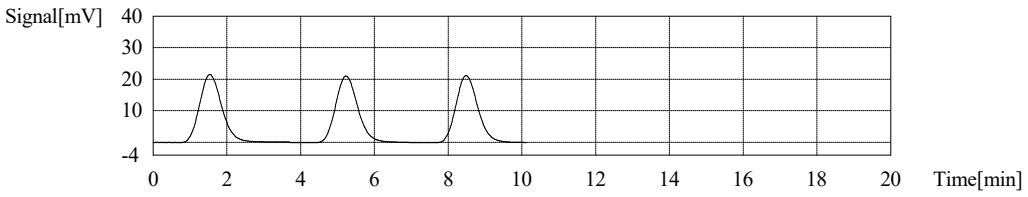
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.94	25.81mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 12:09:37 PM
2	88.97	25.26mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 12:13:07 PM
3	88.48	25.12mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 12:16:31 PM

TOC-Control L Report

2023_06_16_001.tlx

Mean Area 89.46
Mean Conc. 25.40mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 03_27_2023.cal
Status Completed
Chk. Result

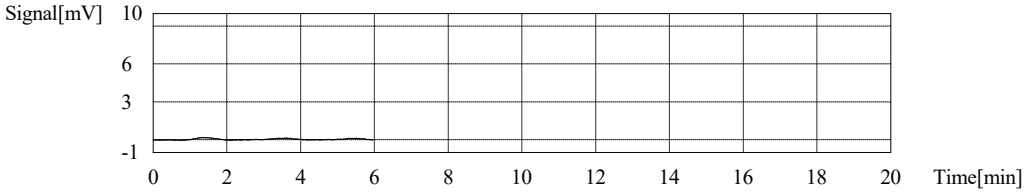
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07507mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7934	0.2252mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 12:25:25 PM
2	0.000	0.000mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 12:27:32 PM
3	0.000	0.000mg/L	50uL	1.000		03_27_2023.2023_03_27_11_08_53.cal	6/16/2023 12:29:39 PM

Mean Area 0.2645
Mean Conc. 0.07507mg/L



HS23060692-E2300534 Perclorate Final Report IV

ALS WO# HS23060692

June 14, 2023 Service Request No:E2300534

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23060692

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory June 13, 2023
For your reference, these analyses have been assigned our service request number **E2300534.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental- US	**Service Request No.:**	E2300534
Project:	HS23060692	**Date Received:**	06/13/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 06/13/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300295: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300534
Project: HS23060692

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300534-001	LH18/24-SP650_061223_AIX	6/12/2023	1300
E2300534-002	LH18/24-SP650_061223_BIX	6/12/2023	1300

Service Request Summary

Folder #: **E2300534**
Client Name: ALS Environmental - US
Project Name: HS23060692
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/13/23
Internal Due Date: 6/14/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23060692
EDD: No EDD Specified

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300534-001	LH18/24-SP650_061223_AIX	Water	06/12/23 1300	**IV**
E2300534-002	LH18/24-SP650_061223_BIX	Water	06/12/23 1300	**IV**

Service Request Summary

Folder #: **E2300534**
Client Name: ALS Environmental - US
Project Name: HS23060692
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/13/23
Internal Due Date: 6/14/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23060692
EDD: No EDD Specified

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
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www.alsglobal.com

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Houston, TX 77099
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F: +1 281 530 5887
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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **22005**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23060692
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23060692-02**	**LH18/24-SP650_061223_AIX**	**Water**	**12 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			14 Jun 2023
2.	**HS23060692-03**	**LH18/24-SP650_061223_BIX**	**Water**	**12 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			14 Jun 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: NR Date/Time:

Received By: Date/Time: 6-13-23 1150

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist: IG

Client/Project: ALS

Thermometer ID: IR1

Date/Time Received: 6.13.23 Initials: IG

Date/Time Logged in: 6.13.23 Initials: IG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊗ ALS Courier ○ Client

2. Samples received in: ⊗ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ⊗ No
   Were they intact? ○ Yes ○ No ⊗ N/A
   Were they signed and dated? ○ Yes ○ No ⊗ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ⊗ Baggies ○ Bubble Wrap ○ Gel Packs ⊗ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6.13.23	1191	IG	4.7	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊗ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊗ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊗ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ⊗ Yes ○ No
10. Did sample labels and tags agree with custody documents? ⊗ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

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Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 421425 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/13/23 12:21

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300534-001	LH18/24-SP650_061223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300534-002	LH18/24-SP650_061223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	EQ2300295-01	MB		6850/ClO4 DOD			Liquid	10mL	
4	EQ2300295-02	LCS		6850/ClO4 DOD			Liquid	10mL	
5	EQ2300295-03	DLCS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300295-02 1.00µL EQ2300295-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300534-001 100.00µL E2300534-002 100.00µL EQ2300295-01 100.00µL EQ2300295-02 100.00µL EQ2300295-03 100.00µL

Preparation Steps

Step: Preparation
Started: 6/13/23 12:21
Finished: 6/13/23 14:20
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	6/12/23 1300
Sample Matrix:	Water	**Date Received:**	6/13/23
Sample Name:	LH18/24-SP650_061223_AIX	**Units:**	µg/L
Lab Code:	E2300534-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.226**		0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:54	421425	807435	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	6/12/23 1300
Sample Matrix:	Water	**Date Received:**	6/13/23
Sample Name:	LH18/24-SP650_061223_BIX	**Units:**	µg/L
Lab Code:	E2300534-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**28.0**		0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:59	421425	807435	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300295-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:37	421425	807435	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Analyzed:**	6/14/23
Sample Matrix:	Water		

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	421425

	Lab Control Sample EQ2300295-02			Duplicate Lab Control Sample EQ2300295-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0907	0.100	91	0.0908	0.100	91	84 - 119	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300295-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0907**	J	0.100	0.0500	0.0250	1	6/13/23	6/14/23 09:43	421425	807435	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300295-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0908**	J	0.100	0.0500	0.0250	1	6/13/23	6/14/23 10:05	421425	807435	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230606-806642

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/6/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300009

Mobile Phases : A:20mM ammonium acetate in water 32103045 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	PERCHLORATE1		20230606-001	Perchlorate6850c.lcm	1x	227245	6/6/2023 10:49
2	PERCHLORATE2		20230606-002	Perchlorate6850c.lcm	1x	227246	6/6/2023 10:55
3	PERCHLORATE3		20230606-003	Perchlorate6850c.lcm	1x	227247	6/6/2023 11:01
4	PERCHLORATE4		20230606-004	Perchlorate6850c.lcm	1x	227248	6/6/2023 11:06
5	PERCHLORATE5		20230606-005	Perchlorate6850c.lcm	1x	227249	6/6/2023 11:12
6	PERCHLORATE6		20230606-006	Perchlorate6850c.lcm	1x	227250	6/6/2023 11:18
7	PERCHLORATE7		20230606-007	Perchlorate6850c.lcm	1x	227251	6/6/2023 11:24
8	PERCHLORATE8		20230606-008	Perchlorate6850c.lcm	1x	227252	6/6/2023 11:29
9	PERCHLORATE9		20230606-009	Perchlorate6850c.lcm	1x	227253	6/6/2023 11:35
10	PERCHLORATE10		20230606-010	Perchlorate6850c.lcm	1x	227254	6/6/2023 11:41
11	PERCHLORATEICV		20230606-011	Perchlorate6850c.lcm	1x	227256	6/6/2023 11:47
12	IB		20230606-012	Perchlorate6850c.lcm	1x		6/6/2023 11:52
13	LODV		20230606-013	Perchlorate6850c.lcm	1x	227501	6/6/2023 11:58
14	ICS		20230606-014	Perchlorate6850c.lcm	1x	32103024	6/6/2023 12:04
15	CCV		20230606-015	Perchlorate6850c.lcm	1x	227251	6/6/2023 12:16
16	EQ2300272-01		20230606-016	Perchlorate6850c.lcm	1x		6/6/2023 12:22
17	EQ2300272-02		20230606-017	Perchlorate6850c.lcm	1x		6/6/2023 12:27
18	EQ2300272-03		20230606-018	Perchlorate6850c.lcm	1x		6/6/2023 12:33
19	EQ2300273-01		20230606-019	Perchlorate6850c.lcm	1x		6/6/2023 12:39
20	EQ2300273-02		20230606-020	Perchlorate6850c.lcm	1x		6/6/2023 12:45
21	EQ2300273-03		20230606-021	Perchlorate6850c.lcm	1x		6/6/2023 12:50
22	E2300516-001		20230606-022	Perchlorate6850c.lcm	1x		6/6/2023 12:56
23	E2300516-002		20230606-023	Perchlorate6850c.lcm	1x		6/6/2023 13:02
24	E2300516-003		20230606-024	Perchlorate6850c.lcm	1x		6/6/2023 13:08
25	E2300516-004		20230606-025	Perchlorate6850c.lcm	1x		6/6/2023 13:13
26	CCV		20230606-026	Perchlorate6850c.lcm	1x	227251	6/6/2023 13:19
27	E2300516-005		20230606-027	Perchlorate6850c.lcm	1x		6/6/2023 13:25
28	E2300516-006		20230606-028	Perchlorate6850c.lcm	1x	DNU-CONFIRM PEAK	6/6/2023 13:31
29	E2300519-001		20230606-029	Perchlorate6850c.lcm	1x		6/6/2023 13:36
30	E2300519-002		20230606-030	Perchlorate6850c.lcm	5000x		6/6/2023 13:42
31	E2300519-003		20230606-031	Perchlorate6850c.lcm	5000x		6/6/2023 13:48
32	E2300519-004		20230606-032	Perchlorate6850c.lcm	1x		6/6/2023 13:54
33	EQ2300272-04		20230606-033	Perchlorate6850c.lcm	1x		6/6/2023 13:59
34	EQ2300272-05		20230606-034	Perchlorate6850c.lcm	1x		6/6/2023 14:05
35	E2300519-005		20230606-035	Perchlorate6850c.lcm	1x		6/6/2023 14:11
36	E2300519-006		20230606-036	Perchlorate6850c.lcm	1x		6/6/2023 14:17
37	CCV		20230606-037	Perchlorate6850c.lcm	1x		6/6/2023 14:23

Initial Calibration - Detailed Report

Calibration ID: EC2300009 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300009-01	PERCHLORATE1	20230606-001	06/06/2023 10:49
02	EC2300009-02	PERCHLORATE2	20230606-002	06/06/2023 10:55
03	EC2300009-03	PERCHLORATE3	20230606-003	06/06/2023 11:01
04	EC2300009-04	PERCHLORATE4	20230606-004	06/06/2023 11:06
05	EC2300009-05	PERCHLORATE5	20230606-005	06/06/2023 11:12
06	EC2300009-06	PERCHLORATE6	20230606-006	06/06/2023 11:18
07	EC2300009-07	PERCHLORATE7	20230606-007	06/06/2023 11:24
08	EC2300009-08	PERCHLORATE8	20230606-008	06/06/2023 11:29
09	EC2300009-09	PERCHLORATE9	20230606-009	06/06/2023 11:35
10	EC2300009-10	PERCHLORATE10	20230606-010	06/06/2023 11:41

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 3.738** **Average RF = 0.1827**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.201	02	0.5000	0.1818	03	0.7000	0.1758	04	1.0000	0.1836
05	2.0000	0.1782	06	5.0000	0.1799	07	10.0000	0.1808	08	20.0000	0.1834
09	30.0000	0.1812	10	50.0000	0.1815						

Analyte

Perchlorate RSE = 3.74

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.110	10.0	02	0.5000	0.498	-0.5	03	0.7000	0.673	-3.8
04	1.0000	1.00	0.5	05	2.0000	1.95	-2.5	06	5.0000	4.92	-1.5
07	10.0000	9.90	-1.0	08	20.0000	20.1	0.4	09	30.0000	29.7	-0.9
10	50.0000	49.7	-0.7								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300009	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230606-011	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300009-11	T	Average RF	10	10.016	ng/mL	0.2	<= 15

Insight Report

Printed at 6/7/2023 10:10:58 AM

Method File: I:\LCMS01\DATA\20230606\20230606.lcm
Project File: I:\LCMS01\DATA\20230606\20230606.damlp

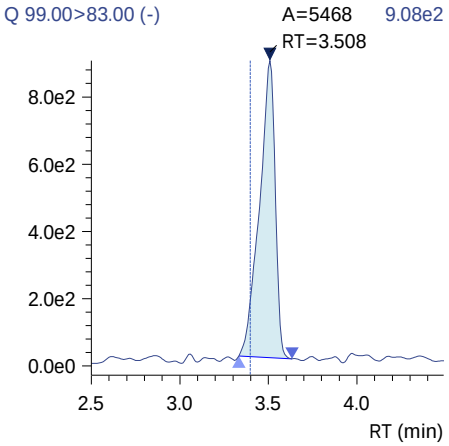
PERCHLORATE1

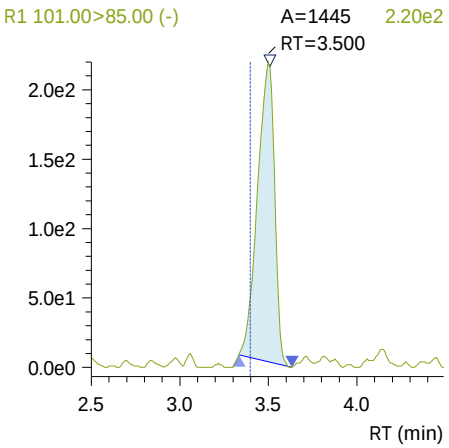
Sample ID: PERCHLORATE1
Date Acquired: 6/6/2023 10:49:38 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.508	5468	272033	0.1100	ng/mL	101.00 >85.00	26.42	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.499	272033	272033	1.0000	ng/mL	----	----	

Perchlorate

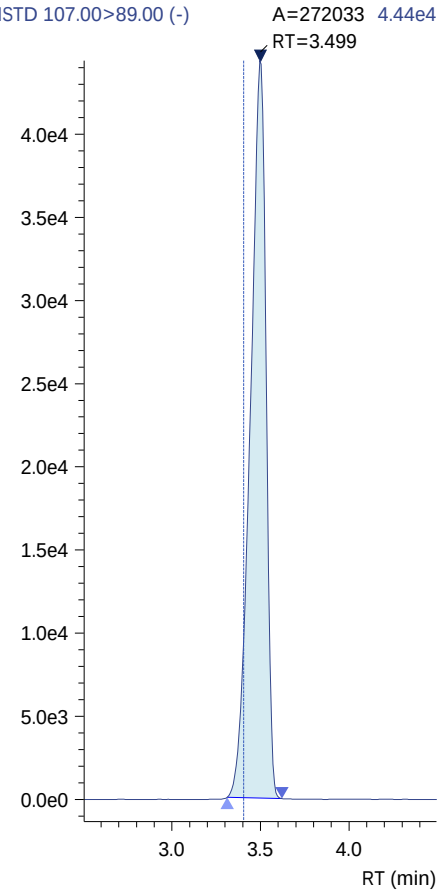
Conc 0.1100
R#1 26.42 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

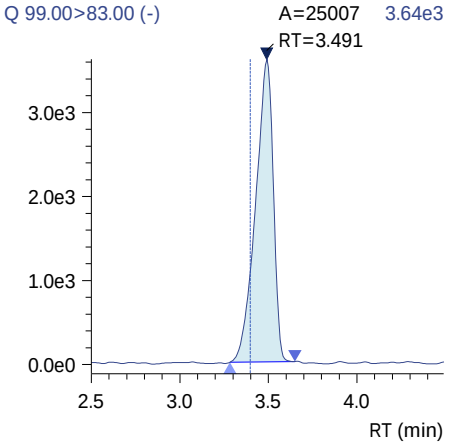
PERCHLORATE2

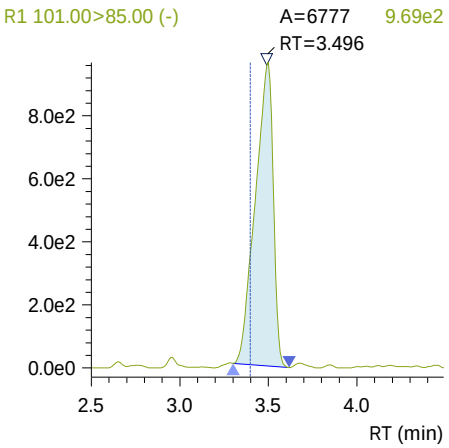
Sample ID: PERCHLORATE2
Date Acquired: 6/6/2023 10:55:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-002.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.491	25007	275033	0.4976	ng/mL	101.00 >85.00	27.10	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.486	275033	275033	1.0000	ng/mL	----	----	

Perchlorate

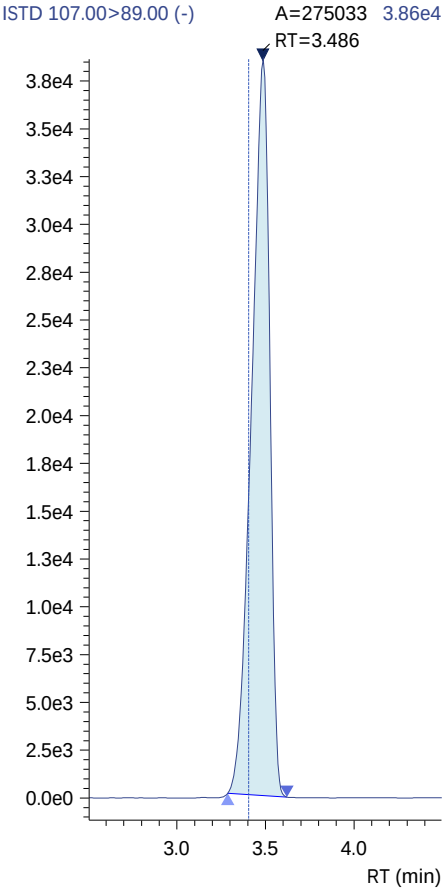
Conc 0.4976
R#1 27.10 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

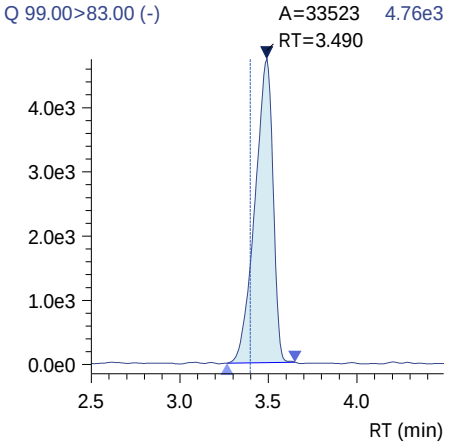
PERCHLORATE3

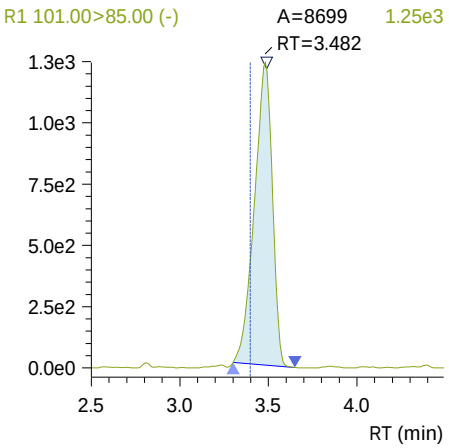
Sample ID: PERCHLORATE3
Date Acquired: 6/6/2023 11:01:08 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-003.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.490	33523	272465	0.6733	ng/mL	101.00 >85.00	25.95	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.486	272465	272465	1.0000	ng/mL	----	----	

Perchlorate

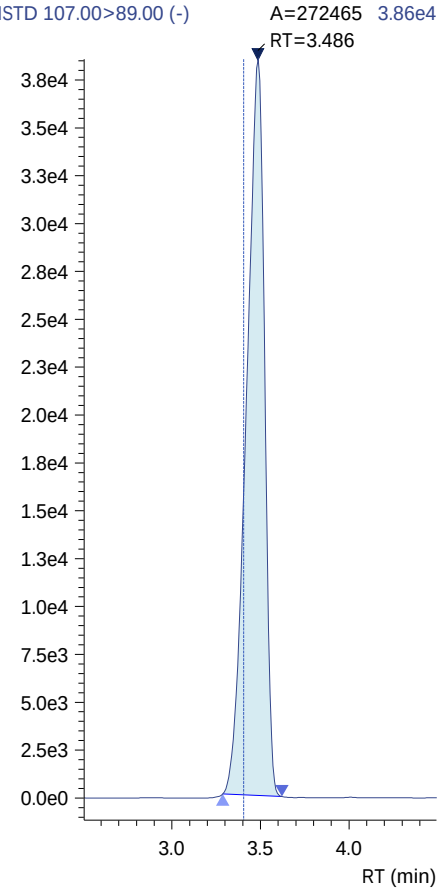
Conc 0.6733
R#1 25.95 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

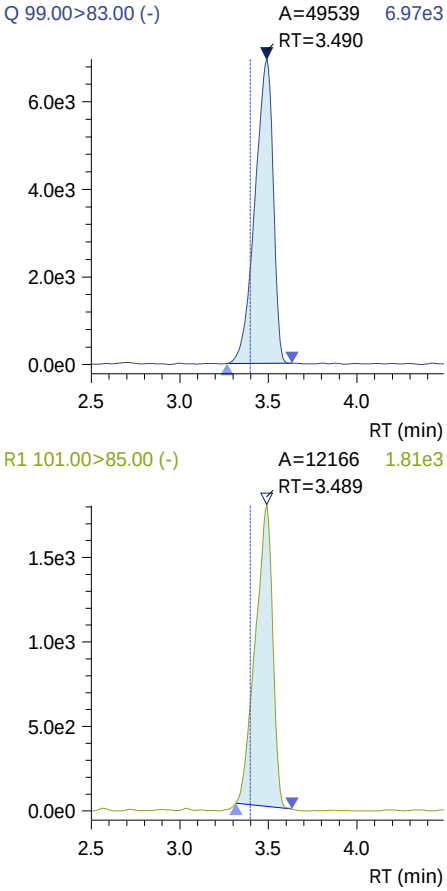
PERCHLORATE4

Sample ID: PERCHLORATE4
Date Acquired: 6/6/2023 11:06:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-004.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.490	49539	269886	1.0045	ng/mL	101.00 >85.00	24.56	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.486	269886	269886	1.0000	ng/mL	----	----	

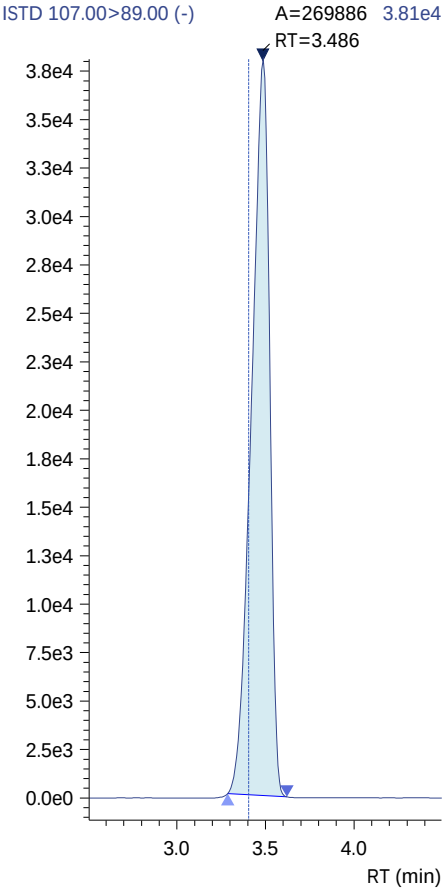
Perchlorate

Conc 1.0045
R#1 24.56 (24.52)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

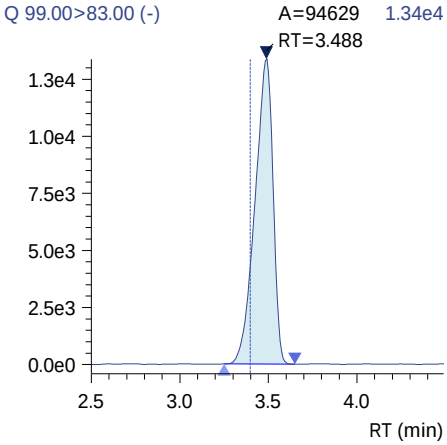
PERCHLORATE5

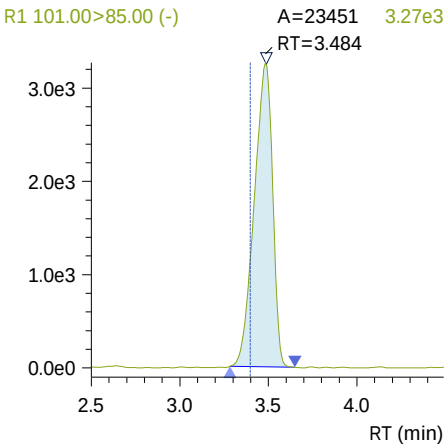
Sample ID: PERCHLORATE5
Date Acquired: 6/6/2023 11:12:36 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-005.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	94629	265444	1.9510	ng/mL	101.00 >85.00	24.78	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.486	265444	265444	1.0000	ng/mL	----	----	

Perchlorate

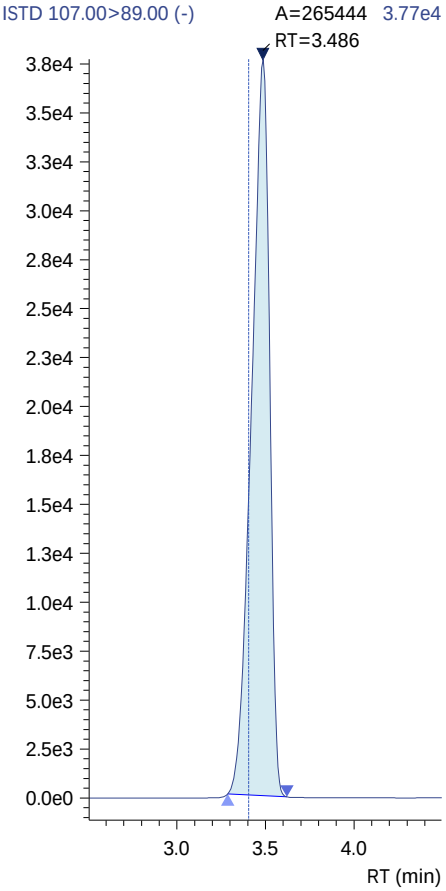
Conc 1.9510
R#1 24.78 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

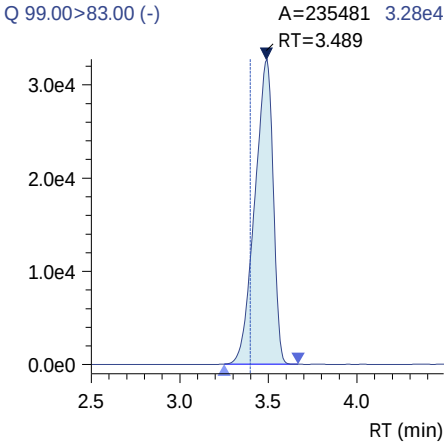
PERCHLORATE6

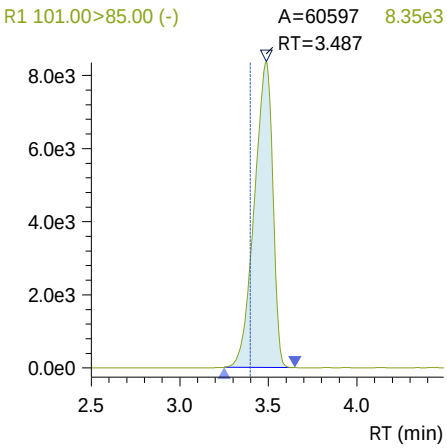
Sample ID: PERCHLORATE6
Date Acquired: 6/6/2023 11:18:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-006.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.489	235481	261731	4.9238	ng/mL	101.00 >85.00	25.73	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.486	261731	261731	1.0000	ng/mL	----	----	

Perchlorate

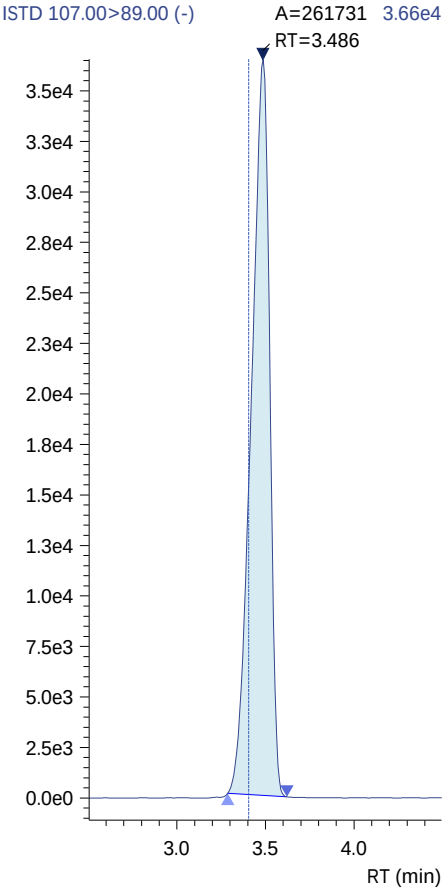
Conc 4.9238
R#1 25.73 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

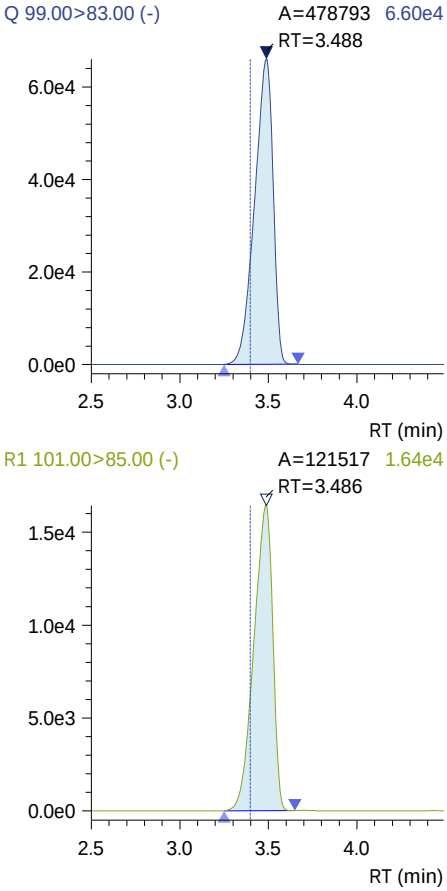
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 6/6/2023 11:24:09 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-007.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	478793	264810	9.8950	ng/mL	101.00 >85.00	25.38	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.485	264810	264810	1.0000	ng/mL	----	----	

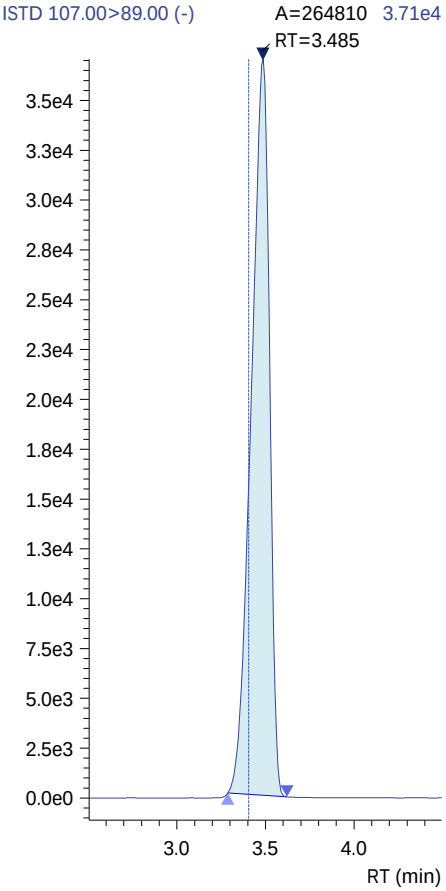
Perchlorate

Conc 9.8950
R#1 25.38 (24.52)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

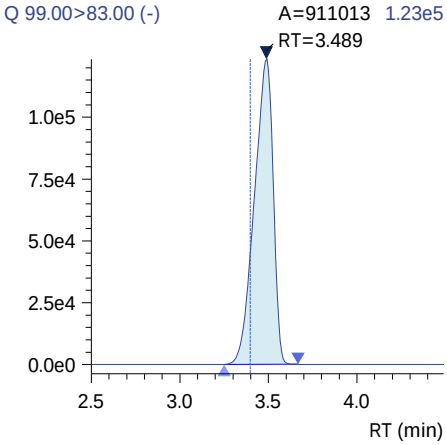
PERCHLORATE8

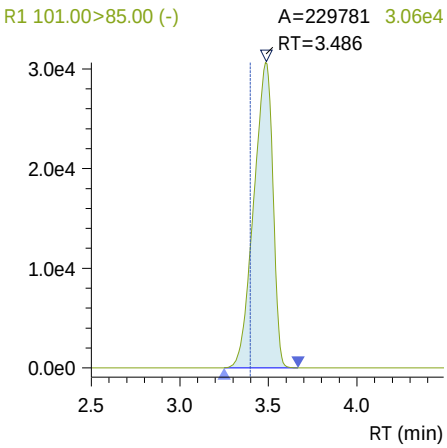
Sample ID: PERCHLORATE8
Date Acquired: 6/6/2023 11:29:53 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-008.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.489	911013	248350	20.0754	ng/mL	101.00 >85.00	25.22	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.485	248350	248350	1.0000	ng/mL	----	----	

Perchlorate

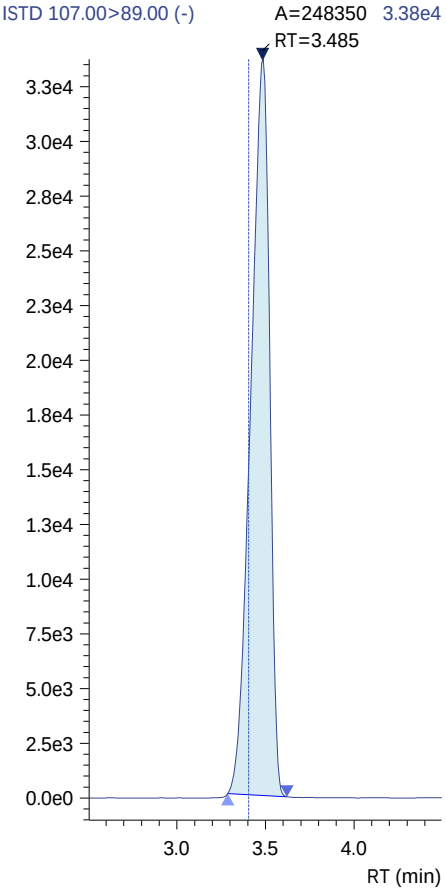
Conc 20.0754
R#1 25.22 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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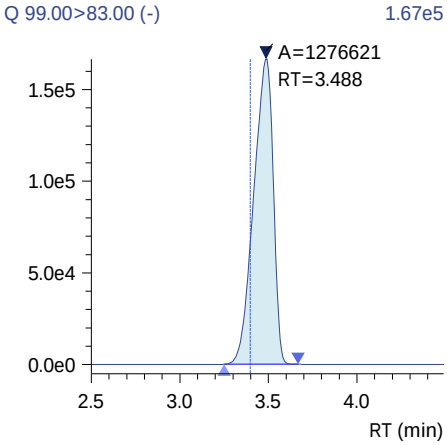
PERCHLORATE9

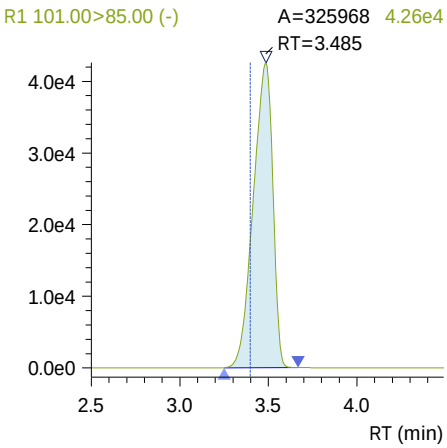
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Date Acquired: 6/6/2023 11:35:36 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-009.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	1276621	234897	29.74 32	ng/mL	101.00 >85.00	25.53	17.79-33.04
Sodium Perchlorate-18O4 _IS	Auto	3.483	234897	234897	1.0000	ng/mL	----	----	

Perchlorate

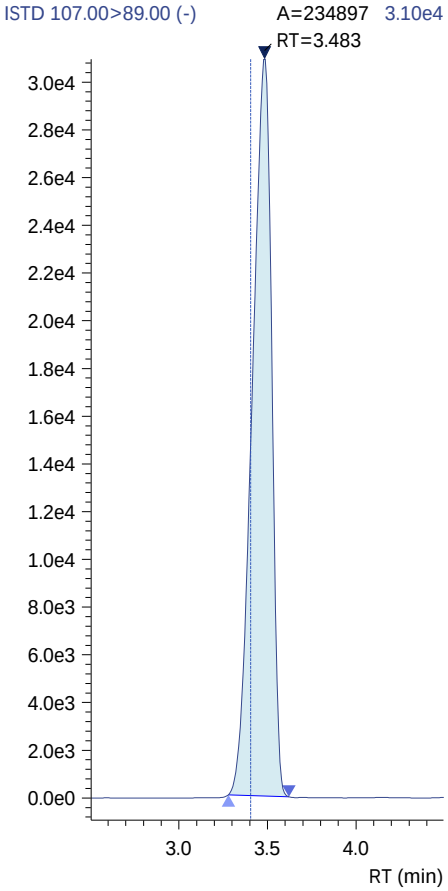
Conc 29.7432
R#1 25.53 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

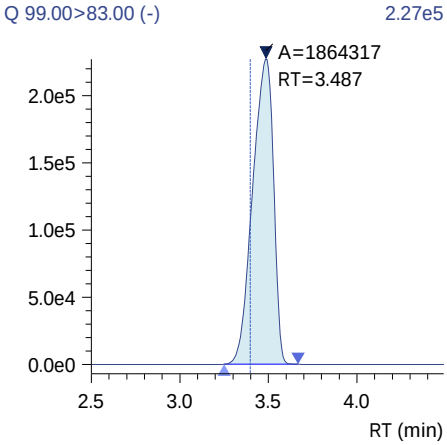
PERCHLORATE10

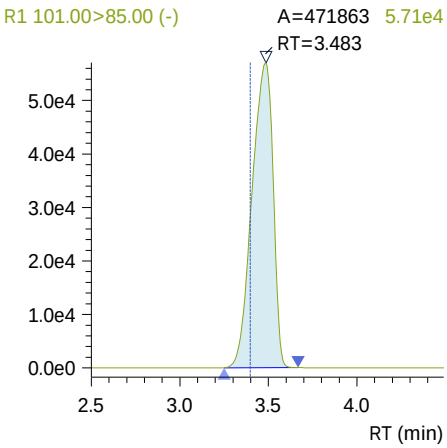
Sample ID: PERCHLORATE10
Date Acquired: 6/6/2023 11:41:20 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-010.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.487	1864317	205439	49.6639	ng/mL	101.00 >85.00	25.31	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.483	205439	205439	1.0000	ng/mL	----	----	

Perchlorate

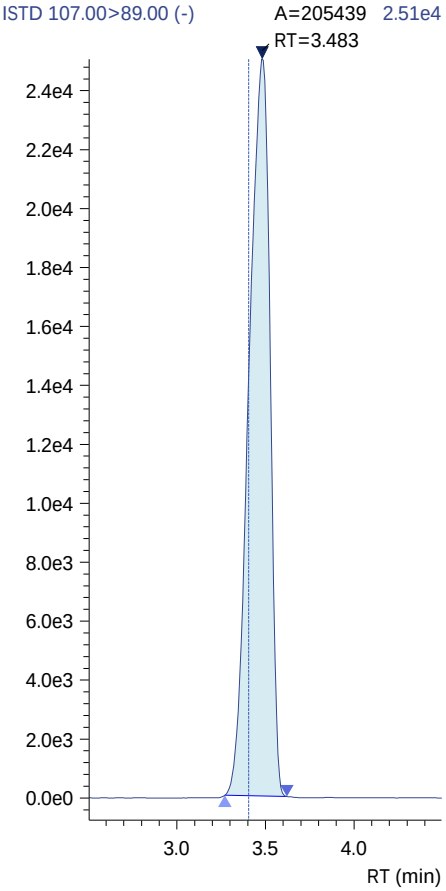
Conc 49.6639
R#1 25.31 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/7/2023 10:10:58 AM

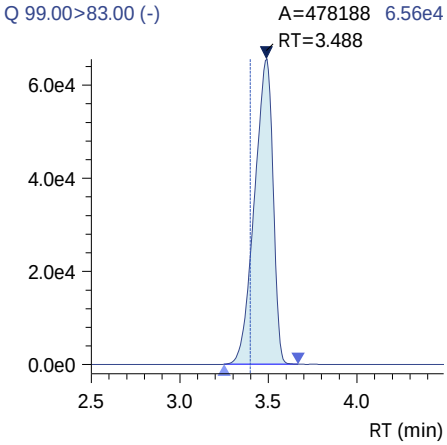
PERCHLORATEICV

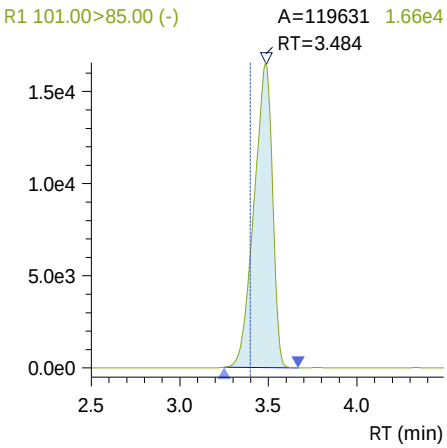
Sample ID: PERCHLORATEICV
Date Acquired: 6/6/2023 11:47:07 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230606\20230606-011.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.488	478188	261294	10.0155	ng/mL	101.00 >85.00	25.02	17.79-33.04
Sodium Perchlorate-18O4_IS	Auto	3.484	261294	261294	1.0000	ng/mL	----	----	

Perchlorate

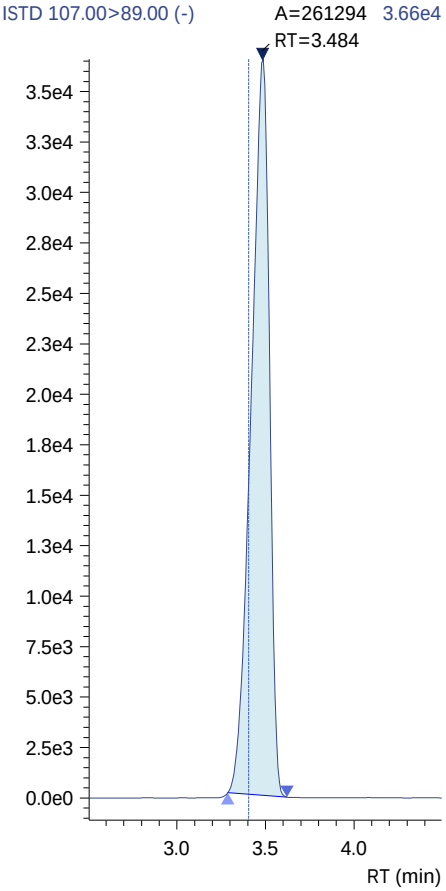
Conc 10.0155
R#1 25.02 (24.52)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230614-807435

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: KN

ICAL Date: 6/6/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300009

Mobile Phases : **A:**20mM ammonium acetate in water 32103045 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	LODV		20230614-001	Perchlorate6850c.lcm	1x	227501	6/14/2023 9:15
2	IB		20230614-002	Perchlorate6850c.lcm	1x		6/14/2023 9:21
3	ICS		20230614-003	Perchlorate6850c.lcm	1x	32103024	6/14/2023 9:26
4	CCV		20230614-004	Perchlorate6850c.lcm	1x	227251	6/14/2023 9:32
5	EQ2300295-01		20230614-005	Perchlorate6850c.lcm	1x	227251	6/14/2023 9:37
6	EQ2300295-02		20230614-006	Perchlorate6850c.lcm	1x		6/14/2023 9:43
7	EQ2300295-03		20230614-007	Perchlorate6850c.lcm	1x	DNU-RR	6/14/2023 9:48
8	E2300534-001		20230614-008	Perchlorate6850c.lcm	1x		6/14/2023 9:54
9	E2300534-002		20230614-009	Perchlorate6850c.lcm	1x		6/14/2023 9:59
10	EQ2300295-03		20230614-010	Perchlorate6850c.lcm	1x		6/14/2023 10:05
11	CCV		20230614-011	Perchlorate6850c.lcm	1x	227251	6/14/2023 10:35

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Analyzed:**	6/14/23 09:32

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230614\20230614-004	**Lab Code:**	EQ2300298-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	807435
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	257,009	3.49
	Upper Limit ==>	385,514	5.49
	Lower Limit ==>	128,505	1.49
Associated Analyses			
Continuing Calibration Verification	EQ2300298-01	330,770	3.45
Method Blank	EQ2300295-01	327,635	3.45
Lab Control Sample	EQ2300295-02	357,092	3.45
LH18/24-SP650_061223_AIX	E2300534-001	356,586	3.45
LH18/24-SP650_061223_BIX	E2300534-002	332,869	3.45
Duplicate Lab Control Sample	EQ2300295-03	339,685	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300534
Project:	HS23060692	**Date Analyzed:**	6/14/23 10:35

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230614\20230614-011	**Lab Code:**	EQ2300298-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	807435
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	257,009	3.49
	Upper Limit ==>	385,514	5.49
	Lower Limit ==>	128,505	1.49
Associated Analyses			
Continuing Calibration Verification	EQ2300298-02	379,737	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23060692

Service Request: E2300534
Date Analyzed: 6/14/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230614\20230614-004

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 807435
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.51	0.1827	0.1738	-4.9	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23060692

Service Request: E2300534
Date Analyzed: 6/14/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230614\20230614-011

Calibration Date: 6/6/23
Calibration ID: EC2300009
Analysis Lot: 807435
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.63	0.1827	0.1760	-3.7	NA	± 15 %	Average RF

Insight Report

Printed at 6/14/2023 11:01:50 AM

Method File: I:\LCMS01\DATA\20230614\20230614.lcm
Project File: I:\LCMS01\DATA\20230614\20230614.damlp

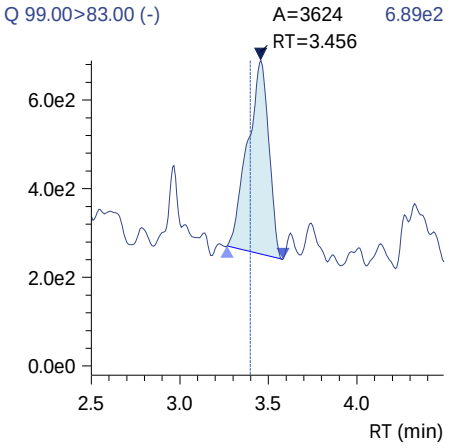
LODV

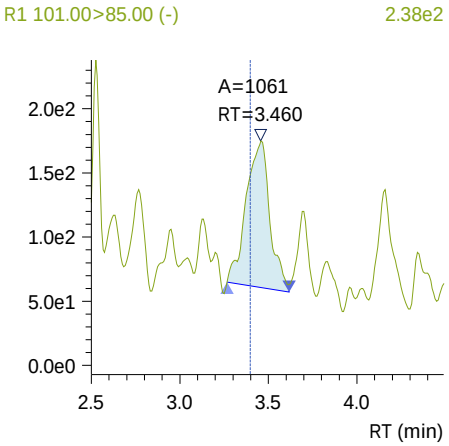
Sample ID: LODV
Date Acquired: 6/14/2023 9:15:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.456	3624	365887	0.0542	ng/mL	101.00 >85.00	29.29	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.454	365887	365887	1.0000	ng/mL	----	----	

Perchlorate

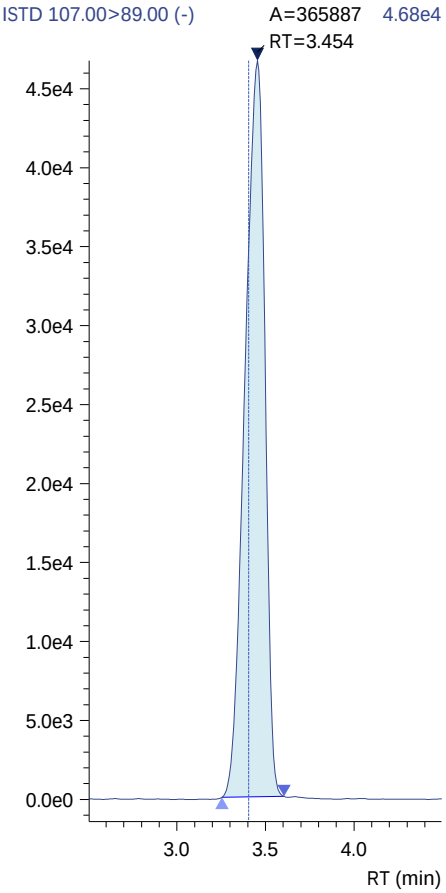
Conc 0.0542
R#1 29.29 (25.37)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/14/2023 11:01:50 AM

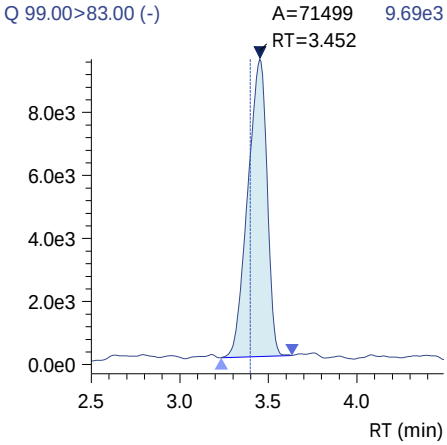
ICS

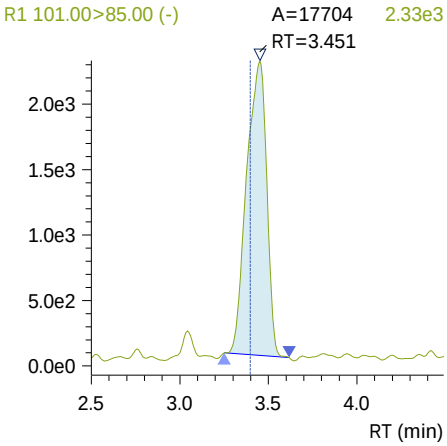
Sample ID: ICS
Date Acquired: 6/14/2023 9:26:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.452	71499	373232	1.0484	ng/mL	101.00 >85.00	24.76	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.450	373232	373232	1.0000	ng/mL	----	----	

Perchlorate

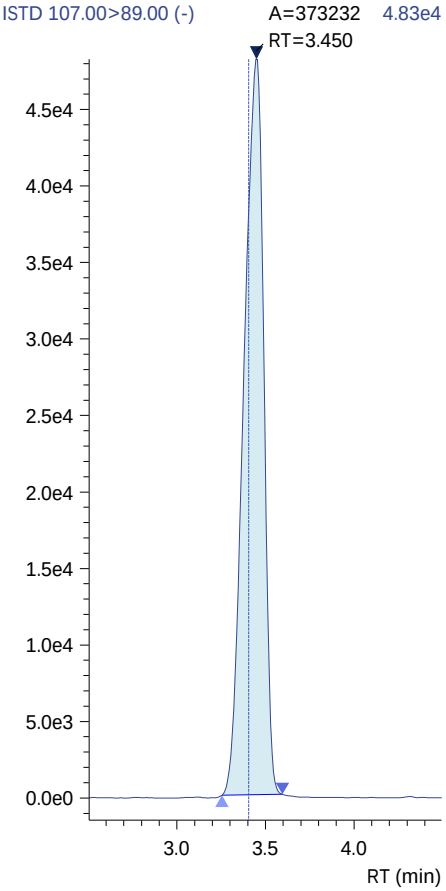
Conc 1.0484
R#1 24.76 (25.37)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/14/2023 11:01:50 AM

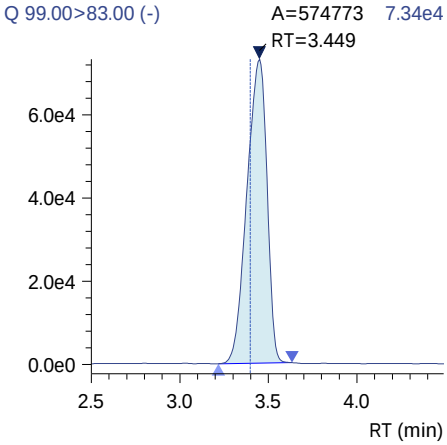
CCV

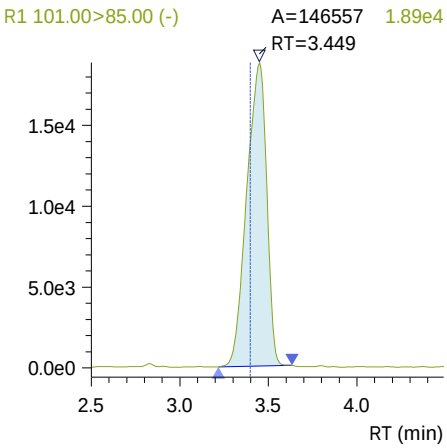
Sample ID: CCV
Date Acquired: 6/14/2023 9:32:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-004.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.449	574773	330770	9.5098	ng/mL	101.00 >85.00	25.50	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.447	330770	330770	1.0000	ng/mL	----	----	

Perchlorate

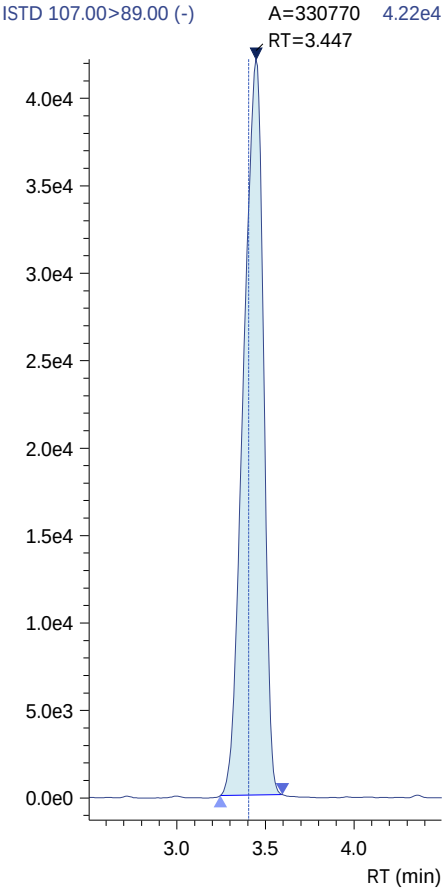
Conc 9.5098
R#1 25.50 (25.37)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/14/2023 11:01:50 AM

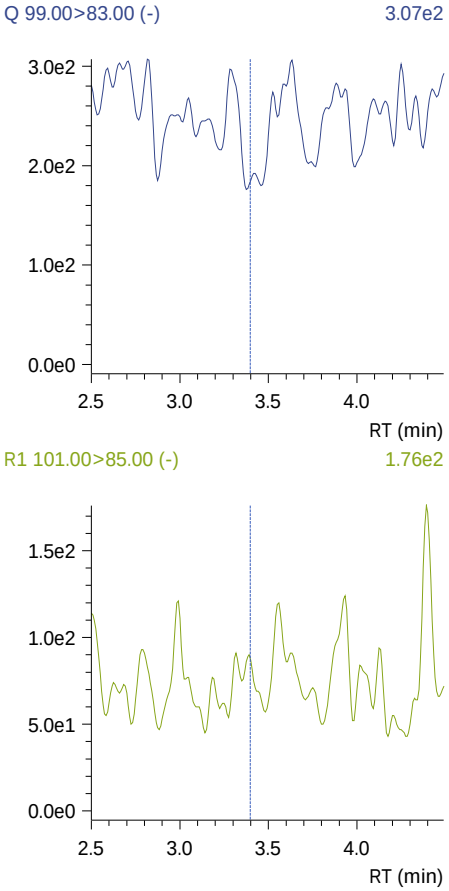
EQ2300295-01

Sample ID: EQ2300295-01
Date Acquired: 6/14/2023 9:37:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-005.lcd
Vial: 37 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	327635	----	ng/mL	101.00 >85.00	0.00	17.76-32.97
Sodium Perchlorate-18O4_IS	Auto	3.447	327635	327635	1.0000	ng/mL	----	----	

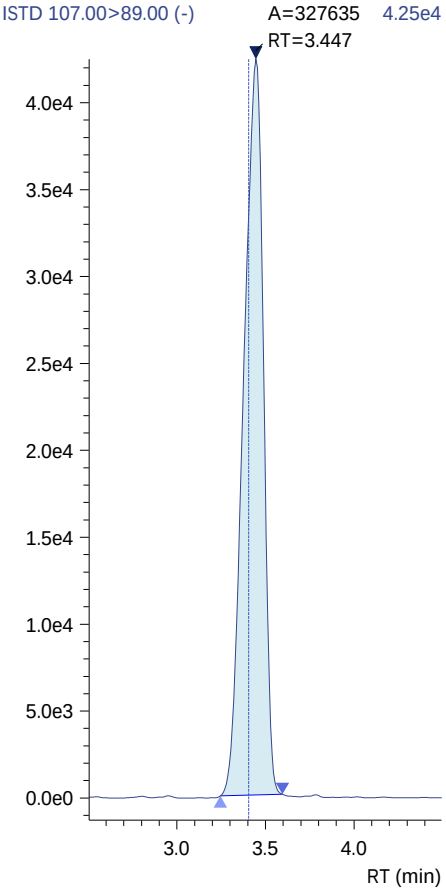
Perchlorate

Conc ----
R#1 0.00 (25.37)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/14/2023 11:01:50 AM

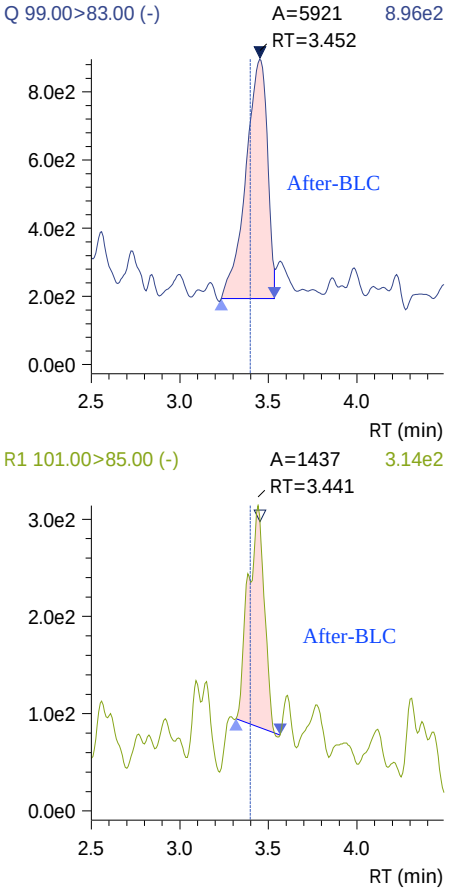
EQ2300295-02

Sample ID: EQ2300295-02
Date Acquired: 6/14/2023 9:43:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-006.lcd
Vial: 38 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.452	5921	357092	0.0907	ng/mL	101.00 >85.00	24.27	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.446	357092	357092	1.0000	ng/mL	----	----	

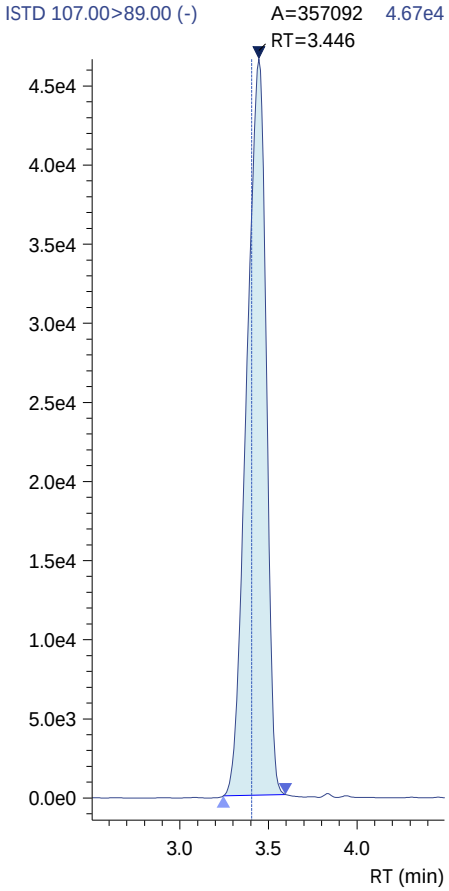
Perchlorate

Conc 0.0907
R#1 24.27 (25.37)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/14/2023 11:02:54 AM

Method File: I:\LCMS01\DATA\20230614\20230614.lcm
Project File: I:\LCMS01\DATA\20230614\20230614.damlp

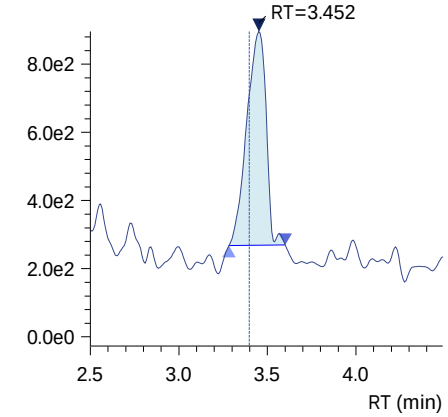
EQ2300295-02

Sample ID: EQ2300295-02
Date Acquired: 6/14/2023 9:43:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-006.lcd
Vial: 38 | Inj. Volume: 10.0000uL | Tray: 5

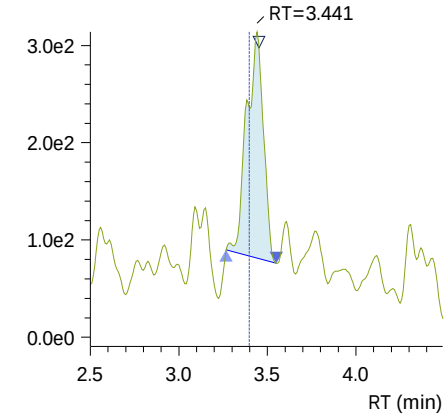
Perchlorate

Conc 0.0729
R#1 32.20 (25.37)

Q 99.00>83.00 (-) A=4758 8.96e2



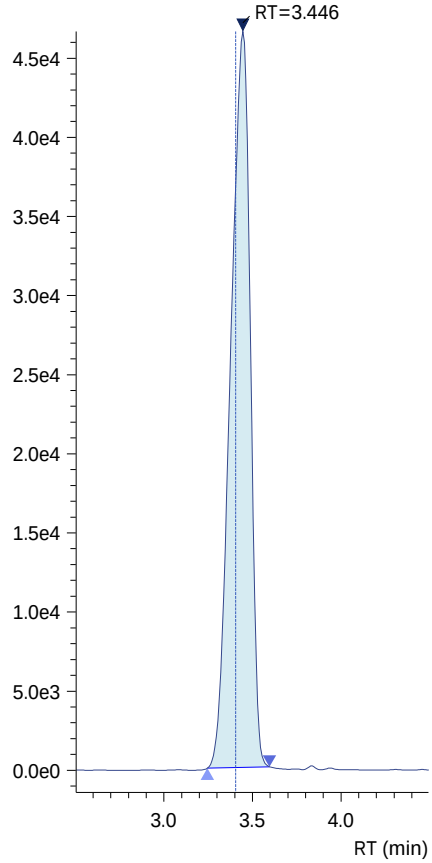
R1 101.00>85.00 (-) A=1532 3.14e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=357092 4.67e4



Insight Report

Printed at 6/14/2023 11:01:50 AM

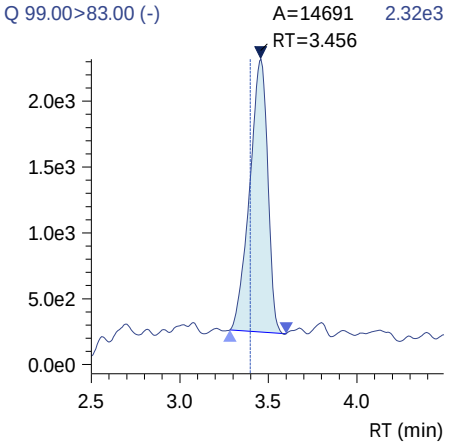
E2300534-001

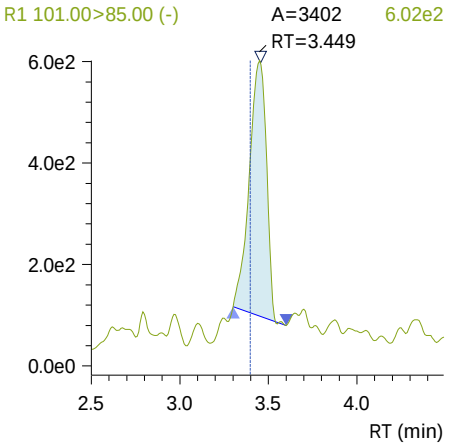
Sample ID: E2300534-001
Date Acquired: 6/14/2023 9:54:28 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-008.lcd
Vial: 40 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.456	14691	356586	0.2255	ng/mL	101.00 >85.00	23.16	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.453	356586	356586	1.0000	ng/mL	----	----	

Perchlorate

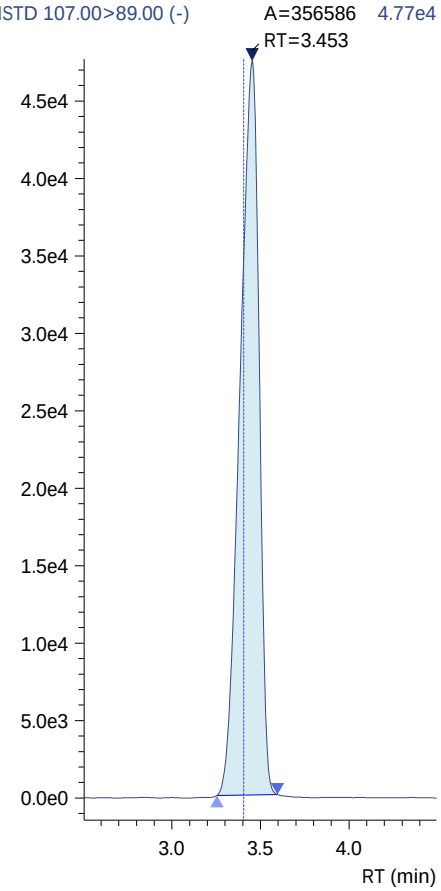
Conc 0.2255
R#1 23.16 (25.37)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/14/2023 11:01:50 AM

E2300534-002

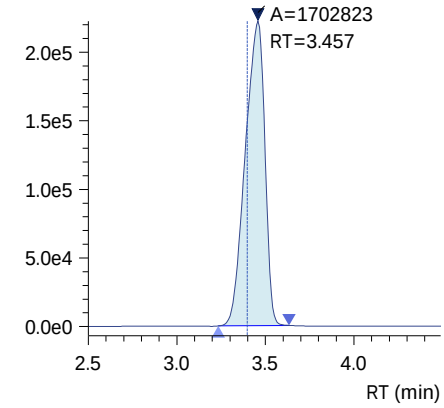
Sample ID: E2300534-002
Date Acquired: 6/14/2023 9:59:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-009.lcd
Vial: 41 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.457	1702823	332869	27.99 62	ng/mL	101.00 >85.00	26.38	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.453	332869	332869	1.0000	ng/mL	----	----	

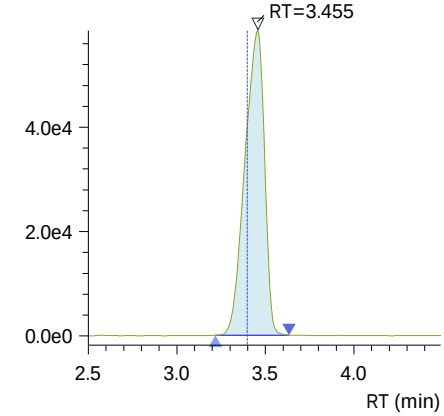
Perchlorate

Conc 27.9962
R#1 26.38 (25.37)

Q 99.00>83.00 (-) 2.23e5



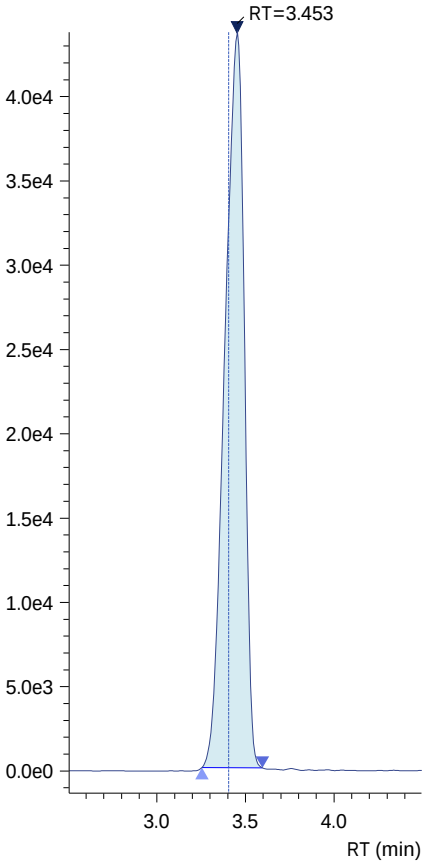
R1 101.00>85.00 (-) A=449206 5.85e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=332869 4.38e4



Insight Report

Printed at 6/14/2023 11:01:50 AM

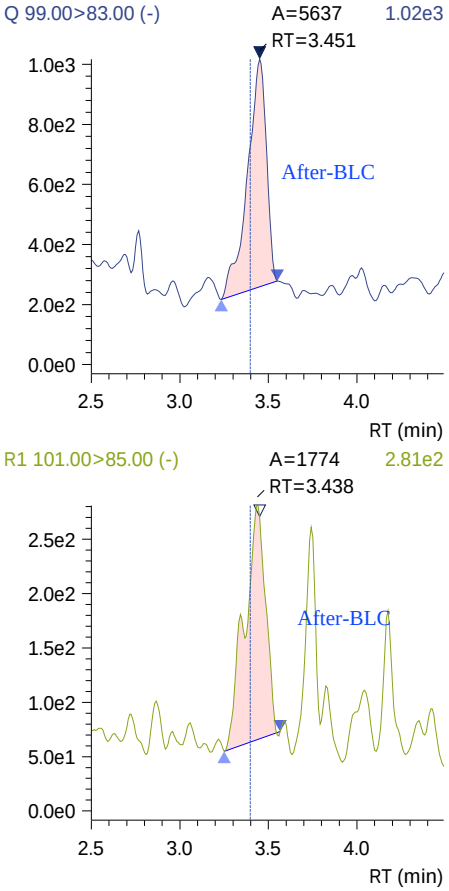
EQ2300295-03

Sample ID: EQ2300295-03
Date Acquired: 6/14/2023 10:05:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-010.lcd
Vial: 39 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.451	5637	339685	0.0908	ng/mL	101.00 >85.00	31.46	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.450	339685	339685	1.0000	ng/mL	----	----	

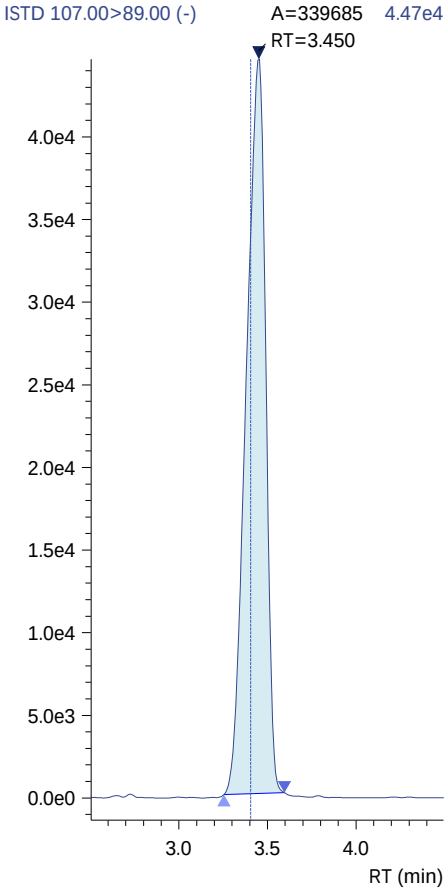
Perchlorate

Conc 0.0908
R#1 31.46 (25.37)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/14/2023 11:02:54 AM

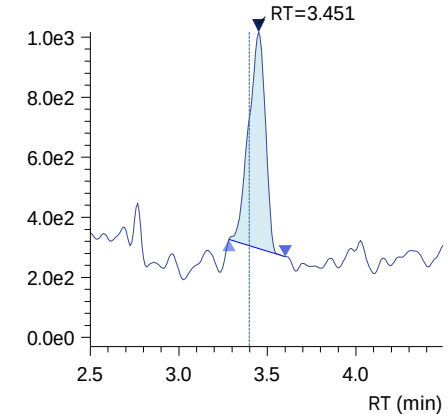
EQ2300295-03

Sample ID: EQ2300295-03
Date Acquired: 6/14/2023 10:05:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-010.lcd
Vial: 39 | Inj. Volume: 10.0000uL | Tray: 5

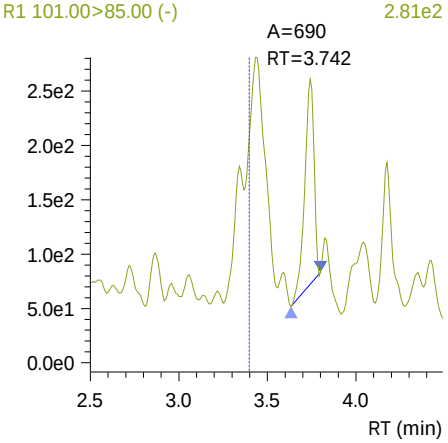
Perchlorate

Conc 0.0759
R#1 0.00 (25.37)

Q 99.00>83.00 (-) A=4713 1.02e3



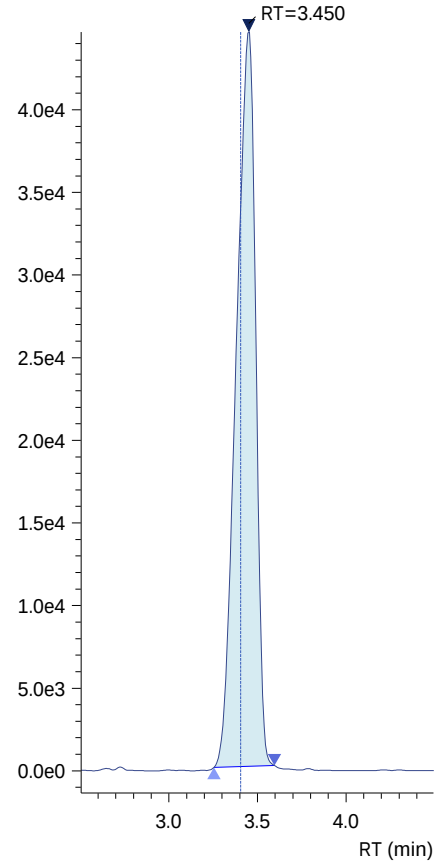
R1 101.00>85.00 (-) 2.81e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=339685 4.47e4



Insight Report

Printed at 6/14/2023 11:01:50 AM

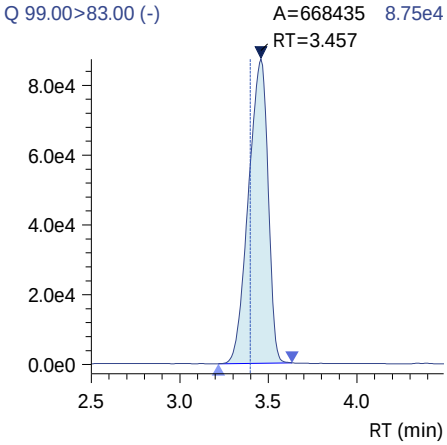
CCV

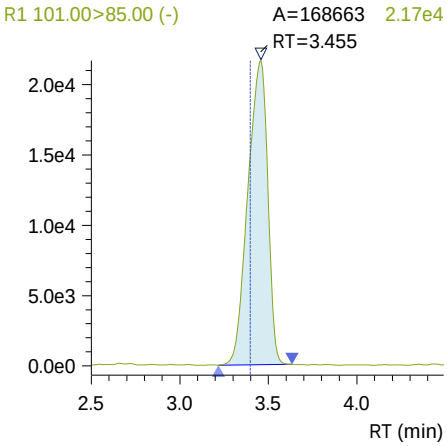
Sample ID: CCV
Date Acquired: 6/14/2023 10:35:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230614\20230614-011.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.457	668435	379737	9.6334	ng/mL	101.00 >85.00	25.23	17.76-32.97
Sodium Perchlorate-18O4 _IS	Auto	3.454	379737	379737	1.0000	ng/mL	----	----	

Perchlorate

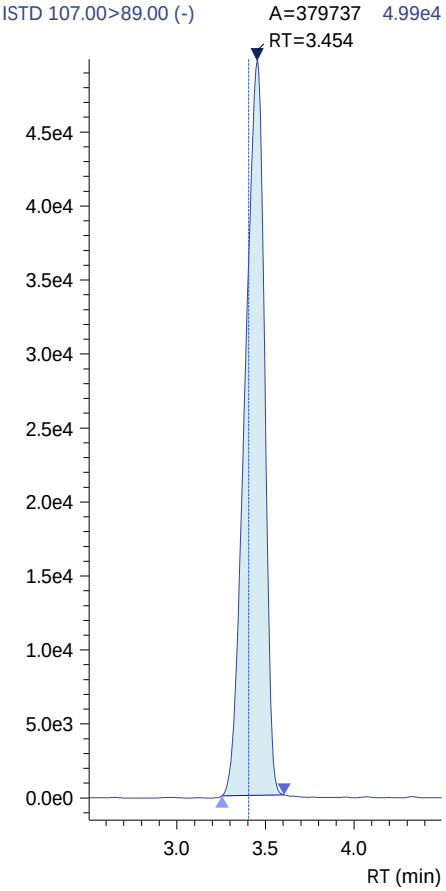
Conc 9.6334
R#1 25.23 (25.37)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

CCV

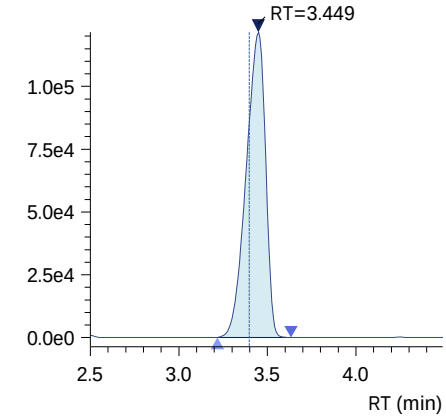
Sample ID: CCV
Date Acquired: 5/30/2023 5:18:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-024.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.449	923177	438284	11.42 57	ng/mL	101.00 >85.00	25.46	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	438284	438284	1.0000	ng/mL	----	----	

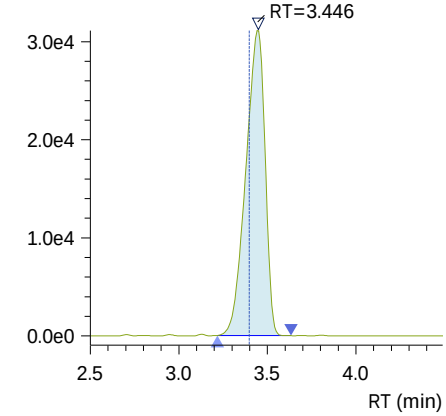
Perchlorate

Conc 11.4257
R#1 25.46 (25.79)

Q 99.00>83.00 (-) A=923177 1.22e5



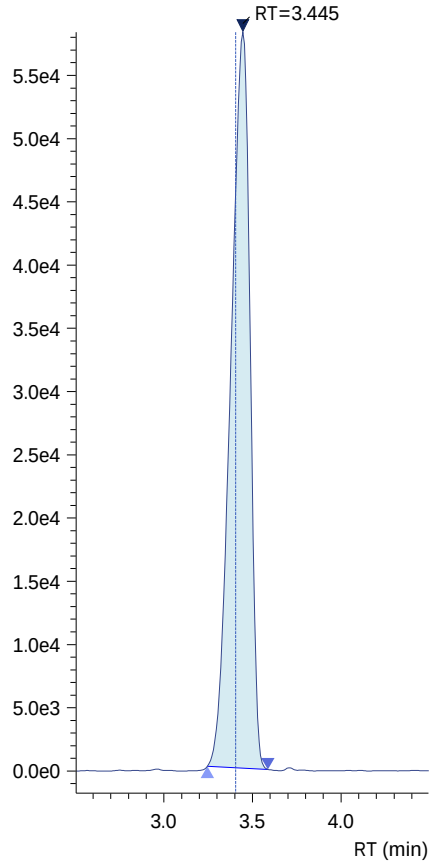
R1 101.00>85.00 (-) A=235007 3.11e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=438284 5.84e4



HS23060983 Longhorn GW Treatment Plant BiWeekly Samples Cover Page

ALS WO# HS23060983

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alsglobal.com

right solutions.
right partner.

WorkOrder: HS23060983

Longhorn GW Treatment Plant Bi-Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

21-Jun-2023

HS23060983 Longhorn GW Treatment Plant BiWeekly Samples Final

ALS WO# HS23060983

10450 Stancliff Rd. Suite 210
Houston, TX 77099
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June 20, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23060983**

Laboratory Results for: **Longhorn GW Treatment Plant Bi-Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on Jun 13, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
James Guin

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
Work Order: HS23060983

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23060983-01	LH18/24-SP650_061223	Water		12-Jun-2023 13:00	13-Jun-2023 09:30	☐
HS23060983-02	Trip Blank	Water	CG-041923-807	12-Jun-2023 13:00	13-Jun-2023 09:30	☐

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
Work Order: HS23060983

GCMS Volatiles by Method SW8260

Batch ID: R439181

Sample ID: LH18/24-SP650_061223 (HS23060983-01MS)

- MS/MSD failed QC and RPD limit for some compounds

WetChemistry by Method SW9056

Batch ID: R439301

Sample ID: HS23061015-19MS

- MS and MSD are for an unrelated sample (Sulfate)

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi-Weekly Samples WorkOrder:HS23060983
Sample ID: LH18/24-SP650_061223 Lab ID:HS23060983-01
Collection Date: 12-Jun-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	17-Jun-2023 14:19
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	17-Jun-2023 14:19
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	17-Jun-2023 14:19
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	17-Jun-2023 14:19
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	17-Jun-2023 14:19
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi-Weekly Samples WorkOrder:HS23060983
Sample ID: LH18/24-SP650_061223 Lab ID:HS23060983-01
Collection Date: 12-Jun-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
cis-1,2-Dichloroethene	**1.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	17-Jun-2023 14:19
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
m,p-Xylene	0.50	U	0.50	0.50	2.0	ug/L	1	17-Jun-2023 14:19
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	17-Jun-2023 14:19
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 14:19
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 14:19
Surr: 1,2-Dichloroethane-d4	*113*			**0**	*81-118*	*%REC*	*1*	*17-Jun-2023 14:19*
Surr: 4-Bromofluorobenzene	*93.6*			**0**	*85-114*	*%REC*	*1*	*17-Jun-2023 14:19*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*1*	*17-Jun-2023 14:19*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*17-Jun-2023 14:19*
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**1,100**		**10.0**	**12.5**	**25.0**	**mg/L**	50	19-Jun-2023 17:06
Sulfate	**19.8**		**0.400**	**0.500**	**1.00**	**mg/L**	2	19-Jun-2023 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi-Weekly Samples WorkOrder:HS23060983
Sample ID: Trip Blank Lab ID:HS23060983-02
Collection Date: 12-Jun-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	17-Jun-2023 16:11
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	17-Jun-2023 16:11
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	17-Jun-2023 16:11
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	17-Jun-2023 16:11
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	17-Jun-2023 16:11
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

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ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi-Weekly Samples WorkOrder:HS23060983
Sample ID: Trip Blank Lab ID:HS23060983-02
Collection Date: 12-Jun-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
m,p-Xylene	0.50	U	0.50	0.50	2.0	ug/L	1	17-Jun-2023 16:11
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	17-Jun-2023 16:11
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	17-Jun-2023 16:11
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	17-Jun-2023 16:11
Surr: 1,2-Dichloroethane-d4	*115*			**0**	*81-118*	*%REC*	*1*	*17-Jun-2023 16:11*
Surr: 4-Bromofluorobenzene	*94.7*			**0**	*85-114*	*%REC*	*1*	*17-Jun-2023 16:11*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*1*	*17-Jun-2023 16:11*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*17-Jun-2023 16:11*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

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ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R439181 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23060983-01	LH18/24-SP650_061223	12 Jun 2023 13:00			17 Jun 2023 14:19	1
HS23060983-02	Trip Blank	12 Jun 2023 13:00			17 Jun 2023 16:11	1
Batch ID: R439301 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS23060983-01	LH18/24-SP650_061223	12 Jun 2023 13:00			19 Jun 2023 17:06	50
HS23060983-01	LH18/24-SP650_061223	12 Jun 2023 13:00			19 Jun 2023 17:00	2

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230617** Units: **ug/L** Analysis Date: **17-Jun-2023 13:35**
Client ID: Run ID: **VOA9_439181** SeqNo: **7369116** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	0.50	1.0								U
1,1,1-Trichloroethane	0.50	1.0								U
1,1,2,2-Tetrachloroethane	0.50	1.0								U
1,1,2-Trichloroethane	0.50	1.0								U
1,1-Dichloroethane	0.50	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,1-Dichloropropene	0.50	1.0								U
1,2,3-Trichlorobenzene	0.50	1.0								U
1,2,3-Trichloropropane	0.50	1.0								U
1,2,4-Trichlorobenzene	0.50	1.0								U
1,2,4-Trimethylbenzene	0.50	1.0								U
1,2-Dibromo-3-chloropropane	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
1,2-Dichloropropane	0.50	1.0								U
1,3,5-Trimethylbenzene	0.50	1.0								U
1,3-Dichlorobenzene	0.50	1.0								U
1,3-Dichloropropane	0.50	1.0								U
1,4-Dichlorobenzene	0.50	1.0								U
2,2-Dichloropropane	0.50	1.0								U
2-Butanone	0.50	2.0								U
2-Chlorotoluene	0.50	1.0								U
2-Hexanone	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	0.50	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	0.50	1.0								U
Bromomethane	0.50	1.0								U

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230617** Units: **ug/L** Analysis Date: **17-Jun-2023 13:35**
Client ID: Run ID: **VOA9_439181** SeqNo: **7369116** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	2.0								U
Carbon tetrachloride	0.50	1.0								U
Chlorobenzene	0.50	1.0								U
Chloroethane	0.50	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	0.50	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	0.50	1.0								U
Ethylbenzene	0.50	1.0								U
Hexachlorobutadiene	0.50	1.0								U
Isopropylbenzene	0.50	1.0								U
m,p-Xylene	0.50	2.0								U
Methylene chloride	0.50	2.0								U
Naphthalene	0.50	1.0								U
n-Butylbenzene	0.50	1.0								U
n-Propylbenzene	0.50	1.0								U
o-Xylene	0.50	1.0								U
sec-Butylbenzene	0.50	1.0								U
Styrene	0.50	1.0								U
tert-Butylbenzene	0.50	1.0								U
Tetrachloroethene	0.50	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*56.43*	*1.0*	*50*	*0*	*113*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.33*	*1.0*	*50*	*0*	*96.7*	*85 - 114*				
Surr: Dibromofluoromethane	*49.13*	*1.0*	*50*	*0*	*98.3*	*80 - 119*				
Surr: Toluene-d8	*54.66*	*1.0*	*50*	*0*	*109*	*89 - 112*				

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230617** Units: **ug/L** Analysis Date: **17-Jun-2023 12:50**
Client ID: Run ID: **VOA9_439181** SeqNo: **7369115** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.47	1.0	20	0	102	78 - 124				
1,1,1-Trichloroethane	21.62	1.0	20	0	108	74 - 131				
1,1,2,2-Tetrachloroethane	18.93	1.0	20	0	94.7	71 - 121				
1,1,2-Trichloroethane	19.18	1.0	20	0	95.9	80 - 119				
1,1-Dichloroethane	19.76	1.0	20	0	98.8	77 - 125				
1,1-Dichloroethene	20.25	1.0	20	0	101	71 - 131				
1,1-Dichloropropene	21.69	1.0	20	0	108	78 - 125				
1,2,3-Trichlorobenzene	19.02	1.0	20	0	95.1	69 - 129				
1,2,3-Trichloropropane	18.6	1.0	20	0	93.0	73 - 122				
1,2,4-Trichlorobenzene	19.57	1.0	20	0	97.8	69 - 130				
1,2,4-Trimethylbenzene	21.35	1.0	20	0	107	76 - 124				
1,2-Dibromo-3-chloropropane	17.6	1.0	20	0	88.0	62 - 128				
1,2-Dibromoethane	19.52	1.0	20	0	97.6	77 - 121				
1,2-Dichlorobenzene	20.22	1.0	20	0	101	80 - 119				
1,2-Dichloroethane	22.51	1.0	20	0	113	73 - 128				
1,2-Dichloropropane	20.03	1.0	20	0	100	78 - 122				
1,3,5-Trimethylbenzene	21.26	1.0	20	0	106	75 - 124				
1,3-Dichlorobenzene	20.43	1.0	20	0	102	80 - 119				
1,3-Dichloropropane	19.75	1.0	20	0	98.8	80 - 119				
1,4-Dichlorobenzene	20.47	1.0	20	0	102	79 - 118				
2,2-Dichloropropane	23.21	1.0	20	0	116	60 - 139				
2-Butanone	37.17	2.0	40	0	92.9	56 - 143				
2-Chlorotoluene	21.18	1.0	20	0	106	79 - 122				
2-Hexanone	35.92	2.0	40	0	89.8	57 - 139				
4-Chlorotoluene	22.17	1.0	20	0	111	78 - 122				
4-Isopropyltoluene	21.91	1.0	20	0	110	77 - 127				
4-Methyl-2-pentanone	37.2	2.0	40	0	93.0	67 - 130				
Acetone	42.09	2.0	40	0	105	39 - 160				
Benzene	20.18	1.0	20	0	101	79 - 120				
Bromobenzene	19.9	1.0	20	0	99.5	80 - 120				
Bromochloromethane	18.68	1.0	20	0	93.4	78 - 123				
Bromodichloromethane	21.11	1.0	20	0	106	79 - 125				
Bromoform	20.14	1.0	20	0	101	66 - 130				
Bromomethane	25.47	1.0	20	0	127	53 - 141				

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230617** Units: **ug/L** Analysis Date: **17-Jun-2023 12:50**
Client ID: Run ID: **VOA9_439181** SeqNo: **7369115** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	47.41	2.0	40	0	119	64 - 133				
Carbon tetrachloride	22.81	1.0	20	0	114	72 - 136				
Chlorobenzene	20.19	1.0	20	0	101	82 - 118				
Chloroethane	20.27	1.0	20	0	101	60 - 138				
Chloroform	20.49	1.0	20	0	102	79 - 124				
Chloromethane	18.09	1.0	20	0	90.4	50 - 139				
cis-1,2-Dichloroethene	20.31	1.0	20	0	102	78 - 123				
cis-1,3-Dichloropropene	18.69	1.0	20	0	93.4	75 - 124				
Dibromochloromethane	20.91	1.0	20	0	105	74 - 126				
Dibromomethane	21.59	1.0	20	0	108	79 - 123				
Dichlorodifluoromethane	20.34	1.0	20	0	102	32 - 152				
Ethylbenzene	20.8	1.0	20	0	104	79 - 121				
Hexachlorobutadiene	22.81	1.0	20	0	114	66 - 134				
Isopropylbenzene	22.8	1.0	20	0	114	72 - 131				
m,p-Xylene	43.31	2.0	40	0	108	80 - 121				
Methylene chloride	21.53	2.0	20	0	108	74 - 124				
Naphthalene	18.64	1.0	20	0	93.2	61 - 128				
n-Butylbenzene	22.75	1.0	20	0	114	75 - 128				
n-Propylbenzene	22.04	1.0	20	0	110	76 - 126				
o-Xylene	20.74	1.0	20	0	104	78 - 122				
sec-Butylbenzene	22.19	1.0	20	0	111	77 - 126				
Styrene	21.45	1.0	20	0	107	78 - 123				
tert-Butylbenzene	21.44	1.0	20	0	107	78 - 124				
Tetrachloroethene	21.4	1.0	20	0	107	74 - 129				
Toluene	20.73	1.0	20	0	104	80 - 121				
trans-1,2-Dichloroethene	20.72	1.0	20	0	104	75 - 124				
trans-1,3-Dichloropropene	18.67	1.0	20	0	93.3	73 - 127				
Trichloroethene	20.25	1.0	20	0	101	79 - 123				
Trichlorofluoromethane	24.56	1.0	20	0	123	65 - 141				
Vinyl chloride	19.33	1.0	20	0	96.7	58 - 137				
Surr: 1,2-Dichloroethane-d4	*52.21*	*1.0*	*50*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.94*	*1.0*	*50*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*48.68*	*1.0*	*50*	*0*	*97.4*	*80 - 119*				
Surr: Toluene-d8	*46.74*	*1.0*	*50*	*0*	*93.5*	*89 - 112*				

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23060983-01MS** Units: **ug/L** Analysis Date: **17-Jun-2023 14:42**
Client ID: **LH18/24-SP650_061223** Run ID: **VOA9_439181** SeqNo: **7369119** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.93	1.0	20	0	110	78 - 124				
1,1,1-Trichloroethane	22.73	1.0	20	0	114	74 - 131				
1,1,2,2-Tetrachloroethane	18.61	1.0	20	0	93.1	71 - 121				
1,1,2-Trichloroethane	19.59	1.0	20	0	97.9	80 - 119				
1,1-Dichloroethane	20.49	1.0	20	0	102	77 - 125				
1,1-Dichloroethene	21.77	1.0	20	0	109	71 - 131				
1,1-Dichloropropene	24.67	1.0	20	0	123	78 - 125				
1,2,3-Trichlorobenzene	20.03	1.0	20	0	100	69 - 129				
1,2,3-Trichloropropane	18.48	1.0	20	0	92.4	73 - 122				
1,2,4-Trichlorobenzene	19.93	1.0	20	0	99.6	69 - 130				
1,2,4-Trimethylbenzene	23.61	1.0	20	0	118	76 - 124				
1,2-Dibromo-3-chloropropane	17.43	1.0	20	0	87.1	62 - 128				
1,2-Dibromoethane	20.69	1.0	20	0	103	77 - 121				
1,2-Dichlorobenzene	20.82	1.0	20	0	104	80 - 119				
1,2-Dichloroethane	23.32	1.0	20	0	117	73 - 128				
1,2-Dichloropropane	20.53	1.0	20	0	103	78 - 122				
1,3,5-Trimethylbenzene	23.6	1.0	20	0	118	75 - 124				
1,3-Dichlorobenzene	21.34	1.0	20	0	107	80 - 119				
1,3-Dichloropropane	20.49	1.0	20	0	102	80 - 119				
1,4-Dichlorobenzene	21.21	1.0	20	0	106	79 - 118				
2,2-Dichloropropane	23.76	1.0	20	0	119	60 - 139				
2-Butanone	35.51	2.0	40	0	88.8	56 - 143				
2-Chlorotoluene	22.88	1.0	20	0	114	79 - 122				
2-Hexanone	37.56	2.0	40	0	93.9	57 - 139				
4-Chlorotoluene	23.63	1.0	20	0	118	78 - 122				
4-Isopropyltoluene	25.62	1.0	20	0	128	77 - 127				S
4-Methyl-2-pentanone	38.28	2.0	40	0	95.7	67 - 130				
Acetone	36.76	2.0	40	0	91.9	39 - 160				
Benzene	21.51	1.0	20	0	108	79 - 120				
Bromobenzene	20.49	1.0	20	0	102	80 - 120				
Bromochloromethane	19.97	1.0	20	0	99.8	78 - 123				
Bromodichloromethane	22.21	1.0	20	0	111	79 - 125				
Bromoform	19.95	1.0	20	0	99.8	66 - 130				
Bromomethane	18.74	1.0	20	0	93.7	53 - 141				

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23060983-01MS** Units: **ug/L** Analysis Date: **17-Jun-2023 14:42**
Client ID: **LH18/24-SP650_061223** Run ID: **VOA9_439181** SeqNo: **7369119** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	48.68	2.0	40	0	122	64 - 133				
Carbon tetrachloride	25.42	1.0	20	0	127	72 - 136				
Chlorobenzene	21.87	1.0	20	0	109	82 - 118				
Chloroethane	21.07	1.0	20	0	105	60 - 138				
Chloroform	21.06	1.0	20	0	105	79 - 124				
Chloromethane	14.84	1.0	20	0	74.2	50 - 139				
cis-1,2-Dichloroethene	21.18	1.0	20	1.123	100	78 - 123				
cis-1,3-Dichloropropene	18.94	1.0	20	0	94.7	75 - 124				
Dibromochloromethane	21.76	1.0	20	0	109	74 - 126				
Dibromomethane	22.28	1.0	20	0	111	79 - 123				
Dichlorodifluoromethane	20.65	1.0	20	0	103	32 - 152				
Ethylbenzene	23.59	1.0	20	0	118	79 - 121				
Hexachlorobutadiene	24.29	1.0	20	0	121	66 - 134				
Isopropylbenzene	25.97	1.0	20	0	130	72 - 131				
m,p-Xylene	49.18	2.0	40	0	123	80 - 121				S
Methylene chloride	19.97	2.0	20	0	99.8	74 - 124				
Naphthalene	19.16	1.0	20	0	95.8	61 - 128				
n-Butylbenzene	25.58	1.0	20	0	128	75 - 128				
n-Propylbenzene	24.84	1.0	20	0	124	76 - 126				
o-Xylene	23.62	1.0	20	0	118	78 - 122				
sec-Butylbenzene	25.18	1.0	20	0	126	77 - 126				
Styrene	22.81	1.0	20	0	114	78 - 123				
tert-Butylbenzene	24.57	1.0	20	0	123	78 - 124				
Tetrachloroethene	24.87	1.0	20	0	124	74 - 129				
Toluene	22.56	1.0	20	0	113	80 - 121				
trans-1,2-Dichloroethene	22.45	1.0	20	0	112	75 - 124				
trans-1,3-Dichloropropene	18.54	1.0	20	0	92.7	73 - 127				
Trichloroethene	22	1.0	20	0	110	79 - 123				
Trichlorofluoromethane	26.34	1.0	20	0	132	65 - 141				
Vinyl chloride	22.47	1.0	20	0	112	58 - 137				
Surr: 1,2-Dichloroethane-d4	*56.3*	*1.0*	*50*	*0*	*113*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.92*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*52.8*	*1.0*	*50*	*0*	*106*	*80 - 119*				
Surr: Toluene-d8	*53.99*	*1.0*	*50*	*0*	*108*	*89 - 112*				

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23060983-01MSD** Units: **ug/L** Analysis Date: **17-Jun-2023 15:04**
Client ID: **LH18/24-SP650_061223** Run ID: **VOA9_439181** SeqNo: **7369120** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.83	1.0	20	0	109	78 - 124	21.93	0.487	20	
1,1,1-Trichloroethane	22.16	1.0	20	0	111	74 - 131	22.73	2.54	20	
1,1,2,2-Tetrachloroethane	18.03	1.0	20	0	90.1	71 - 121	18.61	3.21	20	
1,1,2-Trichloroethane	20.27	1.0	20	0	101	80 - 119	19.59	3.44	20	
1,1-Dichloroethane	19.55	1.0	20	0	97.8	77 - 125	20.49	4.68	20	
1,1-Dichloroethene	21.39	1.0	20	0	107	71 - 131	21.77	1.79	20	
1,1-Dichloropropene	23.79	1.0	20	0	119	78 - 125	24.67	3.66	20	
1,2,3-Trichlorobenzene	20.26	1.0	20	0	101	69 - 129	20.03	1.14	20	
1,2,3-Trichloropropane	17.84	1.0	20	0	89.2	73 - 122	18.48	3.52	20	
1,2,4-Trichlorobenzene	20.25	1.0	20	0	101	69 - 130	19.93	1.58	20	
1,2,4-Trimethylbenzene	24.23	1.0	20	0	121	76 - 124	23.61	2.59	20	
1,2-Dibromo-3-chloropropane	17.07	1.0	20	0	85.3	62 - 128	17.43	2.09	20	
1,2-Dibromoethane	20.44	1.0	20	0	102	77 - 121	20.69	1.19	20	
1,2-Dichlorobenzene	20.83	1.0	20	0	104	80 - 119	20.82	0.0611	20	
1,2-Dichloroethane	22.71	1.0	20	0	114	73 - 128	23.32	2.64	20	
1,2-Dichloropropane	20.24	1.0	20	0	101	78 - 122	20.53	1.43	20	
1,3,5-Trimethylbenzene	23.87	1.0	20	0	119	75 - 124	23.6	1.13	20	
1,3-Dichlorobenzene	21.04	1.0	20	0	105	80 - 119	21.34	1.4	20	
1,3-Dichloropropane	20.24	1.0	20	0	101	80 - 119	20.49	1.21	20	
1,4-Dichlorobenzene	21.04	1.0	20	0	105	79 - 118	21.21	0.8	20	
2,2-Dichloropropane	23.48	1.0	20	0	117	60 - 139	23.76	1.17	20	
2-Butanone	34.66	2.0	40	0	86.6	56 - 143	35.51	2.44	20	
2-Chlorotoluene	22.51	1.0	20	0	113	79 - 122	22.88	1.62	20	
2-Hexanone	38.75	2.0	40	0	96.9	57 - 139	37.56	3.11	20	
4-Chlorotoluene	23.29	1.0	20	0	116	78 - 122	23.63	1.46	20	
4-Isopropyltoluene	25.45	1.0	20	0	127	77 - 127	25.62	0.651	20	S
4-Methyl-2-pentanone	40.02	2.0	40	0	100	67 - 130	38.28	4.45	20	
Acetone	37.11	2.0	40	0	92.8	39 - 160	36.76	0.954	20	
Benzene	20.82	1.0	20	0	104	79 - 120	21.51	3.24	20	
Bromobenzene	20.21	1.0	20	0	101	80 - 120	20.49	1.38	20	
Bromochloromethane	18.81	1.0	20	0	94.0	78 - 123	19.97	5.97	20	
Bromodichloromethane	21.58	1.0	20	0	108	79 - 125	22.21	2.91	20	
Bromoform	19.44	1.0	20	0	97.2	66 - 130	19.95	2.59	20	
Bromomethane	16.27	1.0	20	0	81.4	53 - 141	18.74	14.1	20	

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439181 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23060983-01MSD** Units: **ug/L** Analysis Date: **17-Jun-2023 15:04**
Client ID: **LH18/24-SP650_061223** Run ID: **VOA9_439181** SeqNo: **7369120** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	47.37	2.0	40	0	118	64 - 133	48.68	2.72	20	
Carbon tetrachloride	24.58	1.0	20	0	123	72 - 136	25.42	3.38	20	
Chlorobenzene	21.77	1.0	20	0	109	82 - 118	21.87	0.468	20	
Chloroethane	17.05	1.0	20	0	85.2	60 - 138	21.07	21.1	20	R
Chloroform	20.08	1.0	20	0	100	79 - 124	21.06	4.76	20	
Chloromethane	14.36	1.0	20	0	71.8	50 - 139	14.84	3.31	20	
cis-1,2-Dichloroethene	20.58	1.0	20	1.123	97.3	78 - 123	21.18	2.87	20	
cis-1,3-Dichloropropene	18.64	1.0	20	0	93.2	75 - 124	18.94	1.59	20	
Dibromochloromethane	21.56	1.0	20	0	108	74 - 126	21.76	0.942	20	
Dibromomethane	21.15	1.0	20	0	106	79 - 123	22.28	5.2	20	
Dichlorodifluoromethane	20.01	1.0	20	0	100	32 - 152	20.65	3.12	20	
Ethylbenzene	23.2	1.0	20	0	116	79 - 121	23.59	1.66	20	
Hexachlorobutadiene	23.66	1.0	20	0	118	66 - 134	24.29	2.62	20	
Isopropylbenzene	25.34	1.0	20	0	127	72 - 131	25.97	2.42	20	
m,p-Xylene	48.44	2.0	40	0	121	80 - 121	49.18	1.52	20	S
Methylene chloride	19.8	2.0	20	0	99.0	74 - 124	19.97	0.818	20	
Naphthalene	20.52	1.0	20	0	103	61 - 128	19.16	6.84	20	
n-Butylbenzene	25.8	1.0	20	0	129	75 - 128	25.58	0.876	20	S
n-Propylbenzene	24.67	1.0	20	0	123	76 - 126	24.84	0.659	20	
o-Xylene	23.72	1.0	20	0	119	78 - 122	23.62	0.39	20	
sec-Butylbenzene	25.45	1.0	20	0	127	77 - 126	25.18	1.04	20	S
Styrene	22.89	1.0	20	0	114	78 - 123	22.81	0.36	20	
tert-Butylbenzene	24.1	1.0	20	0	120	78 - 124	24.57	1.94	20	
Tetrachloroethene	24.79	1.0	20	0	124	74 - 129	24.87	0.32	20	
Toluene	22.74	1.0	20	0	114	80 - 121	22.56	0.825	20	
trans-1,2-Dichloroethene	21.12	1.0	20	0	106	75 - 124	22.45	6.12	20	
trans-1,3-Dichloropropene	18.38	1.0	20	0	91.9	73 - 127	18.54	0.899	20	
Trichloroethene	20.37	1.0	20	0	102	79 - 123	22	7.7	20	
Trichlorofluoromethane	25.56	1.0	20	0	128	65 - 141	26.34	3	20	
Vinyl chloride	21.99	1.0	20	0	110	58 - 137	22.47	2.19	20	
Surr: 1,2-Dichloroethane-d4	*55.04*	*1.0*	*50*	*0*	*110*	*81 - 118*	*56.3*	*2.26*	*20*	
Surr: 4-Bromofluorobenzene	*52.07*	*1.0*	*50*	*0*	*104*	*85 - 114*	*51.92*	*0.304*	*20*	
Surr: Dibromofluoromethane	*51.13*	*1.0*	*50*	*0*	*102*	*80 - 119*	*52.8*	*3.21*	*20*	
Surr: Toluene-d8	*55.2*	*1.0*	*50*	*0*	*110*	*89 - 112*	*53.99*	*2.21*	*20*	

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder:	HS23060983

QC BATCH REPORT

Batch ID:	**R439181 (0)**	**Instrument:**	**VOA9**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS23060983-01 HS23060983-02

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ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439301 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **19-Jun-2023 15:24**
Client ID: Run ID: **ICS-Integrion_439301** SeqNo: **7371742** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.250	0.500								U
Sulfate	0.250	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **19-Jun-2023 15:29**
Client ID: Run ID: **ICS-Integrion_439301** SeqNo: **7371743** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.12	0.500	20	0	101	80 - 120				
Sulfate	20.59	0.500	20	0	103	80 - 120				

MS Sample ID: **HS23061015-19MS** Units: **mg/L** Analysis Date: **19-Jun-2023 15:41**
Client ID: Run ID: **ICS-Integrion_439301** SeqNo: **7371745** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	295.1	10.0	200	88.86	103	80 - 120				
Sulfate	1569	10.0	200	1480	44.8	80 - 120				SO

MS Sample ID: **HS23060749-03MS** Units: **mg/L** Analysis Date: **19-Jun-2023 17:17**
Client ID: Run ID: **ICS-Integrion_439301** SeqNo: **7371758** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.51	0.500	10	9.399	101	80 - 120				
Sulfate	27.14	0.500	10	17.51	96.3	80 - 120				

MSD Sample ID: **HS23061015-19MSD** Units: **mg/L** Analysis Date: **19-Jun-2023 15:47**
Client ID: Run ID: **ICS-Integrion_439301** SeqNo: **7371746** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	294.6	10.0	200	88.86	103	80 - 120	295.1	0.163	20	
Sulfate	1566	10.0	200	1480	43.4	80 - 120	1569	0.18	20	SO

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: HS23060983

QC BATCH REPORT

Batch ID: R439301 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MSD Sample ID: **HS23060749-03MSD** Units: **mg/L** Analysis Date: **19-Jun-2023 17:23**
Client ID: Run ID: **ICS-Integrion_439301** SeqNo: **7371759** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.45	0.500	10	9.399	101	80 - 120	19.51	0.293	20	
Sulfate	27.1	0.500	10	17.51	95.9	80 - 120	27.14	0.145	20	

The following samples were analyzed in this batch: HS23060983-01

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 20-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi-Weekly Samples
WorkOrder: **HS23060983**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

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CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

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ALS Houston, US Date: 20-Jun-23

Sample Receipt Checklist

Work Order ID: HS23060983 **Date/Time Received:** 13-Jun-2023 09:30

Client Name: Bhate Environmental **Received by:** Corey Grandits

Completed By:	/S/ Jared R. Makan	15-Jun-2023 21:20	**Reviewed by:**	/S/ Nieka.Carson	16-Jun-2023 08:05
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	2.7°C/2.6°C UC/C	IR31
Cooler(s)/Kit(s):	48490	
Date/Time sample(s) sent to storage:	06/15/2023 21:20	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

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CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210, Houston, Tx. 77099 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job: GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: VOC	Analyses: CHLORIDE, SULFATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_061223	Water	06/12/23 / 13:00		3	3		HCL	
LH18/24-SP650_061223	Water	06/12/23 / 13:00		1		1	NONE	
Trip Blank	Water	06/12/23		2	2		HCL	

HS23060983

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Bi-Weekly Sample:

Additional Remarks: **Standard TAT on all parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	06/12/23	13:30	[illegible]	6.13.23	0930						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks: 48490 IR31 2.5°

(Word) Bhate-ces Forms\Chain of Custody - BiWeekly

RIGHT SOLUTIONS | RIGHT PARTNER



RIGHT SOLUTIONS | RIGHT PARTNER

HS23060983-MSVOA-SW8260

ALS WO# HS23060983

01210218

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

HS23060983-01	Collected	Received	Matrix	Basis
LH18/24-SP650_061223	06/12/23 13:00	06/13/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/17/23 14:19	VOA9_439181	U061709.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/17/23 14:19	VOA9_439181	U061709.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

HS23060983-01	Collected	Received	Matrix	Basis
LH18/24-SP650_061223	06/12/23 13:00	06/13/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
cis-1,2-Dichloroethene	ug/L	1.1		0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 14:19	VOA9_439181	U061709.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

HS23060983-02

Trip Blank

Collected	Received	Matrix	Basis
06/12/23 13:00	06/13/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/17/23 16:11	VOA9_439181	U061714.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/17/23 16:11	VOA9_439181	U061714.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

HS23060983-02	Collected	Received	Matrix	Basis
Trip Blank	06/12/23 13:00	06/13/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 16:11	VOA9_439181	U061714.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

VBLKW-230617	Collected	Received	Matrix	Basis
VBLKW-230617	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/17/23 13:35	VOA9_439181	U061707.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/17/23 13:35	VOA9_439181	U061707.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

VBLKW-230617	Collected	Received	Matrix	Basis
VBLKW-230617	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/17/23 13:35	VOA9_439181	U061707.D

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Form 2

System Monitoring Compound Recovery

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Bi-Weekly Samples	HS23060983	

RunID

Volatiles by EPA 8260

VOA9-439181

CCB-CCB	Analyzed	Conc Units	Dilution
CCB	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	55.19	50	110		80-120
4-Bromofluorobenzene	48.14	50	96.3		80-120
Dibromofluoromethane	50.93	50	102		80-120
Toluene-d8	54.43	50	109		80-120

CCV-CCV	Analyzed	Conc Units	Dilution
CCV	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	53.27	50	107		80-120
4-Bromofluorobenzene	53.68	50	107		80-120
Dibromofluoromethane	49.79	50	99.6		80-120
Toluene-d8	49.89	50	99.8		80-120

HS23060983-01	Analyzed	Conc Units	Dilution
LH18/24-SP650_061223	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	56	50	113		81-118
4-Bromofluorobenzene	47	50	93.6		85-114
Dibromofluoromethane	51	50	102		80-119
Toluene-d8	54	50	109		89-112

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.

Project: Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder: HS23060983

RunID: VOA9-439181

Volatiles by EPA 8260

HS23060983-01MS	Analyzed	Conc Units	Dilution
LH18/24-SP650_061223	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	56.3	50	113		81-118
4-Bromofluorobenzene	51.92	50	104		85-114
Dibromofluoromethane	52.8	50	106		80-119
Toluene-d8	53.99	50	108		89-112

HS23060983-01MSD	Analyzed	Conc Units	Dilution
LH18/24-SP650_061223	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	55.04	50	110		81-118
4-Bromofluorobenzene	52.07	50	104		85-114
Dibromofluoromethane	51.13	50	102		80-119
Toluene-d8	55.2	50	110		89-112

HS23060983-02	Analyzed	Conc Units	Dilution
Trip Blank	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	58	50	115		81-118
4-Bromofluorobenzene	47	50	94.7		85-114
Dibromofluoromethane	51	50	102		80-119
Toluene-d8	55	50	109		89-112

Form 2 - System Monitoring Compound Recovery

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Bi-Weekly Samples	**HS23060983**	

RunID

Volatiles by EPA 8260

VOA9-439181

VBLKW-230617	Analyzed	Conc Units	Dilution
VBLKW-230617	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	56.43	50	113		81-118
4-Bromofluorobenzene	48.33	50	96.7		85-114
Dibromofluoromethane	49.13	50	98.3		80-119
Toluene-d8	54.66	50	109		89-112

VLCSW-230617	Analyzed	Conc Units	Dilution
VLCSW-230617	06/17/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	52.21	50	104		81-118
4-Bromofluorobenzene	50.94	50	102		85-114
Dibromofluoromethane	48.68	50	97.4		80-119
Toluene-d8	46.74	50	93.5		89-112

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

RunID VOA9-439181

Volatiles by EPA 8260

LH18/24-SP650_061223 (HS23060983-01)				HS23060983-01MS				
Sample Matrix	Aqueous		Run Date	06/17/23				
Result Units	ug/L		Run Time	14:42				
			Data File	U061710.D				
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	
1,1,1,2-Tetrachloroethane	78-124	1	0	21.93	20	110		
1,1,1-Trichloroethane	74-131	1	0	22.73	20	114		
1,1,2,2-Tetrachloroethane	71-121	1	0	18.61	20	93		
1,1,2-Trichloroethane	80-119	1	0	19.59	20	98		
1,1-Dichloroethane	77-125	1	0	20.49	20	102		
1,1-Dichloroethene	71-131	1	0	21.77	20	109		
1,1-Dichloropropene	78-125	1	0	24.67	20	123		
1,2,3-Trichlorobenzene	69-129	1	0	20.03	20	100		
1,2,3-Trichloropropane	73-122	1	0	18.48	20	92		
1,2,4-Trichlorobenzene	69-130	1	0	19.93	20	100		
1,2,4-Trimethylbenzene	76-124	1	0	23.61	20	118		
1,2-Dibromo-3-chloropropane	62-128	1	0	17.43	20	87		
1,2-Dibromoethane	77-121	1	0	20.69	20	103		
1,2-Dichlorobenzene	80-119	1	0	20.82	20	104		
1,2-Dichloroethane	73-128	1	0	23.32	20	117		
1,2-Dichloropropane	78-122	1	0	20.53	20	103		
1,3,5-Trimethylbenzene	75-124	1	0	23.6	20	118		
1,3-Dichlorobenzene	80-119	1	0	21.34	20	107		
1,3-Dichloropropane	80-119	1	0	20.49	20	102		
1,4-Dichlorobenzene	79-118	1	0	21.21	20	106		
2,2-Dichloropropane	60-139	1	0	23.76	20	119		
2-Butanone	56-143	1	0	35.51	40	89		
2-Chlorotoluene	79-122	1	0	22.88	20	114		
2-Hexanone	57-139	1	0	37.56	40	94		
4-Chlorotoluene	78-122	1	0	23.63	20	118		
4-Isopropyltoluene	77-127	1	0	25.62	20	128		
4-Methyl-2-pentanone	67-130	1	0	38.28	40	96		
Acetone	39-160	1	0	36.76	40	92		
Benzene	79-120	1	0	21.51	20	108		
Bromobenzene	80-120	1	0	20.49	20	102		
Bromochloromethane	78-123	1	0	19.97	20	100		
Bromodichloromethane	79-125	1	0	22.21	20	111		
Bromoform	66-130	1	0	19.95	20	100		
Bromomethane	53-141	1	0	18.74	20	94		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

RunID VOA9-439181

Volatiles by EPA 8260

LH18/24-SP650_061223 (HS23060983-01)				HS23060983-01MS				
Sample Matrix Aqueous			**Run Date**	06/17/23				
Result Units ug/L			**Run Time**	14:42				
			Data File	U061710.D				
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	
Carbon disulfide	64-133	1	0	48.68	40	122		
Carbon tetrachloride	72-136	1	0	25.42	20	127		
Chlorobenzene	82-118	1	0	21.87	20	109		
Chloroethane	60-138	1	0	21.07	20	105		
Chloroform	79-124	1	0	21.06	20	105		
Chloromethane	50-139	1	0	14.84	20	74		
cis-1,2-Dichloroethene	78-123	1	1.123	21.18	20	100		
cis-1,3-Dichloropropene	75-124	1	0	18.94	20	95		
Dibromochloromethane	74-126	1	0	21.76	20	109		
Dibromomethane	79-123	1	0	22.28	20	111		
Dichlorodifluoromethane	32-152	1	0	20.65	20	103		
Ethylbenzene	79-121	1	0	23.59	20	118		
Hexachlorobutadiene	66-134	1	0	24.29	20	121		
Isopropylbenzene	72-131	1	0	25.97	20	130		
m,p-Xylene	80-121	1	0	49.18	40	123		
Methylene chloride	74-124	1	0	19.97	20	100		
Naphthalene	61-128	1	0	19.16	20	96		
n-Butylbenzene	75-128	1	0	25.58	20	128		
n-Propylbenzene	76-126	1	0	24.84	20	124		
o-Xylene	78-122	1	0	23.62	20	118		
sec-Butylbenzene	77-126	1	0	25.18	20	126		
Styrene	78-123	1	0	22.81	20	114		
tert-Butylbenzene	78-124	1	0	24.57	20	123		
Tetrachloroethene	74-129	1	0	24.87	20	124		
Toluene	80-121	1	0	22.56	20	113		
trans-1,2-Dichloroethene	75-124	1	0	22.45	20	112		
trans-1,3-Dichloropropene	73-127	1	0	18.54	20	93		
Trichloroethene	79-123	1	0	22	20	110		
Trichlorofluoromethane	65-141	1	0	26.34	20	132		
Vinyl chloride	58-137	1	0	22.47	20	112		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

SAMPLENUM VLCSW-230617

Volatiles by EPA 8260

VOA9_439181			VLCSW-230617			
Spike Matrix	Aqueous	**Run Date**	06/17/23			
Result Units	ug/L	**Run Time**	12:50			
		Data File	U061705.D			
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
1,1,1,2-Tetrachloroethane	78-124	20	20.47	102		
1,1,1-Trichloroethane	74-131	20	21.62	108		
1,1,2,2-Tetrachloroethane	71-121	20	18.93	95		
1,1,2-Trichloroethane	80-119	20	19.18	96		
1,1-Dichloroethane	77-125	20	19.76	99		
1,1-Dichloroethene	71-131	20	20.25	101		
1,1-Dichloropropene	78-125	20	21.69	108		
1,2,3-Trichlorobenzene	69-129	20	19.02	95		
1,2,3-Trichloropropane	73-122	20	18.6	93		
1,2,4-Trichlorobenzene	69-130	20	19.57	98		
1,2,4-Trimethylbenzene	76-124	20	21.35	107		
1,2-Dibromo-3-chloropropane	62-128	20	17.6	88		
1,2-Dibromoethane	77-121	20	19.52	98		
1,2-Dichlorobenzene	80-119	20	20.22	101		
1,2-Dichloroethane	73-128	20	22.51	113		
1,2-Dichloropropane	78-122	20	20.03	100		
1,3,5-Trimethylbenzene	75-124	20	21.26	106		
1,3-Dichlorobenzene	80-119	20	20.43	102		
1,3-Dichloropropane	80-119	20	19.75	99		
1,4-Dichlorobenzene	79-118	20	20.47	102		
2,2-Dichloropropane	60-139	20	23.21	116		
2-Butanone	56-143	40	37.17	93		
2-Chlorotoluene	79-122	20	21.18	106		
2-Hexanone	57-139	40	35.92	90		
4-Chlorotoluene	78-122	20	22.17	111		
4-Isopropyltoluene	77-127	20	21.91	110		
4-Methyl-2-pentanone	67-130	40	37.2	93		
Acetone	39-160	40	42.09	105		
Benzene	79-120	20	20.18	101		
Bromobenzene	80-120	20	19.9	100		
Bromochloromethane	78-123	20	18.68	93		
Bromodichloromethane	79-125	20	21.11	106		
Bromoform	66-130	20	20.14	101		
Bromomethane	53-141	20	25.47	127		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

SAMPLENUM VLCSW-230617

Volatiles by EPA 8260

VOA9_439181			VLCSW-230617			
Spike Matrix	Aqueous	**Run Date**	06/17/23			
Result Units	ug/L	**Run Time**	12:50			
		Data File	U061705.D			
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
Carbon disulfide	64-133	40	47.41	119		
Carbon tetrachloride	72-136	20	22.81	114		
Chlorobenzene	82-118	20	20.19	101		
Chloroethane	60-138	20	20.27	101		
Chloroform	79-124	20	20.49	102		
Chloromethane	50-139	20	18.09	90		
cis-1,2-Dichloroethene	78-123	20	20.31	102		
cis-1,3-Dichloropropene	75-124	20	18.69	93		
Dibromochloromethane	74-126	20	20.91	105		
Dibromomethane	79-123	20	21.59	108		
Dichlorodifluoromethane	32-152	20	20.34	102		
Ethylbenzene	79-121	20	20.8	104		
Hexachlorobutadiene	66-134	20	22.81	114		
Isopropylbenzene	72-131	20	22.8	114		
m,p-Xylene	80-121	40	43.31	108		
Methylene chloride	74-124	20	21.53	108		
Naphthalene	61-128	20	18.64	93		
n-Butylbenzene	75-128	20	22.75	114		
n-Propylbenzene	76-126	20	22.04	110		
o-Xylene	78-122	20	20.74	104		
sec-Butylbenzene	77-126	20	22.19	111		
Styrene	78-123	20	21.45	107		
tert-Butylbenzene	78-124	20	21.44	107		
Tetrachloroethene	74-129	20	21.4	107		
Toluene	80-121	20	20.73	104		
trans-1,2-Dichloroethene	75-124	20	20.72	104		
trans-1,3-Dichloropropene	73-127	20	18.67	93		
Trichloroethene	79-123	20	20.25	101		
Trichlorofluoromethane	65-141	20	24.56	123		
Vinyl chloride	58-137	20	19.33	97		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

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Form 4

Method Blank Summary

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230617	U061707.D	06/17/23 13:35	VOA9_439181
VLCSW-230617	LCS	VLCSW-230617	U061705.D	06/17/23 12:50	VOA9_439181
LH18/24-SP650_061223	SAMP	HS23060983-01	U061709.D	06/17/23 14:19	VOA9_439181
LH18/24-SP650_061223	MS	HS23060983-01MS	U061710.D	06/17/23 14:42	VOA9_439181
LH18/24-SP650_061223	MSD	HS23060983-01MSD	U061711.D	06/17/23 15:04	VOA9_439181
Trip Blank	SAMP	HS23060983-02	U061714.D	06/17/23 16:11	VOA9_439181

01210237

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Form 5

Instrument Performance Check

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

RunID VOA9-437296

Volatiles by EPA 8260

Tune File U060601.D 06/06/23 6/6/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	19 (19)
75	30.0 - 60.0% of mass 95	46.7 (46.7)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	6.9 (6.86)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	92.1 (92.1)
175	4.0 - 9.0% of mass 174	8 (8.69) 1
176	93.0 - 101.0% of mass 174	89.4 (97) 1
177	5.0 - 9.0% of mass 176	6.1 (6.87) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	VSTD000.25	ICAL1	6/6/2023	U060602	VSTD000.25
2	VSTD000.5	ICAL2	6/6/2023	U060603	VSTD000.5
3	VSTD005	ICAL5	6/6/2023	U060606	VSTD005
4	VSTD001	ICAL3	6/6/2023	U060607	VSTD001
5	VSTD002	ICAL4	6/6/2023	U060608	VSTD002
6	VSTD020	ICAL6	6/6/2023	U060609	VSTD020
7	VSTD050	ICAL7	6/6/2023	U060610	VSTD050
8	VSTD100	ICAL8	6/6/2023	U060611	VSTD100
9	VSTD150	ICAL9	6/6/2023	U060612	VSTD150
10	VSTD200	ICAL	6/6/2023	U060613	VSTD200
11	CCV	ICV	6/6/2023	U060616	CCV

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Bi-Weekly Samples	**HS23060983**	

RunID

Volatiles by EPA 8260

VOA9-437296

Tune File	U060601.D	06/06/23 6/6/2023	**This check applies to the following analyses**

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

RunID VOA9-439181

Volatiles by EPA 8260

Tune File U061701.D 06/17/23 6/17/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	20.9 (20.9)
75	30.0 - 60.0% of mass 95	54.2 (54.2)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.5 (7.48)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	90.2 (90.2)
175	4.0 - 9.0% of mass 174	7.9 (8.79) 1
176	93.0 - 101.0% of mass 174	88.2 (97.8) 1
177	5.0 - 9.0% of mass 176	6 (6.78) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	6/17/2023	U061703	CCV
2	CCB	CCB	6/17/2023	U061704	CCB
3	VLCSW-	LCS	6/17/2023	U061705	VLCSW-230617
4	VBLKW-	MBLK	6/17/2023	U061707	VBLKW-230617
5	HS23060983-	SAMP	6/17/2023	U061709	LH18/24-SP650_061223
6	HS23060983-	MS	6/17/2023	U061710	HS23060983-01MS
7	HS23060983-	MSD	6/17/2023	U061711	HS23060983-01MSD
8	HS23060983-	SAMP	6/17/2023	U061714	Trip Blank
9	CCV-END	CCV_E	6/17/2023	U061731	CCV-END

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Bi-Weekly Samples	**HS23060983**	

RunID

Volatiles by EPA 8260

VOA9-439181

Tune File	U061701.D	06/17/23 6/17/2023	**This check applies to the following analyses**

01210242

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Form 6

Initial Calibration Data

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115

ICAL End Date 06-JUN-2023 1541

Calibration Files

Level 1..voa9.i\u230606.b\u060602.d
Level 2..voa9.i\u230606.b\u060603a.d
Level 3..voa9.i\u230606.b\u060607.d
Level 4..voa9.i\u230606.b\u060608.d
Level 5..voa9.i\u230606.b\u060606.d
Level 6..voa9.i\u230606.b\u060609.d
Level 7..voa9.i\u230606.b\u060610.d
Level 8..voa9.i\u230606.b\u060611.d
Level 9..voa9.i\u230606.b\u060612.d
Level 10voa9.i\u230606.b\u060613.d

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dichlorodifluoromethane	NE 301782	3237 630744	5058 960667	8519 1327832	31172	134998	LINR	0.00160	0.46271		0.99983	
Chloromethane	NE 533277	6740 979734	13219 NE	24280 NE	62455	243997	LINR	-0.02699	0.73429		0.99792	
Propionitrile	NE 0.06910	0.08304 0.07191	0.07790 0.06959	0.06567 0.06755	0.07543	0.07008	AVRG		0.07225		7.66936	
Vinyl Chloride	NE 0.54961	0.53164 0.55242	0.43717 0.54597	0.48902 0.54834	0.55204	0.55364	AVRG		0.52887		7.56687	
Bromomethane	NE 189385	2378 362834	5133 572508	9237 739966	23995	85360	LINR	-0.03678	0.26230		0.99829	
Chloroethane	NE 0.34874	0.38400 0.34887	0.39288 0.34148	0.33413 0.33605	0.35705	0.36318	AVRG		0.35626		5.77503	
Trichlorofluoromethane	NE 0.60336	0.65250 0.63856	0.50831 0.62802	0.50964 0.62488	0.63485	0.66665	AVRG		0.60742		9.63343	
Acrolein	NE 0.02565	0.03356 0.02534	0.02950 0.02449	0.02511 0.02533	0.02566	0.02421	AVRG		0.02654		11.47974	
Acetone	NE 245967	8112 467276	12344 669020	18337 NE	31915	105410	LINR	-0.11414	0.16245		0.99760	
1,1-Dichloroethene	NE 0.37538	0.43475 0.38325	0.34844 0.38119	0.33936 0.38464	0.38705	0.38169	AVRG		0.37953		7.06417	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Isobutyl Alcohol	NE 0.06592	0.06000 0.06937	0.06647 0.06652	0.06001 0.06907	0.06288	0.06445	AVRG		0.06496		5.32316	
Acetonitrile	NE 0.05262	0.06019 0.05598	0.05501 0.05486	0.05232 0.05223	0.05374	0.05025	AVRG		0.05413		5.29738	
Allyl Chloride	NE 1.23994	1.54447 1.31147	1.31408 1.28770	1.21739 1.22743	1.32627	1.21434	AVRG		1.29812		7.89105	
Iodomethane	NE 311144	1872 901104	3593 1654094	5244 2389174	10875	69713	QUAD	0.19719	3.17029	-0.25959	0.99395	*
Acrylonitrile	NE 0.17643	0.19222 0.19265	0.17779 0.18699	0.18194 0.18155	0.19969	0.17956	AVRG		0.18542		4.28504	
Methylene Chloride	NE 313459	6638 614571	9867 934598	14226 1286266	34262	133454	LINR	-0.02055	0.44680		0.99989	
Methyl tert-butyl ether	NE 1.11011	1.34489 1.18230	1.22763 1.16687	1.06262 1.13583	1.16892	1.07548	AVRG		1.16385		7.37549	
Carbon Disulfide	NE 1.05257	0.97637 1.06234	0.93978 1.05033	0.91298 1.04865	1.04258	1.04592	AVRG		1.01461		5.54329	
trans-1,2-Dichloroethene	NE 0.42568	0.43966 0.42424	0.36838 0.41068	0.38985 0.41906	0.41680	0.42038	AVRG		0.41275		5.16490	
Vinyl Acetate	NE 1.24787	1.16903 1.32894	1.28605 1.32075	1.14428 1.28290	1.31826	1.22557	AVRG		1.25818		5.33224	
1,1-Dichloroethane	NE 0.75452	0.91579 0.74633	0.85153 0.73811	0.77473 0.73300	0.79838	0.74713	AVRG		0.78439		7.88122	
Chloroprene	NE 0.15370	0.18753 0.16003	0.14913 0.16411	0.13564 0.16977	0.14899	0.16635	AVRG		0.15947		9.35578	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
2-Butanone	NE 0.21032	0.26865 0.21900	0.27005 0.21311	0.22221 0.20708	0.22579	0.21550	AVRG		0.22797		10.59636	
Methacrylonitrile	NE 0.29063	0.32297 0.31155	0.29216 0.31218	0.25772 0.29964	0.27607	0.29576	AVRG		0.29541		6.71428	
2,2-Dichloropropane	NE 344673	3685 699035	6247 1080274	12294 1505657	33762	139835	LINR	0.00797	0.52278		0.99995	
cis-1,2-Dichloroethene	NE 0.48847	0.54176 0.48782	0.49058 0.48487	0.46721 0.48248	0.51503	0.48586	AVRG		0.49378		4.41592	
Chloroform	NE 0.81885	0.87650 0.81161	0.79076 0.79868	0.79799 0.79042	0.85300	0.80968	AVRG		0.81639		3.62615	
Bromochloromethane	NE 0.26708	0.31315 0.26410	0.30614 0.26302	0.26452 0.25295	0.28615	0.26876	AVRG		0.27621		7.56831	
1,1,1-Trichloroethane	NE 0.63238	0.65994 0.65446	0.57497 0.64619	0.52644 0.65564	0.61086	0.63915	AVRG		0.62223		7.20510	
1,1-Dichloropropene	NE 0.37173	0.32259 0.39025	0.38290 0.38140	0.31292 0.38981	0.36218	0.38416	AVRG		0.36644		7.93028	
1,2-Dichloroethane	NE 0.42081	0.46850 0.42485	0.42052 0.41425	0.45938 0.40606	0.45322	0.42725	AVRG		0.43276		5.06646	
Carbon Tetrachloride	NE 0.34607	0.35476 0.37126	0.28321 0.36664	0.26732 0.37542	0.31231	0.35238	AVRG		0.33660		11.75294	
Benzene	NE 1.23100	1.18679 1.22379	1.09401 1.20222	1.22033 1.18837	1.26301	1.23391	AVRG		1.20483		3.98055	
Trichloroethene	NE 0.34006	0.37553 0.34777	0.35201 0.34410	0.32048 0.34873	0.36729	0.34693	AVRG		0.34921		4.49432	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Bromodichloromethane	NE 0.38236	0.38289 0.40428	0.33360 0.40608	0.32980 0.40603	0.37143	0.36599	AVRG		0.37583		7.72711	
Methyl Methacrylate	NE 0.43942	0.45886 0.46989	0.38280 0.46614	0.37522 0.45591	0.40434	0.41660	AVRG		0.42991		8.44989	
2-Chloroethylvinyl ether	NE 0.00884	0.00852 0.00999	0.00946 NE	0.00945 NE	0.00895	0.00842	AVRG		0.00909		6.25191	
1,2-Dichloropropane	NE 0.32122	NE 0.32222	0.32786 0.32000	0.31466 0.31897	0.32797	0.32063	AVRG		0.32169		1.38453	*
2-Nitropropane	NE 0.11432	0.20680 0.13484	50.26056 0.13886	40.89437 0.13916	0.11155	0.10087	AVRG		10.23348		197	*
Dibromomethane	NE 0.19996	0.21005 0.20667	0.21181 0.20373	0.20209 0.20258	0.21295	0.20004	AVRG		0.20554		2.43958	
4-Methyl-2-Pentanone	NE 0.35703	0.31052 0.36713	0.34114 0.37263	0.41679 0.36509	0.37151	0.37510	AVRG		0.36411		7.81829	
cis-1,3-Dichloropropene	NE 477156	4533 1015887	6985 1649908	12842 2272308	37734	176588	LINR	0.03823	0.52354		0.99932	
Ethyl Methacrylate	NE 0.43593	0.46860 0.47447	0.39717 0.47560	0.34291 0.47794	0.45495	0.41708	AVRG		0.43830		10.42832	
Toluene	NE 1.37452	1.46131 1.35611	1.30389 1.33752	1.24034 1.30792	1.38024	1.44328	AVRG		1.35612		5.10785	
trans-1,3-Dichloropropene	NE 395477	4073 857257	5962 1382903	12660 1913130	31811	143978	LINR	0.04043	0.44043		0.99920	
2-Hexanone	NE 0.23737	0.21896 0.24894	0.27173 0.24680	0.31735 0.24494	0.24794	0.24808	AVRG		0.25357		10.85593	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
1,1,2-Trichloroethane	NE 0.26145	0.27781 0.26759	0.33823 0.26884	0.29394 0.26174	0.29026	0.27967	AVRG		0.28217		8.50628	
1,3-Dichloropropane	NE 0.56388	0.60411 0.56350	0.57145 0.56462	0.58138 0.54844	0.60045	0.59066	AVRG		0.57650		3.26997	
Dibromochloromethane	NE 0.35269	0.33281 0.37245	0.26753 0.38159	0.28317 0.37861	0.30864	0.33570	AVRG		0.33480		12.37215	
Tetrachloroethene	NE 0.31218	0.33596 0.32329	0.35937 0.32063	0.31268 0.32848	0.33355	0.34752	AVRG		0.33041		4.74735	
1,2-Dibromoethane	NE 0.32995	0.39291 0.33734	0.36483 0.33751	0.35335 0.32947	0.34243	0.34494	AVRG		0.34808		5.80098	
1-Chlorohexane	NE 0.23045	0.28084 0.25935	0.24384 0.26305	0.24810 0.27442	0.24355	0.26710	AVRG		0.25674		6.39033	
Chlorobenzene	NE 0.93816	0.96090 0.94626	1.02474 0.94168	0.99652 0.92552	1.00286	0.97411	AVRG		0.96786		3.50306	
1,1,1,2-Tetrachloroethane	NE 0.33475	0.33813 0.34379	0.30312 0.35090	0.32230 0.35020	0.31656	0.33414	AVRG		0.33265		4.80000	
Ethylbenzene	NE 0.45349	0.44932 0.47695	0.42798 0.48030	0.38496 0.47946	0.43441	0.46740	AVRG		0.45047		6.92422	
m,p-Xylenes	NE 0.56107	0.49705 0.59332	0.47095 0.59550	0.46613 0.59257	0.47186	0.54822	AVRG		0.53296		10.58600	
o-Xylene	NE 0.54530	0.51375 0.57414	0.46105 0.58153	0.45548 0.57622	0.49419	0.53695	AVRG		0.52651		9.19888	
Styrene	NE 0.89449	0.81868 0.95766	0.66693 0.96825	0.74091 0.94500	0.69822	0.82991	AVRG		0.83556		13.68101	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Bromoform	NE 0.23260	0.19493 0.26095	0.19245 0.26822	0.20896 0.26444	0.19978	0.21157	AVRG		0.22599		13.81919	
Isopropylbenzene	NE 1.29966	1.14173 1.39540	1.13317 1.38723	1.09443 1.38856	1.19733	1.34411	AVRG		1.26463		9.72168	
1,1,2,2-Tetrachloroethane	NE 0.86517	0.94934 0.88446	1.02444 0.87983	1.13699 0.85285	0.96171	0.90982	AVRG		0.94051		9.75227	
1,2,3-Trichloropropane	NE 0.78271	0.89588 0.82369	0.76851 0.84037	0.91659 0.83039	0.81959	0.76888	AVRG		0.82740		6.30706	
trans-1,4-Dichloro-2-butene	NE 0.05433	0.05261 0.06324	0.05796 0.06690	0.05335 0.06611	0.05527	0.04837	AVRG		0.05757		11.24480	*
n-Propylbenzene	NE 2.66761	2.34893 2.93371	2.29516 2.98954	2.26496 3.06453	2.35462	2.68484	AVRG		2.62266		12.16608	
Bromobenzene	NE 0.80219	0.83256 0.82248	0.87296 0.83564	0.91857 0.83486	0.83236	0.84108	AVRG		0.84363		3.98394	
1,3,5-Trimethylbenzene	NE 1.72613	1.71333 1.88842	1.73215 1.96460	1.69625 2.06354	1.68766	1.72132	AVRG		1.79927		7.64842	
2-Chlorotoluene	NE 1.83116	1.65439 1.87957	1.84359 1.87542	1.86405 1.87375	1.83620	1.93464	AVRG		1.84364		4.19843	
4-Chlorotoluene	NE 2.03659	1.80601 2.10132	1.92642 2.11273	2.12066 2.13399	2.01548	2.11322	AVRG		2.04071		5.42387	
tert-Butylbenzene	NE 1.72651	1.66206 1.87463	1.63607 1.89391	1.58431 1.94965	1.70142	1.87604	AVRG		1.76718		7.49680	
1,2,4-Trimethylbenzene	NE 1.70257	1.87283 1.83519	1.98426 1.91537	2.00872 2.01697	1.83192	1.77568	AVRG		1.88261		5.76159	

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Initial Calibration Data

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Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
sec-Butylbenzene	NE 2.18438	2.00057 2.46235	2.11593 2.51457	1.90597 2.60373	2.05445	2.32792	AVRG		2.24110		11.00553	
p-Isopropyltoluene	NE 1.76859	1.74598 2.03397	1.77727 2.13513	1.70832 2.25284	1.70523	1.77034	AVRG		1.87752		10.99191	
1,3-Dichlorobenzene	NE 1.34174	1.44494 1.39069	1.46902 1.40351	1.55334 1.41569	1.44971	1.42715	AVRG		1.43286		4.09348	
1,4-Dichlorobenzene	NE 1.40239	1.54178 1.43640	1.71276 1.45286	1.69155 1.45678	1.56931	1.48576	AVRG		1.52773		7.29827	
Benzyl Chloride	NE 234906	1867 573982	5481 988530	11203 1346925	22092	85763	LINR	0.06934	0.32121		0.99572	
n-Butylbenzene	NE 1.46534	1.58034 1.66824	1.52199 1.76126	1.45737 1.86929	1.51798	1.62397	AVRG		1.60731		8.65865	
1,2-Dichlorobenzene	NE 1.34667	1.37505 1.37717	1.58056 1.39037	1.62196 1.39656	1.41014	1.43132	AVRG		1.43664		6.73798	
1,2-Dibromo-3-Chloropropane	NE 0.13055	0.12905 0.14193	0.13125 0.15019	0.15055 0.15436	0.12496	0.12235	AVRG		0.13724		8.84952	
1,2,4-Trichlorobenzene	NE 0.92607	0.99711 0.97797	1.02603 1.01256	1.05277 1.03962	0.91403	0.94731	AVRG		0.98816		5.06669	
Hexachlorobutadiene	NE 0.34400	0.41409 0.38848	0.47350 0.41057	0.36363 0.43096	0.36197	0.40436	AVRG		0.39906		9.99191	
Naphthalene	NE 2.32218	2.00604 2.38330	2.45479 2.41879	2.35836 2.39671	2.05295	2.26528	AVRG		2.29538		7.00317	
1,2,3-Trichlorobenzene	NE 0.91575	0.89610 0.95078	1.01723 0.97037	1.09261 0.98955	0.91438	0.94752	AVRG		0.96603		6.32619	

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Initial Calibration Data

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Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 / 0.250 Level 1	100.00 Level 8 / 0.500 Level 2	150.00 Level 9 / 1.00 Level 3	200.00 Level 10 / 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Ethyl Acetate	NE	0.56275	0.47646	0.45270	0.44438	0.42507						
	0.40659	0.43291	0.42120	0.40047			AVRG		0.44695		11.03167	
Methyl Acrylate	NE	0.64029	0.52884	0.45224	0.49568	0.50330						
	0.51803	0.55501	0.53794	0.52785			AVRG		0.52880		9.67195	
n-Butanol	NE	0.01415	2.08859	4.21587	0.01247	0.01208						
	0.01307	0.01509	0.01514	0.01494			AVRG		0.71127		208	*
Cyclohexanone	NE	0.03990	0.03613	0.02961	0.03016	0.02808						
	0.02875	0.02946	0.02809	0.02880			AVRG		0.03100		13.36896	
1,4-Dioxane	0.02235	0.01166	0.01127	0.01101	0.00960	0.00693						
	0.00659	0.00691	0.00671	0.00625			AVRG		0.00993		49.04531	*
n-Hexane	NE	2983	4787	7179	28289	131033						
	256401	595793	933406	1358253			QUAD	0.00210	2.46538	-0.18460	0.99921	
Freon TF	NE	0.35587	0.27604	0.26719	0.34986	0.36574						
	0.32170	0.35856	0.35800	0.36926			AVRG		0.33580		11.58349	
Methyl Acetate	NE	0.50232	0.47241	0.46924	0.40980	0.39186						
	0.37668	0.40100	0.38762	0.37810			AVRG		0.42100		11.22802	
Methylcyclohexane	NE	0.71717	0.66486	0.57666	0.69680	0.64861						
	0.63877	0.77007	0.77041	0.75903			AVRG		0.69360		9.68871	
Isopropyl alcohol	NE	0.03524	0.03413	0.04209	0.03152	0.02969						
	0.02926	0.03162	0.03087	0.02976			AVRG		0.03269		12.43532	
Amyl alcohol	NE	0.01197	1.92102	3.42130	0.00863	0.00951						
	0.00986	0.01105	0.01113	0.01101			AVRG		0.60172		205	*
Allyl alcohol	NE	2691	4787	7179	27611	131033						
	256401	595793	933406	1358253			QUAD	0.05728	49.27793	-3.68010	0.99921	

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Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 / 0.250 Level 1	100.00 Level 8 / 0.500 Level 2	150.00 Level 9 / 1.00 Level 3	200.00 Level 10 / 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
4-Methyl-2-pentanol	NE 0.06687	0.10161 0.07627	0.07347 0.07449	0.06147 0.07390	0.06954	0.07154	AVRG		0.07435		15.04325	
Tert-butyl alcohol	NE 592187	6757 1263261	16016 1948328	34487 2615413	66425	255911	LINR	-0.09917	0.04597		0.99942	
Diethyl ether	NE 0.32639	0.41853 0.34643	0.29113 0.34449	0.31214 0.33721	0.34912	0.31512	AVRG		0.33784		10.59316	
1,3-Butadiene	NE 0.48722	0.44026 0.50601	0.41436 0.49354	0.42154 0.49579	0.49134	0.51162	AVRG		0.47352		7.90782	
Cyclohexane	NE 384146	4345 872566	7781 1346053	8877 1948136	37840	190495	QUAD	0.00384	1.66261	-0.06851	0.99933	
Tetrahydrofuran	NE 124830	1846 246154	3378 364883	4068 488623	13490	48081	LINR	-0.04721	0.08627		0.99868	
alpha-Methylstyrene	NE 398013	3201 939505	6428 1521945	14955 2162870	33946	141914	LINR	0.07068	1.00922		0.99634	
Diisopropyl ether	NE 1.33854	1.62723 1.40873	1.35167 1.38423	1.35708 1.35239	1.43176	1.29604	AVRG		1.39419		6.88405	
Dichlorofluoromethane	NE 0.68369	1.14419 0.72055	154 0.71841	259 0.70435	0.74302	0.65918	AVRG		46.48926		203	*
Butyl acrylate	NE 0.56545	0.65141 0.62687	0.57943 0.64178	0.50180 0.63283	0.56456	0.55884	AVRG		0.59144		8.39860	
Dicyclopentadiene	NE 2.17722	2.29788 2.45924	3.10552 2.50496	2.30282 2.43925	2.47288	2.19129	AVRG		2.43901		11.40017	
1,2,3-Trimethylbenzene	NE 1.72212	2.16993 1.82789	2.16879 1.86297	1.86768 1.91009	2.05701	1.71103	AVRG		1.92195		9.02117	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Ethanol	NE 83818	929 175232	2663 261491	4910 342926	9968	33180	LINR	-0.45661	0.00610		0.99807	
tert-Butyl formate	NE 0.35469	NE 0.39711	70.88590 0.40728	111 0.40312	0.37084	0.36100	AVRG		23.05896		188	*
3,3-Dimethyl-1-butanol	NE 0.03321	0.12053 0.03570	15.41396 0.03539	18.45449 0.03515	0.03977	0.03772	AVRG		3.80066		197	*
tert-Amyl methyl ether	NE 1.27072	2.14082 1.66952	303 1.69353	515 1.68414	1.51794	1.20622	AVRG		92.03003		203	*
tert-Butyl ethyl ether	NE 1.16135	1.66370 1.24096	249 1.23931	427 1.22143	1.20218	1.12101	AVRG		76.03857		204	*
tert-Amyl alcohol	NE 0.03547	0.04913 0.03971	7.08859 0.04073	11.12917 0.04031	0.03708	0.03610	AVRG		2.05514		201	*
Epichlorohydrin	NE 17348	NE 42530	230 78090	854 120896	2028	5384	QUAD	0.19276	210	-620	0.99786	*
Isoprene	NE 0.12271	0.17622 0.12050	24.46517 0.11801	42.70055 0.13763	0.11208	0.12455	AVRG		7.56416		204	*
n-Amyl acetate	NE 0.55364	NE 0.58593	NE 0.59354	211 0.58358	0.63545	0.57662	AVRG		30.68893		260	*
Isopropyl acetate	NE 0.98722	1.34246 1.04945	418 1.03674	509 1.02205	1.01129	0.99086	AVRG		104		198	*
n-Butyl acetate	NE 0.55036	0.55703 0.58437	0.53651 0.60799	0.60175 0.59915	0.53866	0.54802	AVRG		0.56932		5.06190	
Acetaldehyde	NE 0.06756	NE 0.07481	NE 0.07268	NE 0.07068	0.05587	0.07216	AVRG		0.06896		9.93199	*

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Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Methyl Amyl Ketone	NE 0.66113	1.57193 0.70193	232 0.68889	332 0.68782	0.72364	0.69666	AVRG		63.26693		200	*
Dimethyl Disulfide	NE 275143	1341 843448	2841 1542342	4598 2303909	15263	75368	QUAD	0.09069	2.54687	-0.35667	0.99436	
2-Ethylhexyl Acrylate	NE 214955	2309 534360	4963 905239	8201 1300346	19373	70007	QUAD	0.03475	2.11188	-0.20750	0.99843	
94 1,2-Dichloroethylene (total)	NE 0.45707	0.49071 0.45603	0.42948 0.44777	0.42853 0.45077	0.46591	0.45312	AVRG		0.45327		4.12637	
95 Xylenes (total)	NE 0.53378	0.46723 0.57391	0.43600 0.57061	0.43592 0.57101	0.45257	0.49964	AVRG		0.50452		11.72066	
30 Dibromofluoromethane	NE 271537	3644 587291	5853 869167	10602 1189943	30229	119153	LINR	-0.00632	0.41704		0.99929	
35 1,2-Dichloroethane-d4	NE 303470	3795 630129	6027 944002	11855 1273587	34153	129564	LINR	-0.01366	0.44800		0.99930	
48 Toluene-d8	NE 1.07251	1.56295 1.11768	1.00002 1.06933	1.01159 1.04518	1.14526	1.16028	AVRG		1.13164		15.10726	
69 4-Bromofluorobenzene	NE 425877	5007 923899	8608 1355424	16728 1832443	49215	178335	LINR	-0.01813	0.43793		0.99886	

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Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

Sample Matrix LIQUID
Lab Smp Id ICV
Level LOW
Fraction VOA
Client Smp ID ICV
Operator PC

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.00	49.07	98.15	80-120	
1,1,1-Trichloroethane	50.00	44.11	88.23	80-120	
1,1,2,2-Tetrachloroethane	50.00	44.15	88.32	80-120	
Freon TF	50.00	42.50	85.01	80-120	
Methyl Acetate	50.00	40.70	81.42	80-120	
Cyclohexane	50.00	42.07	84.15	80-120	
Methylcyclohexane	50.00	46.30	92.61	80-120	
Carbon Disulfide	100.00	93.13	93.14	80-120	
2-Hexanone	100.00	92.61	92.61	80-120	
1,1,2-Trichloroethane	50.00	45.65	91.32	80-120	
1,1-Dichloroethane	50.00	41.14	82.28	80-120	
1,1-Dichloroethene	50.00	43.45	86.92	80-120	
1,1-Dichloropropene	50.00	45.66	91.33	80-120	
1,2,3-Trichlorobenzene	50.00	47.31	94.63	80-120	
1,2,3-Trichloropropane	50.00	45.92	91.85	80-120	
1,2,4-Trichlorobenzene	50.00	47.57	95.14	80-120	
1,2,4-Trimethylbenzene	50.00	47.79	95.60	80-120	
1,2-Dibromo-3-Chloropropane	50.00	47.57	95.14	80-120	
1,2-Dibromoethane	50.00	45.60	91.22	80-120	
Acrolein	100.00	87.41	87.42	80-120	
Acrylonitrile	100.00	91.25	91.25	80-120	
1,2-Dichlorobenzene	50.00	45.26	90.54	80-120	
1,2-Dichloroethane	50.00	44.18	88.38	80-120	
1,2-Dichloropropane	50.00	45.23	90.47	80-120	
1,3,5-Trimethylbenzene	50.00	48.21	96.43	80-120	
1,3-Dichlorobenzene	50.00	46.22	92.45	80-120	
1,3-Dichloropropane	50.00	47.41	94.82	80-120	
1,4-Dichlorobenzene	50.00	44.52	89.05	80-120	
1-Chlorohexane	50.00	40.85	81.71	80-120	
2,2-Dichloropropane	50.00	45.93	91.87	80-120	
2-Butanone	100.00	87.11	87.11	80-120	
2-Chloroethylvinyl ether	100.00	82.24	82.24	80-120	
2-Chlorotoluene	50.00	46.75	93.51	80-120	
4-Chlorotoluene	50.00	48.40	96.80	80-120	

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RunID VOA9_437296

Volatiles by EPA 8260

Sample Matrix LIQUID
Lab Smp Id ICV
Level LOW
Fraction VOA
Client Smp ID ICV
Operator PC

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	48.52	97.04	80-120	
4-Methyl-2-Pentanone	100.00	97.72	97.73	80-120	
Acetone	100.00	95.43	95.43	80-120	
Acetonitrile	500.00	437.35	87.47	80-120	
Allyl Chloride	50.00	43.46	86.94	80-120	
Benzene	50.00	46.31	92.63	80-120	
Bromobenzene	50.00	45.71	91.42	80-120	
Bromochloromethane	50.00	44.93	89.87	80-120	
Bromodichloromethane	50.00	47.72	95.44	80-120	
Bromoform	50.00	51.02	102.05	80-120	
Bromomethane	50.00	55.03	110.08	80-120	
Carbon Tetrachloride	50.00	44.38	88.77	80-120	
Chlorobenzene	50.00	45.99	91.98	80-120	
Chloroethane	50.00	43.12	86.25	80-120	
Chloroform	50.00	43.97	87.95	80-120	
Chloromethane	50.00	40.39	80.80	80-120	
Chloroprene	50.00	42.86	85.72	80-120	
cis-1,2-Dichloroethene	50.00	44.27	88.55	80-120	
cis-1,3-Dichloropropene	50.00	44.95	89.92	80-120	
Dibromochloromethane	50.00	51.79	103.58	80-120	
Dibromomethane	50.00	45.22	90.46	80-120	
Dichlorodifluoromethane	50.00	43.44	86.88	80-120	
Ethylbenzene	50.00	48.34	96.69	80-120	
Ethyl Methacrylate	50.00	48.75	97.51	80-120	
Iodomethane	100.00	85.89	85.90	80-120	
Isobutyl Alcohol	1000.00	1063.31	106.33	70-130	
Propionitrile	500.00	447.35	89.47	70-130	
Hexachlorobutadiene	50.00	42.50	85.02	80-120	
Isopropylbenzene	50.00	48.91	97.84	80-120	
m,p-Xylenes	100.00	101.18	101.18	80-120	
Methyl tert-butyl ether	50.00	45.15	90.31	80-120	
Methylene Chloride	50.00	45.61	91.23	80-120	
Methacrylonitrile	50.00	47.68	95.38	80-120	
Methyl Methacrylate	50.00	47.58	95.17	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_437296

Volatiles by EPA 8260

Sample Matrix LIQUID
Lab Smp Id ICV
Level LOW
Fraction VOA
Client Smp ID ICV
Operator PC

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	45.82	91.65	80-120	
n-Propylbenzene	50.00	49.51	99.02	80-120	
Naphthalene	50.00	51.00	102.01	80-120	
o-Xylene	50.00	50.13	100.28	80-120	
sec-Butylbenzene	50.00	46.73	93.47	80-120	
Styrene	50.00	52.92	105.84	80-120	
tert-Butylbenzene	50.00	46.65	93.31	80-120	
Tetrachloroethene	50.00	45.52	91.06	80-120	
Toluene	50.00	48.10	96.21	80-120	
trans-1,2-Dichloroethene	50.00	45.42	90.85	80-120	
trans-1,3-Dichloropropene	50.00	44.23	88.46	80-120	
trans-1,4-Dichloro-2-butene	50.00	54.24	108.49	80-120	
Trichloroethene	50.00	44.64	89.28	80-120	
Trichlorofluoromethane	50.00	43.95	87.91	80-120	
Vinyl Acetate	100.00	93.22	93.22	80-120	
Vinyl Chloride	50.00	44.59	89.20	80-120	
1,2-Dichloroethylene (total)	100.00	89.70	89.70	80-120	
Xylenes (total)	150.00	151.32	100.88	80-120	
1,4-Dioxane	1000.00	611.64	61.16	80-120	*
Dibromofluoromethane	50.00	48.55	97.12	71-125	
1,2-Dichloroethane-d4	50.00	47.70	95.40	70-125	
Toluene-d8	50.00	51.59	103.20	75-125	

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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_439181

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U061703.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 17-JUN-2023 12:05
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times 11:15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	50.76110	0.46902	0.100	-1.52220	20.0	Linear	
Chloromethane	50.0	42.14988	0.63882	0.100	15.70024	20.0	Linear	
Vinyl Chloride	0.52887	0.51641	0.51641	0.100	2.35650	20.0	Averaged	
Bromomethane	50.0	58.18805	0.31490	0.100	-16.37610	20.0	Linear	
Chloroethane	0.35626	0.34787	0.34787	0.100	2.35635	20.0	Averaged	
Trichlorofluoromethane	0.60742	0.72193	0.72193	0.100	-18.85181	20.0	Averaged	
Acrolein	0.02654	0.02330	0.02330	0.010	12.20675	20.0	Averaged	
Acetone	100	112	0.19089	0.100	-11.79958	20.0	Linear	
1,1-Dichloroethene	0.37953	0.38690	0.38690	0.100	-1.94261	20.0	Averaged	
Iodomethane	100	107	0.32488	0.100	-7.37615	20.0	Quadratic	
Acrylonitrile	0.18542	0.18724	0.18724	0.050	-0.97749	20.0	Averaged	
Methylene Chloride	50.0	53.32250	0.48567	0.100	-6.64501	20.0	Linear	
Methyl tert-butyl ether	1.16385	1.20393	1.20393	0.100	-3.44398	20.0	Averaged	
Carbon Disulfide	1.01461	1.07384	1.07384	0.100	-5.83787	20.0	Averaged	
trans-1,2-Dichloroethene	0.41275	0.42132	0.42132	0.100	-2.07787	20.0	Averaged	
Vinyl Acetate	1.25818	1.33560	1.33560	0.010	-6.15327	20.0	Averaged	
1,1-Dichloroethane	0.78439	0.75209	0.75209	0.200	4.11741	20.0	Averaged	
2-Butanone	0.22797	0.20907	0.20907	0.100	8.28768	20.0	Averaged	
2,2-Dichloropropane	50.0	56.21807	0.58362	0.100	-12.43615	20.0	Linear	
cis-1,2-Dichloroethene	0.49378	0.48199	0.48199	0.100	2.38770	20.0	Averaged	
Chloroform	0.81639	0.80450	0.80450	0.200	1.45544	20.0	Averaged	
Bromochloromethane	0.27621	0.26029	0.26029	0.100	5.76440	20.0	Averaged	
30 Dibromofluoromethane	50.0	49.79210	0.41795	0.100	0.41579	20.0	Linear	
1,1,1-Trichloroethane	0.62223	0.65695	0.65695	0.100	-5.58076	20.0	Averaged	
1,1-Dichloropropene	0.36644	0.37674	0.37674	0.100	-2.81060	20.0	Averaged	
1,2-Dichloroethane	0.43276	0.46721	0.46721	0.100	-7.96003	20.0	Averaged	
Carbon Tetrachloride	0.33660	0.37421	0.37421	0.100	-11.17353	20.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	53.27126	0.48343	0.100	-6.54251	20.0	Linear	
Benzene	1.20483	1.17180	1.17180	0.500	2.74121	20.0	Averaged	
Trichloroethene	0.34921	0.33432	0.33432	0.200	4.26534	20.0	Averaged	
Bromodichloromethane	0.37583	0.40931	0.40931	0.200	-8.90831	20.0	Averaged	
2-Chloroethylvinyl ether	0.00909	0.00407	0.00407	0.001	55.21296	20.0	Averaged	*
1,2-Dichloropropane	0.32169	0.31207	0.31207	0.100	2.99197	20.0	Averaged	
Dibromomethane	0.20554	0.21123	0.21123	0.100	-2.76883	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_439181

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U061703.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 17-JUN-2023 12:05
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times 11:15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.36411	0.35741	0.35741	0.100	1.83954	20.0	Averaged	
cis-1,3-Dichloropropene	50.0	46.92263	0.47130	0.200	6.15473	20.0	Linear	
48 Toluene-d8	1.13164	1.12922	1.12922	0.100	0.21407	20.0	Averaged	
Toluene	1.35612	1.38377	1.38377	0.400	-2.03864	20.0	Averaged	
trans-1,3-Dichloropropene	50.0	47.97908	0.40482	0.100	4.04183	20.0	Linear	
2-Hexanone	0.25357	0.23754	0.23754	0.100	6.32133	20.0	Averaged	
1,1,2-Trichloroethane	0.28217	0.27457	0.27457	0.100	2.69279	20.0	Averaged	
1,3-Dichloropropane	0.57650	0.57547	0.57547	0.100	0.17860	20.0	Averaged	
Dibromochloromethane	0.33480	0.38577	0.38577	0.100	-15.22598	20.0	Averaged	
Tetrachloroethene	0.33041	0.33018	0.33018	0.200	0.06699	20.0	Averaged	
1,2-Dibromoethane	0.34808	0.34682	0.34682	0.100	0.36246	20.0	Averaged	
1-Chlorohexane	0.25674	0.25609	0.25609	0.100	0.25493	20.0	Averaged	
Chlorobenzene	0.96786	0.95339	0.95339	0.500	1.49535	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33265	0.35747	0.35747	0.100	-7.45984	20.0	Averaged	
Ethylbenzene	0.45047	0.45972	0.45972	0.100	-2.05287	20.0	Averaged	
m,p-Xylenes	0.53296	0.56334	0.56334	0.100	-5.69975	20.0	Averaged	
o-Xylene	0.52651	0.54740	0.54740	0.300	-3.96789	20.0	Averaged	
Styrene	0.83556	0.93004	0.93004	0.300	-11.30749	20.0	Averaged	
Bromoform	0.22599	0.25376	0.25376	0.100	-12.29101	20.0	Averaged	
Isopropylbenzene	1.26463	1.36978	1.36978	0.100	-8.31490	20.0	Averaged	
1,1,2,2-Tetrachloroethane	0.94051	0.84394	0.84394	0.300	10.26781	20.0	Averaged	
1,2,3-Trichloropropane	0.82740	0.76167	0.76167	0.100	7.94426	20.0	Averaged	
n-Propylbenzene	2.62266	2.71333	2.71333	0.100	-3.45720	20.0	Averaged	
Bromobenzene	0.84363	0.78747	0.78747	0.100	6.65781	20.0	Averaged	
1,3,5-Trimethylbenzene	1.79927	1.79414	1.79414	0.100	0.28500	20.0	Averaged	
2-Chlorotoluene	1.84364	1.80534	1.80534	0.100	2.07750	20.0	Averaged	
4-Chlorotoluene	2.04071	2.08142	2.08142	0.100	-1.99467	20.0	Averaged	
tert-Butylbenzene	1.76718	1.75623	1.75623	0.100	0.61963	20.0	Averaged	
1,2,4-Trimethylbenzene	1.88261	1.84314	1.84314	0.100	2.09659	20.0	Averaged	
sec-Butylbenzene	2.24110	2.26974	2.26974	0.100	-1.27805	20.0	Averaged	
p-Isopropyltoluene	1.87752	1.92954	1.92954	0.100	-2.77086	20.0	Averaged	
1,3-Dichlorobenzene	1.43286	1.35964	1.35964	0.600	5.11008	20.0	Averaged	
1,4-Dichlorobenzene	1.52773	1.42987	1.42987	0.400	6.40581	20.0	Averaged	
n-Butylbenzene	1.60731	1.63203	1.63203	0.500	-1.53827	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_439181

