UB Orangeburg, LLC

Periodic Review Report (Part 2)

UB Orangeburg

1-45 Orangetown Shopping Center

NYSDEC Site Number C344066

July 2020

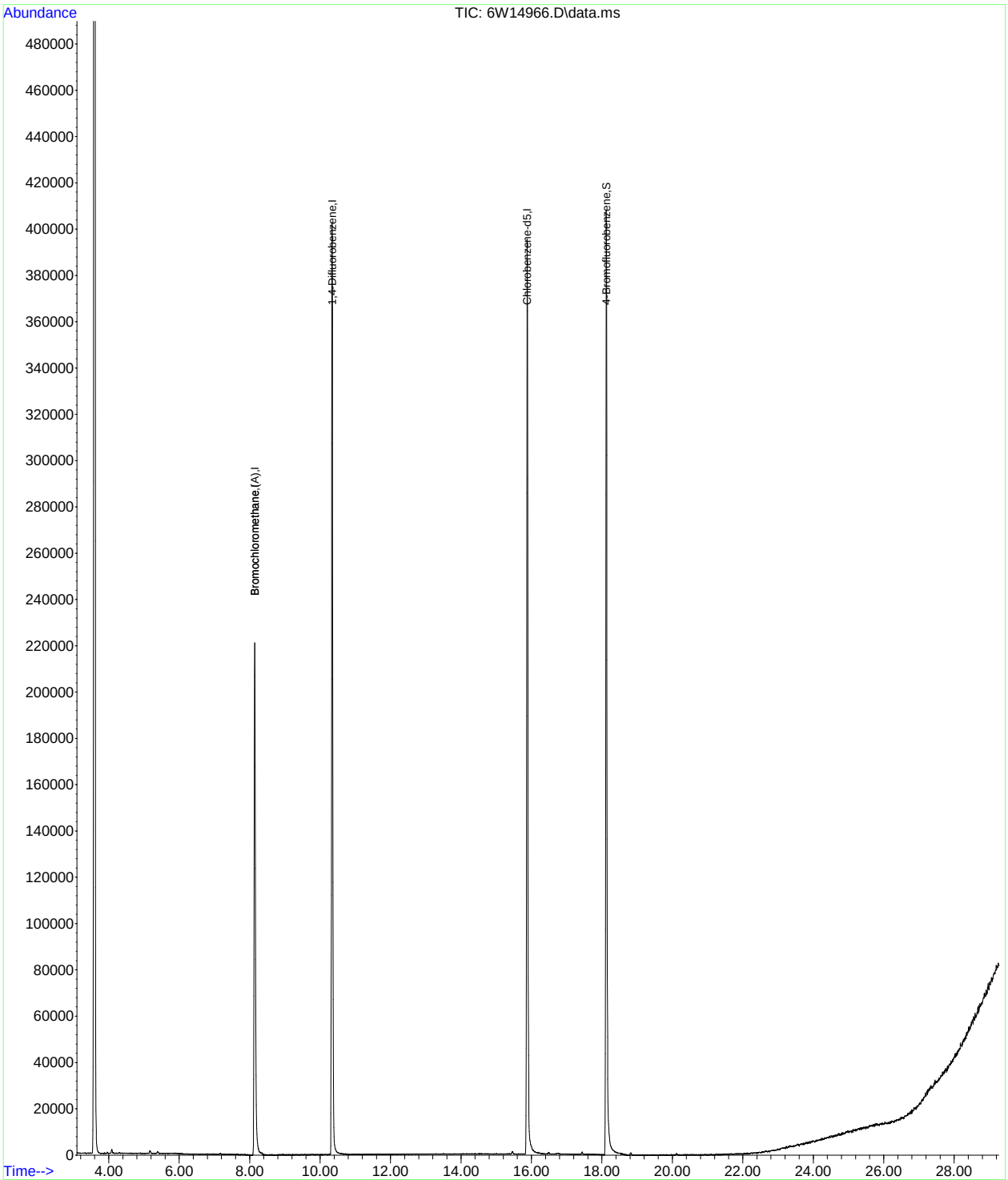
Version 1

Appendix G – Laboratory Reports

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W14966.D
Acq On : 26 Nov 2019 5:31 pm
Operator : thomash
Sample : scc(a639),cp10592
Misc : MS39331,V6W623,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 27 11:53:04 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W14980.D
Acq On : 27 Nov 2019 5:23 am
Operator : thomash
Sample : scc(m235),cp10601
Misc : MS39428,V6W623,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 27 11:54:52 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration

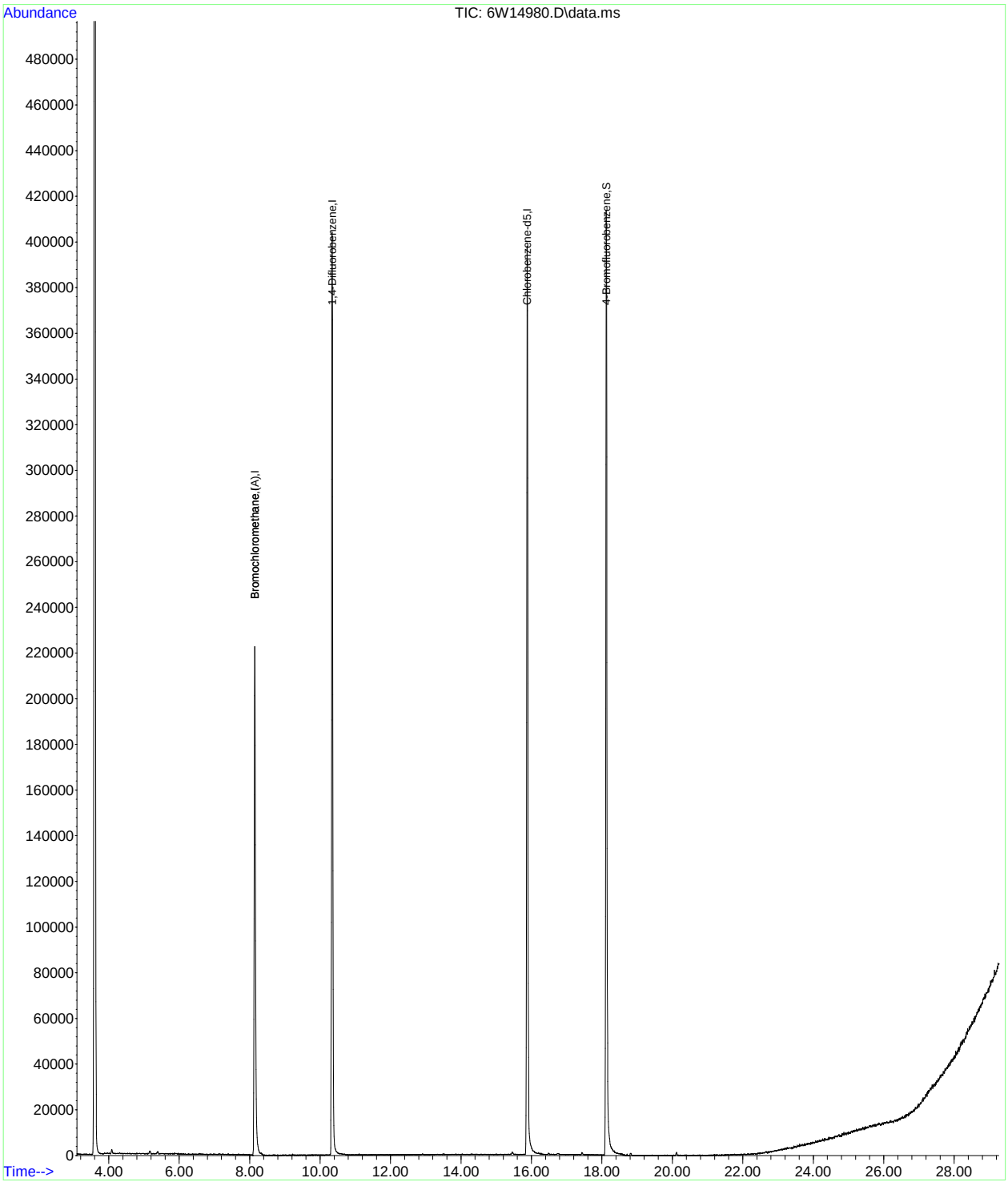
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.146	130	129855	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.342	114	459138	10.00	ppb(v	#-0.01
78) Chlorobenzene-d5	15.879	82	182200	10.00	ppb(v	#-0.01
109) Bromochloromethane (A)	8.146	130	129855	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.124	95	215716	9.32	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 93.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W14980.D
Acq On : 27 Nov 2019 5:23 am
Operator : thomash
Sample : scc(m235),cp10601
Misc : MS39428,V6W623,,,,,1
ALS Vial : 5 Sample Multiplier: 1

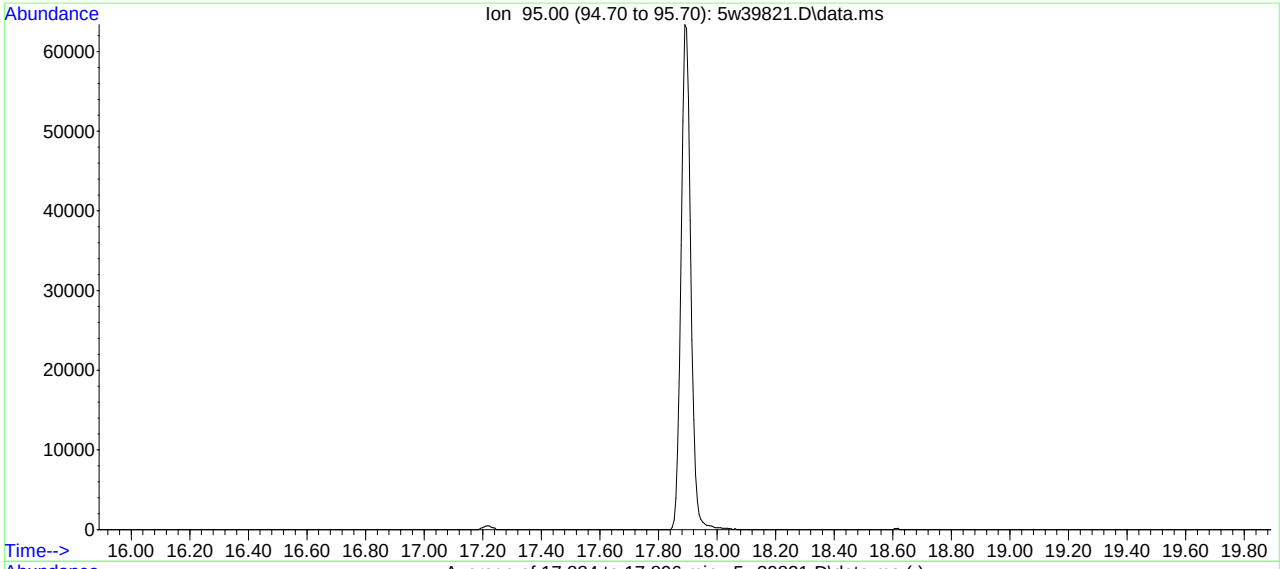
Quant Time: Nov 27 11:54:52 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration



BFB

Data File : C:\msdchem\1\data\5w39821.D Vial: 2
Acq On : 23 Dec 2019 1:24 pm Operator: danat
Sample : bfb Inst : Air5w
Misc : ms39671,v5w1620,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1620.M (RTE Integrator)
Title : TO-15 Full Scan Mode



AutoFind: Scans 2337, 2338, 2339; Background Corrected with Scan 2328

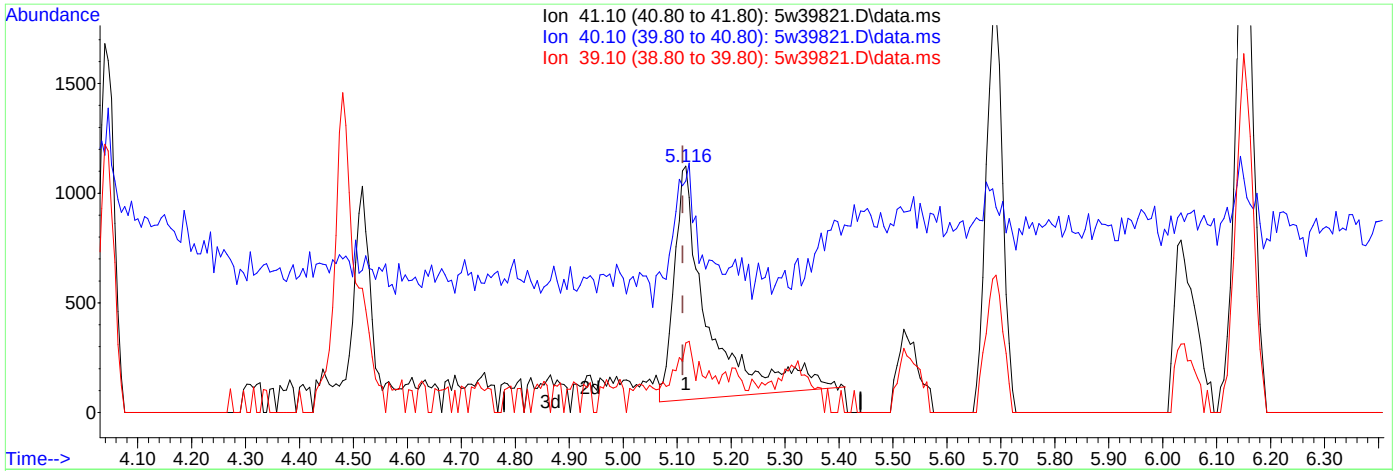
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.2	10786	PASS
75	95	30	66	46.7	27616	PASS
95	95	100	100	100.0	59157	PASS
96	95	5	9	6.7	3976	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	77.8	46024	PASS
175	174	4	9	7.9	3643	PASS
176	174	93	101	96.2	44272	PASS
177	176	5	9	6.5	2896	PASS

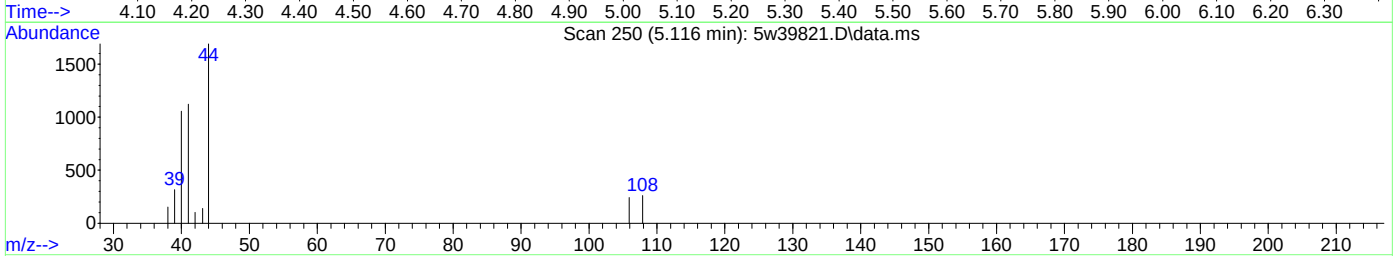
5w39821.D m5w1620.M Tue Dec 24 10:56:09 2019

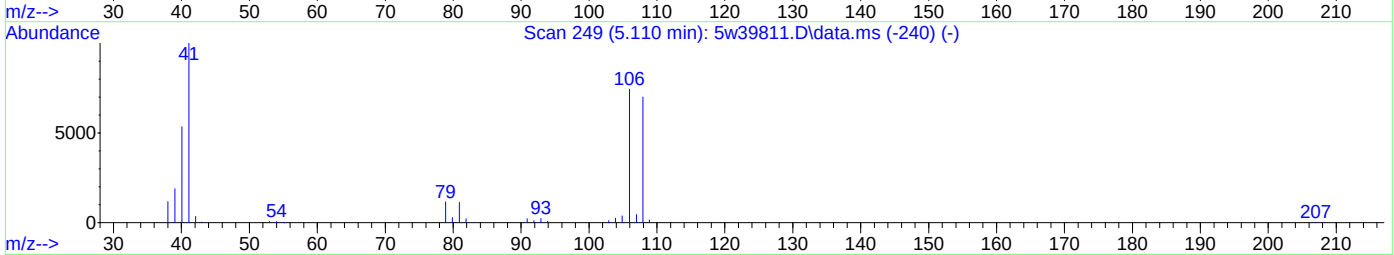
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39821.D
Acq On : 23 Dec 2019 1:24 pm
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 13:58:16 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration







TIC: 5w39821.D\data.ms

(16) Acetonitrile

5.116min (+0.006) 0.28ppb(v)

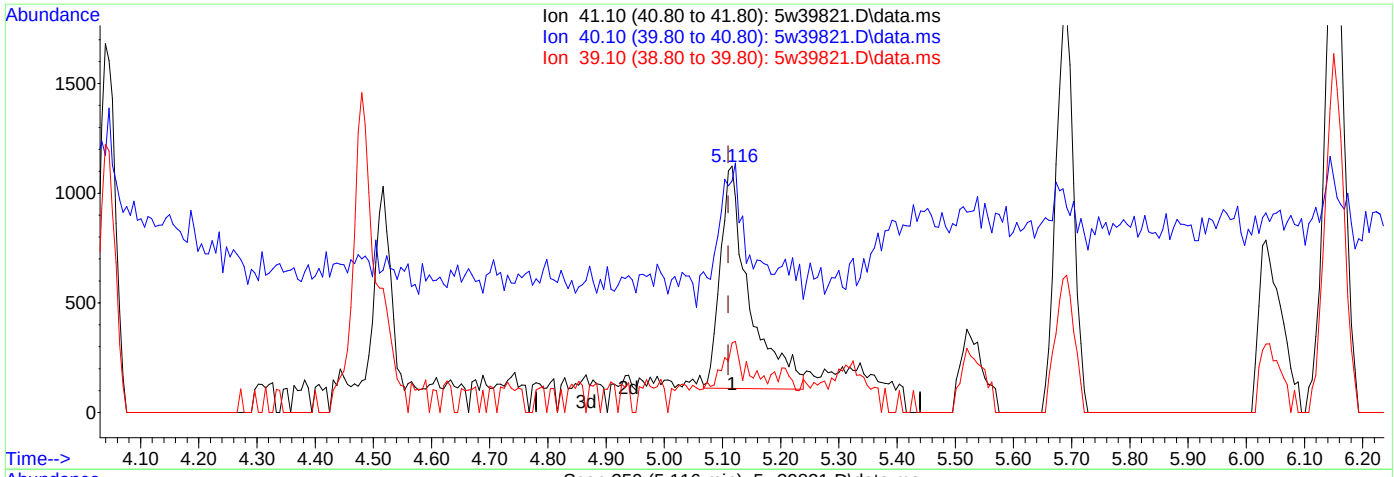
response 4667

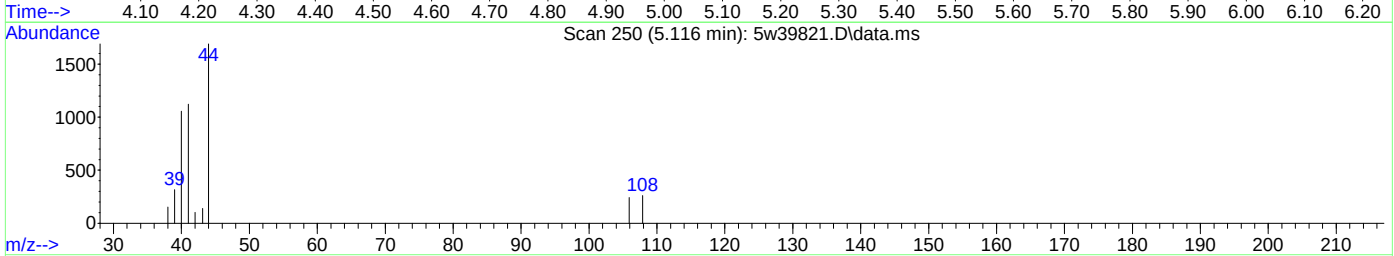
Ion	Exp%	Act%
41.10	100	100
40.10	54.60	94.03#
39.10	19.00	28.23#
0.00	0.00	0.00

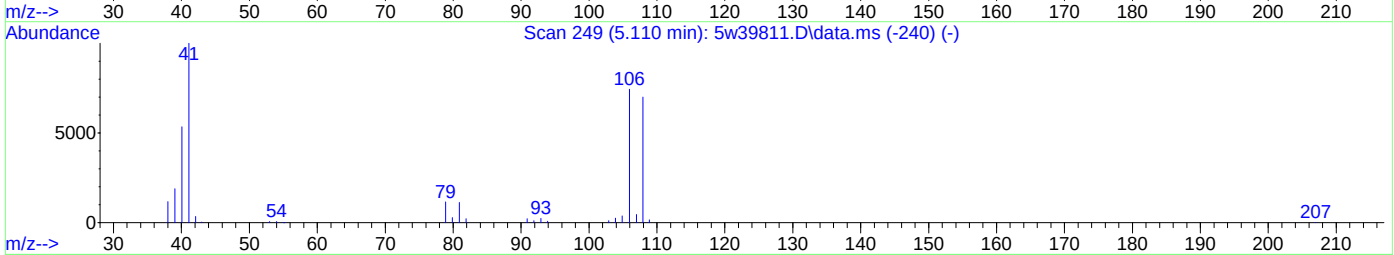
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39821.D
Acq On : 23 Dec 2019 1:24 pm
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 13:58:16 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration







TIC: 5w39821.D\data.ms

(16) Acetonitrile

5.116min (+0.006) 0.21ppb(v) m

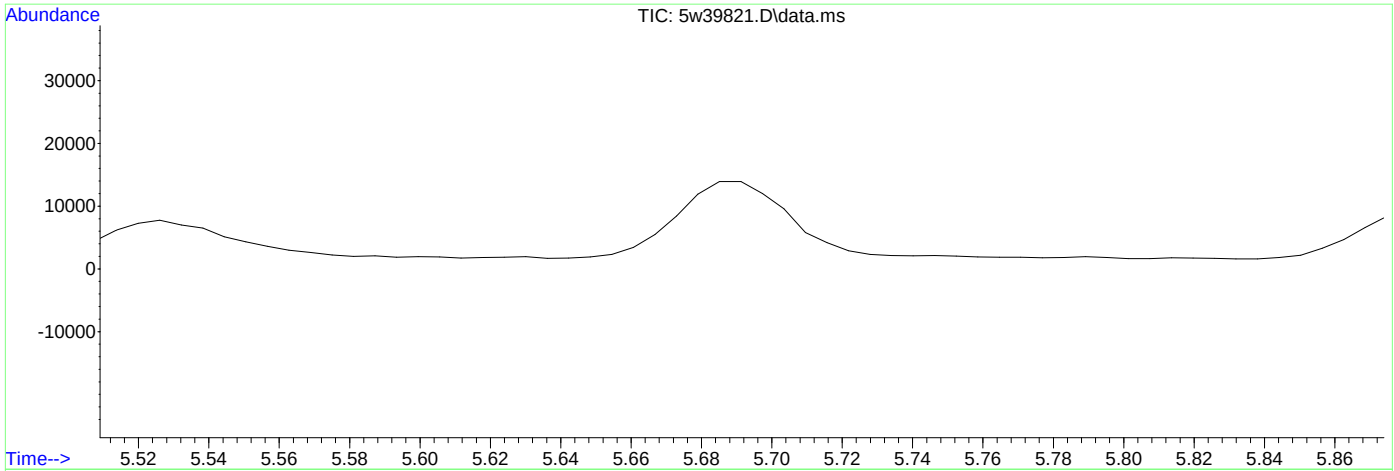
response 3523

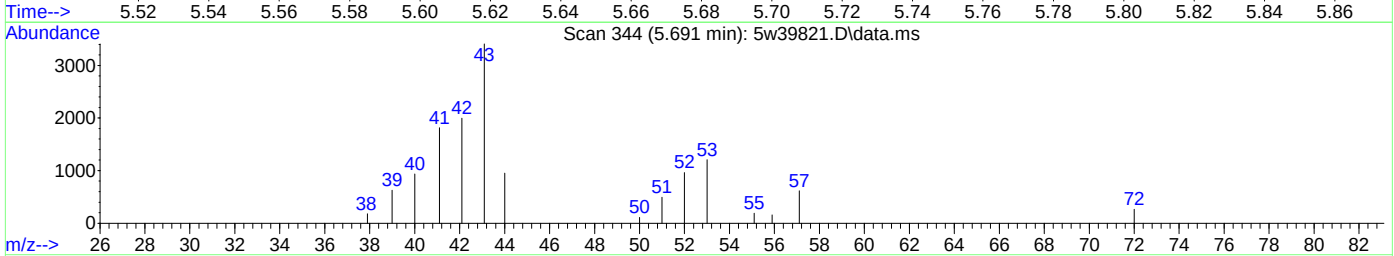
Ion	Exp%	Act%
41.10	100	100
40.10	54.60	94.03#
39.10	19.00	28.23#
0.00	0.00	0.00

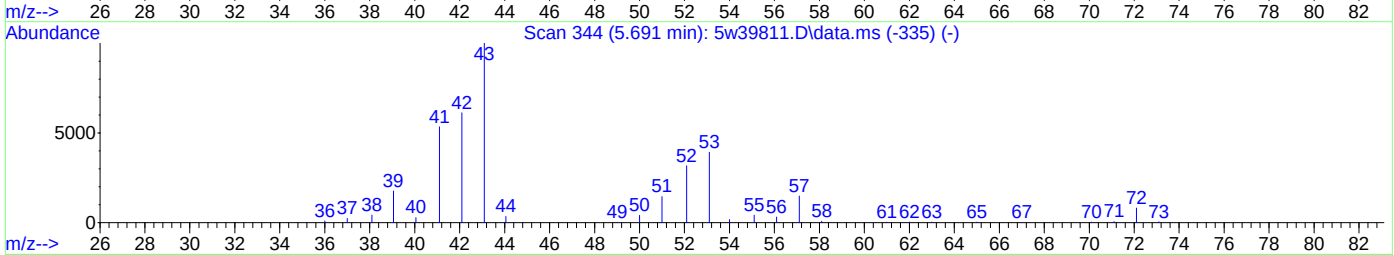
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39821.D
Acq On : 23 Dec 2019 1:24 pm
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 13:58:16 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration







TIC: 5w39821.D\data.ms

(108) TVHC as equiv Pentane

5.691min (-5.691) 0.00ppb(v)

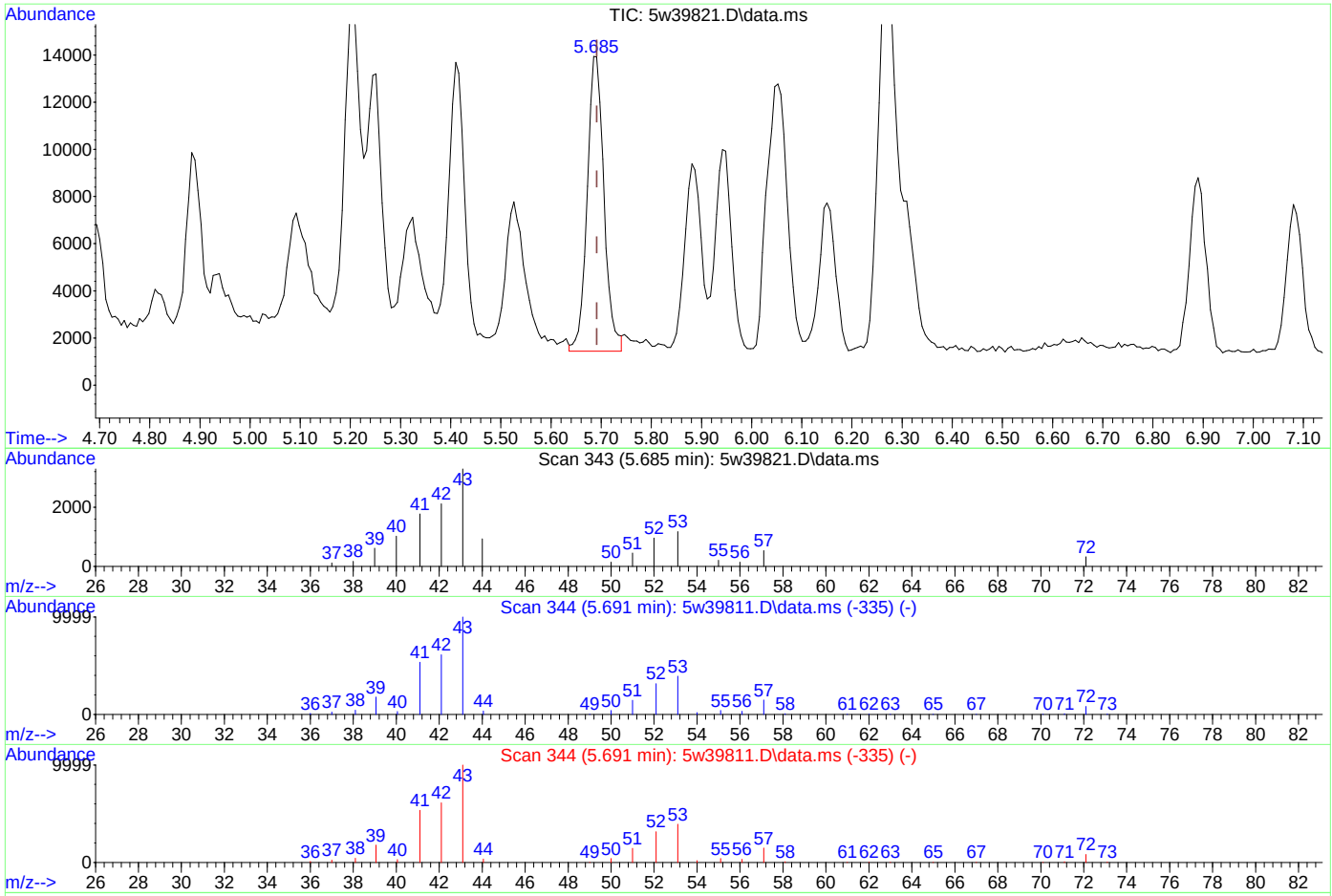
response 0

Signal	Exp%	Act%
TIC	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39821.D
Acq On : 23 Dec 2019 1:24 pm
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 13:58:16 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration



TIC: 5w39821.D\data.ms

(108) TVHC as equiv Pentane

5.685min (-0.006) 0.18ppb(v) m

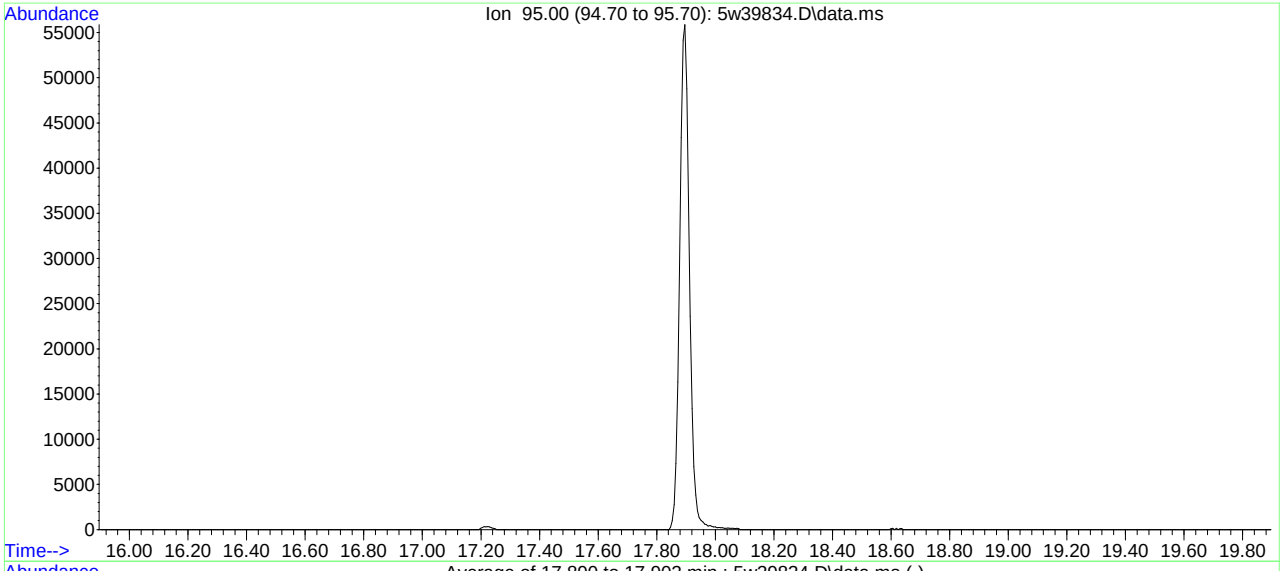
response 29179

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

BFB

Data File : C:\msdchem\1\data\5w39834.D Vial: 1
Acq On : 24 Dec 2019 11:53 am Operator: danat
Sample : bfb Inst : Air5w
Misc : ms39671,v5w1621,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1620.M (RTE Integrator)
Title : TO-15 Full Scan Mode



AutoFind: Scans 2338, 2339, 2340; Background Corrected with Scan 2328

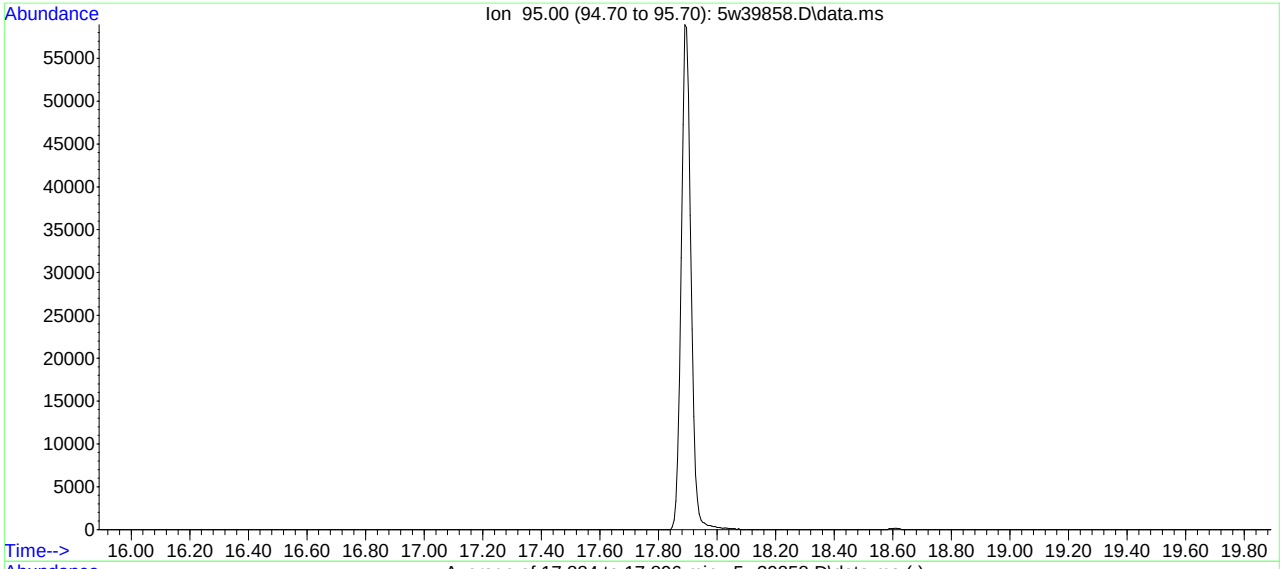
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.3	9693	PASS
75	95	30	66	46.8	24749	PASS
95	95	100	100	100.0	52936	PASS
96	95	5	9	6.8	3575	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	80.8	42795	PASS
175	174	4	9	7.7	3295	PASS
176	174	93	101	97.0	41520	PASS
177	176	5	9	6.4	2667	PASS

5w39834.D m5w1620.M Tue Dec 24 14:39:47 2019

BFB

Data File : C:\msdchem\1\data\5w39858.D Vial: 1
Acq On : 26 Dec 2019 9:31 am Operator: danat
Sample : bfb Inst : Air5w
Misc : ms39818,v5w1622,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1620.M (RTE Integrator)
Title : TO-15 Full Scan Mode



AutoFind: Scans 2337, 2338, 2339; Background Corrected with Scan 2328

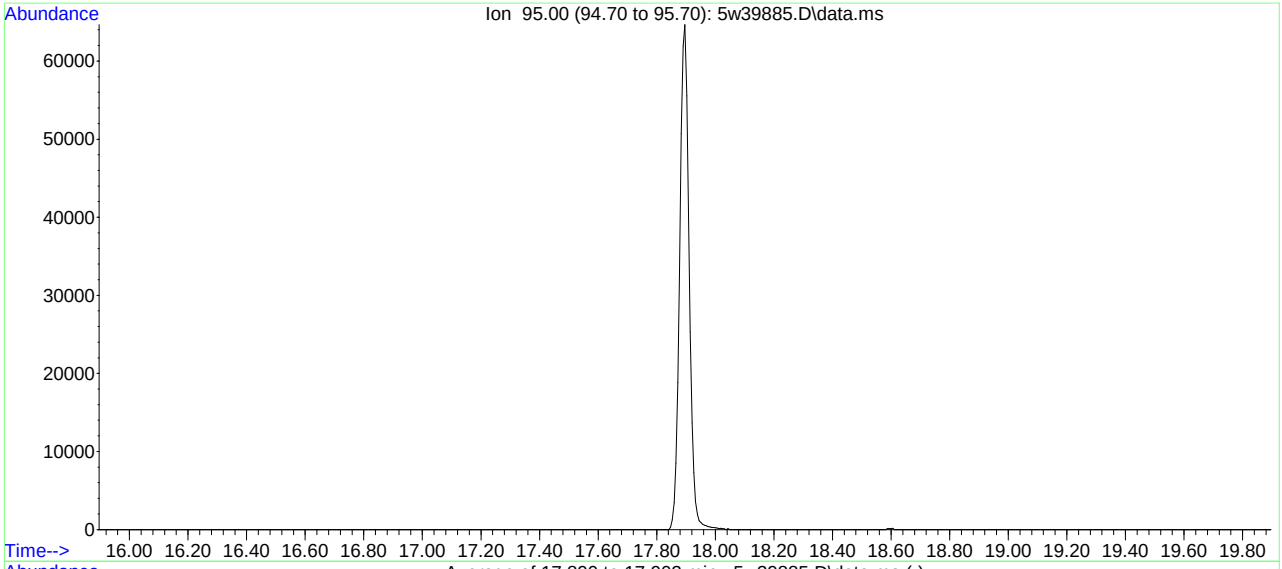
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.0	10411	PASS
75	95	30	66	47.9	26296	PASS
95	95	100	100	100.0	54920	PASS
96	95	5	9	6.6	3648	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	78.5	43104	PASS
175	174	4	9	8.0	3443	PASS
176	174	93	101	95.2	41045	PASS
177	176	5	9	6.7	2753	PASS

5w39858.D m5w1620.M Thu Dec 26 13:53:04 2019

BFB

Data File : C:\msdchem\1\data\5w39885.D Vial: 1
Acq On : 27 Dec 2019 10:09 am Operator: danat
Sample : bfb Inst : Air5w
Misc : ms39917,v5w1623,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1620.M (RTE Integrator)
Title : TO-15 Full Scan Mode



AutoFind: Scans 2338, 2339, 2340; Background Corrected with Scan 2328

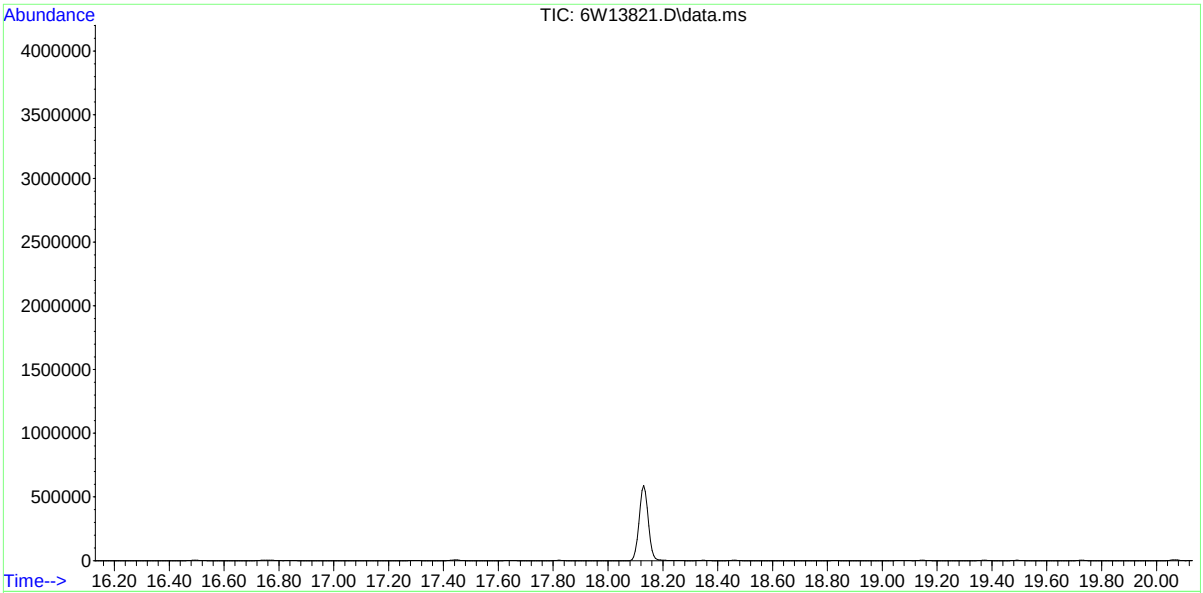
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.3	10474	PASS
75	95	30	66	45.5	27651	PASS
95	95	100	100	100.0	60717	PASS
96	95	5	9	6.6	4035	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	82.1	49819	PASS
175	174	4	9	7.6	3779	PASS
176	174	93	101	95.8	47709	PASS
177	176	5	9	6.5	3099	PASS

5w39885.D m5w1620.M Fri Dec 27 13:33:12 2019

BFB

Data File : C:\msdchem\1\data\6W13821.D Vial: 1
Acq On : 13 Sep 2019 11:13 am Operator: thomash
Sample : bfb Inst : GCMS6W
Misc : MS37187,V6W570,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m6w571.M (RTE Integrator)
Title : TO-15 Full Scan Mode



AutoFind: Scans 2458, 2459, 2460; Background Corrected with Scan 2448

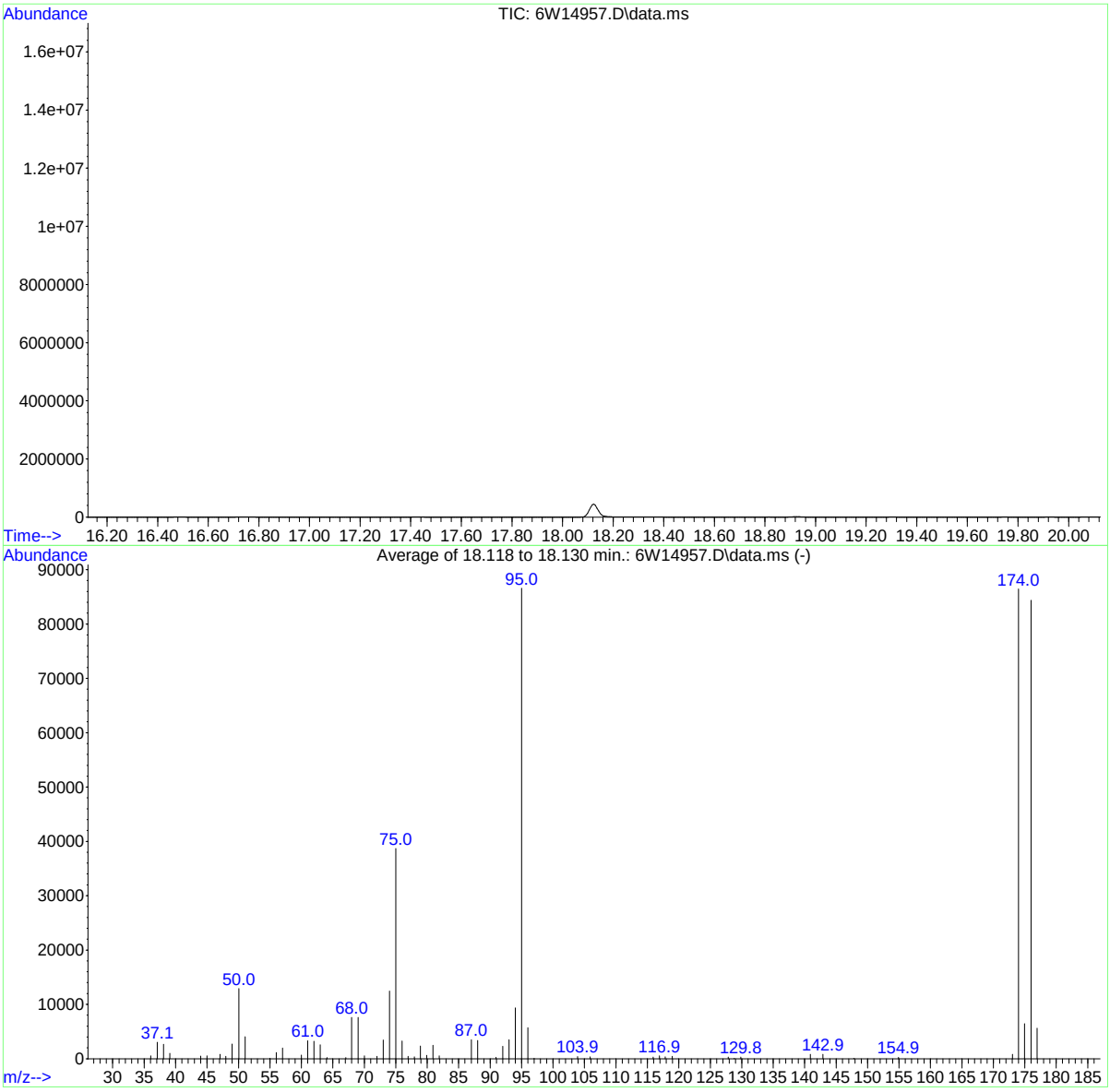
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.1	16326	PASS
75	95	30	66	43.0	49944	PASS
95	95	100	100	100.0	116077	PASS
96	95	5	9	6.6	7622	PASS
173	174	0.00	2	0.6	753	PASS
174	95	50	120	100.4	116552	PASS
175	174	4	9	7.4	8664	PASS
176	174	93	101	97.0	113053	PASS
177	176	5	9	6.5	7387	PASS

6W13821.D m6w571.M Mon Sep 16 09:23:09 2019

BFB

Data File : C:\msdchem\1\data\6W14957.D Vial: 1
Acq On : 26 Nov 2019 8:59 am Operator: thomash
Sample : bfb Inst : GCMS6W
Misc : MS39338,V6W623,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m6w571.M (RTE Integrator)
Title : TO-15 Full Scan Mode



AutoFind: Scans 2457, 2458, 2459; Background Corrected with Scan 2447

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.9	12919	PASS
75	95	30	66	44.7	38677	PASS
95	95	100	100	100.0	86579	PASS
96	95	5	9	6.6	5696	PASS
173	174	0.00	2	0.9	788	PASS
174	95	50	120	99.8	86443	PASS
175	174	4	9	7.5	6450	PASS
176	174	93	101	97.6	84395	PASS
177	176	5	9	6.6	5612	PASS

6W14957.D m6w571.M Tue Nov 26 14:21:25 2019

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39822.D
Acq On : 23 Dec 2019 2:12 pm
Operator : danat
Sample : ic1620-0.1
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 16:30:02 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 16:27:02 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.077	130	159951	10.00	ppb(v	-0.01
53) 1,4-Difluorobenzene	10.182	114	552979	10.00	ppb(v	-0.01
76) Chlorobenzene-d5	15.657	82	174518	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.077	130	159951	10.00	ppb(v	-0.01
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.890	95	144780	9.75	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 97.50%			
Target Compounds						Qvalue
2) Freon 152A	3.972	65	1153	0.09	ppb(v	95
3) Chlorodifluoromethane	4.015	67	417	0.08	ppb(v	83
4) Propene	4.034	41	1497	0.10	ppb(v#	60
5) Chlorotrifluoroethene	4.040	116	2587	0.10	ppb(v#	82
6) Dichlorodifluoromethane	4.089	85	5268	0.10	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.193	65	3894	0.10	ppb(v#	73
8) Chloromethane	4.211	50	1734	0.10	ppb(v	92
9) Dichlorotetrafluoroethane	4.278	85	4968	0.10	ppb(v	95
10) Vinyl Chloride	4.376	62	1632	0.09	ppb(v#	97
11) 1,3-Butadiene	4.474	54	1210	0.10	ppb(v	95
12) n-Butane	4.517	58	219	0.08	ppb(v#	1
13) Bromomethane	4.682	94	1793	0.10	ppb(v	95
14) Chloroethane	4.811	64	793	0.10	ppb(v#	72
15) Dichlorofluoromethane	4.878	67	3997	0.10	ppb(v	98
17) Freon 123	5.202	83	4060	0.10	ppb(v	97
18) Freon 123A	5.233	117	2166	0.10	ppb(v	91
19) Bromoethene	5.080	106	1526	0.10	ppb(v#	94
21) Trichlorofluoromethane	5.404	101	5104	0.10	ppb(v	96
23) Pentane	5.679	57	494	0.09	ppb(v	80
24) Iodomethane	5.881	142	5214	0.10	ppb(v	93
26) 1,1-Dichloroethene	5.936	61	3361	0.10	ppb(v	95
27) Freon 113	6.260	101	4470	0.10	ppb(v	92
28) Methylene Chloride	6.052	84	2312	0.12	ppb(v	96
29) Carbon Disulfide	6.303	76	5013	0.10	ppb(v	99
32) 3-Chloropropene	6.138	76	832	0.09	ppb(v	83
33) trans-1,2-Dichloroethene	6.884	61	2843	0.10	ppb(v	92
35) Methyl tert-Butyl Ether	7.172	73	5159	0.10	ppb(v	95
37) 1,1-Dichloroethane	7.074	63	3787	0.10	ppb(v#	96
39) Hexane	8.083	57	3007	0.10	ppb(v	83
40) cis-1,2-Dichloroethene	7.906	61	2899	0.10	ppb(v	97
41) Di-isopropyl Ether	8.126	87	1391	0.09	ppb(v	87
44) Chloroform	8.206	83	4490	0.10	ppb(v	97
45) 2,4-Dimethylpentane	9.019	57	3457	0.09	ppb(v	99
47) 1,1,1-Trichloroethane	9.246	97	4317	0.10	ppb(v	94
48) 1,2-Dichloroethane	8.983	62	2791	0.11	ppb(v#	87
49) Benzene	9.766	78	6067	0.10	ppb(v	99
50) Carbon Tetrachloride	9.925	117	4230	0.10	ppb(v	98
51) Cyclohexane	10.047	56	3078	0.10	ppb(v	96
52) 2,3-Dimethylpentane	10.335	71	1172	0.09	ppb(v#	95
54) 2,2,4-Trimethylpentane	11.008	57	9763	0.09	ppb(v	98
55) Heptane	11.344	71	1738	0.09	ppb(v#	94
56) Trichloroethene	10.989	95	2830	0.11	ppb(v	97
57) 1,2-Dichloropropane	10.708	63	2337	0.10	ppb(v	92
58) Dibromomethane	10.690	174	2652	0.12	ppb(v	97
62) Bromodichloromethane	10.953	83	4452	0.11	ppb(v	95
63) cis-1,3-Dichloropropene	12.066	75	2961	0.11	ppb(v	98
65) trans-1,3-Dichloropropene	12.751	75	2676	0.13	ppb(v	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39822.D
Acq On : 23 Dec 2019 2:12 pm
Operator : danat
Sample : ic1620-0.1
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 16:30:02 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 16:27:02 2019
Response via : Initial Calibration