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U061703.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 17-JUN-2023 12:05
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times 11:15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichlorobenzene	1.43664	1.36623	1.36623	0.400	4.90130	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.13724	0.12751	0.12751	0.050	7.09332	20.0	Averaged	
1,2,4-Trichlorobenzene	0.98816	0.92479	0.92479	0.200	6.41351	20.0	Averaged	
Hexachlorobutadiene	0.39906	0.39050	0.39050	0.100	2.14678	20.0	Averaged	
Naphthalene	2.29538	2.26555	2.26555	0.200	1.29958	20.0	Averaged	
1,2,3-Trichlorobenzene	0.96603	0.88466	0.88466	0.100	8.42300	20.0	Averaged	
94 1,2-Dichloroethylene (total	0.45327	0.45166	0.45166	0.200	0.35451	20.0	Averaged	
95 Xylenes (total)	0.50452	0.52988	0.52988	0.100	-5.02657	20.0	Averaged	
1,4-Dioxane	0.00993	0.00571	0.00571	0.001	42.47730	20.0	Averaged	*
Cyclohexane	50.0	45.86516	0.56245	0.100	8.26969	20.0	Quadratic	
Freon TF	0.33580	0.37162	0.37162	0.100	-10.66534	20.0	Averaged	
1,3-Butadiene	0.47352	0.46459	0.46459	0.100	1.88574	20.0	Averaged	
Methylcyclohexane	0.69360	0.71701	0.71701	0.100	-3.37498	20.0	Averaged	
Methyl Acetate	0.42100	0.40358	0.40358	0.100	4.13978	20.0	Averaged	
Tert-butyl alcohol	1000	1000	0.04619	0.005	0.01037	20.0	Linear	
Isopropyl alcohol	0.03269	0.02976	0.02976	0.005	8.94610	20.0	Averaged	
trans-1,4-Dichloro-2-butene	0.05757	0.06229	0.06229	0.050	-8.19830	20.0	Averaged	
Isobutyl Alcohol	0.06496	0.07425	0.07425	0.005	-14.29174	20.0	Averaged	
Acetonitrile	0.05413	0.06222	0.06222	0.005	-14.93376	20.0	Averaged	
1,2,3-Trimethylbenzene	1.92195	1.84782	1.84782	0.100	3.85675	20.0	Averaged	
Diisopropyl ether	1.39419	1.41027	1.41027	0.100	-1.15397	20.0	Averaged	
Butyl acrylate	0.59144	0.58387	0.58387	0.100	1.27992	20.0	Averaged	
2-Ethylhexyl Acrylate	50.0	50.77787	0.48780	0.100	-1.55574	20.0	Quadratic	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_439181

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U061731.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 17-JUN-2023 22:32
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times 11:15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	43.72035	0.40386	0.100	12.55931	50.0	Linear	
Chloromethane	50.0	44.35669	0.67123	0.100	11.28662	50.0	Linear	
Vinyl Chloride	0.52887	0.48713	0.48713	0.100	7.89252	50.0	Averaged	
Bromomethane	50.0	67.61519	0.36435	0.100	-35.23038	50.0	Linear	
Chloroethane	0.35626	0.35047	0.35047	0.100	1.62503	50.0	Averaged	
Trichlorofluoromethane	0.60742	0.67232	0.67232	0.100	-10.68404	50.0	Averaged	
Acrolein	0.02654	0.02315	0.02315	0.010	12.78374	50.0	Averaged	
Acetone	100	111	0.18987	0.100	-11.17109	50.0	Linear	
1,1-Dichloroethene	0.37953	0.37904	0.37904	0.100	0.12800	50.0	Averaged	
Iodomethane	100	77.20412	0.22038	0.100	22.79588	50.0	Quadratic	
Acrylonitrile	0.18542	0.19779	0.19779	0.050	-6.66742	50.0	Averaged	
Methylene Chloride	50.0	54.66160	0.49763	0.100	-9.32319	50.0	Linear	
Methyl tert-butyl ether	1.16385	1.26894	1.26894	0.100	-9.02974	50.0	Averaged	
Carbon Disulfide	1.01461	1.04538	1.04538	0.100	-3.03287	50.0	Averaged	
trans-1,2-Dichloroethene	0.41275	0.43287	0.43287	0.100	-4.87526	50.0	Averaged	
Vinyl Acetate	1.25818	1.38237	1.38237	0.010	-9.87008	50.0	Averaged	
1,1-Dichloroethane	0.78439	0.78614	0.78614	0.200	-0.22336	50.0	Averaged	
2-Butanone	0.22797	0.21450	0.21450	0.100	5.90524	50.0	Averaged	
2,2-Dichloropropane	50.0	44.87185	0.46499	0.100	10.25630	50.0	Linear	
cis-1,2-Dichloroethene	0.49378	0.50477	0.50477	0.100	-2.22471	50.0	Averaged	
Chloroform	0.81639	0.85757	0.85757	0.200	-5.04480	50.0	Averaged	
Bromochloromethane	0.27621	0.27323	0.27323	0.100	1.07694	50.0	Averaged	
30 Dibromofluoromethane	50.0	55.54478	0.46593	0.100	-11.08956	50.0	Linear	
1,1,1-Trichloroethane	0.62223	0.67147	0.67147	0.100	-7.91455	50.0	Averaged	
1,1-Dichloropropene	0.36644	0.36182	0.36182	0.100	1.25963	50.0	Averaged	
1,2-Dichloroethane	0.43276	0.48103	0.48103	0.100	-11.15461	50.0	Averaged	
Carbon Tetrachloride	0.33660	0.36756	0.36756	0.100	-9.20058	50.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	58.51142	0.53038	0.100	-17.02284	50.0	Linear	
Benzene	1.20483	1.18457	1.18457	0.500	1.68159	50.0	Averaged	
Trichloroethene	0.34921	0.33998	0.33998	0.200	2.64196	50.0	Averaged	
Bromodichloromethane	0.37583	0.42222	0.42222	0.200	-12.34287	50.0	Averaged	
2-Chloroethylvinyl ether	0.00909	0.00347	0.00347	0.001	61.87869	50.0	Averaged	*
1,2-Dichloropropane	0.32169	0.31354	0.31354	0.100	2.53232	50.0	Averaged	
Dibromomethane	0.20554	0.21600	0.21600	0.100	-5.08894	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_439181

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U061731.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 17-JUN-2023 22:32
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times 11:15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.36411	0.34573	0.34573	0.100	5.04573	50.0	Averaged	
cis-1,3-Dichloropropene	50.0	44.87214	0.44983	0.200	10.25571	50.0	Linear	
48 Toluene-d8	1.13164	1.14968	1.14968	0.100	-1.59417	50.0	Averaged	
Toluene	1.35612	1.37941	1.37941	0.400	-1.71732	50.0	Averaged	
trans-1,3-Dichloropropene	50.0	46.04453	0.38778	0.100	7.91095	50.0	Linear	
2-Hexanone	0.25357	0.23187	0.23187	0.100	8.55878	50.0	Averaged	
1,1,2-Trichloroethane	0.28217	0.27278	0.27278	0.100	3.32790	50.0	Averaged	
1,3-Dichloropropane	0.57650	0.57603	0.57603	0.100	0.08079	50.0	Averaged	
Dibromochloromethane	0.33480	0.37213	0.37213	0.100	-11.15131	50.0	Averaged	
Tetrachloroethene	0.33041	0.32047	0.32047	0.200	3.00633	50.0	Averaged	
1,2-Dibromoethane	0.34808	0.34854	0.34854	0.100	-0.13253	50.0	Averaged	
1-Chlorohexane	0.25674	0.24794	0.24794	0.100	3.43013	50.0	Averaged	
Chlorobenzene	0.96786	0.95250	0.95250	0.500	1.58729	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33265	0.35801	0.35801	0.100	-7.62173	50.0	Averaged	
Ethylbenzene	0.45047	0.45931	0.45931	0.100	-1.96085	50.0	Averaged	
m,p-Xylenes	0.53296	0.56745	0.56745	0.100	-6.47147	50.0	Averaged	
o-Xylene	0.52651	0.55118	0.55118	0.300	-4.68413	50.0	Averaged	
Styrene	0.83556	0.90994	0.90994	0.300	-8.90136	50.0	Averaged	
Bromoform	0.22599	0.24872	0.24872	0.100	-10.05885	50.0	Averaged	
Isopropylbenzene	1.26463	1.36204	1.36204	0.100	-7.70307	50.0	Averaged	
1,1,2,2-Tetrachloroethane	0.94051	0.87757	0.87757	0.300	6.69236	50.0	Averaged	
1,2,3-Trichloropropane	0.82740	0.76365	0.76365	0.100	7.70509	50.0	Averaged	
n-Propylbenzene	2.62266	2.63944	2.63944	0.100	-0.63990	50.0	Averaged	
Bromobenzene	0.84363	0.80446	0.80446	0.100	4.64334	50.0	Averaged	
1,3,5-Trimethylbenzene	1.79927	1.81641	1.81641	0.100	-0.95294	50.0	Averaged	
2-Chlorotoluene	1.84364	1.86055	1.86055	0.100	-0.91713	50.0	Averaged	
4-Chlorotoluene	2.04071	2.11127	2.11127	0.100	-3.45732	50.0	Averaged	
tert-Butylbenzene	1.76718	1.78681	1.78681	0.100	-1.11058	50.0	Averaged	
1,2,4-Trimethylbenzene	1.88261	1.81431	1.81431	0.100	3.62793	50.0	Averaged	
sec-Butylbenzene	2.24110	2.26802	2.26802	0.100	-1.20159	50.0	Averaged	
p-Isopropyltoluene	1.87752	1.85137	1.85137	0.100	1.39263	50.0	Averaged	
1,3-Dichlorobenzene	1.43286	1.37604	1.37604	0.600	3.96569	50.0	Averaged	
1,4-Dichlorobenzene	1.52773	1.43474	1.43474	0.400	6.08694	50.0	Averaged	
n-Butylbenzene	1.60731	1.52707	1.52707	0.500	4.99218	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder HS23060983

RunID VOA9_439181

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U061731.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 17-JUN-2023 22:32
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times 11:15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichlorobenzene	1.43664	1.40646	1.40646	0.400	2.10090	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.13724	0.12693	0.12693	0.050	7.51385	50.0	Averaged	
1,2,4-Trichlorobenzene	0.98816	0.89550	0.89550	0.200	9.37728	50.0	Averaged	
Hexachlorobutadiene	0.39906	0.34633	0.34633	0.100	13.21372	50.0	Averaged	
Naphthalene	2.29538	2.18211	2.18211	0.200	4.93488	50.0	Averaged	
1,2,3-Trichlorobenzene	0.96603	0.87207	0.87207	0.100	9.72694	50.0	Averaged	
94 1,2-Dichloroethylene (total	0.45327	0.46882	0.46882	0.200	-3.43151	50.0	Averaged	
95 Xylenes (total)	0.50452	0.55214	0.55214	0.100	-9.43934	50.0	Averaged	
1,4-Dioxane	0.00993	0.00621	0.00621	0.001	37.47074	50.0	Averaged	
Cyclohexane	50.0	43.48052	0.53241	0.100	13.03896	50.0	Quadratic	
Freon TF	0.33580	0.35207	0.35207	0.100	-4.84248	50.0	Averaged	
1,3-Butadiene	0.47352	0.41170	0.41170	0.100	13.05538	50.0	Averaged	
Methylcyclohexane	0.69360	0.70688	0.70688	0.100	-1.91532	50.0	Averaged	
Methyl Acetate	0.42100	0.41197	0.41197	0.100	2.14463	50.0	Averaged	
Tert-butyl alcohol	1000	1034	0.04776	0.005	-3.40349	50.0	Linear	
Isopropyl alcohol	0.03269	0.03135	0.03135	0.005	4.07526	50.0	Averaged	
trans-1,4-Dichloro-2-butene	0.05757	0.05512	0.05512	0.050	4.26083	50.0	Averaged	
Isobutyl Alcohol	0.06496	0.07812	0.07812	0.005	-20.25065	50.0	Averaged	
Acetonitrile	0.05413	0.06380	0.06380	0.005	-17.85097	50.0	Averaged	
1,2,3-Trimethylbenzene	1.92195	1.92551	1.92551	0.100	-0.18517	50.0	Averaged	
Diisopropyl ether	1.39419	1.52706	1.52706	0.100	-9.53088	50.0	Averaged	
Butyl acrylate	0.59144	0.56572	0.56572	0.100	4.34881	50.0	Averaged	
2-Ethylhexyl Acrylate	50.0	46.99085	0.44830	0.100	6.01830	50.0	Quadratic	

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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

Volatiles by EPA 8260

VOA9_439181		Pentafluorobenzene				1,4-Difluorobenzene				Chlorobenzene				1,4-Dichlorobenze			
Sample ID	File ID	Area		RT		Area		RT		Area		RT		Area		RT	
12-HOUR STD (CCV)	U061703.D	521018	#	4.82	#	756149	#	5.56	#	718007	#	8.19	#	392541	#	10.17	#
HS23060983-01	U061709.D	532532		4.82		730324		5.55		670353		8.19		327526		10.17	
HS23060983-01MS	U061710.D	521096		4.82		719896		5.55		694708		8.19		375533		10.17	
HS23060983-01MSD	U061711.D	552599		4.82		761739		5.56		710760		8.19		383829		10.17	
HS23060983-02	U061714.D	526205		4.82		722970		5.55		662294		8.19		327535		10.17	
VBLKW-230617	U061707.D	540004		4.81		741846		5.55		669837		8.19		336806		10.17	
VLCSW-230617	U061705.D	481638		4.82		702562		5.55		684402		8.19		363474		10.17	

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

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Analysis Run Log

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory

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Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder
HS23060983

RunID
VOA9-437296

Volatiles by EPA 8260

Run ID VOA9_437296 **Start Date** 06/06/23 **EndDate** 06/06/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:53	BFB	TUNE	BFB	U060601.D	06/06/23	1
11:15	VSTD000.25	ICAL1	VSTD000.25	U060602.D	06/06/23	1
11:37	VSTD000.5	ICAL2	VSTD000.5	U060603.D	06/06/23	1
13:06	VSTD005	ICAL5	VSTD005	U060606.D	06/06/23	1
13:28	VSTD001	ICAL3	VSTD001	U060607.D	06/06/23	1
13:50	VSTD002	ICAL4	VSTD002	U060608.D	06/06/23	1
14:13	VSTD020	ICAL6	VSTD020	U060609.D	06/06/23	1
14:35	VSTD050	ICAL7	VSTD050	U060610.D	06/06/23	1
14:57	VSTD100	ICAL8	VSTD100	U060611.D	06/06/23	1
15:19	VSTD150	ICAL9	VSTD150	U060612.D	06/06/23	1
15:41	VSTD200	ICAL	VSTD200	U060613.D	06/06/23	1
16:48	CCV	ICV	CCV	U060616.D	06/06/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Bi-Weekly Samples

Workorder **HS23060983**

RunID VOA9-439181

Volatiles by EPA 8260

Run ID VOA9_439181 **Start Date** 06/17/23 **EndDate** 06/17/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
11:18	BFB	TUNE	BFB	U061701.D	06/17/23	1
12:05	CCV	CCV	CCV	U061703.D	06/17/23	1
12:28	CCB	CCB	CCB	U061704.D	06/17/23	1
12:50	VLCSW-230617	LCS	VLCSW-230617	U061705.D	06/17/23	1
13:35	VBLKW-230617	MBLK	VBLKW-230617	U061707.D	06/17/23	1
13:57	HS23060746-04	SAMP	ZZZZZZZZZZ	U061708.D	06/17/23	1
14:19	HS23060983-01	SAMP	LH18/24-	U061709.D	06/17/23	1
14:42	HS23060983-01MS	MS	HS23060983-01MS	U061710.D	06/17/23	1
15:04	HS23060983-01MSD	MSD	HS23060983-01MSD	U061711.D	06/17/23	1
15:49	HS23060746-03	SAMP	ZZZZZZZZZZ	U061713.D	06/17/23	1
16:11	HS23060983-02	SAMP	Trip Blank	U061714.D	06/17/23	1
16:34	HS23061096-10	SAMP	ZZZZZZZZZZ	U061715.D	06/17/23	1
16:56	HS23061096-02	SAMP	ZZZZZZZZZZ	U061716.D	06/17/23	1
17:19	HS23061096-03	SAMP	ZZZZZZZZZZ	U061717.D	06/17/23	1
17:41	HS23061096-05	SAMP	ZZZZZZZZZZ	U061718.D	06/17/23	1
18:03	HS23061096-06	SAMP	ZZZZZZZZZZ	U061719.D	06/17/23	1
18:26	HS23061096-08	SAMP	ZZZZZZZZZZ	U061720.D	06/17/23	1
18:48	HS23061096-09	SAMP	ZZZZZZZZZZ	U061721.D	06/17/23	1
19:11	HS23060746-02	SAMP	ZZZZZZZZZZ	U061722.D	06/17/23	1
19:33	HS23060746-01	SAMP	ZZZZZZZZZZ	U061723.D	06/17/23	1
20:18	HS23061096-07	SAMP	ZZZZZZZZZZ	U061725.D	06/17/23	1
21:03	HS23061096-01	SAMP	ZZZZZZZZZZ	U061727.D	06/17/23	1
21:48	HS23061096-04	SAMP	ZZZZZZZZZZ	U061729.D	06/17/23	1
22:32	CCV-END	CCV_END	CCV-END	U061731.D	06/17/23	1

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Raw Data VOA9 437296

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060601.D Page 1
Report Date: 06-Jun-2023 11:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060601.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 06-JUN-2023 10:53
Operator : PC Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\bfb.m
Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
9.197	9.180	(0.000)	95	136448			0.00- 100.00	100.00
9.197	9.180	(0.000)	50	25960			15.00- 40.00	19.03
9.197	9.180	(0.000)	75	63728			30.00- 60.00	46.70
9.197	9.180	(0.000)	96	9360			5.00- 9.00	6.86
9.197	9.180	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
9.197	9.180	(0.000)	174	125696			50.00- 0.00	92.12
9.197	9.180	(0.000)	175	10925			5.00- 9.00	8.69
9.197	9.180	(0.000)	176	121928			95.00- 101.00	97.00
9.197	9.180	(0.000)	177	8371			5.00- 9.00	6.87

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.03
75	30.00 - 60.00% of mass 95	46.70
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.12
175	5.00 - 9.00% of mass 174	8.01 (8.69)
176	95.00 - 101.00% of mass 174	89.36 (97.00)
177	5.00 - 9.00% of mass 176	6.13 (6.87)

Data File: U060601.D
Spectrum: Scan 2294 (9.19)
Location of Maximum: 95.00
Number of points: 183

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1606	78.90	3626	126.90	173	180.50	63
37.00	7004	79.90	1138	127.90	637	189.70	63
38.00	6056	80.90	3614	128.80	349	190.10	90
39.10	2292	81.90	1010	129.90	611	190.90	76
39.90	605	83.70	86	131.00	267	191.70	102
40.60	238	84.40	139	131.90	136	193.30	85
41.50	249	85.10	99	133.00	93	193.80	111
42.40	145	86.00	358	134.00	60	194.90	61
43.10	257	86.90	5506	134.90	188	195.70	59
43.90	1550	87.90	5724	135.50	114	199.00	61
45.00	1049	89.70	70	136.10	156	201.00	76
46.20	308	90.90	483	137.00	446	204.10	65
47.00	2170	92.00	3718	138.70	149	206.80	96
47.80	1172	93.00	5572	139.60	225	214.00	57
49.00	5597	94.00	17248	140.80	1519	215.30	57
50.00	25960	95.00	136448	141.80	216	217.30	81
51.00	8122	96.00	9360	142.90	1809	219.80	80
52.10	549	97.00	242	143.90	185	221.90	82
53.20	314	98.10	120	144.90	427	226.10	60
53.90	188	99.50	83	145.90	283	227.70	56
54.20	214	100.10	128	146.90	135	233.00	105
54.80	516	101.30	73	147.90	335	241.30	67
56.00	2033	102.80	171	148.90	169	243.30	72
57.00	3459	103.90	720	149.80	365	244.40	79
57.90	375	104.80	244	151.80	188	246.00	69
59.00	221	105.80	554	152.60	215	247.20	66
60.00	1229	107.10	182	153.80	221	253.10	56
61.00	6314	107.60	97	154.80	409	258.80	62
62.00	6603	108.20	76	155.90	107	264.10	94
63.00	5015	109.70	198	157.00	385	264.50	57
64.00	798	111.00	182	158.70	185	265.40	67
64.90	849	111.60	225	160.20	116	278.00	50
65.80	161	112.70	159	161.10	194	283.30	85
66.80	415	113.00	170	161.60	65	284.10	92
68.00	14015	114.80	234	166.70	55	286.60	57
69.00	13768	115.90	673	168.00	87	287.60	52
70.00	1246	116.90	876	169.10	89	295.90	52
70.80	262	117.80	546	169.60	59	300.90	71
71.30	260	118.80	825	170.30	103	302.50	52
72.10	826	119.90	99	171.00	262	320.40	86
73.00	6098	120.40	70	172.00	1169	328.50	66
74.00	20912	121.70	115	173.90	125696	330.30	64
75.00	63728	122.50	79	175.00	10925	339.30	78
76.00	6105	123.50	138	175.90	121928	346.10	69
76.90	843	124.80	115	176.90	8371	349.50	59

77.90	770	125.60	102	177.90	233		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D Page 1
Report Date: 13-Jun-2023 13:00

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 06-JUN-2023 11:15
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD000.25;VSTD000.25;1;1;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:00 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

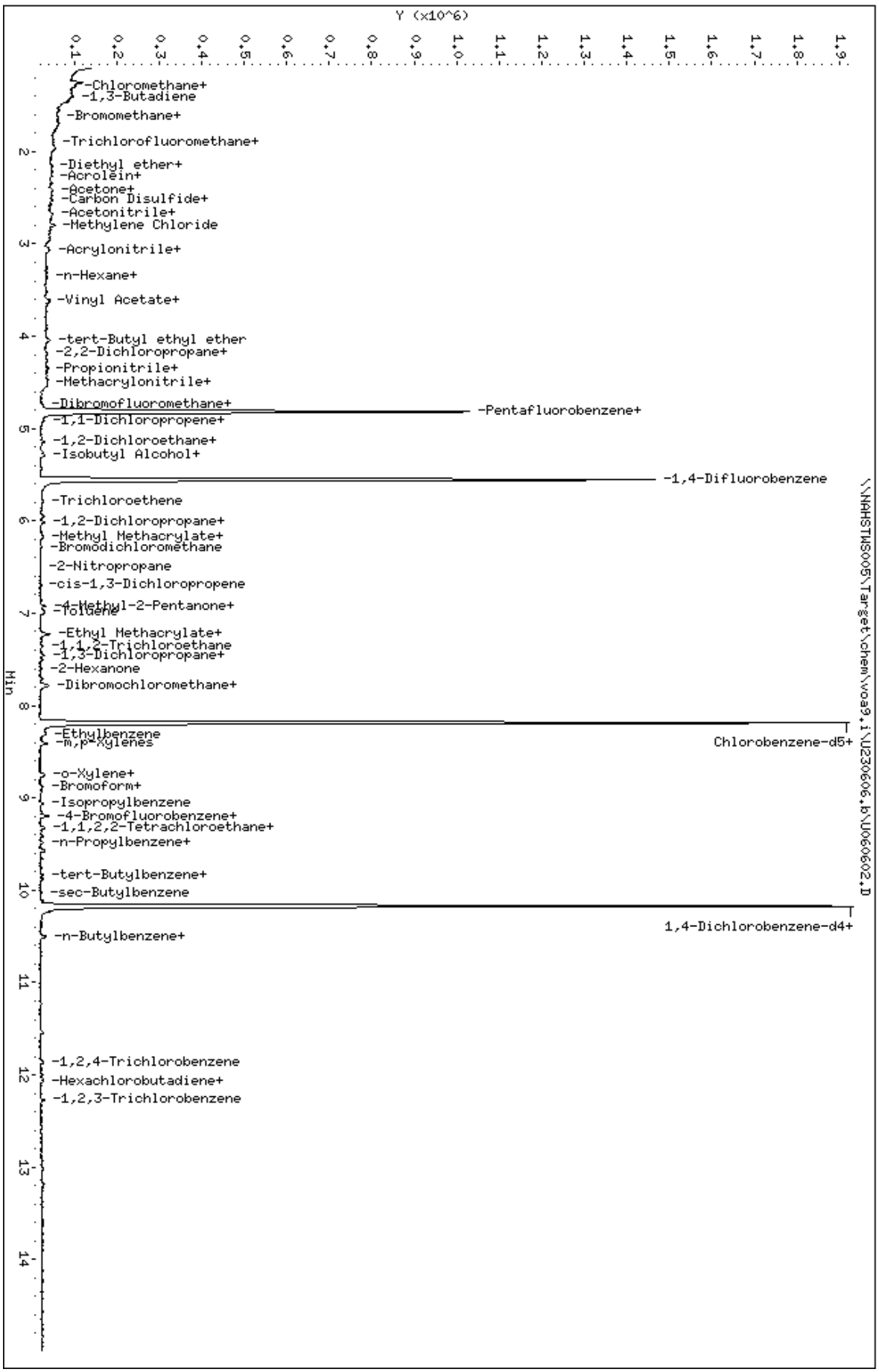
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.815	(1.000)	758075	50.0000	
	15 Iodomethane	142	2.476	2.476	(0.514)	1709	0.50000	10.21(T)
	26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	2648	0.25000	0.73(a)
$	30 Dibromofluoromethane	113	4.751	4.751	(0.987)	2358	0.25000	0.05(a)
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	2464	0.25000	(a)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1141877	50.0000	
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	2552	0.25000	2.12(a)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1042568	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	9480	0.25000	0.40(a)
	51 trans-1,3-Dichloropropene	75	7.207	7.207	(1.298)	1508	0.25000	2.17(a)
	58 1-Chlorohexane	55	8.185	8.185	(1.474)	10231	0.25000	1.74(a)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	6043	0.25000	(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	519246	50.0000	
M	94 1,2-Dichloroethylene (total)	96				4023	0.50000	(a)
	141 Cyclohexane	56	4.815	4.815	(1.000)	12882	0.25000	1.60(a)
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	1956	0.25000	0.27(a)
	145 alpha-Methylstyrene	118	9.760	9.760	(0.959)	2265	0.25000	3.75(a)
	162 Butyl acrylate	55	8.736	8.736	(1.067)	4785	0.25000	0.38(a)
	203 2-Ethylhexyl Acrylate	55	12.046	12.046	(1.184)	2128	0.25000	2.17(a)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Report Date: 13-Jun-2023 13:00

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Date : 06-JUN-2023 11:15
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

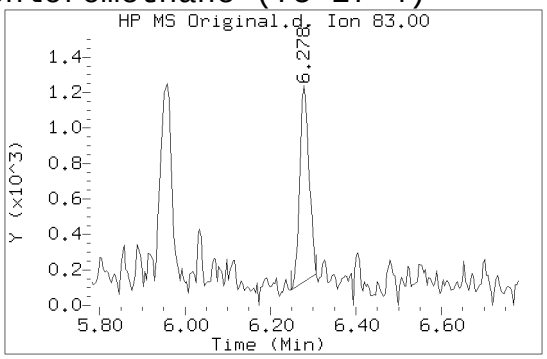
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Inj Date : 06-JUN-2023 11:15
InstruID : VOA9.i
LabSampID : VSTD000.25

Bromodichloromethane (75-27-4)

Reason Code:

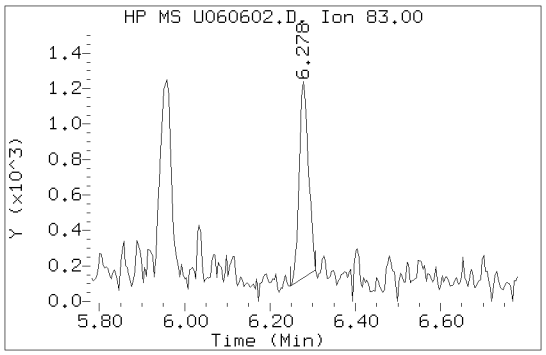
BEFORE

MASS
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AREA
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HEIGHT
1106
08-Jun-2023
14:56
linh
pham



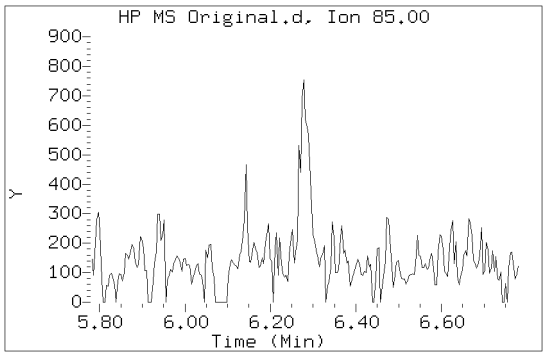
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13-Jun-2023
13:00
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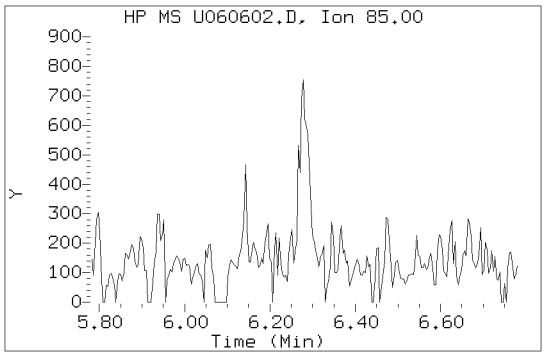
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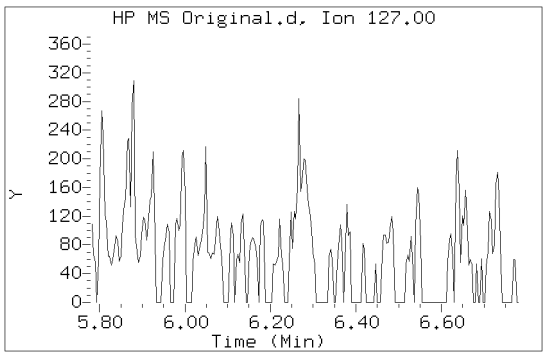
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13:00
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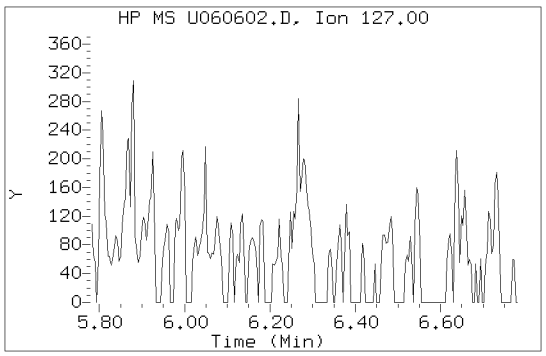
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08-Jun-2023
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AFTER

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HEIGHT
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13-Jun-2023
13:00
linh
pham

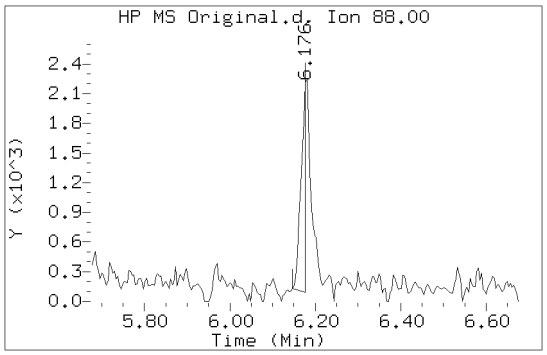


1,4-Dioxane ()

Reason Code:

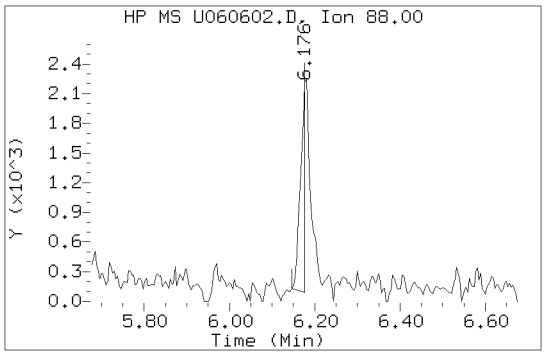
BEFORE

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AREA
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HEIGHT
2126
08-Jun-2023
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AFTER

MASS
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2126
13-Jun-2023
13:00
linh
pham



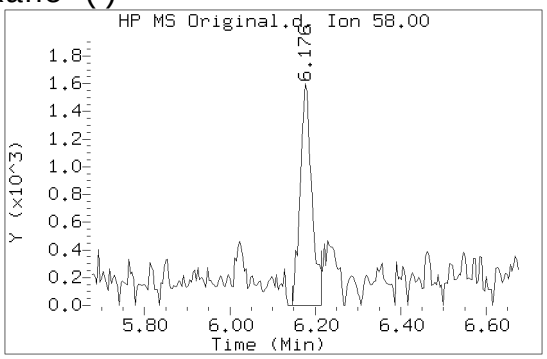
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Inj Date : 06-JUN-2023 11:15
InstruID : VOA9.i
LabSampID : VSTD000.25

1,4-Dioxane ()

Reason Code:

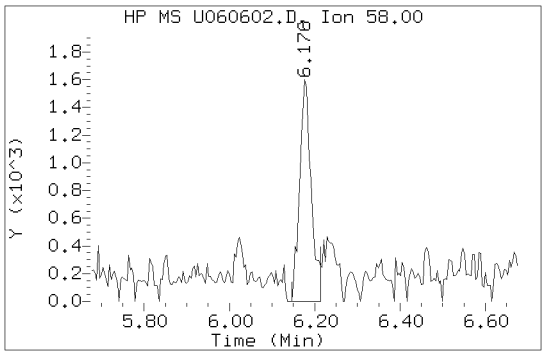
BEFORE

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1600
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
3075
HEIGHT
1600
13-Jun-2023
13:00
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D Page 1
Report Date: 13-Jun-2023 13:00

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 06-JUN-2023 11:37
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:00 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 11:15 Cal File: U060602.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

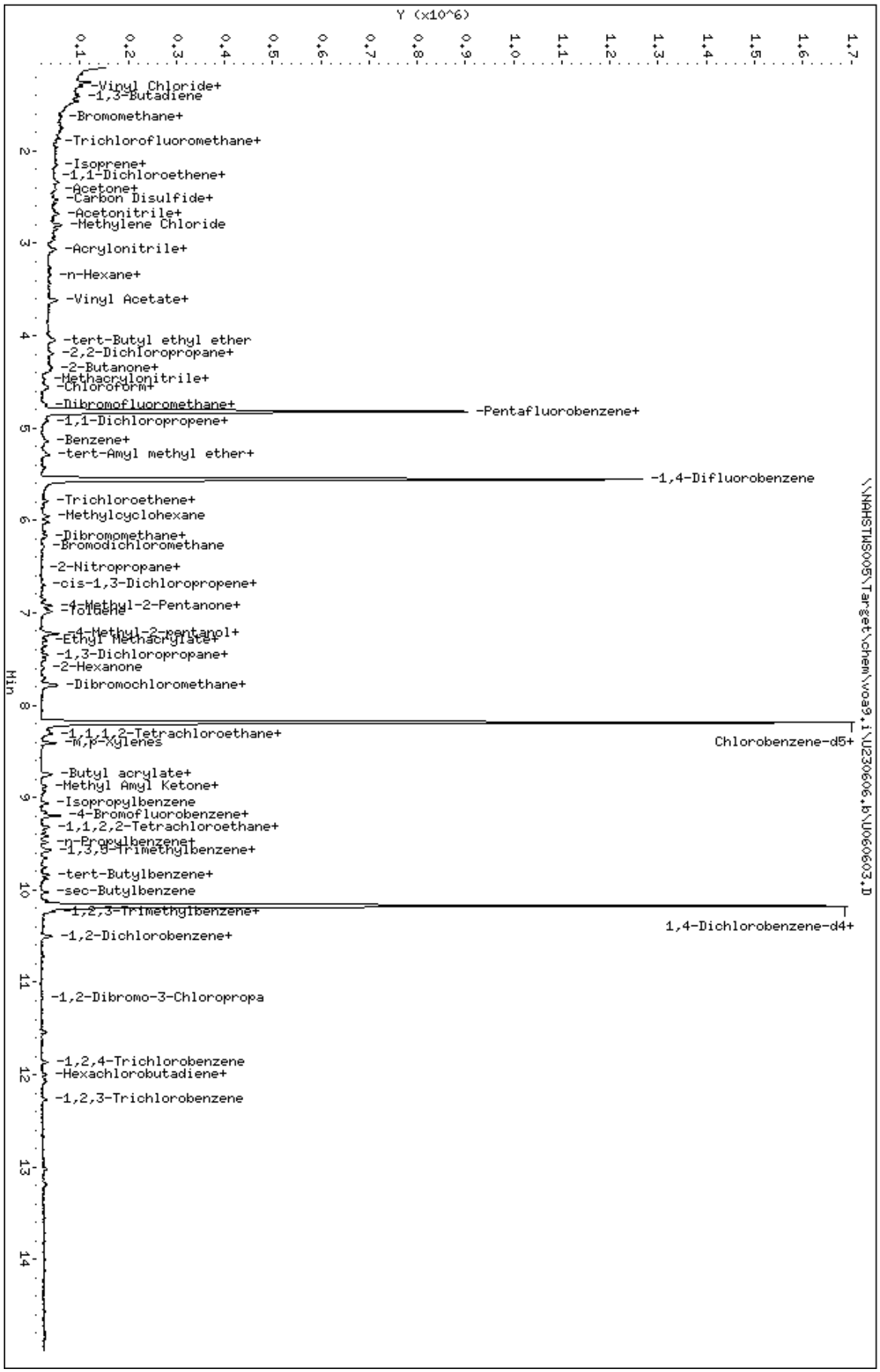
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.819	4.819	(1.000)	671879	50.0000	
	2 Dichlorodifluoromethane	85	1.168	1.168	(0.242)	3237	0.50000	0.60(a)
	5 Vinyl Chloride	62	1.381	1.381	(0.287)	3572	0.50000	0.50(a)
	7 Chloroethane	64	1.704	1.704	(0.354)	2580	0.50000	0.53(aM)
	15 Iodomethane	142	2.480	2.480	(0.515)	1872	1.00000	10.30(T)
	19 Carbon Disulfide	76	2.525	2.525	(0.524)	13120	1.00000	0.96(a)
	20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	2954	0.50000	0.53(a)
	22 1,1-Dichloroethane	63	3.518	3.518	(0.730)	6153	0.50000	0.58(a)
	24 2-Butanone	43	4.272	4.272	(0.886)	3610	1.00000	1.17(aM)
	26 2,2-Dichloropropane	77	4.193	4.193	(0.870)	3685	0.50000	0.92(a)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	2104	0.50000	0.56(a)
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	3644	0.50000	0.33(aM)
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	4434	0.50000	0.53(aM)
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	3795	0.50000	(aM)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	991670	50.0000	
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	4533	0.50000	2.34(aM)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	921846	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	14408	0.50000	0.69(aM)
	50 Toluene	91	6.986	6.986	(0.853)	13471	0.50000	0.53(aM)
	51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.297)	4073	0.50000	2.48(aM)

54	1,3-Dichloropropane	76	7.503	7.503 (0.917)	5569	0.50000	0.52(a)
57	1,2-Dibromoethane	107	7.792	7.792 (0.952)	3622	0.50000	0.56(aM)

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	58 1-Chlorohexane	55	8.200	8.200	(1.477)	2785	0.50000	0.54(aM)
	59 Chlorobenzene	112	8.208	8.208	(1.003)	8858	0.50000	0.49(a)
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	3117	0.50000	0.50(a)
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	9164	1.00000	0.93(aM)
	68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	4333	0.50000	0.50(aM)
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	5007	0.50000	(aM)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	456421	50.0000	
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	6595	0.50000	0.50(a)
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	4090	0.50000	0.46(aM)
M	94 1,2-Dichloroethylene (total)	96				6594	1.00000	(a)
	141 Cyclohexane	56	4.796	4.796	(0.995)	4345	0.50000	0.72(aM)
	138 Freon TF	101	2.341	2.341	(0.486)	2391	0.50000	0.52(aM)
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	2958	0.50000	0.46(a)
	13 Acetonitrile	39	2.678	2.678	(0.556)	4044	5.00000	5.55(a)
	40 Methyl Methacrylate	41	6.165	6.165	(1.279)	3083	0.50000	0.53(aM)
	4 Propionitrile	54	4.347	4.347	(0.902)	5579	5.00000	5.74(aM)
	136 n-Hexane	57	3.353	3.353	(0.696)	2983	0.50000	0.65(a)
	200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	1341	0.50000	4.71(aM)
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	9904	0.50000	0.56(a)
	145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	3201	0.50000	3.88(a)
	156 Diisopropyl ether	45	3.627	3.627	(0.753)	10933	0.50000	0.58(a)
	151 4-Methyl-2-pentanol	45	7.226	7.226	(1.301)	20153	10.0000	13.66
	150 Allyl alcohol	57	3.353	3.353	(0.696)	2691	10.0000	12.72(M)
	86 Benzyl Chloride	91	10.315	10.315	(1.260)	1867	0.50000	3.78(aM)
	162 Butyl acrylate	55	8.740	8.740	(1.068)	6005	0.50000	0.55(a)
	139 Diethyl ether	59	2.150	2.150	(0.446)	2812	0.50000	0.61(aM)
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	2309	0.50000	2.27(a)
	130 Ethyl Acetate	43	4.272	4.272	(0.886)	3781	0.50000	0.62(TaM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230606,b\U060603.D
Date : 06-JUN-2023 11:37
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

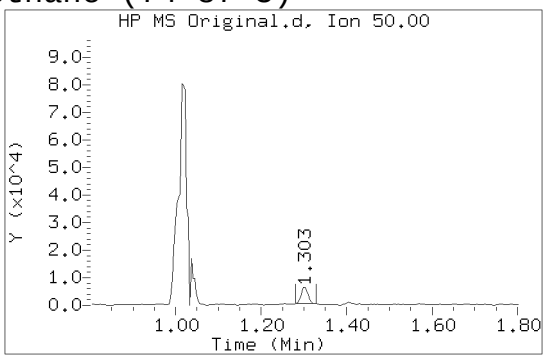
Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Chloromethane (74-87-3)

BEFORE

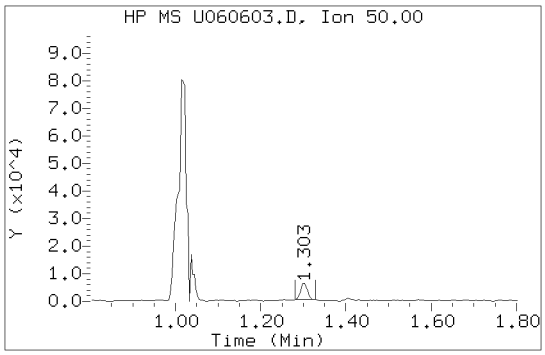
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HEIGHT
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08-Jun-2023
14:56
linh
pham



Reason Code:

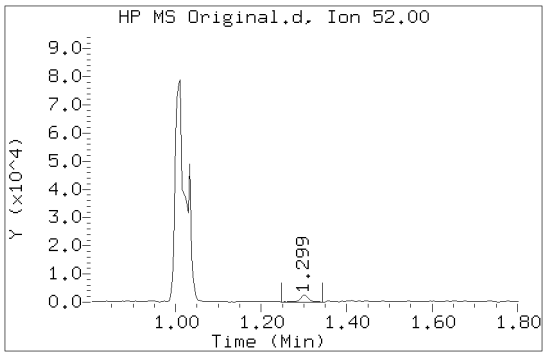
AFTER

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13-Jun-2023
13:00
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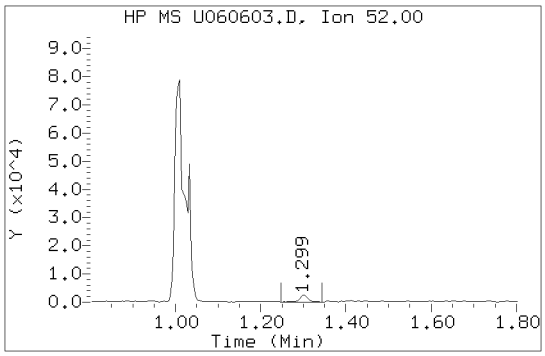
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08-Jun-2023
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AFTER

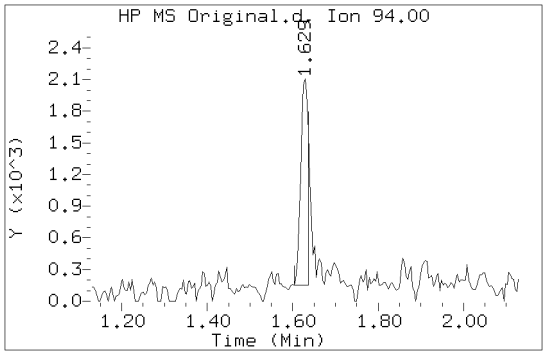
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13-Jun-2023
13:00
linh
pham



Bromomethane (74-83-9)

BEFORE

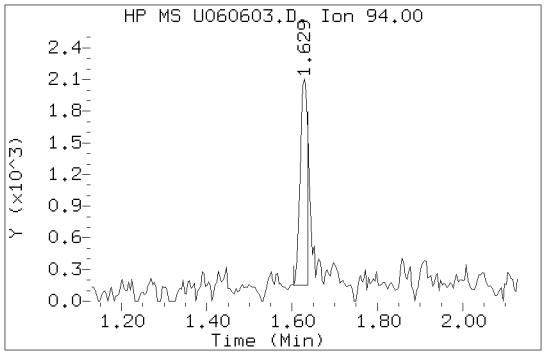
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HEIGHT
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08-Jun-2023
14:56
linh
pham



Reason Code:

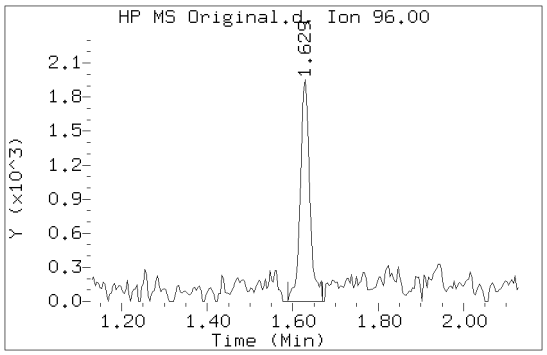
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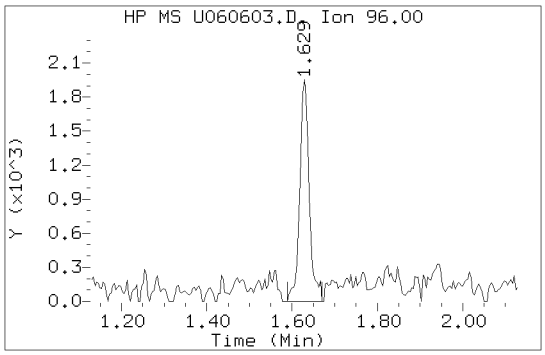
BEFORE

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AFTER

MASS
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3081
HEIGHT
1953
13-Jun-2023
13:00
linh
pham



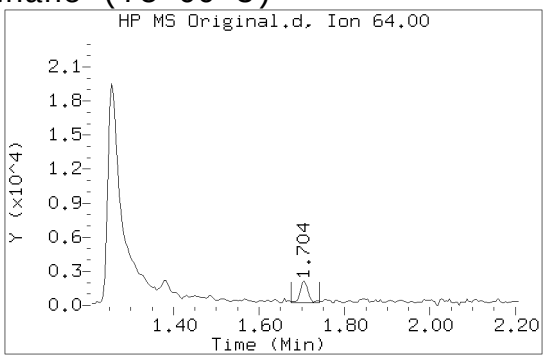
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Chloroethane (75-00-3)

Reason Code:

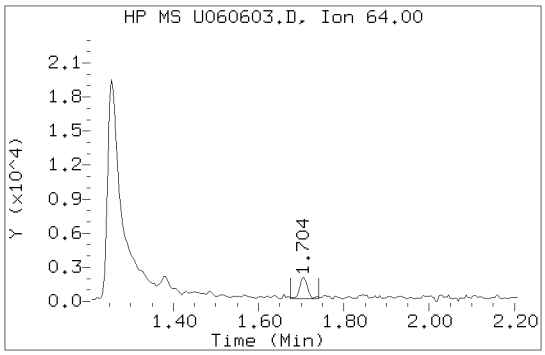
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HEIGHT
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08-Jun-2023
14:56
linh
pham



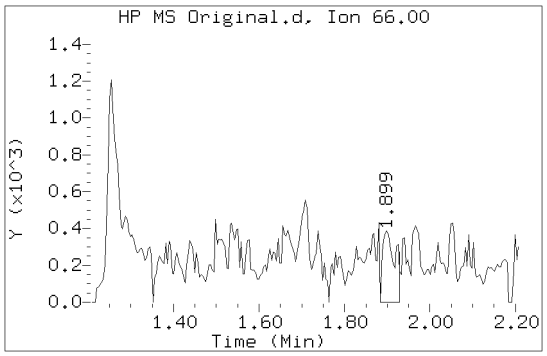
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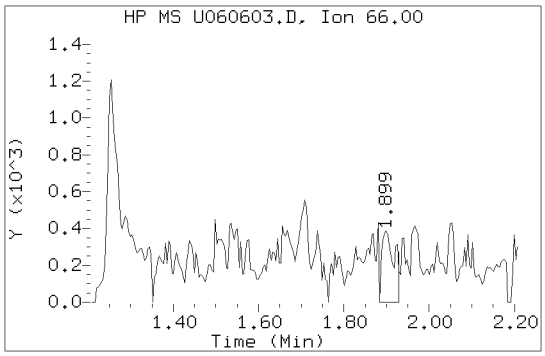
BEFORE

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HEIGHT
389
08-Jun-2023
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pham



AFTER

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783
HEIGHT
389
13-Jun-2023
13:00
linh
pham

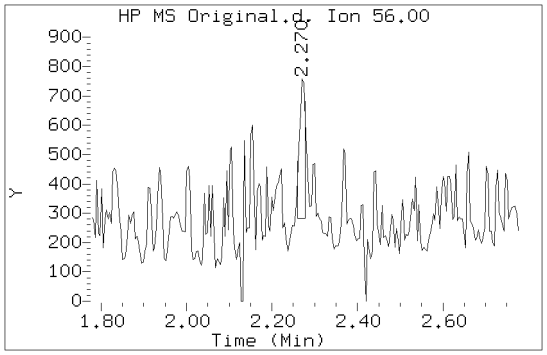


Acrolein (107-02-8)

Reason Code:

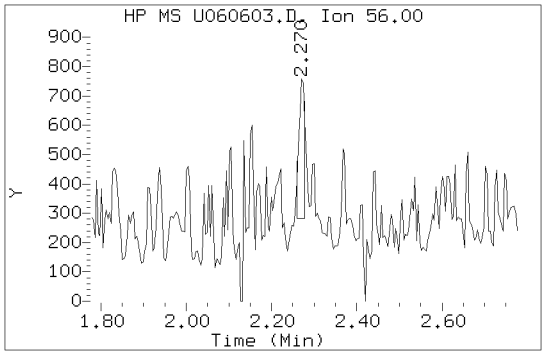
BEFORE

MASS
56
AREA
451
HEIGHT
476
08-Jun-2023
14:56
linh
pham



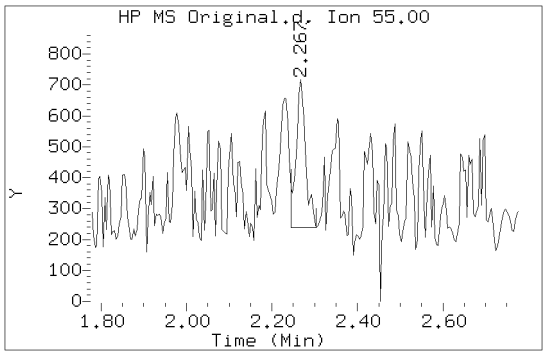
AFTER

MASS
56
AREA
451
HEIGHT
476
13-Jun-2023
13:00
linh
pham



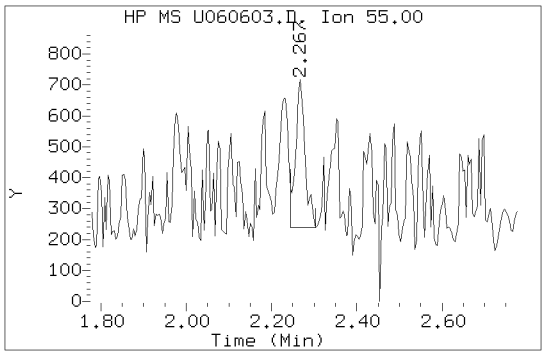
BEFORE

MASS
55
AREA
750
HEIGHT
478
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
750
HEIGHT
478
13-Jun-2023
13:00
linh
pham



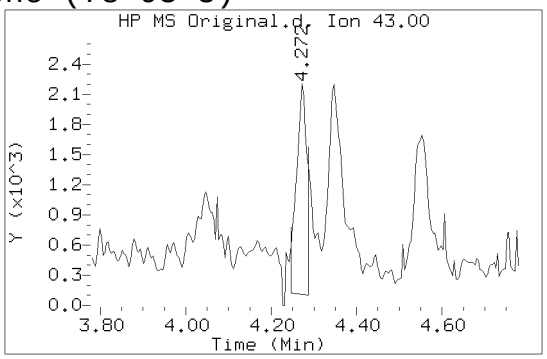
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Butanone (78-93-3)

Reason Code:

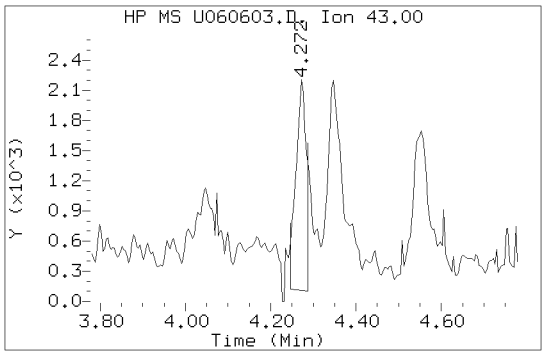
BEFORE

MASS
43
AREA
3610
HEIGHT
2093
08-Jun-2023
14:56
linh
pham



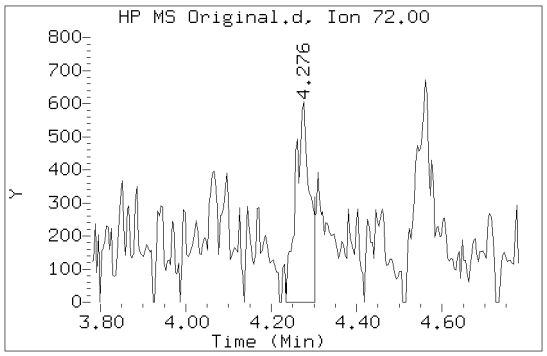
AFTER

MASS
43
AREA
3610
HEIGHT
2093
13-Jun-2023
13:00
linh
pham



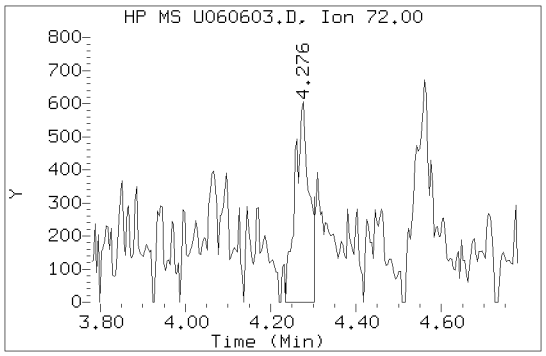
BEFORE

MASS
72
AREA
1400
HEIGHT
606
08-Jun-2023
14:56
linh
pham



AFTER

MASS
72
AREA
1400
HEIGHT
606
13-Jun-2023
13:00
linh
pham

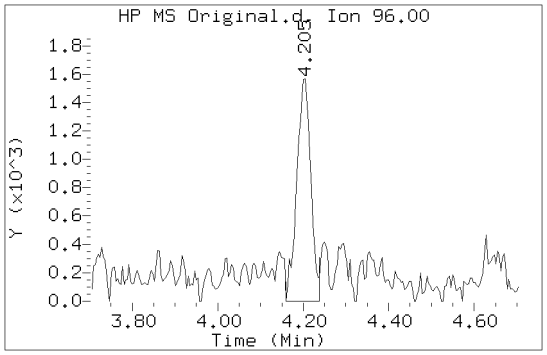


cis-1,2-Dichloroethene (156-59-2)

Reason Code:

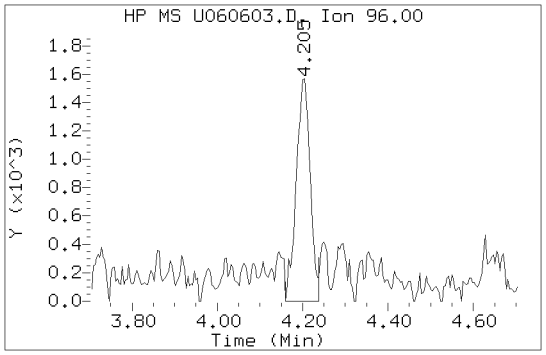
BEFORE

MASS
96
AREA
3640
HEIGHT
1571
08-Jun-2023
14:56
linh
pham



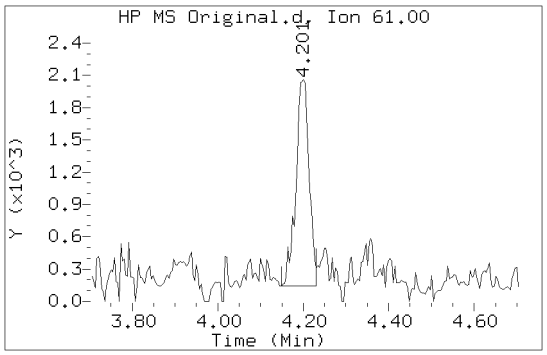
AFTER

MASS
96
AREA
3640
HEIGHT
1571
13-Jun-2023
13:00
linh
pham



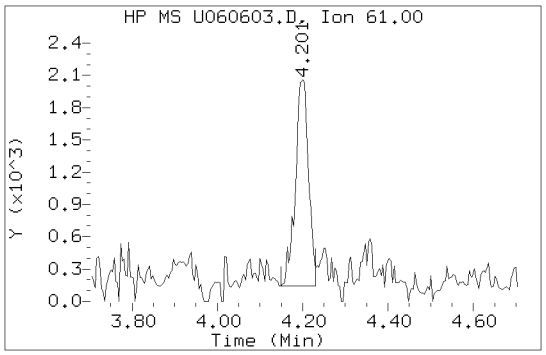
BEFORE

MASS
61
AREA
4196
HEIGHT
1915
08-Jun-2023
14:56
linh
pham



AFTER

MASS
61
AREA
4196
HEIGHT
1915
13-Jun-2023
13:00
linh
pham



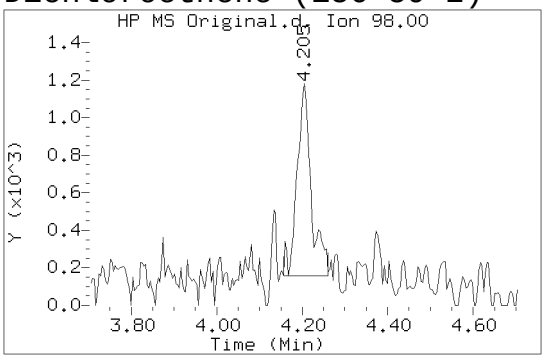
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,2-Dichloroethene (156-59-2)

Reason Code:

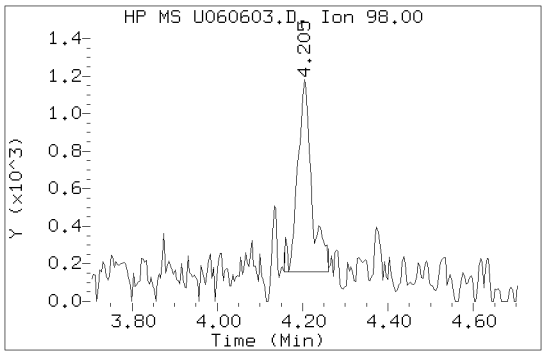
BEFORE

MASS
98
AREA
2375
HEIGHT
1023
08-Jun-2023
14:56
linh
pham



AFTER

MASS
98
AREA
2375
HEIGHT
1023
13-Jun-2023
13:00
linh
pham

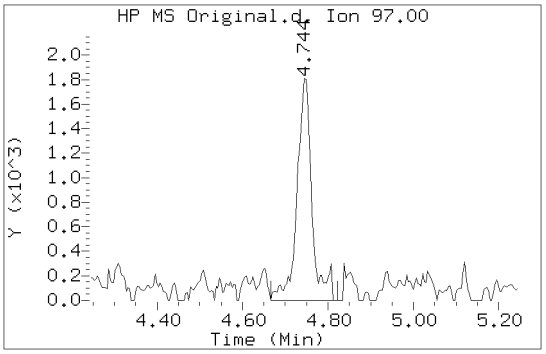


1,1,1-Trichloroethane (71-55-6)

Reason Code:

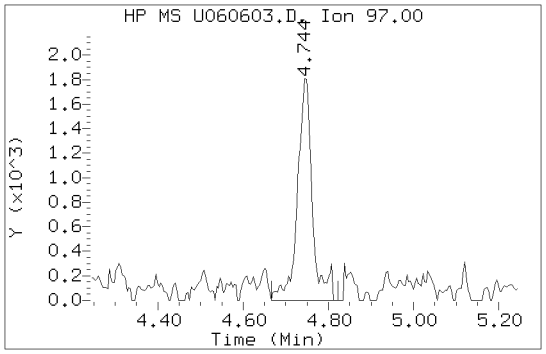
BEFORE

MASS
97
AREA
4434
HEIGHT
1807
08-Jun-2023
14:56
linh
pham



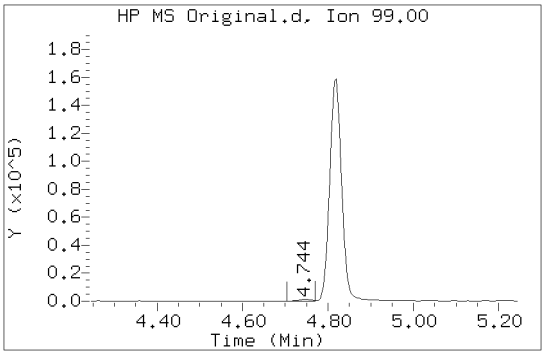
AFTER

MASS
97
AREA
4434
HEIGHT
1807
13-Jun-2023
13:00
linh
pham



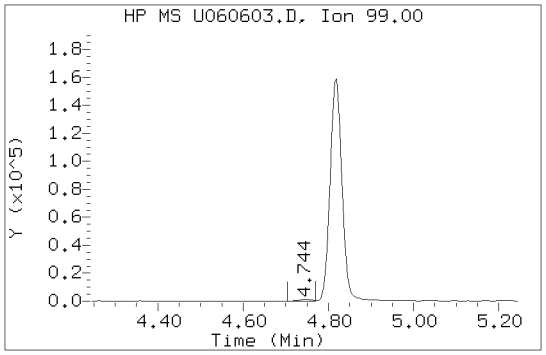
BEFORE

MASS
99
AREA
2413
HEIGHT
1165
08-Jun-2023
14:56
linh
pham



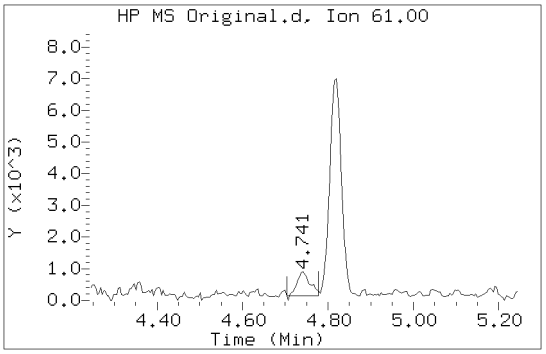
AFTER

MASS
99
AREA
2413
HEIGHT
1165
13-Jun-2023
13:00
linh
pham



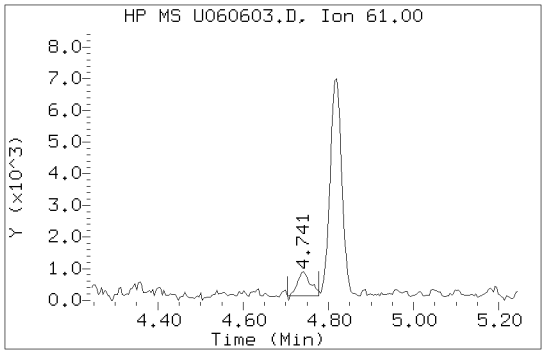
BEFORE

MASS
61
AREA
1649
HEIGHT
774
08-Jun-2023
14:56
linh
pham



AFTER

MASS
61
AREA
1649
HEIGHT
774
13-Jun-2023
13:00
linh
pham



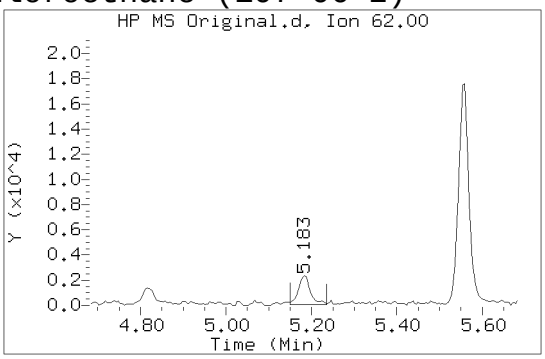
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2-Dichloroethane (107-06-2)

Reason Code:

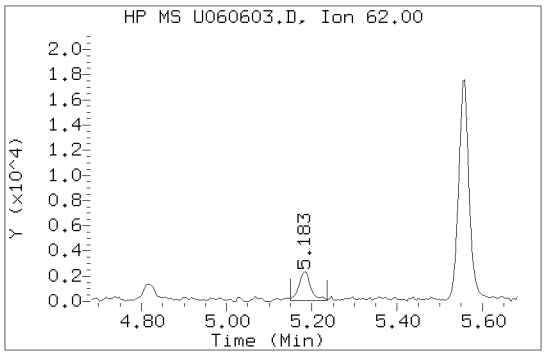
BEFORE

MASS
62
AREA
4646
HEIGHT
2294
08-Jun-2023
14:56
linh
pham



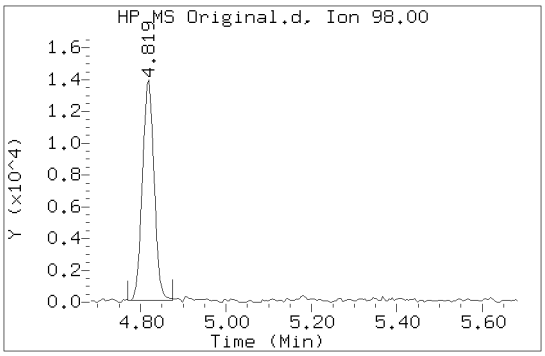
AFTER

MASS
62
AREA
4646
HEIGHT
2294
13-Jun-2023
13:00
linh
pham



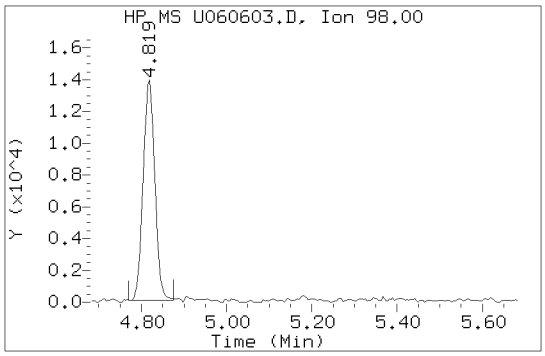
BEFORE

MASS
98
AREA
26343
HEIGHT
13869
08-Jun-2023
14:56
linh
pham



AFTER

MASS
98
AREA
26343
HEIGHT
13869
13-Jun-2023
13:00
linh
pham

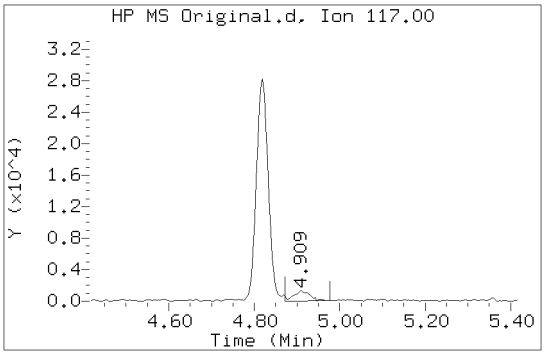


Carbon Tetrachloride (56-23-5)

Reason Code:

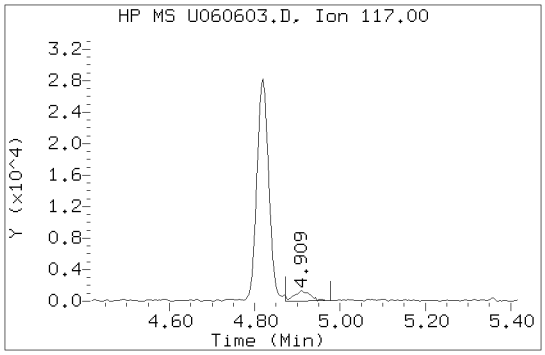
BEFORE

MASS
117
AREA
3518
HEIGHT
1311
08-Jun-2023
14:56
linh
pham



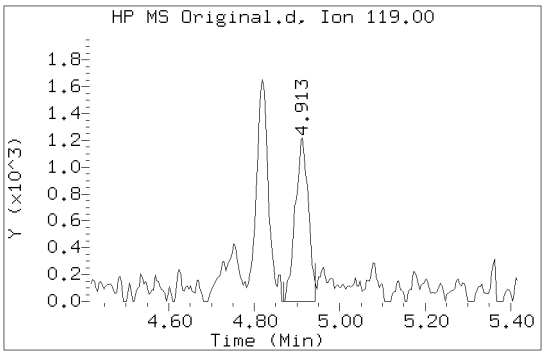
AFTER

MASS
117
AREA
3518
HEIGHT
1311
13-Jun-2023
13:00
linh
pham



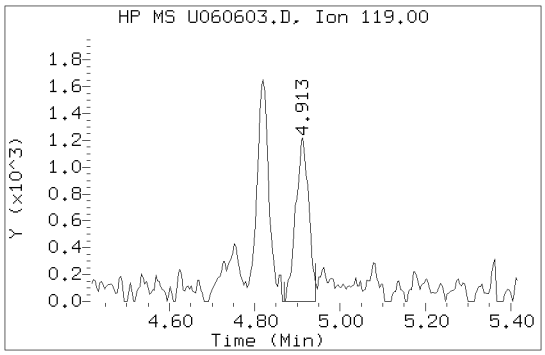
BEFORE

MASS
119
AREA
2642
HEIGHT
1217
08-Jun-2023
14:56
linh
pham



AFTER

MASS
119
AREA
2642
HEIGHT
1217
13-Jun-2023
13:00
linh
pham



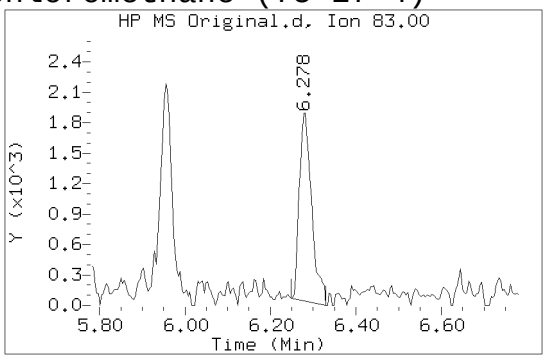
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromodichloromethane (75-27-4)

Reason Code:

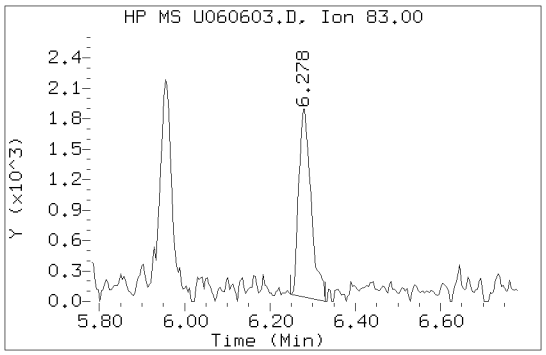
BEFORE

MASS
83
AREA
3797
HEIGHT
1853
08-Jun-2023
14:56
linh
pham



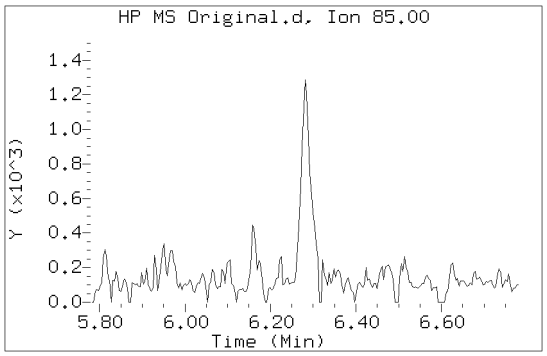
AFTER

MASS
83
AREA
3797
HEIGHT
1853
13-Jun-2023
13:00
linh
pham



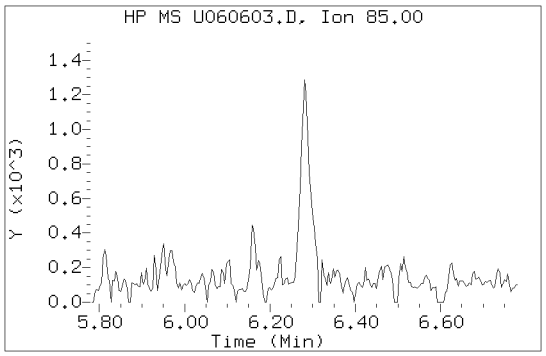
BEFORE

MASS
85
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0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



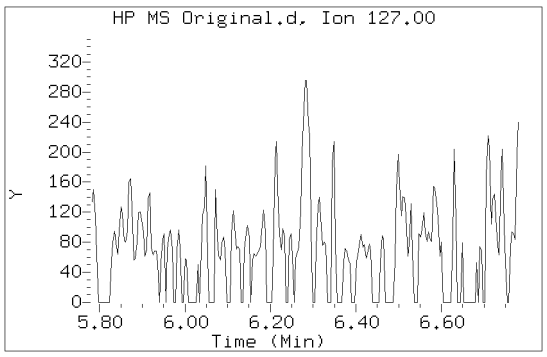
AFTER

MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



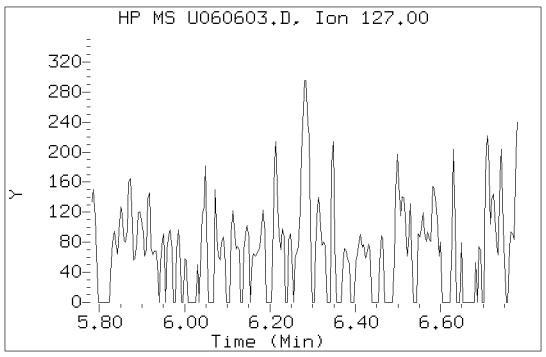
BEFORE

MASS
127
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
127
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

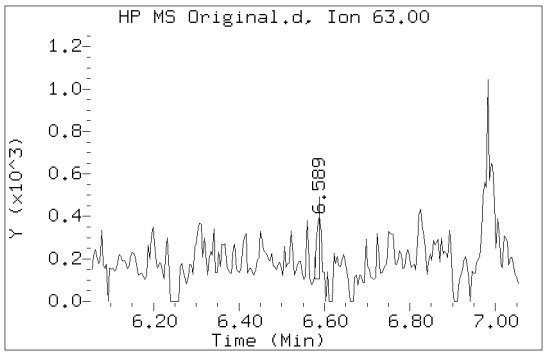


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

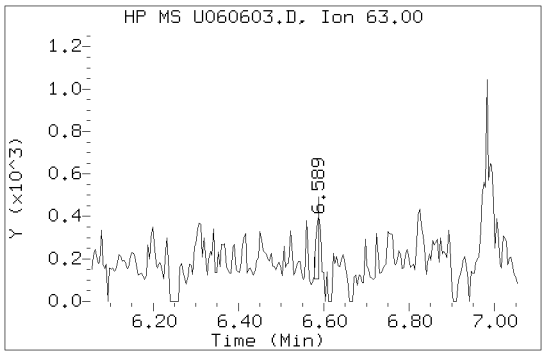
BEFORE

MASS
63
AREA
169
HEIGHT
296
08-Jun-2023
14:56
linh
pham



AFTER

MASS
63
AREA
169
HEIGHT
296
13-Jun-2023
13:00
linh
pham



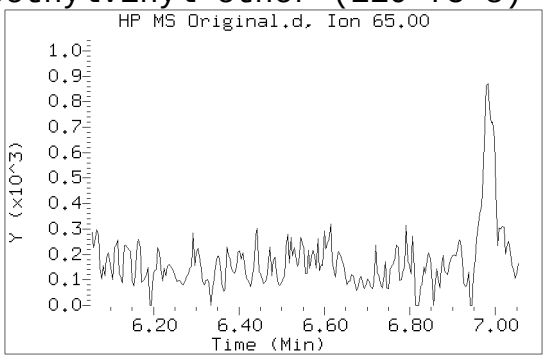
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

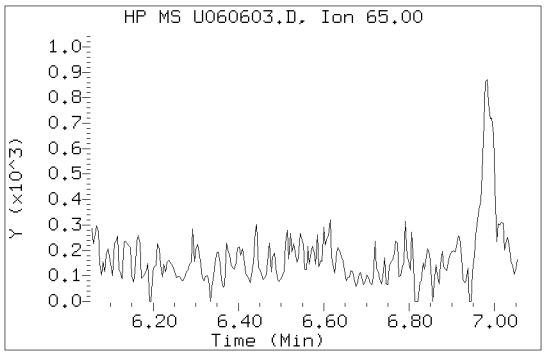
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



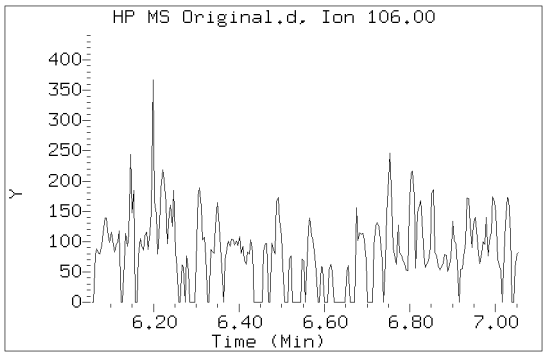
AFTER

MASS
65
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



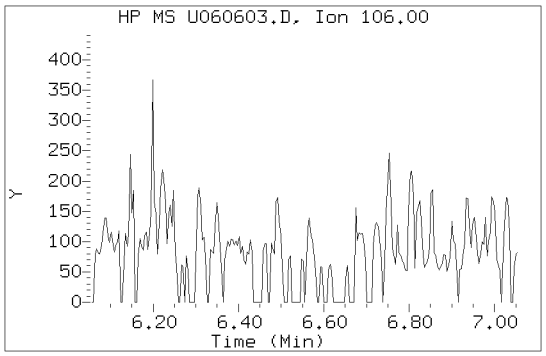
BEFORE

MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

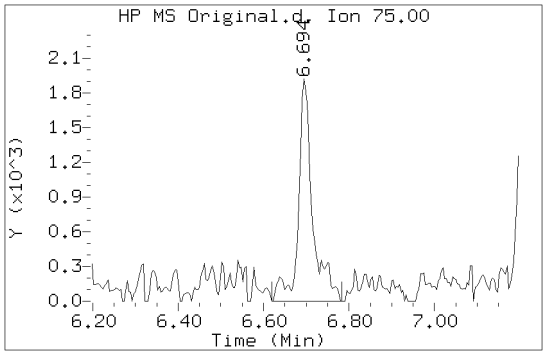


cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

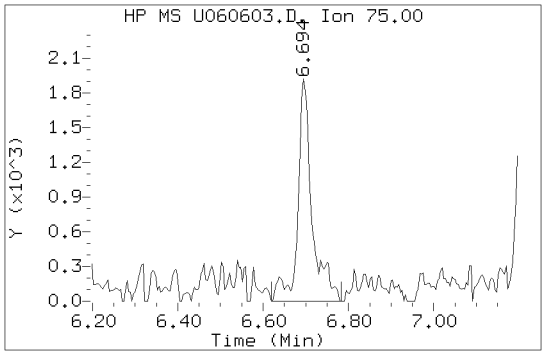
BEFORE

MASS
75
AREA
4533
HEIGHT
1923
08-Jun-2023
14:56
linh
pham



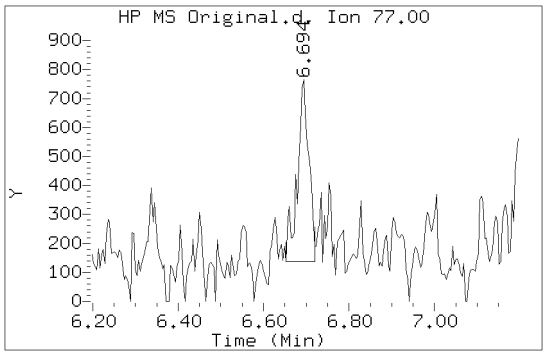
AFTER

MASS
75
AREA
4533
HEIGHT
1923
13-Jun-2023
13:00
linh
pham



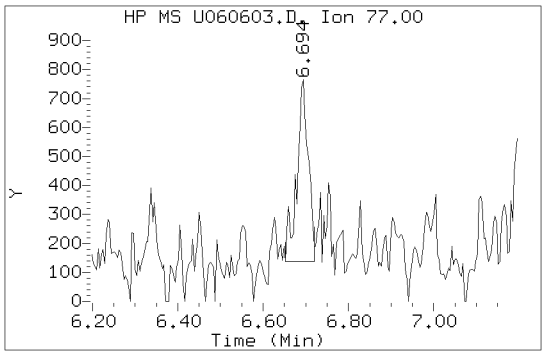
BEFORE

MASS
77
AREA
1180
HEIGHT
628
08-Jun-2023
14:56
linh
pham



AFTER

MASS
77
AREA
1180
HEIGHT
628
13-Jun-2023
13:00
linh
pham



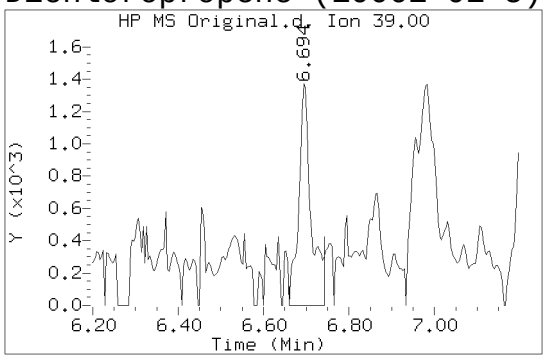
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

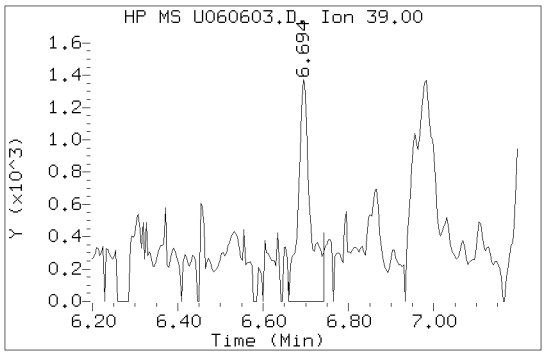
BEFORE

MASS
39
AREA
2809
HEIGHT
1372
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
2809
HEIGHT
1372
13-Jun-2023
13:00
linh
pham

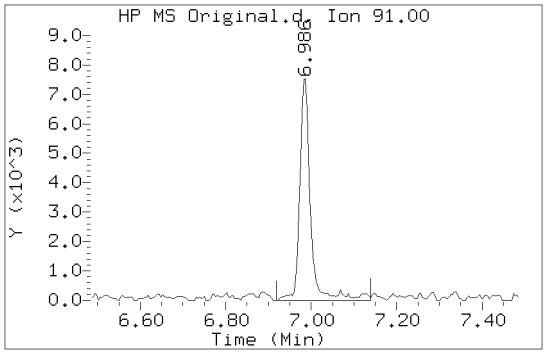


Toluene (108-88-3)

Reason Code:

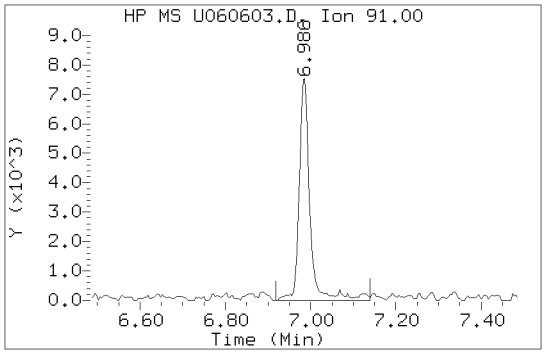
BEFORE

MASS
91
AREA
13471
HEIGHT
7534
08-Jun-2023
14:56
linh
pham



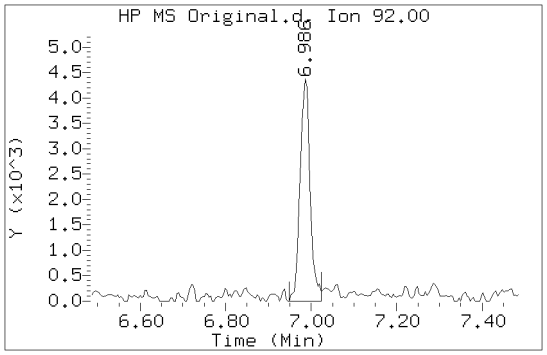
AFTER

MASS
91
AREA
13471
HEIGHT
7534
13-Jun-2023
13:00
linh
pham



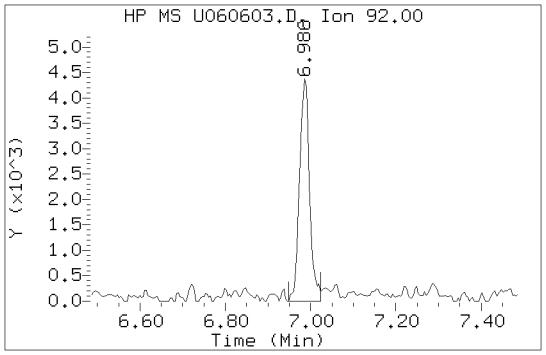
BEFORE

MASS
92
AREA
7328
HEIGHT
4373
08-Jun-2023
14:56
linh
pham



AFTER

MASS
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AREA
7328
HEIGHT
4373
13-Jun-2023
13:00
linh
pham

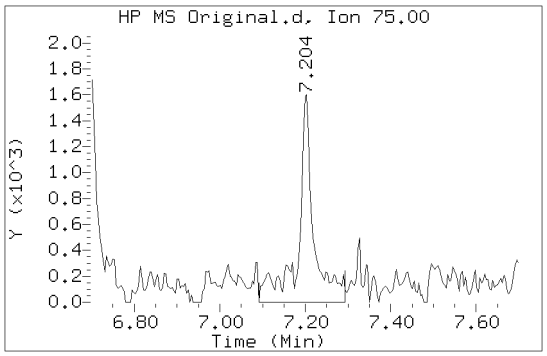


trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

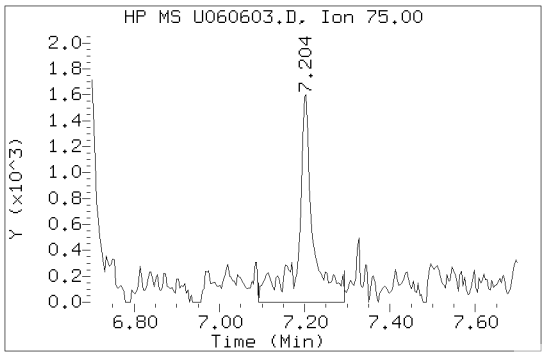
BEFORE

MASS
75
AREA
4073
HEIGHT
1603
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
4073
HEIGHT
1603
13-Jun-2023
13:00
linh
pham

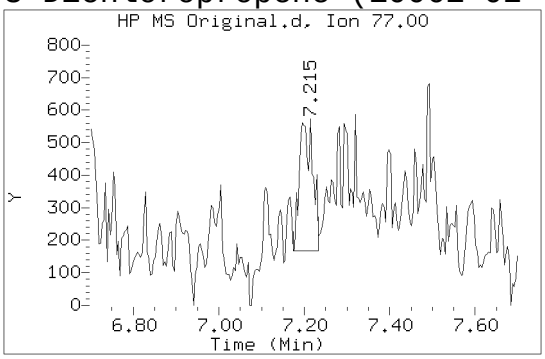


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

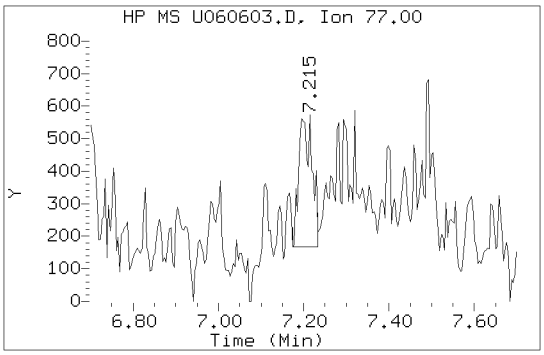
trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

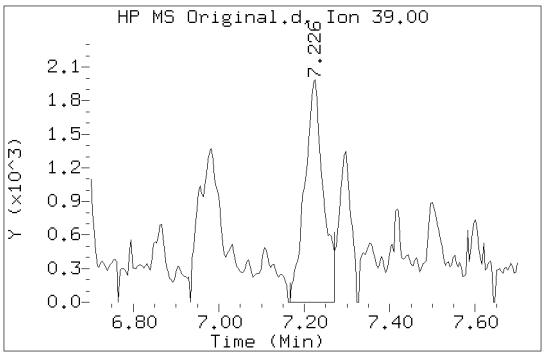
BEFORE
MASS
77
AREA
877
HEIGHT
407
08-Jun-2023
14:56
linh
pham



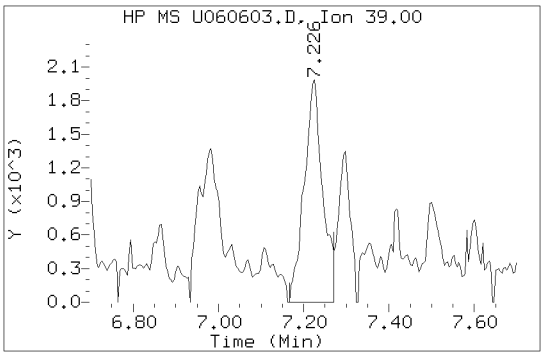
AFTER
MASS
77
AREA
877
HEIGHT
407
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
39
AREA
6017
HEIGHT
1985
08-Jun-2023
14:56
linh
pham



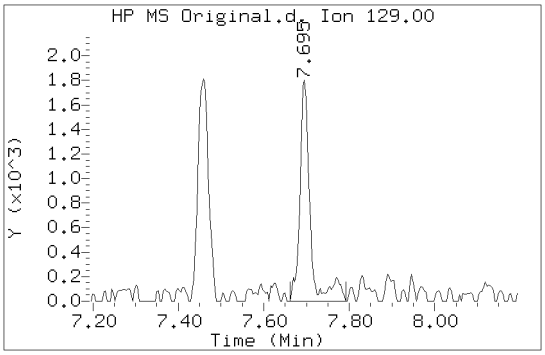
AFTER
MASS
39
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6017
HEIGHT
1985
13-Jun-2023
13:00
linh
pham



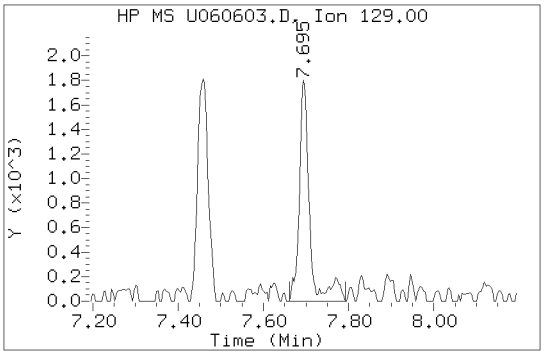
Dibromochloromethane (124-48-1)

Reason Code:

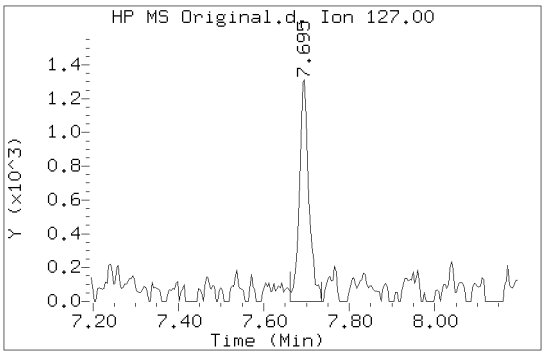
BEFORE
MASS
129
AREA
3068
HEIGHT
1800
08-Jun-2023
14:56
linh
pham



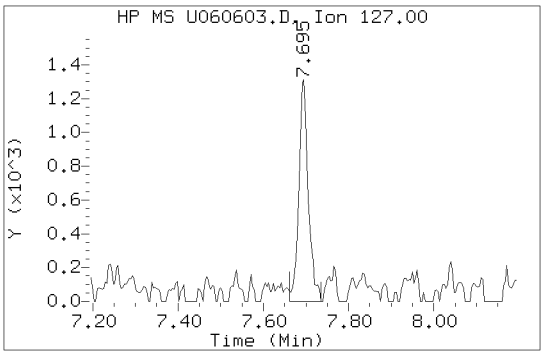
AFTER
MASS
129
AREA
3068
HEIGHT
1800
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
127
AREA
2055
HEIGHT
1312
08-Jun-2023
14:56
linh
pham



AFTER
MASS
127
AREA
2055
HEIGHT
1312
13-Jun-2023
13:00
linh
pham



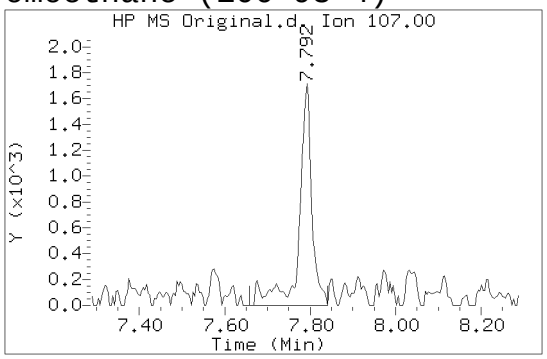
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2-Dibromoethane (106-93-4)

Reason Code:

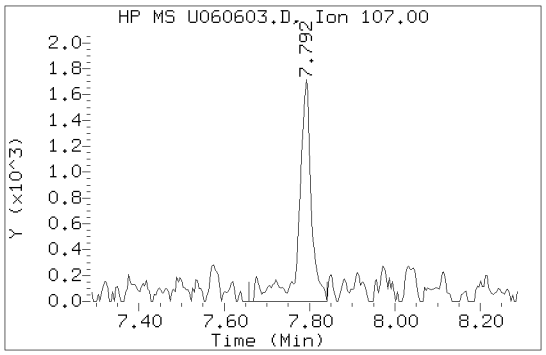
BEFORE

MASS
107
AREA
3622
HEIGHT
1715
08-Jun-2023
14:56
linh
pham



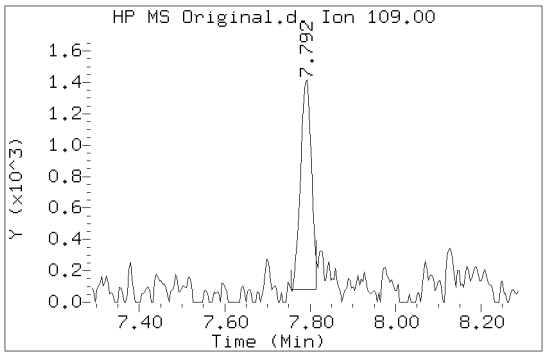
AFTER

MASS
107
AREA
3622
HEIGHT
1715
13-Jun-2023
13:00
linh
pham



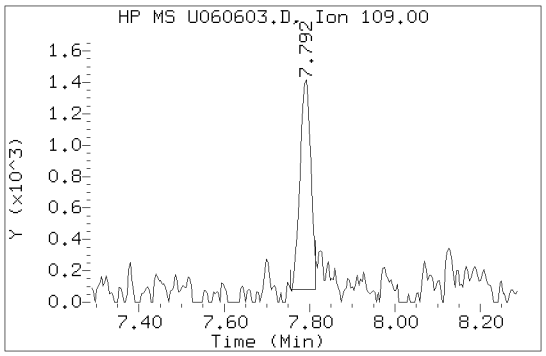
BEFORE

MASS
109
AREA
2422
HEIGHT
1334
08-Jun-2023
14:56
linh
pham



AFTER

MASS
109
AREA
2422
HEIGHT
1334
13-Jun-2023
13:00
linh
pham

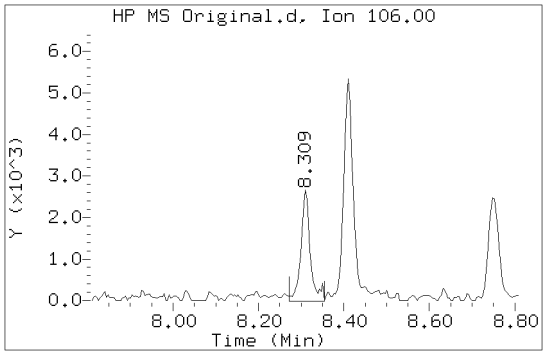


Ethylbenzene (100-41-4)

Reason Code:

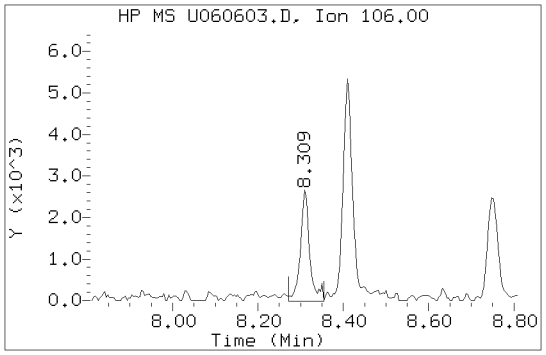
BEFORE

MASS
106
AREA
4142
HEIGHT
2674
08-Jun-2023
14:56
linh
pham



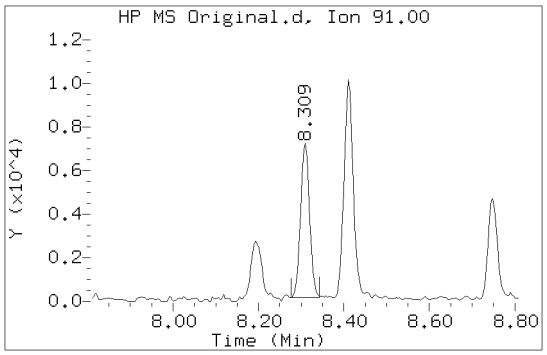
AFTER

MASS
106
AREA
4142
HEIGHT
2674
13-Jun-2023
13:00
linh
pham



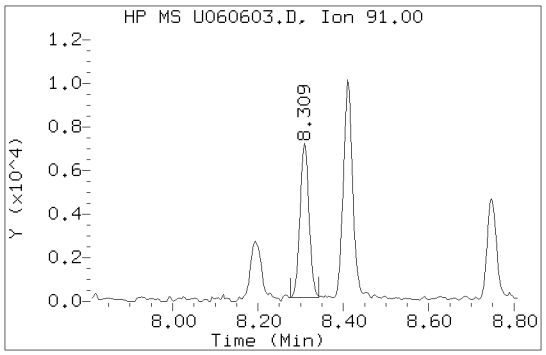
BEFORE

MASS
91
AREA
10611
HEIGHT
7101
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
10611
HEIGHT
7101
13-Jun-2023
13:00
linh
pham

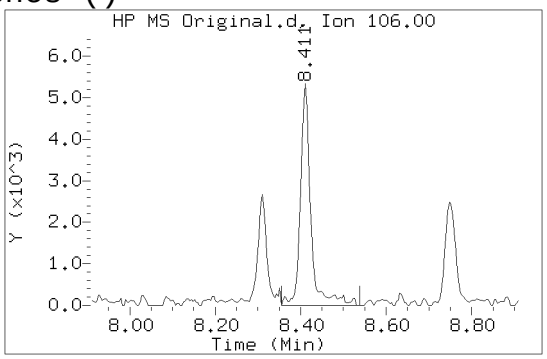


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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

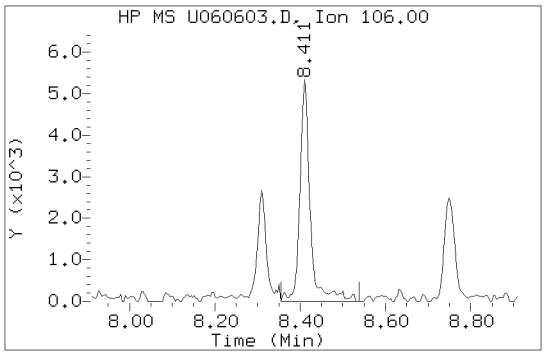
m,p-Xylenes ()

Reason Code:

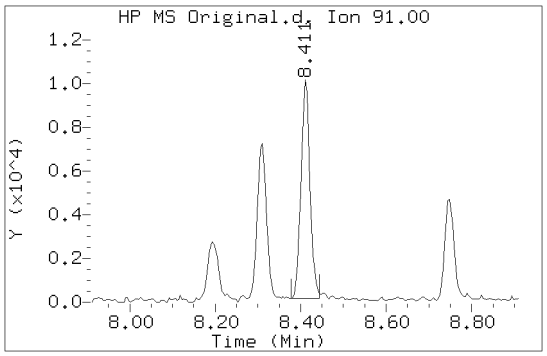
BEFORE
MASS
106
AREA
9164
HEIGHT
5338
08-Jun-2023
14:56
linh
pham



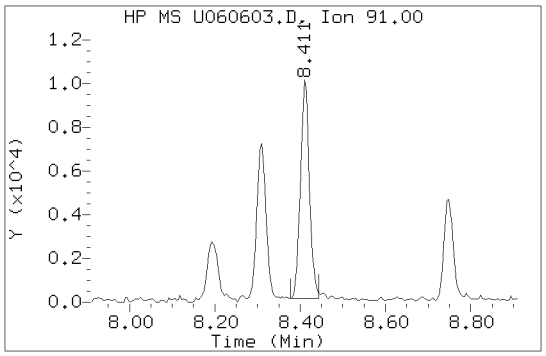
AFTER
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106
AREA
9164
HEIGHT
5338
13-Jun-2023
13:00
linh
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BEFORE
MASS
91
AREA
14815
HEIGHT
9979
08-Jun-2023
14:56
linh
pham



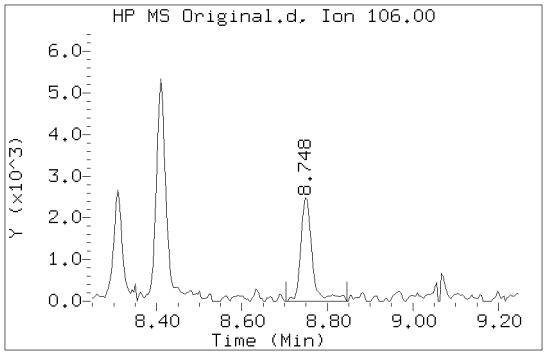
AFTER
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14815
HEIGHT
9979
13-Jun-2023
13:00
linh
pham



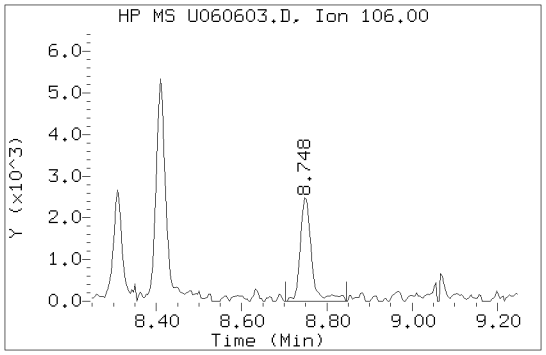
o-Xylene (95-47-6)

Reason Code:

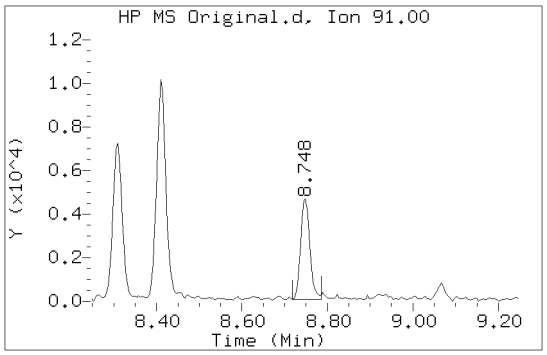
BEFORE
MASS
106
AREA
4736
HEIGHT
2481
08-Jun-2023
14:56
linh
pham



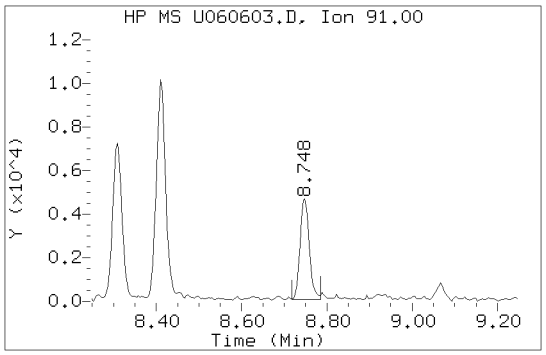
AFTER
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106
AREA
4736
HEIGHT
2481
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
91
AREA
7145
HEIGHT
4614
08-Jun-2023
14:56
linh
pham



AFTER
MASS
91
AREA
7145
HEIGHT
4614
13-Jun-2023
13:00
linh
pham



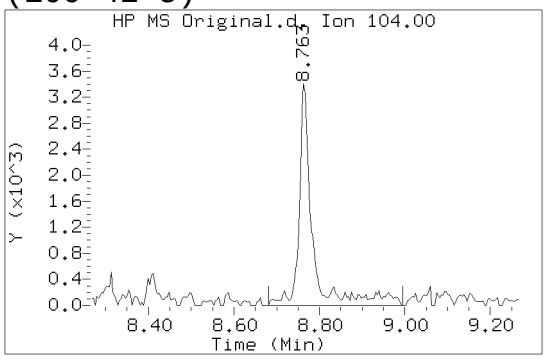
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Styrene (100-42-5)

Reason Code:

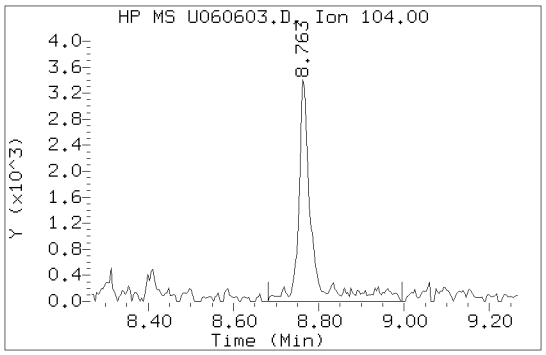
BEFORE

MASS
104
AREA
7547
HEIGHT
3407
08-Jun-2023
14:56
linh
pham



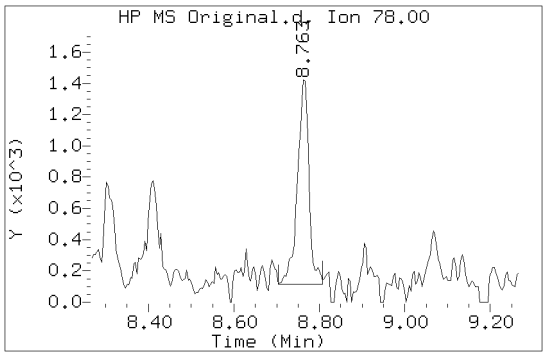
AFTER

MASS
104
AREA
7547
HEIGHT
3407
13-Jun-2023
13:00
linh
pham



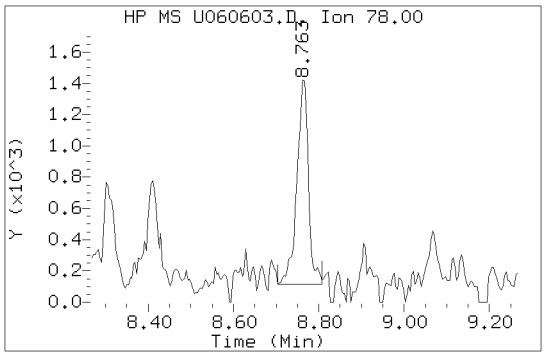
BEFORE

MASS
78
AREA
2506
HEIGHT
1307
08-Jun-2023
14:56
linh
pham



AFTER

MASS
78
AREA
2506
HEIGHT
1307
13-Jun-2023
13:00
linh
pham

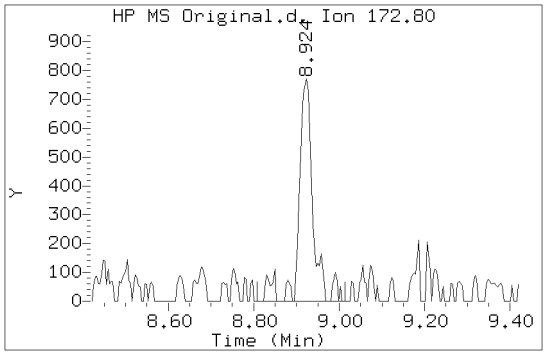


Bromoform (75-25-2)

Reason Code:

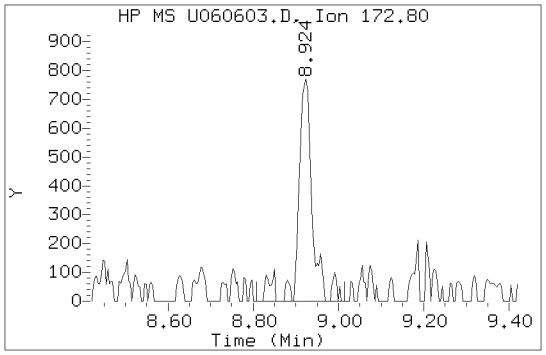
BEFORE

MASS
172.8
AREA
1797
HEIGHT
771
08-Jun-2023
14:56
linh
pham



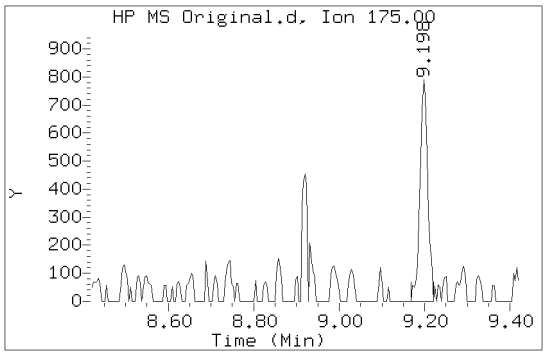
AFTER

MASS
172.8
AREA
1797
HEIGHT
771
13-Jun-2023
13:00
linh
pham



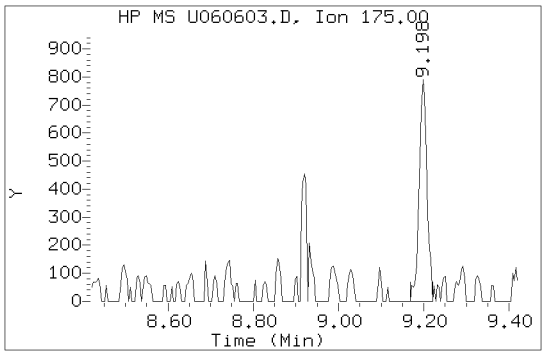
BEFORE

MASS
175
AREA
1005
HEIGHT
790
08-Jun-2023
14:56
linh
pham



AFTER

MASS
175
AREA
1005
HEIGHT
790
13-Jun-2023
13:00
linh
pham



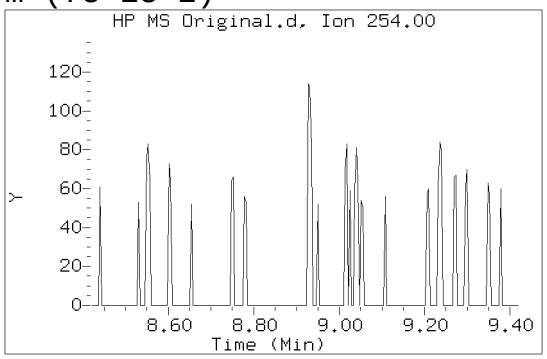
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromoform (75-25-2)

Reason Code:

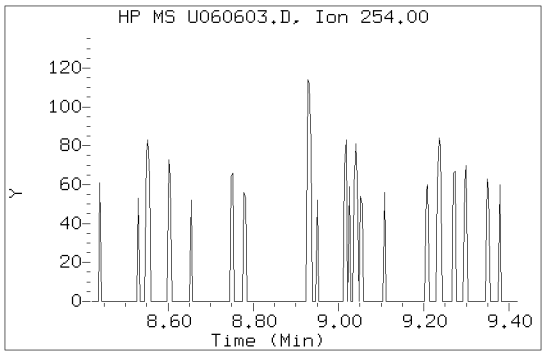
BEFORE

MASS
254
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
254
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

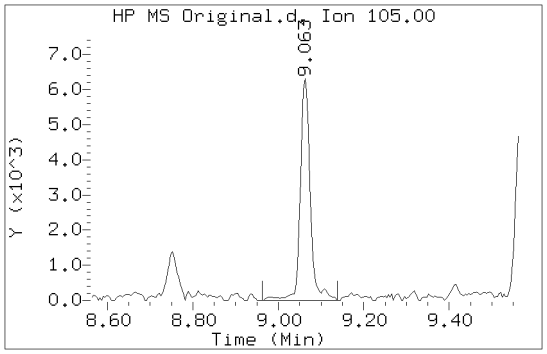


Isopropylbenzene (98-82-8)

Reason Code:

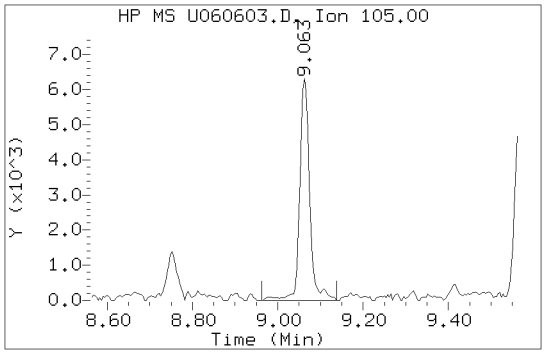
BEFORE

MASS
105
AREA
10525
HEIGHT
6310
08-Jun-2023
14:56
linh
pham



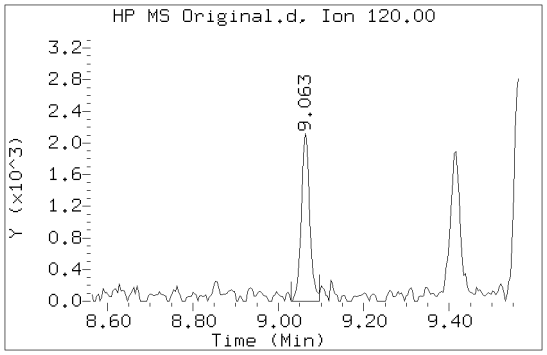
AFTER

MASS
105
AREA
10525
HEIGHT
6310
13-Jun-2023
13:00
linh
pham



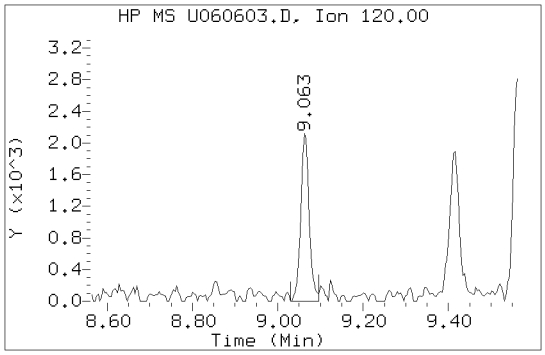
BEFORE

MASS
120
AREA
2979
HEIGHT
2122
08-Jun-2023
14:56
linh
pham



AFTER

MASS
120
AREA
2979
HEIGHT
2122
13-Jun-2023
13:00
linh
pham

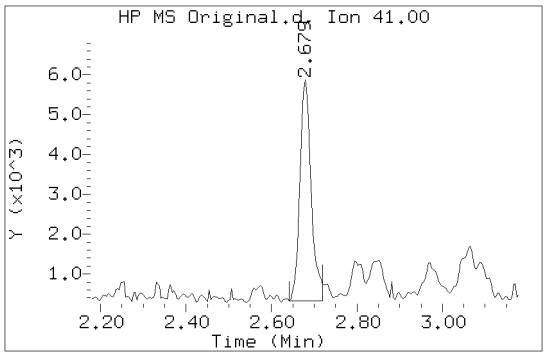


Allyl Chloride (107-05-1)

Reason Code:

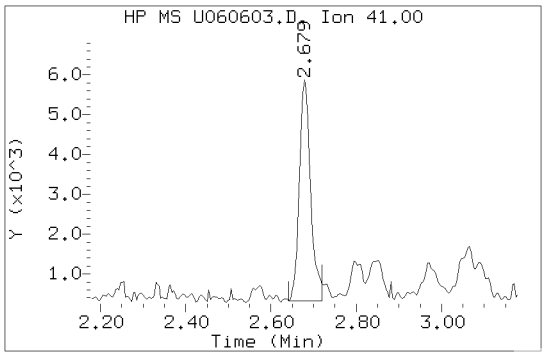
BEFORE

MASS
41
AREA
10377
HEIGHT
5545
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
10377
HEIGHT
5545
13-Jun-2023
13:00
linh
pham



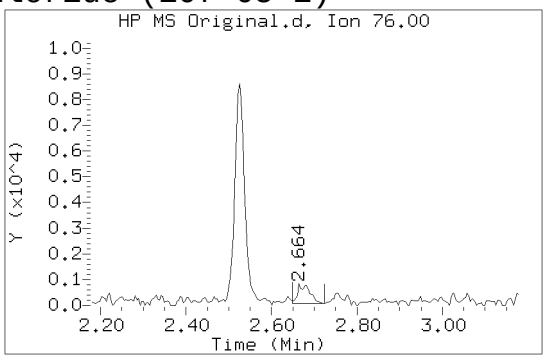
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Allyl Chloride (107-05-1)

Reason Code:

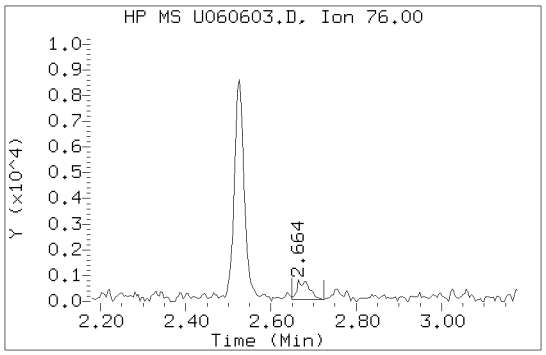
BEFORE

MASS
76
AREA
1452
HEIGHT
753
08-Jun-2023
14:56
linh
pham



AFTER

MASS
76
AREA
1452
HEIGHT
753
13-Jun-2023
13:00
linh
pham

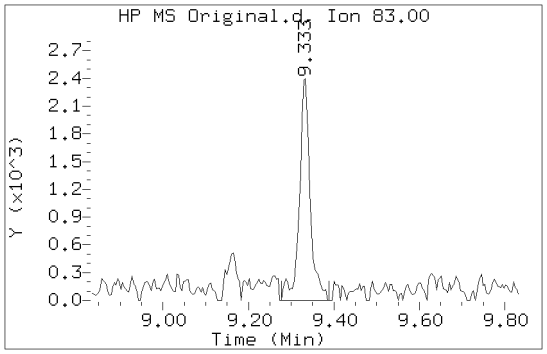


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

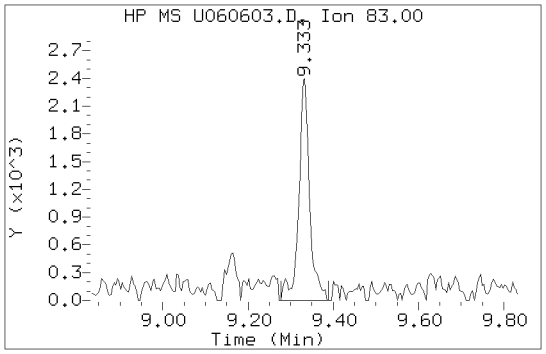
BEFORE

MASS
83
AREA
4333
HEIGHT
2397
08-Jun-2023
14:56
linh
pham



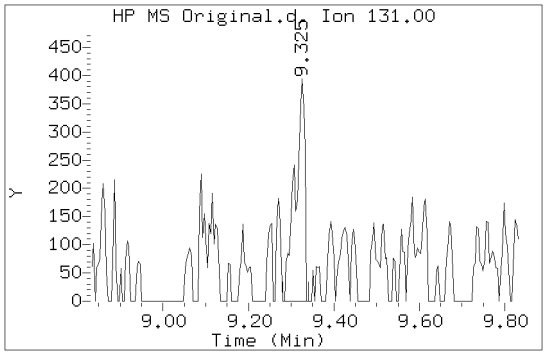
AFTER

MASS
83
AREA
4333
HEIGHT
2397
13-Jun-2023
13:00
linh
pham



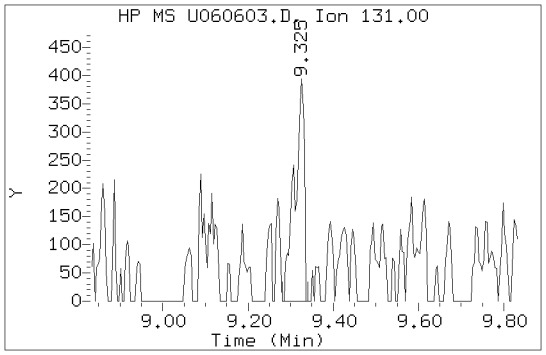
BEFORE

MASS
131
AREA
624
HEIGHT
394
08-Jun-2023
14:56
linh
pham



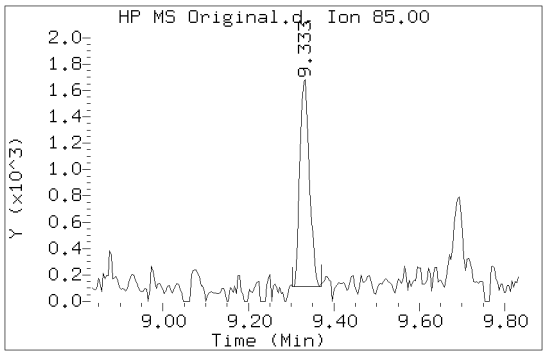
AFTER

MASS
131
AREA
624
HEIGHT
394
13-Jun-2023
13:00
linh
pham



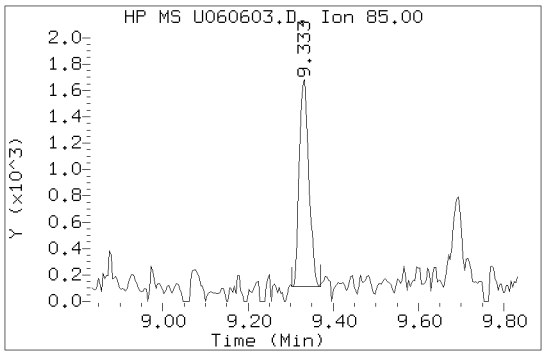
BEFORE

MASS
85
AREA
2508
HEIGHT
1568
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
2508
HEIGHT
1568
13-Jun-2023
13:00
linh
pham



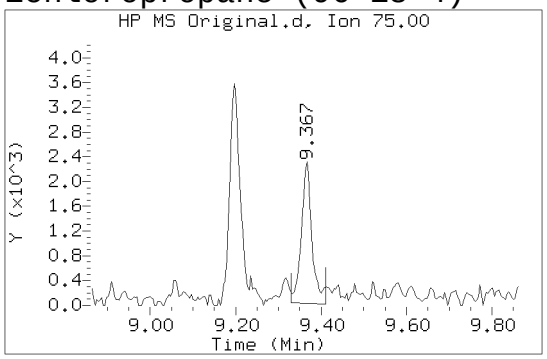
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2,3-Trichloropropane (96-18-4)

Reason Code:

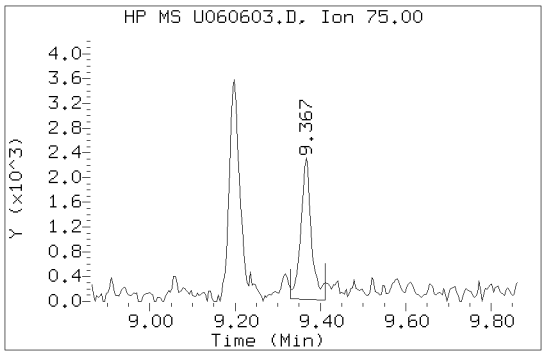
BEFORE

MASS
75
AREA
4089
HEIGHT
2289
08-Jun-2023
14:56
linh
pham



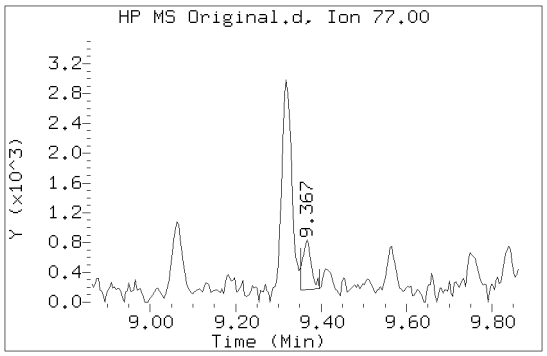
AFTER

MASS
75
AREA
4089
HEIGHT
2289
13-Jun-2023
13:00
linh
pham



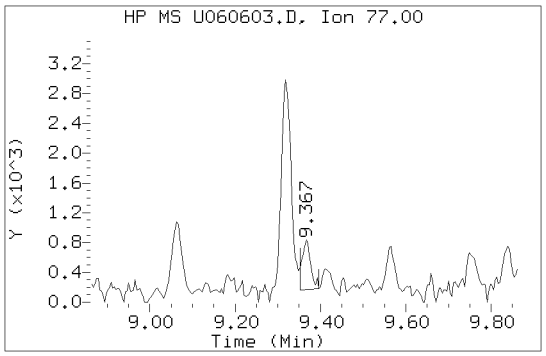
BEFORE

MASS
77
AREA
963
HEIGHT
669
08-Jun-2023
14:56
linh
pham



AFTER

MASS
77
AREA
963
HEIGHT
669
13-Jun-2023
13:00
linh
pham

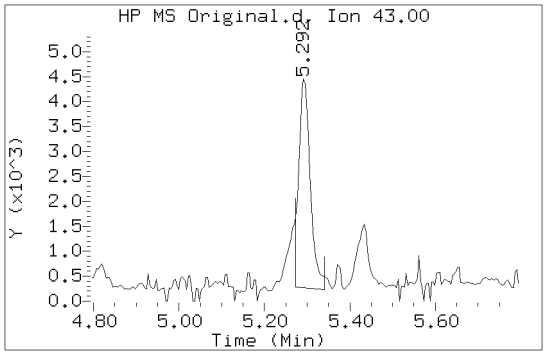


Isobutyl Alcohol (78-83-1)

Reason Code:

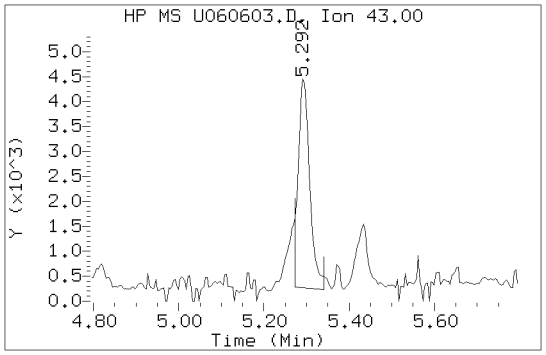
BEFORE

MASS
43
AREA
8062
HEIGHT
4185
08-Jun-2023
14:56
linh
pham



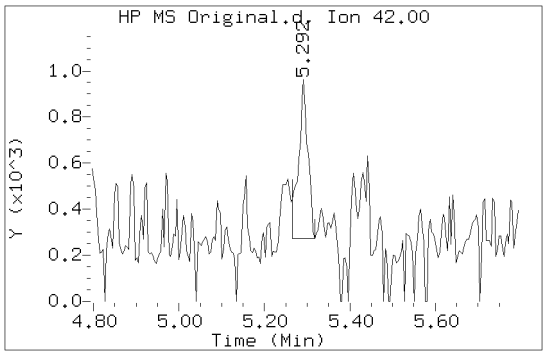
AFTER

MASS
43
AREA
8062
HEIGHT
4185
13-Jun-2023
13:00
linh
pham



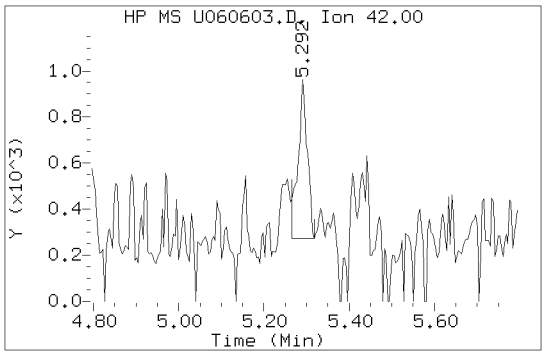
BEFORE

MASS
42
AREA
1073
HEIGHT
689
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
1073
HEIGHT
689
13-Jun-2023
13:00
linh
pham



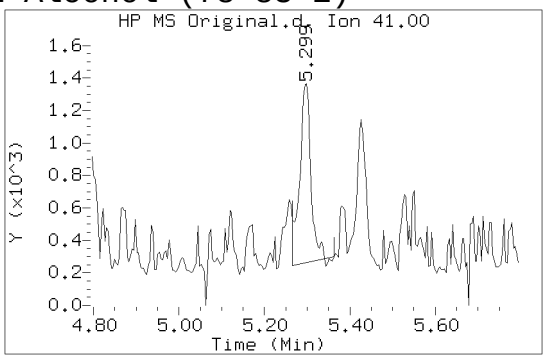
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Isobutyl Alcohol (78-83-1)

Reason Code:

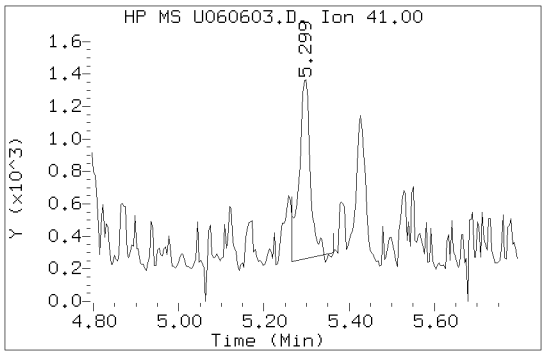
BEFORE

MASS
41
AREA
2043
HEIGHT
1100
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
2043
HEIGHT
1100
13-Jun-2023
13:00
linh
pham

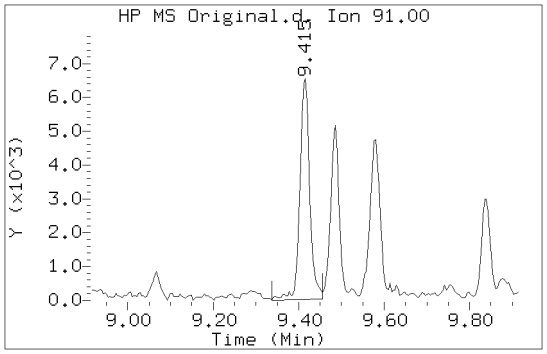


n-Propylbenzene (106-65-1)

Reason Code:

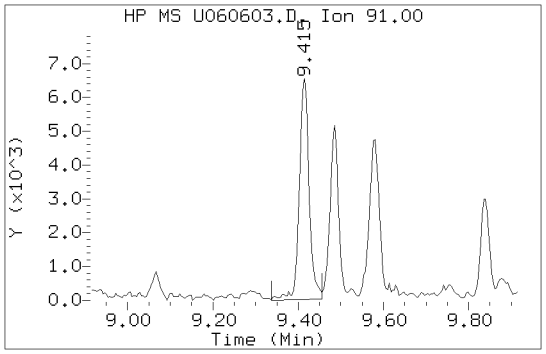
BEFORE

MASS
91
AREA
10721
HEIGHT
6532
08-Jun-2023
14:56
linh
pham



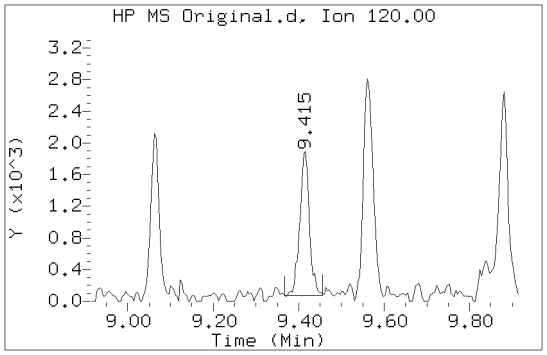
AFTER

MASS
91
AREA
10721
HEIGHT
6532
13-Jun-2023
13:00
linh
pham



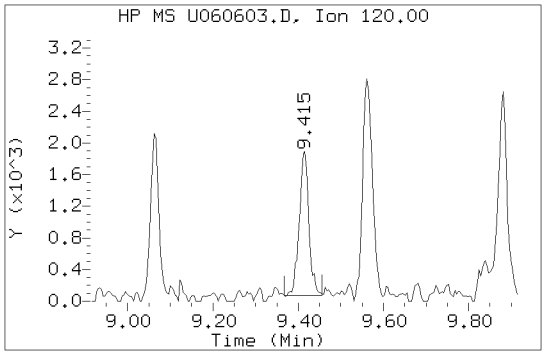
BEFORE

MASS
120
AREA
2911
HEIGHT
1823
08-Jun-2023
14:56
linh
pham



AFTER

MASS
120
AREA
2911
HEIGHT
1823
13-Jun-2023
13:00
linh
pham

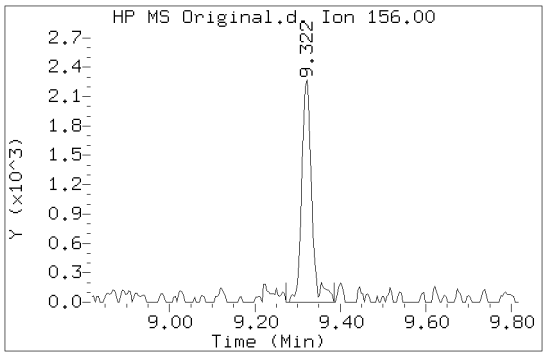


Bromobenzene (108-86-1)

Reason Code:

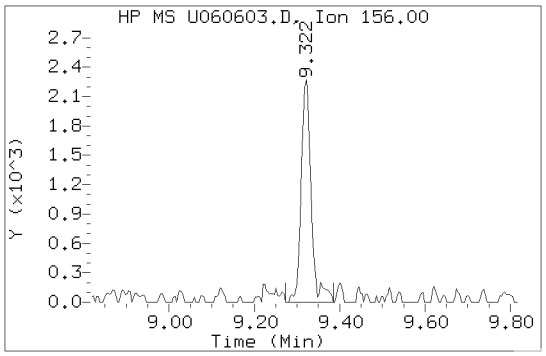
BEFORE

MASS
156
AREA
3800
HEIGHT
2270
08-Jun-2023
14:56
linh
pham



AFTER

MASS
156
AREA
3800
HEIGHT
2270
13-Jun-2023
13:00
linh
pham



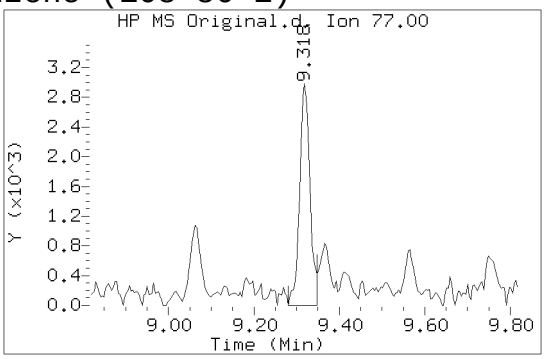
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromobenzene (108-86-1)

Reason Code:

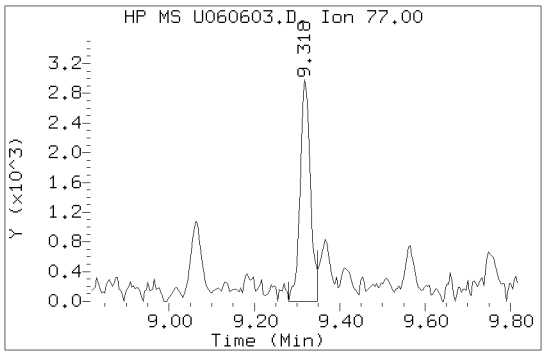
BEFORE

MASS
77
AREA
5137
HEIGHT
2983
08-Jun-2023
14:56
linh
pham



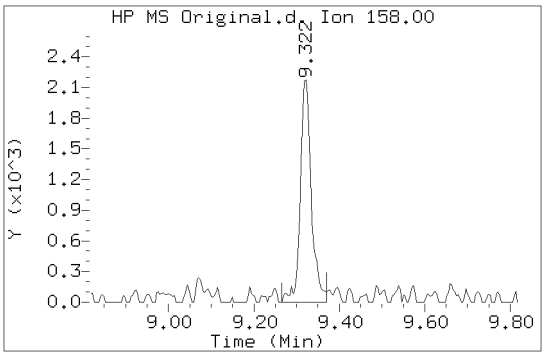
AFTER

MASS
77
AREA
5137
HEIGHT
2983
13-Jun-2023
13:00
linh
pham



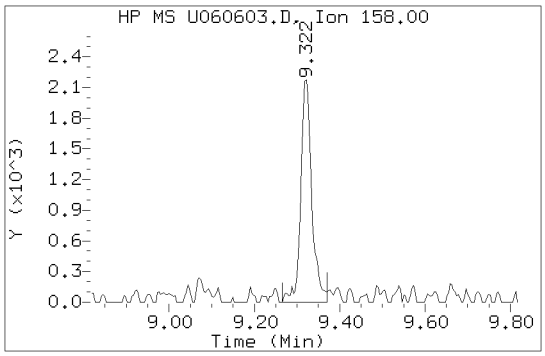
BEFORE

MASS
158
AREA
4021
HEIGHT
2175
08-Jun-2023
14:56
linh
pham



AFTER

MASS
158
AREA
4021
HEIGHT
2175
13-Jun-2023
13:00
linh
pham

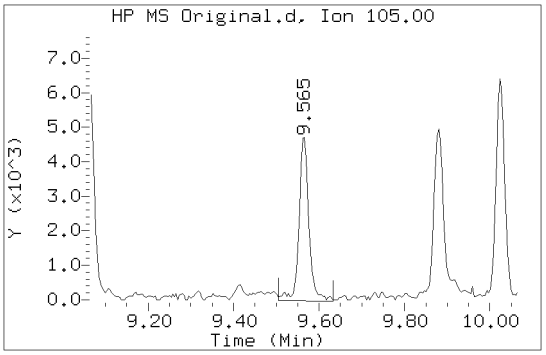


1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

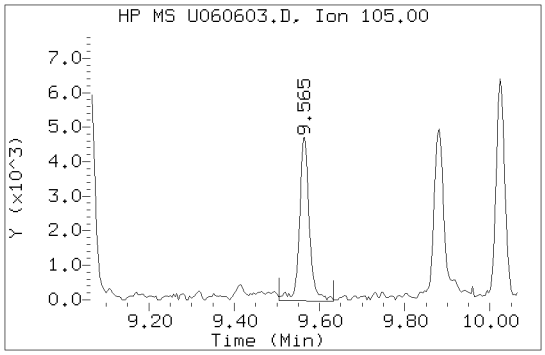
BEFORE

MASS
105
AREA
7820
HEIGHT
4732
08-Jun-2023
14:56
linh
pham



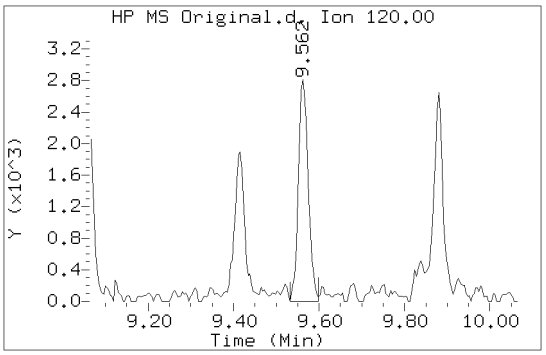
AFTER

MASS
105
AREA
7820
HEIGHT
4732
13-Jun-2023
13:00
linh
pham



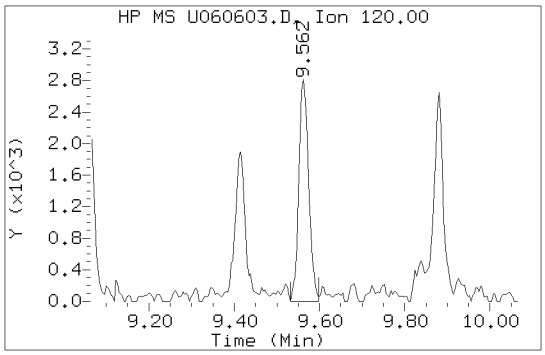
BEFORE

MASS
120
AREA
4592
HEIGHT
2810
08-Jun-2023
14:56
linh
pham



AFTER

MASS
120
AREA
4592
HEIGHT
2810
13-Jun-2023
13:00
linh
pham



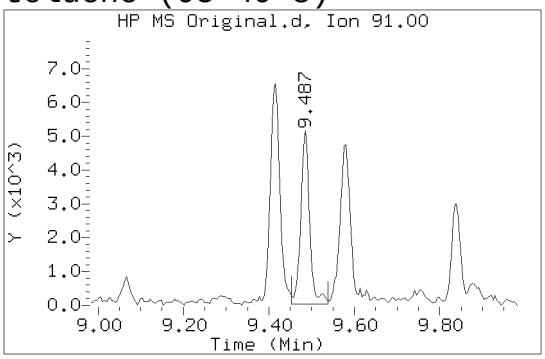
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Chlorotoluene (95-49-8)

Reason Code:

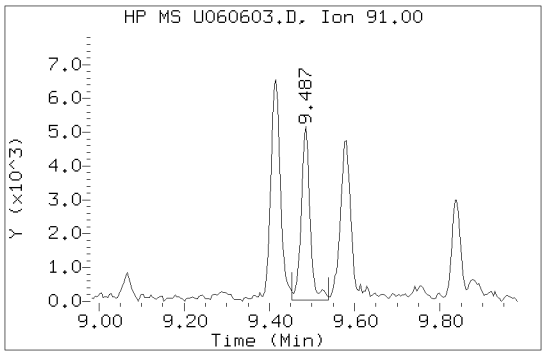
BEFORE

MASS
91
AREA
7551
HEIGHT
5138
08-Jun-2023
14:56
linh
pham



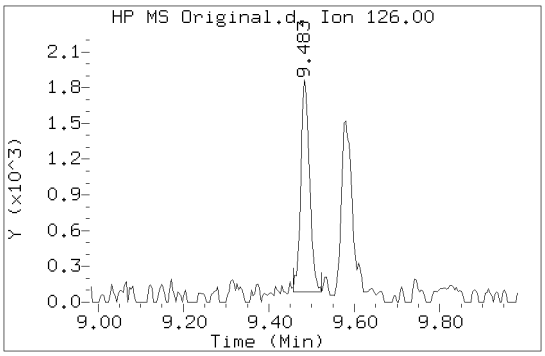
AFTER

MASS
91
AREA
7551
HEIGHT
5138
13-Jun-2023
13:00
linh
pham



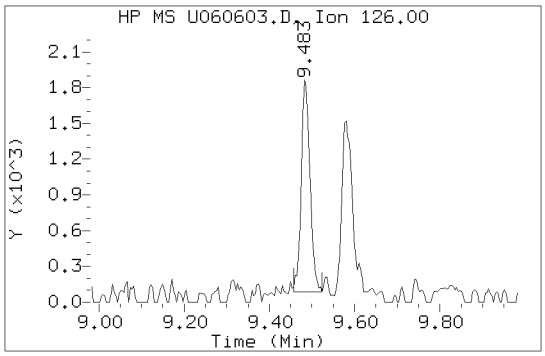
BEFORE

MASS
126
AREA
2589
HEIGHT
1779
08-Jun-2023
14:56
linh
pham



AFTER

MASS
126
AREA
2589
HEIGHT
1779
13-Jun-2023
13:00
linh
pham

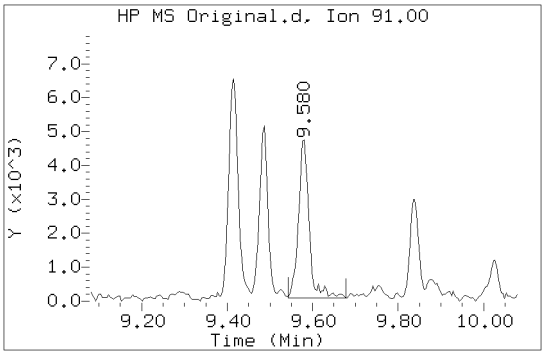


4-Chlorotoluene (106-43-4)

Reason Code:

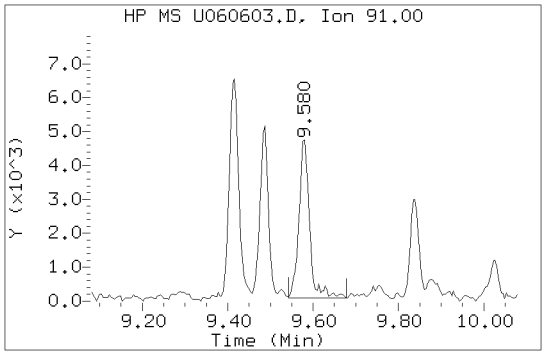
BEFORE

MASS
91
AREA
8243
HEIGHT
4662
08-Jun-2023
14:56
linh
pham



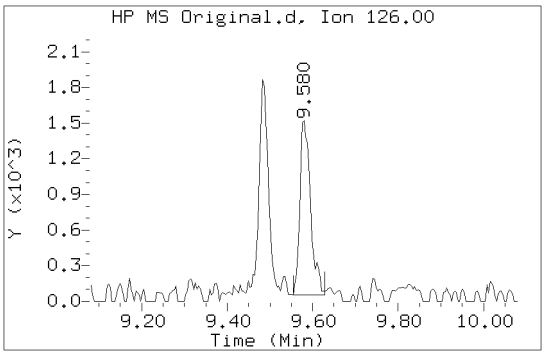
AFTER

MASS
91
AREA
8243
HEIGHT
4662
13-Jun-2023
13:00
linh
pham



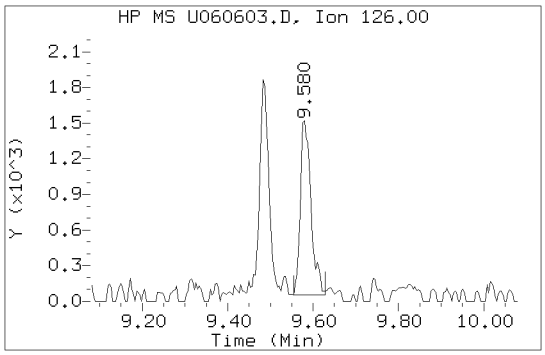
BEFORE

MASS
126
AREA
2606
HEIGHT
1467
08-Jun-2023
14:56
linh
pham



AFTER

MASS
126
AREA
2606
HEIGHT
1467
13-Jun-2023
13:00
linh
pham



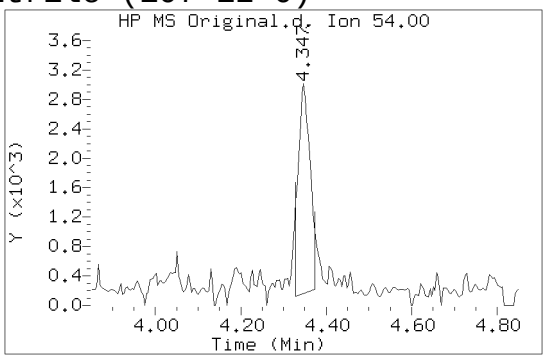
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Propionitrile (107-12-0)

Reason Code:

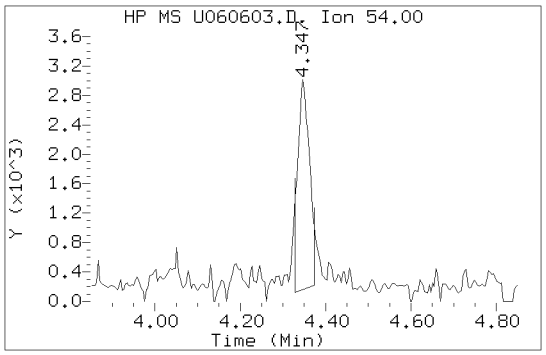
BEFORE

MASS
54
AREA
5579
HEIGHT
2848
08-Jun-2023
14:56
linh
pham



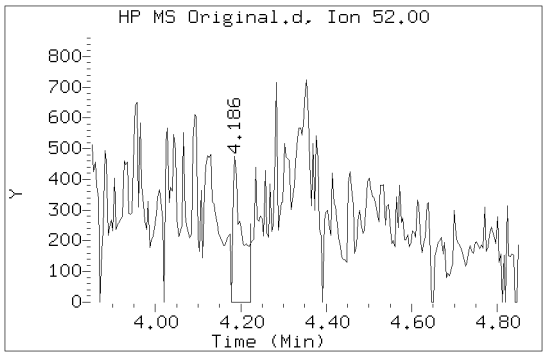
AFTER

MASS
54
AREA
5579
HEIGHT
2848
13-Jun-2023
13:00
linh
pham



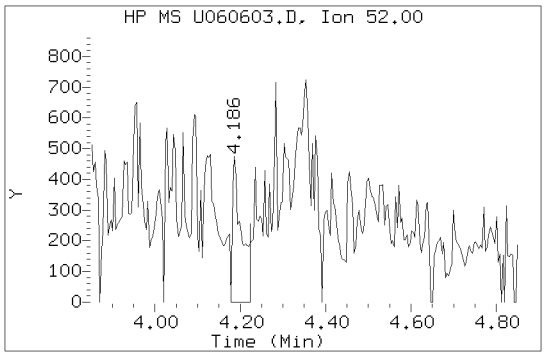
BEFORE

MASS
52
AREA
706
HEIGHT
475
08-Jun-2023
14:56
linh
pham



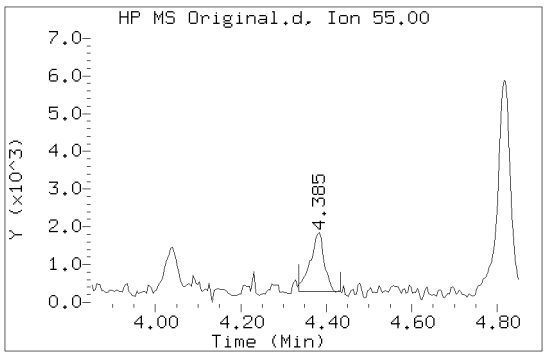
AFTER

MASS
52
AREA
706
HEIGHT
475
13-Jun-2023
13:00
linh
pham



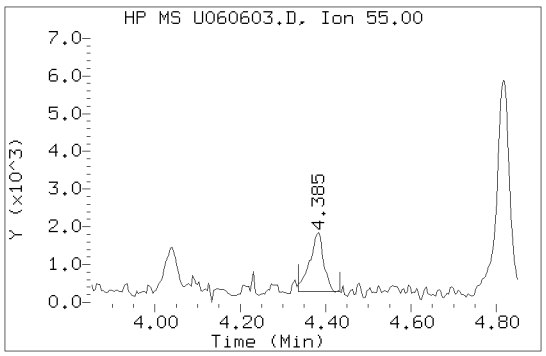
BEFORE

MASS
55
AREA
3548
HEIGHT
1559
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
3548
HEIGHT
1559
13-Jun-2023
13:00
linh
pham

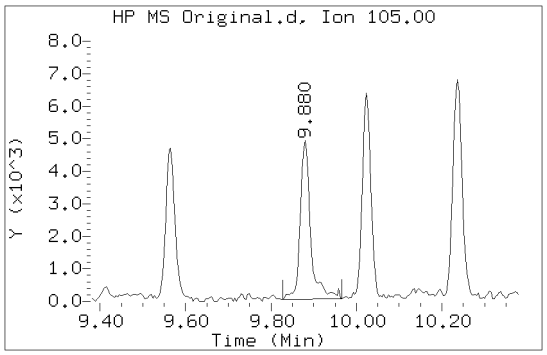


1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

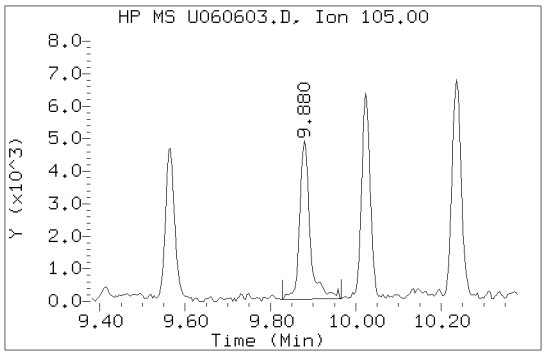
BEFORE

MASS
105
AREA
8548
HEIGHT
4875
08-Jun-2023
14:56
linh
pham



AFTER

MASS
105
AREA
8548
HEIGHT
4875
13-Jun-2023
13:00
linh
pham



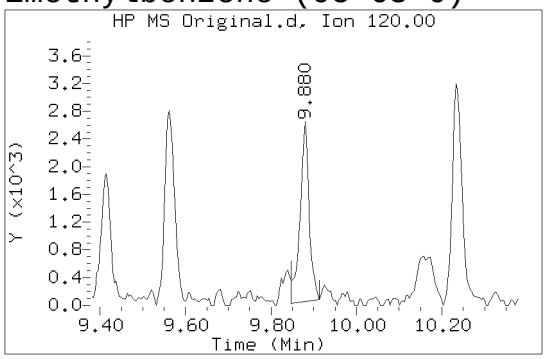
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

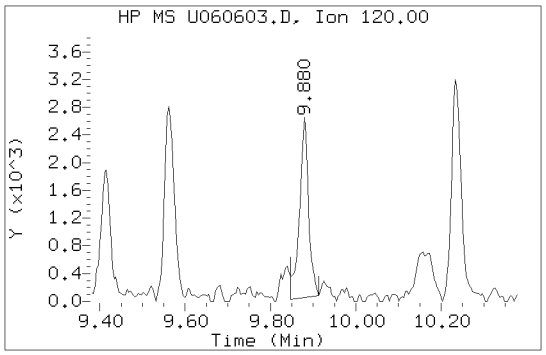
BEFORE

MASS
120
AREA
3975
HEIGHT
2592
08-Jun-2023
14:56
linh
pham



AFTER

MASS
120
AREA
3975
HEIGHT
2592
13-Jun-2023
13:00
linh
pham

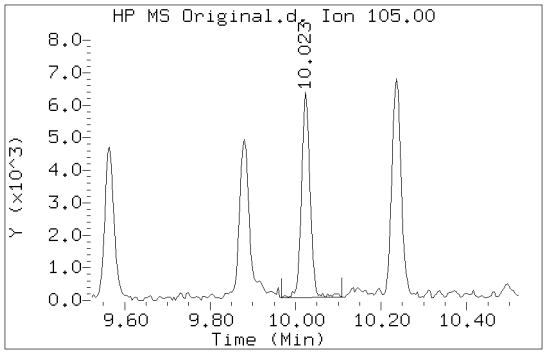


sec-Butylbenzene (135-98-8)

Reason Code:

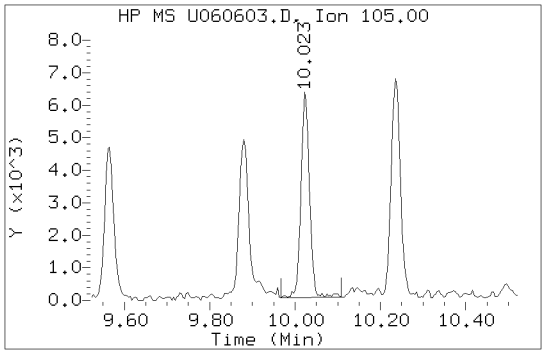
BEFORE

MASS
105
AREA
9131
HEIGHT
6310
08-Jun-2023
14:56
linh
pham



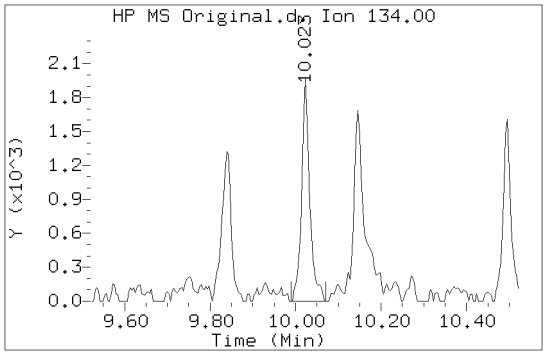
AFTER

MASS
105
AREA
9131
HEIGHT
6310
13-Jun-2023
13:00
linh
pham



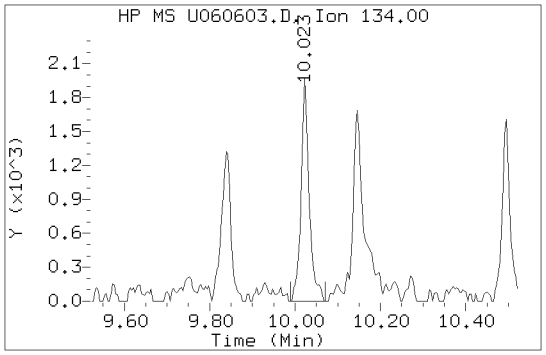
BEFORE

MASS
134
AREA
2687
HEIGHT
1965
08-Jun-2023
14:56
linh
pham



AFTER

MASS
134
AREA
2687
HEIGHT
1965
13-Jun-2023
13:00
linh
pham

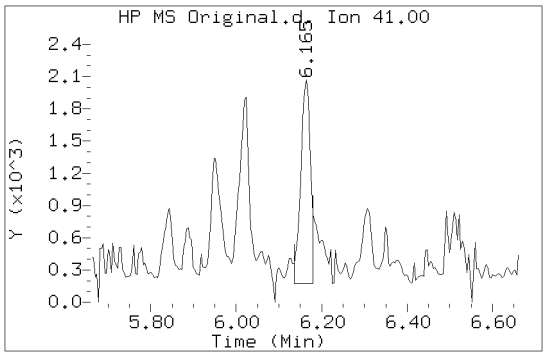


Methyl Methacrylate (80-62-6)

Reason Code:

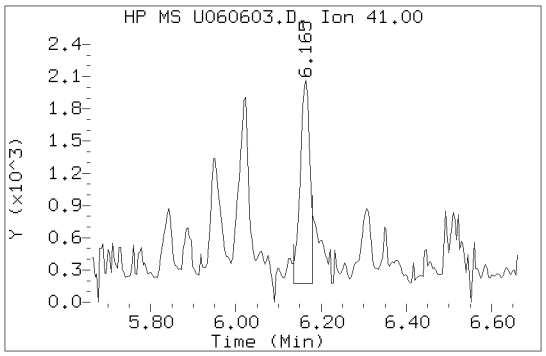
BEFORE

MASS
41
AREA
3083
HEIGHT
1894
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
3083
HEIGHT
1894
13-Jun-2023
13:00
linh
pham



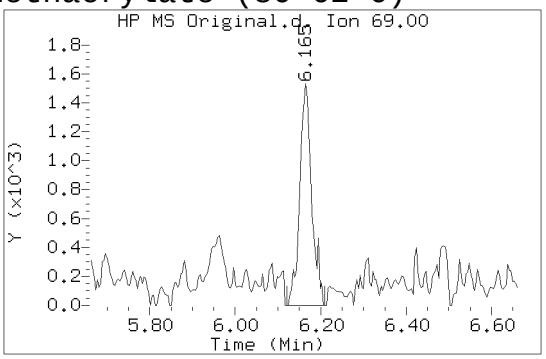
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Methyl Methacrylate (80-62-6)

Reason Code:

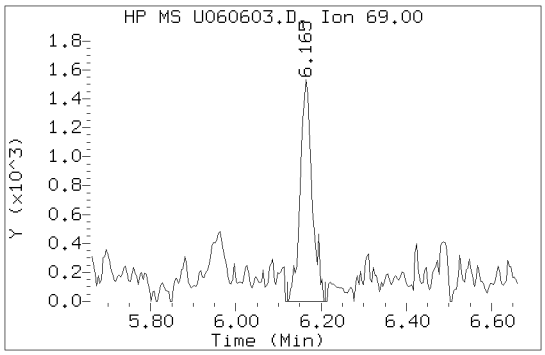
BEFORE

MASS
69
AREA
3017
HEIGHT
1532
08-Jun-2023
14:56
linh
pham



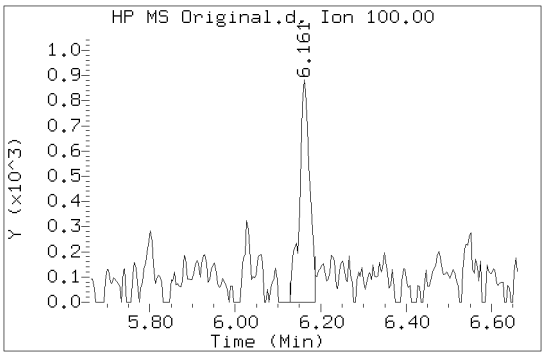
AFTER

MASS
69
AREA
3017
HEIGHT
1532
13-Jun-2023
13:00
linh
pham



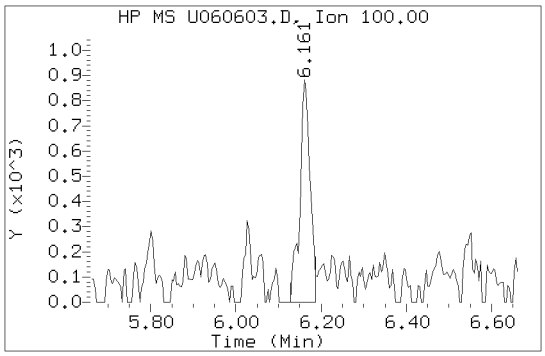
BEFORE

MASS
100
AREA
1506
HEIGHT
882
08-Jun-2023
14:56
linh
pham



AFTER

MASS
100
AREA
1506
HEIGHT
882
13-Jun-2023
13:00
linh
pham

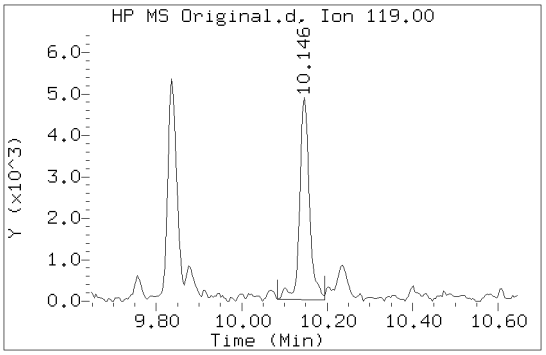


p-Isopropyltoluene (99-87-6)

Reason Code:

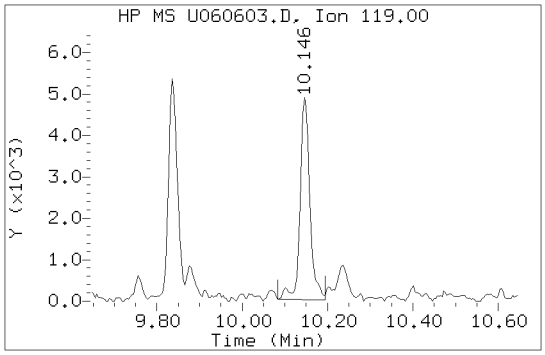
BEFORE

MASS
119
AREA
7969
HEIGHT
4880
08-Jun-2023
14:56
linh
pham



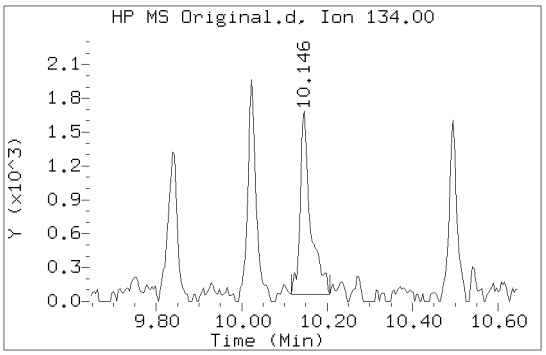
AFTER

MASS
119
AREA
7969
HEIGHT
4880
13-Jun-2023
13:00
linh
pham



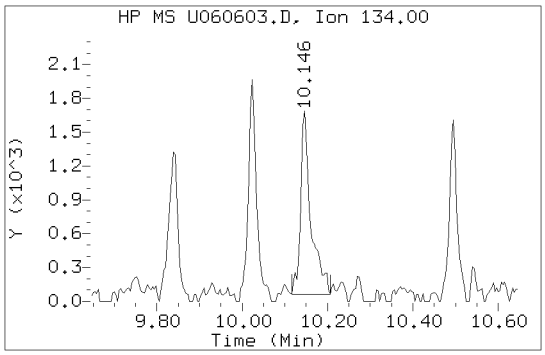
BEFORE

MASS
134
AREA
2795
HEIGHT
1627
08-Jun-2023
14:56
linh
pham



AFTER

MASS
134
AREA
2795
HEIGHT
1627
13-Jun-2023
13:00
linh
pham



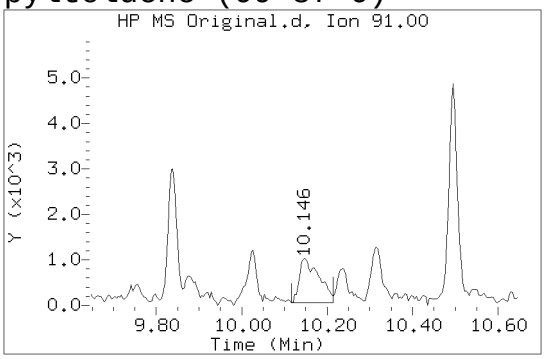
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

p-Isopropyltoluene (99-87-6)

Reason Code:

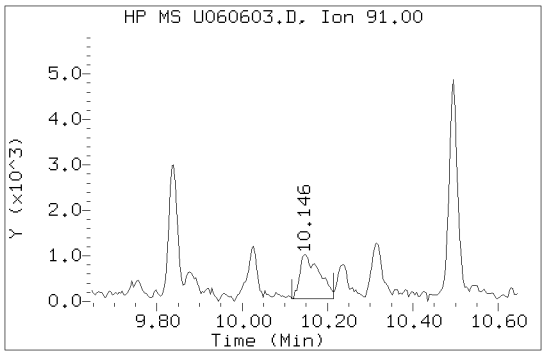
BEFORE

MASS
91
AREA
3125
HEIGHT
970
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
3125
HEIGHT
970
13-Jun-2023
13:00
linh
pham

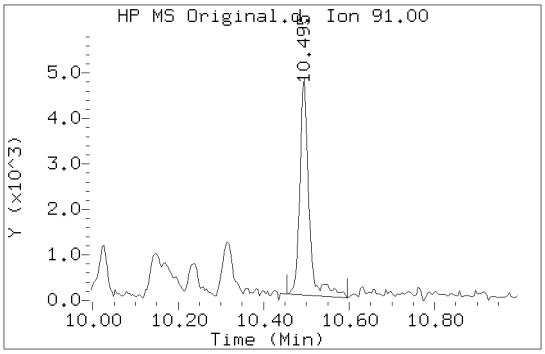


n-Butylbenzene (104-51-8)

Reason Code:

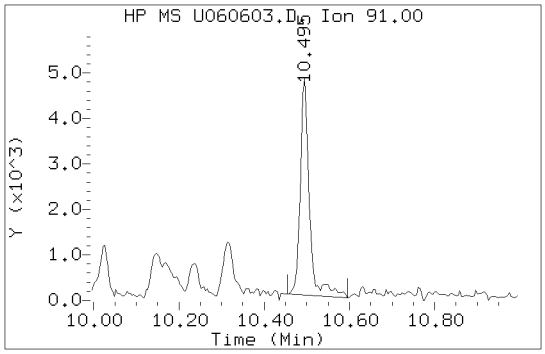
BEFORE

MASS
91
AREA
7213
HEIGHT
4758
08-Jun-2023
14:56
linh
pham



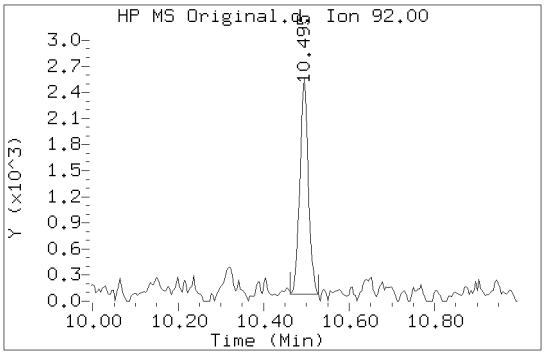
AFTER

MASS
91
AREA
7213
HEIGHT
4758
13-Jun-2023
13:00
linh
pham



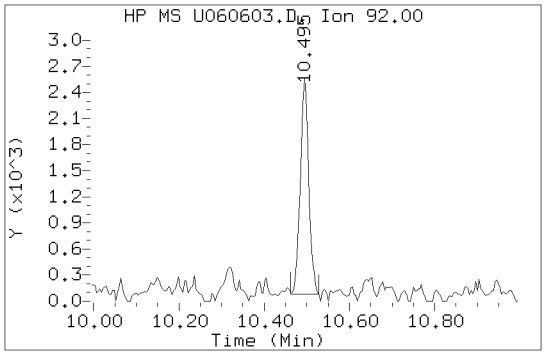
BEFORE

MASS
92
AREA
3472
HEIGHT
2472
08-Jun-2023
14:56
linh
pham



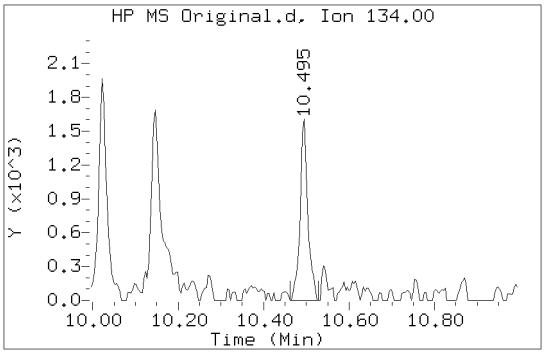
AFTER

MASS
92
AREA
3472
HEIGHT
2472
13-Jun-2023
13:00
linh
pham



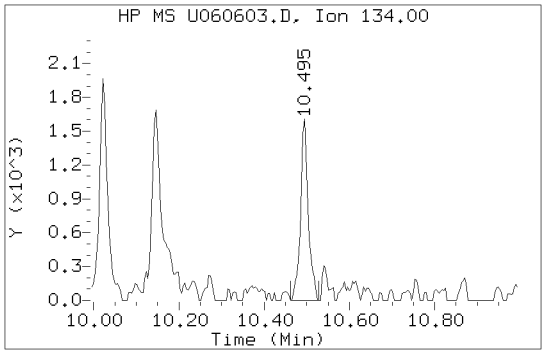
BEFORE

MASS
134
AREA
2070
HEIGHT
1610
08-Jun-2023
14:56
linh
pham



AFTER

MASS
134
AREA
2070
HEIGHT
1610
13-Jun-2023
13:00
linh
pham

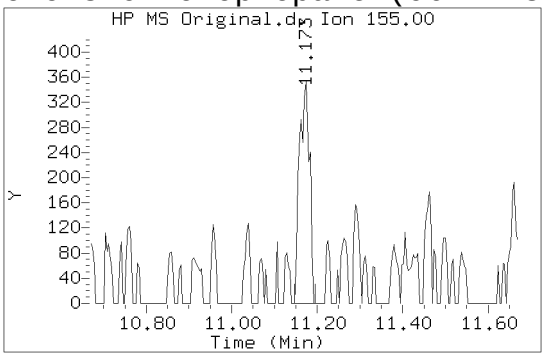


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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

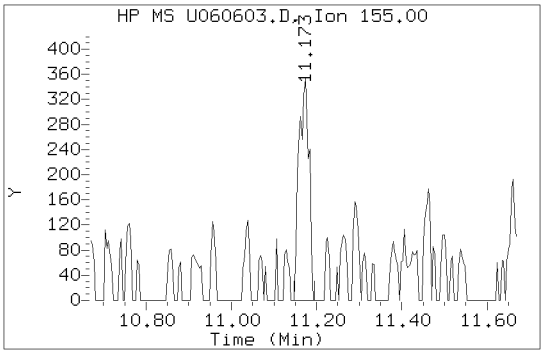
1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

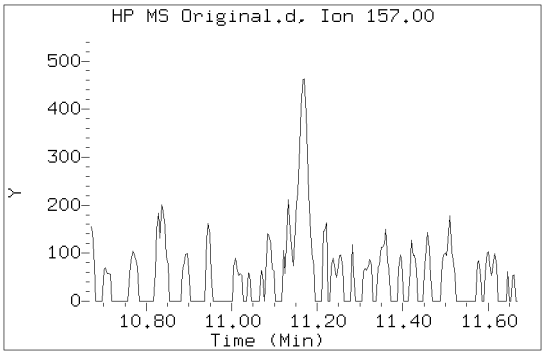
BEFORE
MASS
155
AREA
589
HEIGHT
353
08-Jun-2023
14:56
linh
pham



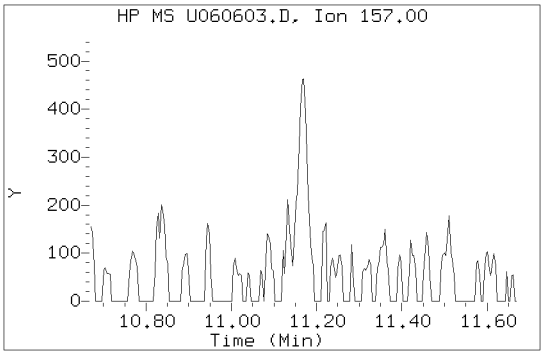
AFTER
MASS
155
AREA
589
HEIGHT
353
13-Jun-2023
13:00
linh
pham



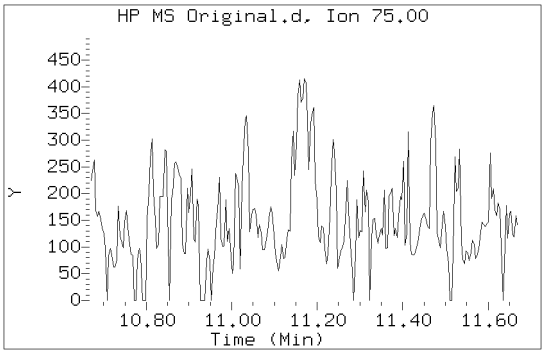
BEFORE
MASS
157
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



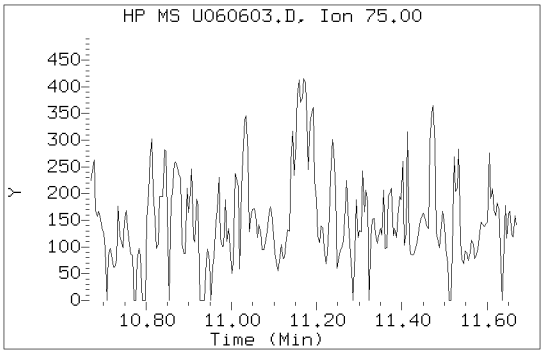
AFTER
MASS
157
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
75
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



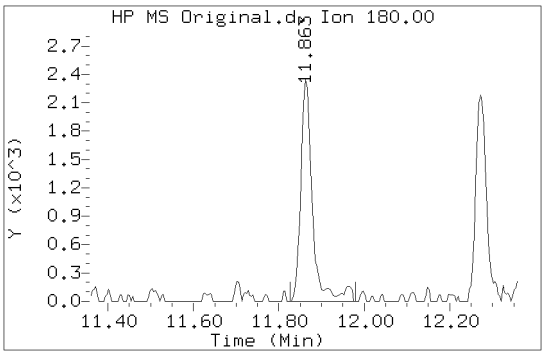
AFTER
MASS
75
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



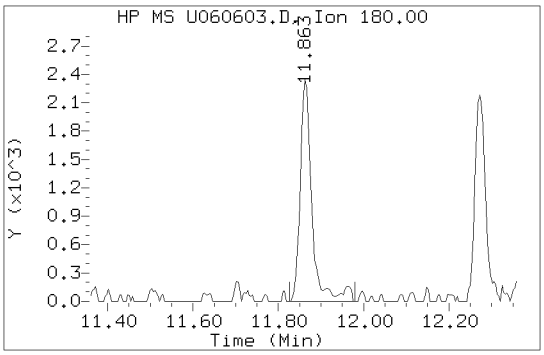
1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

BEFORE
MASS
180
AREA
4551
HEIGHT
2344
08-Jun-2023
14:56
linh
pham



AFTER
MASS
180
AREA
4551
HEIGHT
2344
13-Jun-2023
13:00
linh
pham



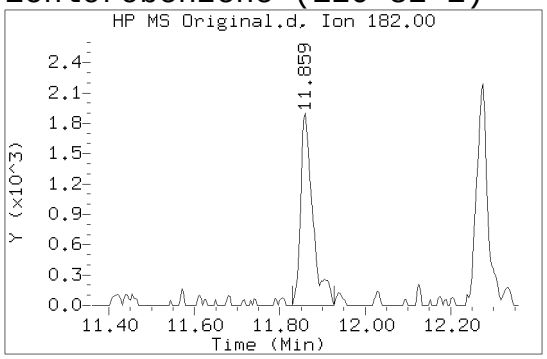
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

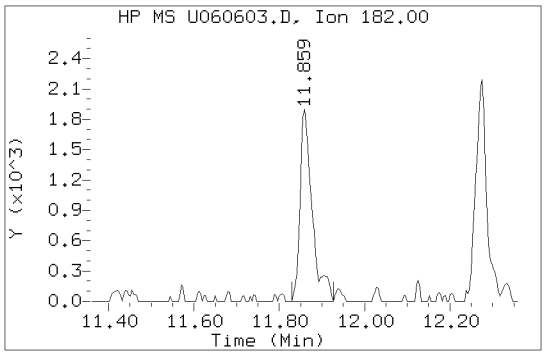
BEFORE

MASS
182
AREA
3811
HEIGHT
1898
08-Jun-2023
14:56
linh
pham



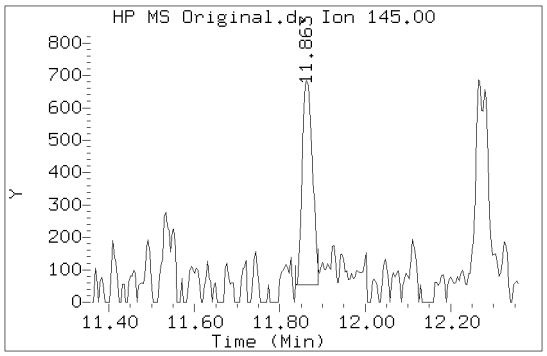
AFTER

MASS
182
AREA
3811
HEIGHT
1898
13-Jun-2023
13:00
linh
pham



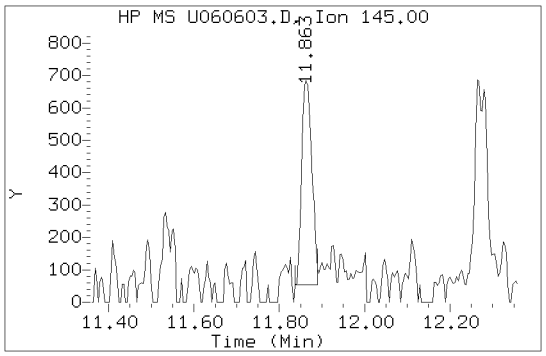
BEFORE

MASS
145
AREA
1065
HEIGHT
632
08-Jun-2023
14:56
linh
pham



AFTER

MASS
145
AREA
1065
HEIGHT
632
13-Jun-2023
13:00
linh
pham

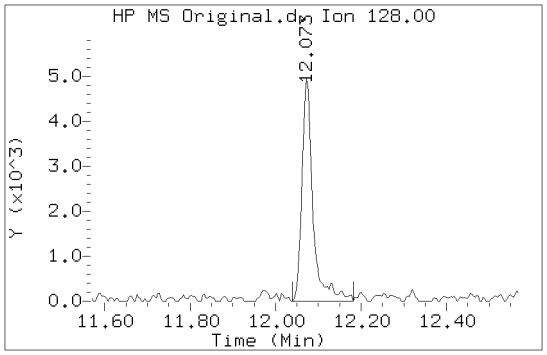


Naphthalene (91-20-3)

Reason Code:

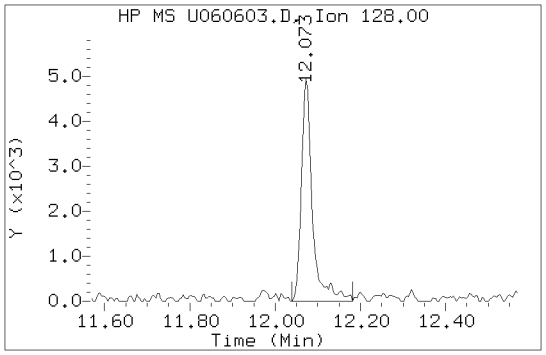
BEFORE

MASS
128
AREA
9156
HEIGHT
4939
08-Jun-2023
14:56
linh
pham



AFTER

MASS
128
AREA
9156
HEIGHT
4939
13-Jun-2023
13:00
linh
pham

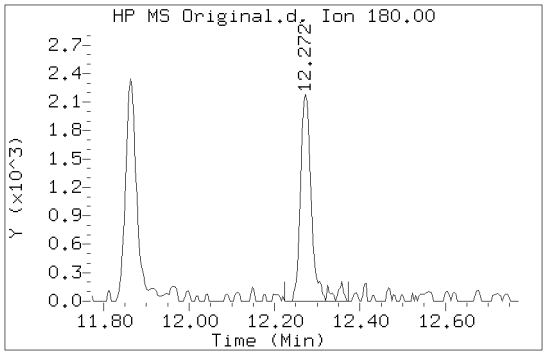


1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

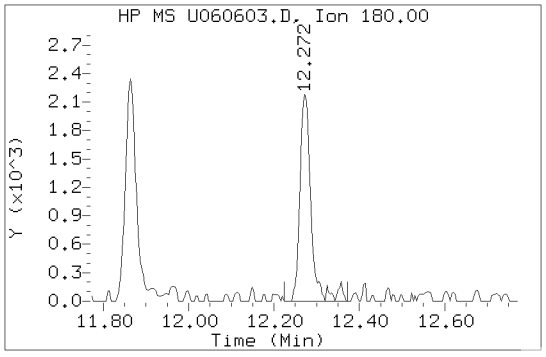
BEFORE

MASS
180
AREA
4090
HEIGHT
2185
08-Jun-2023
14:56
linh
pham



AFTER

MASS
180
AREA
4090
HEIGHT
2185
13-Jun-2023
13:00
linh
pham



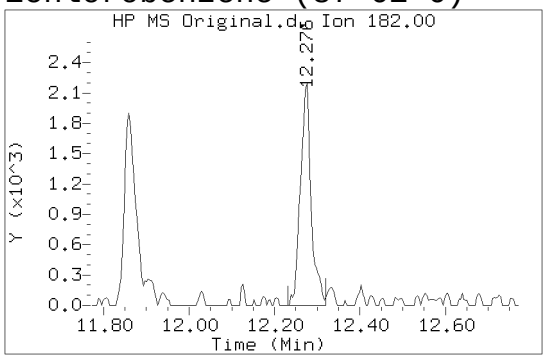
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

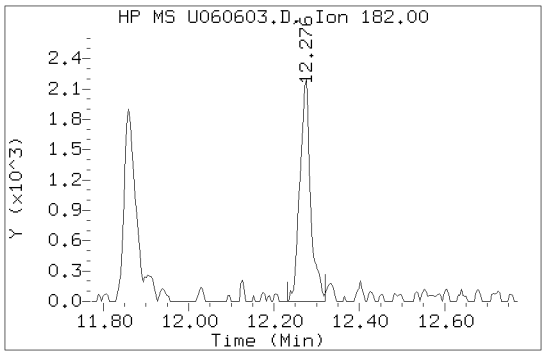
BEFORE

MASS
182
AREA
3923
HEIGHT
2191
08-Jun-2023
14:56
linh
pham



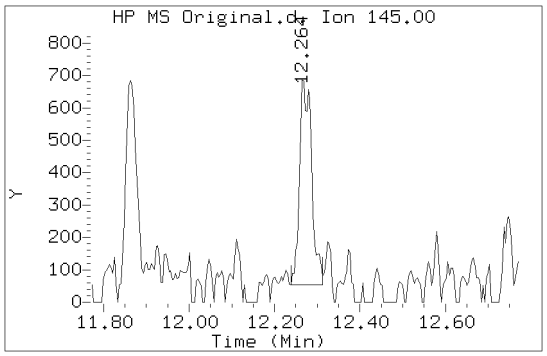
AFTER

MASS
182
AREA
3923
HEIGHT
2191
13-Jun-2023
13:00
linh
pham



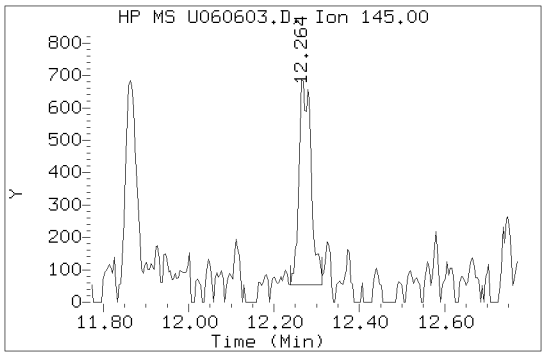
BEFORE

MASS
145
AREA
1275
HEIGHT
633
08-Jun-2023
14:56
linh
pham



AFTER

MASS
145
AREA
1275
HEIGHT
633
13-Jun-2023
13:00
linh
pham

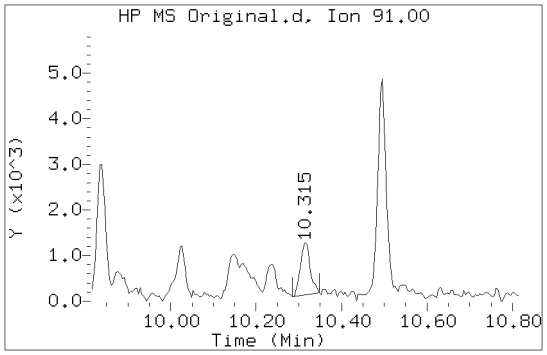


Benzyl Chloride (100-44-7)

Reason Code:

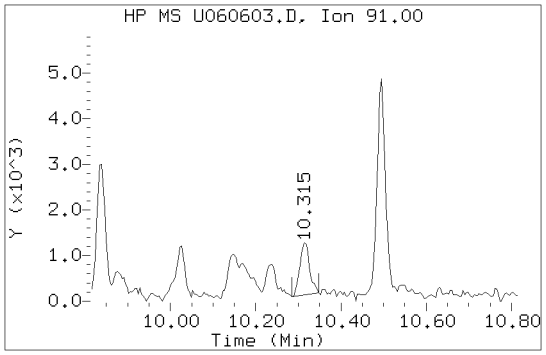
BEFORE

MASS
91
AREA
1867
HEIGHT
1136
08-Jun-2023
14:56
linh
pham



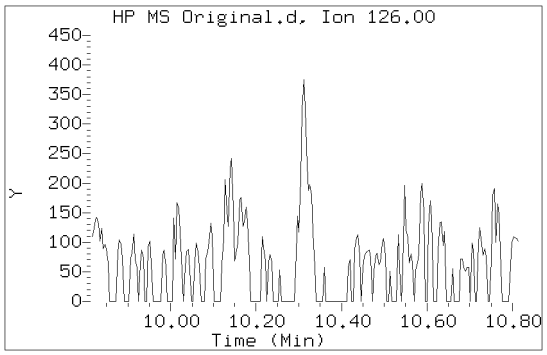
AFTER

MASS
91
AREA
1867
HEIGHT
1136
13-Jun-2023
13:00
linh
pham



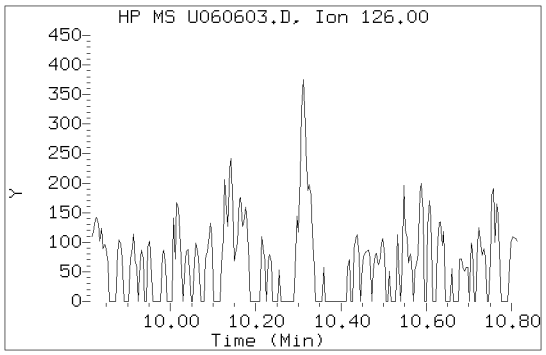
BEFORE

MASS
126
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
126
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



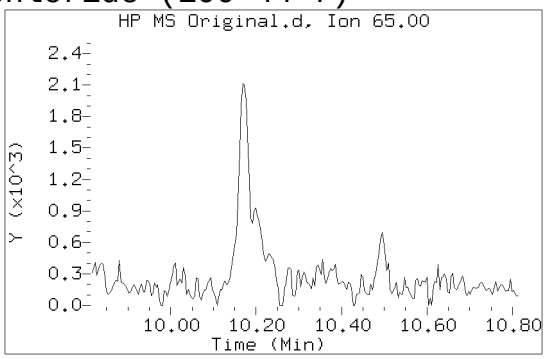
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Benzyl Chloride (100-44-7)

Reason Code:

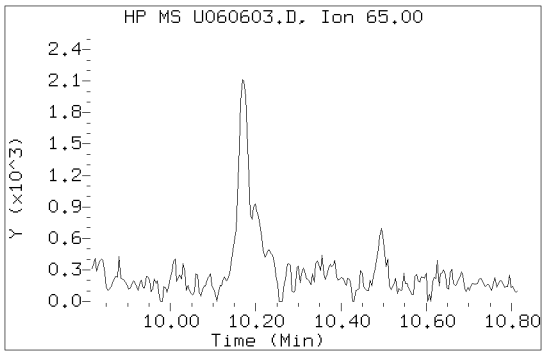
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
65
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

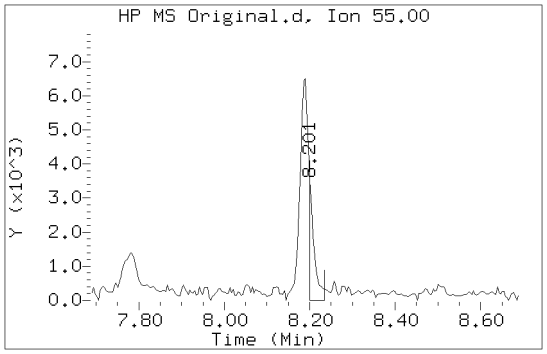


1-Chlorohexane (544-10-5)

Reason Code:

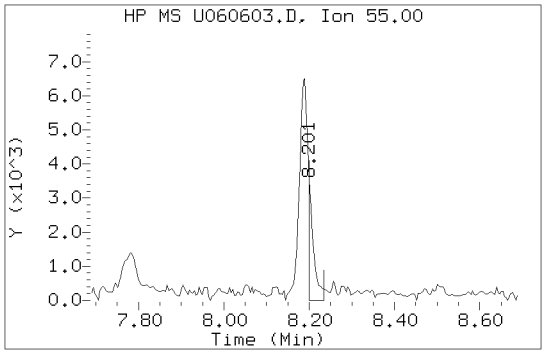
BEFORE

MASS
55
AREA
2785
HEIGHT
3524
08-Jun-2023
14:56
linh
pham



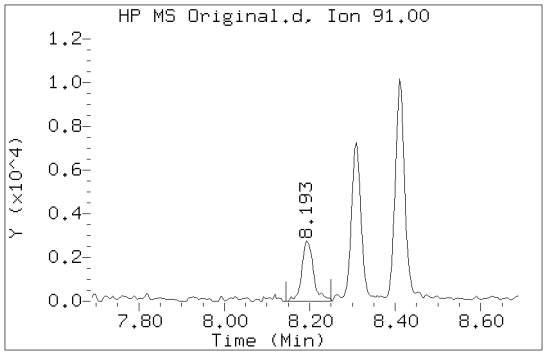
AFTER

MASS
55
AREA
2785
HEIGHT
3524
13-Jun-2023
13:00
linh
pham



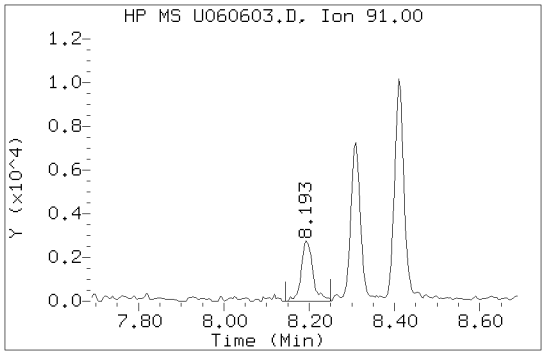
BEFORE

MASS
91
AREA
5394
HEIGHT
2762
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
5394
HEIGHT
2762
13-Jun-2023
13:00
linh
pham

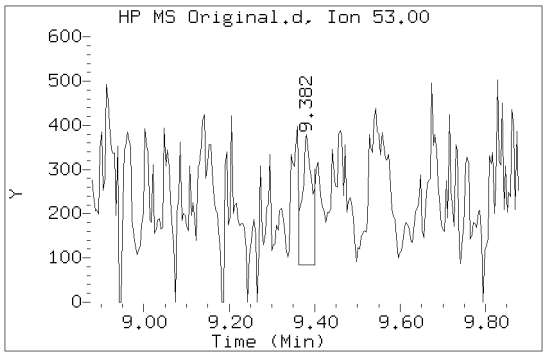


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

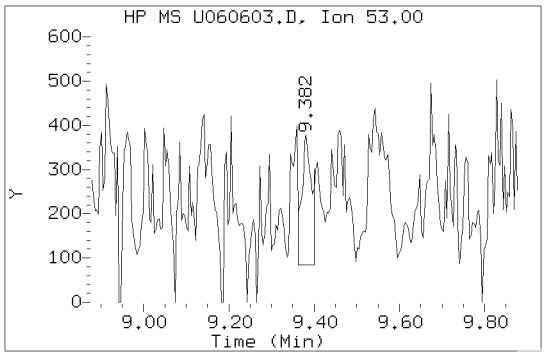
BEFORE

MASS
53
AREA
485
HEIGHT
296
08-Jun-2023
14:56
linh
pham



AFTER

MASS
53
AREA
485
HEIGHT
296
13-Jun-2023
13:00
linh
pham



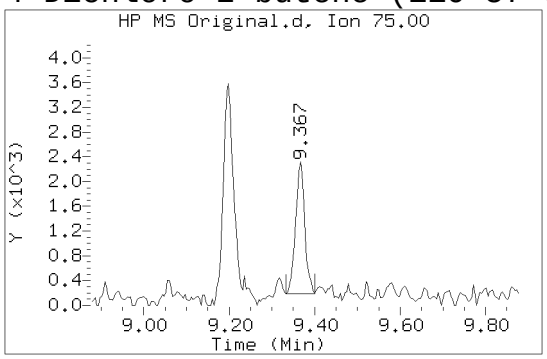
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

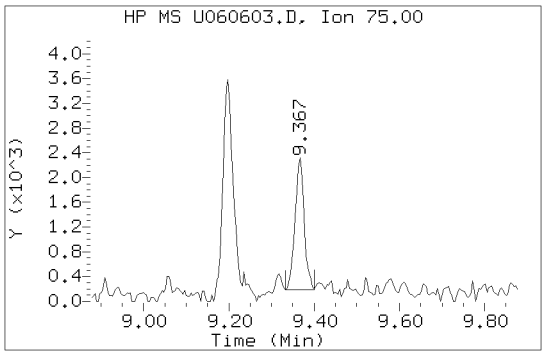
BEFORE

MASS
75
AREA
3241
HEIGHT
2140
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
3241
HEIGHT
2140
13-Jun-2023
13:00
linh
pham

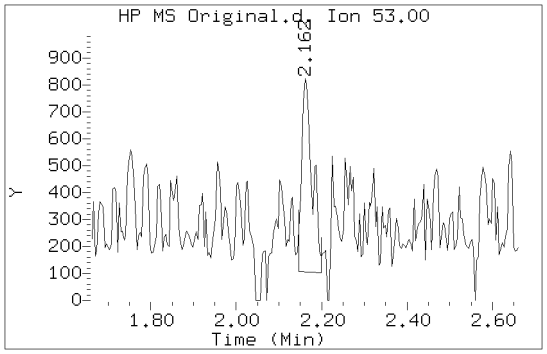


Chloroprene (126-99-8)

Reason Code:

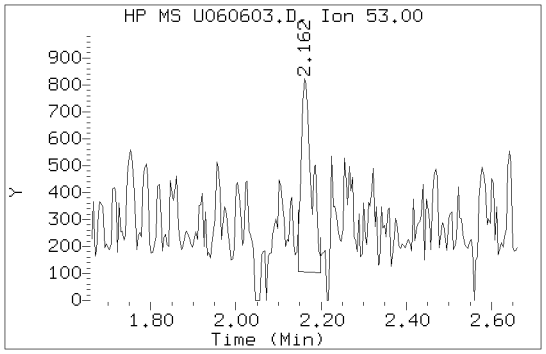
BEFORE

MASS
53
AREA
1260
HEIGHT
717
08-Jun-2023
14:56
linh
pham



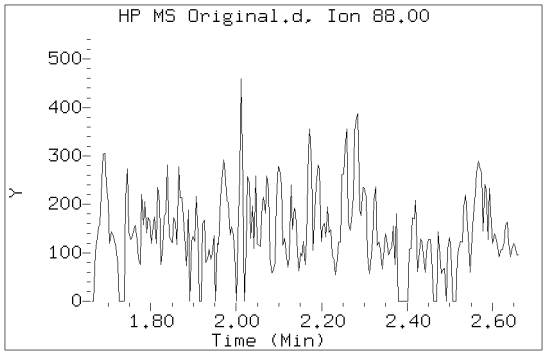
AFTER

MASS
53
AREA
1260
HEIGHT
717
13-Jun-2023
13:00
linh
pham



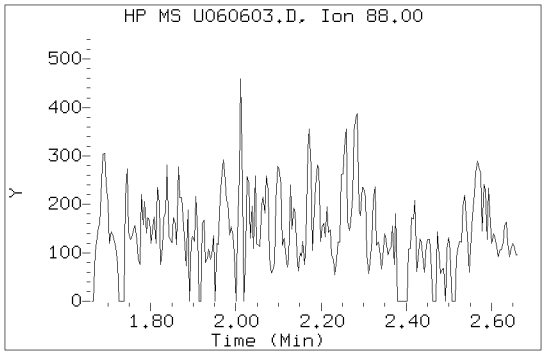
BEFORE

MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

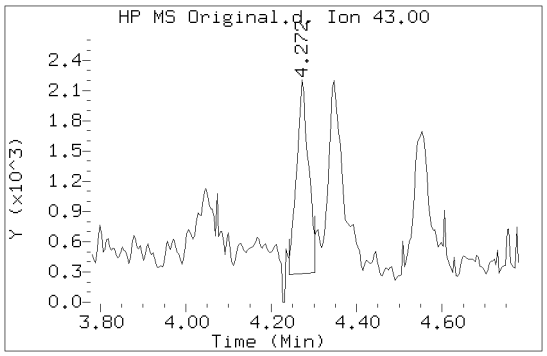


Ethyl Acetate (141-78-6)

Reason Code:

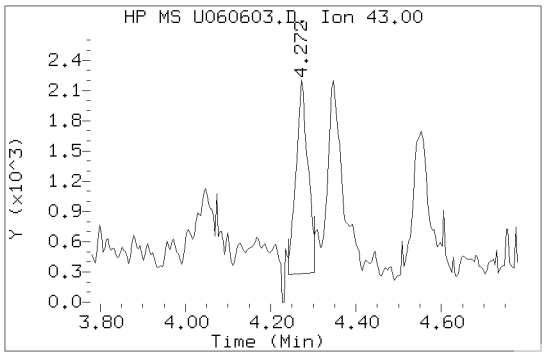
BEFORE

MASS
43
AREA
3781
HEIGHT
1922
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
3781
HEIGHT
1922
13-Jun-2023
13:00
linh
pham

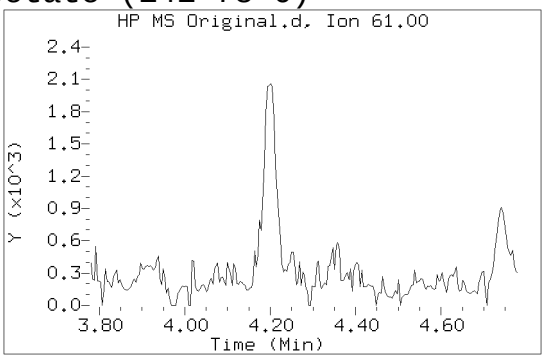


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

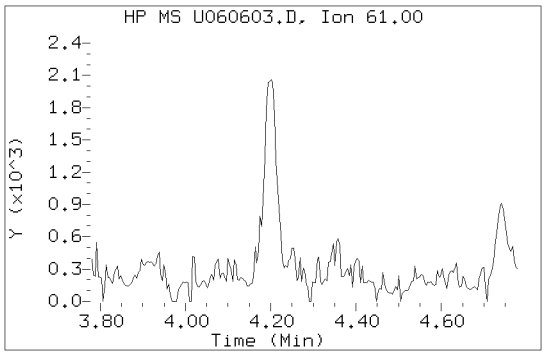
Ethyl Acetate (141-78-6)

Reason Code:

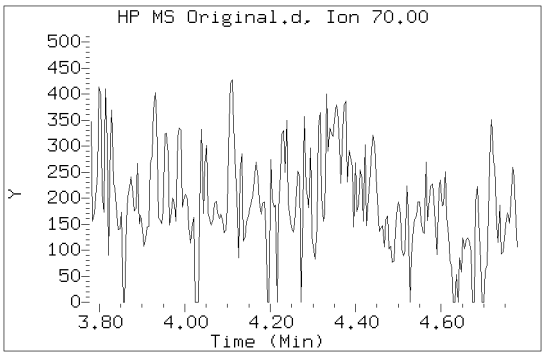
BEFORE
MASS
61
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



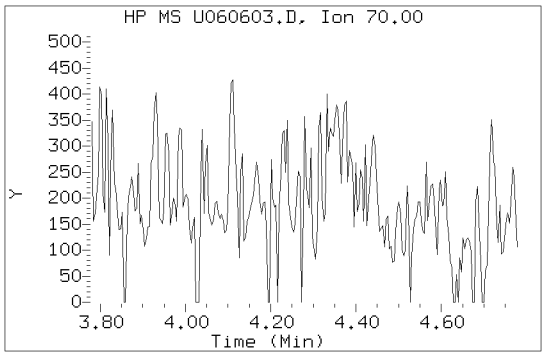
AFTER
MASS
61
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
70
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



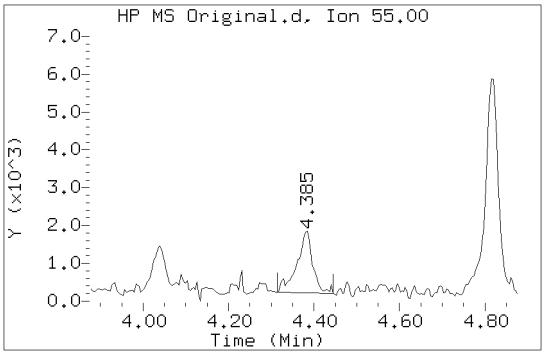
AFTER
MASS
70
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



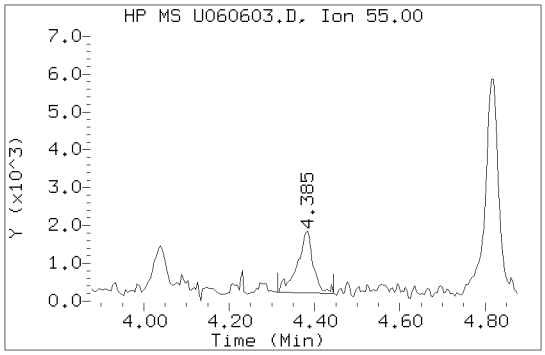
Methyl Acrylate (96-33-3)

Reason Code:

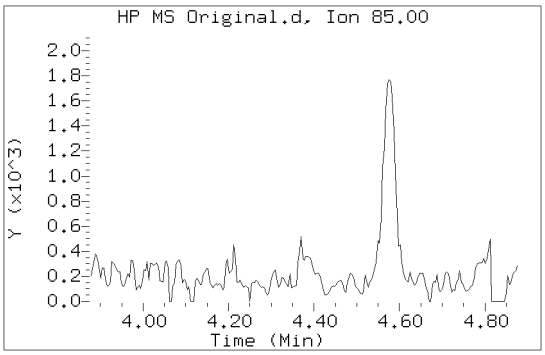
BEFORE
MASS
55
AREA
4302
HEIGHT
1632
08-Jun-2023
14:56
linh
pham



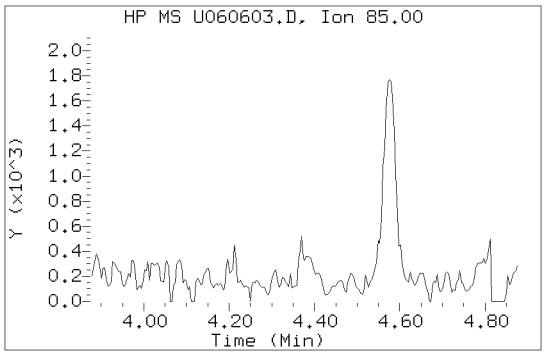
AFTER
MASS
55
AREA
4302
HEIGHT
1632
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER
MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



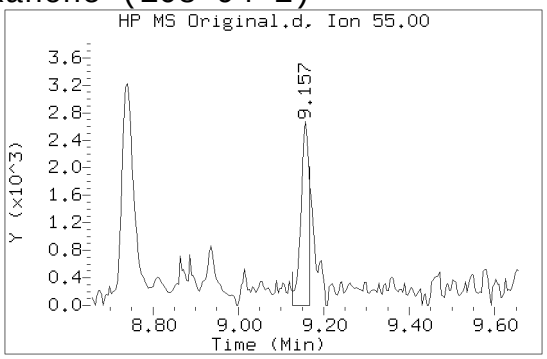
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Cyclohexanone (108-94-1)

Reason Code:

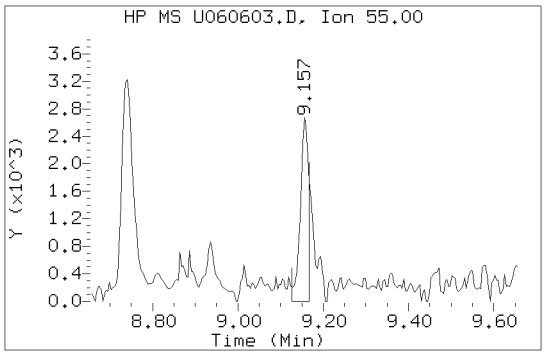
BEFORE

MASS
55
AREA
3642
HEIGHT
2680
08-Jun-2023
14:56
linh
pham



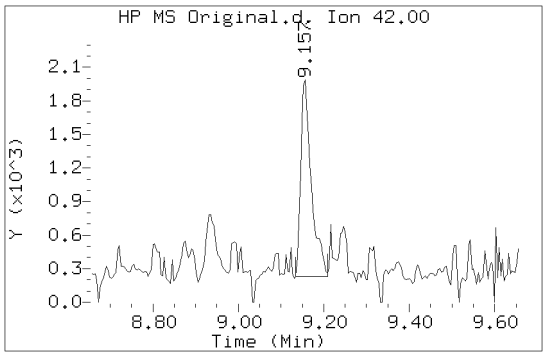
AFTER

MASS
55
AREA
3642
HEIGHT
2680
13-Jun-2023
13:00
linh
pham



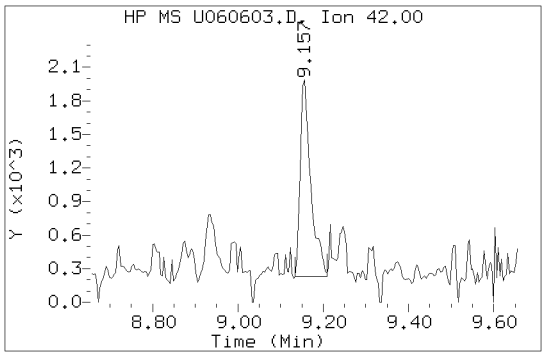
BEFORE

MASS
42
AREA
3088
HEIGHT
1757
08-Jun-2023
14:56
linh
pham



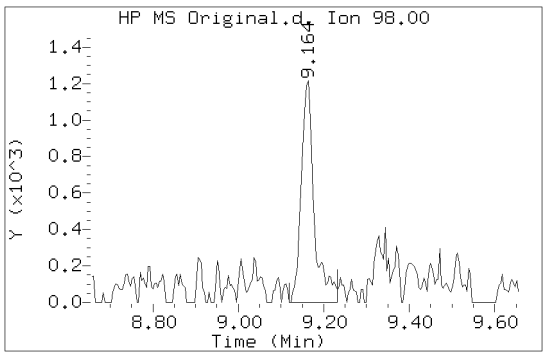
AFTER

MASS
42
AREA
3088
HEIGHT
1757
13-Jun-2023
13:00
linh
pham



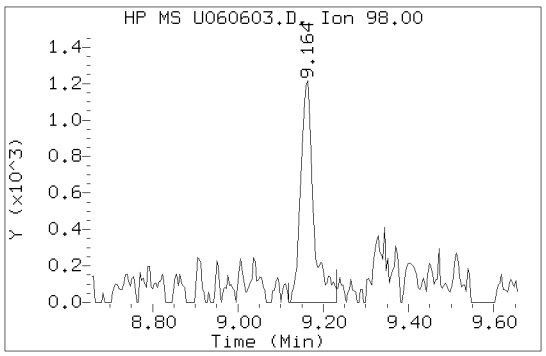
BEFORE

MASS
98
AREA
2606
HEIGHT
1216
08-Jun-2023
14:56
linh
pham



AFTER

MASS
98
AREA
2606
HEIGHT
1216
13-Jun-2023
13:00
linh
pham

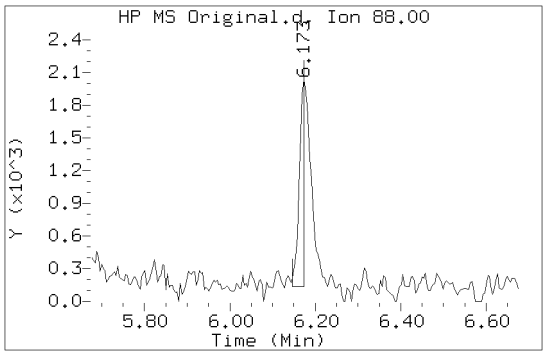


1,4-Dioxane ()

Reason Code:

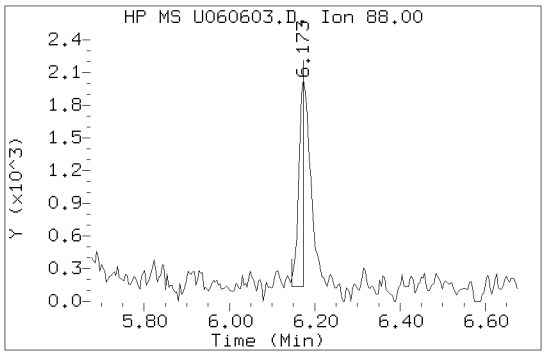
BEFORE

MASS
88
AREA
1567
HEIGHT
1901
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
1567
HEIGHT
1901
13-Jun-2023
13:00
linh
pham



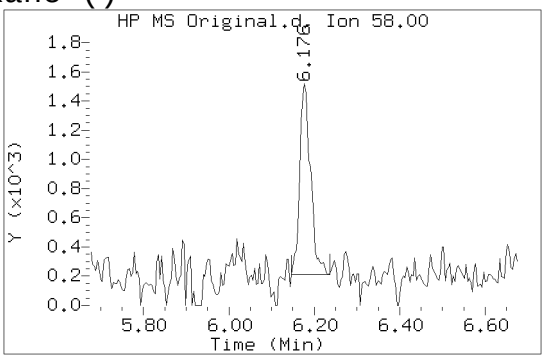
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,4-Dioxane ()

Reason Code:

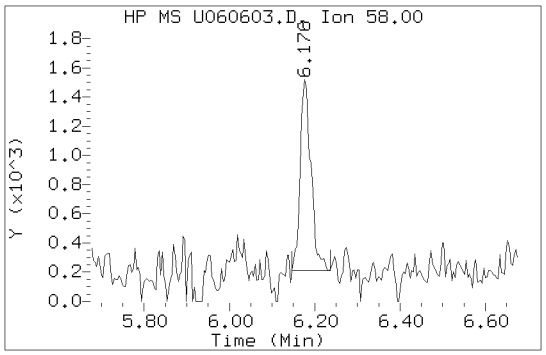
BEFORE

MASS
58
AREA
2344
HEIGHT
1308
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
2344
HEIGHT
1308
13-Jun-2023
13:00
linh
pham

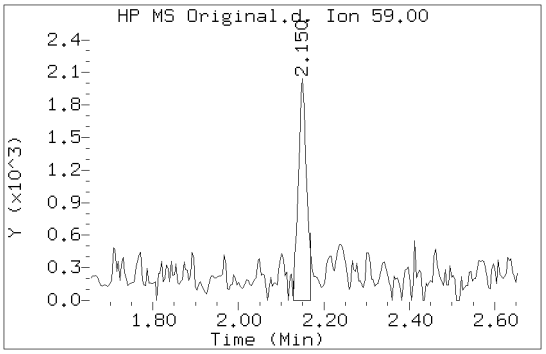


Diethyl ether (60-29-7)

Reason Code:

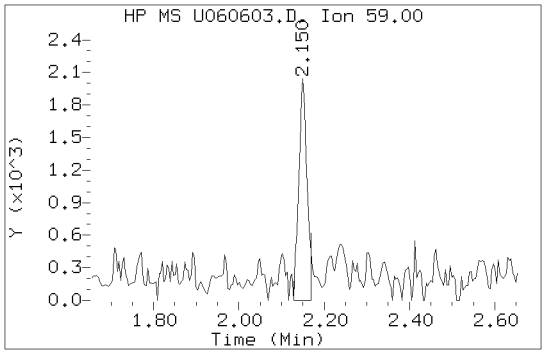
BEFORE

MASS
59
AREA
2812
HEIGHT
2042
08-Jun-2023
14:56
linh
pham



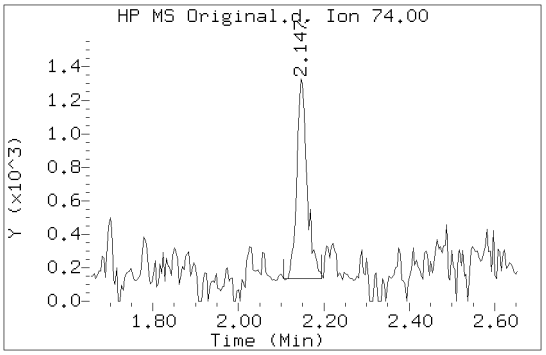
AFTER

MASS
59
AREA
2812
HEIGHT
2042
13-Jun-2023
13:00
linh
pham



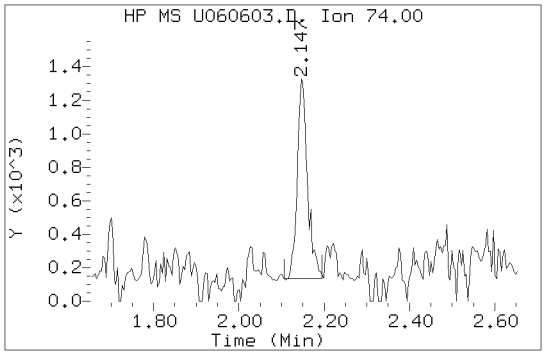
BEFORE

MASS
74
AREA
2051
HEIGHT
1194
08-Jun-2023
14:56
linh
pham



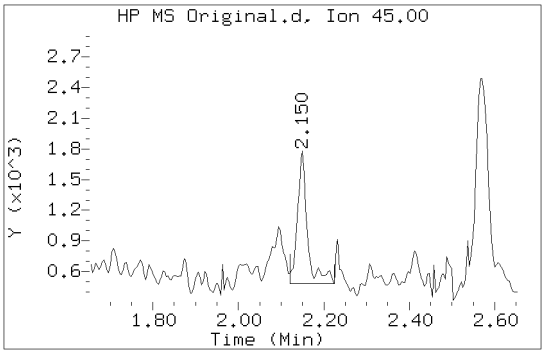
AFTER

MASS
74
AREA
2051
HEIGHT
1194
13-Jun-2023
13:00
linh
pham



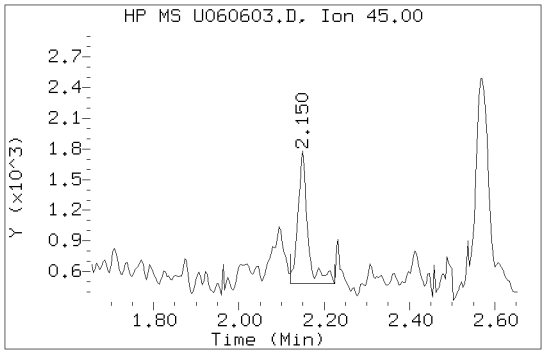
BEFORE

MASS
45
AREA
2149
HEIGHT
1297
08-Jun-2023
14:56
linh
pham



AFTER

MASS
45
AREA
2149
HEIGHT
1297
13-Jun-2023
13:00
linh
pham



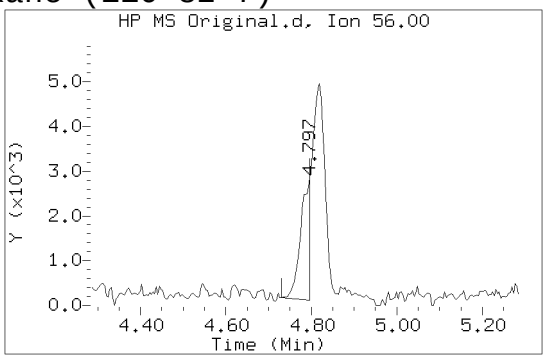
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Cyclohexane (110-82-7)

Reason Code:

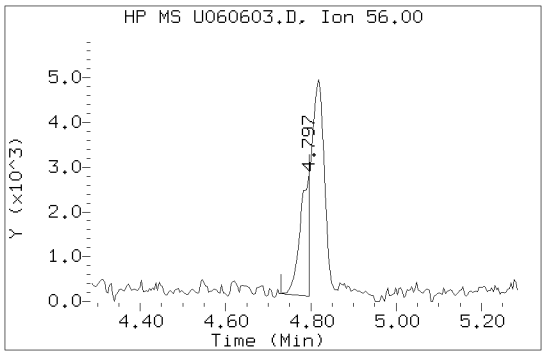
BEFORE

MASS
56
AREA
4345
HEIGHT
2735
08-Jun-2023
14:56
linh
pham



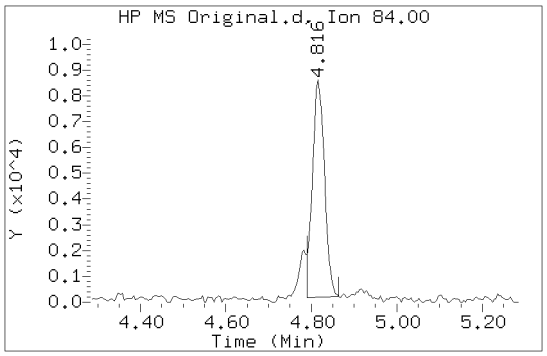
AFTER

MASS
56
AREA
4345
HEIGHT
2735
13-Jun-2023
13:00
linh
pham



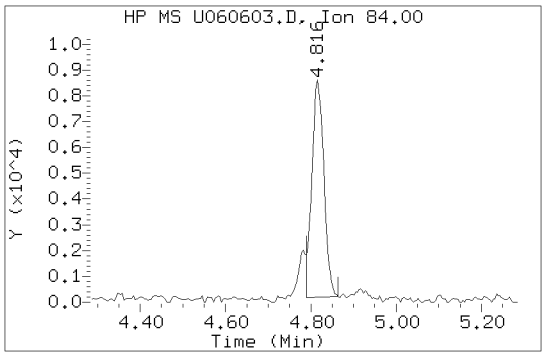
BEFORE

MASS
84
AREA
16696
HEIGHT
8414
08-Jun-2023
14:56
linh
pham



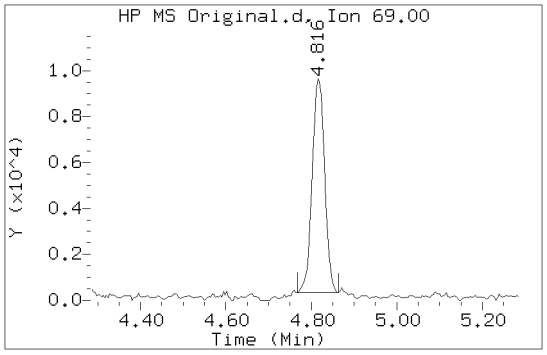
AFTER

MASS
84
AREA
16696
HEIGHT
8414
13-Jun-2023
13:00
linh
pham



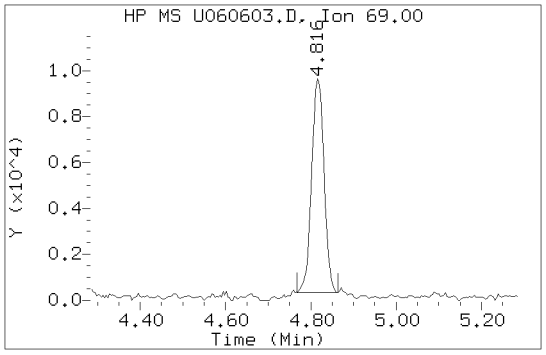
BEFORE

MASS
69
AREA
18963
HEIGHT
9317
08-Jun-2023
14:56
linh
pham



AFTER

MASS
69
AREA
18963
HEIGHT
9317
13-Jun-2023
13:00
linh
pham

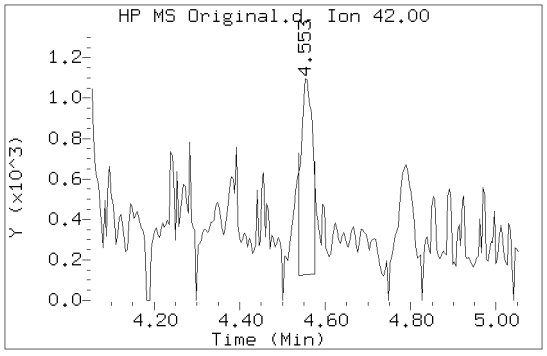


Tetrahydrofuran (109-99-9)

Reason Code:

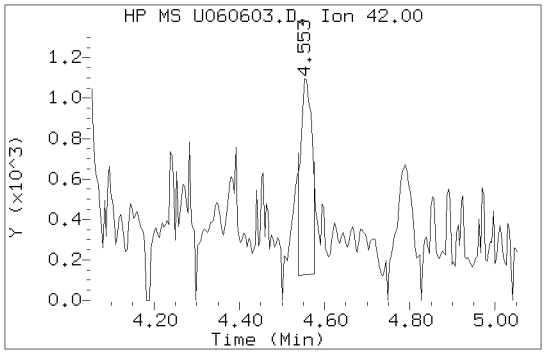
BEFORE

MASS
42
AREA
1846
HEIGHT
970
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
1846
HEIGHT
970
13-Jun-2023
13:00
linh
pham



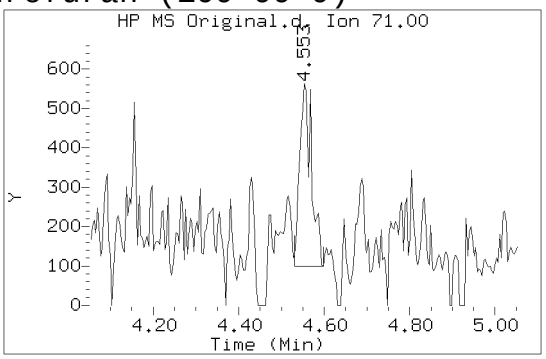
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Tetrahydrofuran (109-99-9)

Reason Code:

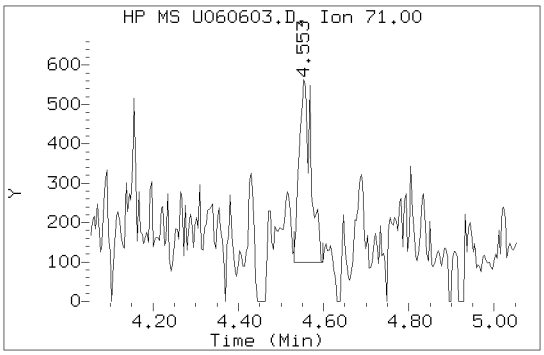
BEFORE

MASS
71
AREA
900
HEIGHT
464
08-Jun-2023
14:56
linh
pham



AFTER

MASS
71
AREA
900
HEIGHT
464
13-Jun-2023
13:00
linh
pham

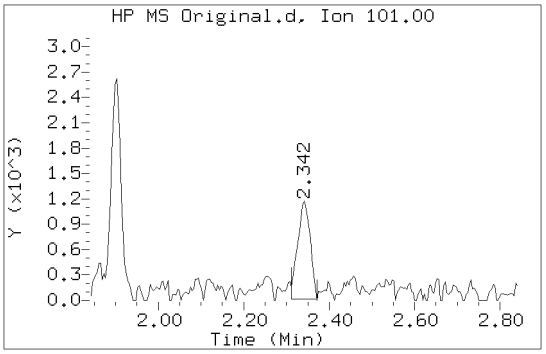


Freon TF (76-13-1)

Reason Code:

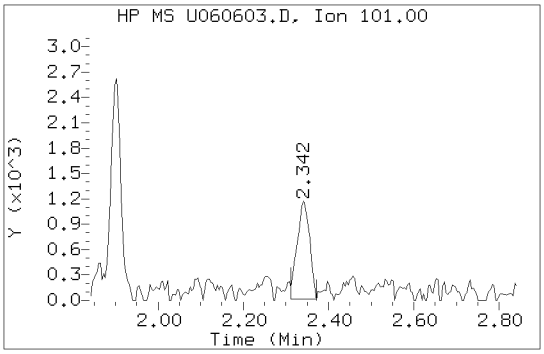
BEFORE

MASS
101
AREA
2391
HEIGHT
1159
08-Jun-2023
14:56
linh
pham



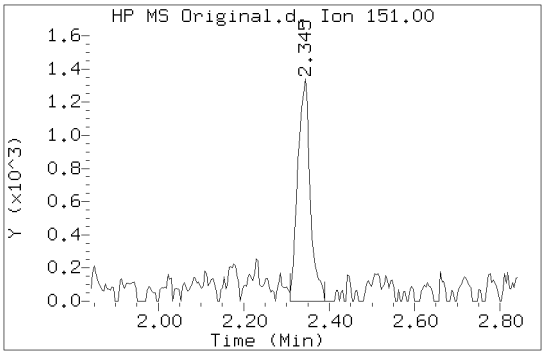
AFTER

MASS
101
AREA
2391
HEIGHT
1159
13-Jun-2023
13:00
linh
pham



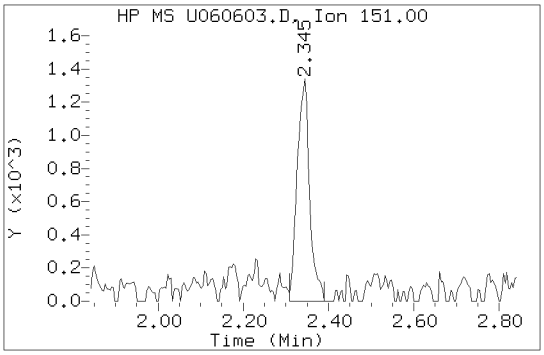
BEFORE

MASS
151
AREA
2754
HEIGHT
1340
08-Jun-2023
14:56
linh
pham



AFTER

MASS
151
AREA
2754
HEIGHT
1340
13-Jun-2023
13:00
linh
pham

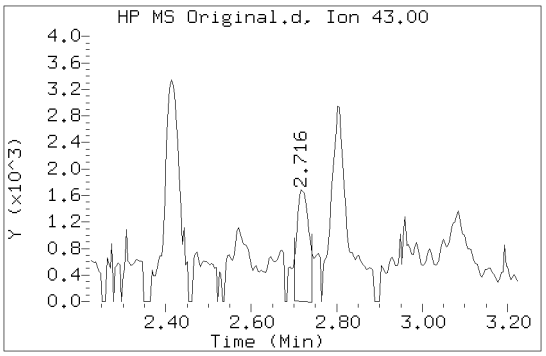


Methyl Acetate (79-20-9)

Reason Code:

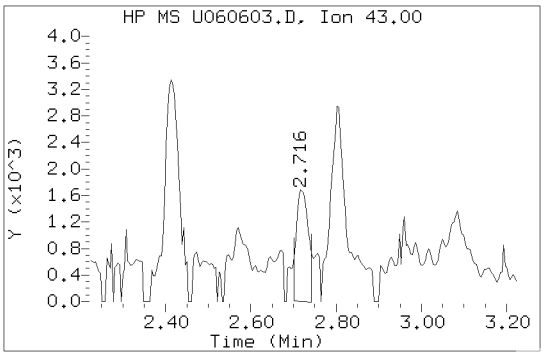
BEFORE

MASS
43
AREA
3375
HEIGHT
1684
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
3375
HEIGHT
1684
13-Jun-2023
13:00
linh
pham

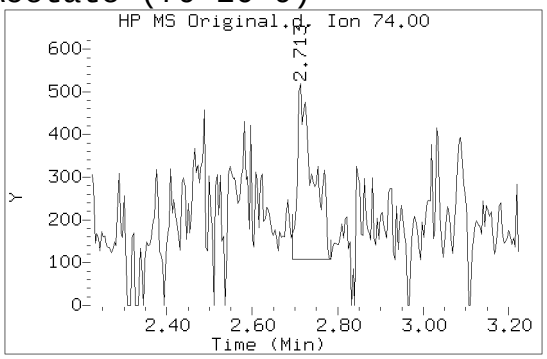


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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Methyl Acetate (79-20-9)

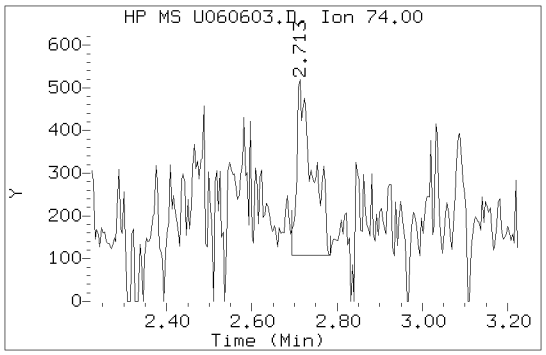
BEFORE

MASS
74
AREA
1069
HEIGHT
411
08-Jun-2023
14:56
linh
pham



AFTER

MASS
74
AREA
1069
HEIGHT
411
13-Jun-2023
13:00
linh
pham

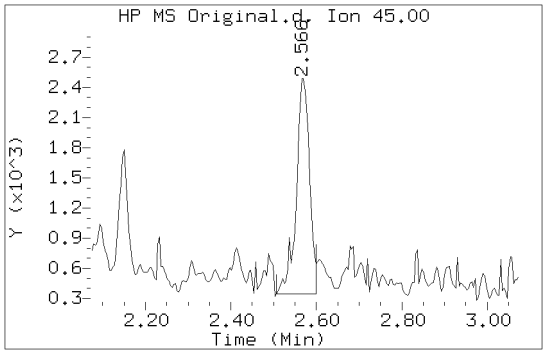


Reason Code:

Isopropyl Alcohol (67-63-0)

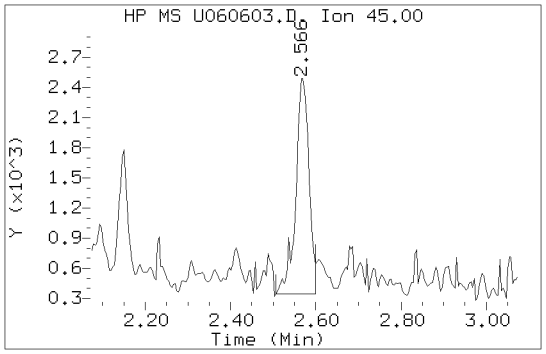
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AREA
4735
HEIGHT
2141
08-Jun-2023
14:56
linh
pham



AFTER

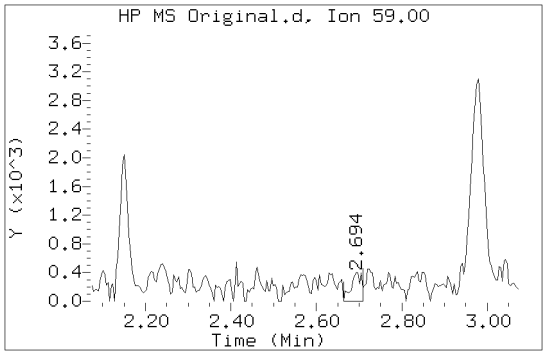
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13-Jun-2023
13:00
linh
pham



Reason Code:

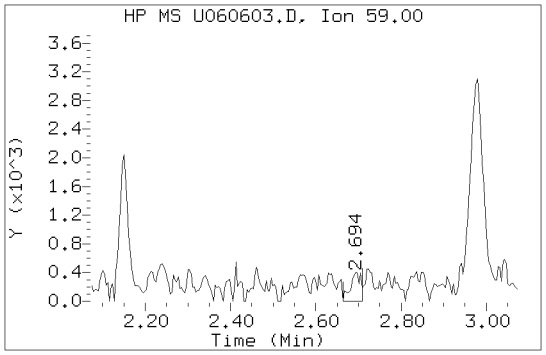
BEFORE

MASS
59
AREA
670
HEIGHT
403
08-Jun-2023
14:56
linh
pham



AFTER

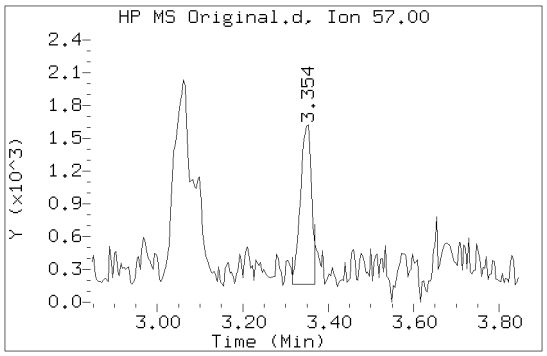
MASS
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AREA
670
HEIGHT
403
13-Jun-2023
13:00
linh
pham



Allyl alcohol (107-18-6)

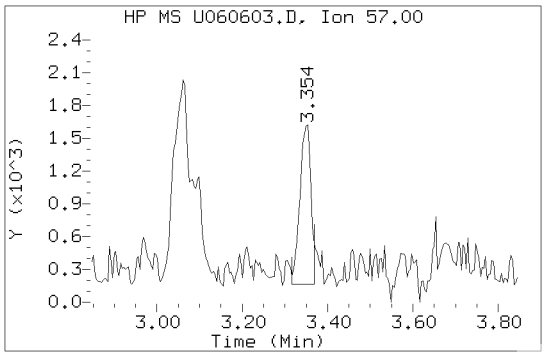
BEFORE

MASS
57
AREA
2691
HEIGHT
1461
08-Jun-2023
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linh
pham



AFTER

MASS
57
AREA
2691
HEIGHT
1461
13-Jun-2023
13:00
linh
pham



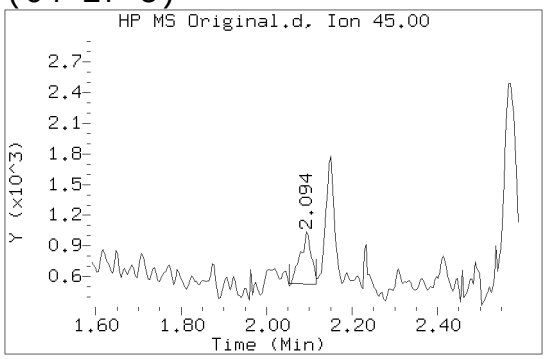
Reason Code:

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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

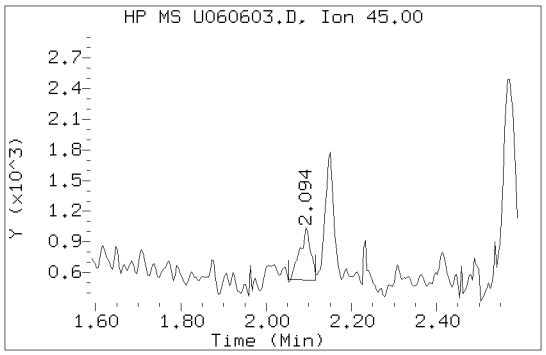
Ethanol (64-17-5)

Reason Code:

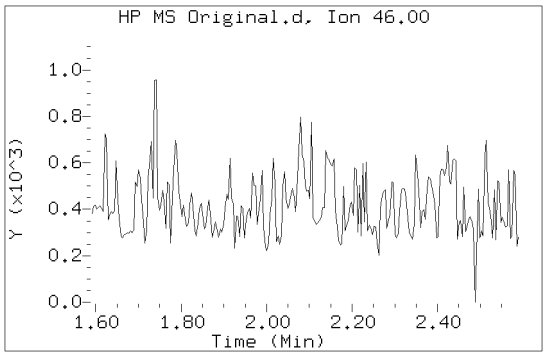
BEFORE
MASS
45
AREA
929
HEIGHT
515
08-Jun-2023
14:56
linh
pham



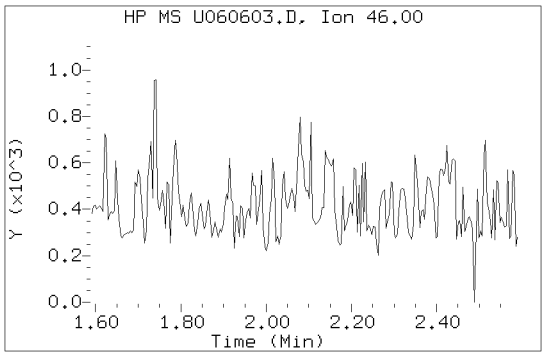
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MASS
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AREA
929
HEIGHT
515
13-Jun-2023
13:00
linh
pham



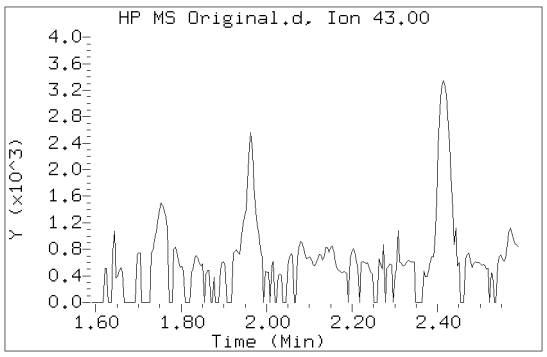
BEFORE
MASS
46
AREA
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



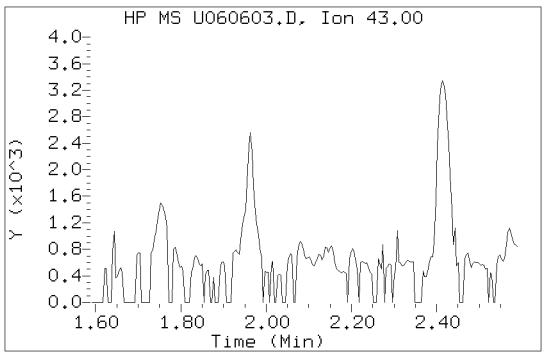
AFTER
MASS
46
AREA
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HEIGHT
0
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
43
AREA
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



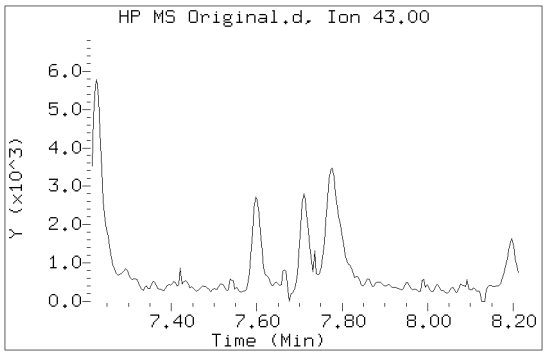
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HEIGHT
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13-Jun-2023
13:00
linh
pham



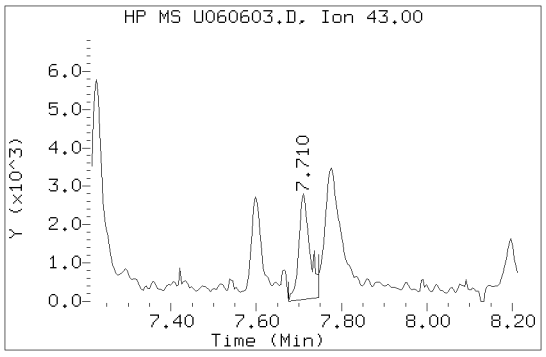
n-Butyl acetate (123-86-4)

Reason Code:

BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
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pham



AFTER
MASS
43
AREA
5135
HEIGHT
2763
13-Jun-2023
13:00
linh
pham



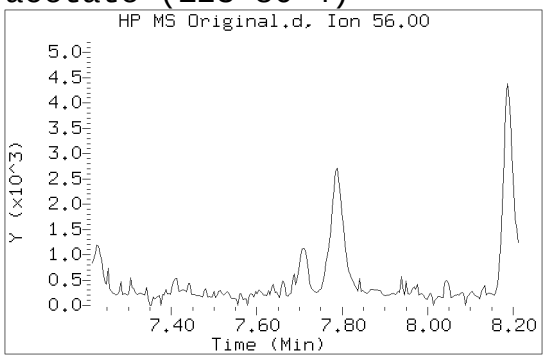
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

n-Butyl acetate (123-86-4)

Reason Code:

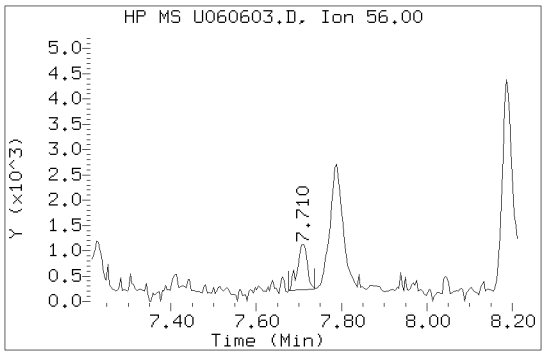
BEFORE

MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



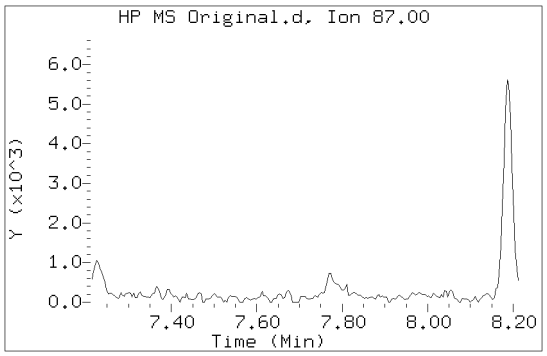
AFTER

MASS
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AREA
1504
HEIGHT
896
13-Jun-2023
13:00
linh
pham



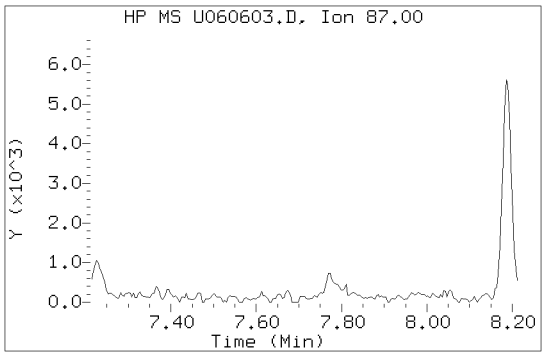
BEFORE

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87
AREA
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HEIGHT
0
08-Jun-2023
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AFTER

MASS
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AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

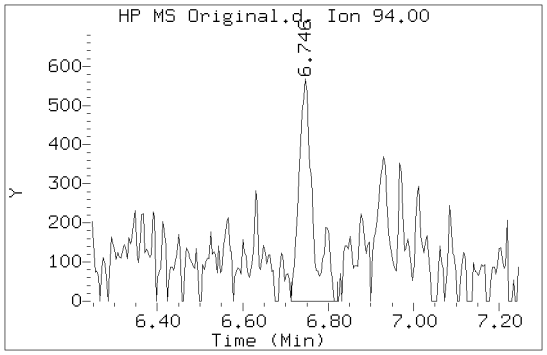


Dimethyl Disulfide (624-92-0)

Reason Code:

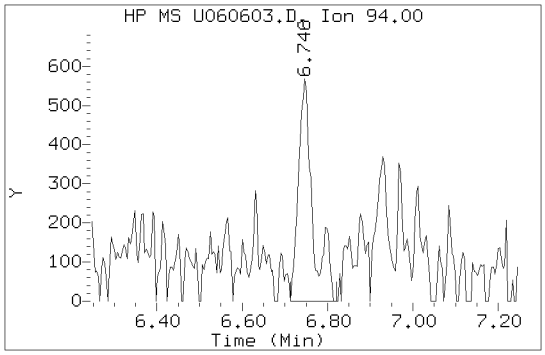
BEFORE

MASS
94
AREA
1341
HEIGHT
568
08-Jun-2023
14:56
linh
pham



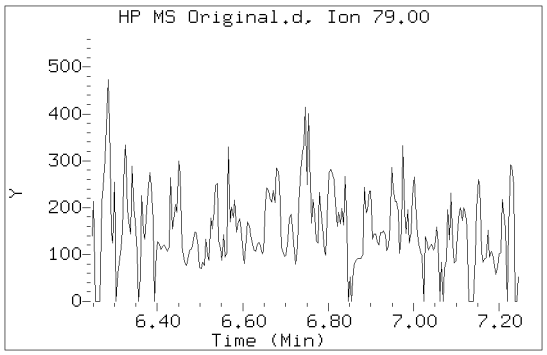
AFTER

MASS
94
AREA
1341
HEIGHT
568
13-Jun-2023
13:00
linh
pham



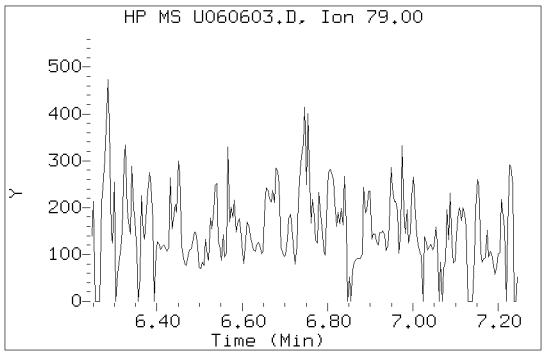
BEFORE

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79
AREA
0
HEIGHT
0
08-Jun-2023
14:56
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pham



AFTER

MASS
79
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



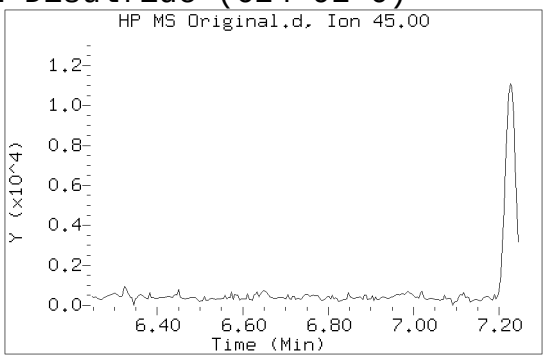
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Dimethyl Disulfide (624-92-0)

Reason Code:

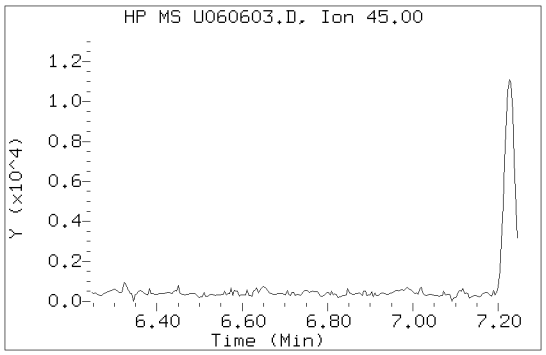
BEFORE

MASS
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HEIGHT
0
08-Jun-2023
14:56
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pham



AFTER

MASS
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AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

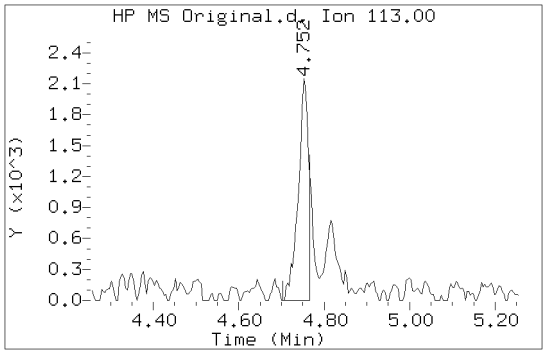


Dibromofluoromethane (1868-53-7)

Reason Code:

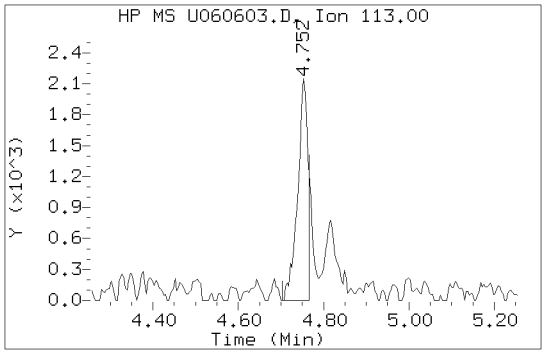
BEFORE

MASS
113
AREA
3644
HEIGHT
2149
08-Jun-2023
14:56
linh
pham



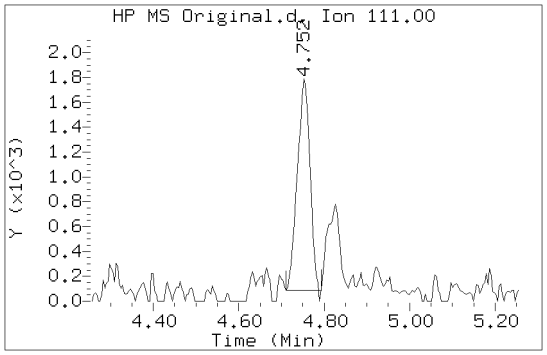
AFTER

MASS
113
AREA
3644
HEIGHT
2149
13-Jun-2023
13:00
linh
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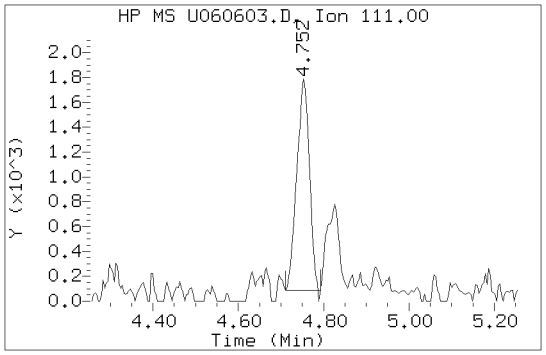
BEFORE

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111
AREA
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HEIGHT
1703
08-Jun-2023
14:56
linh
pham



AFTER

MASS
111
AREA
3541
HEIGHT
1703
13-Jun-2023
13:00
linh
pham

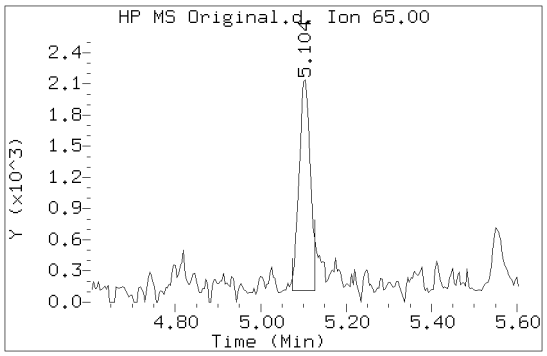


1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

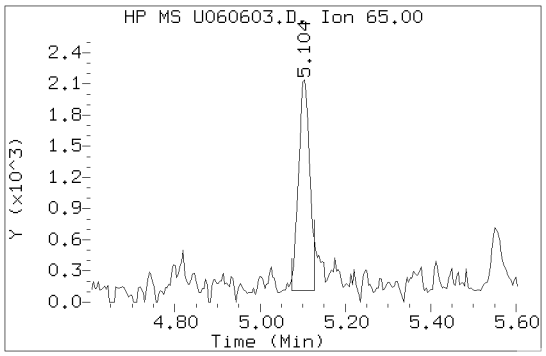
BEFORE

MASS
65
AREA
3795
HEIGHT
2029
08-Jun-2023
14:56
linh
pham



AFTER

MASS
65
AREA
3795
HEIGHT
2029
13-Jun-2023
13:00
linh
pham



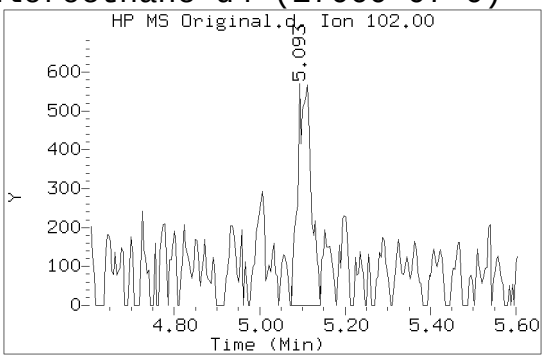
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Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

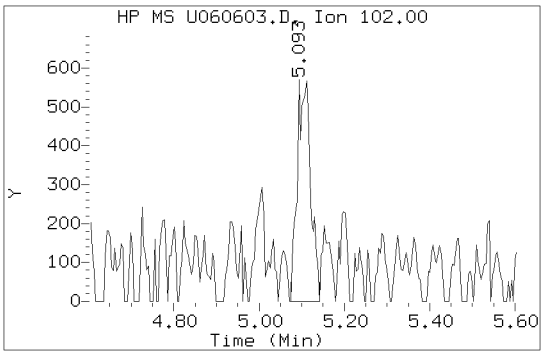
BEFORE

MASS
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AREA
1254
HEIGHT
570
08-Jun-2023
14:56
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pham



AFTER

MASS
102
AREA
1254
HEIGHT
570
13-Jun-2023
13:00
linh
pham

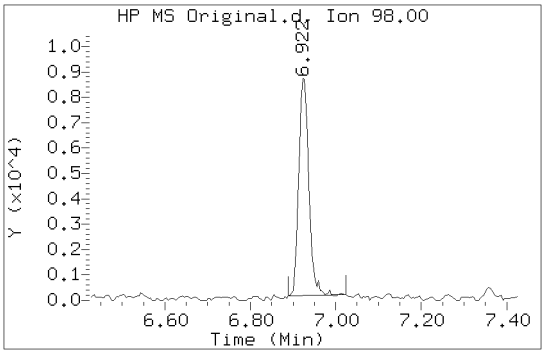


Toluene-d8 (2037-26-5)

Reason Code:

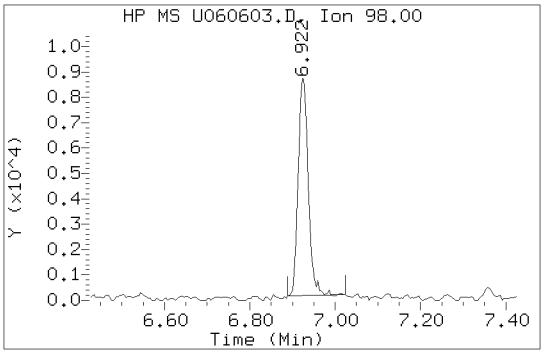
BEFORE

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AREA
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HEIGHT
8549
08-Jun-2023
14:56
linh
pham



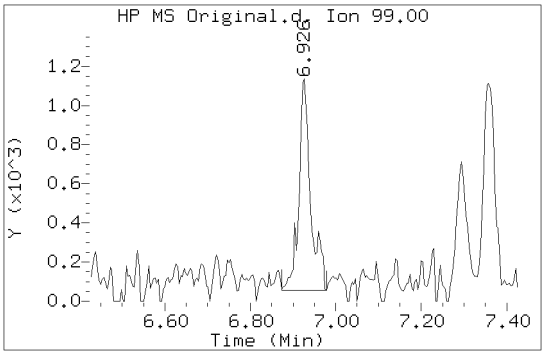
AFTER

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HEIGHT
8549
13-Jun-2023
13:00
linh
pham



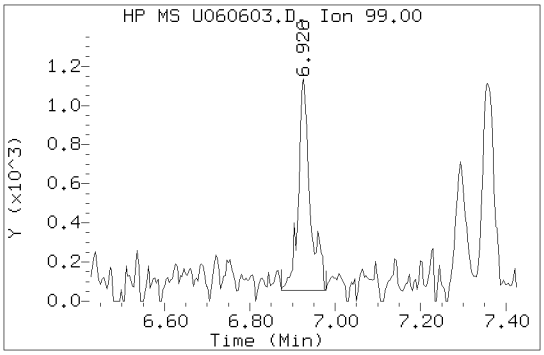
BEFORE

MASS
99
AREA
2122
HEIGHT
1080
08-Jun-2023
14:56
linh
pham



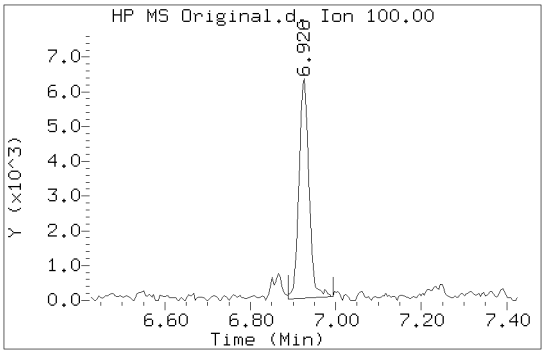
AFTER

MASS
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AREA
2122
HEIGHT
1080
13-Jun-2023
13:00
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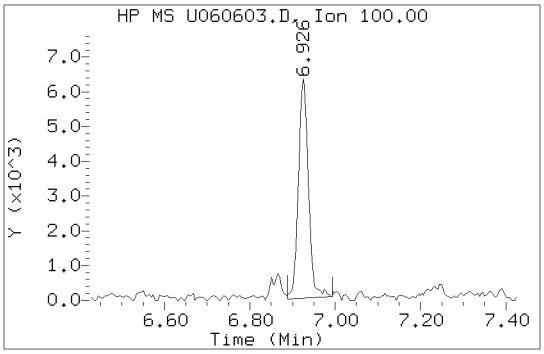
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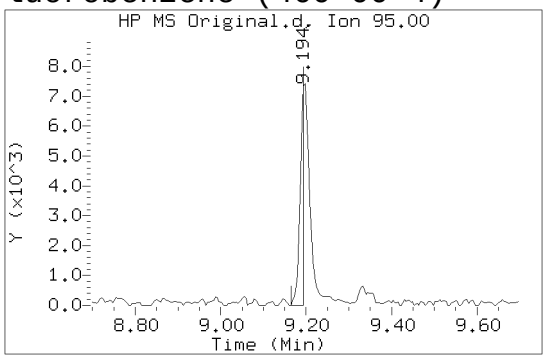
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LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)

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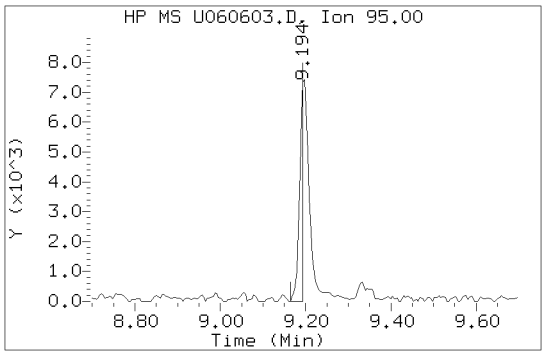
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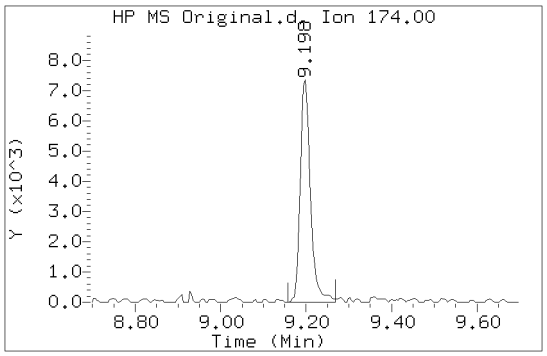
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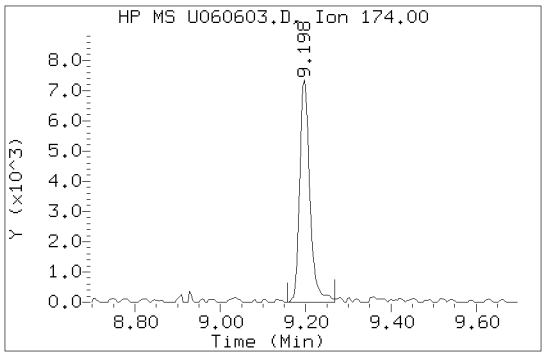
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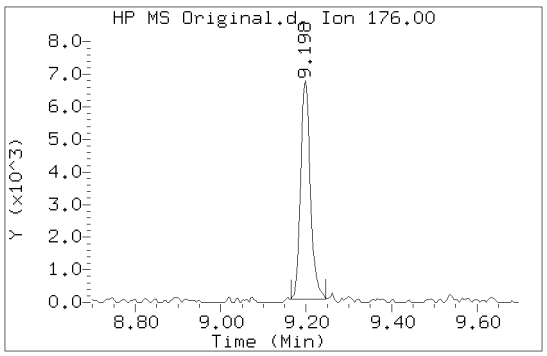
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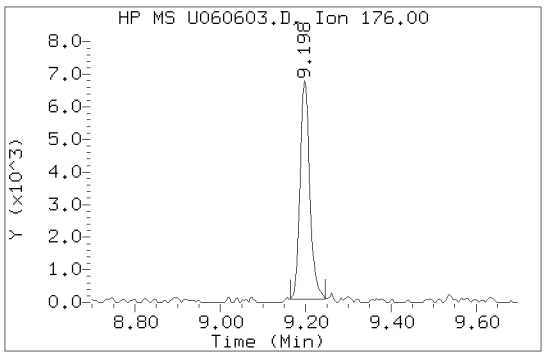
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D
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Smp Info : VSTD005;VSTD005;1;5;
Misc Info : V9;WATER;0;1;
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Als bottle: 7 Calibration Sample, Level: 5
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Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.811	4.811	(1.000)	661055	50.0000	
2	Dichlorodifluoromethane	85	1.156	1.156	(0.240)	31172	5.00000	5.17
3	Chloromethane	50	1.287	1.287	(0.268)	62455	5.00000	5.08
5	Vinyl Chloride	62	1.370	1.370	(0.285)	36493	5.00000	5.21
6	Bromomethane	94	1.613	1.613	(0.335)	23995	5.00000	5.08
7	Chloroethane	64	1.692	1.692	(0.352)	23603	5.00000	5.01
8	Trichlorofluoromethane	101	1.887	1.887	(0.392)	41967	5.00000	5.22
9	Acrolein	56	2.258	2.258	(0.469)	3393	10.0000	9.67(aM)
10	Acetone	43	2.401	2.401	(0.499)	31915	10.0000	9.15
11	1,1-Dichloroethene	96	2.326	2.326	(0.483)	25586	5.00000	5.09
15	Iodomethane	142	2.461	2.461	(0.512)	10875	10.0000	12.46(M)
16	Acrylonitrile	53	3.060	3.060	(0.636)	26401	10.0000	10.76
17	Methylene Chloride	84	2.787	2.787	(0.579)	34262	5.00000	4.77(a)
18	Methyl tert-butyl ether	73	3.075	3.075	(0.639)	77272	5.00000	5.02
19	Carbon Disulfide	76	2.513	2.513	(0.522)	137840	10.0000	10.27
20	trans-1,2-Dichloroethene	96	3.049	3.049	(0.634)	27553	5.00000	5.04
21	Vinyl Acetate	43	3.604	3.604	(0.749)	174288	10.0000	10.47
22	1,1-Dichloroethane	63	3.507	3.507	(0.729)	52777	5.00000	5.08
24	2-Butanone	43	4.264	4.264	(0.886)	29852	10.0000	9.90
26	2,2-Dichloropropane	77	4.174	4.174	(0.868)	33762	5.00000	5.28

27 cis-1,2-Dichloroethene	96	4.189	4.189 (0.871)	34046	5.00000	5.21
28 Chloroform	83	4.567	4.567 (0.949)	56388	5.00000	5.22

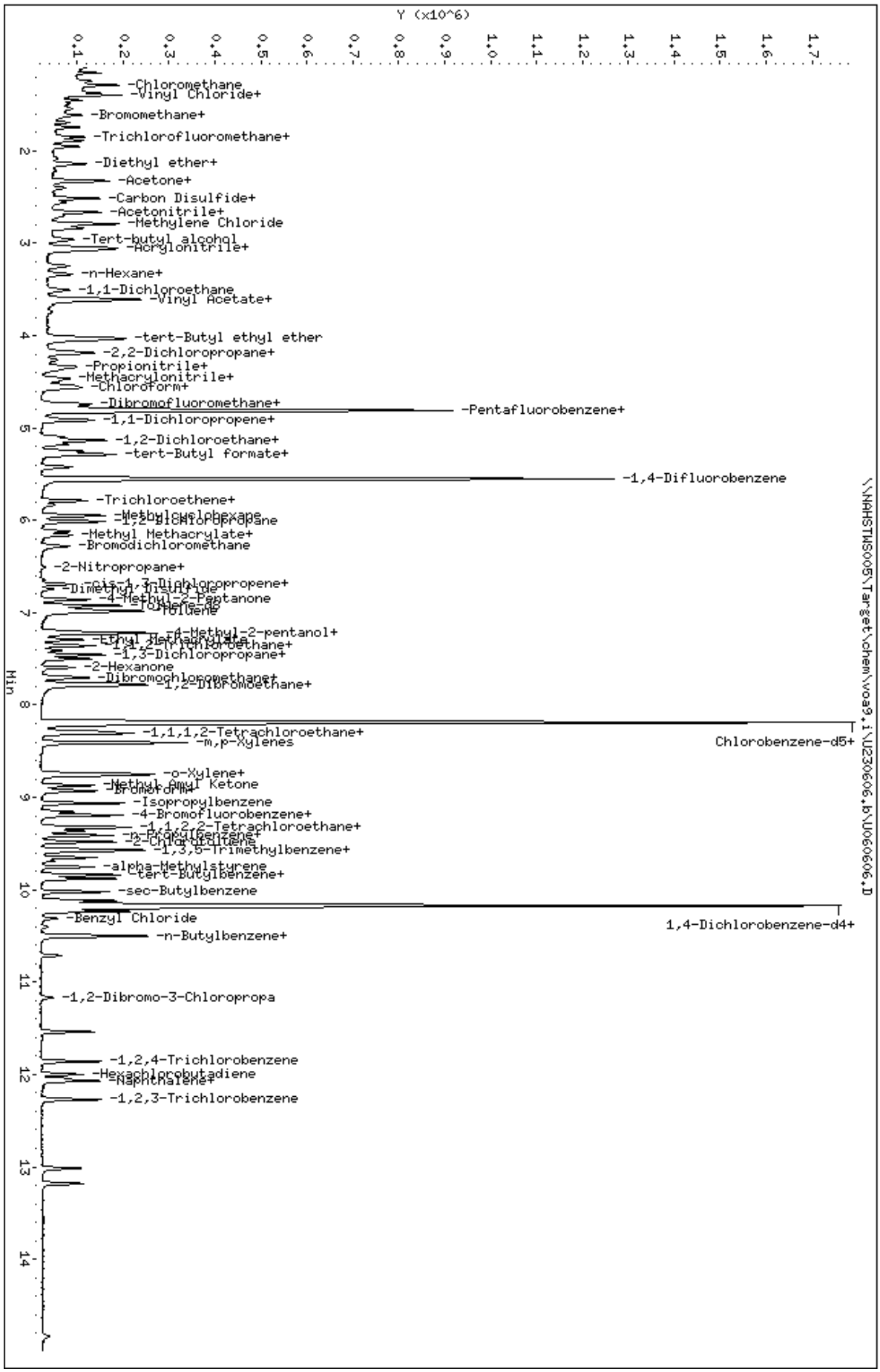
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.462	4.462	(0.928)	18916	5.00000	5.17
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	30229	5.00000	5.16
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	40381	5.00000	4.90(a)
	32 1,1-Dichloropropene	75	4.920	4.920	(0.887)	35687	5.00000	4.94(a)
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	44658	5.00000	5.23
	34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	30773	5.00000	4.63(a)
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	34153	5.00000	5.08
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	985343	50.0000	
	37 Benzene	78	5.137	5.137	(0.926)	124450	5.00000	5.24
	38 Trichloroethene	130	5.786	5.786	(1.043)	36191	5.00000	5.25
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	36599	5.00000	4.94(a)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.083)	32316	5.00000	5.09
	44 Dibromomethane	93	6.119	6.119	(1.103)	20983	5.00000	5.18
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	69130	10.0000	10.20
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.206)	37734	5.00000	5.56
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	930383	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	106553	5.00000	5.06(M)
	50 Toluene	91	6.982	6.982	(0.853)	128415	5.00000	5.08
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.297)	31811	5.00000	5.68(M)
	52 2-Hexanone	43	7.593	7.593	(0.928)	46135	10.0000	9.77
	53 1,1,2-Trichloroethane	83	7.356	7.356	(0.899)	27005	5.00000	5.14
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	55865	5.00000	5.20
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	28715	5.00000	4.60(a)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	31033	5.00000	5.04
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	31859	5.00000	4.91(a)
	58 1-Chlorohexane	55	8.196	8.196	(1.477)	23998	5.00000	4.74(aM)
	59 Chlorobenzene	112	8.211	8.211	(1.003)	93304	5.00000	5.18
	60 1,1,1,2-Tetrachloroethane	131	8.282	8.282	(1.012)	29452	5.00000	4.75(a)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	40417	5.00000	4.82(a)
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	87802	10.0000	8.85(a)
	63 o-Xylene	106	8.747	8.747	(1.069)	45979	5.00000	4.69(a)
	64 Styrene	104	8.762	8.762	(1.071)	64961	5.00000	4.17(a)
	66 Bromoform	173	8.920	8.920	(1.090)	18587	5.00000	4.42(a)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	111398	5.00000	4.73(a)
	68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	44946	5.00000	5.11
$	69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	49215	5.00000	5.13
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	467357	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	38304	5.00000	4.95(a)
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	110045	5.00000	4.48(a)
	74 Bromobenzene	156	9.317	9.317	(0.916)	38901	5.00000	4.93(a)
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	78874	5.00000	4.68(a)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	85816	5.00000	4.97(a)
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	94195	5.00000	4.93(a)
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	79517	5.00000	4.81(a)
	79 1,2,4-Trimethylbenzene	105	9.879	9.879	(0.971)	85616	5.00000	4.86(a)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	96016	5.00000	4.58(a)
	82 p-Isopropyltoluene	119	10.145	10.145	(0.997)	79695	5.00000	4.54(a)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	67753	5.00000	5.05
	84 1,4-Dichlorobenzene	146	10.190	10.190	(1.002)	73343	5.00000	5.13
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	70944	5.00000	4.72(a)
	88 1,2-Dichlorobenzene	146	10.505	10.505	(1.033)	65904	5.00000	4.90(a)
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	5840	5.00000	4.55(a)

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	42718	5.00000	4.62(a)
92 Naphthalene	128	12.069	12.069 (1.186)	95946	5.00000	4.47(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
93	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	42734	5.00000	4.73(a)
M 94	1,2-Dichloroethylene (total)	96				61599	10.0000	(a)
135	1,4-Dioxane	88	6.172	6.172	(1.283)	12691	100.000	96.68(a)
141	Cyclohexane	56	4.777	4.777	(0.993)	37840	5.00000	4.93(aM)
138	Freon TF	101	2.326	2.326	(0.483)	23128	5.00000	5.20
140	1,3-Butadiene	54	1.396	1.396	(0.290)	32480	5.00000	5.18
147	Methylcyclohexane	55	5.947	5.947	(1.072)	68659	5.00000	5.02
146	Methyl Acetate	43	2.708	2.708	(0.563)	27090	5.00000	4.86(a)
148	Tert-Butyl alcohol	59	2.963	2.963	(0.616)	66425	100.000	104.33
149	Isopropyl Alcohol	45	2.558	2.558	(0.532)	41674	100.000	96.43(T)
72	trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	5142	5.00000	4.79(M)
12	Isobutyl Alcohol	43	5.287	5.287	(1.099)	83135	100.000	96.79(M)
13	Acetonitrile	39	2.663	2.663	(0.554)	35522	50.0000	49.63
14	Allyl Chloride	41	2.667	2.667	(0.554)	87674	5.00000	5.10
25	Methacrylonitrile	41	4.492	4.492	(0.934)	18250	5.00000	4.67
40	Methyl Methacrylate	41	6.157	6.157	(1.280)	26729	5.00000	4.70
4	Propionitrile	54	4.335	4.335	(0.901)	49866	50.0000	52.20(a)
136	n-Hexane	57	3.334	3.334	(0.693)	28289	5.00000	5.36
194	Acetaldehyde	44	1.452	1.452	(0.302)	14773	20.0000	16.20(M)
131	Methyl Acrylate	55	4.369	4.369	(0.908)	32767	5.00000	4.68(aM)
200	Dimethyl Disulfide	94	6.742	6.742	(0.824)	15263	5.00000	6.61(M)
23	Chloroprene	53	2.150	2.150	(0.447)	9849	5.00000	4.67(aM)
49	Ethyl Methacrylate	69	7.293	7.293	(1.314)	44828	5.00000	5.18
166	1,2,3-Trimethylbenzene	105	10.235	10.235	(1.006)	96136	5.00000	5.35
167	Ethanol	45	2.075	2.075	(0.431)	9968	100.000	100.77
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	115572	5.00000	5.06
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	33946	5.00000	7.13
142	Tetrahydrofuran	42	4.541	4.541	(0.944)	13490	10.0000	9.46
156	Diisopropyl ether	45	3.615	3.615	(0.751)	94647	5.00000	5.13(T)
151	4-Methyl-2-pentanol	45	7.222	7.222	(1.301)	137040	100.000	93.52
150	Allyl alcohol	57	3.334	3.334	(0.693)	27611	100.000	105.45(M)
86	Benzyl Chloride	91	10.310	10.310	(1.260)	22092	5.00000	7.16
162	Butyl acrylate	55	8.736	8.736	(1.067)	52526	5.00000	4.77(a)
139	Diethyl ether	59	2.135	2.135	(0.444)	23079	5.00000	5.16
203	2-Ethylhexyl Acrylate	55	12.042	12.042	(1.184)	19373	5.00000	6.09
134	Cyclohexanone	55	9.156	9.156	(0.900)	28189	100.000	97.28(a)
130	Ethyl Acetate	43	4.264	4.264	(0.886)	29376	5.00000	4.97(aM)
189	n-Butyl acetate	43	7.709	7.709	(0.942)	50116	5.00000	4.73(aM)
182	Epichlorohydrin	57	6.629	6.629	(1.195)	2028	20.0000	31.12(M)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



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Column phase: DB624

Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

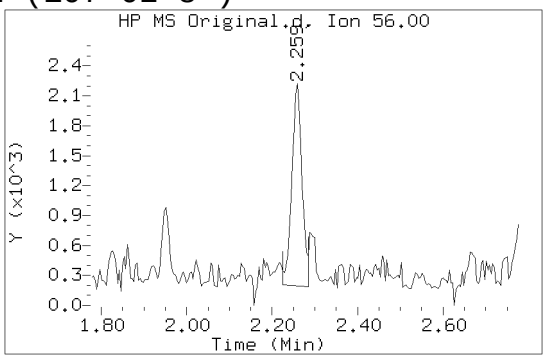
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LabSampID : VSTD005

Acrolein (107-02-8)

Reason Code:

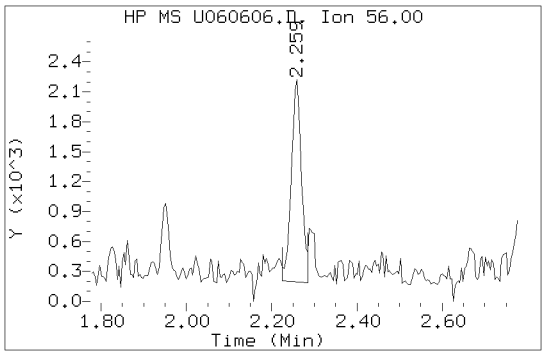
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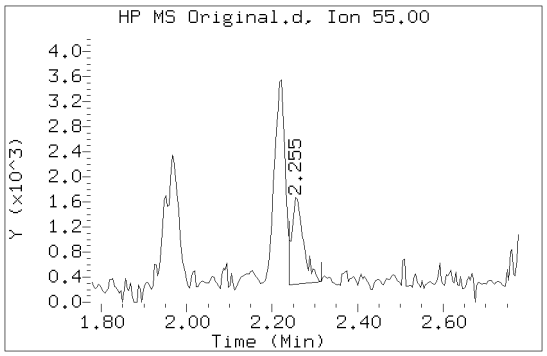
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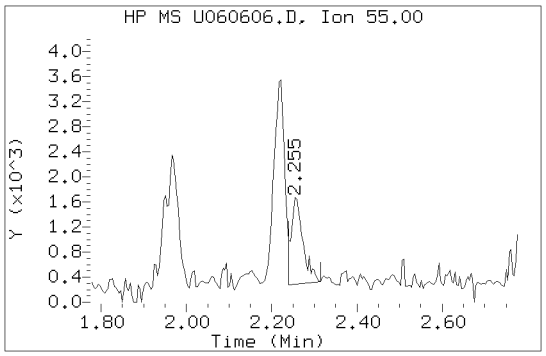
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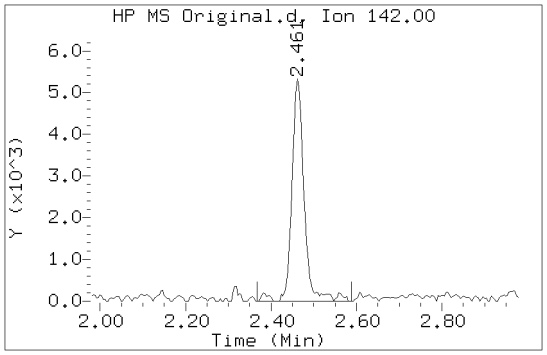


Iodomethane (74-88-4)

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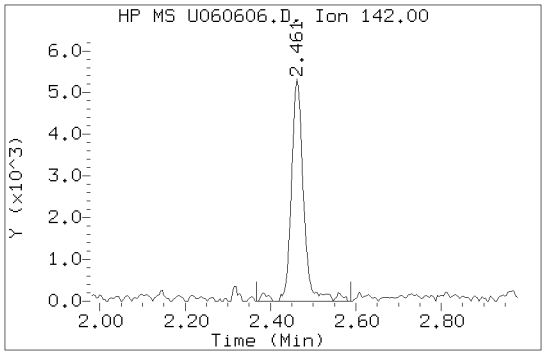
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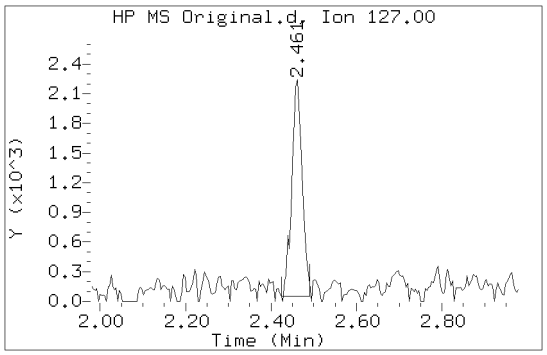
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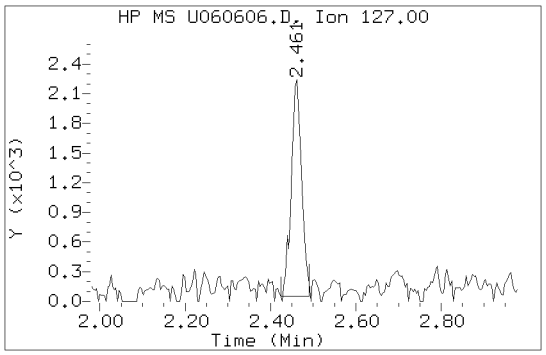
BEFORE

MASS
127
AREA
3748
HEIGHT
2188
08-Jun-2023
14:56
linh
pham



AFTER

MASS
127
AREA
3748
HEIGHT
2188
13-Jun-2023
13:00
linh
pham



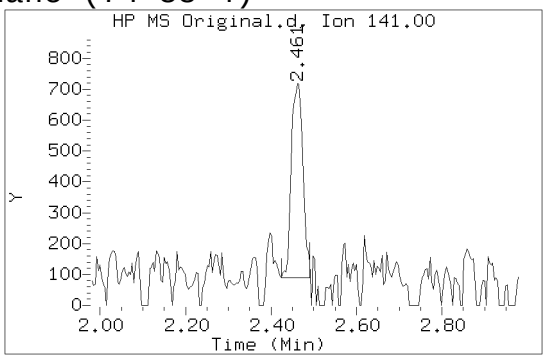
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Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Iodomethane (74-88-4)

Reason Code:

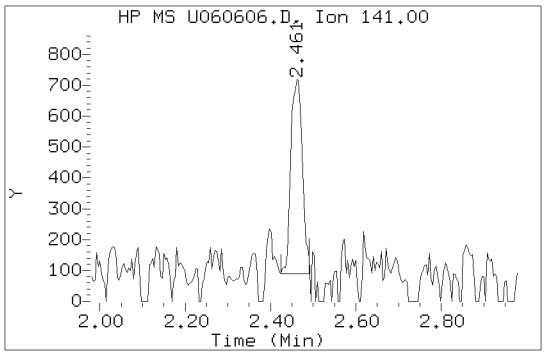
BEFORE

MASS
141
AREA
1206
HEIGHT
629
08-Jun-2023
14:56
linh
pham



AFTER

MASS
141
AREA
1206
HEIGHT
629
13-Jun-2023
13:00
linh
pham

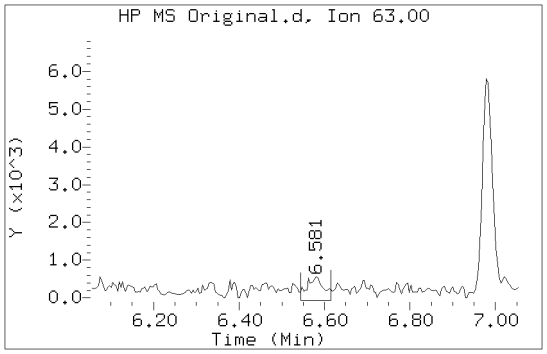


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

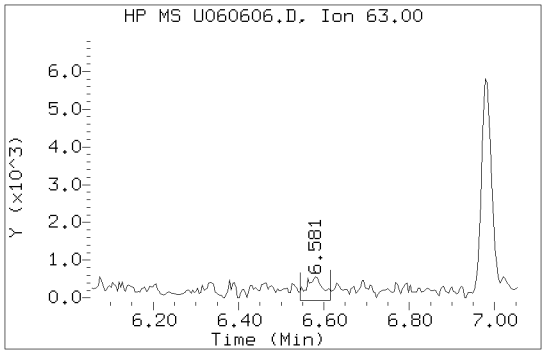
BEFORE

MASS
63
AREA
1764
HEIGHT
623
08-Jun-2023
14:56
linh
pham



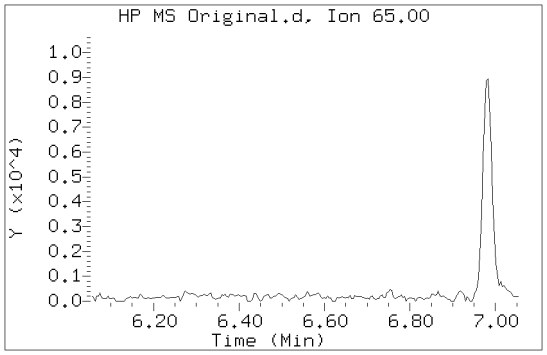
AFTER

MASS
63
AREA
1764
HEIGHT
623
13-Jun-2023
13:00
linh
pham



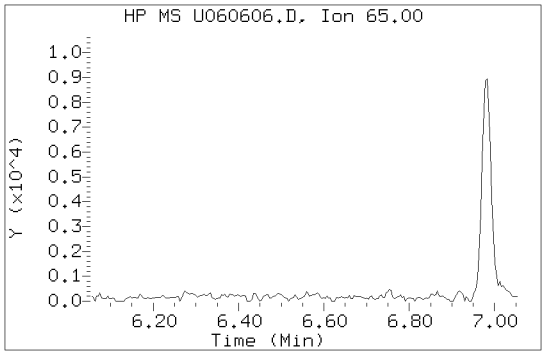
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



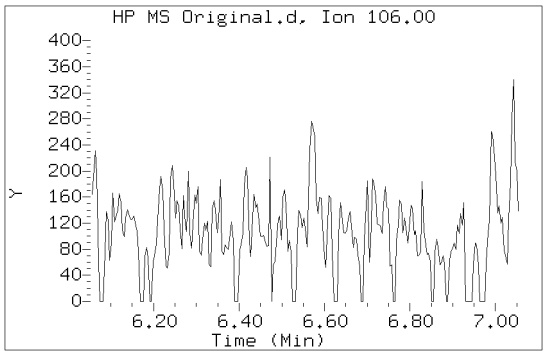
AFTER

MASS
65
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



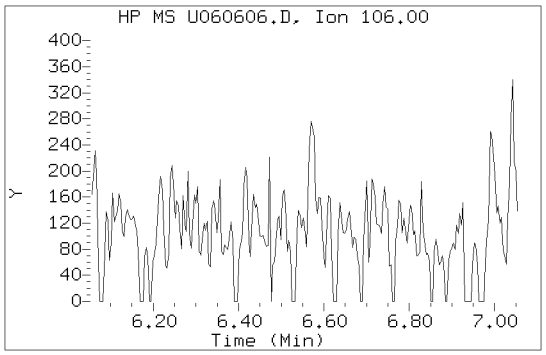
BEFORE

MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



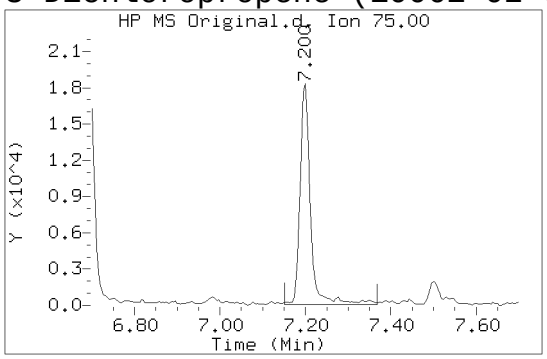
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

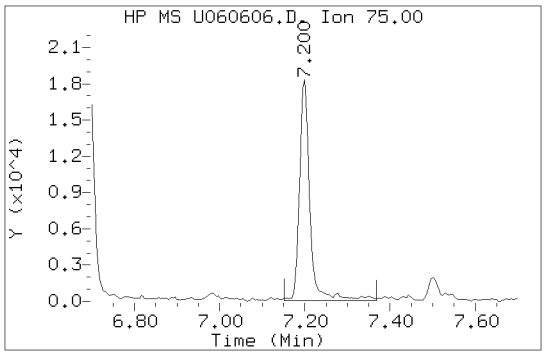
BEFORE

MASS
75
AREA
31811
HEIGHT
18277
08-Jun-2023
14:56
linh
pham



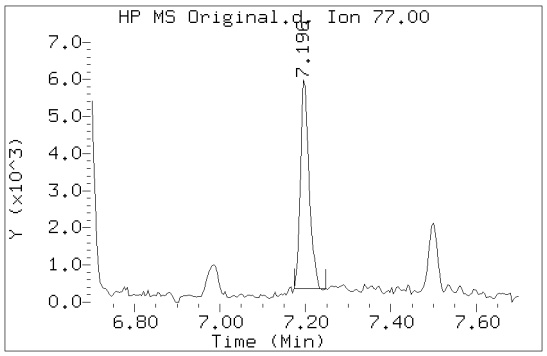
AFTER

MASS
75
AREA
31811
HEIGHT
18277
13-Jun-2023
13:00
linh
pham



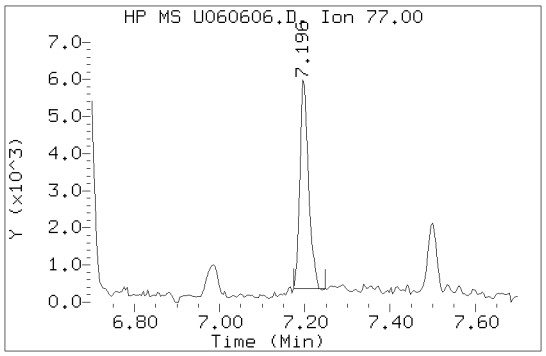
BEFORE

MASS
77
AREA
8164
HEIGHT
5630
08-Jun-2023
14:56
linh
pham



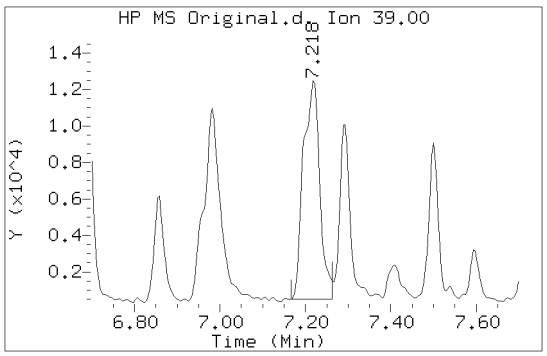
AFTER

MASS
77
AREA
8164
HEIGHT
5630
13-Jun-2023
13:00
linh
pham



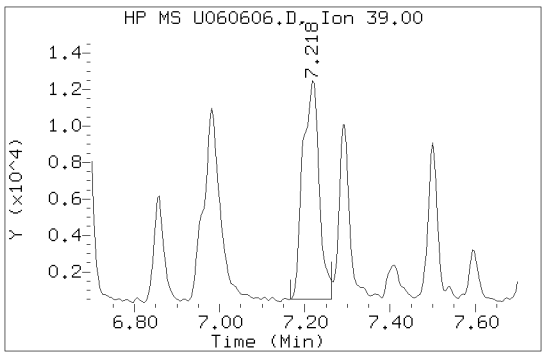
BEFORE

MASS
39
AREA
32255
HEIGHT
11964
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
32255
HEIGHT
11964
13-Jun-2023
13:00
linh
pham

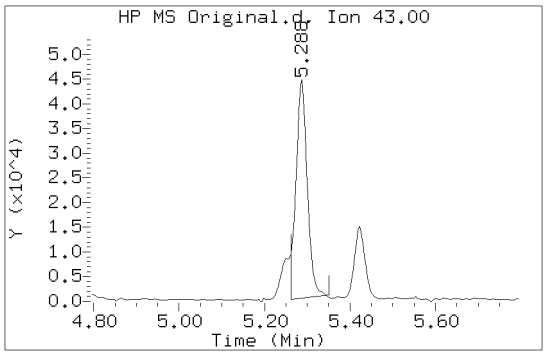


Isobutyl Alcohol (78-83-1)

Reason Code:

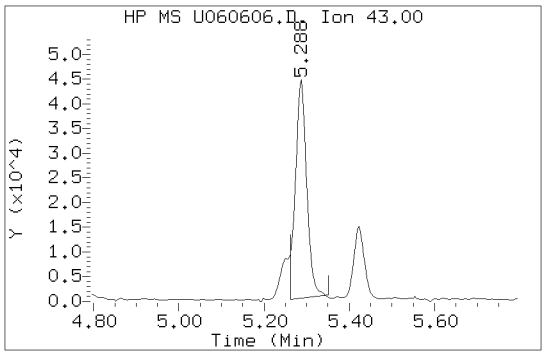
BEFORE

MASS
43
AREA
83135
HEIGHT
44258
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
83135
HEIGHT
44258
13-Jun-2023
13:00
linh
pham



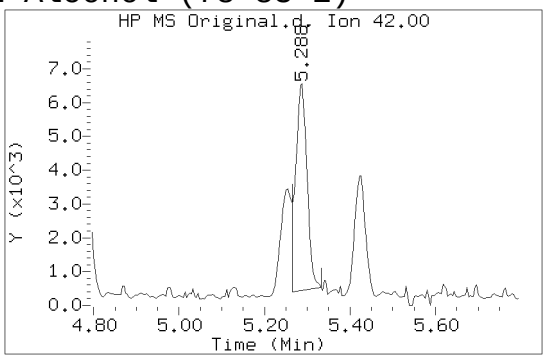
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Isobutyl Alcohol (78-83-1)

Reason Code:

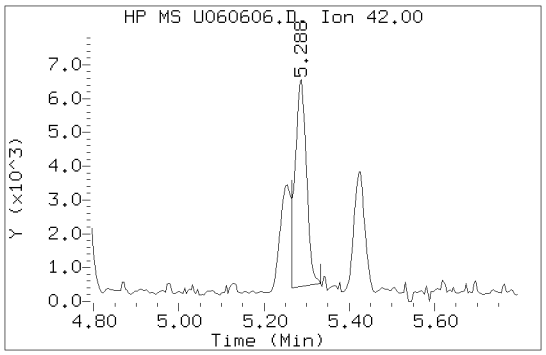
BEFORE

MASS
42
AREA
11630
HEIGHT
6123
08-Jun-2023
14:56
linh
pham



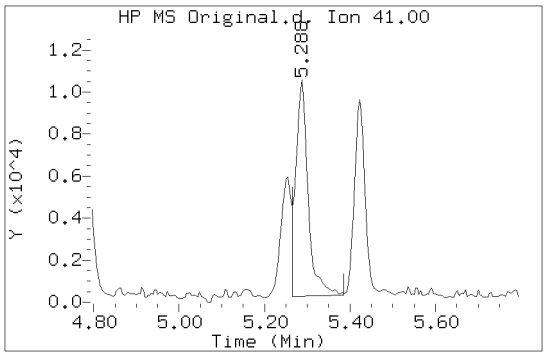
AFTER

MASS
42
AREA
11630
HEIGHT
6123
13-Jun-2023
13:00
linh
pham



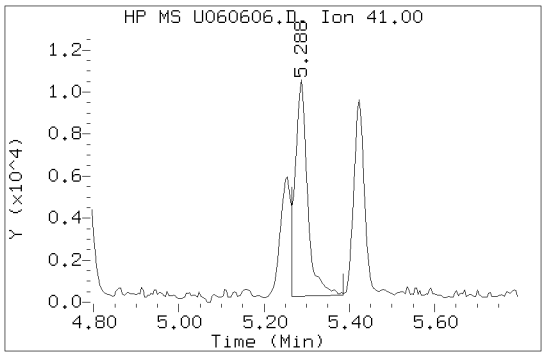
BEFORE

MASS
41
AREA
21244
HEIGHT
10293
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
21244
HEIGHT
10293
13-Jun-2023
13:00
linh
pham

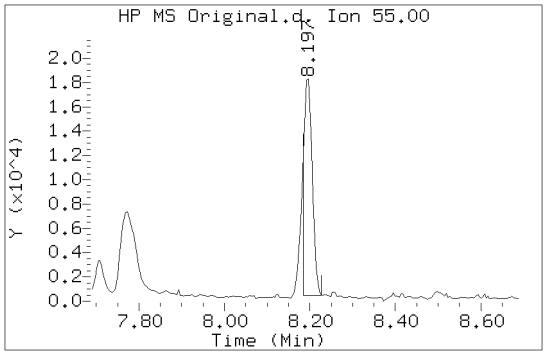


1-Chlorohexane (544-10-5)

Reason Code:

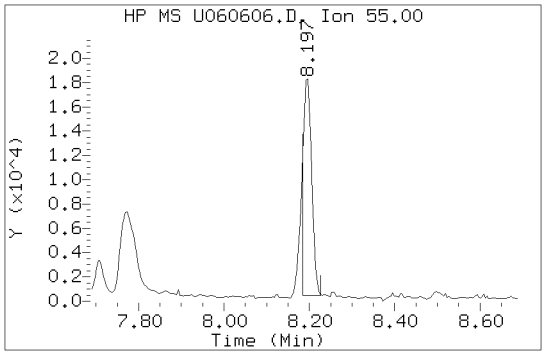
BEFORE

MASS
55
AREA
23998
HEIGHT
17834
08-Jun-2023
14:56
linh
pham



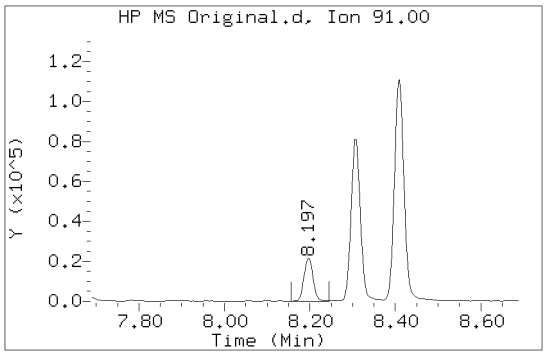
AFTER

MASS
55
AREA
23998
HEIGHT
17834
13-Jun-2023
13:00
linh
pham



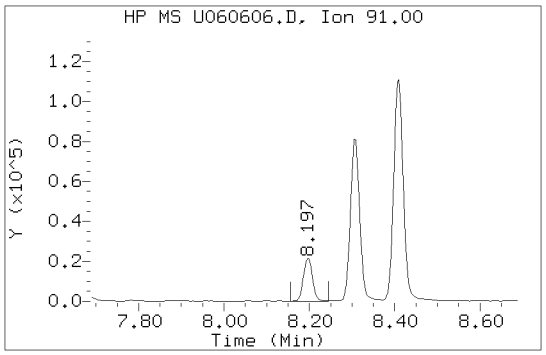
BEFORE

MASS
91
AREA
32110
HEIGHT
21527
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
32110
HEIGHT
21527
13-Jun-2023
13:00
linh
pham



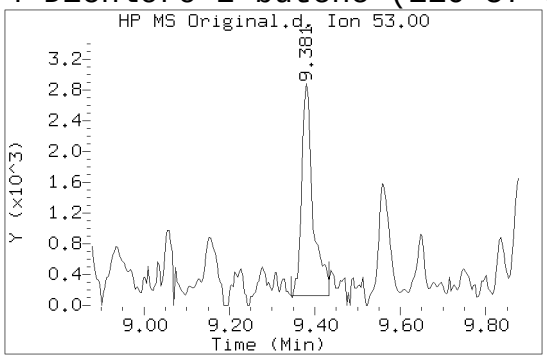
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

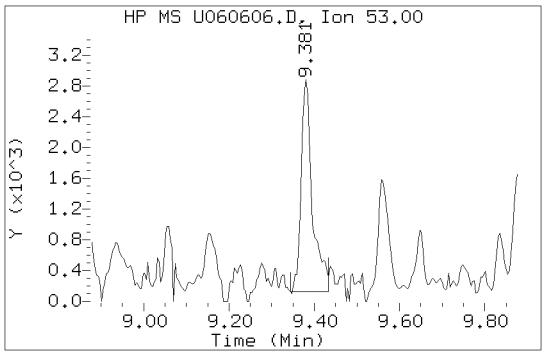
BEFORE

MASS
53
AREA
5142
HEIGHT
2759
08-Jun-2023
14:56
linh
pham



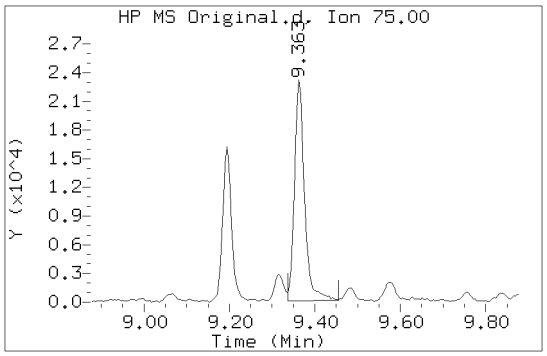
AFTER

MASS
53
AREA
5142
HEIGHT
2759
13-Jun-2023
13:00
linh
pham



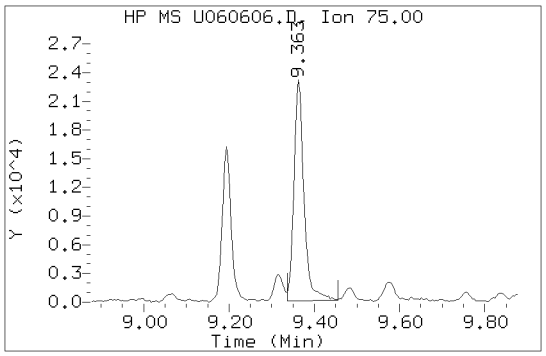
BEFORE

MASS
75
AREA
38567
HEIGHT
23094
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
38567
HEIGHT
23094
13-Jun-2023
13:00
linh
pham

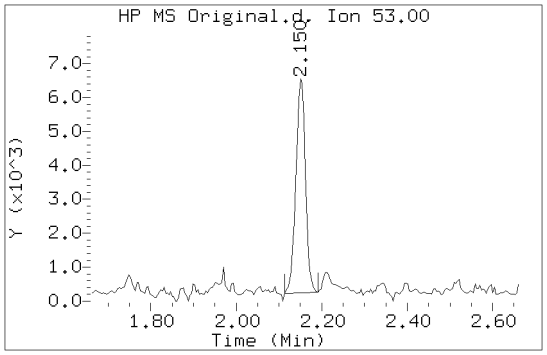


Chloroprene (126-99-8)

Reason Code:

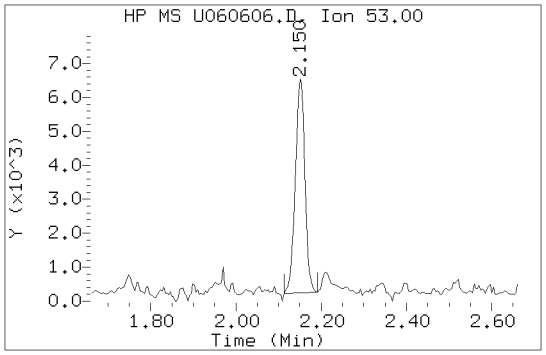
BEFORE

MASS
53
AREA
9849
HEIGHT
6297
08-Jun-2023
14:56
linh
pham



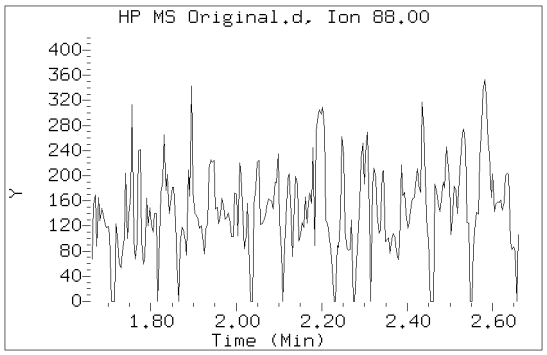
AFTER

MASS
53
AREA
9849
HEIGHT
6297
13-Jun-2023
13:00
linh
pham



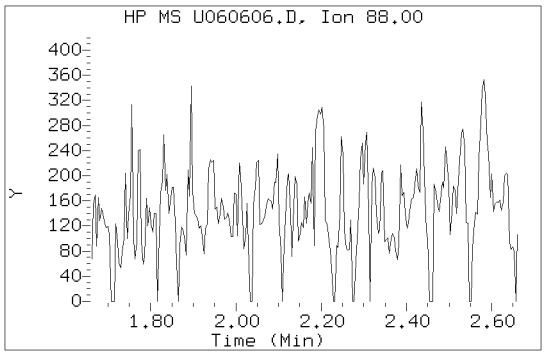
BEFORE

MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



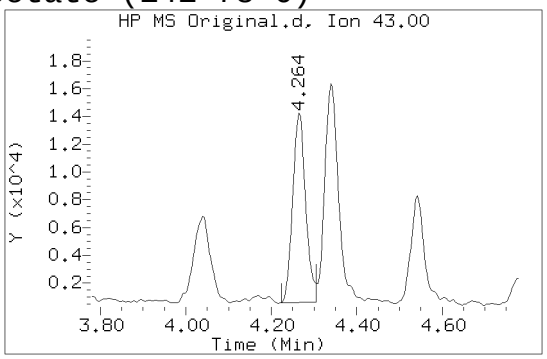
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Ethyl Acetate (141-78-6)

Reason Code:

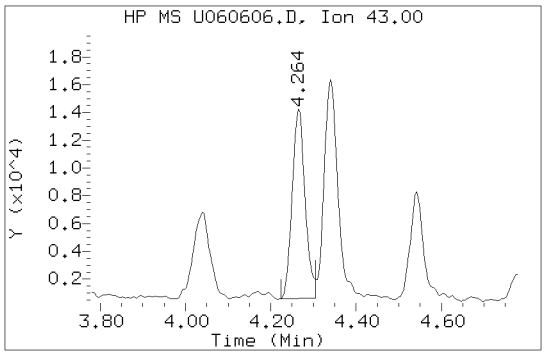
BEFORE

MASS
43
AREA
29376
HEIGHT
13625
08-Jun-2023
14:56
linh
pham



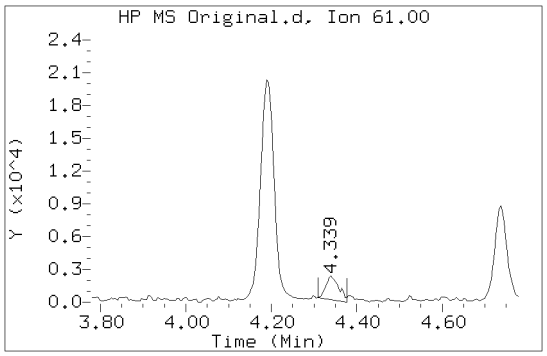
AFTER

MASS
43
AREA
29376
HEIGHT
13625
13-Jun-2023
13:00
linh
pham



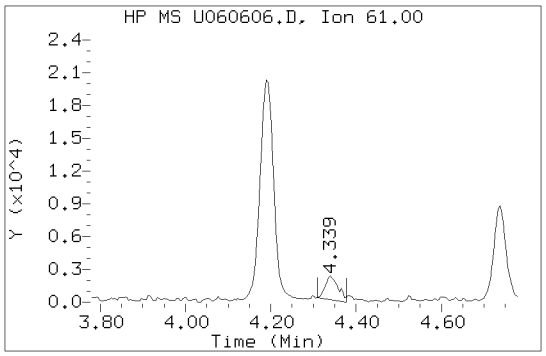
BEFORE

MASS
61
AREA
4693
HEIGHT
2196
08-Jun-2023
14:56
linh
pham



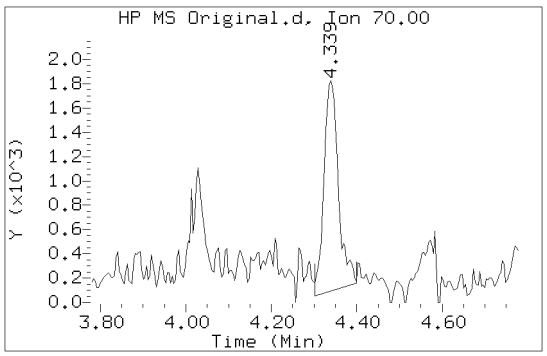
AFTER

MASS
61
AREA
4693
HEIGHT
2196
13-Jun-2023
13:00
linh
pham



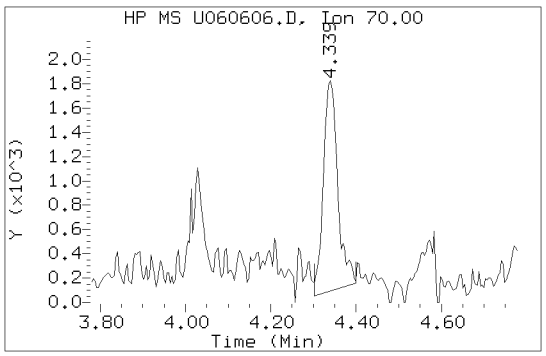
BEFORE

MASS
70
AREA
4078
HEIGHT
1731
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
4078
HEIGHT
1731
13-Jun-2023
13:00
linh
pham

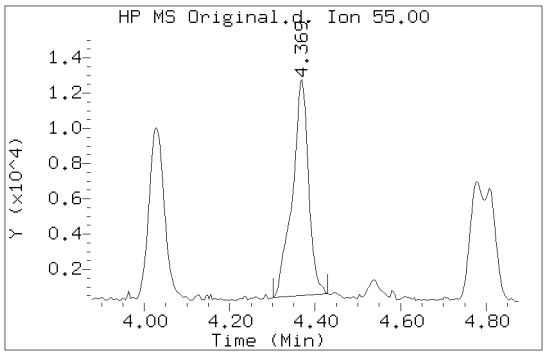


Methyl Acrylate (96-33-3)

Reason Code:

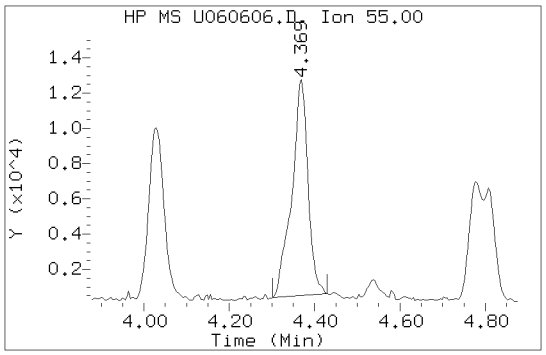
BEFORE

MASS
55
AREA
32767
HEIGHT
12241
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
32767
HEIGHT
12241
13-Jun-2023
13:00
linh
pham



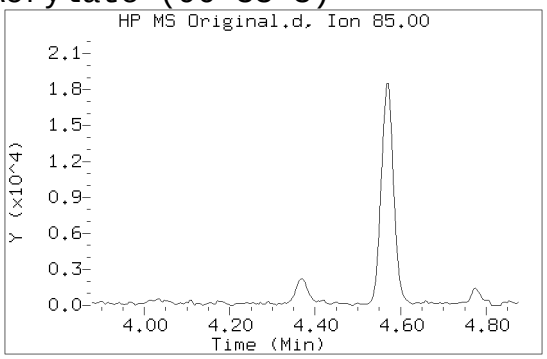
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Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Methyl Acrylate (96-33-3)

Reason Code:

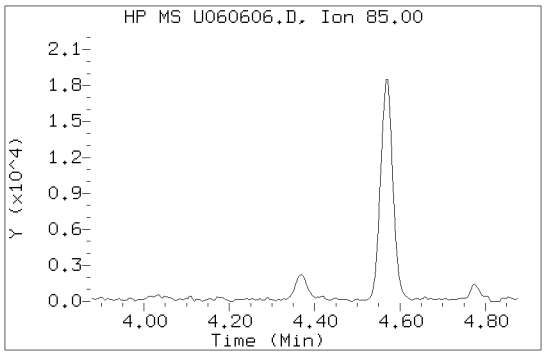
BEFORE

MASS
85
AREA
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
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AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

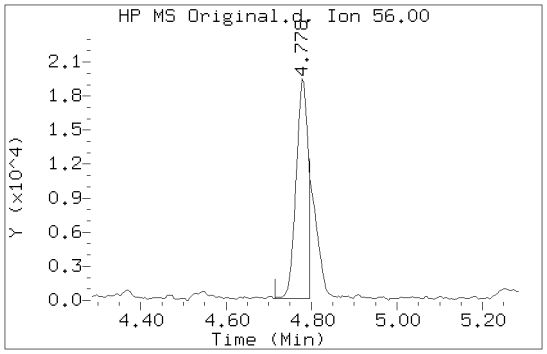


Cyclohexane (110-82-7)

Reason Code:

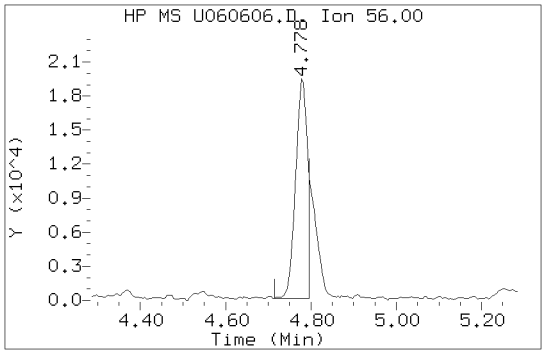
BEFORE

MASS
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AREA
37840
HEIGHT
19339
08-Jun-2023
14:56
linh
pham



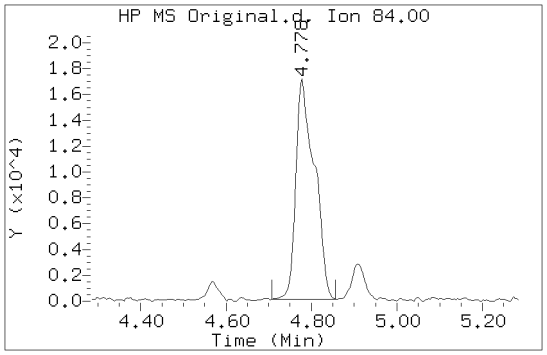
AFTER

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37840
HEIGHT
19339
13-Jun-2023
13:00
linh
pham



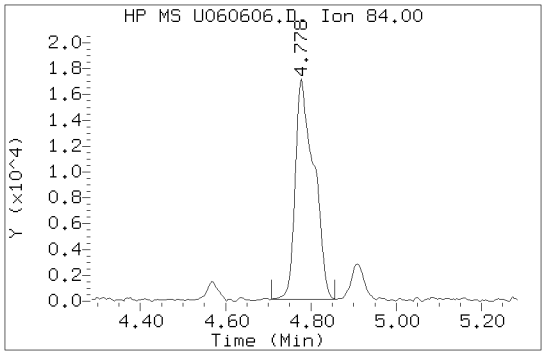
BEFORE

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AREA
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17059
08-Jun-2023
14:56
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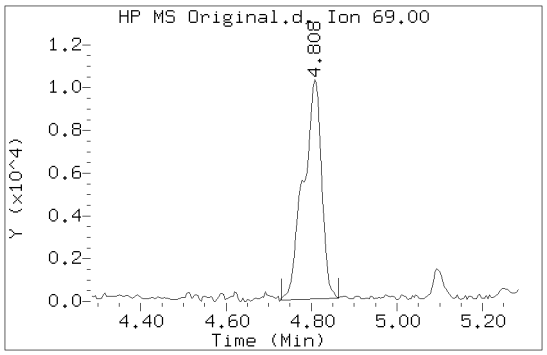
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13-Jun-2023
13:00
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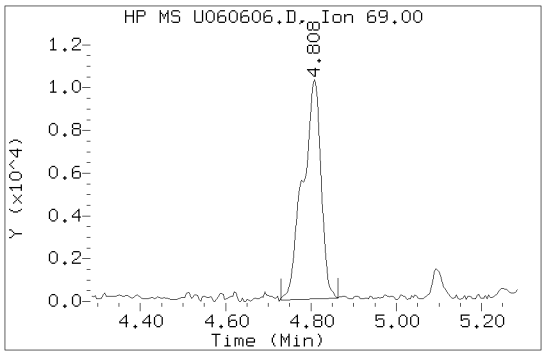
BEFORE

MASS
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HEIGHT
10254
08-Jun-2023
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AFTER

MASS
69
AREA
30602
HEIGHT
10254
13-Jun-2023
13:00
linh
pham



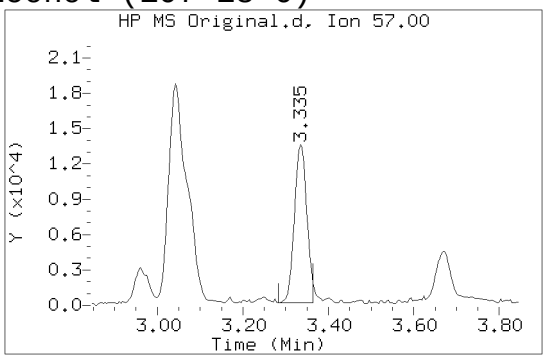
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Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Allyl alcohol (107-18-6)

Reason Code:

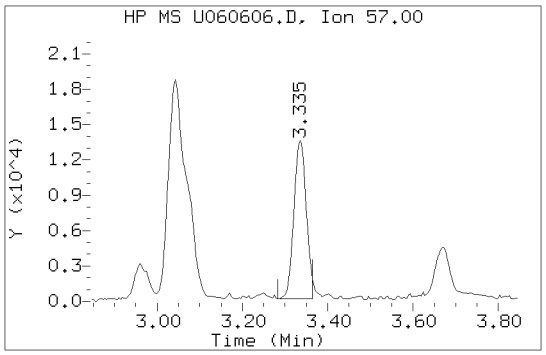
BEFORE

MASS
57
AREA
27611
HEIGHT
13437
08-Jun-2023
14:56
linh
pham



AFTER

MASS
57
AREA
27611
HEIGHT
13437
13-Jun-2023
13:00
linh
pham

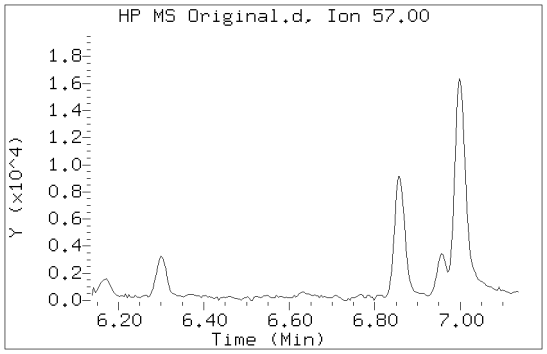


Epichlorohydrin (106-89-8)

Reason Code:

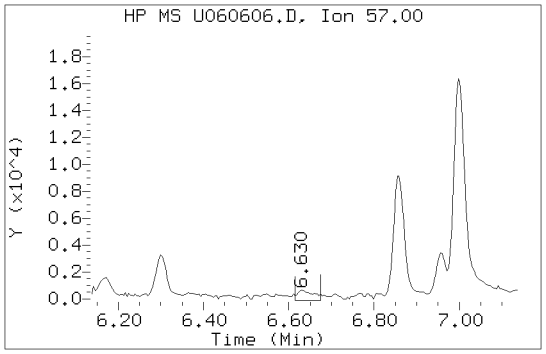
BEFORE

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AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



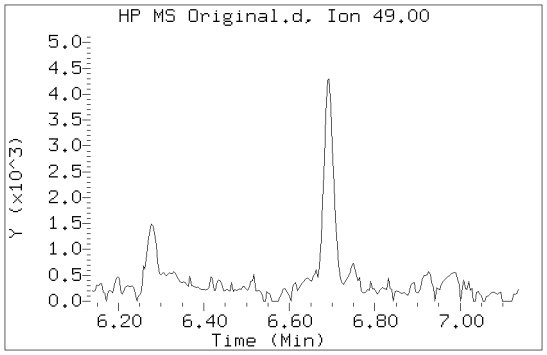
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AREA
2028
HEIGHT
746
13-Jun-2023
13:00
linh
pham



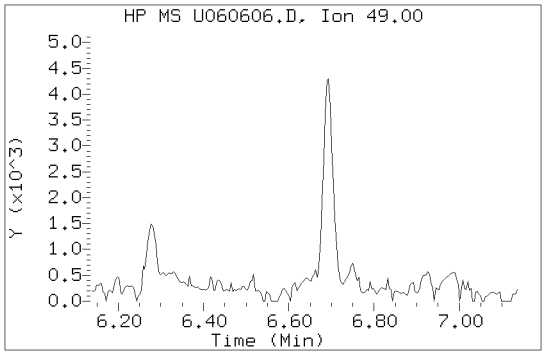
BEFORE

MASS
49
AREA
0
HEIGHT
0
08-Jun-2023
14:56
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pham



AFTER

MASS
49
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

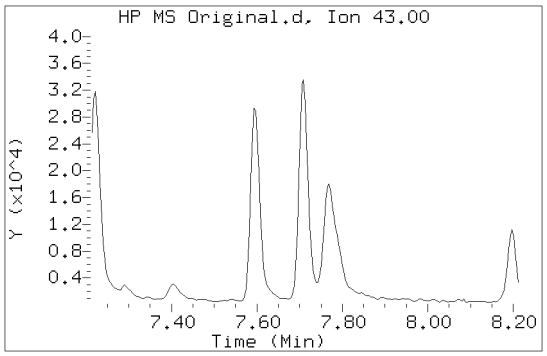


n-Butyl acetate (123-86-4)

Reason Code:

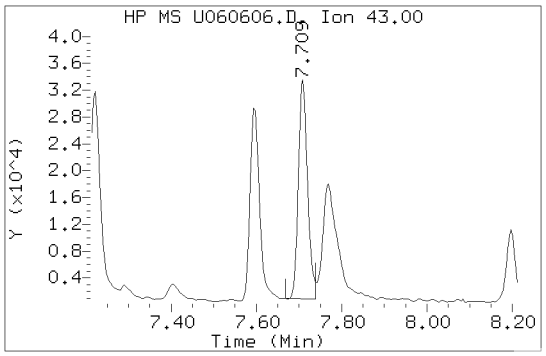
BEFORE

MASS
43
AREA
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HEIGHT
0
08-Jun-2023
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AFTER

MASS
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AREA
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HEIGHT
32605
13-Jun-2023
13:00
linh
pham

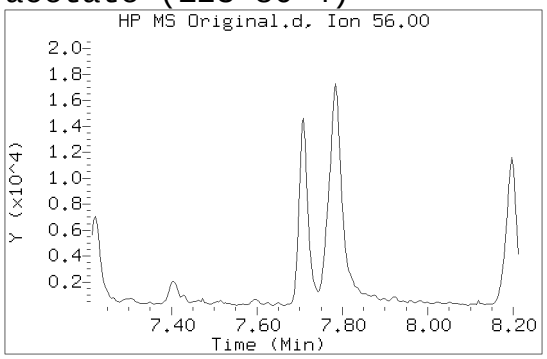


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

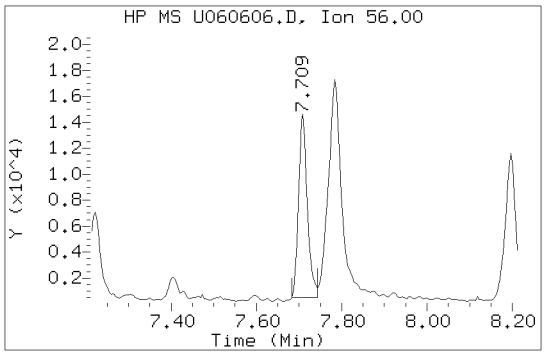
n-Butyl acetate (123-86-4)

Reason Code:

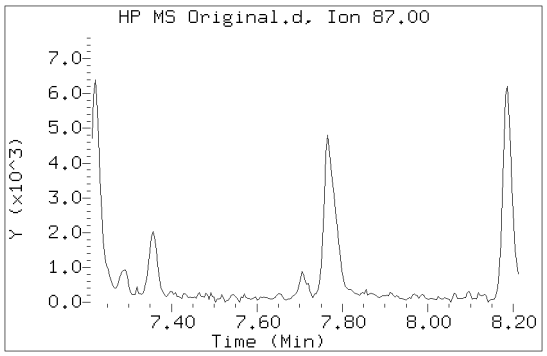
BEFORE
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AREA
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HEIGHT
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08-Jun-2023
14:56
linh
pham



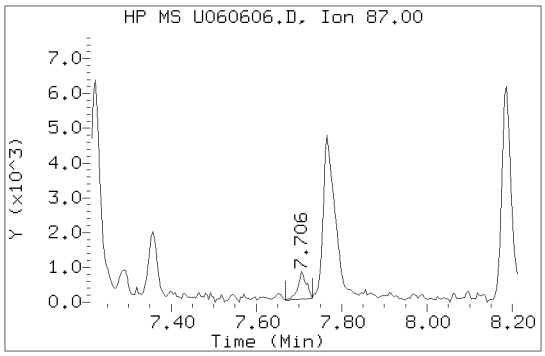
AFTER
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AREA
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HEIGHT
14102
13-Jun-2023
13:00
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pham



BEFORE
MASS
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



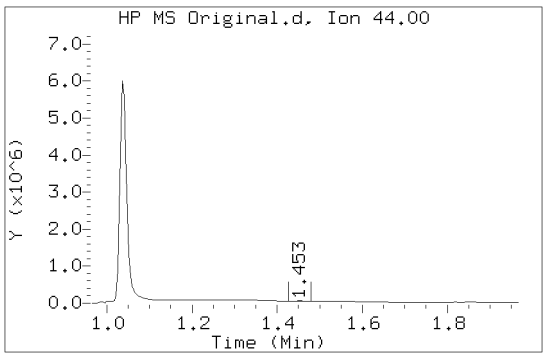
AFTER
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87
AREA
1088
HEIGHT
786
13-Jun-2023
13:00
linh
pham



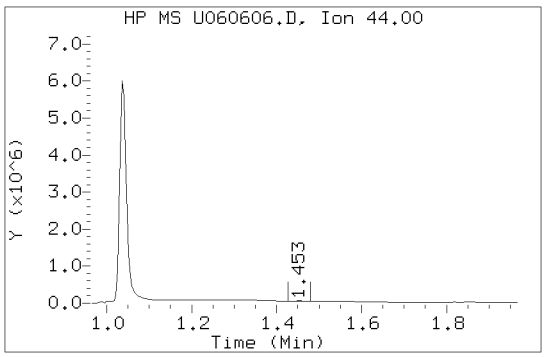
Acetaldehyde (75-07-0)

Reason Code:

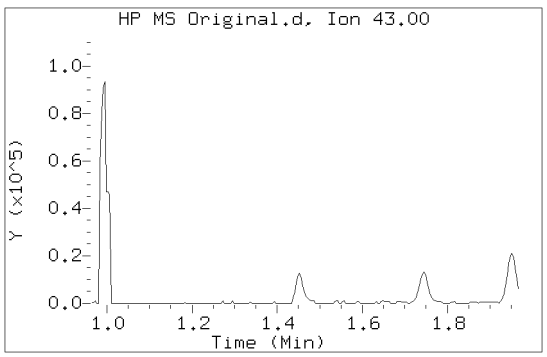
BEFORE
MASS
44
AREA
14773
HEIGHT
16936
08-Jun-2023
14:56
linh
pham



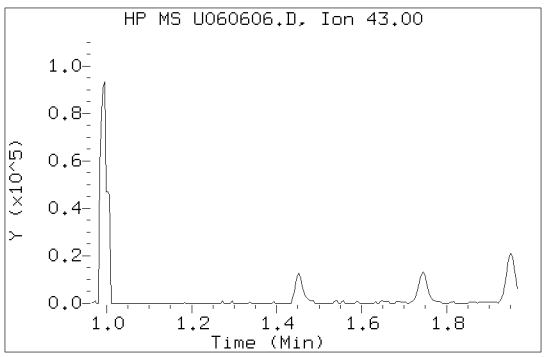
AFTER
MASS
44
AREA
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HEIGHT
16936
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
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HEIGHT
0
13-Jun-2023
13:00
linh
pham



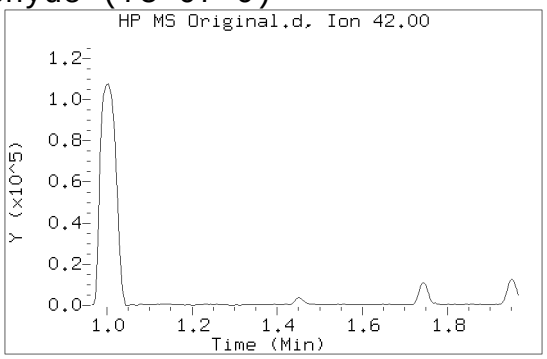
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Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Acetaldehyde (75-07-0)

Reason Code:

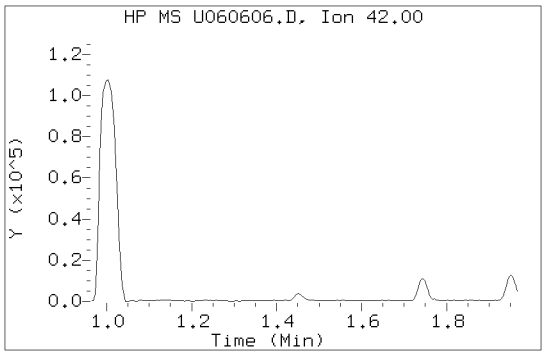
BEFORE

MASS
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

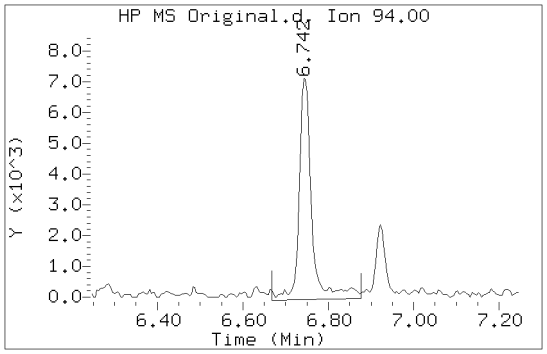


Dimethyl Disulfide (624-92-0)

Reason Code:

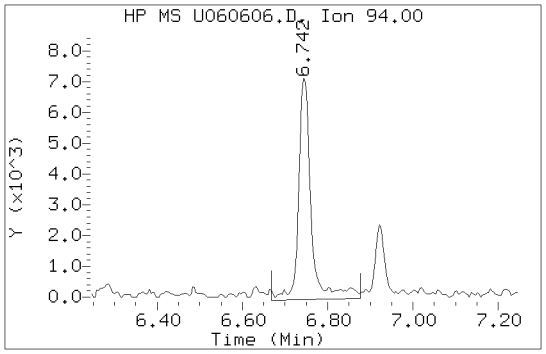
BEFORE

MASS
94
AREA
15263
HEIGHT
7177
08-Jun-2023
14:56
linh
pham



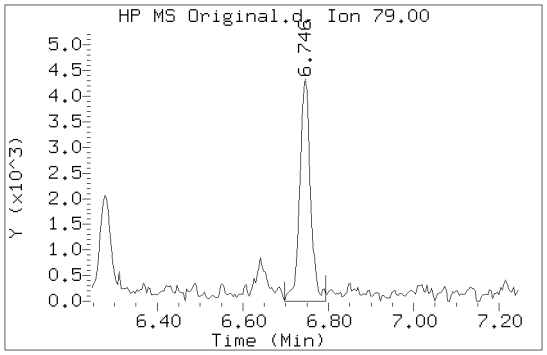
AFTER

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AREA
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HEIGHT
7177
13-Jun-2023
13:00
linh
pham



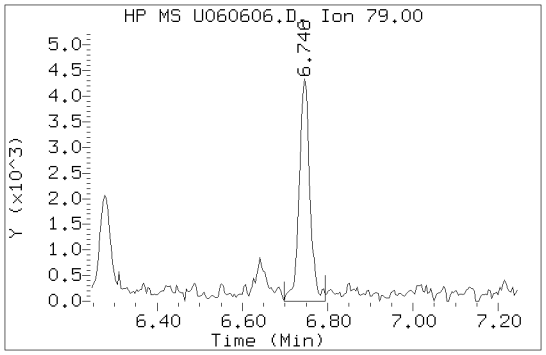
BEFORE

MASS
79
AREA
7740
HEIGHT
4338
08-Jun-2023
14:56
linh
pham



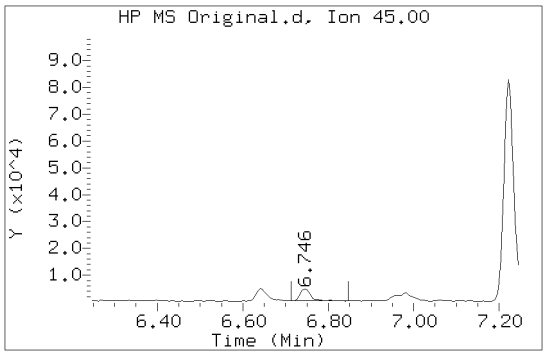
AFTER

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HEIGHT
4338
13-Jun-2023
13:00
linh
pham



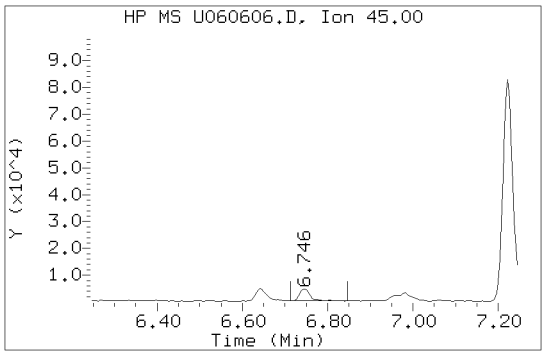
BEFORE

MASS
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AREA
8050
HEIGHT
4392
08-Jun-2023
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linh
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AFTER

MASS
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AREA
8050
HEIGHT
4392
13-Jun-2023
13:00
linh
pham

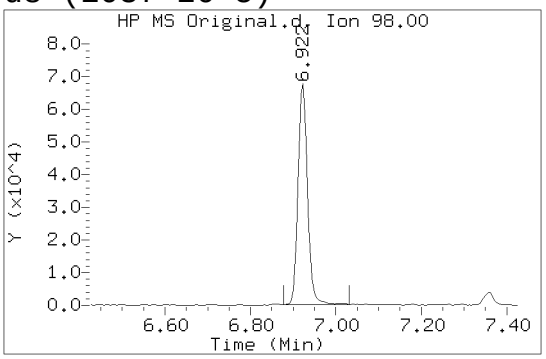


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Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

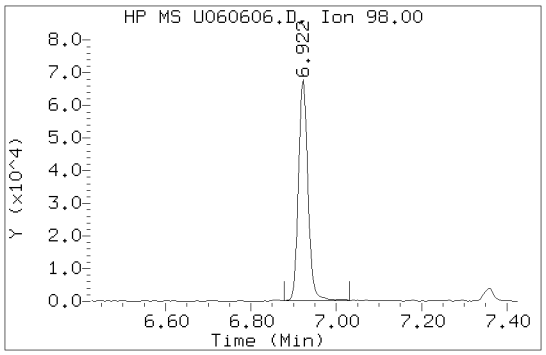
Toluene-d8 (2037-26-5)

Reason Code:

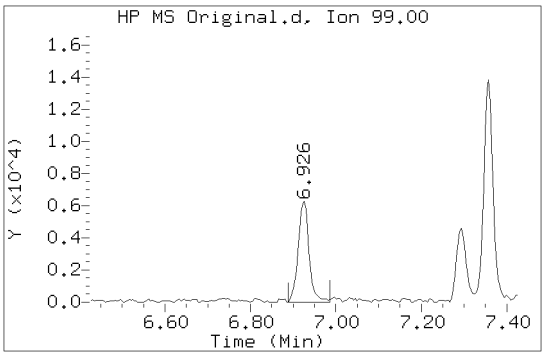
BEFORE
MASS
98
AREA
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HEIGHT
67651
08-Jun-2023
14:56
linh
pham



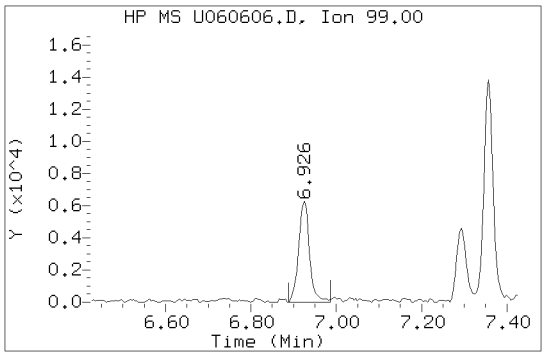
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AREA
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HEIGHT
67651
13-Jun-2023
13:00
linh
pham



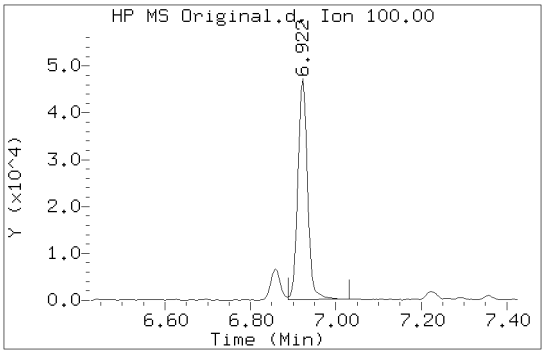
BEFORE
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99
AREA
11406
HEIGHT
6274
08-Jun-2023
14:56
linh
pham



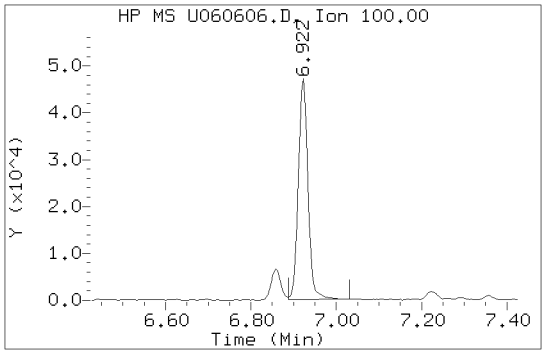
AFTER
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99
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11406
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6274
13-Jun-2023
13:00
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BEFORE
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100
AREA
75525
HEIGHT
47179
08-Jun-2023
14:56
linh
pham



AFTER
MASS
100
AREA
75525
HEIGHT
47179
13-Jun-2023
13:00
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
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Inj Date : 06-JUN-2023 13:28
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:01 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:06 Cal File: U060606.D
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.815	(1.000)	679602	50.0000	
	2 Dichlorodifluoromethane	85	1.160	1.160	(0.241)	5058	1.00000	0.88(a)
	5 Vinyl Chloride	62	1.374	1.374	(0.285)	5942	1.00000	0.82(a)
	7 Chloroethane	64	1.696	1.696	(0.352)	5340	1.00000	1.10(a)
	8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	6909	1.00000	0.83(a)
	11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	4736	1.00000	0.91(a)
	15 Iodomethane	142	2.465	2.465	(0.512)	3593	2.00000	10.69(TM)
	18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	16686	1.00000	1.05(a)
	19 Carbon Disulfide	76	2.517	2.517	(0.523)	25547	2.00000	1.85(a)
	20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.634)	5007	1.00000	0.89(a)
	22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	11574	1.00000	1.08(a)
	24 2-Butanone	43	4.272	4.272	(0.887)	7341	2.00000	2.36(aM)
	26 2,2-Dichloropropane	77	4.174	4.174	(0.867)	6247	1.00000	1.27(a)
	27 cis-1,2-Dichloroethene	96	4.189	4.189	(0.870)	6668	1.00000	0.99(a)
	28 Chloroform	83	4.571	4.571	(0.949)	10748	1.00000	0.96(a)
	29 Bromochloromethane	128	4.474	4.474	(0.929)	4161	1.00000	1.10(a)
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	5853	1.00000	0.71(a)
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	7815	1.00000	0.92(a)
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	7674	1.00000	1.04(a)
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	8428	1.00000	0.97(a)

	34 Carbon Tetrachloride	117	4.905	4.905 (0.883)	5676	1.00000	0.84(a)
$	35 1,2-Dichloroethane-d4	65	5.096	5.096 (1.058)	6027	1.00000	0.30(a)

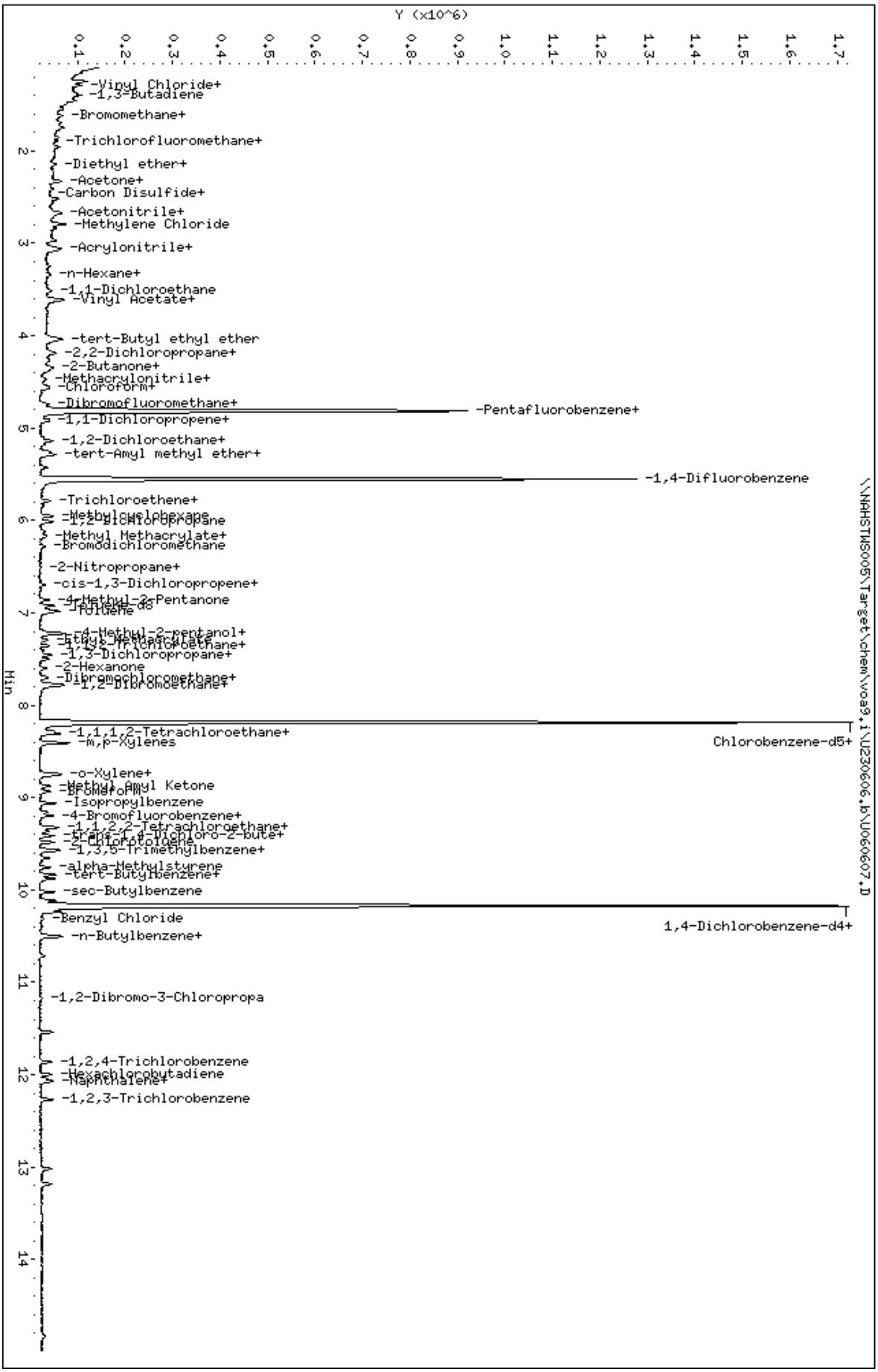
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1002093	50.0000	
	37 Benzene	78	5.137	5.137	(0.925)	21926	1.00000	0.90(a)
	38 Trichloroethene	130	5.790	5.790	(1.043)	7055	1.00000	1.00(a)
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	6686	1.00000	0.88(a)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	6571	1.00000	1.01(a)
	44 Dibromomethane	93	6.120	6.120	(1.102)	4245	1.00000	1.03(a)
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	12749	2.00000	1.87(a)
	46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.206)	6985	1.00000	2.57(a)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	934282	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	18686	1.00000	0.88(a)
	50 Toluene	91	6.982	6.982	(0.853)	24364	1.00000	0.96(a)
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	5962	1.00000	2.69(aM)
	52 2-Hexanone	43	7.597	7.597	(0.928)	10155	2.00000	2.14(a)
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	6320	1.00000	1.19(a)
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	10678	1.00000	0.99(a)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	4999	1.00000	0.79(a)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	6715	1.00000	1.08(a)
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	6817	1.00000	1.04(a)
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	4887	1.00000	0.94(aM)
	59 Chlorobenzene	112	8.211	8.211	(1.003)	19148	1.00000	1.05(a)
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	5664	1.00000	0.91(a)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	7997	1.00000	0.95(a)
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	17600	2.00000	1.76(a)
	63 o-Xylene	106	8.747	8.747	(1.069)	8615	1.00000	0.87(a)
	64 Styrene	104	8.762	8.762	(1.071)	12462	1.00000	0.79(a)
	66 Bromoform	173	8.924	8.924	(1.090)	3596	1.00000	0.85(Ta)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	21174	1.00000	0.89(a)
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	9671	1.00000	1.08(a)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	8608	1.00000	0.14(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	472015	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	7255	1.00000	0.92(a)
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	21667	1.00000	0.87(a)
	74 Bromobenzene	156	9.321	9.321	(0.916)	8241	1.00000	1.03(a)
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	16352	1.00000	0.96(a)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	17404	1.00000	0.99(a)
	77 4-Chlorotoluene	91	9.580	9.580	(0.942)	18186	1.00000	0.94(a)
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	15445	1.00000	0.92(a)
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	18732	1.00000	1.05(a)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	19975	1.00000	0.94(a)
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	16778	1.00000	0.94(a)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	13868	1.00000	1.02(a)
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	16169	1.00000	1.12(a)
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	14921	1.00000	1.10(a)
	89 1,2-Dibromo-3-Chloropropane	155	11.165	11.165	(1.098)	1239	1.00000	0.95(aM)
	90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	9686	1.00000	1.03(a)
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	9603	1.00000	1.05(a)
M	94 1,2-Dichloroethylene (total)	96				11675	2.00000	(a)
	141 Cyclohexane	56	4.796	4.796	(0.996)	7781	1.00000	1.14(aM)
	138 Freon TF	101	2.330	2.330	(0.484)	3752	1.00000	0.82(a)
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	5632	1.00000	0.87(a)
	146 Methyl Acetate	43	2.712	2.712	(0.563)	6421	1.00000	1.12(aM)
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	16016	20.0000	20.67(aM)

72	trans-1,4-Dichloro-2-butene	53	9.381	9.381 (1.146)	1083	1.00000	1.00
12	Isobutyl Alcohol	43	5.291	5.291 (1.099)	18069	20.0000	20.46(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
13 Acetonitrile	39	2.667	2.667	(0.554)	7477	10.0000	10.16
40 Methyl Methacrylate	41	6.161	6.161	(1.279)	5203	1.00000	0.89(a)
4 Propionitrile	54	4.343	4.343	(0.902)	10588	10.0000	10.78(aM)
136 n-Hexane	57	3.338	3.338	(0.693)	4787	1.00000	0.97(a)
131 Methyl Acrylate	55	4.365	4.365	(0.907)	7188	1.00000	1.00(aM)
200 Dimethyl Disulfide	94	6.742	6.742	(0.824)	2841	1.00000	4.92(aM)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	20474	1.00000	1.12(a)
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	29317	1.00000	1.27(a)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	6428	1.00000	4.20(a)
156 Diisopropyl ether	45	3.623	3.623	(0.752)	18372	1.00000	0.96(Ta)
151 4-Methyl-2-pentanol	45	7.222	7.222	(1.300)	29449	20.0000	19.76
150 Allyl alcohol	57	3.338	3.338	(0.693)	4787	20.0000	20.21
86 Benzyl Chloride	91	10.311	10.311	(1.260)	5481	1.00000	4.38(a)
162 Butyl acrylate	55	8.736	8.736	(1.067)	10827	1.00000	0.97(a)
139 Diethyl ether	59	2.142	2.142	(0.445)	3957	1.00000	0.86(a)
203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	4963	1.00000	2.84(aM)
134 Cyclohexanone	55	9.156	9.156	(0.900)	6822	20.0000	23.31(a)
130 Ethyl Acetate	43	4.272	4.272	(0.887)	6476	1.00000	1.06(aMH)
189 n-Butyl acetate	43	7.713	7.713	(0.942)	10025	1.00000	0.94(aM)
182 Epichlorohydrin	57	6.656	6.656	(1.198)	230	4.00000	12.04(M)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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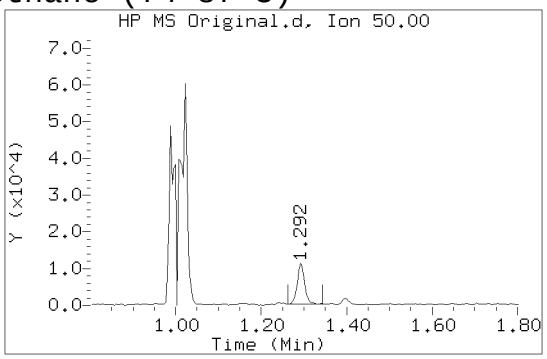
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Operator: PC
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Chloromethane (74-87-3)

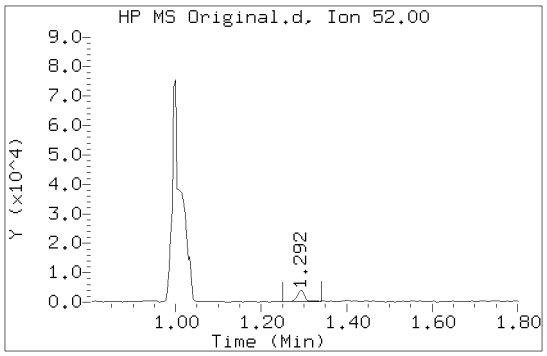
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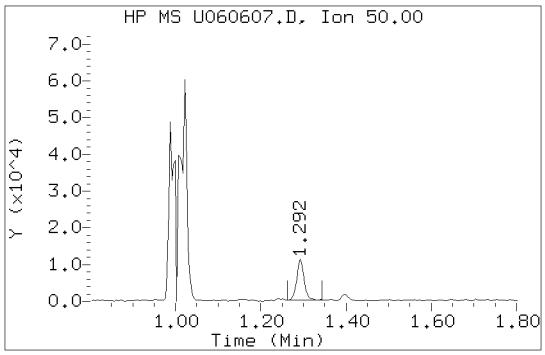
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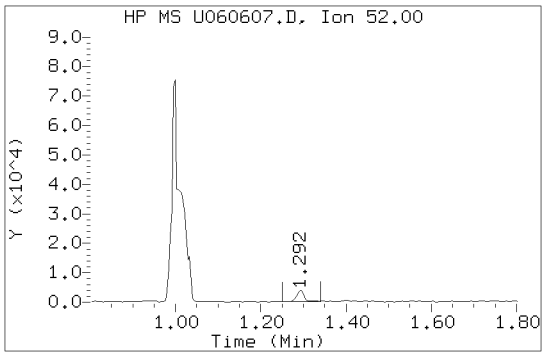
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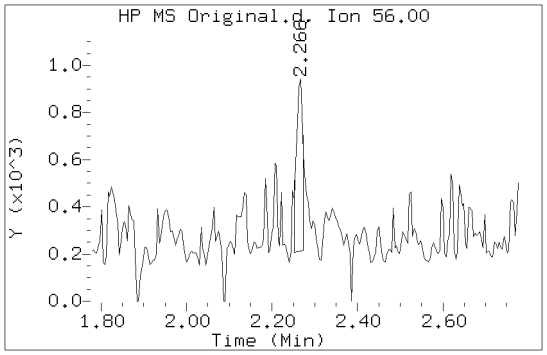
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Acrolein (107-02-8)

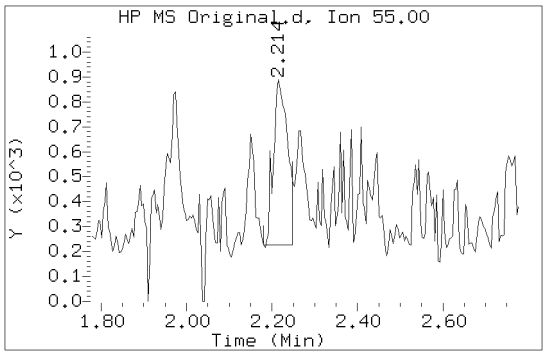
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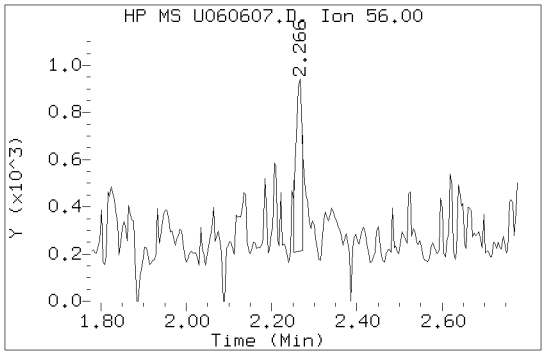
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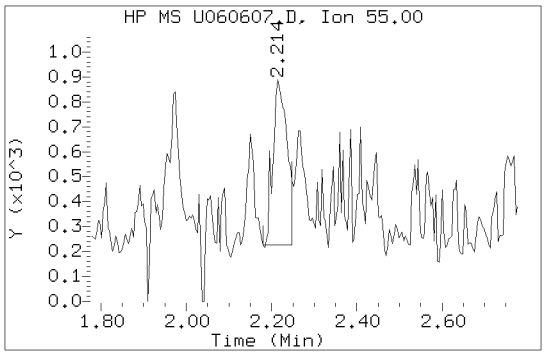
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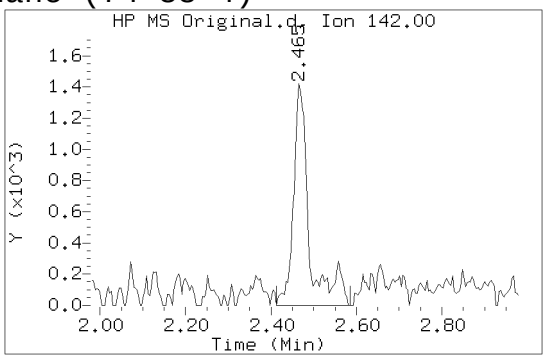


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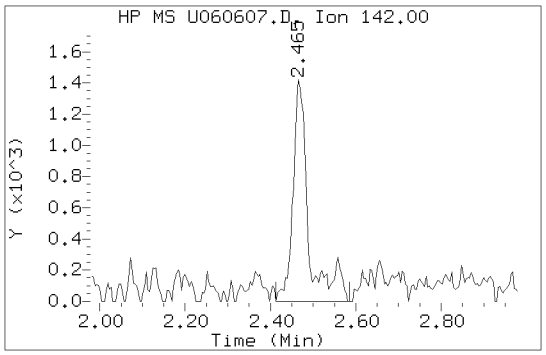
Iodomethane (74-88-4)

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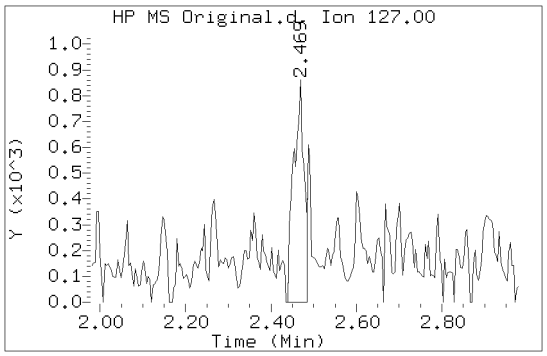
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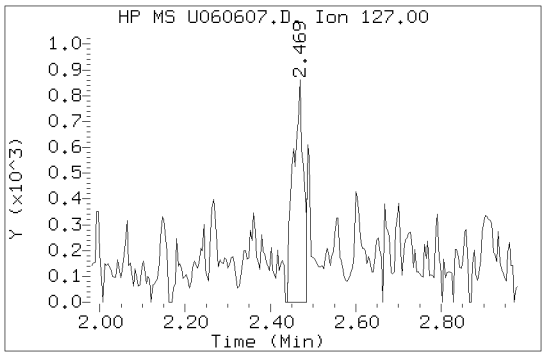
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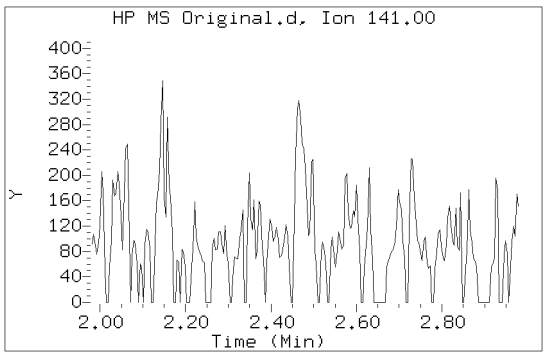
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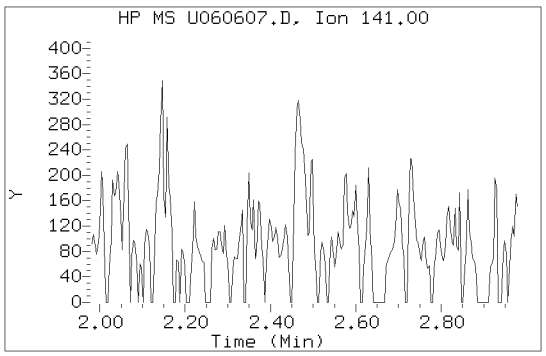
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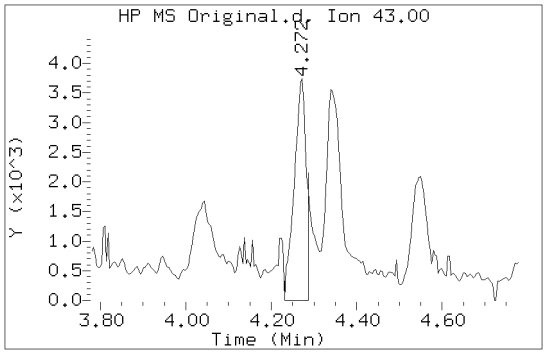
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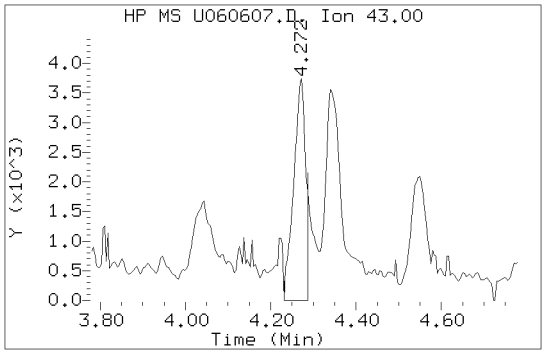
2-Butanone (78-93-3)

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AFTER
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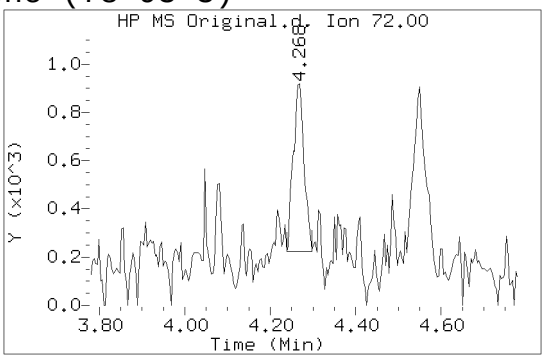
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2-Butanone (78-93-3)

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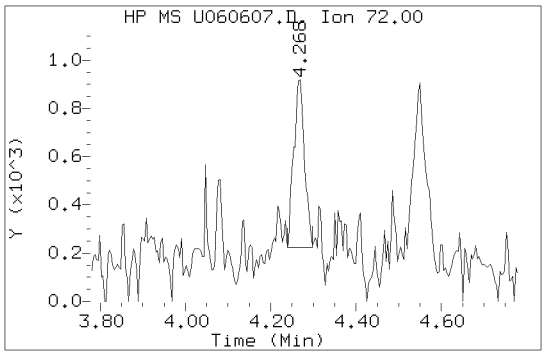
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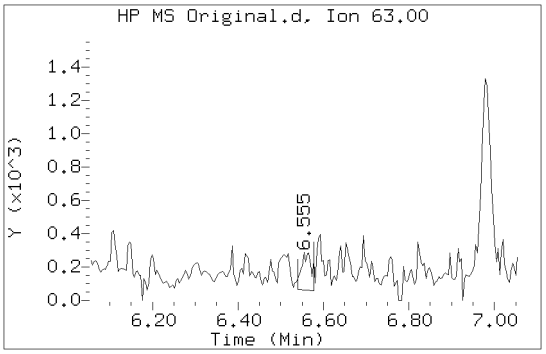


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

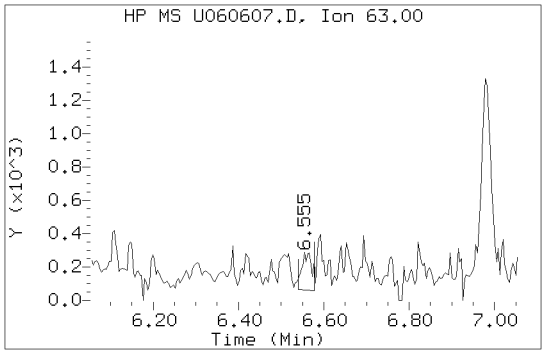
BEFORE

MASS
63
AREA
379
HEIGHT
225
08-Jun-2023
14:56
linh
pham



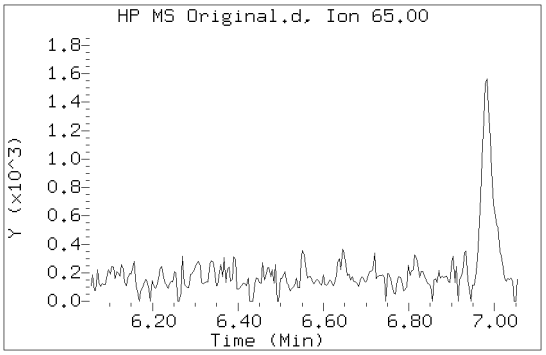
AFTER

MASS
63
AREA
379
HEIGHT
225
13-Jun-2023
13:00
linh
pham



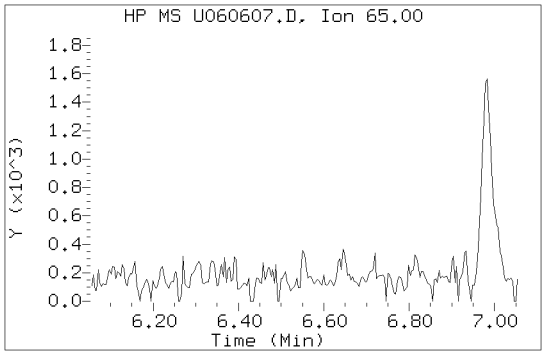
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



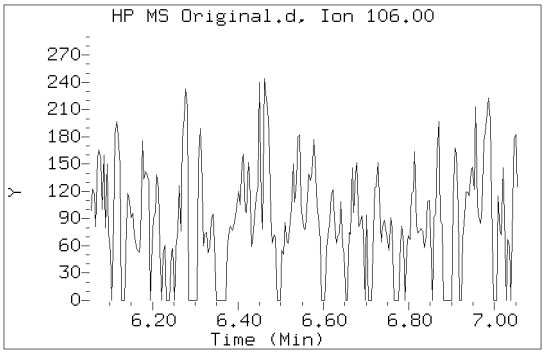
AFTER

MASS
65
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



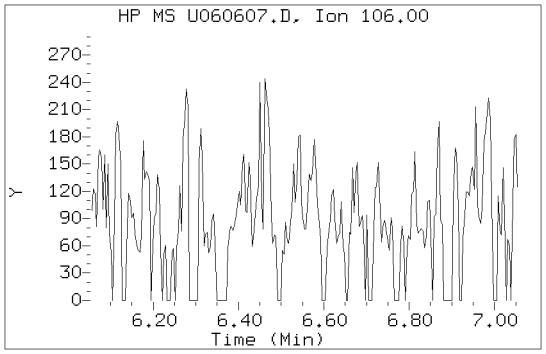
BEFORE

MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



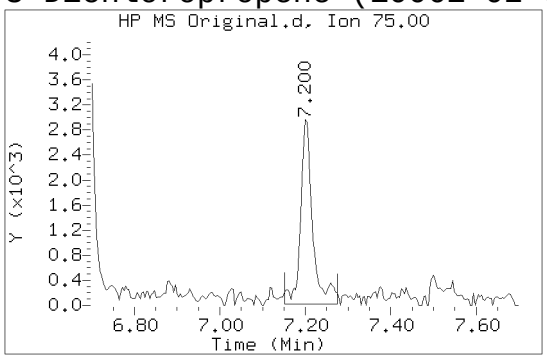
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

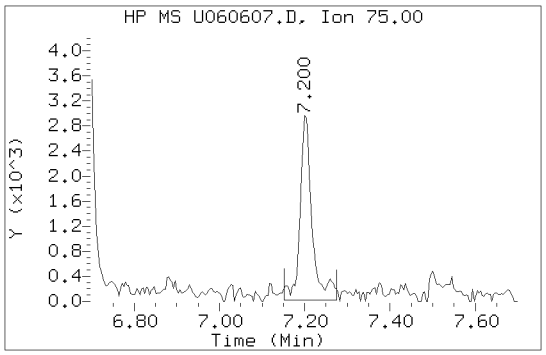
BEFORE

MASS
75
AREA
5962
HEIGHT
2945
08-Jun-2023
14:56
linh
pham



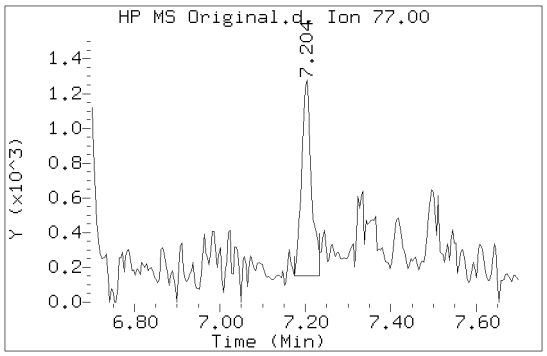
AFTER

MASS
75
AREA
5962
HEIGHT
2945
13-Jun-2023
13:00
linh
pham



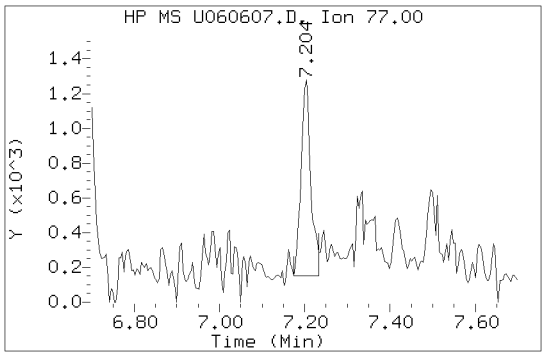
BEFORE

MASS
77
AREA
1844
HEIGHT
1128
08-Jun-2023
14:56
linh
pham



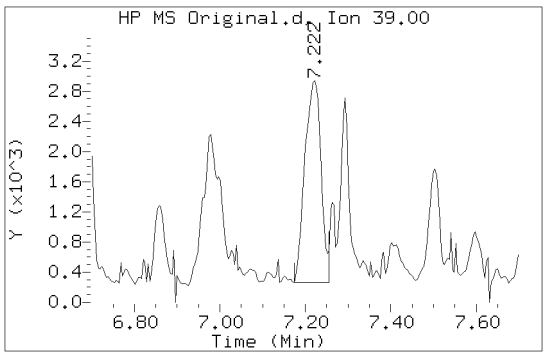
AFTER

MASS
77
AREA
1844
HEIGHT
1128
13-Jun-2023
13:00
linh
pham



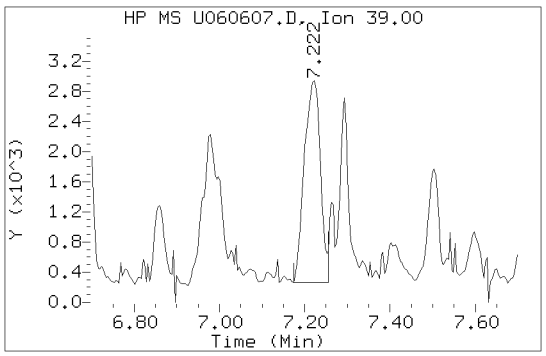
BEFORE

MASS
39
AREA
7143
HEIGHT
2676
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
7143
HEIGHT
2676
13-Jun-2023
13:00
linh
pham

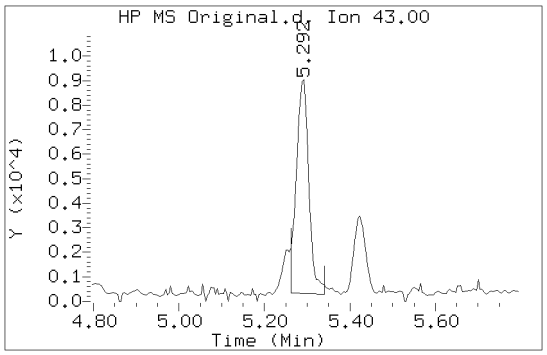


Isobutyl Alcohol (78-83-1)

Reason Code:

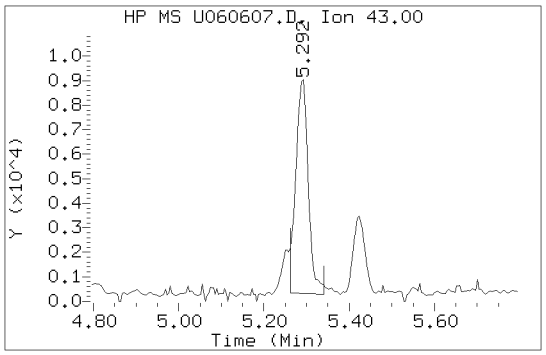
BEFORE

MASS
43
AREA
18069
HEIGHT
8714
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
18069
HEIGHT
8714
13-Jun-2023
13:00
linh
pham



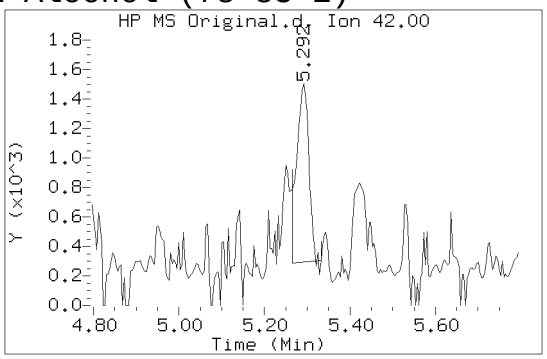
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Isobutyl Alcohol (78-83-1)

Reason Code:

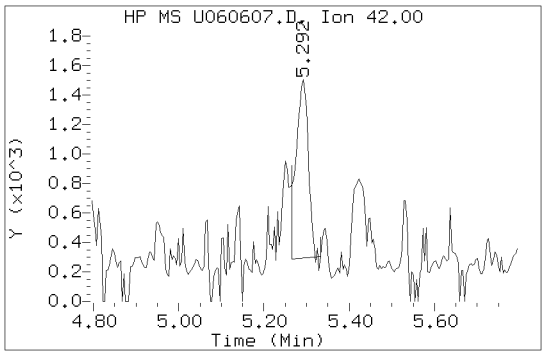
BEFORE

MASS
42
AREA
2425
HEIGHT
1210
08-Jun-2023
14:56
linh
pham



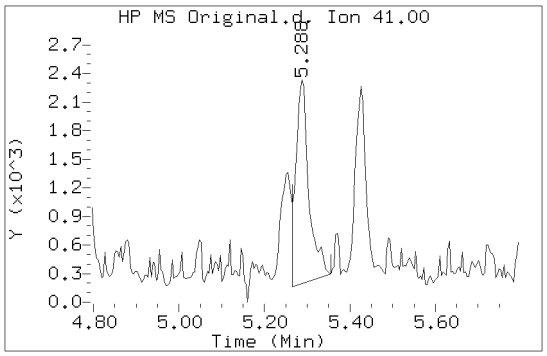
AFTER

MASS
42
AREA
2425
HEIGHT
1210
13-Jun-2023
13:00
linh
pham



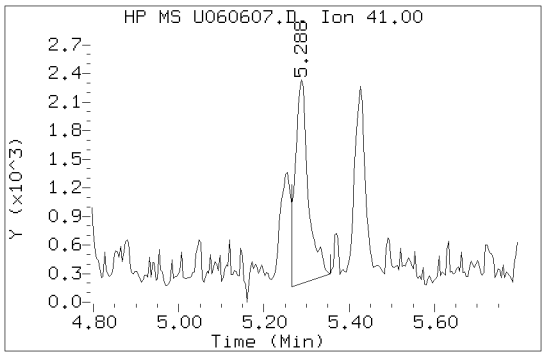
BEFORE

MASS
41
AREA
4613
HEIGHT
2138
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
4613
HEIGHT
2138
13-Jun-2023
13:00
linh
pham

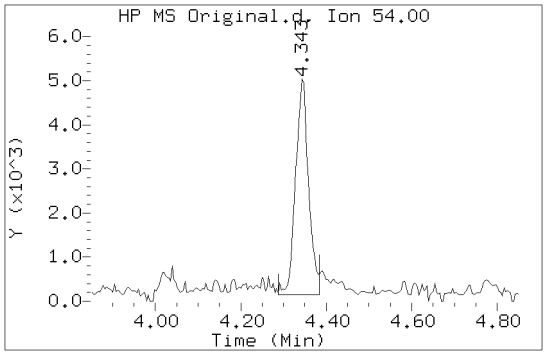


Propionitrile (107-12-0)

Reason Code:

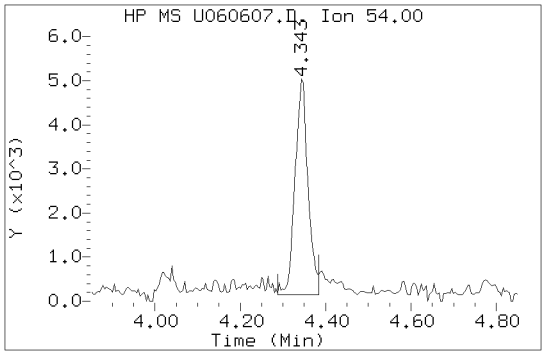
BEFORE

MASS
54
AREA
10588
HEIGHT
4897
08-Jun-2023
14:56
linh
pham



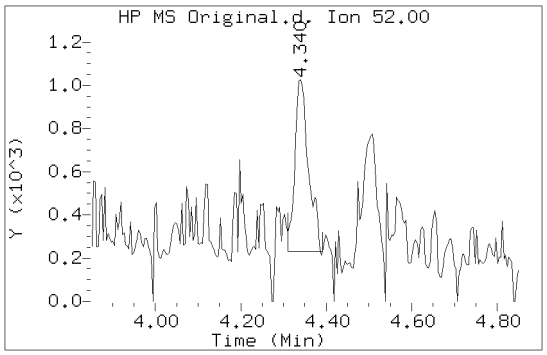
AFTER

MASS
54
AREA
10588
HEIGHT
4897
13-Jun-2023
13:00
linh
pham



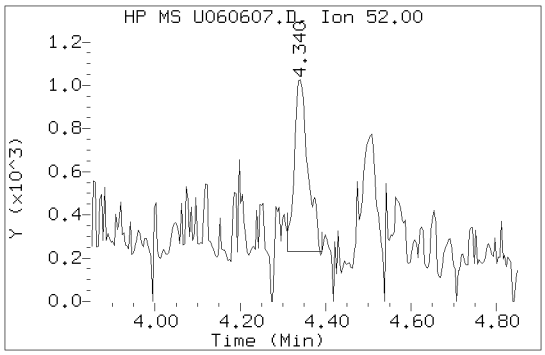
BEFORE

MASS
52
AREA
1789
HEIGHT
794
08-Jun-2023
14:56
linh
pham



AFTER

MASS
52
AREA
1789
HEIGHT
794
13-Jun-2023
13:00
linh
pham



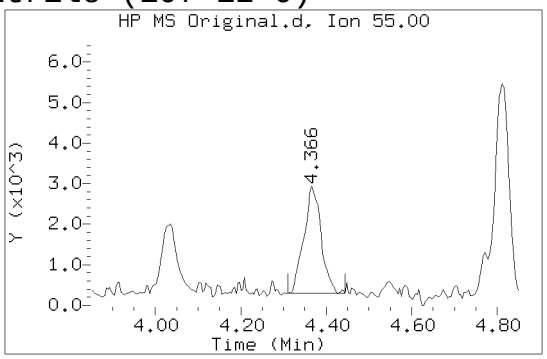
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Propionitrile (107-12-0)

Reason Code:

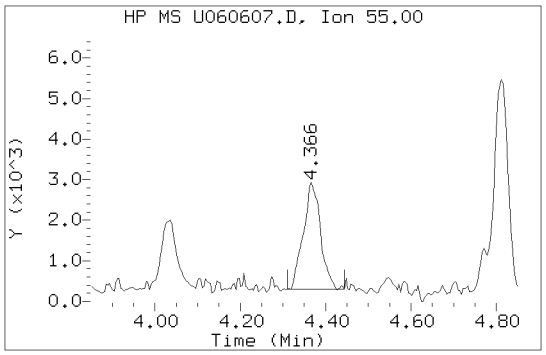
BEFORE

MASS
55
AREA
7500
HEIGHT
2642
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
7500
HEIGHT
2642
13-Jun-2023
13:00
linh
pham

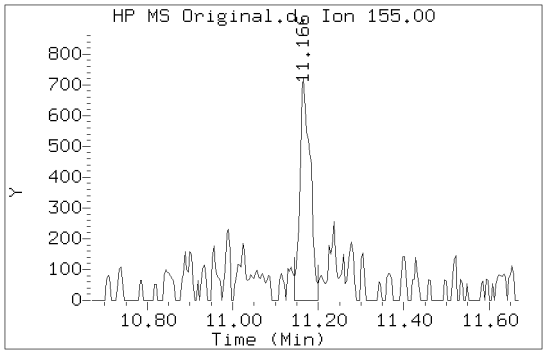


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

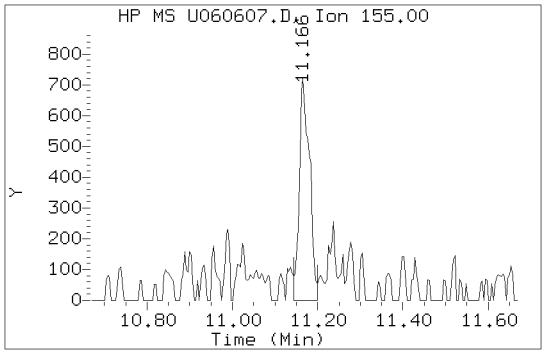
BEFORE

MASS
155
AREA
1239
HEIGHT
719
08-Jun-2023
14:56
linh
pham



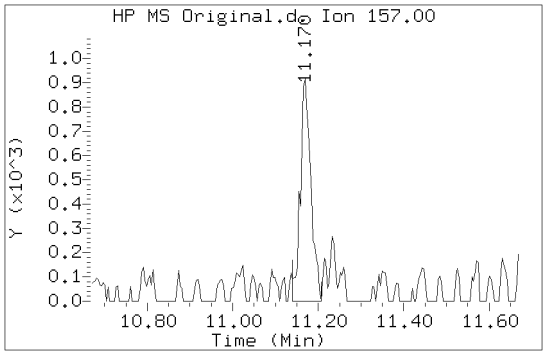
AFTER

MASS
155
AREA
1239
HEIGHT
719
13-Jun-2023
13:00
linh
pham



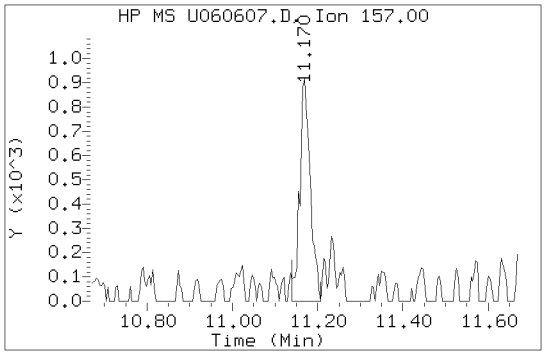
BEFORE

MASS
157
AREA
1601
HEIGHT
916
08-Jun-2023
14:56
linh
pham



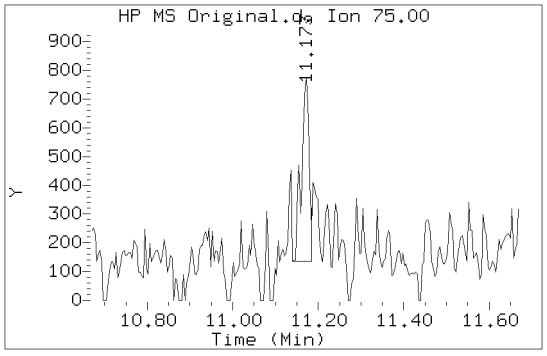
AFTER

MASS
157
AREA
1601
HEIGHT
916
13-Jun-2023
13:00
linh
pham



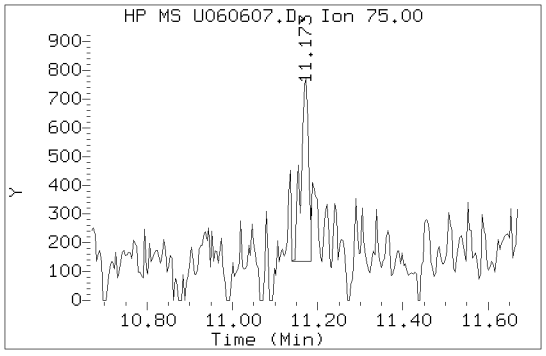
BEFORE

MASS
75
AREA
809
HEIGHT
634
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
809
HEIGHT
634
13-Jun-2023
13:00
linh
pham



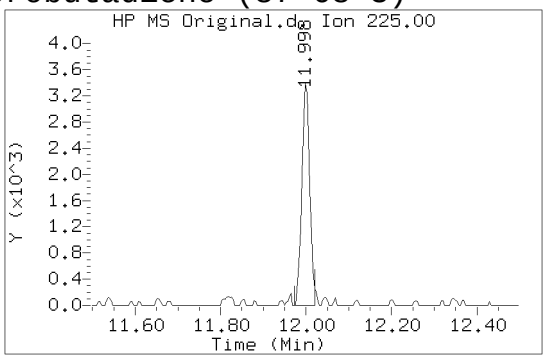
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Hexachlorobutadiene (87-68-3)

Reason Code:

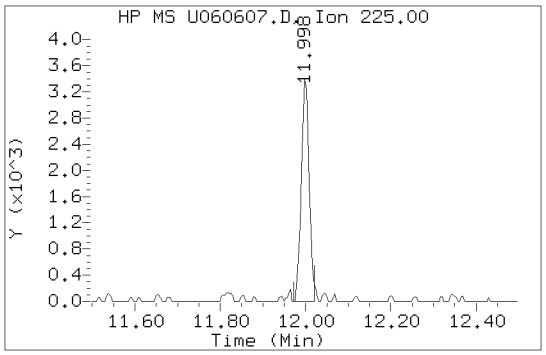
BEFORE

MASS
225
AREA
4470
HEIGHT
3386
08-Jun-2023
14:56
linh
pham



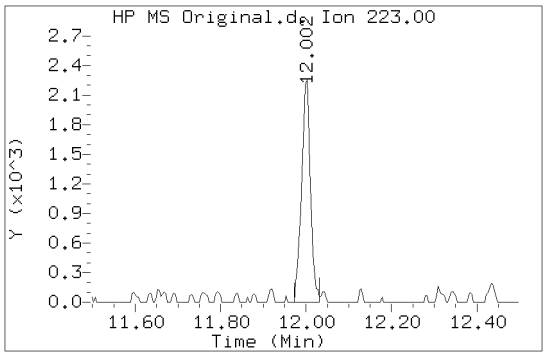
AFTER

MASS
225
AREA
4470
HEIGHT
3386
13-Jun-2023
13:00
linh
pham



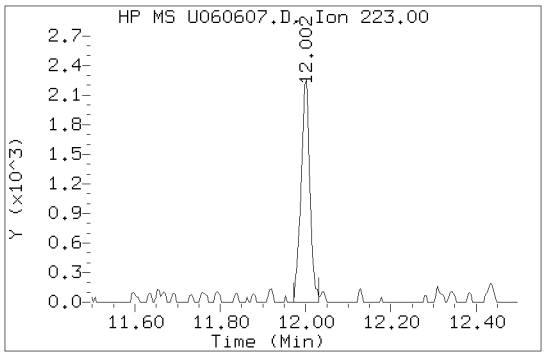
BEFORE

MASS
223
AREA
3352
HEIGHT
2254
08-Jun-2023
14:56
linh
pham



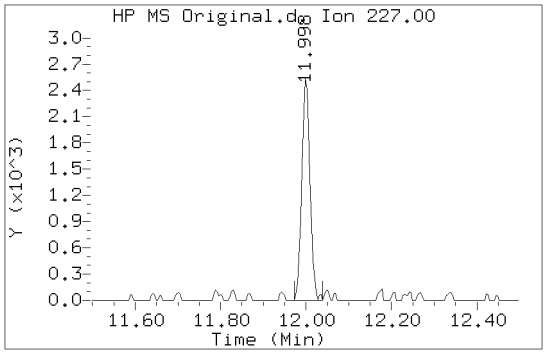
AFTER

MASS
223
AREA
3352
HEIGHT
2254
13-Jun-2023
13:00
linh
pham



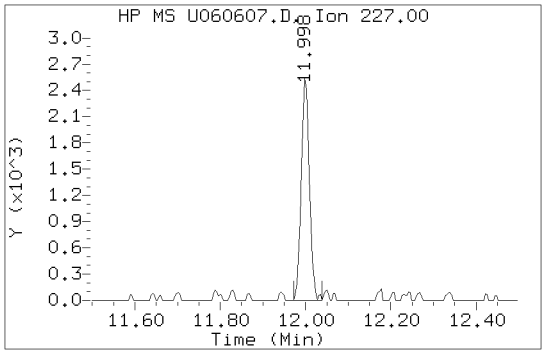
BEFORE

MASS
227
AREA
3477
HEIGHT
2534
08-Jun-2023
14:56
linh
pham



AFTER

MASS
227
AREA
3477
HEIGHT
2534
13-Jun-2023
13:00
linh
pham

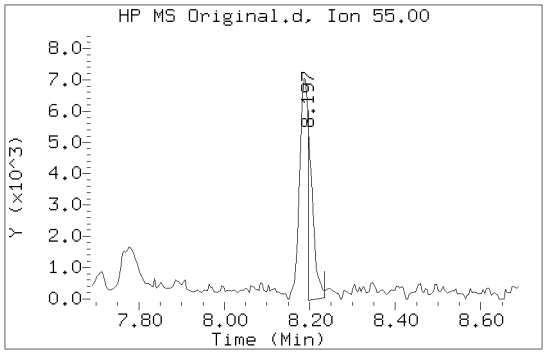


1-Chlorohexane (544-10-5)

Reason Code:

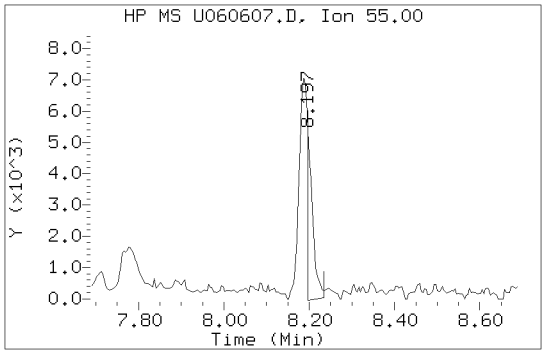
BEFORE

MASS
55
AREA
4887
HEIGHT
5444
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
4887
HEIGHT
5444
13-Jun-2023
13:00
linh
pham



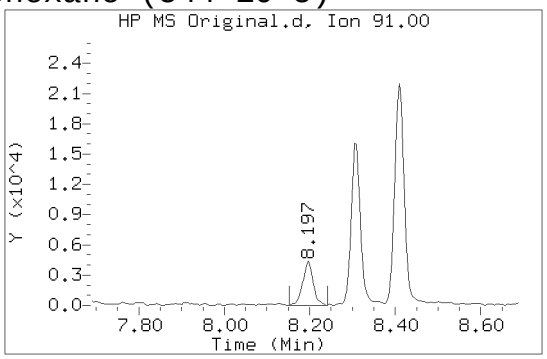
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

1-Chlorohexane (544-10-5)

Reason Code:

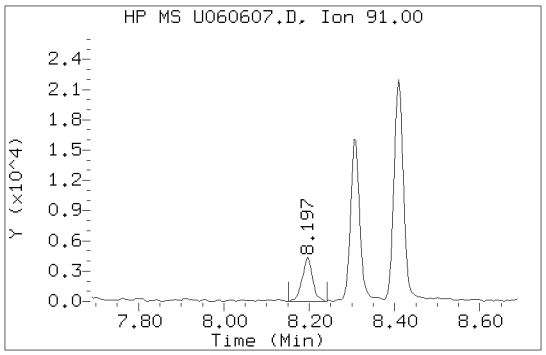
BEFORE

MASS
91
AREA
7655
HEIGHT
4415
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
7655
HEIGHT
4415
13-Jun-2023
13:00
linh
pham

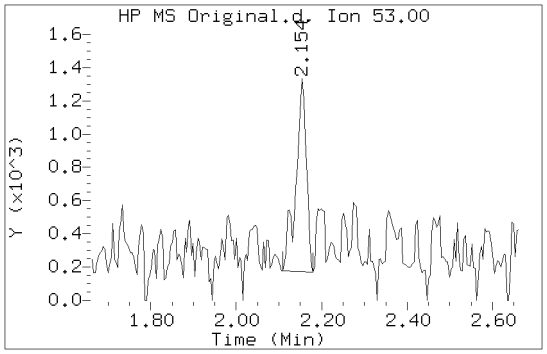


Chloroprene (126-99-8)

Reason Code:

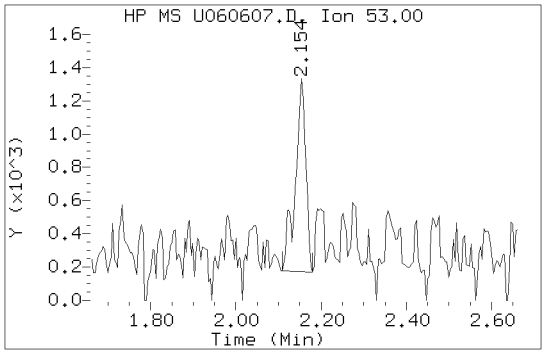
BEFORE

MASS
53
AREA
2027
HEIGHT
1160
08-Jun-2023
14:56
linh
pham



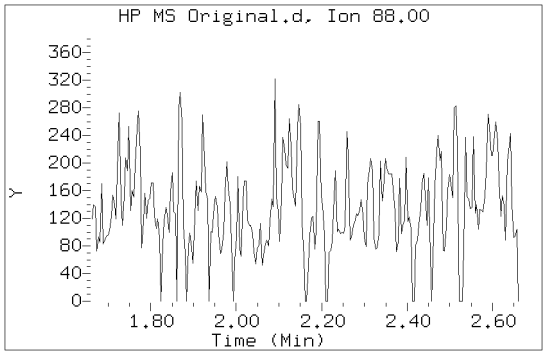
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MASS
53
AREA
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HEIGHT
1160
13-Jun-2023
13:00
linh
pham



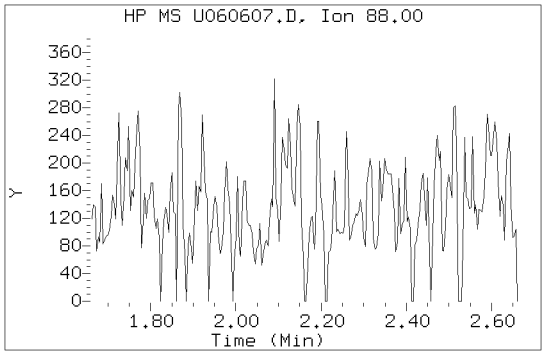
BEFORE

MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

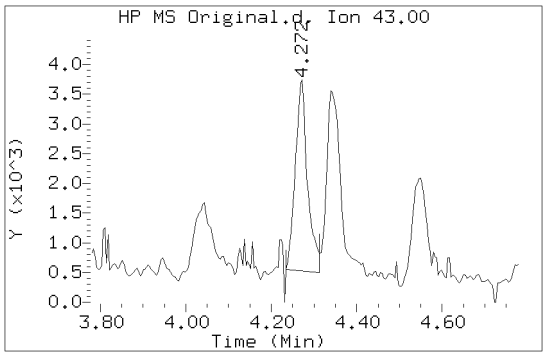


Ethyl Acetate (141-78-6)

Reason Code:

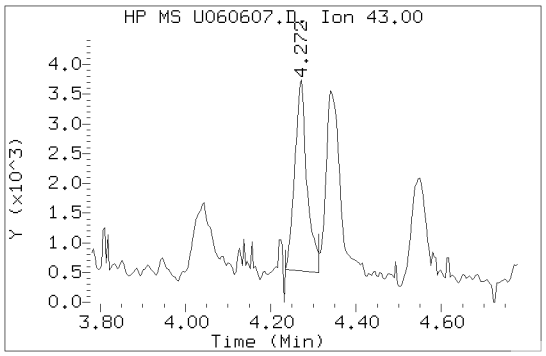
BEFORE

MASS
43
AREA
6476
HEIGHT
3212
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
6476
HEIGHT
3212
13-Jun-2023
13:00
linh
pham



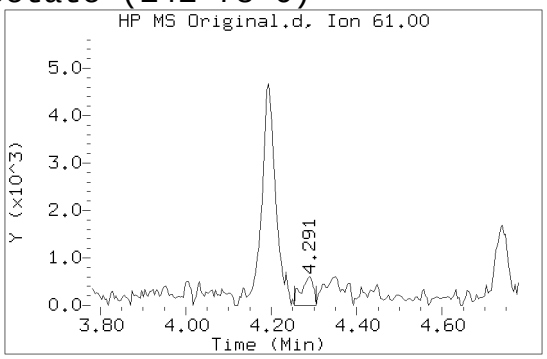
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Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Ethyl Acetate (141-78-6)

Reason Code:

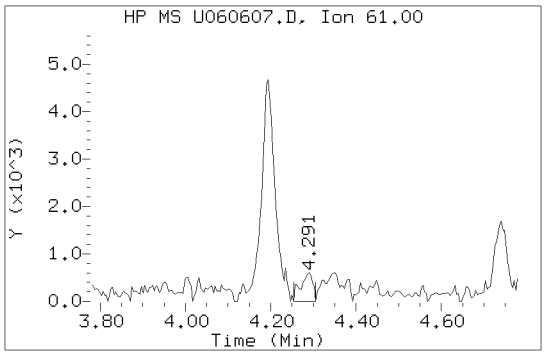
BEFORE

MASS
61
AREA
1204
HEIGHT
613
08-Jun-2023
14:56
linh
pham



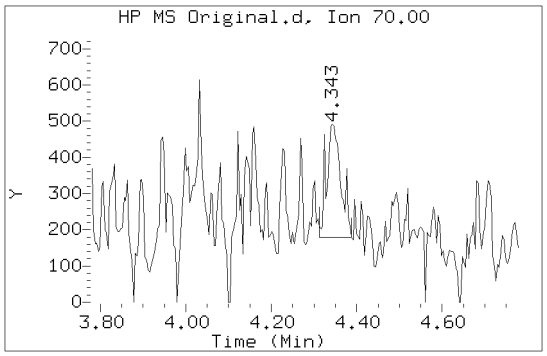
AFTER

MASS
61
AREA
1204
HEIGHT
613
13-Jun-2023
13:00
linh
pham



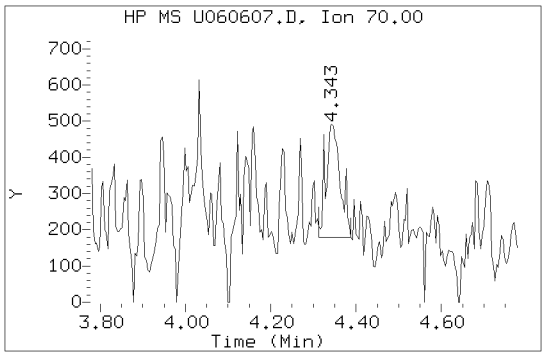
BEFORE

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AREA
720
HEIGHT
311
08-Jun-2023
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pham



AFTER

MASS
70
AREA
720
HEIGHT
311
13-Jun-2023
13:00
linh
pham

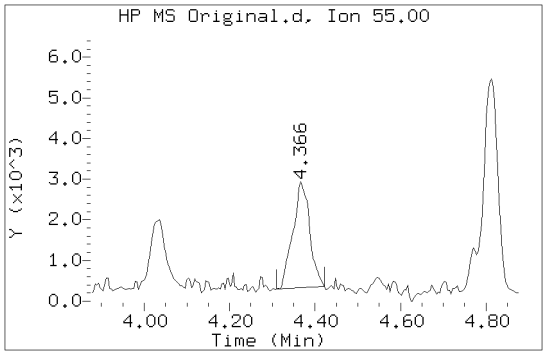


Methyl Acrylate (96-33-3)

Reason Code:

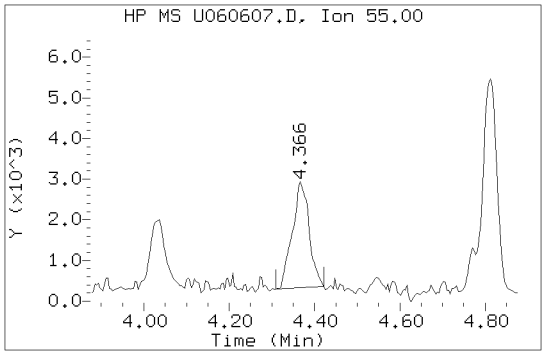
BEFORE

MASS
55
AREA
7188
HEIGHT
2604
08-Jun-2023
14:56
linh
pham



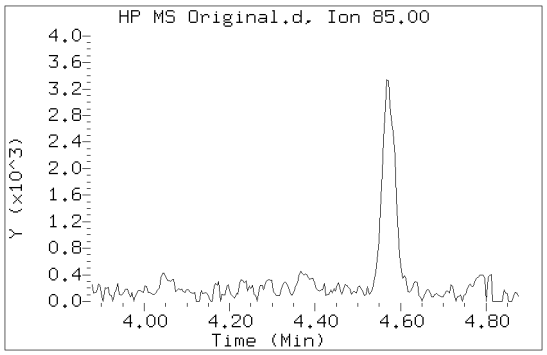
AFTER

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AREA
7188
HEIGHT
2604
13-Jun-2023
13:00
linh
pham



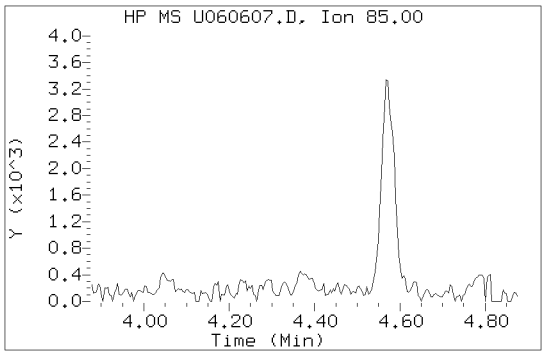
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



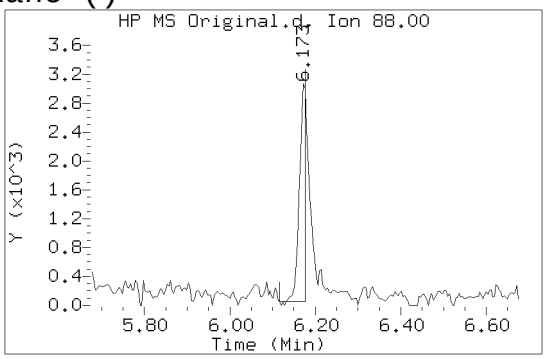
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Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

1,4-Dioxane ()

Reason Code:

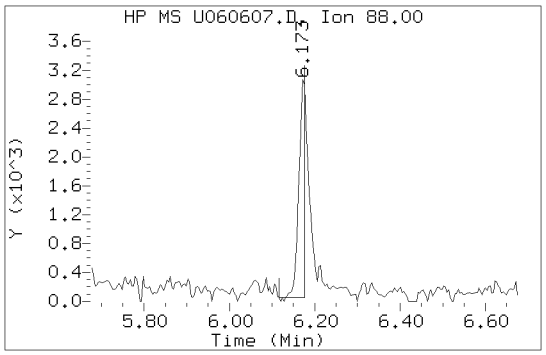
BEFORE

MASS
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AREA
3065
HEIGHT
3017
08-Jun-2023
14:56
linh
pham



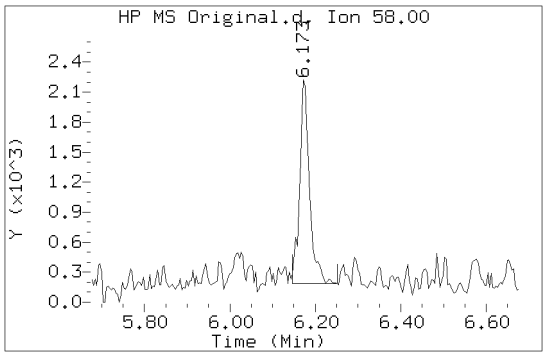
AFTER

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AREA
3065
HEIGHT
3017
13-Jun-2023
13:00
linh
pham



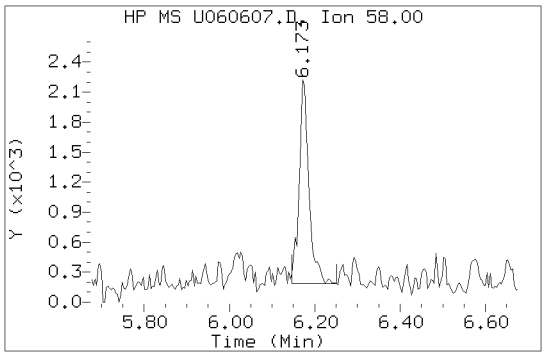
BEFORE

MASS
58
AREA
3335
HEIGHT
2036
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
3335
HEIGHT
2036
13-Jun-2023
13:00
linh
pham

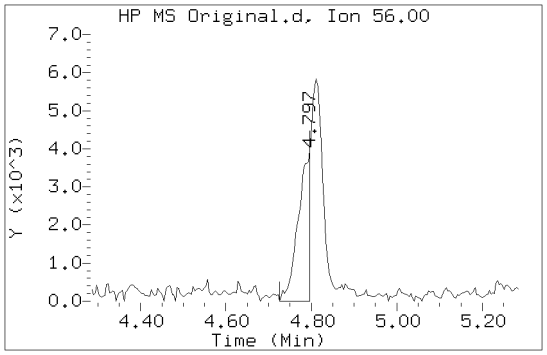


Cyclohexane (110-82-7)

Reason Code:

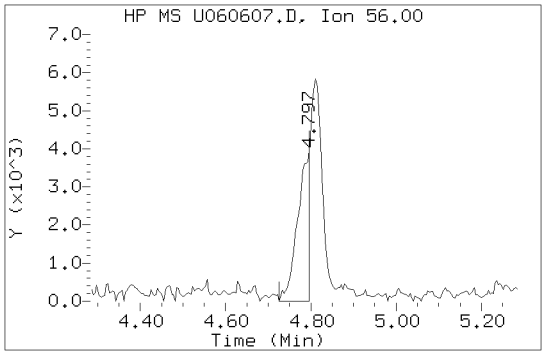
BEFORE

MASS
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AREA
7781
HEIGHT
3965
08-Jun-2023
14:56
linh
pham



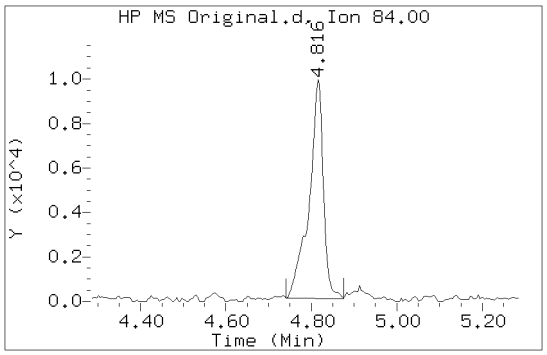
AFTER

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7781
HEIGHT
3965
13-Jun-2023
13:00
linh
pham



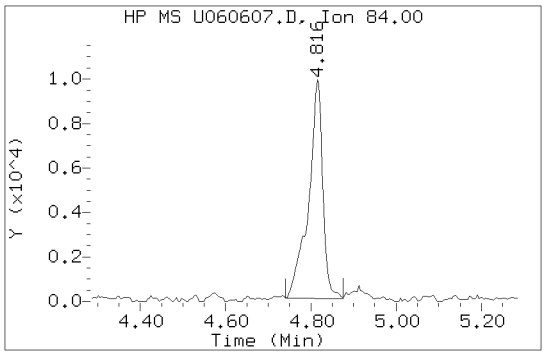
BEFORE

MASS
84
AREA
22992
HEIGHT
9843
08-Jun-2023
14:56
linh
pham



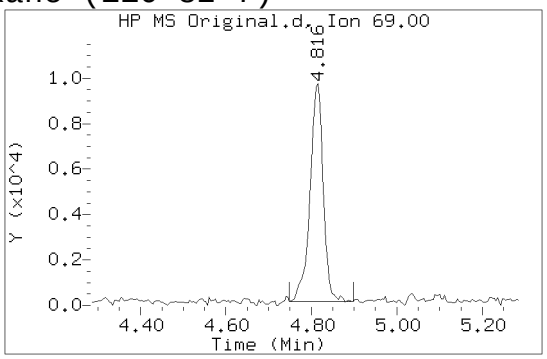
AFTER

MASS
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22992
HEIGHT
9843
13-Jun-2023
13:00
linh
pham

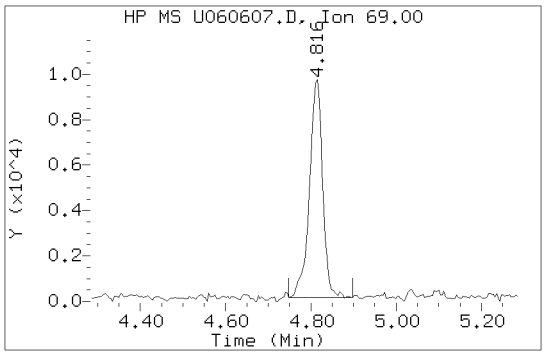


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Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Cyclohexane (110-82-7)



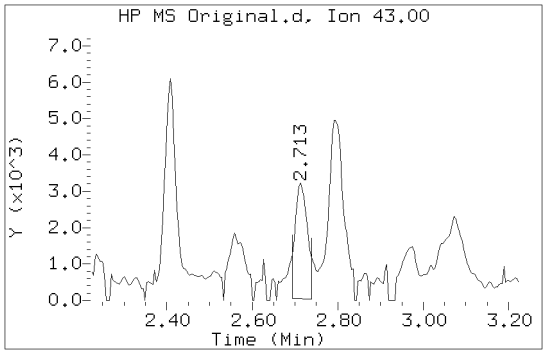
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69
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20740
HEIGHT
9600
08-Jun-2023
14:56
linh
pham



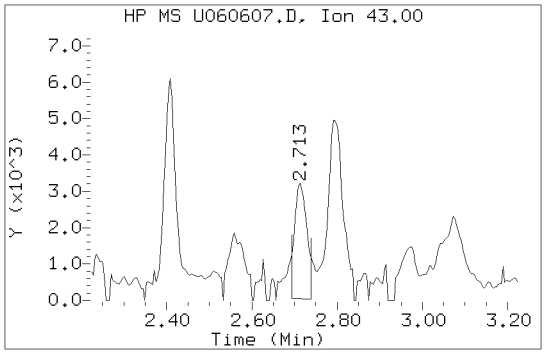
AFTER
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HEIGHT
9600
13-Jun-2023
13:00
linh
pham

Reason Code:

Methyl Acetate (79-20-9)

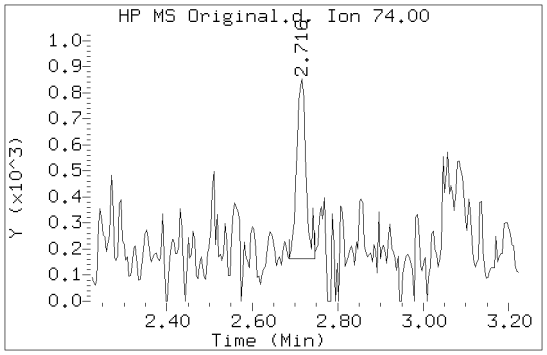


BEFORE
MASS
43
AREA
6421
HEIGHT
3170
08-Jun-2023
14:56
linh
pham

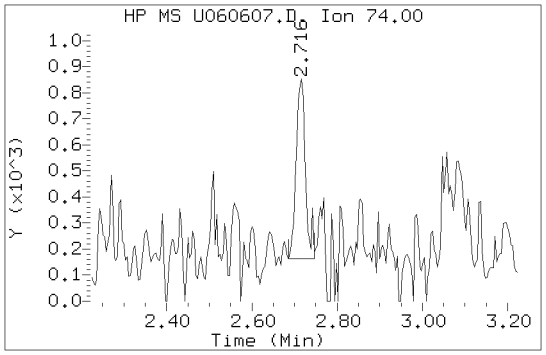


AFTER
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HEIGHT
3170
13-Jun-2023
13:00
linh
pham

Reason Code:



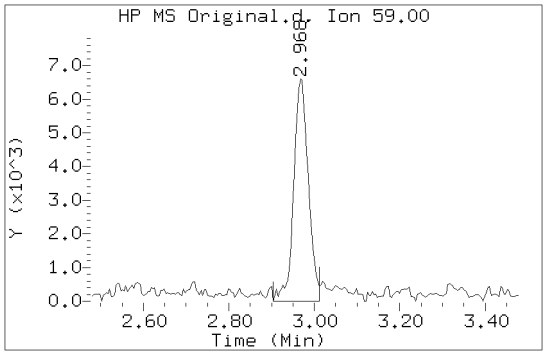
BEFORE
MASS
74
AREA
1042
HEIGHT
689
08-Jun-2023
14:56
linh
pham



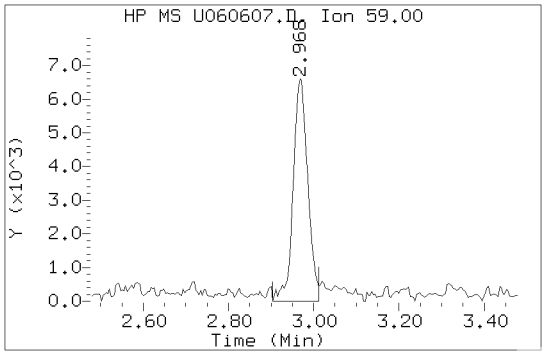
AFTER
MASS
74
AREA
1042
HEIGHT
689
13-Jun-2023
13:00
linh
pham

Reason Code:

Tert-Butyl alcohol (75-65-0)



BEFORE
MASS
59
AREA
16016
HEIGHT
6600
08-Jun-2023
14:56
linh
pham



AFTER
MASS
59
AREA
16016
HEIGHT
6600
13-Jun-2023
13:00
linh
pham

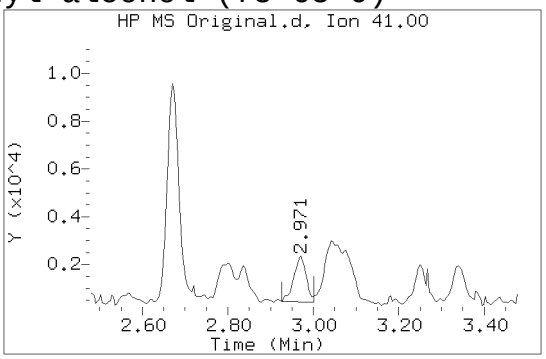
Reason Code:

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Tert-Butyl alcohol (75-65-0)

BEFORE

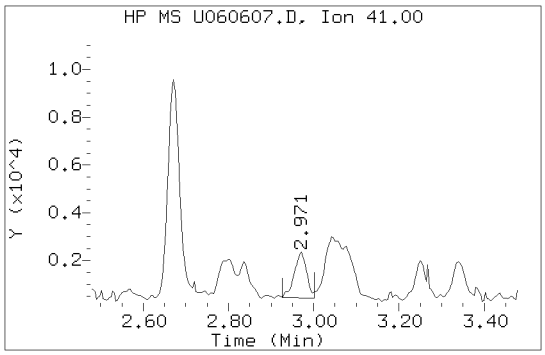
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41
AREA
3907
HEIGHT
1899
08-Jun-2023
14:56
linh
pham



Reason Code:

AFTER

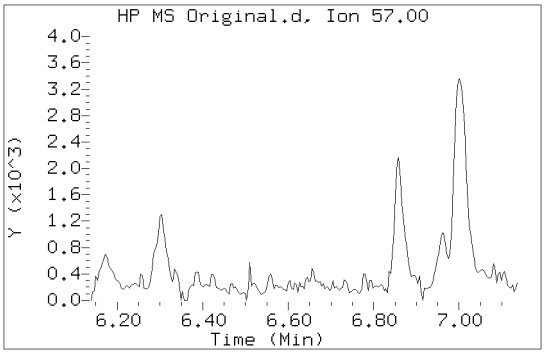
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HEIGHT
1899
13-Jun-2023
13:00
linh
pham



Epichlorohydrin (106-89-8)

BEFORE

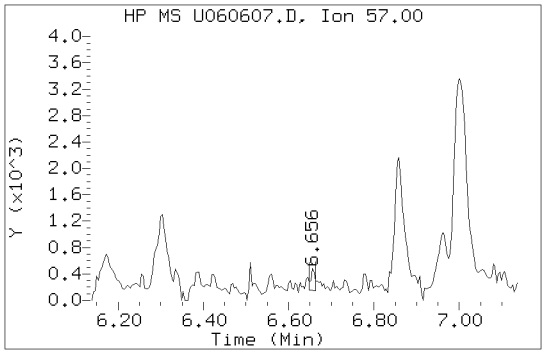
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HEIGHT
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08-Jun-2023
14:56
linh
pham



Reason Code:

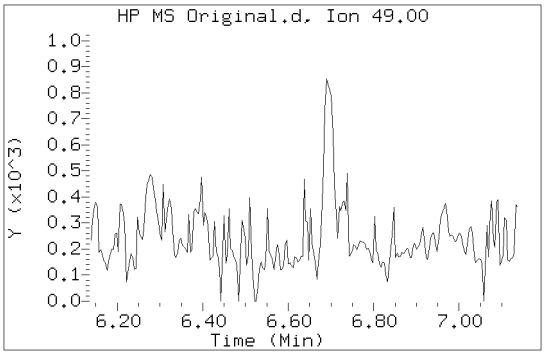
AFTER

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AREA
230
HEIGHT
333
13-Jun-2023
13:00
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pham



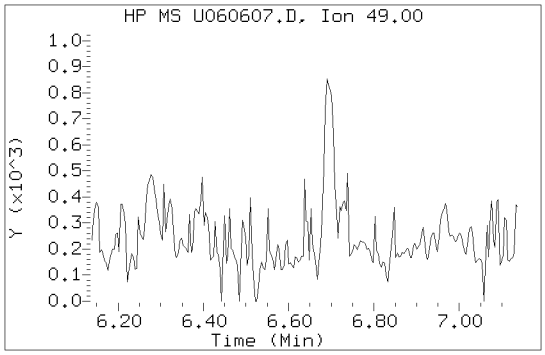
BEFORE

MASS
49
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

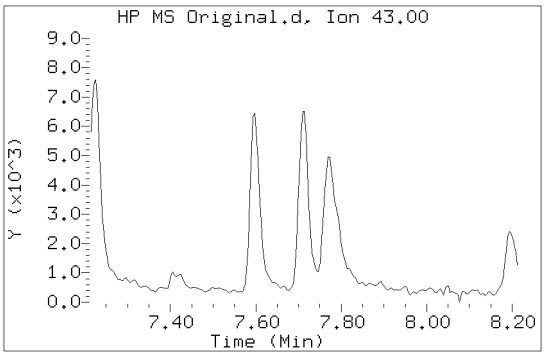
MASS
49
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



n-Butyl acetate (123-86-4)

BEFORE

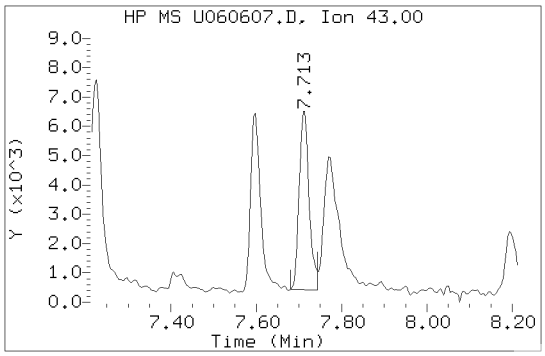
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HEIGHT
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08-Jun-2023
14:56
linh
pham



Reason Code:

AFTER

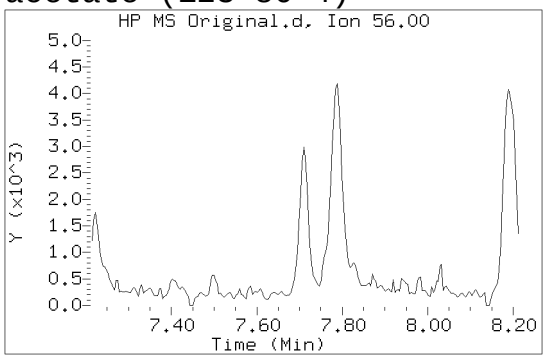
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HEIGHT
6077
13-Jun-2023
13:00
linh
pham



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InstruID : VOA9.i
LabSampID : VSTD001

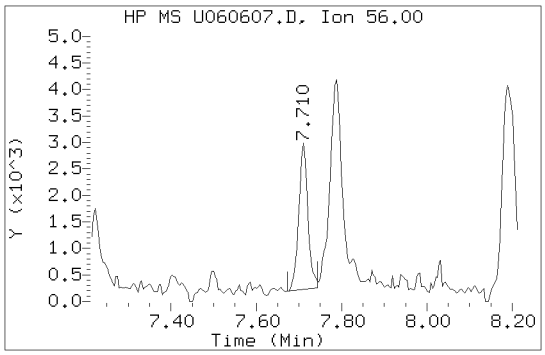
n-Butyl acetate (123-86-4)

BEFORE
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AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham

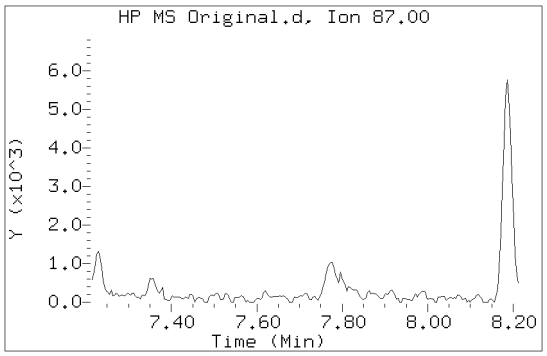


Reason Code:

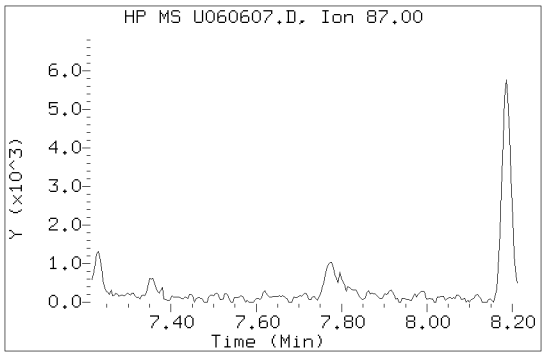
AFTER
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56
AREA
4189
HEIGHT
2770
13-Jun-2023
13:00
linh
pham



BEFORE
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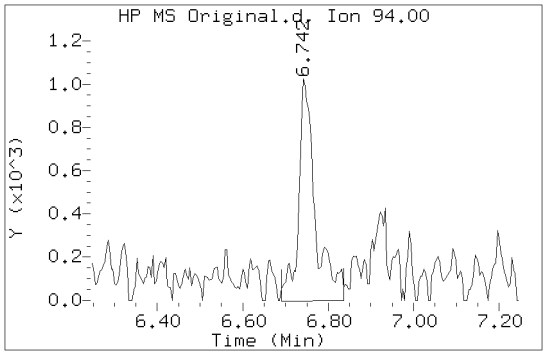
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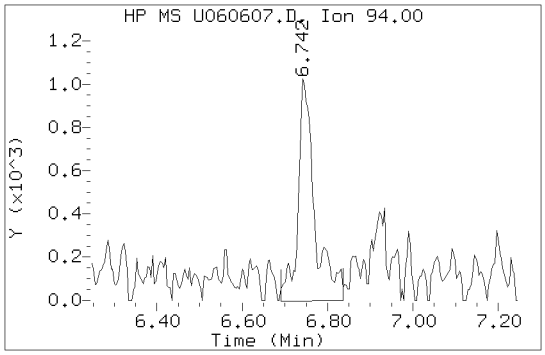
Dimethyl Disulfide (624-92-0)

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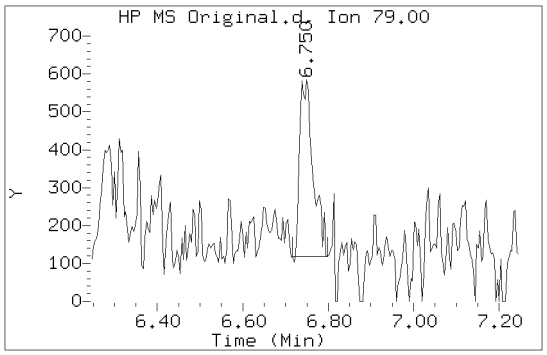
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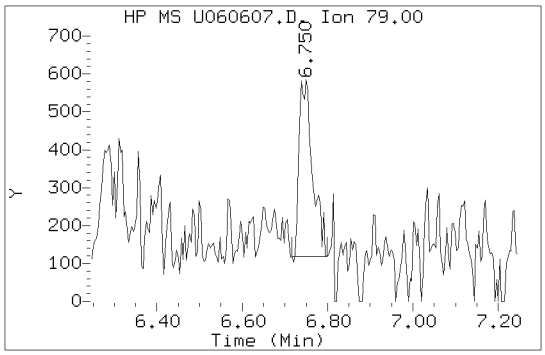
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BEFORE
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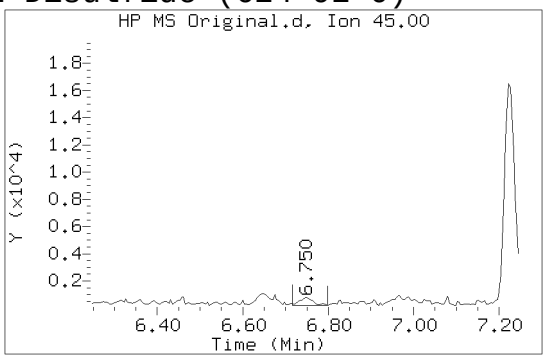
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LabSampID : VSTD001

Dimethyl Disulfide (624-92-0)

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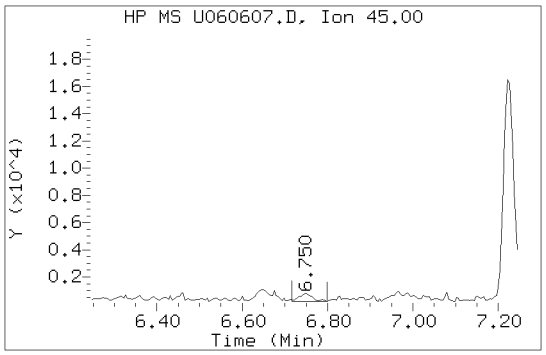
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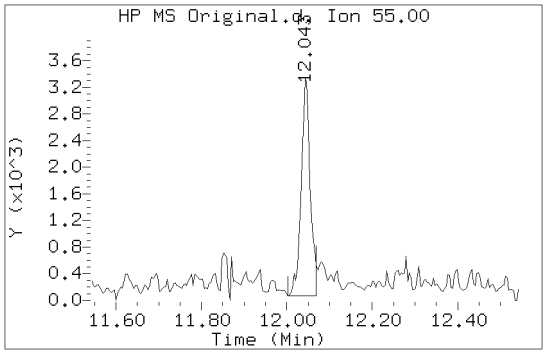


2-Ethylhexyl Acrylate (103-11-7)

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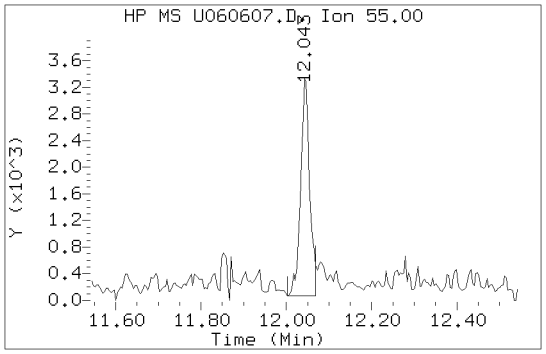
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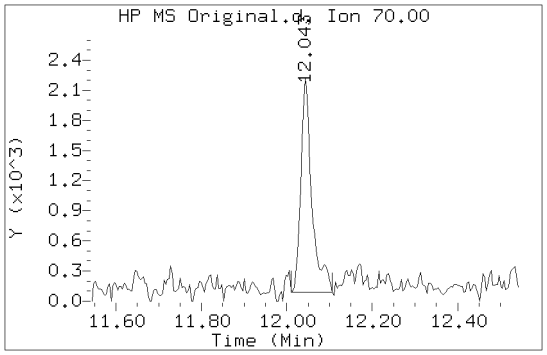
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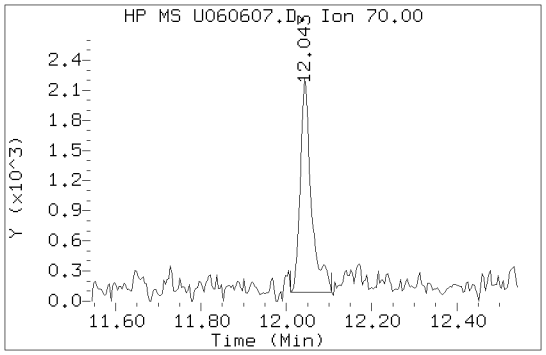
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
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Operator : PC Inst ID: VOA9.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : V9;WATER;0;1;
Comment   :
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Cal Date : 06-JUN-2023 13:28 Cal File: U060607.D
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	654680	50.0000	
2 Dichlorodifluoromethane	85	1.171	1.171	(0.243)	8519	2.00000	1.48(a)
3 Chloromethane	50	1.303	1.303	(0.270)	24280	2.00000	1.17(a)
5 Vinyl Chloride	62	1.385	1.385	(0.288)	12806	2.00000	1.84(a)
6 Bromomethane	94	1.629	1.629	(0.338)	9237	2.00000	0.85(a)
7 Chloroethane	64	1.708	1.708	(0.354)	8750	2.00000	1.87(a)
8 Trichlorofluoromethane	101	1.902	1.902	(0.395)	13346	2.00000	1.67(a)
10 Acetone	43	2.420	2.420	(0.502)	18337	4.00000	2.91(a)
11 1,1-Dichloroethene	96	2.341	2.341	(0.486)	8887	2.00000	1.78(a)
15 Iodomethane	142	2.480	2.480	(0.515)	5244	4.00000	11.12(M)
17 Methylene Chloride	84	2.802	2.802	(0.582)	14226	2.00000	1.40(a)
18 Methyl tert-butyl ether	73	3.087	3.087	(0.641)	27827	2.00000	1.82(a)
19 Carbon Disulfide	76	2.528	2.528	(0.525)	47817	4.00000	3.59(a)
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.637)	10209	2.00000	1.88(a)
21 Vinyl Acetate	43	3.616	3.616	(0.750)	59931	4.00000	3.63(a)
22 1,1-Dichloroethane	63	3.522	3.522	(0.731)	20288	2.00000	1.97(a)
24 2-Butanone	43	4.279	4.279	(0.888)	11638	4.00000	3.89(a)
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	12294	2.00000	2.19(a)
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	12235	2.00000	1.89(a)
28 Chloroform	83	4.579	4.579	(0.950)	20897	2.00000	1.95(a)

	29 Bromochloromethane	128	4.474	4.474 (0.928)	6927	2.00000	1.91(a)
$	30 Dibromofluoromethane	113	4.755	4.755 (0.987)	10602	2.00000	1.62(a)

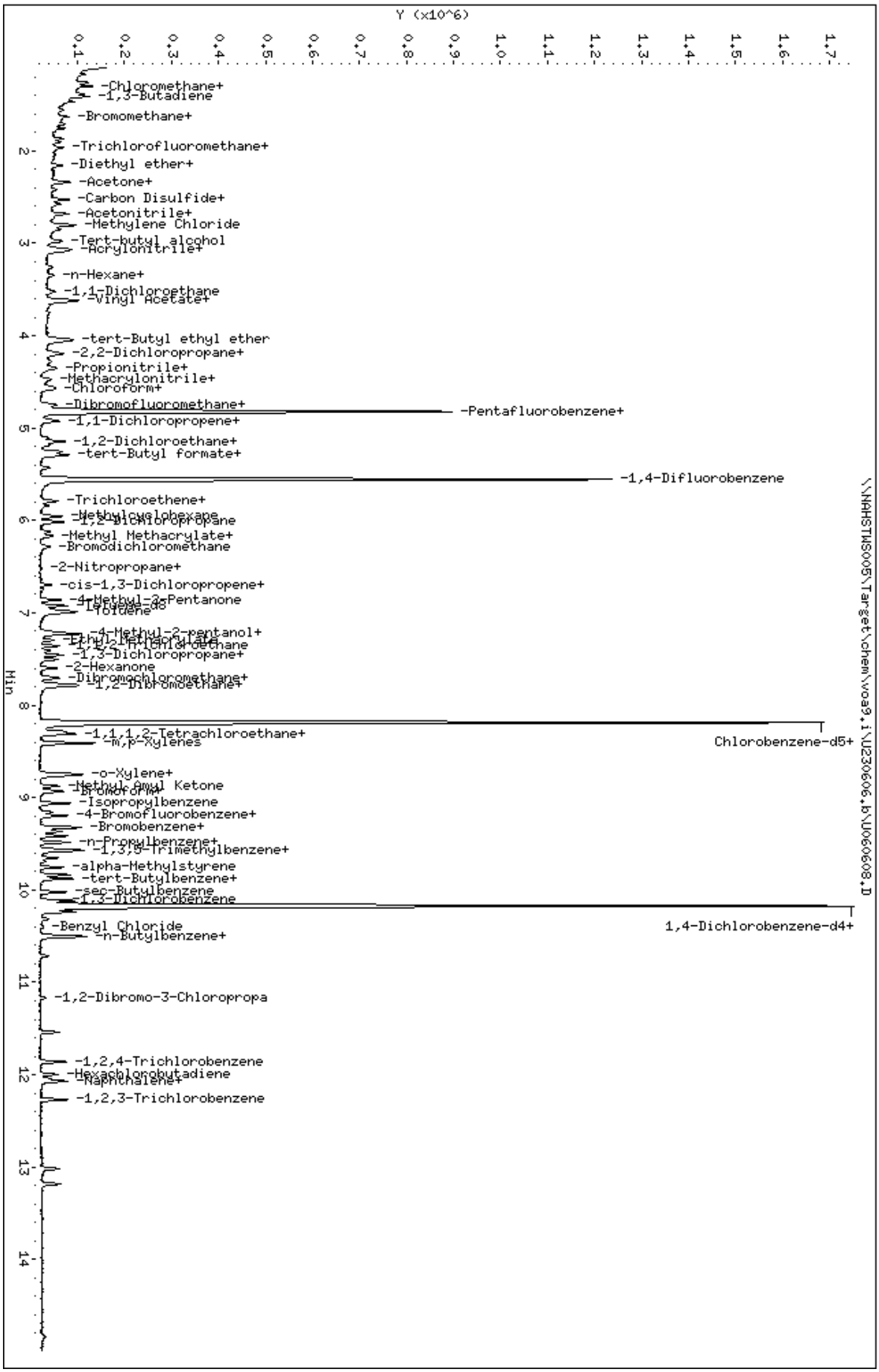
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	13786	2.00000	1.69(a)
	32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	12050	2.00000	1.70(a)
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	17690	2.00000	2.12(a)
	34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	10294	2.00000	1.58(a)
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	11855	2.00000	1.33(a)
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	962707	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	46993	2.00000	2.02(a)
	38 Trichloroethene	130	5.794	5.794	(1.042)	12341	2.00000	1.83(a)
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	12700	2.00000	1.75(a)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	12117	2.00000	1.95(a)
	44 Dibromomethane	93	6.123	6.123	(1.102)	7782	2.00000	1.96(a)
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	30250	4.00000	4.57(a)
	46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.205)	12842	2.00000	3.18(a)
*	47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	907233	50.0000	
$	48 Toluene-d8	98	6.926	6.926	(0.846)	36710	2.00000	1.78(a)
	50 Toluene	91	6.986	6.986	(0.853)	45011	2.00000	1.82(a)
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	12660	2.00000	3.51(aM)
	52 2-Hexanone	43	7.597	7.597	(0.928)	23033	4.00000	5.00
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	10667	2.00000	2.08(a)
	54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	21098	2.00000	2.01(a)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	10276	2.00000	1.69(a)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	11347	2.00000	1.89(a)
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	12823	2.00000	2.03(a)
	58 1-Chlorohexane	55	8.189	8.189	(1.473)	9554	2.00000	1.93(aM)
	59 Chlorobenzene	112	8.211	8.211	(1.003)	36163	2.00000	2.05(a)
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	11696	2.00000	1.93(a)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	13970	2.00000	1.70(a)
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	33831	4.00000	3.49(aM)
	63 o-Xylene	106	8.748	8.748	(1.068)	16529	2.00000	1.73(a)
	64 Styrene	104	8.766	8.766	(1.070)	26887	2.00000	1.77(a)
	66 Bromoform	173	8.920	8.920	(1.089)	7583	2.00000	1.84(a)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	39716	2.00000	1.73(a)
	68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	21290	2.00000	2.41(aM)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.123)	16728	2.00000	1.19(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	468121	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	17163	2.00000	2.21(aM)
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	42411	2.00000	1.72(a)
	74 Bromobenzene	156	9.317	9.317	(0.916)	17200	2.00000	2.17(a)
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	31762	2.00000	1.88(a)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	34904	2.00000	2.02(a)
	77 4-Chlorotoluene	91	9.580	9.580	(0.942)	39709	2.00000	2.07(a)
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	29666	2.00000	1.79(a)
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	37613	2.00000	2.13(a)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	35689	2.00000	1.70(a)
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	31988	2.00000	1.81(a)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	29086	2.00000	2.16(a)
	84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	31674	2.00000	2.21(aM)
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	27289	2.00000	1.81(a)
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	30371	2.00000	2.25(a)
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	2819	2.00000	2.19(a)
	90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	19713	2.00000	2.13(a)
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	20459	2.00000	2.26(a)

M	94	1,2-Dichloroethylene (total)	96			22444	4.00000	(a)
	135	1,4-Dioxane	88	6.176	6.176 (1.282)	5764	40.0000	44.34(aM)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
141 Cyclohexane	56	4.785	4.785	(0.993)	8877	2.00000	1.31(aMH)
138 Freon TF	101	2.341	2.341	(0.486)	6997	2.00000	1.59(aM)
140 1,3-Butadiene	54	1.408	1.408	(0.292)	11039	2.00000	1.78(a)
147 Methylcyclohexane	55	5.955	5.955	(1.071)	22206	2.00000	1.66(a)
146 Methyl Acetate	43	2.723	2.723	(0.565)	12288	2.00000	2.22(a)
148 Tert-Butyl alcohol	59	2.978	2.978	(0.618)	34487	40.0000	52.33
149 Isopropyl Alcohol	45	2.573	2.573	(0.534)	22047	40.0000	51.51(T)
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.145)	1936	2.00000	1.85(M)
12 Isobutyl Alcohol	43	5.295	5.295	(1.099)	31429	40.0000	36.94(M)
13 Acetonitrile	39	2.678	2.678	(0.556)	13701	20.0000	19.32
40 Methyl Methacrylate	41	6.161	6.161	(1.278)	9826	2.00000	1.74
4 Propionitrile	54	4.350	4.350	(0.903)	17197	20.0000	18.17(a)
136 n-Hexane	57	3.346	3.346	(0.694)	7179	2.00000	1.45(a)
131 Methyl Acrylate	55	4.377	4.377	(0.908)	11843	2.00000	1.71(aM)
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	4598	2.00000	5.17(M)
49 Ethyl Methacrylate	69	7.297	7.297	(1.313)	13205	2.00000	1.56(a)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	34972	2.00000	1.94(a)
167 Ethanol	45	2.090	2.090	(0.434)	4910	40.0000	38.64
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	43120	2.00000	1.88(a)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	14955	2.00000	5.11
156 Diisopropyl ether	45	3.627	3.627	(0.753)	35538	2.00000	1.94(Ta)
151 4-Methyl-2-pentanol	45	7.226	7.226	(1.300)	47340	40.0000	33.06
150 Allyl alcohol	57	3.346	3.346	(0.694)	7179	40.0000	29.86
86 Benzyl Chloride	91	10.315	10.315	(1.260)	11203	2.00000	5.38
162 Butyl acrylate	55	8.740	8.740	(1.067)	18210	2.00000	1.69(a)
139 Diethyl ether	59	2.154	2.154	(0.447)	8174	2.00000	1.84(a)
203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	8201	2.00000	3.58(a)
134 Cyclohexanone	55	9.156	9.156	(0.900)	11087	40.0000	38.20(a)
130 Ethyl Acetate	43	4.279	4.279	(0.888)	11855	2.00000	2.02(aM)
189 n-Butyl acetate	43	7.713	7.713	(0.942)	21837	2.00000	2.11(aM)
182 Epichlorohydrin	57	6.637	6.637	(1.194)	854	8.00000	18.93(M)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

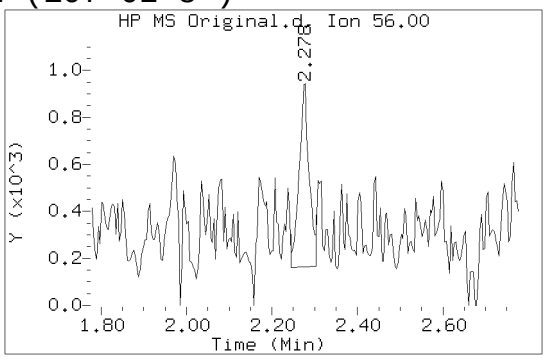
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InstruID : VOA9.i
LabSampID : VSTD002

Acrolein (107-02-8)

Reason Code:

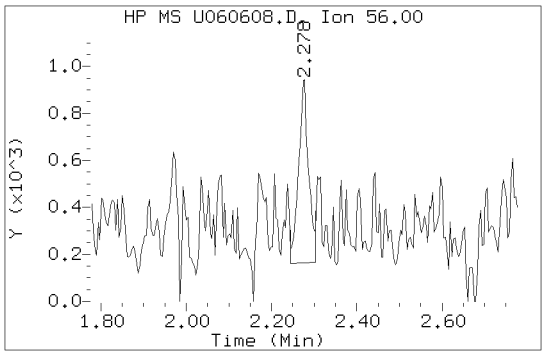
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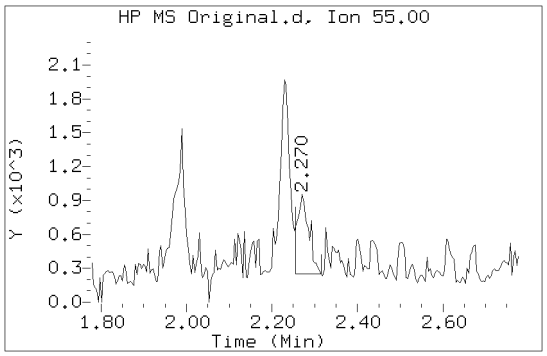
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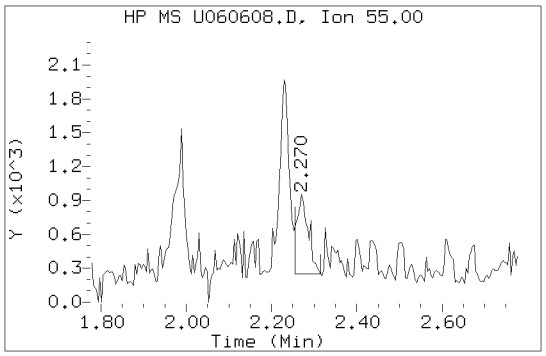
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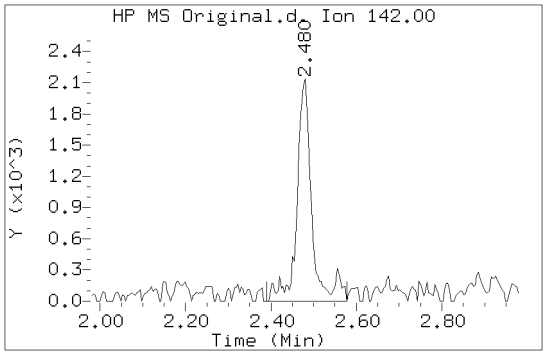


Iodomethane (74-88-4)

Reason Code:

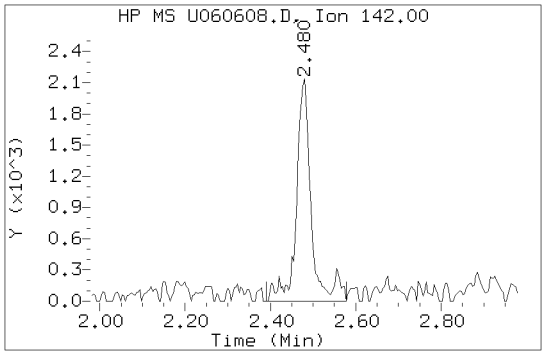
BEFORE

MASS
142
AREA
5244
HEIGHT
2136
08-Jun-2023
14:56
linh
pham



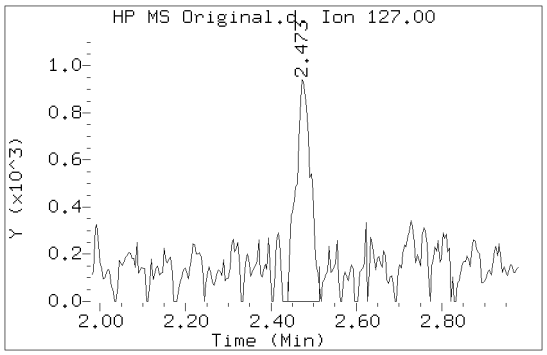
AFTER

MASS
142
AREA
5244
HEIGHT
2136
13-Jun-2023
13:00
linh
pham



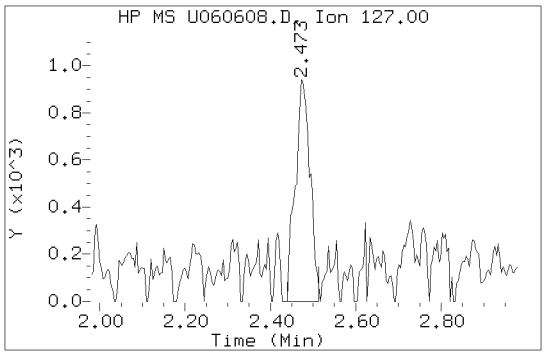
BEFORE

MASS
127
AREA
2301
HEIGHT
941
08-Jun-2023
14:56
linh
pham



AFTER

MASS
127
AREA
2301
HEIGHT
941
13-Jun-2023
13:00
linh
pham



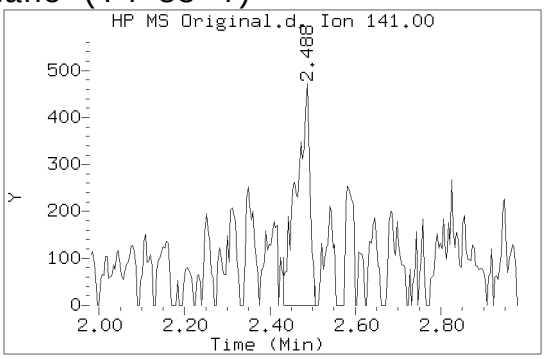
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Iodomethane (74-88-4)

Reason Code:

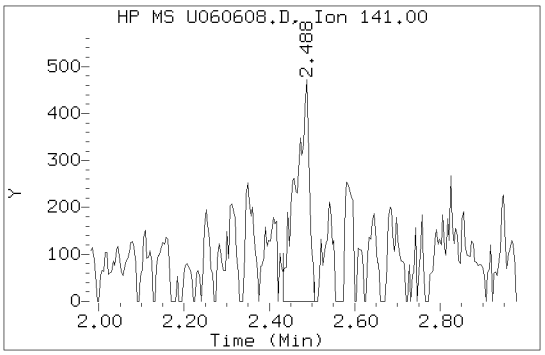
BEFORE

MASS
141
AREA
1044
HEIGHT
472
08-Jun-2023
14:56
linh
pham



AFTER

MASS
141
AREA
1044
HEIGHT
472
13-Jun-2023
13:00
linh
pham

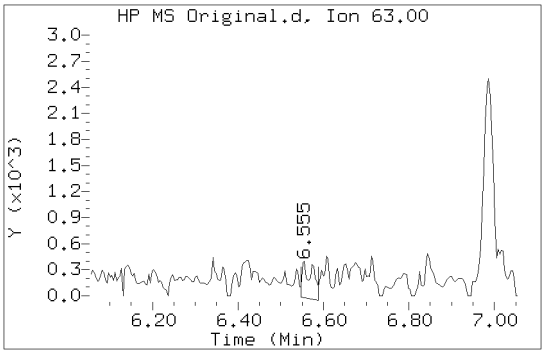


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

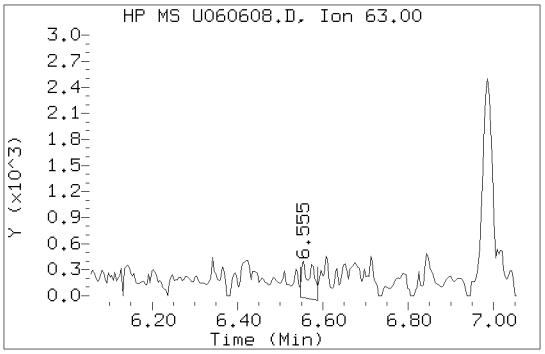
BEFORE

MASS
63
AREA
728
HEIGHT
422
08-Jun-2023
14:56
linh
pham



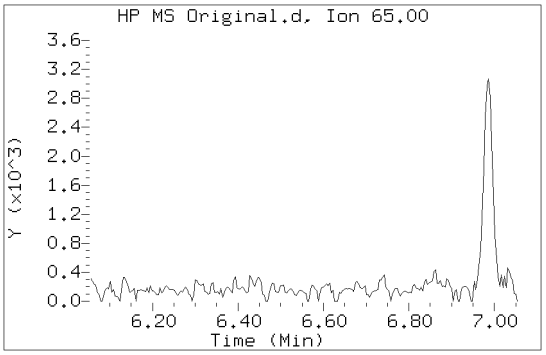
AFTER

MASS
63
AREA
728
HEIGHT
422
13-Jun-2023
13:00
linh
pham



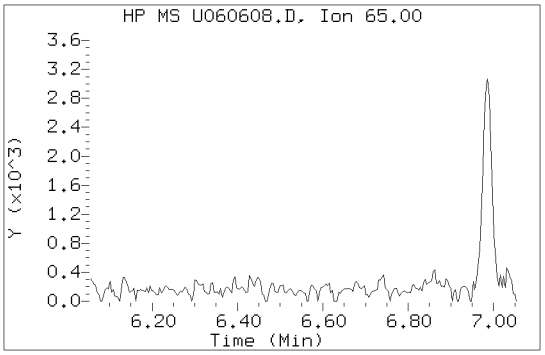
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



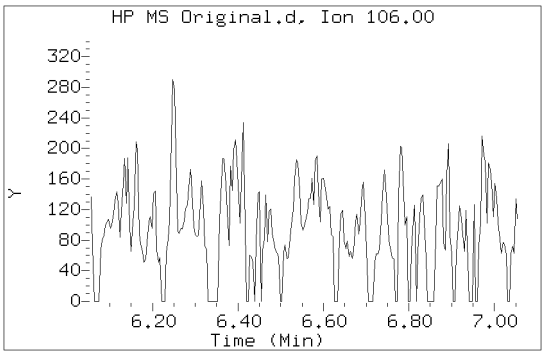
AFTER

MASS
65
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



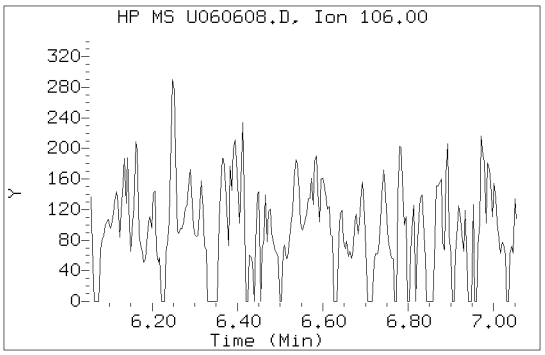
BEFORE

MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



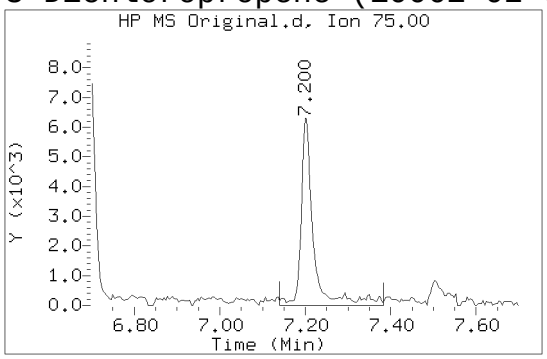
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

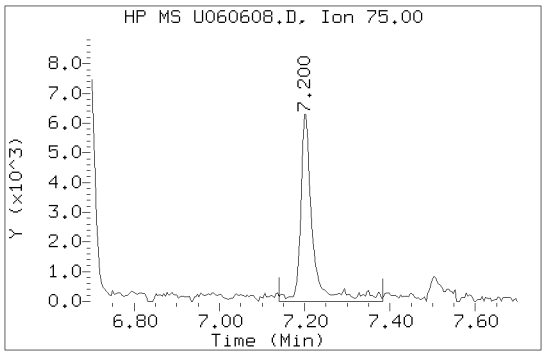
BEFORE

MASS
75
AREA
12660
HEIGHT
6296
08-Jun-2023
14:56
linh
pham



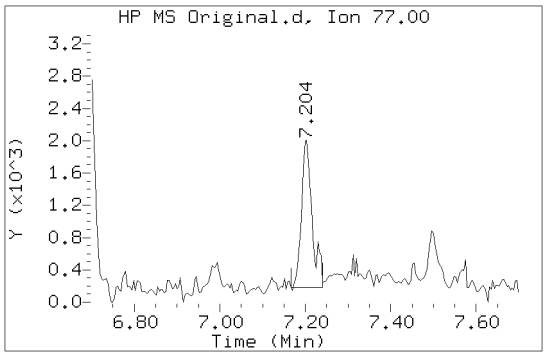
AFTER

MASS
75
AREA
12660
HEIGHT
6296
13-Jun-2023
13:00
linh
pham



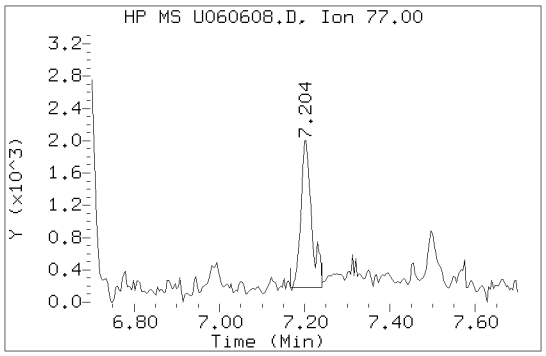
BEFORE

MASS
77
AREA
3204
HEIGHT
1827
08-Jun-2023
14:56
linh
pham



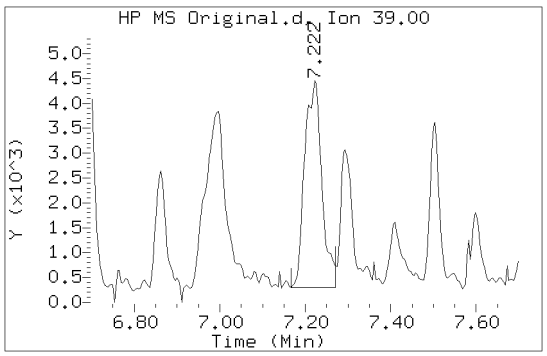
AFTER

MASS
77
AREA
3204
HEIGHT
1827
13-Jun-2023
13:00
linh
pham



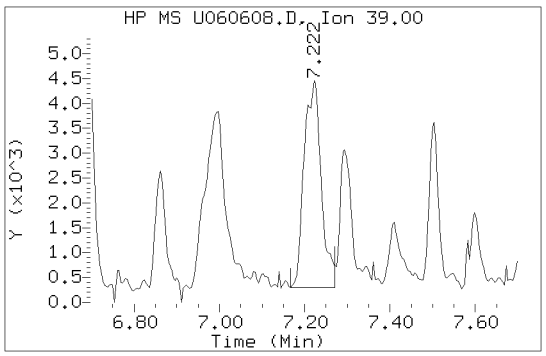
BEFORE

MASS
39
AREA
11661
HEIGHT
4160
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
11661
HEIGHT
4160
13-Jun-2023
13:00
linh
pham

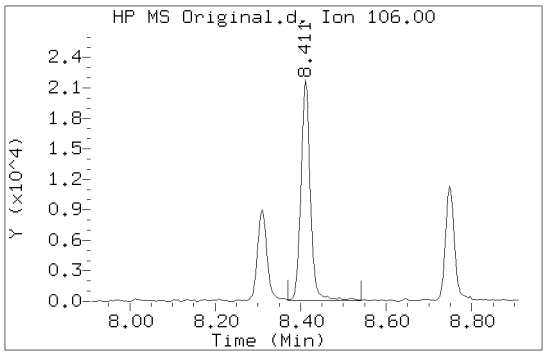


m,p-Xylenes ()

Reason Code:

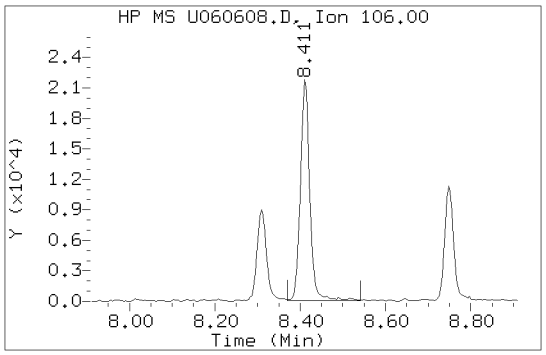
BEFORE

MASS
106
AREA
33831
HEIGHT
21724
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
33831
HEIGHT
21724
13-Jun-2023
13:00
linh
pham



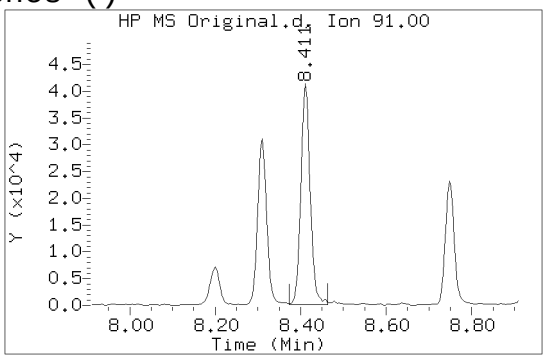
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

m,p-Xylenes ()

Reason Code:

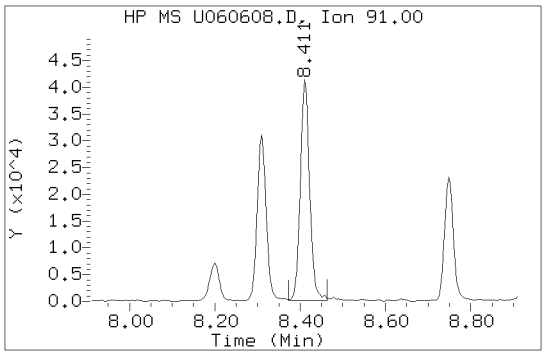
BEFORE

MASS
91
AREA
63741
HEIGHT
41264
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
63741
HEIGHT
41264
13-Jun-2023
13:00
linh
pham

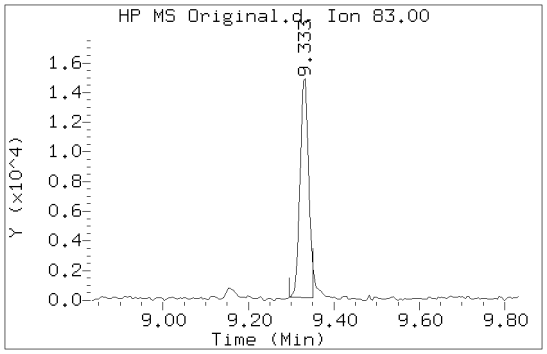


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

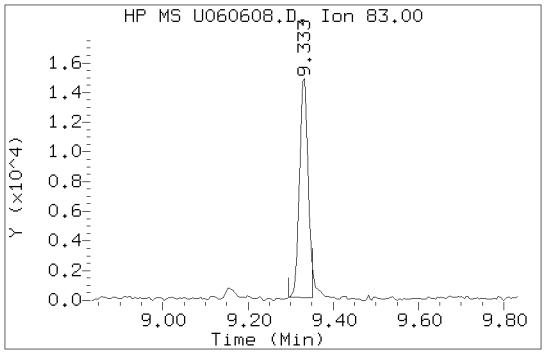
BEFORE

MASS
83
AREA
21290
HEIGHT
14748
08-Jun-2023
14:56
linh
pham



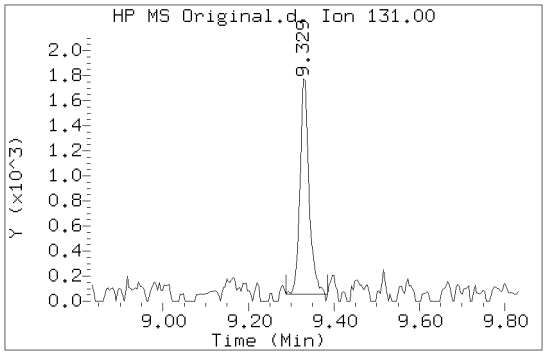
AFTER

MASS
83
AREA
21290
HEIGHT
14748
13-Jun-2023
13:00
linh
pham



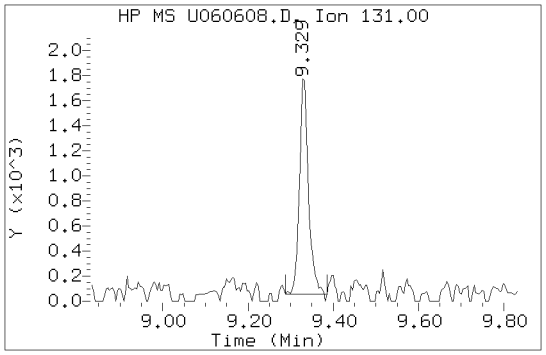
BEFORE

MASS
131
AREA
2587
HEIGHT
1718
08-Jun-2023
14:56
linh
pham



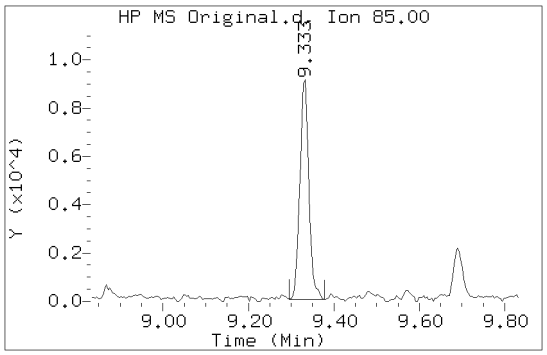
AFTER

MASS
131
AREA
2587
HEIGHT
1718
13-Jun-2023
13:00
linh
pham



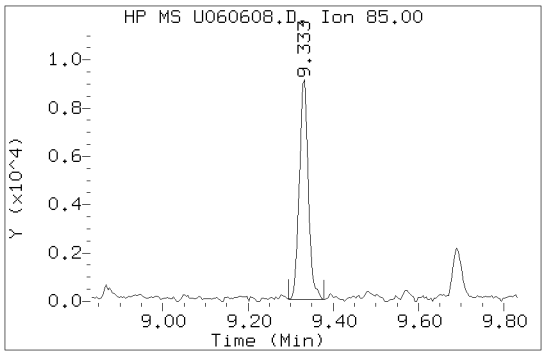
BEFORE

MASS
85
AREA
13620
HEIGHT
9094
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
13620
HEIGHT
9094
13-Jun-2023
13:00
linh
pham



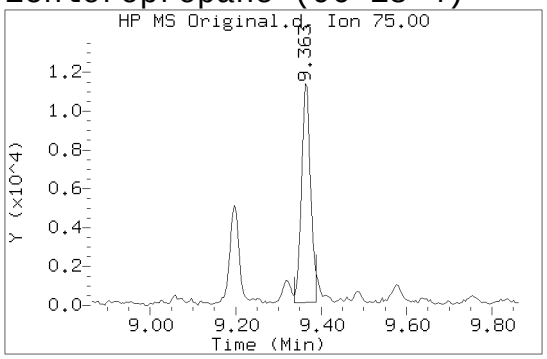
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

1,2,3-Trichloropropane (96-18-4)

Reason Code:

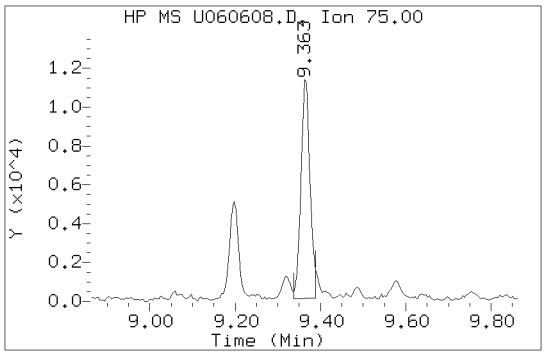
BEFORE

MASS
75
AREA
17163
HEIGHT
11263
08-Jun-2023
14:56
linh
pham



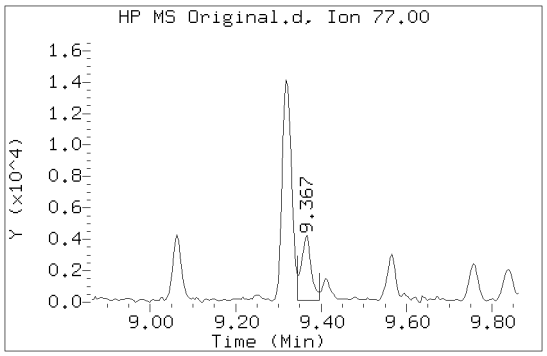
AFTER

MASS
75
AREA
17163
HEIGHT
11263
13-Jun-2023
13:00
linh
pham



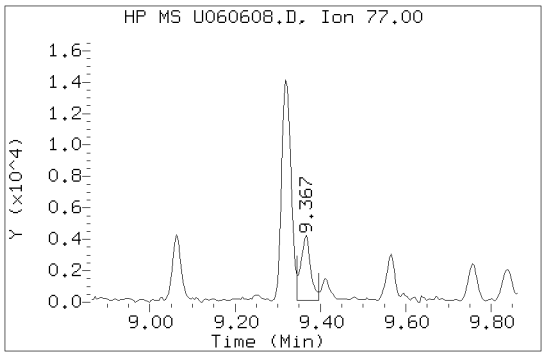
BEFORE

MASS
77
AREA
7018
HEIGHT
4115
08-Jun-2023
14:56
linh
pham



AFTER

MASS
77
AREA
7018
HEIGHT
4115
13-Jun-2023
13:00
linh
pham

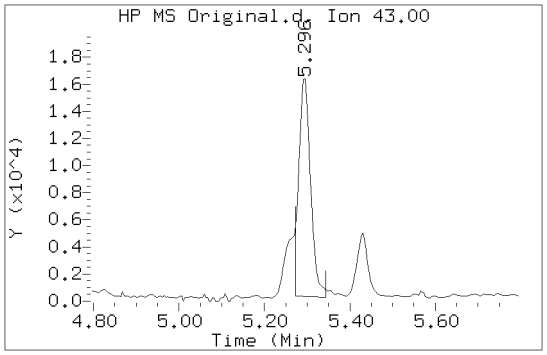


Isobutyl Alcohol (78-83-1)

Reason Code:

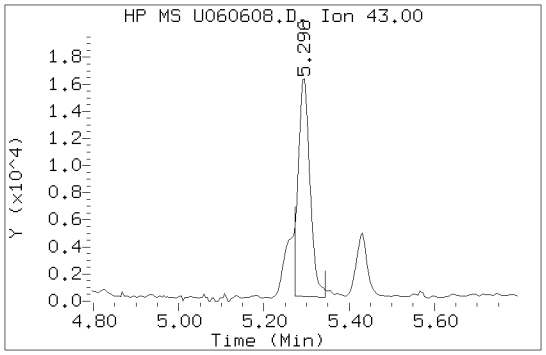
BEFORE

MASS
43
AREA
31429
HEIGHT
16036
08-Jun-2023
14:56
linh
pham



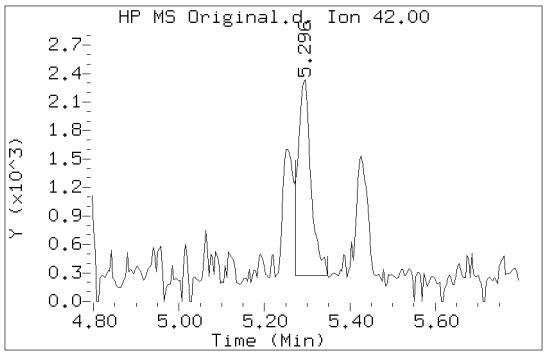
AFTER

MASS
43
AREA
31429
HEIGHT
16036
13-Jun-2023
13:00
linh
pham



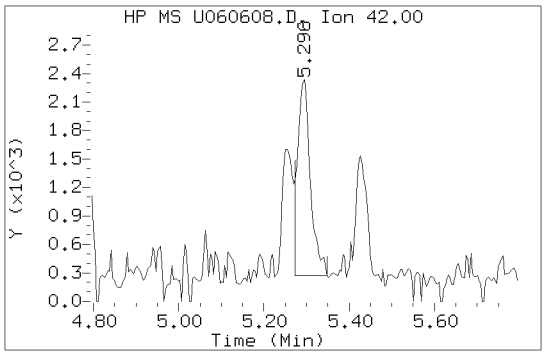
BEFORE

MASS
42
AREA
4414
HEIGHT
2065
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
4414
HEIGHT
2065
13-Jun-2023
13:00
linh
pham



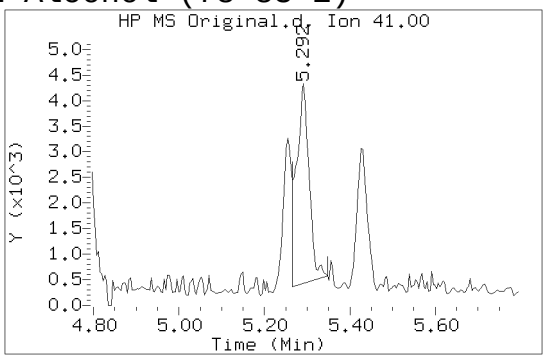
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Isobutyl Alcohol (78-83-1)

Reason Code:

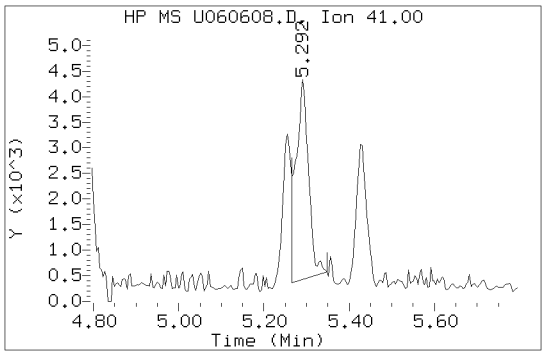
BEFORE

MASS
41
AREA
8253
HEIGHT
3899
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
8253
HEIGHT
3899
13-Jun-2023
13:00
linh
pham

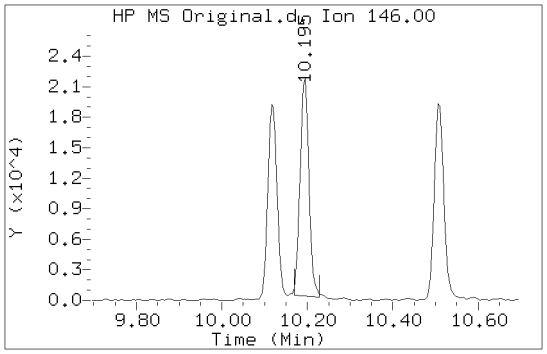


1,4-Dichlorobenzene (106-46-7)

Reason Code:

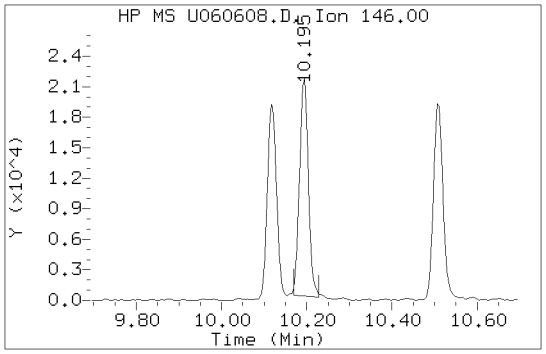
BEFORE

MASS
146
AREA
31674
HEIGHT
21370
08-Jun-2023
14:56
linh
pham



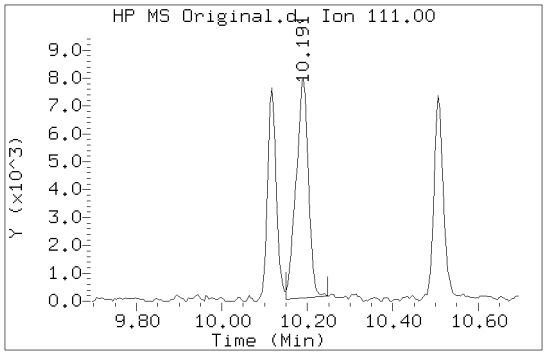
AFTER

MASS
146
AREA
31674
HEIGHT
21370
13-Jun-2023
13:00
linh
pham



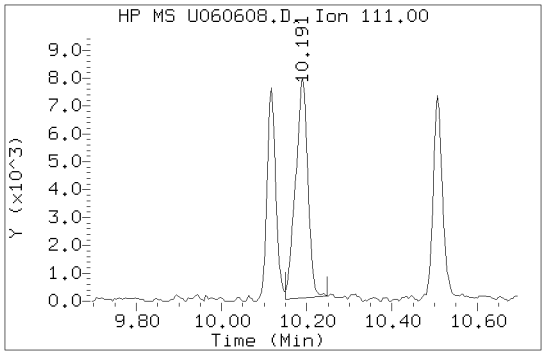
BEFORE

MASS
111
AREA
16075
HEIGHT
7847
08-Jun-2023
14:56
linh
pham



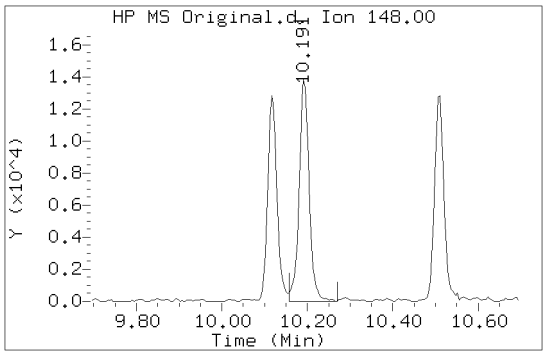
AFTER

MASS
111
AREA
16075
HEIGHT
7847
13-Jun-2023
13:00
linh
pham



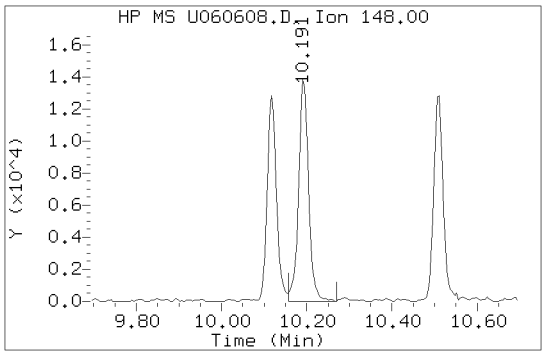
BEFORE

MASS
148
AREA
23144
HEIGHT
13826
08-Jun-2023
14:56
linh
pham



AFTER

MASS
148
AREA
23144
HEIGHT
13826
13-Jun-2023
13:00
linh
pham



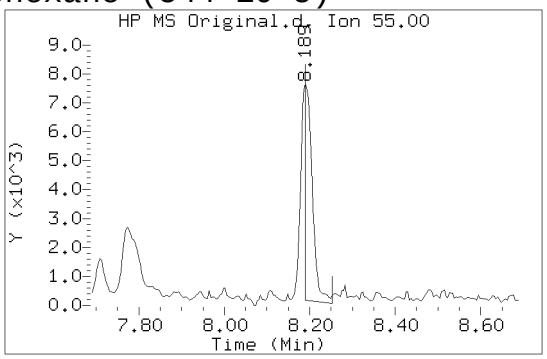
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Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

1-Chlorohexane (544-10-5)

Reason Code:

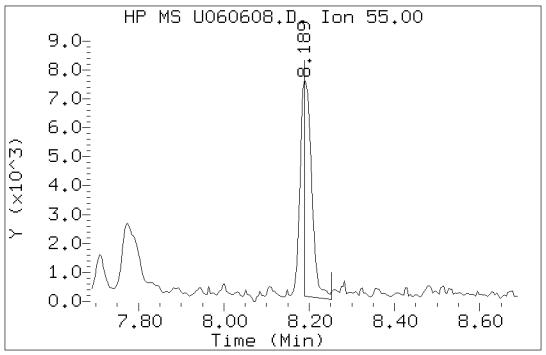
BEFORE

MASS
55
AREA
9554
HEIGHT
7479
08-Jun-2023
14:56
linh
pham



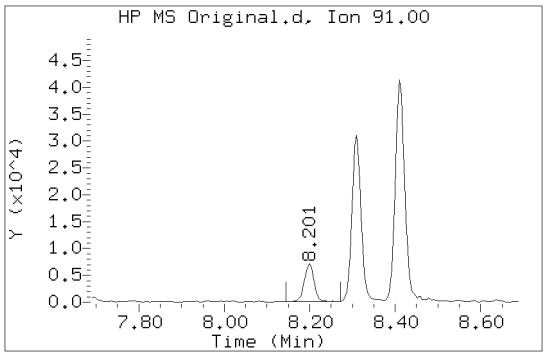
AFTER

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9554
HEIGHT
7479
13-Jun-2023
13:00
linh
pham



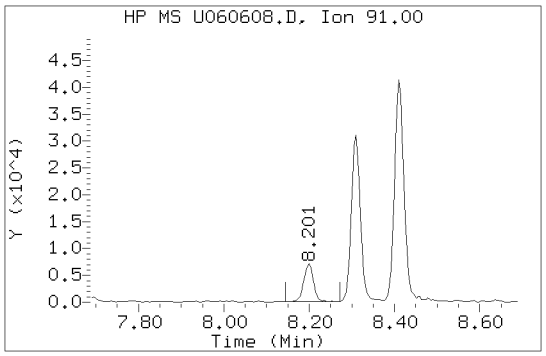
BEFORE

MASS
91
AREA
11373
HEIGHT
7051
08-Jun-2023
14:56
linh
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AFTER

MASS
91
AREA
11373
HEIGHT
7051
13-Jun-2023
13:00
linh
pham

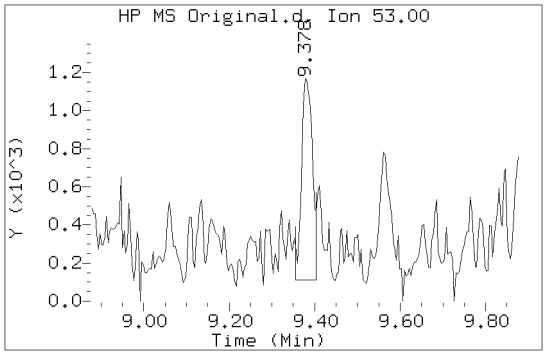


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

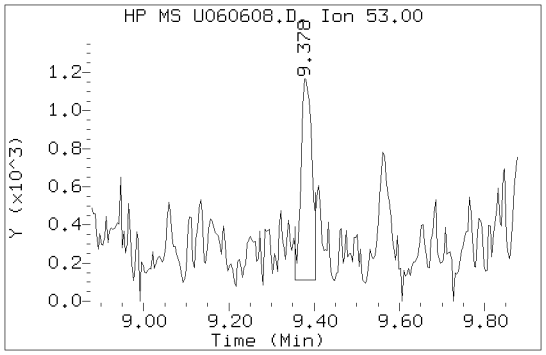
BEFORE

MASS
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AREA
1936
HEIGHT
1056
08-Jun-2023
14:56
linh
pham



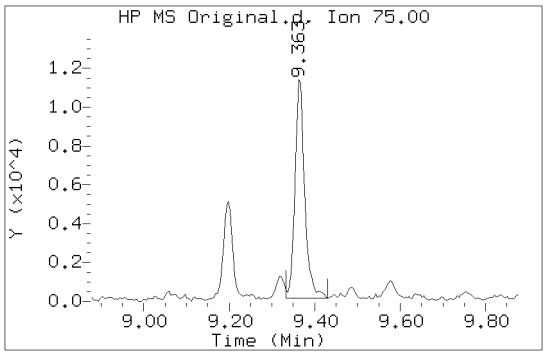
AFTER

MASS
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AREA
1936
HEIGHT
1056
13-Jun-2023
13:00
linh
pham



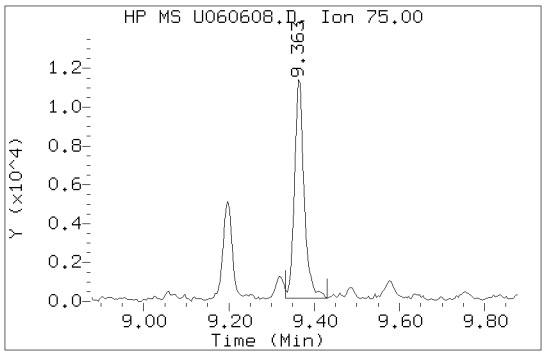
BEFORE

MASS
75
AREA
18151
HEIGHT
11253
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
18151
HEIGHT
11253
13-Jun-2023
13:00
linh
pham

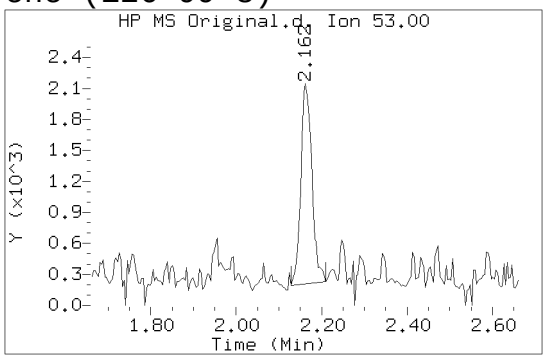


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

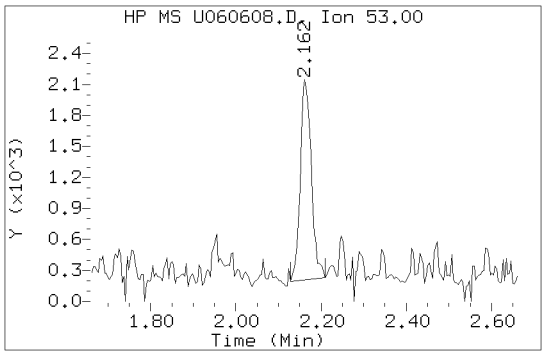
Chloroprene (126-99-8)

Reason Code:

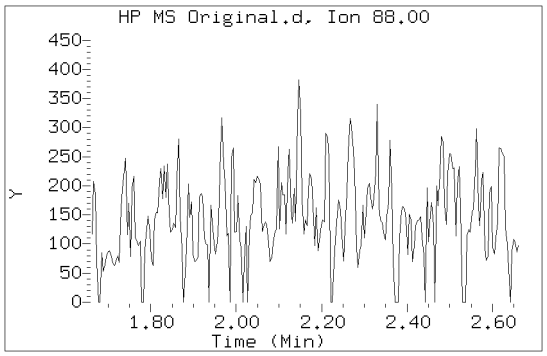
BEFORE
MASS
53
AREA
3552
HEIGHT
1939
08-Jun-2023
14:56
linh
pham



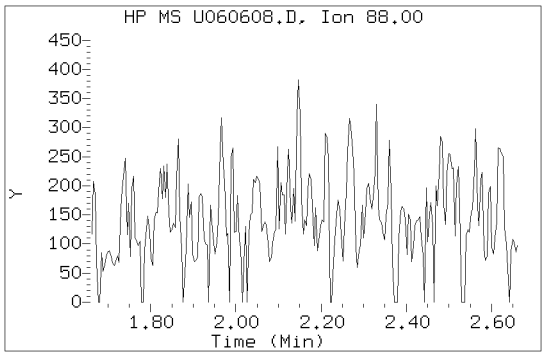
AFTER
MASS
53
AREA
3552
HEIGHT
1939
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



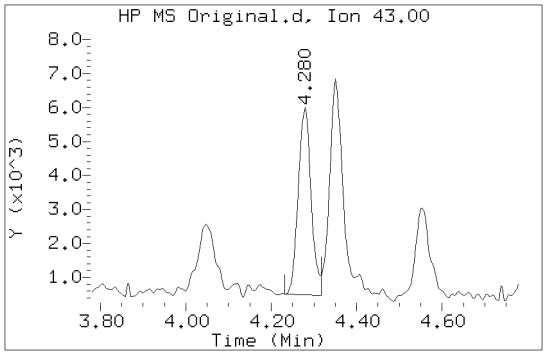
AFTER
MASS
88
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



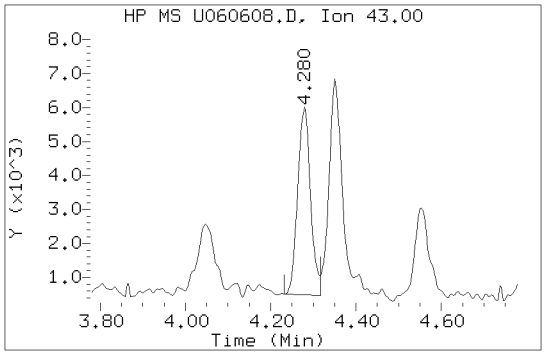
Ethyl Acetate (141-78-6)

Reason Code:

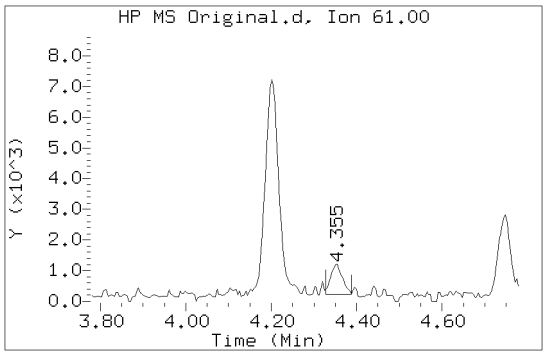
BEFORE
MASS
43
AREA
11855
HEIGHT
5517
08-Jun-2023
14:56
linh
pham



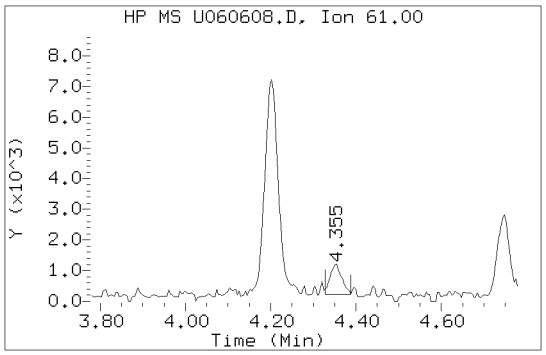
AFTER
MASS
43
AREA
11855
HEIGHT
5517
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
61
AREA
1871
HEIGHT
977
08-Jun-2023
14:56
linh
pham



AFTER
MASS
61
AREA
1871
HEIGHT
977
13-Jun-2023
13:00
linh
pham



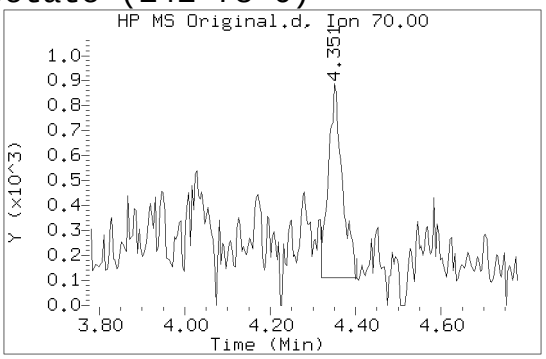
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

Reason Code:

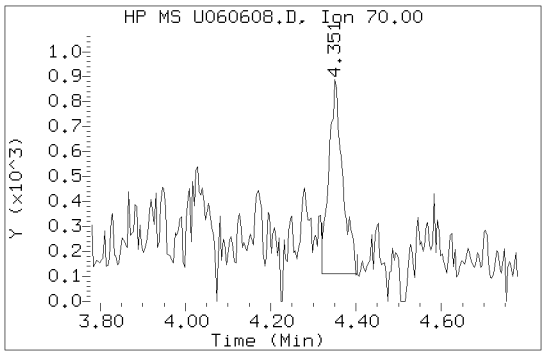
BEFORE

MASS
70
AREA
1750
HEIGHT
777
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
1750
HEIGHT
777
13-Jun-2023
13:00
linh
pham

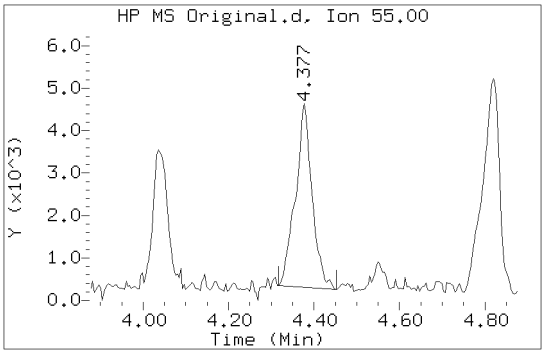


Methyl Acrylate (96-33-3)

Reason Code:

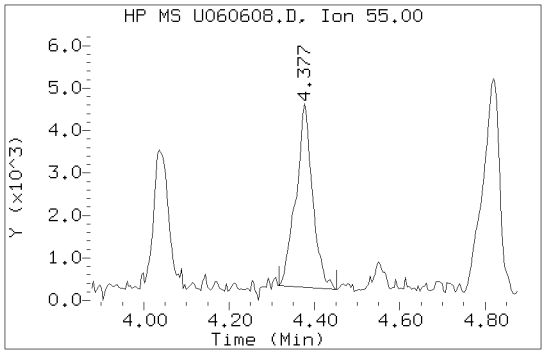
BEFORE

MASS
55
AREA
11843
HEIGHT
4323
08-Jun-2023
14:56
linh
pham



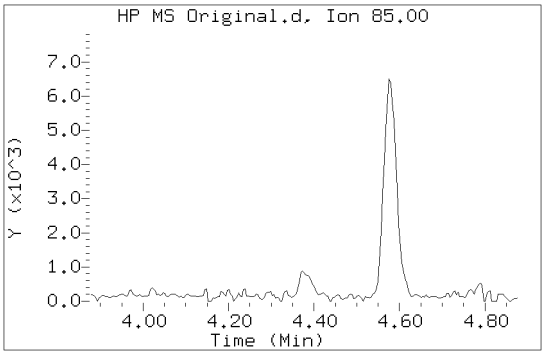
AFTER

MASS
55
AREA
11843
HEIGHT
4323
13-Jun-2023
13:00
linh
pham



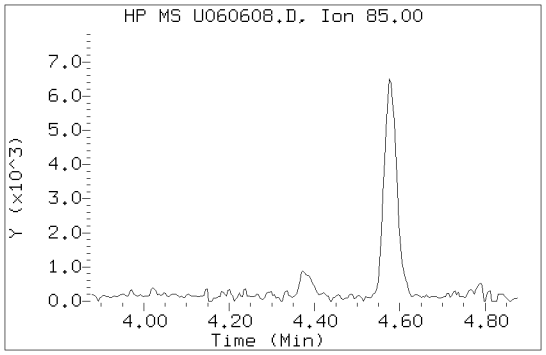
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

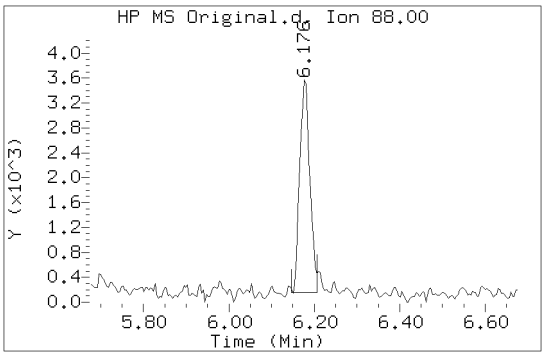


1,4-Dioxane ()

Reason Code:

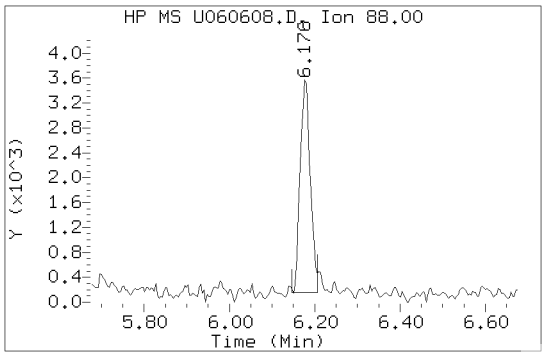
BEFORE

MASS
88
AREA
5764
HEIGHT
3411
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
5764
HEIGHT
3411
13-Jun-2023
13:00
linh
pham



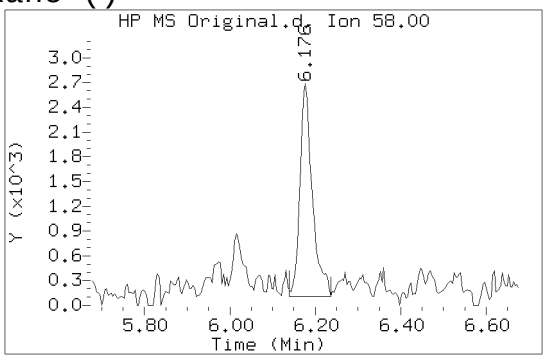
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Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

1,4-Dioxane ()

Reason Code:

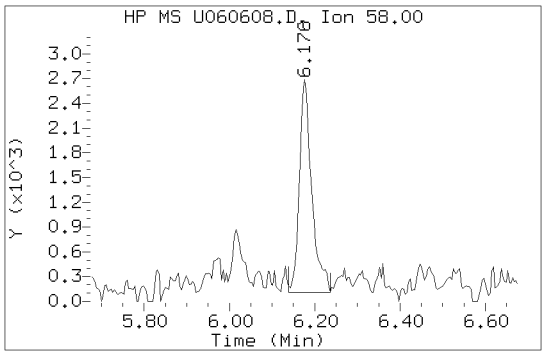
BEFORE

MASS
58
AREA
5271
HEIGHT
2575
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
5271
HEIGHT
2575
13-Jun-2023
13:00
linh
pham