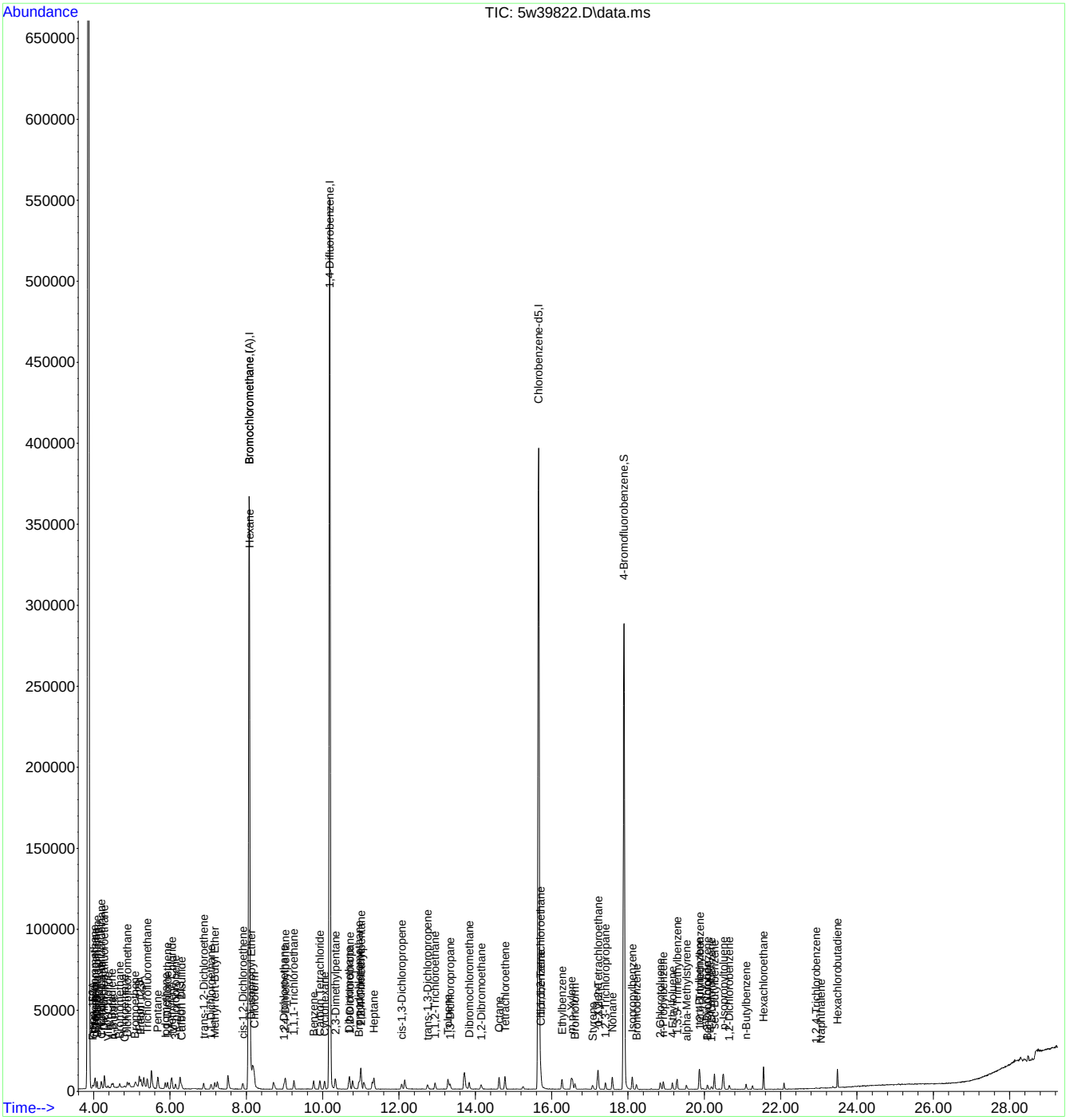
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) Toluene	13.284	91	7119	0.12	ppb(v	98
67) 1,1,2-Trichloroethane	12.941	97	2060	0.11	ppb(v	97
68) 1,3-Dichloropropane	13.339	76	2796	0.12	ppb(v	98
71) Dibromochloromethane	13.840	129	3298	0.11	ppb(v#	95
72) Tetrachloroethene	14.782	166	3061	0.11	ppb(v	99
73) 1,2-Dibromoethane	14.152	107	3208	0.14	ppb(v#	96
74) Octane	14.623	43	4334	0.10	ppb(v	96
75) 1,1,1,2-Tetrachloroethane	15.706	131	2857	0.10	ppb(v#	1
77) Chlorobenzene	15.718	112	3730	0.13	ppb(v	91
78) Ethylbenzene	16.269	91	7534	0.14	ppb(v	96
79) m,p-Xylene	16.514	91	11373	0.27	ppb(v	94
80) Styrene	17.070	104	2327	0.11	ppb(v	93
81) Nonane	17.590	43	3950	0.11	ppb(v#	97
82) o-Xylene	17.205	91	7088	0.15	ppb(v	96
83) Bromoform	16.612	173	2187	0.13	ppb(v#	96
84) 1,1,2,2-Tetrachloroethane	17.217	83	4638	0.13	ppb(v#	93
85) 1,2,3-Trichloropropane	17.413	75	3122	0.14	ppb(v	98
86) Isopropylbenzene	18.110	105	8232	0.13	ppb(v	96
87) Bromobenzene	18.227	156	1390	0.13	ppb(v	82
88) 2-Chlorotoluene	18.851	126	1428	0.13	ppb(v	81
89) n-Propylbenzene	18.924	120	1224	0.11	ppb(v	98
91) 4-Ethyltoluene	19.163	105	4347	0.11	ppb(v	98
92) 1,3,5-Trimethylbenzene	19.285	105	5487	0.12	ppb(v	93
93) alpha-Methylstyrene	19.536	118	1302	0.10	ppb(v	90
94) tert-Butylbenzene	19.866	134	1313	0.12	ppb(v	90
95) 1,2,4-Trimethylbenzene	19.885	105	4349	0.11	ppb(v	94
96) 1,3-Dichlorobenzene	20.080	146	1463	0.12	ppb(v	94
97) Benzyl Chloride	20.080	91	1144	0.11	ppb(v#	85
98) 1,4-Dichlorobenzene	20.184	146	1168	0.11	ppb(v	89
99) sec-Butylbenzene	20.264	134	1455	0.12	ppb(v	96
100) p-Isopropyltoluene	20.502	134	1260	0.10	ppb(v	93
101) 1,2-Dichlorobenzene	20.655	146	1604	0.12	ppb(v	94
102) n-Butylbenzene	21.096	134	551	0.09	ppb(v	96
103) Hexachloroethane	21.549	201	2448	0.13	ppb(v	94
104) 1,2,4-Trichlorobenzene	22.925	180	267	0.09	ppb(v#	60
105) Naphthalene	23.054	128	962	0.12	ppb(v#	69
106) Hexachlorobutadiene	23.488	225	2210	0.14	ppb(v	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39822.D
Acq On : 23 Dec 2019 2:12 pm
Operator : danat
Sample : ic1620-0.1
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 23 16:30:02 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 16:27:02 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39823.D
Acq On : 23 Dec 2019 2:56 pm
Operator : danat
Sample : ic1620-0.04
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 24 10:51:29 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:55:57 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.083	130	154277	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.194	114	537326	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.657	82	175519	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.083	130	154277	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	146394	9.55	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.50%			
Target Compounds						Qvalue
2) Freon 152A	3.997	65	475	0.04	ppb(v#	82
4) Propene	4.052	41	671	0.05	ppb(v#	21
5) Chlorotrifluoroethene	4.052	116	1048	0.04	ppb(v#	88
6) Dichlorodifluoromethane	4.107	85	2275	0.04	ppb(v#	94
7) 1-Chloro-1,1-difluoroe...	4.211	65	1584	0.04	ppb(v#	24
8) Chloromethane	4.229	50	755	0.04	ppb(v	98
9) Dichlorotetrafluoroethane	4.296	85	2143	0.04	ppb(v	97
10) Vinyl Chloride	4.388	62	676	0.04	ppb(v#	91
11) 1,3-Butadiene	4.486	54	493	0.04	ppb(v#	71
13) Bromomethane	4.706	94	873	0.05	ppb(v#	78
15) Dichlorofluoromethane	4.902	67	1829	0.05	ppb(v#	94
17) Freon 123	5.208	83	1708	0.04	ppb(v#	92
18) Freon 123A	5.251	117	807	0.04	ppb(v	97
19) Bromoethene	5.098	106	603	0.04	ppb(v#	84
21) Trichlorofluoromethane	5.422	101	2122	0.04	ppb(v	92
23) Pentane	5.691	57	132	0.03	ppb(v	91
24) Iodomethane	5.893	142	2160	0.04	ppb(v	94
26) 1,1-Dichloroethene	5.948	61	1375	0.04	ppb(v	92
27) Freon 113	6.272	101	1874	0.04	ppb(v	92
29) Carbon Disulfide	6.315	76	2143	0.04	ppb(v#	74
32) 3-Chloropropene	6.150	76	328	0.04	ppb(v#	90
33) trans-1,2-Dichloroethene	6.890	61	1196	0.04	ppb(v	95
35) Methyl tert-Butyl Ether	7.196	73	2250	0.04	ppb(v	95
37) 1,1-Dichloroethane	7.092	63	1611	0.04	ppb(v#	96
39) Hexane	8.108	57	1258	0.04	ppb(v#	80
40) cis-1,2-Dichloroethene	7.918	61	1149	0.04	ppb(v	90
41) Di-isopropyl Ether	8.151	87	540	0.04	ppb(v#	72
44) Chloroform	8.218	83	1961	0.05	ppb(v#	90
45) 2,4-Dimethylpentane	9.038	57	1465	0.04	ppb(v	90
47) 1,1,1-Trichloroethane	9.252	97	1994	0.05	ppb(v#	94
48) 1,2-Dichloroethane	9.001	62	1168	0.05	ppb(v#	82
49) Benzene	9.772	78	2742	0.05	ppb(v	96
50) Carbon Tetrachloride	9.937	117	1821	0.04	ppb(v	93
51) Cyclohexane	10.059	56	1233	0.04	ppb(v#	89
52) 2,3-Dimethylpentane	10.328	71	464	0.04	ppb(v#	77
54) 2,2,4-Trimethylpentane	11.014	57	4113	0.04	ppb(v	94
55) Heptane	11.356	71	721	0.04	ppb(v#	86
56) Trichloroethene	10.995	95	1343	0.05	ppb(v	96
57) 1,2-Dichloropropane	10.720	63	871	0.04	ppb(v#	90
58) Dibromomethane	10.702	174	1196	0.05	ppb(v	94
62) Bromodichloromethane	10.959	83	1881	0.05	ppb(v#	89
63) cis-1,3-Dichloropropene	12.078	75	1225	0.04	ppb(v#	76
65) trans-1,3-Dichloropropene	12.763	75	978	0.04	ppb(v#	72
66) Toluene	13.296	91	3485	0.06	ppb(v	95
67) 1,1,2-Trichloroethane	12.953	97	855	0.04	ppb(v#	79
68) 1,3-Dichloropropane	13.351	76	1119	0.04	ppb(v#	93
71) Dibromochloromethane	13.846	129	1304	0.04	ppb(v#	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39823.D
Acq On : 23 Dec 2019 2:56 pm
Operator : danat
Sample : ic1620-0.04
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 24 10:51:29 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:55:57 2019
Response via : Initial Calibration

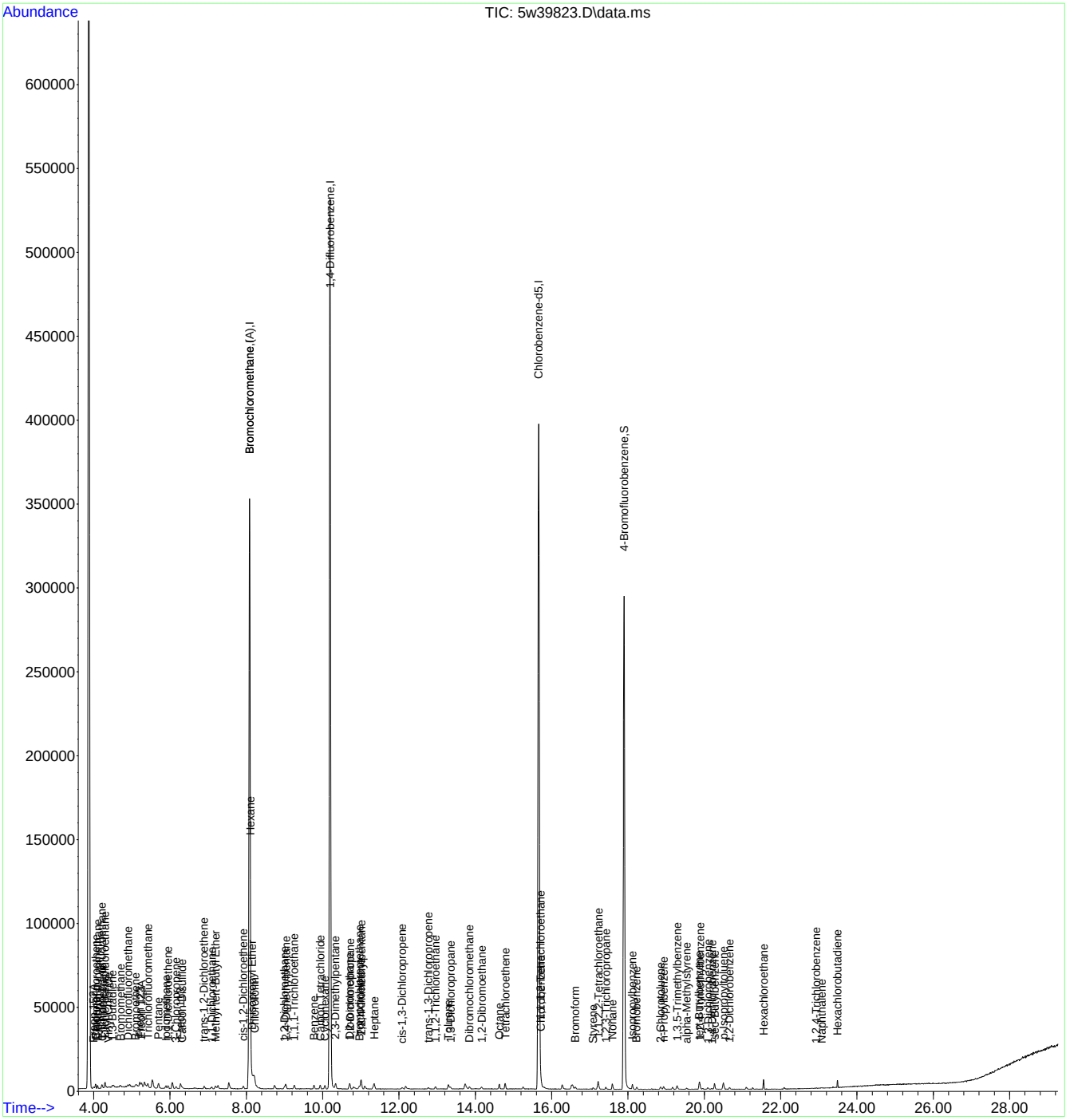
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) Tetrachloroethene	14.788	166	1465	0.05	ppb(v	92
73) 1,2-Dibromoethane	14.164	107	1410	0.05	ppb(v#	89
74) Octane	14.629	43	1792	0.04	ppb(v	91
75) 1,1,1,2-Tetrachloroethane	15.706	131	1225	0.04	ppb(v#	1
77) Chlorobenzene	15.718	112	1733	0.06	ppb(v	93
80) Styrene	17.076	104	848	0.04	ppb(v#	86
81) Nonane	17.590	43	1690	0.05	ppb(v#	93
83) Bromoform	16.617	173	961	0.05	ppb(v#	94
84) 1,1,2,2-Tetrachloroethane	17.223	83	1867	0.05	ppb(v#	94
85) 1,2,3-Trichloropropane	17.425	75	1222	0.05	ppb(v	92
86) Isopropylbenzene	18.116	105	3264	0.05	ppb(v	99
87) Bromobenzene	18.220	156	558	0.05	ppb(v	91
88) 2-Chlorotoluene	18.857	126	538	0.04	ppb(v#	92
89) n-Propylbenzene	18.936	120	400	0.03	ppb(v	97
92) 1,3,5-Trimethylbenzene	19.285	105	2395	0.05	ppb(v	88
93) alpha-Methylstyrene	19.536	118	463	0.03	ppb(v	82
94) tert-Butylbenzene	19.860	134	523	0.05	ppb(v	75
95) 1,2,4-Trimethylbenzene	19.890	105	1901	0.05	ppb(v#	84
96) 1,3-Dichlorobenzene	20.098	146	620	0.04	ppb(v#	80
98) 1,4-Dichlorobenzene	20.202	146	504	0.04	ppb(v#	60
99) sec-Butylbenzene	20.270	134	467	0.04	ppb(v#	82
100) p-Isopropyltoluene	20.508	134	476	0.04	ppb(v	82
101) 1,2-Dichlorobenzene	20.661	146	685	0.04	ppb(v#	92
103) Hexachloroethane	21.554	201	972	0.05	ppb(v	88
104) 1,2,4-Trichlorobenzene	22.931	180	173	0.05	ppb(v#	72
105) Naphthalene	23.072	128	381	0.04	ppb(v#	69
106) Hexachlorobutadiene	23.488	225	1065	0.06	ppb(v	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39823.D
Acq On : 23 Dec 2019 2:56 pm
Operator : danat
Sample : ic1620-0.04
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 24 10:51:29 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:55:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39824.D
Acq On : 23 Dec 2019 3:47 pm
Operator : danat
Sample : ic1620-5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 16:25:04 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.083	130	153924	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.194	114	550627	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.657	82	227389	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.083	130	153924	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	212378	10.32	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.20%			
Target Compounds						Qvalue
2) Freon 152A	3.991	65	60990	4.39	ppb(v	98
3) Chlorodifluoromethane	4.027	67	25555	4.27	ppb(v	98
4) Propene	4.046	41	74249	3.99	ppb(v	100
5) Chlorotrifluoroethene	4.052	116	125650	4.55	ppb(v#	89
6) Dichlorodifluoromethane	4.101	85	256196	4.35	ppb(v	98
7) 1-Chloro-1,1-difluoroe...	4.205	65	183070	4.11	ppb(v	99
8) Chloromethane	4.223	50	85396	3.90	ppb(v	99
9) Dichlorotetrafluoroethane	4.290	85	241495	4.07	ppb(v	98
10) Vinyl Chloride	4.388	62	84135	3.81	ppb(v	100
11) 1,3-Butadiene	4.486	54	56387	3.66	ppb(v	99
12) n-Butane	4.523	58	12828	3.73	ppb(v	77
13) Bromomethane	4.694	94	84109	3.98	ppb(v	100
14) Chloroethane	4.817	64	38194	3.73	ppb(v	98
15) Dichlorofluoromethane	4.890	67	193508	3.88	ppb(v	100
16) Acetonitrile	5.104	41	58496	3.60	ppb(v	97
17) Freon 123	5.208	83	195961	3.90	ppb(v	99
18) Freon 123A	5.251	117	103862	4.05	ppb(v	94
19) Bromoethene	5.092	106	76447	4.06	ppb(v	100
20) Acrolein	5.190	56	33236	3.62	ppb(v	95
21) Trichlorofluoromethane	5.416	101	244282	4.52	ppb(v	100
22) Acetone	5.306	58	33144	3.78	ppb(v	100
23) Pentane	5.691	57	25281	4.24	ppb(v	93
24) Iodomethane	5.887	142	255669	4.82	ppb(v	97
25) Isopropyl Alcohol	5.508	43	34149	3.79	ppb(v	85
26) 1,1-Dichloroethene	5.948	61	163709	4.36	ppb(v	96
27) Freon 113	6.273	101	211433	4.63	ppb(v	98
28) Methylene Chloride	6.059	84	88384	4.42	ppb(v	95
29) Carbon Disulfide	6.309	76	266385	4.60	ppb(v	100
30) Ethanol	4.933	45	31127	3.79	ppb(v	99
31) Acrylonitrile	5.685	53	78322	4.48	ppb(v	99
32) 3-Chloropropene	6.156	76	46011	4.63	ppb(v	85
33) trans-1,2-Dichloroethene	6.891	61	145221	4.43	ppb(v	95
34) tert-Butyl Alcohol	6.010	59	199546	4.38	ppb(v	98
35) Methyl tert-Butyl Ether	7.154	73	266123	4.48	ppb(v	99
36) Vinyl Acetate	7.239	43	266353	4.21	ppb(v	97
37) 1,1-Dichloroethane	7.086	63	185019	4.39	ppb(v	99
38) 2-Butanone	7.496	72	44158	4.75	ppb(v	92
39) Hexane	8.096	57	150653	4.33	ppb(v	97
40) cis-1,2-Dichloroethene	7.918	61	143101	4.41	ppb(v	96
41) Di-isopropyl Ether	8.120	87	78086	4.69	ppb(v	82
42) Ethyl Acetate	8.169	61	30359	4.64	ppb(v	89
43) Methyl Acrylate	8.151	55	168769	4.58	ppb(v	99
44) Chloroform	8.218	83	210863	4.44	ppb(v	99
45) 2,4-Dimethylpentane	9.026	57	182756	4.34	ppb(v	98
46) Tetrahydrofuran	8.671	72	44292	4.61	ppb(v	93
47) 1,1,1-Trichloroethane	9.252	97	203778	4.46	ppb(v	100
48) 1,2-Dichloroethane	8.989	62	130450	4.37	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39824.D
Acq On : 23 Dec 2019 3:47 pm
Operator : danat
Sample : ic1620-5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 16:25:04 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.766	78	296830	4.51	ppb(v	98
50)	Carbon Tetrachloride	9.931	117	213892	4.60	ppb(v	99
51)	Cyclohexane	10.053	56	157344	4.34	ppb(v	96
52)	2,3-Dimethylpentane	10.335	71	66457	4.48	ppb(v	94
54)	2,2,4-Trimethylpentane	11.008	57	511204	4.40	ppb(v	98
55)	Heptane	11.350	71	97559	4.56	ppb(v	96
56)	Trichloroethene	10.995	95	131027	4.55	ppb(v	95
57)	1,2-Dichloropropane	10.708	63	118328	4.46	ppb(v	99
58)	Dibromomethane	10.690	174	110699	4.84	ppb(v	99
59)	Ethyl Acrylate	10.769	55	205845	4.67	ppb(v	99
60)	Methyl Methacrylate	11.283	69	101085	4.71	ppb(v	95
61)	1,4-Dioxane	11.044	88	60767	4.92	ppb(v	93
62)	Bromodichloromethane	10.953	83	223762	4.52	ppb(v	99
63)	cis-1,3-Dichloropropene	12.060	75	155389	4.62	ppb(v	98
64)	4-Methyl-2-pentanone	12.121	58	91932	4.67	ppb(v	96
65)	trans-1,3-Dichloropropene	12.733	75	122096	4.58	ppb(v	99
66)	Toluene	13.284	91	325217	4.64	ppb(v	100
67)	1,1,2-Trichloroethane	12.941	97	109595	4.67	ppb(v	98
68)	1,3-Dichloropropane	13.332	76	141677	4.58	ppb(v	95
69)	2-Hexanone	13.675	58	101212	4.91	ppb(v	95
70)	Ethyl Methacrylate	13.712	69	156960	4.82	ppb(v	99
71)	Dibromochloromethane	13.834	129	184941	4.77	ppb(v	99
72)	Tetrachloroethene	14.776	166	155390	4.82	ppb(v	99
73)	1,2-Dibromoethane	14.146	107	137796	4.60	ppb(v	96
74)	Octane	14.623	43	245502	4.25	ppb(v	95
75)	1,1,1,2-Tetrachloroethane	15.700	131	152366	4.78	ppb(v	99
77)	Chlorobenzene	15.718	112	207397	5.17	ppb(v	96
78)	Ethylbenzene	16.263	91	382481	5.08	ppb(v	99
79)	m,p-Xylene	16.514	91	573167	9.95	ppb(v	98
80)	Styrene	17.058	104	168736	5.36	ppb(v	99
81)	Nonane	17.590	43	245466	4.65	ppb(v	96
82)	o-Xylene	17.205	91	311505	4.91	ppb(v	98
83)	Bromoform	16.605	173	128181	5.27	ppb(v	100
84)	1,1,2,2-Tetrachloroethane	17.211	83	223382	4.97	ppb(v	99
85)	1,2,3-Trichloropropane	17.401	75	145908	4.93	ppb(v	99
86)	Isopropylbenzene	18.110	105	450401	5.09	ppb(v	99
87)	Bromobenzene	18.214	156	81418	5.22	ppb(v	96
88)	2-Chlorotoluene	18.838	126	84983	5.32	ppb(v	92
89)	n-Propylbenzene	18.918	120	93906	5.36	ppb(v	98
91)	4-Ethyltoluene	19.150	105	322927	5.31	ppb(v	99
92)	1,3,5-Trimethylbenzene	19.279	105	338346	5.22	ppb(v	99
93)	alpha-Methylstyrene	19.517	118	117486	5.46	ppb(v	99
94)	tert-Butylbenzene	19.866	134	78222	5.21	ppb(v	98
95)	1,2,4-Trimethylbenzene	19.878	105	299148	5.30	ppb(v	97
96)	1,3-Dichlorobenzene	20.068	146	101723	5.08	ppb(v	99
97)	Benzyl Chloride	20.068	91	101589	5.08	ppb(v	99
98)	1,4-Dichlorobenzene	20.172	146	85962	5.08	ppb(v	99
99)	sec-Butylbenzene	20.264	134	93355	5.47	ppb(v	97
100)	p-Isopropyltoluene	20.502	134	99986	5.70	ppb(v	98
101)	1,2-Dichlorobenzene	20.649	146	111688	5.39	ppb(v	100
102)	n-Butylbenzene	21.084	134	64073	6.05	ppb(v	94
103)	Hexachloroethane	21.555	201	128870	5.39	ppb(v	94
104)	1,2,4-Trichlorobenzene	22.907	180	24661	4.39	ppb(v	98
105)	Naphthalene	23.035	128	64342	4.41	ppb(v	100
106)	Hexachlorobutadiene	23.488	225	128434	5.37	ppb(v	99
108)	TVHC as equiv Pentane	5.691	TIC	638424	4.12	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39824.D
Acq On : 23 Dec 2019 3:47 pm
Operator : danat
Sample : ic1620-5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 16:25:04 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration

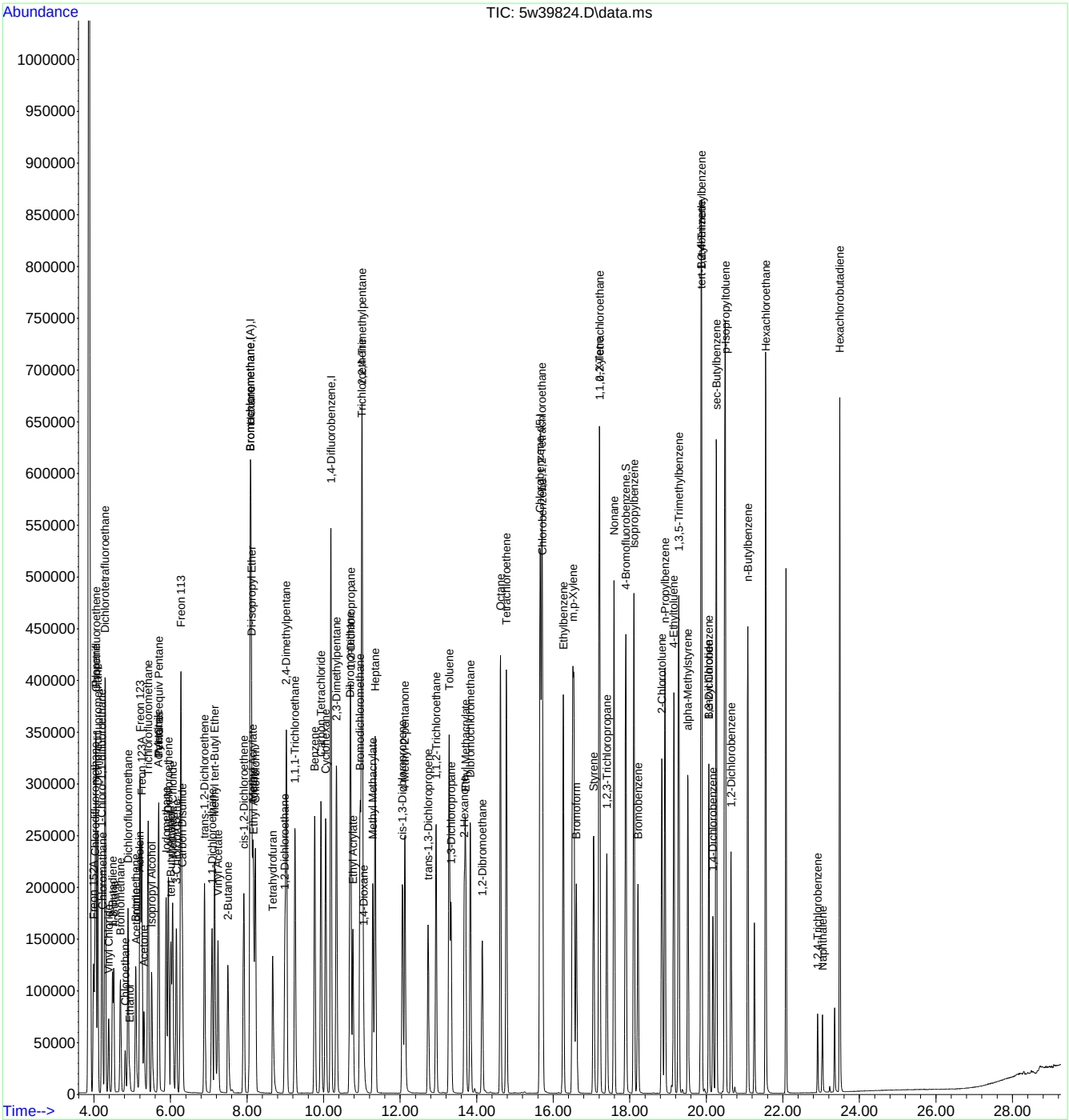
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39824.D
Acq On : 23 Dec 2019 3:47 pm
Operator : danat
Sample : ic1620-5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 16:25:04 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 09:19:08 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39825.D
Acq On : 23 Dec 2019 4:32 pm
Operator : danat
Sample : icc1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:06:30 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 16:30:33 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.083	130	145464	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.194	114	522148	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.657	82	237353	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.083	130	145464	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	221646	11.04	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 110.40%			
Target Compounds						Qvalue
2) Freon 152A	3.984	65	116468	10.44	ppb(v	97
3) Chlorodifluoromethane	4.021	67	48719	11.19	ppb(v	99
4) Propene	4.040	41	140116	9.99	ppb(v	100
5) Chlorotrifluoroethene	4.046	116	238208	10.03	ppb(v#	89
6) Dichlorodifluoromethane	4.095	85	482079	10.03	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.199	65	343494	9.91	ppb(v	99
8) Chloromethane	4.217	50	160106	9.96	ppb(v	99
9) Dichlorotetrafluoroethane	4.290	85	448148	9.93	ppb(v	96
10) Vinyl Chloride	4.382	62	158523	10.15	ppb(v	100
11) 1,3-Butadiene	4.480	54	104770	9.79	ppb(v	98
12) n-Butane	4.517	58	23074	10.15	ppb(v	96
13) Bromomethane	4.688	94	156002	9.75	ppb(v	98
14) Chloroethane	4.816	64	72471	10.07	ppb(v	98
15) Dichlorofluoromethane	4.884	67	354251	9.75	ppb(v	99
16) Acetonitrile	5.098	41	103960	7.44	ppb(v	98
17) Freon 123	5.202	83	357736	9.58	ppb(v	100
18) Freon 123A	5.245	117	189963	9.68	ppb(v	95
19) Bromoethene	5.086	106	141412	9.96	ppb(v	99
20) Acrolein	5.190	56	60192	8.88	ppb(v	96
21) Trichlorofluoromethane	5.410	101	449247	9.71	ppb(v	99
22) Acetone	5.300	58	60369	8.41	ppb(v	97
23) Pentane	5.685	57	47138	9.98	ppb(v	95
24) Iodomethane	5.881	142	477275	10.19	ppb(v	97
25) Isopropyl Alcohol	5.508	43	62108	7.29	ppb(v	99
26) 1,1-Dichloroethene	5.942	61	296014	9.68	ppb(v	96
27) Freon 113	6.266	101	385547	9.59	ppb(v	96
28) Methylene Chloride	6.052	84	162739	8.83	ppb(v	93
29) Carbon Disulfide	6.309	76	492553	10.56	ppb(v	100
30) Ethanol	4.927	45	58392	6.55	ppb(v	99
31) Acrylonitrile	5.679	53	146343	9.41	ppb(v	100
32) 3-Chloropropene	6.150	76	86043	10.85	ppb(v	84
33) trans-1,2-Dichloroethene	6.884	61	267934	10.15	ppb(v	95
34) tert-Butyl Alcohol	6.009	59	369919	9.74	ppb(v	98
35) Methyl tert-Butyl Ether	7.147	73	492592	10.10	ppb(v	98
36) Vinyl Acetate	7.239	43	495258	9.66	ppb(v	97
37) 1,1-Dichloroethane	7.080	63	338354	9.77	ppb(v	100
38) 2-Butanone	7.490	72	82700	9.98	ppb(v	89
39) Hexane	8.089	57	277444	10.12	ppb(v	95
40) cis-1,2-Dichloroethene	7.912	61	264054	9.99	ppb(v	95
41) Di-isopropyl Ether	8.114	87	143653	10.24	ppb(v	81
42) Ethyl Acetate	8.163	61	56386	10.45	ppb(v	82
43) Methyl Acrylate	8.151	55	308603	9.68	ppb(v	98
44) Chloroform	8.218	83	385013	9.64	ppb(v	99
45) 2,4-Dimethylpentane	9.025	57	337150	10.19	ppb(v	98
46) Tetrahydrofuran	8.664	72	83018	10.29	ppb(v	93
47) 1,1,1-Trichloroethane	9.252	97	372460	9.67	ppb(v	99
48) 1,2-Dichloroethane	8.989	62	240233	9.95	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39825.D
Acq On : 23 Dec 2019 4:32 pm
Operator : danat
Sample : icc1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:06:30 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 16:30:33 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.766	78	544581	10.17	ppb(v	99
50)	Carbon Tetrachloride	9.931	117	394917	10.17	ppb(v	98
51)	Cyclohexane	10.053	56	286674	9.96	ppb(v	97
52)	2,3-Dimethylpentane	10.335	71	121776	10.29	ppb(v	96
54)	2,2,4-Trimethylpentane	11.008	57	923629	9.57	ppb(v	99
55)	Heptane	11.350	71	180005	10.34	ppb(v	96
56)	Trichloroethene	10.995	95	242860	9.78	ppb(v	93
57)	1,2-Dichloropropane	10.708	63	215770	9.94	ppb(v	99
58)	Dibromomethane	10.689	174	207502	9.68	ppb(v	97
59)	Ethyl Acrylate	10.763	55	389814	11.03	ppb(v	99
60)	Methyl Methacrylate	11.283	69	191592	11.12	ppb(v	93
61)	1,4-Dioxane	11.038	88	114157	10.03	ppb(v	98
62)	Bromodichloromethane	10.959	83	417174	10.36	ppb(v	99
63)	cis-1,3-Dichloropropene	12.060	75	303081	11.58	ppb(v	99
64)	4-Methyl-2-pentanone	12.121	58	174968	11.20	ppb(v	93
65)	trans-1,3-Dichloropropene	12.733	75	248158	11.56	ppb(v	98
66)	Toluene	13.283	91	624106	10.56	ppb(v	98
67)	1,1,2-Trichloroethane	12.941	97	211332	11.35	ppb(v	99
68)	1,3-Dichloropropane	13.326	76	275102	11.58	ppb(v	94
69)	2-Hexanone	13.675	58	207938	14.19	ppb(v	93
70)	Ethyl Methacrylate	13.705	69	311026	13.34	ppb(v	99
71)	Dibromochloromethane	13.840	129	367261	12.47	ppb(v	99
72)	Tetrachloroethene	14.776	166	300074	11.31	ppb(v	98
73)	1,2-Dibromoethane	14.146	107	275917	11.34	ppb(v	97
74)	Octane	14.623	43	457580	11.08	ppb(v	95
75)	1,1,1,2-Tetrachloroethane	15.700	131	285258	10.91	ppb(v	98
77)	Chlorobenzene	15.718	112	416812	9.69	ppb(v	97
78)	Ethylbenzene	16.263	91	753235	9.17	ppb(v	99
79)	m,p-Xylene	16.514	91	1135693	18.13	ppb(v	98
80)	Styrene	17.052	104	355390	11.98	ppb(v	99
81)	Nonane	17.590	43	451483	9.00	ppb(v	96
82)	o-Xylene	17.205	91	598545	8.16	ppb(v	99
83)	Bromoform	16.605	173	268908	10.85	ppb(v	99
84)	1,1,2,2-Tetrachloroethane	17.211	83	438603	8.48	ppb(v	99
85)	1,2,3-Trichloropropane	17.401	75	291712	8.77	ppb(v	99
86)	Isopropylbenzene	18.110	105	846257	8.94	ppb(v	99
87)	Bromobenzene	18.214	156	173466	11.08	ppb(v	93
88)	2-Chlorotoluene	18.844	126	173148	10.67	ppb(v	90
89)	n-Propylbenzene	18.918	120	189360	11.86	ppb(v	99
91)	4-Ethyltoluene	19.150	105	667259	12.25	ppb(v	99
92)	1,3,5-Trimethylbenzene	19.279	105	643713	9.89	ppb(v	99
93)	alpha-Methylstyrene	19.523	118	250356	14.10	ppb(v	99
94)	tert-Butylbenzene	19.866	134	148480	9.27	ppb(v	94
95)	1,2,4-Trimethylbenzene	19.878	105	597530	11.14	ppb(v	98
96)	1,3-Dichlorobenzene	20.068	146	232126	13.05	ppb(v	100
97)	Benzyl Chloride	20.068	91	263179	18.38	ppb(v	98
98)	1,4-Dichlorobenzene	20.172	146	202373	13.70	ppb(v	99
99)	sec-Butylbenzene	20.264	134	175469	9.89	ppb(v	95
100)	p-Isopropyltoluene	20.502	134	194860	11.72	ppb(v	99
101)	1,2-Dichlorobenzene	20.649	146	249454	12.78	ppb(v	99
102)	n-Butylbenzene	21.083	134	140213	17.08	ppb(v	91
103)	Hexachloroethane	21.554	201	251006	8.96	ppb(v	93
104)	1,2,4-Trichlorobenzene	22.907	180	65879	17.43	ppb(v	99
105)	Naphthalene	23.029	128	178511	15.38	ppb(v	100
106)	Hexachlorobutadiene	23.488	225	251002	10.57	ppb(v	99
108)	TVHC as equiv Pentane	5.685	TIC	1189514	9.45	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39825.D
Acq On : 23 Dec 2019 4:32 pm
Operator : danat
Sample : icc1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:06:30 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 16:30:33 2019
Response via : Initial Calibration

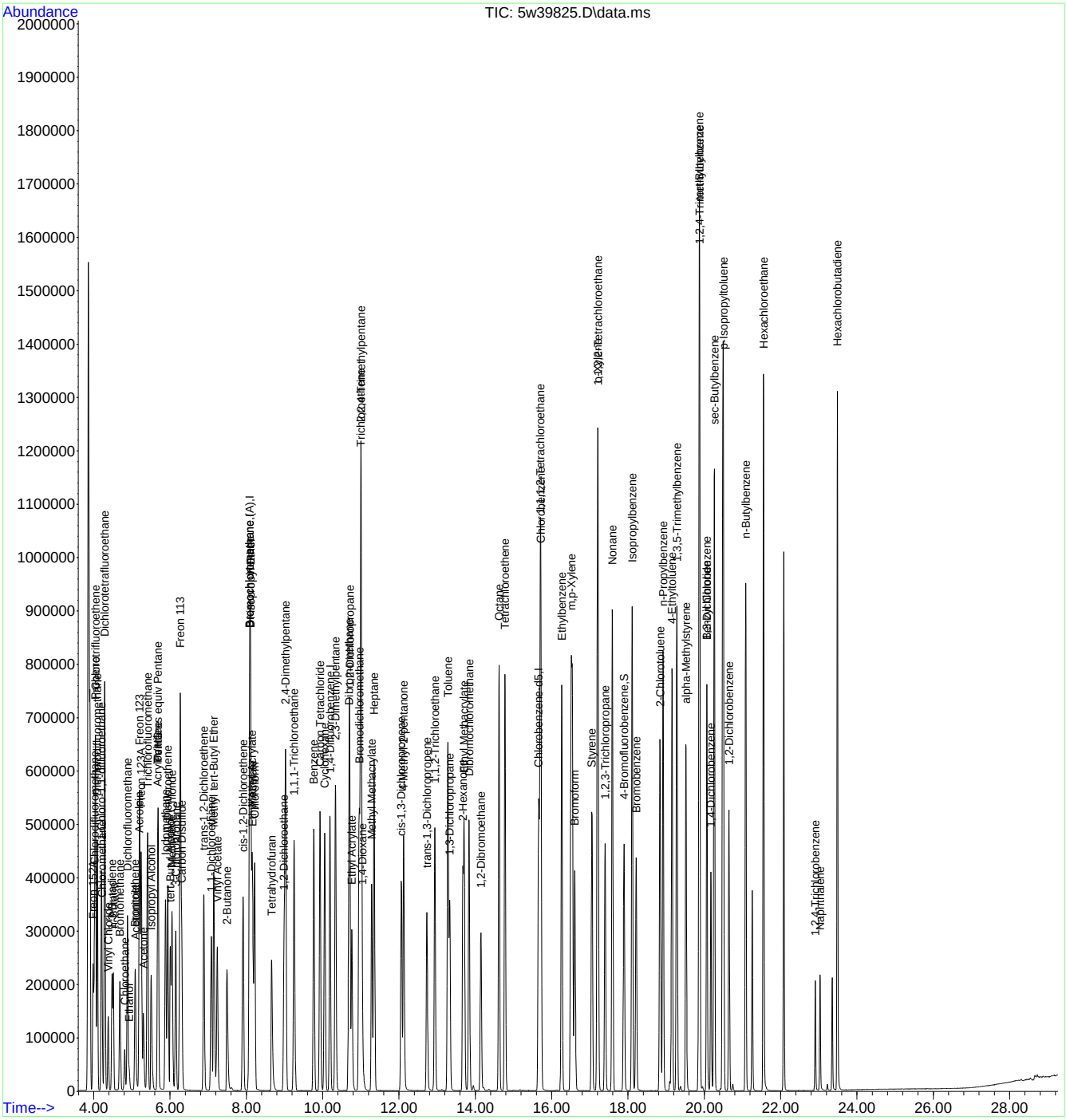
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39825.D
Acq On : 23 Dec 2019 4:32 pm
Operator : danat
Sample : icc1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:06:30 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 16:30:33 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39826.D
Acq On : 23 Dec 2019 5:20 pm
Operator : danat
Sample : ic1620-20
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:54:39 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:10:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.090	130	143063	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.200	114	527763	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.663	82	265874	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.090	130	143063	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	245259	10.68	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 106.80%			
Target Compounds						Qvalue
2) Freon 152A	3.991	65	225407	20.36	ppb(v	100
3) Chlorodifluoromethane	4.027	67	94356	21.52	ppb(v	99
4) Propene	4.046	41	268343	19.45	ppb(v	99
5) Chlorotrifluoroethene	4.052	116	467276	20.00	ppb(v	99
6) Dichlorodifluoromethane	4.101	85	940173	19.88	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.211	65	662399	19.47	ppb(v	100
8) Chloromethane	4.223	50	309811	19.61	ppb(v	99
9) Dichlorotetrafluoroethane	4.297	85	878717	19.83	ppb(v	100
10) Vinyl Chloride	4.388	62	310094	20.13	ppb(v	100
11) 1,3-Butadiene	4.486	54	198037	18.90	ppb(v	99
12) n-Butane	4.523	58	42350	18.89	ppb(v	93
13) Bromomethane	4.694	94	299932	19.15	ppb(v	99
14) Chloroethane	4.823	64	138635	19.56	ppb(v	98
15) Dichlorofluoromethane	4.890	67	673962	18.96	ppb(v	100
16) Acetonitrile	5.110	41	200740	15.61	ppb(v	98
17) Freon 123	5.208	83	669976	18.39	ppb(v	99
18) Freon 123A	5.257	117	361220	18.84	ppb(v	95
19) Bromoethene	5.092	106	274675	19.69	ppb(v	99
20) Acrolein	5.196	56	113432	17.51	ppb(v	100
21) Trichlorofluoromethane	5.422	101	854064	18.87	ppb(v	99
22) Acetone	5.306	58	113544	16.75	ppb(v	99
23) Pentane	5.698	57	88530	19.06	ppb(v	95
24) Iodomethane	5.893	142	916826	19.82	ppb(v	100
25) Isopropyl Alcohol	5.520	43	114239	14.63	ppb(v	99
26) 1,1-Dichloroethene	5.948	61	567602	19.00	ppb(v	99
27) Freon 113	6.273	101	736038	18.77	ppb(v	99
28) Methylene Chloride	6.065	84	308876	17.45	ppb(v	99
29) Carbon Disulfide	6.315	76	939442	20.25	ppb(v	100
30) Ethanol	4.939	45	111952	14.43	ppb(v	99
31) Acrylonitrile	5.685	53	275012	18.25	ppb(v	100
32) 3-Chloropropene	6.156	76	162673	20.51	ppb(v	98
33) trans-1,2-Dichloroethene	6.897	61	514202	19.75	ppb(v	99
34) tert-Butyl Alcohol	6.022	59	718017	19.35	ppb(v	99
35) Methyl tert-Butyl Ether	7.154	73	943961	19.64	ppb(v	100
36) Vinyl Acetate	7.245	43	941048	18.83	ppb(v	100
37) 1,1-Dichloroethane	7.092	63	637799	18.82	ppb(v	99
38) 2-Butanone	7.496	72	161357	19.81	ppb(v	95
39) Hexane	8.096	57	519079	19.20	ppb(v	99
40) cis-1,2-Dichloroethene	7.918	61	504087	19.40	ppb(v	99
41) Di-isopropyl Ether	8.120	87	273819	19.76	ppb(v	97
42) Ethyl Acetate	8.169	61	106485	19.84	ppb(v	95
43) Methyl Acrylate	8.157	55	586264	18.85	ppb(v	100
44) Chloroform	8.224	83	728605	18.68	ppb(v	99
45) 2,4-Dimethylpentane	9.032	57	632408	19.36	ppb(v	100
46) Tetrahydrofuran	8.665	72	161618	20.23	ppb(v	98
47) 1,1,1-Trichloroethane	9.258	97	712407	18.92	ppb(v	100
48) 1,2-Dichloroethane	8.995	62	457931	19.30	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39826.D
Acq On : 23 Dec 2019 5:20 pm
Operator : danat
Sample : ic1620-20
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:54:39 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:10:50 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.778	78	1053432	19.93	ppb(v	99
50)	Carbon Tetrachloride	9.937	117	757945	19.78	ppb(v	100
51)	Cyclohexane	10.059	56	545940	19.30	ppb(v	98
52)	2,3-Dimethylpentane	10.341	71	230449	19.68	ppb(v	98
54)	2,2,4-Trimethylpentane	11.014	57	1713341	17.71	ppb(v	100
55)	Heptane	11.356	71	340265	19.20	ppb(v	99
56)	Trichloroethene	11.002	95	471561	18.87	ppb(v	99
57)	1,2-Dichloropropane	10.714	63	412715	18.83	ppb(v	100
58)	Dibromomethane	10.702	174	410988	19.09	ppb(v	96
59)	Ethyl Acrylate	10.769	55	771012	21.04	ppb(v	100
60)	Methyl Methacrylate	11.289	69	376929	21.05	ppb(v	98
61)	1,4-Dioxane	11.044	88	222117	19.30	ppb(v	99
62)	Bromodichloromethane	10.965	83	815051	19.88	ppb(v	99
63)	cis-1,3-Dichloropropene	12.066	75	616524	22.59	ppb(v	99
64)	4-Methyl-2-pentanone	12.127	58	338052	20.79	ppb(v	97
65)	trans-1,3-Dichloropropene	12.739	75	513372	22.95	ppb(v	100
66)	Toluene	13.290	91	1235648	20.45	ppb(v	99
67)	1,1,2-Trichloroethane	12.941	97	423243	21.90	ppb(v	99
68)	1,3-Dichloropropane	13.332	76	557658	22.51	ppb(v	99
69)	2-Hexanone	13.675	58	423163	25.86	ppb(v	99
70)	Ethyl Methacrylate	13.712	69	604497	23.67	ppb(v	99
71)	Dibromochloromethane	13.840	129	744187	23.82	ppb(v	100
72)	Tetrachloroethene	14.782	166	586717	21.32	ppb(v	99
73)	1,2-Dibromoethane	14.152	107	573462	22.70	ppb(v	99
74)	Octane	14.623	43	858272	20.13	ppb(v	99
75)	1,1,1,2-Tetrachloroethane	15.706	131	556537	20.68	ppb(v	98
77)	Chlorobenzene	15.724	112	861643	17.99	ppb(v	100
78)	Ethylbenzene	16.269	91	1488996	16.45	ppb(v	100
79)	m,p-Xylene	16.544	91	2261301	32.84	ppb(v	99
80)	Styrene	17.058	104	757344	21.92	ppb(v	100
81)	Nonane	17.596	43	847784	15.39	ppb(v	100
82)	o-Xylene	17.211	91	1159691	14.66	ppb(v	100
83)	Bromoform	16.612	173	582717	20.63	ppb(v	99
84)	1,1,2,2-Tetrachloroethane	17.217	83	886122	15.78	ppb(v	99
85)	1,2,3-Trichloropropane	17.407	75	605691	16.66	ppb(v	98
86)	Isopropylbenzene	18.116	105	1641332	15.82	ppb(v	99
87)	Bromobenzene	18.220	156	381093	21.27	ppb(v	98
88)	2-Chlorotoluene	18.845	126	355259	19.29	ppb(v	99
89)	n-Propylbenzene	18.924	120	395352	21.31	ppb(v	91
91)	4-Ethyltoluene	19.157	105	1379121	21.63	ppb(v	99
92)	1,3,5-Trimethylbenzene	19.285	105	1282622	17.64	ppb(v	99
93)	alpha-Methylstyrene	19.524	118	564263	26.22	ppb(v	100
94)	tert-Butylbenzene	19.872	134	282808	16.00	ppb(v	99
95)	1,2,4-Trimethylbenzene	19.884	105	1203971	19.59	ppb(v	91
96)	1,3-Dichlorobenzene	20.074	146	565700	26.76	ppb(v	98
97)	Benzyl Chloride	20.068	91	668765	35.72	ppb(v	99
98)	1,4-Dichlorobenzene	20.178	146	517712	29.13	ppb(v	99
99)	sec-Butylbenzene	20.264	134	349945	17.65	ppb(v	98
100)	p-Isopropyltoluene	20.509	134	379684	19.71	ppb(v	96
101)	1,2-Dichlorobenzene	20.649	146	586294	25.40	ppb(v	99
102)	n-Butylbenzene	21.090	134	298390	28.42	ppb(v	91
103)	Hexachloroethane	21.555	201	502910	16.37	ppb(v	98
104)	1,2,4-Trichlorobenzene	22.907	180	185702	38.18	ppb(v	99
105)	Naphthalene	23.035	128	488053	33.89	ppb(v	99
106)	Hexachlorobutadiene	23.488	225	502006	18.66	ppb(v	99
108)	TVHC as equiv Pentane	5.691	TIC	2209421	18.10	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39826.D
Acq On : 23 Dec 2019 5:20 pm
Operator : danat
Sample : ic1620-20
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:54:39 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:10:50 2019
Response via : Initial Calibration

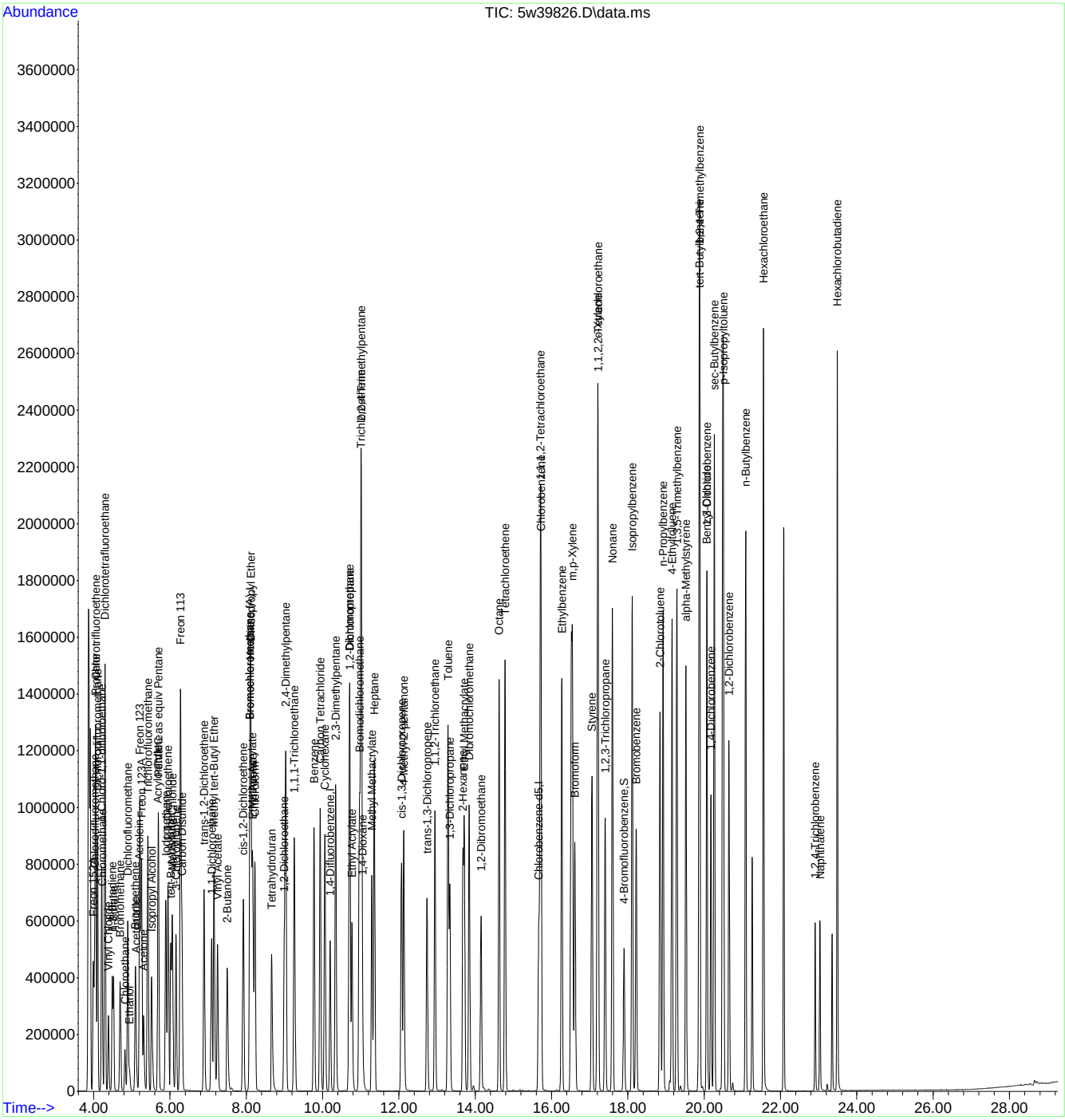
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39826.D
Acq On : 23 Dec 2019 5:20 pm
Operator : danat
Sample : ic1620-20
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 17:54:39 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:10:50 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39827.D
Acq On : 23 Dec 2019 6:11 pm
Operator : danat
Sample : ic1620-40
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 08:53:52 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:55:57 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.096	130	142724	10.00	ppb(v	0.01
53) 1,4-Difluorobenzene	10.200	114	521741	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.669	82	298244	10.00	ppb(v	0.01
107) Bromochloromethane (A)	8.096	130	142724	10.00	ppb(v	0.01
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.902	95	270635	10.39	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.90%			
Target Compounds						Qvalue
2) Freon 152A	3.991	65	445121	40.19	ppb(v	99
3) Chlorodifluoromethane	4.021	67	185624	41.91	ppb(v	98
4) Propene	4.046	41	508500	37.12	ppb(v	99
5) Chlorotrifluoroethene	4.052	116	910132	39.04	ppb(v	100
6) Dichlorodifluoromethane	4.101	85	1795532	38.09	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.205	65	1252548	37.06	ppb(v	100
8) Chloromethane	4.223	50	573848	36.52	ppb(v	100
9) Dichlorotetrafluoroethane	4.296	85	1591303	36.05	ppb(v	97
10) Vinyl Chloride	4.388	62	567823	36.90	ppb(v	100
11) 1,3-Butadiene	4.486	54	367434	35.48	ppb(v	98
12) n-Butane	4.523	58	77529	34.98	ppb(v	94
13) Bromomethane	4.694	94	555659	35.82	ppb(v	100
14) Chloroethane	4.823	64	256884	36.46	ppb(v	99
15) Dichlorofluoromethane	4.890	67	1235987	35.16	ppb(v	100
16) Acetonitrile	5.110	41	372755	30.38	ppb(v	98
17) Freon 123	5.208	83	1182058	32.97	ppb(v	99
18) Freon 123A	5.251	117	661239	34.90	ppb(v	95
19) Bromoethene	5.092	106	514747	37.08	ppb(v	100
20) Acrolein	5.196	56	201893	32.04	ppb(v	99
21) Trichlorofluoromethane	5.416	101	1615855	36.13	ppb(v	99
22) Acetone	5.306	58	211149	32.27	ppb(v	97
23) Pentane	5.691	57	166586	36.24	ppb(v	91
24) Iodomethane	5.887	142	1741562	37.80	ppb(v	98
25) Isopropyl Alcohol	5.520	43	214670	29.13	ppb(v	98
26) 1,1-Dichloroethene	5.948	61	1060061	35.87	ppb(v	98
27) Freon 113	6.272	101	1380123	35.64	ppb(v	98
28) Methylene Chloride	6.064	84	586133	33.91	ppb(v	97
29) Carbon Disulfide	6.315	76	1781690	38.42	ppb(v	100
30) Ethanol	4.939	45	206843	28.72	ppb(v	99
31) Acrylonitrile	5.685	53	516821	35.00	ppb(v	99
32) 3-Chloropropene	6.156	76	314288	39.55	ppb(v	97
33) trans-1,2-Dichloroethene	6.896	61	976399	37.67	ppb(v	98
34) tert-Butyl Alcohol	6.022	59	1359008	36.95	ppb(v	98
35) Methyl tert-Butyl Ether	7.153	73	1802348	37.71	ppb(v	99
36) Vinyl Acetate	7.245	43	1798756	36.51	ppb(v	99
37) 1,1-Dichloroethane	7.092	63	1224474	36.57	ppb(v	99
38) 2-Butanone	7.502	72	308358	38.01	ppb(v	89
39) Hexane	8.096	57	974489	36.37	ppb(v	97
40) cis-1,2-Dichloroethene	7.924	61	957390	37.11	ppb(v	99
41) Di-isopropyl Ether	8.126	87	526352	38.14	ppb(v	88
42) Ethyl Acetate	8.175	61	203018	37.97	ppb(v	99
43) Methyl Acrylate	8.163	55	1095045	35.70	ppb(v	99
44) Chloroform	8.230	83	1371917	35.65	ppb(v	99
45) 2,4-Dimethylpentane	9.032	57	1190598	36.73	ppb(v	99
46) Tetrahydrofuran	8.665	72	312689	39.14	ppb(v	96
47) 1,1,1-Trichloroethane	9.264	97	1366323	36.71	ppb(v	99
48) 1,2-Dichloroethane	9.001	62	870553	36.99	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39827.D
Acq On : 23 Dec 2019 6:11 pm
Operator : danat
Sample : ic1620-40
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 08:53:52 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:55:57 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.778	78	2039415	38.70	ppb(v	99
50)	Carbon Tetrachloride	9.943	117	1452443	38.06	ppb(v	99
51)	Cyclohexane	10.059	56	1032987	36.82	ppb(v	98
52)	2,3-Dimethylpentane	10.347	71	437927	37.60	ppb(v	97
54)	2,2,4-Trimethylpentane	11.020	57	3006877	32.05	ppb(v	99
55)	Heptane	11.362	71	635763	36.53	ppb(v	98
56)	Trichloroethene	11.008	95	874236	35.72	ppb(v	99
57)	1,2-Dichloropropane	10.720	63	768092	35.80	ppb(v	99
58)	Dibromomethane	10.702	174	808856	38.30	ppb(v	96
59)	Ethyl Acrylate	10.775	55	1483010	40.52	ppb(v	99
60)	Methyl Methacrylate	11.295	69	720013	40.25	ppb(v	96
61)	1,4-Dioxane	11.044	88	419399	37.12	ppb(v	94
62)	Bromodichloromethane	10.971	83	1544788	38.15	ppb(v	100
63)	cis-1,3-Dichloropropene	12.072	75	1204549	43.71	ppb(v	98
64)	4-Methyl-2-pentanone	12.133	58	636419	39.28	ppb(v	97
65)	trans-1,3-Dichloropropene	12.739	75	1040749	45.94	ppb(v	100
66)	Toluene	13.289	91	2347722	39.15	ppb(v	100
67)	1,1,2-Trichloroethane	12.947	97	832567	42.89	ppb(v	100
68)	1,3-Dichloropropane	13.338	76	1085113	43.40	ppb(v	99
69)	2-Hexanone	13.687	58	808454	47.21	ppb(v	97
70)	Ethyl Methacrylate	13.718	69	1153139	44.06	ppb(v	99
71)	Dibromochloromethane	13.846	129	1469428	46.10	ppb(v	99
72)	Tetrachloroethene	14.788	166	1138637	41.40	ppb(v	99
73)	1,2-Dibromoethane	14.158	107	1176216	46.07	ppb(v	99
74)	Octane	14.629	43	1555251	36.85	ppb(v	97
75)	1,1,1,2-Tetrachloroethane	15.712	131	1047165	39.13	ppb(v	98
77)	Chlorobenzene	15.730	112	1693444	32.05	ppb(v	100
78)	Ethylbenzene	16.269	91	2922858	29.67	ppb(v	100
79)	m,p-Xylene	16.550	91	4302657	57.41	ppb(v	99
80)	Styrene	17.064	104	1555467	39.50	ppb(v	100
81)	Nonane	17.602	43	1525351	25.68	ppb(v	98
82)	o-Xylene	17.211	91	2149038	25.34	ppb(v	99
83)	Bromoform	16.618	173	1211037	38.03	ppb(v	99
84)	1,1,2,2-Tetrachloroethane	17.223	83	1583031	26.05	ppb(v	98
85)	1,2,3-Trichloropropane	17.407	75	1168429	29.48	ppb(v	99
86)	Isopropylbenzene	18.122	105	3091692	27.52	ppb(v	99
87)	Bromobenzene	18.226	156	805230	39.64	ppb(v	96
88)	2-Chlorotoluene	18.850	126	707937	34.47	ppb(v	97
89)	n-Propylbenzene	18.930	120	773548	36.77	ppb(v	86
91)	4-Ethyltoluene	19.162	105	2667215	36.79	ppb(v	99
92)	1,3,5-Trimethylbenzene	19.291	105	2336415	29.21	ppb(v	99
93)	alpha-Methylstyrene	19.530	118	1079465	42.51	ppb(v	99
94)	tert-Butylbenzene	19.872	134	503041	26.25	ppb(v	97
95)	1,2,4-Trimethylbenzene	19.890	105	2111884	30.74	ppb(v	90
96)	1,3-Dichlorobenzene	20.080	146	1097300	43.80	ppb(v	99
97)	Benzyl Chloride	20.074	91	1284524	54.07	ppb(v	99
98)	1,4-Dichlorobenzene	20.178	146	1014428	47.28	ppb(v	99
99)	sec-Butylbenzene	20.270	134	624535	28.64	ppb(v	91
100)	p-Isopropyltoluene	20.508	134	658523	30.55	ppb(v	95
101)	1,2-Dichlorobenzene	20.655	146	1068600	39.50	ppb(v	99
102)	n-Butylbenzene	21.096	134	564890	44.82	ppb(v	83
103)	Hexachloroethane	21.561	201	917589	27.45	ppb(v	94
104)	1,2,4-Trichlorobenzene	22.907	180	489820	77.97	ppb(v	99
105)	Naphthalene	23.035	128	1202309	66.71	ppb(v	100
106)	Hexachlorobutadiene	23.494	225	1016746	34.07	ppb(v	99
108)	TVHC as equiv Pentane	5.691	TIC	4131482	34.58	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39827.D
Acq On : 23 Dec 2019 6:11 pm
Operator : danat
Sample : ic1620-40
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 08:53:52 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:55:57 2019
Response via : Initial Calibration