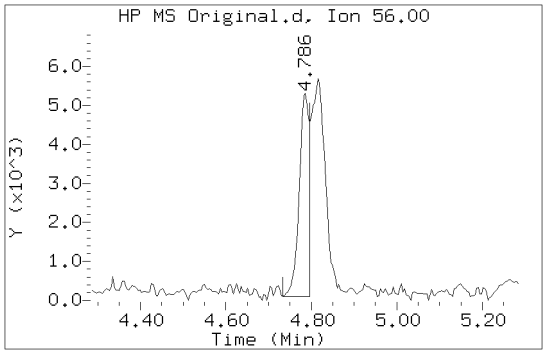


Cyclohexane (110-82-7)

Reason Code:

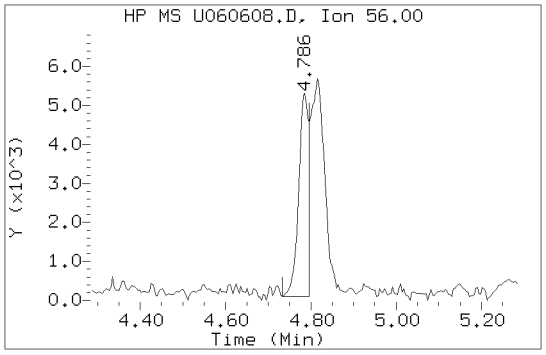
BEFORE

MASS
56
AREA
8877
HEIGHT
5201
08-Jun-2023
14:56
linh
pham



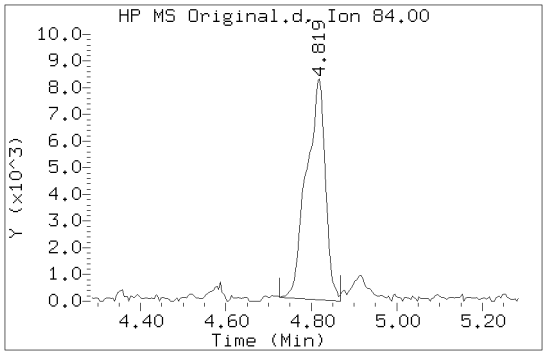
AFTER

MASS
56
AREA
8877
HEIGHT
5201
13-Jun-2023
13:00
linh
pham



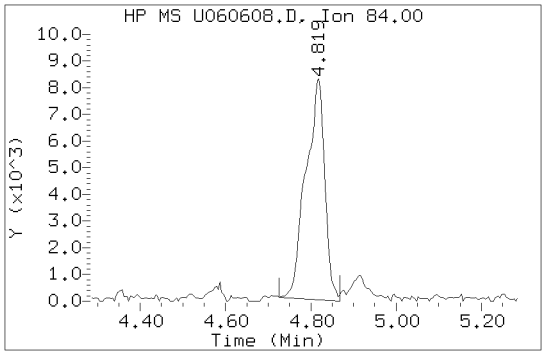
BEFORE

MASS
84
AREA
25654
HEIGHT
8278
08-Jun-2023
14:56
linh
pham



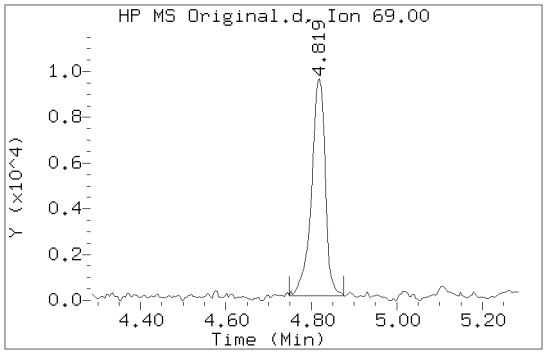
AFTER

MASS
84
AREA
25654
HEIGHT
8278
13-Jun-2023
13:00
linh
pham



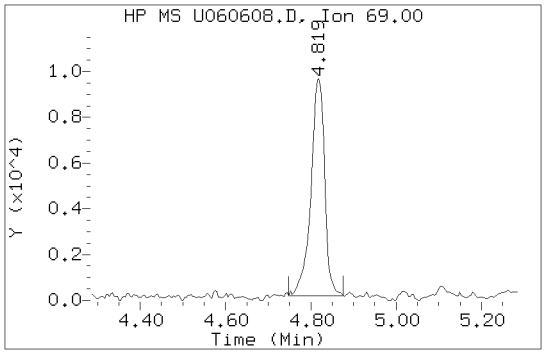
BEFORE

MASS
69
AREA
21405
HEIGHT
9491
08-Jun-2023
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pham



AFTER

MASS
69
AREA
21405
HEIGHT
9491
13-Jun-2023
13:00
linh
pham

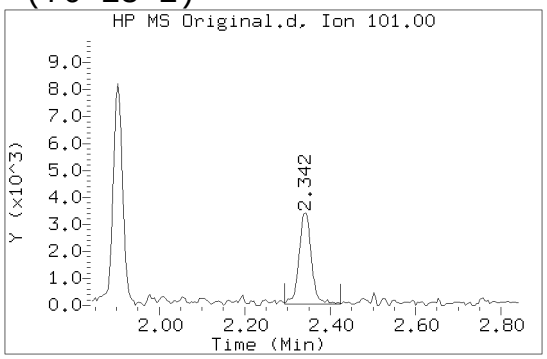


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

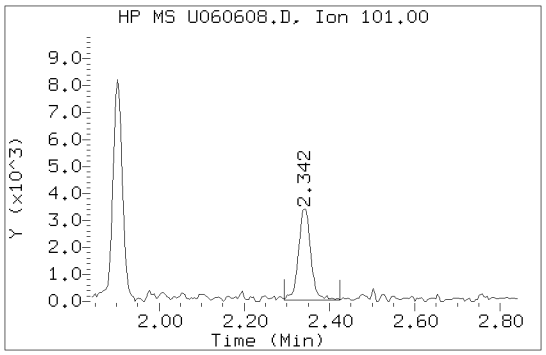
Freon TF (76-13-1)

Reason Code:

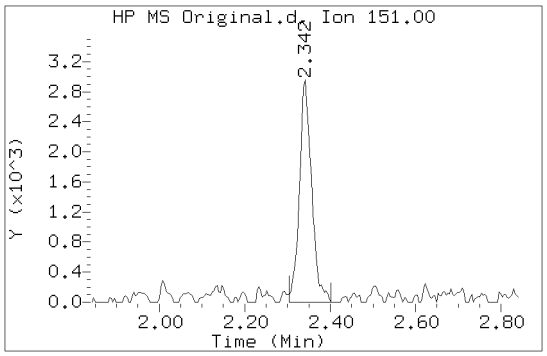
BEFORE
MASS
101
AREA
6997
HEIGHT
3366
08-Jun-2023
14:56
linh
pham



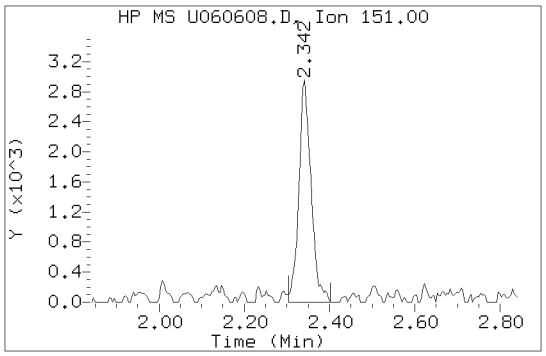
AFTER
MASS
101
AREA
6997
HEIGHT
3366
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
151
AREA
5971
HEIGHT
2957
08-Jun-2023
14:56
linh
pham



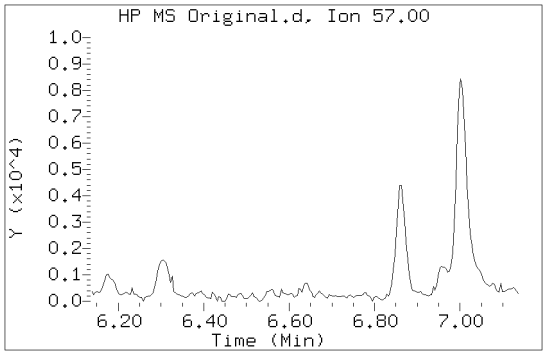
AFTER
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151
AREA
5971
HEIGHT
2957
13-Jun-2023
13:00
linh
pham



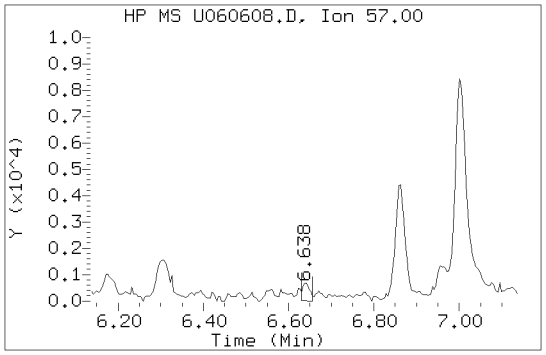
Epichlorohydrin (106-89-8)

Reason Code:

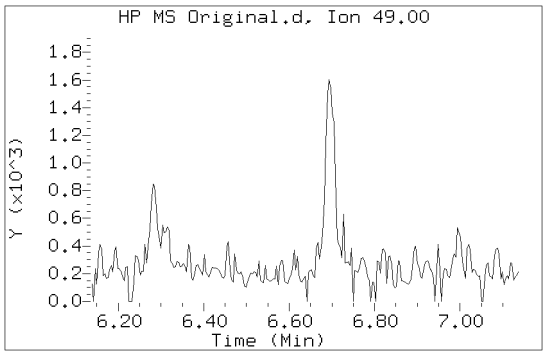
BEFORE
MASS
57
AREA
0
HEIGHT
0
08-Jun-2023
14:56
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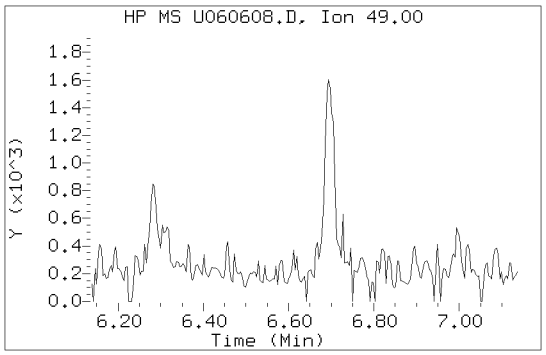
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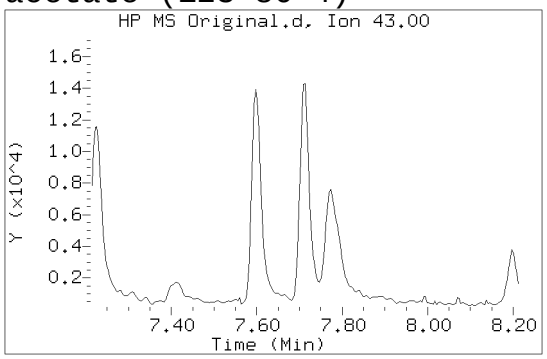


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LabSampID : VSTD002

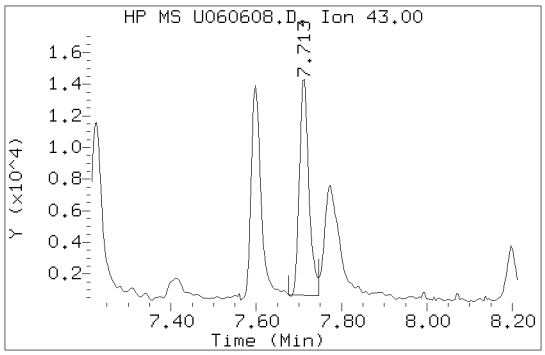
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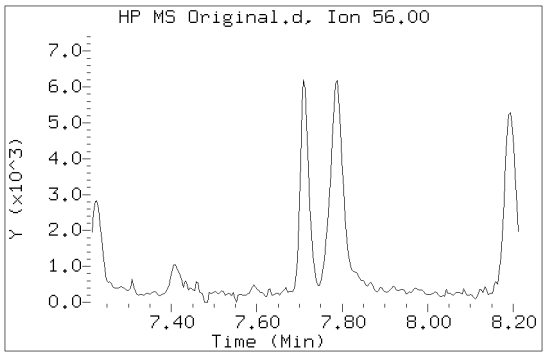
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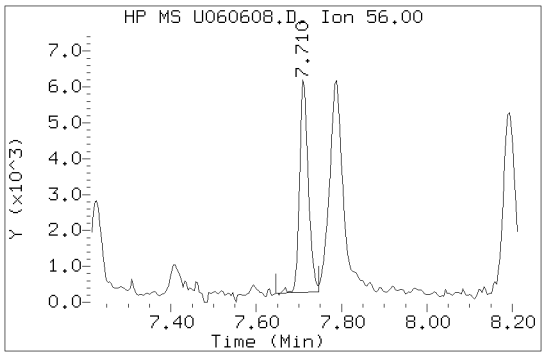
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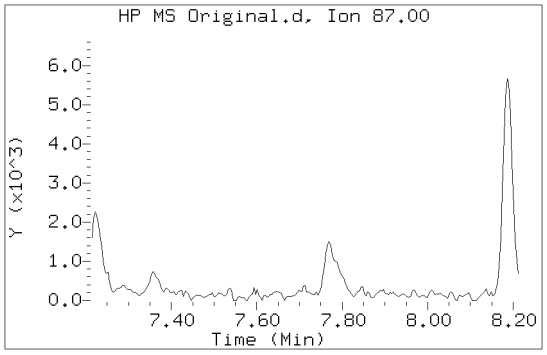
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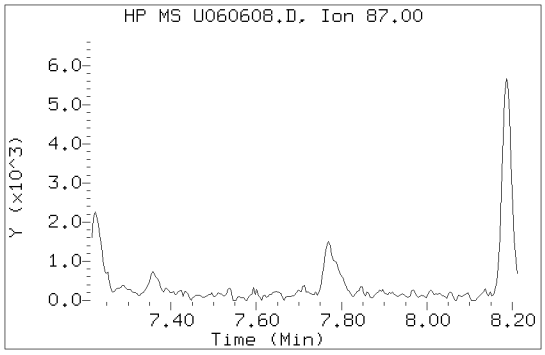
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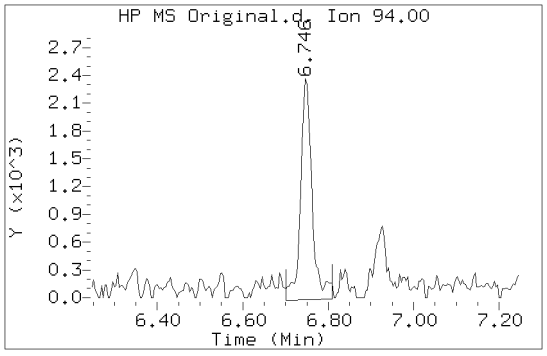
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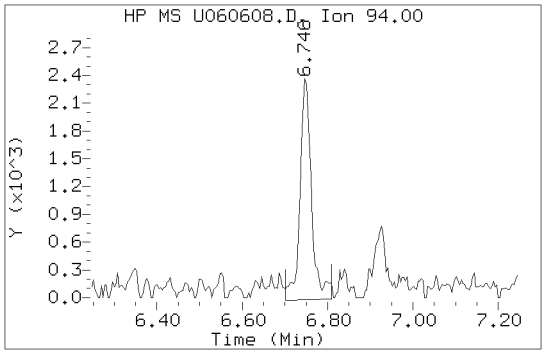
Dimethyl Disulfide (624-92-0)

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AFTER
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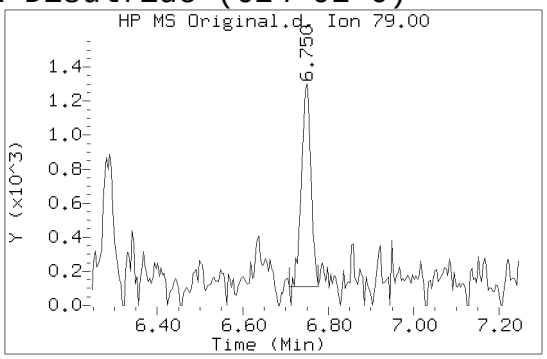
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InstruID : VOA9.i
LabSampID : VSTD002

Dimethyl Disulfide (624-92-0)

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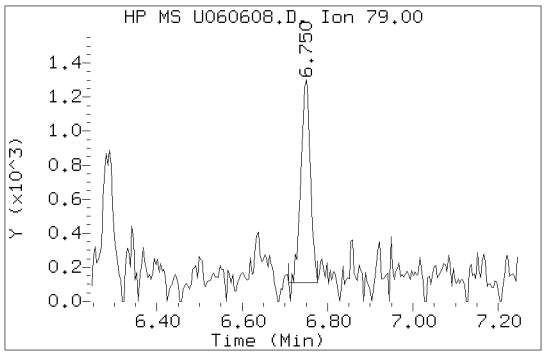
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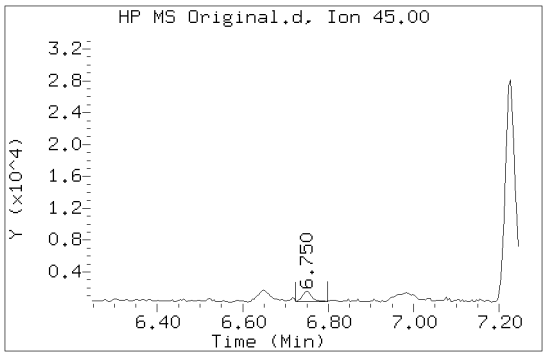
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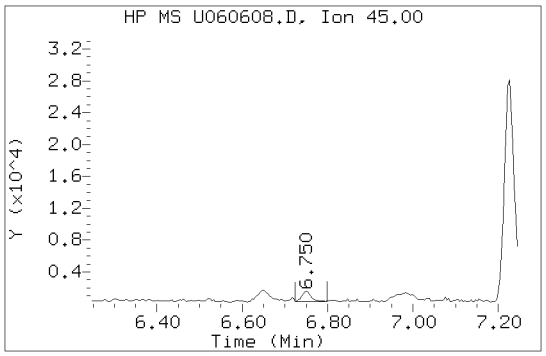
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AFTER

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13-Jun-2023
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Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060609.D
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Inj Date : 06-JUN-2023 14:13
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V9;WATER;0;1;
Comment :
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Meth Date : 13-Jun-2023 13:01 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 10 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.811	4.811	(1.000)	699800	50.0000	
2	Dichlorodifluoromethane	85	1.156	1.156	(0.240)	134998	20.0000	20.92
3	Chloromethane	50	1.291	1.291	(0.268)	243997	20.0000	22.39
5	Vinyl Chloride	62	1.370	1.370	(0.285)	154975	20.0000	20.93
6	Bromomethane	94	1.614	1.614	(0.335)	85360	20.0000	21.41
7	Chloroethane	64	1.693	1.693	(0.352)	101661	20.0000	20.38
8	Trichlorofluoromethane	101	1.891	1.891	(0.393)	186610	20.0000	21.95
9	Acrolein	56	2.259	2.259	(0.469)	13555	40.0000	36.49
10	Acetone	43	2.405	2.405	(0.500)	105410	40.0000	40.65
11	1,1-Dichloroethene	96	2.326	2.326	(0.483)	106844	20.0000	20.11
15	Iodomethane	142	2.465	2.465	(0.512)	69713	40.0000	25.52
16	Acrylonitrile	53	3.061	3.061	(0.636)	100523	40.0000	38.73
17	Methylene Chloride	84	2.791	2.791	(0.580)	133454	20.0000	20.31
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	301047	20.0000	18.48
19	Carbon Disulfide	76	2.514	2.514	(0.522)	585546	40.0000	41.23
20	trans-1,2-Dichloroethene	96	3.053	3.053	(0.635)	117673	20.0000	20.36
21	Vinyl Acetate	43	3.604	3.604	(0.749)	686124	40.0000	38.96
22	1,1-Dichloroethane	63	3.511	3.511	(0.730)	209138	20.0000	19.05
24	2-Butanone	43	4.264	4.264	(0.886)	120643	40.0000	37.81
26	2,2-Dichloropropane	77	4.178	4.178	(0.868)	139835	20.0000	19.51

27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	136001	20.0000	19.67
28 Chloroform	83	4.568	4.568 (0.949)	226645	20.0000	19.83

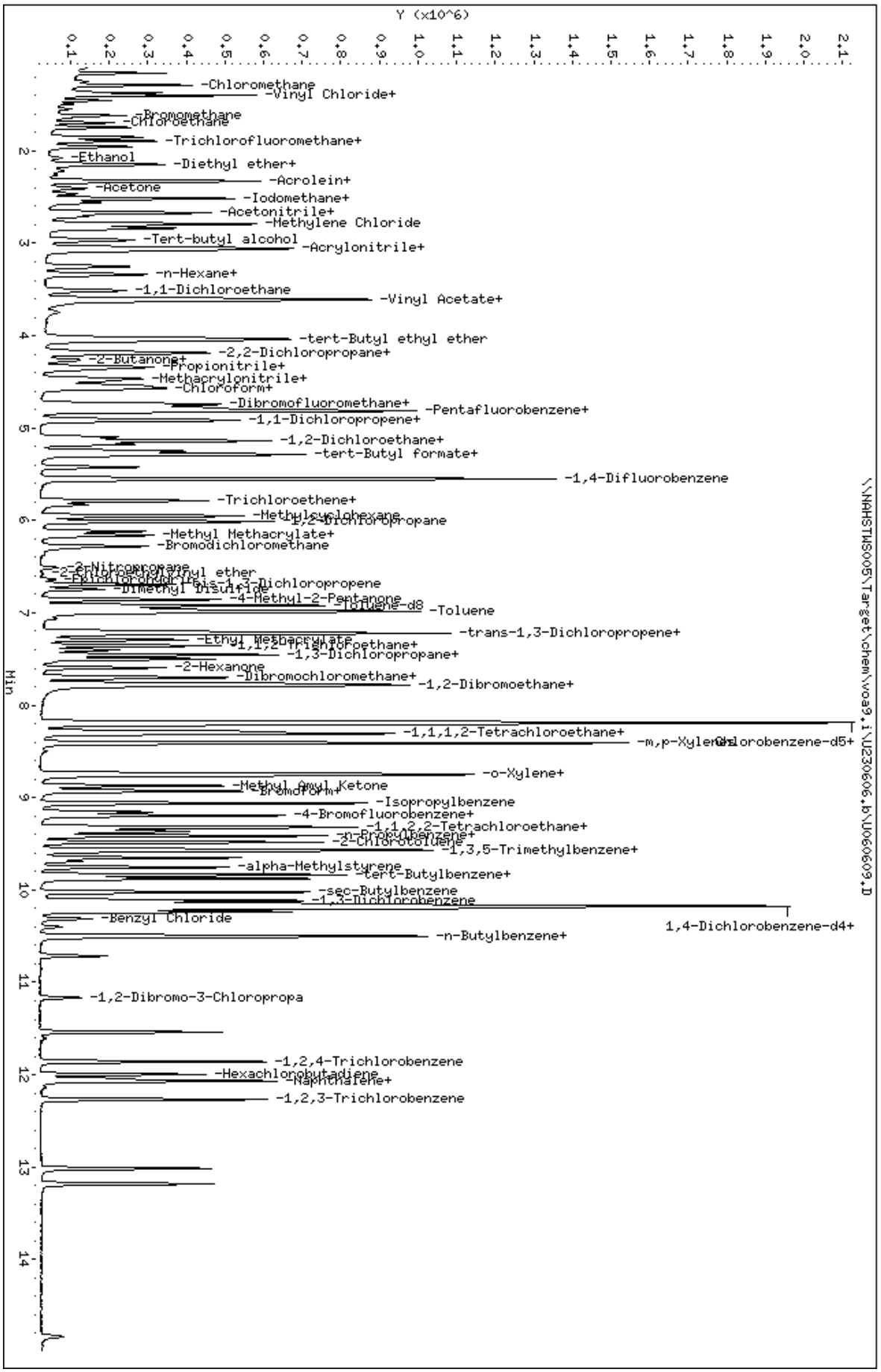
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	75232	20.0000	19.46
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	119153	20.0000	20.09
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	178912	20.0000	20.54
	32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	160757	20.0000	20.96
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	178788	20.0000	19.74
	34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	147458	20.0000	20.93
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	129564	20.0000	19.98
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	1046146	50.0000	
	37 Benzene	78	5.138	5.138	(0.926)	516341	20.0000	20.48
	38 Trichloroethene	130	5.786	5.786	(1.043)	145174	20.0000	19.86
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	153153	20.0000	19.47
	41 2-Chloroethylvinyl ether	63	6.573	6.573	(1.184)	7046	40.0000	37.04(M)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.083)	134169	20.0000	19.93
	44 Dibromomethane	93	6.120	6.120	(1.103)	83709	20.0000	19.46
	45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	288078	40.0000	41.20
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.206)	176588	20.0000	18.03
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	960016	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	445555	20.0000	20.50
	50 Toluene	91	6.982	6.982	(0.853)	554230	20.0000	21.28
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.297)	143978	20.0000	17.64
	52 2-Hexanone	43	7.593	7.593	(0.928)	190529	40.0000	39.13
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	107394	20.0000	19.82
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	226819	20.0000	20.49
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	128911	20.0000	20.05
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	133448	20.0000	21.03
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	132458	20.0000	19.81
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	111769	20.0000	20.80
	59 Chlorobenzene	112	8.208	8.208	(1.003)	374064	20.0000	20.12
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	128313	20.0000	20.08
	61 Ethylbenzene	106	8.305	8.305	(1.015)	179483	20.0000	20.75
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	421040	40.0000	41.14
	63 o-Xylene	106	8.748	8.748	(1.069)	206194	20.0000	20.39
	64 Styrene	104	8.763	8.763	(1.071)	318690	20.0000	19.86
	66 Bromoform	173	8.920	8.920	(1.090)	81243	20.0000	18.72
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	516146	20.0000	21.25
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	178916	20.0000	19.34
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	178335	20.0000	20.30
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	491623	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	151200	20.0000	18.58
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	527972	20.0000	20.47
	74 Bromobenzene	156	9.317	9.317	(0.916)	165398	20.0000	19.93
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	338496	20.0000	19.13
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	380446	20.0000	20.98
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	415563	20.0000	20.71
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	368922	20.0000	21.23
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	349187	20.0000	18.86
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	457784	20.0000	20.77
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	348135	20.0000	18.85
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	280647	20.0000	19.92
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	292174	20.0000	19.45
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	319352	20.0000	20.20
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	281467	20.0000	19.92

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	24061	20.0000	17.83
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	186288	20.0000	19.17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
91	Hexachlorobutadiene	225	11.998	11.998	(1.179)	79518	20.0000	20.26
92	Naphthalene	128	12.069	12.069	(1.186)	445465	20.0000	19.73
93	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	186329	20.0000	19.61
M 94	1,2-Dichloroethylene (total)	96				253674	40.0000	(a)
135	1,4-Dioxane	88	6.168	6.168	(1.282)	38808	400.000	279.28(M)
141	Cyclohexane	56	4.778	4.778	(0.993)	190495	20.0000	22.56
138	Freon TF	101	2.330	2.330	(0.484)	102379	20.0000	21.78
140	1,3-Butadiene	54	1.396	1.396	(0.290)	143212	20.0000	21.60
147	Methylcyclohexane	55	5.947	5.947	(1.072)	271418	20.0000	18.70
146	Methyl Acetate	43	2.708	2.708	(0.563)	109689	20.0000	18.61
148	Tert-Butyl alcohol	59	2.963	2.963	(0.616)	255911	400.000	392.79
149	Isopropyl Alcohol	45	2.558	2.558	(0.532)	166234	400.000	363.36
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	18573	20.0000	16.80(M)
12	Isobutyl Alcohol	43	5.288	5.288	(1.099)	360790	400.000	396.80(M)
13	Acetonitrile	39	2.667	2.667	(0.554)	140672	200.000	185.67
14	Allyl Chloride	41	2.667	2.667	(0.554)	339917	20.0000	18.70
25	Methacrylonitrile	41	4.493	4.493	(0.934)	82790	20.0000	20.02
40	Methyl Methacrylate	41	6.157	6.157	(1.280)	116616	20.0000	19.38
4	Propionitrile	54	4.335	4.335	(0.901)	196157	200.000	193.97(a)
136	n-Hexane	57	3.338	3.338	(0.694)	131033	20.0000	22.86
194	Acetaldehyde	44	1.453	1.453	(0.302)	80793	80.0000	83.70(M)
131	Methyl Acrylate	55	4.365	4.365	(0.907)	140883	20.0000	19.03(M)
200	Dimethyl Disulfide	94	6.746	6.746	(0.824)	75368	20.0000	14.42(M)
23	Chloroprene	53	2.150	2.150	(0.447)	46564	20.0000	20.86(M)
49	Ethyl Methacrylate	69	7.293	7.293	(1.314)	174530	20.0000	19.03
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	336473	20.0000	17.80
167	Ethanol	45	2.075	2.075	(0.431)	33180	400.000	365.81
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	430916	20.0000	17.96
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	141914	20.0000	17.83
142	Tetrahydrofuran	42	4.542	4.542	(0.944)	48081	40.0000	37.45
156	Diisopropyl ether	45	3.619	3.619	(0.752)	362787	20.0000	18.59
151	4-Methyl-2-pentanol	45	7.222	7.222	(1.301)	598756	400.000	384.89
150	Allyl alcohol	57	3.338	3.338	(0.694)	131033	400.000	457.76
86	Benzyl Chloride	91	10.311	10.311	(1.260)	85763	20.0000	17.37
162	Butyl acrylate	55	8.733	8.733	(1.067)	214597	20.0000	18.89
139	Diethyl ether	59	2.139	2.139	(0.445)	88209	20.0000	18.65
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	70007	20.0000	16.56
134	Cyclohexanone	55	9.156	9.156	(0.900)	110447	400.000	362.37(a)
130	Ethyl Acetate	43	4.264	4.264	(0.886)	118985	20.0000	19.02(M)
189	n-Butyl acetate	43	7.705	7.705	(0.941)	210444	20.0000	19.25(M)
182	Epichlorohydrin	57	6.637	6.637	(1.196)	5384	80.0000	62.88

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230606.b\U060609.D
Date : 06-JUN-2023 14:13
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

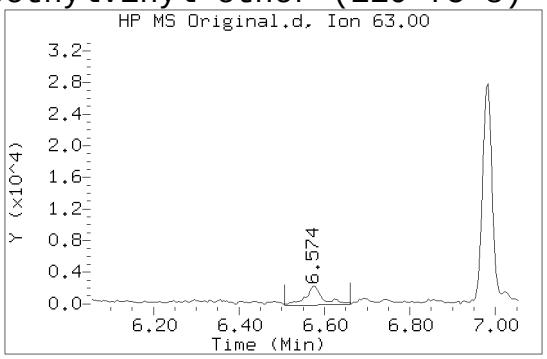
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Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

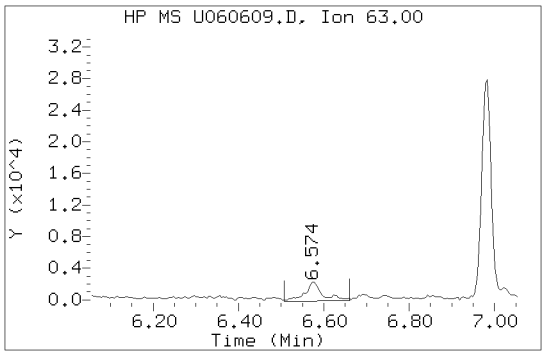
BEFORE

MASS
63
AREA
7046
HEIGHT
2399
08-Jun-2023
14:56
linh
pham



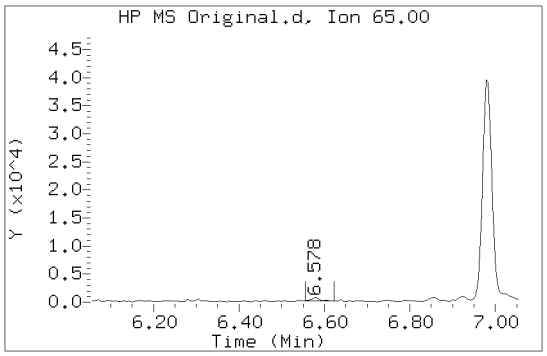
AFTER

MASS
63
AREA
7046
HEIGHT
2399
13-Jun-2023
13:00
linh
pham



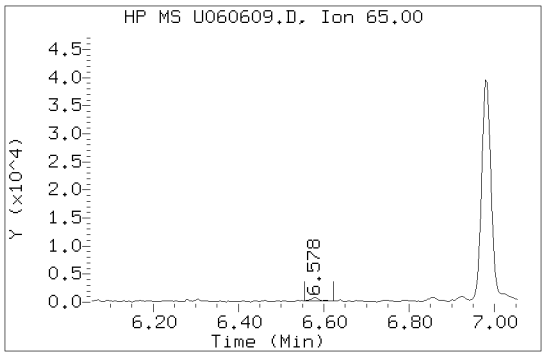
BEFORE

MASS
65
AREA
981
HEIGHT
578
08-Jun-2023
14:56
linh
pham



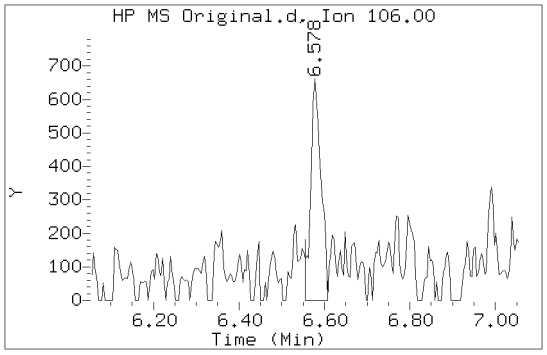
AFTER

MASS
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AREA
981
HEIGHT
578
13-Jun-2023
13:00
linh
pham



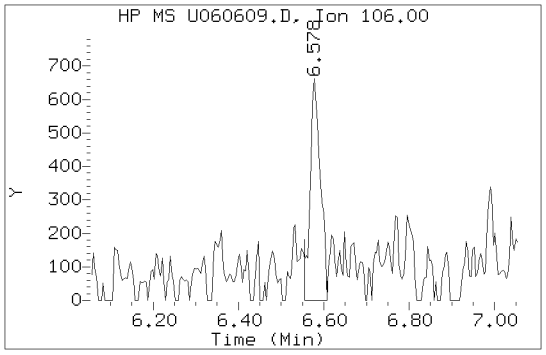
BEFORE

MASS
106
AREA
1114
HEIGHT
662
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
1114
HEIGHT
662
13-Jun-2023
13:00
linh
pham

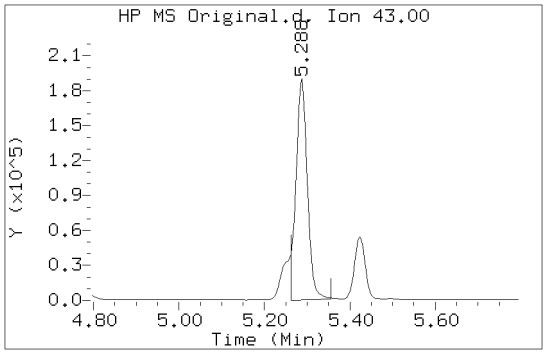


Isobutyl Alcohol (78-83-1)

Reason Code:

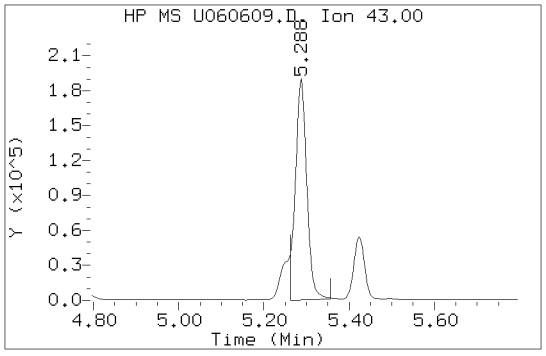
BEFORE

MASS
43
AREA
360790
HEIGHT
189910
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
360790
HEIGHT
189910
13-Jun-2023
13:00
linh
pham



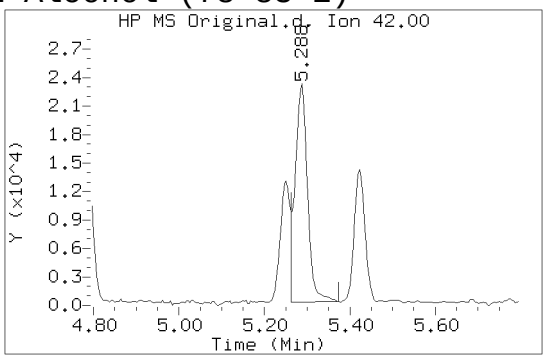
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Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

Isobutyl Alcohol (78-83-1)

Reason Code:

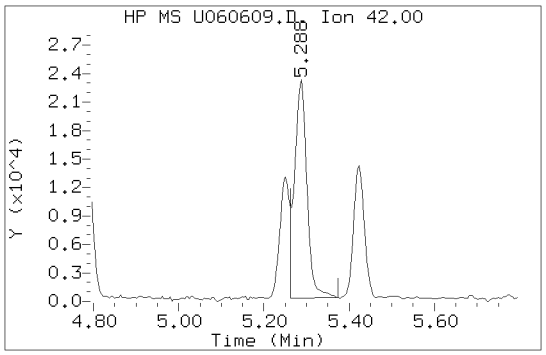
BEFORE

MASS
42
AREA
48295
HEIGHT
22999
08-Jun-2023
14:56
linh
pham



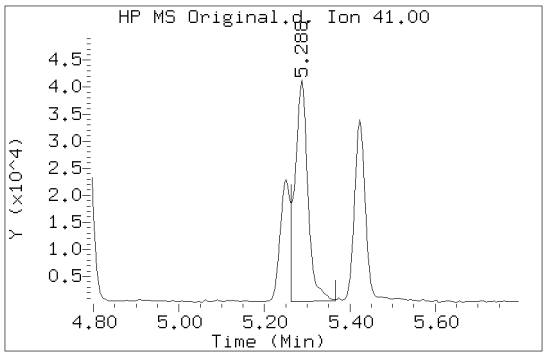
AFTER

MASS
42
AREA
48295
HEIGHT
22999
13-Jun-2023
13:00
linh
pham



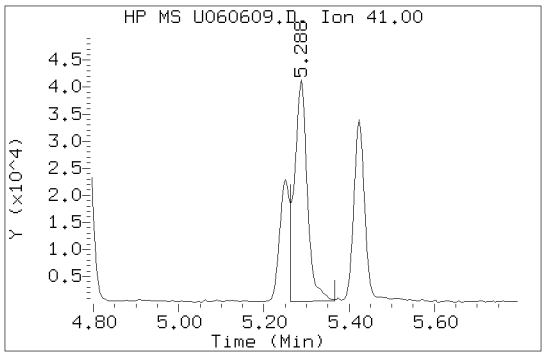
BEFORE

MASS
41
AREA
88268
HEIGHT
40909
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
88268
HEIGHT
40909
13-Jun-2023
13:00
linh
pham

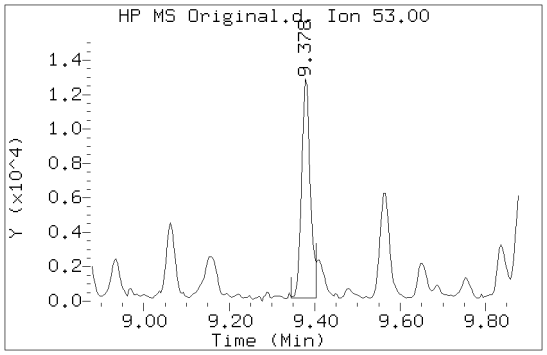


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

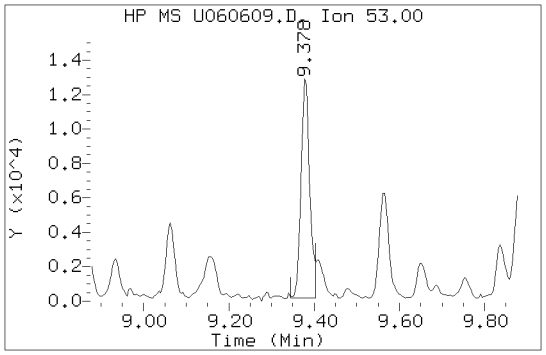
BEFORE

MASS
53
AREA
18573
HEIGHT
12721
08-Jun-2023
14:56
linh
pham



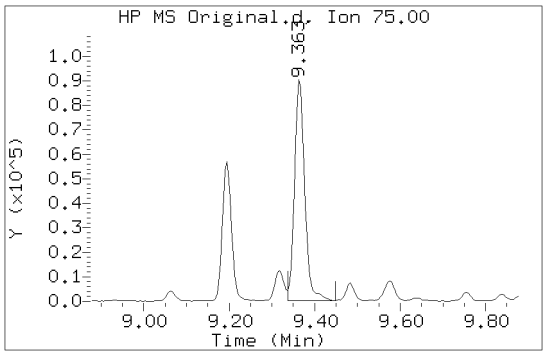
AFTER

MASS
53
AREA
18573
HEIGHT
12721
13-Jun-2023
13:00
linh
pham



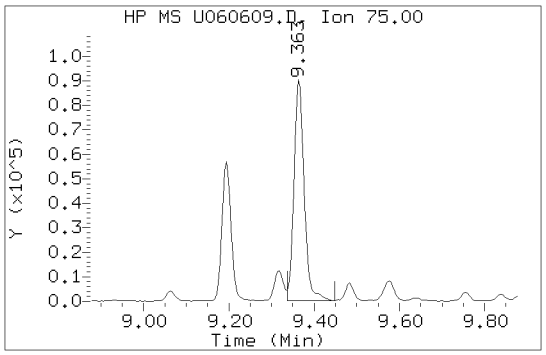
BEFORE

MASS
75
AREA
151200
HEIGHT
90329
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
151200
HEIGHT
90329
13-Jun-2023
13:00
linh
pham

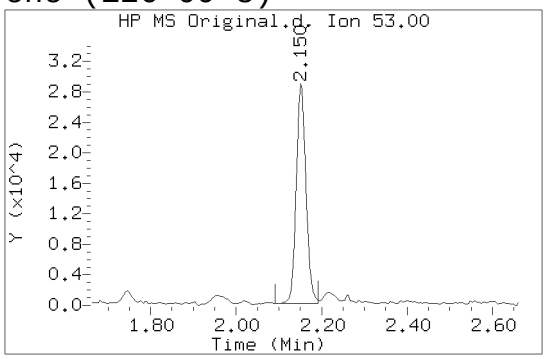


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060609.D
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

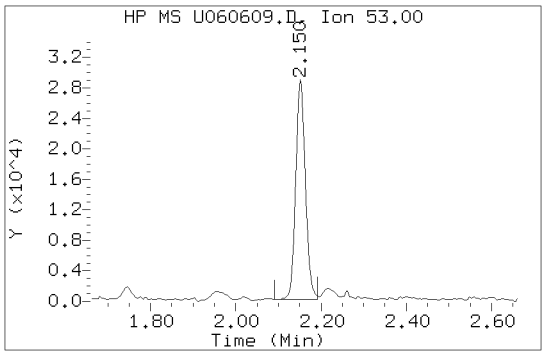
Chloroprene (126-99-8)

Reason Code:

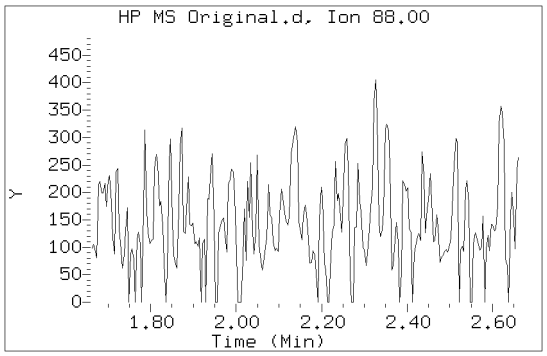
BEFORE
MASS
53
AREA
46564
HEIGHT
28813
08-Jun-2023
14:56
linh
pham



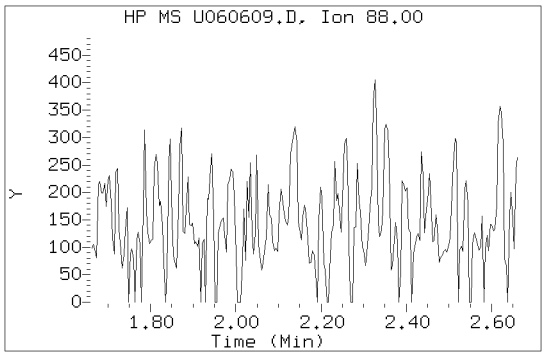
AFTER
MASS
53
AREA
46564
HEIGHT
28813
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



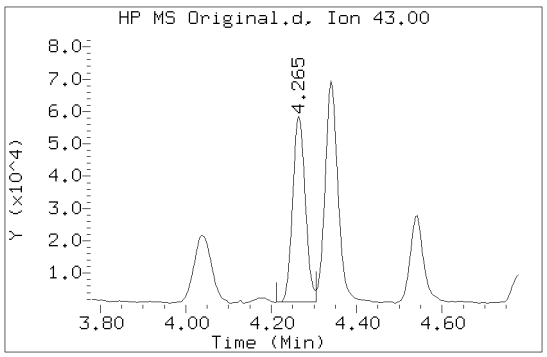
AFTER
MASS
88
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



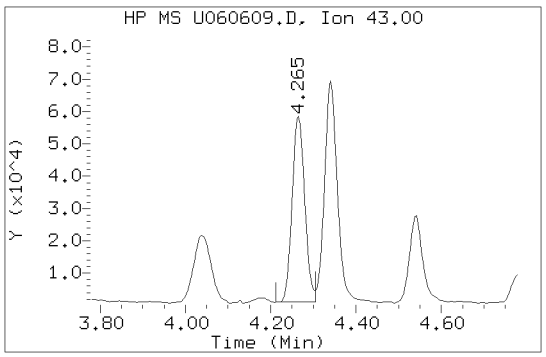
Ethyl Acetate (141-78-6)

Reason Code:

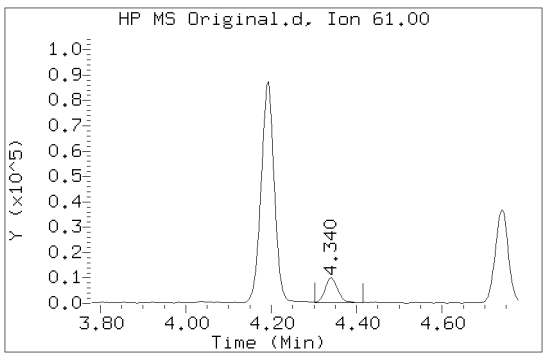
BEFORE
MASS
43
AREA
118985
HEIGHT
57477
08-Jun-2023
14:56
linh
pham



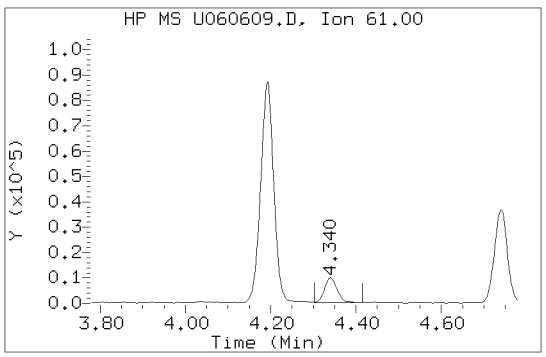
AFTER
MASS
43
AREA
118985
HEIGHT
57477
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
61
AREA
20257
HEIGHT
9732
08-Jun-2023
14:56
linh
pham



AFTER
MASS
61
AREA
20257
HEIGHT
9732
13-Jun-2023
13:00
linh
pham



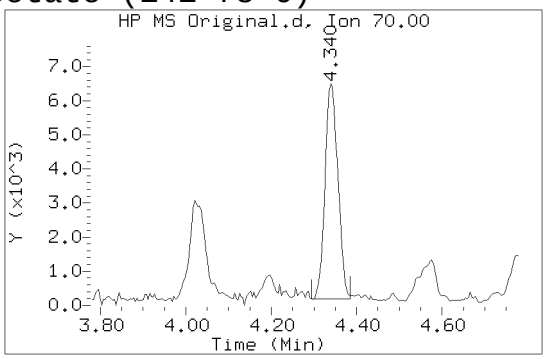
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060609.D
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

Ethyl Acetate (141-78-6)

Reason Code:

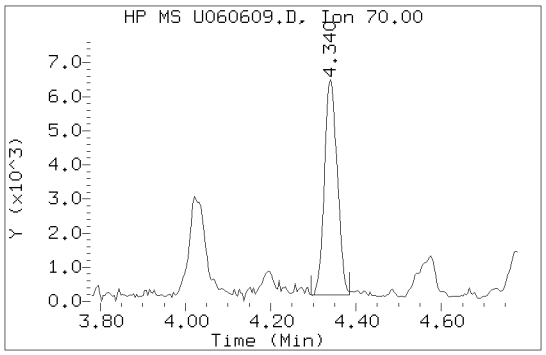
BEFORE

MASS
70
AREA
13212
HEIGHT
6309
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
13212
HEIGHT
6309
13-Jun-2023
13:00
linh
pham

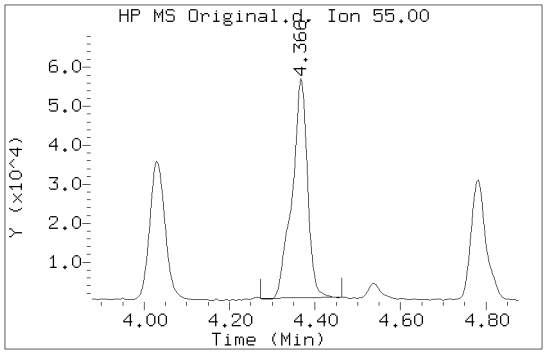


Methyl Acrylate (96-33-3)

Reason Code:

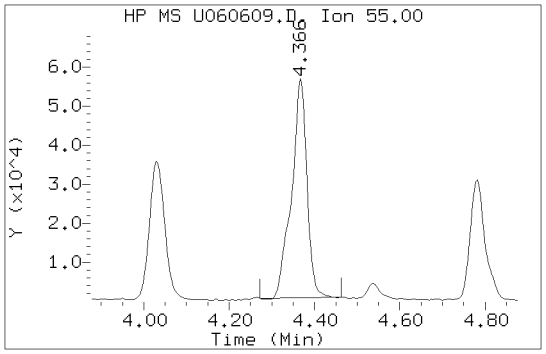
BEFORE

MASS
55
AREA
140883
HEIGHT
56149
08-Jun-2023
14:56
linh
pham



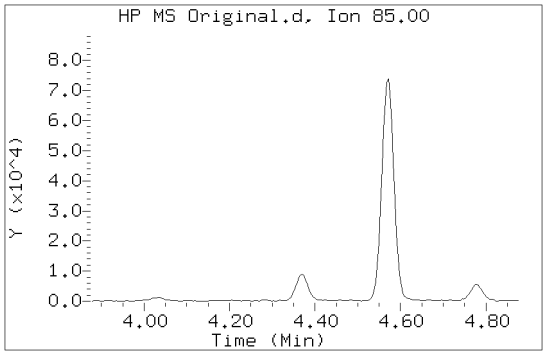
AFTER

MASS
55
AREA
140883
HEIGHT
56149
13-Jun-2023
13:00
linh
pham



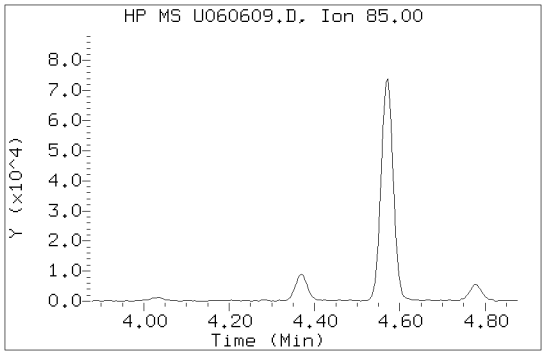
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

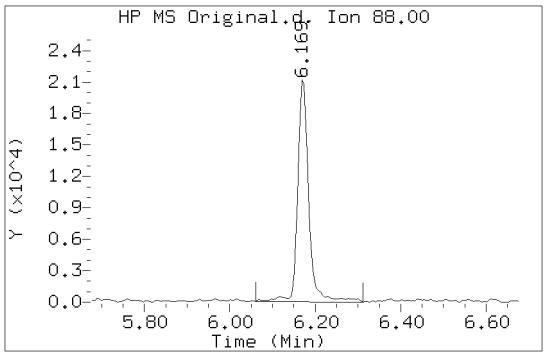


1,4-Dioxane ()

Reason Code:

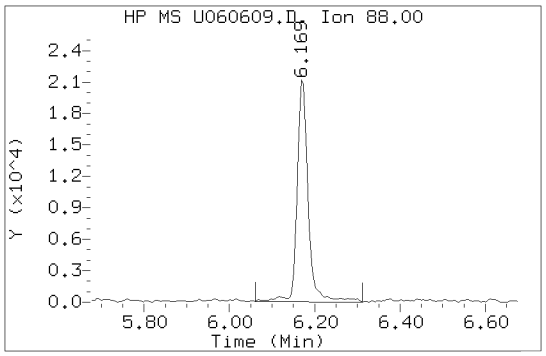
BEFORE

MASS
88
AREA
38808
HEIGHT
21163
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
38808
HEIGHT
21163
13-Jun-2023
13:00
linh
pham



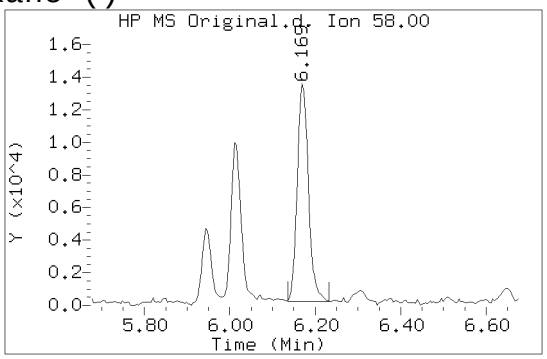
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060609.D
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

1,4-Dioxane ()

Reason Code:

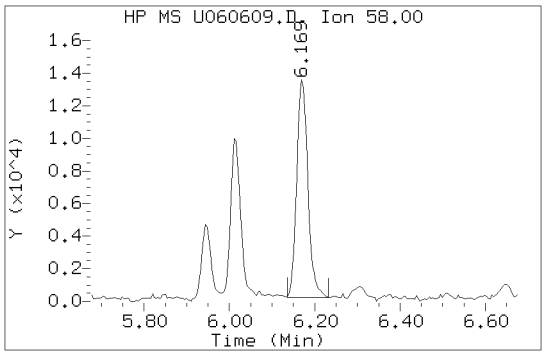
BEFORE

MASS
58
AREA
24573
HEIGHT
13347
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
24573
HEIGHT
13347
13-Jun-2023
13:00
linh
pham

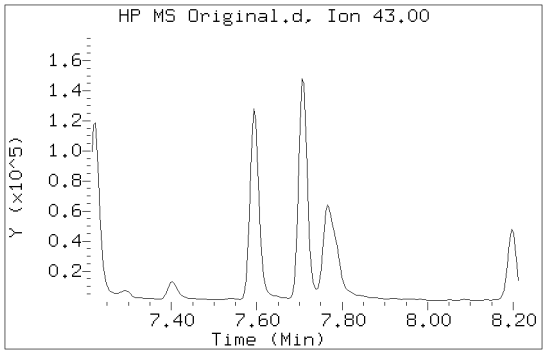


n-Butyl acetate (123-86-4)

Reason Code:

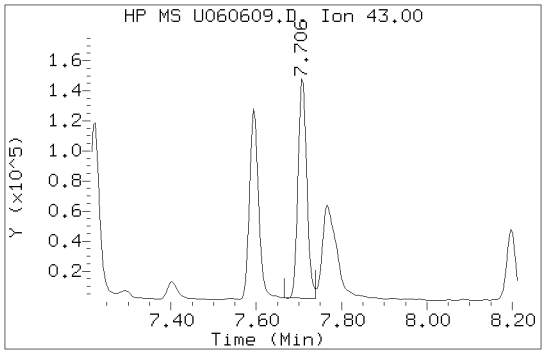
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



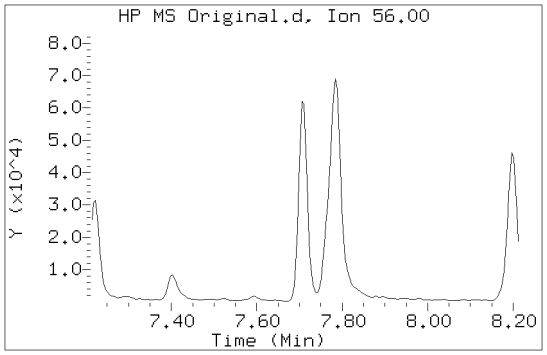
AFTER

MASS
43
AREA
210444
HEIGHT
145880
13-Jun-2023
13:00
linh
pham



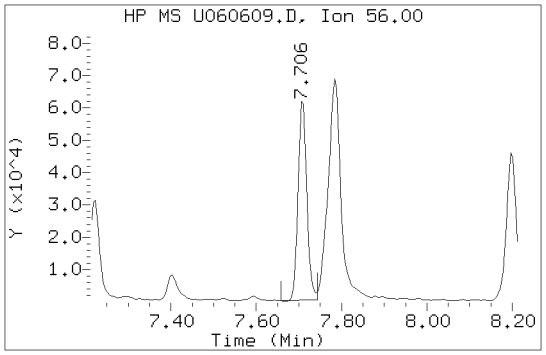
BEFORE

MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



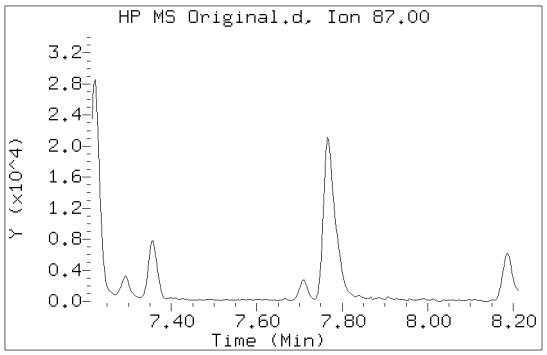
AFTER

MASS
56
AREA
89395
HEIGHT
61609
13-Jun-2023
13:00
linh
pham



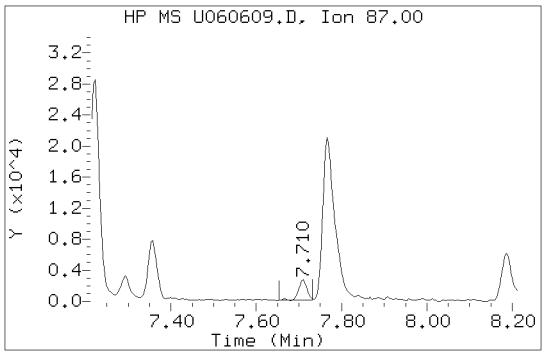
BEFORE

MASS
87
AREA
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
87
AREA
3612
HEIGHT
2635
13-Jun-2023
13:00
linh
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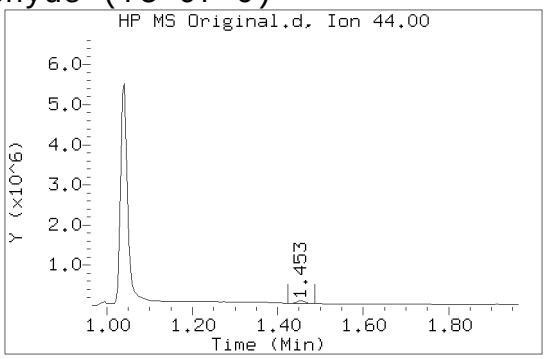
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Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

Acetaldehyde (75-07-0)

Reason Code:

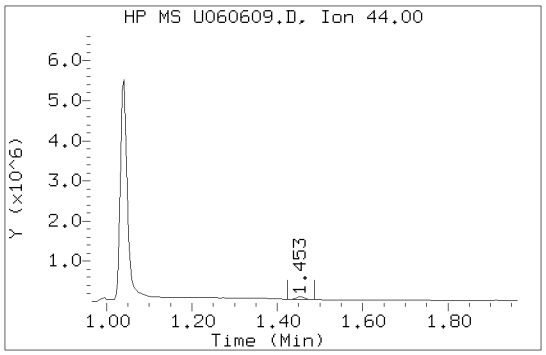
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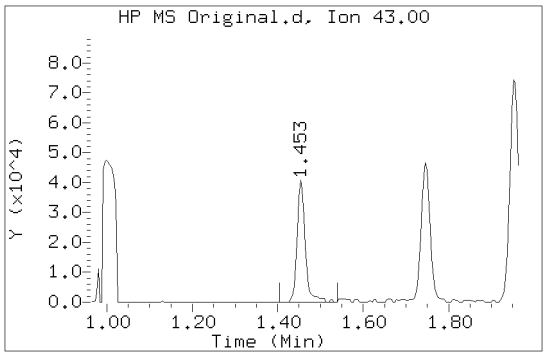
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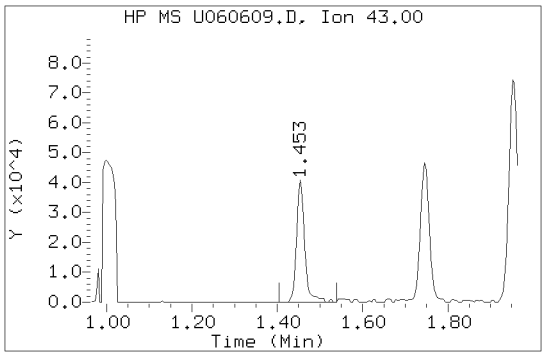
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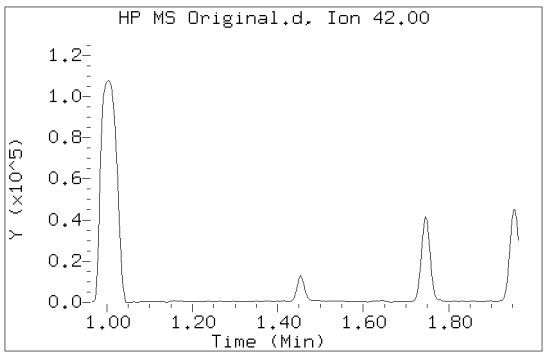
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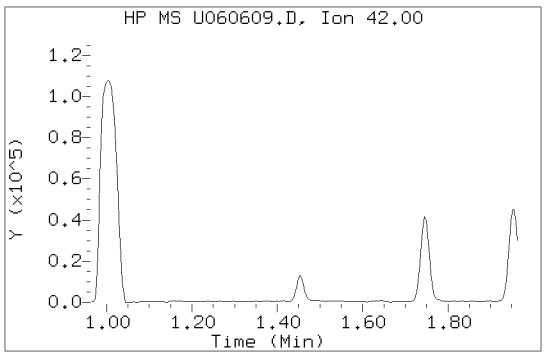
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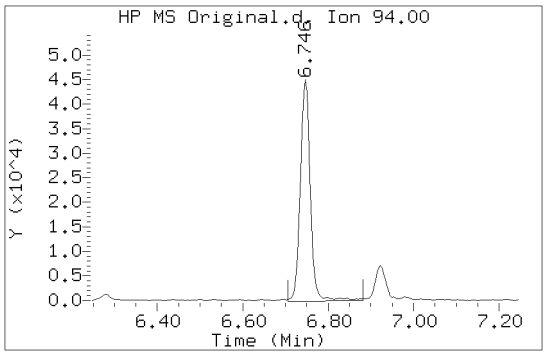


Dimethyl Disulfide (624-92-0)

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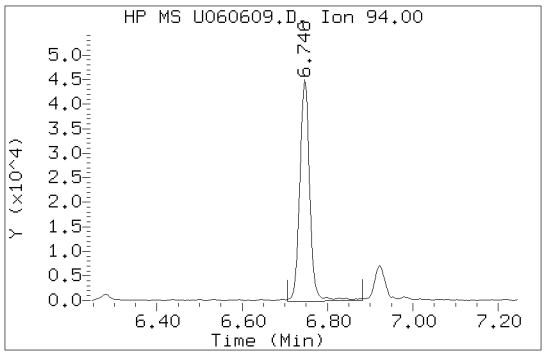
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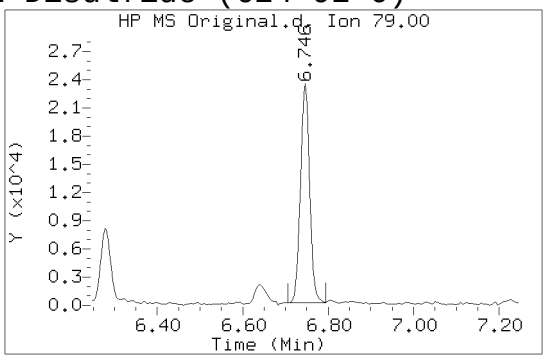
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Dimethyl Disulfide (624-92-0)

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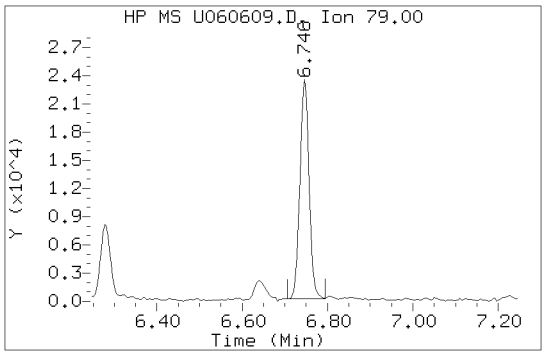
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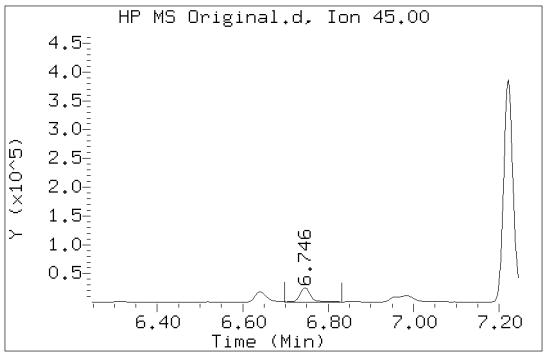
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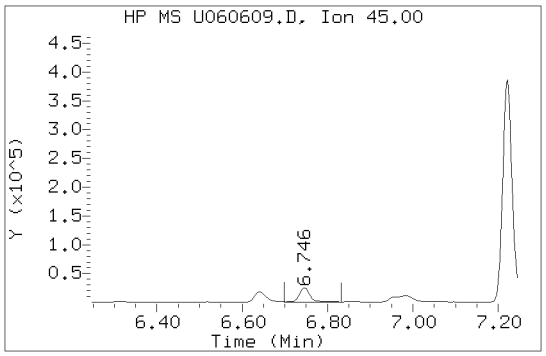
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08-Jun-2023
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AFTER

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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060610.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060610.D
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Inj Date : 06-JUN-2023 14:35
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : V9;WATER;0;1;
Comment :
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Cal Date : 06-JUN-2023 14:13 Cal File: U060609.D
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	676524	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	301782	50.0000	48.28
3	Chloromethane	50	1.303	1.303	(0.270)	533277	50.0000	52.32
5	Vinyl Chloride	62	1.381	1.381	(0.287)	371826	50.0000	51.96
6	Bromomethane	94	1.625	1.625	(0.337)	189385	50.0000	51.52
7	Chloroethane	64	1.704	1.704	(0.354)	235929	50.0000	48.94
8	Trichlorofluoromethane	101	1.903	1.903	(0.395)	408187	50.0000	49.66
9	Acrolein	56	2.270	2.270	(0.471)	34711	100.000	96.66
10	Acetone	43	2.416	2.416	(0.501)	245967	100.000	106.19
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	253953	50.0000	49.45
15	Iodomethane	142	2.476	2.476	(0.514)	311144	100.000	80.01
16	Acrylonitrile	53	3.072	3.072	(0.638)	238722	100.000	95.15
17	Methylene Chloride	84	2.798	2.798	(0.581)	313459	50.0000	50.82
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	751017	50.0000	47.69
19	Carbon Disulfide	76	2.525	2.525	(0.524)	1424175	100.000	103.74
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	287983	50.0000	51.56
21	Vinyl Acetate	43	3.612	3.612	(0.750)	1688425	100.000	99.18
22	1,1-Dichloroethane	63	3.522	3.522	(0.731)	510453	50.0000	48.09
24	2-Butanone	43	4.272	4.272	(0.886)	284571	100.000	92.25
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	344673	50.0000	49.12

27	cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	330459	50.0000	49.46
28	Chloroform	83	4.579	4.579 (0.950)	553969	50.0000	50.15

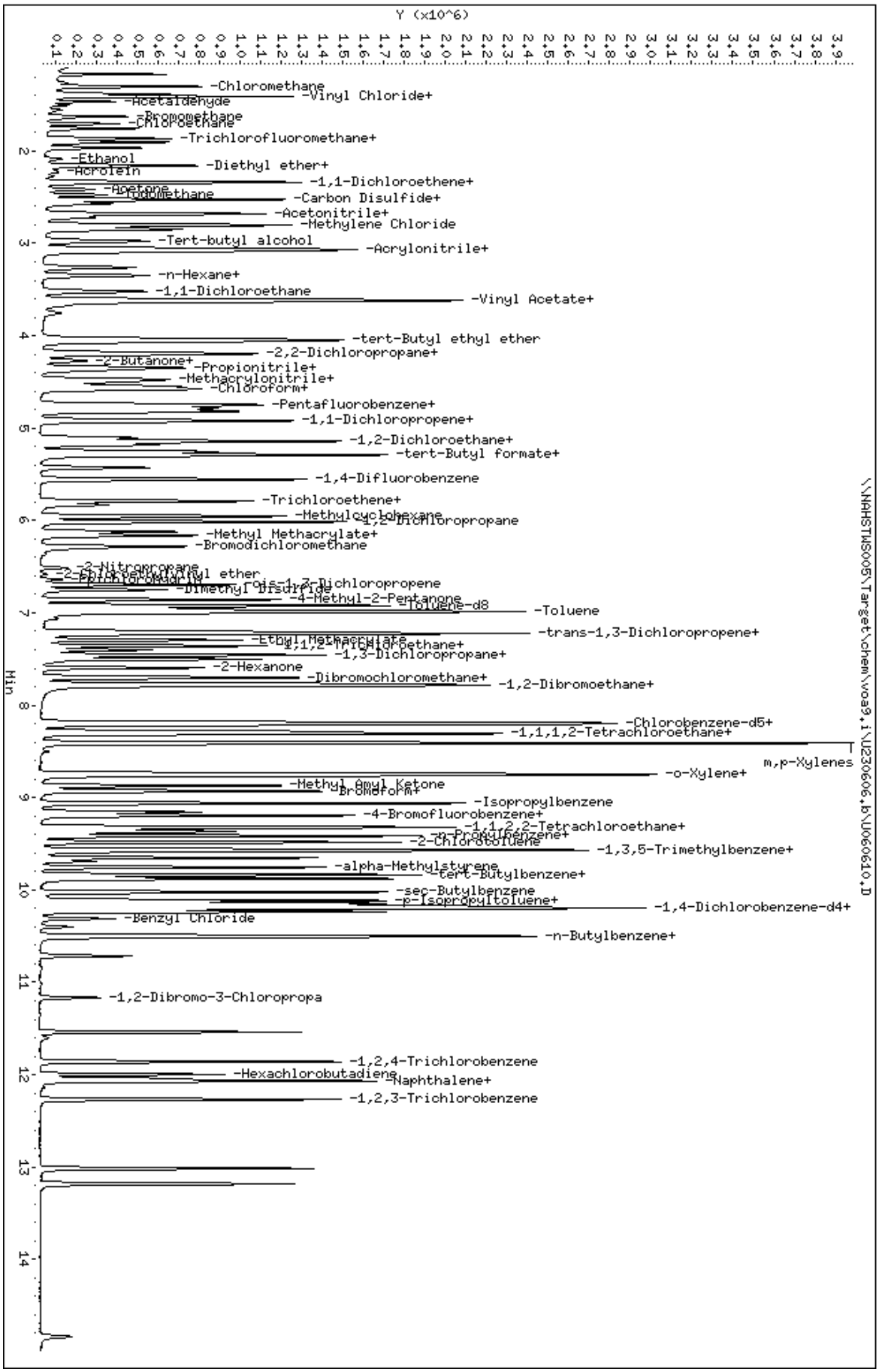
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	180688	50.0000	48.34
$	30 Dibromofluoromethane	113	4.752	4.752	(0.986)	271537	50.0000	47.80
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	427820	50.0000	50.81
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	378122	50.0000	50.72
	33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	428044	50.0000	48.61
	34 Carbon Tetrachloride	117	4.913	4.913	(0.884)	352021	50.0000	51.40
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	303470	50.0000	49.38
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1017200	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	1252175	50.0000	51.08
	38 Trichloroethene	130	5.790	5.790	(1.042)	345905	50.0000	48.68
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	388938	50.0000	50.86
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.184)	17983	100.000	97.24(M)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	326747	50.0000	49.92
	44 Dibromomethane	93	6.124	6.124	(1.102)	203401	50.0000	48.64
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	697558	100.000	98.05
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	477156	50.0000	46.71
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	976881	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1047714	50.0000	47.38(M)
	50 Toluene	91	6.982	6.982	(0.853)	1342745	50.0000	50.67
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	395477	50.0000	46.15
	52 2-Hexanone	43	7.593	7.593	(0.928)	463757	100.000	93.61
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	255402	50.0000	46.32
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	550839	50.0000	48.90
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	344538	50.0000	52.67
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	304966	50.0000	47.24
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	322319	50.0000	47.39
	58 1-Chlorohexane	55	8.197	8.197	(1.475)	234412	50.0000	44.87
	59 Chlorobenzene	112	8.212	8.212	(1.003)	916475	50.0000	48.46
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	327010	50.0000	50.31
	61 Ethylbenzene	106	8.309	8.309	(1.015)	443008	50.0000	50.33
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1096202	100.000	105.27
	63 o-Xylene	106	8.748	8.748	(1.069)	532694	50.0000	51.78
	64 Styrene	104	8.763	8.763	(1.071)	873807	50.0000	53.52
	66 Bromoform	173	8.920	8.920	(1.090)	227224	50.0000	51.46
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	1269616	50.0000	51.38
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	438008	50.0000	45.99
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	425877	50.0000	48.86
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	506267	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	396260	50.0000	47.29
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	1350525	50.0000	50.85
	74 Bromobenzene	156	9.317	9.317	(0.916)	406120	50.0000	47.54
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	873885	50.0000	47.96
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	927058	50.0000	49.66
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1031057	50.0000	49.89
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	874077	50.0000	48.84
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	861955	50.0000	45.21
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1105877	50.0000	48.73
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	895378	50.0000	47.09
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	679277	50.0000	46.82
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	709983	50.0000	45.89
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	741855	50.0000	45.58
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	681773	50.0000	46.86

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	66094	50.0000	47.56
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	468840	50.0000	46.85

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
91	Hexachlorobutadiene	225	11.998	11.998	(1.179)	174158	50.0000	43.10
92	Naphthalene	128	12.065	12.065	(1.186)	1175644	50.0000	50.58
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	463613	50.0000	47.39
M 94	1,2-Dichloroethylene (total)	96				618442	100.000	(a)
135	1,4-Dioxane	88	6.172	6.172	(1.281)	89225	1000.00	664.21
141	Cyclohexane	56	4.785	4.785	(0.993)	384146	50.0000	46.29
138	Freon TF	101	2.341	2.341	(0.486)	217639	50.0000	47.90
140	1,3-Butadiene	54	1.408	1.408	(0.292)	329617	50.0000	51.44
147	Methylcyclohexane	55	5.951	5.951	(1.071)	649753	50.0000	46.04
146	Methyl Acetate	43	2.720	2.720	(0.564)	254836	50.0000	44.73
148	Tert-Butyl alcohol	59	2.975	2.975	(0.617)	592187	1000.00	947.12
149	Isopropyl Alcohol	45	2.570	2.570	(0.533)	395875	1000.00	895.11
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	53071	50.0000	47.18(M)
12	Isobutyl Alcohol	43	5.291	5.291	(1.098)	891975	1000.00	1014.77(M)
13	Acetonitrile	39	2.678	2.678	(0.556)	355989	500.000	486.02
14	Allyl Chloride	41	2.678	2.678	(0.556)	838850	50.0000	47.75
25	Methacrylonitrile	41	4.500	4.500	(0.934)	196618	50.0000	49.19
40	Methyl Methacrylate	41	6.161	6.161	(1.278)	297279	50.0000	51.10
4	Propionitrile	54	4.343	4.343	(0.901)	467472	500.000	478.18
136	n-Hexane	57	3.350	3.350	(0.695)	256401	50.0000	45.49
194	Acetaldehyde	44	1.464	1.464	(0.304)	182837	200.000	195.95(M)
131	Methyl Acrylate	55	4.377	4.377	(0.908)	350463	50.0000	48.98(M)
200	Dimethyl Disulfide	94	6.750	6.750	(0.825)	275143	50.0000	38.98
23	Chloroprene	53	2.165	2.165	(0.449)	103984	50.0000	48.19(M)
49	Ethyl Methacrylate	69	7.293	7.293	(1.312)	443431	50.0000	49.73
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	871855	50.0000	44.80
167	Ethanol	45	2.090	2.090	(0.434)	83818	1000.00	992.72
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	1102255	50.0000	44.63
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	398013	50.0000	42.48
142	Tetrahydrofuran	42	4.549	4.549	(0.944)	124830	100.000	104.57
156	Diisopropyl ether	45	3.627	3.627	(0.753)	905553	50.0000	48.00
151	4-Methyl-2-pentanol	45	7.222	7.222	(1.299)	1360403	1000.00	899.38
150	Allyl alcohol	57	3.350	3.350	(0.695)	256401	1000.00	910.24
86	Benzyl Chloride	91	10.311	10.311	(1.260)	234906	50.0000	40.89
162	Butyl acrylate	55	8.733	8.733	(1.067)	552381	50.0000	47.80
139	Diethyl ether	59	2.150	2.150	(0.446)	220811	50.0000	48.30
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	214955	50.0000	44.70
134	Cyclohexanone	55	9.156	9.156	(0.900)	291143	1000.00	927.60
130	Ethyl Acetate	43	4.272	4.272	(0.886)	275065	50.0000	45.48(M)
189	n-Butyl acetate	43	7.709	7.709	(0.942)	537633	50.0000	48.33(M)
182	Epichlorohydrin	57	6.637	6.637	(1.194)	17348	200.000	179.78

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230606,b\U060610.D
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Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

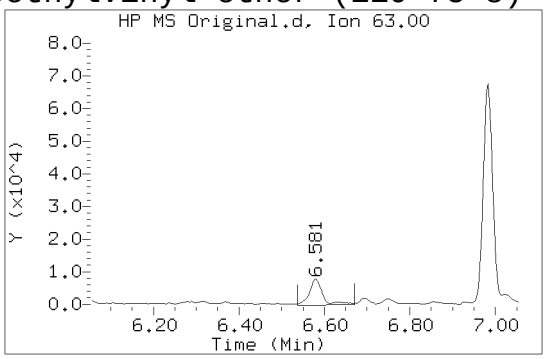
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Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

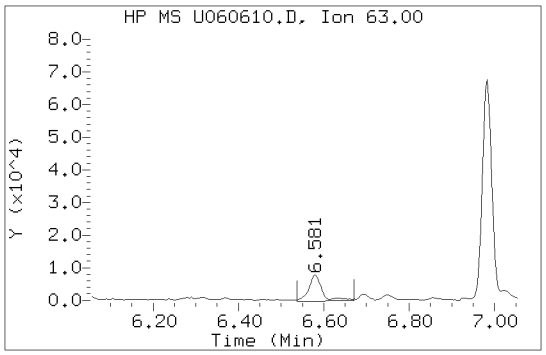
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08-Jun-2023
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linh
pham



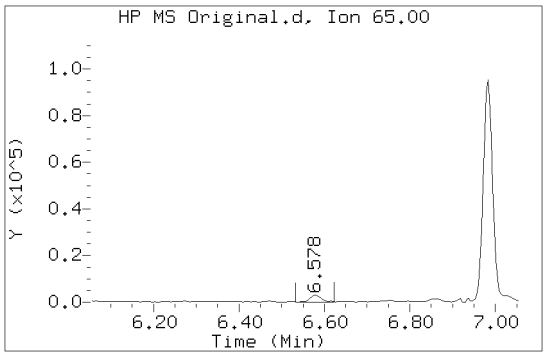
AFTER

MASS
63
AREA
17983
HEIGHT
8031
13-Jun-2023
13:00
linh
pham



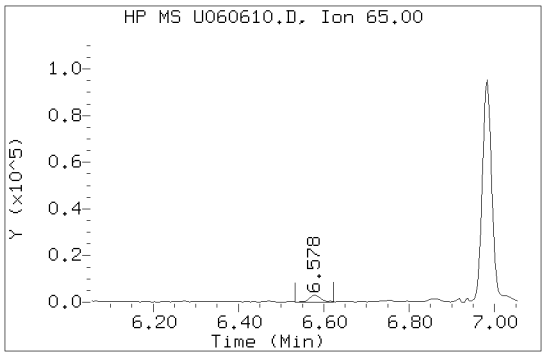
BEFORE

MASS
65
AREA
5137
HEIGHT
2882
08-Jun-2023
14:56
linh
pham



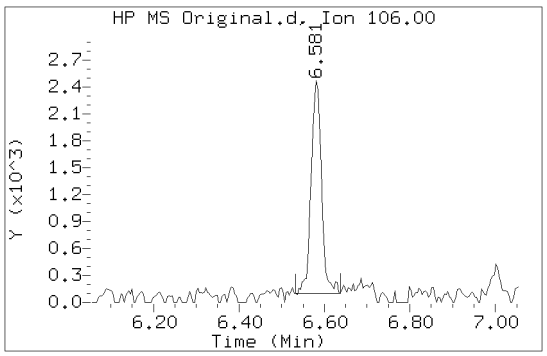
AFTER

MASS
65
AREA
5137
HEIGHT
2882
13-Jun-2023
13:00
linh
pham



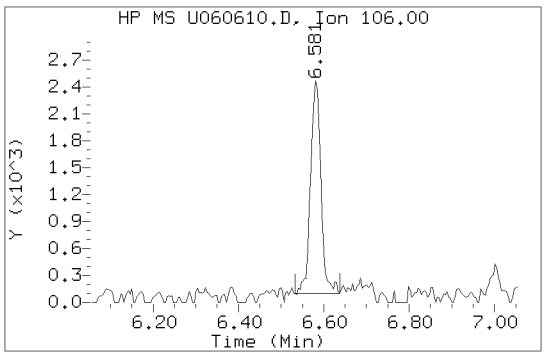
BEFORE

MASS
106
AREA
4026
HEIGHT
2370
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
4026
HEIGHT
2370
13-Jun-2023
13:00
linh
pham

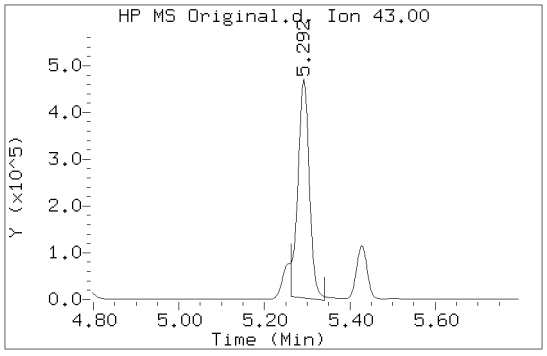


Isobutyl Alcohol (78-83-1)

Reason Code:

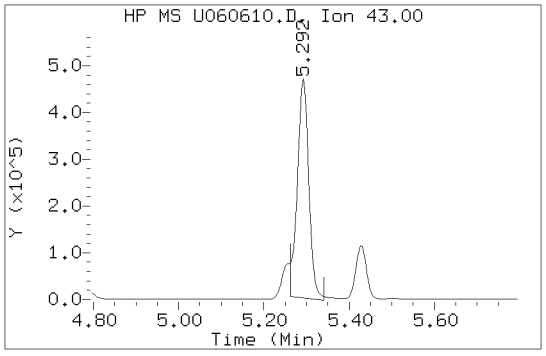
BEFORE

MASS
43
AREA
891975
HEIGHT
468494
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
891975
HEIGHT
468494
13-Jun-2023
13:00
linh
pham



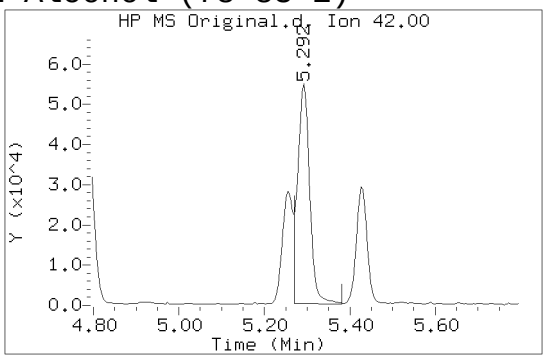
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Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

Isobutyl Alcohol (78-83-1)

Reason Code:

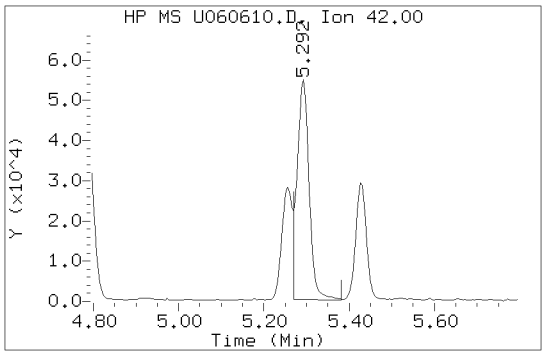
BEFORE

MASS
42
AREA
109693
HEIGHT
54695
08-Jun-2023
14:56
linh
pham



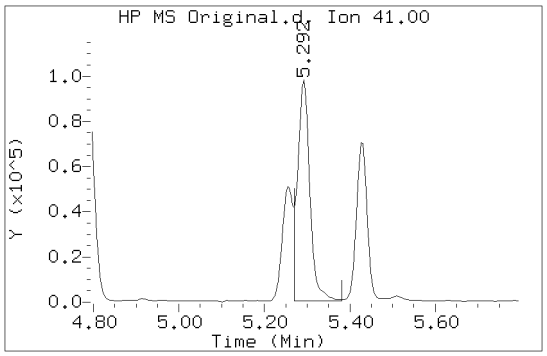
AFTER

MASS
42
AREA
109693
HEIGHT
54695
13-Jun-2023
13:00
linh
pham



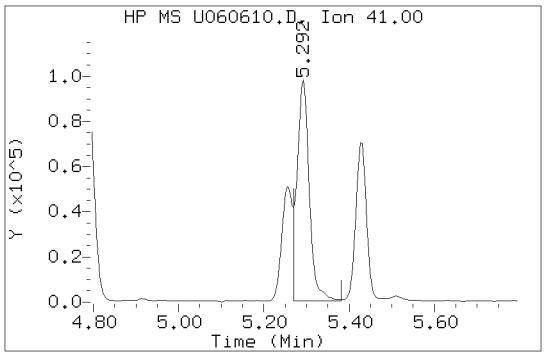
BEFORE

MASS
41
AREA
200117
HEIGHT
97881
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
200117
HEIGHT
97881
13-Jun-2023
13:00
linh
pham

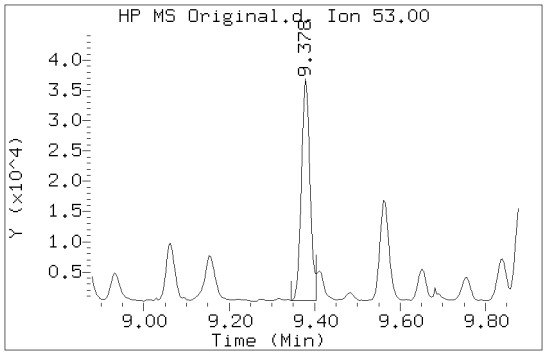


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

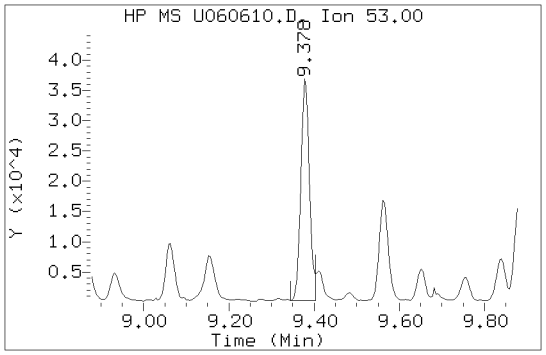
BEFORE

MASS
53
AREA
53071
HEIGHT
36577
08-Jun-2023
14:56
linh
pham



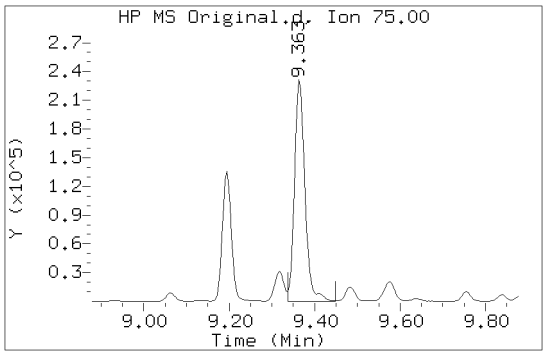
AFTER

MASS
53
AREA
53071
HEIGHT
36577
13-Jun-2023
13:00
linh
pham



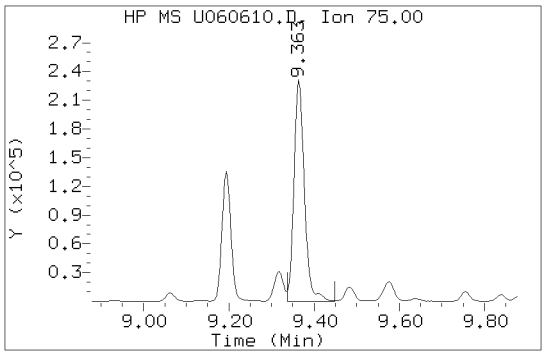
BEFORE

MASS
75
AREA
396260
HEIGHT
231235
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
396260
HEIGHT
231235
13-Jun-2023
13:00
linh
pham

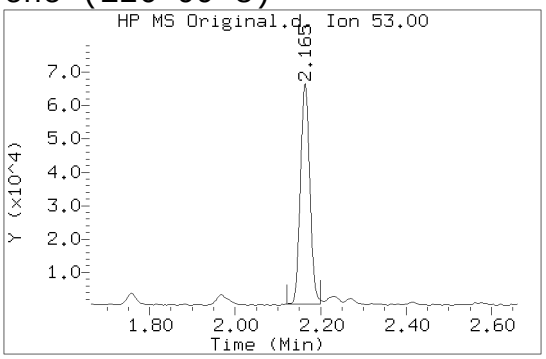


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Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

Chloroprene (126-99-8)

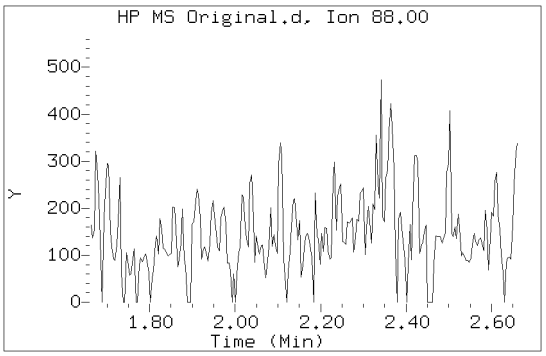
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MASS
53
AREA
103984
HEIGHT
65956
08-Jun-2023
14:56
linh
pham



BEFORE

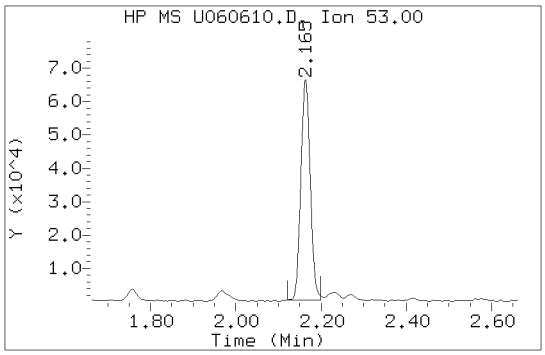
MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



Reason Code:

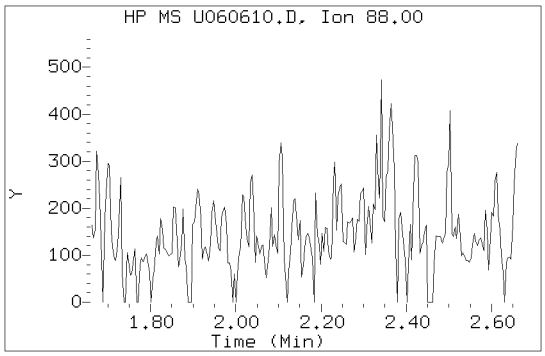
AFTER

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53
AREA
103984
HEIGHT
65956
13-Jun-2023
13:00
linh
pham



AFTER

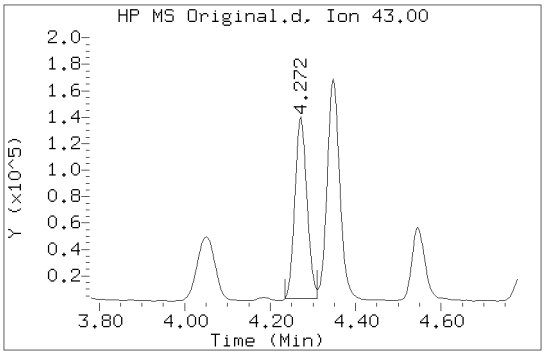
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AREA
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HEIGHT
0
13-Jun-2023
13:00
linh
pham



Ethyl Acetate (141-78-6)

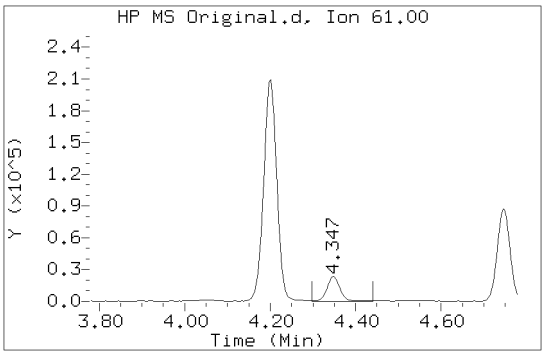
BEFORE

MASS
43
AREA
275065
HEIGHT
137464
08-Jun-2023
14:56
linh
pham



BEFORE

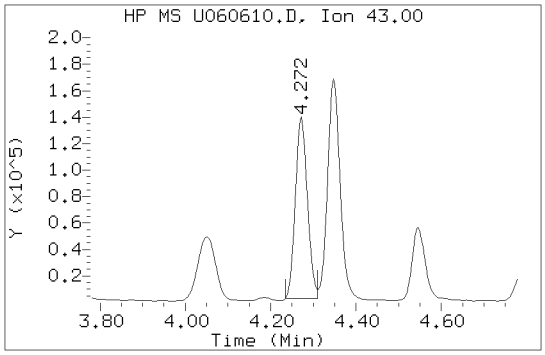
MASS
61
AREA
48522
HEIGHT
23550
08-Jun-2023
14:56
linh
pham



Reason Code:

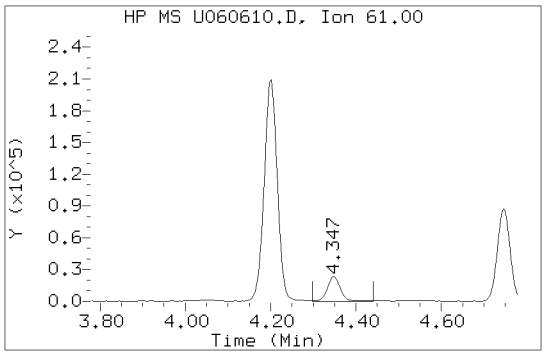
AFTER

MASS
43
AREA
275065
HEIGHT
137464
13-Jun-2023
13:00
linh
pham



AFTER

MASS
61
AREA
48522
HEIGHT
23550
13-Jun-2023
13:00
linh
pham



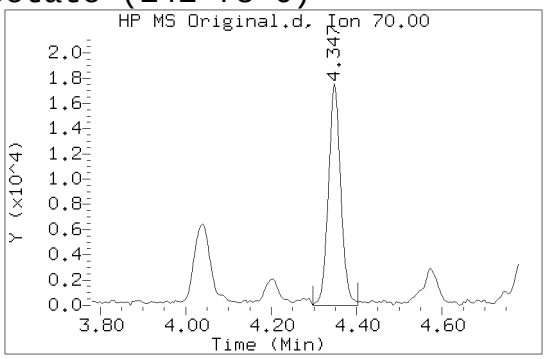
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Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

Ethyl Acetate (141-78-6)

Reason Code:

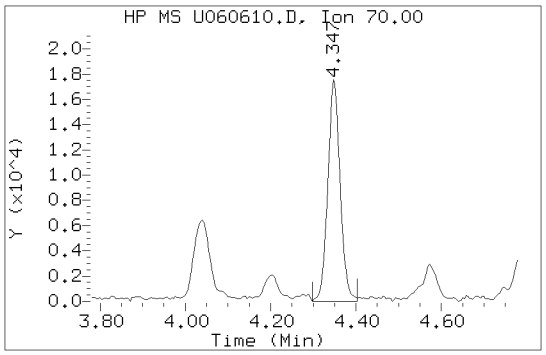
BEFORE

MASS
70
AREA
35210
HEIGHT
17560
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
35210
HEIGHT
17560
13-Jun-2023
13:00
linh
pham

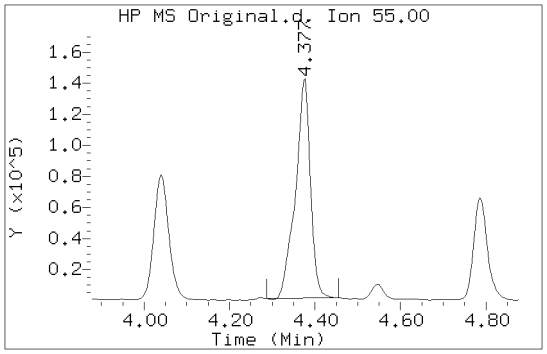


Methyl Acrylate (96-33-3)

Reason Code:

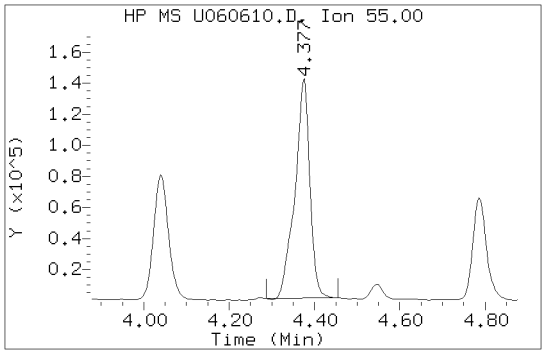
BEFORE

MASS
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AREA
350463
HEIGHT
141367
08-Jun-2023
14:56
linh
pham



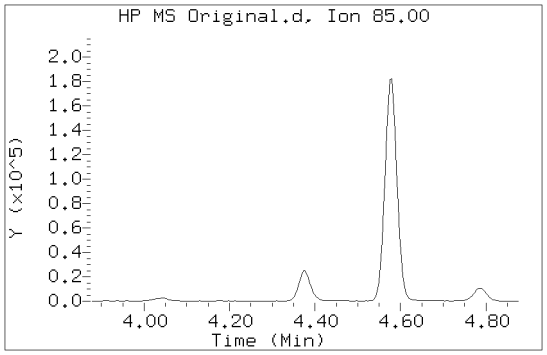
AFTER

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HEIGHT
141367
13-Jun-2023
13:00
linh
pham



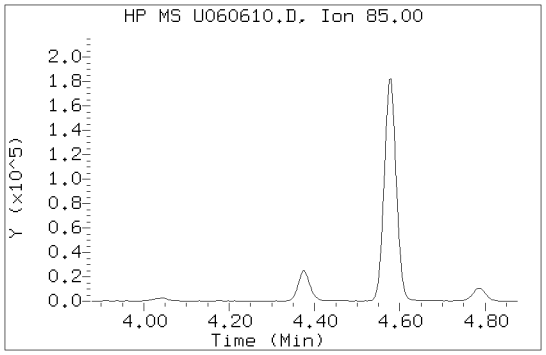
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

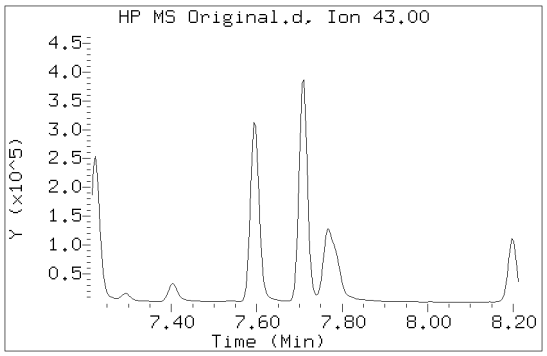


n-Butyl acetate (123-86-4)

Reason Code:

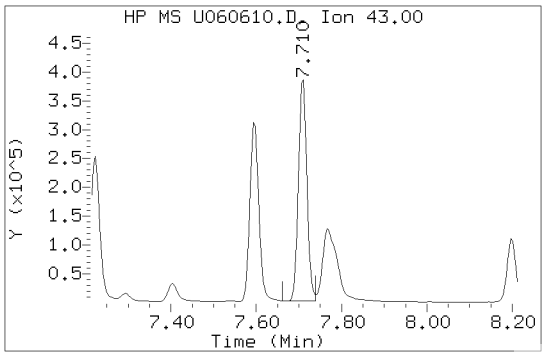
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
537633
HEIGHT
383148
13-Jun-2023
13:00
linh
pham

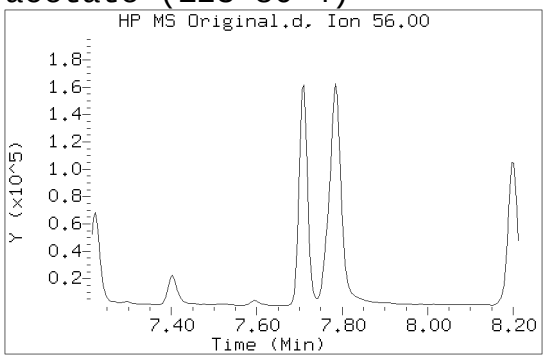


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Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

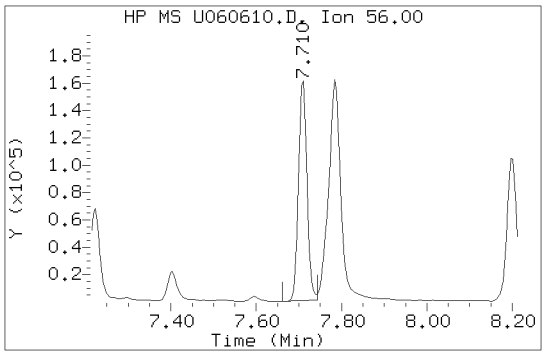
n-Butyl acetate (123-86-4)

Reason Code:

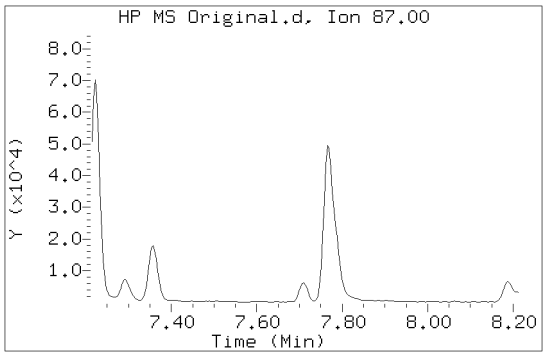
BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



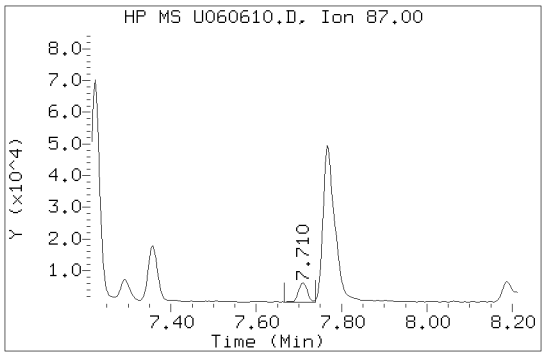
AFTER
MASS
56
AREA
225501
HEIGHT
160546
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



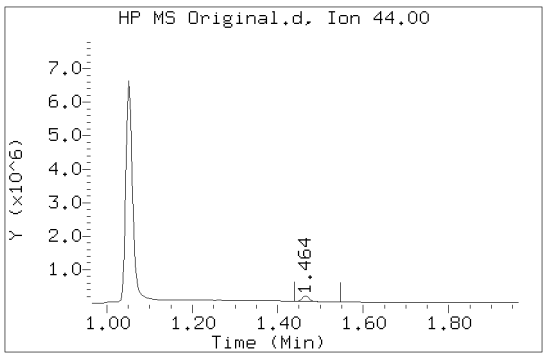
AFTER
MASS
87
AREA
8948
HEIGHT
6014
13-Jun-2023
13:00
linh
pham



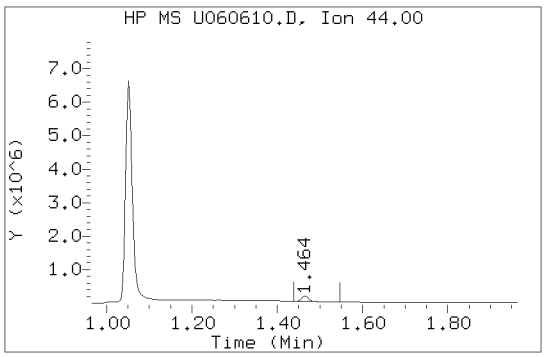
Acetaldehyde (75-07-0)

Reason Code:

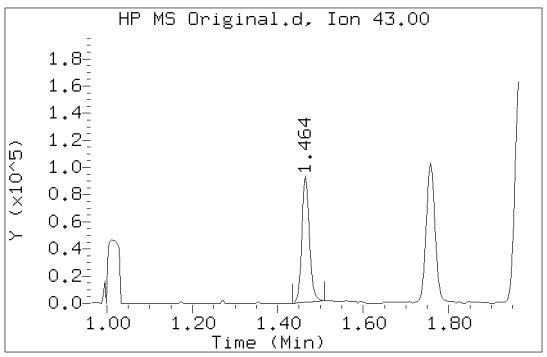
BEFORE
MASS
44
AREA
182837
HEIGHT
160861
08-Jun-2023
14:56
linh
pham



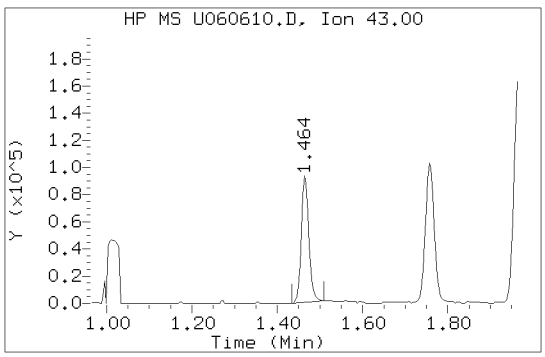
AFTER
MASS
44
AREA
182837
HEIGHT
160861
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
43
AREA
115916
HEIGHT
93282
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
115916
HEIGHT
93282
13-Jun-2023
13:00
linh
pham



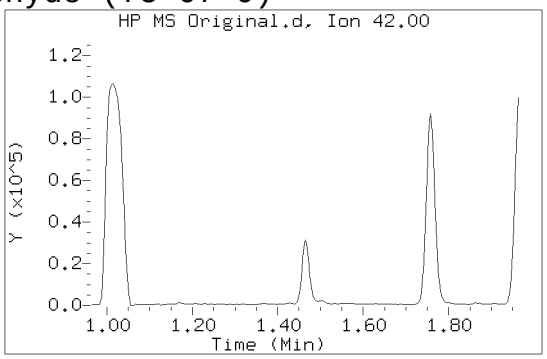
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060610.D
Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

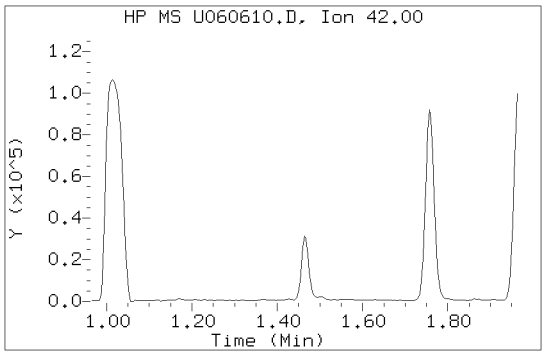
BEFORE

MASS
42
AREA
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
13-Jun-2023
13:00
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pham

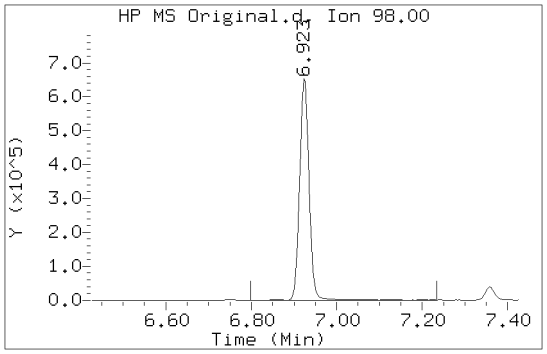


Toluene-d8 (2037-26-5)

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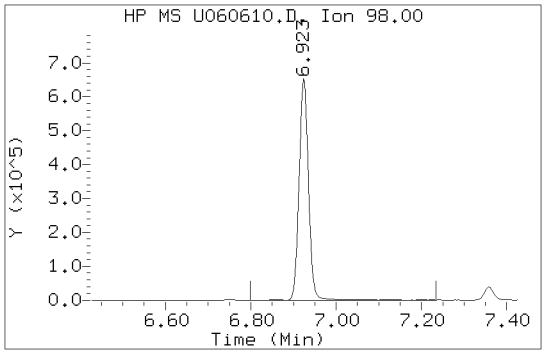
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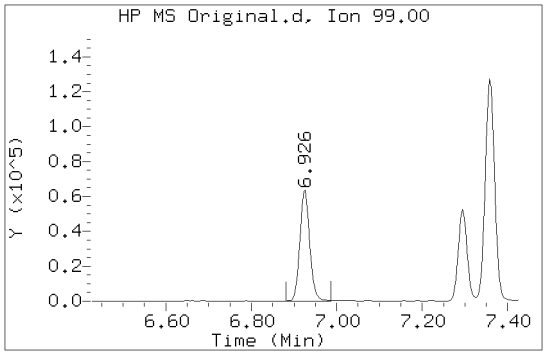
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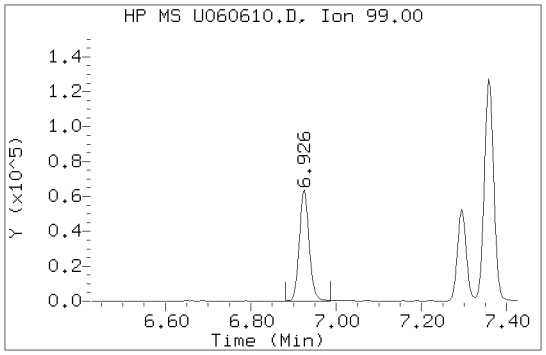
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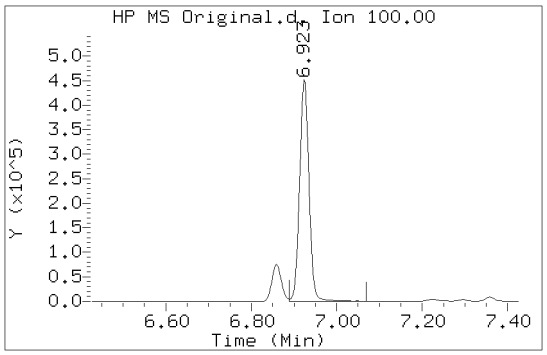
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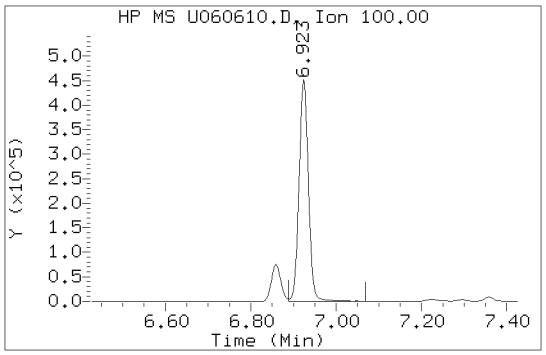
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AFTER

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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060611.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060611.D
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Inj Date : 06-JUN-2023 14:57
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:01 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 12 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	670070	50.0000	
2	Dichlorodifluoromethane	85	1.171	1.171	(0.243)	630744	100.000	101.79
3	Chloromethane	50	1.303	1.303	(0.270)	979734	100.000	98.21
5	Vinyl Chloride	62	1.385	1.385	(0.288)	740321	100.000	104.45
6	Bromomethane	94	1.621	1.621	(0.337)	362834	100.000	101.38
7	Chloroethane	64	1.704	1.704	(0.354)	467539	100.000	97.92
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	855761	100.000	105.12
9	Acrolein	56	2.274	2.274	(0.472)	67908	200.000	190.93
10	Acetone	43	2.416	2.416	(0.501)	467276	200.000	208.92
11	1,1-Dichloroethene	96	2.341	2.341	(0.486)	513614	100.000	100.98
15	Iodomethane	142	2.476	2.476	(0.514)	901104	200.000	199.55
16	Acrylonitrile	53	3.072	3.072	(0.638)	516348	200.000	207.79
17	Methylene Chloride	84	2.802	2.802	(0.582)	614571	100.000	101.61
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	1584444	100.000	101.58
19	Carbon Disulfide	76	2.528	2.528	(0.525)	2847374	200.000	209.40
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	568535	100.000	102.78
21	Vinyl Acetate	43	3.616	3.616	(0.750)	3561924	200.000	211.24
22	1,1-Dichloroethane	63	3.522	3.522	(0.731)	1000189	100.000	95.14
24	2-Butanone	43	4.272	4.272	(0.886)	586975	200.000	192.13
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	699035	100.000	100.17

27	cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	653745	100.000	98.79
28	Chloroform	83	4.579	4.579 (0.950)	1087668	100.000	99.41

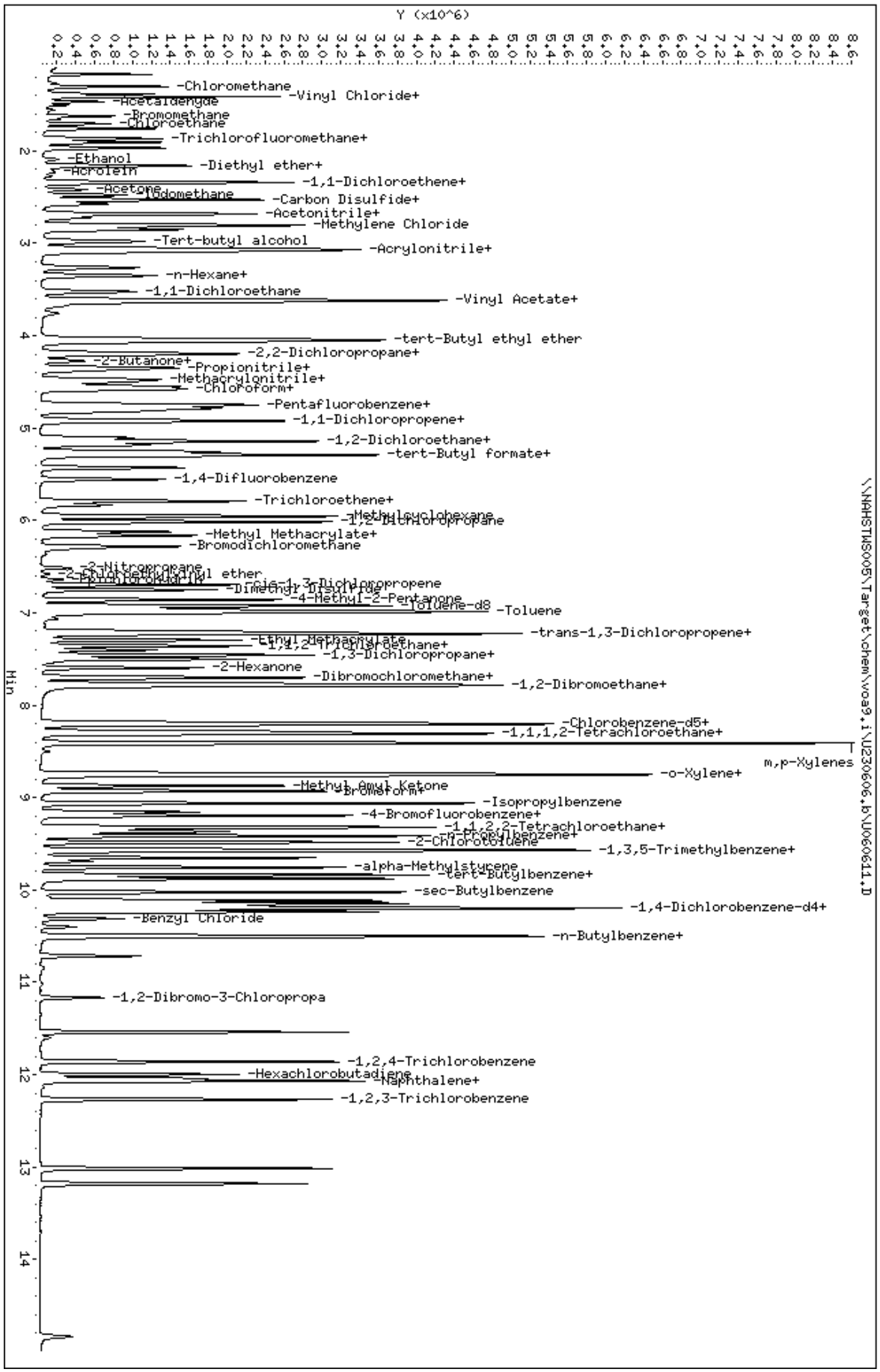
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	353937	100.000	95.61
$	30 Dibromofluoromethane	113	4.755	4.755	(0.987)	587291	100.000	104.76
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	877070	100.000	105.18
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	789905	100.000	106.49
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	859937	100.000	98.17
	34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	751459	100.000	110.29
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	630129	100.000	104.27
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1012041	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	2477058	100.000	101.57
	38 Trichloroethene	130	5.790	5.790	(1.042)	703907	100.000	99.58
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	818290	100.000	107.56
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.184)	40457	200.000	219.88
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	652200	100.000	100.16
	44 Dibromomethane	93	6.123	6.123	(1.102)	418327	100.000	100.55
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	1453246	200.000	201.66
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	1015887	100.000	97.77
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	989593	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	2212089	100.000	98.76
	50 Toluene	91	6.982	6.982	(0.853)	2683985	100.000	99.99
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	857257	100.000	98.18
	52 2-Hexanone	43	7.593	7.593	(0.928)	985396	200.000	196.34
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	529613	100.000	94.83
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1115267	100.000	97.74
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	737148	100.000	111.24
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	639857	100.000	97.84
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	667663	100.000	96.91
	58 1-Chlorohexane	55	8.196	8.196	(1.475)	524953	100.000	101.01
	59 Chlorobenzene	112	8.211	8.211	(1.003)	1872827	100.000	97.76
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	680431	100.000	103.34
	61 Ethylbenzene	106	8.309	8.309	(1.015)	943978	100.000	105.87
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	2348572	200.000	222.64
	63 o-Xylene	106	8.748	8.748	(1.069)	1136322	100.000	109.04
	64 Styrene	104	8.763	8.763	(1.071)	1895390	100.000	114.61
	66 Bromoform	173	8.920	8.920	(1.090)	516461	100.000	115.46
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	2761754	100.000	110.34
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	908699	100.000	94.04
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	923899	100.000	105.68
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	513703	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	846266	100.000	99.55
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	3014111	100.000	111.86
	74 Bromobenzene	156	9.317	9.317	(0.916)	845025	100.000	97.49
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1940177	100.000	104.95
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1931083	100.000	101.94
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	2158910	100.000	102.96
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1926006	100.000	106.08
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	1885486	100.000	97.48
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	2529836	100.000	109.87
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	2089715	100.000	108.33
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1428807	100.000	97.05
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1475761	100.000	94.02
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	1713959	100.000	103.79
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1414908	100.000	95.85

89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	145818	100.000	103.41
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1004776	100.000	98.96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
91	Hexachlorobutadiene	225	11.998	11.998	(1.179)	399123	100.000	97.34
92	Naphthalene	128	12.065	12.065	(1.186)	2448621	100.000	103.83
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	976842	100.000	98.42
M 94	1,2-Dichloroethylene (total)	96				1222280	200.000	(a)
135	1,4-Dioxane	88	6.172	6.172	(1.281)	185267	2000.00	1392.45
141	Cyclohexane	56	4.785	4.785	(0.993)	872566	100.000	102.63
138	Freon TF	101	2.345	2.345	(0.487)	480519	100.000	106.77
140	1,3-Butadiene	54	1.411	1.411	(0.293)	678126	100.000	106.86
147	Methylcyclohexane	55	5.951	5.951	(1.071)	1558687	100.000	111.02(A)
146	Methyl Acetate	43	2.720	2.720	(0.564)	537399	100.000	95.24
148	Tert-Butyl alcohol	59	2.978	2.978	(0.618)	1263261	2000.00	2045.59
149	Isopropyl Alcohol	45	2.573	2.573	(0.534)	847444	2000.00	1934.60
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	125171	100.000	109.85(M)
12	Isobutyl Alcohol	43	5.291	5.291	(1.098)	1859195	2000.00	2135.51(M)
13	Acetonitrile	39	2.678	2.678	(0.556)	750162	1000.00	1034.05
14	Allyl Chloride	41	2.678	2.678	(0.556)	1757558	100.000	101.02
25	Methacrylonitrile	41	4.500	4.500	(0.934)	417519	100.000	105.46
40	Methyl Methacrylate	41	6.161	6.161	(1.278)	629718	100.000	109.29
4	Propionitrile	54	4.347	4.347	(0.902)	963710	1000.00	995.29
136	n-Hexane	57	3.349	3.349	(0.695)	595793	100.000	102.41
194	Acetaldehyde	44	1.468	1.468	(0.305)	401024	400.000	433.93(M)
131	Methyl Acrylate	55	4.377	4.377	(0.908)	743794	100.000	104.95(M)
200	Dimethyl Disulfide	94	6.749	6.749	(0.825)	843448	100.000	100.11
23	Chloroprene	53	2.165	2.165	(0.449)	214456	100.000	100.34(M)
49	Ethyl Methacrylate	69	7.293	7.293	(1.312)	960371	100.000	108.25
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	1877988	100.000	95.10
167	Ethanol	45	2.094	2.094	(0.435)	175232	2000.00	2120.76
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	2526635	100.000	100.82
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	939505	100.000	94.14
142	Tetrahydrofuran	42	4.549	4.549	(0.944)	246154	200.000	210.54
156	Diisopropyl ether	45	3.631	3.631	(0.753)	1887901	100.000	101.04
151	4-Methyl-2-pentanol	45	7.222	7.222	(1.299)	3087346	2000.00	2051.50
150	Allyl alcohol	57	3.349	3.349	(0.695)	595793	2000.00	2048.16
86	Benzyl Chloride	91	10.311	10.311	(1.260)	573982	100.000	93.75
162	Butyl acrylate	55	8.733	8.733	(1.067)	1240696	100.000	105.99
139	Diethyl ether	59	2.154	2.154	(0.447)	464259	100.000	102.54
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	534360	100.000	100.35
134	Cyclohexanone	55	9.156	9.156	(0.900)	605439	2000.00	1901.05
130	Ethyl Acetate	43	4.272	4.272	(0.886)	580165	100.000	96.86(M)
189	n-Butyl acetate	43	7.709	7.709	(0.942)	1156578	100.000	102.64(M)
182	Epichlorohydrin	57	6.633	6.633	(1.194)	42530	400.000	396.34

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.



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Column phase: DB624

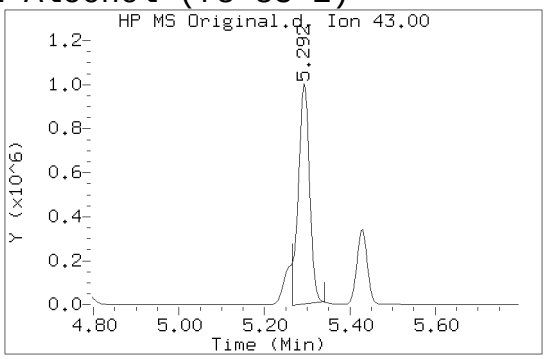
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Operator: PC
Column diameter: 0.18

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Inj Date : 06-JUN-2023 14:57
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LabSampID : VSTD100

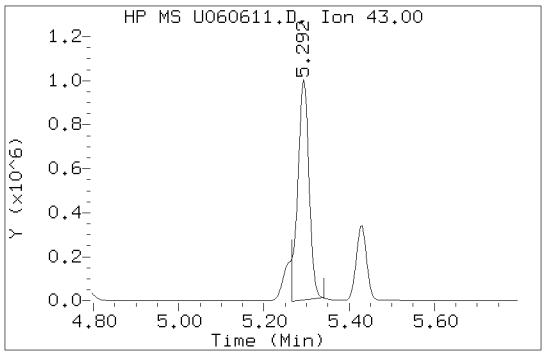
Isobutyl Alcohol (78-83-1)

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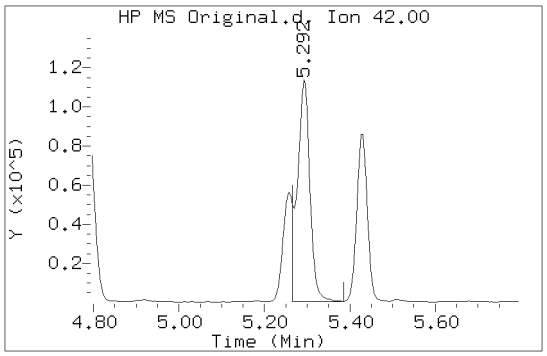
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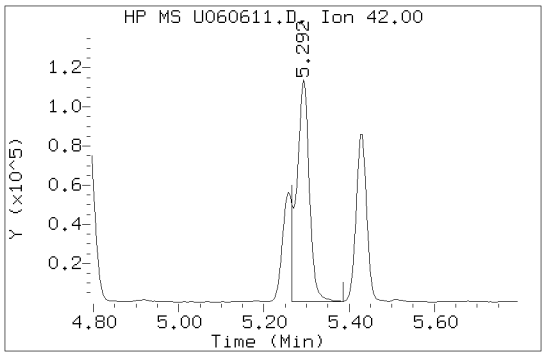
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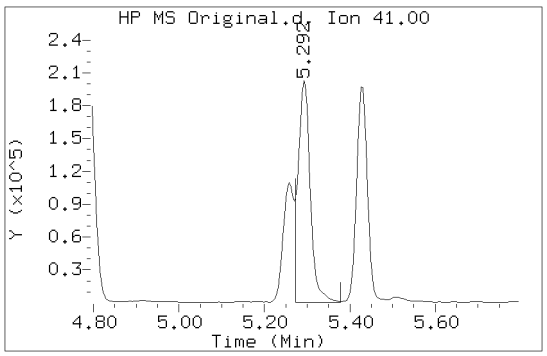
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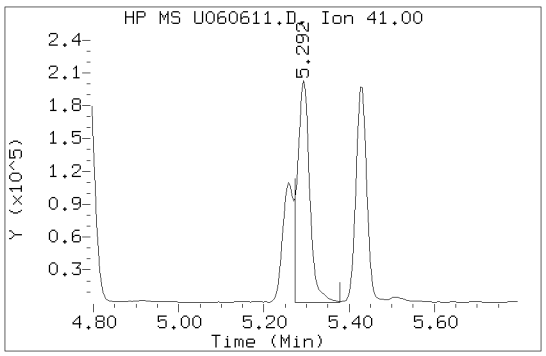
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BEFORE
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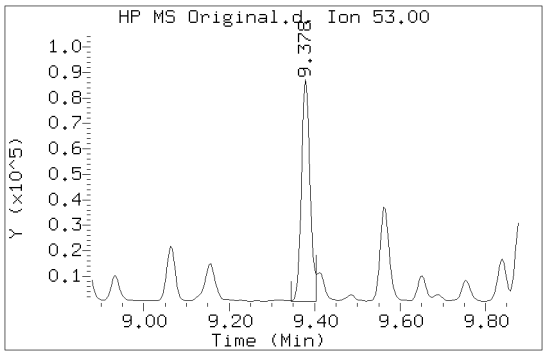
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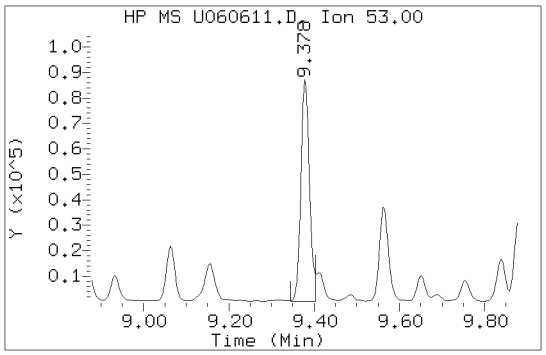
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

BEFORE
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08-Jun-2023
14:56
linh
pham



AFTER
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13-Jun-2023
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pham



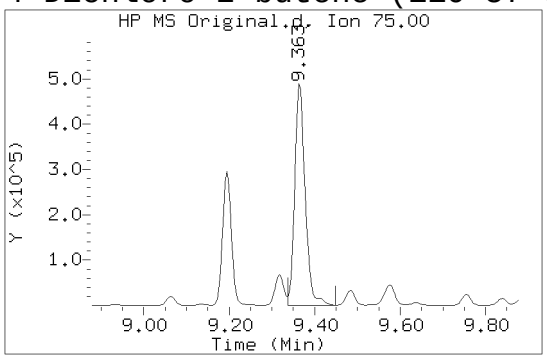
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Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

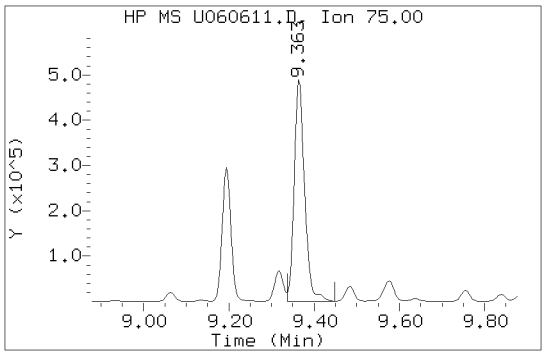
BEFORE

MASS
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489169
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
846266
HEIGHT
489169
13-Jun-2023
13:00
linh
pham

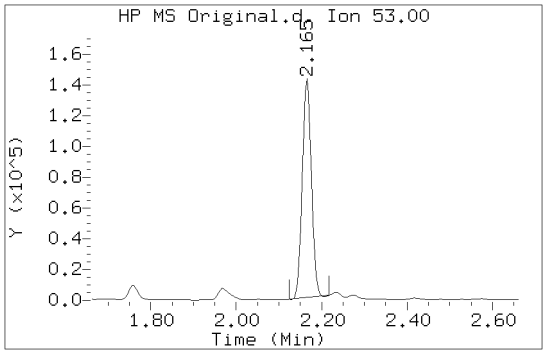


Chloroprene (126-99-8)

Reason Code:

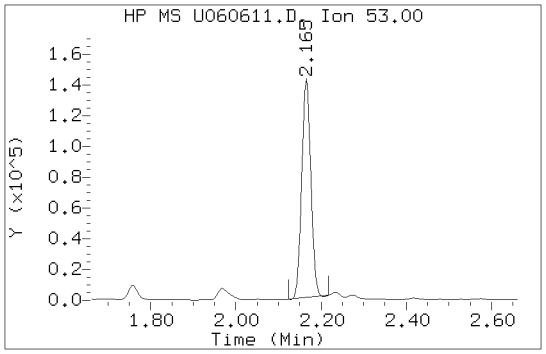
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08-Jun-2023
14:56
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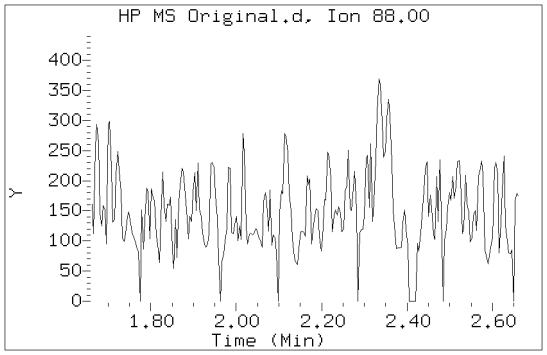
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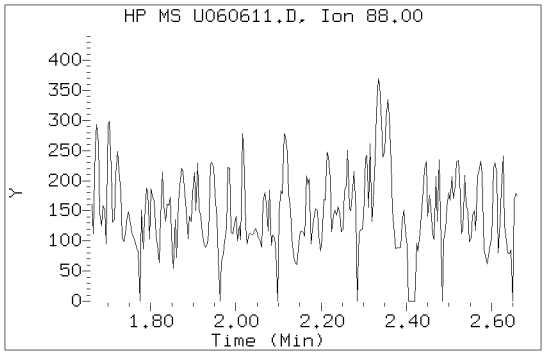
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08-Jun-2023
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AFTER

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HEIGHT
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13-Jun-2023
13:00
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pham

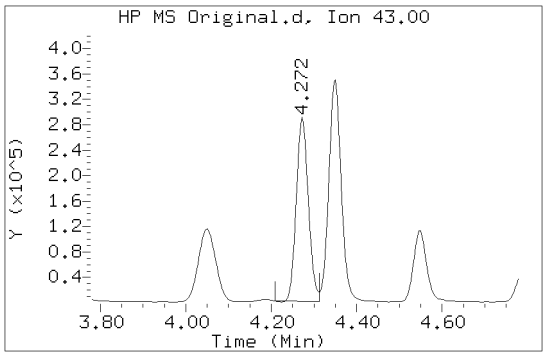


Ethyl Acetate (141-78-6)

Reason Code:

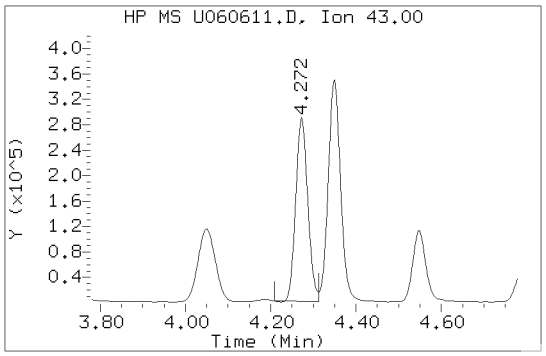
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HEIGHT
290116
08-Jun-2023
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AFTER

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AREA
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HEIGHT
290116
13-Jun-2023
13:00
linh
pham



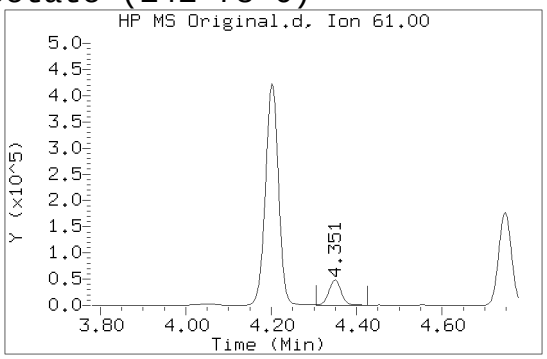
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Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

Ethyl Acetate (141-78-6)

Reason Code:

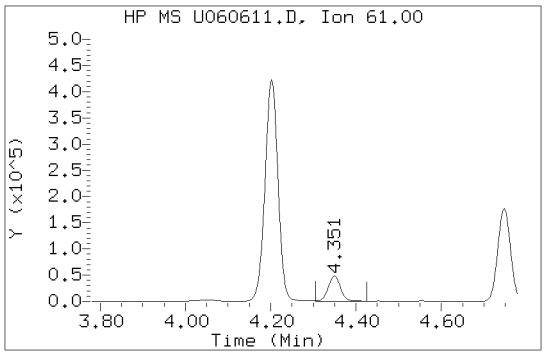
BEFORE

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HEIGHT
48556
08-Jun-2023
14:56
linh
pham



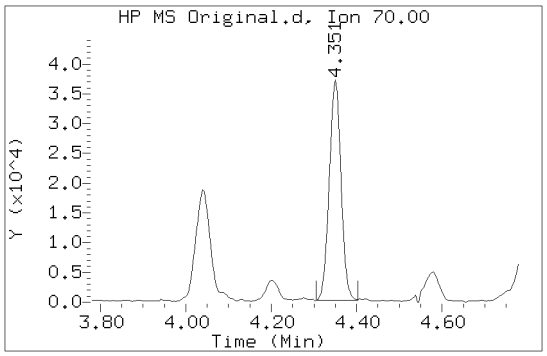
AFTER

MASS
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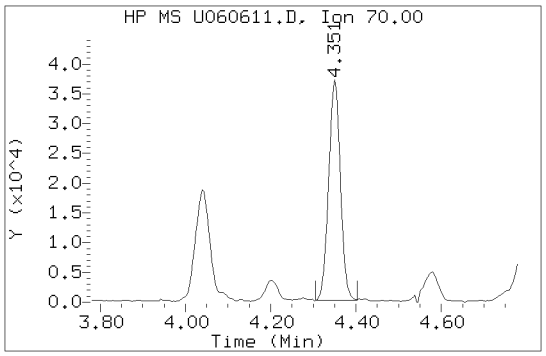
BEFORE

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AREA
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HEIGHT
37034
08-Jun-2023
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AFTER

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AREA
70651
HEIGHT
37034
13-Jun-2023
13:00
linh
pham

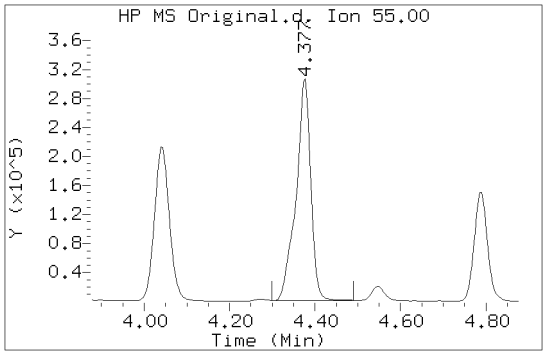


Methyl Acrylate (96-33-3)

Reason Code:

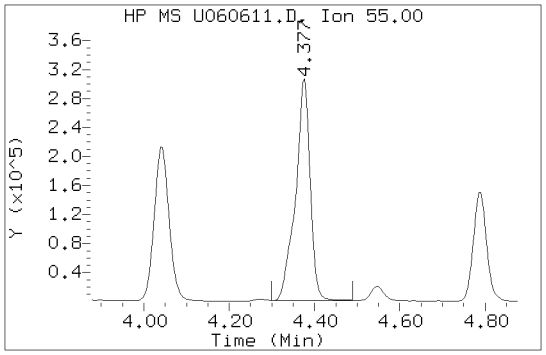
BEFORE

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HEIGHT
305715
08-Jun-2023
14:56
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pham



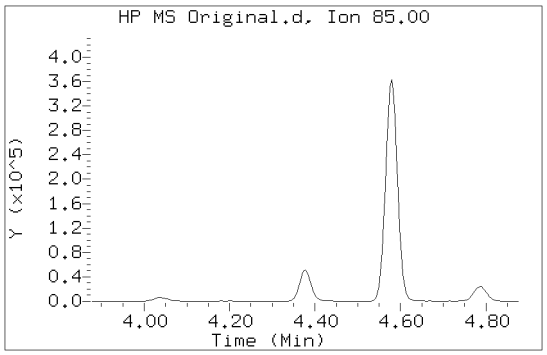
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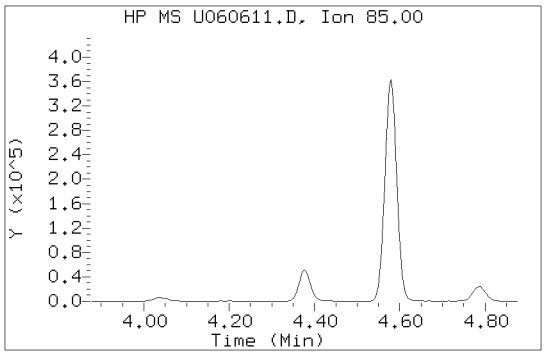
BEFORE

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0
08-Jun-2023
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AFTER

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HEIGHT
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13-Jun-2023
13:00
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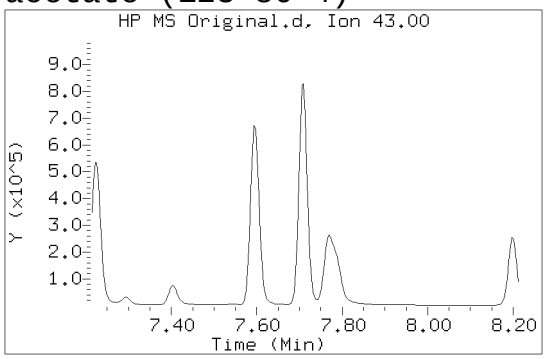


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Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

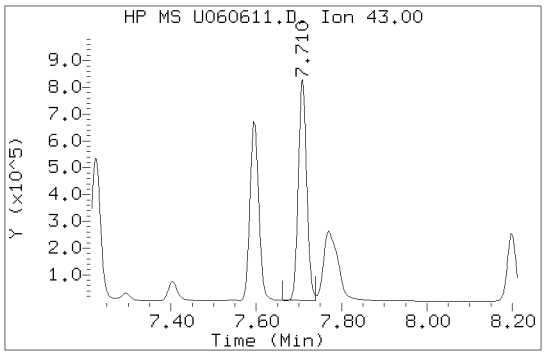
n-Butyl acetate (123-86-4)

Reason Code:

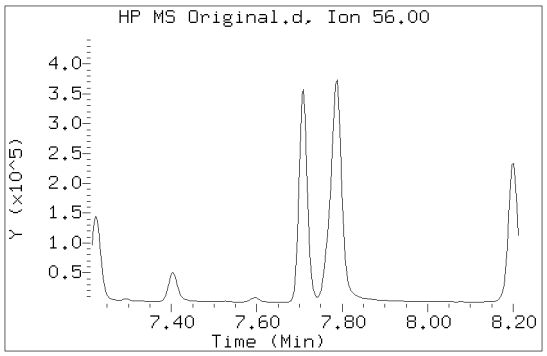
BEFORE
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08-Jun-2023
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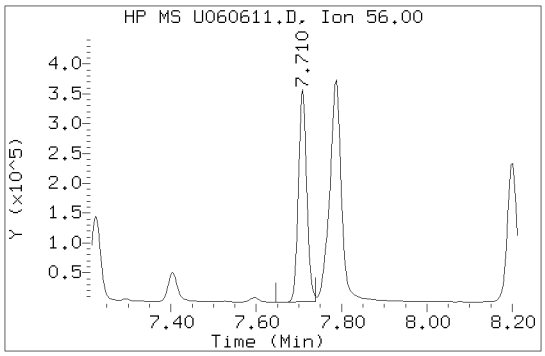
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13-Jun-2023
13:00
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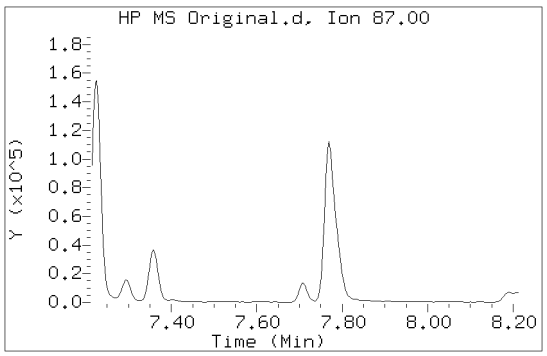
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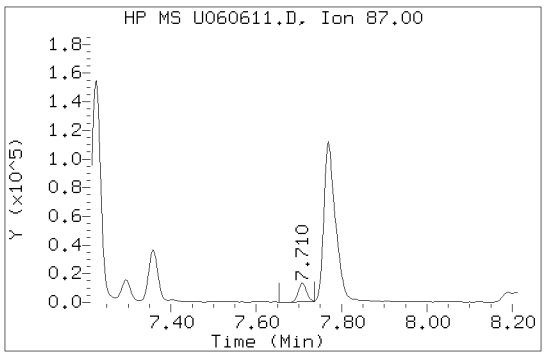
AFTER
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13-Jun-2023
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BEFORE
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HEIGHT
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08-Jun-2023
14:56
linh
pham



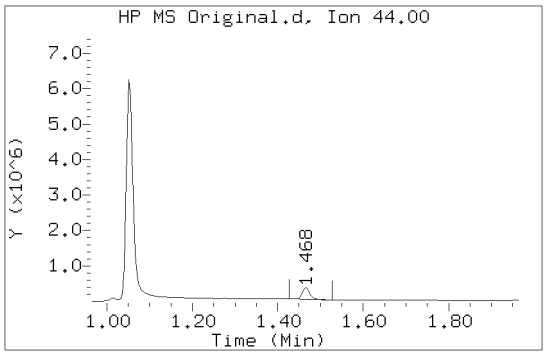
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13363
13-Jun-2023
13:00
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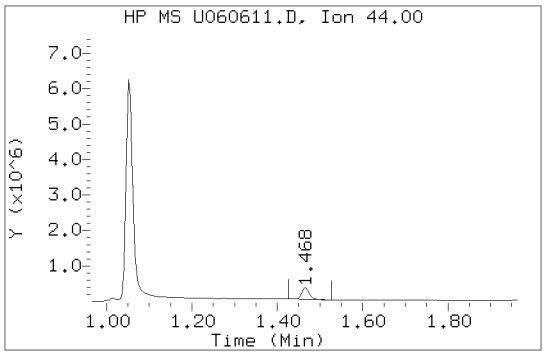
Acetaldehyde (75-07-0)

Reason Code:

BEFORE
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HEIGHT
318277
08-Jun-2023
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AFTER
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13-Jun-2023
13:00
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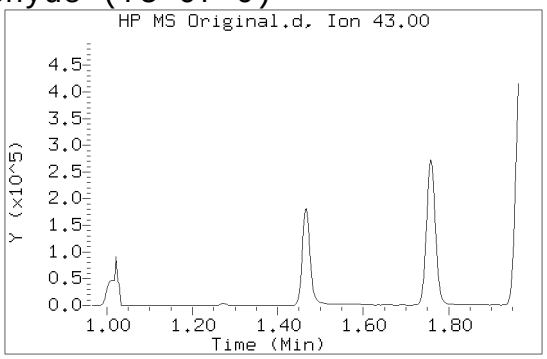


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Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

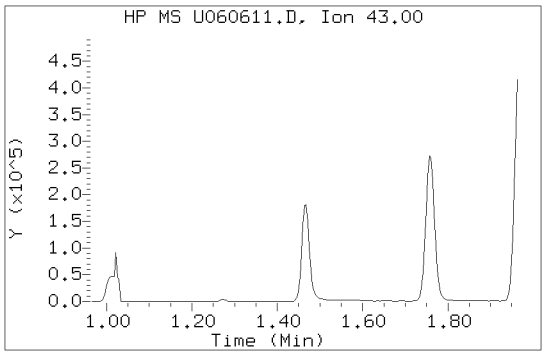
Acetaldehyde (75-07-0)

Reason Code:

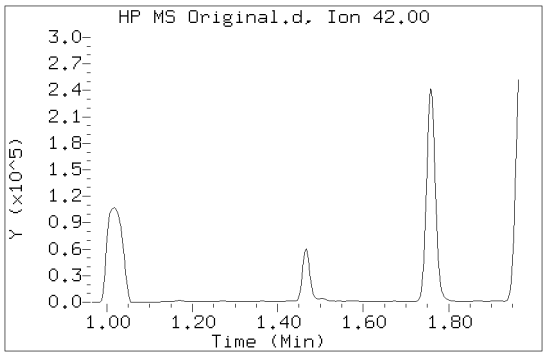
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08-Jun-2023
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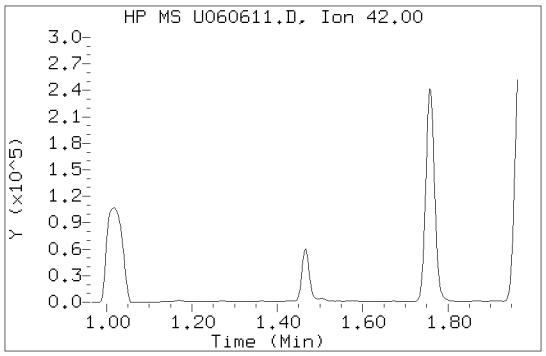
AFTER
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13-Jun-2023
13:00
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BEFORE
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER
MASS
42
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060612.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060612.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 06-JUN-2023 15:19
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:01 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:57 Cal File: U060611.D
Als bottle: 13 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	693393	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	960667	150.000	149.79
3	Chloromethane	50	1.299	1.299	(0.270)	1383207	150.000	134.48
5	Vinyl Chloride	62	1.378	1.378	(0.286)	1135719	150.000	154.84
6	Bromomethane	94	1.614	1.614	(0.335)	572508	150.000	155.55
7	Chloroethane	64	1.700	1.700	(0.353)	710334	150.000	143.77
8	Trichlorofluoromethane	101	1.899	1.899	(0.394)	1306396	150.000	155.08
9	Acrolein	56	2.270	2.270	(0.471)	101869	300.000	276.78
10	Acetone	43	2.412	2.412	(0.501)	669020	300.000	291.26
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	792951	150.000	150.65
15	Iodomethane	142	2.472	2.472	(0.513)	1654094	300.000	314.13
16	Acrylonitrile	53	3.068	3.068	(0.637)	777948	300.000	302.53
17	Methylene Chloride	84	2.799	2.799	(0.581)	934598	150.000	149.80
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	2427294	150.000	150.38
19	Carbon Disulfide	76	2.525	2.525	(0.524)	4369759	300.000	310.56
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	854280	150.000	149.24
21	Vinyl Acetate	43	3.612	3.612	(0.750)	5494788	300.000	314.91
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	1535399	150.000	141.14
24	2-Butanone	43	4.272	4.272	(0.886)	886610	300.000	280.44
26	2,2-Dichloropropane	77	4.186	4.186	(0.869)	1080274	150.000	149.40

27 cis-1,2-Dichloroethene	96	4.201	4.201 (0.872)	1008606	150.000	147.29
28 Chloroform	83	4.575	4.575 (0.949)	1661391	150.000	146.74

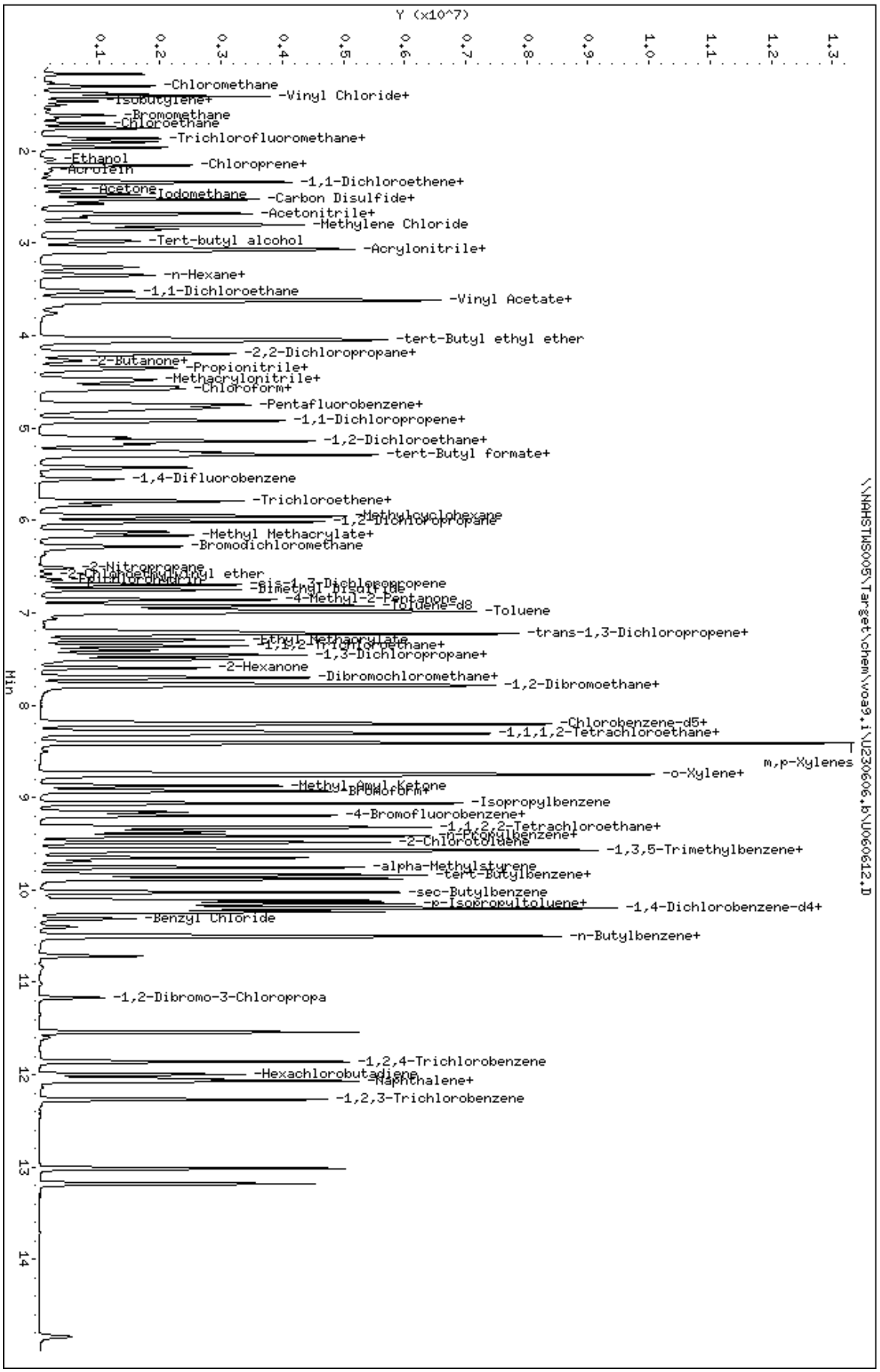
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	547129	150.000	142.83
$	30 Dibromofluoromethane	113	4.752	4.752	(0.986)	869167	150.000	149.96
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	1344181	150.000	155.77
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	1205862	150.000	156.12
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1309746	150.000	143.58
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	1159204	150.000	163.38
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	944002	150.000	151.26
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1053901	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	3801057	150.000	149.67
	38 Trichloroethene	130	5.790	5.790	(1.043)	1087941	150.000	147.80
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	1283901	150.000	162.07
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.185)	81461	300.000	425.14(A)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.083)	1011740	150.000	149.21
	44 Dibromomethane	93	6.124	6.124	(1.103)	644143	150.000	148.67
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	2275634	300.000	307.02
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	1649908	150.000	151.42
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1017824	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	3265170	150.000	141.74
	50 Toluene	91	6.982	6.982	(0.853)	4084070	150.000	147.94
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	1382903	150.000	150.98
	52 2-Hexanone	43	7.597	7.597	(0.928)	1507185	300.000	291.99
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	820894	150.000	142.91
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1724053	150.000	146.90
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1165162	150.000	170.96
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	979028	150.000	145.56
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	1030570	150.000	145.44
	58 1-Chlorohexane	55	8.200	8.200	(1.476)	831688	150.000	153.68
	59 Chlorobenzene	112	8.212	8.212	(1.003)	2875380	150.000	145.94
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1071450	150.000	158.22
	61 Ethylbenzene	106	8.309	8.309	(1.015)	1466582	150.000	159.93
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	3636671	300.000	335.20
	63 o-Xylene	106	8.748	8.748	(1.069)	1775674	150.000	165.67
	64 Styrene	104	8.763	8.763	(1.071)	2956532	150.000	173.82
	66 Bromoform	173	8.920	8.920	(1.090)	819014	150.000	178.03
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	4235878	150.000	164.54
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1374039	150.000	140.32
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1355424	150.000	151.13
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	520569	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	1312413	150.000	152.35
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	4668789	150.000	170.98
	74 Bromobenzene	156	9.317	9.317	(0.916)	1305028	150.000	148.57
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	3068129	150.000	163.78
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	2928853	150.000	152.58
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	3299464	150.000	155.29
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	2957735	150.000	160.75
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	2991253	150.000	152.61
	81 sec-Butylbenzene	105	10.026	10.026	(0.986)	3927022	150.000	168.30
	82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	3334448	150.000	170.58
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	2191876	150.000	146.92
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	2268941	150.000	142.64
	87 n-Butylbenzene	91	10.495	10.495	(1.032)	2750567	150.000	164.36
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2171343	150.000	145.16

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	234556	150.000	164.15
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1581317	150.000	153.70

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	641183	150.000	154.32
	92 Naphthalene	128	12.069	12.069	(1.186)	3777446	150.000	158.06
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	1515436	150.000	150.67
M	94 1,2-Dichloroethylene (total)	96				1862886	300.000	(a)
	135 1,4-Dioxane	88	6.172	6.172	(1.281)	279013	3000.00	2026.50
	141 Cyclohexane	56	4.785	4.785	(0.993)	1346053	150.000	148.66
	138 Freon TF	101	2.337	2.337	(0.485)	744713	150.000	159.91
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	1026660	150.000	156.34
	147 Methylcyclohexane	55	5.951	5.951	(1.072)	2435816	150.000	166.61(A)
	146 Methyl Acetate	43	2.720	2.720	(0.564)	806323	150.000	138.10
	148 Tert-Butyl alcohol	59	2.975	2.975	(0.617)	1948328	3000.00	3051.23
	149 Isopropyl Alcohol	45	2.574	2.574	(0.534)	1284183	3000.00	2833.01
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	204272	150.000	174.30(M)
	12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	2767410	3000.00	3071.79(M)
	13 Acetonitrile	39	2.675	2.675	(0.555)	1141243	1500.00	1520.22
	14 Allyl Chloride	41	2.679	2.679	(0.556)	2678647	150.000	148.79
	25 Methacrylonitrile	41	4.500	4.500	(0.934)	649391	150.000	158.51
	40 Methyl Methacrylate	41	6.161	6.161	(1.278)	969658	150.000	162.64
	4 Propionitrile	54	4.347	4.347	(0.902)	1447622	1500.00	1444.77
	136 n-Hexane	57	3.346	3.346	(0.694)	933406	150.000	149.31
	194 Acetaldehyde	44	1.460	1.460	(0.303)	604743	600.000	632.36(M)
	131 Methyl Acrylate	55	4.373	4.373	(0.907)	1119010	150.000	152.59(M)
	200 Dimethyl Disulfide	94	6.750	6.750	(0.825)	1542342	150.000	156.55
	23 Chloroprene	53	2.161	2.161	(0.449)	341381	150.000	154.36
	49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	1503706	150.000	162.76
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	2909415	150.000	145.39
	167 Ethanol	45	2.090	2.090	(0.434)	261491	3000.00	3068.37
	164 Dicyclopentadiene	66	10.202	10.202	(1.003)	3912009	150.000	154.05
	145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	1521945	150.000	148.37
	142 Tetrahydrofuran	42	4.549	4.549	(0.944)	364883	300.000	302.61
	156 Diisopropyl ether	45	3.627	3.627	(0.753)	2879455	150.000	148.92
	151 4-Methyl-2-pentanol	45	7.226	7.226	(1.301)	4710347	3000.00	3005.64
	150 Allyl alcohol	57	3.346	3.346	(0.694)	933406	3000.00	2986.18
	86 Benzyl Chloride	91	10.311	10.311	(1.260)	988530	150.000	154.64
	162 Butyl acrylate	55	8.733	8.733	(1.067)	1959643	150.000	162.76
	139 Diethyl ether	59	2.150	2.150	(0.446)	716609	150.000	152.95
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	905239	150.000	153.98
	134 Cyclohexanone	55	9.156	9.156	(0.900)	877279	3000.00	2718.28
	130 Ethyl Acetate	43	4.272	4.272	(0.886)	876170	150.000	141.35(M)
	189 n-Butyl acetate	43	7.709	7.709	(0.942)	1856486	150.000	160.19(M)
	182 Epichlorohydrin	57	6.633	6.633	(1.194)	78090	600.000	617.79

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.



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Column phase: DB624

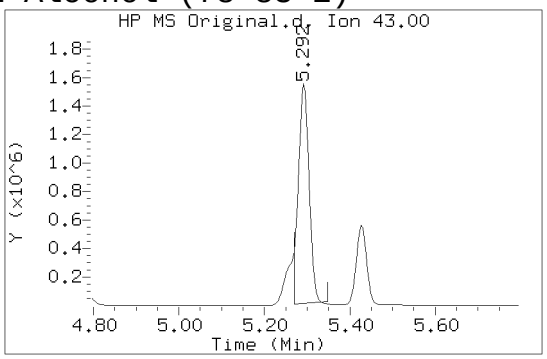
Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

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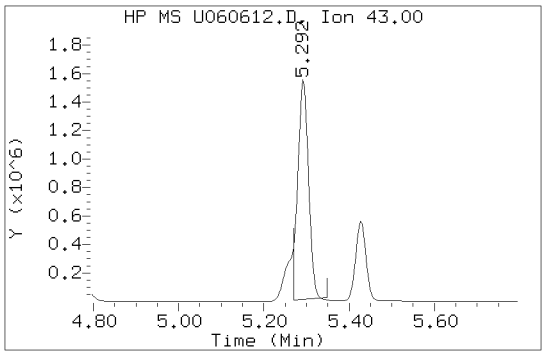
Isobutyl Alcohol (78-83-1)

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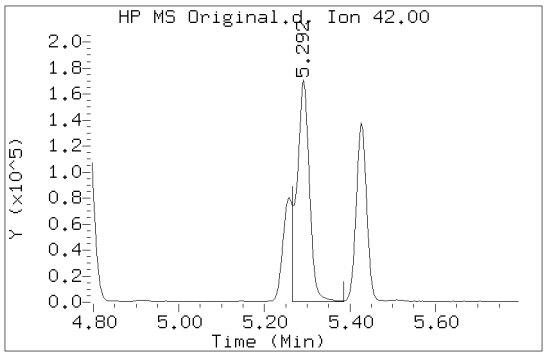
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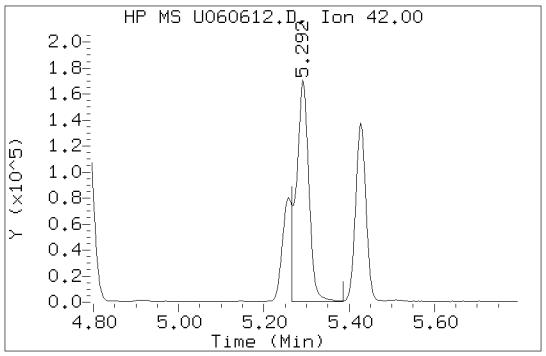
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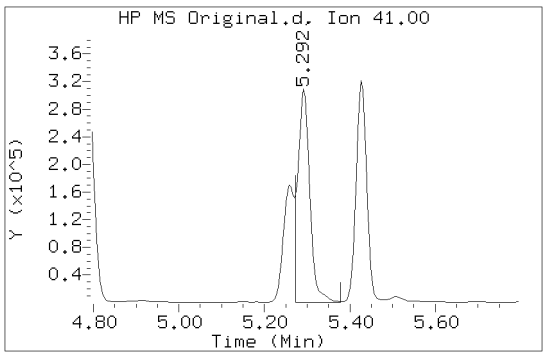
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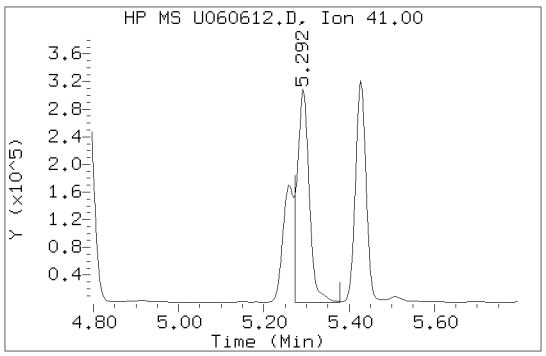
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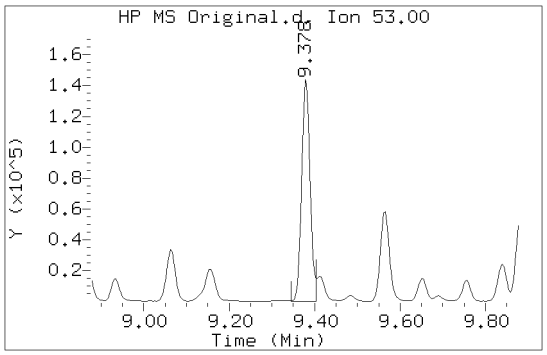
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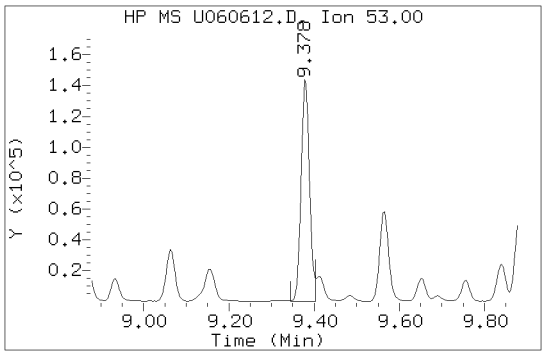
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AFTER
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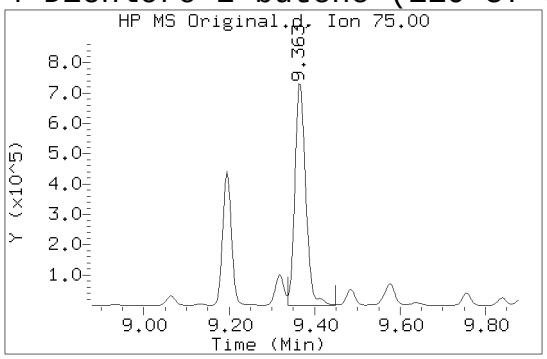
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InstruID : VOA9.i
LabSampID : VSTD150

trans-1,4-Dichloro-2-butene (110-57-6)

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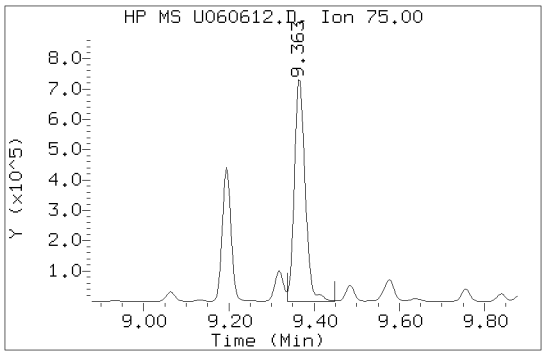
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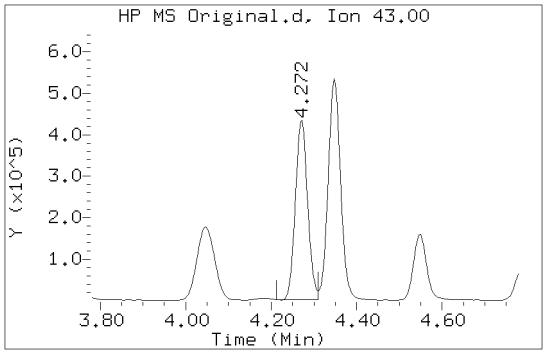


Ethyl Acetate (141-78-6)

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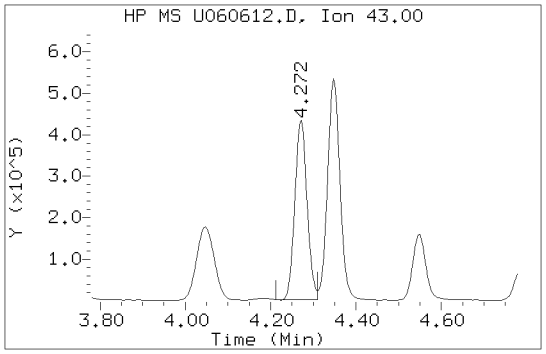
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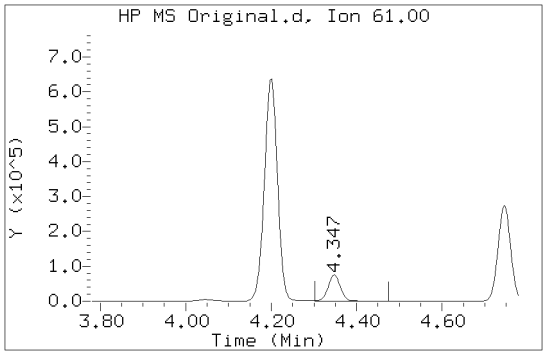
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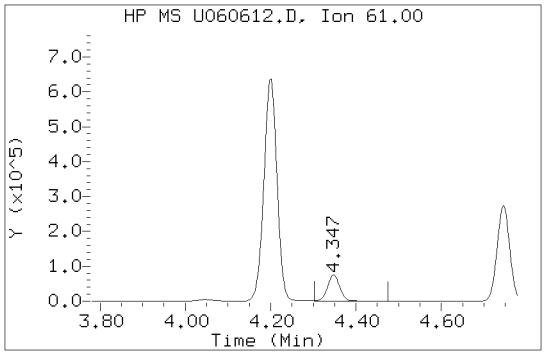
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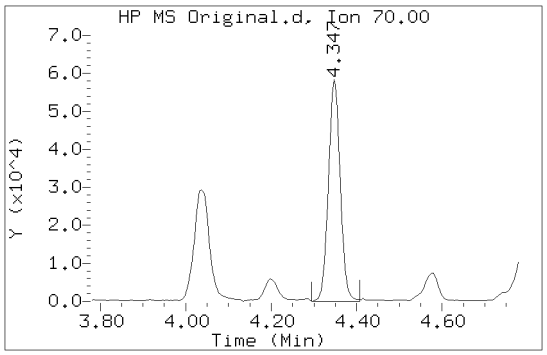
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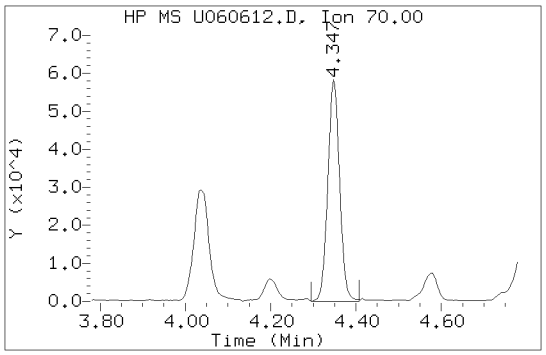
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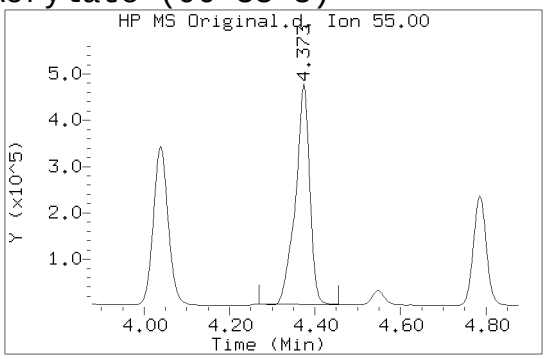


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LabSampID : VSTD150

Methyl Acrylate (96-33-3)

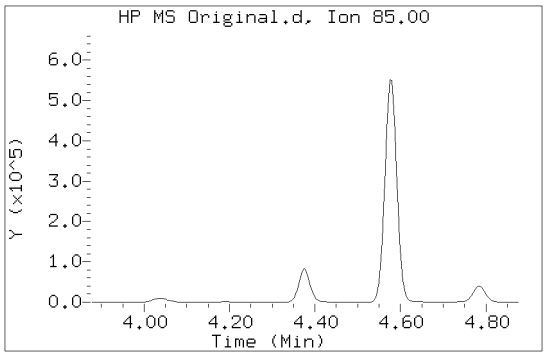
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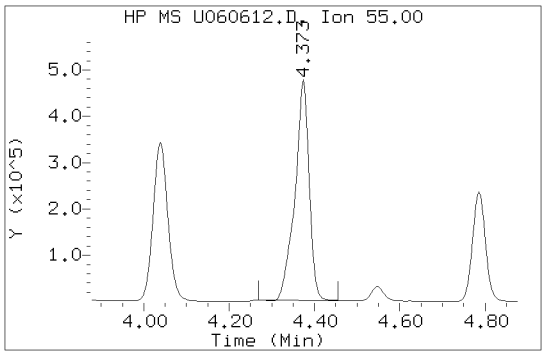
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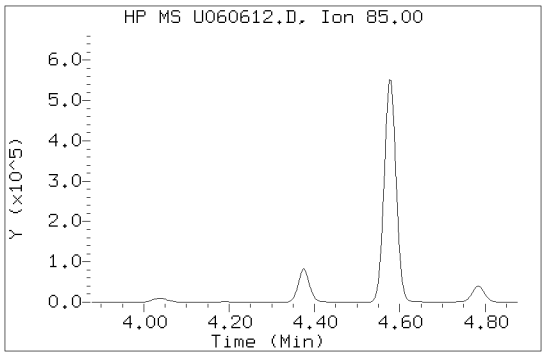
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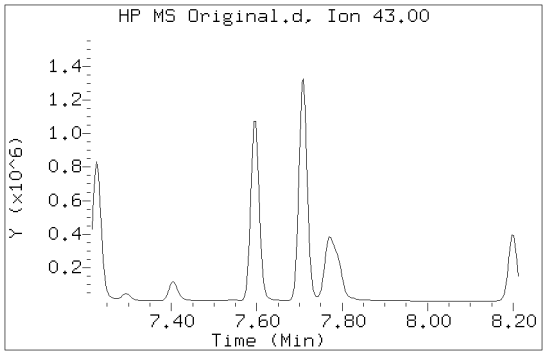
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n-Butyl acetate (123-86-4)

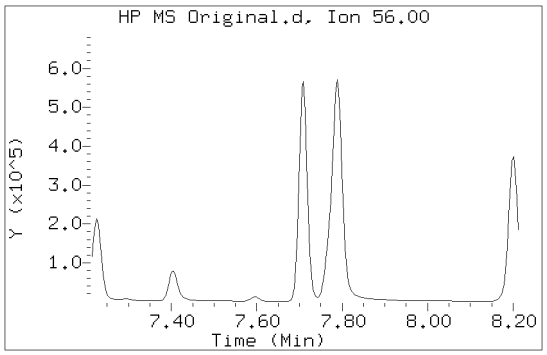
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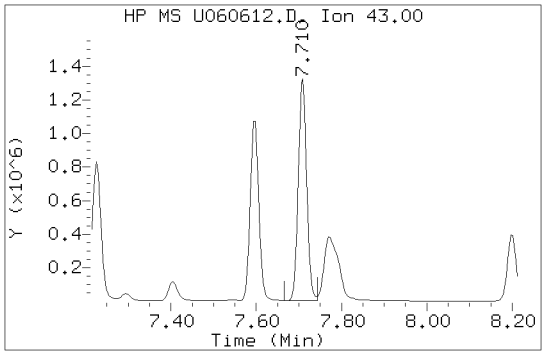
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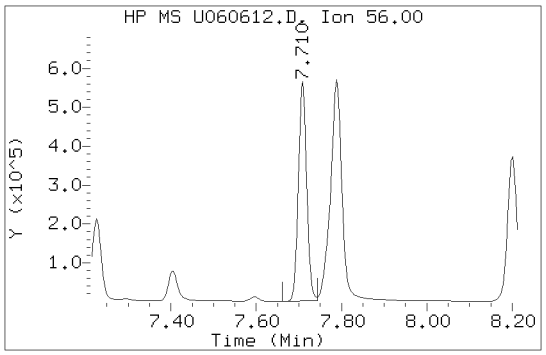
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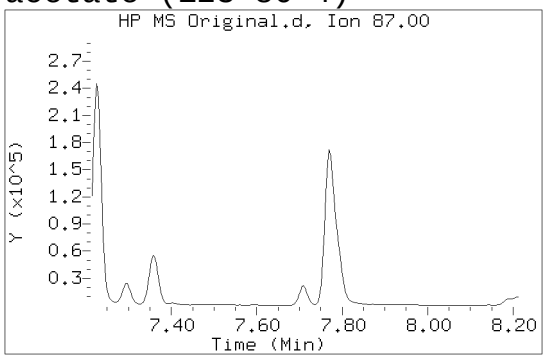
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LabSampID : VSTD150

n-Butyl acetate (123-86-4)

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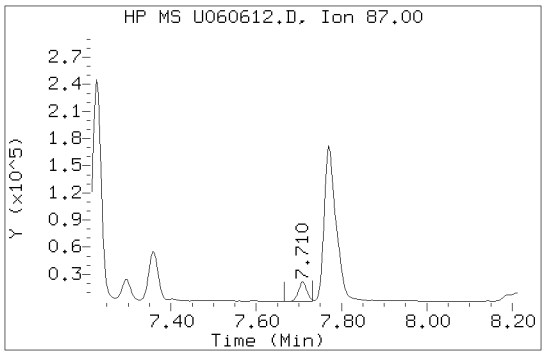
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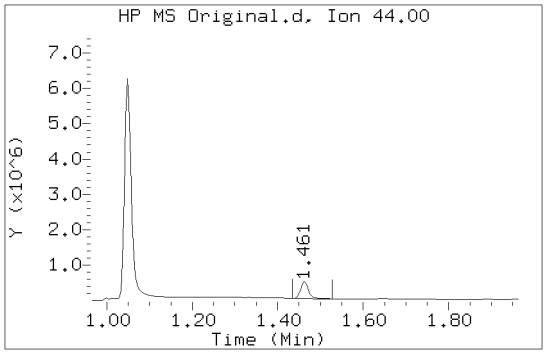


Acetaldehyde (75-07-0)

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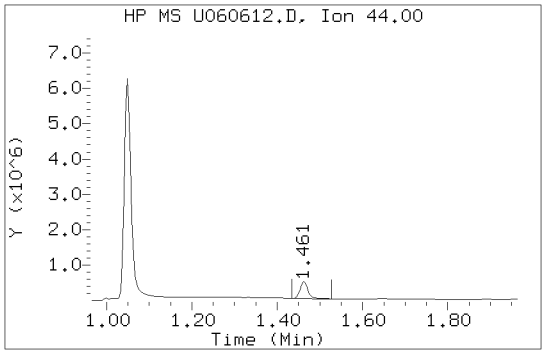
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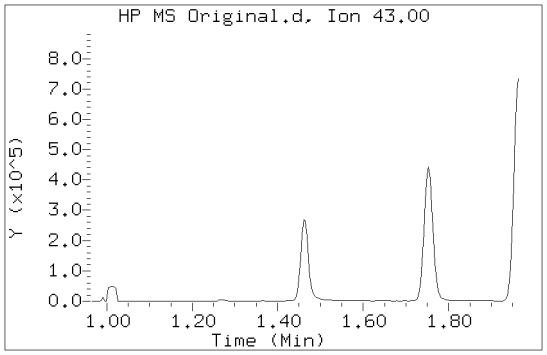
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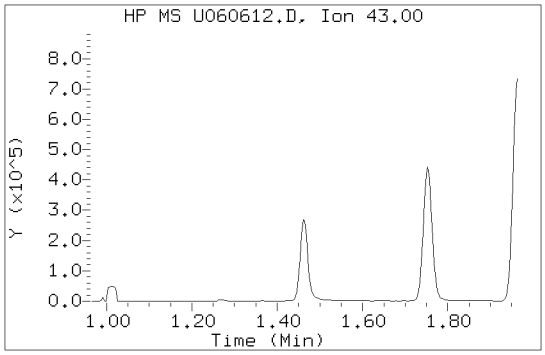
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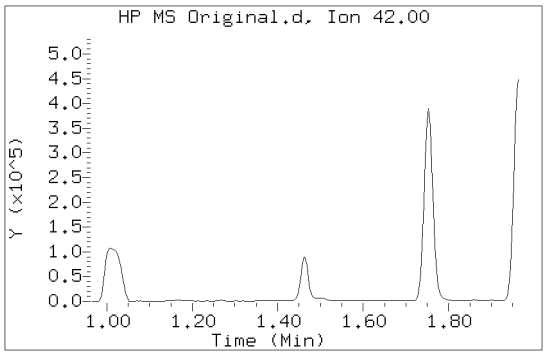
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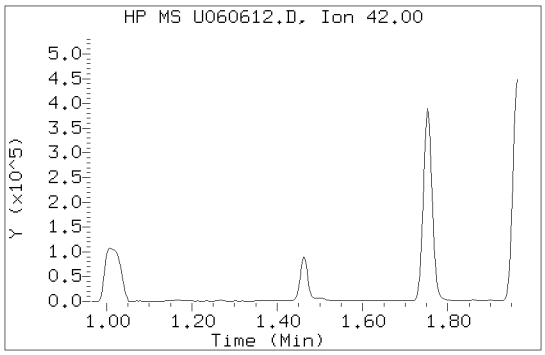
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060613.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060613.D
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Inj Date : 06-JUN-2023 15:41
Operator : PC Inst ID: VOA9.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V9;WATER;0;1;
Comment   :
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Meth Date : 13-Jun-2023 13:01 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 15:19 Cal File: U060612.D
Als bottle: 14 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	719289	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	1327832	200.000	199.55
3	Chloromethane	50	1.303	1.303	(0.270)	1811207	200.000	170.11
5	Vinyl Chloride	62	1.382	1.382	(0.287)	1577666	200.000	207.36(A)
6	Bromomethane	94	1.614	1.614	(0.335)	739966	200.000	194.26
7	Chloroethane	64	1.700	1.700	(0.353)	966868	200.000	188.65
8	Trichlorofluoromethane	101	1.903	1.903	(0.395)	1797881	200.000	205.74(A)
9	Acrolein	56	2.270	2.270	(0.471)	145745	400.000	381.74
10	Acetone	43	2.416	2.416	(0.501)	921553	400.000	388.62
11	1,1-Dichloroethene	96	2.341	2.341	(0.486)	1106671	200.000	202.69(A)
15	Iodomethane	142	2.472	2.472	(0.513)	2389174	400.000	393.17
16	Acrylonitrile	53	3.072	3.072	(0.638)	1044690	400.000	391.64
17	Methylene Chloride	84	2.799	2.799	(0.581)	1286266	200.000	199.09
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	3267974	200.000	195.18
19	Carbon Disulfide	76	2.525	2.525	(0.524)	6034238	400.000	413.41(A)
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	1205698	200.000	203.05(A)
21	Vinyl Acetate	43	3.616	3.616	(0.750)	7382189	400.000	407.85(A)
22	1,1-Dichloroethane	63	3.522	3.522	(0.731)	2108962	200.000	186.89
24	2-Butanone	43	4.272	4.272	(0.886)	1191616	400.000	363.35
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	1505657	200.000	200.60(A)

27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	1388156	200.000	195.41
28 Chloroform	83	4.579	4.579 (0.950)	2274175	200.000	193.63

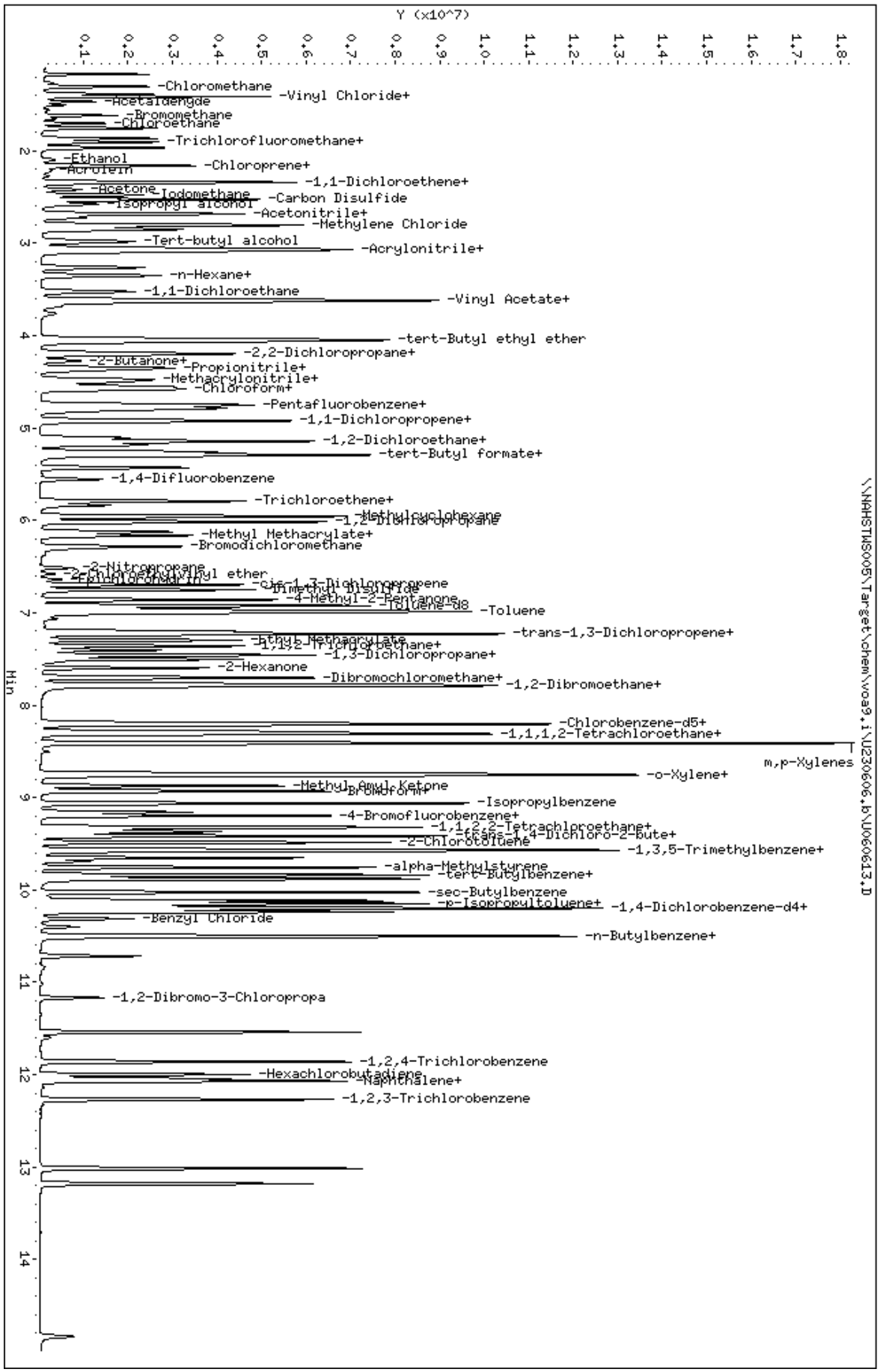
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	727780	200.000	183.15
$	30 Dibromofluoromethane	113	4.755	4.755	(0.987)	1189943	200.000	198.02
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	1886386	200.000	210.74(A)
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	1700729	200.000	212.75(A)
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	1771626	200.000	187.66
	34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	1637950	200.000	223.06(A)
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	1273587	200.000	196.93
*	36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	1090740	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	5184803	200.000	197.26
	38 Trichloroethene	130	5.790	5.790	(1.042)	1521502	200.000	199.72
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	1771493	200.000	216.07(A)
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.184)	132164	400.000	666.47(A)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	1391632	200.000	198.30
	44 Dibromomethane	93	6.124	6.124	(1.102)	883833	200.000	197.11
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	3098336	400.000	401.08(A)
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	2272308	200.000	200.87(A)
*	47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1060812	50.0000	
$	48 Toluene-d8	98	6.926	6.926	(0.846)	4434953	200.000	184.71
	50 Toluene	91	6.982	6.982	(0.853)	5549820	200.000	192.89
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	1913130	200.000	201.14(A)
	52 2-Hexanone	43	7.597	7.597	(0.928)	2078685	400.000	386.39
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	1110628	200.000	185.51
	54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	2327172	200.000	190.26
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1606540	200.000	226.17(A)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	1393824	200.000	198.83
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	1398022	200.000	189.30
	58 1-Chlorohexane	55	8.200	8.200	(1.475)	1197273	200.000	213.76(A)
	59 Chlorobenzene	112	8.212	8.212	(1.003)	3927200	200.000	191.25
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1485967	200.000	210.54(A)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	2034447	200.000	212.86(A)
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	5028837	400.000	444.73(A)
	63 o-Xylene	106	8.748	8.748	(1.068)	2445057	200.000	218.88(A)
	64 Styrene	104	8.763	8.763	(1.070)	4009853	200.000	226.19(A)
	66 Bromoform	173	8.920	8.920	(1.089)	1122084	200.000	234.02(A)
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	5892020	200.000	219.60(A)
	68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	1811573	200.000	181.35
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1832443	200.000	196.31
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	531037	50.0000	
	71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1763864	200.000	200.72(A)
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	6509511	200.000	233.69(A)
	74 Bromobenzene	156	9.321	9.321	(0.916)	1773376	200.000	197.92
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	4383254	200.000	229.37(A)
	76 2-Chlorotoluene	91	9.486	9.486	(0.933)	3980132	200.000	203.26(A)
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	4532900	200.000	209.14(A)
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	4141351	200.000	220.65(A)
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	4284336	200.000	214.27(A)
	81 sec-Butylbenzene	105	10.026	10.026	(0.986)	5530698	200.000	232.36(A)
	82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	4785361	200.000	239.98(A)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	3007133	200.000	197.60
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	3094412	200.000	190.71
	87 n-Butylbenzene	91	10.495	10.495	(1.032)	3970657	200.000	232.59(A)
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2966505	200.000	194.42

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	327879	200.000	224.94(A)
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	2208303	200.000	210.41(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
91	Hexachlorobutadiene	225	11.998	11.998	(1.179)	915431	200.000	215.98(A)
92	Naphthalene	128	12.069	12.069	(1.186)	5090967	200.000	208.82(A)
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	2101950	200.000	204.86(A)
M 94	1,2-Dichloroethylene (total)	96				2593854	400.000	(a)
135	1,4-Dioxane	88	6.172	6.172	(1.281)	359619	4000.00	2517.91
141	Cyclohexane	56	4.785	4.785	(0.993)	1948136	200.000	200.21(A)
138	Freon TF	101	2.341	2.341	(0.486)	1062416	200.000	219.92(A)
140	1,3-Butadiene	54	1.412	1.412	(0.293)	1426460	200.000	209.40(A)
147	Methylcyclohexane	55	5.951	5.951	(1.071)	3311608	200.000	218.86(A)
146	Methyl Acetate	43	2.720	2.720	(0.564)	1087855	200.000	179.61
148	Tert-Butyl alcohol	59	2.978	2.978	(0.618)	2615413	4000.00	3949.93
149	Isopropyl Alcohol	45	2.577	2.577	(0.535)	1712648	4000.00	3642.22
72	trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	280535	200.000	229.67(A)
12	Isobutyl Alcohol	43	5.291	5.291	(1.098)	3974379	4000.00	4252.69(AM)
13	Acetonitrile	39	2.679	2.679	(0.556)	1502696	2000.00	1929.63
14	Allyl Chloride	41	2.679	2.679	(0.556)	3531503	200.000	189.10
25	Methacrylonitrile	41	4.500	4.500	(0.934)	862110	200.000	202.86(A)
40	Methyl Methacrylate	41	6.161	6.161	(1.278)	1311723	200.000	212.09(A)
4	Propionitrile	54	4.350	4.350	(0.903)	1943419	2000.00	1869.76
136	n-Hexane	57	3.350	3.350	(0.695)	1358253	200.000	199.96
194	Acetaldehyde	44	1.464	1.464	(0.304)	813402	800.000	819.92(AM)
131	Methyl Acrylate	55	4.377	4.377	(0.908)	1518708	200.000	199.64(M)
200	Dimethyl Disulfide	94	6.750	6.750	(0.824)	2303909	200.000	196.98
23	Chloroprene	53	2.165	2.165	(0.449)	488469	200.000	212.92(A)
49	Ethyl Methacrylate	69	7.297	7.297	(1.313)	2085234	200.000	218.09(A)
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	4057323	200.000	198.76
167	Ethanol	45	2.098	2.098	(0.435)	342926	4000.00	3885.10
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	5181324	200.000	200.01(A)
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	2162870	200.000	205.31(A)
142	Tetrahydrofuran	42	4.549	4.549	(0.944)	488623	400.000	391.34
156	Diisopropyl ether	45	3.631	3.631	(0.753)	3891038	200.000	194.00
151	4-Methyl-2-pentanol	45	7.226	7.226	(1.300)	6448455	4000.00	3975.75
150	Allyl alcohol	57	3.350	3.350	(0.695)	1358253	4000.00	3999.38
86	Benzyl Chloride	91	10.311	10.311	(1.259)	1346925	200.000	201.11(A)
162	Butyl acrylate	55	8.733	8.733	(1.066)	2685275	200.000	213.99(A)
139	Diethyl ether	59	2.154	2.154	(0.447)	970215	200.000	199.62
203	2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	1300346	200.000	198.09
134	Cyclohexanone	55	9.156	9.156	(0.900)	1223605	4000.00	3716.65
130	Ethyl Acetate	43	4.272	4.272	(0.886)	1152217	200.000	179.20(M)
189	n-Butyl acetate	43	7.709	7.709	(0.941)	2542322	200.000	210.47(AM)
182	Epichlorohydrin	57	6.633	6.633	(1.194)	120896	800.000	793.08

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.



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Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
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Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

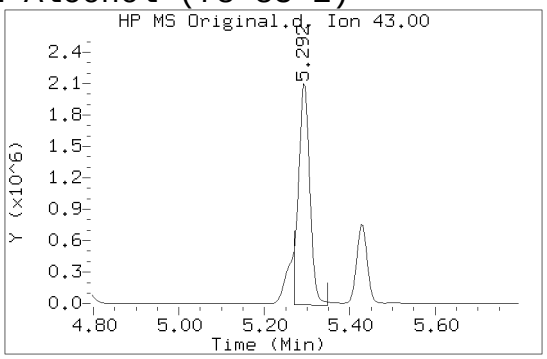
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LabSampID : VSTD200

Isobutyl Alcohol (78-83-1)

Reason Code:

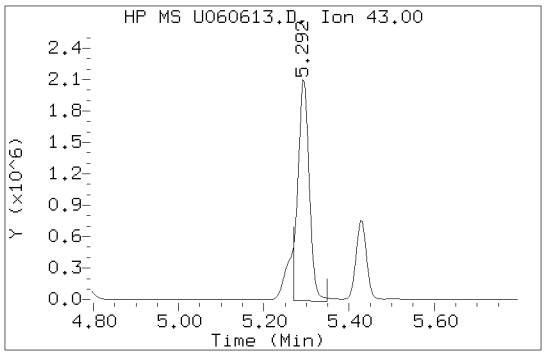
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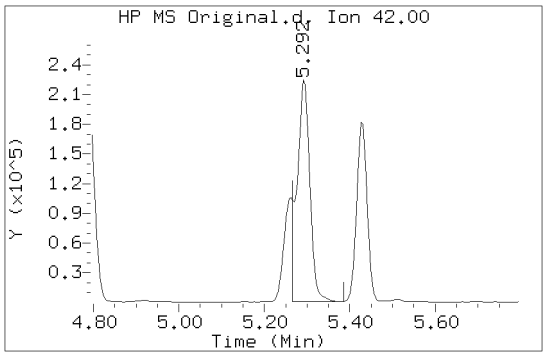
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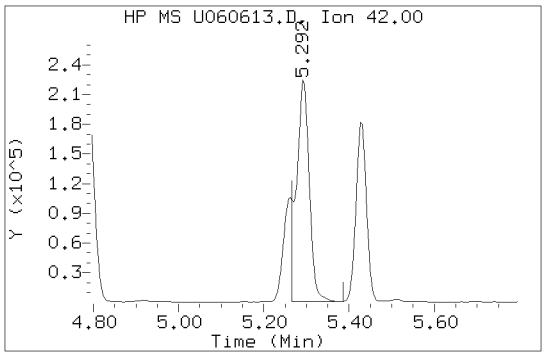
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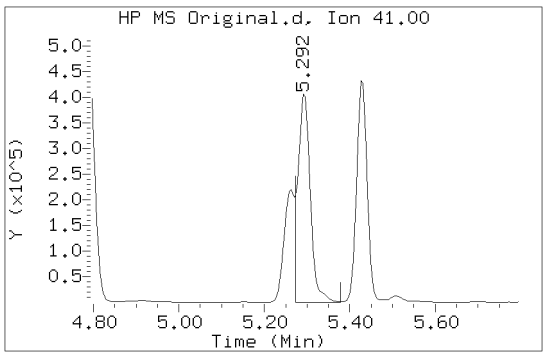
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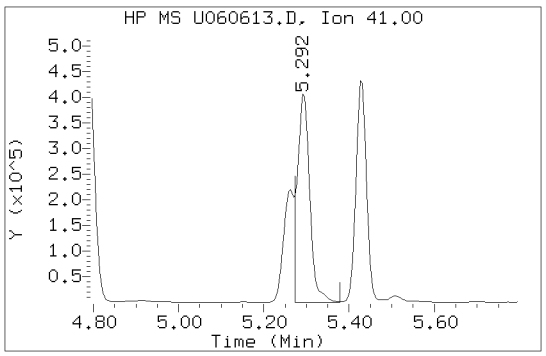
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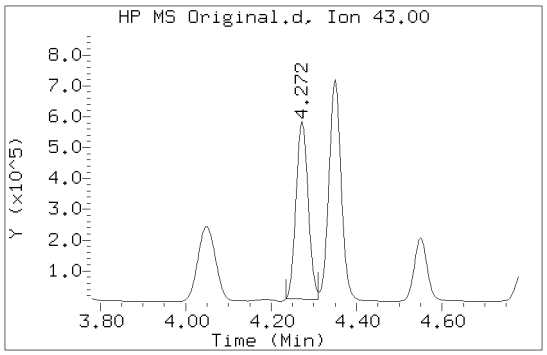


Ethyl Acetate (141-78-6)

Reason Code:

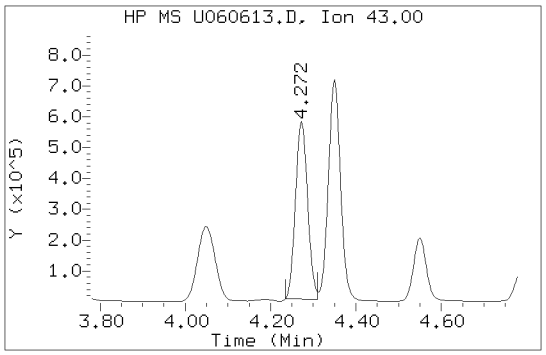
BEFORE

MASS
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HEIGHT
575568
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
1152217
HEIGHT
575568
13-Jun-2023
13:00
linh
pham



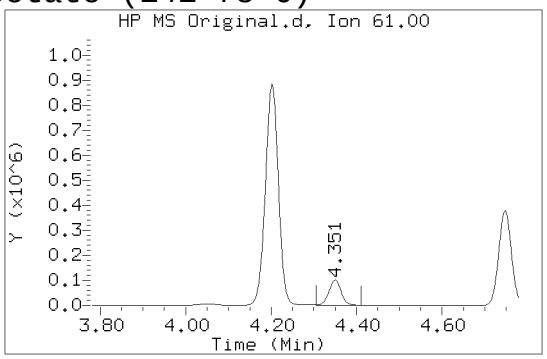
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Inj Date : 06-JUN-2023 15:41
InstruID : VOA9.i
LabSampID : VSTD200

Ethyl Acetate (141-78-6)

Reason Code:

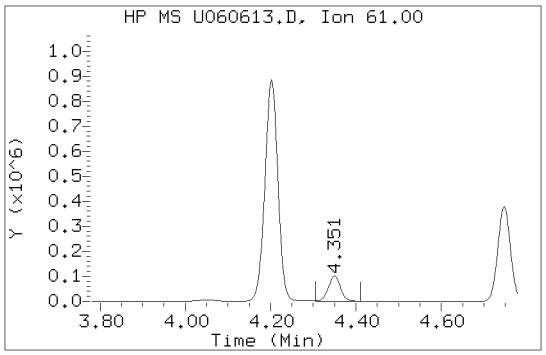
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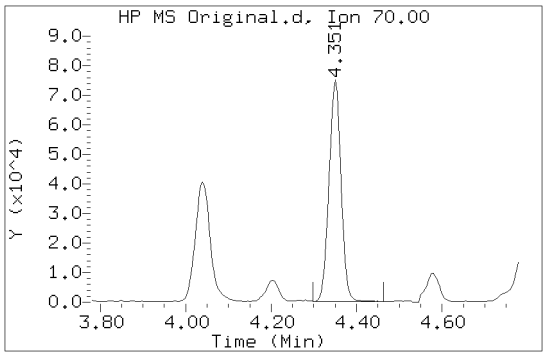
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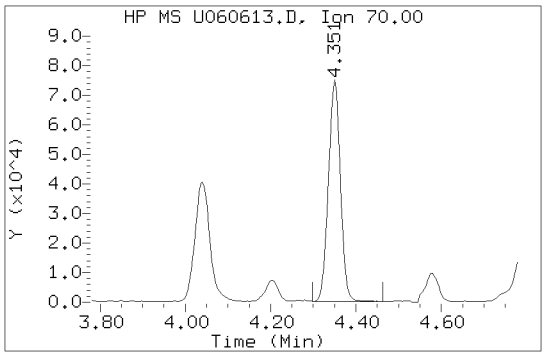
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AFTER

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13-Jun-2023
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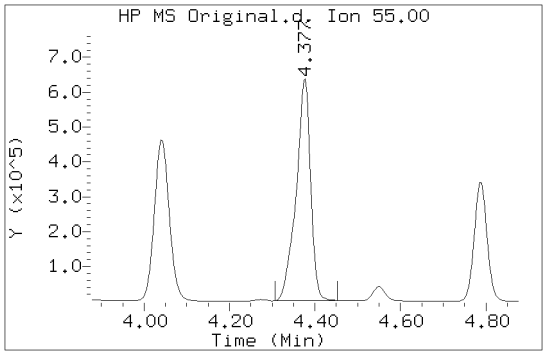


Methyl Acrylate (96-33-3)

Reason Code:

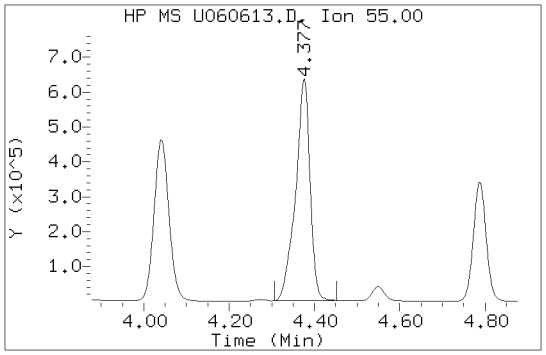
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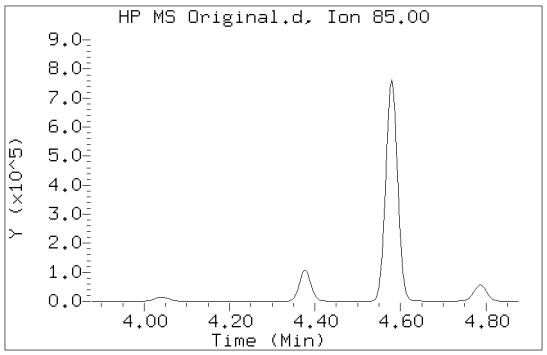
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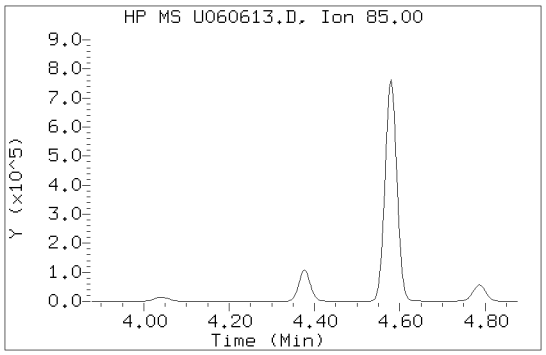
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08-Jun-2023
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AFTER

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HEIGHT
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13-Jun-2023
13:00
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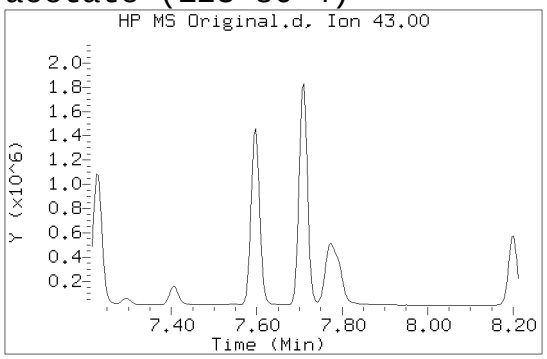


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InstruID : VOA9.i
LabSampID : VSTD200

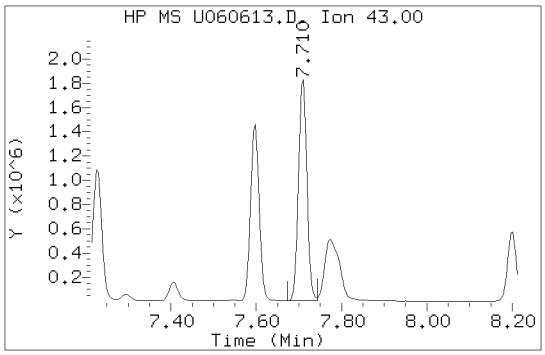
n-Butyl acetate (123-86-4)

Reason Code:

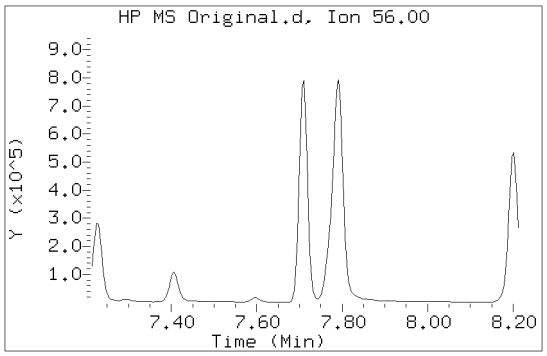
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08-Jun-2023
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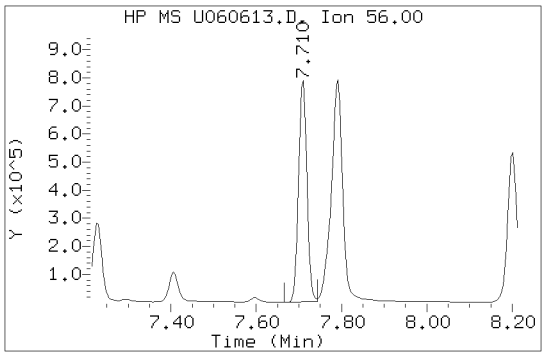
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13-Jun-2023
13:00
linh
pham



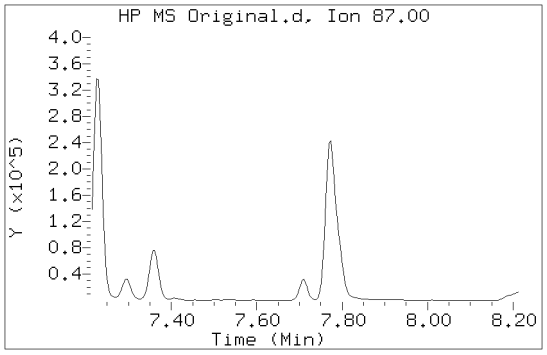
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08-Jun-2023
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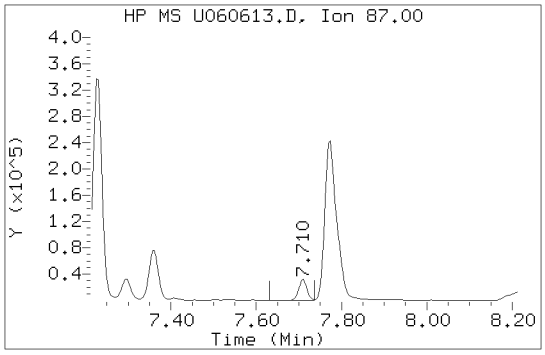
AFTER
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13-Jun-2023
13:00
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BEFORE
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HEIGHT
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08-Jun-2023
14:56
linh
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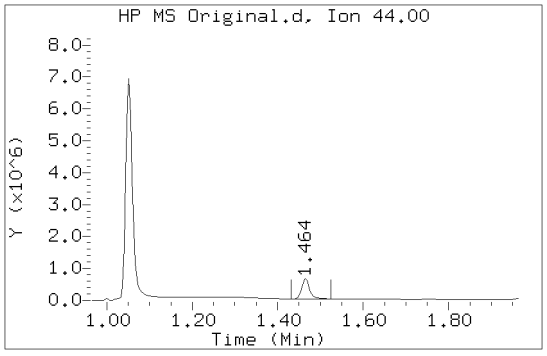
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87
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31427
13-Jun-2023
13:00
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pham



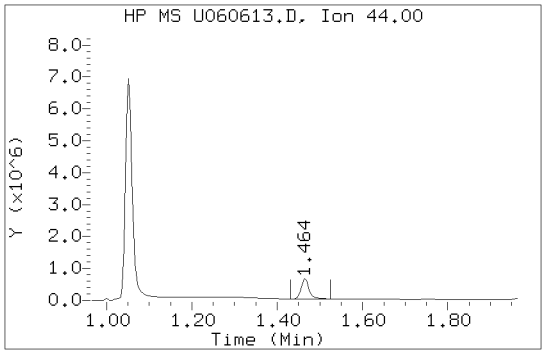
Acetaldehyde (75-07-0)

Reason Code:

BEFORE
MASS
44
AREA
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HEIGHT
630783
08-Jun-2023
14:56
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pham



AFTER
MASS
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AREA
813402
HEIGHT
630783
13-Jun-2023
13:00
linh
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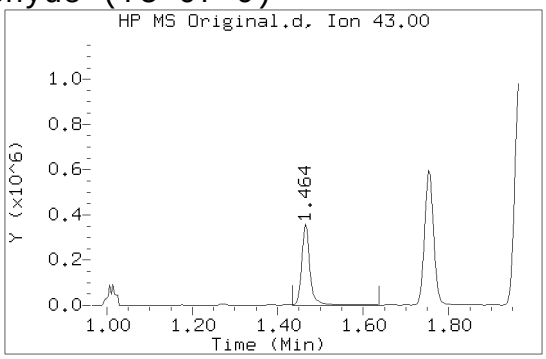
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Inj Date : 06-JUN-2023 15:41
InstruID : VOA9.i
LabSampID : VSTD200

Acetaldehyde (75-07-0)

Reason Code:

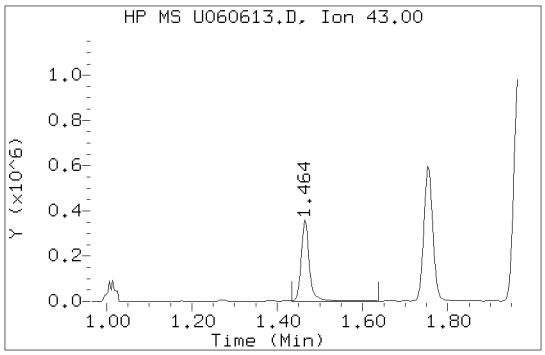
BEFORE

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HEIGHT
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08-Jun-2023
14:56
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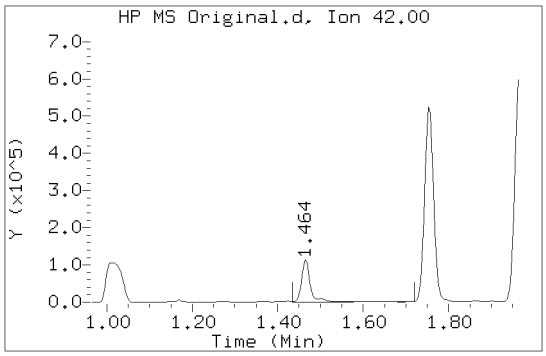
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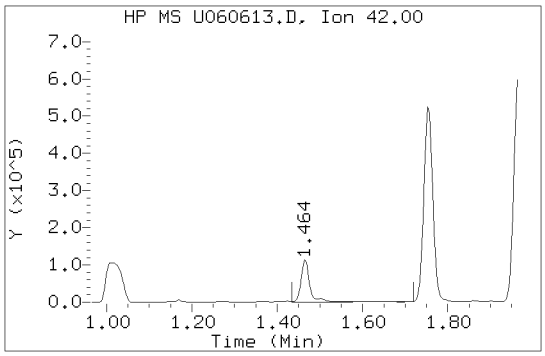
BEFORE

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42
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HEIGHT
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08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
161560
HEIGHT
113645
13-Jun-2023
13:00
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060616.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060616.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 06-JUN-2023 16:48
Operator : PC Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:01 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 15:41 Cal File: U060613.D
Als bottle: 17 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.819	(1.000)	780826	50.0000	
2 Dichlorodifluoromethane	85	1.160	1.168	(0.241)	313326	43.4411	43.44
3 Chloromethane	50	1.295	1.303	(0.269)	478723	40.3986	40.39
5 Vinyl Chloride	62	1.374	1.382	(0.285)	368340	44.5978	44.59
6 Bromomethane	94	1.618	1.614	(0.336)	232986	55.0399	55.03
7 Chloroethane	64	1.696	1.700	(0.352)	239922	43.1235	43.12
8 Trichlorofluoromethane	101	1.895	1.903	(0.394)	416947	43.9550	43.95
9 Acrolein	56	2.263	2.270	(0.470)	36231	87.4197	87.41
10 Acetone	43	2.409	2.416	(0.500)	256579	95.4315	95.43
11 1,1-Dichloroethene	96	2.334	2.341	(0.485)	257583	43.4598	43.45
15 Iodomethane	142	2.469	2.472	(0.513)	390544	85.8965	85.89
16 Acrylonitrile	53	3.065	3.072	(0.636)	264231	91.2502	91.25
17 Methylene Chloride	84	2.795	2.799	(0.580)	325441	45.6146	45.61
18 Methyl tert-butyl ether	73	3.080	3.087	(0.640)	820662	45.1527	45.15
19 Carbon Disulfide	76	2.521	2.525	(0.524)	1475776	93.1400	93.13
20 trans-1,2-Dichloroethene	96	3.057	3.065	(0.635)	292795	45.4251	45.42
21 Vinyl Acetate	43	3.605	3.616	(0.749)	1831639	93.2206	93.22
22 1,1-Dichloroethane	63	3.515	3.522	(0.730)	503967	41.1420	41.14
24 2-Butanone	43	4.264	4.272	(0.886)	310116	87.1102	87.11
26 2,2-Dichloropropane	77	4.182	4.189	(0.868)	371756	45.9347	45.93

27 cis-1,2-Dichloroethene	96	4.197	4.204 (0.872)	341415	44.2752	44.27
28 Chloroform	83	4.572	4.579 (0.949)	560655	43.9760	43.97

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060616.D Page 2
Report Date: 13-Jun-2023 13:01

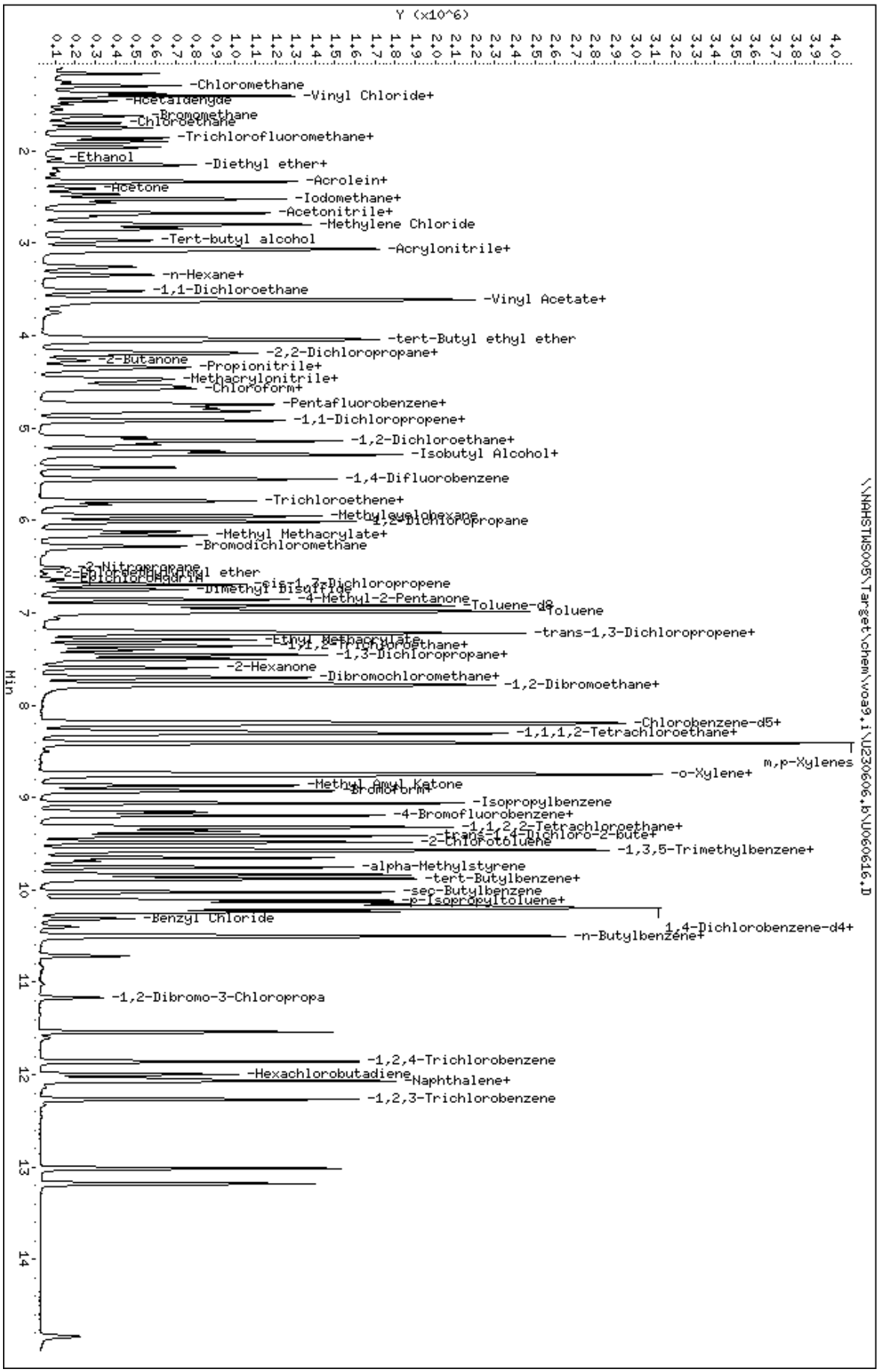
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.474	(0.928)	193817	44.9336	44.93
$	30 Dibromofluoromethane	113	4.748	4.755	(0.986)	318316	48.5594	48.55
	31 1,1,1-Trichloroethane	97	4.740	4.748	(0.984)	428686	44.1171	44.11
	32 1,1-Dichloropropene	75	4.920	4.924	(0.886)	386704	45.6635	45.66
	33 1,2-Dichloroethane	62	5.175	5.183	(0.932)	441937	44.1878	44.18
	34 Carbon Tetrachloride	117	4.909	4.917	(0.884)	345264	44.3847	44.38
$	35 1,2-Dichloroethane-d4	65	5.100	5.104	(1.059)	338506	47.7012	47.70
*	36 1,4-Difluorobenzene	114	5.554	5.558	(1.000)	1155525	50.0000	
	37 Benzene	78	5.138	5.141	(0.925)	1289605	46.3151	46.31
	38 Trichloroethene	130	5.790	5.790	(1.043)	360272	44.6411	44.64
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	414478	47.7201	47.72
	41 2-Chloroethylvinyl ether	63	6.577	6.581	(1.184)	17278	82.2441	82.24(M)
	42 1,2-Dichloropropane	63	6.011	6.015	(1.082)	336299	45.2354	45.23
	44 Dibromomethane	93	6.120	6.124	(1.102)	214846	45.2290	45.22
	45 4-Methyl-2-Pentanone	43	6.855	6.858	(0.837)	752796	97.7283	97.72
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	520852	44.9600	44.95
*	47 Chlorobenzene-d5	117	8.185	8.189	(1.000)	1057791	50.0000	
$	48 Toluene-d8	98	6.922	6.926	(0.846)	1235345	51.5999	51.59
	50 Toluene	91	6.982	6.982	(0.853)	1380191	48.1072	48.10
	51 trans-1,3-Dichloropropene	75	7.200	7.199	(1.296)	429650	44.2325	44.23
	52 2-Hexanone	43	7.593	7.597	(0.928)	496806	92.6111	92.61
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	272556	45.6579	45.65
	54 1,3-Dichloropropane	76	7.499	7.503	(0.916)	578247	47.4115	47.41
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	366836	51.7915	51.79
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	318249	45.5291	45.52
	57 1,2-Dibromoethane	107	7.784	7.788	(0.951)	335864	45.6094	45.60
	58 1-Chlorohexane	55	8.197	8.200	(1.476)	242405	40.8537	40.85
	59 Chlorobenzene	112	8.208	8.212	(1.003)	941715	45.9914	45.99
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.287	(1.012)	345385	49.0774	49.07
	61 Ethylbenzene	106	8.305	8.309	(1.015)	460758	48.3475	48.34
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1140862	101.183	101.18
	63 o-Xylene	106	8.748	8.748	(1.069)	558477	50.1380	50.13
	64 Styrene	104	8.763	8.763	(1.071)	935490	52.9214	52.92
	66 Bromoform	173	8.920	8.920	(1.090)	243942	51.0235	51.02
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	1308769	48.9183	48.91
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.332	(0.917)	454457	44.1598	44.15
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	483743	51.3065	51.30
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	547105	50.0000	
	71 1,2,3-Trichloropropane	75	9.363	9.366	(0.920)	415776	45.9243	45.92
	73 n-Propylbenzene	91	9.411	9.415	(0.925)	1420825	49.5106	49.51
	74 Bromobenzene	156	9.318	9.321	(0.916)	421969	45.7115	45.71
	75 1,3,5-Trimethylbenzene	105	9.561	9.565	(0.940)	949218	48.2136	48.21
	76 2-Chlorotoluene	91	9.482	9.486	(0.932)	943175	46.7536	46.75
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1080779	48.4010	48.40
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	902133	46.6540	46.65
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	984625	47.7979	47.79
	81 sec-Butylbenzene	105	10.022	10.026	(0.985)	1146037	46.7345	46.73
	82 p-Isopropyltoluene	119	10.146	10.150	(0.997)	996804	48.5205	48.52
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	724727	46.2241	46.22
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	744273	44.5230	44.52
	87 n-Butylbenzene	91	10.491	10.495	(1.031)	805977	45.8271	45.82
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	711620	45.2687	45.26

89	1,2-Dibromo-3-Chloropropane	155	11.166	11.169 (1.098)	71438	47.5707	47.57
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	514361	47.5706	47.57

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	185622	42.5095	42.50
	92 Naphthalene	128	12.065	12.069	(1.186)	1281110	51.0072	51.00
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	500164	47.3173	47.31
M	94 1,2-Dichloroethylene (total)	96				634210	89.7003	89.70
M	95 Xylenes (total)	106				1699339	151.321	151.32
	135 1,4-Dioxane	88	6.169	6.172	(1.281)	94832	611.650	611.64(R)
	141 Cyclohexane	56	4.782	4.785	(0.993)	401902	42.0727	42.07
	138 Freon TF	101	2.334	2.341	(0.485)	222912	42.5073	42.50
	140 1,3-Butadiene	54	1.404	1.412	(0.292)	342878	46.3679	46.36
	147 Methylcyclohexane	55	5.947	5.951	(1.071)	742238	46.3048	46.30
	146 Methyl Acetate	43	2.712	2.720	(0.563)	267638	40.7078	40.70
	148 Tert-Butyl alcohol	59	2.967	2.978	(0.616)	653389	905.196	905.19
	149 Isopropyl Alcohol	45	2.562	2.577	(0.532)	432312	846.925	846.92
	72 trans-1,4-Dichloro-2-butene	53	9.378	9.381	(1.146)	66066	54.2434	54.24
	12 Isobutyl Alcohol	43	5.288	5.291	(1.098)	1078739	1063.31	1063.31
	13 Acetonitrile	39	2.671	2.679	(0.555)	369725	437.354	437.35
	14 Allyl Chloride	41	2.671	2.679	(0.555)	881221	43.4696	43.46
	25 Methacrylonitrile	41	4.497	4.500	(0.934)	220001	47.6887	47.68
	40 Methyl Methacrylate	41	6.157	6.161	(1.279)	319473	47.5853	47.58
	4 Propionitrile	54	4.339	4.350	(0.901)	504761	447.359	447.35
	136 n-Hexane	57	3.342	3.350	(0.694)	279959	43.1157	43.11
	194 Acetaldehyde	44	1.457	1.464	(0.303)	213458	198.213	198.21(M)
	131 Methyl Acrylate	55	4.369	4.377	(0.907)	376406	45.5808	45.58(M)
	200 Dimethyl Disulfide	94	6.746	6.750	(0.824)	342782	43.9278	43.92
	23 Chloroprene	53	2.158	2.165	(0.448)	106743	42.8616	42.86(M)
	49 Ethyl Methacrylate	69	7.293	7.297	(1.313)	493833	48.7533	48.75
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	946548	45.0091	45.00
	167 Ethanol	45	2.083	2.098	(0.433)	87414	894.820	894.81
	164 Dicyclopentadiene	66	10.198	10.202	(1.003)	1170894	43.8737	43.87
	145 alpha-Methylstyrene	118	9.752	9.756	(0.959)	456404	44.8638	44.86
	142 Tetrahydrofuran	42	4.545	4.549	(0.944)	124728	90.2172	90.21
	156 Diisopropyl ether	45	3.623	3.631	(0.752)	968924	44.5026	44.50
	151 4-Methyl-2-pentanol	45	7.222	7.226	(1.300)	1465561	852.923	852.92
	150 Allyl alcohol	57	3.342	3.350	(0.694)	279959	862.620	862.62
	86 Benzyl Chloride	91	10.311	10.311	(1.260)	308230	48.8252	48.82
	162 Butyl acrylate	55	8.733	8.733	(1.067)	606576	48.4779	48.47
	139 Diethyl ether	59	2.143	2.154	(0.445)	236202	44.7701	44.77
	203 2-Ethylhexyl Acrylate	55	12.043	12.039	(1.184)	256043	48.8830	48.88
	134 Cyclohexanone	55	9.153	9.156	(0.900)	315426	929.955	929.95
	130 Ethyl Acetate	43	4.343	4.272	(0.902)	367738	52.6863	52.68
	189 n-Butyl acetate	43	7.706	7.709	(0.941)	585580	48.6187	48.61(M)
	182 Epichlorohydrin	57	6.633	6.633	(1.194)	19670	179.479	179.47

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230606.b\U060616.D
Date : 06-JUN-2023 16:48
Client ID: ICV
Sample Info: CCV;CCV;2;;;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

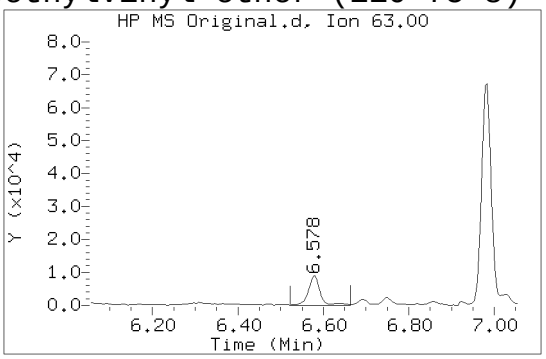
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Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

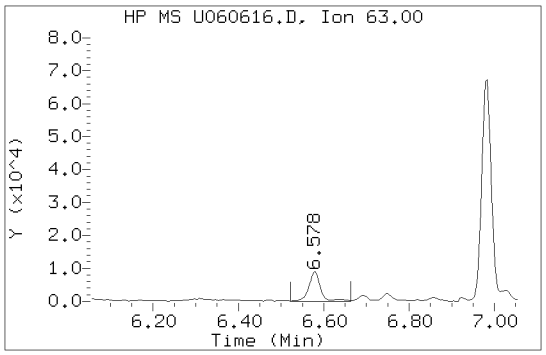
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17278
HEIGHT
8945
08-Jun-2023
14:56
linh
pham



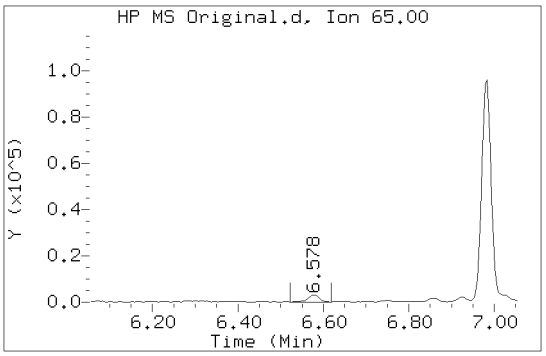
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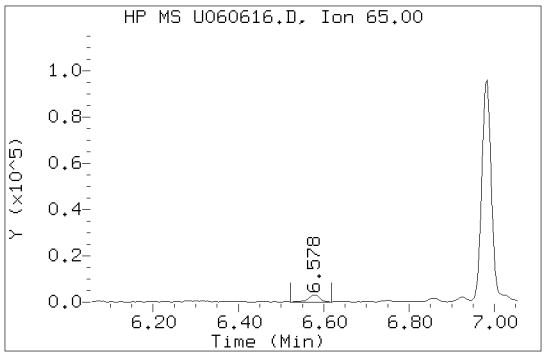
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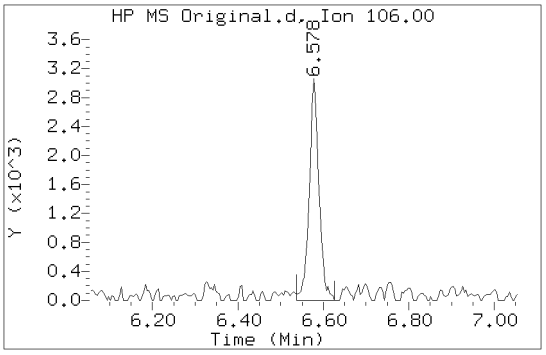
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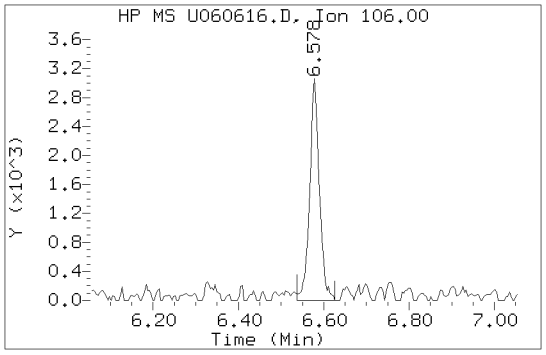
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AREA
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08-Jun-2023
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AFTER

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HEIGHT
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13-Jun-2023
13:00
linh
pham

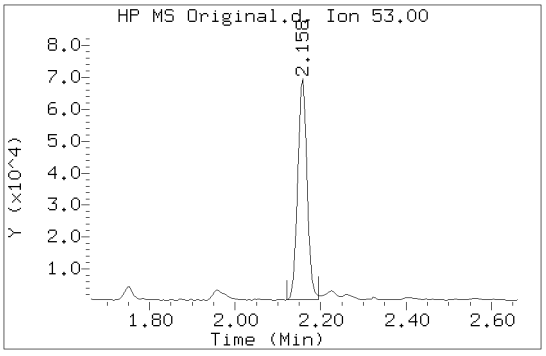


Chloroprene (126-99-8)

Reason Code:

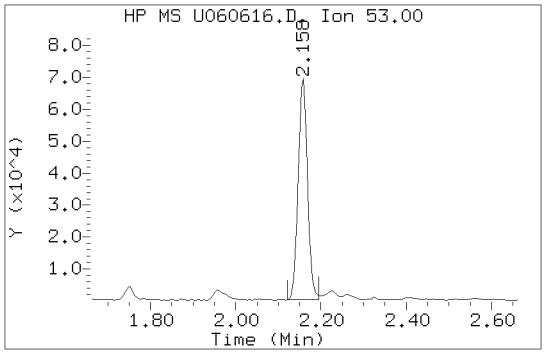
BEFORE

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53
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HEIGHT
69224
08-Jun-2023
14:56
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AFTER

MASS
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HEIGHT
69224
13-Jun-2023
13:00
linh
pham

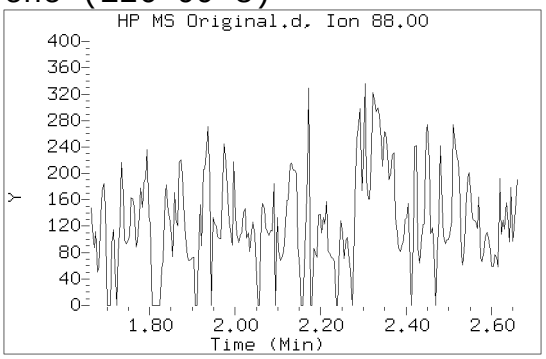


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Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

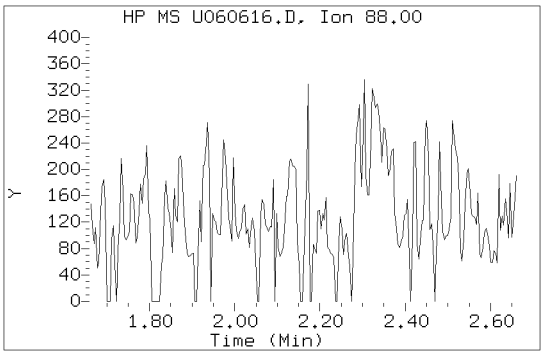
Chloroprene (126-99-8)

Reason Code:

BEFORE
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AREA
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HEIGHT
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08-Jun-2023
14:56
linh
pham



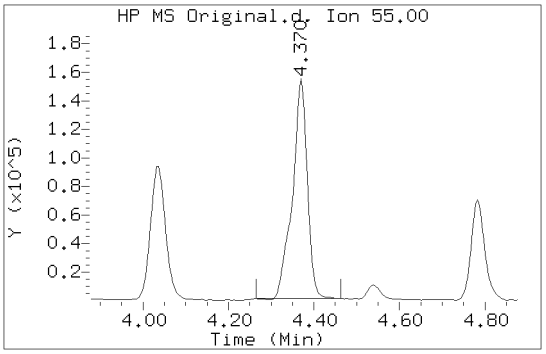
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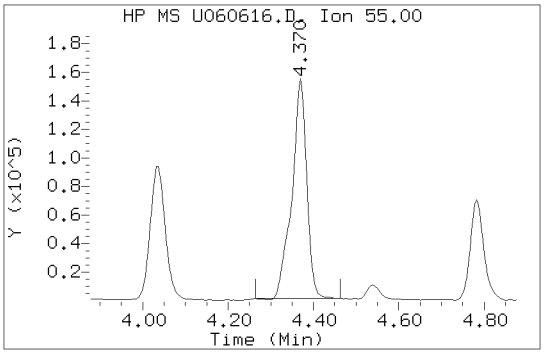
Methyl Acrylate (96-33-3)

Reason Code:

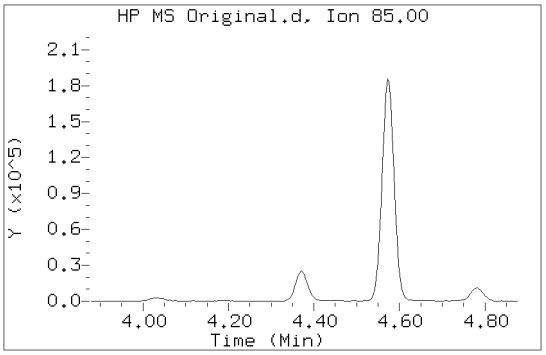
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HEIGHT
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08-Jun-2023
14:56
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pham



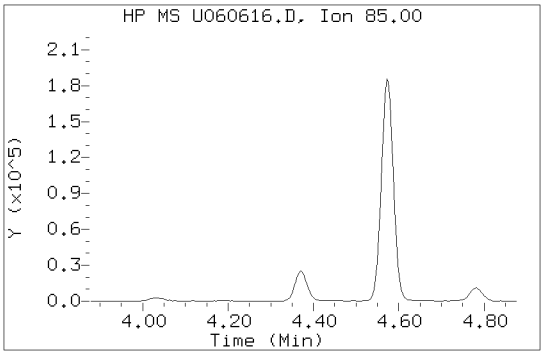
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AREA
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HEIGHT
153880
13-Jun-2023
13:00
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pham



BEFORE
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AREA
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HEIGHT
0
08-Jun-2023
14:56
linh
pham



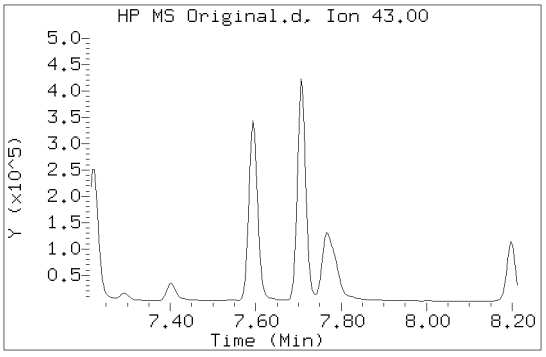
AFTER
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AREA
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HEIGHT
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13-Jun-2023
13:00
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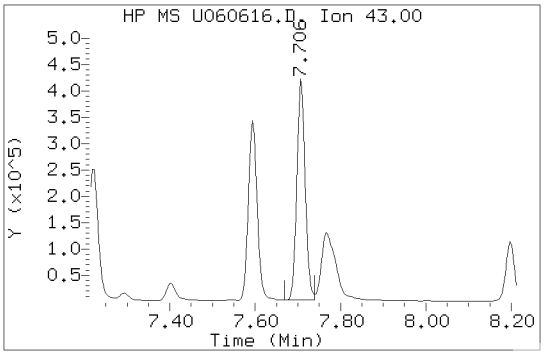
n-Butyl acetate (123-86-4)

Reason Code:

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AREA
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HEIGHT
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08-Jun-2023
14:56
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pham

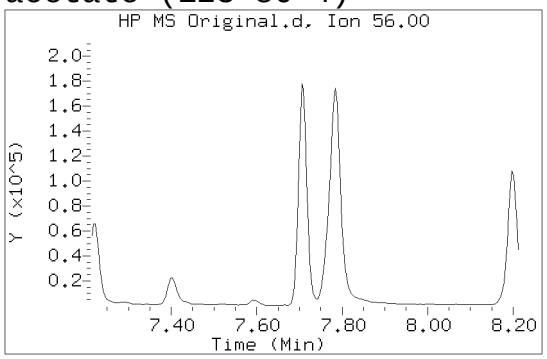


AFTER
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HEIGHT
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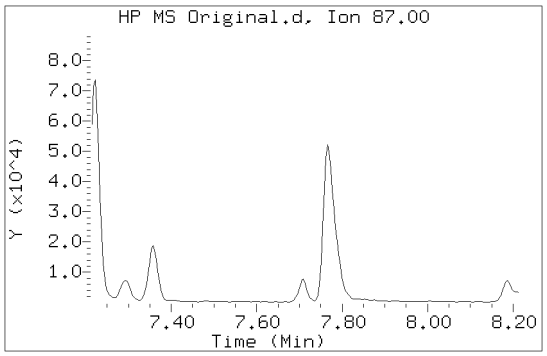


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Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

n-Butyl acetate (123-86-4)

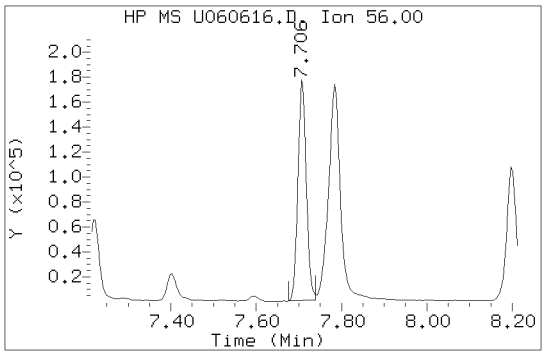


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14:56
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pham

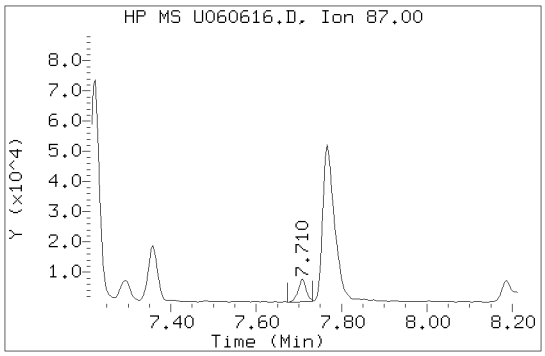


BEFORE
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Reason Code:

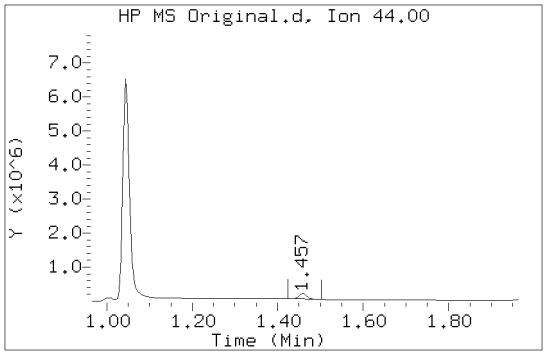


AFTER
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13:00
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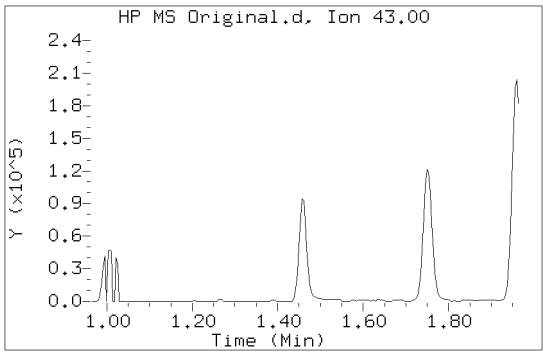


AFTER
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13-Jun-2023
13:00
linh
pham

Acetaldehyde (75-07-0)

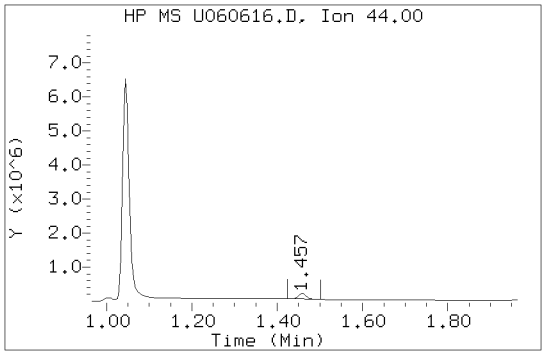


BEFORE
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AREA
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08-Jun-2023
14:56
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pham

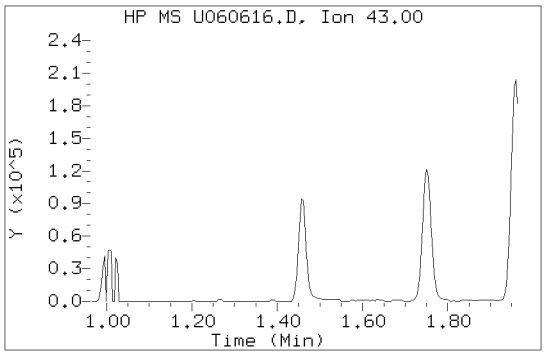


BEFORE
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43
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HEIGHT
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08-Jun-2023
14:56
linh
pham

Reason Code:



AFTER
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44
AREA
213458
HEIGHT
168169
13-Jun-2023
13:00
linh
pham



AFTER
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13-Jun-2023
13:00
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pham

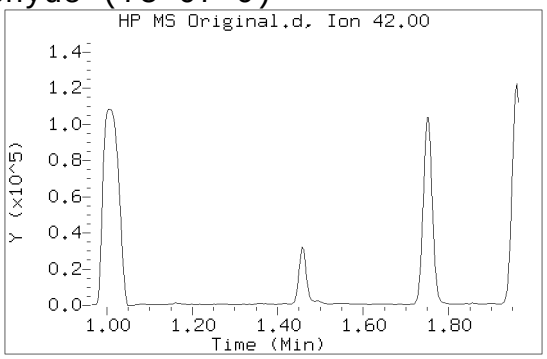
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060616.D
Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

Acetaldehyde (75-07-0)

Reason Code:

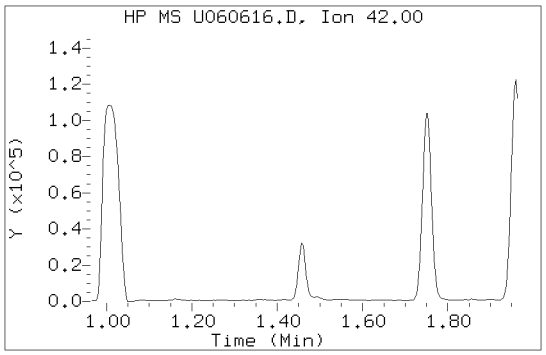
BEFORE

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08-Jun-2023
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pham



AFTER

MASS
42
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



01210445

right solutions.
right partner.

Raw Data VOA9 439181

Volatiles by EPA 8260

Workorder

HS23060983

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Bi-Weekly Samples

06/20/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061701.D Page 1

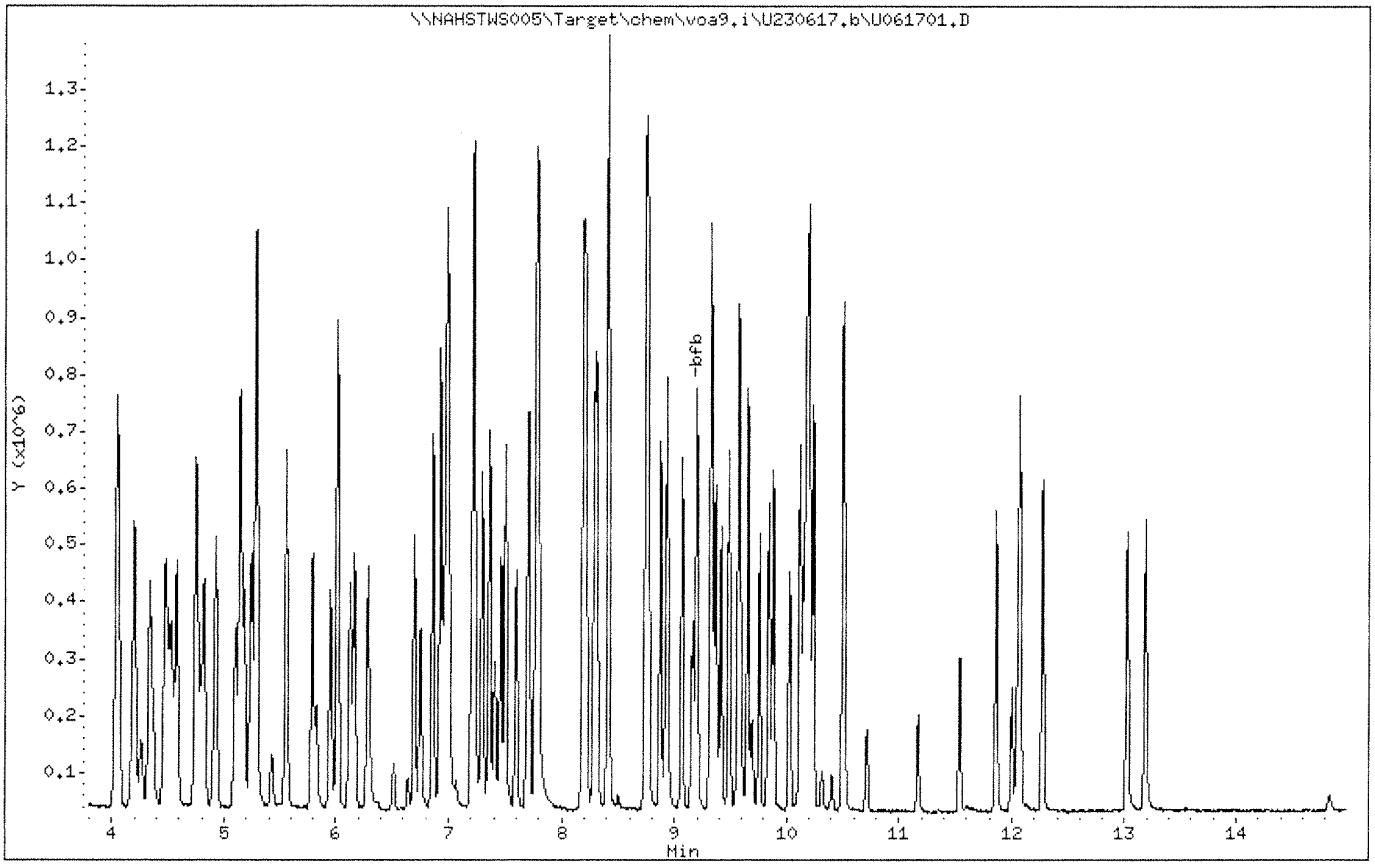
Date : 17-JUN-2023 11:18

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061701.D Page 2

Date : 17-JUN-2023 11:18

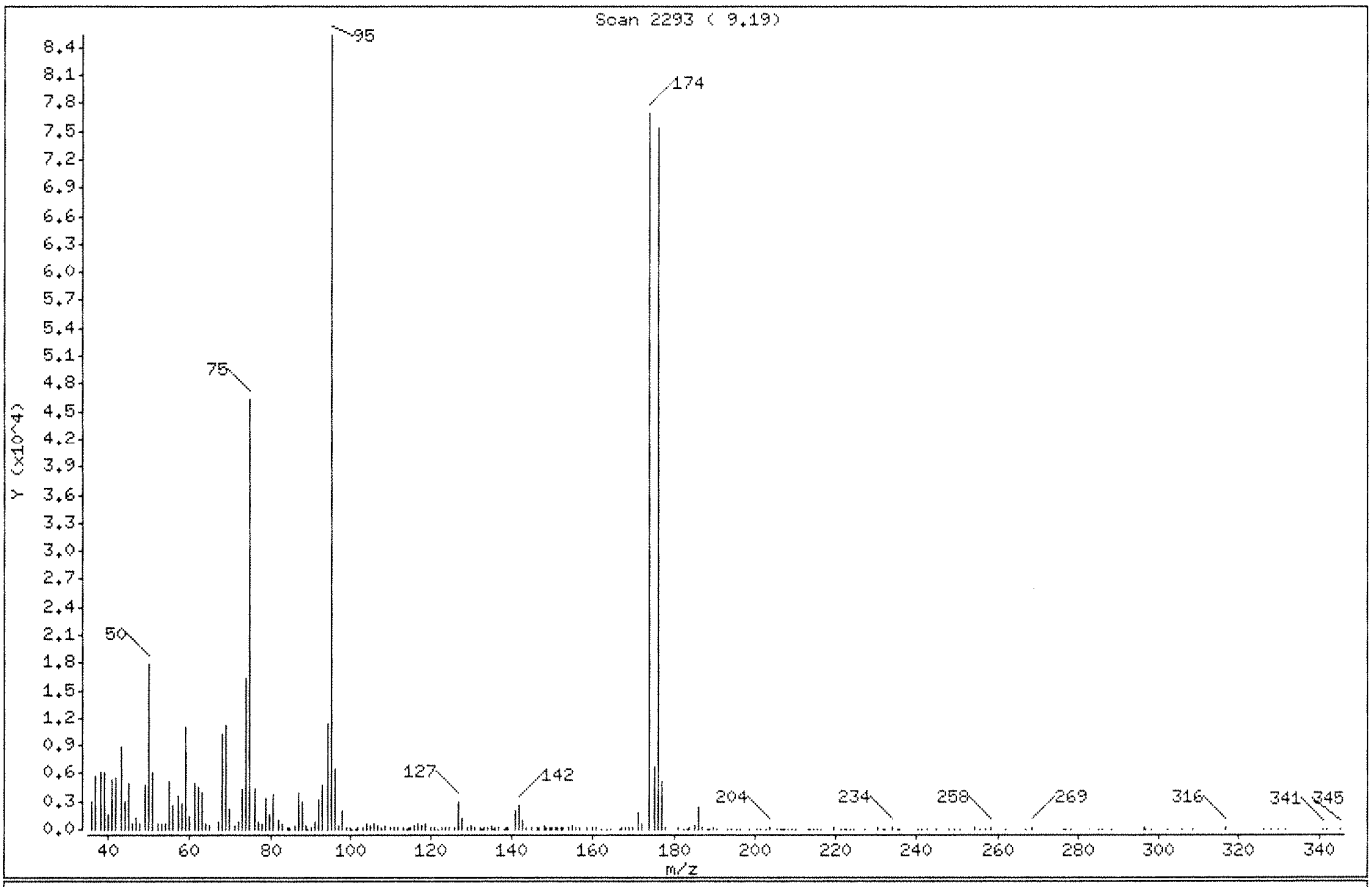
Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.89
75	30.00 - 60.00% of mass 95	54.23
96	5.00 - 9.00% of mass 95	7.48
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	90.16
175	5.00 - 9.00% of mass 174	7.92 (8.79)
176	95.00 - 101.00% of mass 174	88.19 (97.82)
177	5.00 - 9.00% of mass 176	5.98 (6.79)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061701.D Page 3

Date : 17-JUN-2023 11:18

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: U061701.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 226

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37.00	5740	94.00	11328	146.70	164	210.00	72
38.00	6030	95.00	85344	147.90	352	213.30	92
39.00	6066	96.00	6385	148.60	109	213.80	89
39.90	1580	96.80	430	149.50	106	214.30	53
41.00	5341	98.00	2021	149.90	190	215.20	59
42.00	5448	99.00	149	150.70	106	216.40	53
43.00	8786	100.00	111	151.40	157	219.60	101
44.00	3014	100.70	91	151.90	203	221.30	87
45.00	4942	101.40	77	152.70	211	222.00	92
45.90	494	102.00	177	154.00	144	222.50	53
46.90	1099	103.10	162	154.90	343	223.50	84
47.80	654	104.00	516	155.70	101	224.60	94
49.00	4625	105.30	343	156.80	272	227.30	68
50.00	17832	105.90	619	158.60	208	230.50	114
51.00	5994	106.80	423	159.90	116	231.60	61
52.00	603	107.90	133	160.90	256	232.00	70
52.90	642	108.90	361	162.10	68	233.80	138
54.00	628	110.00	189	163.60	69	235.10	69
55.10	5181	110.90	171	164.30	77	235.70	94
55.90	2462	111.90	153	166.50	52	240.30	58
57.00	3518	113.00	240	166.90	122	241.10	70
57.90	2782	113.90	84	167.90	195	242.60	77
59.00	10893	114.40	116	168.80	178	244.90	68
60.00	1444	115.00	235	169.70	147	248.10	56
61.00	4977	115.80	449	170.90	1782	249.50	55
62.00	4573	116.90	648	171.90	638	250.60	97
63.00	3955	117.80	469	173.90	76944	254.40	104
64.00	505	118.80	575	175.00	6761	255.50	66
65.00	457	119.90	247	175.90	75264	256.90	92
67.10	689	120.90	110	176.90	5107	258.30	106
68.00	10207	121.70	71	177.90	174	262.00	54
69.00	11087	122.90	110	181.20	109	267.10	69
70.00	2185	123.60	267	182.60	56	268.70	111
71.00	420	124.70	200	183.10	58	276.30	57

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061701.D

Date : 17-JUN-2023 11:18

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: U061701.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 226

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.90	750	125.90	201	183.90	135	276.80	88
73.00	4414	126.90	3024	185.00	345	278.20	55
74.00	16379	127.80	1150	185.90	2284	282.80	59
75.00	46280	128.90	268	187.00	193	285.20	65
76.00	4237	129.90	382	188.30	65	286.00	82
76.90	740	130.80	207	188.90	72	288.10	51
78.00	529	132.00	165	189.50	107	296.10	99
78.90	3358	132.70	58	190.40	65	296.60	55
79.90	1580	133.30	100	193.20	92	297.90	66
80.80	3809	133.90	132	194.00	65	302.00	54
81.90	1012	134.80	323	195.50	53	305.70	87
82.90	640	135.50	88	196.30	60	308.30	53
84.20	118	136.00	130	198.60	54	316.60	110
84.90	251	136.70	285	200.40	64	326.30	54
86.00	333	138.00	51	201.30	57	327.80	61
86.90	3884	138.60	261	202.80	71	329.60	59
88.00	3004	139.20	183	203.80	118	331.60	74
88.70	308	140.80	1906	205.40	79	341.00	77
89.40	97	141.90	2636	206.30	61	341.90	69
90.00	118	142.80	1069	206.70	58	345.50	52
91.00	704	143.70	222	207.10	65		
92.00	3098	145.00	193	208.00	88		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061703.D Page 1
Report Date: 20-Jun-2023 15:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061703.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2023 12:05
Operator : PC Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 15:42 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	521018	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	244366	50.0000	50.76
3	Chloromethane	50	1.303	1.303	(0.270)	332835	50.0000	42.14
5	Vinyl Chloride	62	1.381	1.381	(0.287)	269059	50.0000	48.82
6	Bromomethane	94	1.625	1.625	(0.337)	164068	50.0000	58.18
7	Chloroethane	64	1.704	1.704	(0.354)	181246	50.0000	48.82
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	376138	50.0000	59.42
9	Acrolein	56	2.270	2.270	(0.471)	24279	100.000	87.79
10	Acetone	43	2.412	2.412	(0.501)	198914	100.000	111.79
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	201583	50.0000	50.97
15	Iodomethane	142	2.476	2.476	(0.514)	338536	100.000	107.37
16	Acrylonitrile	53	3.068	3.068	(0.637)	195107	100.000	100.97
17	Methylene Chloride	84	2.798	2.798	(0.581)	253042	50.0000	53.32
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	627270	50.0000	51.72
19	Carbon Disulfide	76	2.528	2.528	(0.525)	1118984	100.000	105.83
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	219517	50.0000	51.03
21	Vinyl Acetate	43	3.612	3.612	(0.750)	1391745	100.000	106.15
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	391855	50.0000	47.94
24	2-Butanone	43	4.268	4.268	(0.886)	217862	100.000	91.71
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	304079	50.0000	56.21

27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	251128	50.0000	48.80
28 Chloroform	83	4.575	4.575 (0.949)	419161	50.0000	49.27

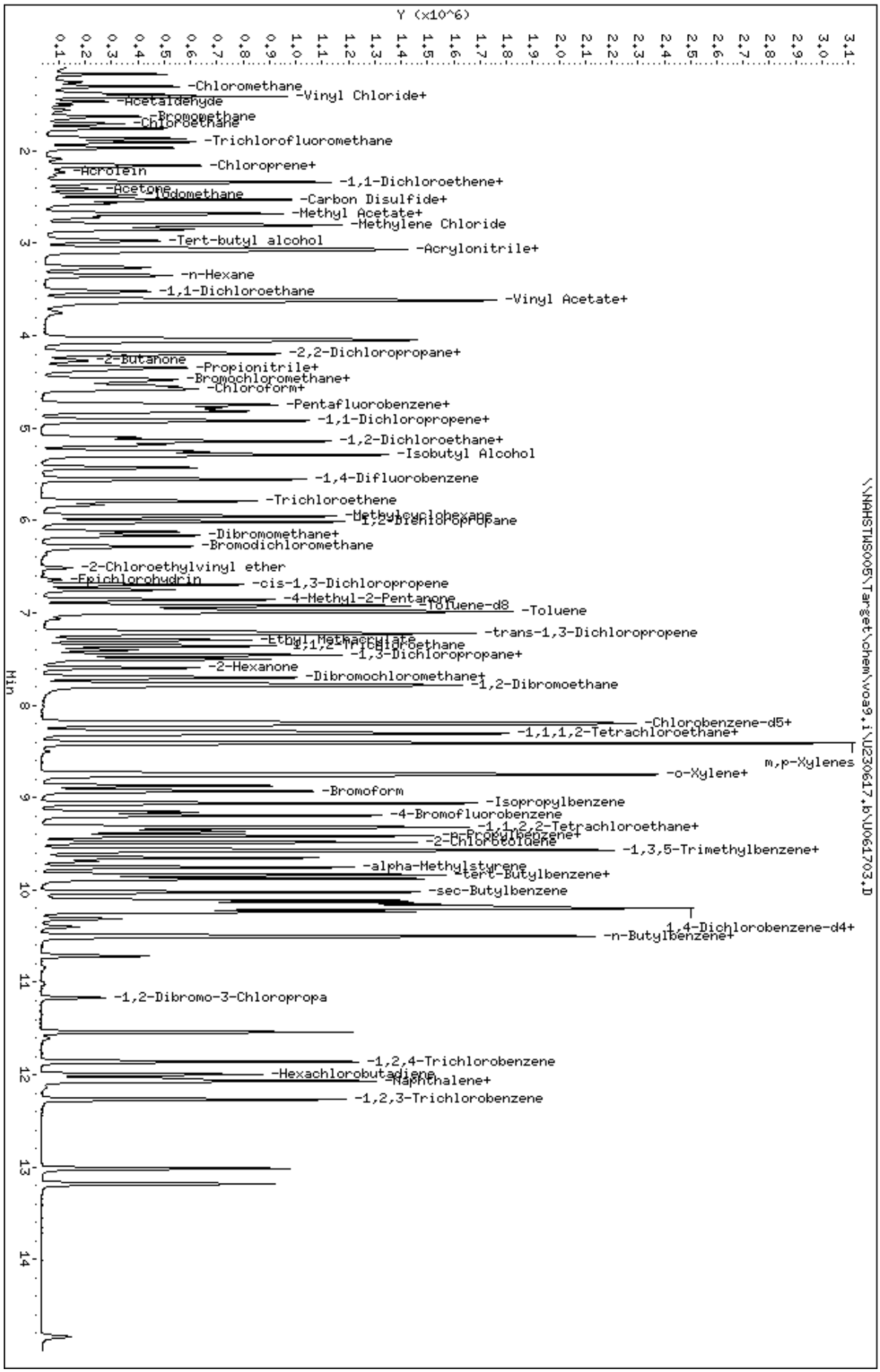
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	135614	50.0000	47.11
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	217758	50.0000	49.79
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	342283	50.0000	52.79
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	284869	50.0000	51.40
	33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	353280	50.0000	53.98
	34 Carbon Tetrachloride	117	4.913	4.913	(0.884)	282955	50.0000	55.58
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	251876	50.0000	53.27
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	756149	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	886055	50.0000	48.62
	38 Trichloroethene	130	5.790	5.790	(1.042)	252792	50.0000	47.86
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	309499	50.0000	54.45
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.183)	6157	100.000	44.78
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	235968	50.0000	48.50
	44 Dibromomethane	93	6.123	6.123	(1.102)	159724	50.0000	51.38
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	513242	100.000	98.16
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	356373	50.0000	46.92
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	718007	50.0000	
$	48 Toluene-d8	98	6.926	6.926	(0.846)	810789	50.0000	49.89
	50 Toluene	91	6.982	6.982	(0.853)	993557	50.0000	51.01
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	306108	50.0000	47.97
	52 2-Hexanone	43	7.593	7.593	(0.928)	341109	100.000	93.67
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	197144	50.0000	48.65
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	413192	50.0000	49.91
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	276989	50.0000	57.61
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	237075	50.0000	49.96
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	249018	50.0000	49.81
	58 1-Chlorohexane	55	8.196	8.196	(1.475)	193642	50.0000	49.87
	59 Chlorobenzene	112	8.211	8.211	(1.003)	684539	50.0000	49.25
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	256665	50.0000	53.72
	61 Ethylbenzene	106	8.309	8.309	(1.015)	330083	50.0000	51.02
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	808964	100.000	105.69
	63 o-Xylene	106	8.748	8.748	(1.069)	393040	50.0000	51.98
	64 Styrene	104	8.763	8.763	(1.071)	667776	50.0000	55.65
	66 Bromoform	173	8.920	8.920	(1.090)	182205	50.0000	56.14
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	983510	50.0000	54.15
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	331282	50.0000	44.86
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	343281	50.0000	53.67
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	392541	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	298987	50.0000	46.02
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	1065092	50.0000	51.72
	74 Bromobenzene	156	9.317	9.317	(0.916)	309113	50.0000	46.67
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	704273	50.0000	49.85
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	708670	50.0000	48.96
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	817042	50.0000	50.99
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	689392	50.0000	49.69
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	723509	50.0000	48.95
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	890965	50.0000	50.63
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	757424	50.0000	51.38
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	533716	50.0000	47.44
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	561282	50.0000	46.79
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	640640	50.0000	50.76
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	536301	50.0000	47.54

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	50052	50.0000	46.45
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	363017	50.0000	46.79

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
91	Hexachlorobutadiene	225	11.998	11.998	(1.179)	153286	50.0000	48.92
92	Naphthalene	128	12.065	12.065	(1.186)	889321	50.0000	49.35
93	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	347267	50.0000	45.78
M 94	1,2-Dichloroethylene (total)	96				470645	100.000	(a)
135	1,4-Dioxane	88	6.172	6.172	(1.281)	59510	1000.00	575.22
141	Cyclohexane	56	4.785	4.785	(0.993)	293048	50.0000	45.86
138	Freon TF	101	2.341	2.341	(0.486)	193620	50.0000	55.33
140	1,3-Butadiene	54	1.408	1.408	(0.292)	242060	50.0000	49.05
147	Methylcyclohexane	55	5.951	5.951	(1.071)	542164	50.0000	51.68
146	Methyl Acetate	43	2.720	2.720	(0.564)	210270	50.0000	47.93
148	Tert-Butyl alcohol	59	2.971	2.971	(0.617)	481347	1000.00	999.89
149	Isopropyl Alcohol	45	2.566	2.566	(0.533)	310134	1000.00	910.53
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	44725	50.0000	54.09
12	Isobutyl Alcohol	43	5.291	5.291	(1.098)	773694	1000.00	1142.91
13	Acetonitrile	39	2.678	2.678	(0.556)	324162	500.000	574.66
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	725346	50.0000	48.07
156	Diisopropyl ether	45	3.627	3.627	(0.753)	734778	50.0000	50.57
162	Butyl acrylate	55	8.736	8.736	(1.067)	419224	50.0000	49.36
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	191482	50.0000	50.77

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230617,b\U061703,D
Date : 17-JUN-2023 12:05
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061703.D
Inj Date : 17-JUN-2023 12:05
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061704.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 17-JUN-2023 12:28
Operator : PC Inst ID: VOA9.i
Smp Info : CCB;CCB;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 15:42 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.819	(1.000)	552285	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.751	(0.986)	236066	50.9296	50.92
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	276484	55.1895	55.18
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	753831	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	684446	50.0000	
$ 48 Toluene-d8	98	6.922	6.926	(0.846)	843228	54.4335	54.43
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	294044	48.1432	48.14
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	341138	50.0000	

01210458

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061704.D

Date : 17-JUN-2023 12:28

Client ID: CCB

Instrument: VOA9.i

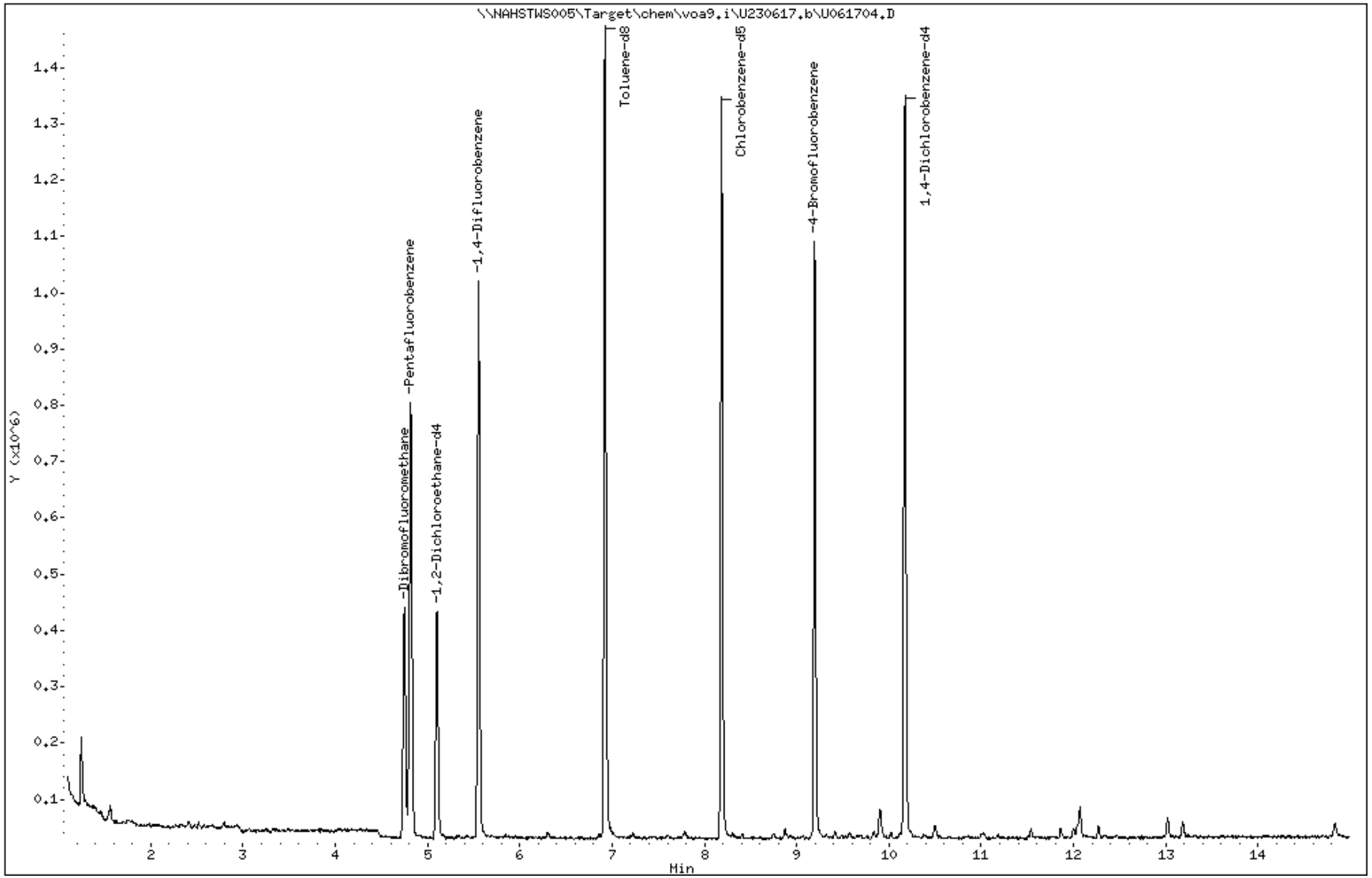
Sample Info: CCB;CCB;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061704.D
Inj Date : 17-JUN-2023 12:28
InstruID : VOA9.i
LabSampID : CCB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061705.D Page 1
Report Date: 20-Jun-2023 15:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061705.D
Lab Smp Id: VLCSW-230617 Client Smp ID: VLCSW-230617
Inj Date : 17-JUN-2023 12:50
Operator : PC Inst ID: VOA9.i
Smp Info : VLCSW-230617;VLCSW-230617;3;;LCS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 15:42 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	481638	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	90283	20.3355	20.33
3	Chloromethane	50	1.299	1.303	(0.270)	137480	18.0874	18.08
5	Vinyl Chloride	62	1.381	1.381	(0.287)	98502	19.3349	19.33
6	Bromomethane	94	1.625	1.625	(0.337)	69005	25.4718	25.47
7	Chloroethane	64	1.704	1.704	(0.354)	69559	20.2689	20.26
8	Trichlorofluoromethane	101	1.899	1.902	(0.394)	143689	24.5575	24.55
9	Acrolein	56	2.270	2.270	(0.471)	8919	34.8882	34.88
10	Acetone	43	2.412	2.412	(0.501)	74790	42.0870	42.08
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	74050	20.2548	20.25
15	Iodomethane	142	2.472	2.476	(0.513)	109771	45.3128	45.31
16	Acrylonitrile	53	3.072	3.068	(0.638)	76188	42.6550	42.65
17	Methylene Chloride	84	2.798	2.798	(0.581)	97084	21.5298	21.52
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	253065	22.5728	22.57
19	Carbon Disulfide	76	2.525	2.528	(0.524)	463399	47.4137	47.41
20	trans-1,2-Dichloroethene	96	3.061	3.065	(0.635)	82373	20.7181	20.71
21	Vinyl Acetate	43	3.612	3.612	(0.750)	526787	43.4651	43.46
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	149290	19.7582	19.75
24	2-Butanone	43	4.272	4.268	(0.886)	81625	37.1708	37.17
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	114875	23.2103	23.21

27	cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	96588	20.3065	20.30
28	Chloroform	83	4.575	4.575 (0.949)	161098	20.4854	20.48

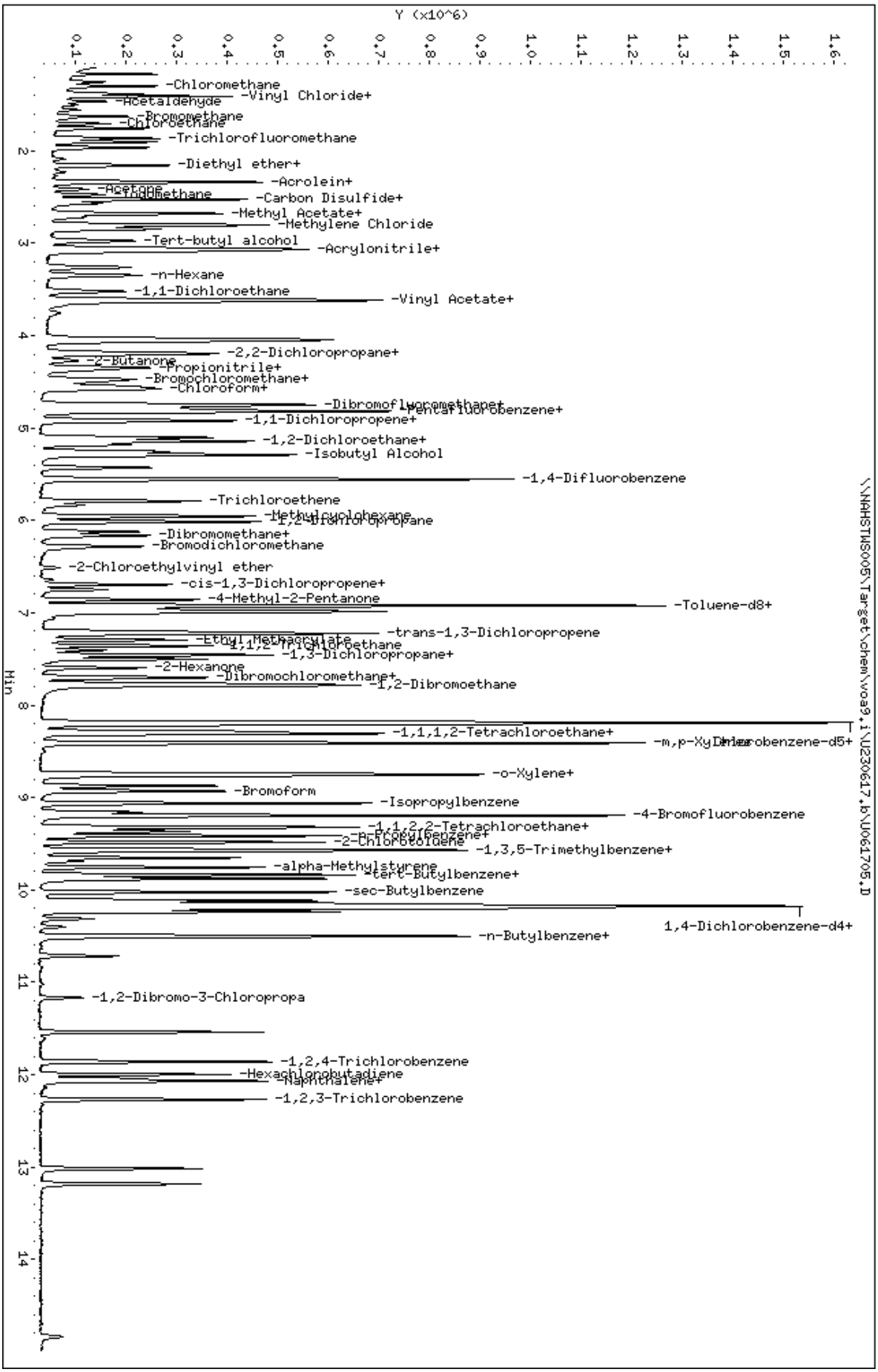
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.474	(0.928)	49703	18.6808	18.68
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	196844	48.6831	48.68
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	129585	21.6200	21.62
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	111697	21.6934	21.69
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	136899	22.5132	22.51
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	107871	22.8077	22.80
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	228257	52.2096	52.20
*	36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	702562	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	341671	20.1822	20.18
	38 Trichloroethene	130	5.790	5.790	(1.043)	99358	20.2489	20.24
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	111505	21.1149	21.11
	41 2-Chloroethylvinyl ether	63	6.573	6.577	(1.184)	1680	13.1527	13.15(a)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	90525	20.0270	20.02
	44 Dibromomethane	93	6.123	6.123	(1.103)	62344	21.5863	21.58
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	185418	37.2035	37.20
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	123417	18.6886	18.68
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	684402	50.0000	
$	48 Toluene-d8	98	6.922	6.926	(0.846)	724001	46.7399	46.73
	50 Toluene	91	6.982	6.982	(0.853)	384841	20.7320	20.73
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	103005	18.6656	18.66
	52 2-Hexanone	43	7.593	7.593	(0.928)	124687	35.9241	35.92
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	74074	19.1785	19.17
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	155857	19.7508	19.75
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	95837	20.9126	20.91
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	96764	21.3956	21.39
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	93005	19.5203	19.52
	58 1-Chlorohexane	55	8.197	8.196	(1.476)	85000	23.5615	23.56
	59 Chlorobenzene	112	8.212	8.211	(1.003)	267475	20.1897	20.18
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	93203	20.4690	20.46
	61 Ethylbenzene	106	8.309	8.309	(1.015)	128281	20.8042	20.80
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	315974	43.3125	43.31
	63 o-Xylene	106	8.748	8.748	(1.069)	149437	20.7352	20.73
	64 Styrene	104	8.763	8.763	(1.071)	245316	21.4490	21.44
	66 Bromoform	173	8.920	8.920	(1.090)	62286	20.1355	20.13
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	394603	22.7959	22.79
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	129433	18.9312	18.93
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	310786	50.9393	50.93
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	363474	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	111848	18.5955	18.59
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	420279	22.0441	22.04
	74 Bromobenzene	156	9.317	9.317	(0.916)	122029	19.8978	19.89
	75 1,3,5-Trimethylbenzene	105	9.561	9.565	(0.940)	278039	21.2572	21.25
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	283829	21.1776	21.17
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	328879	22.1692	22.16
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	275477	21.4438	21.44
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	292256	21.3550	21.35
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	361487	22.1886	22.18
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	299038	21.9098	21.90
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	212772	20.4271	20.42
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	227388	20.4747	20.47
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	265837	22.7516	22.75
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	211123	20.2154	20.21

89	1,2-Dibromo-3-Chloropropane	155	11.165	11.169 (1.098)	17559	17.5998	17.59
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	140545	19.5652	19.56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	66169	22.8091	22.80
	92 Naphthalene	128	12.065	12.065	(1.186)	310952	18.6353	18.63
	93 1,2,3-Trichlorobenzene	180	12.268	12.271	(1.206)	133542	19.0161	19.01
M	94 1,2-Dichloroethylene (total)	96				178961	41.0246	41.02
M	95 Xylenes (total)	106				465411	64.0477	64.04
	135 1,4-Dioxane	88	6.172	6.172	(1.281)	24511	256.296	256.29
	141 Cyclohexane	56	4.785	4.785	(0.993)	119549	20.6149	20.61
	138 Freon TF	101	2.341	2.341	(0.486)	75892	23.4617	23.46
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	88690	19.4440	19.44
	147 Methylcyclohexane	55	5.951	5.951	(1.072)	204167	20.9490	20.94
	146 Methyl Acetate	43	2.716	2.720	(0.564)	75433	18.6005	18.60
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	188595	420.941	420.94
	149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	121593	386.180	386.17
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	15852	20.1160	20.11
	12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	292547	467.491	467.49
	13 Acetonitrile	39	2.675	2.678	(0.555)	123993	237.785	237.78
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	299413	21.4302	21.43
	156 Diisopropyl ether	45	3.627	3.627	(0.753)	296887	22.1065	22.10
	162 Butyl acrylate	55	8.736	8.736	(1.067)	156391	19.3178	19.31
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	74401	22.9175	22.91

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230617,b\U061705,D
Date : 17-JUN-2023 12:50
Client ID: VLCSW-230617
Sample Info: VLCSW-230617;VLCSW-230617;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061705.D
Inj Date : 17-JUN-2023 12:50
InstruID : VOA9.i
LabSampID : VLCSW-230617

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061707.D Page 1
Report Date: 20-Jun-2023 15:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061707.D
Lab Smp Id: VBLKW-230617 Client Smp ID: VBLKW-230617
Inj Date : 17-JUN-2023 13:35
Operator : PC Inst ID: VOA9.i
Smp Info : VBLKW-230617;VBLKW-230617;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 15:42 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.811	4.819	(1.000)	540004	50.0000	
$ 30 Dibromofluoromethane	113	4.744	4.751	(0.986)	222720	49.1320	49.13
$ 35 1,2-Dichloroethane-d4	65	5.096	5.100	(1.059)	276359	56.4344	56.43
* 36 1,4-Difluorobenzene	114	5.550	5.557	(1.000)	741846	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	669837	50.0000	
$ 48 Toluene-d8	98	6.922	6.926	(0.846)	828686	54.6614	54.66
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	288884	48.3335	48.33
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	336806	50.0000	

01210468

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061707.D

Date : 17-JUN-2023 13:35

Client ID: VBLKW-230617

Instrument: VOA9.i

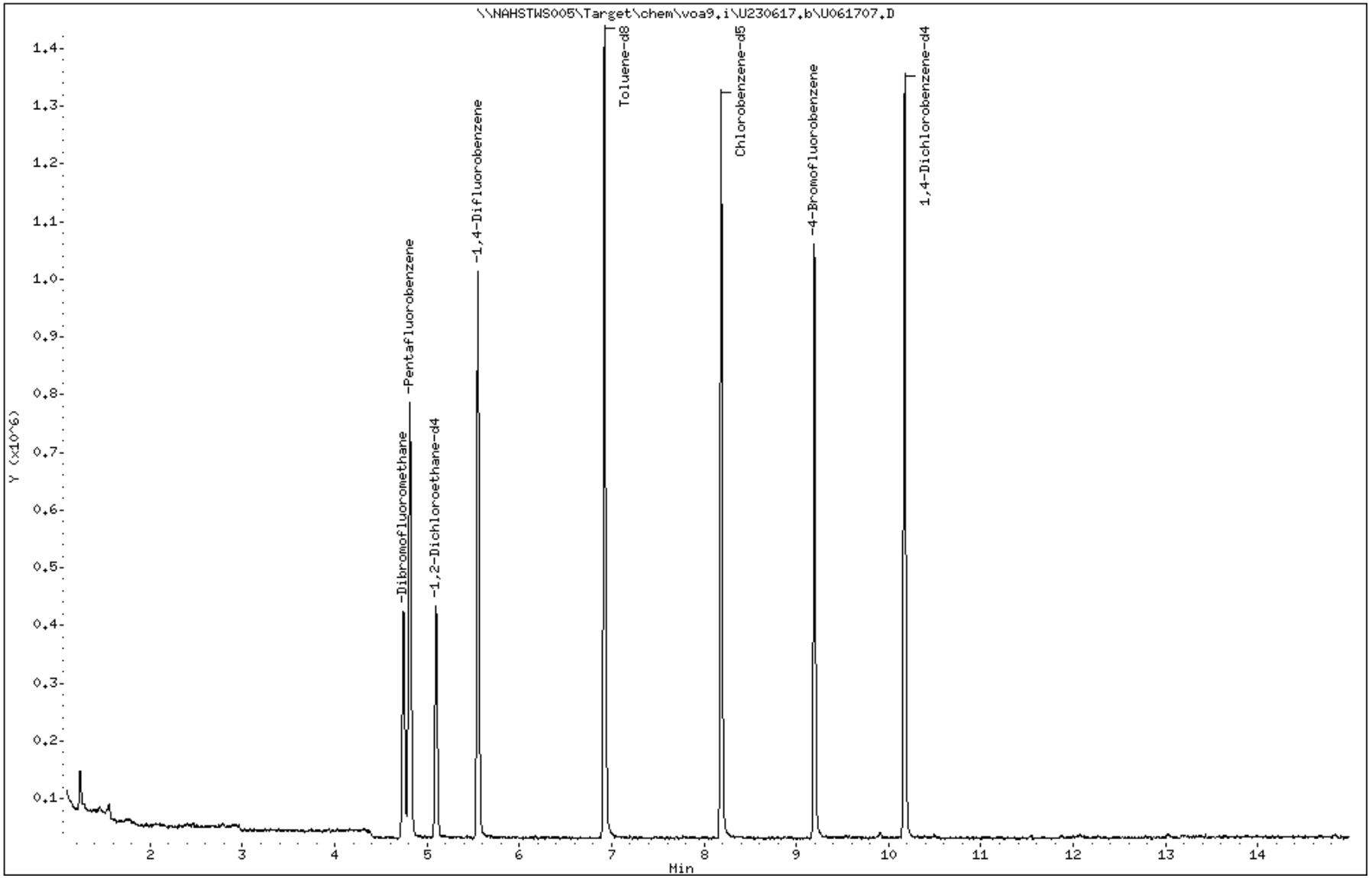
Sample Info: VBLKW-230617;VBLKW-230617;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061707.D
Inj Date : 17-JUN-2023 13:35
InstruID : VOA9.i
LabSampID : VBLKW-230617

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061709.D Page 1
Report Date: 20-Jun-2023 15:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061709.D
Lab Smp Id: HS23060983-01 Client Smp ID: HS23060983-01
Inj Date : 17-JUN-2023 14:19
Operator : PC Inst ID: VOA9.i
Smp Info : HS23060983-01;HS23060983-01;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 15:42 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.819	(1.000)	532532	50.0000	
	27 cis-1,2-Dichloroethene	96	4.197	4.200	(0.872)	5905	1.12281	1.12(a)
$	30 Dibromofluoromethane	113	4.748	4.751	(0.986)	227689	50.9445	50.94
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	271963	56.3145	56.31
*	36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	730324	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	670353	50.0000	
$	48 Toluene-d8	98	6.922	6.926	(0.846)	823787	54.2965	54.29
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	280118	46.8026	46.80
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	327526	50.0000	
M	94 1,2-Dichloroethylene (total)	96				5905	1.12281	1.12(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01210471

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061709.D

Date : 17-JUN-2023 14:19

Client ID: HS23060983-01

Instrument: VOA9.i

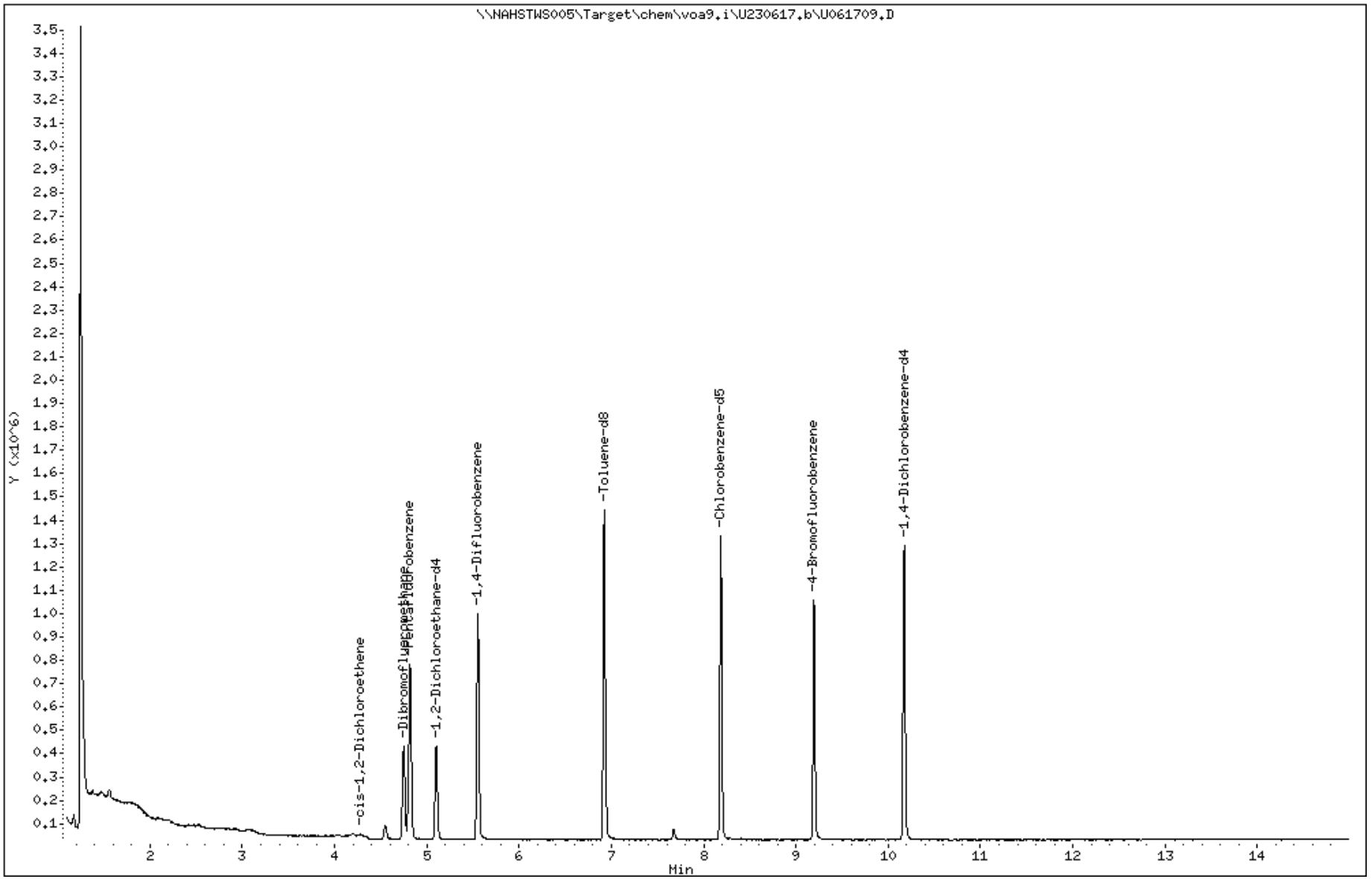
Sample Info: HS23060983-01;HS23060983-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061709.D

Date : 17-JUN-2023 14:19

Client ID: HS23060983-01

Instrument: VOA9.i

Sample Info: HS23060983-01;HS23060983-01;;;

Purge Volume: 5.0

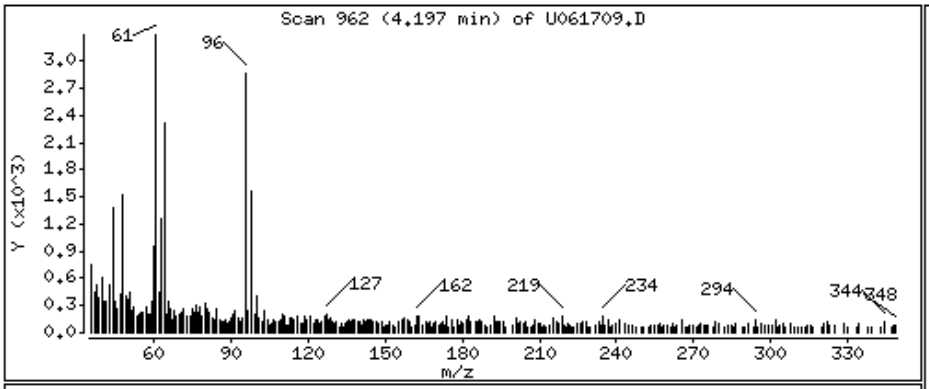
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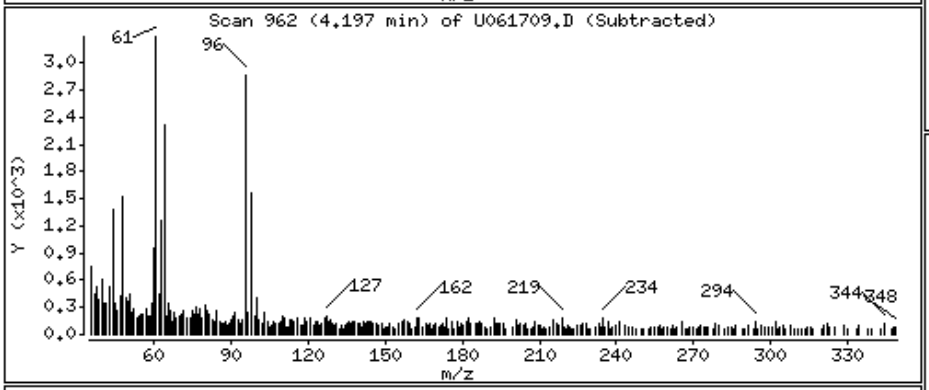
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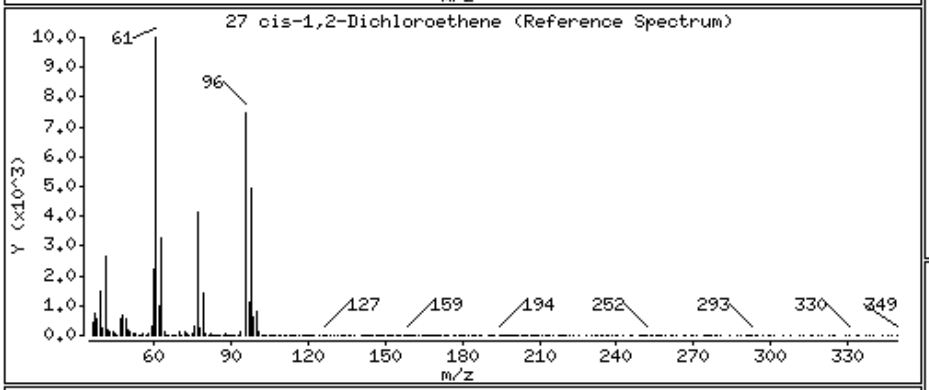
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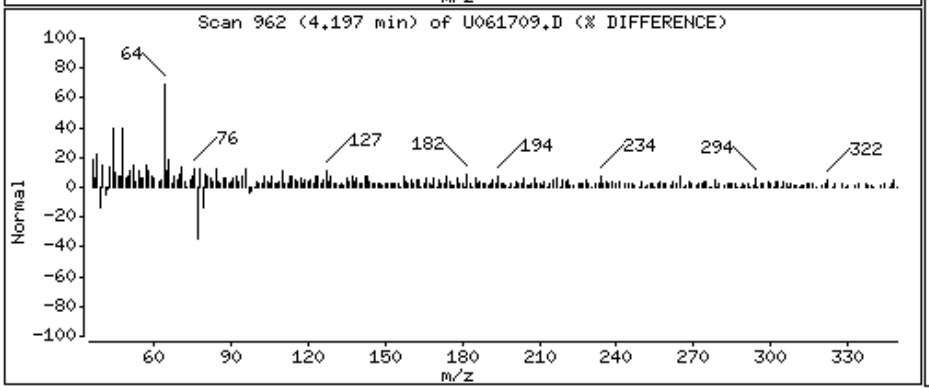
27 cis-1,2-Dichloroethene

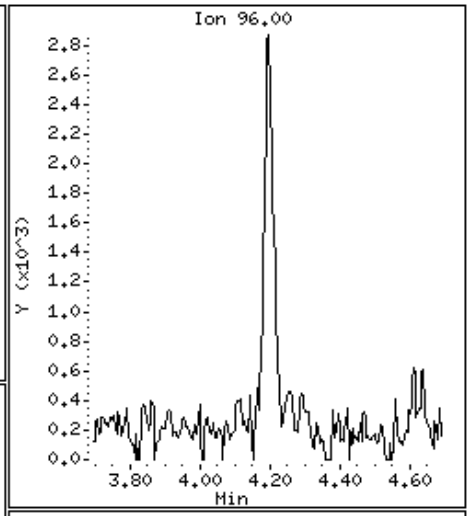
Concentration: 1.12 ug/l

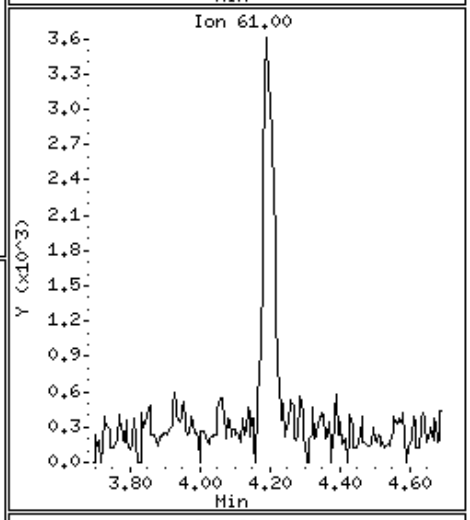


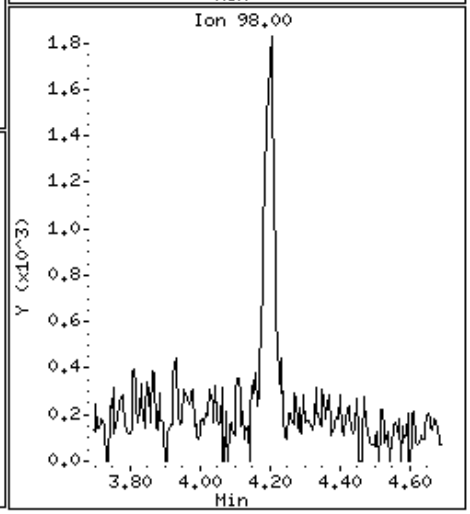












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061709.D
Inj Date : 17-JUN-2023 14:19
InstruID : VOA9.i
LabSampID : HS23060983-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061710.D Page 1
Report Date: 20-Jun-2023 15:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061710.D
Lab Smp Id: HS23060983-01MS Client Smp ID: HS23060983-01MS
Inj Date : 17-JUN-2023 14:42
Operator : PC Inst ID: VOA9.i
Smp Info : HS23060983-01MS;HS23060983-01MS;3;;MS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 15:42 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 10 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	521096	50.0000	
2	Dichlorodifluoromethane	85	1.164	1.168	(0.242)	99188	20.6484	20.64
3	Chloromethane	50	1.299	1.303	(0.270)	123895	14.8404	14.84
5	Vinyl Chloride	62	1.378	1.381	(0.286)	123866	22.4726	22.47
6	Bromomethane	94	1.621	1.625	(0.337)	56246	18.7364	18.73
7	Chloroethane	64	1.700	1.704	(0.353)	78245	21.0735	21.07(M)
8	Trichlorofluoromethane	101	1.899	1.902	(0.394)	166742	26.3396	26.33
9	Acrolein	56	2.266	2.270	(0.470)	9171	33.1575	33.15
10	Acetone	43	2.412	2.412	(0.501)	71893	36.7568	36.75
11	1,1-Dichloroethene	96	2.334	2.337	(0.484)	86124	21.7736	21.77
15	Iodomethane	142	2.472	2.476	(0.513)	256562	84.7581	84.75
16	Acrylonitrile	53	3.068	3.068	(0.637)	77916	40.3193	40.31
17	Methylene Chloride	84	2.795	2.798	(0.580)	97761	19.9672	19.96
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	260435	21.4711	21.47
19	Carbon Disulfide	76	2.521	2.528	(0.523)	514738	48.6786	48.67
20	trans-1,2-Dichloroethene	96	3.061	3.065	(0.635)	96573	22.4504	22.45
21	Vinyl Acetate	43	3.612	3.612	(0.750)	545202	41.5782	41.57
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	167523	20.4924	20.49
24	2-Butanone	43	4.268	4.268	(0.886)	84376	35.5140	35.51
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	127284	23.7605	23.76

27 cis-1,2-Dichloroethene	96	4.197	4.200 (0.871)	108995	21.1798	21.17
28 Chloroform	83	4.575	4.575 (0.949)	179168	21.0580	21.05

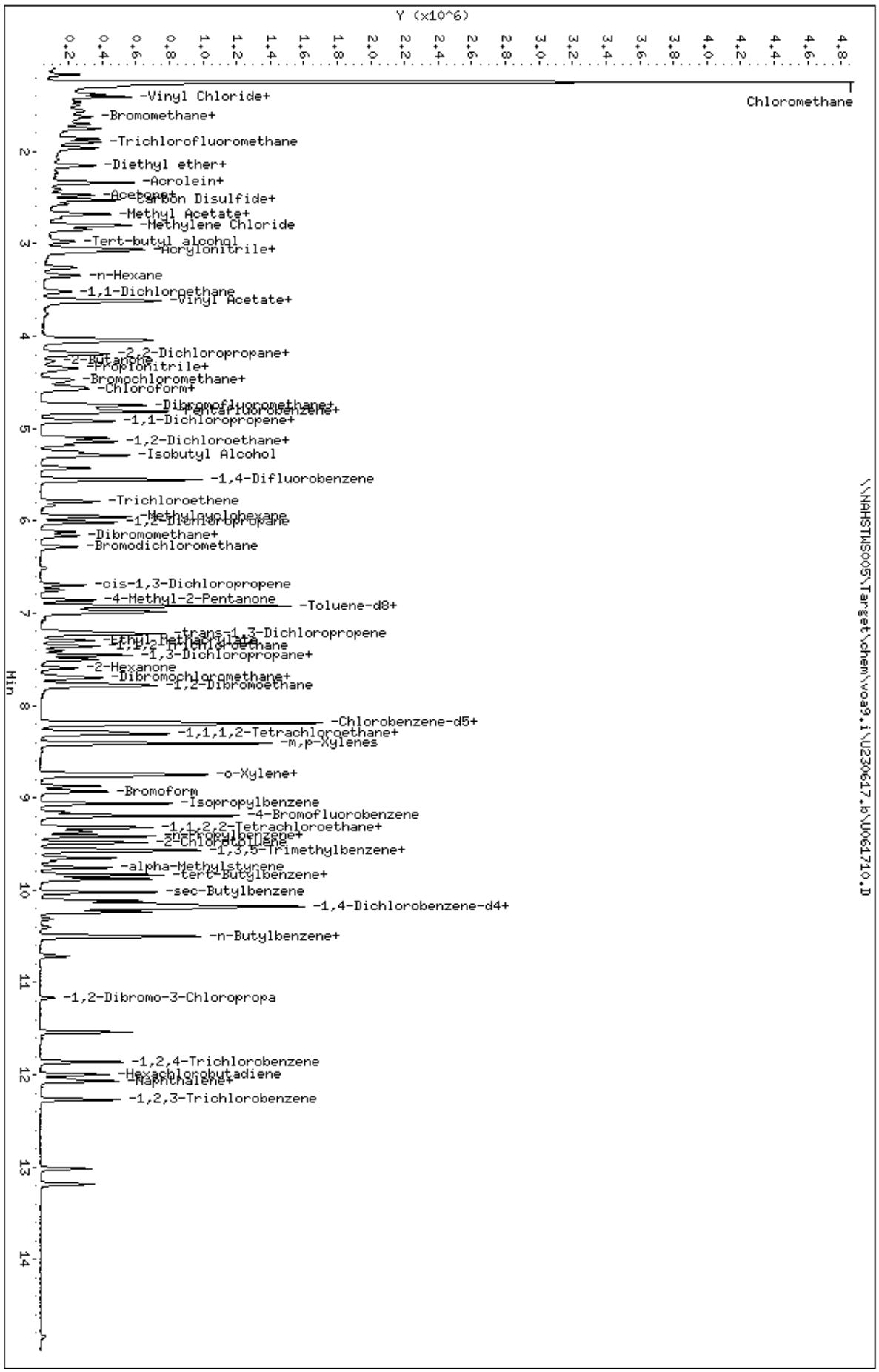
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.474	(0.928)	57472	19.9651	19.96
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	230860	52.7991	52.79
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	147416	22.7326	22.73
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	130179	24.6741	24.67
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	145293	23.3183	23.31
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	123203	25.4222	25.42
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	266033	56.2953	56.29
*	36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	719896	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	373121	21.5093	21.50
	38 Trichloroethene	130	5.790	5.790	(1.043)	110626	22.0024	22.00
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	120189	22.2113	22.21
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	95091	20.5306	20.53
	44 Dibromomethane	93	6.120	6.123	(1.102)	65937	22.2807	22.28
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	193665	38.2818	38.28
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	128325	18.9357	18.93
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	694708	50.0000	
$	48 Toluene-d8	98	6.922	6.926	(0.846)	848894	53.9897	53.98
	50 Toluene	91	6.982	6.982	(0.853)	425019	22.5568	22.55
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	104764	18.5422	18.54
	52 2-Hexanone	43	7.593	7.593	(0.928)	132326	37.5594	37.55
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	76796	19.5883	19.58
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	164113	20.4885	20.48
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	101241	21.7641	21.76
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	114167	24.8691	24.86
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	100054	20.6882	20.68
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	94942	25.6837	25.68
	59 Chlorobenzene	112	8.211	8.211	(1.003)	294116	21.8712	21.87
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	101371	21.9326	21.93
	61 Ethylbenzene	106	8.309	8.309	(1.015)	147670	23.5934	23.59
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	364164	49.1777	49.17
	63 o-Xylene	106	8.748	8.748	(1.069)	172821	23.6241	23.62
	64 Styrene	104	8.763	8.763	(1.071)	264797	22.8088	22.80
	66 Bromoform	173	8.920	8.920	(1.090)	62644	19.9508	19.95
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	456230	25.9651	25.96
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	131486	18.6139	18.61
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	321403	51.9150	51.91
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	375533	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	114848	18.4811	18.48
	73 n-Propylbenzene	91	9.415	9.411	(0.926)	489220	24.8362	24.83
	74 Bromobenzene	156	9.317	9.317	(0.916)	129813	20.4874	20.48
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	318968	23.6033	23.60
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	316802	22.8788	22.87
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	362252	23.6347	23.63
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	326102	24.5694	24.56
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	333798	23.6072	23.60
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	423898	25.1839	25.18
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	361247	25.6178	25.61
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	229640	21.3385	21.33
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	243369	21.2100	21.20
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	308791	25.5792	25.57
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	224600	20.8153	20.81
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	17965	17.4285	17.42

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	147895	19.9272	19.92
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	72793	24.2867	24.28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	92 Naphthalene	128	12.069	12.065	(1.186)	330328	19.1608	19.16
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	145362	20.0346	20.03
M	94 1,2-Dichloroethylene (total)	96				205568	43.6302	43.63
M	95 Xylenes (total)	106				536985	72.8018	72.80
	135 1,4-Dioxane	88	6.172	6.172	(1.281)	25109	242.669	242.66
	141 Cyclohexane	56	4.785	4.785	(0.993)	138456	22.0379	22.03
	138 Freon TF	101	2.337	2.341	(0.485)	90693	25.9143	25.91
	140 1,3-Butadiene	54	1.404	1.408	(0.291)	97147	19.6854	19.68
	147 Methylcyclohexane	55	5.951	5.951	(1.072)	239989	24.0317	24.03
	146 Methyl Acetate	43	2.716	2.720	(0.564)	77467	17.6556	17.65
	148 Tert-Butyl alcohol	59	2.975	2.971	(0.617)	188313	388.103	388.10
	149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	115881	340.170	340.17
	72 trans-1,4-Dichloro-2-butene	53	9.381	9.377	(1.146)	15214	19.0200	19.01
	12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	303875	448.823	448.82
	13 Acetonitrile	39	2.675	2.678	(0.555)	129842	230.147	230.14
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	336977	23.3443	23.34
	156 Diisopropyl ether	45	3.623	3.627	(0.752)	317026	21.8186	21.81
	162 Butyl acrylate	55	8.736	8.736	(1.067)	170357	20.7308	20.73
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	71906	21.5761	21.57

QC Flag Legend

M - Compound response manually integrated.



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Column phase: DB624

Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

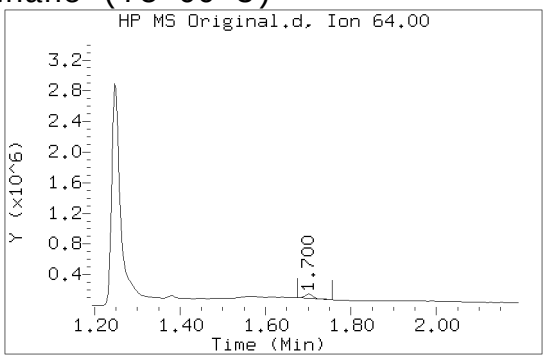
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LabSampID : HS23060983-01MS

Chloroethane (75-00-3)

Reason Code:

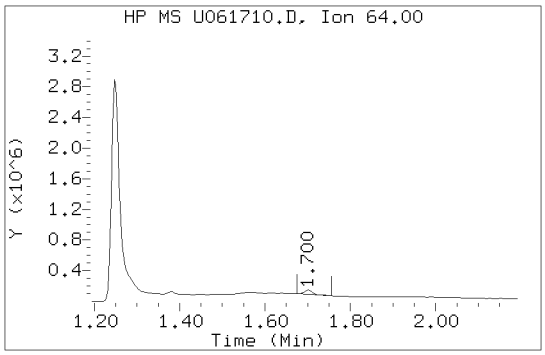
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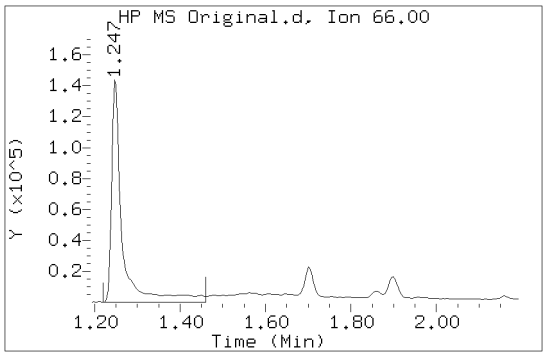
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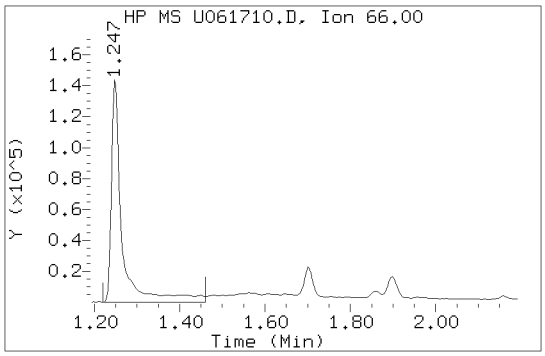
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061711.D Page 1
Report Date: 20-Jun-2023 15:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061711.D
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Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
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Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	552599	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	101936	20.0131	20.01
3	Chloromethane	50	1.303	1.303	(0.270)	127459	14.3567	14.35
5	Vinyl Chloride	62	1.381	1.381	(0.287)	128512	21.9863	21.98
6	Bromomethane	94	1.625	1.625	(0.337)	52497	16.2701	16.27
7	Chloroethane	64	1.704	1.704	(0.354)	67125	17.0480	17.04(M)
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	171599	25.5615	25.56
9	Acrolein	56	2.270	2.270	(0.471)	9138	31.1547	31.15
10	Acetone	43	2.416	2.412	(0.501)	76872	37.1092	37.10
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	89707	21.3866	21.38
15	Iodomethane	142	2.476	2.476	(0.514)	272851	84.9634	84.96
16	Acrylonitrile	53	3.072	3.068	(0.638)	80151	39.1114	39.11
17	Methylene Chloride	84	2.798	2.798	(0.581)	102868	19.8045	19.80
18	Methyl tert-butyl ether	73	3.087	3.083	(0.641)	273043	21.2273	21.22
19	Carbon Disulfide	76	2.525	2.528	(0.524)	531194	47.3710	47.37
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	96333	21.1179	21.11
21	Vinyl Acetate	43	3.612	3.612	(0.750)	564981	40.6303	40.63
22	1,1-Dichloroethane	63	3.522	3.518	(0.731)	169522	19.5548	19.55
24	2-Butanone	43	4.272	4.268	(0.886)	87318	34.6571	34.65
26	2,2-Dichloropropane	77	4.189	4.185	(0.869)	133380	23.4838	23.48

27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	112313	20.5803	20.58
28 Chloroform	83	4.575	4.575 (0.949)	181164	20.0787	20.07

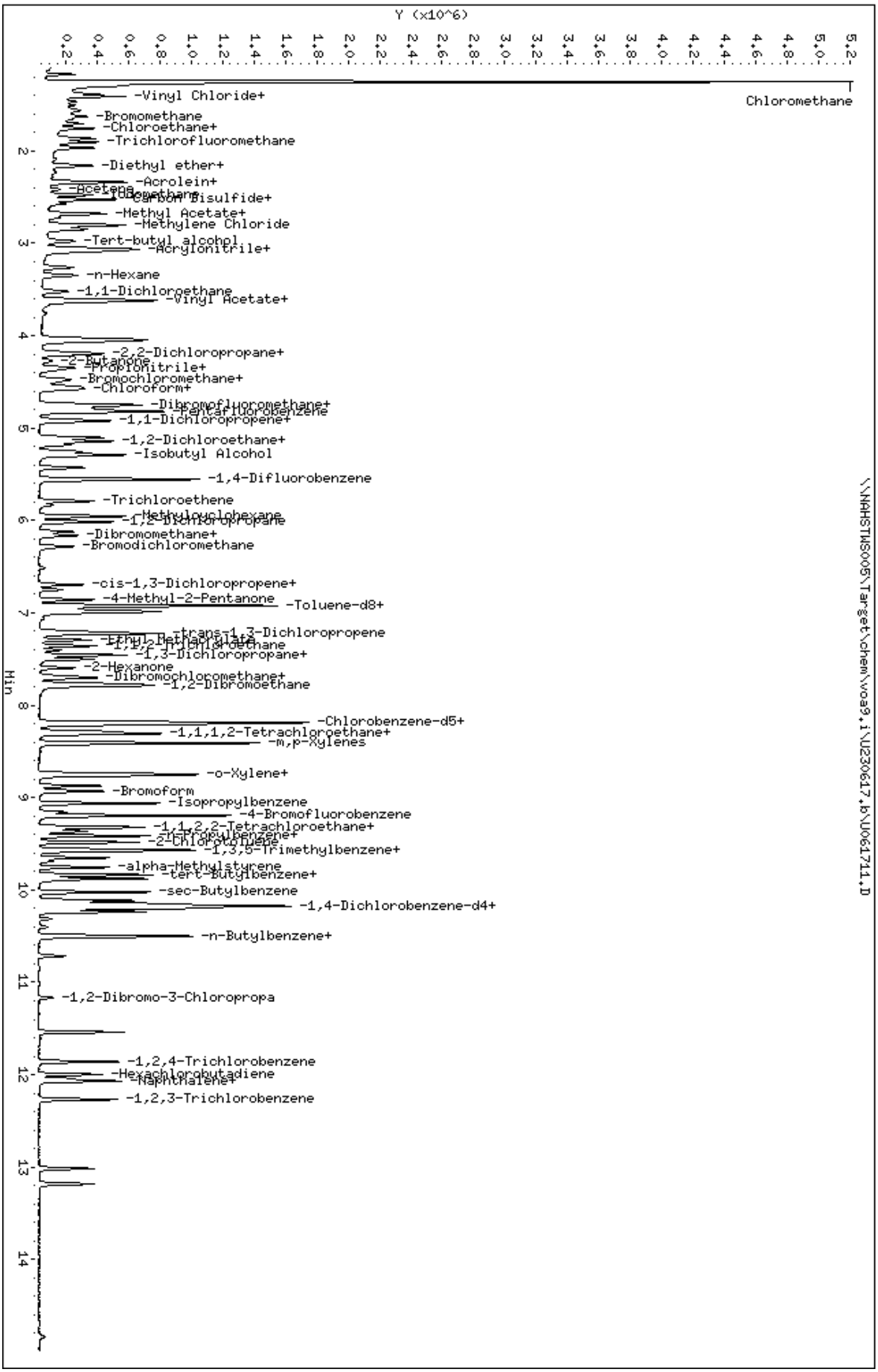
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	57412	18.8073	18.80
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	237123	51.1298	51.12
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	152406	22.1623	22.16
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	132800	23.7882	23.78
	33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	149728	22.7101	22.71
	34 Carbon Tetrachloride	117	4.913	4.913	(0.884)	126027	24.5764	24.57
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	275889	55.0376	55.03
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	761739	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	382206	20.8227	20.82
	38 Trichloroethene	130	5.790	5.790	(1.042)	108373	20.3703	20.37
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	123533	21.5753	21.57
	42 1,2-Dichloropropane	63	6.015	6.011	(1.082)	99188	20.2388	20.23
	44 Dibromomethane	93	6.123	6.123	(1.102)	66236	21.1522	21.15
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	207151	40.0228	40.02
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	133400	18.6369	18.63
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	710760	50.0000	
$	48 Toluene-d8	98	6.922	6.926	(0.846)	887905	55.1955	55.19
	50 Toluene	91	6.982	6.982	(0.853)	438444	22.7437	22.74
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	109740	18.3763	18.37
	52 2-Hexanone	43	7.597	7.593	(0.928)	139666	38.7475	38.74
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	81322	20.2743	20.27
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	165891	20.2428	20.24
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	102609	21.5600	21.56
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	116432	24.7897	24.78
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	101156	20.4437	20.44
	58 1-Chlorohexane	55	8.197	8.196	(1.475)	96493	24.6694	24.66
	59 Chlorobenzene	112	8.212	8.211	(1.003)	299508	21.7692	21.76
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	103209	21.8259	21.82
	61 Ethylbenzene	106	8.309	8.309	(1.015)	148590	23.2042	23.20
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	366967	48.4370	48.43
	63 o-Xylene	106	8.748	8.748	(1.069)	177506	23.7165	23.71
	64 Styrene	104	8.763	8.763	(1.071)	271892	22.8910	22.89
	66 Bromoform	173	8.920	8.920	(1.090)	62453	19.4408	19.44
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	455619	25.3447	25.34
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	130144	18.0257	18.02
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	329814	52.0732	52.07
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	383829	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	113329	17.8425	17.84
	73 n-Propylbenzene	91	9.415	9.411	(0.926)	496745	24.6731	24.67
	74 Bromobenzene	156	9.317	9.317	(0.916)	130859	20.2061	20.20
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	329712	23.8710	23.87
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	318597	22.5111	22.51
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	364889	23.2922	23.29
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	326907	24.0977	24.09
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	350131	24.2271	24.22
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	437803	25.4478	25.44
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	366832	25.4516	25.45
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	231443	21.0412	21.04
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	246763	21.0409	21.04
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	318391	25.8044	25.80
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	229702	20.8280	20.82
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	17982	17.0679	17.06

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	153573	20.2450	20.24
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	72474	23.6577	23.65

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	92 Naphthalene	128	12.069	12.065	(1.186)	361522	20.5169	20.51
	93 1,2,3-Trichlorobenzene	180	12.268	12.271	(1.206)	150273	20.2638	20.26
M	94 1,2-Dichloroethylene (total)	96				208646	41.6982	41.69
M	95 Xylenes (total)	106				544473	72.1536	72.15
	135 1,4-Dioxane	88	6.172	6.172	(1.281)	27202	247.909	247.90
	141 Cyclohexane	56	4.785	4.785	(0.993)	144633	21.7151	21.71
	138 Freon TF	101	2.341	2.341	(0.486)	91542	24.6658	24.66
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	103212	19.7220	19.72
	147 Methylcyclohexane	55	5.951	5.951	(1.071)	252994	23.9423	23.94
	146 Methyl Acetate	43	2.720	2.720	(0.564)	81555	17.5277	17.52
	148 Tert-Butyl alcohol	59	2.978	2.971	(0.618)	205107	398.750	398.75
	149 Isopropyl Alcohol	45	2.570	2.566	(0.533)	126533	350.264	350.26
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	14870	18.1701	18.17
	12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	317553	442.287	442.28
	13 Acetonitrile	39	2.678	2.678	(0.556)	137479	229.792	229.79
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	345598	23.4241	23.42
	156 Diisopropyl ether	45	3.627	3.627	(0.753)	329661	21.3947	21.39
	162 Butyl acrylate	55	8.736	8.736	(1.067)	177447	21.1059	21.10
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	74737	21.9050	21.90

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230617,b\U061711.D
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Client ID: HS230609B3-01MSD
Sample Info: HS230609B3-01MSD;HS230609B3-01MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: PC
Column diameter: 0.18

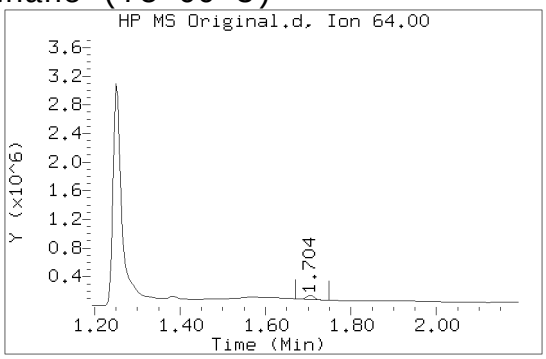
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InstruID : VOA9.i
LabSampID : HS23060983-01MSD

Chloroethane (75-00-3)

Reason Code:

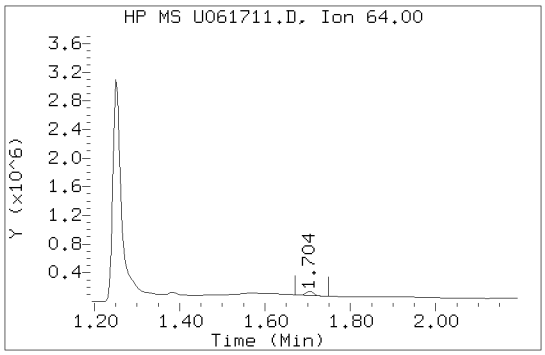
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10:59



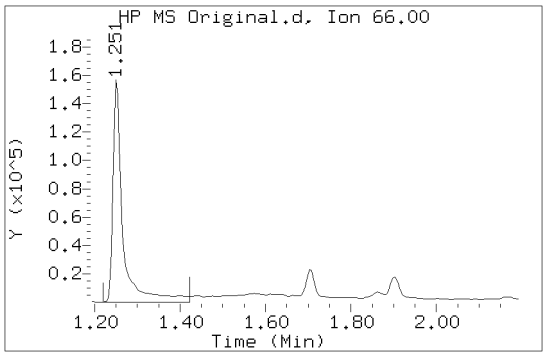
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15:42



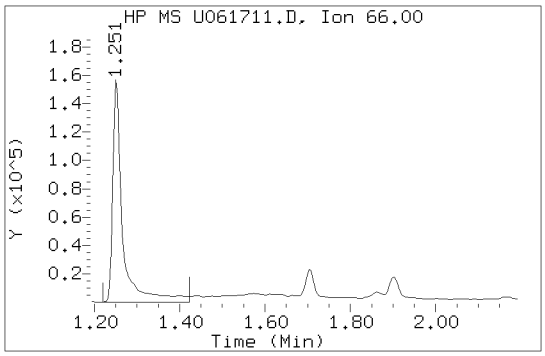
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AFTER

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20-Jun-2023
15:42



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061714.D Page 1
Report Date: 20-Jun-2023 15:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061714.D
Lab Smp Id: HS23060983-02 Client Smp ID: HS23060983-02
Inj Date : 17-JUN-2023 16:11
Operator : PC Inst ID: VOA9.i
Smp Info : HS23060983-02;HS23060983-02;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 15:42 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.819	(1.000)	526205	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.751	(0.986)	225736	51.1159	51.11
$ 35 1,2-Dichloroethane-d4	65	5.096	5.100	(1.058)	275282	57.7038	57.70
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	722970	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	662294	50.0000	
$ 48 Toluene-d8	98	6.922	6.926	(0.846)	819101	54.6445	54.64
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	279916	47.3483	47.34
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	327535	50.0000	

01210489

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061714.D

Date : 17-JUN-2023 16:11

Client ID: HS23060983-02

Instrument: VOA9.i

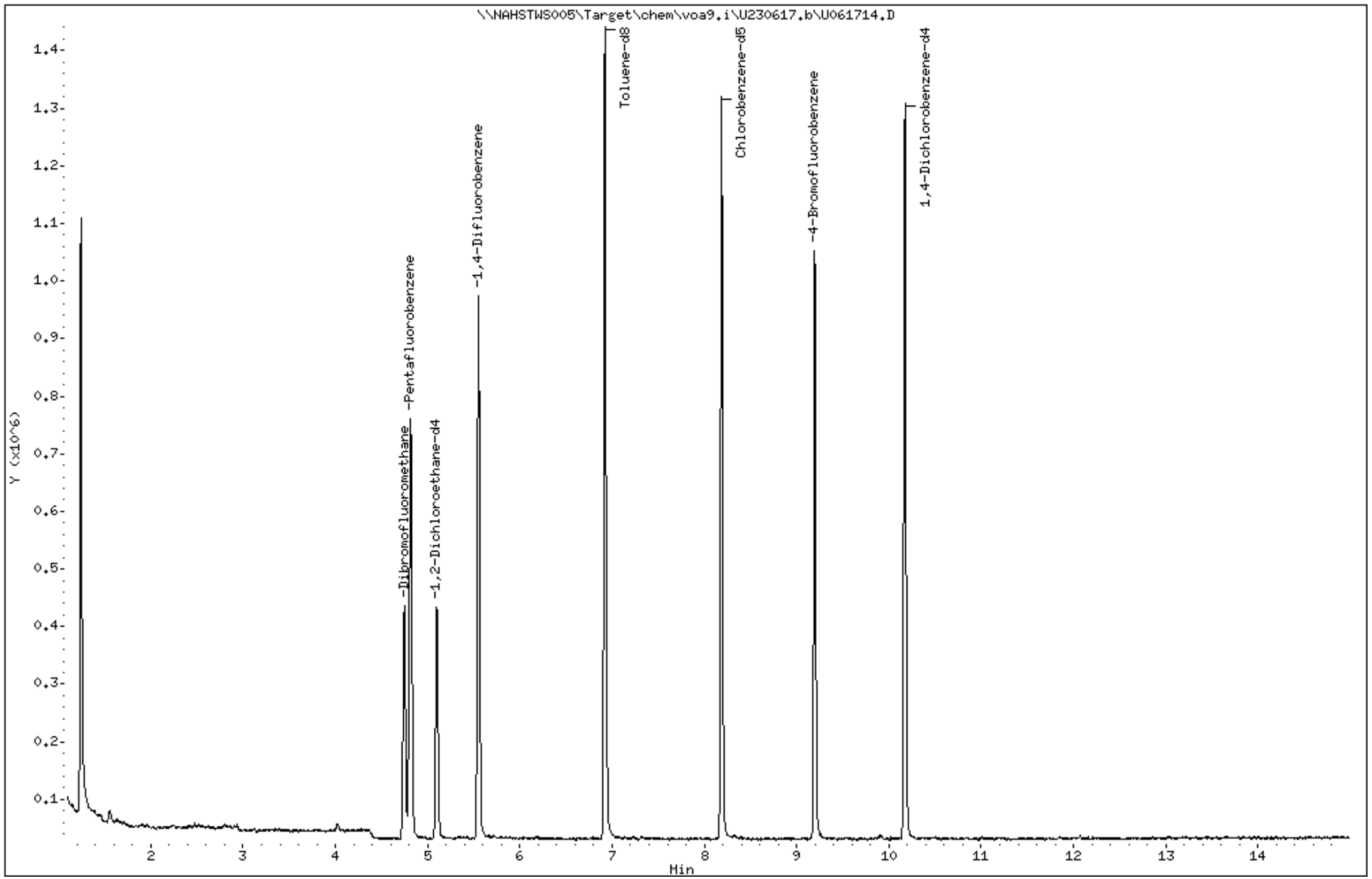
Sample Info: HS23060983-02;HS23060983-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061714.D
Inj Date : 17-JUN-2023 16:11
InstruID : VOA9.i
LabSampID : HS23060983-02

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\U061731.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 17-JUN-2023 22:32
Operator : PC Inst ID: VOA9.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230617.b\8260C.m
Meth Date : 20-Jun-2023 12:34 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

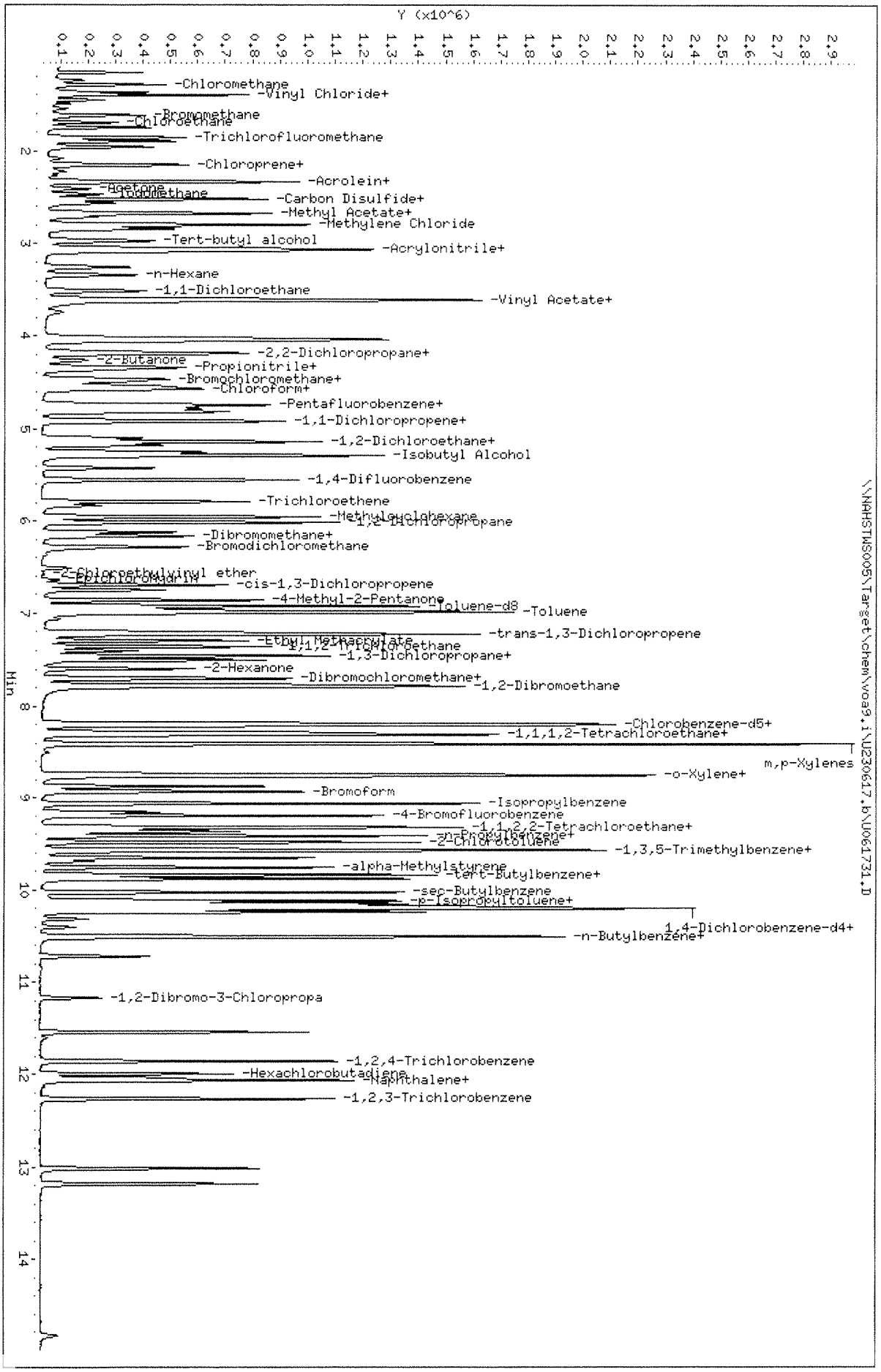
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.815	(1.000)	458256	50.0000	
	2 Dichlorodifluoromethane	85	1.157	1.157	(0.240)	185071	50.0000	43.72
	3 Chloromethane	50	1.291	1.291	(0.268)	307593	50.0000	44.35
	5 Vinyl Chloride	62	1.370	1.370	(0.285)	223231	50.0000	46.05
	6 Bromomethane	94	1.614	1.614	(0.335)	166967	50.0000	67.61
	7 Chloroethane	64	1.693	1.693	(0.352)	160607	50.0000	49.18
	8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	308093	50.0000	55.34
	9 Acrolein	56	2.262	2.262	(0.470)	21214	100.000	87.21
	10 Acetone	43	2.405	2.405	(0.499)	174017	100.000	111.17
	11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	173699	50.0000	49.93
	15 Iodomethane	142	2.465	2.465	(0.512)	201978	100.000	77.20
	16 Acrylonitrile	53	3.061	3.061	(0.636)	181274	100.000	106.66
	17 Methylene Chloride	84	2.791	2.791	(0.580)	228044	50.0000	54.66
	18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	581500	50.0000	54.51
	19 Carbon Disulfide	76	2.517	2.517	(0.523)	958107	100.000	103.03
	20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.634)	198365	50.0000	52.43
	21 Vinyl Acetate	43	3.604	3.604	(0.749)	1266955	100.000	109.87
	22 1,1-Dichloroethane	63	3.511	3.511	(0.729)	360255	50.0000	50.11
	24 2-Butanone	43	4.264	4.264	(0.886)	196596	100.000	94.09
	26 2,2-Dichloropropane	77	4.178	4.178	(0.868)	213086	50.0000	44.87
	27 cis-1,2-Dichloroethene	96	4.193	4.193	(0.871)	231314	50.0000	51.11
	28 Chloroform	83	4.572	4.572	(0.949)	392987	50.0000	52.52
	29 Bromochloromethane	128	4.467	4.467	(0.928)	125211	50.0000	49.46

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	213515	50.0000	55.54
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	307706	50.0000	53.95
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	251579	50.0000	49.37
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	334469	50.0000	55.57
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	255572	50.0000	54.60
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	243051	50.0000	58.51
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	695312	50.0000	
	37 Benzene	78	5.138	5.138	(0.925)	823643	50.0000	49.15
	38 Trichloroethene	130	5.786	5.786	(1.042)	236395	50.0000	48.67
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	293573	50.0000	56.17
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.185)	4819	100.000	38.12
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	218011	50.0000	48.73
	44 Dibromomethane	93	6.120	6.120	(1.102)	150189	50.0000	52.54
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	472330	100.000	94.95
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	312772	50.0000	44.87
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	683084	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	785331	50.0000	50.79
	50 Toluene	91	6.982	6.982	(0.853)	942255	50.0000	50.85
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	269631	50.0000	46.04
	52 2-Hexanone	43	7.593	7.593	(0.928)	316767	100.000	91.44
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	186331	50.0000	48.33
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	393480	50.0000	49.95
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	254198	50.0000	55.57
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	218910	50.0000	48.49
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	238083	50.0000	50.06
	58 1-Chlorohexane	55	8.197	8.197	(1.476)	172394	50.0000	48.28
	59 Chlorobenzene	112	8.212	8.212	(1.003)	650636	50.0000	49.20
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	244549	50.0000	53.81
	61 Ethylbenzene	106	8.305	8.305	(1.015)	313745	50.0000	50.98
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	775236	100.000	106.47
	63 o-Xylene	106	8.748	8.748	(1.069)	376499	50.0000	52.34
	64 Styrene	104	8.763	8.763	(1.071)	621563	50.0000	54.45
	66 Bromoform	173	8.920	8.920	(1.090)	169897	50.0000	55.02
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	930388	50.0000	53.85
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	319790	50.0000	46.65
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	331431	50.0000	54.49
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	364404	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	278277	50.0000	46.14
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	961822	50.0000	50.31
	74 Bromobenzene	156	9.317	9.317	(0.916)	293149	50.0000	47.67
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	661908	50.0000	50.47
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	677992	50.0000	50.45
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	769354	50.0000	51.72
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	651119	50.0000	50.55
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	661143	50.0000	48.18
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	826477	50.0000	50.60
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	674647	50.0000	49.30
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	501435	50.0000	48.01
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	522825	50.0000	46.95
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	556470	50.0000	47.50
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	512520	50.0000	48.94
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	46254	50.0000	46.24
	90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	326324	50.0000	45.31
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	126205	50.0000	43.39

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	
	92 Naphthalene	128	12.065	12.065	(1.186)	795168	50.0000	47.53	
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	317785	50.0000	45.13	
M	94 1,2-Dichloroethylene (total)	96				429679	100.000		(a)
	135 1,4-Dioxane	88	6.169	6.169	(1.281)	56897	1000.00	625.29	
	141 Cyclohexane	56	4.781	4.781	(0.993)	243981	50.0000	43.48	
	138 Freon TF	101	2.330	2.330	(0.484)	161336	50.0000	52.42	
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	188664	50.0000	43.47	
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	491504	50.0000	50.95	
	146 Methyl Acetate	43	2.708	2.708	(0.563)	188790	50.0000	48.92	
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	437747	1000.00	1034.03	
	149 Isopropyl Alcohol	45	2.559	2.559	(0.531)	287367	1000.00	959.24	
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	37650	50.0000	47.86	
	12 Isobutyl Alcohol	43	5.288	5.288	(1.098)	715974	1000.00	1202.50	
	13 Acetonitrile	39	2.667	2.667	(0.554)	292350	500.000	589.25	
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	701662	50.0000	50.09	
	156 Diisopropyl ether	45	3.619	3.619	(0.752)	699786	50.0000	54.76	
	162 Butyl acrylate	55	8.733	8.733	(1.067)	386435	50.0000	47.82	
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	163364	50.0000	46.99	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).