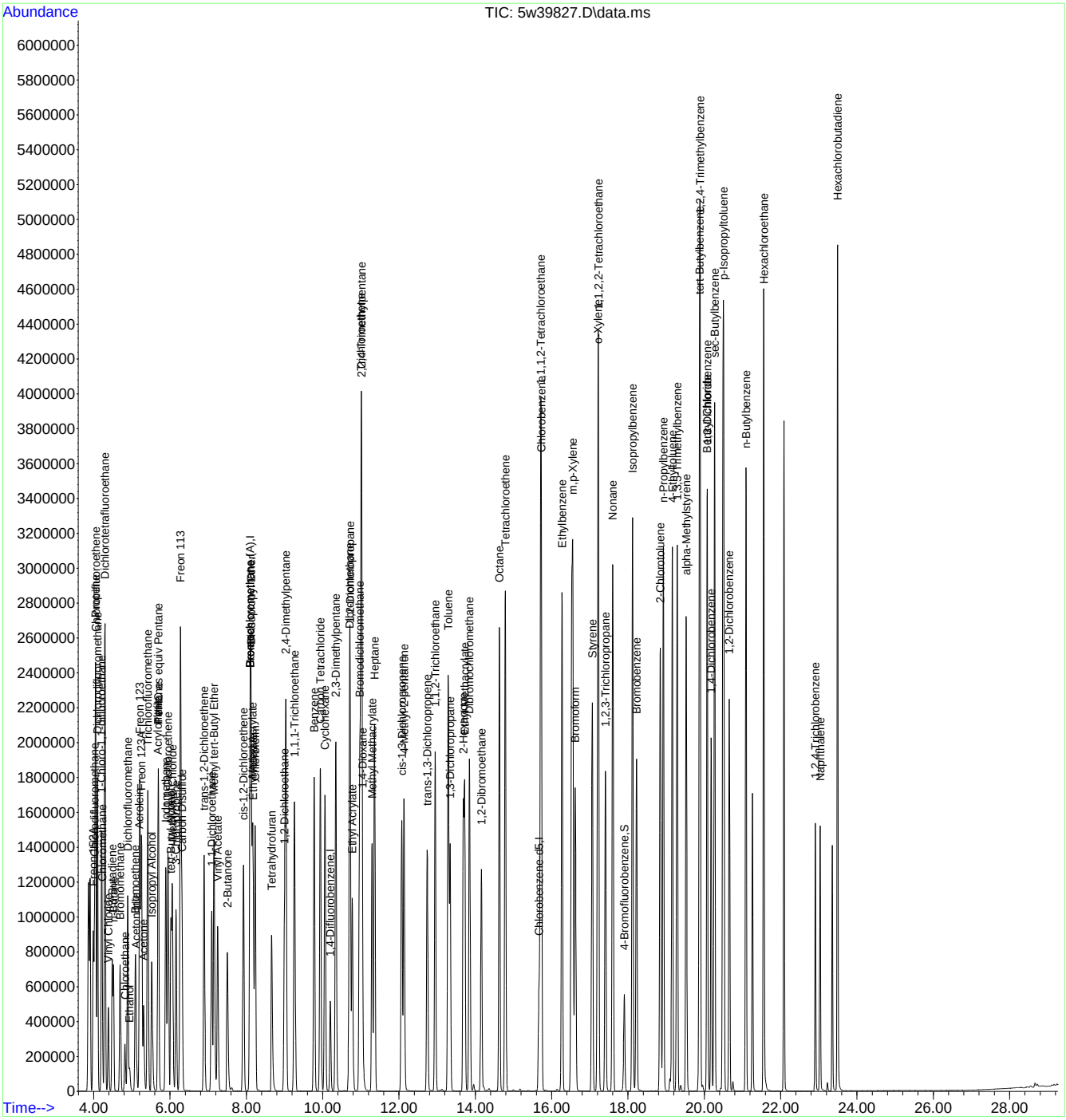
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39827.D
Acq On : 23 Dec 2019 6:11 pm
Operator : danat
Sample : ic1620-40
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 08:53:52 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Dec 23 17:55:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39831.D
Acq On : 24 Dec 2019 9:22 am
Operator : danat
Sample : ic1620-0.5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 09:54:44 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 08:58:04 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.077	130	162846	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.188	114	566819	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.657	82	194673	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.077	130	162846	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	162844	9.50	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.00%			
Target Compounds						Qvalue
2) Freon 152A	3.991	65	6337	0.50	ppb(v	97
3) Chlorodifluoromethane	4.021	67	2666	0.52	ppb(v	97
4) Propene	4.040	41	7837	0.51	ppb(v#	92
5) Chlorotrifluoroethene	4.046	116	13179	0.50	ppb(v	98
6) Dichlorodifluoromethane	4.101	85	26514	0.50	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.205	65	18789	0.49	ppb(v#	94
8) Chloromethane	4.223	50	8774	0.49	ppb(v	96
9) Dichlorotetrafluoroethane	4.290	85	24985	0.50	ppb(v	98
10) Vinyl Chloride	4.382	62	8464	0.49	ppb(v#	98
11) 1,3-Butadiene	4.480	54	5784	0.49	ppb(v	98
12) n-Butane	4.517	58	1247	0.50	ppb(v#	79
13) Bromomethane	4.688	94	8959	0.51	ppb(v	98
14) Chloroethane	4.817	64	4123	0.52	ppb(v	96
15) Dichlorofluoromethane	4.884	67	20462	0.52	ppb(v	99
16) Acetonitrile	5.104	41	8317	0.60	ppb(v#	77
17) Freon 123	5.202	83	20816	0.52	ppb(v	98
18) Freon 123A	5.251	117	10930	0.51	ppb(v	94
19) Bromoethene	5.086	106	7959	0.51	ppb(v	99
20) Acrolein	5.202	56	3829	0.55	ppb(v#	69
21) Trichlorofluoromethane	5.416	101	25590	0.51	ppb(v	97
22) Acetone	5.312	58	4605	0.64	ppb(v	91
23) Pentane	5.691	57	2574	0.50	ppb(v	86
24) Iodomethane	5.881	142	26430	0.50	ppb(v	98
25) Isopropyl Alcohol	5.514	43	5216	0.64	ppb(v	86
26) 1,1-Dichloroethene	5.942	61	17122	0.51	ppb(v	97
27) Freon 113	6.273	101	22777	0.52	ppb(v	98
28) Methylene Chloride	6.052	84	10039	0.52	ppb(v	97
29) Carbon Disulfide	6.309	76	26706	0.51	ppb(v	98
30) Ethanol	4.933	45	5866	0.76	ppb(v	98
31) Acrylonitrile	5.685	53	9899	0.59	ppb(v	99
32) 3-Chloropropene	6.150	76	4902	0.53	ppb(v	95
33) trans-1,2-Dichloroethene	6.890	61	15561	0.53	ppb(v	99
34) tert-Butyl Alcohol	6.022	59	21935	0.53	ppb(v	95
35) Methyl tert-Butyl Ether	7.166	73	27573	0.51	ppb(v	98
36) Vinyl Acetate	7.239	43	31404	0.57	ppb(v	100
37) 1,1-Dichloroethane	7.086	63	19712	0.52	ppb(v	98
38) 2-Butanone	7.515	72	5160	0.56	ppb(v	100
39) Hexane	8.090	57	15362	0.51	ppb(v	90
40) cis-1,2-Dichloroethene	7.912	61	15408	0.53	ppb(v	99
41) Di-isopropyl Ether	8.126	87	8050	0.52	ppb(v	97
42) Ethyl Acetate	8.175	61	3282	0.53	ppb(v	97
43) Methyl Acrylate	8.163	55	19763	0.57	ppb(v	99
44) Chloroform	8.212	83	22738	0.52	ppb(v	96
45) 2,4-Dimethylpentane	9.026	57	18737	0.51	ppb(v	94
46) Tetrahydrofuran	8.701	72	4522	0.50	ppb(v	93
47) 1,1,1-Trichloroethane	9.252	97	21711	0.52	ppb(v	99
48) 1,2-Dichloroethane	8.989	62	13737	0.51	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39831.D
Acq On : 24 Dec 2019 9:22 am
Operator : danat
Sample : ic1620-0.5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 09:54:44 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 08:58:04 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.766	78	29442	0.49	ppb(v	99
50)	Carbon Tetrachloride	9.931	117	21967	0.51	ppb(v	99
51)	Cyclohexane	10.053	56	15781	0.50	ppb(v	99
52)	2,3-Dimethylpentane	10.335	71	6662	0.51	ppb(v	95
54)	2,2,4-Trimethylpentane	11.008	57	53144	0.54	ppb(v	98
55)	Heptane	11.344	71	9432	0.51	ppb(v	98
56)	Trichloroethene	10.995	95	13862	0.53	ppb(v	99
57)	1,2-Dichloropropane	10.708	63	11546	0.50	ppb(v	98
58)	Dibromomethane	10.690	174	11813	0.52	ppb(v	95
59)	Ethyl Acrylate	10.781	55	20539	0.51	ppb(v	99
60)	Methyl Methacrylate	11.295	69	9634	0.49	ppb(v	97
61)	1,4-Dioxane	11.075	88	6377	0.52	ppb(v#	82
62)	Bromodichloromethane	10.953	83	21295	0.49	ppb(v	99
63)	cis-1,3-Dichloropropene	12.066	75	14371	0.47	ppb(v	99
64)	4-Methyl-2-pentanone	12.139	58	9539	0.55	ppb(v	97
65)	trans-1,3-Dichloropropene	12.739	75	12250	0.48	ppb(v	97
66)	Toluene	13.284	91	36778	0.57	ppb(v	99
67)	1,1,2-Trichloroethane	12.941	97	10117	0.47	ppb(v	96
68)	1,3-Dichloropropane	13.332	76	12877	0.46	ppb(v	97
69)	2-Hexanone	13.700	58	8240	0.43	ppb(v	88
70)	Ethyl Methacrylate	13.718	69	12500	0.43	ppb(v	96
71)	Dibromochloromethane	13.834	129	15657	0.44	ppb(v	99
72)	Tetrachloroethene	14.776	166	15085	0.50	ppb(v	99
73)	1,2-Dibromoethane	14.146	107	13110	0.46	ppb(v	98
74)	Octane	14.623	43	21298	0.47	ppb(v	99
75)	1,1,1,2-Tetrachloroethane	15.700	131	14711	0.50	ppb(v#	59
77)	Chlorobenzene	15.718	112	17727	0.52	ppb(v	99
78)	Ethylbenzene	16.269	91	29515	0.48	ppb(v	99
79)	m,p-Xylene	16.514	91	46792	1.00	ppb(v	99
80)	Styrene	17.064	104	12191	0.47	ppb(v	96
81)	Nonane	17.590	43	21164	0.58	ppb(v	97
82)	o-Xylene	17.205	91	26738	0.51	ppb(v	100
83)	Bromoform	16.612	173	9717	0.46	ppb(v	98
84)	1,1,2,2-Tetrachloroethane	17.217	83	21985	0.57	ppb(v	97
85)	1,2,3-Trichloropropane	17.407	75	13858	0.55	ppb(v	97
86)	Isopropylbenzene	18.110	105	40154	0.57	ppb(v	98
87)	Bromobenzene	18.220	156	6641	0.49	ppb(v	95
88)	2-Chlorotoluene	18.844	126	6622	0.50	ppb(v	97
89)	n-Propylbenzene	18.924	120	7148	0.52	ppb(v	86
91)	4-Ethyltoluene	19.156	105	23292	0.49	ppb(v	97
92)	1,3,5-Trimethylbenzene	19.279	105	30984	0.61	ppb(v	99
93)	alpha-Methylstyrene	19.524	118	8578	0.50	ppb(v	96
94)	tert-Butylbenzene	19.866	134	6735	0.56	ppb(v	94
95)	1,2,4-Trimethylbenzene	19.878	105	27353	0.61	ppb(v	99
96)	1,3-Dichlorobenzene	20.074	146	9356	0.54	ppb(v	97
97)	Benzyl Chloride	20.068	91	7383	0.43	ppb(v	95
98)	1,4-Dichlorobenzene	20.178	146	8008	0.53	ppb(v	98
99)	sec-Butylbenzene	20.264	134	8091	0.59	ppb(v	95
100)	p-Isopropyltoluene	20.502	134	8543	0.61	ppb(v	93
101)	1,2-Dichlorobenzene	20.649	146	10145	0.54	ppb(v	97
102)	n-Butylbenzene	21.090	134	4865	0.54	ppb(v	96
103)	Hexachloroethane	21.549	201	10316	0.49	ppb(v	85
104)	1,2,4-Trichlorobenzene	22.913	180	4413	0.70	ppb(v	98
105)	Naphthalene	23.041	128	12628	0.76	ppb(v	98
106)	Hexachlorobutadiene	23.488	225	11459	0.58	ppb(v	97
108)	TVHC as equiv Pentane	5.685	TIC	72658	0.55	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39831.D
Acq On : 24 Dec 2019 9:22 am
Operator : danat
Sample : ic1620-0.5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 09:54:44 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 08:58:04 2019
Response via : Initial Calibration

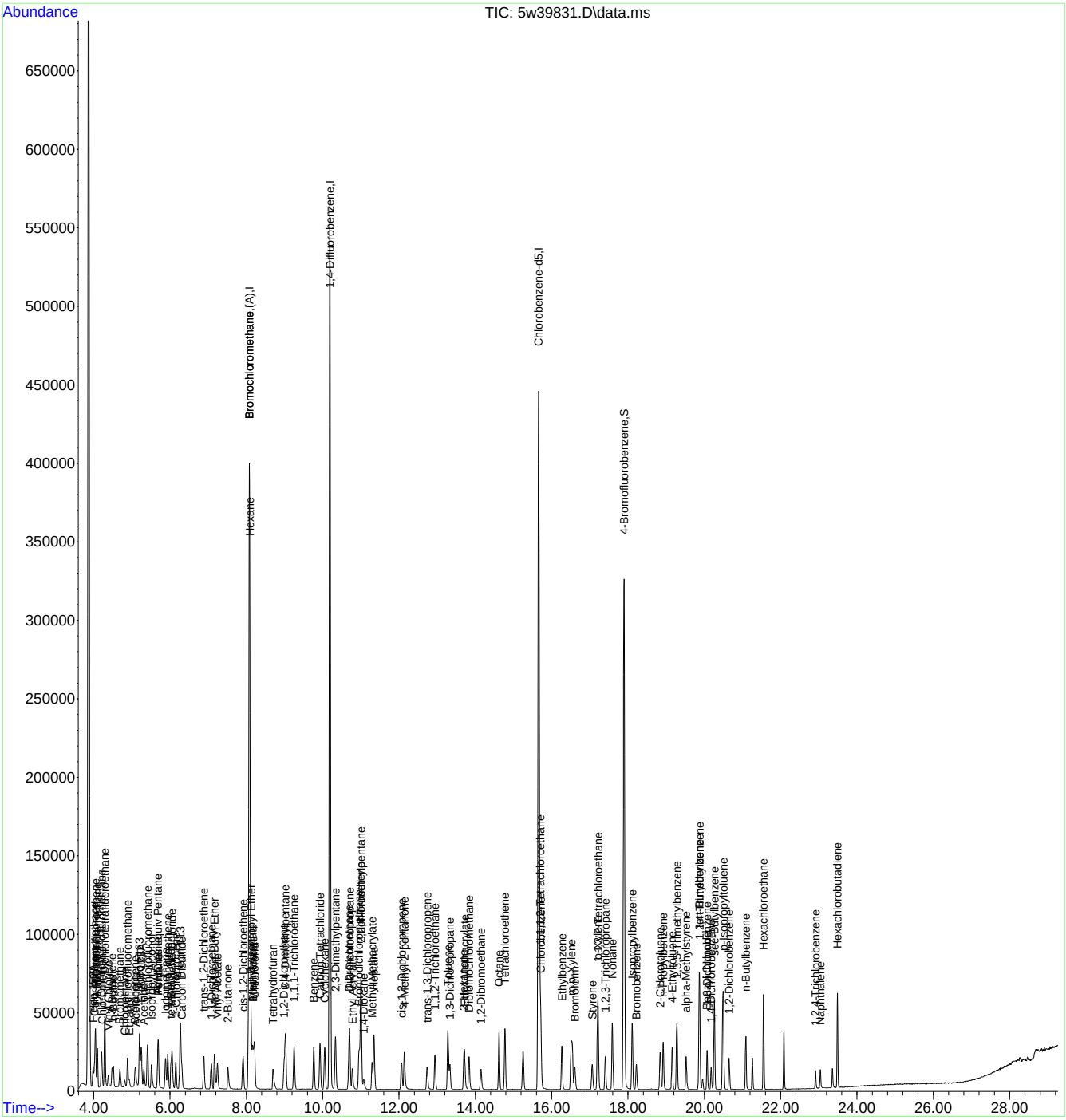
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39831.D
Acq On : 24 Dec 2019 9:22 am
Operator : danat
Sample : ic1620-0.5
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 09:54:44 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 08:58:04 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
12/26/19 11:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39832.D
Acq On : 24 Dec 2019 10:07 am
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 10:38:58 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 09:55:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.083	130	157769	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.188	114	557412	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.657	82	179630	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.083	130	157769	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	143867	9.04	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 90.40%			
Target Compounds						Qvalue
2) Freon 152A	3.990	65	2558	0.21	ppb(v	97
3) Chlorodifluoromethane	4.027	67	1072	0.21	ppb(v	95
4) Propene	4.039	41	3258	0.22	ppb(v#	79
5) Chlorotrifluoroethene	4.052	116	5255	0.20	ppb(v	96
6) Dichlorodifluoromethane	4.101	85	10838	0.21	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.205	65	7911	0.21	ppb(v#	85
8) Chloromethane	4.223	50	3827	0.22	ppb(v	98
9) Dichlorotetrafluoroethane	4.290	85	10336	0.21	ppb(v	95
10) Vinyl Chloride	4.382	62	3400	0.20	ppb(v#	92
11) 1,3-Butadiene	4.486	54	2459	0.22	ppb(v	96
12) n-Butane	4.517	58	553	0.23	ppb(v#	49
13) Bromomethane	4.694	94	3730	0.22	ppb(v	98
14) Chloroethane	4.816	64	1624	0.21	ppb(v#	94
15) Dichlorofluoromethane	4.896	67	8314	0.22	ppb(v	98
16) Acetonitrile	5.110	41	3130m	0.23	ppb(v	
17) Freon 123	5.208	83	8349	0.21	ppb(v	93
18) Freon 123A	5.251	117	4402	0.21	ppb(v	100
19) Bromoethene	5.092	106	3237	0.21	ppb(v	99
20) Acrolein	5.202	56	1571	0.23	ppb(v#	75
21) Trichlorofluoromethane	5.416	101	10360	0.21	ppb(v	99
22) Acetone	5.324	58	1785	0.25	ppb(v	92
23) Pentane	5.691	57	920	0.18	ppb(v	82
24) Iodomethane	5.887	142	10359	0.20	ppb(v	99
25) Isopropyl Alcohol	5.532	43	2151	0.27	ppb(v	70
26) 1,1-Dichloroethene	5.948	61	6712	0.21	ppb(v	96
27) Freon 113	6.272	101	8977	0.21	ppb(v	95
28) Methylene Chloride	6.058	84	4216	0.22	ppb(v	98
29) Carbon Disulfide	6.315	76	9989	0.19	ppb(v	100
31) Acrylonitrile	5.691	53	3506	0.21	ppb(v	94
32) 3-Chloropropene	6.156	76	1835	0.20	ppb(v	92
33) trans-1,2-Dichloroethene	6.890	61	5835	0.20	ppb(v	97
34) tert-Butyl Alcohol	6.040	59	8215	0.20	ppb(v	93
35) Methyl tert-Butyl Ether	7.178	73	10776	0.20	ppb(v	96
36) Vinyl Acetate	7.251	43	11613	0.21	ppb(v	96
37) 1,1-Dichloroethane	7.086	63	7892	0.21	ppb(v#	98
38) 2-Butanone	7.533	72	1784	0.20	ppb(v	93
39) Hexane	8.089	57	5893	0.20	ppb(v	82
40) cis-1,2-Dichloroethene	7.918	61	5757	0.20	ppb(v	95
41) Di-isopropyl Ether	8.132	87	2992	0.20	ppb(v	83
42) Ethyl Acetate	8.187	61	1147	0.19	ppb(v	86
43) Methyl Acrylate	8.169	55	7193	0.21	ppb(v	99
44) Chloroform	8.218	83	8884	0.21	ppb(v	95
45) 2,4-Dimethylpentane	9.025	57	7052	0.20	ppb(v	92
46) Tetrahydrofuran	8.726	72	1649	0.19	ppb(v	85
47) 1,1,1-Trichloroethane	9.258	97	8637	0.21	ppb(v	99
48) 1,2-Dichloroethane	8.989	62	5240	0.20	ppb(v#	92
49) Benzene	9.772	78	11712	0.20	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39832.D
Acq On : 24 Dec 2019 10:07 am
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 10:38:58 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 09:55:58 2019
Response via : Initial Calibration

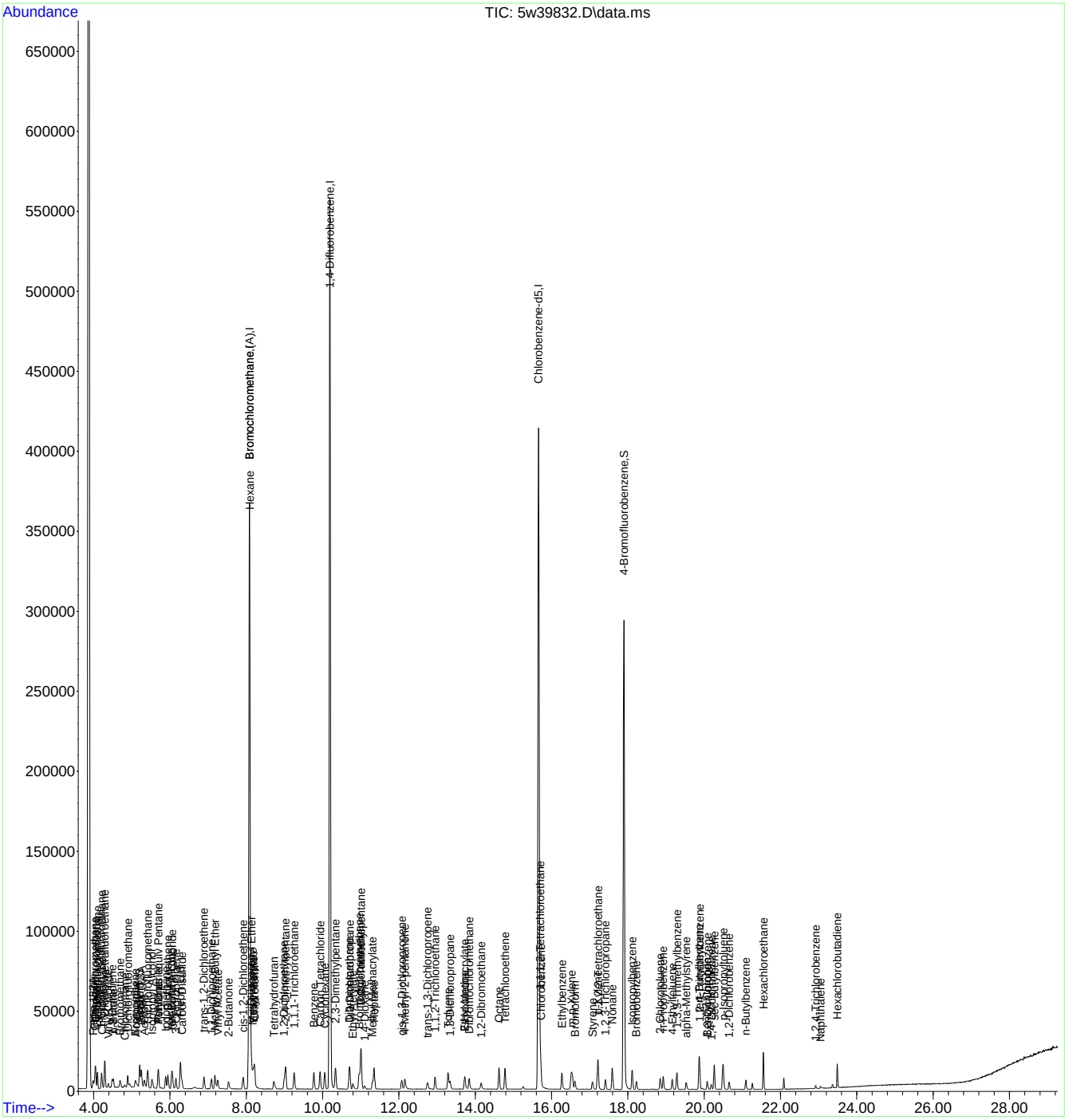
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	Carbon Tetrachloride	9.937	117	8524	0.20	ppb(v	97
51)	Cyclohexane	10.059	56	6017	0.20	ppb(v	95
52)	2,3-Dimethylpentane	10.335	71	2761	0.22	ppb(v	99
54)	2,2,4-Trimethylpentane	11.008	57	20112	0.21	ppb(v	98
55)	Heptane	11.350	71	3513	0.19	ppb(v	99
56)	Trichloroethene	10.995	95	5309	0.20	ppb(v	97
57)	1,2-Dichloropropane	10.708	63	4498	0.20	ppb(v	97
58)	Dibromomethane	10.696	174	4425	0.19	ppb(v	99
59)	Ethyl Acrylate	10.793	55	6958	0.17	ppb(v	99
60)	Methyl Methacrylate	11.301	69	3195	0.16	ppb(v#	95
61)	1,4-Dioxane	11.099	88	2308	0.19	ppb(v#	73
62)	Bromodichloromethane	10.959	83	8284	0.19	ppb(v	99
63)	cis-1,3-Dichloropropene	12.072	75	5072	0.17	ppb(v	93
64)	4-Methyl-2-pentanone	12.158	58	2853	0.16	ppb(v	89
65)	trans-1,3-Dichloropropene	12.751	75	4387	0.17	ppb(v	97
66)	Toluene	13.289	91	11569	0.17	ppb(v	99
67)	1,1,2-Trichloroethane	12.947	97	3673	0.17	ppb(v	95
68)	1,3-Dichloropropane	13.338	76	4446	0.16	ppb(v	97
69)	2-Hexanone	13.724	58	2181	0.11	ppb(v	96
70)	Ethyl Methacrylate	13.724	69	3729	0.13	ppb(v#	97
71)	Dibromochloromethane	13.846	129	5587	0.16	ppb(v#	89
72)	Tetrachloroethene	14.782	166	5170	0.17	ppb(v	94
73)	1,2-Dibromoethane	14.152	107	4646	0.16	ppb(v#	92
74)	Octane	14.623	43	8039	0.18	ppb(v	97
75)	1,1,1,2-Tetrachloroethane	15.700	131	5206	0.18	ppb(v#	1
77)	Chlorobenzene	15.724	112	6238	0.19	ppb(v	92
78)	Ethylbenzene	16.269	91	11580	0.20	ppb(v	96
79)	m,p-Xylene	16.520	91	17378	0.40	ppb(v	99
80)	Styrene	17.070	104	4023	0.16	ppb(v	94
81)	Nonane	17.590	43	6964	0.20	ppb(v	100
82)	o-Xylene	17.211	91	10259	0.21	ppb(v	97
83)	Bromoform	16.617	173	3324	0.17	ppb(v	98
84)	1,1,2,2-Tetrachloroethane	17.217	83	7293	0.20	ppb(v#	94
85)	1,2,3-Trichloropropane	17.413	75	4704	0.20	ppb(v	97
86)	Isopropylbenzene	18.110	105	12924	0.19	ppb(v	98
87)	Bromobenzene	18.220	156	2311	0.18	ppb(v	96
88)	2-Chlorotoluene	18.850	126	1992	0.16	ppb(v	100
89)	n-Propylbenzene	18.924	120	2115	0.16	ppb(v	97
91)	4-Ethyltoluene	19.162	105	6682	0.15	ppb(v	97
92)	1,3,5-Trimethylbenzene	19.285	105	8587	0.17	ppb(v	96
93)	alpha-Methylstyrene	19.529	118	2231	0.13	ppb(v	93
94)	tert-Butylbenzene	19.866	134	2099	0.19	ppb(v	96
95)	1,2,4-Trimethylbenzene	19.884	105	6938	0.16	ppb(v	95
96)	1,3-Dichlorobenzene	20.086	146	2604	0.15	ppb(v	94
97)	Benzyl Chloride	20.080	91	1840	0.11	ppb(v#	96
98)	1,4-Dichlorobenzene	20.190	146	2300	0.16	ppb(v	92
99)	sec-Butylbenzene	20.264	134	2243	0.17	ppb(v	96
100)	p-Isopropyltoluene	20.502	134	2016	0.15	ppb(v	89
101)	1,2-Dichlorobenzene	20.655	146	2816	0.15	ppb(v	93
102)	n-Butylbenzene	21.089	134	896	0.10	ppb(v	97
103)	Hexachloroethane	21.554	201	4010	0.21	ppb(v	96
104)	1,2,4-Trichlorobenzene	22.919	180	912	0.14	ppb(v	89
105)	Naphthalene	23.047	128	2501	0.14	ppb(v	96
106)	Hexachlorobutadiene	23.488	225	3001	0.16	ppb(v	94
108)	TVHC as equiv Pentane	5.691	TIC	26841m	0.21	ppb(v	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39832.D
Acq On : 24 Dec 2019 10:07 am
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 10:38:58 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 09:55:58 2019
Response via : Initial Calibration



Manual Integration Approval Summary

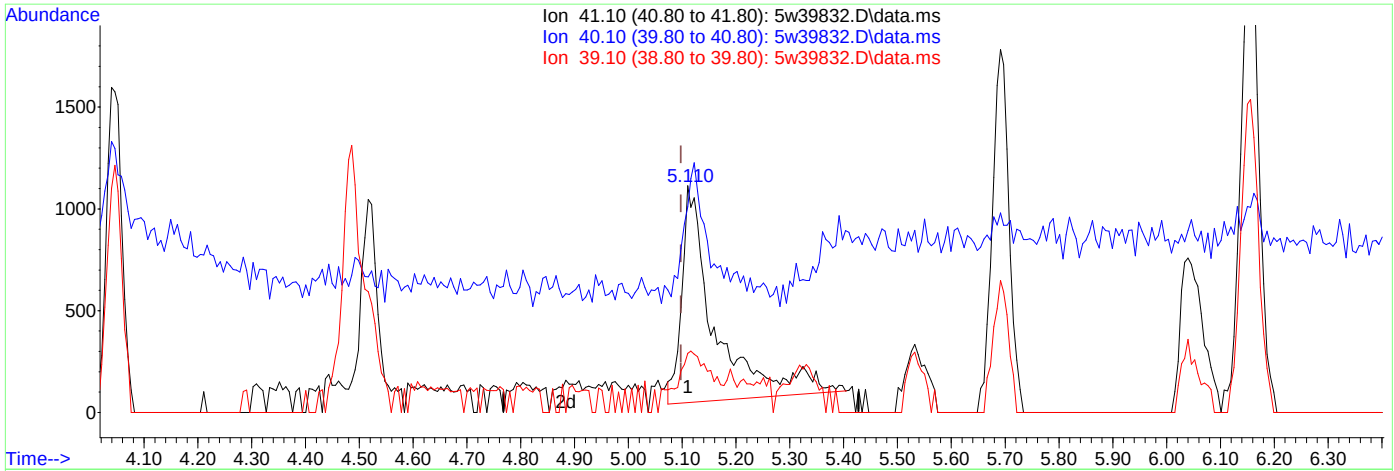
Sample Number:	V5W1620-IC1620	**Method:**	TO-15
Lab FileID:	5W39832.D	**Analyst approved:**	12/24/19 10:54 Dana Tryon
Injection Time:	12/24/19 10:07	**Supervisor approved:**	12/26/19 11:06 Dana Tryon

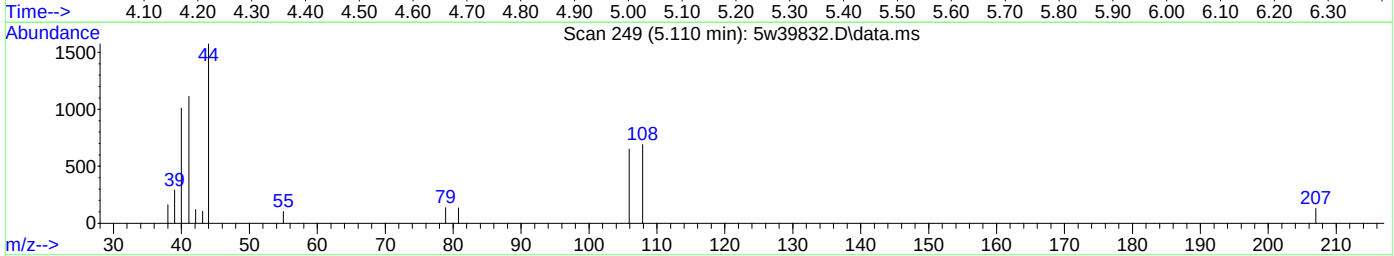
Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		5.11	Poor instrument integration
TVHC As Equiv Pentane			5.69	Missed peak

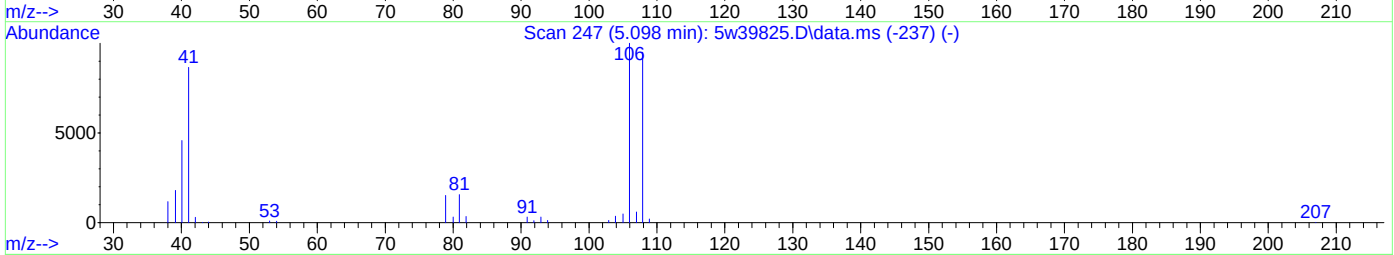
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39832.D
Acq On : 24 Dec 2019 10:07 am
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 10:36:57 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 09:55:58 2019
Response via : Initial Calibration







TIC: 5w39832.D\data.ms

(16) Acetonitrile

5.110min (+0.012) 0.34ppb(v)

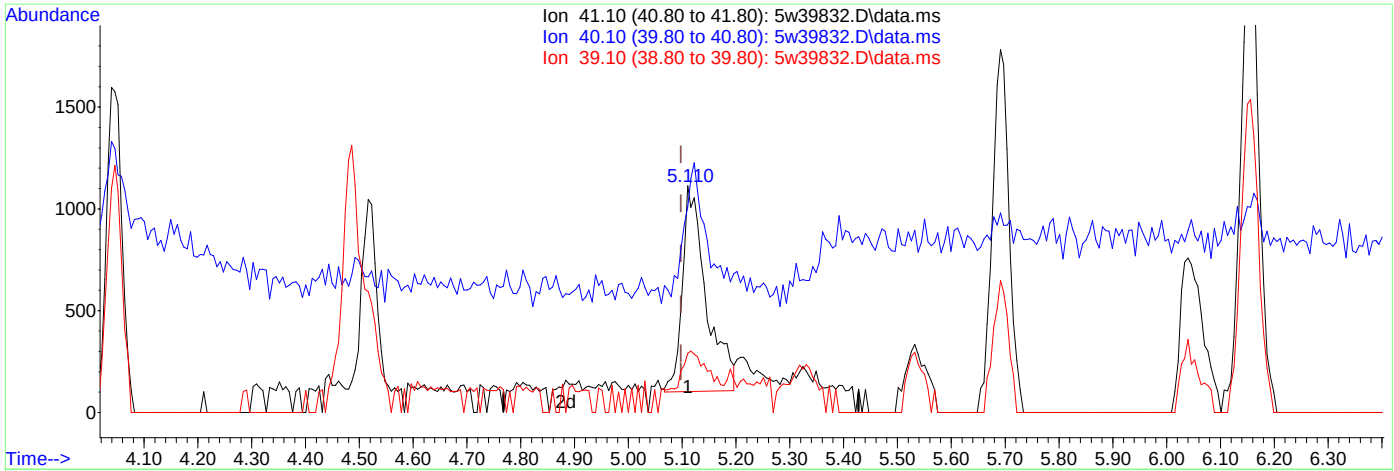
response 4589

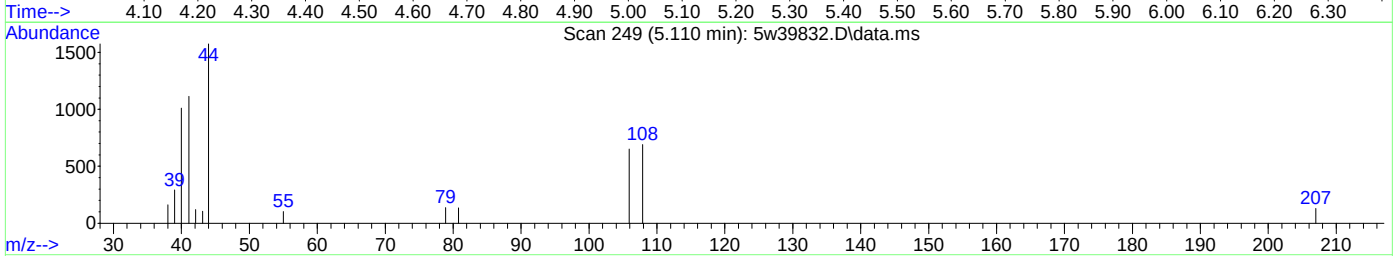
Ion	Exp%	Act%
41.10	100	100
40.10	53.90	90.75#
39.10	20.70	26.12
0.00	0.00	0.00

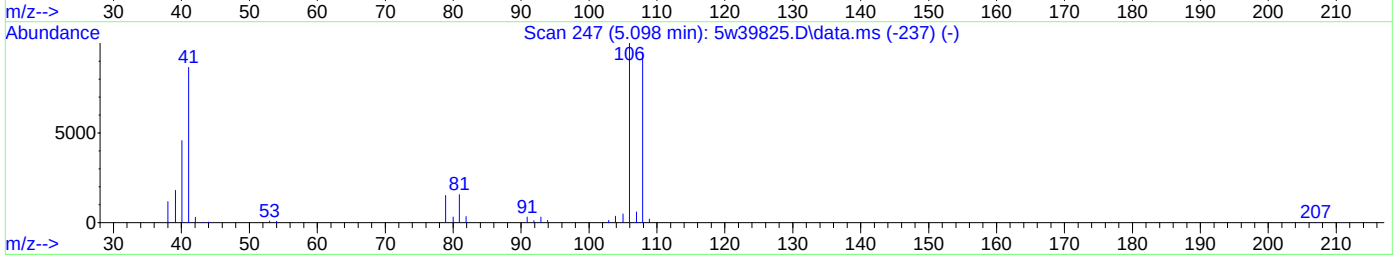
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39832.D
Acq On : 24 Dec 2019 10:07 am
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 10:36:57 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 09:55:58 2019
Response via : Initial Calibration







TIC: 5w39832.D\data.ms

(16) Acetonitrile

5.110min (+0.012) 0.23ppb(v) m

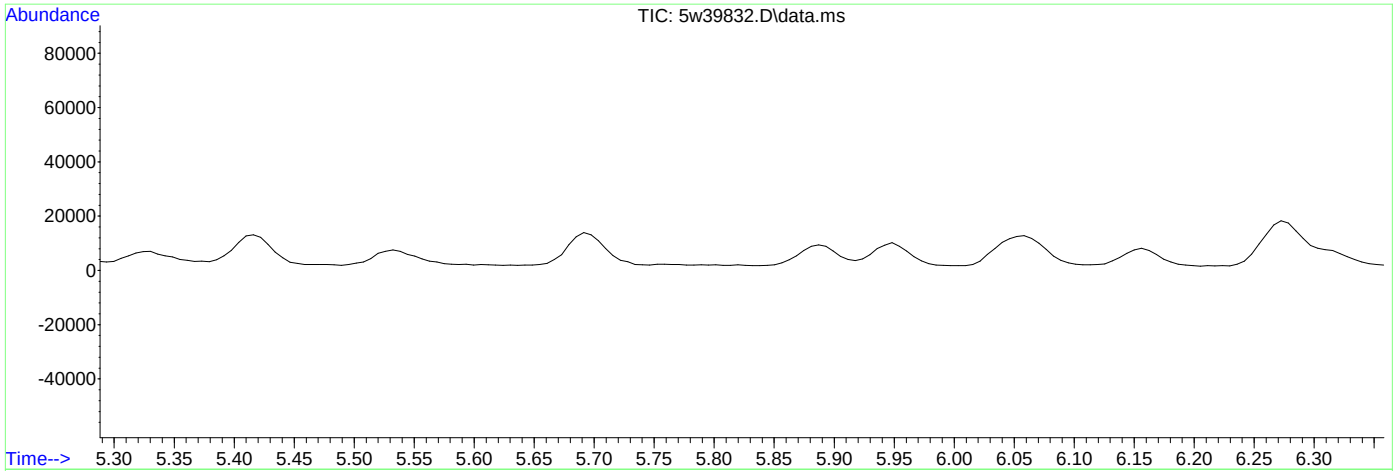
response 3130

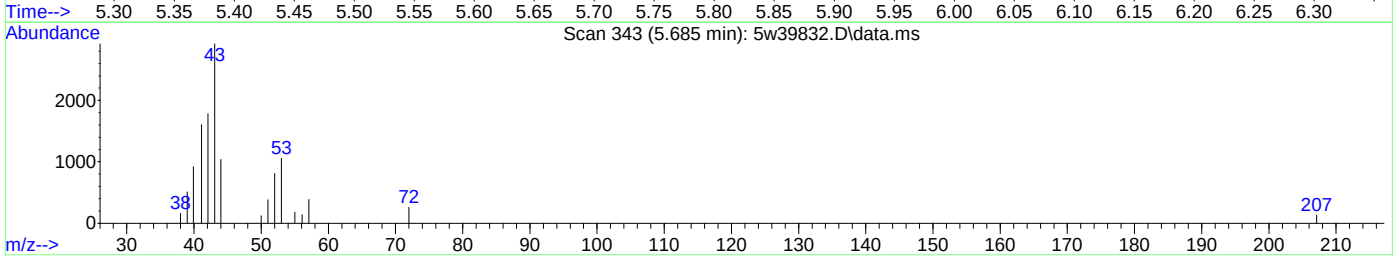
Ion	Exp%	Act%
41.10	100	100
40.10	53.90	90.75#
39.10	20.70	26.12
0.00	0.00	0.00

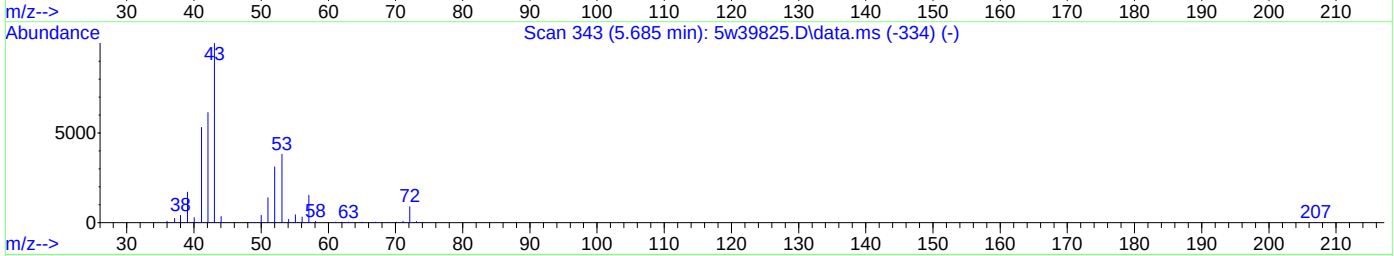
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39832.D
Acq On : 24 Dec 2019 10:07 am
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 10:36:57 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 09:55:58 2019
Response via : Initial Calibration







TIC: 5w39832.D\data.ms

(108) TVHC as equiv Pentane

5.685min (-5.685) 0.00ppb(v)

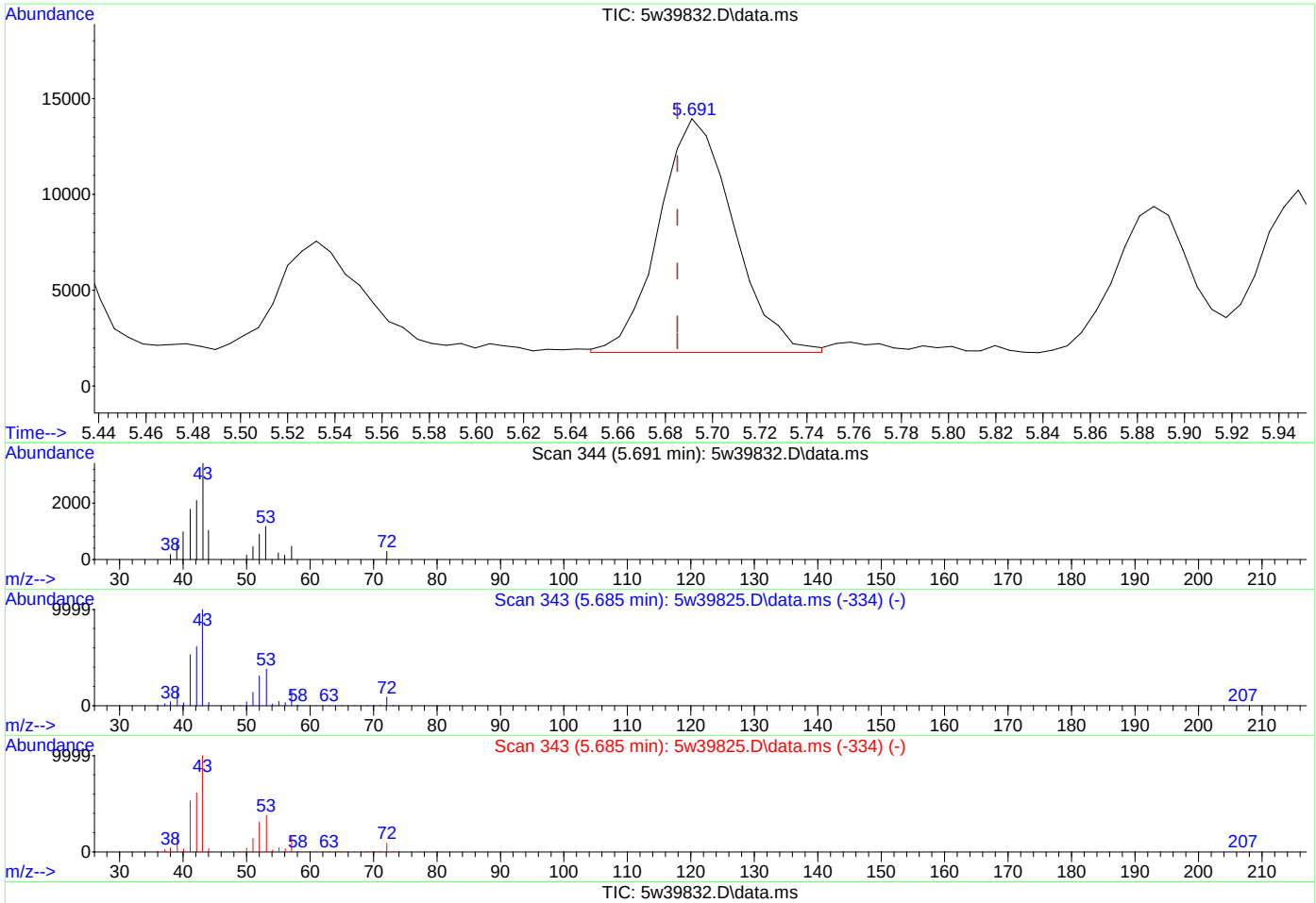
response 0

Signal	Exp%	Act%
TIC	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w39832.D
Acq On : 24 Dec 2019 10:07 am
Operator : danat
Sample : ic1620-0.2
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 24 10:36:57 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 09:55:58 2019
Response via : Initial Calibration



TIC: 5w39832.D\data.ms

(108) TVHC as equiv Pentane

5.691min (+0.006) 0.21ppb(v) m

response 26841

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39833.D
Acq On : 24 Dec 2019 11:01 am
Operator : danat
Sample : icv1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 11:33:08 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.083	130	146147	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.194	114	526012	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.657	82	238739	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.083	130	146147	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	230075	11.02	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 110.20%			
Target Compounds						Qvalue
2) Freon 152A	3.990	65	115823	10.16	ppb(v	100
3) Chlorodifluoromethane	4.027	67	48041	10.23	ppb(v	99
4) Propene	4.046	41	140624	9.90	ppb(v	99
5) Chlorotrifluoroethene	4.052	116	238398	9.96	ppb(v	100
6) Dichlorodifluoromethane	4.101	85	479501	9.81	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.205	65	340454	9.78	ppb(v	100
8) Chloromethane	4.223	50	157800	9.71	ppb(v	98
9) Dichlorotetrafluoroethane	4.290	85	443238	9.71	ppb(v	97
10) Vinyl Chloride	4.388	62	155811	10.04	ppb(v	99
11) 1,3-Butadiene	4.486	54	107366	10.07	ppb(v	99
12) n-Butane	4.523	58	23322	10.40	ppb(v	95
13) Bromomethane	4.694	94	155592	9.46	ppb(v	100
14) Chloroethane	4.816	64	71642	9.96	ppb(v	99
15) Dichlorofluoromethane	4.890	67	354345	9.66	ppb(v	100
16) Acetonitrile	5.104	41	108389	9.19	ppb(v	98
17) Freon 123	5.208	83	360311	9.90	ppb(v	99
18) Freon 123A	5.251	117	190017	9.93	ppb(v	99
19) Bromoethene	5.092	106	142504	10.05	ppb(v	99
20) Acrolein	5.196	56	61383	9.83	ppb(v	99
21) Trichlorofluoromethane	5.416	101	449919	9.80	ppb(v	98
22) Acetone	5.306	58	61736	9.24	ppb(v	97
23) Pentane	5.691	57	47239	10.85	ppb(v	97
24) Iodomethane	5.887	142	475898	9.96	ppb(v	99
25) Isopropyl Alcohol	5.508	43	63170	8.74	ppb(v	97
26) 1,1-Dichloroethene	5.948	61	302198	9.99	ppb(v	99
27) Freon 113	6.272	101	388084	9.72	ppb(v	99
28) Methylene Chloride	6.058	84	164159	9.37	ppb(v	98
29) Carbon Disulfide	6.309	76	496421	10.33	ppb(v	100
30) Ethanol	4.933	45	58655	8.80	ppb(v	98
31) Acrylonitrile	5.685	53	147231	9.72	ppb(v	99
32) 3-Chloropropene	6.156	76	85795	10.34	ppb(v	97
33) trans-1,2-Dichloroethene	6.890	61	268456	9.99	ppb(v	100
34) tert-Butyl Alcohol	6.009	59	375595	10.06	ppb(v	99
35) Methyl tert-Butyl Ether	7.153	73	491352	9.97	ppb(v	100
36) Vinyl Acetate	7.239	43	499185	9.83	ppb(v	99
37) 1,1-Dichloroethane	7.086	63	338662	9.75	ppb(v	99
38) 2-Butanone	7.496	72	83564	9.96	ppb(v	96
39) Hexane	8.095	57	277237	10.08	ppb(v	94
40) cis-1,2-Dichloroethene	7.918	61	263816	9.96	ppb(v	99
41) Di-isopropyl Ether	8.120	87	143267	10.37	ppb(v	98
42) Ethyl Acetate	8.169	61	56122	10.12	ppb(v	95
43) Methyl Acrylate	8.151	55	314279	9.93	ppb(v	99
44) Chloroform	8.218	83	383865	9.58	ppb(v	98
45) 2,4-Dimethylpentane	9.025	57	339715	10.30	ppb(v	100
46) Tetrahydrofuran	8.664	72	82791	10.19	ppb(v	96
47) 1,1,1-Trichloroethane	9.258	97	371611	9.49	ppb(v	99
48) 1,2-Dichloroethane	8.995	62	241378	9.82	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39833.D
Acq On : 24 Dec 2019 11:01 am
Operator : danat
Sample : icv1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 11:33:08 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.772	78	545117	9.81	ppb(v	99
50)	Carbon Tetrachloride	9.937	117	394633	9.96	ppb(v	100
51)	Cyclohexane	10.059	56	288086	10.17	ppb(v	99
52)	2,3-Dimethylpentane	10.341	71	120798	10.25	ppb(v	95
54)	2,2,4-Trimethylpentane	11.014	57	919516	9.95	ppb(v	100
55)	Heptane	11.350	71	177142	10.27	ppb(v	99
56)	Trichloroethene	10.995	95	242376	9.43	ppb(v	99
57)	1,2-Dichloropropane	10.708	63	214962	10.09	ppb(v	99
58)	Dibromomethane	10.695	174	207434	9.21	ppb(v	97
59)	Ethyl Acrylate	10.769	55	392493	10.45	ppb(v	100
60)	Methyl Methacrylate	11.283	69	189583	10.48	ppb(v	100
61)	1,4-Dioxane	11.044	88	115006	10.23	ppb(v	93
62)	Bromodichloromethane	10.959	83	412309	9.96	ppb(v	100
63)	cis-1,3-Dichloropropene	12.066	75	303286	10.55	ppb(v	99
64)	4-Methyl-2-pentanone	12.121	58	173210	10.47	ppb(v	98
65)	trans-1,3-Dichloropropene	12.733	75	249146	10.33	ppb(v	99
66)	Toluene	13.283	91	614929	9.43	ppb(v	99
67)	1,1,2-Trichloroethane	12.941	97	209999	10.44	ppb(v	99
68)	1,3-Dichloropropane	13.332	76	272004	10.42	ppb(v	100
69)	2-Hexanone	13.675	58	201444	11.26	ppb(v	100
70)	Ethyl Methacrylate	13.712	69	302365	11.25	ppb(v	99
71)	Dibromochloromethane	13.840	129	362797	10.95	ppb(v	99
72)	Tetrachloroethene	14.776	166	296170	10.07	ppb(v	98
73)	1,2-Dibromoethane	14.146	107	274330	9.81	ppb(v	99
74)	Octane	14.623	43	456393	10.82	ppb(v	99
75)	1,1,1,2-Tetrachloroethane	15.700	131	282828	10.24	ppb(v	99
77)	Chlorobenzene	15.718	112	412915	9.36	ppb(v	99
78)	Ethylbenzene	16.263	91	737520	9.67	ppb(v	100
79)	m,p-Xylene	16.513	91	1121678	19.43	ppb(v	99
80)	Styrene	17.058	104	348974	11.01	ppb(v	99
81)	Nonane	17.590	43	453316	9.66	ppb(v	99
82)	o-Xylene	17.205	91	590920	9.16	ppb(v	99
83)	Bromoform	16.605	173	262984	9.88	ppb(v	99
84)	1,1,2,2-Tetrachloroethane	17.211	83	427155	8.72	ppb(v	100
85)	1,2,3-Trichloropropane	17.401	75	284104	8.74	ppb(v	99
86)	Isopropylbenzene	18.110	105	840569	9.30	ppb(v	100
87)	Bromobenzene	18.214	156	169359	9.86	ppb(v	99
88)	2-Chlorotoluene	18.844	126	168415	10.15	ppb(v	100
89)	n-Propylbenzene	18.918	120	185806	11.10	ppb(v	97
91)	4-Ethyltoluene	19.150	105	645904	10.99	ppb(v	100
92)	1,3,5-Trimethylbenzene	19.279	105	630544	9.52	ppb(v	99
93)	alpha-Methylstyrene	19.523	118	240637	11.58	ppb(v	99
94)	tert-Butylbenzene	19.866	134	144505	9.61	ppb(v	99
95)	1,2,4-Trimethylbenzene	19.878	105	571757	10.02	ppb(v	97
96)	1,3-Dichlorobenzene	20.074	146	216021	9.97	ppb(v	98
97)	Benzyl Chloride	20.068	91	226601	10.16	ppb(v	100
98)	1,4-Dichlorobenzene	20.172	146	184187	9.82	ppb(v	99
99)	sec-Butylbenzene	20.264	134	170167	10.01	ppb(v	99
100)	p-Isopropyltoluene	20.502	134	182916	10.56	ppb(v	100
101)	1,2-Dichlorobenzene	20.649	146	220659	9.54	ppb(v	99
102)	n-Butylbenzene	21.083	134	129772	11.69	ppb(v	98
103)	Hexachloroethane	21.554	201	238204	9.00	ppb(v	97
104)	1,2,4-Trichlorobenzene	22.906	180	65863	9.35	ppb(v	99
105)	Naphthalene	23.035	128	171556	9.08	ppb(v	99
106)	Hexachlorobutadiene	23.488	225	252549	9.64	ppb(v	100
108)	TVHC as equiv Pentane	5.691	TIC	1206128	10.13	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39833.D
Acq On : 24 Dec 2019 11:01 am
Operator : danat
Sample : icv1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 11:33:08 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