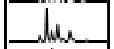
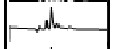
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Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

HS23060983 Wetchem 9056_W

ALS WO# HS23060983

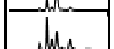
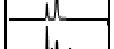
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Last Update Operator: ALSHS.NoUser

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	STD2		Calibratio	BA2	1.00	2	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD3		Calibratio	BA3	1.00	3	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD4		Calibratio	BA4	1.00	4	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD5		Calibratio	BA5	1.00	5	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD6		Calibratio	BA6	1.00	6	Anions Program ISO37mM 150mm short 0.4 Constant current
	ICV		Unknown	BA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	ICB		Unknown	BA8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	MBLK	9056-W	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23061015-19DF20		Unknown	RB1	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23061015-19MSDF20		Unknown	RB2	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23061015-19MSDDF		Unknown	RB3	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23060749-03		Unknown	RC4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23060749-03MS		Unknown	RC5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23060749-03MSD		Unknown	RC6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23060749-03DF5		Unknown	RC7	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23060749-04		Unknown	RC8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23060749-07		Unknown	RD1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23060749-08		Unknown	RD2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknown	R3	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current

Sequence: 061923
Last Update Operator: ALSHS.NoUser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	CCB		Unknown	R8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current

Sequence: 061923
Last Update Operator: ALSHS.NoUser

Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		STD1	5.0	Finished	5/23/2023 2:40:38 PM -05:00
Anions Processing Method ISO		STD2	5.0	Finished	5/23/2023 2:46:28 PM -05:00
Anions Processing Method ISO		STD3	5.0	Finished	5/23/2023 2:52:17 PM -05:00
Anions Processing Method ISO		STD4	5.0	Finished	5/23/2023 2:58:07 PM -05:00
Anions Processing Method ISO		STD5	5.0	Finished	5/23/2023 3:03:57 PM -05:00
Anions Processing Method ISO		STD6	5.0	Finished	5/23/2023 3:09:46 PM -05:00
Anions Processing Method ISO		ICV	5.0	Finished	5/23/2023 3:21:25 PM -05:00
Anions Processing Method ISO		ICB	5.0	Finished	5/23/2023 3:33:05 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	6/19/2023 2:31:58 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	6/19/2023 2:43:34 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	6/19/2023 3:24:11 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	6/19/2023 3:29:59 PM -05:00
Anions Processing Method ISO		HS23061015-19DF20	5.0	Finished	6/19/2023 3:35:59 PM -05:00
Anions Processing Method ISO		HS23061015-19MSDF20	5.0	Finished	6/19/2023 3:41:47 PM -05:00
Anions Processing Method ISO		HS23061015-19MSDDF	5.0	Finished	6/19/2023 3:47:35 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	6/19/2023 4:08:21 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	6/19/2023 4:19:56 PM -05:00
Anions Processing Method ISO		HS23060749-03	5.0	Finished	6/19/2023 5:12:08 PM -05:00
Anions Processing Method ISO		HS23060749-03MS	5.0	Finished	6/19/2023 5:17:55 PM -05:00
Anions Processing Method ISO		HS23060749-03MSD	5.0	Finished	6/19/2023 5:23:43 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	6/19/2023 5:41:07 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	6/19/2023 5:52:42 PM -05:00
Anions Processing Method ISO		HS23060749-03DF5	5.0	Finished	6/19/2023 5:58:30 PM -05:00
Anions Processing Method ISO		HS23060749-04	5.0	Finished	6/19/2023 6:04:18 PM -05:00
Anions Processing Method ISO		HS23060749-07	5.0	Finished	6/19/2023 6:10:06 PM -05:00
Anions Processing Method ISO		HS23060749-08	5.0	Finished	6/19/2023 6:15:54 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	6/19/2023 7:08:05 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	6/19/2023 7:19:41 PM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	6/19/2023 8:23:27 PM -05:00

Sequence: 061923
Last Update Operator: ALSHS.NoUser

Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		CCB	5.0	Finished	6/19/2023 8:35:03 PM -05:00

Sequence: 052523
Injection #6: STD6

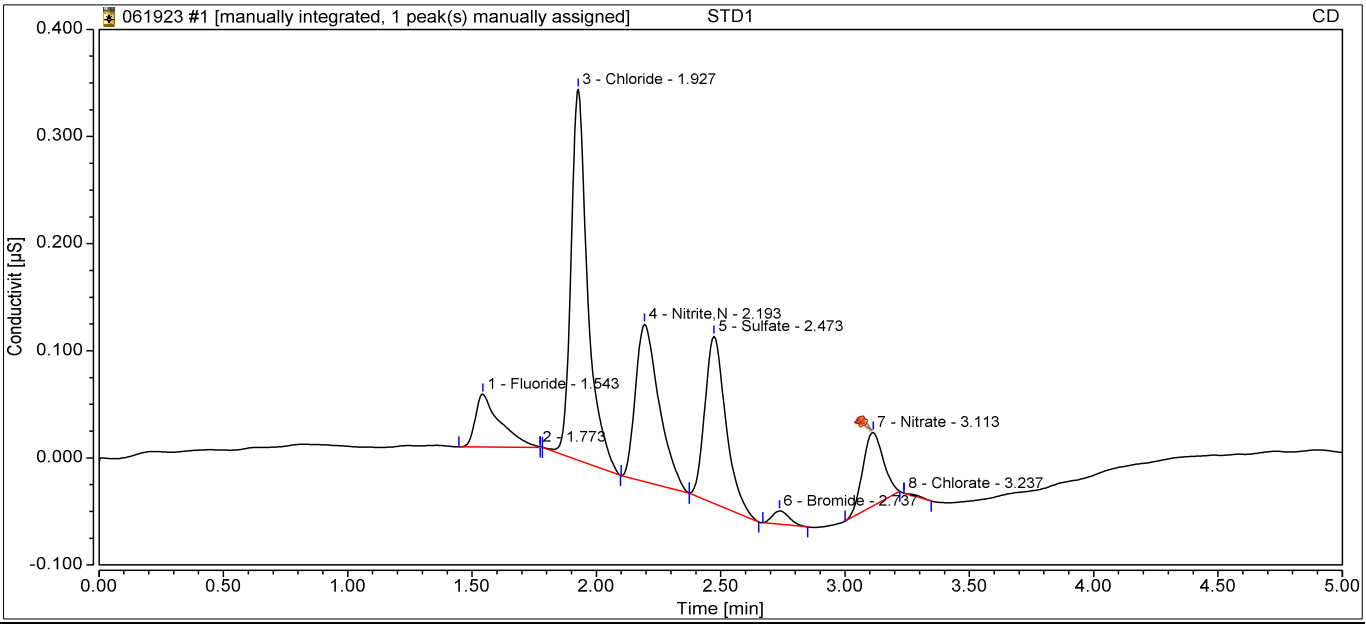
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	Fluoride	Lin, WithOffset, 1/A	Area	6	83.9625	0.98326	-0.0293	0.2016	0.0000
2	Chloride	Lin, WithOffset, 1/A	Area	6	26.3672	0.99783	-0.0819	0.1581	0.0000
3	*Nitrite,N*	*Quad, WithOffset, 1/A*	*Area*	*6*	*18.2290*	*0.99886*	*-0.0236*	*0.3308*	*-0.0039*
4	Sulfate	Lin, WithOffset, 1/A	Area	6	13.3771	0.99939	-0.0492	0.1098	0.0000
5	Bromide	Lin, WithOffset, 1/A	Area	6	25.7663	0.99803	-0.0064	0.0574	0.0000
6	Nitrate	Lin, WithOffset, 1/A	Area	6	23.5280	0.99835	-0.0371	0.3323	0.0000
7	Chlorate	Quad, WithOffset, 1/A	Area	6	22.2900	0.99884	-0.0032	0.0268	-0.0002
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					**83.9625**	0.99939			
Minimum					13.3771	**0.98326**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:40**	*Sample Weight:*	**1.0000**

Run Time:



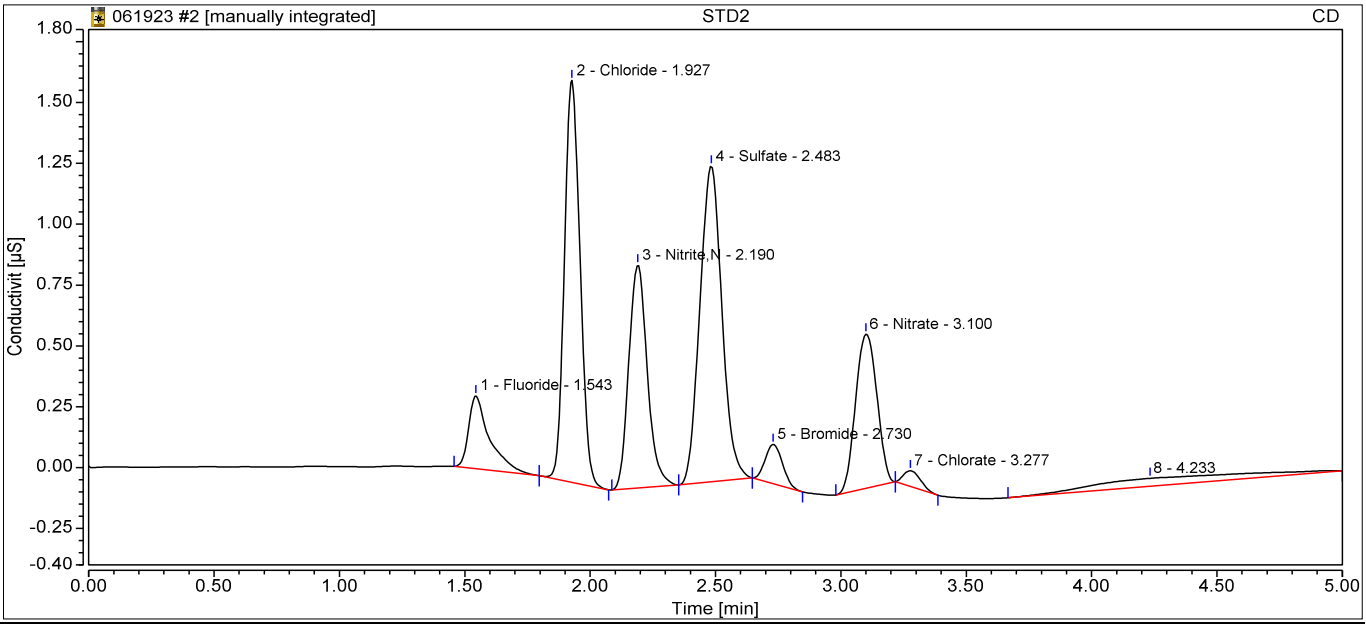
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BM *	0.006	0.1735	0.1735	1.0000
3	1.93	Chloride	BMB	0.027	0.6897	0.6897	1.0000
4	2.19	Nitrite,N	BMB	0.016	0.1203	0.1203	1.0000
5	2.47	Sulfate	BMB	0.015	0.5877	0.5877	1.0000
6	2.74	Bromide	BMB*	0.001	0.1291	0.1291	1.0000
7	3.11	Nitrate	BMB*^	0.007	0.1315	0.1315	1.0000
8	3.24	Chlorate	BMB*	0.000	0.1228	0.1228	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.072**		**1.95**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:46**	*Sample Weight:*	**1.0000**

Run Time:



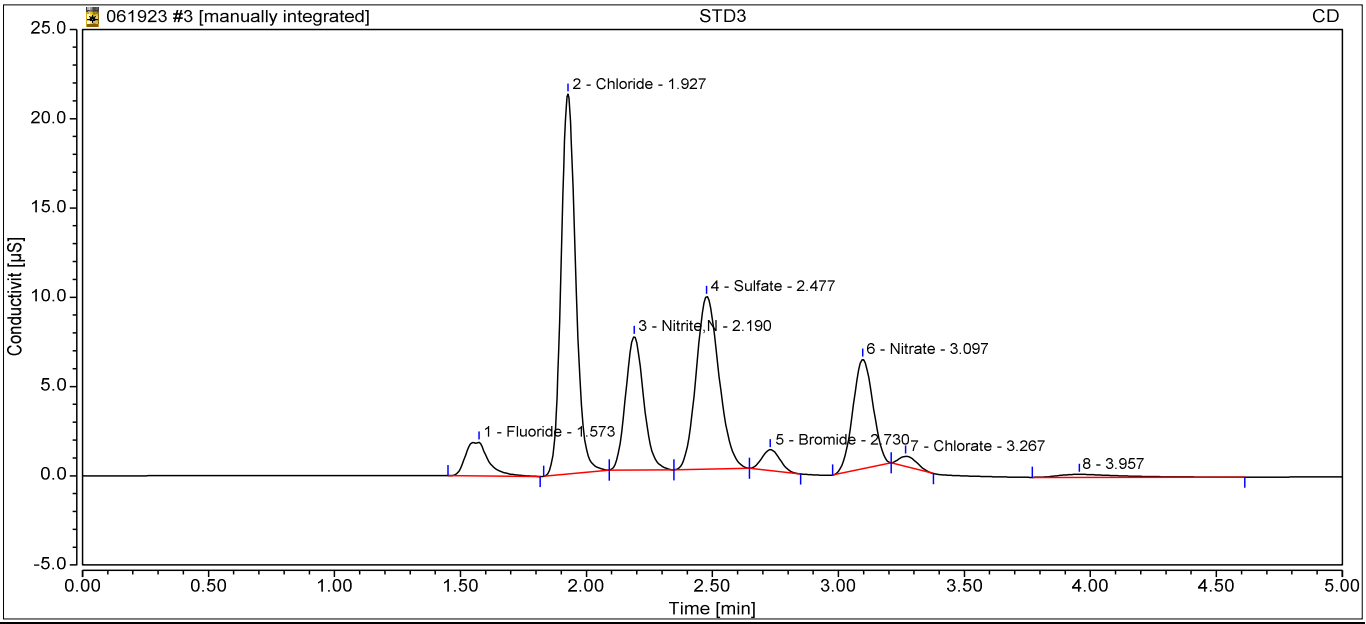
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB*	0.029	0.2885	0.2885	1.0000
2	1.93	Chloride	BMB	0.119	1.2711	1.2711	1.0000
3	2.19	Nitrite,N	BMB	0.078	0.3097	0.3097	1.0000
4	2.48	Sulfate	BMB	0.132	1.6510	1.6510	1.0000
5	2.73	Bromide	BMB	0.013	0.3384	0.3384	1.0000
6	3.10	Nitrate	BMB	0.063	0.2999	0.2999	1.0000
7	3.28	Chlorate	BMB	0.005	0.3157	0.3157	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.439**		**4.47**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:52**	*Sample Weight:*	**1.0000**

Run Time:



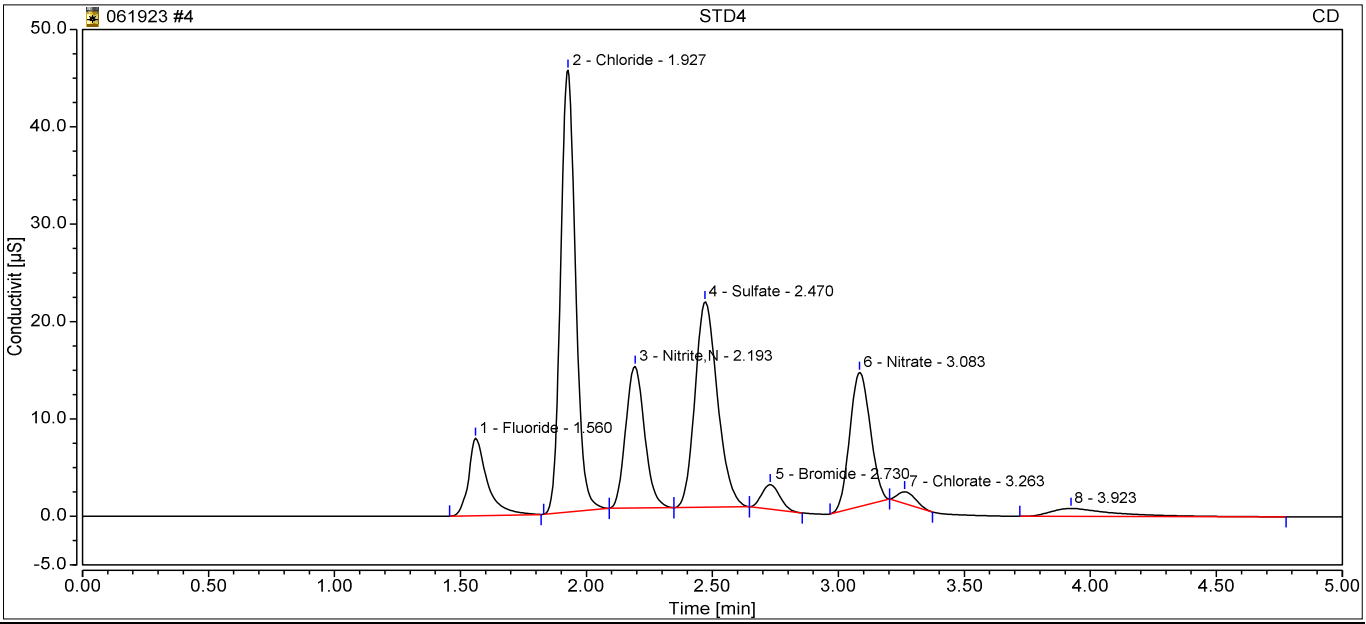
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.57	Fluoride	BMB*	0.201	1.1411	1.1411	1.0000
2	1.93	Chloride	BMB	1.431	9.5666	9.5666	1.0000
3	2.19	Nitrite,N	BMB	0.622	1.9999	1.9999	1.0000
4	2.48	Sulfate	BMB	1.018	9.7219	9.7219	1.0000
5	2.73	Bromide	BMB	0.097	1.8046	1.8046	1.0000
6	3.10	Nitrate	BMB	0.567	1.8186	1.8186	1.0000
7	3.27	Chlorate	BMB	0.047	1.9131	1.9131	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**3.984**		**27.97**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:58**	*Sample Weight:*	**1.0000**

Run Time:

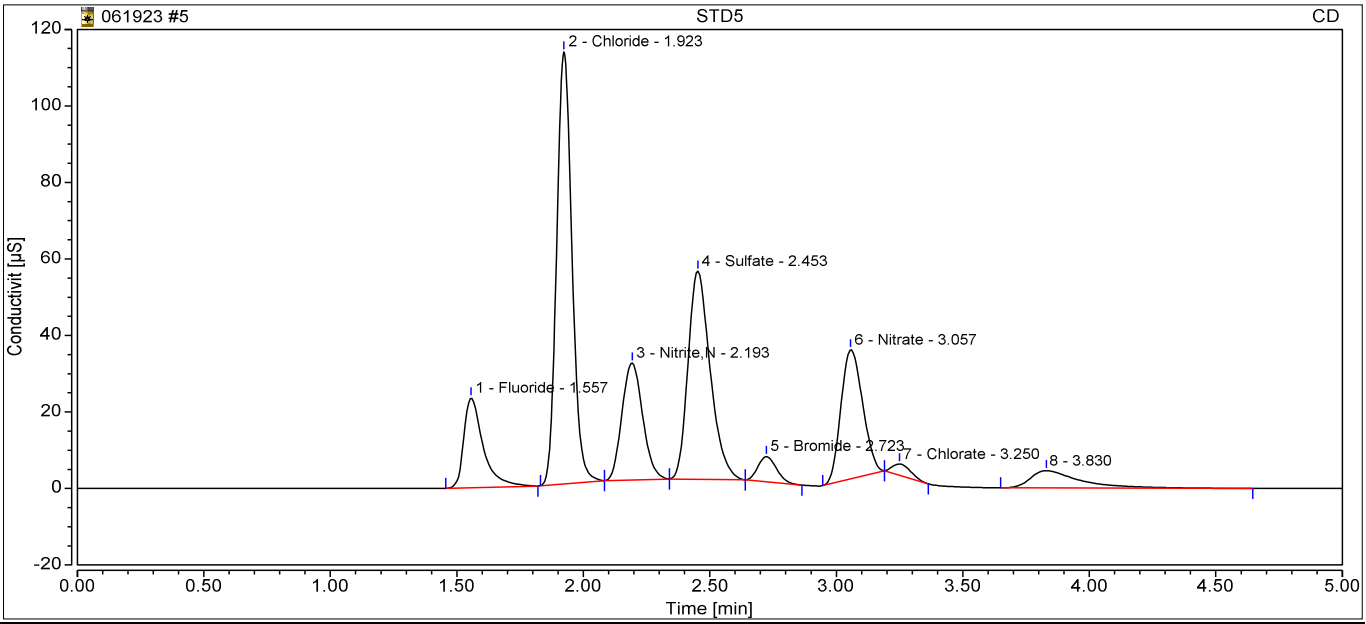


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	0.680	3.5179	3.5179	1.0000
2	1.93	Chloride	BMB	3.133	20.3356	20.3356	1.0000
3	2.19	Nitrite,N	BMB	1.268	4.1039	4.1039	1.0000
4	2.47	Sulfate	BMB	2.187	20.3668	20.3668	1.0000
5	2.73	Bromide	BMB	0.210	3.7772	3.7772	1.0000
6	3.08	Nitrate	BMB	1.297	4.0160	4.0160	1.0000
7	3.26	Chlorate	BMB	0.102	4.0359	4.0359	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.878**		**60.15**	

5 STD5			
Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:03**	*Sample Weight:*	**1.0000**

Run Time:

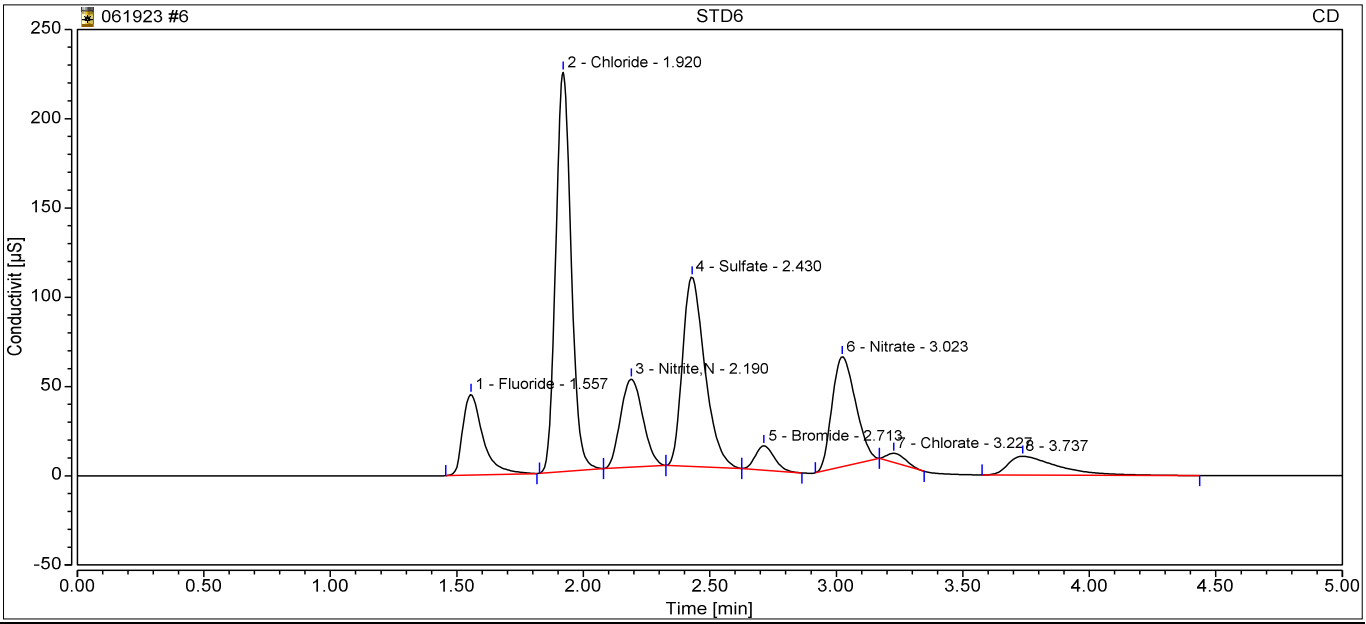


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	2.087	10.4993	10.4993	1.0000
2	1.92	Chloride	BMB	7.907	50.5276	50.5276	1.0000
3	2.19	Nitrite,N	BMB	2.889	9.9806	9.9806	1.0000
4	2.45	Sulfate	BMB	5.516	50.6794	50.6794	1.0000
5	2.72	Bromide	BMB	0.561	9.8834	9.8834	1.0000
6	3.06	Nitrate	BMB	3.355	10.2088	10.2088	1.0000
7	3.25	Chlorate	BMB	0.252	10.2519	10.2519	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**22.567**		**152.03**	

6 STD6			
Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:09**	*Sample Weight:*	**1.0000**

Run Time:



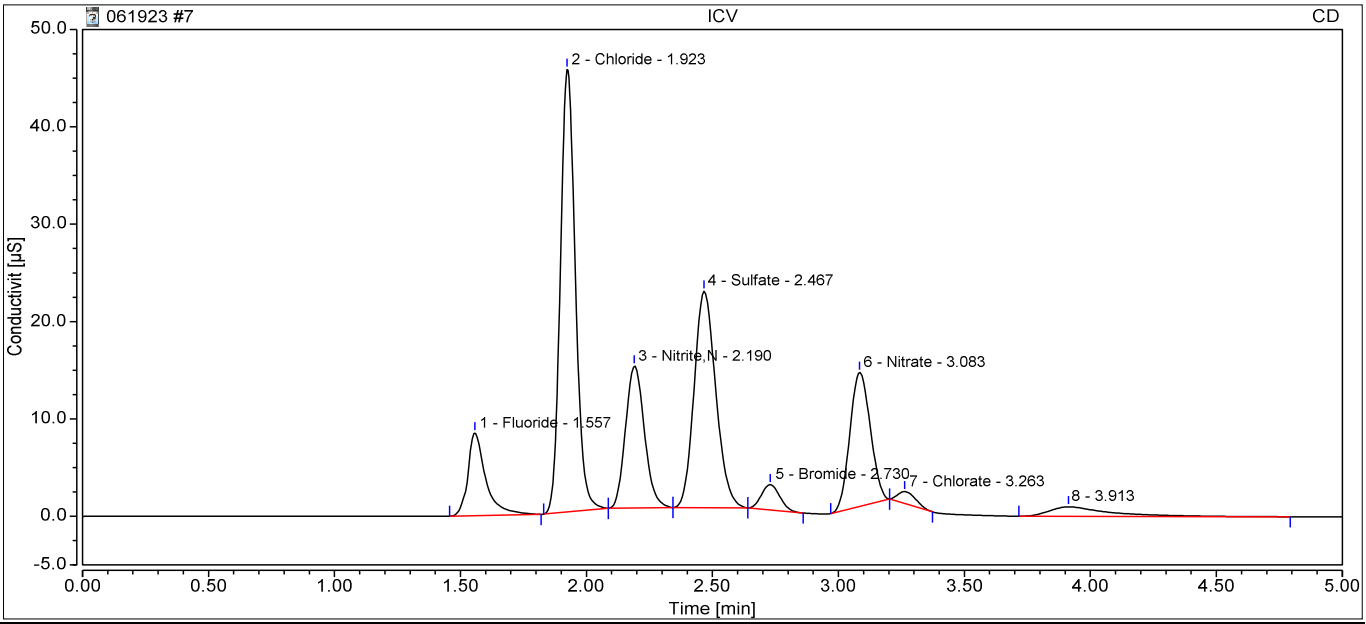
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	4.180	20.8797	20.8797	1.0000
2	1.92	Chloride	BMB	15.747	100.1095	100.1095	1.0000
3	2.19	Nitrite,N	BMB	5.028	19.9817	19.9817	1.0000
4	2.43	Sulfate	BMB	10.876	99.4931	99.4931	1.0000
5	2.71	Bromide	BMB	1.174	20.5674	20.5674	1.0000
6	3.02	Nitrate	BMB	6.617	20.0252	20.0252	1.0000
7	3.23	Chlorate	BMB	0.457	19.8555	19.8555	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**44.079**		**300.91**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:21**	*Sample Weight:*	**1.0000**

Run Time:



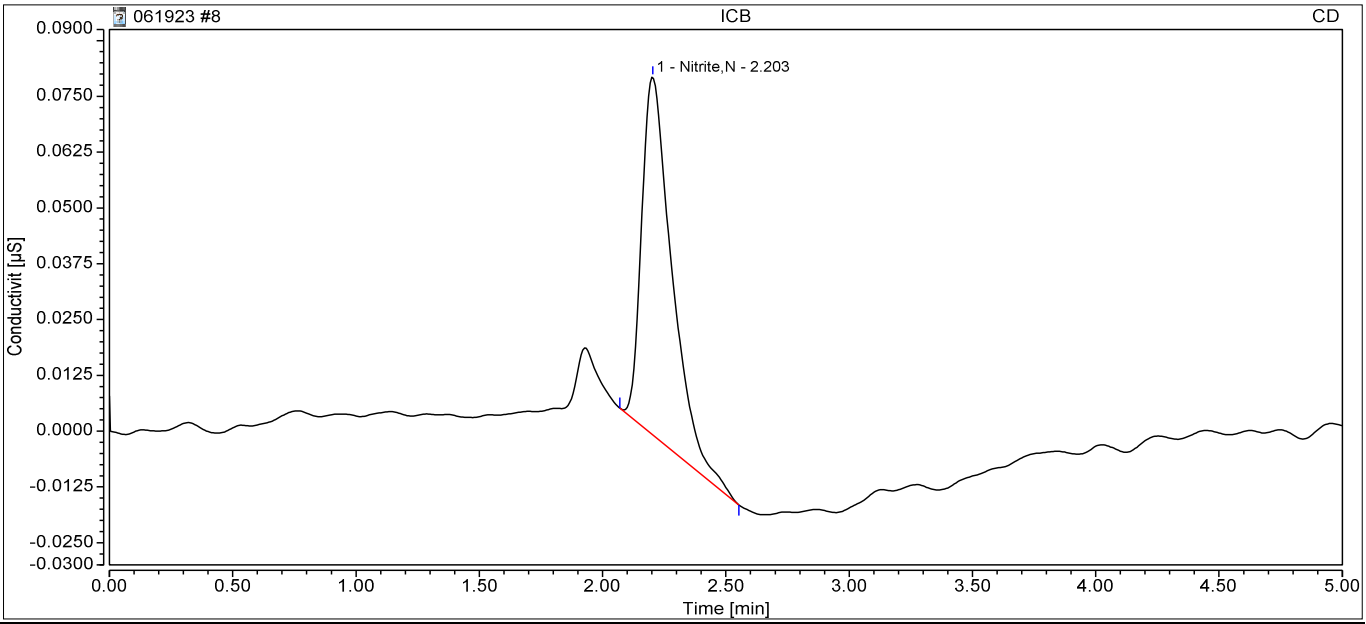
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	0.702	3.6253	3.6253	1.0000
2	1.92	Chloride	BMB	3.139	20.3704	20.3704	1.0000
3	2.19	Nitrite,N	BMB	1.269	4.1072	4.1072	1.0000
4	2.47	Sulfate	BMB	2.215	20.6152	20.6152	1.0000
5	2.73	Bromide	BMB	0.219	3.9331	3.9331	1.0000
6	3.08	Nitrate	BMB	1.297	4.0156	4.0156	1.0000
7	3.26	Chlorate	BMB	0.104	4.1133	4.1133	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.944**		**60.78**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:33**	*Sample Weight:*	**1.0000**

Run Time:

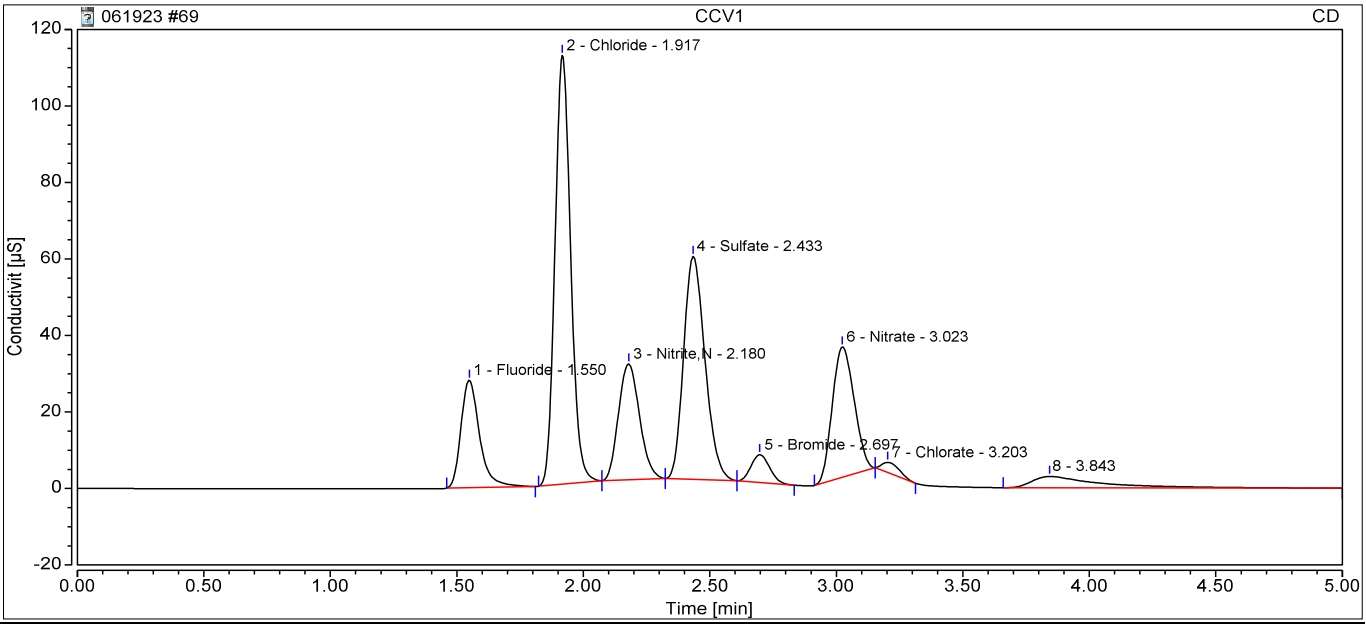


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.20	Nitrite,N	BMB	0.011	0.1062	0.1062	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.011**		**0.11**	

69 CCV1			
Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 14:31**	*Sample Weight:*	**1.0000**

Run Time:



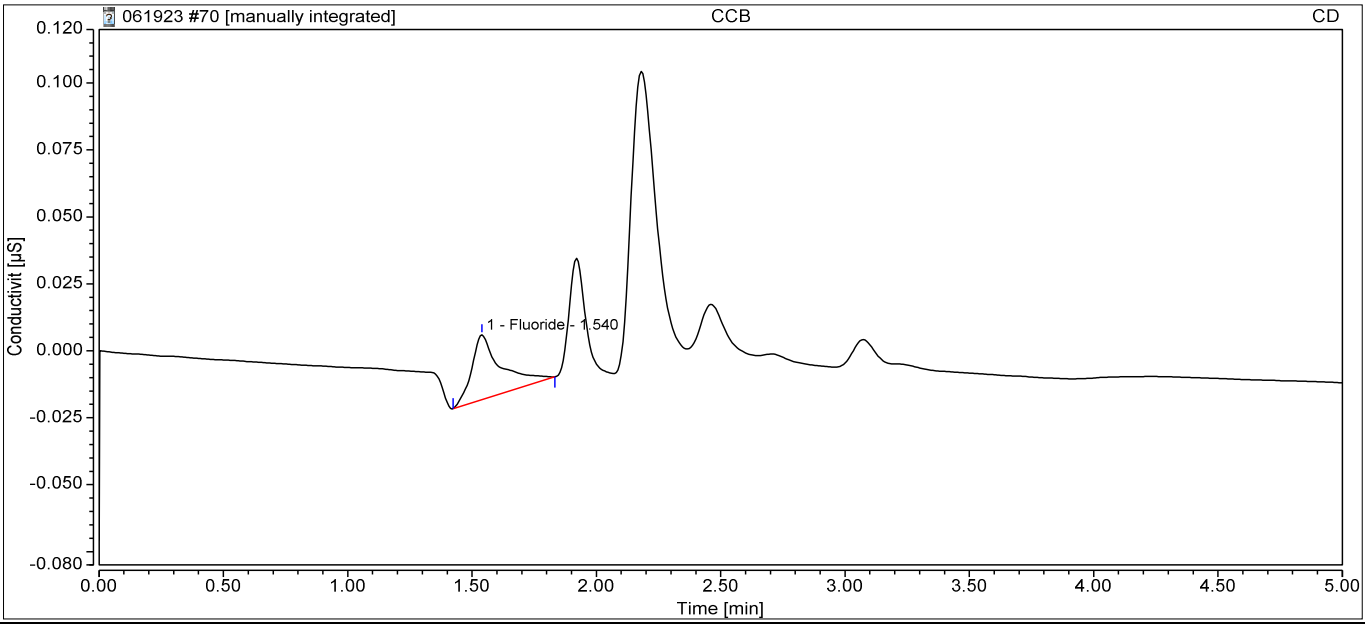
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	2.399	12.0422	12.0422	1.0000
2	1.92	Chloride	BMB	8.039	51.3609	51.3609	1.0000
3	2.18	Nitrite,N	BMB	2.915	10.0839	10.0839	1.0000
4	2.43	Sulfate	BMB	5.702	52.3709	52.3709	1.0000
5	2.70	Bromide	BMB	0.619	10.8992	10.8992	1.0000
6	3.02	Nitrate	BMB	3.406	10.3623	10.3623	1.0000
7	3.20	Chlorate	BMB	0.223	8.9899	8.9899	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**23.302**		**156.11**	

70 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 14:43**	*Sample Weight:*	**1.0000**

Run Time:



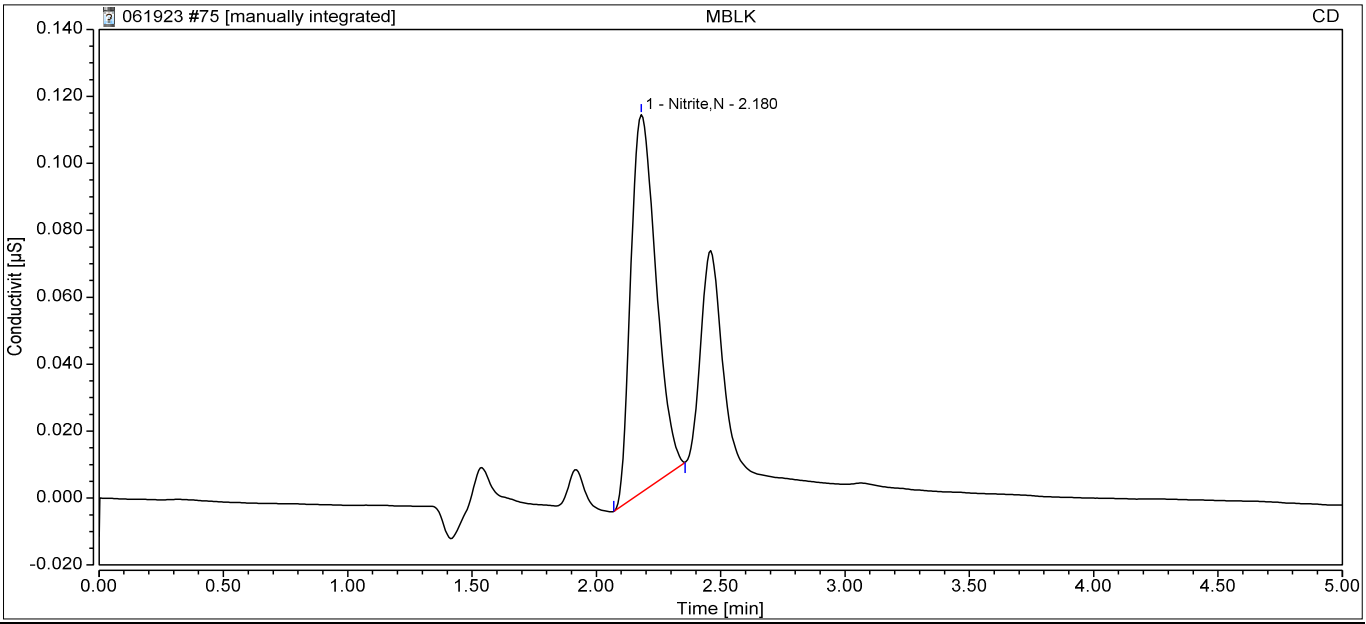
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.003	0.1619	0.1619	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.003**		**0.16**	

75 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 15:24**	*Sample Weight:*	**1.0000**

Run Time:



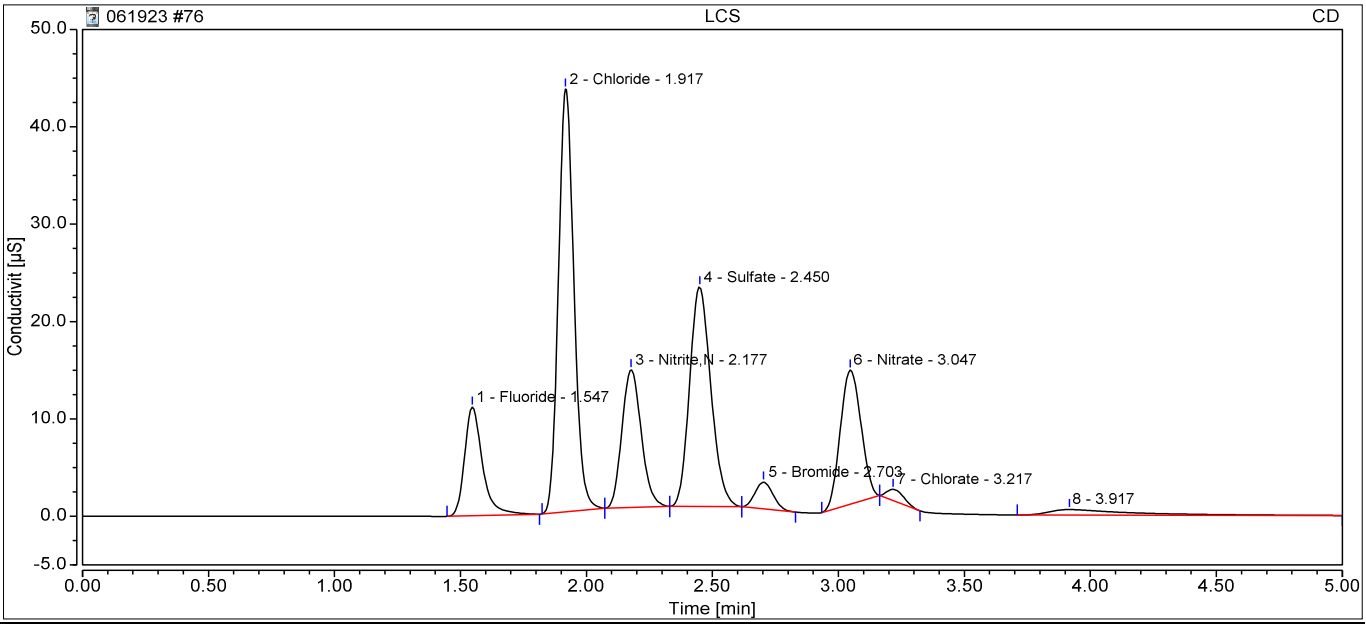
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.18	Nitrite,N	BMB	0.013	0.1116	0.1116	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.013**		**0.11**	

76 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 15:29**	*Sample Weight:*	**1.0000**

Run Time:



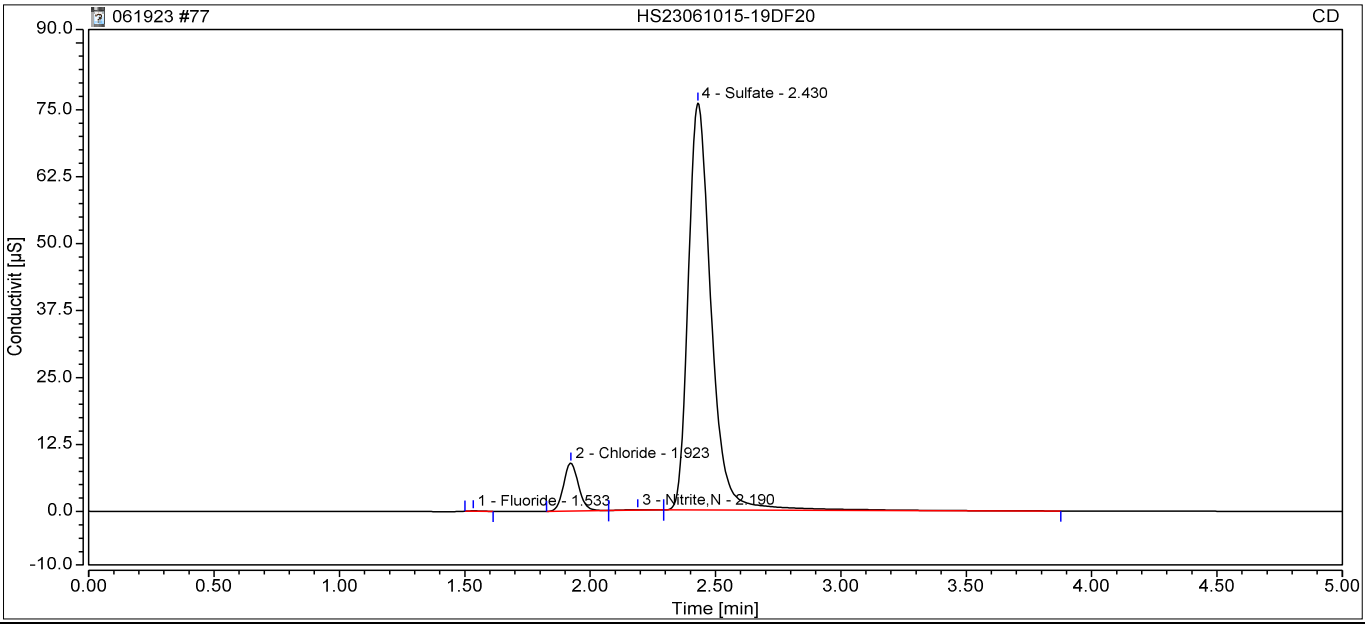
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.922	4.7167	4.7167	1.0000
2	1.92	Chloride	BMB	3.100	20.1220	20.1220	1.0000
3	2.18	Nitrite,N	BMB	1.258	4.0695	4.0695	1.0000
4	2.45	Sulfate	BMB	2.212	20.5897	20.5897	1.0000
5	2.70	Bromide	BMB	0.230	4.1148	4.1148	1.0000
6	3.05	Nitrate	BMB	1.312	4.0612	4.0612	1.0000
7	3.22	Chlorate	BMB	0.092	3.6641	3.6641	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**9.125**		**61.34**	

77 HS23061015-19DF20

Sample Name:	**HS23061015-19DF20**	*Injection Volume:*	**5.00**
Vial Number:	**RB1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/19/2023 15:35**	*Sample Weight:*	**1.0000**

Run Time:

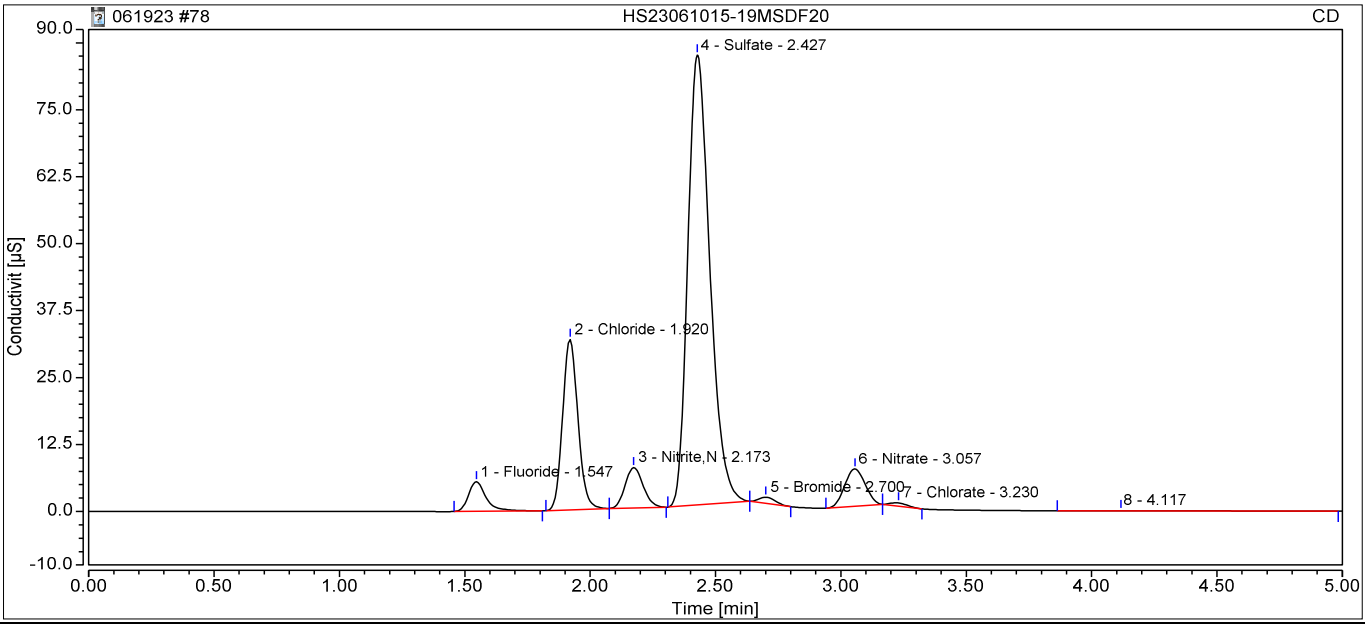


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.53	Fluoride	BMB	0.004	0.1653	3.3065	20.0000
2	1.92	Chloride	BMB	0.620	4.4427	88.8545	20.0000
3	2.19	Nitrite,N	BMB	0.012	0.1082	2.1640	20.0000
4	2.43	Sulfate	BMB	8.075	73.9869	1479.7381	20.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**8.712**		**1574.06**	

78	*HS23061015-19MSDF20*		
Sample Name:	**HS23061015-19MSDF20**	*Injection Volume:*	**5.00**
Vial Number:	**RB2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/19/2023 15:41**	*Sample Weight:*	**1.0000**

Run Time:



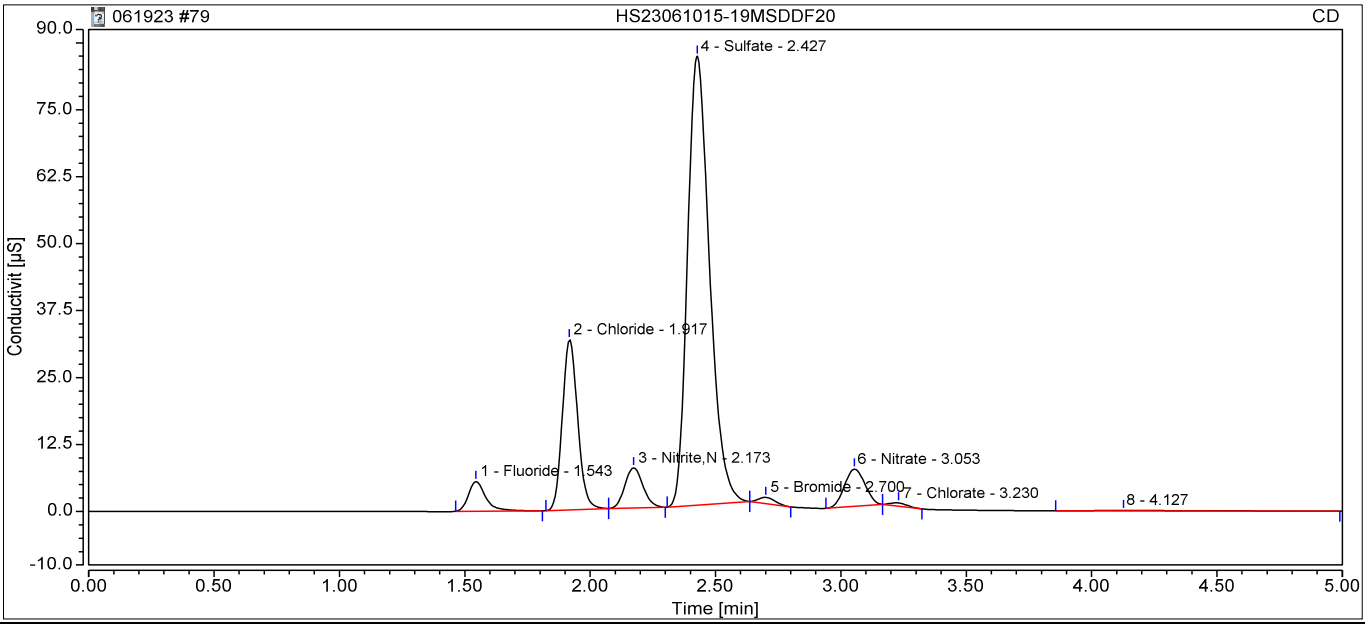
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.450	2.3789	47.5772	20.0000
2	1.92	Chloride	BMB	2.251	14.7542	295.0831	20.0000
3	2.17	Nitrite,N	BMB	0.632	2.0317	40.6349	20.0000
4	2.43	Sulfate	BMB	8.567	78.4661	1569.3227	20.0000
5	2.70	Bromide	BMB	0.087	1.6271	32.5428	20.0000
6	3.06	Nitrate	BMB	0.659	2.0943	41.8851	20.0000
7	3.23	Chlorate	BMB	0.046	1.8590	37.1797	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**12.692**		**2064.23**	

79 HS23061015-19MSDDF20

Sample Name:	**HS23061015-19MSDDF20**	*Injection Volume:*	**5.00**
Vial Number:	**RB3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/19/2023 15:47**	*Sample Weight:*	**1.0000**

Run Time:



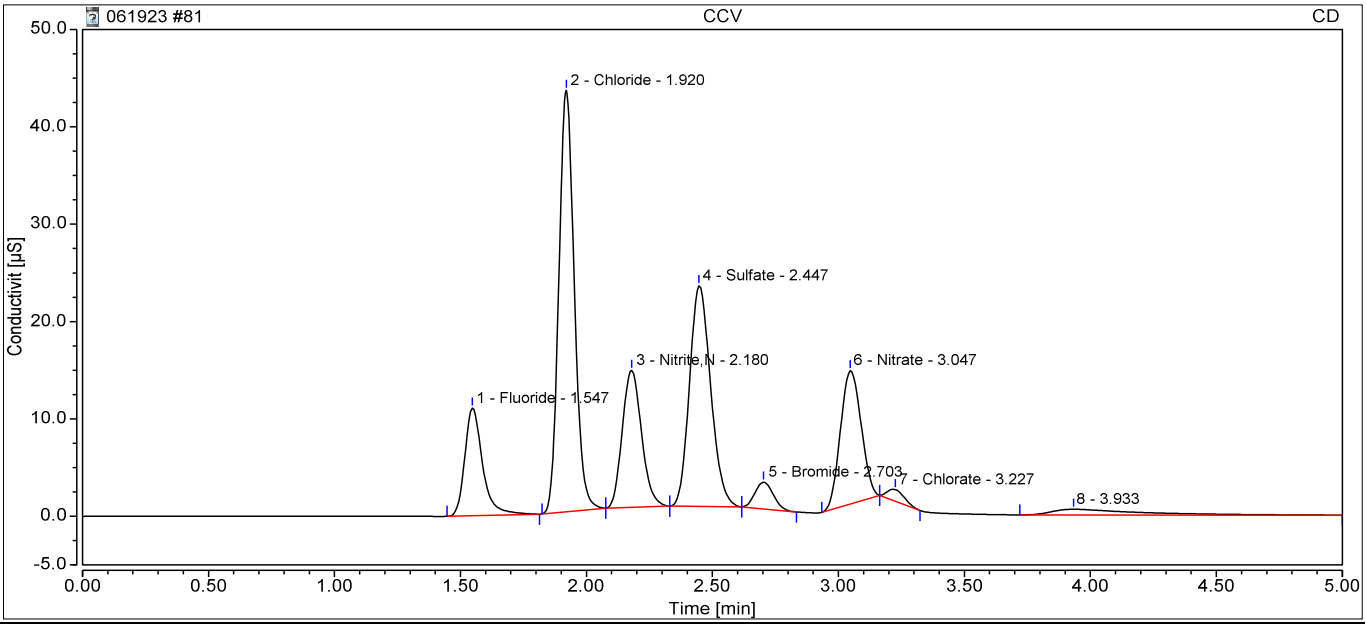
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.445	2.3516	47.0321	20.0000
2	1.92	Chloride	BMB	2.247	14.7296	294.5925	20.0000
3	2.17	Nitrite,N	BMB	0.630	2.0244	40.4884	20.0000
4	2.43	Sulfate	BMB	8.551	78.3248	1566.4958	20.0000
5	2.70	Bromide	BMB	0.087	1.6351	32.7020	20.0000
6	3.05	Nitrate	BMB	0.659	2.0946	41.8918	20.0000
7	3.23	Chlorate	BMB	0.046	1.8612	37.2250	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**12.666**		**2060.43**	

81 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 16:08**	*Sample Weight:*	**1.0000**

Run Time:



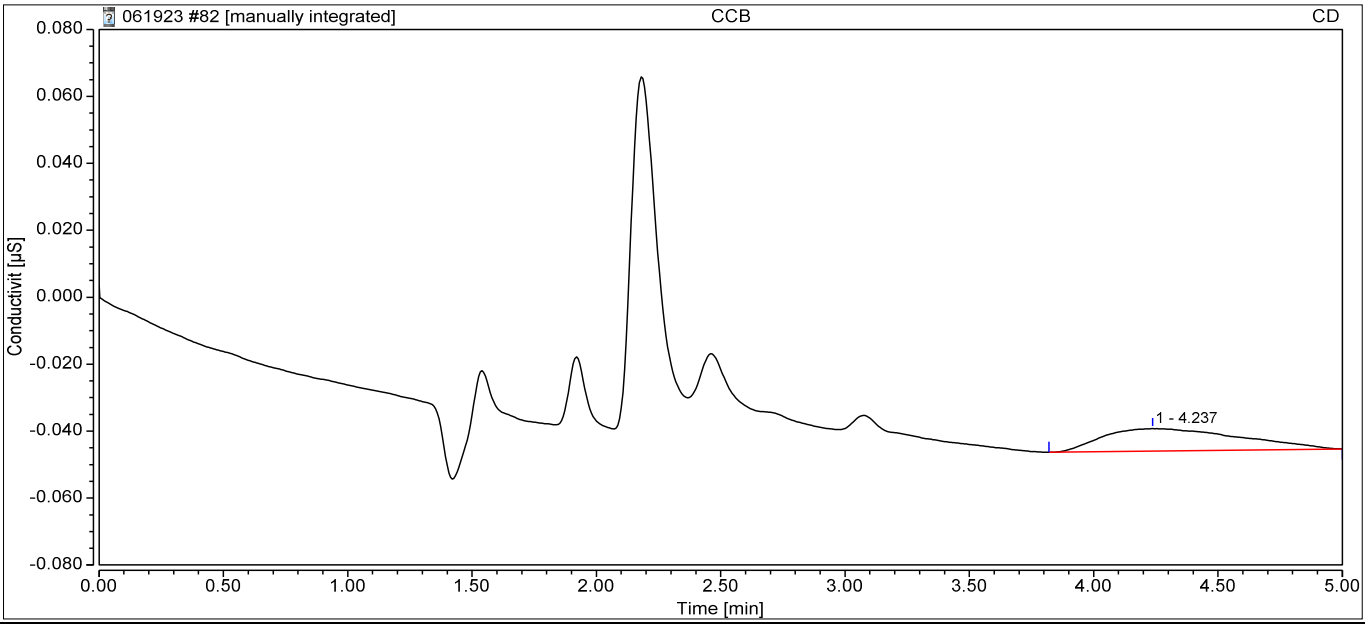
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.908	4.6487	4.6487	1.0000
2	1.92	Chloride	BMB	3.078	19.9834	19.9834	1.0000
3	2.18	Nitrite,N	BMB	1.247	4.0331	4.0331	1.0000
4	2.45	Sulfate	BMB	2.207	20.5445	20.5445	1.0000
5	2.70	Bromide	BMB	0.231	4.1343	4.1343	1.0000
6	3.05	Nitrate	BMB	1.306	4.0413	4.0413	1.0000
7	3.23	Chlorate	BMB	0.094	3.7128	3.7128	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**9.070**		**61.10**	

82 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 16:19**	*Sample Weight:*	**1.0000**

Run Time:



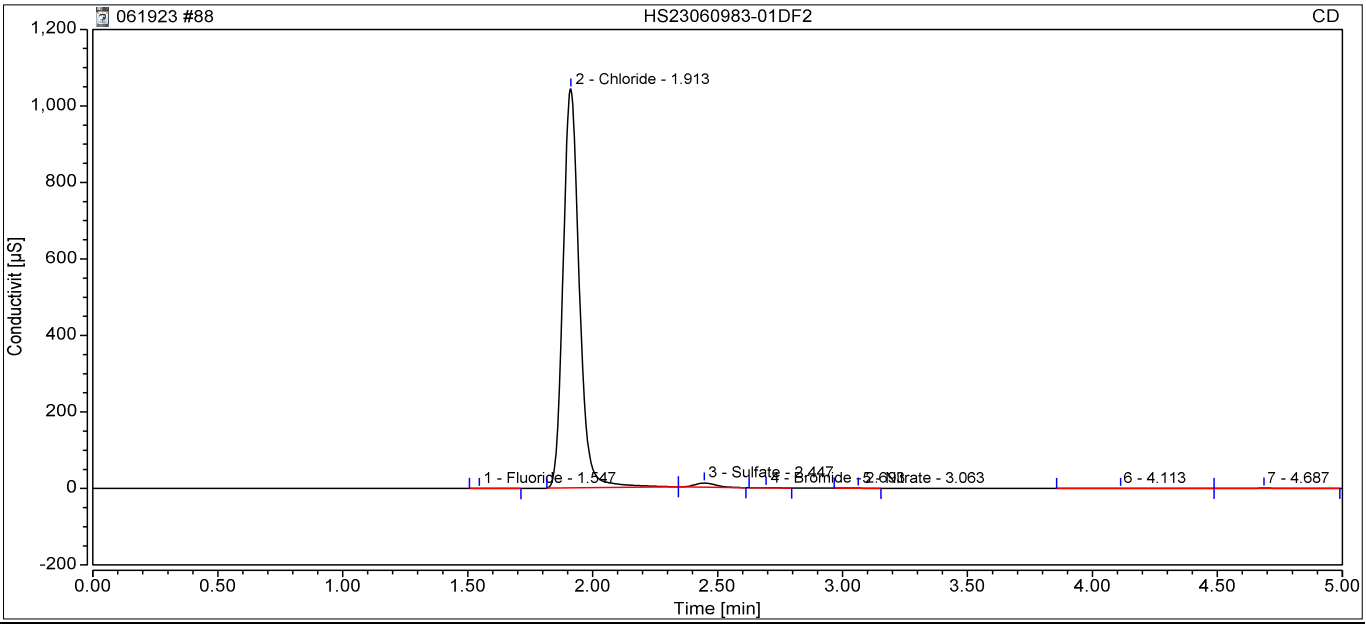
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.000**		**0.00**	

88 HS23060983-01DF2

Sample Name:	**HS23060983-01DF2**	*Injection Volume:*	**5.00**
Vial Number:	**RC2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**06/19/2023 17:00**	*Sample Weight:*	**1.0000**

Run Time:



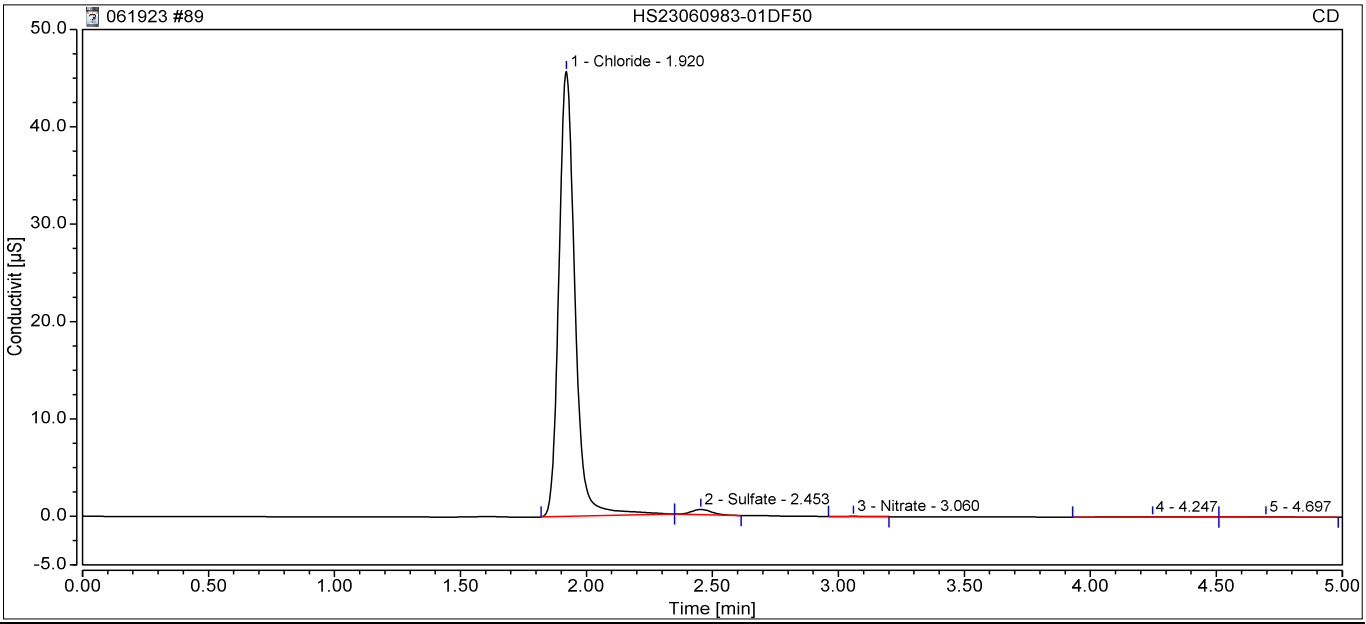
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.011	0.1991	0.3981	2.0000
2	1.91	Chloride	BMB	78.709	498.3213	996.6426	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.45	Sulfate	BMB	1.037	9.8934	19.7867	2.0000
4	2.69	Bromide	BMB	0.045	0.8872	1.7743	2.0000
5	3.06	Nitrate	BMB	0.003	0.1197	0.2394	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**79.804**		**1018.84**	

89 HS23060983-01DF50

Sample Name:	**HS23060983-01DF50**	*Injection Volume:*	**5.00**
Vial Number:	**RC3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**06/19/2023 17:06**	*Sample Weight:*	**1.0000**

Run Time:

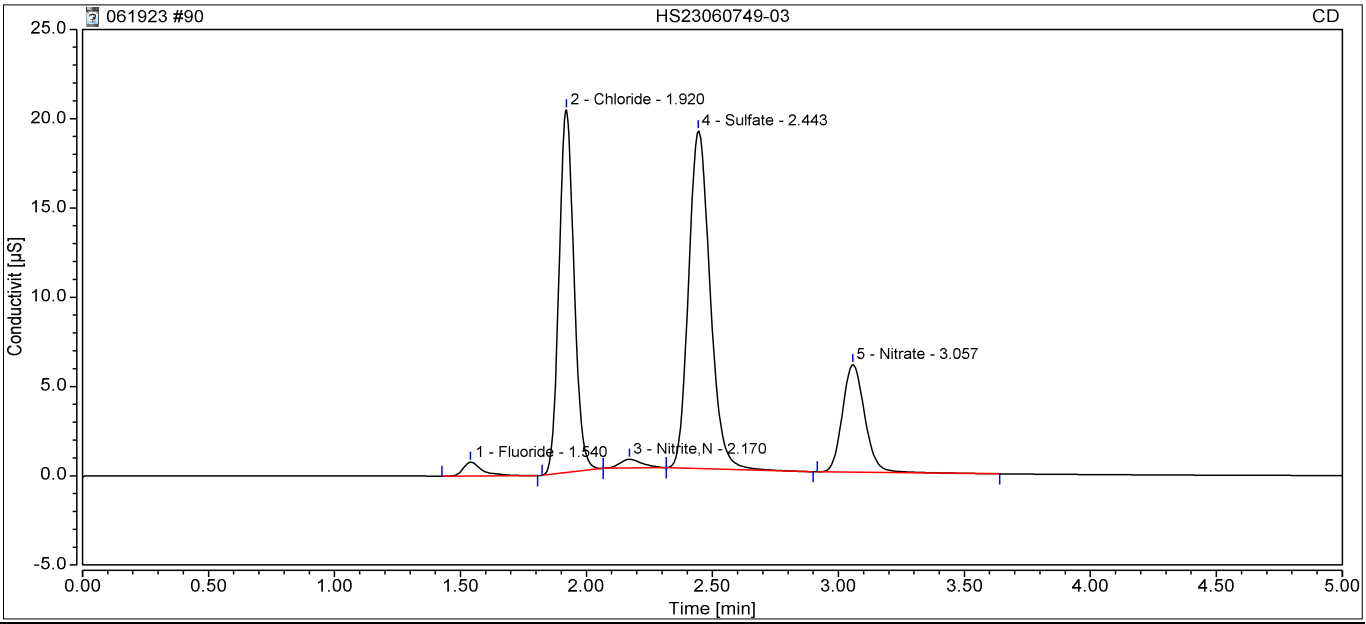


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
1	1.92	Chloride	BMB	3.385	21.9277	1096.3848	50.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	50.0000
2	2.45	Sulfate	BMB	0.049	0.8975	44.8753	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
3	3.06	Nitrate	BMB	0.002	0.1174	5.8701	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**3.436**		**1147.13**	

90 HS23060749-03			
Sample Name:	**HS23060749-03**	*Injection Volume:*	**5.00**
Vial Number:	**RC4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 17:12**	*Sample Weight:*	**1.0000**

Run Time:

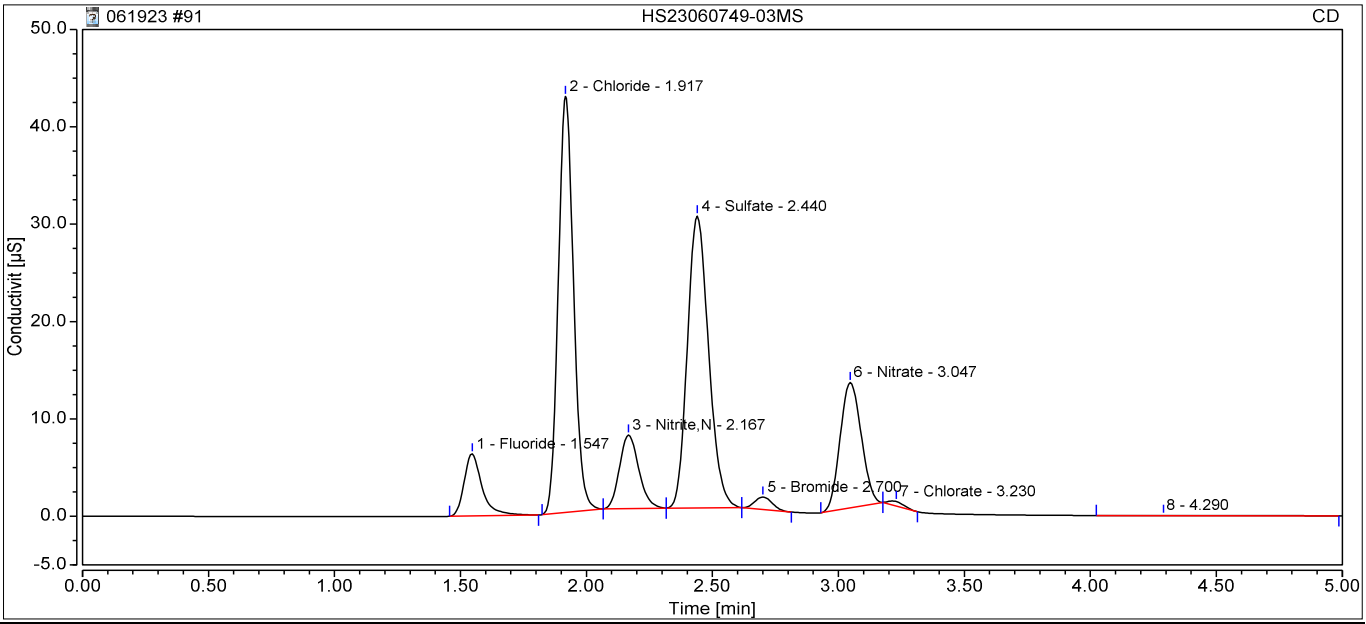


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.070	0.4916	0.4916	1.0000
2	1.92	Chloride	BMB	1.404	9.3991	9.3991	1.0000
3	2.17	Nitrite,N	BMB	0.051	0.2251	0.2251	1.0000
4	2.44	Sulfate	BMB	1.873	17.5076	17.5076	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.06	Nitrate	BMB	0.621	1.9800	1.9800	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**4.019**		**29.60**	

91	*HS23060749-03MS*		
Sample Name:	**HS23060749-03MS**	*Injection Volume:*	**5.00**
Vial Number:	**RC5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 17:17**	*Sample Weight:*	**1.0000**

Run Time:



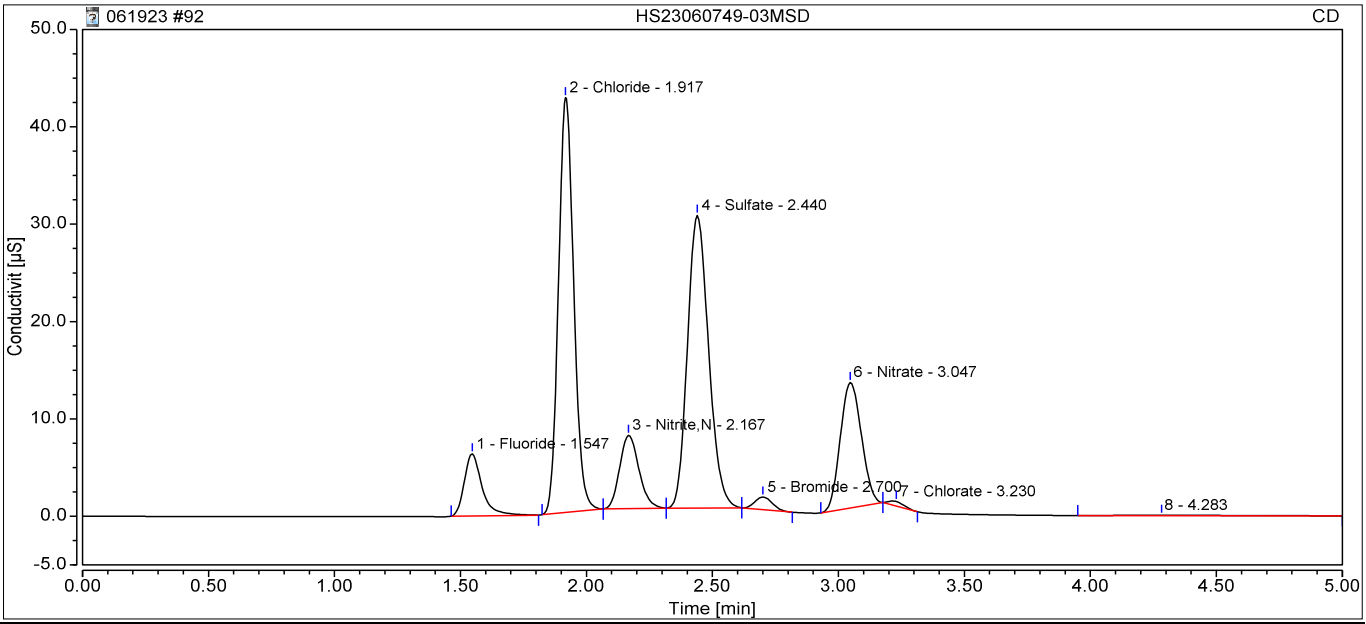
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.529	2.7681	2.7681	1.0000
2	1.92	Chloride	BMB	3.003	19.5083	19.5083	1.0000
3	2.17	Nitrite,N	BMB	0.668	2.1463	2.1463	1.0000
4	2.44	Sulfate	BMB	2.931	27.1389	27.1389	1.0000
5	2.70	Bromide	BMB	0.103	1.9072	1.9072	1.0000
6	3.05	Nitrate	BMB	1.252	3.8788	3.8788	1.0000
7	3.23	Chlorate	BMB	0.031	1.2964	1.2964	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.516**		**58.64**	

92 HS23060749-03MSD

Sample Name:	**HS23060749-03MSD**	*Injection Volume:*	**5.00**
Vial Number:	**RC6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 17:23**	*Sample Weight:*	**1.0000**

Run Time:



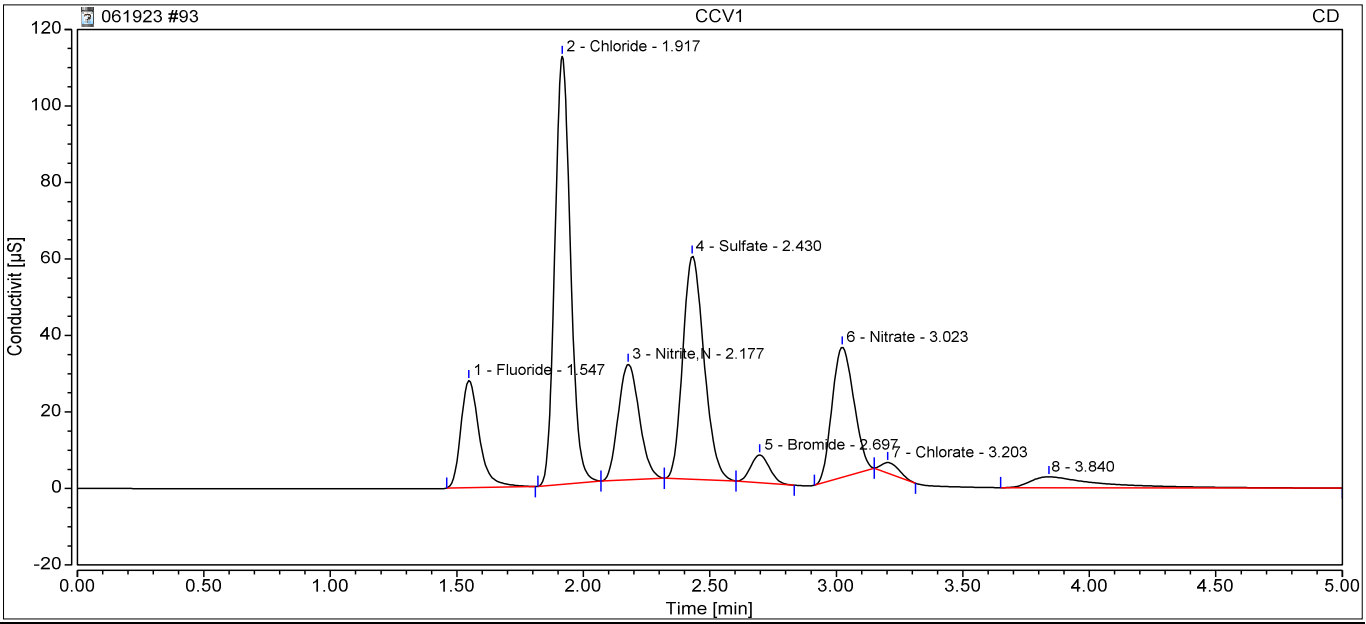
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.520	2.7236	2.7236	1.0000
2	1.92	Chloride	BMB	2.993	19.4508	19.4508	1.0000
3	2.17	Nitrite,N	BMB	0.667	2.1416	2.1416	1.0000
4	2.44	Sulfate	BMB	2.927	27.0996	27.0996	1.0000
5	2.70	Bromide	BMB	0.104	1.9242	1.9242	1.0000
6	3.05	Nitrate	BMB	1.252	3.8784	3.8784	1.0000
7	3.23	Chlorate	BMB	0.032	1.3229	1.3229	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.494**		**58.54**	

93 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 17:41**	*Sample Weight:*	**1.0000**

Run Time:



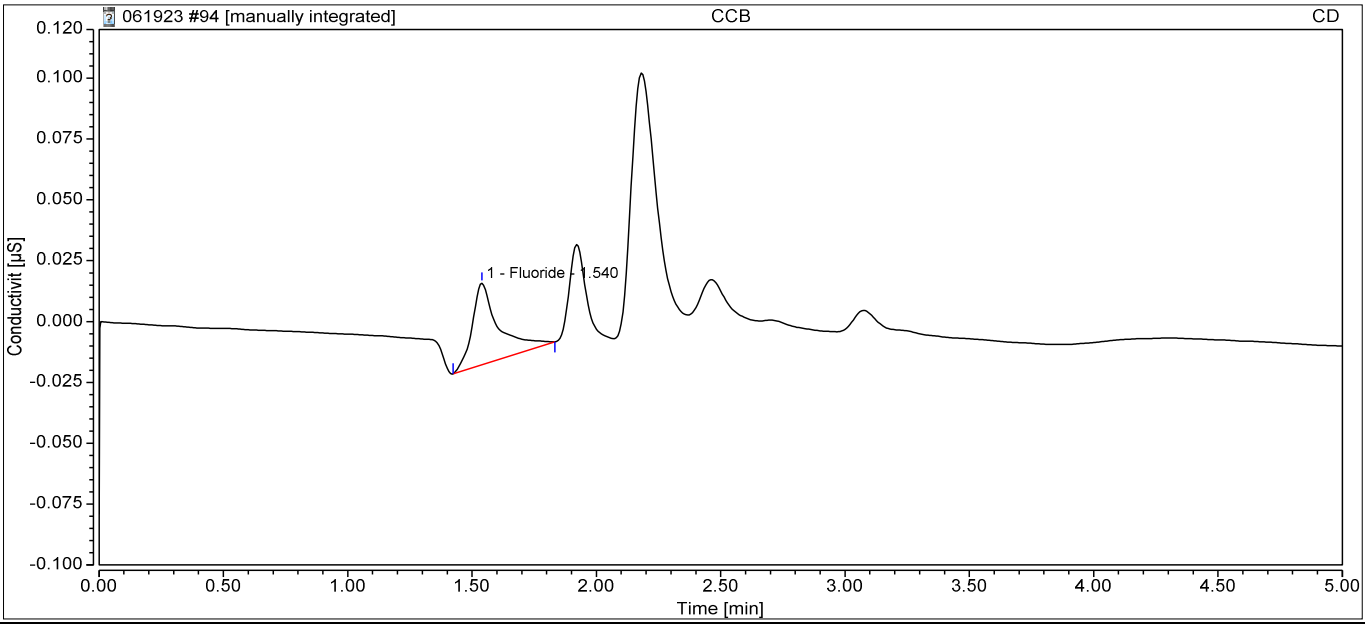
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	2.375	11.9243	11.9243	1.0000
2	1.92	Chloride	BMB	7.993	51.0698	51.0698	1.0000
3	2.18	Nitrite,N	BMB	2.897	10.0112	10.0112	1.0000
4	2.43	Sulfate	BMB	5.680	52.1707	52.1707	1.0000
5	2.70	Bromide	BMB	0.620	10.9049	10.9049	1.0000
6	3.02	Nitrate	BMB	3.392	10.3192	10.3192	1.0000
7	3.20	Chlorate	BMB	0.230	9.3191	9.3191	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**23.186**		**155.72**	

94 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 17:52**	*Sample Weight:*	**1.0000**

Run Time:



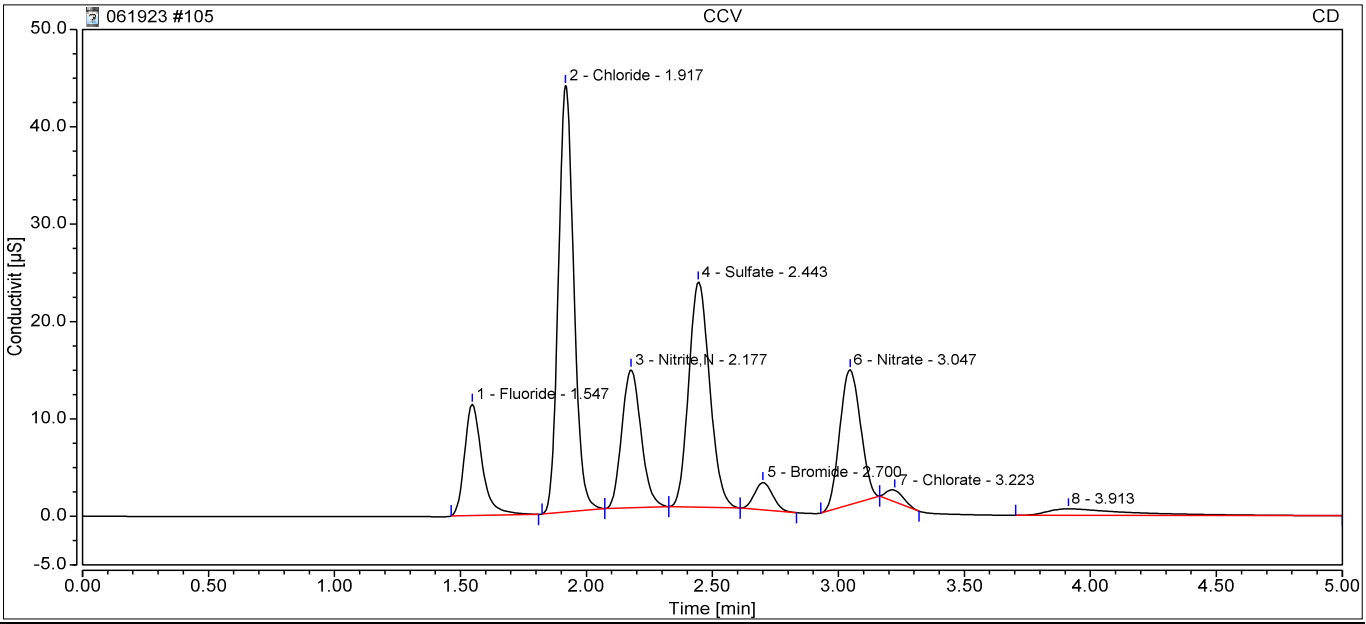
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.004	0.1661	0.1661	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.004**		**0.17**	

105 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 19:08**	*Sample Weight:*	**1.0000**

Run Time:



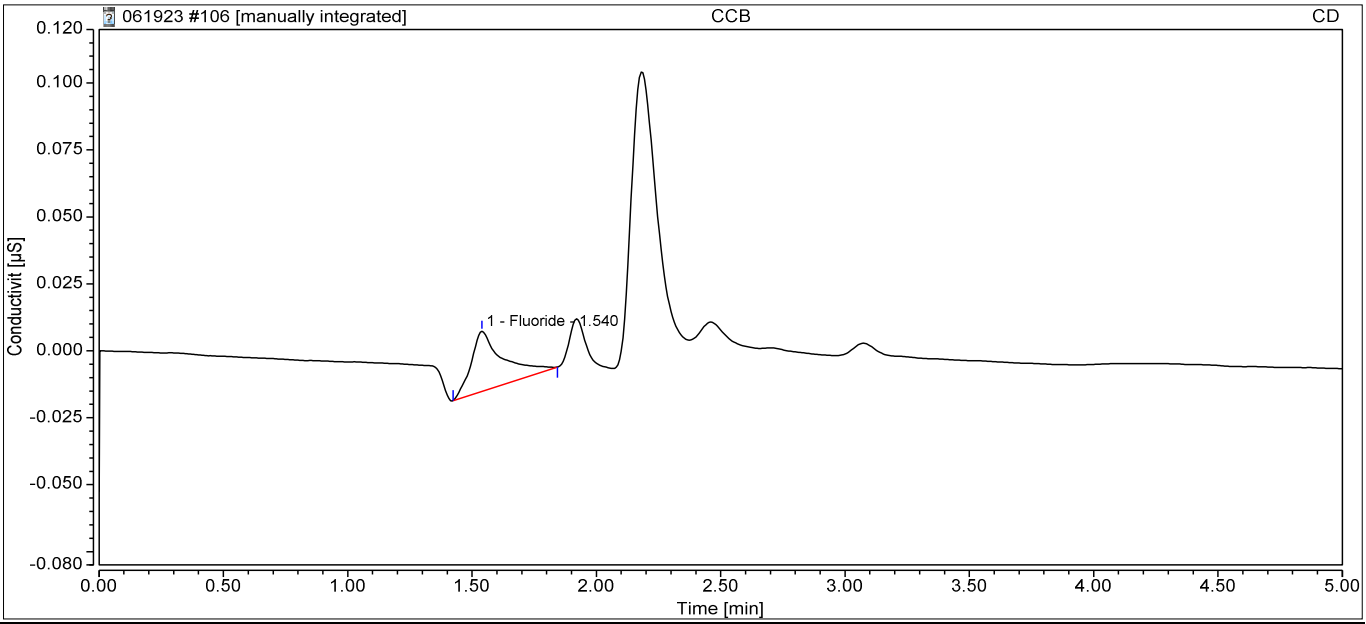
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.920	4.7070	4.7070	1.0000
2	1.92	Chloride	BMB	3.110	20.1892	20.1892	1.0000
3	2.18	Nitrite,N	BMB	1.256	4.0619	4.0619	1.0000
4	2.44	Sulfate	BMB	2.230	20.7584	20.7584	1.0000
5	2.70	Bromide	BMB	0.236	4.2194	4.2194	1.0000
6	3.05	Nitrate	BMB	1.320	4.0858	4.0858	1.0000
7	3.22	Chlorate	BMB	0.092	3.6488	3.6488	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**9.164**		**61.67**	

106 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/19/2023 19:19**	*Sample Weight:*	**1.0000**

Run Time:



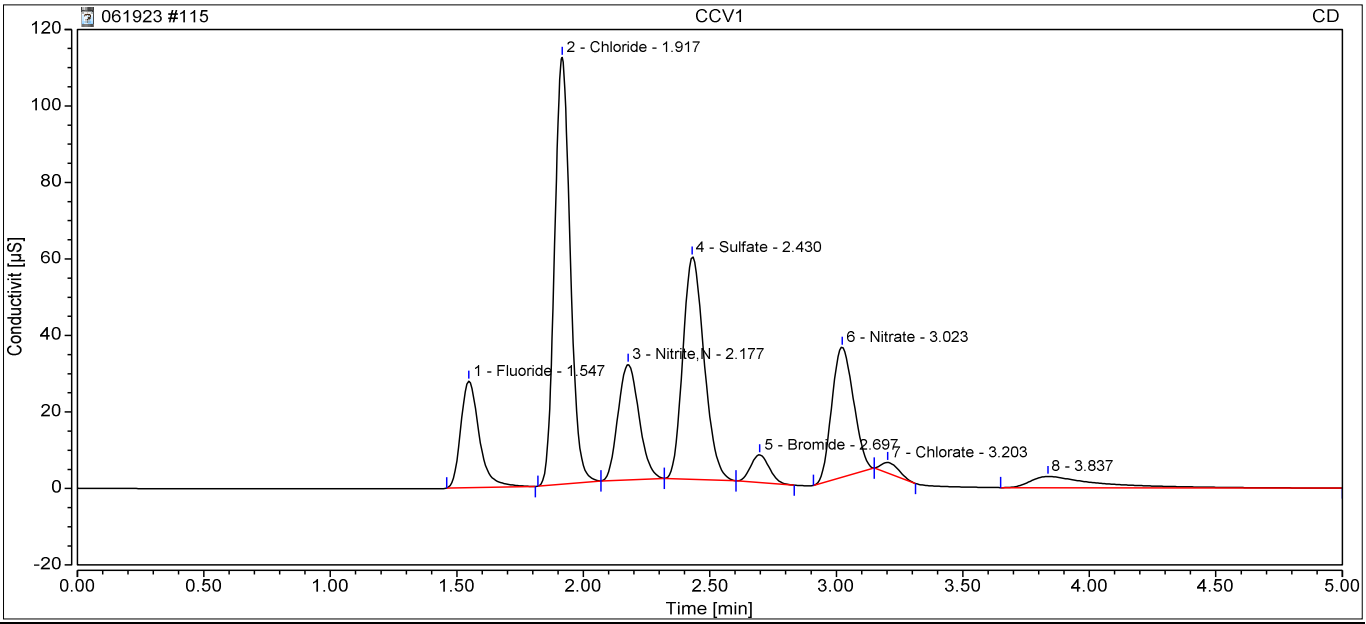
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.003	0.1619	0.1619	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.003**		**0.16**	

115 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**06/19/2023 20:23**	*Sample Weight:*	**1.0000**

Run Time:



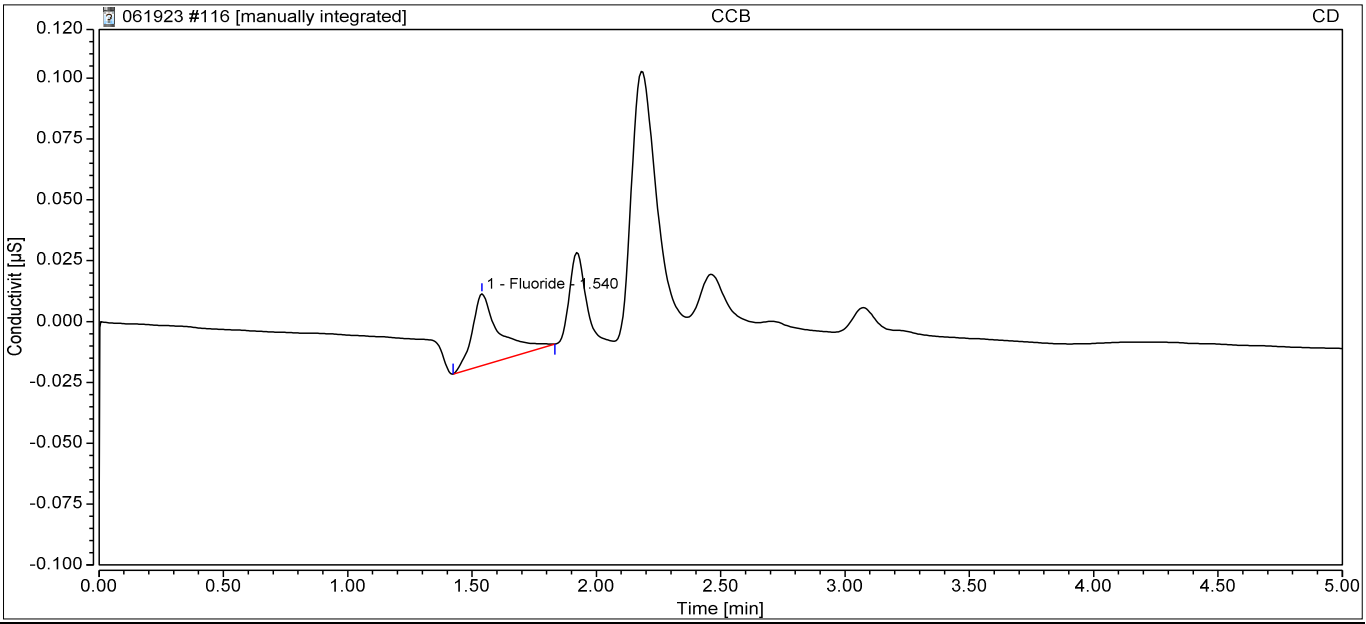
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	2.363	11.8681	118.6807	10.0000
2	1.92	Chloride	BMB	7.980	50.9861	509.8610	10.0000
3	2.18	Nitrite,N	BMB	2.893	9.9959	99.9595	10.0000
4	2.43	Sulfate	BMB	5.670	52.0861	520.8613	10.0000
5	2.70	Bromide	BMB	0.617	10.8672	108.6717	10.0000
6	3.02	Nitrate	BMB	3.388	10.3076	103.0764	10.0000
7	3.20	Chlorate	BMB	0.227	9.1544	91.5442	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**23.138**		**1552.65**	

116 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**06/19/2023 20:35**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.004	0.1639	1.6393	10.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**0.004**		**1.64**	

HS23061899 Longhorn GW Treatment Plant
Weekly Samples Cover Page

ALS WO# HS23061899

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ALS Group USA, Corp
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alsglobal.com

right solutions.
right partner.

WorkOrder: HS23061899

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

05-Jul-2023

HS23061899 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS23061899

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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July 03, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23061899**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Jun 28, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
James Guin

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23061899

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23061899-01	LH18/24-SP650_062723	Water		27-Jun-2023 13:00	28-Jun-2023 09:40	☐
HS23061899-02	LH18/24-SP650_062723_AIX	Water		27-Jun-2023 13:00	28-Jun-2023 09:40	☐
HS23061899-03	LH18/24-SP650_062723_BIX	Water		27-Jun-2023 13:00	28-Jun-2023 09:40	☐

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23061899

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

WetChemistry by Method E415.1

Batch ID: R440398

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E350.3

Batch ID: R440182

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E365.3

Batch ID: R440133

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.

ANALYTICAL REPORT

Project: Longhorn GW Treatment Plant Weekly Samples

WorkOrder:HS23061899

Sample ID: LH18/24-SP650_062723

Lab ID:HS23061899-01

Collection Date: 27-Jun-2023 13:00

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
AMMONIA AS N BY E350.3(ISE)		**Method:E350.3**						Analyst: AB
Nitrogen, Ammonia (As N)	**340**	a	**1.0**	**2.0**	**2.0**	**mg/L**	10	29-Jun-2023 11:23
ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978		**Method:E365.3**						Analyst: AB
Phosphorus, Total Orthophosphate (As P)	**2.25**	a	**0.100**	**0.250**	**0.250**	**mg/L**	10	28-Jun-2023 17:27
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**919**	a	**10.0**	**20.0**	**20.0**	**mg/L**	20	30-Jun-2023 12:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Sample ID: LH18/24-SP650_062723_AIX
Collection Date: 27-Jun-2023 13:00

ANALYTICAL REPORT
WorkOrder:HS23061899
Lab ID:HS23061899-02
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	30-Jun-2023 11:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Sample ID: LH18/24-SP650_062723_BIX
Collection Date: 27-Jun-2023 13:00

ANALYTICAL REPORT
WorkOrder:HS23061899
Lab ID:HS23061899-03
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	30-Jun-2023 11:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061899

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R440133 (0)	**Test Name :** ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978				**Matrix:** Water	
HS23061899-01	LH18/24-SP650_062723	27 Jun 2023 13:00			28 Jun 2023 17:27	10
Batch ID: R440182 (0)	**Test Name :** AMMONIA AS N BY E350.3(ISE)				**Matrix:** Water	
HS23061899-01	LH18/24-SP650_062723	27 Jun 2023 13:00			29 Jun 2023 11:23	10
Batch ID: R440277 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS23061899-02	LH18/24-SP650_062723_AIX	27 Jun 2023 13:00			30 Jun 2023 11:03	1
HS23061899-03	LH18/24-SP650_062723_BIX	27 Jun 2023 13:00			30 Jun 2023 11:03	1
Batch ID: R440398 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Water	
HS23061899-01	LH18/24-SP650_062723	27 Jun 2023 13:00			30 Jun 2023 12:26	20

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061899

QC BATCH REPORT

Batch ID: R440133 (0) **Instrument:** UV-2450 **Method:** ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978

MBLK Sample ID: **MBLK-R440133** Units: **mg/L** Analysis Date: **28-Jun-2023 17:27**
Client ID: Run ID: **UV-2450_440133** SeqNo: **7391215** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.0250	0.0250								U

LCS Sample ID: **LCS-R440133** Units: **mg/L** Analysis Date: **28-Jun-2023 17:27**
Client ID: Run ID: **UV-2450_440133** SeqNo: **7391214** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.254	0.0250	0.25	0	102	85 - 115				

LCSD Sample ID: **LCSD-R440133** Units: **mg/L** Analysis Date: **28-Jun-2023 17:27**
Client ID: Run ID: **UV-2450_440133** SeqNo: **7391213** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.254	0.0250	0.25	0	102	85 - 115	0.254	0	20	

MS Sample ID: **HS23061081-01MS** Units: **mg/L** Analysis Date: **28-Jun-2023 17:27**
Client ID: Run ID: **UV-2450_440133** SeqNo: **7391225** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.668	0.0250	0.25	0.448	88.0	80 - 120				

MSD Sample ID: **HS23061081-01MSD** Units: **mg/L** Analysis Date: **28-Jun-2023 17:27**
Client ID: Run ID: **UV-2450_440133** SeqNo: **7391224** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.667	0.0250	0.25	0.448	87.6	80 - 120	0.668	0.15	20	

The following samples were analyzed in this batch: HS23061899-01

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061899

QC BATCH REPORT

Batch ID: R440182 (0) **Instrument: WetChem_HS** **Method: AMMONIA AS N BY E350.3(ISE)**

MBLK Sample ID: **MBLK-R440182** Units: **mg/L** Analysis Date: **29-Jun-2023 11:23**
Client ID: Run ID: **WetChem_HS_440182** SeqNo: **7392370** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.20	0.20								U

LCS Sample ID: **LCS-R440182** Units: **mg/L** Analysis Date: **29-Jun-2023 11:23**
Client ID: Run ID: **WetChem_HS_440182** SeqNo: **7392369** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	9.527	0.20	10	0	95.3	80 - 120				

MS Sample ID: **HS23061912-01MS** Units: **mg/L** Analysis Date: **29-Jun-2023 11:23**
Client ID: Run ID: **WetChem_HS_440182** SeqNo: **7392372** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	14.36	0.20	10	5.752	86.0	80 - 120				

MSD Sample ID: **HS23061912-01MSD** Units: **mg/L** Analysis Date: **29-Jun-2023 11:23**
Client ID: Run ID: **WetChem_HS_440182** SeqNo: **7392371** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	14.63	0.20	10	5.752	88.8	80 - 120	14.36	1.86	20	

The following samples were analyzed in this batch: HS23061899-01

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061899

QC BATCH REPORT

Batch ID: R440398 (0) **Instrument: TOC_05** **Method: TOTAL ORGANIC CARBON BY E415.1**

MBLK Sample ID: **MBLK-06302023** Units: **mg/L** Analysis Date: **30-Jun-2023 11:37**
Client ID: Run ID: **TOC_05_440398** SeqNo: **7398069** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-06302023** Units: **mg/L** Analysis Date: **30-Jun-2023 11:53**
Client ID: Run ID: **TOC_05_440398** SeqNo: **7398070** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.884	1.00	10	0	98.8	85 - 115				

LCSD Sample ID: **LCSD-06302023** Units: **mg/L** Analysis Date: **30-Jun-2023 12:09**
Client ID: Run ID: **TOC_05_440398** SeqNo: **7398071** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.08	1.00	10	0	101	85 - 115	9.884	1.96	20	

MS Sample ID: **HS23060429-03MS** Units: **mg/L** Analysis Date: **30-Jun-2023 15:35**
Client ID: Run ID: **TOC_05_440398** SeqNo: **7398082** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	18.06	1.00	10	7.577	105	80 - 120				

The following samples were analyzed in this batch: HS23061899-01

ALS Houston, US Date: 03-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS23061899**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

ALS Houston, US Date: 03-Jul-23

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352; 2022-2023	31-Jul-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 03-Jul-23

Sample Receipt Checklist

Work Order ID: HS23061899 **Date/Time Received:** 28-Jun-2023 09:40

Client Name: Bhate Environmental **Received by:** Corey Grandits

Completed By: /S/ Corey Grandits (eSignature) 28-Jun-2023 10:37 (Date/Time) **Reviewed by:** (eSignature) (Date/Time)

Matrices: W Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.8UC/1.7C	IR31
Cooler(s)/Kit(s):	58473	
Date/Time sample(s) sent to storage:	6/28/23	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

01210547

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. JVPCIBH.000

Job:
GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O. Number

HS23061899

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Weekly Samples

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	AMMONIA-N	TOTAL ORGANIC CARBON	ORTHO-PHOSPHATE	PERCHLORATE	Ar						Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_062723	Water	06/27/23 / 13:00		3	X	X									H2SO4	
LH18/24-SP650_062723	Water	06/27/23 / 13:00		1			X								NONE	
LH18/24–SP650_062723_AIX	Water	06/27/23 / 13:00		1				X							NONE	
LH18/24-SP650_062723_BIX	Water	06/27/23 / 13:00		1				X							NONE	

Additional Remarks: 24 HR. TAT on Perchlorate Samples. Standard TAT on all other parameters

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	06/27/23	13:30	[illegible]	6-28-23	0940						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks: 1221 98473 1.8°

(Word) S:\1-ces\Forms\Chain of Custody - BiWeekly


CUSTODY SEAL
Seal Broken By:
Time: 1330
Date:
ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
Date:
Name:
Company:
FedEx
TRK# 0221 6230 2994 8017
XA SGRA
WED - 28 JUN AA
PRIORITY OVERNIGHT
77099
TX-US
IAH

June 29, 2023 Service Request No:E2300617

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23061899

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory June 28, 2023
For your reference, these analyses have been assigned our service request number **E2300617.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300617
Project:	HS23061899	**Date Received:**	06/28/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 03/07/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300317: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300617
Project: HS23061899

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300617-001	LH18/24-SP650_062723_AIX	6/27/2023	1300
E2300617-002	LH18/24-SP650_062723_BIX	6/27/2023	1300

Service Request Summary

Folder #: **E2300617**
Client Name: ALS Environmental - US
Project Name: HS23061899
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/28/23
Internal Due Date: 6/29/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061899
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300617-001	LH18/24-SP650_062723_AIX	Water	06/27/23 1300	**IV**
E2300617-002	LH18/24-SP650_062723_BIX	Water	06/27/23 1300	**IV**

Service Request Summary

Folder #: **E2300617**
Client Name: ALS Environmental - US
Project Name: HS23061899
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/28/23
Internal Due Date: 6/29/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061899
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 22176

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23061899
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23061899-02**	**LH18/24-SP650_062723_AIX**	**Water**	**27 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			29 Jun 2023
2.	**HS23061899-03**	**LH18/24-SP650_062723_BIX**	**Water**	**27 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			29 Jun 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 6-28-23 1040

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 6-20-23 Initials: cy

Date/Time Logged in: 6-20-23 Initials cy

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No
   Were they intact? ○ Yes ○ No ☒ N/A
   Were they signed and dated? ○ Yes ○ No ☒ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ○ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6-20-23	0940	cy	3.8	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300614-001	125_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300614-002	MW3_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300614-003	MW23_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
4	E2300614-004	MW9_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2300614-005	MW13_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
6	E2300614-006	CO2_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300614-007	18WW10_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300614-008	MW17_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300614-009	MW16_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300616-001	MW22_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300616-002	18CPTMW06_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2300616-003	129_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2300616-004	MW6_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2300616-005	MW21_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2300616-006	109_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2300617-001	LH18/24-SP650_062723_AIX	.01	6850/ClO4 DOD			Water	10mL	
17	E2300617-002	LH18/24-SP650_062723_BIX	.01	6850/ClO4 DOD			Water	10mL	
18	EQ2300317-01	MB		6850/ClO4			Liquid	10mL	
19	EQ2300317-02	LCS		6850/ClO4			Liquid	10mL	
20	EQ2300317-03	DLCS		6850/ClO4			Liquid	10mL	
21	EQ2300317-04	MW23_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
22	EQ2300317-05	MW23_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
23	EQ2300317-06	MW13_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2300317-07	MW13_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
25	K2307221-001	LGAC-INF-062623	.01	6850/ClO4			Water	10mL	
26	K2307221-002	LGAC-INT1-062623	.01	6850/ClO4			Water	10mL	
27	K2307221-003	LGAC-INT2-062623	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300317-02 1.00µL EQ2300317-02 1.00µL EQ2300317-03 1.00µL EQ2300317-03 1.00µL EQ2300317-04 1.00µL EQ2300317-05 1.00µL
EQ2300317-06 1.00µL EQ2300317-07 1.00µL

Preparation Information Benchsheet

Prep Run#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	227244	Logbook Ref:	Perchlorate Internal Standard	Expires On:	07/31/2023

E2300614-001	100.00µL	E2300614-002	100.00µL	E2300614-003	100.00µL	E2300614-004	100.00µL	E2300614-005	100.00µL	E2300614-006	100.00µL
E2300614-007	100.00µL	E2300614-008	100.00µL	E2300614-009	100.00µL	E2300616-001	100.00µL	E2300616-002	100.00µL	E2300616-003	100.00µL
E2300616-004	100.00µL	E2300616-005	100.00µL	E2300616-006	100.00µL	E2300617-001	100.00µL	E2300617-002	100.00µL	EQ2300317-01	100.00µL
EQ2300317-01	100.00µL	EQ2300317-02	100.00µL	EQ2300317-02	100.00µL	EQ2300317-03	100.00µL	EQ2300317-03	100.00µL	EQ2300317-04	100.00µL
EQ2300317-05	100.00µL	EQ2300317-06	100.00µL	EQ2300317-07	100.00µL	K2307221-001	100.00µL	K2307221-002	100.00µL	K2307221-003	100.00µL

Preparation Steps

Step: Preparation
Started: 6/28/23 11:04
Finished: 6/28/23 12:02
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	6/27/23 1300
Sample Matrix:	Water	**Date Received:**	6/28/23
Sample Name:	LH18/24-SP650_062723_AIX	**Units:**	µg/L
Lab Code:	E2300617-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2.58**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:36	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	6/27/23 1300
Sample Matrix:	Water	**Date Received:**	6/28/23
Sample Name:	LH18/24-SP650_062723_BIX	**Units:**	µg/L
Lab Code:	E2300617-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2540**		10.0	5.00	2.50	100	6/28/23	6/28/23 15:14	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300317-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:19	422284	809096	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061899
Sample Matrix: Water

Service Request: E2300617
Date Analyzed: 6/28/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 422284

	Lab Control Sample EQ2300317-02			Duplicate Lab Control Sample EQ2300317-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.110	0.100	110	0.104	0.100	104	84 - 119	5	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.110**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:24	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.104**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:30	422284	809096	

HS23061899 Wetchem NIT-AMM_W- E350.3 - ISE

ALS WO# HS23061899

ALS Laboratory Group

NZL ... NZT NMM WE ISE

Ion Selective Electrode Logbook

Analyst: AB	Date: 06/29/23
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F	

Probe Calibration Date: 06/29/23		Cal Std ID: 322142503-08		Probe ID: NH3-8	
Std Level		mV	Conc., mg/L:	Sodium Thiosulfate ID:	
STD 1 (mg/L):	.2	123.6	0.199	Std Level	mV / Conc., mg/L:
STD 2 (mg/L):	1	89.3	1.000	STD 4 (mg/L):	38.2 / 10.004
STD 3 (mg/L):	5	55.5	5.002	STD 5 (mg/L):	-6.7 / 50.301
LSC / MS Spike ID:				ICAL Date & Slope:	98.9% -59.7
ICV Cal STD ID:					
DPD Reagent ID:					

WO # / SX #	Bottle #	Initial g or ml	Final Vol. ml	Dilution Factor	Initial Conc. mg/L	Final Conc. mg/L	Chlorine Check (+/ –)	Comments
ICV		50mL	50mL		9.237			
ICB					0.005			
MDLR					0.006			
LCS					9.527			
HS2306189-01				10x	33.614			
1339-01					3.611			
1428-01					5.484			
1532-01					5.471			
1621-01					5.535			
1761-01					5.707			
1824-01					6.032			
1912-01					5.752			
CCV					9.408			
CCB					0.007			
1912-01 MS					14.357			
1912-01 MSD					14.627			
CCV 2					9.702			
CCB 2					0.008			

Batch ID: 440182, 440183	Reported By: AB	Reviewed By: MD

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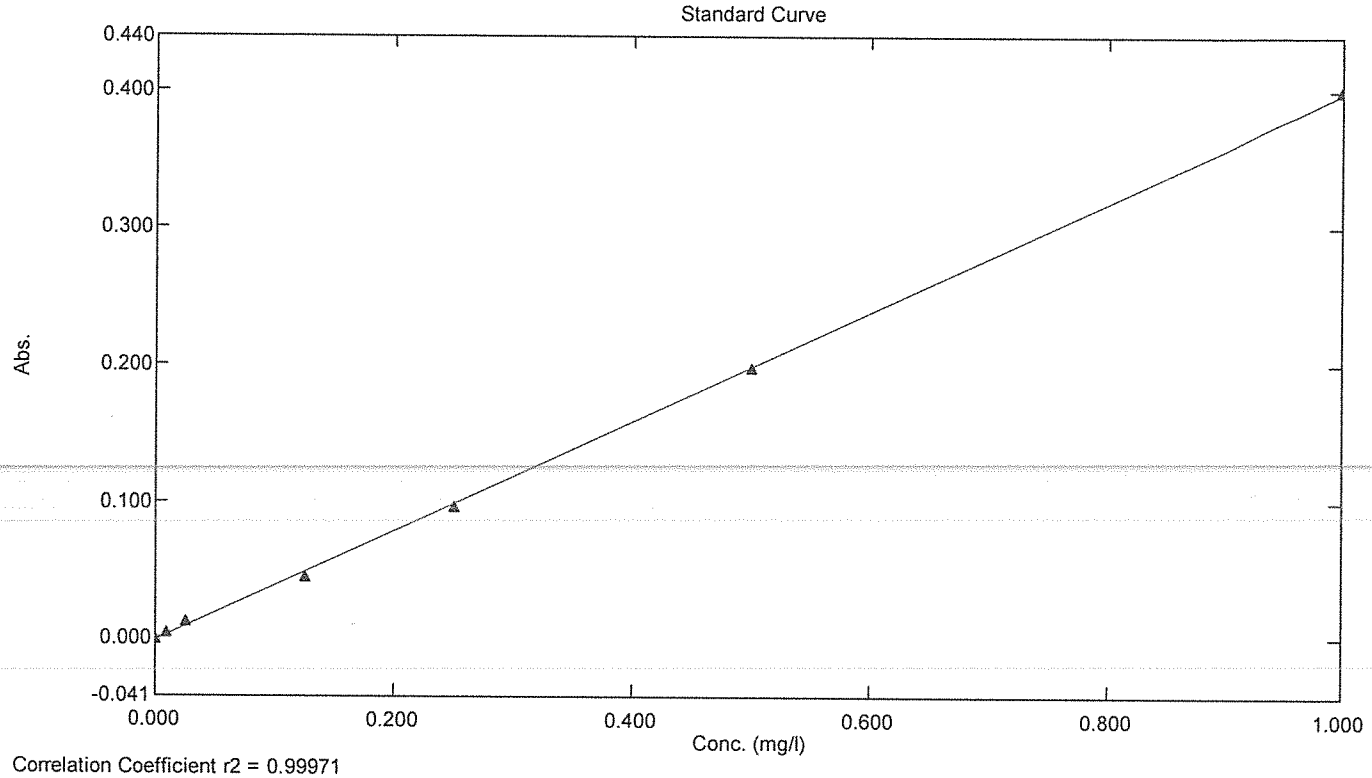
HS23061899 Wetchem P-ORTHO

ALS WO# HS23061899

Standard Table Report

06/30/2023 06:16:05 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3 METHOD)\2023\06282023_P_ORTHO_W.pho



Correlation Coefficient r2 = 0.99971

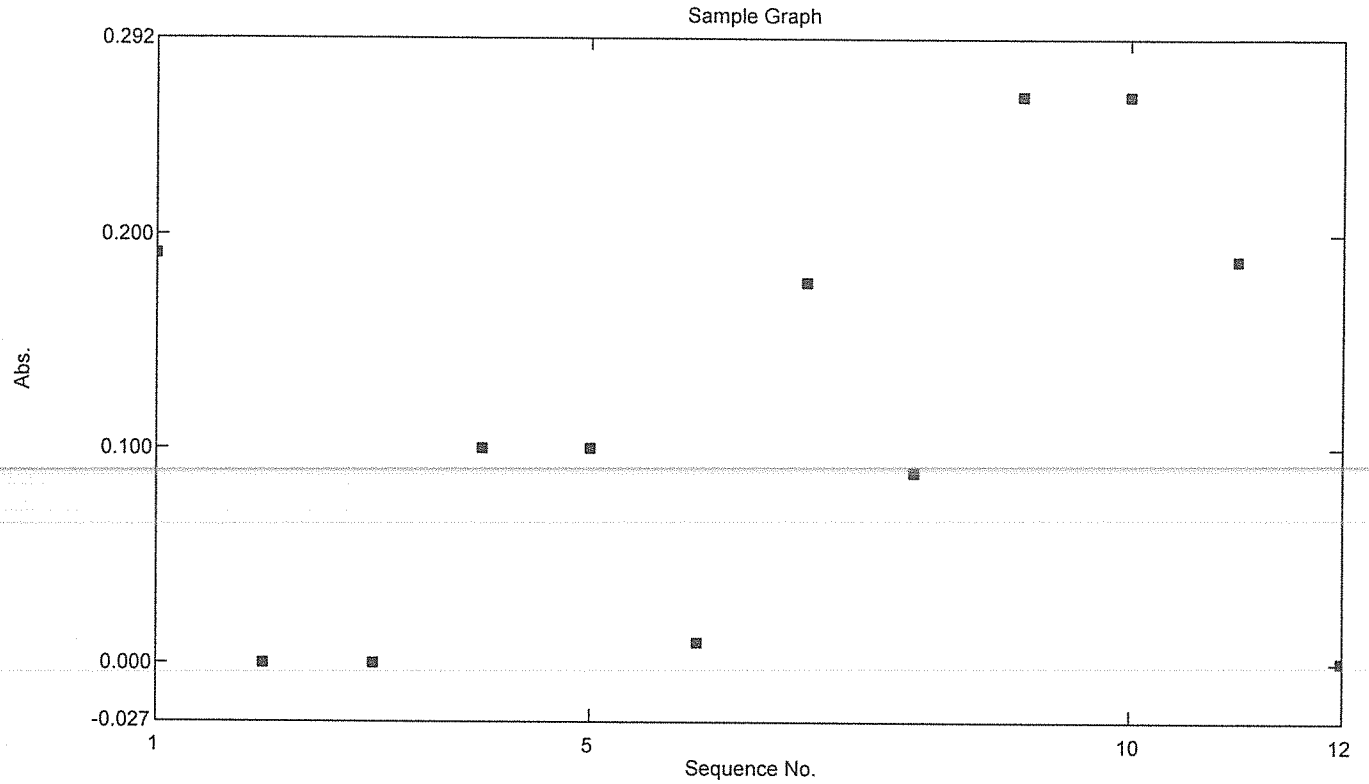
Standard Table

	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.005	1.000	
3	STD3	Standard		0.025	0.012	1.000	
4	STD4	Standard		0.125	0.045	1.000	
5	STD5	Standard		0.250	0.096	1.000	
6	STD6	Standard		0.500	0.197	1.000	
7	STD7	Standard		1.000	0.400	1.000	
8							

Sample Table Report

06/30/2023 06:16:06 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3 METHOD)\2023\06282023_P_ORTHO_W.pho



Sample Table

	Sample ID	Date	Time	Conc	WL650.	Comments
1	CCV	06/28/2023	05:12:26 PM	0.481	0.191	3221419069 WC-13
2	CCB	06/28/2023	05:12:39 PM	0.002	-0.000	
3	MBLK	06/28/2023	05:12:45 PM	0.003	-0.000	
4	LCS	06/28/2023	05:12:55 PM	0.254	0.100	322141908 WC-023
5	LCSD	06/28/2023	05:13:01 PM	0.254	0.100	A.MOLYBDATE 322142202
6	LOQ	06/28/2023	05:16:08 PM	0.028	0.010	11N 3100606911
7	HS23061081.01	06/28/2023	05:16:36 PM	0.448	0.178	A.ACID 322142102
8	HS23061899.01	06/28/2023	05:18:46 PM	0.225	0.089	DF=10X
9	HS23061081.01MS	06/28/2023	05:36:20 PM	0.668	0.266	
10	HS23061081.01MSD	06/28/2023	05:36:29 PM	0.667	0.265	
11	CCV2	06/28/2023	05:36:40 PM	0.473	0.188	
12	CCB2	06/28/2023	05:36:49 PM	0.006	0.001	
13						

HS23061899 Wetchem TOC_W REV01

ALS WO# HS23061899

C:\TOC-L\Data\2023_06_21_002.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Standard	NPOC	CALIBRATION		06_21_2023	1.000		
2	Unknown	NPOC	ICV		06_21_2023	1.000	NPOC:7.789mg/L	
3	Unknown	NPOC	ICB		06_21_2023	1.000	NPOC:0.1521mg/L	

	Status	Date / Time	Vial
1	Completed	6/21/2023 6:	50, 51, 52, 5
2	Completed	6/21/2023 7:	57
3	Completed	6/21/2023 7:	58

TOC-Control L Report

2023_06_21_002.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

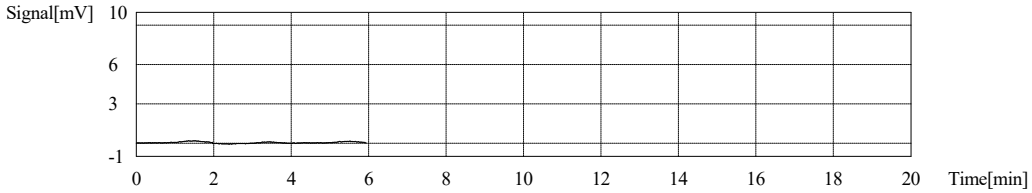
Sample Name:	CALIBRATION
Sample ID:	
Cal. Curve:	06_21_2023B.2023_06_21_17_09_19.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.3456	50uL	1.000	*******		6/21/2023 5:18:00 PM
2	0.2872	50uL	1.000	*******		6/21/2023 5:20:19 PM
3	0.1081	50uL	1.000	*******		6/21/2023 5:22:27 PM

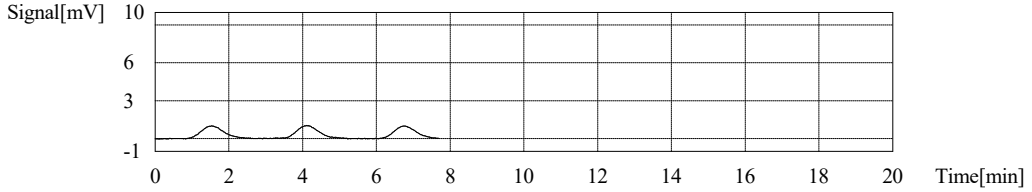
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	0.2470



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.170	50uL	1.000	*******		6/21/2023 5:31:50 PM
2	4.088	50uL	1.000	*******		6/21/2023 5:34:43 PM
3	3.977	50uL	1.000	*******		6/21/2023 5:37:25 PM

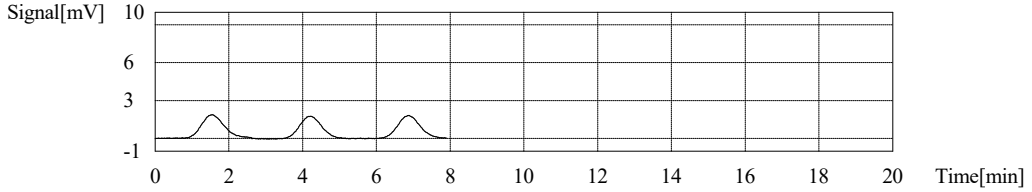
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	4.078



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.677	50uL	1.000	*******		6/21/2023 5:46:50 PM
2	7.596	50uL	1.000	*******		6/21/2023 5:49:44 PM
3	7.710	50uL	1.000	*******		6/21/2023 5:52:35 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	7.661

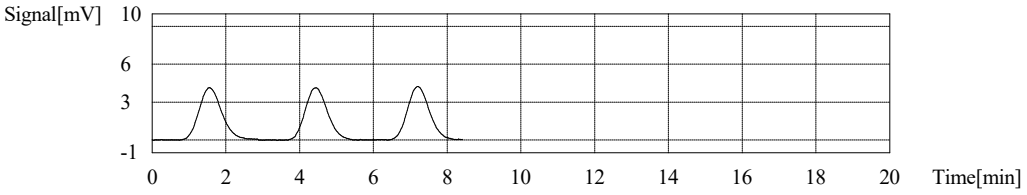


TOC-Control L Report

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.78	50uL	1.000	*******		6/21/2023 6:02:16 PM
2	17.59	50uL	1.000	*******		6/21/2023 6:05:16 PM
3	17.72	50uL	1.000	*******		6/21/2023 6:08:17 PM

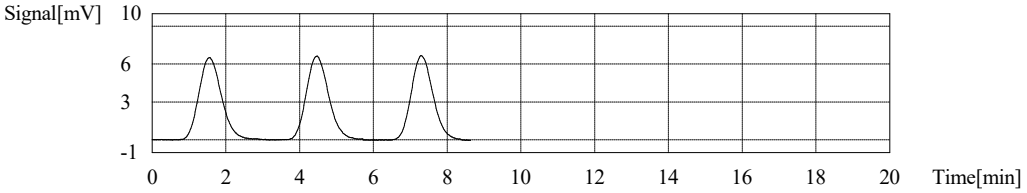
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 17.70



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	27.66	50uL	1.000	*******		6/21/2023 6:18:00 PM
2	27.76	50uL	1.000	*******		6/21/2023 6:21:02 PM
3	27.86	50uL	1.000	*******		6/21/2023 6:24:11 PM

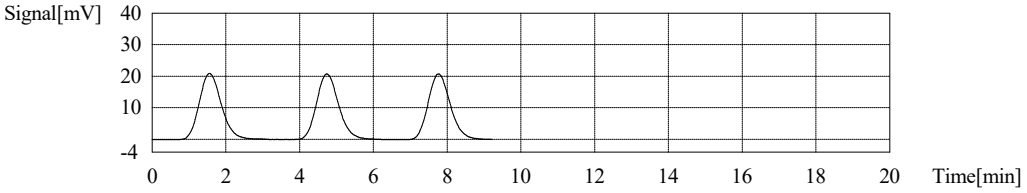
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 27.76



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	87.98	50uL	1.000	*******		6/21/2023 6:34:09 PM
2	87.22	50uL	1.000	*******		6/21/2023 6:37:26 PM
3	87.78	50uL	1.000	*******		6/21/2023 6:40:41 PM

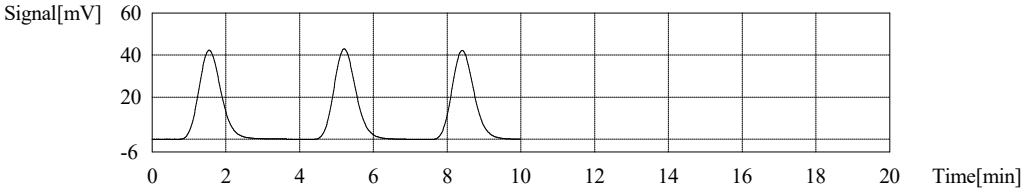
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 87.66



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	179.6	50uL	1.000	*******		6/21/2023 6:51:07 PM
2	180.8	50uL	1.000	*******		6/21/2023 6:54:35 PM
3	177.8	50uL	1.000	*******		6/21/2023 6:57:57 PM

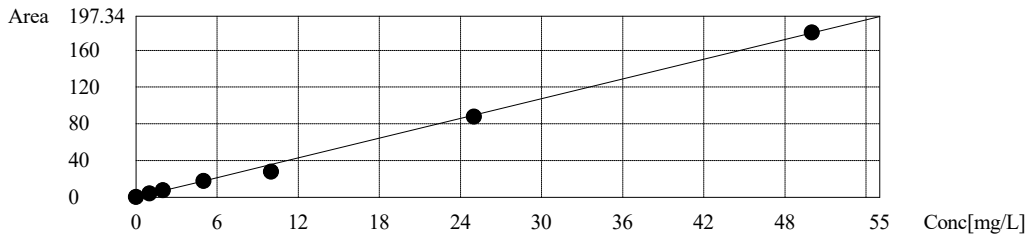
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 179.4



TOC-Control L Report

2023_06_21_002.tlx

Slope:	3.583
Intercept	0.000
r^2	0.9977
r	0.9989
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name:	ICV
Sample ID:	
Origin:	06_21_2023B.cal
Status	Completed
Chk. Result	

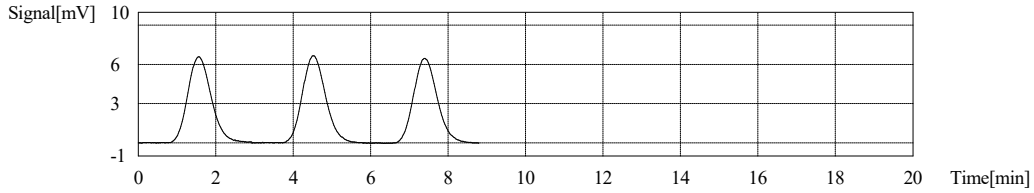
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.789mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.72	7.736mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:07:41 PM
2	28.05	7.829mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:10:48 PM
3	27.95	7.801mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:14:01 PM

Mean Area	27.91
Mean Conc.	7.789mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	06_21_2023B.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1521mg/L

1. Det

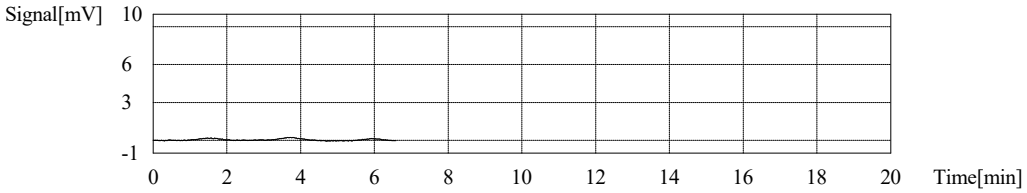
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4802	0.1340mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:23:00 PM
2	0.6284	0.1754mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:25:29 PM
3	0.5263	0.1469mg/L	50uL	1.000		06_21_2023B.2023_06_21_17_09_19.cal	6/21/2023 7:27:52 PM

TOC-Control L Report

2023_06_21_002.tlx

Mean Area	0.5450
Mean Conc.	0.1521mg/L



C:\TOC-L\Data\2023_06_30_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Unknown	NPOC	CCV		06_21_2023	1.000	NPOC:24.51mg/L	
2	Unknown	NPOC	CCB		06_21_2023	1.000	NPOC:0.09722mg/L	
3	Unknown	NPOC	MBLK-06302023		06_21_2023	1.000	NPOC:0.07931mg/L	
4	Unknown	NPOC	LCS-06302023		06_21_2023	1.000	NPOC:9.884mg/L	
5	Unknown	NPOC	LCSD-06302023		06_21_2023	1.000	NPOC:10.08mg/L	
6	Unknown	NPOC	HS23061899-01DF20	TOC_W	06_21_2023	1.000	NPOC:45.95mg/L	
7	Unknown	NPOC	HS23061988-01DF20		06_21_2023	1.000	NPOC:6.757mg/L	
8	Unknown	NPOC	HS23061988-02DF20		06_21_2023	1.000	NPOC:5.570mg/L	
9	Unknown	NPOC	HS23061988-03DF20		06_21_2023	1.000	NPOC:6.262mg/L	
10	Unknown	NPOC	HS23061988-04DF20		06_21_2023	1.000	NPOC:0.5681mg/L	
11	Unknown	NPOC	HS23061988-05DF20		06_21_2023	1.000	NPOC:0.6695mg/L	
12	Unknown	NPOC	HS23061988-06DF20		06_21_2023	1.000	NPOC:1.010mg/L	
13	Unknown	NPOC	CCV		06_21_2023	1.000	NPOC:23.83mg/L	
14	Unknown	NPOC	CCB		06_21_2023	1.000	NPOC:0.2771mg/L	
15	Unknown	NPOC	HS23060429-03		06_21_2023	1.000	NPOC:7.577mg/L	
16	Unknown	NPOC	HS23060429-03MS		06_21_2023	1.000	NPOC:18.06mg/L	
17	Unknown	NPOC	CCV		06_21_2023	1.000	NPOC:25.25mg/L	
18	Unknown	NPOC	CCB		06_21_2023	1.000	NPOC:0.2678mg/L	

	Status	Date / Time	Vial
1	Completed	6/30/2023 11:10:37	1
2	Completed	6/30/2023 11:23:49	2
3	Completed	6/30/2023 11:37:01	3
4	Completed	6/30/2023 11:53:21	4
5	Completed	6/30/2023 12:09:39	5
6	Completed	6/30/2023 12:26:02	6
7	Completed	6/30/2023 1:12:37	7
8	Completed	6/30/2023 1:28:25	8
9	Completed	6/30/2023 1:48:20	9
10	Completed	6/30/2023 2:02:42	10
11	Completed	6/30/2023 2:17:14	11
12	Completed	6/30/2023 2:32:00	12
13	Completed	6/30/2023 2:49:01	1
14	Completed	6/30/2023 3:02:47	2
15	Completed	6/30/2023 3:18:47	13
16	Completed	6/30/2023 3:35:31	14
17	Completed	6/30/2023 3:52:59	15
18	Completed	6/30/2023 4:06:55	2

TOC-Control L Report

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: CCV
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

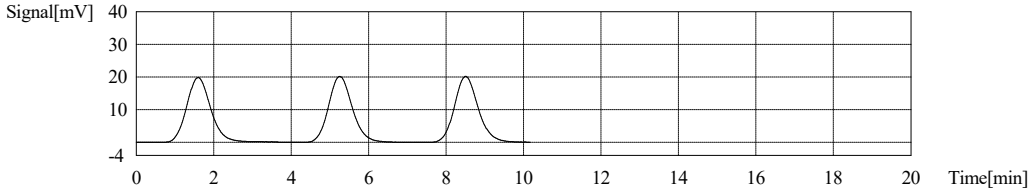
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.12	24.37mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:03:38 AM
2	86.43	24.46mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:07:07 AM
3	87.25	24.69mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:10:37 AM

Mean Area 86.60
Mean Conc. 24.51mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 06_21_2023B.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09722mg/L

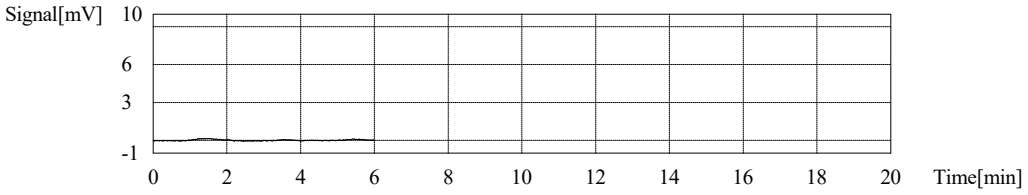
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6389	0.1808mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:19:32 AM
2	0.1526	0.04319mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:21:41 AM
3	0.2390	0.06764mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:23:49 AM

TOC-Control L Report

Mean Area 0.3435
Mean Conc. 0.09722mg/L



Sample

Sample Name: MBLK-06302023
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

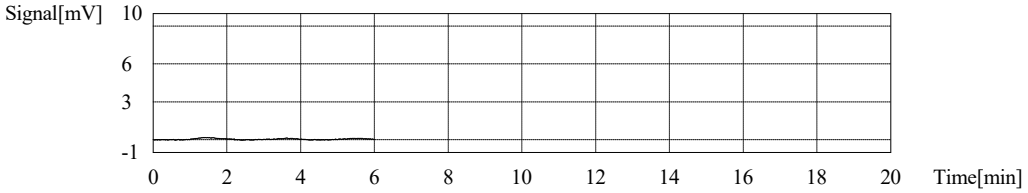
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07931mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5344	0.1512mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:32:46 AM
2	0.000	0.000mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:34:54 AM
3	0.3063	0.08669mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:37:01 AM

Mean Area 0.2802
Mean Conc. 0.07931mg/L



Sample

Sample Name: LCS-06302023
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.884mg/L

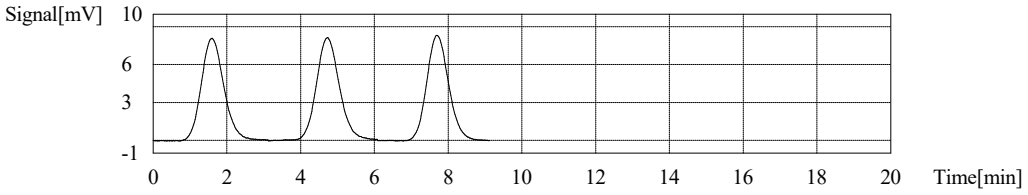
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.73	9.829mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:46:53 AM
2	35.12	9.939mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:50:04 AM
3	34.92	9.883mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 11:53:21 AM

TOC-Control L Report

Mean Area 34.92
Mean Conc. 9.884mg/L



Sample

Sample Name: LCSD-06302023
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

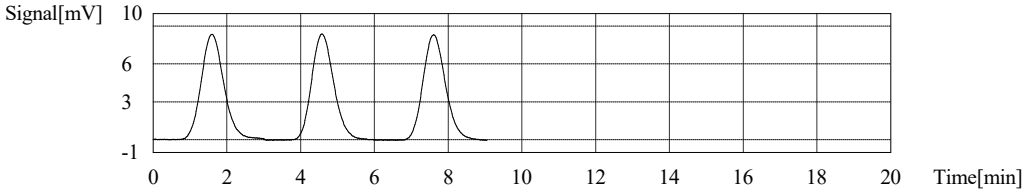
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.08mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.50	10.05mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 12:03:07 PM
2	35.52	10.05mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 12:06:23 PM
3	35.78	10.13mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 12:09:39 PM

Mean Area 35.60
Mean Conc. 10.08mg/L



Sample

Sample Name: HS23061899-01DF20
Sample ID: TOC_W
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:45.95mg/L

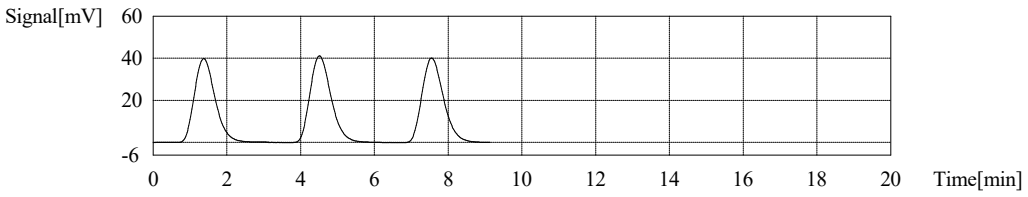
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	157.3	44.52mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 12:19:33 PM
2	165.1	46.73mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 12:22:50 PM
3	164.7	46.61mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 12:26:02 PM

TOC-Control L Report

Mean Area 162.4
Mean Conc. 45.95mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

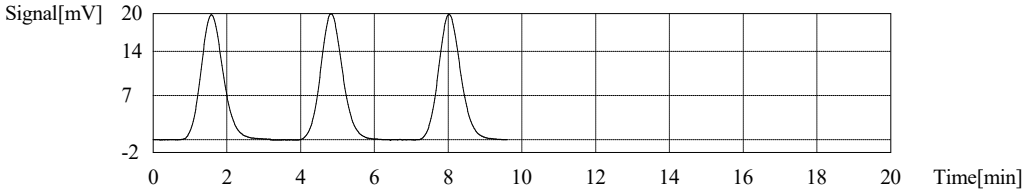
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.83mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.81	23.72mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 2:42:07 PM
2	84.29	23.86mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 2:45:37 PM
3	84.53	23.92mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 2:49:01 PM

Mean Area 84.21
Mean Conc. 23.83mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2771mg/L

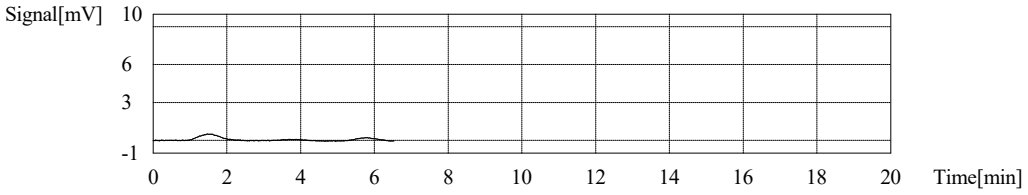
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.044	0.5785mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 2:58:09 PM
2	0.000	0.000mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:00:17 PM
3	0.8930	0.2527mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:02:47 PM

TOC-Control L Report

Mean Area 0.9790
Mean Conc. 0.2771mg/L



Sample

Sample Name: HS23060429-03
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

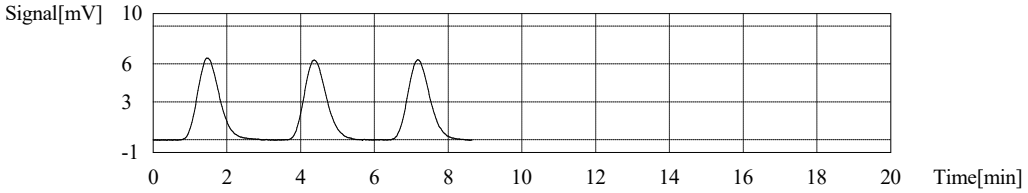
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.577mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.91	7.616mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:12:34 PM
2	26.58	7.523mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:15:34 PM
3	26.83	7.593mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:18:47 PM

Mean Area 26.77
Mean Conc. 7.577mg/L



Sample

Sample Name: HS23060429-03MS
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.06mg/L

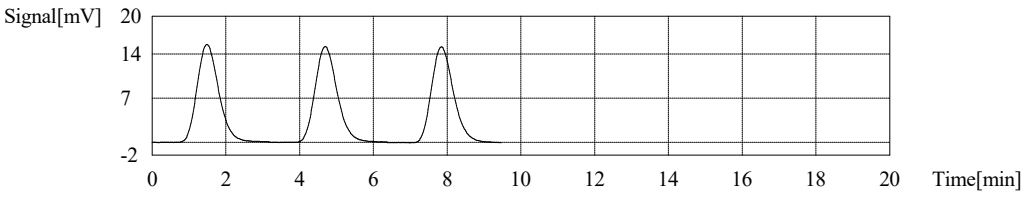
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.80	18.06mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:28:43 PM
2	63.82	18.06mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:32:11 PM
3	63.81	18.06mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:35:31 PM

TOC-Control L Report

Mean Area 63.81
Mean Conc. 18.06mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

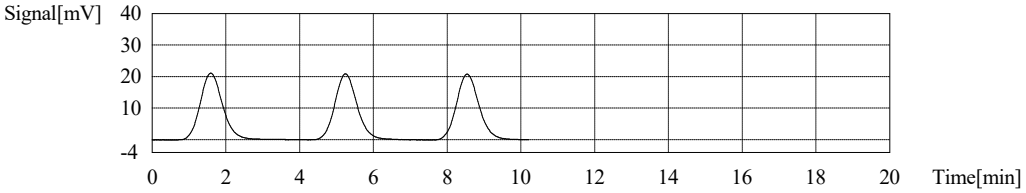
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.83	25.42mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:45:54 PM
2	88.46	25.04mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:49:28 PM
3	89.35	25.29mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 3:52:59 PM

Mean Area 89.21
Mean Conc. 25.25mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 06_21_2023B.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2678mg/L

1. Det

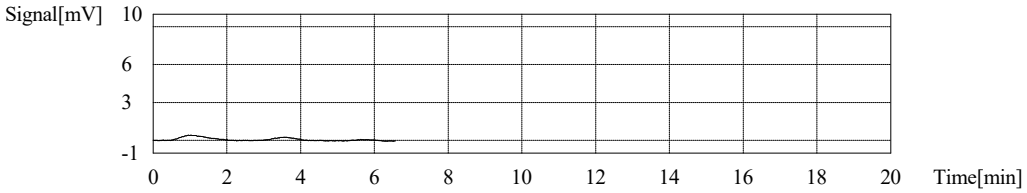
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.825	0.5165mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 4:01:54 PM
2	0.8796	0.2489mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 4:04:28 PM
3	0.1343	0.03801mg/L	50uL	1.000		06_21_2023B.2023_06_22_09_52_42.cal	6/30/2023 4:06:55 PM

TOC-Control L Report

2023_06_30_001.tlx

Mean Area	0.9463
Mean Conc.	0.2678mg/L



HS23061899-E2300617 Perchlorate Final Report IV

ALS WO# HS23061899

June 29, 2023 Service Request No:E2300617

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS23061899

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory June 28, 2023
For your reference, these analyses have been assigned our service request number **E2300617.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300617
Project:	HS23061899	**Date Received:**	06/28/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 03/07/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300317: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300617
Project: HS23061899

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300617-001	LH18/24-SP650_062723_AIX	6/27/2023	1300
E2300617-002	LH18/24-SP650_062723_BIX	6/27/2023	1300

Service Request Summary

Folder #: **E2300617**
Client Name: ALS Environmental - US
Project Name: HS23061899
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/28/23
Internal Due Date: 6/29/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061899
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300617-001	LH18/24-SP650_062723_AIX	Water	06/27/23 1300	**IV**
E2300617-002	LH18/24-SP650_062723_BIX	Water	06/27/23 1300	**IV**

Service Request Summary

Folder #: **E2300617**
Client Name: ALS Environmental - US
Project Name: HS23061899
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/28/23
Internal Due Date: 6/29/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061899
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L23-358	5/31/2025
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

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Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 22176

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23061899
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23061899-02**	**LH18/24-SP650_062723_AIX**	**Water**	**27 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			29 Jun 2023
2.	**HS23061899-03**	**LH18/24-SP650_062723_BIX**	**Water**	**27 Jun 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			29 Jun 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 6-28-23 1040

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 6-20-23 Initials: cy

Date/Time Logged in: 6-20-23 Initials cy

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ Courier (ALS) ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No
   Were they intact? ○ Yes ○ No ☒ N/A
   Were they signed and dated? ○ Yes ○ No ☒ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ○ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6-20-23	0940	cy	3.8	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300614-001	125_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300614-002	MW3_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300614-003	MW23_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
4	E2300614-004	MW9_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2300614-005	MW13_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
6	E2300614-006	CO2_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300614-007	18WW10_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300614-008	MW17_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300614-009	MW16_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300616-001	MW22_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300616-002	18CPTMW06_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2300616-003	129_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2300616-004	MW6_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2300616-005	MW21_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2300616-006	109_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2300617-001	LH18/24-SP650_062723_AIX	.01	6850/ClO4 DOD			Water	10mL	
17	E2300617-002	LH18/24-SP650_062723_BIX	.01	6850/ClO4 DOD			Water	10mL	
18	EQ2300317-01	MB		6850/ClO4			Liquid	10mL	
19	EQ2300317-02	LCS		6850/ClO4			Liquid	10mL	
20	EQ2300317-03	DLCS		6850/ClO4			Liquid	10mL	
21	EQ2300317-04	MW23_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
22	EQ2300317-05	MW23_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
23	EQ2300317-06	MW13_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2300317-07	MW13_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
25	K2307221-001	LGAC-INF-062623	.01	6850/ClO4			Water	10mL	
26	K2307221-002	LGAC-INT1-062623	.01	6850/ClO4			Water	10mL	
27	K2307221-003	LGAC-INT2-062623	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300317-02 1.00µL EQ2300317-02 1.00µL EQ2300317-03 1.00µL EQ2300317-03 1.00µL EQ2300317-04 1.00µL EQ2300317-05 1.00µL
EQ2300317-06 1.00µL EQ2300317-07 1.00µL

Preparation Information Benchsheet

Prep Run#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	227244	Logbook Ref:	Perchlorate Internal Standard	Expires On:	07/31/2023

E2300614-001	100.00µL	E2300614-002	100.00µL	E2300614-003	100.00µL	E2300614-004	100.00µL	E2300614-005	100.00µL	E2300614-006	100.00µL
E2300614-007	100.00µL	E2300614-008	100.00µL	E2300614-009	100.00µL	E2300616-001	100.00µL	E2300616-002	100.00µL	E2300616-003	100.00µL
E2300616-004	100.00µL	E2300616-005	100.00µL	E2300616-006	100.00µL	E2300617-001	100.00µL	E2300617-002	100.00µL	EQ2300317-01	100.00µL
EQ2300317-01	100.00µL	EQ2300317-02	100.00µL	EQ2300317-02	100.00µL	EQ2300317-03	100.00µL	EQ2300317-03	100.00µL	EQ2300317-04	100.00µL
EQ2300317-05	100.00µL	EQ2300317-06	100.00µL	EQ2300317-07	100.00µL	K2307221-001	100.00µL	K2307221-002	100.00µL	K2307221-003	100.00µL

Preparation Steps

Step: Preparation
Started: 6/28/23 11:04
Finished: 6/28/23 12:02
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	6/27/23 1300
Sample Matrix:	Water	**Date Received:**	6/28/23
Sample Name:	LH18/24-SP650_062723_AIX	**Units:**	µg/L
Lab Code:	E2300617-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2.58**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:36	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	6/27/23 1300
Sample Matrix:	Water	**Date Received:**	6/28/23
Sample Name:	LH18/24-SP650_062723_BIX	**Units:**	µg/L
Lab Code:	E2300617-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2540**		10.0	5.00	2.50	100	6/28/23	6/28/23 15:14	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300317-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:19	422284	809096	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
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www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061899
Sample Matrix: Water

Service Request: E2300617
Date Analyzed: 6/28/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 422284

	Lab Control Sample EQ2300317-02			Duplicate Lab Control Sample EQ2300317-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.110	0.100	110	0.104	0.100	104	84 - 119	5	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.110**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:24	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.104**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:30	422284	809096	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230623-808638

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/23/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300010

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	PERCHLORATE1		20230623-002	Perchlorate6850c.lcm	1x	227245	6/23/2023 14:23
2	PERCHLORATE2		20230623-003	Perchlorate6850c.lcm	1x	227246	6/23/2023 14:28
3	PERCHLORATE3		20230623-004	Perchlorate6850c.lcm	1x	227247	6/23/2023 14:34
4	PERCHLORATE4		20230623-005	Perchlorate6850c.lcm	1x	227248	6/23/2023 14:39
5	PERCHLORATE5		20230623-006	Perchlorate6850c.lcm	1x	227249	6/23/2023 14:45
6	PERCHLORATE6		20230623-007	Perchlorate6850c.lcm	1x	227250	6/23/2023 14:50
7	PERCHLORATE7		20230623-008	Perchlorate6850c.lcm	1x	227251	6/23/2023 14:56
8	PERCHLORATE8		20230623-009	Perchlorate6850c.lcm	1x	227252	6/23/2023 15:01
9	PERCHLORATE9		20230623-010	Perchlorate6850c.lcm	1x	227253	6/23/2023 15:07
10	PERCHLORATE10		20230623-011	Perchlorate6850c.lcm	1x	227254	6/23/2023 15:13
11	PERCHLORATEICV		20230623-012	Perchlorate6850c.lcm	1x	227256	6/23/2023 15:18
12	LODV		20230623-013	Perchlorate6850c.lcm	1x	227501	6/23/2023 15:24
13	IB		20230623-014	Perchlorate6850c.lcm	1x		6/23/2023 15:29
14	ICS		20230623-015	Perchlorate6850c.lcm	1x	32103024	6/23/2023 15:35
15	CCV		20230623-016	Perchlorate6850c.lcm	1x	227251	6/23/2023 15:41
16	EQ2300301-01		20230623-017	Perchlorate6850c.lcm	1x		6/23/2023 15:46
17	EQ2300301-02		20230623-018	Perchlorate6850c.lcm	1x	DNU-RR	6/23/2023 15:52
18	EQ2300301-03		20230623-019	Perchlorate6850c.lcm	1x		6/23/2023 16:09
19	E2300548-001		20230623-020	Perchlorate6850c.lcm	1x		6/23/2023 16:03
20	E2300548-002		20230623-021	Perchlorate6850c.lcm	1x		6/23/2023 16:14
21	E2300548-003		20230623-022	Perchlorate6850c.lcm	1x	DNU-IS	6/23/2023 16:20
22	EQ2300301-04		20230623-023	Perchlorate6850c.lcm	1x	DNU-RR	6/23/2023 16:25
23	EQ2300301-05		20230623-024	Perchlorate6850c.lcm	1x	DNU-RR	6/23/2023 16:31
24	E2300549-001		20230623-025	Perchlorate6850c.lcm	1x	227251	6/23/2023 16:36
25	E2300549-002		20230623-026	Perchlorate6850c.lcm	1x	DNU-RR	6/23/2023 16:42
26	CCV		20230623-027	Perchlorate6850c.lcm	1x	227251	6/23/2023 16:47
27	E2300549-003		20230623-028	Perchlorate6850c.lcm	1x		6/23/2023 16:53
28	E2300549-004		20230623-029	Perchlorate6850c.lcm	1x		6/23/2023 16:58
29	E2300557-001		20230623-030	Perchlorate6850c.lcm	1x		6/23/2023 17:04
30	E2300559-001		20230623-031	Perchlorate6850c.lcm	1000x		6/23/2023 17:10
31	E2300559-002		20230623-032	Perchlorate6850c.lcm	500x		6/23/2023 17:15
32	E2300559-003		20230623-033	Perchlorate6850c.lcm	1000x		6/23/2023 17:21
33	E2300559-004		20230623-034	Perchlorate6850c.lcm	1x		6/23/2023 17:26
34	E2300559-005		20230623-035	Perchlorate6850c.lcm	10x		6/23/2023 17:32
35	E2300559-006		20230623-036	Perchlorate6850c.lcm	10x		6/23/2023 17:37
36	K2306641-001		20230623-037	Perchlorate6850c.lcm	1x		6/23/2023 17:43
37	CCV		20230623-038	Perchlorate6850c.lcm	1x	227251	6/23/2023 17:48

20230623-808638

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/23/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300010

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	K2306641-002		20230623-039	Perchlorate6850c.lcm	1x		6/23/2023 17:54
39	K2306641-003		20230623-040	Perchlorate6850c.lcm	1x		6/23/2023 17:59
40	K2306921-001		20230623-041	Perchlorate6850c.lcm	1x	DNU-IS	6/23/2023 18:05
41	K2306921-002		20230623-042	Perchlorate6850c.lcm	1x		6/23/2023 18:11
42	K2306921-003		20230623-043	Perchlorate6850c.lcm	1x	DNU-IS	6/23/2023 18:16
43	E2300548-003		20230623-044	Perchlorate6850c.lcm	1x		6/23/2023 18:22
44	EQ2300301-02		20230623-045	Perchlorate6850c.lcm	1x		6/23/2023 18:27
45	CCV		20230623-049	Perchlorate6850c.lcm	1x	227251	6/23/2023 18:49