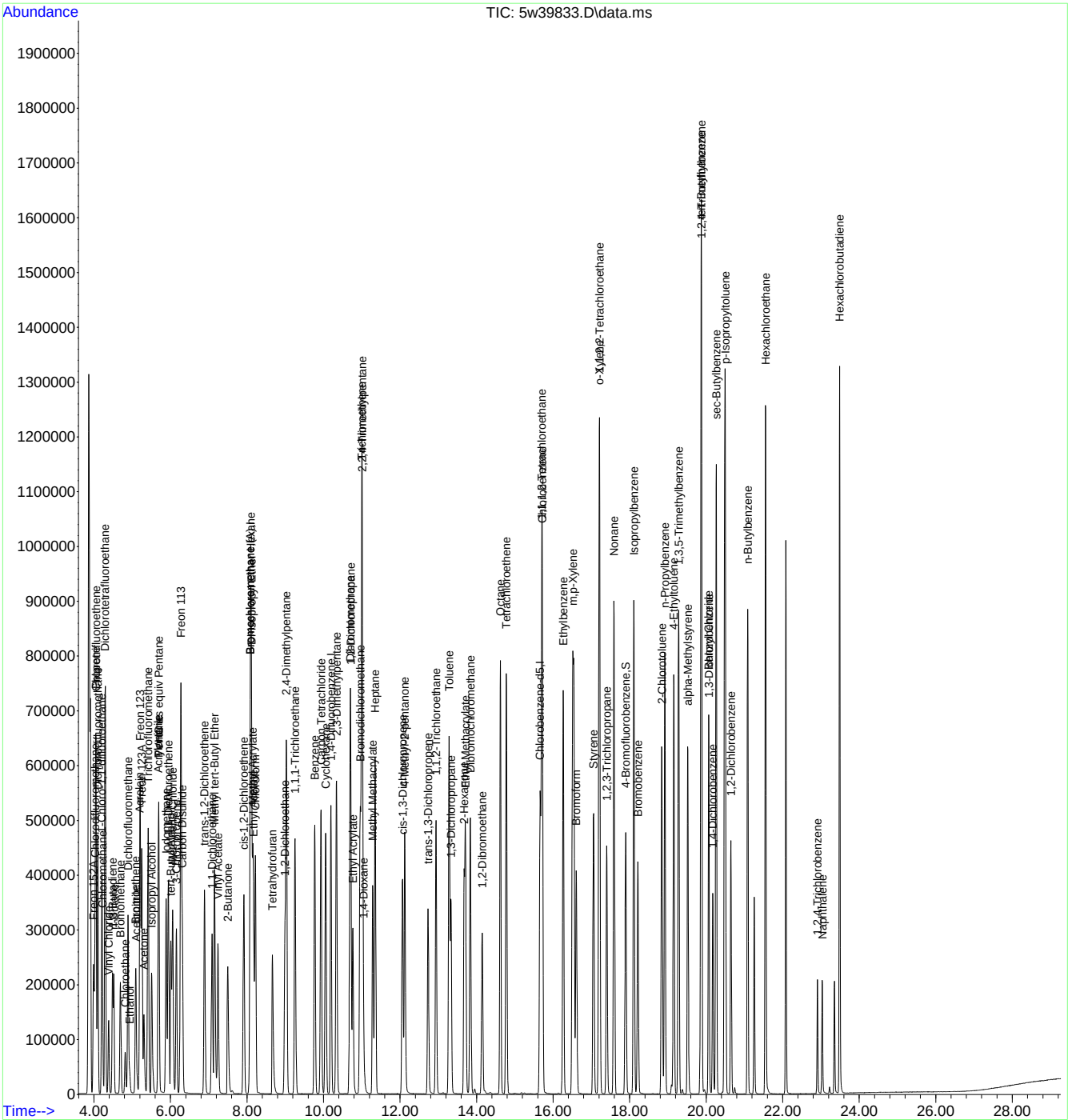
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39833.D
Acq On : 24 Dec 2019 11:01 am
Operator : danat
Sample : icv1620-10
Misc : ms39671,v5w1620,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 11:33:08 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39835.D
Acq On : 24 Dec 2019 12:38 pm
Operator : danat
Sample : cc1620-10
Misc : ms39671,v5w1621,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 13:09:20 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.083	130	140666	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.194	114	509804	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.657	82	231973	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.083	130	140666	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	215373	10.61	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 106.10%			
Target Compounds						Qvalue
2) Freon 152A	3.984	65	113131	10.31	ppb(v	98
3) Chlorodifluoromethane	4.021	67	47030	10.40	ppb(v	98
4) Propene	4.039	41	138548	10.13	ppb(v	99
5) Chlorotrifluoroethene	4.046	116	232038	10.08	ppb(v	99
6) Dichlorodifluoromethane	4.095	85	469129	9.98	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.205	65	335157	10.00	ppb(v	100
8) Chloromethane	4.223	50	157466	10.07	ppb(v	100
9) Dichlorotetrafluoroethane	4.290	85	441279	10.04	ppb(v	99
10) Vinyl Chloride	4.382	62	157156	10.52	ppb(v	99
11) 1,3-Butadiene	4.480	54	103905	10.13	ppb(v	99
12) n-Butane	4.517	58	22407	10.38	ppb(v	98
13) Bromomethane	4.688	94	151482	9.57	ppb(v	100
14) Chloroethane	4.816	64	71203	10.28	ppb(v	99
15) Dichlorofluoromethane	4.884	67	345774	9.79	ppb(v	100
16) Acetonitrile	5.104	41	104797	9.23	ppb(v	99
17) Freon 123	5.202	83	351796	10.04	ppb(v	100
18) Freon 123A	5.251	117	185748	10.08	ppb(v	98
19) Bromoethene	5.086	106	139242	10.20	ppb(v	99
20) Acrolein	5.190	56	58901	9.80	ppb(v	100
21) Trichlorofluoromethane	5.410	101	434744	9.84	ppb(v	99
22) Acetone	5.300	58	59037	9.18	ppb(v	99
23) Pentane	5.691	57	45958	10.96	ppb(v	97
24) Iodomethane	5.881	142	463499	10.08	ppb(v	99
25) Isopropyl Alcohol	5.508	43	61087	8.78	ppb(v	97
26) 1,1-Dichloroethene	5.942	61	295409	10.14	ppb(v	100
27) Freon 113	6.266	101	381032	9.91	ppb(v	98
28) Methylene Chloride	6.058	84	161469	9.58	ppb(v	98
29) Carbon Disulfide	6.309	76	490053	10.60	ppb(v	100
30) Ethanol	4.933	45	57778	9.01	ppb(v	100
31) Acrylonitrile	5.679	53	143350	9.84	ppb(v	98
32) 3-Chloropropene	6.150	76	84314	10.55	ppb(v	99
33) trans-1,2-Dichloroethene	6.890	61	266553	10.30	ppb(v	99
34) tert-Butyl Alcohol	6.009	59	366789	10.21	ppb(v	99
35) Methyl tert-Butyl Ether	7.147	73	488042	10.29	ppb(v	100
36) Vinyl Acetate	7.239	43	495515	10.14	ppb(v	99
37) 1,1-Dichloroethane	7.086	63	336206	10.06	ppb(v	99
38) 2-Butanone	7.496	72	80998	10.03	ppb(v	99
39) Hexane	8.096	57	274925	10.38	ppb(v	90
40) cis-1,2-Dichloroethene	7.912	61	259496	10.17	ppb(v	98
41) Di-isopropyl Ether	8.120	87	141349	10.63	ppb(v	99
42) Ethyl Acetate	8.169	61	54977	10.30	ppb(v	98
43) Methyl Acrylate	8.151	55	302044	9.92	ppb(v	99
44) Chloroform	8.218	83	376009	9.75	ppb(v	99
45) 2,4-Dimethylpentane	9.025	57	330141	10.40	ppb(v	99
46) Tetrahydrofuran	8.664	72	81697	10.44	ppb(v	98
47) 1,1,1-Trichloroethane	9.252	97	366103	9.72	ppb(v	100
48) 1,2-Dichloroethane	8.989	62	234493	9.91	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39835.D
Acq On : 24 Dec 2019 12:38 pm
Operator : danat
Sample : cc1620-10
Misc : ms39671,v5w1621,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 13:09:20 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	9.772	78	540062	10.10	ppb(v	99
50) Carbon Tetrachloride	9.931	117	386548	10.14	ppb(v	100
51) Cyclohexane	10.053	56	285992	10.49	ppb(v	100
52) 2,3-Dimethylpentane	10.341	71	119921	10.57	ppb(v	99
54) 2,2,4-Trimethylpentane	11.008	57	918822	10.26	ppb(v	100
55) Heptane	11.350	71	175835	10.52	ppb(v	100
56) Trichloroethene	10.995	95	239793	9.63	ppb(v	98
57) 1,2-Dichloropropane	10.708	63	214387	10.38	ppb(v	98
58) Dibromomethane	10.696	174	204692	9.38	ppb(v	97
59) Ethyl Acrylate	10.769	55	384314	10.56	ppb(v	100
60) Methyl Methacrylate	11.283	69	187970	10.72	ppb(v	99
61) 1,4-Dioxane	11.038	88	113438	10.41	ppb(v	99
62) Bromodichloromethane	10.959	83	410241	10.22	ppb(v	100
63) cis-1,3-Dichloropropene	12.060	75	297103	10.66	ppb(v	99
64) 4-Methyl-2-pentanone	12.121	58	171770	10.71	ppb(v	100
65) trans-1,3-Dichloropropene	12.733	75	240184	10.27	ppb(v	99
66) Toluene	13.283	91	613478	9.71	ppb(v	99
67) 1,1,2-Trichloroethane	12.941	97	206928	10.61	ppb(v	99
68) 1,3-Dichloropropane	13.332	76	270730	10.70	ppb(v	100
69) 2-Hexanone	13.675	58	199276	11.49	ppb(v	99
70) Ethyl Methacrylate	13.712	69	298725	11.46	ppb(v	99
71) Dibromochloromethane	13.840	129	357239	11.12	ppb(v	99
72) Tetrachloroethene	14.776	166	287855	10.10	ppb(v	98
73) 1,2-Dibromoethane	14.146	107	270927	10.00	ppb(v	99
74) Octane	14.623	43	452894	11.08	ppb(v	99
75) 1,1,1,2-Tetrachloroethane	15.700	131	280915	10.49	ppb(v	99
77) Chlorobenzene	15.718	112	406996	9.49	ppb(v	100
78) Ethylbenzene	16.263	91	735537	9.93	ppb(v	99
79) m,p-Xylene	16.532	91	1105143	19.71	ppb(v	100
80) Styrene	17.058	104	344468	11.18	ppb(v	99
81) Nonane	17.590	43	445791	9.78	ppb(v	100
82) o-Xylene	17.205	91	586087	9.35	ppb(v	100
83) Bromoform	16.605	173	259283	10.03	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.211	83	422125	8.87	ppb(v	99
85) 1,2,3-Trichloropropane	17.401	75	282348	8.94	ppb(v	100
86) Isopropylbenzene	18.110	105	828294	9.43	ppb(v	100
87) Bromobenzene	18.214	156	167086	10.01	ppb(v	99
88) 2-Chlorotoluene	18.844	126	167817	10.41	ppb(v	100
89) n-Propylbenzene	18.918	120	185895	11.43	ppb(v	98
91) 4-Ethyltoluene	19.150	105	636803	11.16	ppb(v	100
92) 1,3,5-Trimethylbenzene	19.279	105	622619	9.68	ppb(v	100
93) alpha-Methylstyrene	19.523	118	238462	11.81	ppb(v	99
94) tert-Butylbenzene	19.866	134	144661	9.90	ppb(v	98
95) 1,2,4-Trimethylbenzene	19.878	105	572174	10.32	ppb(v	100
96) 1,3-Dichlorobenzene	20.074	146	214577	10.19	ppb(v	98
97) Benzyl Chloride	20.068	91	227842	10.51	ppb(v	100
98) 1,4-Dichlorobenzene	20.172	146	183912	10.10	ppb(v	100
99) sec-Butylbenzene	20.264	134	168674	10.21	ppb(v	98
100) p-Isopropyltoluene	20.502	134	182207	10.82	ppb(v	98
101) 1,2-Dichlorobenzene	20.649	146	222434	9.89	ppb(v	99
102) n-Butylbenzene	21.083	134	130560	12.11	ppb(v	99
103) Hexachloroethane	21.554	201	237109	9.22	ppb(v	99
104) 1,2,4-Trichlorobenzene	22.906	180	65164	9.52	ppb(v	98
105) Naphthalene	23.029	128	169980	9.26	ppb(v	100
106) Hexachlorobutadiene	23.488	225	247542	9.72	ppb(v	100
108) TVHC as equiv Pentane	5.685	TIC	1164083	10.16	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39835.D
Acq On : 24 Dec 2019 12:38 pm
Operator : danat
Sample : cc1620-10
Misc : ms39671,v5w1621,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 13:09:20 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

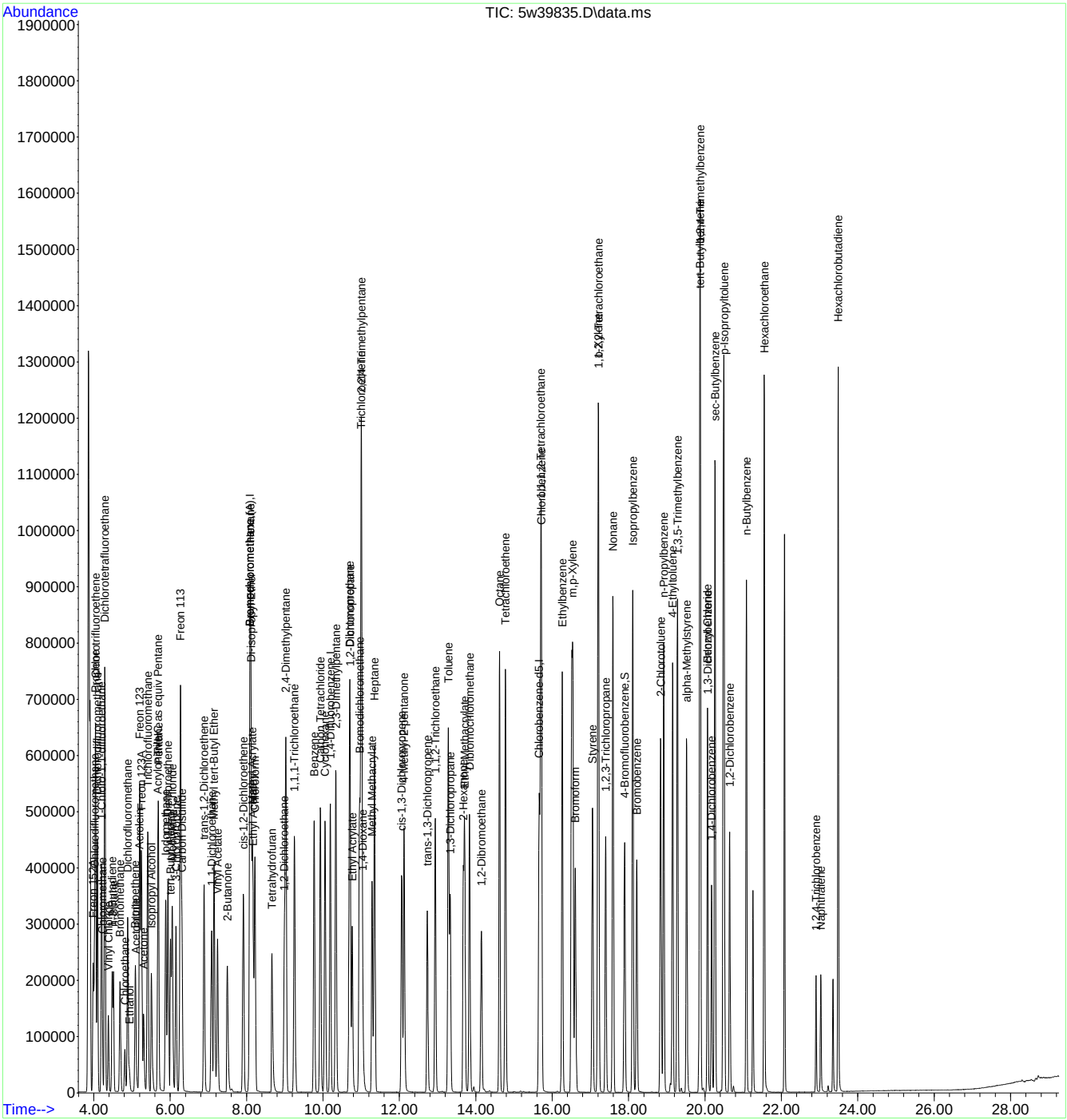
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39835.D
Acq On : 24 Dec 2019 12:38 pm
Operator : danat
Sample : cc1620-10
Misc : ms39671,v5w1621,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 13:09:20 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39859.D
Acq On : 26 Dec 2019 10:17 am
Operator : danat
Sample : cc1620-10
Misc : ms39818,v5w1622,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 13:53:15 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.090	130	134314	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.194	114	483556	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.663	82	222485	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.090	130	134314	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	215125	11.05	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 110.50%			
Target Compounds						Qvalue
2) Freon 152A	3.991	65	110077	10.51	ppb(v	98
3) Chlorodifluoromethane	4.027	67	45259	10.48	ppb(v	99
4) Propene	4.046	41	138161	10.58	ppb(v	99
5) Chlorotrifluoroethene	4.052	116	222219	10.11	ppb(v	100
6) Dichlorodifluoromethane	4.101	85	453243	10.09	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.211	65	325942	10.18	ppb(v	99
8) Chloromethane	4.223	50	157959	10.58	ppb(v	99
9) Dichlorotetrafluoroethane	4.297	85	432227	10.30	ppb(v	99
10) Vinyl Chloride	4.388	62	155065	10.87	ppb(v	99
11) 1,3-Butadiene	4.486	54	108951	11.12	ppb(v	98
12) n-Butane	4.523	58	24019	11.65	ppb(v	93
13) Bromomethane	4.694	94	152224	10.07	ppb(v	99
14) Chloroethane	4.823	64	71534	10.82	ppb(v	99
15) Dichlorofluoromethane	4.890	67	350846	10.41	ppb(v	100
16) Acetonitrile	5.110	41	109698	10.12	ppb(v	98
17) Freon 123	5.208	83	352966	10.55	ppb(v	100
18) Freon 123A	5.251	117	182763	10.39	ppb(v	95
19) Bromoethene	5.092	106	137704	10.57	ppb(v	99
20) Acrolein	5.196	56	60142	10.48	ppb(v	99
21) Trichlorofluoromethane	5.416	101	421124	9.98	ppb(v	97
22) Acetone	5.306	58	61934	10.08	ppb(v	94
23) Pentane	5.691	57	45555	11.38	ppb(v	99
24) Iodomethane	5.887	142	439596	10.01	ppb(v	99
25) Isopropyl Alcohol	5.514	43	60788	9.15	ppb(v	93
26) 1,1-Dichloroethene	5.948	61	285531	10.27	ppb(v	98
27) Freon 113	6.273	101	364381	9.93	ppb(v	98
28) Methylene Chloride	6.065	84	154480	9.60	ppb(v	97
29) Carbon Disulfide	6.315	76	472088	10.69	ppb(v	100
30) Ethanol	4.933	45	58157	9.50	ppb(v	100
31) Acrylonitrile	5.685	53	141480	10.17	ppb(v	98
32) 3-Chloropropene	6.156	76	80969	10.61	ppb(v	98
33) trans-1,2-Dichloroethene	6.890	61	253429	10.26	ppb(v	98
34) tert-Butyl Alcohol	6.016	59	339361	9.89	ppb(v	98
35) Methyl tert-Butyl Ether	7.154	73	457276	10.10	ppb(v	98
36) Vinyl Acetate	7.245	43	476552	10.21	ppb(v	99
37) 1,1-Dichloroethane	7.086	63	328226	10.29	ppb(v	100
38) 2-Butanone	7.496	72	77617	10.06	ppb(v	97
39) Hexane	8.096	57	268521	10.62	ppb(v	97
40) cis-1,2-Dichloroethene	7.918	61	253027	10.39	ppb(v	99
41) Di-isopropyl Ether	8.120	87	134711	10.61	ppb(v	95
42) Ethyl Acetate	8.169	61	53769	10.55	ppb(v	92
43) Methyl Acrylate	8.157	55	296666	10.20	ppb(v	98
44) Chloroform	8.218	83	366078	9.94	ppb(v	99
45) 2,4-Dimethylpentane	9.032	57	324958	10.72	ppb(v	100
46) Tetrahydrofuran	8.665	72	77008	10.31	ppb(v	95
47) 1,1,1-Trichloroethane	9.258	97	350826	9.75	ppb(v	99
48) 1,2-Dichloroethane	8.995	62	230209	10.19	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39859.D
Acq On : 26 Dec 2019 10:17 am
Operator : danat
Sample : cc1620-10
Misc : ms39818,v5w1622,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 13:53:15 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.772	78	519583	10.17	ppb(v	100
50)	Carbon Tetrachloride	9.937	117	375261	10.31	ppb(v	99
51)	Cyclohexane	10.059	56	277561	10.67	ppb(v	99
52)	2,3-Dimethylpentane	10.341	71	116560	10.76	ppb(v	99
54)	2,2,4-Trimethylpentane	11.014	57	904379	10.65	ppb(v	100
55)	Heptane	11.350	71	172720	10.89	ppb(v	99
56)	Trichloroethene	11.002	95	232441	9.84	ppb(v	99
57)	1,2-Dichloropropane	10.714	63	208895	10.66	ppb(v	100
58)	Dibromomethane	10.696	174	193569	9.35	ppb(v	99
59)	Ethyl Acrylate	10.769	55	369653	10.71	ppb(v	100
60)	Methyl Methacrylate	11.289	69	182407	10.97	ppb(v	98
61)	1,4-Dioxane	11.044	88	105358	10.19	ppb(v	97
62)	Bromodichloromethane	10.959	83	400683	10.52	ppb(v	99
63)	cis-1,3-Dichloropropene	12.066	75	288621	10.92	ppb(v	100
64)	4-Methyl-2-pentanone	12.121	58	163281	10.74	ppb(v	98
65)	trans-1,3-Dichloropropene	12.733	75	233326	10.52	ppb(v	99
66)	Toluene	13.283	91	585384	9.77	ppb(v	100
67)	1,1,2-Trichloroethane	12.941	97	202724	10.96	ppb(v	99
68)	1,3-Dichloropropane	13.332	76	264910	11.04	ppb(v	99
69)	2-Hexanone	13.675	58	188264	11.45	ppb(v	98
70)	Ethyl Methacrylate	13.712	69	285291	11.54	ppb(v	100
71)	Dibromochloromethane	13.840	129	349839	11.48	ppb(v	100
72)	Tetrachloroethene	14.782	166	278959	10.32	ppb(v	99
73)	1,2-Dibromoethane	14.146	107	261060	10.16	ppb(v	100
74)	Octane	14.623	43	448298	11.56	ppb(v	98
75)	1,1,1,2-Tetrachloroethane	15.700	131	271596	10.69	ppb(v	99
77)	Chlorobenzene	15.718	112	396226	9.64	ppb(v	100
78)	Ethylbenzene	16.263	91	712834	10.03	ppb(v	100
79)	m,p-Xylene	16.538	91	1071594	19.92	ppb(v	99
80)	Styrene	17.058	104	333059	11.27	ppb(v	100
81)	Nonane	17.590	43	451335	10.33	ppb(v	98
82)	o-Xylene	17.205	91	569203	9.47	ppb(v	99
83)	Bromoform	16.605	173	258447	10.42	ppb(v	99
84)	1,1,2,2-Tetrachloroethane	17.211	83	418468	9.17	ppb(v	100
85)	1,2,3-Trichloropropane	17.401	75	280319	9.25	ppb(v	99
86)	Isopropylbenzene	18.110	105	800127	9.50	ppb(v	100
87)	Bromobenzene	18.214	156	166346	10.39	ppb(v	98
88)	2-Chlorotoluene	18.844	126	163503	10.58	ppb(v	99
89)	n-Propylbenzene	18.918	120	181078	11.61	ppb(v	99
91)	4-Ethyltoluene	19.150	105	622678	11.37	ppb(v	100
92)	1,3,5-Trimethylbenzene	19.279	105	601803	9.75	ppb(v	100
93)	alpha-Methylstyrene	19.517	118	233310	12.05	ppb(v	99
94)	tert-Butylbenzene	19.866	134	138834	9.90	ppb(v	98
95)	1,2,4-Trimethylbenzene	19.878	105	553411	10.41	ppb(v	100
96)	1,3-Dichlorobenzene	20.074	146	215077	10.65	ppb(v	99
97)	Benzyl Chloride	20.068	91	232082	11.16	ppb(v	99
98)	1,4-Dichlorobenzene	20.172	146	185552	10.62	ppb(v	99
99)	sec-Butylbenzene	20.264	134	162741	10.27	ppb(v	97
100)	p-Isopropyltoluene	20.502	134	177488	10.99	ppb(v	99
101)	1,2-Dichlorobenzene	20.649	146	218913	10.15	ppb(v	99
102)	n-Butylbenzene	21.084	134	123392	11.93	ppb(v	97
103)	Hexachloroethane	21.555	201	232668	9.43	ppb(v	96
104)	1,2,4-Trichlorobenzene	22.907	180	61744	9.40	ppb(v	99
105)	Naphthalene	23.029	128	152618	8.67	ppb(v	100
106)	Hexachlorobutadiene	23.488	225	231773	9.49	ppb(v	98
108)	TVHC as equiv Pentane	5.691	TIC	1153491	10.55	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39859.D
Acq On : 26 Dec 2019 10:17 am
Operator : danat
Sample : cc1620-10
Misc : ms39818,v5w1622,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 13:53:15 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

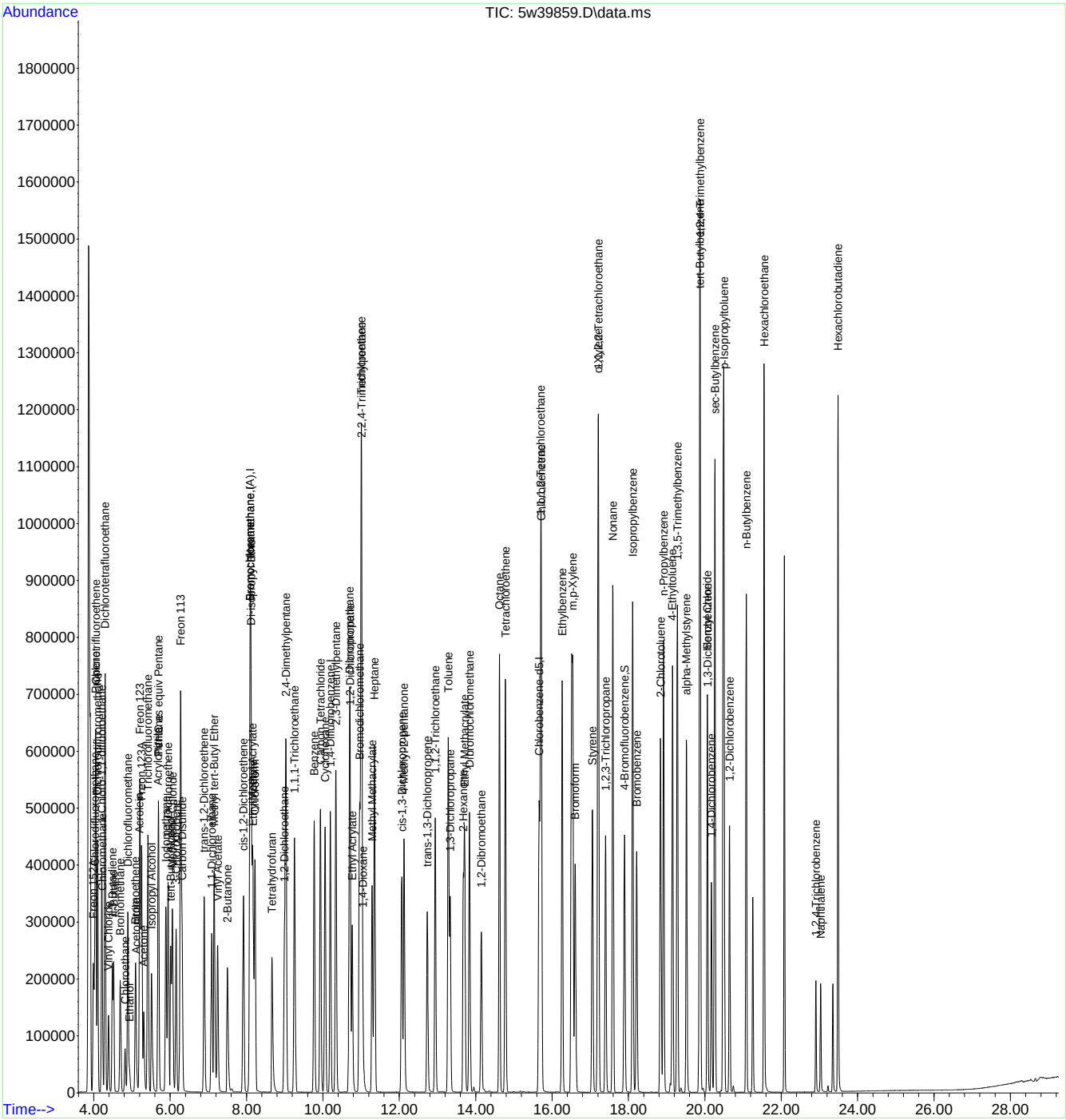
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39859.D
Acq On : 26 Dec 2019 10:17 am
Operator : danat
Sample : cc1620-10
Misc : ms39818,v5w1622,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 13:53:15 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39886.D
Acq On : 27 Dec 2019 10:55 am
Operator : danat
Sample : cc1620-10
Misc : ms39917,v5w1623,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 13:33:22 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.083	130	145826	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.194	114	526967	10.00	ppb(v	0.00
76) Chlorobenzene-d5	15.663	82	235220	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.083	130	145826	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	17.896	95	231124	11.23	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 112.30%			
Target Compounds						Qvalue
2) Freon 152A	3.990	65	110217	9.69	ppb(v	99
3) Chlorodifluoromethane	4.021	67	45238	9.65	ppb(v	100
4) Propene	4.046	41	135421	9.56	ppb(v	99
5) Chlorotrifluoroethene	4.052	116	228149	9.56	ppb(v	99
6) Dichlorodifluoromethane	4.101	85	451821	9.27	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.205	65	319948	9.21	ppb(v	99
8) Chloromethane	4.223	50	154947	9.56	ppb(v	100
9) Dichlorotetrafluoroethane	4.290	85	436164	9.57	ppb(v	97
10) Vinyl Chloride	4.388	62	154513	9.98	ppb(v	100
11) 1,3-Butadiene	4.486	54	100524	9.45	ppb(v	99
12) n-Butane	4.523	58	21513	9.61	ppb(v	94
13) Bromomethane	4.694	94	146482	8.92	ppb(v	99
14) Chloroethane	4.822	64	68760	9.58	ppb(v	97
15) Dichlorofluoromethane	4.890	67	334234	9.13	ppb(v	99
16) Acetonitrile	5.104	41	102096	8.67	ppb(v	99
17) Freon 123	5.208	83	342482	9.43	ppb(v	98
18) Freon 123A	5.251	117	179225	9.39	ppb(v	99
19) Bromoethene	5.092	106	135027	9.54	ppb(v	99
20) Acrolein	5.196	56	56212	9.02	ppb(v	100
21) Trichlorofluoromethane	5.416	101	424359	9.26	ppb(v	99
22) Acetone	5.306	58	57452	8.62	ppb(v	97
23) Pentane	5.691	57	45205	10.40	ppb(v	95
24) Iodomethane	5.887	142	460800	9.67	ppb(v	100
25) Isopropyl Alcohol	5.514	43	57216	7.93	ppb(v	100
26) 1,1-Dichloroethene	5.948	61	287488	9.52	ppb(v	99
27) Freon 113	6.272	101	374307	9.39	ppb(v	99
28) Methylene Chloride	6.058	84	159795	9.14	ppb(v	98
29) Carbon Disulfide	6.309	76	481539	10.04	ppb(v	100
30) Ethanol	4.933	45	57171	8.60	ppb(v	99
31) Acrylonitrile	5.685	53	138478	9.16	ppb(v	100
32) 3-Chloropropene	6.156	76	83557	10.09	ppb(v	98
33) trans-1,2-Dichloroethene	6.890	61	258026	9.62	ppb(v	99
34) tert-Butyl Alcohol	6.009	59	350917	9.42	ppb(v	100
35) Methyl tert-Butyl Ether	7.153	73	469505	9.55	ppb(v	99
36) Vinyl Acetate	7.239	43	472863	9.33	ppb(v	99
37) 1,1-Dichloroethane	7.086	63	326984	9.44	ppb(v	98
38) 2-Butanone	7.496	72	78224	9.34	ppb(v	96
39) Hexane	8.095	57	268097	9.77	ppb(v	96
40) cis-1,2-Dichloroethene	7.918	61	254649	9.63	ppb(v	100
41) Di-isopropyl Ether	8.120	87	139801	10.14	ppb(v	95
42) Ethyl Acetate	8.169	61	53321	9.64	ppb(v	94
43) Methyl Acrylate	8.157	55	295394	9.36	ppb(v	99
44) Chloroform	8.218	83	373442	9.34	ppb(v	100
45) 2,4-Dimethylpentane	9.031	57	326683	9.92	ppb(v	100
46) Tetrahydrofuran	8.664	72	79619	9.82	ppb(v	99
47) 1,1,1-Trichloroethane	9.258	97	362880	9.29	ppb(v	99
48) 1,2-Dichloroethane	8.995	62	229897	9.37	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39886.D
Acq On : 27 Dec 2019 10:55 am
Operator : danat
Sample : cc1620-10
Misc : ms39917,v5w1623,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 13:33:22 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Benzene	9.772	78	535307	9.65	ppb(v	99
50)	Carbon Tetrachloride	9.937	117	383148	9.69	ppb(v	100
51)	Cyclohexane	10.053	56	277814	9.83	ppb(v	99
52)	2,3-Dimethylpentane	10.341	71	117858	10.02	ppb(v	100
54)	2,2,4-Trimethylpentane	11.014	57	893813	9.66	ppb(v	99
55)	Heptane	11.350	71	176211	10.20	ppb(v	100
56)	Trichloroethene	10.995	95	236266	9.18	ppb(v	99
57)	1,2-Dichloropropane	10.708	63	209530	9.82	ppb(v	99
58)	Dibromomethane	10.695	174	202971	8.99	ppb(v	97
59)	Ethyl Acrylate	10.769	55	365501	9.71	ppb(v	100
60)	Methyl Methacrylate	11.289	69	181353	10.01	ppb(v	97
61)	1,4-Dioxane	11.044	88	108042	9.59	ppb(v	94
62)	Bromodichloromethane	10.959	83	398762	9.61	ppb(v	99
63)	cis-1,3-Dichloropropene	12.066	75	289202	10.04	ppb(v	99
64)	4-Methyl-2-pentanone	12.121	58	162591	9.81	ppb(v	99
65)	trans-1,3-Dichloropropene	12.733	75	229894	9.51	ppb(v	100
66)	Toluene	13.283	91	603651	9.24	ppb(v	99
67)	1,1,2-Trichloroethane	12.941	97	206605	10.25	ppb(v	99
68)	1,3-Dichloropropane	13.332	76	267479	10.23	ppb(v	99
69)	2-Hexanone	13.675	58	186230	10.39	ppb(v	98
70)	Ethyl Methacrylate	13.712	69	290165	10.77	ppb(v	99
71)	Dibromochloromethane	13.840	129	357634	10.77	ppb(v	100
72)	Tetrachloroethene	14.782	166	290108	9.85	ppb(v	99
73)	1,2-Dibromoethane	14.146	107	266383	9.51	ppb(v	99
74)	Octane	14.623	43	438024	10.36	ppb(v	100
75)	1,1,1,2-Tetrachloroethane	15.700	131	278808	10.07	ppb(v	99
77)	Chlorobenzene	15.718	112	403398	9.28	ppb(v	99
78)	Ethylbenzene	16.263	91	720370	9.59	ppb(v	99
79)	m,p-Xylene	16.520	91	1089631	19.16	ppb(v	100
80)	Styrene	17.058	104	338496	10.84	ppb(v	99
81)	Nonane	17.596	43	437148	9.46	ppb(v	100
82)	o-Xylene	17.205	91	579771	9.13	ppb(v	99
83)	Bromoform	16.605	173	262929	10.03	ppb(v	99
84)	1,1,2,2-Tetrachloroethane	17.211	83	421896	8.74	ppb(v	98
85)	1,2,3-Trichloropropane	17.400	75	279994	8.74	ppb(v	99
86)	Isopropylbenzene	18.110	105	819017	9.20	ppb(v	99
87)	Bromobenzene	18.214	156	170218	10.06	ppb(v	99
88)	2-Chlorotoluene	18.844	126	166919	10.21	ppb(v	98
89)	n-Propylbenzene	18.924	120	185512	11.25	ppb(v	91
91)	4-Ethyltoluene	19.150	105	637367	11.01	ppb(v	100
92)	1,3,5-Trimethylbenzene	19.279	105	609987	9.35	ppb(v	99
93)	alpha-Methylstyrene	19.523	118	235636	11.51	ppb(v	99
94)	tert-Butylbenzene	19.866	134	143711	9.70	ppb(v	97
95)	1,2,4-Trimethylbenzene	19.878	105	566688	10.08	ppb(v	98
96)	1,3-Dichlorobenzene	20.074	146	222090	10.40	ppb(v	98
97)	Benzyl Chloride	20.068	91	238344	10.84	ppb(v	100
98)	1,4-Dichlorobenzene	20.172	146	189641	10.27	ppb(v	100
99)	sec-Butylbenzene	20.264	134	168880	10.08	ppb(v	100
100)	p-Isopropyltoluene	20.502	134	182756	10.71	ppb(v	99
101)	1,2-Dichlorobenzene	20.649	146	226610	9.94	ppb(v	100
102)	n-Butylbenzene	21.083	134	126792	11.60	ppb(v	99
103)	Hexachloroethane	21.554	201	237840	9.12	ppb(v	98
104)	1,2,4-Trichlorobenzene	22.906	180	63606	9.16	ppb(v	97
105)	Naphthalene	23.029	128	155817	8.37	ppb(v	99
106)	Hexachlorobutadiene	23.488	225	235242	9.11	ppb(v	100
108)	TVHC as equiv Pentane	5.691	TIC	1142927	9.62	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39886.D
Acq On : 27 Dec 2019 10:55 am
Operator : danat
Sample : cc1620-10
Misc : ms39917,v5w1623,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 13:33:22 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration

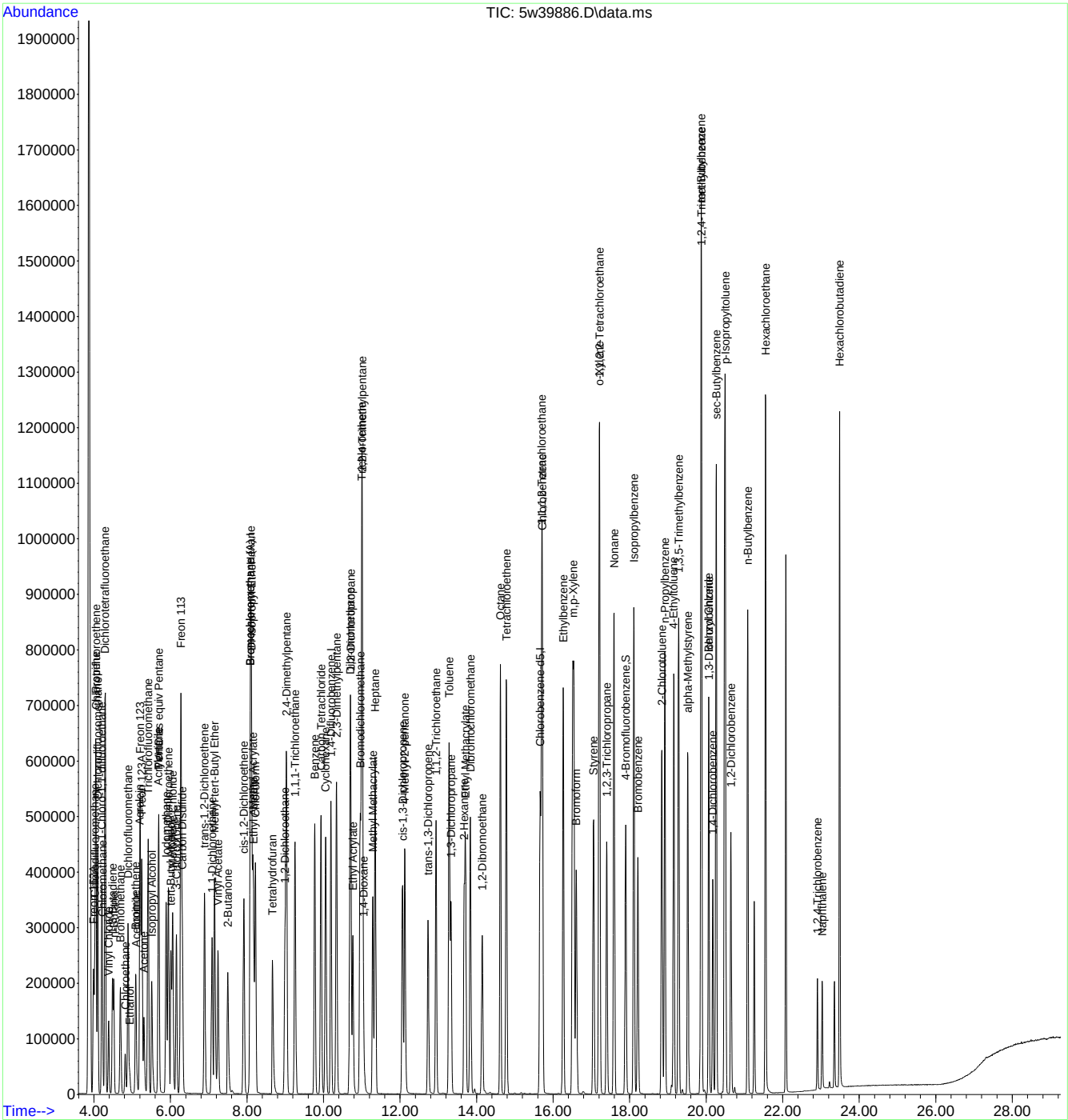
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w39886.D
Acq On : 27 Dec 2019 10:55 am
Operator : danat
Sample : cc1620-10
Misc : ms39917,v5w1623,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 13:33:22 2019
Quant Method : C:\msdchem\1\methods\m5w1620.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Dec 24 10:51:47 2019
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Dana Tryon
09/18/19 11:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13822.D
Acq On : 13 Sep 2019 12:03 pm
Operator : thomash
Sample : ic571-0.2
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 13 17:18:30 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	157175	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.349	114	568695	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.885	82	233340	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	157175	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.130	95	288972	10.90	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 109.00%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	2083	0.16	ppb(v	96
4) Chlorodifluoromethane	3.760	67	765	0.15	ppb(v#	44
5) Propene	3.790	41	2189	0.13	ppb(v#	91
6) Chlorotrifluoroethene	3.796	116	5779	0.22	ppb(v#	92
7) Dichlorodifluoromethane	3.845	85	8818	0.17	ppb(v#	99
8) 1-Chloro-1,1-difluoroe...	3.955	65	6024	0.14	ppb(v#	71
9) Chloromethane	3.980	50	2251	0.11	ppb(v	94
10) Dichlorotetrafluoroethane	4.053	85	8504	0.16	ppb(v	86
11) Vinyl Chloride	4.157	62	2746	0.13	ppb(v#	97
12) 1,3-Butadiene	4.268	54	1853	0.12	ppb(v	97
13) n-Butane	4.304	58	397	0.10	ppb(v#	36
14) Bromomethane	4.494	94	3144	0.18	ppb(v	91
15) Acrolein	5.032	56	1251	0.14	ppb(v#	80
16) Chloroethane	4.622	64	1243	0.12	ppb(v#	88
17) Dichlorofluoromethane	4.702	67	6274	0.14	ppb(v	98
18) Acetonitrile	4.928	41	3444	0.15	ppb(v	94
19) Freon 123	5.051	83	8084	0.18	ppb(v	93
20) Freon 123A	5.093	117	4860	0.20	ppb(v	76
21) Bromoethene	4.922	106	3256	0.20	ppb(v#	92
22) Trichlorofluoromethane	5.283	101	8593	0.18	ppb(v	91
23) Acetone	5.155	58	1950	0.15	ppb(v	82
24) Pentane	5.601	57	675	0.13	ppb(v	58
26) Iodomethane	5.791	142	10825	0.26	ppb(v	85
27) Isopropyl Alcohol	5.375	45	8987	0.17	ppb(v#	92
28) 1,1-Dichloroethene	5.864	61	5087	0.15	ppb(v	87
29) Freon 113	6.219	101	7538	0.20	ppb(v#	84
30) Methylene Chloride	5.980	84	3445	0.18	ppb(v#	74
31) Carbon Disulfide	6.262	76	9141	0.16	ppb(v	97
33) Acrylonitrile	5.571	53	2231	0.13	ppb(v	97
34) 3-Chloropropene	6.084	76	1519	0.17	ppb(v#	62
35) trans-1,2-Dichloroethene	6.892	61	4207	0.15	ppb(v	87
36) tert-Butyl Alcohol	5.932	59	7195	0.18	ppb(v	96
37) Methyl tert-Butyl Ether	7.180	73	9124	0.18	ppb(v	95
38) Vinyl Acetate	7.271	43	7145	0.12	ppb(v#	91
39) 1,1-Dichloroethane	7.094	63	5826	0.16	ppb(v#	92
40) 2-Butanone	7.547	72	1656	0.17	ppb(v#	56
41) Hexane	8.183	57	4486	0.14	ppb(v#	63
42) cis-1,2-Dichloroethene	7.975	61	4109	0.15	ppb(v	85
43) Di-isopropyl Ether	8.201	87	2833	0.19	ppb(v	53
44) Ethyl Acetate	8.256	61	780	0.12	ppb(v#	43
45) Methyl Acrylate	8.244	55	5173	0.14	ppb(v	99
46) Chloroform	8.293	83	6664	0.16	ppb(v	96
47) 2,4-Dimethylpentane	9.168	57	5492	0.15	ppb(v	95
48) Tetrahydrofuran	8.795	72	1409	0.18	ppb(v	87
49) 1,1,1-Trichloroethane	9.394	97	6762	0.17	ppb(v	98
50) 1,2-Dichloroethane	9.113	62	3656	0.14	ppb(v#	89
51) Benzene	9.914	78	10537	0.17	ppb(v	97
52) Carbon Tetrachloride	10.085	117	7146	0.17	ppb(v	96
53) Cyclohexane	10.226	56	4658	0.15	ppb(v	83
54) 2,3-Dimethylpentane	10.514	71	2106	0.16	ppb(v#	76
56) 2,2,4-Trimethylpentane	11.205	57	15787	0.15	ppb(v#	95
57) Heptane	11.548	71	3392	0.18	ppb(v	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13822.D
Acq On : 13 Sep 2019 12:03 pm
Operator : thomash
Sample : ic571-0.2
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 13 17:18:30 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

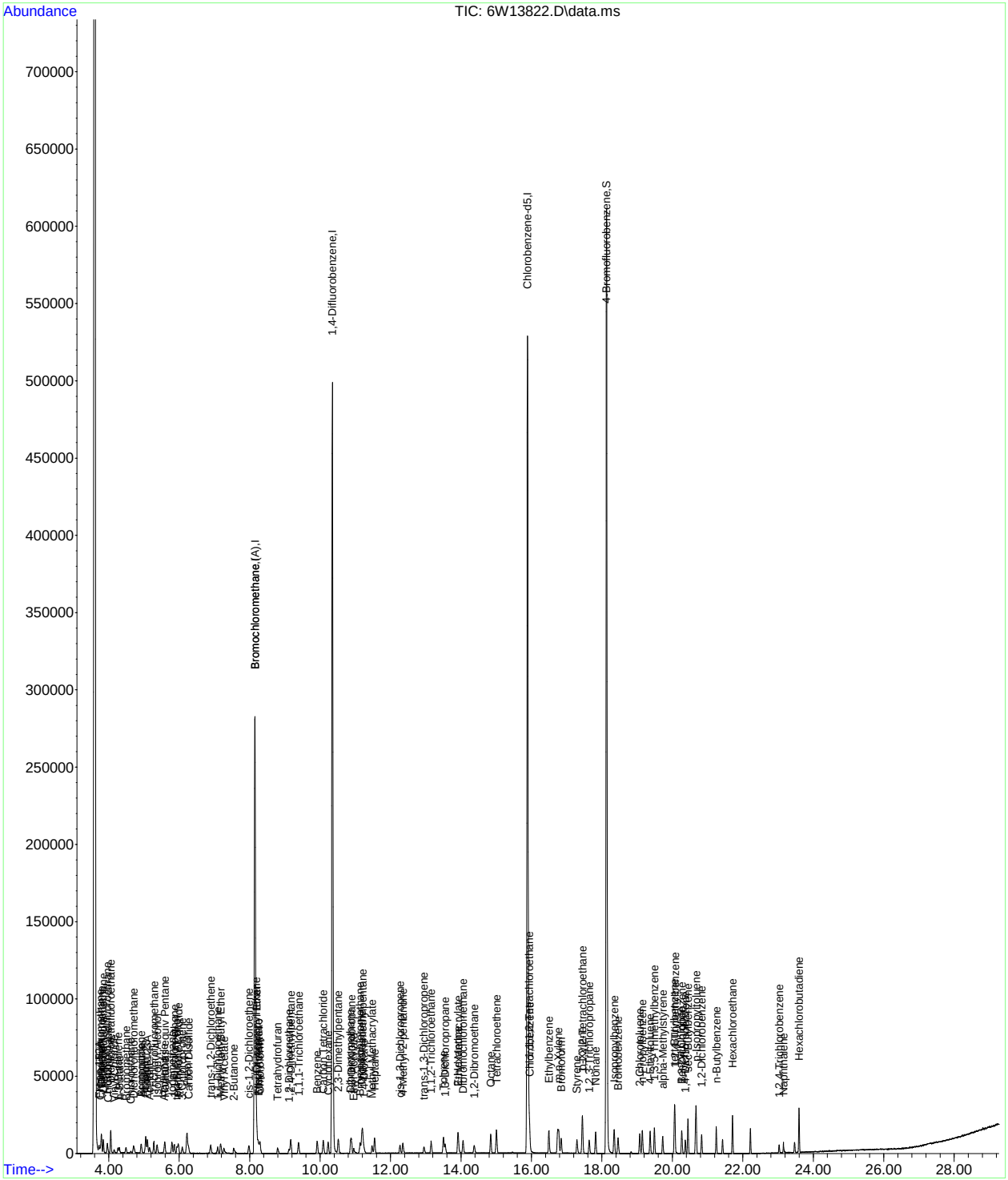
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
58) Trichloroethene	11.181	95	4787	0.20	ppb(v	85
59) 1,2-Dichloropropane	10.893	63	3526	0.14	ppb(v#	93
60) Dibromomethane	10.862	174	5209	0.27	ppb(v#	64
61) Ethyl Acrylate	10.954	55	6473	0.14	ppb(v#	88
62) Methyl Methacrylate	11.474	69	3441	0.15	ppb(v	73
63) 1,4-Dioxane	11.242	88	4326	0.31	ppb(v#	24
64) Bromodichloromethane	11.132	83	6969	0.15	ppb(v#	95
65) cis-1,3-Dichloropropene	12.269	75	5034	0.14	ppb(v#	92
66) 4-Methyl-2-pentanone	12.349	58	2722	0.14	ppb(v#	68
67) trans-1,3-Dichloropropene	12.942	75	3967	0.13	ppb(v#	92
68) Toluene	13.499	91	12520	0.19	ppb(v	99
69) 1,1,2-Trichloroethane	13.150	97	4177	0.19	ppb(v	89
70) 1,3-Dichloropropane	13.548	76	5473	0.15	ppb(v#	78
71) 2-Hexanone	13.909	58	5038	0.15	ppb(v#	77
72) Ethyl Methacrylate	13.921	69	5580	0.14	ppb(v#	88
73) Dibromochloromethane	14.056	129	7323	0.19	ppb(v#	95
74) Tetrachloroethene	15.010	166	7051	0.26	ppb(v	91
75) 1,2-Dibromoethane	14.374	107	6200	0.19	ppb(v#	93
76) Octane	14.845	43	6640	0.12	ppb(v#	82
77) 1,1,1,2-Tetrachloroethane	15.934	131	5646	0.21	ppb(v#	1
79) Chlorobenzene	15.952	112	10005	0.27	ppb(v	87
80) Ethylbenzene	16.497	91	16857	0.27	ppb(v	94
81) m,p-Xylene	16.760	91	25652	0.53	ppb(v	96
82) Styrene	17.286	104	7608	0.26	ppb(v	90
83) Nonane	17.818	43	6767	0.16	ppb(v#	83
84) o-Xylene	17.439	91	13784	0.26	ppb(v	92
85) Bromoform	16.846	173	7160	0.31	ppb(v	96
86) 1,1,2,2-Tetrachloroethane	17.451	83	8574	0.23	ppb(v#	99
87) 1,2,3-Trichloropropane	17.641	75	6327	0.21	ppb(v	94
88) Isopropylbenzene	18.350	105	17922	0.29	ppb(v	91
89) Bromobenzene	18.461	156	5295	0.30	ppb(v#	72
90) 2-Chlorotoluene	19.072	126	4037	0.31	ppb(v#	72
91) n-Propylbenzene	19.146	120	4299	0.29	ppb(v	73
93) 4-Ethyltoluene	19.372	105	14507	0.26	ppb(v	95
94) 1,3,5-Trimethylbenzene	19.488	105	13134	0.28	ppb(v	91
95) alpha-Methylstyrene	19.727	118	5660	0.23	ppb(v	94
96) tert-Butylbenzene	20.057	134	3371	0.31	ppb(v	77
97) 1,2,4-Trimethylbenzene	20.076	105	12897	0.26	ppb(v	86
98) 1,3-Dichlorobenzene	20.265	146	6864m	0.23	ppb(v	
99) Benzyl Chloride	20.259	91	5738	0.13	ppb(v#	90
100) 1,4-Dichlorobenzene	20.369	146	5968	0.19	ppb(v	89
101) sec-Butylbenzene	20.443	134	4375	0.34	ppb(v#	64
102) p-Isopropyltoluene	20.675	134	4291	0.29	ppb(v	88
103) 1,2-Dichlorobenzene	20.828	146	7305	0.27	ppb(v#	91
104) n-Butylbenzene	21.250	134	3335	0.27	ppb(v	61
105) Hexachloroethane	21.709	201	4830	0.31	ppb(v	78
106) 1,2,4-Trichlorobenzene	23.031	180	2413	0.21	ppb(v	97
107) Naphthalene	23.153	128	7084	0.23	ppb(v	99
108) Hexachlorobutadiene	23.593	225	6740	0.44	ppb(v	97
110) TVHC as equiv Pentane	5.589	TIC	16650m	0.13	ppb(v	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13822.D
Acq On : 13 Sep 2019 12:03 pm
Operator : thomash
Sample : ic571-0.2
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 13 17:18:30 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration



Manual Integration Approval Summary

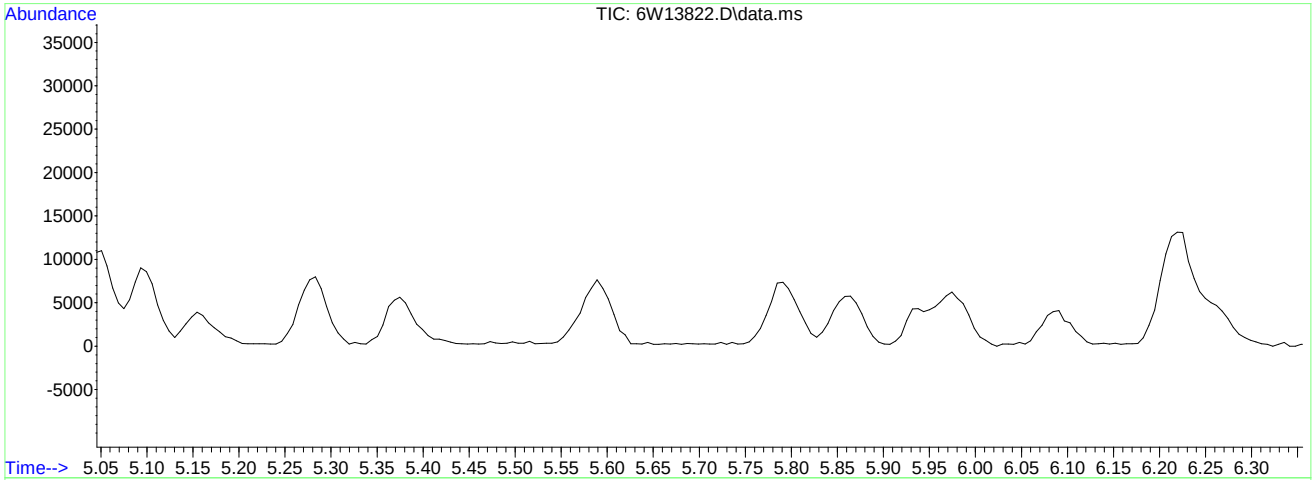
Sample Number:	V6W571-IC571	**Method:**	TO-15
Lab FileID:	6W13822.D	**Analyst approved:**	09/16/19 09:58 Thomas Hilbig
Injection Time:	09/13/19 12:03	**Supervisor approved:**	09/18/19 11:16 Dana Tryon

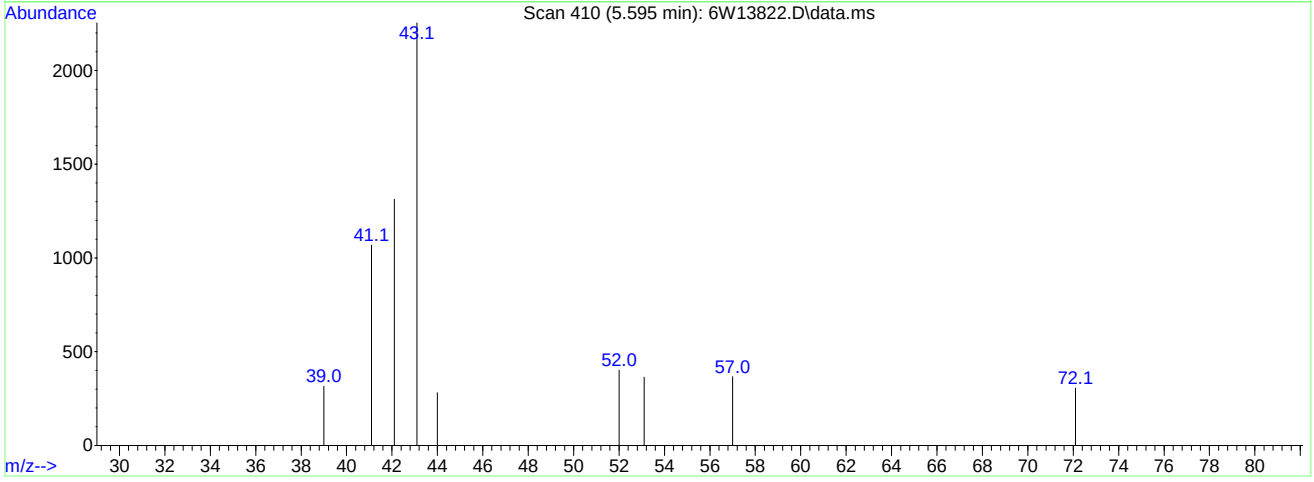
Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.59	Missed peak
m-Dichlorobenzene	541-73-1		20.27	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 6W13822.D
Acq On : 13 Sep 2019 12:03 pm
Operator : thomash
Sample : ic571-0.2
Misc : MS37187,V6W570,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 13 12:38:27 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration





TIC: 6W13822.D\data.ms

(110) TVHC as equiv Pentane

5.595min (-5.595) 0.00ppb(v)

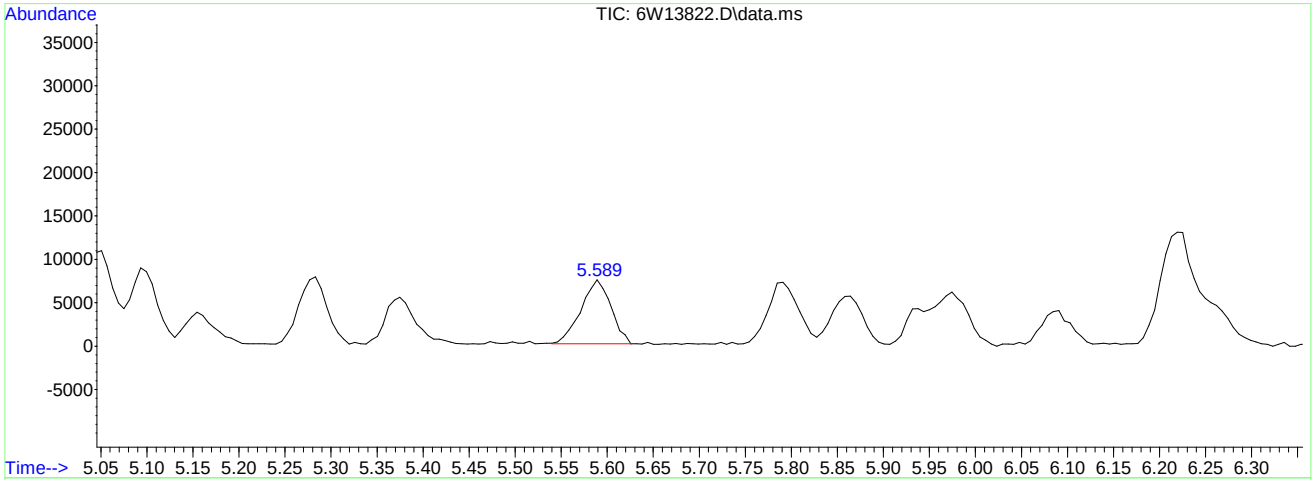
response 0

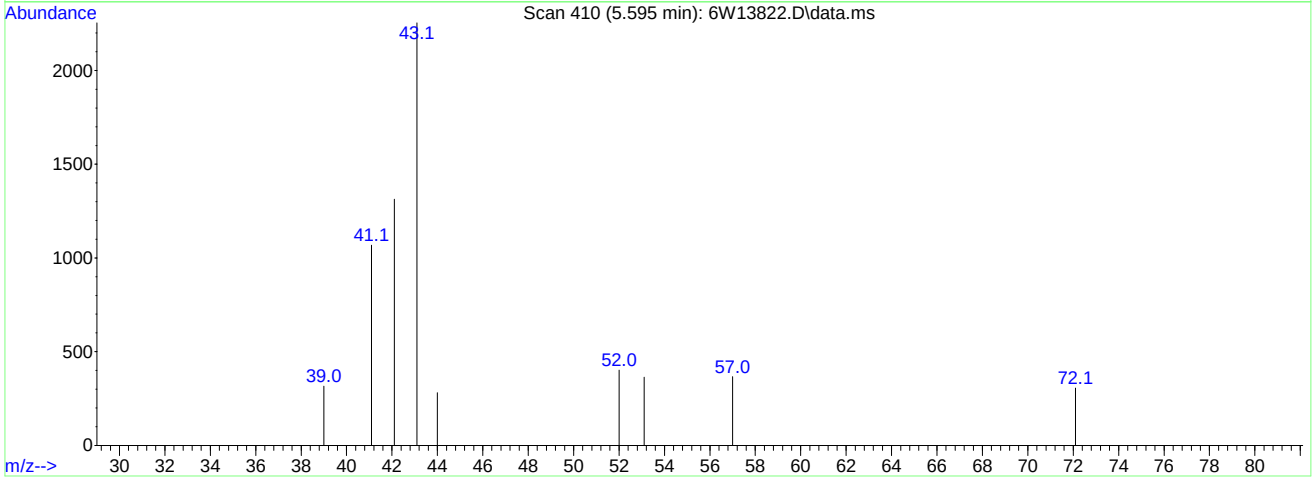
Signal	Exp%	Act%
TIC	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 6W13822.D
Acq On : 13 Sep 2019 12:03 pm
Operator : thomash
Sample : ic571-0.2
Misc : MS37187,V6W570,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 13 12:38:27 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration





TIC: 6W13822.D\data.ms

(110) TVHC as equiv Pentane

5.589min (-0.006) 0.13ppb(v) m

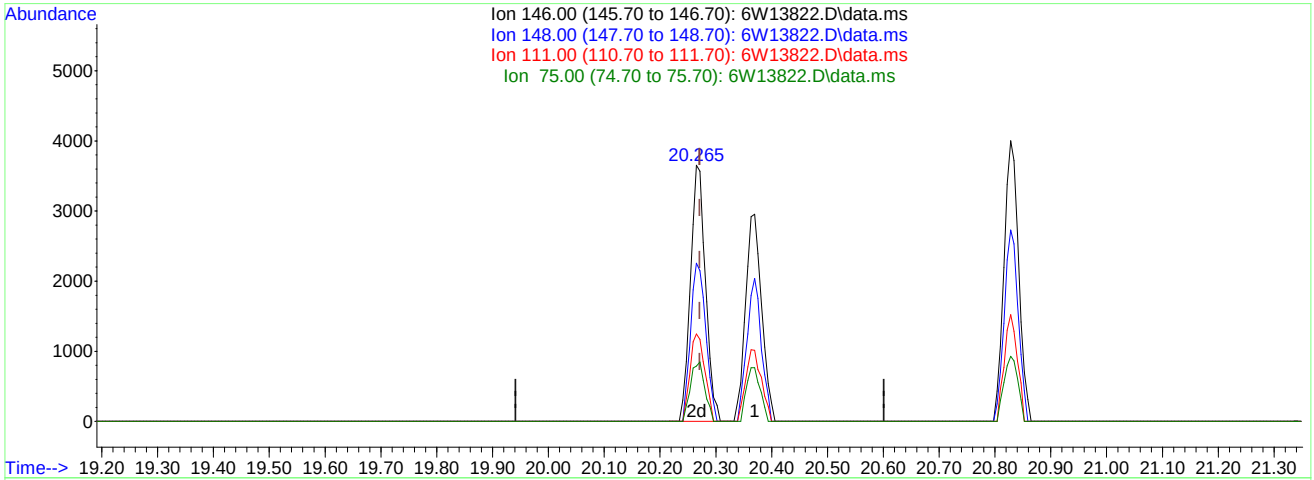
response 16650

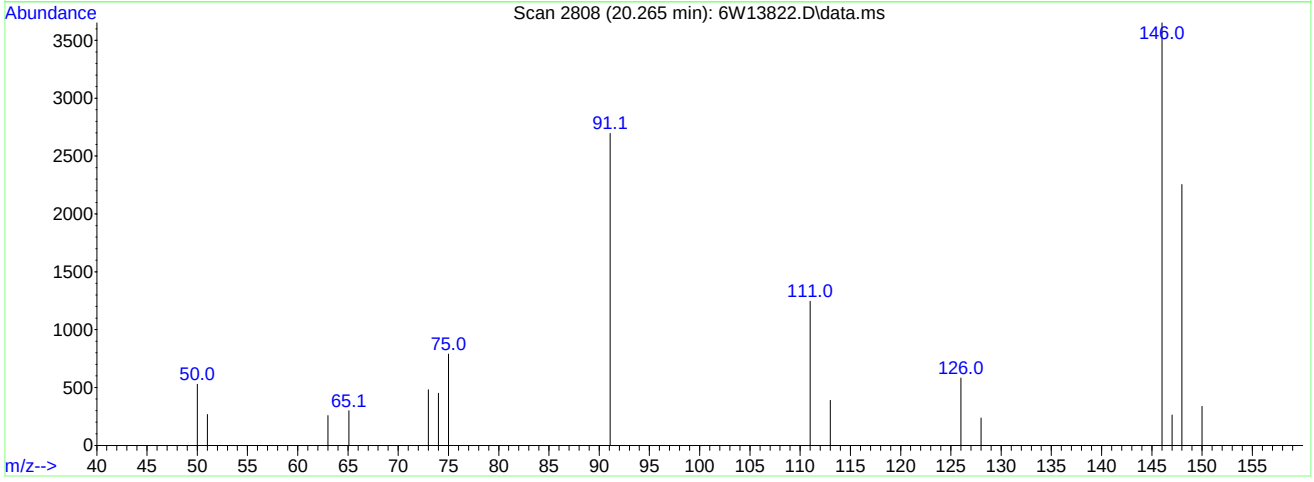
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 6W13822.D
Acq On : 13 Sep 2019 12:03 pm
Operator : thomash
Sample : ic571-0.2
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 13 17:18:30 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration





TIC: 6W13822.D\data.ms

(98) 1,3-Dichlorobenzene

20.265min (-0.006) 0.23ppb(v) m

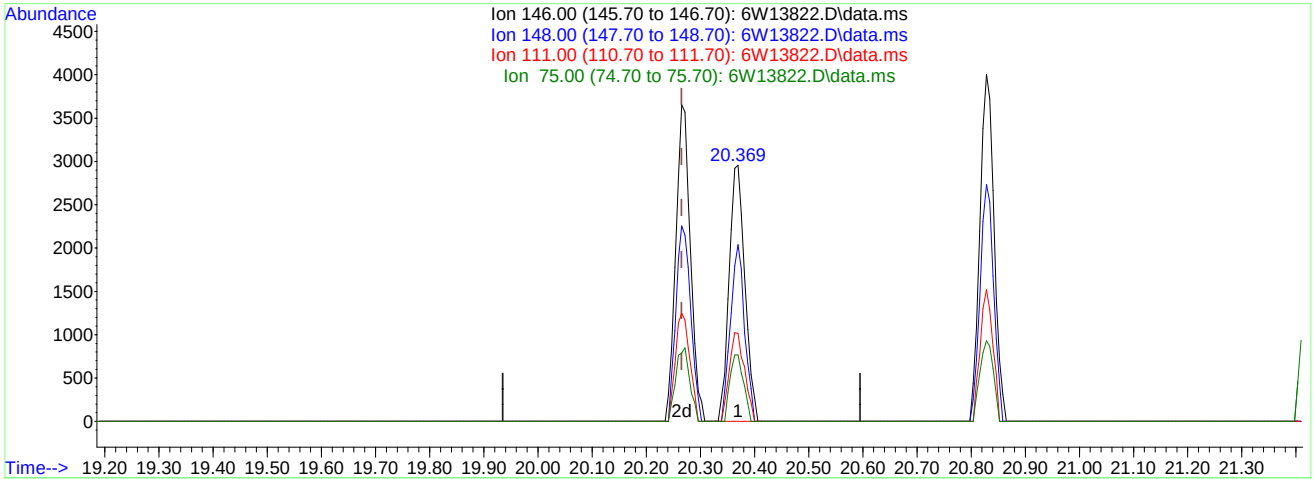
response 6864

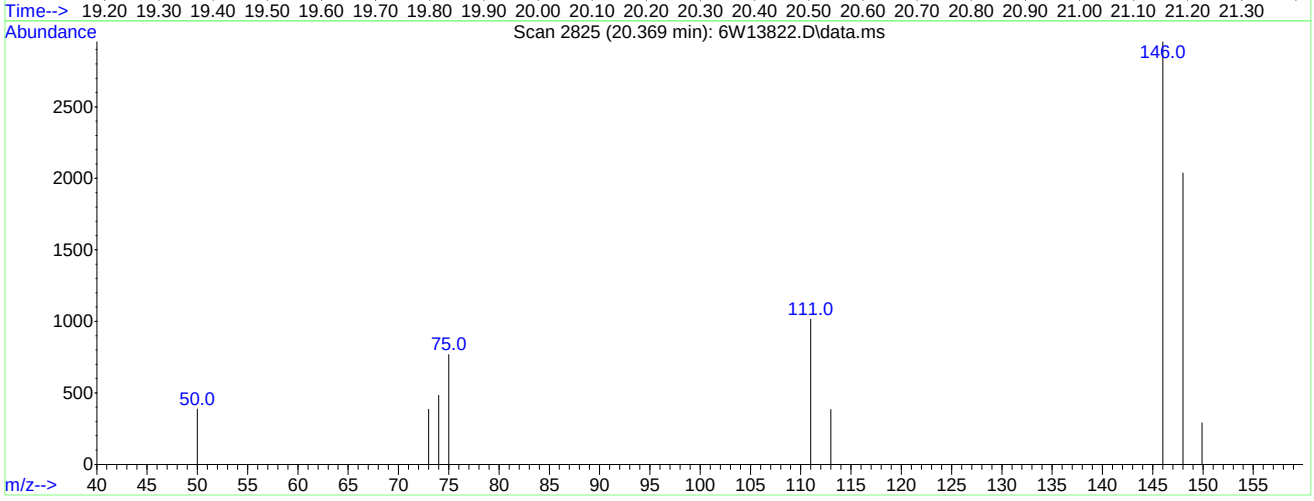
Ion	Exp%	Act%
146.00	100	100
148.00	64.40	61.75
111.00	42.90	34.12
75.00	34.80	21.58#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\Raw Data\
Data File : 6W13822.D
Acq On : 13 Sep 2019 12:03 pm
Operator : thomash
Sample : ic571-0.2
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 16 09:54:13 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Sep 16 09:11:28 2019
Response via : Initial Calibration





TIC: 6W13822.D\data.ms

(98) 1,3-Dichlorobenzene

20.369min (+0.104) 0.14ppb(v)

response 5968

Ion	Exp%	Act%
146.00	100	100
148.00	64.40	68.93
111.00	42.90	34.38
75.00	34.80	25.96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13823.D
Acq On : 13 Sep 2019 1:12 pm
Operator : thomash
Sample : ic571-0.1
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 17 10:40:35 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	156950	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.349	114	561984	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.885	82	228506	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	156950	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.130	95	280637	10.81	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 108.10%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	989	0.08	ppb(v#	47
5) Propene	3.796	41	1200	0.07	ppb(v	91
6) Chlorotrifluoroethene	3.796	116	2834	0.11	ppb(v#	90
7) Dichlorodifluoromethane	3.845	85	4585	0.09	ppb(v#	92
8) 1-Chloro-1,1-difluoroe...	3.956	65	3034	0.07	ppb(v#	66
9) Chloromethane	3.980	50	1175	0.06	ppb(v	99
10) Dichlorotetrafluoroethane	4.053	85	4286	0.08	ppb(v	86
11) Vinyl Chloride	4.157	62	1327	0.06	ppb(v#	99
14) Bromomethane	4.488	94	1542	0.09	ppb(v#	82
15) Acrolein	5.032	56	587	0.07	ppb(v#	63
17) Dichlorofluoromethane	4.702	67	3204	0.07	ppb(v#	93
18) Acetonitrile	4.922	41	1638	0.07	ppb(v#	85
19) Freon 123	5.044	83	3902	0.09	ppb(v	93
20) Freon 123A	5.100	117	2317	0.09	ppb(v	76
21) Bromoethene	4.922	106	1674	0.10	ppb(v#	90
22) Trichlorofluoromethane	5.283	101	4336	0.09	ppb(v	98
23) Acetone	5.161	58	954	0.08	ppb(v	84
26) Iodomethane	5.791	142	5419	0.13	ppb(v	81
28) 1,1-Dichloroethene	5.858	61	2459	0.07	ppb(v	88
29) Freon 113	6.219	101	3687	0.10	ppb(v#	85
30) Methylene Chloride	5.980	84	2028	0.11	ppb(v#	75
31) Carbon Disulfide	6.262	76	4785	0.08	ppb(v#	76
34) 3-Chloropropene	6.084	76	566	0.06	ppb(v#	80
35) trans-1,2-Dichloroethene	6.886	61	2033	0.07	ppb(v	89
36) tert-Butyl Alcohol	5.944	59	3482	0.09	ppb(v	96
37) Methyl tert-Butyl Ether	7.186	73	4597	0.09	ppb(v	93
39) 1,1-Dichloroethane	7.088	63	2757	0.08	ppb(v#	92
40) 2-Butanone	7.559	72	581	0.06	ppb(v#	53
41) Hexane	8.183	57	2183	0.07	ppb(v#	47
42) cis-1,2-Dichloroethene	7.975	61	1982	0.07	ppb(v	84
43) Di-isopropyl Ether	8.207	87	1304	0.09	ppb(v#	51
45) Methyl Acrylate	8.250	55	2323	0.06	ppb(v#	67
46) Chloroform	8.293	83	3351	0.08	ppb(v#	91
47) 2,4-Dimethylpentane	9.168	57	2549	0.07	ppb(v	95
48) Tetrahydrofuran	8.801	72	585	0.07	ppb(v	78
49) 1,1,1-Trichloroethane	9.382	97	3434	0.09	ppb(v#	85
50) 1,2-Dichloroethane	9.113	62	1846	0.07	ppb(v#	86
51) Benzene	9.920	78	5340	0.09	ppb(v	97
52) Carbon Tetrachloride	10.085	117	3368	0.08	ppb(v	96
53) Cyclohexane	10.220	56	2210	0.07	ppb(v	84
54) 2,3-Dimethylpentane	10.514	71	948	0.07	ppb(v#	84
56) 2,2,4-Trimethylpentane	11.211	57	7737	0.07	ppb(v#	96
57) Heptane	11.554	71	1590	0.08	ppb(v	83
58) Trichloroethene	11.181	95	2508	0.11	ppb(v	87
59) 1,2-Dichloropropane	10.893	63	1645	0.07	ppb(v#	74
60) Dibromomethane	10.869	174	2632	0.14	ppb(v#	70
61) Ethyl Acrylate	10.966	55	2732	0.06	ppb(v#	82
62) Methyl Methacrylate	11.486	69	1295	0.06	ppb(v#	69
64) Bromodichloromethane	11.132	83	3385	0.08	ppb(v#	90
65) cis-1,3-Dichloropropene	12.263	75	2303	0.07	ppb(v#	85
66) 4-Methyl-2-pentanone	12.355	58	1051	0.05	ppb(v#	78
67) trans-1,3-Dichloropropene	12.942	75	1803	0.06	ppb(v#	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13823.D
Acq On : 13 Sep 2019 1:12 pm
Operator : thomash
Sample : ic571-0.1
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 17 10:40:35 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

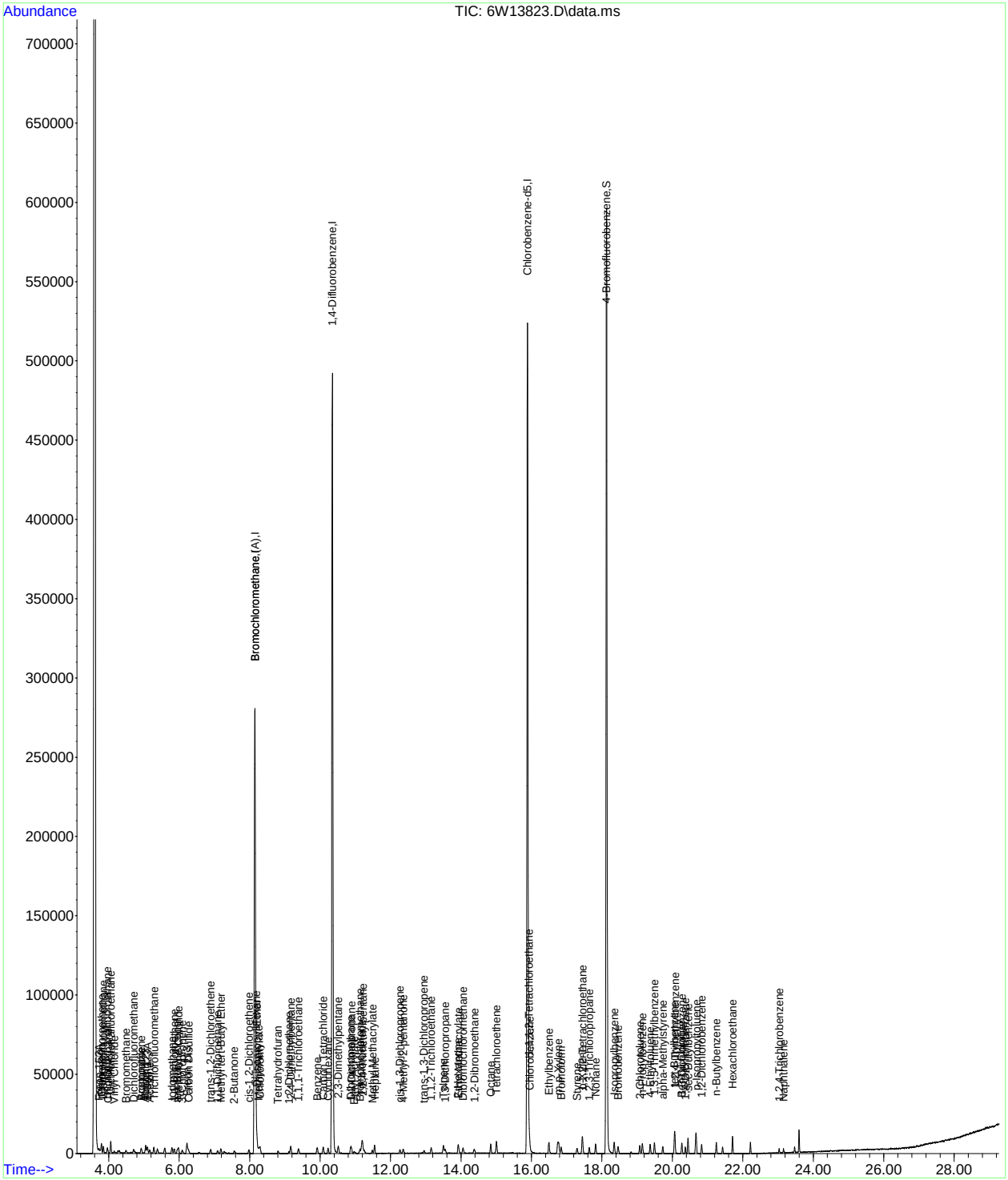
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Toluene	13.499	91	6676	0.10	ppb(v	94
69) 1,1,2-Trichloroethane	13.150	97	1971	0.09	ppb(v	90
70) 1,3-Dichloropropane	13.548	76	2583	0.07	ppb(v#	74
71) 2-Hexanone	13.915	58	2088	0.06	ppb(v#	76
72) Ethyl Methacrylate	13.927	69	2465	0.06	ppb(v#	66
73) Dibromochloromethane	14.056	129	3434	0.09	ppb(v#	99
74) Tetrachloroethene	15.004	166	3447	0.13	ppb(v	93
75) 1,2-Dibromoethane	14.380	107	2800	0.08	ppb(v#	94
76) Octane	14.845	43	3220	0.06	ppb(v#	80
77) 1,1,1,2-Tetrachloroethane	15.928	131	2786	0.10	ppb(v#	1
79) Chlorobenzene	15.952	112	4945	0.14	ppb(v	88
80) Ethylbenzene	16.497	91	9058	0.15	ppb(v	94
81) m,p-Xylene	16.760	91	13204	0.28	ppb(v#	93
82) Styrene	17.292	104	3344	0.12	ppb(v	92
83) Nonane	17.818	43	3198	0.08	ppb(v#	93
84) o-Xylene	17.439	91	7867	0.15	ppb(v	95
85) Bromoform	16.846	173	3387	0.15	ppb(v#	94
86) 1,1,2,2-Tetrachloroethane	17.451	83	4168	0.11	ppb(v#	94
87) 1,2,3-Trichloropropane	17.641	75	3034	0.10	ppb(v	90
88) Isopropylbenzene	18.350	105	8750	0.14	ppb(v	90
89) Bromobenzene	18.454	156	2508	0.15	ppb(v#	64
90) 2-Chlorotoluene	19.078	126	1890	0.15	ppb(v#	49
91) n-Propylbenzene	19.146	120	1959	0.13	ppb(v	88
93) 4-Ethyltoluene	19.372	105	7040	0.13	ppb(v	93
94) 1,3,5-Trimethylbenzene	19.488	105	6387	0.14	ppb(v	98
95) alpha-Methylstyrene	19.727	118	2470	0.10	ppb(v	90
96) tert-Butylbenzene	20.057	134	1612	0.15	ppb(v	67
97) 1,2,4-Trimethylbenzene	20.076	105	6043	0.13	ppb(v#	87
98) 1,3-Dichlorobenzene	20.265	146	3277	0.11	ppb(v	91
99) Benzyl Chloride	20.259	91	2720	0.06	ppb(v#	79
100) 1,4-Dichlorobenzene	20.369	146	2911	0.09	ppb(v	86
101) sec-Butylbenzene	20.449	134	2051	0.16	ppb(v	67
102) p-Isopropyltoluene	20.681	134	2169	0.15	ppb(v#	63
103) 1,2-Dichlorobenzene	20.828	146	3542	0.13	ppb(v	95
104) n-Butylbenzene	21.244	134	1463	0.12	ppb(v	69
105) Hexachloroethane	21.709	201	2237	0.14	ppb(v	70
106) 1,2,4-Trichlorobenzene	23.031	180	1244	0.11	ppb(v	95
107) Naphthalene	23.153	128	3513	0.11	ppb(v	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13823.D
Acq On : 13 Sep 2019 1:12 pm
Operator : thomash
Sample : ic571-0.1
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 17 10:40:35 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13824.D
Acq On : 13 Sep 2019 1:59 pm
Operator : thomash
Sample : ic571-0.04
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 17 10:40:43 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	149839	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.349	114	546769	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.885	82	220501	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	149839	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.130	95	267299	10.67	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 106.70%			
Target Compounds						Qvalue
6) Chlorotrifluoroethene	3.797	116	1095	0.04	ppb(v#	62
7) Dichlorodifluoromethane	3.845	85	1994	0.04	ppb(v#	84
8) 1-Chloro-1,1-difluoroe...	3.956	65	1235	0.03	ppb(v#	1
10) Dichlorotetrafluoroethane	4.053	85	1717	0.03	ppb(v#	80
14) Bromomethane	4.482	94	530	0.03	ppb(v#	81
17) Dichlorofluoromethane	4.696	67	1195	0.03	ppb(v#	88
19) Freon 123	5.051	83	1398	0.03	ppb(v#	86
20) Freon 123A	5.100	117	907	0.04	ppb(v#	60
21) Bromoethene	4.916	106	551	0.03	ppb(v#	75
22) Trichlorofluoromethane	5.277	101	1630	0.04	ppb(v#	80
26) Iodomethane	5.791	142	2015	0.05	ppb(v	82
29) Freon 113	6.219	101	1423	0.04	ppb(v	91
30) Methylene Chloride	5.974	84	970	0.05	ppb(v#	63
31) Carbon Disulfide	6.262	76	1747	0.03	ppb(v#	76
35) trans-1,2-Dichloroethene	6.898	61	685	0.03	ppb(v#	61
36) tert-Butyl Alcohol	5.962	59	1281	0.03	ppb(v#	60
37) Methyl tert-Butyl Ether	7.198	73	1851	0.04	ppb(v#	54
39) 1,1-Dichloroethane	7.100	63	1072	0.03	ppb(v#	52
42) cis-1,2-Dichloroethene	7.969	61	649	0.03	ppb(v#	65
46) Chloroform	8.299	83	1312	0.03	ppb(v#	83
47) 2,4-Dimethylpentane	9.162	57	909	0.03	ppb(v#	75
49) 1,1,1-Trichloroethane	9.394	97	1248	0.03	ppb(v#	84
51) Benzene	9.926	78	2354	0.04	ppb(v#	80
52) Carbon Tetrachloride	10.086	117	1293	0.03	ppb(v#	72
53) Cyclohexane	10.220	56	829	0.03	ppb(v#	73
56) 2,2,4-Trimethylpentane	11.205	57	3035	0.03	ppb(v#	95
58) Trichloroethene	11.193	95	1083	0.05	ppb(v	83
64) Bromodichloromethane	11.132	83	1244	0.03	ppb(v#	89
68) Toluene	13.505	91	2905	0.05	ppb(v#	86
69) 1,1,2-Trichloroethane	13.157	97	670	0.03	ppb(v#	46
73) Dibromochloromethane	14.062	129	1299	0.04	ppb(v#	86
74) Tetrachloroethene	15.004	166	1366	0.05	ppb(v	93
75) 1,2-Dibromoethane	14.380	107	1076	0.03	ppb(v#	91
77) 1,1,1,2-Tetrachloroethane	15.928	131	995	0.04	ppb(v#	1
81) m,p-Xylene	16.748	91	5724	0.12	ppb(v#	91
82) Styrene	17.298	104	1154	0.04	ppb(v#	58
83) Nonane	17.824	43	1167	0.03	ppb(v#	60
86) 1,1,2,2-Tetrachloroethane	17.457	83	1542	0.04	ppb(v#	91
87) 1,2,3-Trichloropropane	17.647	75	1064	0.04	ppb(v#	65
89) Bromobenzene	18.461	156	827	0.05	ppb(v	73
90) 2-Chlorotoluene	19.079	126	606	0.05	ppb(v#	57
91) n-Propylbenzene	19.152	120	658	0.05	ppb(v	69
93) 4-Ethyltoluene	19.372	105	2619	0.05	ppb(v#	82
95) alpha-Methylstyrene	19.727	118	837	0.04	ppb(v	88
96) tert-Butylbenzene	20.057	134	463	0.04	ppb(v	77
97) 1,2,4-Trimethylbenzene	20.082	105	2265	0.05	ppb(v#	77
101) sec-Butylbenzene	20.443	134	635	0.05	ppb(v	91
102) p-Isopropyltoluene	20.681	134	696	0.05	ppb(v	62
103) 1,2-Dichlorobenzene	20.828	146	1386	0.05	ppb(v	90
104) n-Butylbenzene	21.250	134	555	0.05	ppb(v	56
105) Hexachloroethane	21.709	201	738	0.05	ppb(v	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13824.D
Acq On : 13 Sep 2019 1:59 pm
Operator : thomash
Sample : ic571-0.04
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 17 10:40:43 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

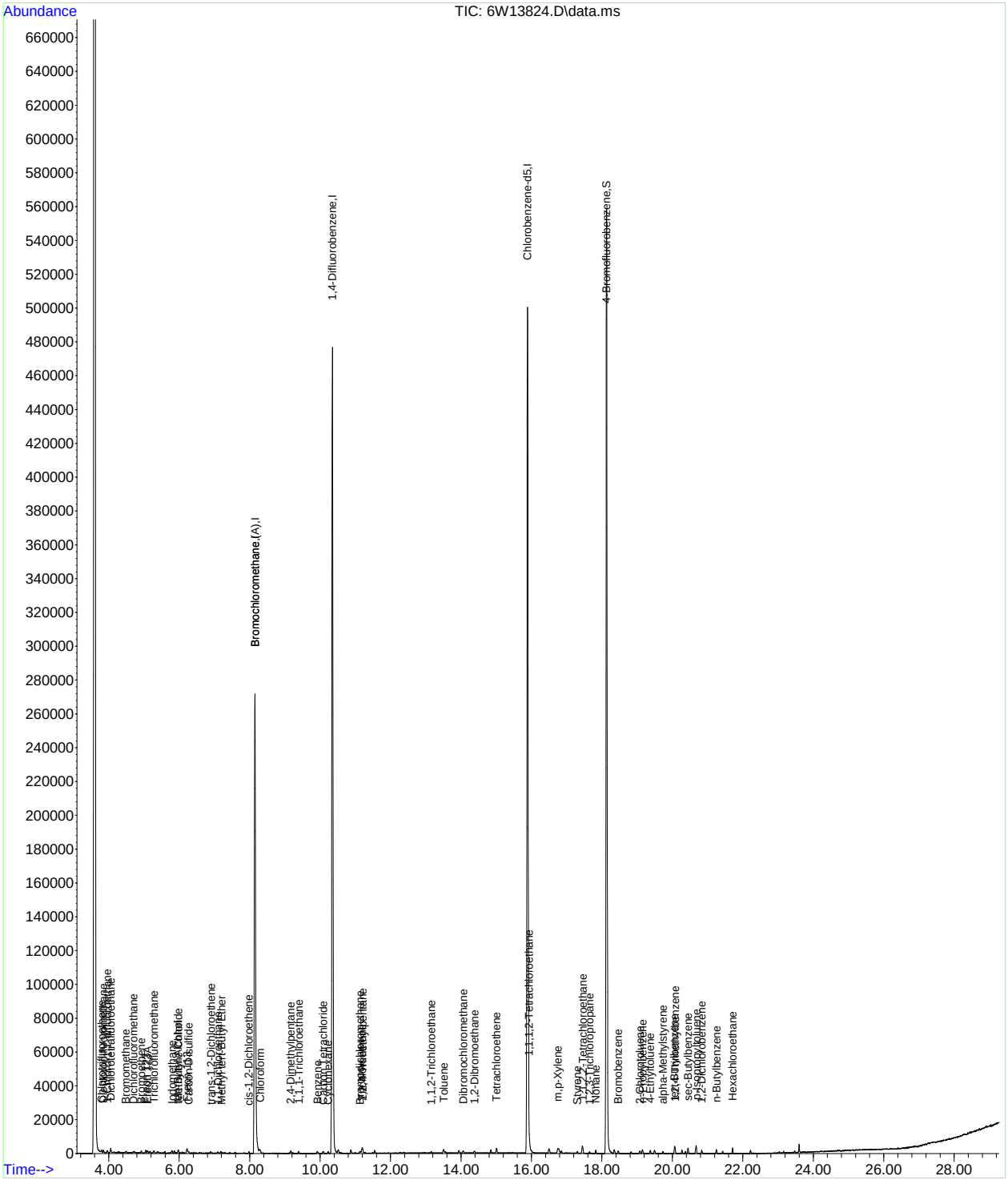
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13824.D
Acq On : 13 Sep 2019 1:59 pm
Operator : thomash
Sample : ic571-0.04
Misc : MS37187,V6W571,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 17 10:40:43 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
09/18/19 11:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13825.D
Acq On : 13 Sep 2019 2:47 pm
Operator : thomash
Sample : ic571-0.5
Misc : MS37187,V6W571,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 16 09:14:33 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	149954	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.349	114	547333	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.885	82	223500	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	149954	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.130	95	280808	11.06	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 110.60%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	6044	0.48	ppb(v	99
4) Chlorodifluoromethane	3.760	67	2371	0.50	ppb(v	84
5) Propene	3.784	41	6834	0.41	ppb(v	97
6) Chlorotrifluoroethene	3.790	116	16674	0.66	ppb(v	94
7) Dichlorodifluoromethane	3.845	85	25919	0.52	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.956	65	17440	0.44	ppb(v	97
9) Chloromethane	3.974	50	6531	0.34	ppb(v	89
10) Dichlorotetrafluoroethane	4.053	85	24626	0.49	ppb(v	86
11) Vinyl Chloride	4.151	62	8032	0.40	ppb(v#	96
12) 1,3-Butadiene	4.261	54	5439	0.37	ppb(v	94
13) n-Butane	4.304	58	1382	0.37	ppb(v#	71
14) Bromomethane	4.488	94	8560	0.50	ppb(v	98
15) Acrolein	5.020	56	3468	0.41	ppb(v#	86
16) Chloroethane	4.622	64	3966	0.40	ppb(v#	93
17) Dichlorofluoromethane	4.702	67	18330	0.43	ppb(v	95
18) Acetonitrile	4.922	41	6037	0.28	ppb(v	99
19) Freon 123	5.045	83	23130	0.54	ppb(v	98
20) Freon 123A	5.100	117	14622	0.63	ppb(v	74
21) Bromoethene	4.922	106	9699	0.61	ppb(v#	96
22) Trichlorofluoromethane	5.277	101	25061	0.56	ppb(v	99
23) Acetone	5.149	58	4079	0.34	ppb(v	87
24) Pentane	5.589	57	2259	0.45	ppb(v	79
26) Iodomethane	5.791	142	30315	0.75	ppb(v	85
27) Isopropyl Alcohol	5.363	45	14335	0.29	ppb(v	98
28) 1,1-Dichloroethene	5.858	61	14327	0.45	ppb(v	89
29) Freon 113	6.219	101	21621	0.60	ppb(v	87
30) Methylene Chloride	5.974	84	9253	0.51	ppb(v	84
31) Carbon Disulfide	6.256	76	25362	0.46	ppb(v	100
32) Ethanol	4.726	45	2350	0.25	ppb(v#	95
33) Acrylonitrile	5.558	53	6120	0.36	ppb(v	96
34) 3-Chloropropene	6.085	76	4396	0.51	ppb(v	63
35) trans-1,2-Dichloroethene	6.886	61	12400	0.46	ppb(v	84
36) tert-Butyl Alcohol	5.925	59	18169	0.49	ppb(v	95
37) Methyl tert-Butyl Ether	7.167	73	26135	0.53	ppb(v	95
38) Vinyl Acetate	7.259	43	21002	0.38	ppb(v	95
39) 1,1-Dichloroethane	7.094	63	16538	0.48	ppb(v	99
40) 2-Butanone	7.534	72	3758	0.41	ppb(v	74
41) Hexane	8.183	57	13375	0.44	ppb(v#	71
42) cis-1,2-Dichloroethene	7.975	61	11854	0.46	ppb(v	87
43) Di-isopropyl Ether	8.195	87	8609	0.60	ppb(v	52
44) Ethyl Acetate	8.244	61	2353	0.37	ppb(v	60
45) Methyl Acrylate	8.226	55	13582	0.38	ppb(v	99
46) Chloroform	8.293	83	19774	0.50	ppb(v	97
47) 2,4-Dimethylpentane	9.162	57	15921	0.47	ppb(v	91
48) Tetrahydrofuran	8.776	72	3787	0.49	ppb(v	84
49) 1,1,1-Trichloroethane	9.388	97	19261	0.50	ppb(v	96
50) 1,2-Dichloroethane	9.113	62	11064	0.43	ppb(v#	93
51) Benzene	9.920	78	29289	0.51	ppb(v	95
52) Carbon Tetrachloride	10.092	117	20632	0.52	ppb(v	91
53) Cyclohexane	10.226	56	13483	0.45	ppb(v#	82
54) 2,3-Dimethylpentane	10.514	71	6313	0.52	ppb(v	85
56) 2,2,4-Trimethylpentane	11.211	57	43767	0.43	ppb(v#	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13825.D
Acq On : 13 Sep 2019 2:47 pm
Operator : thomash
Sample : ic571-0.5
Misc : MS37187,V6W571,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 16 09:14:33 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

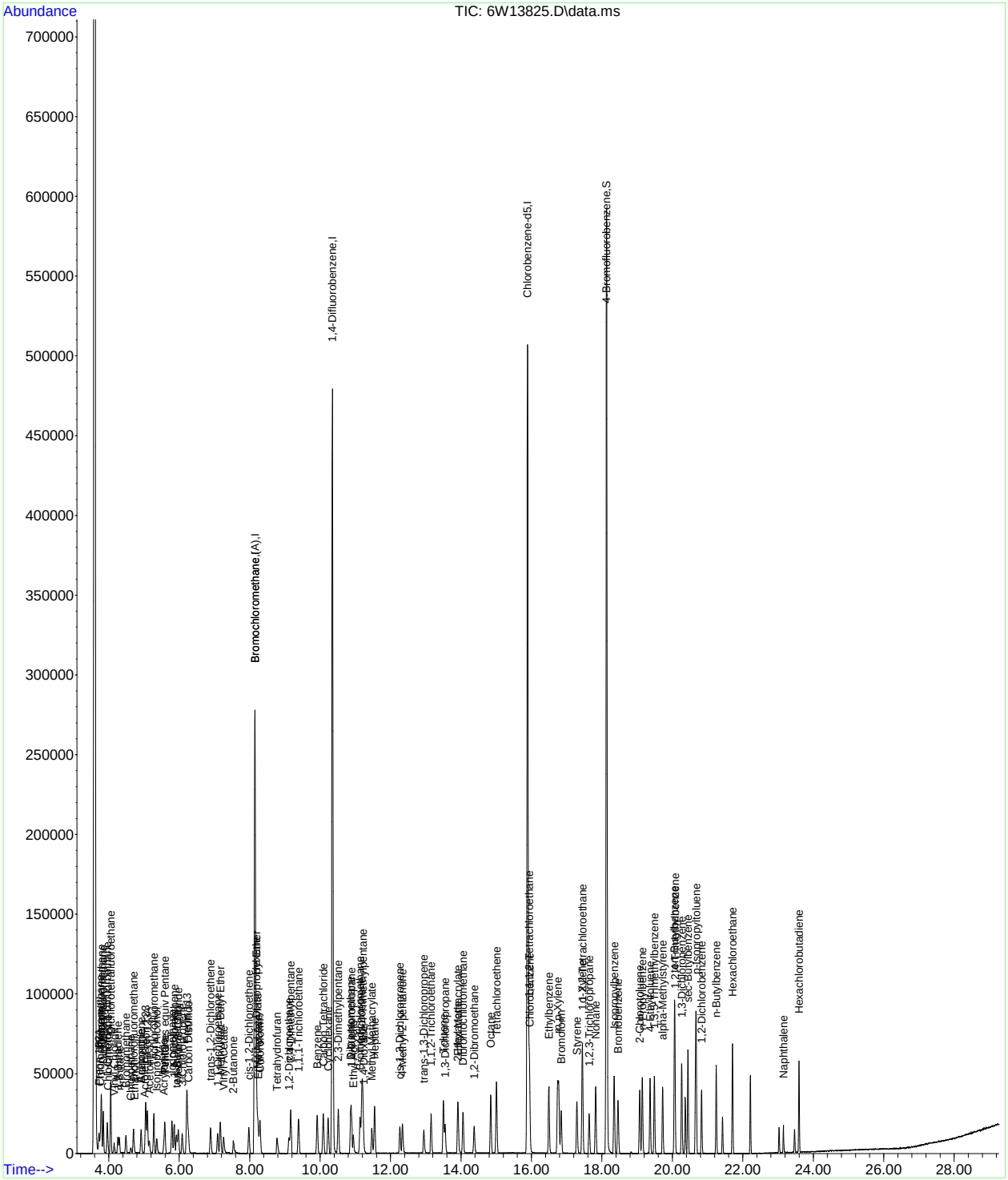
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.548	71	9763	0.53	ppb(v	88
58) Trichloroethene	11.174	95	13337	0.59	ppb(v	87
59) 1,2-Dichloropropane	10.893	63	10289	0.44	ppb(v	95
60) Dibromomethane	10.869	174	14588	0.78	ppb(v#	67
61) Ethyl Acrylate	10.942	55	16840	0.37	ppb(v#	91
62) Methyl Methacrylate	11.468	69	9790	0.45	ppb(v#	71
63) 1,4-Dioxane	11.236	88	5975	0.44	ppb(v#	36
64) Bromodichloromethane	11.132	83	20408	0.47	ppb(v#	96
65) cis-1,3-Dichloropropene	12.263	75	15119	0.45	ppb(v#	93
66) 4-Methyl-2-pentanone	12.337	58	7201	0.38	ppb(v#	70
67) trans-1,3-Dichloropropene	12.942	75	13176	0.45	ppb(v#	90
68) Toluene	13.499	91	35039	0.56	ppb(v	96
69) 1,1,2-Trichloroethane	13.150	97	12142	0.56	ppb(v	92
70) 1,3-Dichloropropane	13.548	76	15792	0.46	ppb(v#	82
71) 2-Hexanone	13.903	58	9042	0.28	ppb(v#	80
72) Ethyl Methacrylate	13.915	69	15550	0.40	ppb(v#	89
73) Dibromochloromethane	14.056	129	21194	0.57	ppb(v#	98
74) Tetrachloroethene	15.010	166	20586	0.79	ppb(v	91
75) 1,2-Dibromoethane	14.374	107	17444	0.54	ppb(v	99
76) Octane	14.845	43	19482	0.36	ppb(v#	76
77) 1,1,1,2-Tetrachloroethane	15.934	131	16052	0.61	ppb(v#	70
79) Chlorobenzene	15.952	112	28835	0.83	ppb(v	86
80) Ethylbenzene	16.497	91	45377	0.75	ppb(v	95
81) m,p-Xylene	16.748	91	72435	1.56	ppb(v	94
82) Styrene	17.292	104	25633	0.92	ppb(v	92
83) Nonane	17.824	43	19636	0.49	ppb(v#	84
84) o-Xylene	17.439	91	35794	0.71	ppb(v	91
85) Bromoform	16.846	173	19348	0.88	ppb(v	98
86) 1,1,2,2-Tetrachloroethane	17.451	83	22479	0.62	ppb(v#	97
87) 1,2,3-Trichloropropane	17.641	75	16536	0.57	ppb(v	94
88) Isopropylbenzene	18.351	105	50346	0.84	ppb(v	92
89) Bromobenzene	18.455	156	16437	0.98	ppb(v#	72
90) 2-Chlorotoluene	19.072	126	11879	0.95	ppb(v#	67
91) n-Propylbenzene	19.146	120	13251	0.93	ppb(v	64
93) 4-Ethyltoluene	19.366	105	43717	0.81	ppb(v	96
94) 1,3,5-Trimethylbenzene	19.488	105	37207	0.81	ppb(v	96
95) alpha-Methylstyrene	19.721	118	18127	0.78	ppb(v	93
96) tert-Butylbenzene	20.057	134	10049	0.95	ppb(v	71
97) 1,2,4-Trimethylbenzene	20.076	105	36111	0.77	ppb(v#	84
98) 1,3-Dichlorobenzene	20.265	146	22603	0.80	ppb(v#	92
101) sec-Butylbenzene	20.443	134	11775	0.97	ppb(v	81
102) p-Isopropyltoluene	20.675	134	12342	0.87	ppb(v	88
103) 1,2-Dichlorobenzene	20.828	146	21526	0.82	ppb(v	92
104) n-Butylbenzene	21.244	134	9909	0.82	ppb(v	66
105) Hexachloroethane	21.709	201	13721	0.91	ppb(v	74
107) Naphthalene	23.153	128	15730	0.52	ppb(v	99
108) Hexachlorobutadiene	23.593	225	12387	0.84	ppb(v	95
110) TVHC as equiv Pentane	5.589	TIC	51262m	0.43	ppb(v	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13825.D
Acq On : 13 Sep 2019 2:47 pm
Operator : thomash
Sample : ic571-0.5
Misc : MS37187,V6W571,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 16 09:14:33 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration



Manual Integration Approval Summary

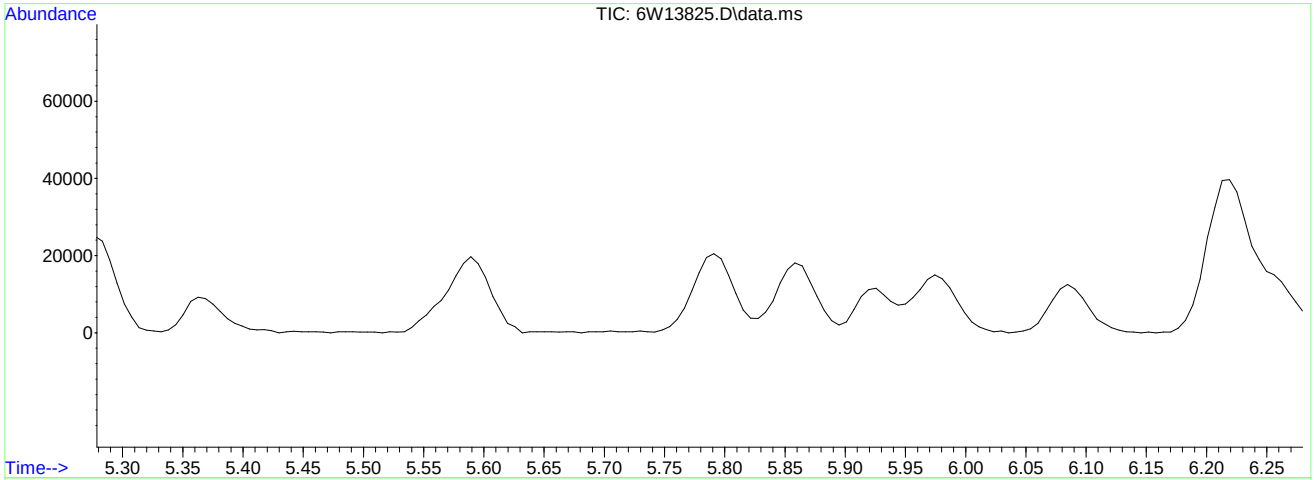
Sample Number:	V6W571-IC571	**Method:**	TO-15
Lab FileID:	6W13825.D	**Analyst approved:**	09/16/19 09:58 Thomas Hilbig
Injection Time:	09/13/19 14:47	**Supervisor approved:**	09/18/19 11:16 Dana Tryon

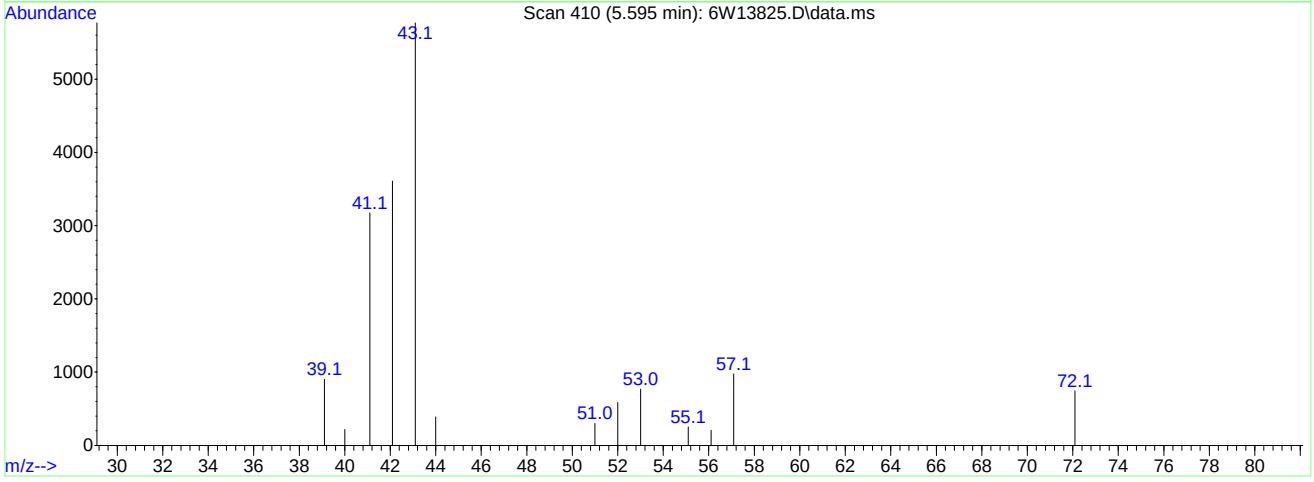
Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.59	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 6W13825.D
Acq On : 13 Sep 2019 2:47 pm
Operator : thomash
Sample : ic571-0.5
Misc : MS37187,V6W570,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 13 17:08:19 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration





TIC: 6W13825.D\data.ms

(110) TVHC as equiv Pentane

5.595min (-5.595) 0.00ppb(v)

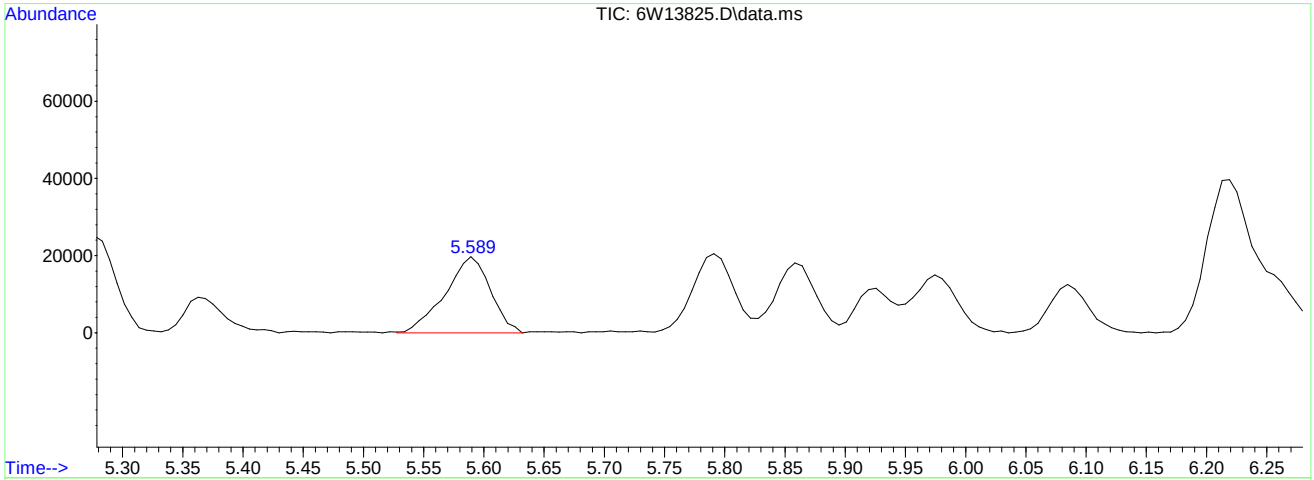
response 0

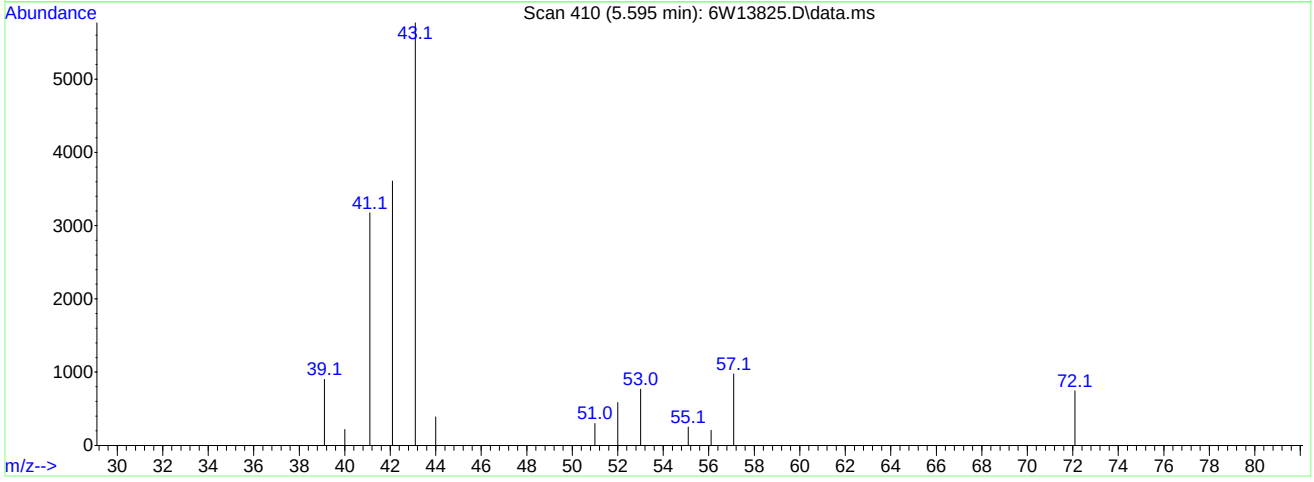
Signal	Exp%	Act%
TIC	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 6W13825.D
Acq On : 13 Sep 2019 2:47 pm
Operator : thomash
Sample : ic571-0.5
Misc : MS37187,V6W570,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 13 17:08:19 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration





TIC: 6W13825.D\data.ms

(110) TVHC as equiv Pentane

5.589min (-0.006) 0.43ppb(v) m

response 51262

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13826.D
Acq On : 13 Sep 2019 3:35 pm
Operator : thomash
Sample : ic571-5
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:14:16 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	154703	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.349	114	561366	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.891	82	240479	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	154703	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.130	95	323715	11.85	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 118.50%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	52245	4.05	ppb(v	94
4) Chlorodifluoromethane	3.760	67	20891	4.27	ppb(v	96
5) Propene	3.784	41	55721	3.25	ppb(v	97
6) Chlorotrifluoroethene	3.790	116	139224	5.36	ppb(v	95
7) Dichlorodifluoromethane	3.845	85	218336	4.25	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.956	65	148588	3.61	ppb(v	98
9) Chloromethane	3.974	50	53811	2.75	ppb(v	99
10) Dichlorotetrafluoroethane	4.047	85	210212	4.07	ppb(v	88
11) Vinyl Chloride	4.151	62	68518	3.27	ppb(v	100
12) 1,3-Butadiene	4.261	54	46732	3.06	ppb(v	94
13) n-Butane	4.298	58	12060	3.10	ppb(v	81
14) Bromomethane	4.482	94	74741	4.24	ppb(v	97
15) Acrolein	5.014	56	34117	3.95	ppb(v#	92
16) Chloroethane	4.622	64	33589	3.30	ppb(v	97
17) Dichlorofluoromethane	4.696	67	154868	3.51	ppb(v	99
18) Acetonitrile	4.910	41	58379	2.64	ppb(v	99
19) Freon 123	5.044	83	197086	4.46	ppb(v	97
20) Freon 123A	5.093	117	124337	5.15	ppb(v	78
21) Bromoethene	4.916	106	84010	5.15	ppb(v	97
22) Trichlorofluoromethane	5.277	101	217894	4.69	ppb(v	100
23) Acetone	5.130	58	36714	2.96	ppb(v	86
24) Pentane	5.589	57	20798	4.00	ppb(v	87
26) Iodomethane	5.791	142	266466	6.42	ppb(v	86
27) Isopropyl Alcohol	5.344	45	140119	2.76	ppb(v	99
28) 1,1-Dichloroethene	5.858	61	124920	3.80	ppb(v	85
29) Freon 113	6.213	101	188572	5.10	ppb(v	87
30) Methylene Chloride	5.974	84	78362	4.21	ppb(v	82
31) Carbon Disulfide	6.256	76	231621	4.09	ppb(v	100
32) Ethanol	4.714	45	23334	2.37	ppb(v	97
33) Acrylonitrile	5.546	53	62286	3.58	ppb(v	99
34) 3-Chloropropene	6.084	76	41467	4.70	ppb(v	70
35) trans-1,2-Dichloroethene	6.886	61	112328	4.02	ppb(v	85
36) tert-Butyl Alcohol	5.895	59	173322	4.50	ppb(v	96
37) Methyl tert-Butyl Ether	7.149	73	233427	4.61	ppb(v	94
38) Vinyl Acetate	7.247	43	196664	3.49	ppb(v#	91
39) 1,1-Dichloroethane	7.088	63	140930	3.92	ppb(v	99
40) 2-Butanone	7.510	72	40911	4.34	ppb(v	66
41) Hexane	8.183	57	117837	3.78	ppb(v	90
42) cis-1,2-Dichloroethene	7.969	61	106098	4.01	ppb(v	87
43) Di-isopropyl Ether	8.189	87	74856	5.08	ppb(v	55
44) Ethyl Acetate	8.226	61	23628	3.62	ppb(v	69
45) Methyl Acrylate	8.213	55	139454	3.74	ppb(v	94
46) Chloroform	8.293	83	168688	4.15	ppb(v	97
47) 2,4-Dimethylpentane	9.162	57	140674	4.02	ppb(v	95
48) Tetrahydrofuran	8.746	72	39858	5.04	ppb(v	81
49) 1,1,1-Trichloroethane	9.388	97	169585	4.28	ppb(v	97
50) 1,2-Dichloroethane	9.107	62	97556	3.67	ppb(v#	96
51) Benzene	9.914	78	254387	4.29	ppb(v	95
52) Carbon Tetrachloride	10.085	117	182575	4.49	ppb(v	95
53) Cyclohexane	10.226	56	120225	3.91	ppb(v#	83
54) 2,3-Dimethylpentane	10.514	71	57008	4.53	ppb(v	74
56) 2,2,4-Trimethylpentane	11.205	57	391034	3.76	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13826.D
Acq On : 13 Sep 2019 3:35 pm
Operator : thomash
Sample : ic571-5
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:14:16 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

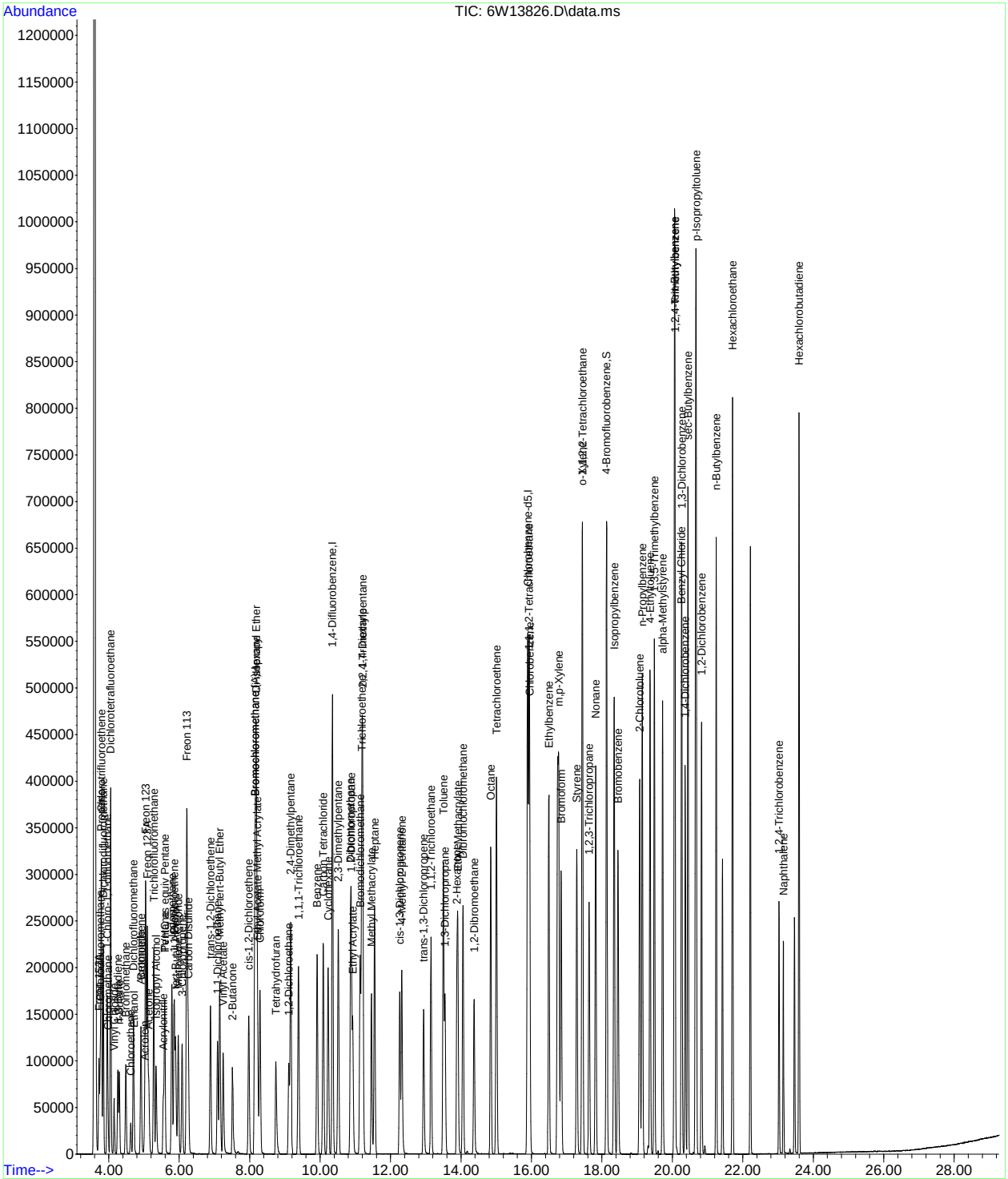
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.548	71	88901	4.71	ppb(v	89
58) Trichloroethene	11.181	95	114197	4.90	ppb(v#	78
59) 1,2-Dichloropropane	10.887	63	89235	3.70	ppb(v	97
60) Dibromomethane	10.862	174	129735	6.75	ppb(v#	67
61) Ethyl Acrylate	10.930	55	169987	3.69	ppb(v#	93
62) Methyl Methacrylate	11.456	69	94474	4.27	ppb(v	72
63) 1,4-Dioxane	11.199	88	61829	4.46	ppb(v#	68
64) Bromodichloromethane	11.138	83	184455	4.14	ppb(v	98
65) cis-1,3-Dichloropropene	12.263	75	141346	4.09	ppb(v#	93
66) 4-Methyl-2-pentanone	12.318	58	73048	3.74	ppb(v#	75
67) trans-1,3-Dichloropropene	12.936	75	121616	4.04	ppb(v#	93
68) Toluene	13.499	91	312659	4.86	ppb(v	98
69) 1,1,2-Trichloroethane	13.150	97	107261	4.84	ppb(v	92
70) 1,3-Dichloropropane	13.542	76	141968	4.07	ppb(v#	83
71) 2-Hexanone	13.885	58	95280	2.83	ppb(v#	77
72) Ethyl Methacrylate	13.909	69	150490	3.80	ppb(v#	91
73) Dibromochloromethane	14.056	129	202188	5.32	ppb(v#	98
74) Tetrachloroethene	15.010	166	182337	6.79	ppb(v	92
75) 1,2-Dibromoethane	14.374	107	160139	4.85	ppb(v	98
76) Octane	14.845	43	174994	3.17	ppb(v#	76
77) 1,1,1,2-Tetrachloroethane	15.928	131	148080	5.47	ppb(v	96
79) Chlorobenzene	15.952	112	255397	6.79	ppb(v	86
80) Ethylbenzene	16.497	91	403316	6.22	ppb(v	92
81) m,p-Xylene	16.772	91	621720	12.43	ppb(v	93
82) Styrene	17.286	104	244263	8.11	ppb(v	93
83) Nonane	17.824	43	190252	4.43	ppb(v#	86
84) o-Xylene	17.439	91	323001	5.93	ppb(v	92
85) Bromoform	16.839	173	209576	8.83	ppb(v	98
86) 1,1,2,2-Tetrachloroethane	17.445	83	230075	5.93	ppb(v#	98
87) 1,2,3-Trichloropropane	17.635	75	169439	5.40	ppb(v	91
88) Isopropylbenzene	18.350	105	488202	7.55	ppb(v	93
89) Bromobenzene	18.454	156	155055	8.56	ppb(v#	71
90) 2-Chlorotoluene	19.072	126	119819	8.93	ppb(v#	71
91) n-Propylbenzene	19.146	120	134581	8.79	ppb(v	66
93) 4-Ethyltoluene	19.366	105	445103	7.65	ppb(v	95
94) 1,3,5-Trimethylbenzene	19.488	105	387532	7.88	ppb(v	93
95) alpha-Methylstyrene	19.721	118	195526	7.84	ppb(v	97
96) tert-Butylbenzene	20.063	134	101575	8.95	ppb(v	78
97) 1,2,4-Trimethylbenzene	20.076	105	384173	7.64	ppb(v#	85
98) 1,3-Dichlorobenzene	20.265	146	238218	7.83	ppb(v#	92
99) Benzyl Chloride	20.253	91	235784	5.27	ppb(v	94
100) 1,4-Dichlorobenzene	20.363	146	222820	6.87	ppb(v	92
101) sec-Butylbenzene	20.443	134	125785	9.60	ppb(v	78
102) p-Isopropyltoluene	20.675	134	135723	8.89	ppb(v	88
103) 1,2-Dichlorobenzene	20.828	146	237124	8.38	ppb(v	92
104) n-Butylbenzene	21.244	134	114564	8.86	ppb(v	68
105) Hexachloroethane	21.709	201	166066	10.20	ppb(v	73
106) 1,2,4-Trichlorobenzene	23.024	180	94539	7.90	ppb(v	98
107) Naphthalene	23.153	128	197580	6.12	ppb(v	99
108) Hexachlorobutadiene	23.593	225	168426	10.61	ppb(v	97
110) TVHC as equiv Pentane	5.589	TIC	489794	3.98	ppb(v	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13826.D
Acq On : 13 Sep 2019 3:35 pm
Operator : thomash
Sample : ic571-5
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:14:16 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13827.D
Acq On : 13 Sep 2019 4:23 pm
Operator : thomash
Sample : icc571-10
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:15:25 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	164062	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.355	114	601377	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.891	82	263049	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	164062	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.130	95	351623	11.76	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 117.60%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	103998	7.60	ppb(v	93
4) Chlorodifluoromethane	3.760	67	41573	8.01	ppb(v	97
5) Propene	3.784	41	112897	6.21	ppb(v	100
6) Chlorotrifluoroethene	3.790	116	282966	10.28	ppb(v	95
7) Dichlorodifluoromethane	3.845	85	439262	8.07	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.956	65	295578	6.77	ppb(v	98
9) Chloromethane	3.974	50	108224	5.21	ppb(v	100
10) Dichlorotetrafluoroethane	4.053	85	430662	7.87	ppb(v#	84
11) Vinyl Chloride	4.151	62	141740	6.37	ppb(v	98
12) 1,3-Butadiene	4.261	54	97575	6.02	ppb(v	97
13) n-Butane	4.304	58	25072	6.08	ppb(v	75
14) Bromomethane	4.482	94	153706	8.23	ppb(v	97
15) Acrolein	5.014	56	70339	7.69	ppb(v	98
16) Chloroethane	4.622	64	68139	6.30	ppb(v	99
17) Dichlorofluoromethane	4.696	67	312448	6.68	ppb(v	99
18) Acetonitrile	4.910	41	120298	5.13	ppb(v	99
19) Freon 123	5.044	83	402538	8.59	ppb(v	98
20) Freon 123A	5.093	117	254940	9.97	ppb(v	78
21) Bromoethene	4.916	106	173226	10.01	ppb(v	98
22) Trichlorofluoromethane	5.277	101	445994	9.05	ppb(v	100
23) Acetone	5.130	58	75909	5.76	ppb(v	90
24) Pentane	5.589	57	42252	7.65	ppb(v	91
26) Iodomethane	5.791	142	552722	12.55	ppb(v	87
27) Isopropyl Alcohol	5.344	45	290097	5.38	ppb(v	99
28) 1,1-Dichloroethene	5.858	61	257206	7.38	ppb(v	85
29) Freon 113	6.213	101	396891	10.12	ppb(v	87
30) Methylene Chloride	5.974	84	162819	8.26	ppb(v	81
31) Carbon Disulfide	6.256	76	487688	8.12	ppb(v	99
32) Ethanol	4.714	45	47092	4.51	ppb(v	99
33) Acrylonitrile	5.546	53	130198	7.05	ppb(v	99
34) 3-Chloropropene	6.085	76	88085	9.41	ppb(v	66
35) trans-1,2-Dichloroethene	6.886	61	231623	7.81	ppb(v	85
36) tert-Butyl Alcohol	5.895	59	359638	8.81	ppb(v	95
37) Methyl tert-Butyl Ether	7.149	73	487426	9.08	ppb(v	94
38) Vinyl Acetate	7.247	43	419926	7.03	ppb(v#	91
39) 1,1-Dichloroethane	7.088	63	291860	7.66	ppb(v#	99
40) 2-Butanone	7.510	72	86468	8.65	ppb(v	64
41) Hexane	8.183	57	245358	7.43	ppb(v	89
42) cis-1,2-Dichloroethene	7.969	61	219577	7.83	ppb(v	85
43) Di-isopropyl Ether	8.189	87	157569	10.09	ppb(v#	50
44) Ethyl Acetate	8.226	61	51395	7.43	ppb(v	68
45) Methyl Acrylate	8.213	55	297879	7.53	ppb(v	94
46) Chloroform	8.293	83	355692	8.24	ppb(v	98
47) 2,4-Dimethylpentane	9.162	57	293520	7.92	ppb(v	96
48) Tetrahydrofuran	8.740	72	83771	9.99	ppb(v	81
49) 1,1,1-Trichloroethane	9.388	97	351826	8.38	ppb(v	97
50) 1,2-Dichloroethane	9.107	62	201666	7.15	ppb(v#	97
51) Benzene	9.914	78	531789	8.45	ppb(v	95
52) Carbon Tetrachloride	10.085	117	376710	8.74	ppb(v	97
53) Cyclohexane	10.226	56	250966	7.69	ppb(v#	83
54) 2,3-Dimethylpentane	10.520	71	120195	9.01	ppb(v	74
56) 2,2,4-Trimethylpentane	11.211	57	831043	7.47	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13827.D
Acq On : 13 Sep 2019 4:23 pm
Operator : thomash
Sample : icc571-10
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:15:25 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration

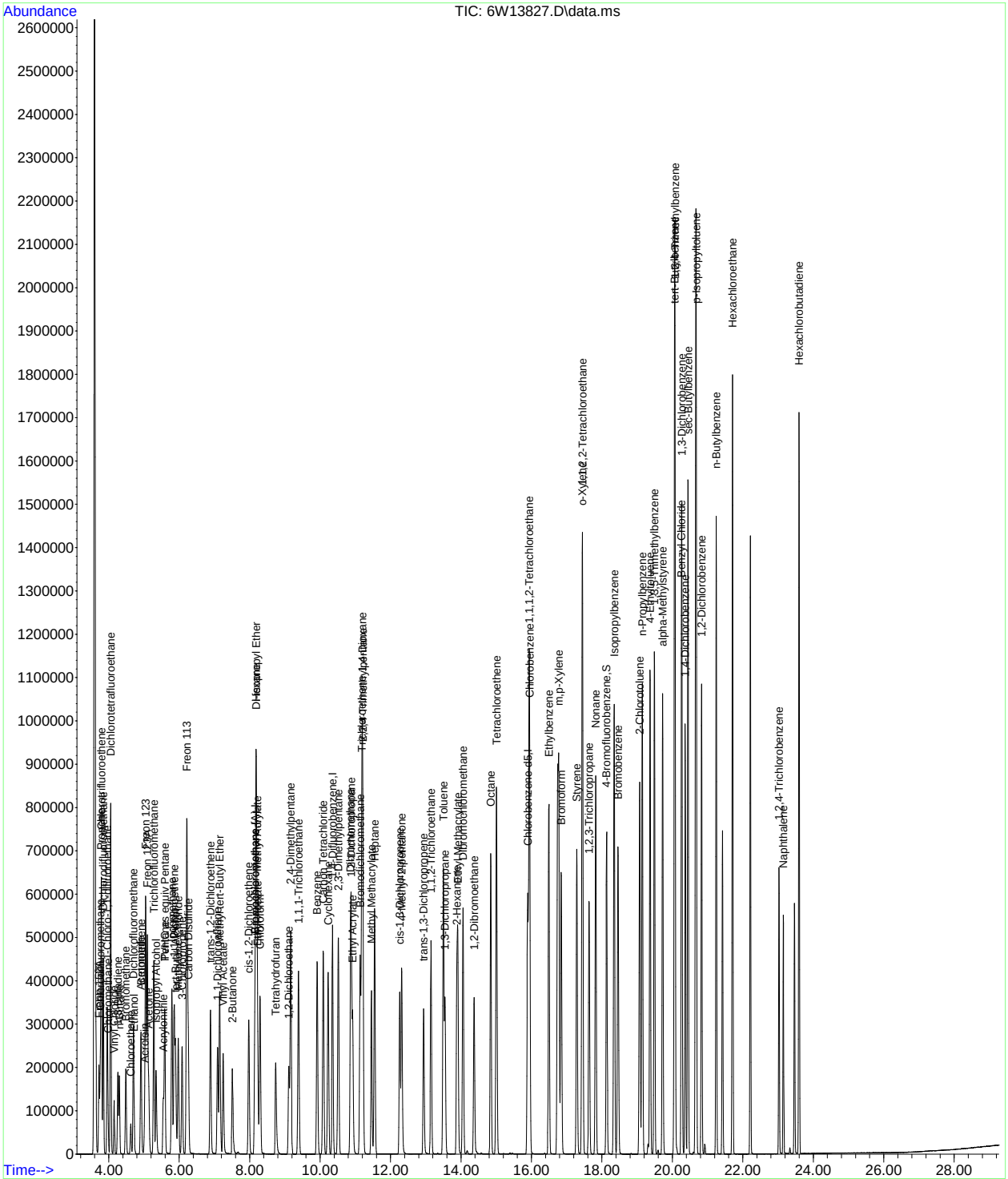
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57)	Heptane	11.548	71	189806	9.38	ppb(v	89
58)	Trichloroethene	11.181	95	242740	9.73	ppb(v	81
59)	1,2-Dichloropropane	10.887	63	187897	7.27	ppb(v	97
60)	Dibromomethane	10.862	174	272471	13.23	ppb(v#	67
61)	Ethyl Acrylate	10.924	55	367784	7.45	ppb(v#	93
62)	Methyl Methacrylate	11.456	69	206052	8.70	ppb(v#	70
63)	1,4-Dioxane	11.199	88	131283	8.84	ppb(v#	66
64)	Bromodichloromethane	11.138	83	386020	8.09	ppb(v#	97
65)	cis-1,3-Dichloropropene	12.263	75	302050	8.17	ppb(v#	93
66)	4-Methyl-2-pentanone	12.312	58	158988	7.59	ppb(v#	74
67)	trans-1,3-Dichloropropene	12.936	75	259101	8.03	ppb(v#	92
68)	Toluene	13.499	91	659441	9.56	ppb(v	98
69)	1,1,2-Trichloroethane	13.150	97	223438	9.41	ppb(v	93
70)	1,3-Dichloropropane	13.542	76	298894	8.00	ppb(v#	83
71)	2-Hexanone	13.878	58	204383	5.67	ppb(v#	78
72)	Ethyl Methacrylate	13.909	69	322726	7.60	ppb(v#	91
73)	Dibromochloromethane	14.056	129	433313	10.65	ppb(v#	99
74)	Tetrachloroethene	15.010	166	382203	13.29	ppb(v	93
75)	1,2-Dibromoethane	14.374	107	343930	9.73	ppb(v	99
76)	Octane	14.845	43	370000	6.25	ppb(v#	76
77)	1,1,1,2-Tetrachloroethane	15.934	131	311191	10.73	ppb(v	98
79)	Chlorobenzene	15.952	112	537644	13.07	ppb(v	87
80)	Ethylbenzene	16.497	91	843558	11.89	ppb(v	94
81)	m,p-Xylene	16.772	91	1311332	23.96	ppb(v	93
82)	Styrene	17.286	104	525138	15.93	ppb(v	93
83)	Nonane	17.824	43	398334	8.48	ppb(v#	85
84)	o-Xylene	17.439	91	681704	11.44	ppb(v	93
85)	Bromoform	16.839	173	458032	17.63	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.445	83	489660	11.54	ppb(v#	98
87)	1,2,3-Trichloropropane	17.635	75	359530	10.47	ppb(v	90
88)	Isopropylbenzene	18.351	105	1030093	14.56	ppb(v	93
89)	Bromobenzene	18.454	156	339244	17.13	ppb(v#	72
90)	2-Chlorotoluene	19.072	126	252812	17.23	ppb(v#	70
91)	n-Propylbenzene	19.146	120	286401	17.10	ppb(v	64
93)	4-Ethyltoluene	19.366	105	960297	15.09	ppb(v	95
94)	1,3,5-Trimethylbenzene	19.488	105	836835	15.55	ppb(v	94
95)	alpha-Methylstyrene	19.721	118	433030	15.86	ppb(v	97
96)	tert-Butylbenzene	20.063	134	216071	17.40	ppb(v	80
97)	1,2,4-Trimethylbenzene	20.076	105	831645	15.12	ppb(v	89
98)	1,3-Dichlorobenzene	20.265	146	543986	16.34	ppb(v#	92
99)	Benzyl Chloride	20.253	91	568473	11.61	ppb(v	94
100)	1,4-Dichlorobenzene	20.363	146	523480	14.76	ppb(v#	92
101)	sec-Butylbenzene	20.449	134	279766	19.53	ppb(v	76
102)	p-Isopropyltoluene	20.675	134	302654	18.13	ppb(v	87
103)	1,2-Dichlorobenzene	20.828	146	553254	17.87	ppb(v#	93
104)	n-Butylbenzene	21.244	134	260200	18.39	ppb(v	66
105)	Hexachloroethane	21.709	201	371776	20.88	ppb(v	73
106)	1,2,4-Trichlorobenzene	23.024	180	228343	17.45	ppb(v	99
107)	Naphthalene	23.147	128	467607	13.25	ppb(v	100
108)	Hexachlorobutadiene	23.593	225	362707	20.89	ppb(v	98
110)	TVHC as equiv Pentane	5.589	TIC	1005731	7.71	ppb(v	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13827.D
Acq On : 13 Sep 2019 4:23 pm
Operator : thomash
Sample : icc571-10
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:15:25 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 08:49:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13828.D
Acq On : 13 Sep 2019 5:12 pm
Operator : thomash
Sample : ic571-20
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:42:39 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 17:18:46 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	185988	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.355	114	701811	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.891	82	312728	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	185988	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.137	95	416122	10.48	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 104.80%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	212060	16.73	ppb(v	93
4) Chlorodifluoromethane	3.760	67	83592	16.60	ppb(v	98
5) Propene	3.790	41	226829	16.13	ppb(v	98
6) Chlorotrifluoroethene	3.790	116	573907	16.50	ppb(v	94
7) Dichlorodifluoromethane	3.846	85	916689	16.42	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.956	65	594065	16.03	ppb(v	98
9) Chloromethane	3.974	50	221429	16.13	ppb(v	99
10) Dichlorotetrafluoroethane	4.054	85	871336	16.61	ppb(v#	84
11) Vinyl Chloride	4.151	62	286108	16.94	ppb(v	99
12) 1,3-Butadiene	4.262	54	199129	17.04	ppb(v	96
13) n-Butane	4.304	58	51427	17.86	ppb(v	76
14) Bromomethane	4.488	94	316029	17.25	ppb(v	97
15) Acrolein	5.014	56	148913	19.02	ppb(v	98
16) Chloroethane	4.622	64	143178	17.36	ppb(v	98
17) Dichlorofluoromethane	4.702	67	647583	16.87	ppb(v	99
18) Acetonitrile	4.910	41	250661	15.20	ppb(v	98
19) Freon 123	5.051	83	832249	17.35	ppb(v	98
20) Freon 123A	5.094	117	533420	17.84	ppb(v	77
21) Bromoethene	4.916	106	363162	18.14	ppb(v	98
22) Trichlorofluoromethane	5.277	101	922393	17.41	ppb(v	98
23) Acetone	5.130	58	158888	15.76	ppb(v	84
24) Pentane	5.589	57	90546	18.68	ppb(v	85
26) Iodomethane	5.791	142	1163786	17.78	ppb(v	87
27) Isopropyl Alcohol	5.344	45	602206	13.75	ppb(v	99
28) 1,1-Dichloroethene	5.858	61	544165	17.67	ppb(v#	84
29) Freon 113	6.213	101	840359	18.24	ppb(v	87
30) Methylene Chloride	5.974	84	348957	15.54	ppb(v	82
31) Carbon Disulfide	6.256	76	1042406	18.46	ppb(v	99
32) Ethanol	4.720	45	98188	17.56	ppb(v	98
33) Acrylonitrile	5.546	53	277560	19.10	ppb(v	98
34) 3-Chloropropene	6.085	76	190003	20.41	ppb(v	64
35) trans-1,2-Dichloroethene	6.886	61	497839	19.36	ppb(v	84
36) tert-Butyl Alcohol	5.895	59	772550	18.46	ppb(v	95
37) Methyl tert-Butyl Ether	7.149	73	1057513	18.55	ppb(v	94
38) Vinyl Acetate	7.247	43	935477	19.77	ppb(v#	91
39) 1,1-Dichloroethane	7.094	63	625387	18.01	ppb(v	98
40) 2-Butanone	7.504	72	191510	20.98	ppb(v	64
41) Hexane	8.183	57	531118	18.74	ppb(v	86
42) cis-1,2-Dichloroethene	7.975	61	480002	19.49	ppb(v	85
43) Di-isopropyl Ether	8.189	87	347272	19.42	ppb(v#	47
44) Ethyl Acetate	8.226	61	113856	20.74	ppb(v	69
45) Methyl Acrylate	8.214	55	655348	20.59	ppb(v	93
46) Chloroform	8.299	83	784970	18.86	ppb(v	98
47) 2,4-Dimethylpentane	9.168	57	651519	19.79	ppb(v	94
48) Tetrahydrofuran	8.740	72	187574	21.44	ppb(v	79
49) 1,1,1-Trichloroethane	9.388	97	782250	18.94	ppb(v	96
50) 1,2-Dichloroethane	9.113	62	441917	18.84	ppb(v#	96
51) Benzene	9.920	78	1177706	17.99	ppb(v	95
52) Carbon Tetrachloride	10.092	117	842556	19.44	ppb(v	97
53) Cyclohexane	10.226	56	565083	19.91	ppb(v#	83
54) 2,3-Dimethylpentane	10.520	71	268511	20.13	ppb(v	74
56) 2,2,4-Trimethylpentane	11.211	57	1833569	18.38	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13828.D
Acq On : 13 Sep 2019 5:12 pm
Operator : thomash
Sample : ic571-20
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:42:39 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 17:18:46 2019
Response via : Initial Calibration

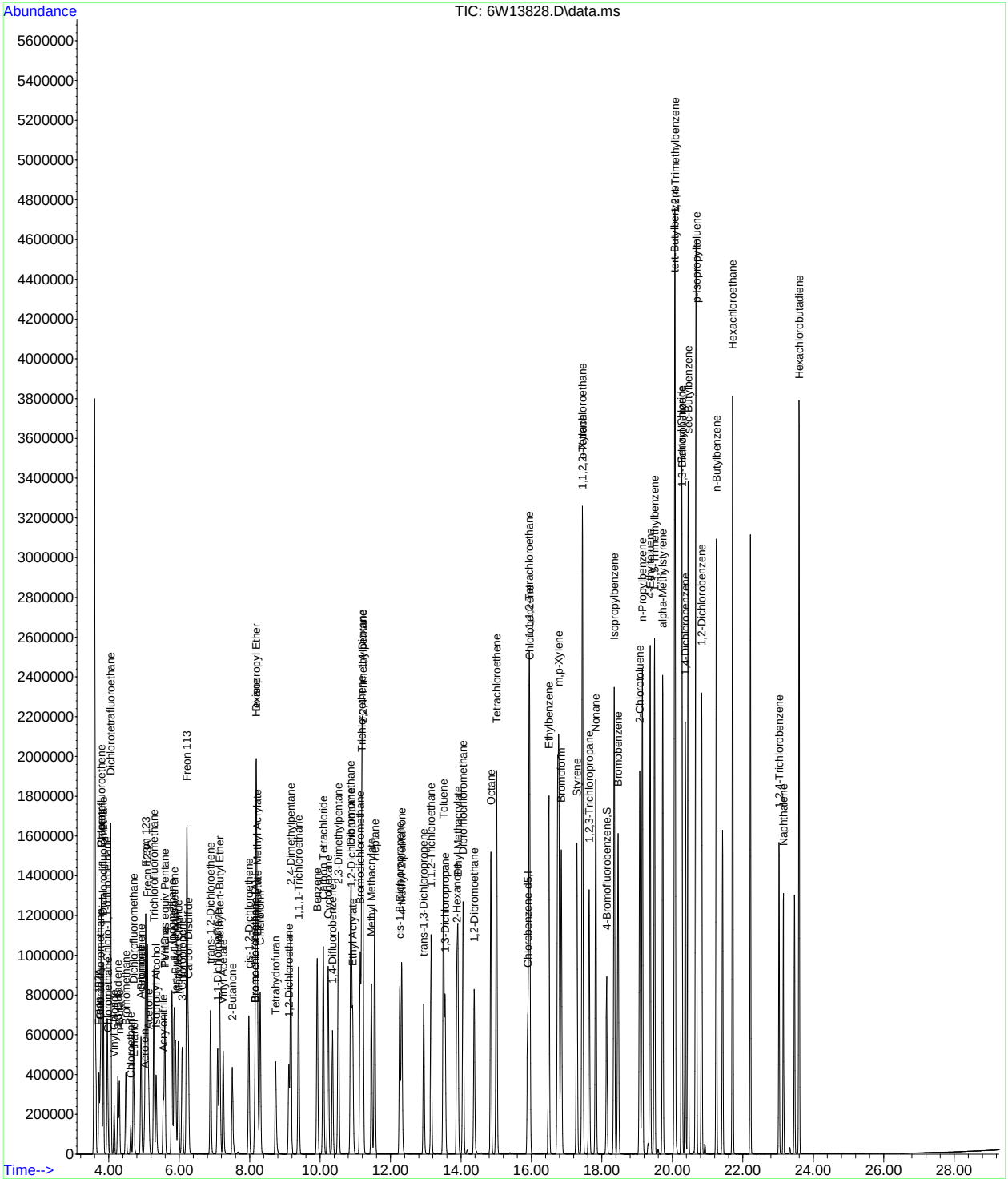
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.554	71	425187	19.29	ppb(v	89
58) Trichloroethene	11.181	95	546433	17.56	ppb(v	83
59) 1,2-Dichloropropane	10.893	63	420076	18.60	ppb(v	98
60) Dibromomethane	10.869	174	613339	18.40	ppb(v#	65
61) Ethyl Acrylate	10.930	55	835563	20.61	ppb(v#	93
62) Methyl Methacrylate	11.456	69	468570	21.26	ppb(v#	71
63) 1,4-Dioxane	11.199	88	298154	16.38	ppb(v#	57
64) Bromodichloromethane	11.138	83	877369	19.59	ppb(v	98
65) cis-1,3-Dichloropropene	12.264	75	679635	20.09	ppb(v#	93
66) 4-Methyl-2-pentanone	12.312	58	354828	20.82	ppb(v#	73
67) trans-1,3-Dichloropropene	12.936	75	585593	20.70	ppb(v#	92
68) Toluene	13.499	91	1465586	17.63	ppb(v	98
69) 1,1,2-Trichloroethane	13.151	97	495833	19.08	ppb(v	94
70) 1,3-Dichloropropane	13.548	76	668257	18.89	ppb(v#	82
71) 2-Hexanone	13.879	58	463053	18.08	ppb(v#	77
72) Ethyl Methacrylate	13.909	69	727178	20.16	ppb(v#	92
73) Dibromochloromethane	14.056	129	983797	20.70	ppb(v#	99
74) Tetrachloroethene	15.010	166	856976	18.81	ppb(v	94
75) 1,2-Dibromoethane	14.374	107	779767	20.11	ppb(v	98
76) Octane	14.851	43	806018	18.48	ppb(v#	74
77) 1,1,1,2-Tetrachloroethane	15.934	131	685843	19.05	ppb(v	97
79) Chlorobenzene	15.952	112	1210725	17.51	ppb(v	87
80) Ethylbenzene	16.497	91	1877413	16.49	ppb(v	94
81) m,p-Xylene	16.772	91	2961714	33.03	ppb(v	94
82) Styrene	17.292	104	1195532	21.39	ppb(v	91
83) Nonane	17.825	43	871662	18.53	ppb(v#	83
84) o-Xylene	17.445	91	1525799	16.40	ppb(v	93
85) Bromoform	16.846	173	1075461	20.89	ppb(v	98
86) 1,1,2,2-Tetrachloroethane	17.451	83	1104487	18.93	ppb(v#	99
87) 1,2,3-Trichloropropane	17.641	75	809313	19.06	ppb(v	89
88) Isopropylbenzene	18.351	105	2291210	18.18	ppb(v	93
89) Bromobenzene	18.461	156	768915	20.43	ppb(v#	70
90) 2-Chlorotoluene	19.073	126	562058	19.97	ppb(v#	71
91) n-Propylbenzene	19.146	120	642984	20.84	ppb(v	67
93) 4-Ethyltoluene	19.372	105	2165103	20.34	ppb(v	95
94) 1,3,5-Trimethylbenzene	19.495	105	1876660	19.56	ppb(v	94
95) alpha-Methylstyrene	19.721	118	982320	23.16	ppb(v	97
96) tert-Butylbenzene	20.064	134	477076	20.26	ppb(v	77
97) 1,2,4-Trimethylbenzene	20.076	105	1848848	20.20	ppb(v	96
98) 1,3-Dichlorobenzene	20.272	146	1231846	23.08	ppb(v#	92
99) Benzyl Chloride	20.259	91	1336466	25.86	ppb(v	92
100) 1,4-Dichlorobenzene	20.369	146	1182843	24.02	ppb(v#	91
101) sec-Butylbenzene	20.449	134	600144	20.14	ppb(v	75
102) p-Isopropyltoluene	20.681	134	643625	20.44	ppb(v	84
103) 1,2-Dichlorobenzene	20.828	146	1192483	21.41	ppb(v	94
104) n-Butylbenzene	21.250	134	565150	22.53	ppb(v	61
105) Hexachloroethane	21.709	201	813365	22.71	ppb(v	74
106) 1,2,4-Trichlorobenzene	23.031	180	550116	27.89	ppb(v	99
107) Naphthalene	23.153	128	1102216	22.96	ppb(v	100
108) Hexachlorobutadiene	23.600	225	817741	19.62	ppb(v	97
110) TVHC as equiv Pentane	5.589	TIC	2131076	18.63	ppb(v	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13828.D
Acq On : 13 Sep 2019 5:12 pm
Operator : thomash
Sample : ic571-20
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 13 17:42:39 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 17:18:46 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13830.D
Acq On : 13 Sep 2019 6:52 pm
Operator : thomash
Sample : ic571-40
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 16 08:17:55 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 17:43:38 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.158	130	195278	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.355	114	735636	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.891	82	360923	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.158	130	195278	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.136	95	437987	9.49	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 94.90%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	414831	32.04	ppb(v	93
4) Chlorodifluoromethane	3.760	67	164885	32.28	ppb(v	96
5) Propene	3.784	41	435844	30.50	ppb(v	98
6) Chlorotrifluoroethene	3.790	116	1132859	31.82	ppb(v	94
7) Dichlorodifluoromethane	3.839	85	1769627	30.98	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.956	65	1184490	31.32	ppb(v	98
9) Chloromethane	3.974	50	426105	30.54	ppb(v	98
10) Dichlorotetrafluoroethane	4.047	85	1693474	31.50	ppb(v	85
11) Vinyl Chloride	4.151	62	565052	32.70	ppb(v	99
12) 1,3-Butadiene	4.255	54	391858	32.91	ppb(v	95
13) n-Butane	4.298	58	99867	33.75	ppb(v	76
14) Bromomethane	4.482	94	623235	33.04	ppb(v	97
15) Acrolein	5.014	56	297555	36.50	ppb(v	98
16) Chloroethane	4.622	64	282498	33.50	ppb(v	97
17) Dichlorofluoromethane	4.696	67	1270643	32.25	ppb(v	99
18) Acetonitrile	4.910	41	490862	29.54	ppb(v	99
19) Freon 123	5.045	83	1672248	33.84	ppb(v	98
20) Freon 123A	5.093	117	1069126	34.59	ppb(v	75
21) Bromoethene	4.916	106	723694	34.90	ppb(v	97
22) Trichlorofluoromethane	5.277	101	1845665	33.80	ppb(v	98
23) Acetone	5.130	58	320360	31.38	ppb(v	87
24) Pentane	5.589	57	181278	36.10	ppb(v	82
26) Iodomethane	5.785	142	2372243	35.08	ppb(v	88
27) Isopropyl Alcohol	5.344	45	1205139	27.44	ppb(v	99
28) 1,1-Dichloroethene	5.852	61	1106590	34.90	ppb(v	85
29) Freon 113	6.213	101	1669021	34.94	ppb(v	85
30) Methylene Chloride	5.974	84	699839	30.65	ppb(v	80
31) Carbon Disulfide	6.256	76	2074533	35.37	ppb(v	99
32) Ethanol	4.720	45	187806	32.99	ppb(v	98
33) Acrylonitrile	5.546	53	560306	37.06	ppb(v	99
34) 3-Chloropropene	6.085	76	381627	38.90	ppb(v	64
35) trans-1,2-Dichloroethene	6.886	61	1008252	37.52	ppb(v	84
36) tert-Butyl Alcohol	5.901	59	1546403	35.58	ppb(v	95
37) Methyl tert-Butyl Ether	7.143	73	2153549	36.35	ppb(v	94
38) Vinyl Acetate	7.247	43	1904788	38.43	ppb(v#	91
39) 1,1-Dichloroethane	7.094	63	1268999	35.30	ppb(v#	99
40) 2-Butanone	7.504	72	395757	40.96	ppb(v	62
41) Hexane	8.183	57	1054815	35.82	ppb(v	84
42) cis-1,2-Dichloroethene	7.975	61	983244	38.17	ppb(v	83
43) Di-isopropyl Ether	8.189	87	703502	37.64	ppb(v#	44
44) Ethyl Acetate	8.226	61	227460	39.17	ppb(v	69
45) Methyl Acrylate	8.213	55	1307181	38.93	ppb(v	94
46) Chloroform	8.299	83	1590228	36.68	ppb(v	98
47) 2,4-Dimethylpentane	9.168	57	1320664	38.27	ppb(v#	93
48) Tetrahydrofuran	8.733	72	383796	41.29	ppb(v	79
49) 1,1,1-Trichloroethane	9.388	97	1619892	37.63	ppb(v	97
50) 1,2-Dichloroethane	9.113	62	914921	37.52	ppb(v#	96
51) Benzene	9.920	78	2443889	36.07	ppb(v	95
52) Carbon Tetrachloride	10.092	117	1774002	39.13	ppb(v	97
53) Cyclohexane	10.226	56	1164478	39.10	ppb(v#	83
54) 2,3-Dimethylpentane	10.520	71	545393	38.90	ppb(v	75
56) 2,2,4-Trimethylpentane	11.217	57	3560488	34.46	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13830.D
Acq On : 13 Sep 2019 6:52 pm
Operator : thomash
Sample : ic571-40
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 16 08:17:55 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 17:43:38 2019
Response via : Initial Calibration

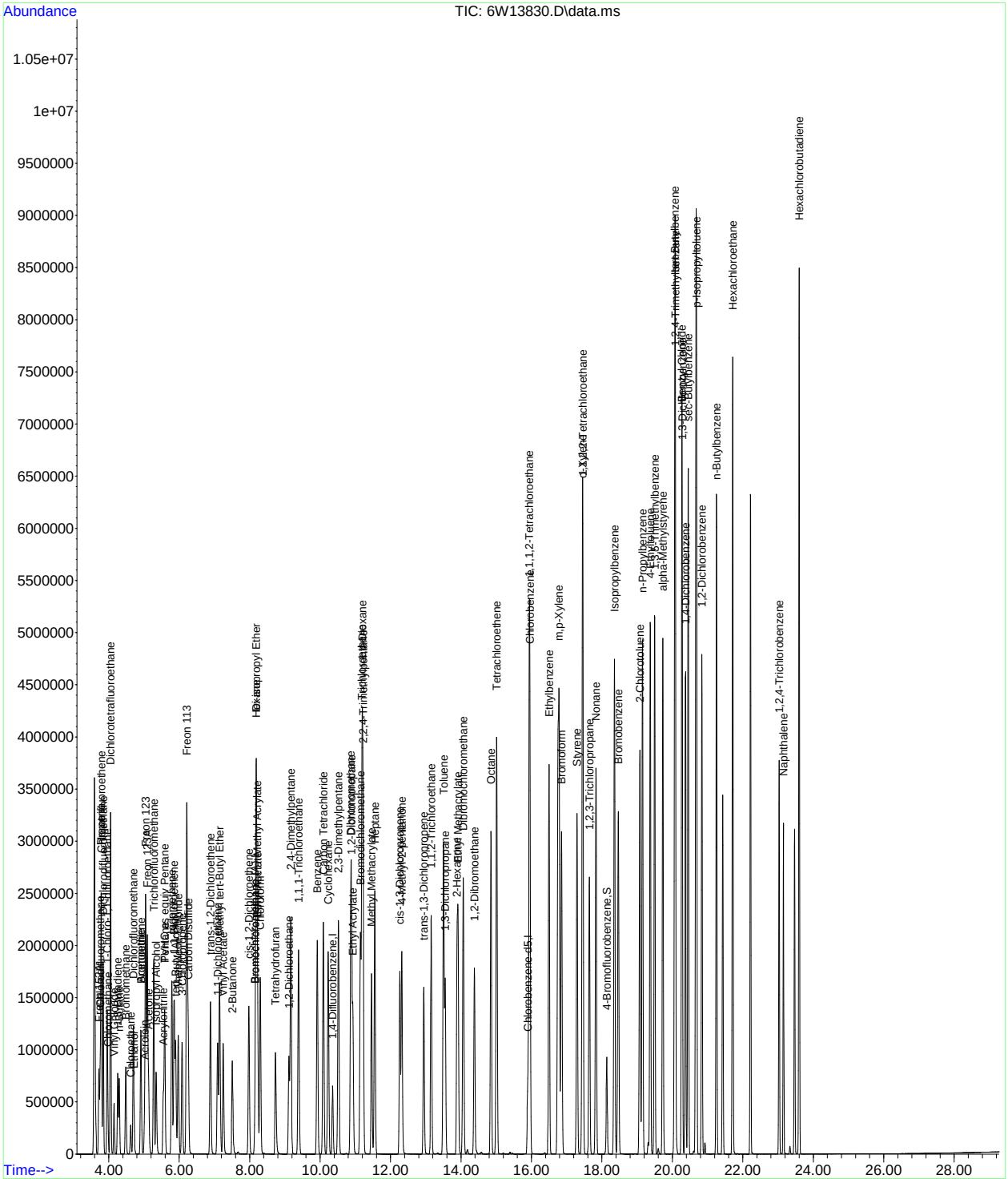
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.554	71	853651	37.17	ppb(v	88
58) Trichloroethene	11.187	95	1106709	34.53	ppb(v	81
59) 1,2-Dichloropropane	10.893	63	846616	36.18	ppb(v	97
60) Dibromomethane	10.869	174	1280128	37.13	ppb(v#	66
61) Ethyl Acrylate	10.930	55	1705640	39.94	ppb(v#	92
62) Methyl Methacrylate	11.462	69	948691	40.64	ppb(v#	68
63) 1,4-Dioxane	11.199	88	587839	31.97	ppb(v#	49
64) Bromodichloromethane	11.144	83	1800675	38.47	ppb(v#	97
65) cis-1,3-Dichloropropene	12.263	75	1398137	39.39	ppb(v#	94
66) 4-Methyl-2-pentanone	12.318	58	725279	40.33	ppb(v#	71
67) trans-1,3-Dichloropropene	12.942	75	1231430	41.29	ppb(v#	91
68) Toluene	13.505	91	3074511	35.89	ppb(v	97
69) 1,1,2-Trichloroethane	13.157	97	1039957	38.43	ppb(v	93
70) 1,3-Dichloropropane	13.548	76	1405805	38.26	ppb(v#	82
71) 2-Hexanone	13.885	58	974736	36.91	ppb(v#	75
72) Ethyl Methacrylate	13.915	69	1524982	40.27	ppb(v#	91
73) Dibromochloromethane	14.062	129	2088113	41.70	ppb(v#	99
74) Tetrachloroethene	15.010	166	1817553	38.38	ppb(v	95
75) 1,2-Dibromoethane	14.380	107	1654900	40.68	ppb(v	100
76) Octane	14.851	43	1641638	36.37	ppb(v#	72
77) 1,1,1,2-Tetrachloroethane	15.940	131	1435168	38.28	ppb(v	96
79) Chlorobenzene	15.959	112	2520668	32.25	ppb(v	87
80) Ethylbenzene	16.503	91	3930410	30.82	ppb(v	94
81) m,p-Xylene	16.778	91	6186752	61.32	ppb(v	94
82) Styrene	17.292	104	2474266	37.98	ppb(v	93
83) Nonane	17.831	43	1715633	31.93	ppb(v#	82
84) o-Xylene	17.445	91	3109032	29.85	ppb(v	94
85) Bromoform	16.852	173	2253984	37.65	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.457	83	2202328	32.95	ppb(v#	98
87) 1,2,3-Trichloropropane	17.647	75	1638313	33.66	ppb(v	89
88) Isopropylbenzene	18.357	105	4661557	32.54	ppb(v	93
89) Bromobenzene	18.467	156	1588581	36.46	ppb(v#	70
90) 2-Chlorotoluene	19.079	126	1155908	35.59	ppb(v#	68
91) n-Propylbenzene	19.152	120	1321644	36.90	ppb(v	63
93) 4-Ethyltoluene	19.378	105	4452356	36.15	ppb(v	95
94) 1,3,5-Trimethylbenzene	19.501	105	3795467	34.40	ppb(v	93
95) alpha-Methylstyrene	19.727	118	1994762	39.85	ppb(v	97
96) tert-Butylbenzene	20.070	134	950913	34.92	ppb(v	80
97) 1,2,4-Trimethylbenzene	20.088	105	3702068	34.99	ppb(v#	80
98) 1,3-Dichlorobenzene	20.278	146	2509799	39.87	ppb(v#	92
99) Benzyl Chloride	20.265	91	2862467	45.76	ppb(v	92
100) 1,4-Dichlorobenzene	20.375	146	2463302	42.13	ppb(v#	91
101) sec-Butylbenzene	20.455	134	1198864	34.82	ppb(v	71
102) p-Isopropyltoluene	20.687	134	1279833	35.11	ppb(v	83
103) 1,2-Dichlorobenzene	20.834	146	2443222	37.62	ppb(v	93
104) n-Butylbenzene	21.256	134	1168404	39.64	ppb(v	58
105) Hexachloroethane	21.715	201	1692216	40.15	ppb(v	69
106) 1,2,4-Trichlorobenzene	23.031	180	1295093	53.85	ppb(v	98
107) Naphthalene	23.153	128	2559137	45.23	ppb(v	100
108) Hexachlorobutadiene	23.600	225	1807875	37.72	ppb(v	98
110) TVHC as equiv Pentane	5.583	TIC	4257116	35.94	ppb(v	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13830.D
Acq On : 13 Sep 2019 6:52 pm
Operator : thomash
Sample : ic571-40
Misc : MS37187,V6W571,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 16 08:17:55 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Fri Sep 13 17:43:38 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13832.D
Acq On : 13 Sep 2019 8:27 pm
Operator : thomash
Sample : icv571-10
Misc : MS37187,V6W571,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 17 10:40:07 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.152	130	175068	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.355	114	645035	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.891	82	279223	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.152	130	175068	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.136	95	376794	10.62	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 106.20%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	113510	10.06	ppb(v	93
4) Chlorodifluoromethane	3.760	67	44361	10.01	ppb(v	97
5) Propene	3.790	41	120727	9.75	ppb(v	98
6) Chlorotrifluoroethene	3.790	116	314812	10.12	ppb(v	94
7) Dichlorodifluoromethane	3.845	85	464001	9.32	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.955	65	323175	9.80	ppb(v	98
9) Chloromethane	3.974	50	115037	9.52	ppb(v	99
10) Dichlorotetrafluoroethane	4.053	85	446631	9.52	ppb(v	85
11) Vinyl Chloride	4.151	62	149432	9.90	ppb(v	99
12) 1,3-Butadiene	4.261	54	102908	9.93	ppb(v	96
13) n-Butane	4.304	58	26761	10.36	ppb(v	75
14) Bromomethane	4.488	94	162095	9.80	ppb(v	99
15) Acrolein	5.020	56	74079	10.26	ppb(v	99
16) Chloroethane	4.622	64	74201	10.09	ppb(v	97
17) Dichlorofluoromethane	4.702	67	324396	9.41	ppb(v	99
18) Acetonitrile	4.910	41	126534	8.82	ppb(v	99
19) Freon 123	5.051	83	449312	10.34	ppb(v	98
20) Freon 123A	5.093	117	306742	11.26	ppb(v	77
21) Bromoethene	4.922	106	190872	10.43	ppb(v	98
22) Trichlorofluoromethane	5.277	101	462350	9.63	ppb(v	98
23) Acetone	5.136	58	84384	9.51	ppb(v	84
24) Pentane	5.589	57	46600	10.52	ppb(v	86
26) Iodomethane	5.791	142	595171	9.97	ppb(v	87
27) Isopropyl Alcohol	5.344	45	304103	9.05	ppb(v	99
28) 1,1-Dichloroethene	5.858	61	286373	10.26	ppb(v	85
29) Freon 113	6.219	101	427620	10.15	ppb(v	86
30) Methylene Chloride	5.974	84	178919	9.00	ppb(v	81
31) Carbon Disulfide	6.256	76	578265	11.16	ppb(v	99
32) Ethanol	4.720	45	46955	9.53	ppb(v	98
33) Acrylonitrile	5.546	53	143076	10.69	ppb(v	97
34) 3-Chloropropene	6.084	76	95965	10.96	ppb(v	67
35) trans-1,2-Dichloroethene	6.886	61	262911	11.00	ppb(v	84
36) tert-Butyl Alcohol	5.895	59	351243	9.14	ppb(v	96
37) Methyl tert-Butyl Ether	7.149	73	530560	10.10	ppb(v	94
38) Vinyl Acetate	7.247	43	465872	10.55	ppb(v#	90
39) 1,1-Dichloroethane	7.094	63	314269	9.90	ppb(v	99
40) 2-Butanone	7.504	72	97123	11.17	ppb(v	63
41) Hexane	8.183	57	273571	10.52	ppb(v	86
42) cis-1,2-Dichloroethene	7.975	61	239822	10.44	ppb(v	83
43) Di-isopropyl Ether	8.189	87	172530	10.39	ppb(v#	50
44) Ethyl Acetate	8.226	61	61052	11.77	ppb(v	67
45) Methyl Acrylate	8.213	55	339963	11.34	ppb(v	93
46) Chloroform	8.299	83	385693	10.03	ppb(v	98
47) 2,4-Dimethylpentane	9.162	57	317200	10.31	ppb(v#	95
48) Tetrahydrofuran	8.739	72	85393	10.20	ppb(v	81
49) 1,1,1-Trichloroethane	9.388	97	382519	9.99	ppb(v	96
50) 1,2-Dichloroethane	9.107	62	221382	10.22	ppb(v#	96
51) Benzene	9.920	78	579607	9.66	ppb(v	95
52) Carbon Tetrachloride	10.092	117	407537	10.06	ppb(v	98
53) Cyclohexane	10.226	56	271082	10.18	ppb(v#	82
54) 2,3-Dimethylpentane	10.520	71	127607	10.19	ppb(v	76
56) 2,2,4-Trimethylpentane	11.211	57	883200	9.92	ppb(v#	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13832.D
Acq On : 13 Sep 2019 8:27 pm
Operator : thomash
Sample : icv571-10
Misc : MS37187,V6W571,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 17 10:40:07 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration

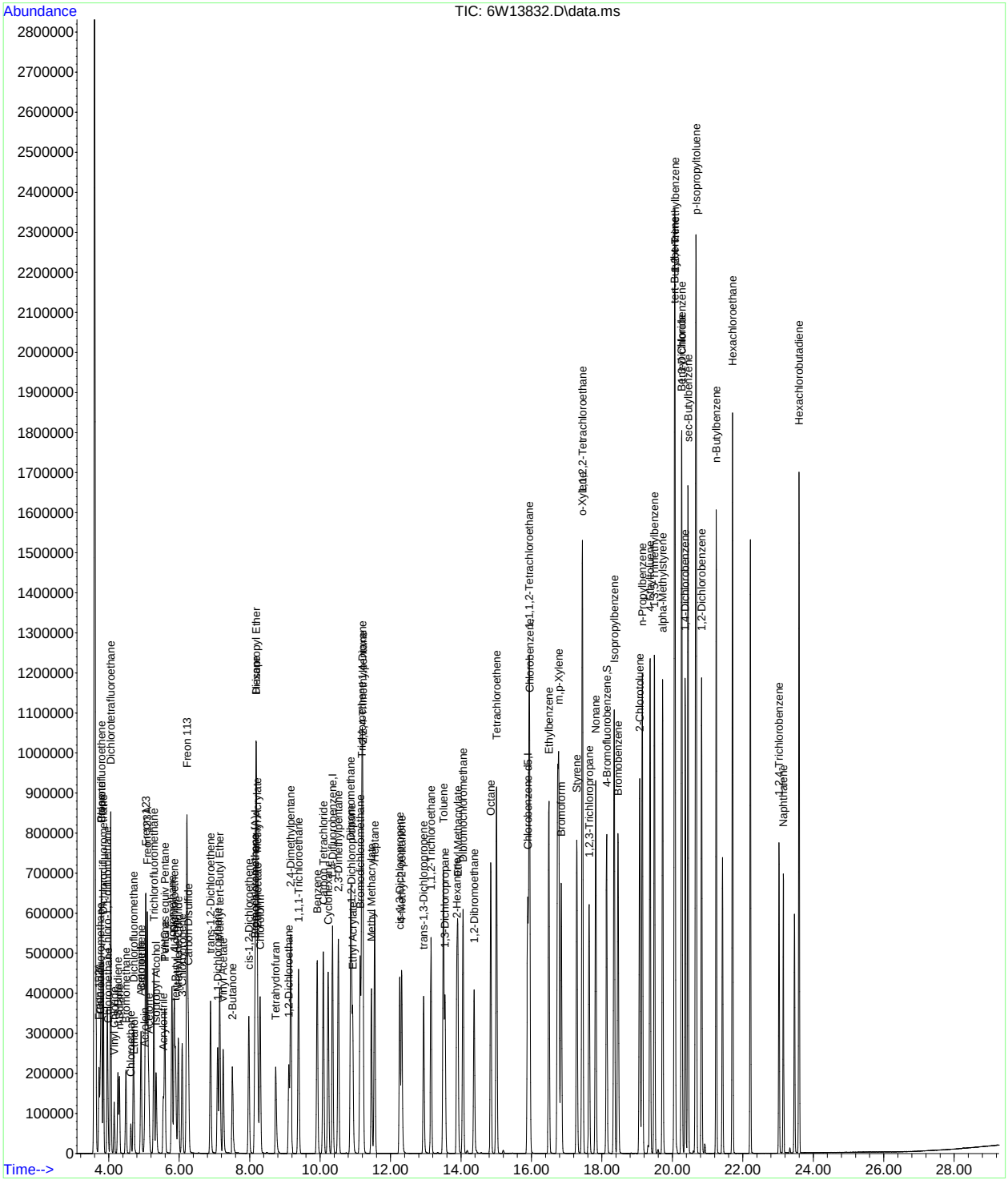
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57)	Heptane	11.548	71	205771	10.32	ppb(v	89
58)	Trichloroethene	11.180	95	262695	9.51	ppb(v	81
59)	1,2-Dichloropropane	10.893	63	203251	10.04	ppb(v	97
60)	Dibromomethane	10.868	174	305507	10.21	ppb(v#	64
61)	Ethyl Acrylate	10.930	55	413482	11.04	ppb(v#	93
62)	Methyl Methacrylate	11.456	69	223731	10.91	ppb(v#	72
63)	1,4-Dioxane	11.199	88	135561	8.70	ppb(v#	65
64)	Bromodichloromethane	11.138	83	416629	10.20	ppb(v	98
65)	cis-1,3-Dichloropropene	12.263	75	356662	11.49	ppb(v#	92
66)	4-Methyl-2-pentanone	12.312	58	170736	10.81	ppb(v#	72
67)	trans-1,3-Dichloropropene	12.936	75	303440	11.55	ppb(v#	91
68)	Toluene	13.499	91	713349	9.62	ppb(v	97
69)	1,1,2-Trichloroethane	13.150	97	244209	10.34	ppb(v	92
70)	1,3-Dichloropropane	13.542	76	331085	10.34	ppb(v#	82
71)	2-Hexanone	13.878	58	230327	10.06	ppb(v#	77
72)	Ethyl Methacrylate	13.909	69	356793	10.74	ppb(v#	92
73)	Dibromochloromethane	14.056	129	466826	10.58	ppb(v#	99
74)	Tetrachloroethene	15.010	166	415575	10.06	ppb(v	94
75)	1,2-Dibromoethane	14.374	107	387006	10.83	ppb(v	98
76)	Octane	14.845	43	385375	9.86	ppb(v#	75
77)	1,1,1,2-Tetrachloroethane	15.934	131	326725	9.99	ppb(v	97
79)	Chlorobenzene	15.952	112	593859	10.10	ppb(v	87
80)	Ethylbenzene	16.497	91	917235	9.61	ppb(v	94
81)	m,p-Xylene	16.772	91	1431311	18.89	ppb(v	94
82)	Styrene	17.286	104	595660	11.89	ppb(v	92
83)	Nonane	17.824	43	424412	10.48	ppb(v#	85
84)	o-Xylene	17.439	91	732296	9.43	ppb(v	94
85)	Bromoform	16.845	173	478203	10.41	ppb(v#	98
86)	1,1,2,2-Tetrachloroethane	17.445	83	515824	10.20	ppb(v#	98
87)	1,2,3-Trichloropropane	17.641	75	384517	10.42	ppb(v	90
88)	Isopropylbenzene	18.350	105	1104755	10.24	ppb(v	93
89)	Bromobenzene	18.461	156	384392	11.53	ppb(v#	69
90)	2-Chlorotoluene	19.072	126	273302	11.03	ppb(v#	71
91)	n-Propylbenzene	19.146	120	312708	11.40	ppb(v	67
93)	4-Ethyltoluene	19.372	105	1061817	11.28	ppb(v	95
94)	1,3,5-Trimethylbenzene	19.488	105	902219	10.78	ppb(v	94
95)	alpha-Methylstyrene	19.721	118	483355	12.49	ppb(v	97
96)	tert-Butylbenzene	20.063	134	230658	11.13	ppb(v	79
97)	1,2,4-Trimethylbenzene	20.076	105	908054	11.27	ppb(v	88
98)	1,3-Dichlorobenzene	20.265	146	641784	12.68	ppb(v#	91
99)	Benzyl Chloride	20.259	91	694858	13.34	ppb(v	93
100)	1,4-Dichlorobenzene	20.363	146	636519	12.90	ppb(v#	92
101)	sec-Butylbenzene	20.449	134	296733	11.32	ppb(v	73
102)	p-Isopropyltoluene	20.675	134	322158	11.60	ppb(v	89
103)	1,2-Dichlorobenzene	20.828	146	607869	12.19	ppb(v#	93
104)	n-Butylbenzene	21.244	134	286229	12.57	ppb(v	66
105)	Hexachloroethane	21.709	201	385740	11.83	ppb(v	72
106)	1,2,4-Trichlorobenzene	23.024	180	269518	12.73	ppb(v	99
107)	Naphthalene	23.147	128	588789	12.93	ppb(v	100
108)	Hexachlorobutadiene	23.593	225	357859	9.74	ppb(v	98
110)	TVHC as equiv Pentane	5.589	TIC	1096095	10.50	ppb(v	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W13832.D
Acq On : 13 Sep 2019 8:27 pm
Operator : thomash
Sample : icv571-10
Misc : MS37187,V6W571,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 17 10:40:07 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W14958.D
Acq On : 26 Nov 2019 9:47 am
Operator : thomash
Sample : cc571-10
Misc : MS39338,V6W623,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 14:21:37 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.146	130	146316	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.342	114	537314	10.00	ppb(v	#-0.01
78) Chlorobenzene-d5	15.879	82	238121	10.00	ppb(v	#-0.01
109) Bromochloromethane (A)	8.146	130	146316	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.124	95	321993	10.65	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 106.50%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	85317	9.05	ppb(v	99
4) Chlorodifluoromethane	3.766	67	41513	11.21	ppb(v	98
5) Propene	3.790	41	89604	8.66	ppb(v	96
6) Chlorotrifluoroethene	3.796	116	246477	9.48	ppb(v	94
7) Dichlorodifluoromethane	3.851	85	431987	10.39	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.962	65	321654	11.67	ppb(v	98
9) Chloromethane	3.980	50	104822	10.38	ppb(v	99
10) Dichlorotetrafluoroethane	4.053	85	416654	10.63	ppb(v	89
11) Vinyl Chloride	4.157	62	131435	10.42	ppb(v#	99
12) 1,3-Butadiene	4.267	54	90885	10.50	ppb(v	99
13) n-Butane	4.304	58	23686	10.97	ppb(v	83
14) Bromomethane	4.488	94	147813	10.69	ppb(v	98
15) Acrolein	5.020	56	48314	8.01	ppb(v#	95
16) Chloroethane	4.628	64	66514	10.82	ppb(v	99
17) Dichlorofluoromethane	4.702	67	320387	11.12	ppb(v	99
18) Acetonitrile	4.910	41	81056	6.76	ppb(v	98
19) Freon 123	5.044	83	338970	9.33	ppb(v	98
20) Freon 123A	5.093	117	225115	9.89	ppb(v	73
21) Bromoethene	4.922	106	150291	9.83	ppb(v	99
22) Trichlorofluoromethane	5.277	101	437266	10.90	ppb(v	99
23) Acetone	5.130	58	56836	7.67	ppb(v	99
24) Pentane	5.589	57	32979	8.91	ppb(v	83
26) Iodomethane	5.791	142	478101	9.58	ppb(v	93
27) Isopropyl Alcohol	5.344	45	211742	7.54	ppb(v	95
28) 1,1-Dichloroethene	5.858	61	228270	9.79	ppb(v	87
29) Freon 113	6.213	101	347357	9.86	ppb(v	85
30) Methylene Chloride	5.974	84	136213	8.20	ppb(v	80
31) Carbon Disulfide	6.256	76	404009	9.33	ppb(v	99
32) Ethanol	4.720	45	43721	10.62	ppb(v	97
33) Acrylonitrile	5.546	53	93870	8.39	ppb(v	98
34) 3-Chloropropene	6.078	76	72172	9.86	ppb(v	67
35) trans-1,2-Dichloroethene	6.886	61	200078	10.01	ppb(v	86
36) tert-Butyl Alcohol	5.895	59	311846	9.71	ppb(v	97
37) Methyl tert-Butyl Ether	7.143	73	444309	10.12	ppb(v	92
38) Vinyl Acetate	7.241	43	334642	9.07	ppb(v#	92
39) 1,1-Dichloroethane	7.088	63	250840	9.45	ppb(v	99
40) 2-Butanone	7.504	72	68400	9.42	ppb(v	60
41) Hexane	8.177	57	208148	9.58	ppb(v	89
42) cis-1,2-Dichloroethene	7.969	61	194234	10.12	ppb(v	87
43) Di-isopropyl Ether	8.183	87	141839	10.22	ppb(v#	45
44) Ethyl Acetate	8.220	61	42271	9.75	ppb(v	71
45) Methyl Acrylate	8.207	55	245359	9.79	ppb(v#	93
46) Chloroform	8.287	83	338911	10.54	ppb(v	99
47) 2,4-Dimethylpentane	9.156	57	247283	9.62	ppb(v#	93
48) Tetrahydrofuran	8.740	72	70054	10.01	ppb(v	75
49) 1,1,1-Trichloroethane	9.382	97	355602	11.11	ppb(v	98
50) 1,2-Dichloroethane	9.107	62	202170	11.16	ppb(v	98
51) Benzene	9.908	78	461390	9.20	ppb(v	96
52) Carbon Tetrachloride	10.079	117	391248	11.55	ppb(v	95
53) Cyclohexane	10.220	56	212606	9.56	ppb(v#	81
54) 2,3-Dimethylpentane	10.508	71	102161	9.76	ppb(v	74
56) 2,2,4-Trimethylpentane	11.199	57	703923	9.49	ppb(v#	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W14958.D
Acq On : 26 Nov 2019 9:47 am
Operator : thomash
Sample : cc571-10
Misc : MS39338,V6W623,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 14:21:37 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration

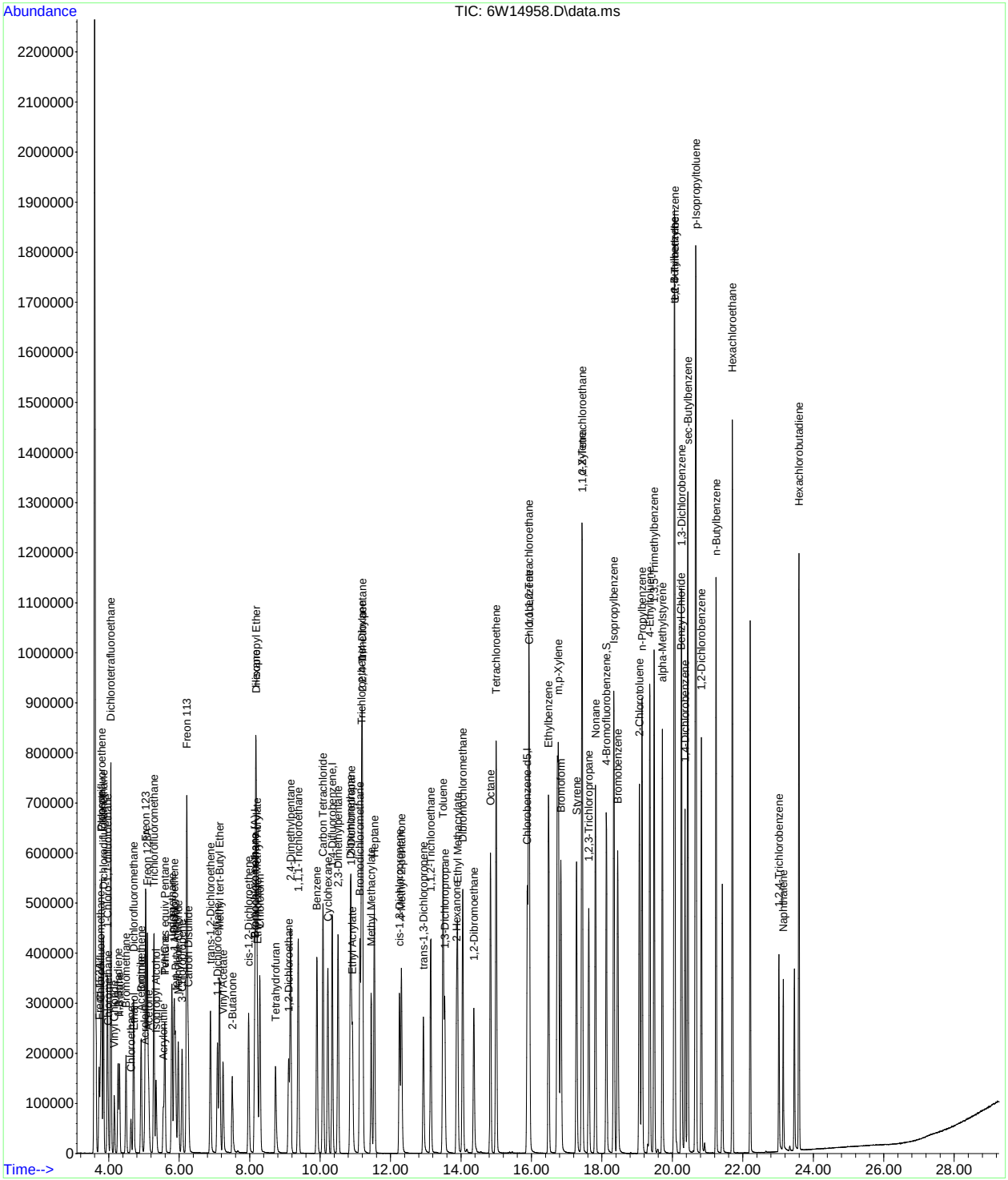
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.541	71	163900	9.87	ppb(v	87
58) Trichloroethene	11.174	95	222233	9.66	ppb(v	81
59) 1,2-Dichloropropane	10.881	63	156701	9.30	ppb(v	91
60) Dibromomethane	10.856	174	243414	9.77	ppb(v#	68
61) Ethyl Acrylate	10.917	55	291525	9.35	ppb(v#	92
62) Methyl Methacrylate	11.450	69	171213	10.02	ppb(v	71
63) 1,4-Dioxane	11.193	88	106343	8.19	ppb(v	71
64) Bromodichloromethane	11.125	83	364992	10.73	ppb(v	97
65) cis-1,3-Dichloropropene	12.251	75	257122	9.94	ppb(v	93
66) 4-Methyl-2-pentanone	12.306	58	128164	9.75	ppb(v#	72
67) trans-1,3-Dichloropropene	12.930	75	223235	10.20	ppb(v#	92
68) Toluene	13.487	91	577250	9.35	ppb(v	97
69) 1,1,2-Trichloroethane	13.144	97	193620	9.84	ppb(v	92
70) 1,3-Dichloropropane	13.536	76	258225	9.68	ppb(v#	85
71) 2-Hexanone	13.872	58	155154	8.13	ppb(v#	80
72) Ethyl Methacrylate	13.903	69	270843	9.78	ppb(v#	91
73) Dibromochloromethane	14.050	129	404006	10.99	ppb(v#	99
74) Tetrachloroethene	14.998	166	355790	10.34	ppb(v	94
75) 1,2-Dibromoethane	14.368	107	290854	9.77	ppb(v	100
76) Octane	14.839	43	305849	9.40	ppb(v#	72
77) 1,1,1,2-Tetrachloroethane	15.922	131	285134	10.47	ppb(v	98
79) Chlorobenzene	15.940	112	460159	9.18	ppb(v	89
80) Ethylbenzene	16.485	91	732836	9.01	ppb(v	94
81) m,p-Xylene	16.760	91	1233282	19.08	ppb(v	95
82) Styrene	17.280	104	427814	10.02	ppb(v	93
83) Nonane	17.818	43	322534	9.33	ppb(v#	84
84) o-Xylene	17.433	91	608454	9.19	ppb(v	95
85) Bromoform	16.833	173	405831	10.36	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.439	83	397473	9.22	ppb(v#	97
87) 1,2,3-Trichloropropane	17.629	75	295685	9.39	ppb(v	89
88) Isopropylbenzene	18.338	105	889437	9.67	ppb(v	94
89) Bromobenzene	18.448	156	286530	10.08	ppb(v#	71
90) 2-Chlorotoluene	19.066	126	213220	10.09	ppb(v	72
91) n-Propylbenzene	19.140	120	239148	10.22	ppb(v	65
93) 4-Ethyltoluene	19.360	105	786146	9.79	ppb(v	96
94) 1,3,5-Trimethylbenzene	19.482	105	706439	9.90	ppb(v	95
95) alpha-Methylstyrene	19.715	118	336348	10.19	ppb(v	96
96) tert-Butylbenzene	20.057	134	182258	10.31	ppb(v	87
97) 1,2,4-Trimethylbenzene	20.070	105	703796	10.24	ppb(v	88
98) 1,3-Dichlorobenzene	20.259	146	406493	9.42	ppb(v	93
99) Benzyl Chloride	20.247	91	419641	9.45	ppb(v	94
100) 1,4-Dichlorobenzene	20.357	146	383381	9.11	ppb(v	93
101) sec-Butylbenzene	20.443	134	229236	10.26	ppb(v	75
102) p-Isopropyltoluene	20.669	134	246908	10.42	ppb(v	89
103) 1,2-Dichlorobenzene	20.822	146	418002	9.83	ppb(v	94
104) n-Butylbenzene	21.244	134	203634	10.48	ppb(v	62
105) Hexachloroethane	21.703	201	302486	10.87	ppb(v	75
106) 1,2,4-Trichlorobenzene	23.024	180	150889	8.35	ppb(v	98
107) Naphthalene	23.147	128	301248	7.76	ppb(v	99
108) Hexachlorobutadiene	23.593	225	252316	8.06	ppb(v	98
110) TVHC as equiv Pentane	5.589	TIC	766276	8.78	ppb(v	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W14958.D
Acq On : 26 Nov 2019 9:47 am
Operator : thomash
Sample : cc571-10
Misc : MS39338,V6W623,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 14:21:37 2019
Quant Method : C:\msdchem\1\methods\m6w571.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Sep 17 10:39:34 2019
Response via : Initial Calibration



TO-15

Batch ID: V5W1620

Date: 12/23/19

Analyst Signature:

Columns: RTX-1 - 60m x 0.32mm x 1.0µm

Method: SW-TO15

Seq. File: 20191223.S

Initial Cal. Method: mV5W1620

AS Data

Method: TO15(CTD)

Standard Data

Lot #	Description	Conc.
AS8459	Int/Surr	100 ppbV
AS8690	TO15 Std (A971)	40 ppbV
AS8691	TO15 Std (A964)	0.4 ppbV
AS8692	TO15 Std (A981)	1.0 ppbV

Standard Data

Lot #	Description	Conc.
AS8669	TO15 LCS (A965)	40 ppbV

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the crite of SGS SOP EQA044.

Supervisor Signature: Date: 12/30/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	SW39818	BFB								not used	
2	SW39819	IC1620-0.2		A981	80					not used	
2	SW39820	IC1620-0.5		A981	200			✓	✓	not used	
2	SW39821	IC1620-0.2 BFB		A981	80			✓	✓	OK	4 hrs
1	SW39822	IC1620-0.1		A964	100			✓	✓	OK	
1	SW39823	IC1620-0.04		A964	40			✓	✓	OK	
3	SW39824	IC1620-5		A971	50		1	✓	✓	OK	
3	SW39825	IC1620-10		A971	100			✓	✓	OK	
3	SW39826	IC1620-20		A971	200			✓	✓	OK	
3	SW39827	IC1620-40		A971	400			✓	✓	OK	
4	SW39828	IC3		A962	100						
2	SW39829	IC1620-0.5		A981	200					rr	end compounds high
2	SW39830	IC1620-0.2		A981	80					rr	
2	SW39831	IC1620-0.5		A981	200			✓	✓	OK	
2	SW39832	IC1620-0.2		A981	80			✓	✓	OK	
2	SW39833	IC1620-10		A965	100			✓	✓	OK	

12/24/19

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

TO-15

Batch ID: V5W1621

Date: 12/24/19

Analyst Signature:

Columns: RTX1-60mx0.32mmx1.0

Method: SWTO15

Seq. File: 20191224.S

Initial Cal. Method: MSW1620

AS Data

Method: TO15:CTD3

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS8459	Int/Surr	100 ppbV
AS8690	TO15 Std (A971)	40 ppbV

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the cri of SGS SOP EQA044.

Supervisor Signature: Date: 12/27/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Commen
1	SW39834	BFB		Open	400					OK	time 1153
2	SW39835	CCV1620-10		A971	100					OK	
3	SW39836	BS		A971	100					OK	
4	SW39837	BSD		A971	100					OK	
4	SW39838	IB		A962	100						
4	SW39839	MB		A962	400					not integ	
4	SW39840	MB		A962	400					OK	
5	SW39841	JD235-4	VTO15MCP	M117	100	1				OK	
5	SW39842	JD235-4dup	MS39818	M117	100	1				OK	
6	SW39843	JD235-5		M167	148	1.48				OK	
7	SW39844	JD235-6		A900	100	1				OK	
8	SW39845	JD235-7		A671	158	1.58				OK	5x 20mL, acetone
9	SW39846	JD235-1		M165	400	1				OK	
10	SW39847	JD235-2		A1066	400	1				OK	
11	SW39848	JD235-3		A293	400	1				OK	
12	SW39849	JD234-2	VTO15MCP	A859	500	1				OK	2x4Y, acetone
13	SW39850	JD234-4	MS39834	M033	500	1				OK	2x4Y, acetone
14	SW39851	JD234-5		A631	500	1				OK	
15	SW39852	JD234-1	VTO15MCP	A733	~~592~~	1.48				OK	
16	SW39853	JD234-3		A330	400	1				OK	
1	SW39854	JD236-3	VTO15MCP	A635	100	1				OK	
2	SW39855	JD236-4	MS39818	A854	100	1				OK	
3	SW39856	JD236-1		A221	400	1				OK	
4	SW39857	JD236-2		A215	400	1				OK	
	SW39858										

12/26/19

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

TO-15

Batch ID: V5W1622

Date: 12/26/19

Analyst Signature:

Columns: RTX-624 60mx0.32mmID 1.8µm

Method: SUTO15

Seq. File: 20191226.s

Initial Cal. Method: IWSW1620

AS Data

Method: TO15.CFDS

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS8459	Fnt/Surr	100 ppbv
AS8490	TO15 Std (A971)	40 ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the crit of SGS SOP EQA044.

Supervisor Signature: Date: 12/30/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comment
1	SW39858	BFB		Open	400					OK	film 931
2	SW39859	CC1620-03		A971	100					OK	
2	SW39860	BS		A971	100					OK	
2	SW39861	BSD		A971	100					OK	
3	SW39862	MB		A962	100						
3	SW39863	MB		A962	400						
3	SW39864	MB		A962	400		L			OK	
4	SW39865	JD235-4	TO15SIM MS40015	A674	100	1				OK	
5	SW39866	JD235-7	TO15SIM MS39818	A971	20	1.58				OK/a	
6	SW39867	JD234-2		A839	100	1				OK/a	
7	SW39868	JD234-9		A933	100	1				OK/a	
8	SW39869	JD398-1	TO15SIM	A829	500	1				OK	
8	SW39870	JD398-1dup	MS39917	A829	500	1				No/ran bad purge	
9	SW39871	JD398-2		A837	500	1				OK	
10	SW39872	JD398-3		A879	500	1				OK	
11	SW39873	JD398-4		A951	740	1.48				OK	
12	SW39874	JD398-5		A985	775	1.55				OK	
13	SW39875	JD398-6		A1112	500	1				OK	
14	SW39876	JD398-7		A824	500	1				OK	
15	SW39877	JD398-8		A955	740	1.48				OK	
16	SW39878	JD398-9		A1091	775	1.55				OK	
1	SW39879	JD398-10		A1161	825	1.65				OK	
2	SW39880	JD400-1		A1075	775	1.55				OK	
3	SW39881	JD400-2		A878	500	1				OK	
4	SW39882	JD400-3		A739	790	1.58				OK	RL4X, MEK4
5	SW39883	JD400-4		M224	790	1.58				OK	RL4X, MEK4
6	SW39884	JD400-5		A650	500	1				OK	
7	SW39885	JD400-6		A1065	500	1				Not run	

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

SGS

TO-15

Batch ID: V5W1623

Date: 12/27/19

Analyst Signature: [signature]

Columns: RTX 60m x 0.32mm x 1.0µ

Method: V5T015

Seq. File: 20191227.S

Initial Cal. Method: M5W1620

AS Data

Method: T015.CJD3

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A58459	Int/Surr.	100 ppbv
A58690	TO15 STD (A971)	40 ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the cri of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 12/30/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Commen
1	5W39885	BFB		open	400					ok	
2	5W39886	cc1620-10		A971	100			✓	✓	ok	
2	5W39887	BS		A971	100			✓	✓	ok	
2	5W39888	BSD		A971	100			✓	✓	ok	
3	5W39889	IB		A962	100						
3	5W39890	IB		A962	100						
3	5W39891	MB		A962	400		I	✓	✓	ok	
4	5W39892	JD398-1dup		14829	500	1		✓	✓	ok	for V5W1622
5	5W39893	JD928-1	V-TO15SL	TBAG	20	1		✓	✓	ok/a	M 8ox, con
5	5W39894	JD928-1dup	MS10163	TBAG	20	1		✓	✓	ok	
3	5W39895	IB		A962	100	1					
85	5W39896	JD928-1		TBAG	5	1		✓	✓	ok/a	
3	5W39897	IB		A962							
6	5W39898	JD928-2		TBAG, TBAG	100	500		✓	✓	ok	
3	5W39899	IB		A962	100	1					
7	5W39900	JD928-3	↓	TBAG, TBAG	40	1000		✓	✓	ok	
3	5W39901	IB		A962	100						
8	5W39902	JD400-3	V-TO15NY	A778							

[redacted]

Canister Secondary Dilution Log

Test Gauge ID : TG-

			Original Canister Dilution				Secondary Canister Dilution						
Date	Initials	SGS Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
12/27/19	DF	JD0928-1	2.1TDAG	NA	NA	1	TDAG	1mL	→500mL	for 500		X	
12/27/19	DF	JD0928-3	TDAG	NA	NA	1	TDAG	0.5mL	→500mL	for 1000		X	

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

SGS

TO-15

Batch ID: V6W571

Date: 9/13/19

Analyst Signature: [signature]

Columns: RTX-1 60m x 0.32mm x 1.0u
Method: 6WTO15
Seq. File: 6W20190913.S
Initial Cal. Method: MBW56A.M TH 9/13/19 MBW571.M

AS Data

Method: TO15.CTD3

Standard Data

Lot #	Description	Conc.
AS8590	TO15 LCS (A965)	40ppbv

Standard Data

Lot #	Description	Conc.
AS8458	int /surr.	10ppbv
AS8596	TO15 STD (A964)	0.4ppbv
AS8589	TO15 STD (A971)	10ppbv
AS8593	TO15 STD (A977)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the cri of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 9/18/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Commen
1	6W13821	BFB		A964	40					ok	
1	6W13822	IC571-0.2		A964	200					ok	
1	6W13823	IC571-0.1		A964	100			✓	✓	ok	
1	6W13824	IC571-0.04		A964	40			✓	✓	ok	
2	6W13825	IC571-0.5		A971	20			✓	✓	ok	
3	6W13826	IC571-5		A977	50			✓	✓	ok	
3	6W13827	ICC571-10		A977	100			✓	✓	ok	
3	6W13828	IC571-20		A977	200		L	✓	✓	ok	
4	6W13829	IB		A963	100			✓	✓	ok	
3	6W13830	IC571-40		A977	400					—	
4	6W13831	IB		A963	100			✓	✓	ok	
5	6W13832	ICV571-10		A965	100					—	
								✓	✓	ok	benzyl chloride fail high

TH 9/16/19

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

TO-15

Batch ID: V6W623

Date: 11/26/19

Analyst Signature:

Columns: RTX-1 60m x 0.32mm x 1um

Method: 6WT015

Seq. File: 6W20191126.S

Initial Cal. Method: M6WS71.M

AS Data

Method: 7015. CFD3

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS8452	Inf/Surr.	100ppbv
AS9634	T615 STD (A968)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the crit of SGS SOP EQA044.

Supervisor Signature: Date: 11/27/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comment
1	6w14957	BFB		open flow	400					OK	
2	6w14958	CC571-10		A968	100			✓	✓	OK	
2	6w14959	BS		A968	100			✓	✓	OK	
2	6w14960	BSD		A968	100			✓	✓	OK	
3	6w14961	IB		A963	100					—	
3	6w14962	MB		A963	400			✓	✓	OK	
4	6w14963	JC98896-6	STD MS97371	A1067	50	1.75		✓	✓	OK/DL	
5	6w14964	JC98896-7	✓	A368	80	1.58		✓	✓	OK/DL	
6	6w14965	SCC CP10584		M266	400			✓	✓	NG	reclean
7	6w14966	SCC CP10592		A639	400			✓	✓	OK	
8	6w14967	JC99157-1	STD MS97428	A181	400	1		✓	✓	OK/DL	over cal PR 40mL
8	6w14968	JC99157-1DUP	✓	A181	400	1		✓	✓	OK	
9	6w14969	JC99157-2	✓	M224	400	1		✓	✓	OK	
10	6w14970	JC99157-3	✓	A650	400	1		✓	✓	OK	
11	6w14971	JC99157-4	✓	A1170	400	1		✓	✓	OK	
12	6w14972	JC99157-5	✓	A892	400	1		✓	✓	OK/DL	acetone ↑ PR 40mL
13	6w14973	JC99157-6	✓	A023	400	1		✓	✓	OK/DL	acetone ↑ PR 40mL
14	6w14974	JC99157-1	STD MS97428	A570	100	1		✓	✓	OK	
15	6w14975	JC99157-2	✓	A405	100	1		✓	✓	OK	
16	6w14976	JC99157-3	✓	A578	152	1.5 TH		✓	✓	OK	
1	6w14977	JC99157-4	✓	A712	100	1		✓	✓	OK/DL	DF=1.52 acetone ↑ PR 40mL
4	6w14978	JC99157-5	✓	A613	100	1		✓	✓	OK	
5	6w14979	IB		M235	100			✓	✓	OK	
5	6w14980	SCC CP10601		M235	400					—	
								✓	✓	OK	

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Groundwater & Environmental Services

Orangetown Shopping Center, Orangeburg, NY

PSID#804310

SGS Job Number: JD4440

Sampling Date: 03/10/20

Report to:

Groundwater & Environmental Services
63 East Street Suite 3
Pawling, NY 12564
MDeGloria@GESOnline.com; jthomas@gesonline.com;
neregion@gesonline.com
ATTN: Michael DeGloria

Total number of pages in report: **857**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Laura Degenhardt
General Manager

Client Service contact: Beth Wasserman 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

Groundwater & Environmental Services

Job No: JD4440

Orangetown Shopping Center, Orangeburg, NY
Project No: PSID#804310

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the RL							
JD4440-1	03/10/20	12:20	LW	03/11/20	AQ	Ground Water	MW-3
JD4440-2	03/10/20	10:30	LW	03/11/20	AQ	Ground Water	MW-4
JD4440-2D	03/10/20	10:30	LW	03/11/20	AQ	Water Dup/MSD	MW-MSD
JD4440-2S	03/10/20	10:30	LW	03/11/20	AQ	Water Matrix Spike	MW-MS
JD4440-3	03/10/20	13:00	LW	03/11/20	AQ	Ground Water	MW-5
JD4440-4	03/10/20	09:45	LW	03/11/20	AQ	Ground Water	MW-8A
JD4440-5	03/10/20	11:30	LW	03/11/20	AQ	Ground Water	MW-E
JD4440-6	03/10/20	08:00	LW	03/11/20	AQ	Ground Water	DUPLICATE
JD4440-7	03/10/20	13:15	LW	03/11/20	AQ	Field Blank Water	FIELD BLANK
JD4440-8	03/10/20	13:30	LW	03/11/20	AQ	Equipment Blank	EQUIPMENT BLANK
JD4440-9	03/10/20	13:30	LW	03/11/20	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Groundwater & Environmental Services	**Job No**	JD4440
Site:	Orangetown Shopping Center, Orangeburg, NY	**Report Date**	3/30/2020 12:05:34 P

On 03/11/2020, 7 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD4440 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2A8715

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD4440-2MS, JD4440-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** V2A8717

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4440-4MS, JD4440-5DUP were used as the QC samples indicated.
- RPD(s) for Duplicate for cis-1,2-Dichloroethene, Vinyl chloride are outside control limits for sample JD4440-5DUP. RPD acceptable due to low DUP and sample concentrations.
- JD4440-6 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD4440-4 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD4440-5 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V2A8720

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD4593-8MS, JD4593-9DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

GC Volatiles By Method RSK-175

Matrix: AQ **Batch ID:** GAA1968

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD4404-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** GAA1969

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4478-2DUP were used as the QC samples indicated.
- JD4440-4 for Ethene: Associated CCV outside of control limits high, sample was ND.
- JD4440-5 for Ethene: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** GAA1970

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4588-1DUP were used as the QC samples indicated.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP20209

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4404-5MS, JD4404-5MSD, JD4404-5SDL were used as the QC samples for metals.

Matrix: AQ **Batch ID:** MP20259

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4572-3MS, JD4572-3MSD, JD4572-3SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Iron are outside control limits for sample MP20259-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP27253

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4404-2DUP, JD4404-2MS were used as the QC samples for Sulfate.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP27339

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4422-5DUP, JD4422-5MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.
- Matrix Spike Recovery(s) for Nitrogen, Nitrate + Nitrite are outside control limits. Spike recovery indicates possible matrix interference.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R184529

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD4440-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R184530

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD4440-2 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R184531

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD4440-3 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R184532

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD4440-4 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R184533

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD4440-5 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM3500FE B-11

Matrix: AQ **Batch ID:** GN6591

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4342-1MS, JD4342-1MSD were used as the QC samples for Iron, Ferrous.
- JD4440-4 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JD4440-1 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JD4440-5 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JD4440-3 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JD4440-2 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.

Matrix: AQ **Batch ID:** R184496

- The data for SM3500FE B-11 meets quality control requirements.
- JD4440-3 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

Matrix: AQ **Batch ID:** R184497

- The data for SM3500FE B-11 meets quality control requirements.
- JD4440-1 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

Matrix: AQ **Batch ID:** R184498

- The data for SM3500FE B-11 meets quality control requirements.
- JD4440-2 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

Matrix: AQ **Batch ID:** R184499

- The data for SM3500FE B-11 meets quality control requirements.
- JD4440-4 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

Matrix: AQ **Batch ID:** R184500

- The data for SM3500FE B-11 meets quality control requirements.
- JD4440-5 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

General Chemistry By Method SM4500NO2 B-11

Matrix:	AQ	Batch ID:	GN6168

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4478-2MS, JD4478-2MSD were used as the QC samples for Nitrogen, Nitrite.

General Chemistry By Method SM5310 B-11

Matrix:	AQ	Batch ID:	GP27315

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4956-1MS, JD4956-1MSD were used as the QC samples for Total Organic Carbon.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD4440
Account: Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Collected: 03/10/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD4440-1	**MW-3**					
cis-1,2-Dichloroethene		1.5	1.0		ug/l	SW846 8260C
Vinyl chloride		2.0	1.0		ug/l	SW846 8260C
Iron		16200	100		ug/l	SW846 6010D
Iron, Ferric [a]		16.2	0.30		mg/l	SM3500FE B-11
Nitrogen, Nitrate [b]		0.19	0.11		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		0.19	0.10		mg/l	EPA 353.2/LACHAT
Sulfate		23.4	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon		14.0	1.0		mg/l	SM5310 B-11
JD4440-2	**MW-4**					
cis-1,2-Dichloroethene		21.5	1.0		ug/l	SW846 8260C
Vinyl chloride		2.9	1.0		ug/l	SW846 8260C
Iron		6070	100		ug/l	SW846 6010D
Iron, Ferric [a]		6.1	0.30		mg/l	SM3500FE B-11
Sulfate		21.6	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon		4.9	1.0		mg/l	SM5310 B-11
JD4440-3	**MW-5**					
Chloroform		1.6	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethene		115	1.0		ug/l	SW846 8260C
trans-1,2-Dichloroethene		3.7	1.0		ug/l	SW846 8260C
Trichloroethene		8.2	1.0		ug/l	SW846 8260C
Vinyl chloride		33.7	1.0		ug/l	SW846 8260C
Ethene		7.1	0.31		ug/l	RSK-175
Iron		24800	100		ug/l	SW846 6010D
Iron, Ferric [a]		16.3	0.90		mg/l	SM3500FE B-11
Iron, Ferrous [c]		8.5	0.80		mg/l	SM3500FE B-11
Sulfate		14.0	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon		44.6	1.0		mg/l	SM5310 B-11
JD4440-4	**MW-8A**					
cis-1,2-Dichloroethene		2.7	1.0		ug/l	SW846 8260C
trans-1,2-Dichloroethene		1.1	1.0		ug/l	SW846 8260C
Trichloroethene		5.5	1.0		ug/l	SW846 8260C
Iron		10600	100		ug/l	SW846 6010D
Iron, Ferric [a]		10.6	0.30		mg/l	SM3500FE B-11
Nitrogen, Nitrate [b]		0.59	0.11		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		0.59	0.10		mg/l	EPA 353.2/LACHAT
Sulfate		12.1	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon		2.1	1.0		mg/l	SM5310 B-11

Summary of Hits

Job Number: JD4440
Account: Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Collected: 03/10/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD4440-5	**MW-E**					
cis-1,2-Dichloroethene		11.1	1.0		ug/l	SW846 8260C
Vinyl chloride		2.6	1.0		ug/l	SW846 8260C
Iron		1310000	5000		ug/l	SW846 6010D
Iron, Ferric [a]		1310	5.2		mg/l	SM3500FE B-11
Nitrogen, Nitrate [b]		179	5.0		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		179	5.0		mg/l	EPA 353.2/LACHAT
Sulfate		27.5	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon		7.1	1.0		mg/l	SM5310 B-11
JD4440-6	**DUPLICATE**					
cis-1,2-Dichloroethene		24.6	1.0		ug/l	SW846 8260C
Vinyl chloride		3.5	1.0		ug/l	SW846 8260C

JD4440-7 **FIELD BLANK**

No hits reported in this sample.

JD4440-8 **EQUIPMENT BLANK**

No hits reported in this sample.

JD4440-9 **TRIP BLANK**

No hits reported in this sample.

(a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
(c) Field analysis required. Received out of hold time and analyzed by request.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JD4440-1	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201362.D	1	03/12/20 10:49	ED	n/a	n/a	V2A8715
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JD4440-1	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	2.0	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JD4440-1	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	RSK-175	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA79755.D	1	03/21/20 15:39	PS	n/a	n/a	GAA1968
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JD4440-1	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	16200	100	ug/l	1	03/12/20	03/16/20	EAL	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA48411
(2) Prep QC Batch: MP20209

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JD4440-1	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric [a]	16.2	0.30	mg/l	1	03/24/20	JOO	SM3500FE B-11
Iron, Ferrous [b]	< 0.20	0.20	mg/l	1	03/24/20 13:00	JOO	SM3500FE B-11
Nitrogen, Nitrate [c]	0.19	0.11	mg/l	1	03/26/20 16:16	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.19	0.10	mg/l	1	03/26/20 16:16	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	03/11/20 22:32	EB	SM4500NO2 B-11
Sulfate	23.4	2.0	mg/l	1	03/22/20 18:42	JW	EPA 300/SW846 9056A
Total Organic Carbon	14.0	1.0	mg/l	1	03/25/20 20:39	CD	SM5310 B-11

(a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	JD4440-2	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201361.D	1	03/12/20 10:20	ED	n/a	n/a	V2A8715
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	21.5	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	JD4440-2	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	2.9	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	JD4440-2	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	RSK-175	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA79756.D	1	03/21/20 15:52	PS	n/a	n/a	GAA1968
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	JD4440-2	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	6070	100	ug/l	1	03/12/20	03/16/20	EAL	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA48411
(2) Prep QC Batch: MP20209

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	JD4440-2	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric [a]	6.1	0.30	mg/l	1	03/24/20	JOO	SM3500FE B-11
Iron, Ferrous [b]	< 0.20	0.20	mg/l	1	03/24/20 13:00	JOO	SM3500FE B-11
Nitrogen, Nitrate [c]	< 0.11	0.11	mg/l	1	03/26/20 16:17	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	03/26/20 16:17	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	03/11/20 22:32	EB	SM4500NO2 B-11
Sulfate	21.6	2.0	mg/l	1	03/22/20 19:06	JW	EPA 300/SW846 9056A
Total Organic Carbon	4.9	1.0	mg/l	1	03/25/20 20:50	CD	SM5310 B-11

(a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JD4440-3	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201363.D	1	03/12/20 11:18	ED	n/a	n/a	V2A8715
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	1.6	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	115	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.7	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JD4440-3	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	8.2	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	33.7	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JD4440-3	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	RSK-175	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA79790.D	1	03/23/20 08:18	PS	n/a	n/a	GAA1970
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	7.1	0.31	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JD4440-3	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	24800	100	ug/l	1	03/12/20	03/16/20	EAL	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA48411
(2) Prep QC Batch: MP20209

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JD4440-3	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric [a]	16.3	0.90	mg/l	1	03/24/20	JOO	SM3500FE B-11
Iron, Ferrous [b]	8.5	0.80	mg/l	4	03/24/20 13:00	JOO	SM3500FE B-11
Nitrogen, Nitrate [c]	< 0.11	0.11	mg/l	1	03/26/20 16:18	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	03/26/20 16:18	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	03/11/20 22:32	EB	SM4500NO2 B-11
Sulfate	14.0	2.0	mg/l	1	03/22/20 19:29	JW	EPA 300/SW846 9056A
Total Organic Carbon	44.6	1.0	mg/l	1	03/25/20 21:31	CD	SM5310 B-11

(a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-8A		
Lab Sample ID:	JD4440-4	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201391.D	1	03/13/20 10:30	ED	n/a	n/a	V2A8717
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.1	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8A		
Lab Sample ID:	JD4440-4	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	5.5	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-8A		
Lab Sample ID:	JD4440-4	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	RSK-175	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA79764.D	1	03/22/20 10:30	DFT	n/a	n/a	GAA1969
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene [a]	ND	0.31	ug/l	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8A		
Lab Sample ID:	JD4440-4	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	10600	100	ug/l	1	03/12/20	03/16/20	EAL	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA48411
(2) Prep QC Batch: MP20209

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8A		
Lab Sample ID:	JD4440-4	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric [a]	10.6	0.30	mg/l	1	03/24/20	JOO	SM3500FE B-11
Iron, Ferrous [b]	< 0.20	0.20	mg/l	1	03/24/20 13:00	JOO	SM3500FE B-11
Nitrogen, Nitrate [c]	0.59	0.11	mg/l	1	03/26/20 16:19	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.59	0.10	mg/l	1	03/26/20 16:19	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	03/11/20 22:32	EB	SM4500NO2 B-11
Sulfate	12.1	2.0	mg/l	1	03/22/20 19:53	JW	EPA 300/SW846 9056A
Total Organic Carbon	2.1	1.0	mg/l	1	03/25/20 21:42	CD	SM5310 B-11

(a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-E		
Lab Sample ID:	JD4440-5	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201389.D	1	03/13/20 09:32	ED	n/a	n/a	V2A8717
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	11.1	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-E		
Lab Sample ID:	JD4440-5	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	2.6	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW-E		
Lab Sample ID:	JD4440-5	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	RSK-175	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA79765.D	1	03/22/20 10:44	DFT	n/a	n/a	GAA1969
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene [a]	ND	0.31	ug/l	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-E		
Lab Sample ID:	JD4440-5	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1310000	5000	ug/l	1	03/16/20	03/18/20	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA48424
(2) Prep QC Batch: MP20259

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-E		
Lab Sample ID:	JD4440-5	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
		Percent Solids:	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric [a]	1310	5.2	mg/l	1	03/24/20	JOO	SM3500FE B-11
Iron, Ferrous [b]	< 0.20	0.20	mg/l	1	03/24/20 13:00	JOO	SM3500FE B-11
Nitrogen, Nitrate [c]	179	5.0	mg/l	1	03/26/20 16:41	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	179	5.0	mg/l	50	03/26/20 16:41	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	03/11/20 22:32	EB	SM4500NO2 B-11
Sulfate	27.5	2.0	mg/l	1	03/22/20 20:17	JW	EPA 300/SW846 9056A
Total Organic Carbon	7.1	1.0	mg/l	1	03/25/20 21:53	CD	SM5310 B-11

(a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	DUPLICATE		
Lab Sample ID:	JD4440-6	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201390.D	1	03/13/20 10:01	ED	n/a	n/a	V2A8717
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	24.6	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUPLICATE		
Lab Sample ID:	JD4440-6	**Date Sampled:**	03/10/20
Matrix:	AQ - Ground Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	3.5	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	JD4440-7	**Date Sampled:**	03/10/20
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201453.D	1	03/16/20 14:54	ED	n/a	n/a	V2A8720
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	JD4440-7	**Date Sampled:**	03/10/20
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK		
Lab Sample ID:	JD4440-8	**Date Sampled:**	03/10/20
Matrix:	AQ - Equipment Blank	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201454.D	1	03/16/20 15:22	ED	n/a	n/a	V2A8720
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK		
Lab Sample ID:	JD4440-8	**Date Sampled:**	03/10/20
Matrix:	AQ - Equipment Blank	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD4440-9	**Date Sampled:**	03/10/20
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A201455.D	1	03/16/20 15:51	ED	n/a	n/a	V2A8720
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD4440-9	**Date Sampled:**	03/10/20
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/11/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Orangetown Shopping Center, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

GW WFM WUEB WTB

E

CHAIN OF CUSTODY

Client: Urstadt Biddle Properties Inc.

PAGE 1 OF 1

FED-EX Tracking # 1215 6029 - 8211, -8222 | Bottle Order Control #

Lab Quote # GESNUYP67108 | Lab Job # JD4440

CLIENT/REPORTING INFORMATION	PROJECT INFORMATION	INVOICE INFORMATION
Groundwater & Environmental Services, Inc. 16 Mount Ebo Rd South, Brewster, NY 10509 **Project Manager:** Michael DeGloria **Phone #:** 866-839-5195 PM Email: fax **MDeGloria@gesonline.com** **866-902-2187**	**Project Name:** Urstadt - Orangetown Shopping Center/Sparkle Cleaners **Project Address:** 1-45 Orangetown Shopping Ctr, Orangeburg, NY **Project PSID #:** 804310	Groundwater & Environmental Services, Inc. ges-invoices@gesonline.com ATTN: Accounts Payable **Invoice Instructions (Project #/ Phase / Task / Altorg)** 112707-06-206-1111 Contract #11905-00

Sampler(s) Name: Chris Walker

Report to NERegion@gesonline.com

Lab Sample #	Field ID / Point of Collection (Sys_loc_code)	Depth Interval (ft)	Date Sampled	Time Sampled	Sampler	Matrix	Total # Bottles	number of preserved bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Amber	REQUESTED ANALYSIS: V8260TCL20	V RSK175 ETHENE	TOC - Total Organic Carbon	XNO3O - Nitrate	SO4 - Sulfate	XFE3 - Ferric Iron, Ferrous, Total, FE			LAB USE ONLY
1	MW-3		3-10-20	1220	CW	WG	12	x		x	x	x					X	X	X	X	X	X			
2	MW-4			1030	CW	WG	12	x		x	x	x					X	X	X	X	X	X			
3	MW-5			1300	CW	WG	12	x		x	x	x					X	X	X	X	X	X			
4	MW-8A			0915	CW	WG	12	x		x	x	x					X	X	X	X	X	X			
5	MW-E			1130	CW	WG	12	x		x	x	x					X	X	X	X	X	X			
7	MW-MS			1030	CW	WG	3										X								
8	MW-MSD			1030	CW	WG	3										X								
6	Duplicate			0800	CW	WG	3										X								
7	Field Blank			1315	CW	WG	2 → CW										X								
8	Equipment Blank		↓	1330	CW	WG	2 → CW										X								
9	Trip Blank		LAB	LAB	LAB	WG	2										X								

A320 C380 67 E3 V121

Turnaround Time (Business Days) **Approved By (Lab PM) / Date**

- [x] Standard 14 Days
- [ ] 1 day RUSH
- [ ] Other

Laboratory Information

Lab: SGS - Accutest
Address: 2235 Route 130, Dayton, NJ08810
Phone: 732-329-0200
Lab PM: Beth Wasserman
Lab PM Email: Beth.Wasserman@sgs.com

Data Deliverable Information

- [ ] Commercial 'A' (Level 1) = Results Only
- [ ] Commercial 'B" (Level 2) = Results + QC Summary
- [ ] FULLT1 (Level 3 & 4)
- [ ] NJ Reduced = Results + QC Summary + Partial Raw Data
- [ ] Commercial 'C'
- [ ] *NJ Data of Known Quality Protocol Reporting*
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [x] EDD Format _____
- [x] Other _____

Initial Assessment 3B

Label Verification _____

ALL SAMPLES RECEIVED PRESERVED AS APPLICABLE

Please Email the EQ EDD Package to ges@equisonline.com

EQEDD Name: Urstadt - Orangetown Shopping Center/Sparkle Cleaners_LabReport#.20454.EQEDD.zip

Sample custody must be documented below each time samples change possession, including courier.

	Relinquished By: Sampler	Date / Time:	Received By:
1	Chris Walker	3-10-20	FED-EX
2		10:30	
3			

	Relinquished By:	Date / Time:	Received By:
1			
2		3/11/20	
3			

Custody Seal Number: [x] Intact [ ] Not Intact

[ ] Preserved where applicable [ ] On Ice Cooler Temp 2.3, 2.1 °C IR-4

Comments: Note, samples were not field filtered.