Initial Calibration - Detailed Report

Calibration ID: EC2300010 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300010-01	PERCHLORATE1	20230623-002	06/23/2023 14:23
02	EC2300010-02	PERCHLORATE2	20230623-003	06/23/2023 14:28
03	EC2300010-03	PERCHLORATE3	20230623-004	06/23/2023 14:34
04	EC2300010-04	PERCHLORATE4	20230623-005	06/23/2023 14:39
05	EC2300010-05	PERCHLORATE5	20230623-006	06/23/2023 14:45
06	EC2300010-06	PERCHLORATE6	20230623-007	06/23/2023 14:50
07	EC2300010-07	PERCHLORATE7	20230623-008	06/23/2023 14:56
08	EC2300010-08	PERCHLORATE8	20230623-009	06/23/2023 15:01
09	EC2300010-09	PERCHLORATE9	20230623-010	06/23/2023 15:07
10	EC2300010-10	PERCHLORATE10	20230623-011	06/23/2023 15:13

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 8.061** **Average RF = 0.1579**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1838	02	0.5000	0.1777	03	0.7000	0.1443	04	1.0000	0.1544
05	2.0000	0.1586	06	5.0000	0.1522	07	10.0000	0.1523	08	20.0000	0.154
09	30.0000	0.1479	10	50.0000	0.1539						

Analyte

Perchlorate RSE = 8.06

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.116	16.4	02	0.5000	0.563	12.6	03	0.7000	0.640	-8.6
04	1.0000	0.978	-2.2	05	2.0000	2.01	0.4	06	5.0000	4.82	-3.6
07	10.0000	9.64	-3.6	08	20.0000	19.5	-2.5	09	30.0000	28.1	-6.3
10	50.0000	48.7	-2.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300010	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230623-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300010-11	T	Average RF	10	9.670	ng/mL	-3.3	<= 15

Insight Report

Printed at 6/26/2023 9:45:37 AM

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Project File: I:\LCMS01\DATA\20230623\20230623.damlp

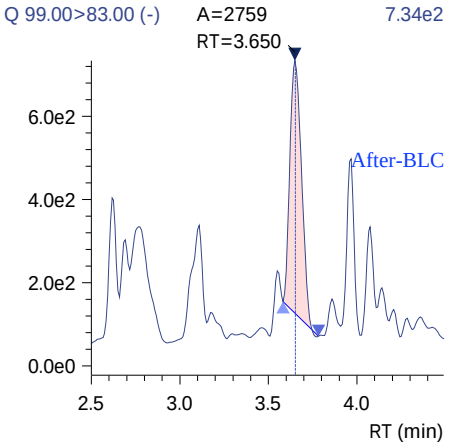
PERCHLORATE1

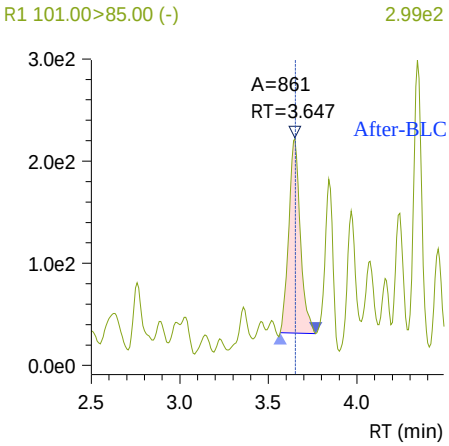
Sample ID: PERCHLORATE1
Date Acquired: 6/23/2023 2:23:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.650	2759	150098	0.1164	ng/mL	101.00 >85.00	31.22	25.05-46.52
Sodium Perchlorate-18O4 _IS	Auto	3.649	1500 98	150098	1.0000	ng/mL	----	----	

Perchlorate

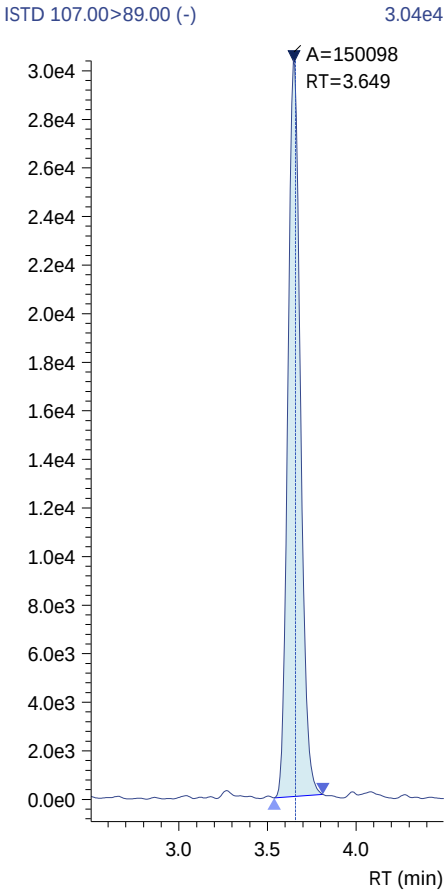
Conc 0.1164
R#1 31.22 (35.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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Project File: I:\LCMS01\DATA\20230623\20230623.damlp

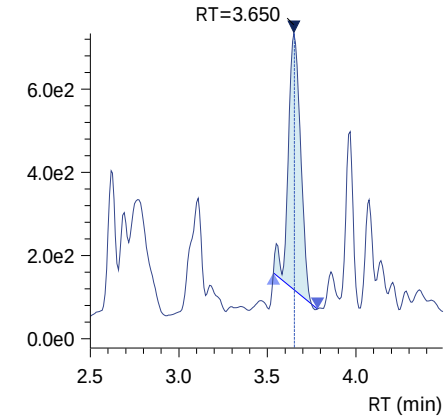
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 6/23/2023 2:23:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

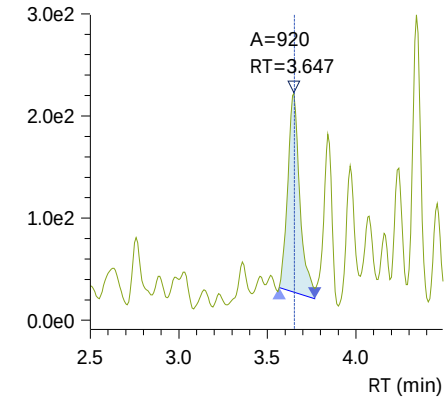
Perchlorate

Conc 0.1244
R#1 30.91 (35.79)

Q 99.00>83.00 (-) A=2976 7.34e2



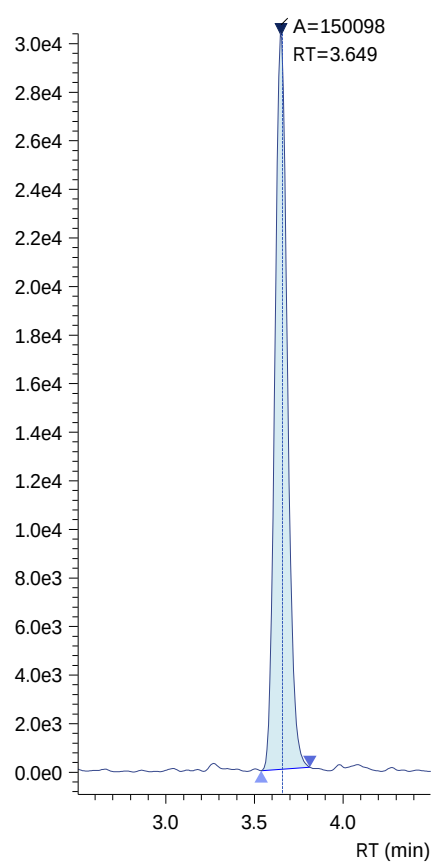
R1 101.00>85.00 (-) 2.99e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.04e4



Insight Report

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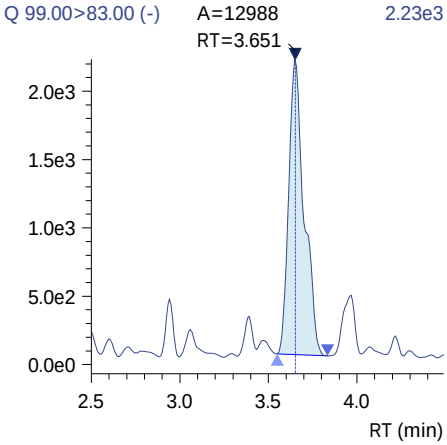
PERCHLORATE2

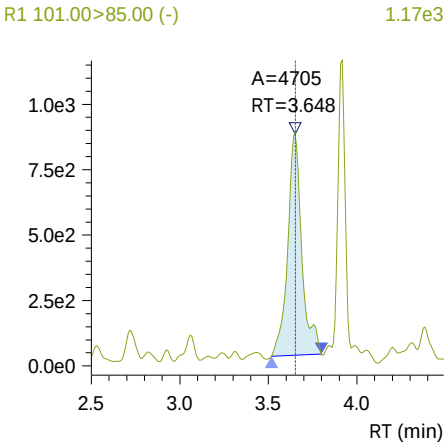
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Date Acquired: 6/23/2023 2:28:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.651	12988	146157	0.5627	ng/mL	101.00 >85.00	36.23	25.05-46.52
Sodium Perchlorate-18O4 _IS	Auto	3.648	1461 57	146157	1.0000	ng/mL	----	----	

Perchlorate

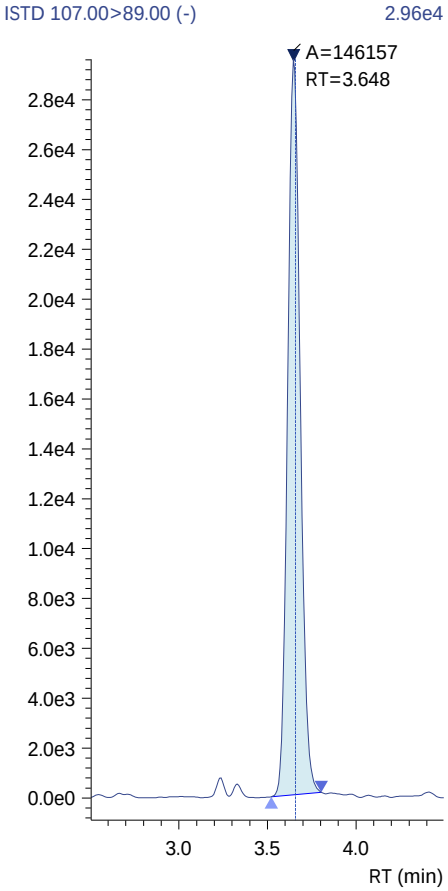
Conc 0.5627
R#1 36.23 (35.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

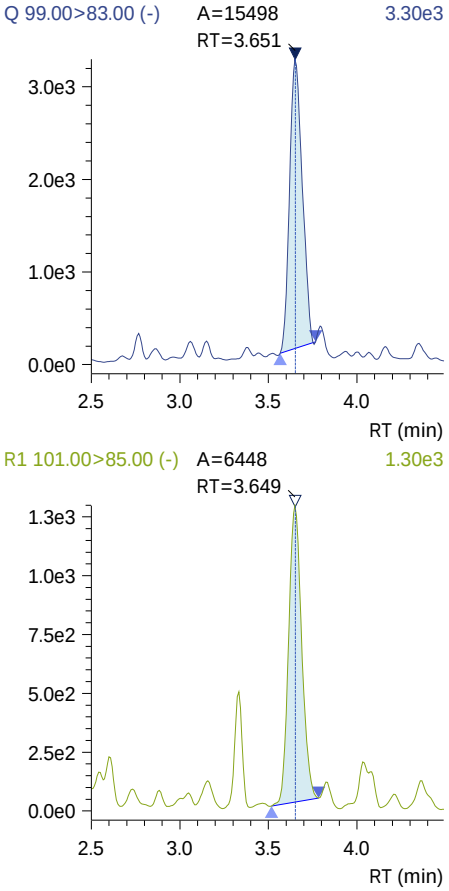
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 6/23/2023 2:34:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.651	15498	153437	0.6397	ng/mL	101.00 >85.00	41.61	25.05-46.52
Sodium Perchlorate-18O4 _IS	Auto	3.648	1534 37	153437	1.0000	ng/mL	----	----	

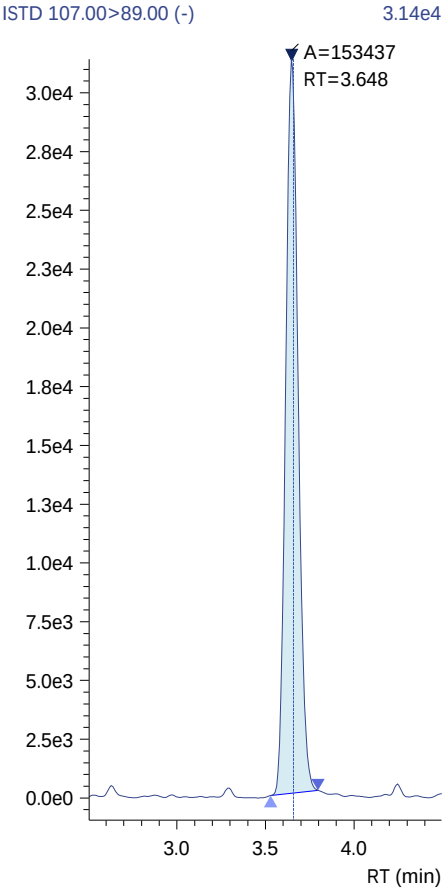
Perchlorate

Conc 0.6397
R#1 41.61 (35.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

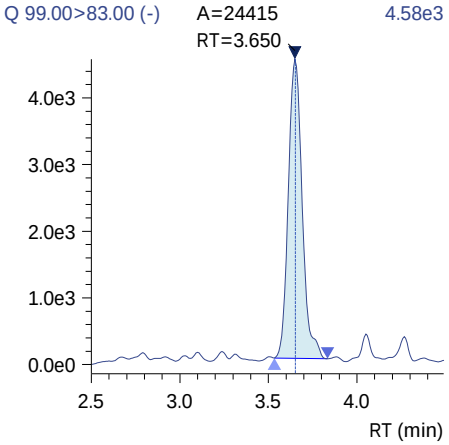
PERCHLORATE4

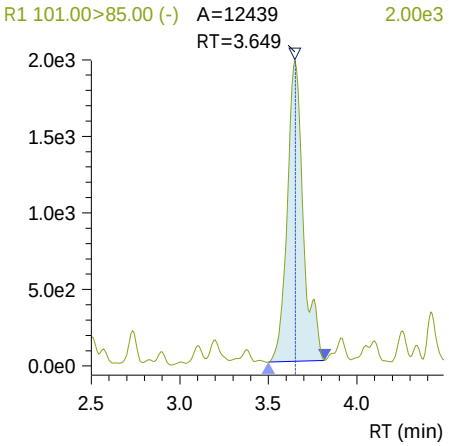
Sample ID: PERCHLORATE4
Date Acquired: 6/23/2023 2:39:41 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.650	24415	158135	0.9778	ng/mL	101.00 >85.00	50.95	25.05-46.52
Sodium Perchlorate-18O4 _IS	Auto	3.647	158135	158135	1.0000	ng/mL	----	----	

Perchlorate

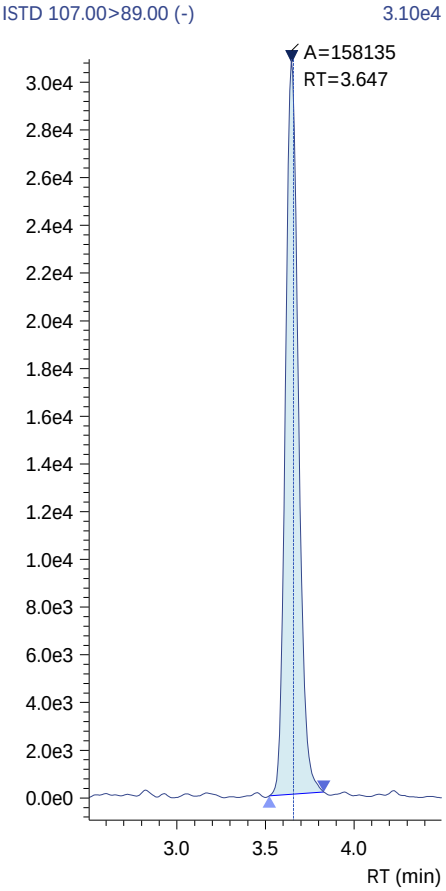
Conc 0.9778
R#1 50.95 (35.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

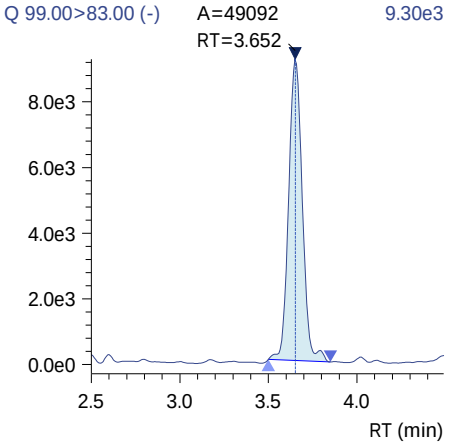
PERCHLORATE5

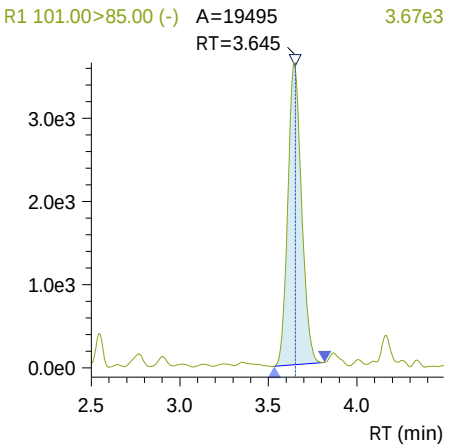
Sample ID: PERCHLORATE5
Date Acquired: 6/23/2023 2:45:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.652	49092	154771	2.0088	ng/mL	101.00 >85.00	39.71	25.05-46.52
Sodium Perchlorate-18O4 _IS	Auto	3.647	154771	154771	1.0000	ng/mL	----	----	

Perchlorate

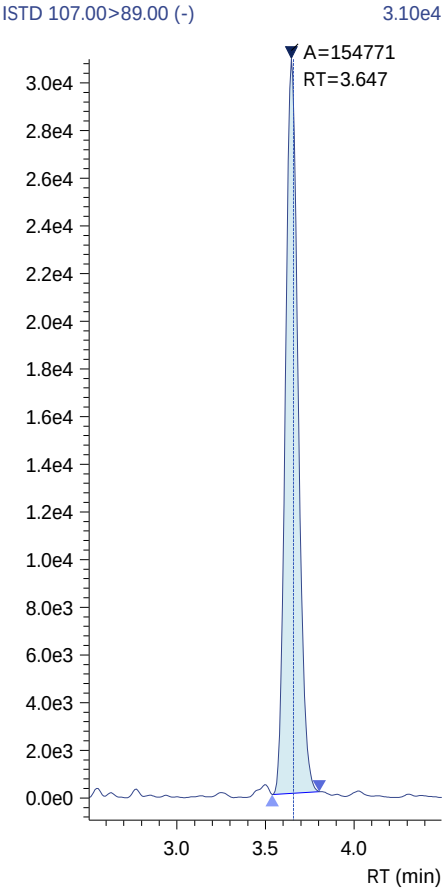
Conc 2.0088
R#1 39.71 (35.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

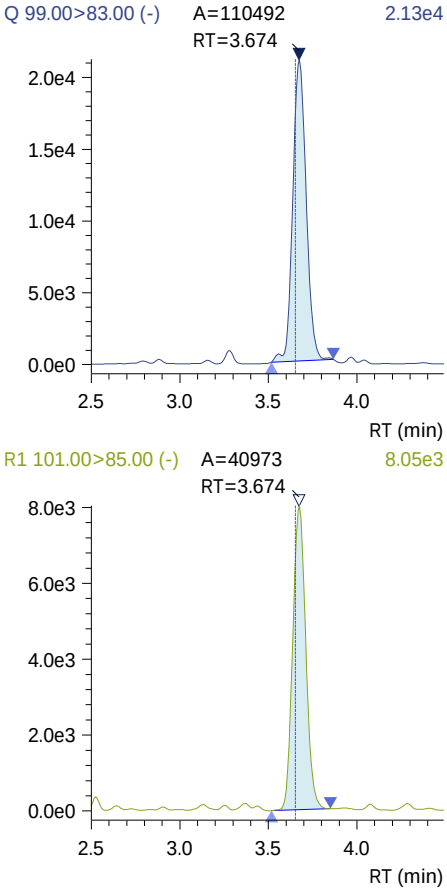
PERCHLORATE6

Sample ID: PERCHLORATE6
Date Acquired: 6/23/2023 2:50:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.674	110492	145205	4.8190	ng/mL	101.00 >85.00	37.08	25.05-46.52
Sodium Perchlorate-18O4_IS	Auto	3.670	145205	145205	1.0000	ng/mL	----	----	

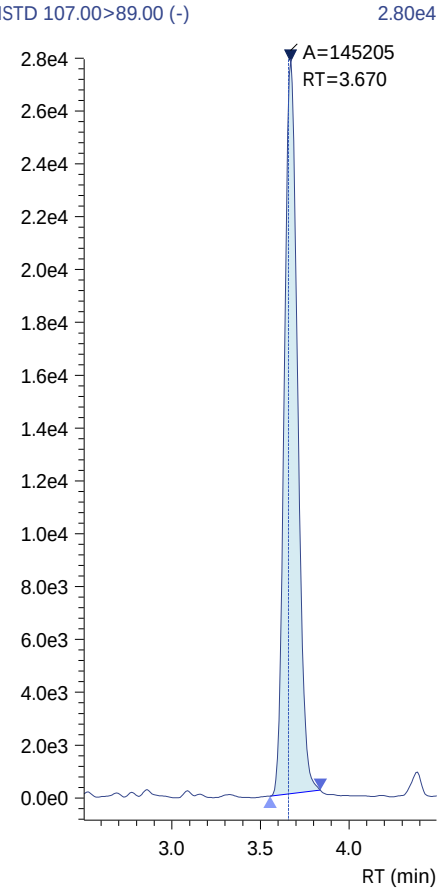
Perchlorate

Conc 4.8190
R#1 37.08 (35.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

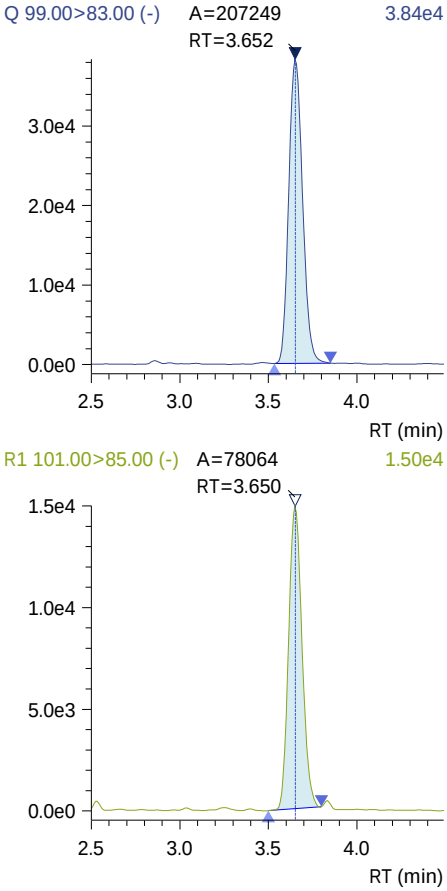
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 6/23/2023 2:56:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.652	2072 49	136114	9.6427	ng/mL	101.00 >85.00	37.67	25.05-46.52
Sodium Perchlorate-18O4 _IS	Auto	3.648	1361 14	136114	1.0000	ng/mL	----	----	

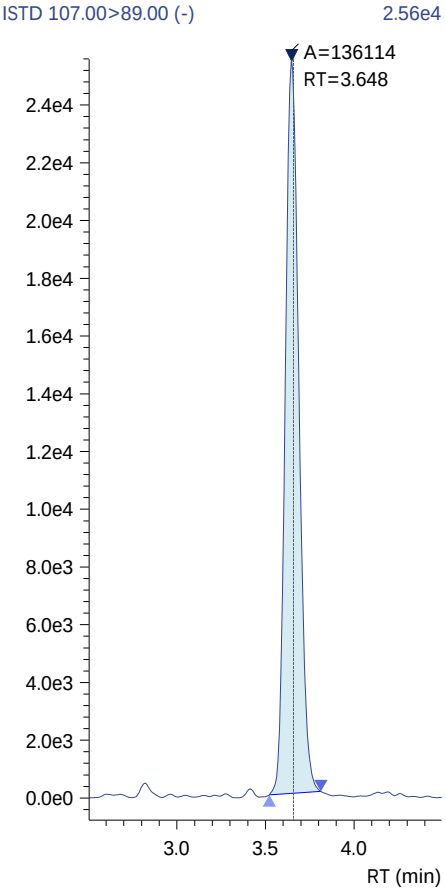
Perchlorate

Conc 9.6427
R#1 37.67 (35.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

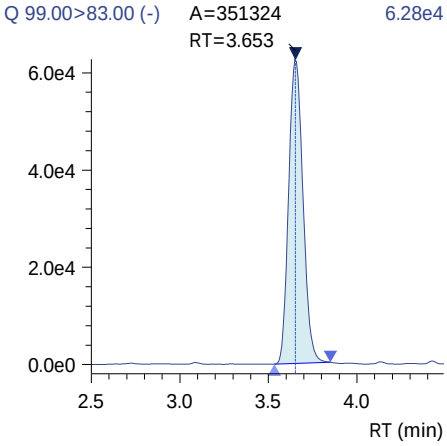
PERCHLORATE8

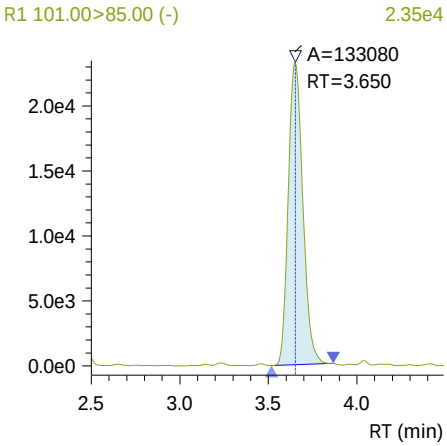
Sample ID: PERCHLORATE8
Date Acquired: 6/23/2023 3:01:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.653	3513 24	114068	19.50 54	ng/mL	101.00 >85.00	37.88	25.05-46.52
Sodium Perchlorate-18O4 _IS	Auto	3.647	1140 68	114068	1.0000	ng/mL	----	----	

Perchlorate

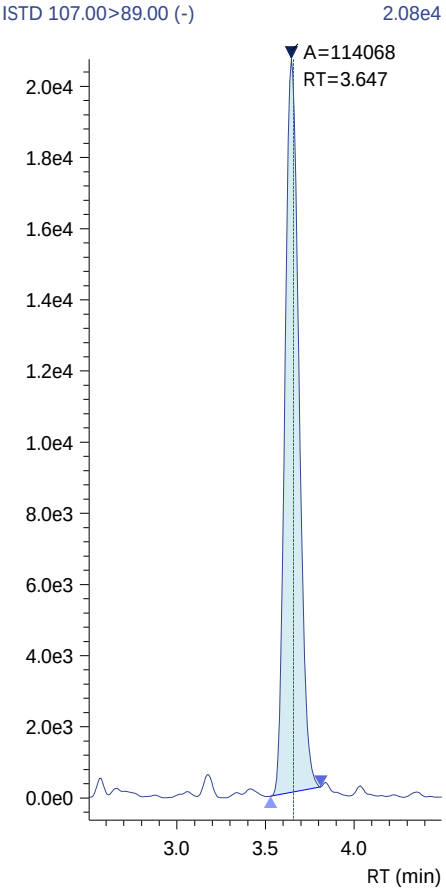
Conc 19.5054
R#1 37.88 (35.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

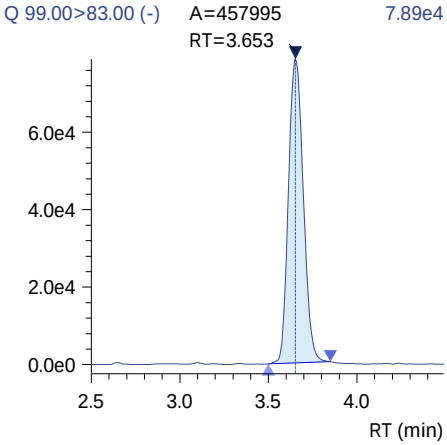
PERCHLORATE9

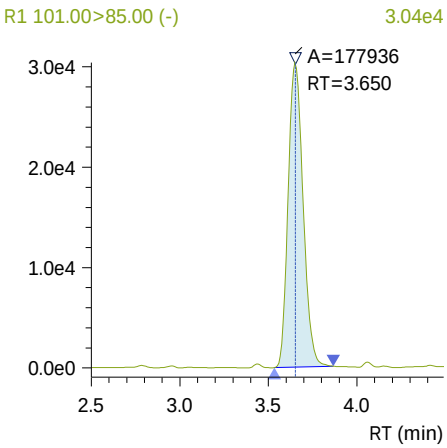
Sample ID: PERCHLORATE9
Date Acquired: 6/23/2023 3:07:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.653	457995	103207	28.1035	ng/mL	101.00 >85.00	38.85	25.05-46.52
Sodium Perchlorate-18O4_IS	Auto	3.650	103207	103207	1.0000	ng/mL	----	----	

Perchlorate

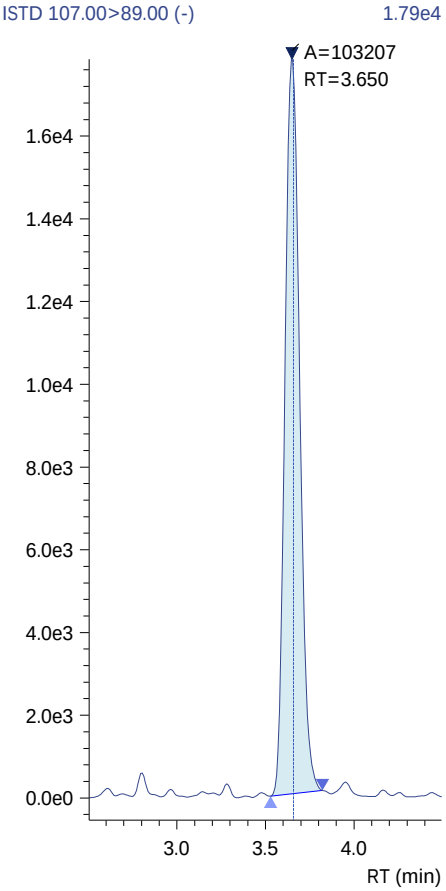
Conc 28.1035
R#1 38.85 (35.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

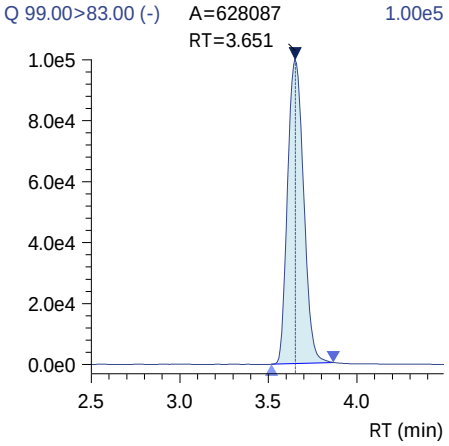
PERCHLORATE10

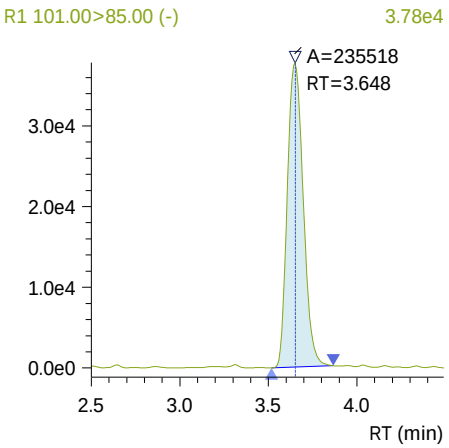
Sample ID: PERCHLORATE10
Date Acquired: 6/23/2023 3:13:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.651	6280 87	81644	48.71 99	ng/mL	101.00 >85.00	37.50	25.05-46.52
Sodium Perchlorate-18O4_IS	Auto	3.645	81644	81644	1.0000	ng/mL	----	----	

Perchlorate

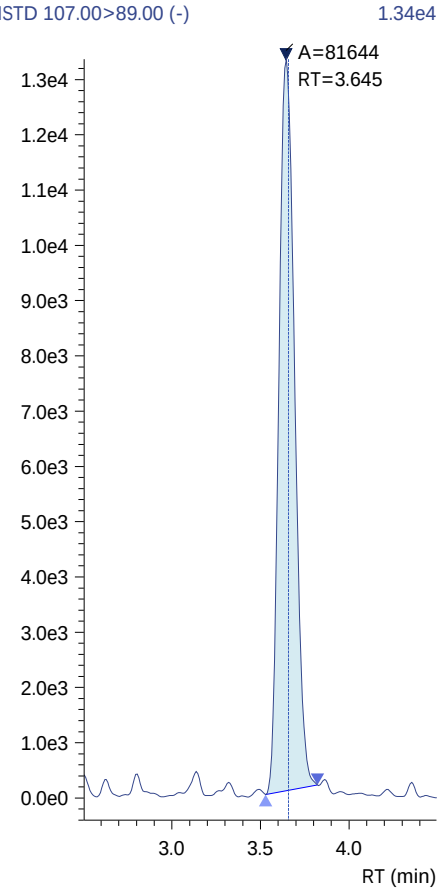
Conc 48.7199
R#1 37.50 (35.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/26/2023 9:45:37 AM

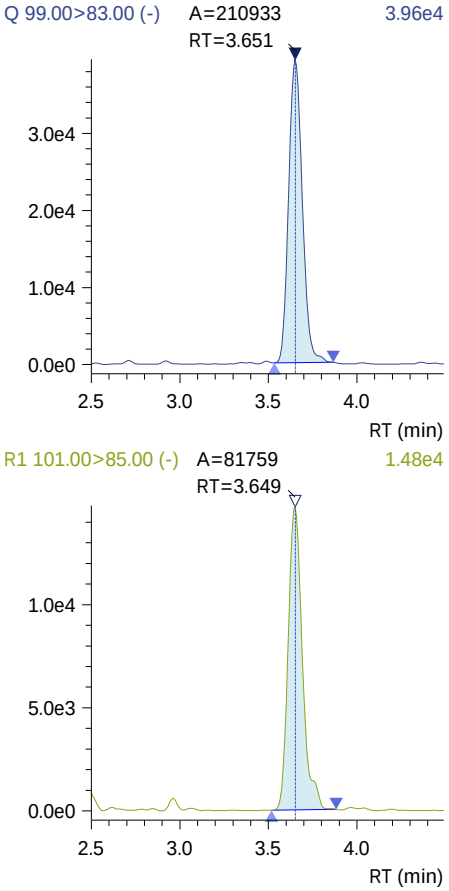
PERCHLORATEICV

Sample ID: PERCHLORATEICV
Date Acquired: 6/23/2023 3:18:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230623\20230623-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.651	210933	138145	9.6698	ng/mL	101.00 >85.00	38.76	25.05-46.52
Sodium Perchlorate-18O4_IS	Auto	3.646	138145	138145	1.0000	ng/mL	----	----	

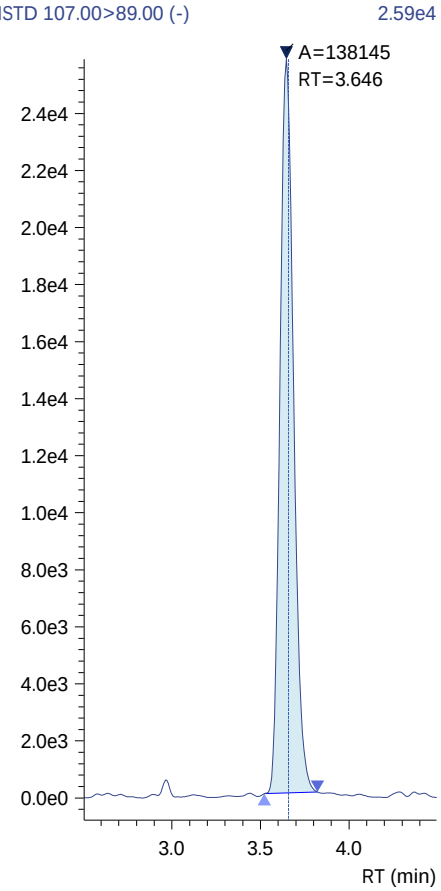
Perchlorate

Conc 9.6698
R#1 38.76 (35.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230628-809096

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/23/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300010

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230628-001	Perchlorate6850c.lcm	1x		6/28/2023 11:41
2	LODV		20230628-002	Perchlorate6850c.lcm	1x	227501	6/28/2023 11:47
3	ICS		20230628-003	Perchlorate6850c.lcm	1x	32103024	6/28/2023 13:39
4	CCV		20230628-004	Perchlorate6850c.lcm	1x	227251	6/28/2023 13:45
5	EQ2300317-01		20230628-005	Perchlorate6850c.lcm	1x		6/28/2023 14:19
6	EQ2300317-02		20230628-006	Perchlorate6850c.lcm	1x		6/28/2023 14:24
7	EQ2300317-03		20230628-007	Perchlorate6850c.lcm	1x		6/28/2023 14:30
8	E2300617-001		20230628-008	Perchlorate6850c.lcm	1x		6/28/2023 14:36
9	E2300617-002		20230628-009	Perchlorate6850c.lcm	1x	DNU-D	6/28/2023 14:42
10	K2307221-001		20230628-010	Perchlorate6850c.lcm	1x		6/28/2023 14:47
11	K2307221-002		20230628-011	Perchlorate6850c.lcm	1x		6/28/2023 14:53
12	K2307221-003		20230628-012	Perchlorate6850c.lcm	1x		6/28/2023 15:04
13	E2300617-002		20230628-013	Perchlorate6850c.lcm	100x		6/28/2023 15:14
14	CCV		20230628-014	Perchlorate6850c.lcm	1x	227251	6/28/2023 15:20

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Analyzed:**	6/28/23 13:45

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230628\20230628-004	**Lab Code:**	EQ2300318-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809096
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	134,284	3.65
	Upper Limit ==>	201,426	5.65
	Lower Limit ==>	67,142	1.65
Associated Analyses			
Continuing Calibration Verification	EQ2300318-01	128,901	3.61
Method Blank	EQ2300317-01	189,749	3.60
Lab Control Sample	EQ2300317-02	188,582	3.61
Duplicate Lab Control Sample	EQ2300317-03	184,608	3.61
LH18/24-SP650_062723_AIX	E2300617-001	192,120	3.61
LH18/24-SP650_062723_BIX	E2300617-002	133,779	3.61

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300617
Project:	HS23061899	**Date Analyzed:**	6/28/23 15:20

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230628\20230628-014	**Lab Code:**	EQ2300318-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809096
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	134,284	3.65
	Upper Limit ==>	201,426	5.65
	Lower Limit ==>	67,142	1.65
Associated Analyses			
Continuing Calibration Verification	EQ2300318-02	148,210	3.62

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061899

Service Request: E2300617
Date Analyzed: 6/28/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230628\20230628-004

Calibration Date: 6/23/23
Calibration ID: EC2300010
Analysis Lot: 809096
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.92	0.1579	0.1566	-0.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061899

Service Request: E2300617
Date Analyzed: 6/28/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230628\20230628-014

Calibration Date: 6/23/23
Calibration ID: EC2300010
Analysis Lot: 809096
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.5	0.1579	0.1665	5.4	NA	± 15 %	Average RF

Insight Report

Printed at 6/28/2023 4:13:03 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

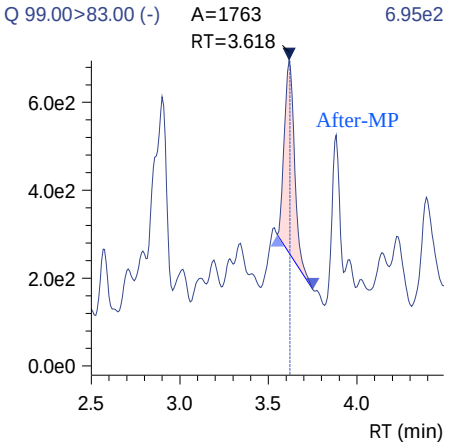
LODV

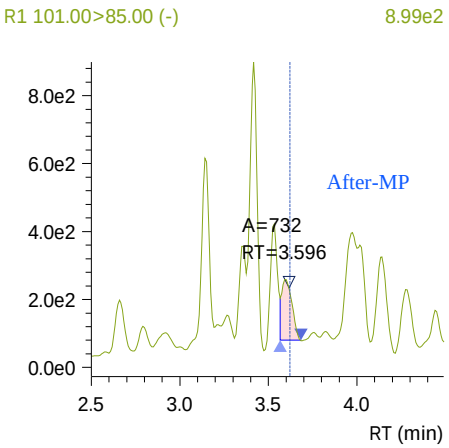
Sample ID: LODV
Date Acquired: 6/28/2023 11:47:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.618	1763	198982	0.0561	ng/mL	101.00 >85.00	41.50	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.608	198982	198982	1.0000	ng/mL	----	----	

Perchlorate

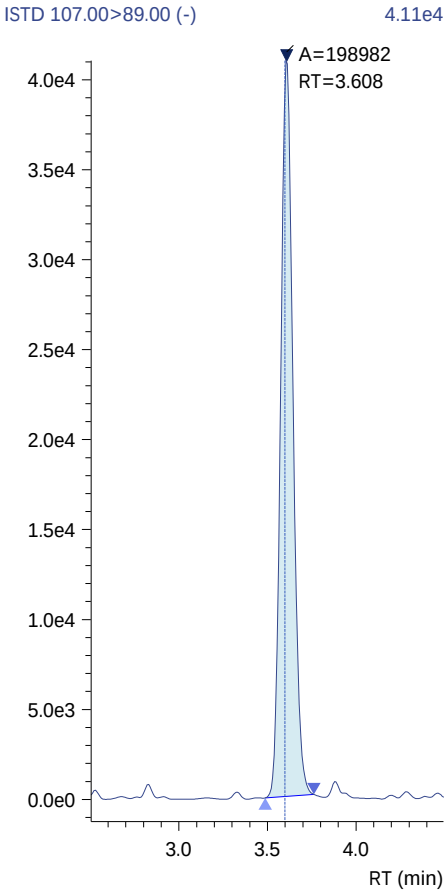
Conc 0.0561
R#1 41.50 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:15:08 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

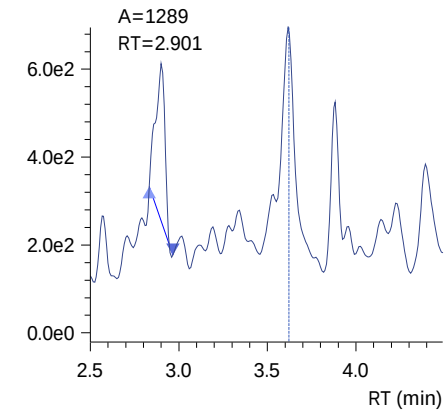
LODV

Sample ID: LODV
Date Acquired: 6/28/2023 11:47:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

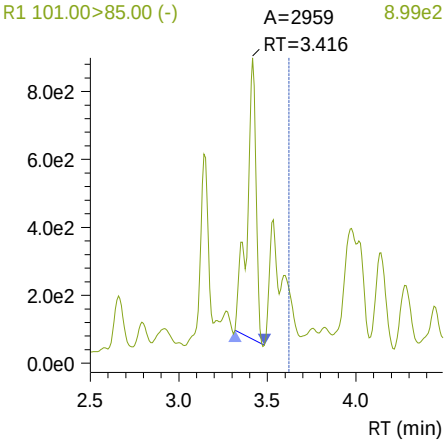
Perchlorate

Conc ----
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 6.95e2



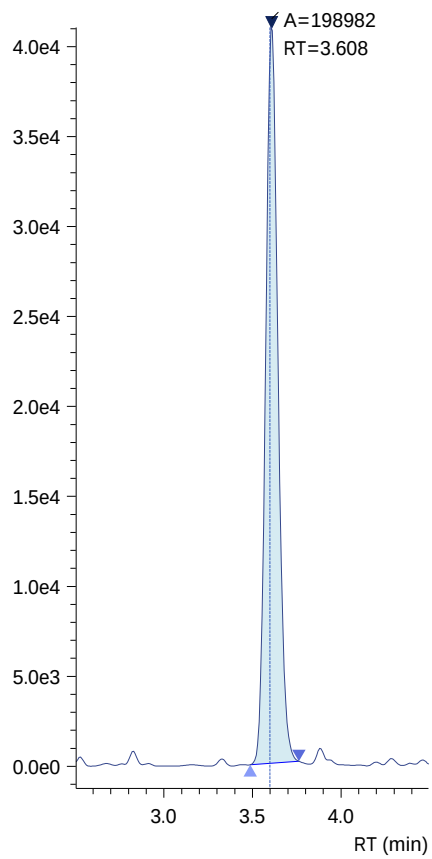
R1 101.00>85.00 (-) 8.99e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.11e4



Insight Report

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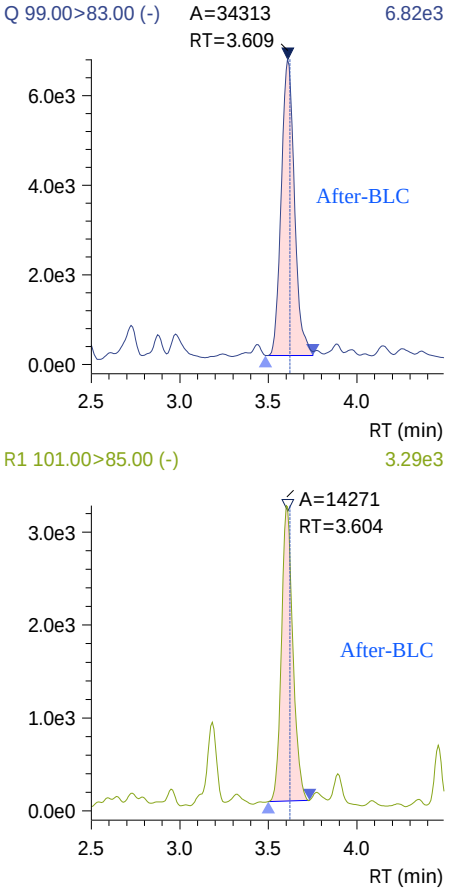
ICS

Sample ID: ICS
Date Acquired: 6/28/2023 1:39:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.609	34313	194688	1.1162	ng/mL	101.00 >85.00	41.59	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.606	194688	194688	1.0000	ng/mL	----	----	

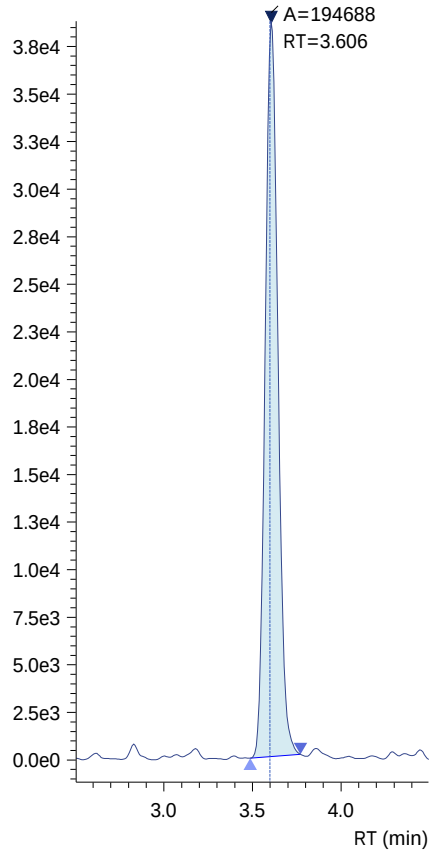
Perchlorate

Conc 1.1162
R#1 41.59 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

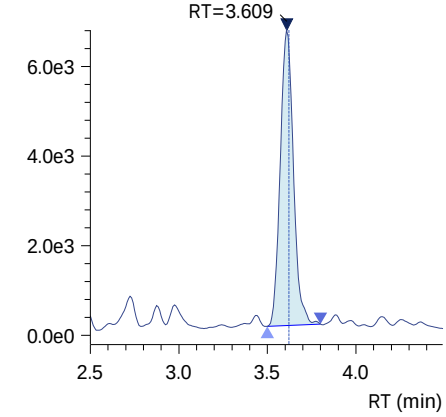
ICS

Sample ID: ICS
Date Acquired: 6/28/2023 1:39:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

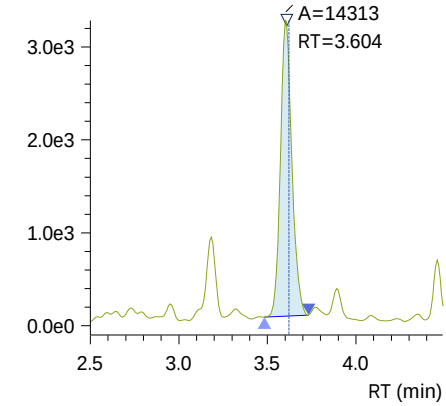
Perchlorate

Conc 1.1008
R#1 41.91 (32.02)

Q 99.00>83.00 (-) A=34151 6.82e3



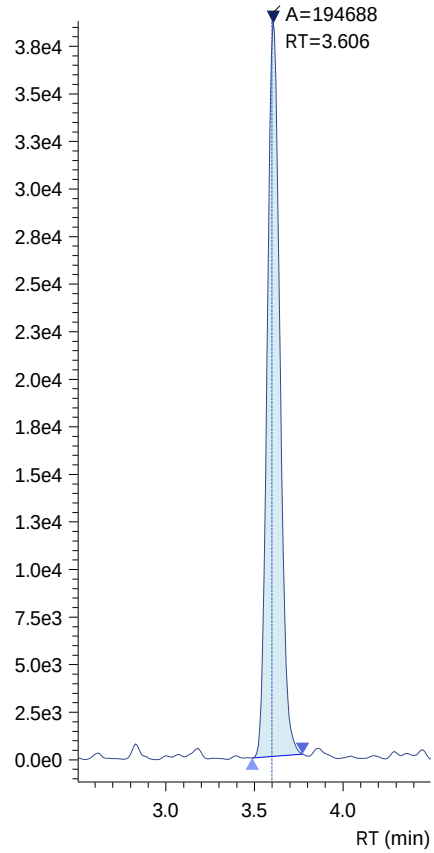
R1 101.00>85.00 (-) 3.29e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.88e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

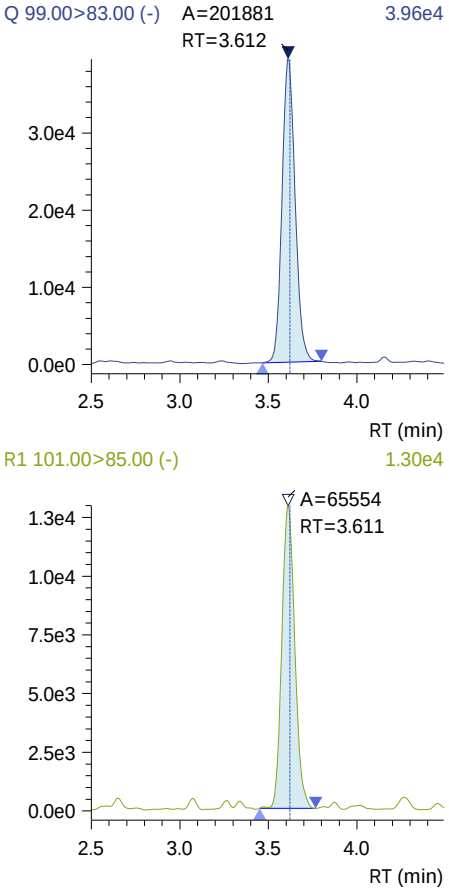
CCV

Sample ID: CCV
Date Acquired: 6/28/2023 1:45:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.612	201881	128901	9.9186	ng/mL	101.00 >85.00	32.47	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.609	128901	128901	1.0000	ng/mL	----	----	

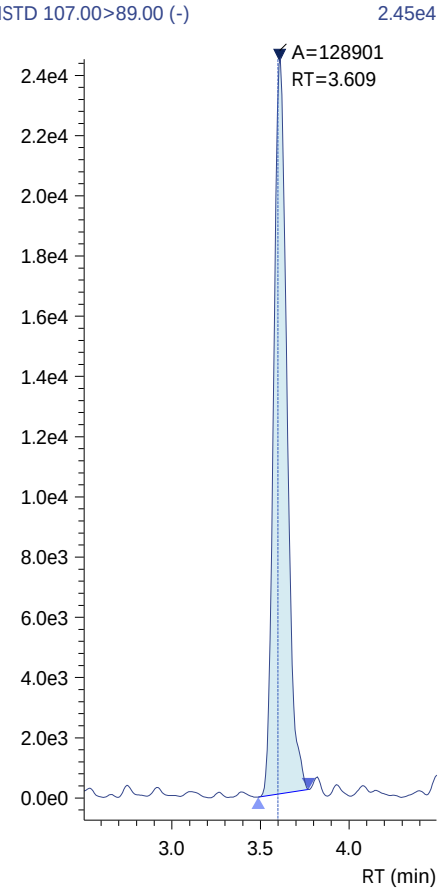
Perchlorate

Conc 9.9186
R#1 32.47 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

EQ2300317-01

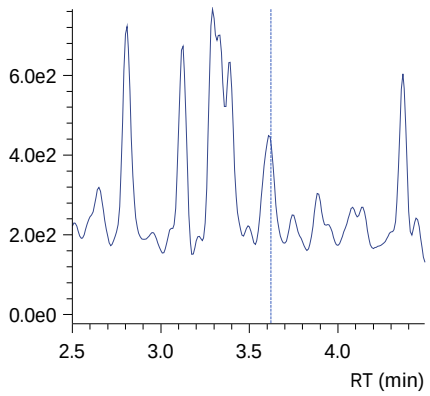
Sample ID: EQ2300317-01
Date Acquired: 6/28/2023 2:19:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-005.lcd
Vial: 22 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	189749	----	ng/mL	101.00 >85.00	0.00	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.595	189749	189749	1.0000	ng/mL	----	----	

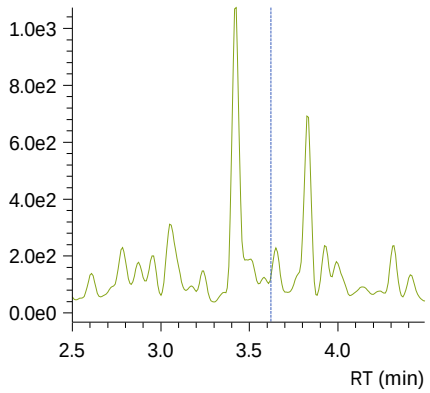
Perchlorate

Conc ----
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 7.66e2



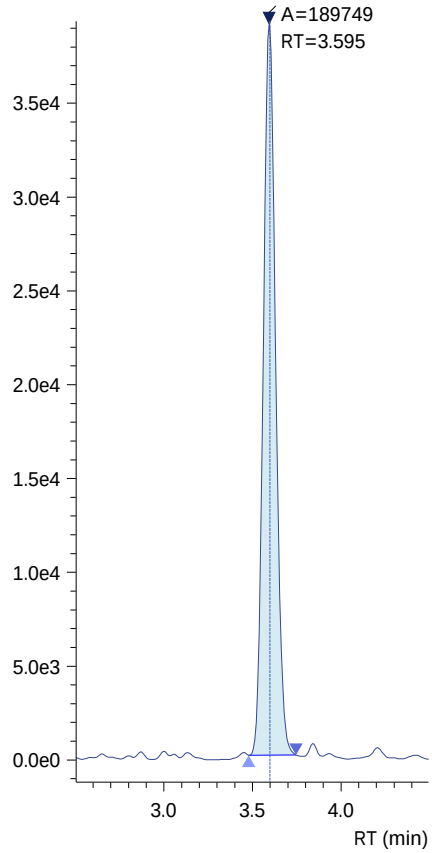
R1 101.00>85.00 (-) 1.07e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.94e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

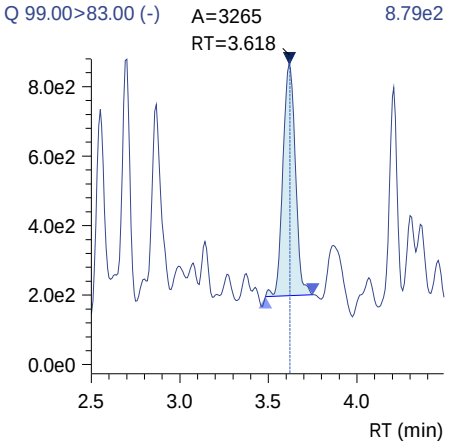
EQ2300317-02

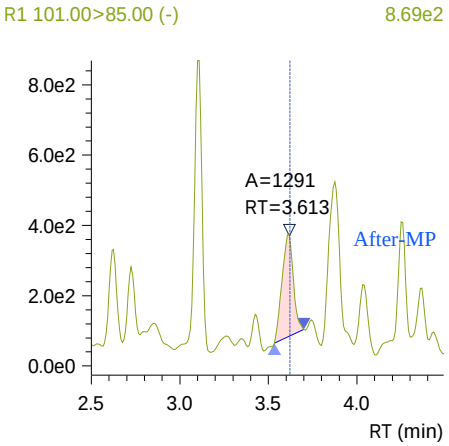
Sample ID: EQ2300317-02
Date Acquired: 6/28/2023 2:24:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-006.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.618	3265	188582	0.1096	ng/mL	101.00 >85.00	39.54	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.612	188582	188582	1.0000	ng/mL	----	----	

Perchlorate

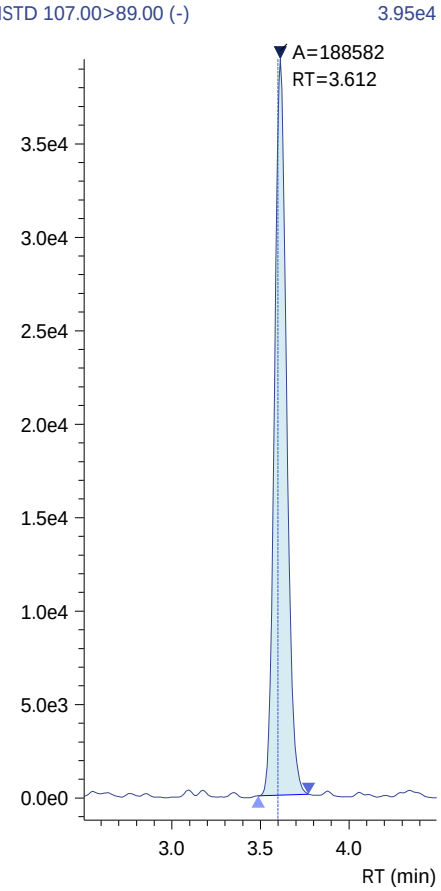
Conc 0.1096
R#1 39.54 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

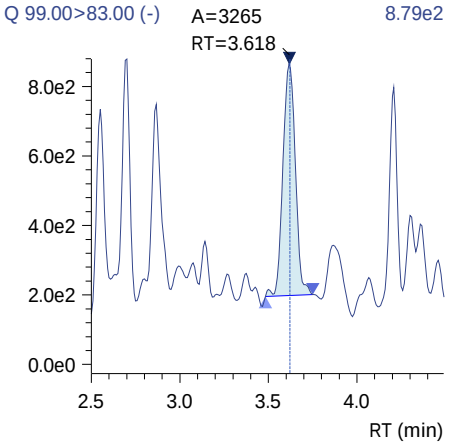
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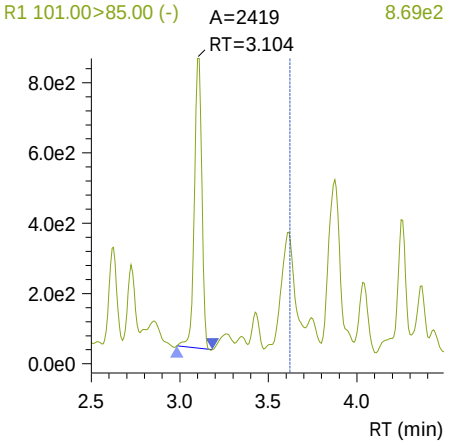
EQ2300317-02

Sample ID: EQ2300317-02
Date Acquired: 6/28/2023 2:24:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-006.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 5

Perchlorate

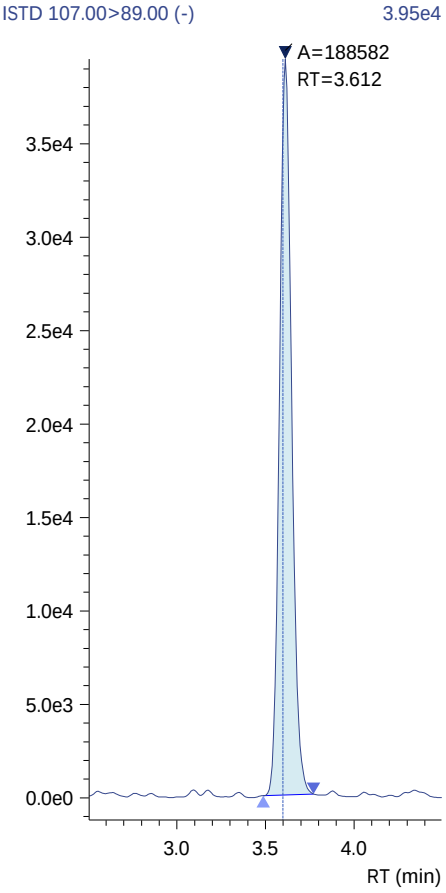
Conc 0.1086
R#1 0.00 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

EQ2300317-03

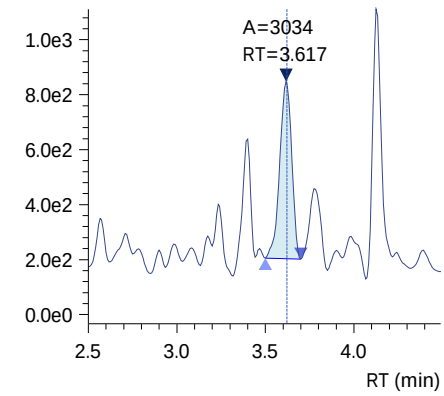
Sample ID: EQ2300317-03
Date Acquired: 6/28/2023 2:30:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-007.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.617	3034	184608	0.1041	ng/mL	101.00 >85.00	33.99	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.614	184608	184608	1.0000	ng/mL	----	----	

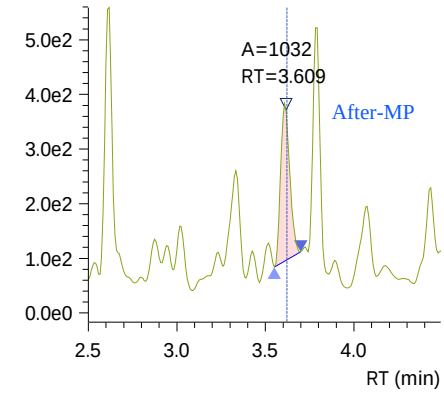
Perchlorate

Conc 0.1041
R#1 33.99 (32.02)

Q 99.00>83.00 (-) 1.11e3



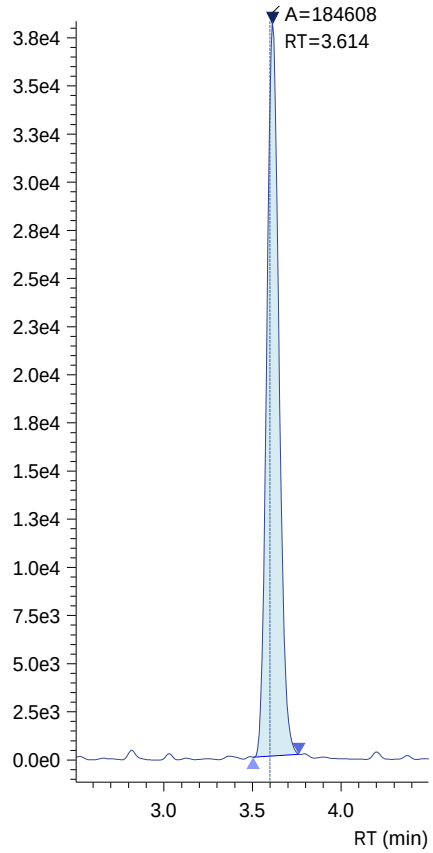
R1 101.00>85.00 (-) 5.59e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.84e4



Insight Report

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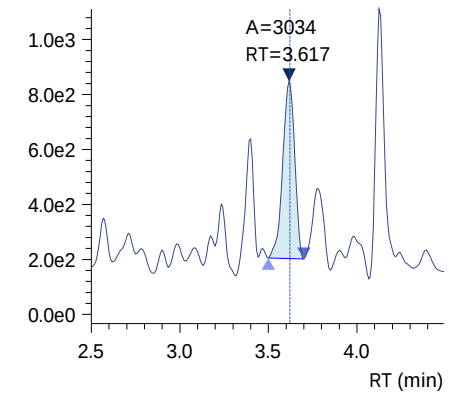
EQ2300317-03

Sample ID: EQ2300317-03
Date Acquired: 6/28/2023 2:30:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-007.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 5

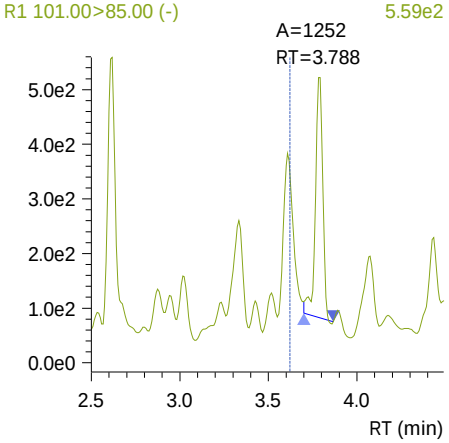
Perchlorate

Conc 0.1031
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 1.11e3



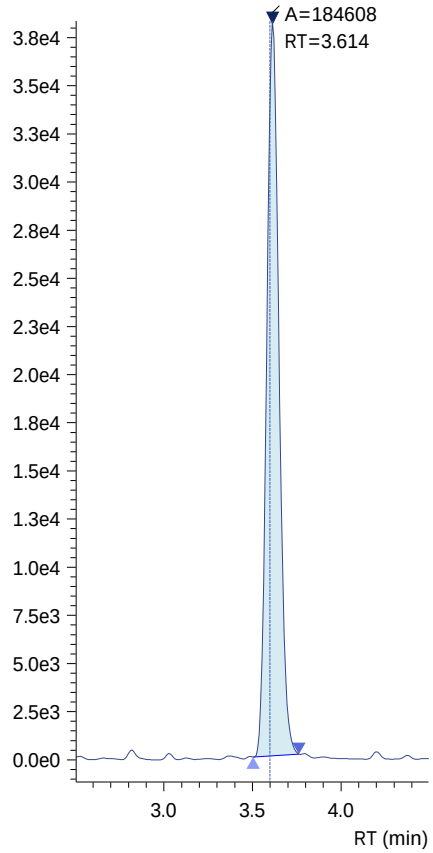
R1 101.00>85.00 (-) 5.59e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.84e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

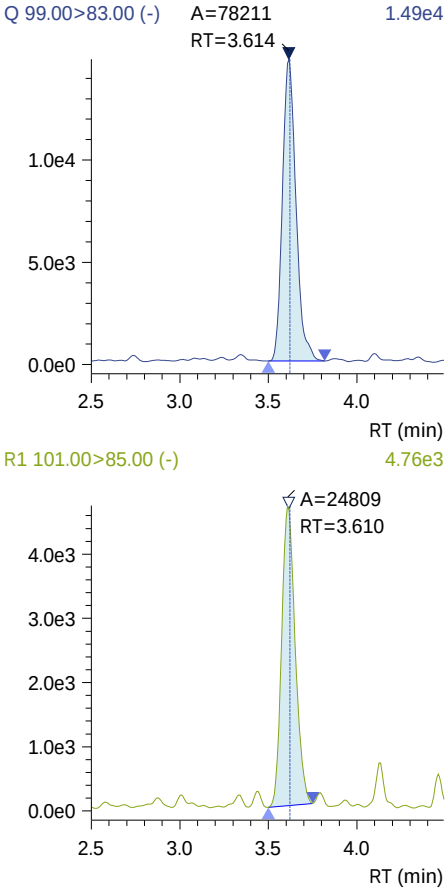
E2300617-001

Sample ID: E2300617-001
Date Acquired: 6/28/2023 2:36:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-008.lcd
Vial: 44 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.614	78211	192120	2.5781	ng/mL	101.00 >85.00	31.72	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.610	192120	192120	1.0000	ng/mL	----	----	

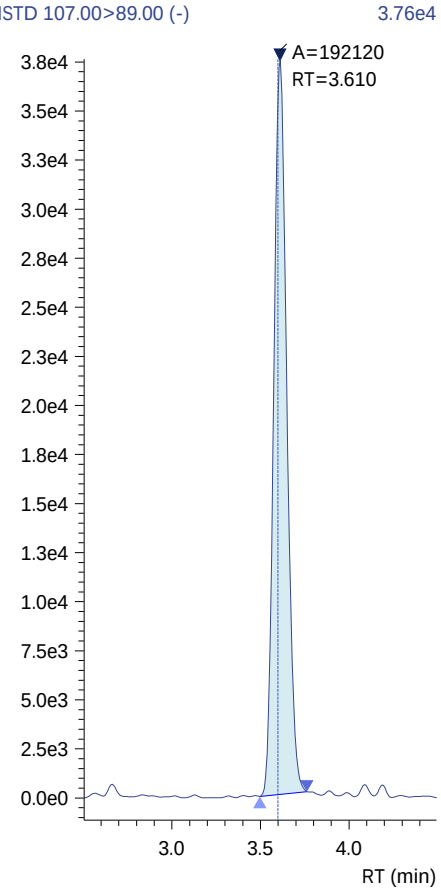
Perchlorate

Conc 2.5781
R#1 31.72 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

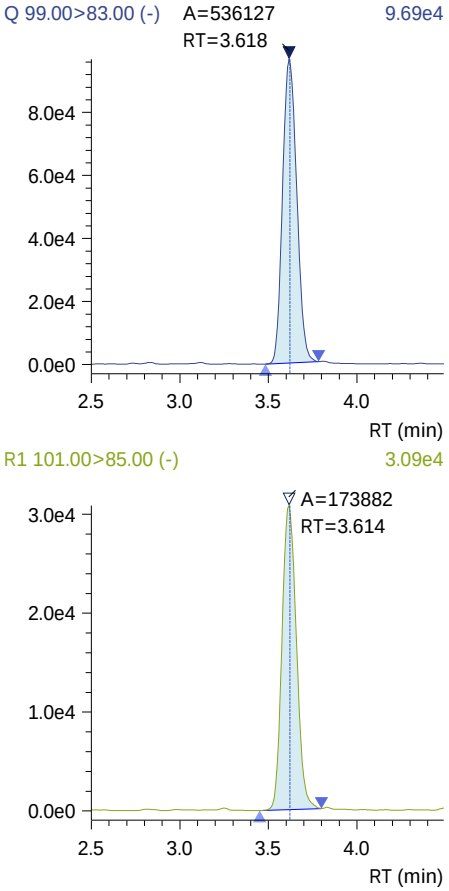
E2300617-002X100

Sample ID: E2300617-002
Date Acquired: 6/28/2023 3:14:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-013.lcd
Vial: 45 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.618	536127	133779	25.3798	ng/mL	101.00 >85.00	32.43	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.613	133779	133779	1.0000	ng/mL	----	----	

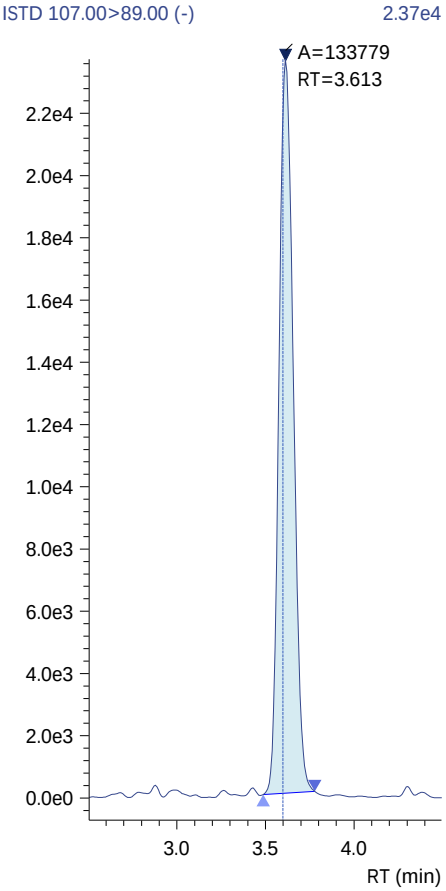
Perchlorate

Conc 25.3798
R#1 32.43 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

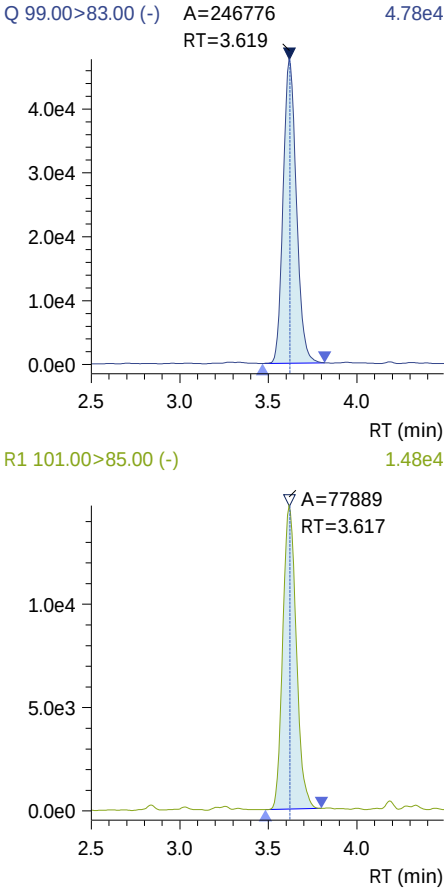
CCV

Sample ID: CCV
Date Acquired: 6/28/2023 3:20:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-014.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	246776	148210	10.5447	ng/mL	101.00 >85.00	31.56	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.615	148210	148210	1.0000	ng/mL	----	----	

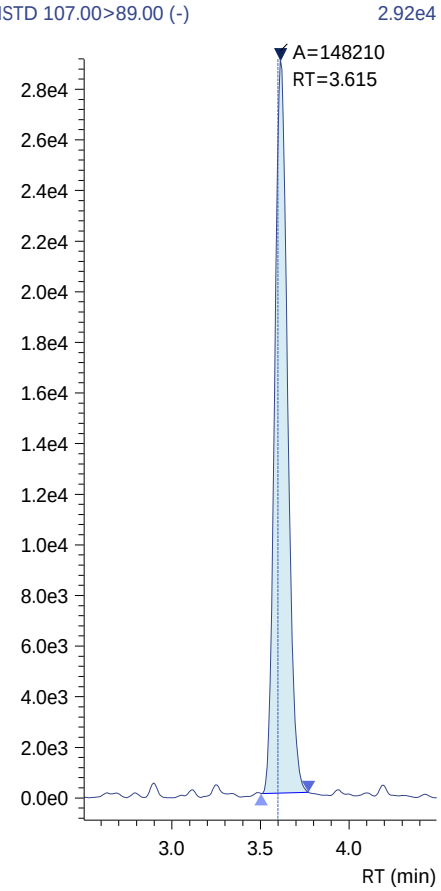
Perchlorate

Conc 10.5447
R#1 31.56 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23061900 Longhorn GW Treatment Plant
Weekly Samples Cover Page

ALS WO# HS23061900

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ALS Group USA, Corp
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right solutions.
right partner.

WorkOrder: HS23061900

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

05-Jul-2023

HS23061900 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS23061900

10450 Stancliff Rd. Suite 210
Houston, TX 77099
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July 07, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23061900**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on Jun 28, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
James Guin

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23061900

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23061900-01	LH18/24-SP650_062723	Water		27-Jun-2023 13:00	28-Jun-2023 09:40	☐
HS23061900-02	Trip Blank	Water		27-Jun-2023 00:00	28-Jun-2023 09:40	☐

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23061900

Work Order Comments

• The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

GCMS Volatiles by Method SW8260

Batch ID: R440378

Sample ID: HS23061925-22MSD

• MSD was performed on an unrelated sample.

Batch ID: R440247

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9056

Batch ID: R440724

Sample ID: HS23061635-02MS

• MS and MSD are for an unrelated sample (Chloride)

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Sample ID: LH18/24-SP650_062723
Collection Date: 27-Jun-2023 13:00

ANALYTICAL REPORT
WorkOrder:HS23061900
Lab ID:HS23061900-01
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	30-Jun-2023 13:13
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	30-Jun-2023 13:13
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	30-Jun-2023 13:13
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 13:13
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	30-Jun-2023 13:13
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Weekly Samples WorkOrder:HS23061900
Sample ID: LH18/24-SP650_062723 Lab ID:HS23061900-01
Collection Date: 27-Jun-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
cis-1,2-Dichloroethene	**1.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 13:13
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-Jun-2023 13:13
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 13:13
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 13:13
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 13:13
Vinyl chloride	**2.7**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 13:13
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*1*	*30-Jun-2023 13:13*
Surr: 4-Bromofluorobenzene	*94.0*			**0**	*85-114*	*%REC*	*1*	*30-Jun-2023 13:13*
Surr: Dibromofluoromethane	*99.1*			**0**	*80-119*	*%REC*	*1*	*30-Jun-2023 13:13*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*30-Jun-2023 13:13*
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**1,270**		**10.0**	**12.5**	**25.0**	**mg/L**	50	06-Jul-2023 20:37
Sulfate	**35.4**		**0.400**	**0.500**	**1.00**	**mg/L**	2	06-Jul-2023 20:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder:HS23061900
Sample ID: Trip Blank
Lab ID:HS23061900-02
Collection Date: 27-Jun-2023 00:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	29-Jun-2023 13:01
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	29-Jun-2023 13:01
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	29-Jun-2023 13:01
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	29-Jun-2023 13:01
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	29-Jun-2023 13:01
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder:HS23061900
Sample ID: Trip Blank
Lab ID:HS23061900-02
Collection Date: 27-Jun-2023 00:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	29-Jun-2023 13:01
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	29-Jun-2023 13:01
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	29-Jun-2023 13:01
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	29-Jun-2023 13:01
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*1*	*29-Jun-2023 13:01*
Surr: 4-Bromofluorobenzene	*94.2*			**0**	*85-114*	*%REC*	*1*	*29-Jun-2023 13:01*
Surr: Dibromofluoromethane	*97.0*			**0**	*80-119*	*%REC*	*1*	*29-Jun-2023 13:01*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*29-Jun-2023 13:01*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R440247 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23061900-02	Trip Blank	27 Jun 2023 00:00			29 Jun 2023 13:01	1
Batch ID: R440378 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23061900-01	LH18/24-SP650_062723	27 Jun 2023 13:00			30 Jun 2023 13:13	1
Batch ID: R440724 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS23061900-01	LH18/24-SP650_062723	27 Jun 2023 13:00			06 Jul 2023 20:37	50
HS23061900-01	LH18/24-SP650_062723	27 Jun 2023 13:00			06 Jul 2023 20:31	2

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 12:39**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394054** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	0.50	1.0								U
1,1,1-Trichloroethane	0.50	1.0								U
1,1,2,2-Tetrachloroethane	0.50	1.0								U
1,1,2-Trichloroethane	0.50	1.0								U
1,1-Dichloroethane	0.50	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,1-Dichloropropene	0.50	1.0								U
1,2,3-Trichlorobenzene	0.50	1.0								U
1,2,3-Trichloropropane	0.50	1.0								U
1,2,4-Trichlorobenzene	0.50	1.0								U
1,2,4-Trimethylbenzene	0.50	1.0								U
1,2-Dibromo-3-chloropropane	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
1,2-Dichloropropane	0.50	1.0								U
1,3,5-Trimethylbenzene	0.50	1.0								U
1,3-Dichlorobenzene	0.50	1.0								U
1,3-Dichloropropane	0.50	1.0								U
1,4-Dichlorobenzene	0.50	1.0								U
2,2-Dichloropropane	0.50	1.0								U
2-Butanone	0.50	2.0								U
2-Chlorotoluene	0.50	1.0								U
2-Hexanone	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	0.50	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	0.50	1.0								U
Bromomethane	0.50	1.0								U

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 12:39**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394054** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	2.0								U
Carbon tetrachloride	0.50	1.0								U
Chlorobenzene	0.50	1.0								U
Chloroethane	0.50	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	0.50	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	0.50	1.0								U
Ethylbenzene	0.50	1.0								U
Hexachlorobutadiene	0.50	1.0								U
Isopropylbenzene	0.50	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	0.50	2.0								U
Naphthalene	0.50	1.0								U
n-Butylbenzene	0.50	1.0								U
n-Propylbenzene	0.50	1.0								U
o-Xylene	0.50	1.0								U
sec-Butylbenzene	0.50	1.0								U
Styrene	0.50	1.0								U
tert-Butylbenzene	0.50	1.0								U
Tetrachloroethene	0.50	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*51.09*	*1.0*	*50*	*0*	*102*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.17*	*1.0*	*50*	*0*	*94.3*	*85 - 114*				
Surr: Dibromofluoromethane	*48.53*	*1.0*	*50*	*0*	*97.1*	*80 - 119*				
Surr: Toluene-d8	*53.86*	*1.0*	*50*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 11:54**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394053** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.59	1.0	20	0	108	78 - 124				
1,1,1-Trichloroethane	22.86	1.0	20	0	114	74 - 131				
1,1,2,2-Tetrachloroethane	19.35	1.0	20	0	96.7	71 - 121				
1,1,2-Trichloroethane	20	1.0	20	0	100.0	80 - 119				
1,1-Dichloroethane	20.52	1.0	20	0	103	77 - 125				
1,1-Dichloroethene	21.67	1.0	20	0	108	71 - 131				
1,1-Dichloropropene	22.59	1.0	20	0	113	78 - 125				
1,2,3-Trichlorobenzene	19.49	1.0	20	0	97.5	69 - 129				
1,2,3-Trichloropropane	19.52	1.0	20	0	97.6	73 - 122				
1,2,4-Trichlorobenzene	19.84	1.0	20	0	99.2	69 - 130				
1,2,4-Trimethylbenzene	22.33	1.0	20	0	112	76 - 124				
1,2-Dibromo-3-chloropropane	17.04	1.0	20	0	85.2	62 - 128				
1,2-Dibromoethane	20.74	1.0	20	0	104	77 - 121				
1,2-Dichlorobenzene	20.88	1.0	20	0	104	80 - 119				
1,2-Dichloroethane	22.57	1.0	20	0	113	73 - 128				
1,2-Dichloropropane	20.74	1.0	20	0	104	78 - 122				
1,3,5-Trimethylbenzene	22.6	1.0	20	0	113	75 - 124				
1,3-Dichlorobenzene	21.22	1.0	20	0	106	80 - 119				
1,3-Dichloropropane	20.44	1.0	20	0	102	80 - 119				
1,4-Dichlorobenzene	20.89	1.0	20	0	104	79 - 118				
2,2-Dichloropropane	23.48	1.0	20	0	117	60 - 139				
2-Butanone	37.08	2.0	40	0	92.7	56 - 143				
2-Chlorotoluene	21.88	1.0	20	0	109	79 - 122				
2-Hexanone	36.36	2.0	40	0	90.9	57 - 139				
4-Chlorotoluene	22.27	1.0	20	0	111	78 - 122				
4-Isopropyltoluene	23.07	1.0	20	0	115	77 - 127				
4-Methyl-2-pentanone	37.75	2.0	40	0	94.4	67 - 130				
Acetone	42.4	2.0	40	0	106	39 - 160				
Benzene	21.21	1.0	20	0	106	79 - 120				
Bromobenzene	21.18	1.0	20	0	106	80 - 120				
Bromochloromethane	20.54	1.0	20	0	103	78 - 123				
Bromodichloromethane	21.72	1.0	20	0	109	79 - 125				
Bromoform	21.08	1.0	20	0	105	66 - 130				
Bromomethane	25.7	1.0	20	0	129	53 - 141				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 11:54**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394053** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	48.71	2.0	40	0	122	64 - 133				
Carbon tetrachloride	23.67	1.0	20	0	118	72 - 136				
Chlorobenzene	21.57	1.0	20	0	108	82 - 118				
Chloroethane	20.34	1.0	20	0	102	60 - 138				
Chloroform	21.4	1.0	20	0	107	79 - 124				
Chloromethane	17.48	1.0	20	0	87.4	50 - 139				
cis-1,2-Dichloroethene	21.04	1.0	20	0	105	78 - 123				
cis-1,3-Dichloropropene	20.56	1.0	20	0	103	75 - 124				
Dibromochloromethane	21.84	1.0	20	0	109	74 - 126				
Dibromomethane	21.48	1.0	20	0	107	79 - 123				
Dichlorodifluoromethane	20.59	1.0	20	0	103	32 - 152				
Ethylbenzene	22.09	1.0	20	0	110	79 - 121				
Hexachlorobutadiene	22.26	1.0	20	0	111	66 - 134				
Isopropylbenzene	23.27	1.0	20	0	116	72 - 131				
m,p-Xylene	45.97	2.0	40	0	115	80 - 121				
Methylene chloride	22.25	2.0	20	0	111	74 - 124				
Naphthalene	19.43	1.0	20	0	97.1	61 - 128				
n-Butylbenzene	22.71	1.0	20	0	114	75 - 128				
n-Propylbenzene	23.01	1.0	20	0	115	76 - 126				
o-Xylene	22.16	1.0	20	0	111	78 - 122				
sec-Butylbenzene	22.88	1.0	20	0	114	77 - 126				
Styrene	23.28	1.0	20	0	116	78 - 123				
tert-Butylbenzene	22.7	1.0	20	0	113	78 - 124				
Tetrachloroethene	22	1.0	20	0	110	74 - 129				
Toluene	21.55	1.0	20	0	108	80 - 121				
trans-1,2-Dichloroethene	21.91	1.0	20	0	110	75 - 124				
trans-1,3-Dichloropropene	19.62	1.0	20	0	98.1	73 - 127				
Trichloroethene	20.98	1.0	20	0	105	79 - 123				
Trichlorofluoromethane	24.07	1.0	20	0	120	65 - 141				
Vinyl chloride	20.84	1.0	20	0	104	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.69*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.6*	*1.0*	*50*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*50.54*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*48.55*	*1.0*	*50*	*0*	*97.1*	*89 - 112*				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-03MS** Units: **ug/L** Analysis Date: **29-Jun-2023 15:10**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394059** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1105	50	1000	0	110	78 - 124				
1,1,1-Trichloroethane	1081	50	1000	0	108	74 - 131				
1,1,2,2-Tetrachloroethane	901.2	50	1000	0	90.1	71 - 121				
1,1,2-Trichloroethane	973.3	50	1000	0	97.3	80 - 119				
1,1-Dichloroethane	956	50	1000	0	95.6	77 - 125				
1,1-Dichloroethene	1081	50	1000	0	108	71 - 131				
1,1-Dichloropropene	1153	50	1000	0	115	78 - 125				
1,2,3-Trichlorobenzene	868.2	50	1000	0	86.8	69 - 129				
1,2,3-Trichloropropane	902.8	50	1000	0	90.3	73 - 122				
1,2,4-Trichlorobenzene	905.1	50	1000	0	90.5	69 - 130				
1,2,4-Trimethylbenzene	1094	50	1000	0	109	76 - 124				
1,2-Dibromo-3-chloropropane	804.1	50	1000	0	80.4	62 - 128				
1,2-Dibromoethane	990.6	50	1000	0	99.1	77 - 121				
1,2-Dichlorobenzene	999.5	50	1000	0	100.0	80 - 119				
1,2-Dichloroethane	1151	50	1000	79.85	107	73 - 128				
1,2-Dichloropropane	1005	50	1000	0	101	78 - 122				
1,3,5-Trimethylbenzene	1141	50	1000	0	114	75 - 124				
1,3-Dichlorobenzene	1032	50	1000	0	103	80 - 119				
1,3-Dichloropropane	1004	50	1000	0	100	80 - 119				
1,4-Dichlorobenzene	1006	50	1000	0	101	79 - 118				
2,2-Dichloropropane	1121	50	1000	0	112	60 - 139				
2-Butanone	1574	100	2000	0	78.7	56 - 143				
2-Chlorotoluene	1086	50	1000	0	109	79 - 122				
2-Hexanone	1690	100	2000	0	84.5	57 - 139				
4-Chlorotoluene	1108	50	1000	0	111	78 - 122				
4-Isopropyltoluene	1177	50	1000	0	118	77 - 127				
4-Methyl-2-pentanone	1774	100	2000	0	88.7	67 - 130				
Acetone	1515	100	2000	0	75.7	39 - 160				
Benzene	1054	50	1000	0	105	79 - 120				
Bromobenzene	1003	50	1000	0	100	80 - 120				
Bromochloromethane	921.2	50	1000	0	92.1	78 - 123				
Bromodichloromethane	1063	50	1000	0	106	79 - 125				
Bromoform	1061	50	1000	0	106	66 - 130				
Bromomethane	1185	50	1000	0	118	53 - 141				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-03MS** Units: **ug/L** Analysis Date: **29-Jun-2023 15:10**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394059** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2138	100	2000	0	107	64 - 133				
Carbon tetrachloride	1245	50	1000	0	124	72 - 136				
Chlorobenzene	1083	50	1000	0	108	82 - 118				
Chloroethane	998.3	50	1000	0	99.8	60 - 138				
Chloroform	967.2	50	1000	0	96.7	79 - 124				
Chloromethane	779.4	50	1000	0	77.9	50 - 139				
cis-1,2-Dichloroethene	994	50	1000	0	99.4	78 - 123				
cis-1,3-Dichloropropene	959.1	50	1000	0	95.9	75 - 124				
Dibromochloromethane	1097	50	1000	0	110	74 - 126				
Dibromomethane	1047	50	1000	0	105	79 - 123				
Dichlorodifluoromethane	893.1	50	1000	0	89.3	32 - 152				
Ethylbenzene	1129	50	1000	0	113	79 - 121				
Hexachlorobutadiene	1075	50	1000	0	107	66 - 134				
Isopropylbenzene	1215	50	1000	0	122	72 - 131				
m,p-Xylene	2376	100	2000	0	119	80 - 121				
Methylene chloride	994.4	100	1000	0	99.4	74 - 124				
Naphthalene	811.7	50	1000	0	81.2	61 - 128				
n-Butylbenzene	1159	50	1000	0	116	75 - 128				
n-Propylbenzene	1139	50	1000	0	114	76 - 126				
o-Xylene	1142	50	1000	0	114	78 - 122				
sec-Butylbenzene	1171	50	1000	0	117	77 - 126				
Styrene	1161	50	1000	0	116	78 - 123				
tert-Butylbenzene	1150	50	1000	0	115	78 - 124				
Tetrachloroethene	1207	50	1000	0	121	74 - 129				
Toluene	1085	50	1000	0	109	80 - 121				
trans-1,2-Dichloroethene	1027	50	1000	0	103	75 - 124				
trans-1,3-Dichloropropene	947	50	1000	0	94.7	73 - 127				
Trichloroethene	3625	50	1000	2606	102	79 - 123				
Trichlorofluoromethane	1188	50	1000	0	119	65 - 141				
Vinyl chloride	990.6	50	1000	0	99.1	58 - 137				
Surr: 1,2-Dichloroethane-d4	*2589*	*50*	*2500*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*2564*	*50*	*2500*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*2493*	*50*	*2500*	*0*	*99.7*	*80 - 119*				
Surr: Toluene-d8	*2704*	*50*	*2500*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-03MSD** Units: **ug/L** Analysis Date: **29-Jun-2023 15:33**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394060** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1098	50	1000	0	110	78 - 124	1105	0.62	20	
1,1,1-Trichloroethane	1069	50	1000	0	107	74 - 131	1081	1.1	20	
1,1,2,2-Tetrachloroethane	947.9	50	1000	0	94.8	71 - 121	901.2	5.05	20	
1,1,2-Trichloroethane	995.5	50	1000	0	99.5	80 - 119	973.3	2.25	20	
1,1-Dichloroethane	933.7	50	1000	0	93.4	77 - 125	956	2.36	20	
1,1-Dichloroethene	1058	50	1000	0	106	71 - 131	1081	2.15	20	
1,1-Dichloropropene	1153	50	1000	0	115	78 - 125	1153	0.0741	20	
1,2,3-Trichlorobenzene	937.2	50	1000	0	93.7	69 - 129	868.2	7.65	20	
1,2,3-Trichloropropane	937.5	50	1000	0	93.7	73 - 122	902.8	3.76	20	
1,2,4-Trichlorobenzene	956.4	50	1000	0	95.6	69 - 130	905.1	5.51	20	
1,2,4-Trimethylbenzene	1143	50	1000	0	114	76 - 124	1094	4.42	20	
1,2-Dibromo-3-chloropropane	843.7	50	1000	0	84.4	62 - 128	804.1	4.8	20	
1,2-Dibromoethane	1012	50	1000	0	101	77 - 121	990.6	2.15	20	
1,2-Dichlorobenzene	1040	50	1000	0	104	80 - 119	999.5	3.95	20	
1,2-Dichloroethane	1133	50	1000	79.85	105	73 - 128	1151	1.57	20	
1,2-Dichloropropane	1019	50	1000	0	102	78 - 122	1005	1.31	20	
1,3,5-Trimethylbenzene	1175	50	1000	0	118	75 - 124	1141	2.99	20	
1,3-Dichlorobenzene	1073	50	1000	0	107	80 - 119	1032	3.88	20	
1,3-Dichloropropane	1034	50	1000	0	103	80 - 119	1004	2.94	20	
1,4-Dichlorobenzene	1053	50	1000	0	105	79 - 118	1006	4.57	20	
2,2-Dichloropropane	1073	50	1000	0	107	60 - 139	1121	4.38	20	
2-Butanone	1649	100	2000	0	82.5	56 - 143	1574	4.7	20	
2-Chlorotoluene	1101	50	1000	0	110	79 - 122	1086	1.32	20	
2-Hexanone	1768	100	2000	0	88.4	57 - 139	1690	4.52	20	
4-Chlorotoluene	1127	50	1000	0	113	78 - 122	1108	1.64	20	
4-Isopropyltoluene	1222	50	1000	0	122	77 - 127	1177	3.78	20	
4-Methyl-2-pentanone	1856	100	2000	0	92.8	67 - 130	1774	4.55	20	
Acetone	1688	100	2000	0	84.4	39 - 160	1515	10.8	20	
Benzene	1048	50	1000	0	105	79 - 120	1054	0.589	20	
Bromobenzene	1049	50	1000	0	105	80 - 120	1003	4.48	20	
Bromochloromethane	923.9	50	1000	0	92.4	78 - 123	921.2	0.287	20	
Bromodichloromethane	1083	50	1000	0	108	79 - 125	1063	1.83	20	
Bromoform	1064	50	1000	0	106	66 - 130	1061	0.238	20	
Bromomethane	1113	50	1000	0	111	53 - 141	1185	6.24	20	

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-03MSD** Units: **ug/L** Analysis Date: **29-Jun-2023 15:33**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394060** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	2097	100	2000	0	105	64 - 133	2138	1.93	20	
Carbon tetrachloride	1203	50	1000	0	120	72 - 136	1245	3.42	20	
Chlorobenzene	1084	50	1000	0	108	82 - 118	1083	0.0917	20	
Chloroethane	948.5	50	1000	0	94.9	60 - 138	998.3	5.11	20	
Chloroform	982.2	50	1000	0	98.2	79 - 124	967.2	1.53	20	
Chloromethane	792.8	50	1000	0	79.3	50 - 139	779.4	1.71	20	
cis-1,2-Dichloroethene	966.5	50	1000	0	96.6	78 - 123	994	2.81	20	
cis-1,3-Dichloropropene	966.1	50	1000	0	96.6	75 - 124	959.1	0.728	20	
Dibromochloromethane	1082	50	1000	0	108	74 - 126	1097	1.42	20	
Dibromomethane	1017	50	1000	0	102	79 - 123	1047	2.96	20	
Dichlorodifluoromethane	878.6	50	1000	0	87.9	32 - 152	893.1	1.63	20	
Ethylbenzene	1139	50	1000	0	114	79 - 121	1129	0.875	20	
Hexachlorobutadiene	1124	50	1000	0	112	66 - 134	1075	4.45	20	
Isopropylbenzene	1231	50	1000	0	123	72 - 131	1215	1.24	20	
m,p-Xylene	2372	100	2000	0	119	80 - 121	2376	0.163	20	
Methylene chloride	1005	100	1000	0	101	74 - 124	994.4	1.09	20	
Naphthalene	925.4	50	1000	0	92.5	61 - 128	811.7	13.1	20	
n-Butylbenzene	1203	50	1000	0	120	75 - 128	1159	3.7	20	
n-Propylbenzene	1192	50	1000	0	119	76 - 126	1139	4.58	20	
o-Xylene	1143	50	1000	0	114	78 - 122	1142	0.134	20	
sec-Butylbenzene	1217	50	1000	0	122	77 - 126	1171	3.83	20	
Styrene	1171	50	1000	0	117	78 - 123	1161	0.854	20	
tert-Butylbenzene	1200	50	1000	0	120	78 - 124	1150	4.23	20	
Tetrachloroethene	1199	50	1000	0	120	74 - 129	1207	0.625	20	
Toluene	1109	50	1000	0	111	80 - 121	1085	2.12	20	
trans-1,2-Dichloroethene	1033	50	1000	0	103	75 - 124	1027	0.615	20	
trans-1,3-Dichloropropene	971.1	50	1000	0	97.1	73 - 127	947	2.51	20	
Trichloroethene	3563	50	1000	2606	95.8	79 - 123	3625	1.72	20	
Trichlorofluoromethane	1167	50	1000	0	117	65 - 141	1188	1.81	20	
Vinyl chloride	966.4	50	1000	0	96.6	58 - 137	990.6	2.47	20	
Surr: 1,2-Dichloroethane-d4	*2532*	*50*	*2500*	*0*	*101*	*81 - 118*	*2589*	*2.23*	*20*	
Surr: 4-Bromofluorobenzene	*2523*	*50*	*2500*	*0*	*101*	*85 - 114*	*2564*	*1.59*	*20*	
Surr: Dibromofluoromethane	*2493*	*50*	*2500*	*0*	*99.7*	*80 - 119*	*2493*	*0.0188*	*20*	
Surr: Toluene-d8	*2723*	*50*	*2500*	*0*	*109*	*89 - 112*	*2704*	*0.711*	*20*	

ALS Houston, US Date: 07-Jul-23

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Weekly Samples
WorkOrder:	HS23061900

QC BATCH REPORT

Batch ID:	**R440247 (0)**	**Instrument:**	**VOA9**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS23061900-02

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230630** Units: **ug/L** Analysis Date: **30-Jun-2023 12:50**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397576** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	0.50	1.0								U
1,1,1-Trichloroethane	0.50	1.0								U
1,1,2,2-Tetrachloroethane	0.50	1.0								U
1,1,2-Trichloroethane	0.50	1.0								U
1,1-Dichloroethane	0.50	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,1-Dichloropropene	0.50	1.0								U
1,2,3-Trichlorobenzene	0.50	1.0								U
1,2,3-Trichloropropane	0.50	1.0								U
1,2,4-Trichlorobenzene	0.50	1.0								U
1,2,4-Trimethylbenzene	0.50	1.0								U
1,2-Dibromo-3-chloropropane	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
1,2-Dichloropropane	0.50	1.0								U
1,3,5-Trimethylbenzene	0.50	1.0								U
1,3-Dichlorobenzene	0.50	1.0								U
1,3-Dichloropropane	0.50	1.0								U
1,4-Dichlorobenzene	0.50	1.0								U
2,2-Dichloropropane	0.50	1.0								U
2-Butanone	0.50	2.0								U
2-Chlorotoluene	0.50	1.0								U
2-Hexanone	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	0.50	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	0.50	1.0								U
Bromomethane	0.50	1.0								U

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230630** Units: **ug/L** Analysis Date: **30-Jun-2023 12:50**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397576** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	2.0								U
Carbon tetrachloride	0.50	1.0								U
Chlorobenzene	0.50	1.0								U
Chloroethane	0.50	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	0.50	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	0.50	1.0								U
Ethylbenzene	0.50	1.0								U
Hexachlorobutadiene	0.50	1.0								U
Isopropylbenzene	0.50	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	0.50	2.0								U
Naphthalene	0.50	1.0								U
n-Butylbenzene	0.50	1.0								U
n-Propylbenzene	0.50	1.0								U
o-Xylene	0.50	1.0								U
sec-Butylbenzene	0.50	1.0								U
Styrene	0.50	1.0								U
tert-Butylbenzene	0.50	1.0								U
Tetrachloroethene	0.50	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*50.45*	*1.0*	*50*	*0*	*101*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.72*	*1.0*	*50*	*0*	*95.4*	*85 - 114*				
Surr: Dibromofluoromethane	*48.46*	*1.0*	*50*	*0*	*96.9*	*80 - 119*				
Surr: Toluene-d8	*53.62*	*1.0*	*50*	*0*	*107*	*89 - 112*				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **30-Jun-2023 12:06**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397575** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	22.49	1.0	20	0	112	78 - 124				
1,1,1-Trichloroethane	19.94	1.0	20	0	99.7	74 - 131				
1,1,2,2-Tetrachloroethane	20.19	1.0	20	0	101	71 - 121				
1,1,2-Trichloroethane	20.96	1.0	20	0	105	80 - 119				
1,1-Dichloroethane	19.35	1.0	20	0	96.7	77 - 125				
1,1-Dichloroethene	20.03	1.0	20	0	100	71 - 131				
1,1-Dichloropropene	20.76	1.0	20	0	104	78 - 125				
1,2,3-Trichlorobenzene	19.76	1.0	20	0	98.8	69 - 129				
1,2,3-Trichloropropane	20.18	1.0	20	0	101	73 - 122				
1,2,4-Trichlorobenzene	19.86	1.0	20	0	99.3	69 - 130				
1,2,4-Trimethylbenzene	21.36	1.0	20	0	107	76 - 124				
1,2-Dibromo-3-chloropropane	18.51	1.0	20	0	92.5	62 - 128				
1,2-Dibromoethane	21.72	1.0	20	0	109	77 - 121				
1,2-Dichlorobenzene	21.03	1.0	20	0	105	80 - 119				
1,2-Dichloroethane	22.54	1.0	20	0	113	73 - 128				
1,2-Dichloropropane	21.11	1.0	20	0	106	78 - 122				
1,3,5-Trimethylbenzene	21.21	1.0	20	0	106	75 - 124				
1,3-Dichlorobenzene	21.17	1.0	20	0	106	80 - 119				
1,3-Dichloropropane	21.71	1.0	20	0	109	80 - 119				
1,4-Dichlorobenzene	20.64	1.0	20	0	103	79 - 118				
2,2-Dichloropropane	21.53	1.0	20	0	108	60 - 139				
2-Butanone	39.78	2.0	40	0	99.4	56 - 143				
2-Chlorotoluene	20.83	1.0	20	0	104	79 - 122				
2-Hexanone	39.71	2.0	40	0	99.3	57 - 139				
4-Chlorotoluene	21.38	1.0	20	0	107	78 - 122				
4-Isopropyltoluene	20.25	1.0	20	0	101	77 - 127				
4-Methyl-2-pentanone	40.58	2.0	40	0	101	67 - 130				
Acetone	50.79	2.0	40	0	127	39 - 160				
Benzene	21.54	1.0	20	0	108	79 - 120				
Bromobenzene	21	1.0	20	0	105	80 - 120				
Bromochloromethane	20.02	1.0	20	0	100	78 - 123				
Bromodichloromethane	22.65	1.0	20	0	113	79 - 125				
Bromoform	22.28	1.0	20	0	111	66 - 130				
Bromomethane	23.3	1.0	20	0	117	53 - 141				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **30-Jun-2023 12:06**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397575** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	45.42	2.0	40	0	114	64 - 133				
Carbon tetrachloride	21.15	1.0	20	0	106	72 - 136				
Chlorobenzene	21.49	1.0	20	0	107	82 - 118				
Chloroethane	19.47	1.0	20	0	97.3	60 - 138				
Chloroform	20.8	1.0	20	0	104	79 - 124				
Chloromethane	17.15	1.0	20	0	85.8	50 - 139				
cis-1,2-Dichloroethene	20.52	1.0	20	0	103	78 - 123				
cis-1,3-Dichloropropene	20.63	1.0	20	0	103	75 - 124				
Dibromochloromethane	23.49	1.0	20	0	117	74 - 126				
Dibromomethane	22.05	1.0	20	0	110	79 - 123				
Dichlorodifluoromethane	18.31	1.0	20	0	91.6	32 - 152				
Ethylbenzene	21.37	1.0	20	0	107	79 - 121				
Hexachlorobutadiene	18.33	1.0	20	0	91.6	66 - 134				
Isopropylbenzene	21.18	1.0	20	0	106	72 - 131				
m,p-Xylene	44.58	2.0	40	0	111	80 - 121				
Methylene chloride	21.87	2.0	20	0	109	74 - 124				
Naphthalene	20.22	1.0	20	0	101	61 - 128				
n-Butylbenzene	19.35	1.0	20	0	96.7	75 - 128				
n-Propylbenzene	20.98	1.0	20	0	105	76 - 126				
o-Xylene	21.83	1.0	20	0	109	78 - 122				
sec-Butylbenzene	19.4	1.0	20	0	97.0	77 - 126				
Styrene	22.97	1.0	20	0	115	78 - 123				
tert-Butylbenzene	20.17	1.0	20	0	101	78 - 124				
Tetrachloroethene	21.09	1.0	20	0	105	74 - 129				
Toluene	22.25	1.0	20	0	111	80 - 121				
trans-1,2-Dichloroethene	20.82	1.0	20	0	104	75 - 124				
trans-1,3-Dichloropropene	20.2	1.0	20	0	101	73 - 127				
Trichloroethene	21.2	1.0	20	0	106	79 - 123				
Trichlorofluoromethane	20.43	1.0	20	0	102	65 - 141				
Vinyl chloride	19	1.0	20	0	95.0	58 - 137				
Surr: 1,2-Dichloroethane-d4	*48.68*	*1.0*	*50*	*0*	*97.4*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*52.02*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*48.87*	*1.0*	*50*	*0*	*97.7*	*80 - 119*				
Surr: Toluene-d8	*51.75*	*1.0*	*50*	*0*	*104*	*89 - 112*				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061925-22MS** Units: **ug/L** Analysis Date: **30-Jun-2023 16:57**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397587** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	5439	250	5000	0	109	78 - 124				
1,1,1-Trichloroethane	5240	250	5000	0	105	74 - 131				
1,1,2,2-Tetrachloroethane	4550	250	5000	0	91.0	71 - 121				
1,1,2-Trichloroethane	4918	250	5000	0	98.4	80 - 119				
1,1-Dichloroethane	4587	250	5000	0	91.7	77 - 125				
1,1-Dichloroethene	5369	250	5000	0	107	71 - 131				
1,1-Dichloropropene	5596	250	5000	0	112	78 - 125				
1,2,3-Trichlorobenzene	4268	250	5000	0	85.4	69 - 129				
1,2,3-Trichloropropane	4638	250	5000	0	92.8	73 - 122				
1,2,4-Trichlorobenzene	4441	250	5000	0	88.8	69 - 130				
1,2,4-Trimethylbenzene	5157	250	5000	0	103	76 - 124				
1,2-Dibromo-3-chloropropane	3900	250	5000	0	78.0	62 - 128				
1,2-Dibromoethane	4879	250	5000	0	97.6	77 - 121				
1,2-Dichlorobenzene	4993	250	5000	0	99.9	80 - 119				
1,2-Dichloroethane	5180	250	5000	0	104	73 - 128				
1,2-Dichloropropane	4986	250	5000	0	99.7	78 - 122				
1,3,5-Trimethylbenzene	5333	250	5000	0	107	75 - 124				
1,3-Dichlorobenzene	5114	250	5000	0	102	80 - 119				
1,3-Dichloropropane	5051	250	5000	0	101	80 - 119				
1,4-Dichlorobenzene	5014	250	5000	0	100	79 - 118				
2,2-Dichloropropane	5280	250	5000	0	106	60 - 139				
2-Butanone	7745	500	10000	0	77.4	56 - 143				
2-Chlorotoluene	5223	250	5000	0	104	79 - 122				
2-Hexanone	8477	500	10000	0	84.8	57 - 139				
4-Chlorotoluene	5340	250	5000	0	107	78 - 122				
4-Isopropyltoluene	5323	250	5000	0	106	77 - 127				
4-Methyl-2-pentanone	8835	500	10000	0	88.4	67 - 130				
Acetone	8244	500	10000	0	82.4	39 - 160				
Benzene	5163	250	5000	0	103	79 - 120				
Bromobenzene	5016	250	5000	0	100	80 - 120				
Bromochloromethane	4522	250	5000	0	90.4	78 - 123				
Bromodichloromethane	5136	250	5000	0	103	79 - 125				
Bromoform	5223	250	5000	0	104	66 - 130				
Bromomethane	5581	250	5000	0	112	53 - 141				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061925-22MS** Units: **ug/L** Analysis Date: **30-Jun-2023 16:57**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397587** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	10300	500	10000	0	103	64 - 133				
Carbon tetrachloride	6134	250	5000	0	123	72 - 136				
Chlorobenzene	5307	250	5000	0	106	82 - 118				
Chloroethane	4623	250	5000	0	92.5	60 - 138				
Chloroform	4759	250	5000	0	95.2	79 - 124				
Chloromethane	4211	250	5000	0	84.2	50 - 139				
cis-1,2-Dichloroethene	23980	250	5000	19860	82.4	78 - 123				
cis-1,3-Dichloropropene	4698	250	5000	0	94.0	75 - 124				
Dibromochloromethane	5318	250	5000	0	106	74 - 126				
Dibromomethane	5076	250	5000	0	102	79 - 123				
Dichlorodifluoromethane	3989	250	5000	0	79.8	32 - 152				
Ethylbenzene	5635	250	5000	0	113	79 - 121				
Hexachlorobutadiene	5441	250	5000	0	109	66 - 134				
Isopropylbenzene	5924	250	5000	0	118	72 - 131				
m,p-Xylene	11570	500	10000	0	116	80 - 121				
Methylene chloride	9778	500	5000	5198	91.6	74 - 124				
Naphthalene	3968	250	5000	0	79.4	61 - 128				
n-Butylbenzene	5519	250	5000	0	110	75 - 128				
n-Propylbenzene	5590	250	5000	0	112	76 - 126				
o-Xylene	5594	250	5000	0	112	78 - 122				
sec-Butylbenzene	5613	250	5000	0	112	77 - 126				
Styrene	5413	250	5000	0	108	78 - 123				
tert-Butylbenzene	5641	250	5000	0	113	78 - 124				
Tetrachloroethene	5800	250	5000	0	116	74 - 129				
Toluene	5465	250	5000	0	109	80 - 121				
trans-1,2-Dichloroethene	4994	250	5000	0	99.9	75 - 124				
trans-1,3-Dichloropropene	4620	250	5000	0	92.4	73 - 127				
Trichloroethene	6386	250	5000	1320	101	79 - 123				
Trichlorofluoromethane	5593	250	5000	0	112	65 - 141				
Vinyl chloride	8810	250	5000	4471	86.8	58 - 137				
Surr: 1,2-Dichloroethane-d4	*12520*	*250*	*12500*	*0*	*100*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*12720*	*250*	*12500*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*12310*	*250*	*12500*	*0*	*98.5*	*80 - 119*				
Surr: Toluene-d8	*13620*	*250*	*12500*	*0*	*109*	*89 - 112*				

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061925-22MSD** Units: **ug/L** Analysis Date: **30-Jun-2023 17:19**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397588** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	5261	250	5000	0	105	78 - 124	5439	3.34	20	
1,1,1-Trichloroethane	5040	250	5000	0	101	74 - 131	5240	3.9	20	
1,1,2,2-Tetrachloroethane	4470	250	5000	0	89.4	71 - 121	4550	1.78	20	
1,1,2-Trichloroethane	4718	250	5000	0	94.4	80 - 119	4918	4.14	20	
1,1-Dichloroethane	4547	250	5000	0	90.9	77 - 125	4587	0.883	20	
1,1-Dichloroethene	5156	250	5000	0	103	71 - 131	5369	4.06	20	
1,1-Dichloropropene	5600	250	5000	0	112	78 - 125	5596	0.0786	20	
1,2,3-Trichlorobenzene	4265	250	5000	0	85.3	69 - 129	4268	0.068	20	
1,2,3-Trichloropropane	4543	250	5000	0	90.9	73 - 122	4638	2.06	20	
1,2,4-Trichlorobenzene	4420	250	5000	0	88.4	69 - 130	4441	0.484	20	
1,2,4-Trimethylbenzene	5211	250	5000	0	104	76 - 124	5157	1.02	20	
1,2-Dibromo-3-chloropropane	3914	250	5000	0	78.3	62 - 128	3900	0.34	20	
1,2-Dibromoethane	4866	250	5000	0	97.3	77 - 121	4879	0.272	20	
1,2-Dichlorobenzene	4887	250	5000	0	97.7	80 - 119	4993	2.15	20	
1,2-Dichloroethane	4930	250	5000	0	98.6	73 - 128	5180	4.95	20	
1,2-Dichloropropane	4822	250	5000	0	96.4	78 - 122	4986	3.36	20	
1,3,5-Trimethylbenzene	5259	250	5000	0	105	75 - 124	5333	1.4	20	
1,3-Dichlorobenzene	4971	250	5000	0	99.4	80 - 119	5114	2.85	20	
1,3-Dichloropropane	4860	250	5000	0	97.2	80 - 119	5051	3.87	20	
1,4-Dichlorobenzene	4934	250	5000	0	98.7	79 - 118	5014	1.61	20	
2,2-Dichloropropane	5048	250	5000	0	101	60 - 139	5280	4.5	20	
2-Butanone	7924	500	10000	0	79.2	56 - 143	7745	2.28	20	
2-Chlorotoluene	5172	250	5000	0	103	79 - 122	5223	0.984	20	
2-Hexanone	8589	500	10000	0	85.9	57 - 139	8477	1.31	20	
4-Chlorotoluene	5253	250	5000	0	105	78 - 122	5340	1.65	20	
4-Isopropyltoluene	5417	250	5000	0	108	77 - 127	5323	1.76	20	
4-Methyl-2-pentanone	8755	500	10000	0	87.5	67 - 130	8835	0.918	20	
Acetone	8466	500	10000	0	84.7	39 - 160	8244	2.65	20	
Benzene	5054	250	5000	0	101	79 - 120	5163	2.13	20	
Bromobenzene	4974	250	5000	0	99.5	80 - 120	5016	0.832	20	
Bromochloromethane	4507	250	5000	0	90.1	78 - 123	4522	0.329	20	
Bromodichloromethane	5152	250	5000	0	103	79 - 125	5136	0.322	20	
Bromoform	5097	250	5000	0	102	66 - 130	5223	2.44	20	
Bromomethane	5276	250	5000	0	106	53 - 141	5581	5.61	20	

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061925-22MSD** Units: **ug/L** Analysis Date: **30-Jun-2023 17:19**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397588** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	10000	500	10000	0	100	64 - 133	10300	2.96	20	
Carbon tetrachloride	5871	250	5000	0	117	72 - 136	6134	4.39	20	
Chlorobenzene	5160	250	5000	0	103	82 - 118	5307	2.81	20	
Chloroethane	4591	250	5000	0	91.8	60 - 138	4623	0.677	20	
Chloroform	4625	250	5000	0	92.5	79 - 124	4759	2.86	20	
Chloromethane	3957	250	5000	0	79.1	50 - 139	4211	6.23	20	
cis-1,2-Dichloroethene	23130	250	5000	19860	65.3	78 - 123	23980	3.62	20	S
cis-1,3-Dichloropropene	4597	250	5000	0	91.9	75 - 124	4698	2.18	20	
Dibromochloromethane	5104	250	5000	0	102	74 - 126	5318	4.11	20	
Dibromomethane	5026	250	5000	0	101	79 - 123	5076	0.983	20	
Dichlorodifluoromethane	4083	250	5000	0	81.7	32 - 152	3989	2.33	20	
Ethylbenzene	5472	250	5000	0	109	79 - 121	5635	2.94	20	
Hexachlorobutadiene	5181	250	5000	0	104	66 - 134	5441	4.9	20	
Isopropylbenzene	5807	250	5000	0	116	72 - 131	5924	2	20	
m,p-Xylene	11410	500	10000	0	114	80 - 121	11570	1.44	20	
Methylene chloride	9777	500	5000	5198	91.6	74 - 124	9778	0.0141	20	
Naphthalene	4304	250	5000	0	86.1	61 - 128	3968	8.12	20	
n-Butylbenzene	5429	250	5000	0	109	75 - 128	5519	1.64	20	
n-Propylbenzene	5501	250	5000	0	110	76 - 126	5590	1.6	20	
o-Xylene	5407	250	5000	0	108	78 - 122	5594	3.4	20	
sec-Butylbenzene	5578	250	5000	0	112	77 - 126	5613	0.638	20	
Styrene	5511	250	5000	0	110	78 - 123	5413	1.79	20	
tert-Butylbenzene	5571	250	5000	0	111	78 - 124	5641	1.25	20	
Tetrachloroethene	5540	250	5000	0	111	74 - 129	5800	4.58	20	
Toluene	5270	250	5000	0	105	80 - 121	5465	3.64	20	
trans-1,2-Dichloroethene	5009	250	5000	0	100	75 - 124	4994	0.309	20	
trans-1,3-Dichloropropene	4600	250	5000	0	92.0	73 - 127	4620	0.437	20	
Trichloroethene	6275	250	5000	1320	99.1	79 - 123	6386	1.76	20	
Trichlorofluoromethane	5561	250	5000	0	111	65 - 141	5593	0.574	20	
Vinyl chloride	8674	250	5000	4471	84.1	58 - 137	8810	1.55	20	
Surr: 1,2-Dichloroethane-d4	*12480*	*250*	*12500*	*0*	*99.8*	*81 - 118*	*12520*	*0.363*	*20*	
Surr: 4-Bromofluorobenzene	*12850*	*250*	*12500*	*0*	*103*	*85 - 114*	*12720*	*1.02*	*20*	
Surr: Dibromofluoromethane	*12510*	*250*	*12500*	*0*	*100*	*80 - 119*	*12310*	*1.54*	*20*	
Surr: Toluene-d8	*13520*	*250*	*12500*	*0*	*108*	*89 - 112*	*13620*	*0.749*	*20*	

ALS Houston, US Date: 07-Jul-23

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Weekly Samples
WorkOrder:	HS23061900

QC BATCH REPORT

Batch ID:	**R440378 (0)**	**Instrument:**	**VOA9**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS23061900-01

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23061900

QC BATCH REPORT

Batch ID: R440724 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **06-Jul-2023 17:20**
Client ID: Run ID: **ICS-Integrion_440724** SeqNo: **7406155** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.250	0.500								U
Sulfate	0.250	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **06-Jul-2023 17:31**
Client ID: Run ID: **ICS-Integrion_440724** SeqNo: **7406156** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.88	0.500	20	0	99.4	80 - 120				
Sulfate	19.43	0.500	20	0	97.1	80 - 120				

MS Sample ID: **HS23061635-02MS** Units: **mg/L** Analysis Date: **06-Jul-2023 18:12**
Client ID: Run ID: **ICS-Integrion_440724** SeqNo: **7406159** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	5604	50.0	1000	4814	78.9	80 - 120				SO
Sulfate	953.2	50.0	1000	24.5	92.9	80 - 120				

MSD Sample ID: **HS23061635-02MSD** Units: **mg/L** Analysis Date: **06-Jul-2023 18:18**
Client ID: Run ID: **ICS-Integrion_440724** SeqNo: **7406160** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	5602	50.0	1000	4814	78.7	80 - 120	5604	0.0321	20	SO
Sulfate	958.9	50.0	1000	24.5	93.4	80 - 120	953.2	0.596	20	

The following samples were analyzed in this batch: HS23061900-01

ALS Houston, US Date: 07-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS23061900**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087-2023	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 07-Jul-23

Sample Receipt Checklist

Work Order ID: HS23061900 **Date/Time Received:** 28-Jun-2023 09:40

Client Name: Bhate Environmental **Received by:** Corey Grandits

Completed By: /S/ Malcolm Burleson (eSignature) 28-Jun-2023 10:44 (Date/Time) **Reviewed by:** (eSignature) (Date/Time)

Matrices: water Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.8uc 1.7c	ir31
Cooler(s)/Kit(s):	58473	
Date/Time sample(s) sent to storage:	06282023	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210, Houston, Tx. 77099 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. JVPCIBH.0001

Job:
GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O Number

HS23061900

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Weekly Samples

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: VOC	Analyses: CHLORIDE, SULFATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_062723	Water	06/27/23 / 13:00		3	3		HCL	
LH18/24-SP650_062723	Water	06/27/23 / 13:00		1		1	NONE	
Trip Blank	Water	06/27/23		2	2		HCL	

Additional Remarks: **Standard TAT on all parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	06/27/23	13:30	CG	6-28-23	0940						

9For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks: 1234 48473 1.8C

(Word) S:\1-ces\Forms\Chain of Custody - BiWeekly


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
Date: 6/2
Name:
Company:
CUSTODY SEAL
Time: 1330
Seal Broken By:
Date:
FedEx
TRK# 0221 6230 2994 8017
XA SGRA
WED - 28 JUN AA
PRIORITY OVERNIGHT
77099
TX-US
IAH

HS23061900-MSVOA-SW8260

ALS WO# HS23061900

01210695

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA 8260

Workorder

HS23061900

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Weekly Samples

07/03/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

HS23061900-01

LH18/24-SP650_062723

Collected	Received	Matrix	Basis
06/27/23 13:00	06/28/23 09:40	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/30/23 13:13	VOA9_440378	U063008.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/30/23 13:13	VOA9_440378	U063008.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

HS23061900-01	Collected	Received	Matrix	Basis
LH18/24-SP650_062723	06/27/23 13:00	06/28/23 09:40	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
cis-1,2-Dichloroethene	ug/L	1.2		0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D
Vinyl chloride	ug/L	2.7		0.20	1.0	1.0	1	06/30/23 13:13	VOA9_440378	U063008.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

HS23061900-02

Trip Blank

Collected	Received	Matrix	Basis
06/27/23 00:00	06/28/23 09:40	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/29/23 13:01	VOA9_440247	U062908.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/29/23 13:01	VOA9_440247	U062908.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

HS23061900-02

Trip Blank

Collected	Received	Matrix	Basis
06/27/23 00:00	06/28/23 09:40	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 13:01	VOA9_440247	U062908.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

VBLKW-230629	Collected	Received	Matrix	Basis
VBLKW-230629	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

VBLKW-230629	Collected	Received	Matrix	Basis
VBLKW-230629	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

VBLKW-230630	Collected	Received	Matrix	Basis
VBLKW-230630	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/30/23 12:50	VOA9_440378	U063007.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/30/23 12:50	VOA9_440378	U063007.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

VBLKW-230630	Collected	Received	Matrix	Basis
VBLKW-230630	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/30/23 12:50	VOA9_440378	U063007.D

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Form 2

System Monitoring Compound Recovery

Volatiles by EPA 8260

Workorder

HS23061900

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Weekly Samples

07/03/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.

Project: Longhorn GW Treatment Plant Weekly Samples

Workorder: HS23061900

RunID: VOA9-440247

Volatiles by EPA 8260

CCB-CCB	Analyzed	Conc Units	Dilution
CCB	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.12	50	100		80-120
4-Bromofluorobenzene	48.15	50	96.3		80-120
Dibromofluoromethane	48.17	50	96.3		80-120
Toluene-d8	54.19	50	108		80-120

CCV-CCV	Analyzed	Conc Units	Dilution
CCV	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	48.83	50	97.7		80-120
4-Bromofluorobenzene	50.92	50	102		80-120
Dibromofluoromethane	48.75	50	97.5		80-120
Toluene-d8	47.68	50	95.4		80-120

HS23061825-03MS	Analyzed	Conc Units	Dilution
BatchQC	06/29/23	%REC	50

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	2589	2500	104		81-118
4-Bromofluorobenzene	2564	2500	103		85-114
Dibromofluoromethane	2493	2500	99.7		80-119
Toluene-d8	2704	2500	108		89-112

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.

Project: Longhorn GW Treatment Plant Weekly Samples

Workorder: HS23061900

RunID: VOA9-440247

Volatiles by EPA 8260

HS23061825-03MSD	Analyzed	Conc Units	Dilution
BatchQC	06/29/23	%REC	50

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	2532	2500	101		81-118
4-Bromofluorobenzene	2523	2500	101		85-114
Dibromofluoromethane	2493	2500	99.7		80-119
Toluene-d8	2723	2500	109		89-112

HS23061900-02	Analyzed	Conc Units	Dilution
Trip Blank	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51	50	102		81-118
4-Bromofluorobenzene	47	50	94.2		85-114
Dibromofluoromethane	49	50	97.0		80-119
Toluene-d8	54	50	108		89-112

VBLKW-230629	Analyzed	Conc Units	Dilution
VBLKW-230629	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51.09	50	102		81-118
4-Bromofluorobenzene	47.17	50	94.3		85-114
Dibromofluoromethane	48.53	50	97.1		80-119
Toluene-d8	53.86	50	108		89-112

Form 2 - System Monitoring Compound Recovery

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Weekly Samples	HS23061900	

RunID

Volatiles by EPA 8260

VOA9-440247

VLCSW-230629	Analyzed	Conc Units	Dilution
VLCSW-230629	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51.69	50	103		81-118
4-Bromofluorobenzene	51.6	50	103		85-114
Dibromofluoromethane	50.54	50	101		80-119
Toluene-d8	48.55	50	97.1		89-112

Form 2 - System Monitoring Compound Recovery

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Weekly Samples	HS23061900	

RunID

Volatiles by EPA 8260

VOA9-440378

CCB-CCB	Analyzed	Conc Units	Dilution
CCB	06/30/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.68	50	99.4		80-120
4-Bromofluorobenzene	47.75	50	95.5		80-120
Dibromofluoromethane	48.03	50	96.1		80-120
Toluene-d8	54.04	50	108		80-120

CCV-CCV	Analyzed	Conc Units	Dilution
CCV	06/30/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	49.66	50	99.3		80-120
4-Bromofluorobenzene	50.99	50	102		80-120
Dibromofluoromethane	48.42	50	96.8		80-120
Toluene-d8	49.2	50	98.4		80-120

HS23061900-01	Analyzed	Conc Units	Dilution
LH18/24-SP650_062723	06/30/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51	50	102		81-118
4-Bromofluorobenzene	47	50	94.0		85-114
Dibromofluoromethane	50	50	99.1		80-119
Toluene-d8	54	50	108		89-112

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.

Project: Longhorn GW Treatment Plant Weekly Samples

Workorder: HS23061900

RunID: VOA9-440378

Volatiles by EPA 8260

HS23061925-22MS	Analyzed	Conc Units	Dilution
BatchQC	06/30/23	%REC	250

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	12520	12500	100		81-118
4-Bromofluorobenzene	12720	12500	102		85-114
Dibromofluoromethane	12310	12500	98.5		80-119
Toluene-d8	13620	12500	109		89-112

HS23061925-22MSD	Analyzed	Conc Units	Dilution
BatchQC	06/30/23	%REC	250

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	12480	12500	99.8		81-118
4-Bromofluorobenzene	12850	12500	103		85-114
Dibromofluoromethane	12510	12500	100		80-119
Toluene-d8	13520	12500	108		89-112

VBLKW-230630	Analyzed	Conc Units	Dilution
VBLKW-230630	06/30/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.45	50	101		81-118
4-Bromofluorobenzene	47.72	50	95.4		85-114
Dibromofluoromethane	48.46	50	96.9		80-119
Toluene-d8	53.62	50	107		89-112

Form 2 - System Monitoring Compound Recovery

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Weekly Samples	**HS23061900**	

RunID

Volatiles by EPA 8260

VOA9-440378

VLCSW-230629	Analyzed	Conc Units	Dilution
VLCSW-230629	06/30/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	48.68	50	97.4		81-118
4-Bromofluorobenzene	52.02	50	104		85-114
Dibromofluoromethane	48.87	50	97.7		80-119
Toluene-d8	51.75	50	104		89-112

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA 8260

Workorder

HS23061900

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Weekly Samples

07/03/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

RunID VOA9-440247

Volatiles by EPA 8260

BatchQC (HS23061825-03)				HS23061825-03MS				HS23061825-03MSD						
Sample Matrix: Aqueous			Run Date	06/29/23				06/29/23						
Result Units: ug/L			Run Time	15:10				15:33						
			Data File	U062913.D				U062914.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,1,2-Tetrachloroethane	78-124	50	0	1105	1000	110		1098	1000	110		20	0.62	
1,1,1-Trichloroethane	74-131	50	0	1081	1000	108		1069	1000	107		20	1.1	
1,1,2,2-Tetrachloroethane	71-121	50	0	901.2	1000	90		947.9	1000	95		20	5.05	
1,1,2-Trichloroethane	80-119	50	0	973.3	1000	97		995.5	1000	100		20	2.25	
1,1-Dichloroethane	77-125	50	0	956	1000	96		933.7	1000	93		20	2.36	
1,1-Dichloroethene	71-131	50	0	1081	1000	108		1058	1000	106		20	2.15	
1,1-Dichloropropene	78-125	50	0	1153	1000	115		1153	1000	115		20	0.0741	
1,2,3-Trichlorobenzene	69-129	50	0	868.2	1000	87		937.2	1000	94		20	7.65	
1,2,3-Trichloropropane	73-122	50	0	902.8	1000	90		937.5	1000	94		20	3.76	
1,2,4-Trichlorobenzene	69-130	50	0	905.1	1000	90		956.4	1000	96		20	5.51	
1,2,4-Trimethylbenzene	76-124	50	0	1094	1000	109		1143	1000	114		20	4.42	
1,2-Dibromo-3-chloropropane	62-128	50	0	804.1	1000	80		843.7	1000	84		20	4.8	
1,2-Dibromoethane	77-121	50	0	990.6	1000	99		1012	1000	101		20	2.15	
1,2-Dichlorobenzene	80-119	50	0	999.5	1000	100		1040	1000	104		20	3.95	
1,2-Dichloroethane	73-128	50	79.85	1151	1000	107		1133	1000	105		20	1.57	
1,2-Dichloropropane	78-122	50	0	1005	1000	101		1019	1000	102		20	1.31	
1,3,5-Trimethylbenzene	75-124	50	0	1141	1000	114		1175	1000	118		20	2.99	
1,3-Dichlorobenzene	80-119	50	0	1032	1000	103		1073	1000	107		20	3.88	
1,3-Dichloropropane	80-119	50	0	1004	1000	100		1034	1000	103		20	2.94	
1,4-Dichlorobenzene	79-118	50	0	1006	1000	101		1053	1000	105		20	4.57	
2,2-Dichloropropane	60-139	50	0	1121	1000	112		1073	1000	107		20	4.38	
2-Butanone	56-143	50	0	1574	2000	79		1649	2000	82		20	4.7	
2-Chlorotoluene	79-122	50	0	1086	1000	109		1101	1000	110		20	1.32	
2-Hexanone	57-139	50	0	1690	2000	84		1768	2000	88		20	4.52	
4-Chlorotoluene	78-122	50	0	1108	1000	111		1127	1000	113		20	1.64	
4-Isopropyltoluene	77-127	50	0	1177	1000	118		1222	1000	122		20	3.78	
4-Methyl-2-pentanone	67-130	50	0	1774	2000	89		1856	2000	93		20	4.55	
Acetone	39-160	50	0	1515	2000	76		1688	2000	84		20	10.8	
Benzene	79-120	50	0	1054	1000	105		1048	1000	105		20	0.589	
Bromobenzene	80-120	50	0	1003	1000	100		1049	1000	105		20	4.48	
Bromochloromethane	78-123	50	0	921.2	1000	92		923.9	1000	92		20	0.287	
Bromodichloromethane	79-125	50	0	1063	1000	106		1083	1000	108		20	1.83	
Bromoform	66-130	50	0	1061	1000	106		1064	1000	106		20	0.238	
Bromomethane	53-141	50	0	1185	1000	118		1113	1000	111		20	6.24	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

RunID VOA9-440247

Volatiles by EPA 8260

BatchQC (HS23061825-03)				HS23061825-03MS				HS23061825-03MSD						
Sample Matrix: Aqueous			Run Date	06/29/23				06/29/23						
Result Units: ug/L			Run Time	15:10				15:33						
			Data File	U062913.D				U062914.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Carbon disulfide	64-133	50	0	2138	2000	107		2097	2000	105		20	1.93	
Carbon tetrachloride	72-136	50	0	1245	1000	124		1203	1000	120		20	3.42	
Chlorobenzene	82-118	50	0	1083	1000	108		1084	1000	108		20	0.0917	
Chloroethane	60-138	50	0	998.3	1000	100		948.5	1000	95		20	5.11	
Chloroform	79-124	50	0	967.2	1000	97		982.2	1000	98		20	1.53	
Chloromethane	50-139	50	0	779.4	1000	78		792.8	1000	79		20	1.71	
cis-1,2-Dichloroethene	78-123	50	0	994	1000	99		966.5	1000	97		20	2.81	
cis-1,3-Dichloropropene	75-124	50	0	959.1	1000	96		966.1	1000	97		20	0.728	
Dibromochloromethane	74-126	50	0	1097	1000	110		1082	1000	108		20	1.42	
Dibromomethane	79-123	50	0	1047	1000	105		1017	1000	102		20	2.96	
Dichlorodifluoromethane	32-152	50	0	893.1	1000	89		878.6	1000	88		20	1.63	
Ethylbenzene	79-121	50	0	1129	1000	113		1139	1000	114		20	0.875	
Hexachlorobutadiene	66-134	50	0	1075	1000	107		1124	1000	112		20	4.45	
Isopropylbenzene	72-131	50	0	1215	1000	122		1231	1000	123		20	1.24	
m,p-Xylene	80-121	50	0	2376	2000	119		2372	2000	119		20	0.163	
Methylene chloride	74-124	50	0	994.4	1000	99		1005	1000	101		20	1.09	
Naphthalene	61-128	50	0	811.7	1000	81		925.4	1000	92		20	13.1	
n-Butylbenzene	75-128	50	0	1159	1000	116		1203	1000	120		20	3.7	
n-Propylbenzene	76-126	50	0	1139	1000	114		1192	1000	119		20	4.58	
o-Xylene	78-122	50	0	1142	1000	114		1143	1000	114		20	0.134	
sec-Butylbenzene	77-126	50	0	1171	1000	117		1217	1000	122		20	3.83	
Styrene	78-123	50	0	1161	1000	116		1171	1000	117		20	0.854	
tert-Butylbenzene	78-124	50	0	1150	1000	115		1200	1000	120		20	4.23	
Tetrachloroethene	74-129	50	0	1207	1000	121		1199	1000	120		20	0.625	
Toluene	80-121	50	0	1085	1000	109		1109	1000	111		20	2.12	
trans-1,2-Dichloroethene	75-124	50	0	1027	1000	103		1033	1000	103		20	0.615	
trans-1,3-Dichloropropene	73-127	50	0	947	1000	95		971.1	1000	97		20	2.51	
Trichloroethene	79-123	50	2606	3625	1000	102		3563	1000	96		20	1.72	
Trichlorofluoromethane	65-141	50	0	1188	1000	119		1167	1000	117		20	1.81	
Vinyl chloride	58-137	50	0	990.6	1000	99		966.4	1000	97		20	2.47	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

RunID VOA9-440378

Volatiles by EPA 8260

BatchQC (HS23061925-22)				HS23061925-22MS				HS23061925-22MSD						
Sample Matrix: Aqueous			Run Date	06/30/23				06/30/23						
Result Units: ug/L			Run Time	16:57				17:19						
			Data File	U063018.D				U063019.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,1,2-Tetrachloroethane	78-124	250	0	5439	5000	109		5261	5000	105		20	3.34	
1,1,1-Trichloroethane	74-131	250	0	5240	5000	105		5040	5000	101		20	3.9	
1,1,2,2-Tetrachloroethane	71-121	250	0	4550	5000	91		4470	5000	89		20	1.78	
1,1,2-Trichloroethane	80-119	250	0	4918	5000	98		4718	5000	94		20	4.14	
1,1-Dichloroethane	77-125	250	0	4587	5000	92		4547	5000	91		20	0.883	
1,1-Dichloroethene	71-131	250	0	5369	5000	107		5156	5000	103		20	4.06	
1,1-Dichloropropene	78-125	250	0	5596	5000	112		5600	5000	112		20	0.0786	
1,2,3-Trichlorobenzene	69-129	250	0	4268	5000	85		4265	5000	85		20	0.068	
1,2,3-Trichloropropane	73-122	250	0	4638	5000	93		4543	5000	91		20	2.06	
1,2,4-Trichlorobenzene	69-130	250	0	4441	5000	89		4420	5000	88		20	0.484	
1,2,4-Trimethylbenzene	76-124	250	0	5157	5000	103		5211	5000	104		20	1.02	
1,2-Dibromo-3-chloropropane	62-128	250	0	3900	5000	78		3914	5000	78		20	0.34	
1,2-Dibromoethane	77-121	250	0	4879	5000	98		4866	5000	97		20	0.272	
1,2-Dichlorobenzene	80-119	250	0	4993	5000	100		4887	5000	98		20	2.15	
1,2-Dichloroethane	73-128	250	0	5180	5000	104		4930	5000	99		20	4.95	
1,2-Dichloropropane	78-122	250	0	4986	5000	100		4822	5000	96		20	3.36	
1,3,5-Trimethylbenzene	75-124	250	0	5333	5000	107		5259	5000	105		20	1.4	
1,3-Dichlorobenzene	80-119	250	0	5114	5000	102		4971	5000	99		20	2.85	
1,3-Dichloropropane	80-119	250	0	5051	5000	101		4860	5000	97		20	3.87	
1,4-Dichlorobenzene	79-118	250	0	5014	5000	100		4934	5000	99		20	1.61	
2,2-Dichloropropane	60-139	250	0	5280	5000	106		5048	5000	101		20	4.5	
2-Butanone	56-143	250	0	7745	10000	77		7924	10000	79		20	2.28	
2-Chlorotoluene	79-122	250	0	5223	5000	104		5172	5000	103		20	0.984	
2-Hexanone	57-139	250	0	8477	10000	85		8589	10000	86		20	1.31	
4-Chlorotoluene	78-122	250	0	5340	5000	107		5253	5000	105		20	1.65	
4-Isopropyltoluene	77-127	250	0	5323	5000	106		5417	5000	108		20	1.76	
4-Methyl-2-pentanone	67-130	250	0	8835	10000	88		8755	10000	88		20	0.918	
Acetone	39-160	250	0	8244	10000	82		8466	10000	85		20	2.65	
Benzene	79-120	250	0	5163	5000	103		5054	5000	101		20	2.13	
Bromobenzene	80-120	250	0	5016	5000	100		4974	5000	100		20	0.832	
Bromochloromethane	78-123	250	0	4522	5000	90		4507	5000	90		20	0.329	
Bromodichloromethane	79-125	250	0	5136	5000	103		5152	5000	103		20	0.322	
Bromoform	66-130	250	0	5223	5000	104		5097	5000	102		20	2.44	
Bromomethane	53-141	250	0	5581	5000	112		5276	5000	106		20	5.61	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

RunID VOA9-440378

Volatiles by EPA 8260

BatchQC (HS23061925-22)				HS23061925-22MS				HS23061925-22MSD						
Sample Matrix: Aqueous			Run Date	06/30/23				06/30/23						
Result Units: ug/L			Run Time	16:57				17:19						
			Data File	U063018.D				U063019.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Carbon disulfide	64-133	250	0	10300	10000	103		10000	10000	100		20	2.96	
Carbon tetrachloride	72-136	250	0	6134	5000	123		5871	5000	117		20	4.39	
Chlorobenzene	82-118	250	0	5307	5000	106		5160	5000	103		20	2.81	
Chloroethane	60-138	250	0	4623	5000	92		4591	5000	92		20	0.677	
Chloroform	79-124	250	0	4759	5000	95		4625	5000	92		20	2.86	
Chloromethane	50-139	250	0	4211	5000	84		3957	5000	79		20	6.23	
cis-1,2-Dichloroethene	78-123	250	19860	23980	5000	82		23130	5000	65		20	3.62	
cis-1,3-Dichloropropene	75-124	250	0	4698	5000	94		4597	5000	92		20	2.18	
Dibromochloromethane	74-126	250	0	5318	5000	106		5104	5000	102		20	4.11	
Dibromomethane	79-123	250	0	5076	5000	102		5026	5000	101		20	0.983	
Dichlorodifluoromethane	32-152	250	0	3989	5000	80		4083	5000	82		20	2.33	
Ethylbenzene	79-121	250	0	5635	5000	113		5472	5000	109		20	2.94	
Hexachlorobutadiene	66-134	250	0	5441	5000	109		5181	5000	104		20	4.9	
Isopropylbenzene	72-131	250	0	5924	5000	118		5807	5000	116		20	2	
m,p-Xylene	80-121	250	0	11570	10000	116		11410	10000	114		20	1.44	
Methylene chloride	74-124	250	5198	9778	5000	92		9777	5000	92		20	0.0141	
Naphthalene	61-128	250	0	3968	5000	79		4304	5000	86		20	8.12	
n-Butylbenzene	75-128	250	0	5519	5000	110		5429	5000	109		20	1.64	
n-Propylbenzene	76-126	250	0	5590	5000	112		5501	5000	110		20	1.6	
o-Xylene	78-122	250	0	5594	5000	112		5407	5000	108		20	3.4	
sec-Butylbenzene	77-126	250	0	5613	5000	112		5578	5000	112		20	0.638	
Styrene	78-123	250	0	5413	5000	108		5511	5000	110		20	1.79	
tert-Butylbenzene	78-124	250	0	5641	5000	113		5571	5000	111		20	1.25	
Tetrachloroethene	74-129	250	0	5800	5000	116		5540	5000	111		20	4.58	
Toluene	80-121	250	0	5465	5000	109		5270	5000	105		20	3.64	
trans-1,2-Dichloroethene	75-124	250	0	4994	5000	100		5009	5000	100		20	0.309	
trans-1,3-Dichloropropene	73-127	250	0	4620	5000	92		4600	5000	92		20	0.437	
Trichloroethene	79-123	250	1320	6386	5000	101		6275	5000	99		20	1.76	
Trichlorofluoromethane	65-141	250	0	5593	5000	112		5561	5000	111		20	0.574	
Vinyl chloride	58-137	250	4471	8810	5000	87		8674	5000	84		20	1.55	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA 8260

Workorder

HS23061900

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Weekly Samples

07/03/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder
HS23061900

SAMPLENUM
VLCSW-230629

Volatiles by EPA 8260

VOA9_440247			VLCSW-230629			
Spike Matrix	Aqueous	**Run Date**	06/29/23			
Result Units	ug/L	**Run Time**	11:54			
		Data File	U062905.D			
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
1,1,1,2-Tetrachloroethane	78-124	20	21.59	108		
1,1,1,2-Tetrachloroethane	78-124	20	22.49	112		
1,1,1-Trichloroethane	74-131	20	22.86	114		
1,1,1-Trichloroethane	74-131	20	19.94	100		
1,1,2,2-Tetrachloroethane	71-121	20	19.35	97		
1,1,2,2-Tetrachloroethane	71-121	20	20.19	101		
1,1,2-Trichloroethane	80-119	20	20	100		
1,1,2-Trichloroethane	80-119	20	20.96	105		
1,1-Dichloroethane	77-125	20	20.52	103		
1,1-Dichloroethane	77-125	20	19.35	97		
1,1-Dichloroethene	71-131	20	21.67	108		
1,1-Dichloroethene	71-131	20	20.03	100		
1,1-Dichloropropene	78-125	20	22.59	113		
1,1-Dichloropropene	78-125	20	20.76	104		
1,2,3-Trichlorobenzene	69-129	20	19.49	98		
1,2,3-Trichlorobenzene	69-129	20	19.76	99		
1,2,3-Trichloropropane	73-122	20	19.52	98		
1,2,3-Trichloropropane	73-122	20	20.18	101		
1,2,4-Trichlorobenzene	69-130	20	19.84	99		
1,2,4-Trichlorobenzene	69-130	20	19.86	99		
1,2,4-Trimethylbenzene	76-124	20	22.33	112		
1,2,4-Trimethylbenzene	76-124	20	21.36	107		
1,2-Dibromo-3-chloropropane	62-128	20	17.04	85		
1,2-Dibromo-3-chloropropane	62-128	20	18.51	92		
1,2-Dibromoethane	77-121	20	20.74	104		
1,2-Dibromoethane	77-121	20	21.72	109		
1,2-Dichlorobenzene	80-119	20	20.88	104		
1,2-Dichlorobenzene	80-119	20	21.03	105		
1,2-Dichloroethane	73-128	20	22.57	113		
1,2-Dichloroethane	73-128	20	22.54	113		
1,2-Dichloropropane	78-122	20	20.74	104		
1,2-Dichloropropane	78-122	20	21.11	106		
1,3,5-Trimethylbenzene	75-124	20	22.6	113		
1,3,5-Trimethylbenzene	75-124	20	21.21	106		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder
HS23061900

SAMPLENUM
VLCSW-230629

Volatiles by EPA 8260

VOA9_440247			VLCSW-230629			
Spike Matrix	Aqueous	**Run Date**	06/29/23			
Result Units	ug/L	**Run Time**	11:54			
		Data File	U062905.D			
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
1,3-Dichlorobenzene	80-119	20	21.22	106		
1,3-Dichlorobenzene	80-119	20	21.17	106		
1,3-Dichloropropane	80-119	20	20.44	102		
1,3-Dichloropropane	80-119	20	21.71	109		
1,4-Dichlorobenzene	79-118	20	20.89	104		
1,4-Dichlorobenzene	79-118	20	20.64	103		
2,2-Dichloropropane	60-139	20	23.48	117		
2,2-Dichloropropane	60-139	20	21.53	108		
2-Butanone	56-143	40	37.08	93		
2-Butanone	56-143	40	39.78	99		
2-Chlorotoluene	79-122	20	21.88	109		
2-Chlorotoluene	79-122	20	20.83	104		
2-Hexanone	57-139	40	36.36	91		
2-Hexanone	57-139	40	39.71	99		
4-Chlorotoluene	78-122	20	22.27	111		
4-Chlorotoluene	78-122	20	21.38	107		
4-Isopropyltoluene	77-127	20	23.07	115		
4-Isopropyltoluene	77-127	20	20.25	101		
4-Methyl-2-pentanone	67-130	40	37.75	94		
4-Methyl-2-pentanone	67-130	40	40.58	101		
Acetone	39-160	40	42.4	106		
Acetone	39-160	40	50.79	127		
Benzene	79-120	20	21.21	106		
Benzene	79-120	20	21.54	108		
Bromobenzene	80-120	20	21.18	106		
Bromobenzene	80-120	20	21	105		
Bromochloromethane	78-123	20	20.54	103		
Bromochloromethane	78-123	20	20.02	100		
Bromodichloromethane	79-125	20	21.72	109		
Bromodichloromethane	79-125	20	22.65	113		
Bromoform	66-130	20	21.08	105		
Bromoform	66-130	20	22.28	111		
Bromomethane	53-141	20	25.7	129		
Bromomethane	53-141	20	23.3	117		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder
HS23061900

SAMPLENUM
VLCSW-230629

Volatiles by EPA 8260

VOA9_440247			VLCSW-230629			
Spike Matrix	Aqueous	**Run Date**	06/29/23			
Result Units	ug/L	**Run Time**	11:54			
		Data File	U062905.D			
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
Carbon disulfide	64-133	40	48.71	122		
Carbon disulfide	64-133	40	45.42	114		
Carbon tetrachloride	72-136	20	23.67	118		
Carbon tetrachloride	72-136	20	21.15	106		
Chlorobenzene	82-118	20	21.57	108		
Chlorobenzene	82-118	20	21.49	107		
Chloroethane	60-138	20	20.34	102		
Chloroethane	60-138	20	19.47	97		
Chloroform	79-124	20	21.4	107		
Chloroform	79-124	20	20.8	104		
Chloromethane	50-139	20	17.48	87		
Chloromethane	50-139	20	17.15	86		
cis-1,2-Dichloroethene	78-123	20	21.04	105		
cis-1,2-Dichloroethene	78-123	20	20.52	103		
cis-1,3-Dichloropropene	75-124	20	20.56	103		
cis-1,3-Dichloropropene	75-124	20	20.63	103		
Dibromochloromethane	74-126	20	21.84	109		
Dibromochloromethane	74-126	20	23.49	117		
Dibromomethane	79-123	20	21.48	107		
Dibromomethane	79-123	20	22.05	110		
Dichlorodifluoromethane	32-152	20	20.59	103		
Dichlorodifluoromethane	32-152	20	18.31	92		
Ethylbenzene	79-121	20	22.09	110		
Ethylbenzene	79-121	20	21.37	107		
Hexachlorobutadiene	66-134	20	22.26	111		
Hexachlorobutadiene	66-134	20	18.33	92		
Isopropylbenzene	72-131	20	23.27	116		
Isopropylbenzene	72-131	20	21.18	106		
m,p-Xylene	80-121	40	45.97	115		
m,p-Xylene	80-121	40	44.58	111		
Methylene chloride	74-124	20	22.25	111		
Methylene chloride	74-124	20	21.87	109		
Naphthalene	61-128	20	19.43	97		
Naphthalene	61-128	20	20.22	101		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder
HS23061900

SAMPLENUM
VLCSW-230629

Volatiles by EPA 8260

VOA9_440247			VLCSW-230629			
Spike Matrix	Aqueous	**Run Date**	06/29/23			
Result Units	ug/L	**Run Time**	11:54			
		Data File	U062905.D			
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
n-Butylbenzene	75-128	20	22.71	114		
n-Butylbenzene	75-128	20	19.35	97		
n-Propylbenzene	76-126	20	23.01	115		
n-Propylbenzene	76-126	20	20.98	105		
o-Xylene	78-122	20	22.16	111		
o-Xylene	78-122	20	21.83	109		
sec-Butylbenzene	77-126	20	22.88	114		
sec-Butylbenzene	77-126	20	19.4	97		
Styrene	78-123	20	23.28	116		
Styrene	78-123	20	22.97	115		
tert-Butylbenzene	78-124	20	22.7	113		
tert-Butylbenzene	78-124	20	20.17	101		
Tetrachloroethene	74-129	20	22	110		
Tetrachloroethene	74-129	20	21.09	105		
Toluene	80-121	20	21.55	108		
Toluene	80-121	20	22.25	111		
trans-1,2-Dichloroethene	75-124	20	21.91	110		
trans-1,2-Dichloroethene	75-124	20	20.82	104		
trans-1,3-Dichloropropene	73-127	20	19.62	98		
trans-1,3-Dichloropropene	73-127	20	20.2	101		
Trichloroethene	79-123	20	20.98	105		
Trichloroethene	79-123	20	21.2	106		
Trichlorofluoromethane	65-141	20	24.07	120		
Trichlorofluoromethane	65-141	20	20.43	102		
Vinyl chloride	58-137	20	20.84	104		
Vinyl chloride	58-137	20	19	95		

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

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Form 4

Method Blank Summary

Volatiles by EPA 8260

Workorder

HS23061900

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Weekly Samples

07/03/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Weekly Samples	**HS23061900**	

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230629	U062907.D	06/29/23 12:39	VOA9_440247
VLCSW-230629	LCS	VLCSW-230629	U062905.D	06/29/23 11:54	VOA9_440247
Trip Blank	SAMP	HS23061900-02	U062908.D	06/29/23 13:01	VOA9_440247
BatchQC	MS	HS23061825-03MS	U062913.D	06/29/23 15:10	VOA9_440247
BatchQC	MSD	HS23061825-03MSD	U062914.D	06/29/23 15:33	VOA9_440247

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230630	U063007.D	06/30/23 12:50	VOA9_440378
VLCSW-230629	LCS	VLCSW-230629	U063005.D	06/30/23 12:06	VOA9_440378
LH18/24-SP650_062723	SAMP	HS23061900-01	U063008.D	06/30/23 13:13	VOA9_440378
BatchQC	MS	HS23061925-22MS	U063018.D	06/30/23 16:57	VOA9_440378
BatchQC	MSD	HS23061925-22MSD	U063019.D	06/30/23 17:19	VOA9_440378

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Form 5

Instrument Performance Check

Volatiles by EPA 8260

Workorder

HS23061900

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Weekly Samples

07/03/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

RunID VOA9-437296

Volatiles by EPA 8260

Tune File U060601.D 06/06/23 6/6/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	19 (19)
75	30.0 - 60.0% of mass 95	46.7 (46.7)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	6.9 (6.86)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	92.1 (92.1)
175	4.0 - 9.0% of mass 174	8 (8.69) 1
176	93.0 - 101.0% of mass 174	89.4 (97) 1
177	5.0 - 9.0% of mass 176	6.1 (6.87) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	VSTD000.25	ICAL1	6/6/2023	U060602	VSTD000.25
2	VSTD000.5	ICAL2	6/6/2023	U060603	VSTD000.5
3	VSTD005	ICAL5	6/6/2023	U060606	VSTD005
4	VSTD001	ICAL3	6/6/2023	U060607	VSTD001
5	VSTD002	ICAL4	6/6/2023	U060608	VSTD002
6	VSTD020	ICAL6	6/6/2023	U060609	VSTD020
7	VSTD050	ICAL7	6/6/2023	U060610	VSTD050
8	VSTD100	ICAL8	6/6/2023	U060611	VSTD100
9	VSTD150	ICAL9	6/6/2023	U060612	VSTD150
10	VSTD200	ICAL	6/6/2023	U060613	VSTD200
11	CCV	ICV	6/6/2023	U060616	CCV

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Weekly Samples	**HS23061900**	

RunID

Volatiles by EPA 8260

VOA9-437296

Tune File	U060601.D	06/06/23 6/6/2023	**This check applies to the following analyses**

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

RunID VOA9-440247

Volatiles by EPA 8260

Tune File U062901.D 06/29/23 6/29/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	19.1 (19.1)
75	30.0 - 60.0% of mass 95	48.6 (48.6)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.2 (7.2)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	91.8 (91.8)
175	4.0 - 9.0% of mass 174	7.7 (8.41) 1
176	93.0 - 101.0% of mass 174	89.4 (97.3) 1
177	5.0 - 9.0% of mass 176	6.1 (6.85) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	6/29/2023	U062903	CCV
2	CCB	CCB	6/29/2023	U062904	CCB
3	VLCSW-	LCS	6/29/2023	U062905	VLCSW-230629
4	VBLKW-	MBLK	6/29/2023	U062907	VBLKW-230629
5	HS23061900-	SAMP	6/29/2023	U062908	Trip Blank
6	HS23061825-	MS	6/29/2023	U062913	ZZZZZZMS
7	HS23061825-	MSD	6/29/2023	U062914	ZZZZZZMSD
8	CCV-END	CCV_EN	6/29/2023	U062931	CCV-END

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Weekly Samples	**HS23061900**	

RunID

Volatiles by EPA 8260

VOA9-440247

Tune File	U062901.D	06/29/23 6/29/2023	**This check applies to the following analyses**

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder **HS23061900**

RunID VOA9-440378

Volatiles by EPA 8260

Tune File U063001.D 06/30/23 6/30/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	19.2 (19.2)
75	30.0 - 60.0% of mass 95	48.9 (48.9)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.3 (7.31)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	94 (94)
175	4.0 - 9.0% of mass 174	7.7 (8.2) 1
176	93.0 - 101.0% of mass 174	92.5 (98.4) 1
177	5.0 - 9.0% of mass 176	6.4 (6.9) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	6/30/2023	U063003	CCV
2	CCB	CCB	6/30/2023	U063004	CCB
3	VLCSW-	LCS	6/30/2023	U063005	VLCSW-230629
4	VBLKW-	MBLK	6/30/2023	U063007	VBLKW-230630
5	HS23061900-	SAMP	6/30/2023	U063008	LH18/24-SP650_062723
6	HS23061925-	MS	6/30/2023	U063018	ZZZZZZMS
7	HS23061925-	MSD	6/30/2023	U063019	ZZZZZZMSD
8	CCV-END	CCV_EN	6/30/2023	U063026	CCV-END

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	Longhorn GW Treatment Plant Weekly Samples	**HS23061900**	

RunID

Volatiles by EPA 8260

VOA9-440378

Tune File	U063001.D	06/30/23 6/30/2023	**This check applies to the following analyses**

01210731

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Form 6

Initial Calibration Data

Volatiles by EPA 8260

Workorder

HS23061900

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Weekly Samples

07/03/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder HS23061900

RunID VOA9_437296

Volatiles by EPA 8260

Calibration Files

Level 1 ..target\chem\voa9.i\u230606.b\u060602.d **Level 5**..target\chem\voa9.i\u230606.b\u060606.d
Level 2..target\chem\voa9.i\u230606.b\u060603a.d **Level 6**..target\chem\voa9.i\u230606.b\u060609.d
ICAL Start Date 06-JUN-2023 1115 **Level 3**..target\chem\voa9.i\u230606.b\u060607.d **Level 7**..target\chem\voa9.i\u230606.b\u060610.d **Level 9**..target\chem\voa9.i\u230606.b\u060612.d
ICAL End Date 06-JUN-2023 1541 **Level 4**..target\chem\voa9.i\u230606.b\u060608.d **Level 8**..target\chem\voa9.i\u230606.b\u060611.d **Level 10**target\chem\voa9.i\u230606.b\u060613.d

Compound	0.250 Level 1	0.500 Level 2	1.00 Level 3	2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Dichlorodifluoromethane	NE	3237	5058	8519	31172	134998						
	301782	630744	960667	1327832			LINR	0.00160	0.46271		0.99983	
Chloromethane	NE	6740	13219	24280	62455	243997						
	533277	979734	NE	NE			LINR	-0.02699	0.73429		0.99792	
Propionitrile	NE	0.08304	0.07790	0.06567	0.07543	0.07008						
	0.06910	0.07191	0.06959	0.06755			AVRG		0.07225		7.66936	
Vinyl Chloride	NE	0.53164	0.43717	0.48902	0.55204	0.55364						
	0.54961	0.55242	0.54597	0.54834			AVRG		0.52887		7.56687	
Bromomethane	NE	2378	5133	9237	23995	85360						
	189385	362834	572508	739966			LINR	-0.03678	0.26230		0.99829	
Chloroethane	NE	0.38400	0.39288	0.33413	0.35705	0.36318						
	0.34874	0.34887	0.34148	0.33605			AVRG		0.35626		5.77503	
Trichlorofluoromethane	NE	0.65250	0.50831	0.50964	0.63485	0.66665						
	0.60336	0.63856	0.62802	0.62488			AVRG		0.60742		9.63343	
Acrolein	NE	0.03356	0.02950	0.02511	0.02566	0.02421						
	0.02565	0.02534	0.02449	0.02533			AVRG		0.02654		11.47974	
Acetone	NE	8112	12344	18337	31915	105410						
	245967	467276	669020	NE			LINR	-0.11414	0.16245		0.99760	
1,1-Dichloroethene	NE	0.43475	0.34844	0.33936	0.38705	0.38169						
	0.37538	0.38325	0.38119	0.38464			AVRG		0.37953		7.06417	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder HS23061900

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
Isobutyl Alcohol	NE 0.06592	0.06000 0.06937	0.06647 0.06652	0.06001 0.06907	0.06288	0.06445	AVRG		0.06496		5.32316	
Acetonitrile	NE 0.05262	0.06019 0.05598	0.05501 0.05486	0.05232 0.05223	0.05374	0.05025	AVRG		0.05413		5.29738	
Allyl Chloride	NE 1.23994	1.54447 1.31147	1.31408 1.28770	1.21739 1.22743	1.32627	1.21434	AVRG		1.29812		7.89105	
Iodomethane	NE 311144	1872 901104	3593 1654094	5244 2389174	10875	69713	QUAD	0.19719	3.17029	-0.25959	0.99395	*
Acrylonitrile	NE 0.17643	0.19222 0.19265	0.17779 0.18699	0.18194 0.18155	0.19969	0.17956	AVRG		0.18542		4.28504	
Methylene Chloride	NE 313459	6638 614571	9867 934598	14226 1286266	34262	133454	LINR	-0.02055	0.44680		0.99989	
Methyl tert-butyl ether	NE 1.11011	1.34489 1.18230	1.22763 1.16687	1.06262 1.13583	1.16892	1.07548	AVRG		1.16385		7.37549	
Carbon Disulfide	NE 1.05257	0.97637 1.06234	0.93978 1.05033	0.91298 1.04865	1.04258	1.04592	AVRG		1.01461		5.54329	
trans-1,2-Dichloroethene	NE 0.42568	0.43966 0.42424	0.36838 0.41068	0.38985 0.41906	0.41680	0.42038	AVRG		0.41275		5.16490	
Vinyl Acetate	NE 1.24787	1.16903 1.32894	1.28605 1.32075	1.14428 1.28290	1.31826	1.22557	AVRG		1.25818		5.33224	
1,1-Dichloroethane	NE 0.75452	0.91579 0.74633	0.85153 0.73811	0.77473 0.73300	0.79838	0.74713	AVRG		0.78439		7.88122	
Chloroprene	NE 0.15370	0.18753 0.16003	0.14913 0.16411	0.13564 0.16977	0.14899	0.16635	AVRG		0.15947		9.35578	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Weekly Samples

Workorder HS23061900

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Start Date 06-JUN-2023 1115 **ICAL End Date** 06-JUN-2023 1541

Compound	50.00 Level 7 0.250 Level 1	100.00 Level 8 0.500 Level 2	150.00 Level 9 1.00 Level 3	200.00 Level 10 2.00 Level 4	5.00 Level 5	20.00 Level 6	Curve	b	m1	m2	%RSD or R2	Q
2-Butanone	NE 0.21032	0.26865 0.21900	0.27005 0.21311	0.22221 0.20708	0.22579	0.21550	AVRG		0.22797		10.59636	
Methacrylonitrile	NE 0.29063	0.32297 0.31155	0.29216 0.31218	0.25772 0.29964	0.27607	0.29576	AVRG		0.29541		6.71428	
2,2-Dichloropropane	NE 344673	3685 699035	6247 1080274	12294 1505657	33762	139835	LINR	0.00797	0.52278		0.99995	
cis-1,2-Dichloroethene	NE 0.48847	0.54176 0.48782	0.49058 0.48487	0.46721 0.48248	0.51503	0.48586	AVRG		0.49378		4.41592	
Chloroform	NE 0.81885	0.87650 0.81161	0.79076 0.79868	0.79799 0.79042	0.85300	0.80968	AVRG		0.81639		3.62615	
Bromochloromethane	NE 0.26708	0.31315 0.26410	0.30614 0.26302	0.26452 0.25295	0.28615	0.26876	AVRG		0.27621		7.56831	
1,1,1-Trichloroethane	NE 0.63238	0.65994 0.65446	0.57497 0.64619	0.52644 0.65564	0.61086	0.63915	AVRG		0.62223		7.20510	
1,1-Dichloropropene	NE 0.37173	0.32259 0.39025	0.38290 0.38140	0.31292 0.38981	0.36218	0.38416	AVRG		0.36644		7.93028	
1,2-Dichloroethane	NE 0.42081	0.46850 0.42485	0.42052 0.41425	0.45938 0.40606	0.45322	0.42725	AVRG		0.43276		5.06646	
Carbon Tetrachloride	NE 0.34607	0.35476 0.37126	0.28321 0.36664	0.26732 0.37542	0.31231	0.35238	AVRG		0.33660		11.75294	
Benzene	NE 1.23100	1.18679 1.22379	1.09401 1.20222	1.22033 1.18837	1.26301	1.23391	AVRG		1.20483		3.98055	
Trichloroethene	NE 0.34006	0.37553 0.34777	0.35201 0.34410	0.32048 0.34873	0.36729	0.34693	AVRG		0.34921		4.49432	

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