5.1 5

SGS Sample Receipt Summary

Job Number: JD4440 **Client:** GROUNDWATER & ENVIRONMENTAL S **Project:** ORANGETOWN SHOPPING CENTER, ORANG

Date / Time Received: 3/11/2020 10:50:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.3); Cooler 2: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (2.0); Cooler 2: (1.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD4440: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Groundwater & Environmental Services

Job No: JD4440

Orangetown Shopping Center, Orangeburg, NY
Project No: PSID#804310

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD4440-1 MW-3	Collected: 10-MAR-20 12:20 By: LW		Received: 11-MAR-20 By: DG			
JD4440-1	SM4500NO2 B-11	11-MAR-20 22:32	EB			NO2
JD4440-1	SW846 8260C	12-MAR-20 10:49	ED			V8260TCL20
JD4440-1	SW846 6010D	16-MAR-20 21:41	EAL	12-MAR-20	AC	FE
JD4440-1	RSK-175	21-MAR-20 15:39	PS			VRSK175ETHENE
JD4440-1	EPA 300/SW846 9056A	22-MAR-20 18:42	JW	22-MAR-20	JW	SO4
JD4440-1	SM3500FE B-11	24-MAR-20	JOO			FE3
JD4440-1	SM3500FE B-11	24-MAR-20 13:00	JOO			FE2
JD4440-1	SM5310 B-11	25-MAR-20 20:39	CD	25-MAR-20	CD	TOC
JD4440-1	EPA353.2/SM4500NO2B	26-MAR-20 16:16	BM			NO3O
JD4440-1	EPA 353.2/LACHAT	26-MAR-20 16:16	BM	26-MAR-20	BM	NO32
JD4440-2 MW-4	Collected: 10-MAR-20 10:30 By: LW		Received: 11-MAR-20 By: DG			
JD4440-2	SM4500NO2 B-11	11-MAR-20 22:32	EB			NO2
JD4440-2	SW846 8260C	12-MAR-20 10:20	ED			V8260TCL20
JD4440-2	SW846 6010D	16-MAR-20 21:46	EAL	12-MAR-20	AC	FE
JD4440-2	RSK-175	21-MAR-20 15:52	PS			VRSK175ETHENE
JD4440-2	EPA 300/SW846 9056A	22-MAR-20 19:06	JW	22-MAR-20	JW	SO4
JD4440-2	SM3500FE B-11	24-MAR-20	JOO			FE3
JD4440-2	SM3500FE B-11	24-MAR-20 13:00	JOO			FE2
JD4440-2	SM5310 B-11	25-MAR-20 20:50	CD	25-MAR-20	CD	TOC
JD4440-2	EPA353.2/SM4500NO2B	26-MAR-20 16:17	BM			NO3O
JD4440-2	EPA 353.2/LACHAT	26-MAR-20 16:17	BM	26-MAR-20	BM	NO32
JD4440-3 MW-5	Collected: 10-MAR-20 13:00 By: LW		Received: 11-MAR-20 By: DG			
JD4440-3	SM4500NO2 B-11	11-MAR-20 22:32	EB			NO2
JD4440-3	SW846 8260C	12-MAR-20 11:18	ED			V8260TCL20
JD4440-3	SW846 6010D	16-MAR-20 22:01	EAL	12-MAR-20	AC	FE
JD4440-3	EPA 300/SW846 9056A	22-MAR-20 19:29	JW	22-MAR-20	JW	SO4
JD4440-3	RSK-175	23-MAR-20 08:18	PS			VRSK175ETHENE
JD4440-3	SM3500FE B-11	24-MAR-20	JOO			FE3
JD4440-3	SM3500FE B-11	24-MAR-20 13:00	JOO			FE2
JD4440-3	SM5310 B-11	25-MAR-20 21:31	CD	25-MAR-20	CD	TOC
JD4440-3	EPA353.2/SM4500NO2B	26-MAR-20 16:18	BM			NO3O

Internal Sample Tracking Chronicle

Groundwater & Environmental Services

Job No: JD4440

Orangetown Shopping Center, Orangeburg, NY
Project No: PSID#804310

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD4440-3	EPA 353.2/LACHAT	26-MAR-20 16:18	BM	26-MAR-20	BM	NO32
JD4440-4	Collected: 10-MAR-20 09:45 By: LW		Received: 11-MAR-20 By: DG			
MW-8A						
JD4440-4	SM4500NO2 B-11	11-MAR-20 22:32	EB			NO2
JD4440-4	SW846 8260C	13-MAR-20 10:30	ED			V8260TCL20
JD4440-4	SW846 6010D	16-MAR-20 22:07	EAL	12-MAR-20	AC	FE
JD4440-4	RSK-175	22-MAR-20 10:30	DFT			VRSK175ETHENE
JD4440-4	EPA 300/SW846 9056A	22-MAR-20 19:53	JW	22-MAR-20	JW	SO4
JD4440-4	SM3500FE B-11	24-MAR-20	JOO			FE3
JD4440-4	SM3500FE B-11	24-MAR-20 13:00	JOO			FE2
JD4440-4	SM5310 B-11	25-MAR-20 21:42	CD	25-MAR-20	CD	TOC
JD4440-4	EPA353.2/SM4500NO2B	26-MAR-20 16:19	BM			NO3O
JD4440-4	EPA 353.2/LACHAT	26-MAR-20 16:19	BM	26-MAR-20	BM	NO32
JD4440-5	Collected: 10-MAR-20 11:30 By: LW		Received: 11-MAR-20 By: DG			
MW-E						
JD4440-5	SM4500NO2 B-11	11-MAR-20 22:32	EB			NO2
JD4440-5	SW846 8260C	13-MAR-20 09:32	ED			V8260TCL20
JD4440-5	SW846 6010D	18-MAR-20 03:31	ND	16-MAR-20	TG	FE
JD4440-5	RSK-175	22-MAR-20 10:44	DFT			VRSK175ETHENE
JD4440-5	EPA 300/SW846 9056A	22-MAR-20 20:17	JW	22-MAR-20	JW	SO4
JD4440-5	SM3500FE B-11	24-MAR-20	JOO			FE3
JD4440-5	SM3500FE B-11	24-MAR-20 13:00	JOO			FE2
JD4440-5	SM5310 B-11	25-MAR-20 21:53	CD	25-MAR-20	CD	TOC
JD4440-5	EPA353.2/SM4500NO2B	26-MAR-20 16:41	BM			NO3O
JD4440-5	EPA 353.2/LACHAT	26-MAR-20 16:41	BM	26-MAR-20	BM	NO32
JD4440-6	Collected: 10-MAR-20 08:00 By: LW		Received: 11-MAR-20 By: DG			
DUPLICATE						
JD4440-6	SW846 8260C	13-MAR-20 10:01	ED			V8260TCL20
JD4440-7	Collected: 10-MAR-20 13:15 By: LW		Received: 11-MAR-20 By: DG			
FIELD BLANK						
JD4440-7	SW846 8260C	16-MAR-20 14:54	ED			V8260TCL20

Internal Sample Tracking Chronicle

Groundwater & Environmental Services

Job No: JD4440

Orangetown Shopping Center, Orangeburg, NY
Project No: PSID#804310

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD4440-8	Collected: 10-MAR-20 13:30 By: LW			Received: 11-MAR-20	By: DG	
EQUIPMENT BLANK						
JD4440-8	SW846 8260C	16-MAR-20 15:22	ED			V8260TCL20
JD4440-9	Collected: 10-MAR-20 13:30 By: LW			Received: 11-MAR-20	By: DG	
TRIP BLANK						
JD4440-9	SW846 8260C	16-MAR-20 15:51	ED			V8260TCL20

SGS Internal Chain of Custody

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Received: 03/11/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD4440-1.1	Todd Shoemaker	Secured Storage	03/11/20 16:11	Return to Storage
JD4440-1.1	Secured Storage	Dave Hunkele	03/12/20 14:45	Retrieve from Storage
JD4440-1.1	Dave Hunkele	Secured Staging Area	03/12/20 14:46	Return to Storage
JD4440-1.1	Secured Staging Area	Agata Chrobot	03/12/20 14:57	Retrieve from Storage
JD4440-1.1	Agata Chrobot	Secured Storage	03/12/20 18:25	Return to Storage
JD4440-1.1.1	Agata Chrobot	Metals Digestion	03/12/20 18:21	Digestate from JD4440-1.1
JD4440-1.1.1	Metals Digestion	Agata Chrobot	03/12/20 18:21	Digestate from JD4440-1.1
JD4440-1.1.1	Agata Chrobot	Metals Digestate Storage	03/12/20 18:21	Return to Storage
JD4440-1.2	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-1.2	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-1.2	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-1.2	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-1.2	Secured Storage	Dave Hunkele	03/24/20 09:52	Retrieve from Storage
JD4440-1.2	Dave Hunkele	Secured Staging Area	03/24/20 09:53	Return to Storage
JD4440-1.2	Secured Staging Area	Jared O. Onindo	03/24/20 13:39	Retrieve from Storage
JD4440-1.2	Jared O. Onindo	Secured Storage	03/24/20 17:19	Return to Storage
JD4440-1.3	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-1.3	Secured Storage	Dave Hunkele	03/21/20 15:33	Retrieve from Storage
JD4440-1.3	Dave Hunkele	Secured Staging Area	03/21/20 15:33	Return to Storage
JD4440-1.3	Secured Staging Area	Jennell Webber	03/22/20 06:35	Retrieve from Storage
JD4440-1.3	Jennell Webber	Secured Storage	03/23/20 16:39	Return to Storage
JD4440-1.4	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-1.4	Secured Storage	Todd Shoemaker	03/26/20 10:29	Retrieve from Storage
JD4440-1.4	Todd Shoemaker	Secured Staging Area	03/26/20 10:30	Return to Storage
JD4440-1.4	Secured Staging Area	Beatrice Marcelino	03/26/20 14:07	Retrieve from Storage
JD4440-1.4	Beatrice Marcelino	Secured Storage	03/26/20 16:43	Return to Storage
JD4440-1.5	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-1.5	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-1.5	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-1.5	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-1.6	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-1.6	Secured Storage	Todd Shoemaker	03/24/20 10:13	Retrieve from Storage
JD4440-1.6	Todd Shoemaker	Secured Staging Area	03/24/20 10:13	Return to Storage
JD4440-1.6	Secured Staging Area	Courtney Dringus	03/24/20 12:12	Retrieve from Storage
JD4440-1.6	Courtney Dringus	Secured Storage	03/25/20 14:16	Return to Storage
JD4440-1.7	Secured Storage	Edward Durner	03/12/20 15:44	Retrieve from Storage
JD4440-1.7	Edward Durner	GCMS2A	03/12/20 15:45	Load on Instrument

SGS Internal Chain of Custody

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Received: 03/11/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD4440-1.7	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-1.7	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage
JD4440-1.9	Secured Storage	Prashant Shukla	03/21/20 13:39	Retrieve from Storage
JD4440-1.9	Prashant Shukla	VOA Prep Storage	03/21/20 13:39	Return to Storage
JD4440-1.9	VOA Prep Storage	Dana Tryon	03/22/20 11:02	Retrieve from Storage
JD4440-1.9	Dana Tryon	VOA Prep Storage	03/23/20 11:20	Return to Storage
JD4440-2.1	Todd Shoemaker	Secured Storage	03/11/20 16:11	Return to Storage
JD4440-2.1	Secured Storage	Dave Hunkele	03/12/20 14:45	Retrieve from Storage
JD4440-2.1	Dave Hunkele	Secured Staging Area	03/12/20 14:46	Return to Storage
JD4440-2.1	Secured Staging Area	Agata Chrobot	03/12/20 14:57	Retrieve from Storage
JD4440-2.1	Agata Chrobot	Secured Storage	03/12/20 18:25	Return to Storage
JD4440-2.1.1	Agata Chrobot	Metals Digestion	03/12/20 18:21	Digestate from JD4440-2.1
JD4440-2.1.1	Metals Digestion	Agata Chrobot	03/12/20 18:21	Digestate from JD4440-2.1
JD4440-2.1.1	Agata Chrobot	Metals Digestate Storage	03/12/20 18:21	Return to Storage
JD4440-2.2	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-2.2	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-2.2	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-2.2	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-2.2	Secured Storage	Dave Hunkele	03/24/20 09:52	Retrieve from Storage
JD4440-2.2	Dave Hunkele	Secured Staging Area	03/24/20 09:53	Return to Storage
JD4440-2.2	Secured Staging Area	Jared O. Onindo	03/24/20 13:39	Retrieve from Storage
JD4440-2.2	Jared O. Onindo	Secured Storage	03/24/20 17:19	Return to Storage
JD4440-2.3	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-2.3	Secured Storage	Dave Hunkele	03/21/20 15:33	Retrieve from Storage
JD4440-2.3	Dave Hunkele	Secured Staging Area	03/21/20 15:33	Return to Storage
JD4440-2.3	Secured Staging Area	Jennell Webber	03/22/20 06:35	Retrieve from Storage
JD4440-2.3	Jennell Webber	Secured Storage	03/23/20 16:39	Return to Storage
JD4440-2.4	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-2.4	Secured Storage	Todd Shoemaker	03/26/20 10:29	Retrieve from Storage
JD4440-2.4	Todd Shoemaker	Secured Staging Area	03/26/20 10:30	Return to Storage
JD4440-2.4	Secured Staging Area	Beatrice Marcelino	03/26/20 14:07	Retrieve from Storage
JD4440-2.4	Beatrice Marcelino	Secured Storage	03/26/20 16:43	Return to Storage
JD4440-2.5	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-2.5	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-2.5	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-2.5	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage

SGS Internal Chain of Custody

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Received: 03/11/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD4440-2.6	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-2.6	Secured Storage	Todd Shoemaker	03/24/20 10:13	Retrieve from Storage
JD4440-2.6	Todd Shoemaker	Secured Staging Area	03/24/20 10:13	Return to Storage
JD4440-2.6	Secured Staging Area	Courtney Dringus	03/24/20 12:12	Retrieve from Storage
JD4440-2.6	Courtney Dringus	Secured Storage	03/25/20 14:16	Return to Storage
JD4440-2.9	Secured Storage	Prashant Shukla	03/21/20 13:39	Retrieve from Storage
JD4440-2.9	Prashant Shukla	VOA Prep Storage	03/21/20 13:39	Return to Storage
JD4440-2.9	VOA Prep Storage	Dana Tryon	03/22/20 11:02	Retrieve from Storage
JD4440-2.9	Dana Tryon	VOA Prep Storage	03/23/20 11:20	Return to Storage
JD4440-2.11	Secured Storage	Edward Durner	03/12/20 15:44	Retrieve from Storage
JD4440-2.11	Edward Durner	GCMS2A	03/12/20 15:45	Load on Instrument
JD4440-2.11	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-2.11	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage
JD4440-2.13	Secured Storage	Edward Durner	03/12/20 15:44	Retrieve from Storage
JD4440-2.13	Edward Durner	GCMS2A	03/12/20 15:45	Load on Instrument
JD4440-2.13	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-2.13	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage
JD4440-2.15	Secured Storage	Edward Durner	03/12/20 15:44	Retrieve from Storage
JD4440-2.15	Edward Durner	GCMS2A	03/12/20 15:45	Load on Instrument
JD4440-2.15	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-2.15	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage
JD4440-3.1	Todd Shoemaker	Secured Storage	03/11/20 16:11	Return to Storage
JD4440-3.1	Secured Storage	Dave Hunkele	03/12/20 14:45	Retrieve from Storage
JD4440-3.1	Dave Hunkele	Secured Staging Area	03/12/20 14:46	Return to Storage
JD4440-3.1	Secured Staging Area	Agata Chrobot	03/12/20 14:57	Retrieve from Storage
JD4440-3.1	Agata Chrobot	Secured Storage	03/12/20 18:25	Return to Storage
JD4440-3.1.1	Agata Chrobot	Metals Digestion	03/12/20 18:21	Digestate from JD4440-3.1
JD4440-3.1.1	Metals Digestion	Agata Chrobot	03/12/20 18:21	Digestate from JD4440-3.1
JD4440-3.1.1	Agata Chrobot	Metals Digestate Storage	03/12/20 18:21	Return to Storage
JD4440-3.2	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-3.2	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-3.2	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-3.2	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-3.2	Secured Storage	Dave Hunkele	03/24/20 09:52	Retrieve from Storage
JD4440-3.2	Dave Hunkele	Secured Staging Area	03/24/20 09:53	Return to Storage
JD4440-3.2	Secured Staging Area	Jared O. Onindo	03/24/20 13:39	Retrieve from Storage
JD4440-3.2	Jared O. Onindo	Secured Storage	03/24/20 17:19	Return to Storage

SGS Internal Chain of Custody

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Received: 03/11/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD4440-3.3	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-3.3	Secured Storage	Dave Hunkele	03/21/20 15:33	Retrieve from Storage
JD4440-3.3	Dave Hunkele	Secured Staging Area	03/21/20 15:33	Return to Storage
JD4440-3.3	Secured Staging Area	Jennell Webber	03/22/20 06:35	Retrieve from Storage
JD4440-3.3	Jennell Webber	Secured Storage	03/23/20 16:39	Return to Storage
JD4440-3.4	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-3.4	Secured Storage	Todd Shoemaker	03/26/20 10:29	Retrieve from Storage
JD4440-3.4	Todd Shoemaker	Secured Staging Area	03/26/20 10:30	Return to Storage
JD4440-3.4	Secured Staging Area	Beatrice Marcelino	03/26/20 14:07	Retrieve from Storage
JD4440-3.4	Beatrice Marcelino	Secured Storage	03/26/20 16:43	Return to Storage
JD4440-3.5	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-3.5	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-3.5	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-3.5	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-3.6	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-3.6	Secured Storage	Todd Shoemaker	03/24/20 10:13	Retrieve from Storage
JD4440-3.6	Todd Shoemaker	Secured Staging Area	03/24/20 10:13	Return to Storage
JD4440-3.6	Secured Staging Area	Courtney Dringus	03/24/20 12:12	Retrieve from Storage
JD4440-3.6	Courtney Dringus	Secured Storage	03/25/20 14:16	Return to Storage
JD4440-3.9	Secured Storage	Edward Durner	03/12/20 15:44	Retrieve from Storage
JD4440-3.9	Edward Durner	GCMS2A	03/12/20 15:45	Load on Instrument
JD4440-3.9	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-3.9	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage
JD4440-3.11	Secured Storage	Prashant Shukla	03/21/20 13:39	Retrieve from Storage
JD4440-3.11	Prashant Shukla	VOA Prep Storage	03/21/20 13:39	Return to Storage
JD4440-3.11	VOA Prep Storage	Dana Tryon	03/22/20 11:02	Retrieve from Storage
JD4440-3.11	Dana Tryon	VOA Prep Storage	03/23/20 11:20	Return to Storage
JD4440-4.1	Todd Shoemaker	Secured Storage	03/11/20 16:11	Return to Storage
JD4440-4.1	Secured Storage	Dave Hunkele	03/12/20 14:45	Retrieve from Storage
JD4440-4.1	Dave Hunkele	Secured Staging Area	03/12/20 14:46	Return to Storage
JD4440-4.1	Secured Staging Area	Agata Chrobot	03/12/20 14:57	Retrieve from Storage
JD4440-4.1	Agata Chrobot	Secured Storage	03/12/20 18:25	Return to Storage
JD4440-4.1.1	Agata Chrobot	Metals Digestion	03/12/20 18:21	Digestate from JD4440-4.1
JD4440-4.1.1	Metals Digestion	Agata Chrobot	03/12/20 18:21	Digestate from JD4440-4.1
JD4440-4.1.1	Agata Chrobot	Metals Digestate Storage	03/12/20 18:21	Return to Storage

SGS Internal Chain of Custody

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Received: 03/11/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD4440-4.2	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-4.2	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-4.2	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-4.2	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-4.2	Secured Storage	Dave Hunkele	03/24/20 09:52	Retrieve from Storage
JD4440-4.2	Dave Hunkele	Secured Staging Area	03/24/20 09:53	Return to Storage
JD4440-4.2	Secured Staging Area	Jared O. Onindo	03/24/20 13:39	Retrieve from Storage
JD4440-4.2	Jared O. Onindo	Secured Storage	03/24/20 17:19	Return to Storage
JD4440-4.3	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-4.3	Secured Storage	Dave Hunkele	03/21/20 15:33	Retrieve from Storage
JD4440-4.3	Dave Hunkele	Secured Staging Area	03/21/20 15:33	Return to Storage
JD4440-4.3	Secured Staging Area	Jennell Webber	03/22/20 06:35	Retrieve from Storage
JD4440-4.3	Jennell Webber	Secured Storage	03/23/20 16:39	Return to Storage
JD4440-4.4	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-4.4	Secured Storage	Todd Shoemaker	03/26/20 10:29	Retrieve from Storage
JD4440-4.4	Todd Shoemaker	Secured Staging Area	03/26/20 10:30	Return to Storage
JD4440-4.4	Secured Staging Area	Beatrice Marcelino	03/26/20 14:07	Retrieve from Storage
JD4440-4.4	Beatrice Marcelino	Secured Storage	03/26/20 16:43	Return to Storage
JD4440-4.5	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-4.5	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-4.5	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-4.5	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-4.6	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-4.6	Secured Storage	Todd Shoemaker	03/24/20 10:13	Retrieve from Storage
JD4440-4.6	Todd Shoemaker	Secured Staging Area	03/24/20 10:13	Return to Storage
JD4440-4.6	Secured Staging Area	Courtney Dringus	03/24/20 12:12	Retrieve from Storage
JD4440-4.6	Courtney Dringus	Secured Storage	03/25/20 14:16	Return to Storage
JD4440-4.11	Secured Storage	Prashant Shukla	03/21/20 13:39	Retrieve from Storage
JD4440-4.11	Prashant Shukla	VOA Prep Storage	03/21/20 13:39	Return to Storage
JD4440-4.11	VOA Prep Storage	Dana Tryon	03/22/20 11:02	Retrieve from Storage
JD4440-4.11	Dana Tryon		03/22/20 17:02	Depleted
JD4440-5.1	Todd Shoemaker	Secured Storage	03/11/20 16:11	Return to Storage
JD4440-5.1	Secured Storage	Dave Hunkele	03/12/20 14:45	Retrieve from Storage
JD4440-5.1	Dave Hunkele	Secured Staging Area	03/12/20 14:46	Return to Storage
JD4440-5.1	Secured Staging Area	Agata Chrobot	03/12/20 14:57	Retrieve from Storage
JD4440-5.1	Agata Chrobot	Secured Storage	03/12/20 18:25	Return to Storage
JD4440-5.1	Secured Storage	Joshua Reitan	03/15/20 14:23	Retrieve from Storage
JD4440-5.1	Secured Storage	Benjamin Gaines	03/15/20 14:33	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Received: 03/11/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
Bottle was returned to secure storage, but inadvertently not scanned.				
JD4440-5.1	Benjamin Gaines	Secured Staging Area	03/15/20 14:33	Return to Storage
JD4440-5.1	Secured Staging Area	Taylor Gorman	03/16/20 04:36	Retrieve from Storage
JD4440-5.1	Taylor Gorman	Secured Storage	03/16/20 09:37	Return to Storage
JD4440-5.1.1	Taylor Gorman	Metals Digestion	03/16/20 09:35	Digestate from JD4440-5.1
JD4440-5.1.1	Metals Digestion	Taylor Gorman	03/16/20 09:35	Digestate from JD4440-5.1
JD4440-5.1.1	Taylor Gorman	Metals Digestate Storage	03/16/20 09:35	Return to Storage
JD4440-5.2	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-5.2	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-5.2	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-5.2	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-5.2	Secured Storage	Dave Hunkele	03/24/20 09:52	Retrieve from Storage
JD4440-5.2	Dave Hunkele	Secured Staging Area	03/24/20 09:53	Return to Storage
JD4440-5.2	Secured Staging Area	Jared O. Onindo	03/24/20 13:39	Retrieve from Storage
JD4440-5.2	Jared O. Onindo	Secured Storage	03/24/20 17:19	Return to Storage
JD4440-5.3	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-5.3	Secured Storage	Dave Hunkele	03/21/20 15:33	Retrieve from Storage
JD4440-5.3	Dave Hunkele	Secured Staging Area	03/21/20 15:33	Return to Storage
JD4440-5.3	Secured Staging Area	Jennell Webber	03/22/20 06:35	Retrieve from Storage
JD4440-5.3	Jennell Webber	Secured Storage	03/23/20 16:39	Return to Storage
JD4440-5.4	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-5.4	Secured Storage	Todd Shoemaker	03/26/20 10:29	Retrieve from Storage
JD4440-5.4	Todd Shoemaker	Secured Staging Area	03/26/20 10:30	Return to Storage
JD4440-5.4	Secured Staging Area	Beatrice Marcelino	03/26/20 14:07	Retrieve from Storage
JD4440-5.4	Beatrice Marcelino	Secured Storage	03/26/20 16:43	Return to Storage
JD4440-5.5	Secured Storage	Todd Shoemaker	03/11/20 15:35	Retrieve from Storage
JD4440-5.5	Todd Shoemaker	Secured Staging Area	03/11/20 15:35	Return to Storage
JD4440-5.5	Secured Staging Area	Dave Hunkele	03/14/20 08:29	Retrieve from Storage
JD4440-5.5	Dave Hunkele	Secured Storage	03/14/20 08:30	Return to Storage
JD4440-5.6	Todd Shoemaker	Secured Storage	03/11/20 16:19	Return to Storage
JD4440-5.6	Secured Storage	Todd Shoemaker	03/24/20 10:13	Retrieve from Storage
JD4440-5.6	Todd Shoemaker	Secured Staging Area	03/24/20 10:13	Return to Storage
JD4440-5.6	Secured Staging Area	Courtney Dringus	03/24/20 12:12	Retrieve from Storage
JD4440-5.6	Courtney Dringus	Secured Storage	03/25/20 14:16	Return to Storage
JD4440-5.11	Secured Storage	Prashant Shukla	03/21/20 13:39	Retrieve from Storage
JD4440-5.11	Prashant Shukla	VOA Prep Storage	03/21/20 13:39	Return to Storage
JD4440-5.11	VOA Prep Storage	Dana Tryon	03/22/20 11:02	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Received: 03/11/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD4440-5.11	Dana Tryon		03/22/20 17:02	Depleted
JD4440-7.1	Secured Storage	Edward Durner	03/16/20 16:03	Retrieve from Storage
JD4440-7.1	Edward Durner	GCMS2A	03/16/20 16:04	Load on Instrument
JD4440-7.1	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-7.1	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage
JD4440-8.2	Secured Storage	Edward Durner	03/16/20 16:03	Retrieve from Storage
JD4440-8.2	Edward Durner	GCMS2A	03/16/20 16:04	Load on Instrument
JD4440-8.2	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-8.2	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage
JD4440-9.2	Secured Storage	Edward Durner	03/16/20 16:03	Retrieve from Storage
JD4440-9.2	Edward Durner	GCMS2A	03/16/20 16:04	Load on Instrument
JD4440-9.2	GCMS2A	Robert Szot	03/17/20 11:39	Unload from Instrument
JD4440-9.2	Robert Szot	Secured Storage	03/17/20 11:39	Return to Storage

MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8715-MB	2A201358.D	1	03/12/20	ED	n/a	n/a	V2A8715

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-1, JD4440-2, JD4440-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8715-MB	2A201358.D	1	03/12/20	ED	n/a	n/a	V2A8715

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-1, JD4440-2, JD4440-3

CAS No.	Compound	Result	RL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8717-MB	2A201388.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8717-MB	2A201388.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	Result	RL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8720-MB	2A201441.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8720-MB	2A201441.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	Result	RL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8715-BS	2A201356.D	1	03/12/20	ED	n/a	n/a	V2A8715

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-1, JD4440-2, JD4440-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	205	103	42-150
71-43-2	Benzene	50	48.9	98	80-120
74-97-5	Bromochloromethane	50	52.4	105	84-121
75-27-4	Bromodichloromethane	50	50.9	102	83-120
75-25-2	Bromoform	50	54.8	110	76-129
74-83-9	Bromomethane	50	47.5	95	57-138
78-93-3	2-Butanone (MEK)	200	197	99	64-137
75-15-0	Carbon disulfide	50	48.1	96	64-137
56-23-5	Carbon tetrachloride	50	51.6	103	75-135
108-90-7	Chlorobenzene	50	50.5	101	84-117
75-00-3	Chloroethane	50	46.6	93	63-132
67-66-3	Chloroform	50	50.4	101	80-119
74-87-3	Chloromethane	50	45.7	91	46-136
110-82-7	Cyclohexane	50	49.5	99	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	52.4	105	72-127
124-48-1	Dibromochloromethane	50	54.0	108	80-123
106-93-4	1,2-Dibromoethane	50	53.7	107	84-117
95-50-1	1,2-Dichlorobenzene	50	51.1	102	84-119
541-73-1	1,3-Dichlorobenzene	50	50.7	101	81-117
106-46-7	1,4-Dichlorobenzene	50	49.5	99	82-117
75-71-8	Dichlorodifluoromethane	50	48.1	96	36-149
75-34-3	1,1-Dichloroethane	50	47.7	95	79-120
107-06-2	1,2-Dichloroethane	50	47.3	95	78-126
75-35-4	1,1-Dichloroethene	50	51.8	104	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.5	99	80-120
156-60-5	trans-1,2-Dichloroethene	50	49.8	100	76-120
78-87-5	1,2-Dichloropropane	50	48.0	96	82-121
10061-01-5	cis-1,3-Dichloropropene	50	50.8	102	83-120
10061-02-6	trans-1,3-Dichloropropene	50	53.4	107	82-121
100-41-4	Ethylbenzene	50	48.5	97	80-120
76-13-1	Freon 113	50	51.2	102	62-182
591-78-6	2-Hexanone	200	193	97	65-132
98-82-8	Isopropylbenzene	50	50.1	100	83-120
79-20-9	Methyl Acetate	50	47.6	95	67-129
108-87-2	Methylcyclohexane	50	53.0	106	71-134
1634-04-4	Methyl Tert Butyl Ether	50	52.9	106	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8715-BS	2A201356.D	1	03/12/20	ED	n/a	n/a	V2A8715

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-1, JD4440-2, JD4440-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	185	93	71-131
75-09-2	Methylene chloride	50	50.1	100	77-120
100-42-5	Styrene	50	51.3	103	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.2	98	76-119
127-18-4	Tetrachloroethene	50	52.2	104	70-131
108-88-3	Toluene	50	50.1	100	80-120
87-61-6	1,2,3-Trichlorobenzene	50	55.1	110	76-134
120-82-1	1,2,4-Trichlorobenzene	50	54.7	109	79-132
71-55-6	1,1,1-Trichloroethane	50	51.5	103	81-128
79-00-5	1,1,2-Trichloroethane	50	50.9	102	83-118
79-01-6	Trichloroethene	50	49.5	99	80-120
75-69-4	Trichlorofluoromethane	50	50.2	100	64-136
75-01-4	Vinyl chloride	50	48.4	97	51-135
	m,p-Xylene	100	101	101	80-120
95-47-6	o-Xylene	50	49.0	98	80-120
1330-20-7	Xylene (total)	150	150	100	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	81-124%
2037-26-5	Toluene-D8	101%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8717-BS	2A201386.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	204	102	42-150
71-43-2	Benzene	50	48.3	97	80-120
74-97-5	Bromochloromethane	50	50.8	102	84-121
75-27-4	Bromodichloromethane	50	51.5	103	83-120
75-25-2	Bromoform	50	55.5	111	76-129
74-83-9	Bromomethane	50	48.3	97	57-138
78-93-3	2-Butanone (MEK)	200	194	97	64-137
75-15-0	Carbon disulfide	50	38.9	78	64-137
56-23-5	Carbon tetrachloride	50	52.6	105	75-135
108-90-7	Chlorobenzene	50	50.2	100	84-117
75-00-3	Chloroethane	50	47.6	95	63-132
67-66-3	Chloroform	50	50.5	101	80-119
74-87-3	Chloromethane	50	46.0	92	46-136
110-82-7	Cyclohexane	50	51.4	103	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	54.0	108	72-127
124-48-1	Dibromochloromethane	50	53.0	106	80-123
106-93-4	1,2-Dibromoethane	50	53.3	107	84-117
95-50-1	1,2-Dichlorobenzene	50	51.2	102	84-119
541-73-1	1,3-Dichlorobenzene	50	50.5	101	81-117
106-46-7	1,4-Dichlorobenzene	50	49.4	99	82-117
75-71-8	Dichlorodifluoromethane	50	49.3	99	36-149
75-34-3	1,1-Dichloroethane	50	46.8	94	79-120
107-06-2	1,2-Dichloroethane	50	47.4	95	78-126
75-35-4	1,1-Dichloroethene	50	46.5	93	69-126
156-59-2	cis-1,2-Dichloroethene	50	48.7	97	80-120
156-60-5	trans-1,2-Dichloroethene	50	47.2	94	76-120
78-87-5	1,2-Dichloropropane	50	47.8	96	82-121
10061-01-5	cis-1,3-Dichloropropene	50	50.4	101	83-120
10061-02-6	trans-1,3-Dichloropropene	50	52.7	105	82-121
100-41-4	Ethylbenzene	50	49.2	98	80-120
76-13-1	Freon 113	50	48.8	98	62-182
591-78-6	2-Hexanone	200	194	97	65-132
98-82-8	Isopropylbenzene	50	50.9	102	83-120
79-20-9	Methyl Acetate	50	46.6	93	67-129
108-87-2	Methylcyclohexane	50	54.0	108	71-134
1634-04-4	Methyl Tert Butyl Ether	50	51.5	103	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8717-BS	2A201386.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	188	94	71-131
75-09-2	Methylene chloride	50	47.7	95	77-120
100-42-5	Styrene	50	50.9	102	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.4	99	76-119
127-18-4	Tetrachloroethene	50	51.3	103	70-131
108-88-3	Toluene	50	49.1	98	80-120
87-61-6	1,2,3-Trichlorobenzene	50	56.7	113	76-134
120-82-1	1,2,4-Trichlorobenzene	50	56.0	112	79-132
71-55-6	1,1,1-Trichloroethane	50	51.7	103	81-128
79-00-5	1,1,2-Trichloroethane	50	51.2	102	83-118
79-01-6	Trichloroethene	50	50.8	102	80-120
75-69-4	Trichlorofluoromethane	50	52.9	106	64-136
75-01-4	Vinyl chloride	50	49.2	98	51-135
	m,p-Xylene	100	100	100	80-120
95-47-6	o-Xylene	50	49.5	99	80-120
1330-20-7	Xylene (total)	150	150	100	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8720-BS	2A201439.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	177	89	42-150
71-43-2	Benzene	50	47.4	95	80-120
74-97-5	Bromochloromethane	50	48.6	97	84-121
75-27-4	Bromodichloromethane	50	48.5	97	83-120
75-25-2	Bromoform	50	53.3	107	76-129
74-83-9	Bromomethane	50	46.5	93	57-138
78-93-3	2-Butanone (MEK)	200	179	90	64-137
75-15-0	Carbon disulfide	50	46.4	93	64-137
56-23-5	Carbon tetrachloride	50	50.3	101	75-135
108-90-7	Chlorobenzene	50	48.4	97	84-117
75-00-3	Chloroethane	50	47.0	94	63-132
67-66-3	Chloroform	50	47.0	94	80-119
74-87-3	Chloromethane	50	46.6	93	46-136
110-82-7	Cyclohexane	50	49.8	100	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	52.9	106	72-127
124-48-1	Dibromochloromethane	50	52.3	105	80-123
106-93-4	1,2-Dibromoethane	50	50.7	101	84-117
95-50-1	1,2-Dichlorobenzene	50	51.1	102	84-119
541-73-1	1,3-Dichlorobenzene	50	50.7	101	81-117
106-46-7	1,4-Dichlorobenzene	50	49.3	99	82-117
75-71-8	Dichlorodifluoromethane	50	52.9	106	36-149
75-34-3	1,1-Dichloroethane	50	44.8	90	79-120
107-06-2	1,2-Dichloroethane	50	45.5	91	78-126
75-35-4	1,1-Dichloroethene	50	49.8	100	69-126
156-59-2	cis-1,2-Dichloroethene	50	45.8	92	80-120
156-60-5	trans-1,2-Dichloroethene	50	46.8	94	76-120
78-87-5	1,2-Dichloropropane	50	46.1	92	82-121
10061-01-5	cis-1,3-Dichloropropene	50	48.6	97	83-120
10061-02-6	trans-1,3-Dichloropropene	50	51.0	102	82-121
100-41-4	Ethylbenzene	50	48.2	96	80-120
76-13-1	Freon 113	50	52.6	105	62-182
591-78-6	2-Hexanone	200	176	88	65-132
98-82-8	Isopropylbenzene	50	49.0	98	83-120
79-20-9	Methyl Acetate	50	42.3	85	67-129
108-87-2	Methylcyclohexane	50	54.4	109	71-134
1634-04-4	Methyl Tert Butyl Ether	50	48.8	98	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A8720-BS	2A201439.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	171	86	71-131
75-09-2	Methylene chloride	50	46.3	93	77-120
100-42-5	Styrene	50	49.4	99	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	47.5	95	76-119
127-18-4	Tetrachloroethene	50	51.5	103	70-131
108-88-3	Toluene	50	48.6	97	80-120
87-61-6	1,2,3-Trichlorobenzene	50	55.1	110	76-134
120-82-1	1,2,4-Trichlorobenzene	50	55.6	111	79-132
71-55-6	1,1,1-Trichloroethane	50	49.8	100	81-128
79-00-5	1,1,2-Trichloroethane	50	48.9	98	83-118
79-01-6	Trichloroethene	50	48.4	97	80-120
75-69-4	Trichlorofluoromethane	50	52.8	106	64-136
75-01-4	Vinyl chloride	50	46.4	93	51-135
	m,p-Xylene	100	97.5	98	80-120
95-47-6	o-Xylene	50	47.5	95	80-120
1330-20-7	Xylene (total)	150	145	97	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	98%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4440-4MS	2A201400.D	1	03/13/20	ED	n/a	n/a	V2A8717
JD4440-4	2A201391.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	JD4440-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	8.8		200	178	85	34-149
71-43-2	Benzene	ND		50	48.8	98	54-136
74-97-5	Bromochloromethane	ND		50	49.7	99	79-124
75-27-4	Bromodichloromethane	ND		50	50.4	101	79-124
75-25-2	Bromoform	ND		50	54.3	109	71-130
74-83-9	Bromomethane	ND		50	49.5	99	53-142
78-93-3	2-Butanone (MEK)	ND		200	187	94	54-142
75-15-0	Carbon disulfide	ND		50	49.8	100	59-145
56-23-5	Carbon tetrachloride	ND		50	53.3	107	70-143
108-90-7	Chlorobenzene	ND		50	51.2	102	78-123
75-00-3	Chloroethane	ND		50	53.2	106	57-141
67-66-3	Chloroform	ND		50	49.4	99	76-123
74-87-3	Chloromethane	ND		50	48.1	96	43-141
110-82-7	Cyclohexane	ND		50	58.1	116	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	54.5	109	66-130
124-48-1	Dibromochloromethane	ND		50	52.6	105	76-125
106-93-4	1,2-Dibromoethane	ND		50	53.4	107	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	51.2	102	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	50.5	101	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	49.8	100	76-122
75-71-8	Dichlorodifluoromethane	ND		50	56.1	112	31-159
75-34-3	1,1-Dichloroethane	ND		50	46.7	93	73-126
107-06-2	1,2-Dichloroethane	ND		50	45.3	91	72-131
75-35-4	1,1-Dichloroethene	ND		50	53.4	107	63-136
156-59-2	cis-1,2-Dichloroethene	2.7		50	51.3	97	60-136
156-60-5	trans-1,2-Dichloroethene	1.1		50	50.8	99	70-126
78-87-5	1,2-Dichloropropane	ND		50	47.6	95	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	49.8	100	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	52.2	104	77-123
100-41-4	Ethylbenzene	ND		50	50.3	101	51-140
76-13-1	Freon 113	ND		50	57.6	115	60-192
591-78-6	2-Hexanone	ND		200	192	96	56-139
98-82-8	Isopropylbenzene	ND		50	51.3	103	75-129
79-20-9	Methyl Acetate	ND		50	41.6	83	55-131
108-87-2	Methylcyclohexane	ND		50	57.8	116	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	49.4	99	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4440-4MS	2A201400.D	1	03/13/20	ED	n/a	n/a	V2A8717
JD4440-4	2A201391.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	JD4440-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	183	92	66-136
75-09-2	Methylene chloride	ND		50	47.9	96	73-125
100-42-5	Styrene	ND		50	50.6	101	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	49.3	99	71-122
127-18-4	Tetrachloroethene	ND		50	54.4	109	61-139
108-88-3	Toluene	ND		50	50.5	101	60-135
87-61-6	1,2,3-Trichlorobenzene	ND		50	52.7	105	70-138
120-82-1	1,2,4-Trichlorobenzene	ND		50	52.1	104	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	52.0	104	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	50.3	101	78-121
79-01-6	Trichloroethene	5.5		50	55.5	100	62-141
75-69-4	Trichlorofluoromethane	ND		50	60.4	121	57-149
75-01-4	Vinyl chloride	ND		50	48.6	97	43-146
	m,p-Xylene	ND		100	103	103	50-144
95-47-6	o-Xylene	ND		50	49.9	100	63-134
1330-20-7	Xylene (total)	ND		150	152	101	56-139

CAS No.	Surrogate Recoveries	MS	JD4440-4	Limits
1868-53-7	Dibromofluoromethane	103%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	100%	81-124%
2037-26-5	Toluene-D8	101%	100%	80-120%
460-00-4	4-Bromofluorobenzene	98%	97%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4593-8MS	2A201448.D	1	03/16/20	ED	n/a	n/a	V2A8720
JD4593-8	2A201442.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	JD4593-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	10 U		200	173	87	34-149
71-43-2	Benzene	0.50 U		50	50.9	102	54-136
74-97-5	Bromochloromethane	1.0 U		50	52.3	105	79-124
75-27-4	Bromodichloromethane	1.0 U		50	50.9	102	79-124
75-25-2	Bromoform	1.0 U		50	54.6	109	71-130
74-83-9	Bromomethane	2.0 U		50	51.9	104	53-142
78-93-3	2-Butanone (MEK)	10 U		200	177	89	54-142
75-15-0	Carbon disulfide	2.0 U		50	55.3	111	59-145
56-23-5	Carbon tetrachloride	1.0 U		50	56.7	113	70-143
108-90-7	Chlorobenzene	1.0 U		50	52.5	105	78-123
75-00-3	Chloroethane	1.0 U		50	54.6	109	57-141
67-66-3	Chloroform	1.0 U		50	50.8	102	76-123
74-87-3	Chloromethane	1.0 U		50	51.0	102	43-141
110-82-7	Cyclohexane	5.0 U		50	62.6	125	51-155
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		50	50.0	100	66-130
124-48-1	Dibromochloromethane	1.0 U		50	53.7	107	76-125
106-93-4	1,2-Dibromoethane	1.0 U		50	53.8	108	78-119
95-50-1	1,2-Dichlorobenzene	1.0 U		50	52.4	105	77-123
541-73-1	1,3-Dichlorobenzene	1.0 U		50	52.5	105	76-122
106-46-7	1,4-Dichlorobenzene	1.0 U		50	50.9	102	76-122
75-71-8	Dichlorodifluoromethane	2.0 U		50	69.2	138	31-159
75-34-3	1,1-Dichloroethane	1.0 U		50	48.9	98	73-126
107-06-2	1,2-Dichloroethane	1.0 U		50	46.7	93	72-131
75-35-4	1,1-Dichloroethene	1.0 U		50	58.6	117	63-136
156-59-2	cis-1,2-Dichloroethene	1.0 U		50	50.5	101	60-136
156-60-5	trans-1,2-Dichloroethene	1.0 U		50	52.9	106	70-126
78-87-5	1,2-Dichloropropane	1.0 U		50	48.6	97	78-124
10061-01-5	cis-1,3-Dichloropropene	1.0 U		50	50.2	100	79-123
10061-02-6	trans-1,3-Dichloropropene	1.0 U		50	53.2	106	77-123
100-41-4	Ethylbenzene	1.0 U		50	51.7	103	51-140
76-13-1	Freon 113	5.0 U		50	67.1	134	60-192
591-78-6	2-Hexanone	5.0 U		200	180	90	56-139
98-82-8	Isopropylbenzene	1.0 U		50	53.6	107	75-129
79-20-9	Methyl Acetate	5.0 U		50	42.9	86	55-131
108-87-2	Methylcyclohexane	5.0 U		50	66.6	133	57-155
1634-04-4	Methyl Tert Butyl Ether	1.0 U		50	51.5	103	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4593-8MS	2A201448.D	1	03/16/20	ED	n/a	n/a	V2A8720
JD4593-8	2A201442.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	JD4593-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		200	173	87	66-136
75-09-2	Methylene chloride	2.0 U		50	51.0	102	73-125
100-42-5	Styrene	1.0 U		50	52.6	105	75-129
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		50	47.8	96	71-122
127-18-4	Tetrachloroethene	1.0 U		50	57.0	114	61-139
108-88-3	Toluene	1.0 U		50	52.5	105	60-135
87-61-6	1,2,3-Trichlorobenzene	1.0 U		50	53.6	107	70-138
120-82-1	1,2,4-Trichlorobenzene	1.0 U		50	55.3	111	72-137
71-55-6	1,1,1-Trichloroethane	1.0 U		50	55.4	111	74-138
79-00-5	1,1,2-Trichloroethane	1.0 U		50	50.9	102	78-121
79-01-6	Trichloroethene	1.0 U		50	52.1	104	62-141
75-69-4	Trichlorofluoromethane	2.0 U		50	64.3	129	57-149
75-01-4	Vinyl chloride	1.0 U		50	52.7	105	43-146
	m,p-Xylene	1.0 U		100	106	106	50-144
95-47-6	o-Xylene	1.0 U		50	51.1	102	63-134
1330-20-7	Xylene (total)	1.0 U		150	157	105	56-139

CAS No.	Surrogate Recoveries	MS	JD4593-8	Limits
1868-53-7	Dibromofluoromethane	100%	96%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	94%	81-124%
2037-26-5	Toluene-D8	103%	100%	80-120%
460-00-4	4-Bromofluorobenzene	97%	97%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4440-2MS	2A201365.D	1	03/12/20	ED	n/a	n/a	V2A8715
JD4440-2MSD	2A201366.D	1	03/12/20	ED	n/a	n/a	V2A8715
JD4440-2	2A201361.D	1	03/12/20	ED	n/a	n/a	V2A8715

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-1, JD4440-2, JD4440-3

CAS No.	Compound	JD4440-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	176	88	200	179	90	2	34-149/17
71-43-2	Benzene	ND		50	49.5	99	50	49.7	99	0	54-136/10
74-97-5	Bromochloromethane	ND		50	50.0	100	50	50.8	102	2	79-124/11
75-27-4	Bromodichloromethane	ND		50	49.8	100	50	49.1	98	1	79-124/11
75-25-2	Bromoform	ND		50	52.1	104	50	52.5	105	1	71-130/11
74-83-9	Bromomethane	ND		50	47.5	95	50	48.6	97	2	53-142/14
78-93-3	2-Butanone (MEK)	ND		200	178	89	200	184	92	3	54-142/15
75-15-0	Carbon disulfide	ND		50	53.4	107	50	53.8	108	1	59-145/17
56-23-5	Carbon tetrachloride	ND		50	55.5	111	50	55.4	111	0	70-143/12
108-90-7	Chlorobenzene	ND		50	50.7	101	50	50.3	101	1	78-123/10
75-00-3	Chloroethane	ND		50	52.0	104	50	53.9	108	4	57-141/14
67-66-3	Chloroform	ND		50	50.0	100	50	50.2	100	0	76-123/11
74-87-3	Chloromethane	ND		50	47.7	95	50	49.7	99	4	43-141/16
110-82-7	Cyclohexane	ND		50	59.2	118	50	61.5	123	4	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	52.6	105	50	51.4	103	2	66-130/13
124-48-1	Dibromochloromethane	ND		50	52.1	104	50	51.8	104	1	76-125/11
106-93-4	1,2-Dibromoethane	ND		50	51.3	103	50	51.7	103	1	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		50	50.8	102	50	51.0	102	0	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		50	51.3	103	50	50.7	101	1	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		50	50.3	101	50	49.9	100	1	76-122/11
75-71-8	Dichlorodifluoromethane	ND		50	60.4	121	50	61.4	123	2	31-159/16
75-34-3	1,1-Dichloroethane	ND		50	48.6	97	50	48.9	98	1	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	45.5	91	50	46.1	92	1	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	56.8	114	50	57.2	114	1	63-136/14
156-59-2	cis-1,2-Dichloroethene	21.5		50	69.6	96	50	70.3	98	1	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	51.7	103	50	52.0	104	1	70-126/11
78-87-5	1,2-Dichloropropane	ND		50	47.1	94	50	47.5	95	1	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		50	48.8	98	50	49.0	98	0	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		50	51.0	102	50	50.4	101	1	77-123/11
100-41-4	Ethylbenzene	ND		50	49.8	100	50	49.6	99	0	51-140/20
76-13-1	Freon 113	ND		50	64.1	128	50	62.9	126	2	60-192/14
591-78-6	2-Hexanone	ND		200	186	93	200	186	93	0	56-139/14
98-82-8	Isopropylbenzene	ND		50	51.6	103	50	51.7	103	0	75-129/11
79-20-9	Methyl Acetate	ND		50	44.4	89	50	44.4	89	0	55-131/15
108-87-2	Methylcyclohexane	ND		50	63.8	128	50	63.5	127	0	57-155/13
1634-04-4	Methyl Tert Butyl Ether	ND		50	50.2	100	50	50.8	102	1	72-123/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4440-2MS	2A201365.D	1	03/12/20	ED	n/a	n/a	V2A8715
JD4440-2MSD	2A201366.D	1	03/12/20	ED	n/a	n/a	V2A8715
JD4440-2	2A201361.D	1	03/12/20	ED	n/a	n/a	V2A8715

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-1, JD4440-2, JD4440-3

CAS No.	Compound	JD4440-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	179	90	200	180	90	1	66-136/13
75-09-2	Methylene chloride	ND		50	50.4	101	50	50.2	100	0	73-125/13
100-42-5	Styrene	ND		50	51.2	102	50	50.2	100	2	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	48.2	96	50	48.6	97	1	71-122/11
127-18-4	Tetrachloroethene	ND		50	54.5	109	50	53.8	108	1	61-139/11
108-88-3	Toluene	ND		50	50.8	102	50	50.0	100	2	60-135/10
87-61-6	1,2,3-Trichlorobenzene	ND		50	53.7	107	50	55.2	110	3	70-138/13
120-82-1	1,2,4-Trichlorobenzene	ND		50	54.8	110	50	54.5	109	1	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		50	53.8	108	50	53.9	108	0	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	49.4	99	50	48.9	98	1	78-121/11
79-01-6	Trichloroethene	0.57		50	51.2	101	50	51.0	101	0	62-141/10
75-69-4	Trichlorofluoromethane	ND		50	60.1	120	50	62.0	124	3	57-149/14
75-01-4	Vinyl chloride	2.9		50	51.0	96	50	52.7	100	3	43-146/15
	m,p-Xylene	ND		100	103	103	100	102	102	1	50-144/20
95-47-6	o-Xylene	ND		50	49.7	99	50	49.1	98	1	63-134/10
1330-20-7	Xylene (total)	ND		150	153	102	150	151	101	1	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JD4440-2	Limits
1868-53-7	Dibromofluoromethane	103%	103%	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	97%	98%	81-124%
2037-26-5	Toluene-D8	102%	102%	99%	80-120%
460-00-4	4-Bromofluorobenzene	98%	98%	96%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4440-5DUP	2A201402.D	1	03/13/20	ED	n/a	n/a	V2A8717
JD4440-5	2A201389.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	JD4440-5 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
74-97-5	Bromochloromethane	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	11.1		8.8		23* [a]	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4440-5DUP	2A201402.D	1	03/13/20	ED	n/a	n/a	V2A8717
JD4440-5	2A201389.D	1	03/13/20	ED	n/a	n/a	V2A8717

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-4, JD4440-5, JD4440-6

CAS No.	Compound	JD4440-5 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	2.6		2.0		26* [a]	20
	m,p-Xylene	ND		ND		nc	20
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD4440-5	Limits
1868-53-7	Dibromofluoromethane	101%	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	98%	81-124%
2037-26-5	Toluene-D8	101%	99%	80-120%
460-00-4	4-Bromofluorobenzene	98%	99%	80-120%

(a) RPD acceptable due to low DUP and sample concentrations.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4593-9DUP	2A201450.D	1	03/16/20	ED	n/a	n/a	V2A8720
JD4593-9	2A201443.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	JD4593-9 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	10 U		ND		nc	20
71-43-2	Benzene	0.50 U		ND		nc	20
74-97-5	Bromochloromethane	1.0 U		ND		nc	20
75-27-4	Bromodichloromethane	1.0 U		ND		nc	20
75-25-2	Bromoform	1.0 U		ND		nc	20
74-83-9	Bromomethane	2.0 U		ND		nc	20
78-93-3	2-Butanone (MEK)	10 U		ND		nc	20
75-15-0	Carbon disulfide	2.0 U		ND		nc	20
56-23-5	Carbon tetrachloride	1.0 U		ND		nc	20
108-90-7	Chlorobenzene	1.0 U		ND		nc	20
75-00-3	Chloroethane	1.0 U		ND		nc	20
67-66-3	Chloroform	1.0 U		ND		nc	20
74-87-3	Chloromethane	1.0 U		ND		nc	20
110-82-7	Cyclohexane	5.0 U		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		ND		nc	20
124-48-1	Dibromochloromethane	1.0 U		ND		nc	20
106-93-4	1,2-Dibromoethane	1.0 U		ND		nc	20
95-50-1	1,2-Dichlorobenzene	1.0 U		ND		nc	20
541-73-1	1,3-Dichlorobenzene	1.0 U		ND		nc	20
106-46-7	1,4-Dichlorobenzene	1.0 U		ND		nc	20
75-71-8	Dichlorodifluoromethane	2.0 U		ND		nc	20
75-34-3	1,1-Dichloroethane	1.0 U		ND		nc	20
107-06-2	1,2-Dichloroethane	1.0 U		ND		nc	20
75-35-4	1,1-Dichloroethene	1.0 U		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	1.0 U		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	1.0 U		ND		nc	20
78-87-5	1,2-Dichloropropane	1.0 U		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	1.0 U		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	1.0 U		ND		nc	20
100-41-4	Ethylbenzene	1.0 U		ND		nc	20
76-13-1	Freon 113	5.0 U		ND		nc	20
591-78-6	2-Hexanone	5.0 U		ND		nc	20
98-82-8	Isopropylbenzene	1.0 U		ND		nc	20
79-20-9	Methyl Acetate	5.0 U		ND		nc	20
108-87-2	Methylcyclohexane	5.0 U		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	1.0 U		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4593-9DUP	2A201450.D	1	03/16/20	ED	n/a	n/a	V2A8720
JD4593-9	2A201443.D	1	03/16/20	ED	n/a	n/a	V2A8720

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4440-7, JD4440-8, JD4440-9

CAS No.	Compound	JD4593-9 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		ND		nc	20
75-09-2	Methylene chloride	2.0 U		ND		nc	20
100-42-5	Styrene	1.0 U		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		ND		nc	20
127-18-4	Tetrachloroethene	1.0 U		ND		nc	20
108-88-3	Toluene	1.0 U		ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	1.0 U		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	1.0 U		ND		nc	20
71-55-6	1,1,1-Trichloroethane	1.0 U		ND		nc	20
79-00-5	1,1,2-Trichloroethane	1.0 U		ND		nc	20
79-01-6	Trichloroethene	1.0 U		ND		nc	20
75-69-4	Trichlorofluoromethane	2.0 U		ND		nc	20
75-01-4	Vinyl chloride	1.0 U		ND		nc	20
	m,p-Xylene	1.0 U		ND		nc	20
95-47-6	o-Xylene	1.0 U		ND		nc	20
1330-20-7	Xylene (total)	1.0 U		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD4593-9	Limits
1868-53-7	Dibromofluoromethane	99%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	95%	81-124%
2037-26-5	Toluene-D8	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	95%	97%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8671-BFB
Lab File ID: 2A200465.D
Instrument ID: GCMS2A
Injection Date: 02/04/20
Injection Time: 15:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17057	17.3		Pass
75	30.0 - 60.0% of mass 95	45730	46.3		Pass
95	Base peak, 100% relative abundance	98709	100.0		Pass
96	5.0 - 9.0% of mass 95	6674	6.76		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	87456	88.6		Pass
175	5.0 - 9.0% of mass 174	6650	6.74	(7.60) [a]	Pass
176	95.0 - 101.0% of mass 174	86488	87.6	(98.9) [a]	Pass
177	5.0 - 9.0% of mass 176	5598	5.67	(6.47) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A8671-IC8671	2A200466.D	02/04/20	16:12	00:35	Initial cal 0.2
V2A8671-IC8671	2A200467.D	02/04/20	16:41	01:04	Initial cal 0.5
V2A8671-IC8671	2A200468.D	02/04/20	17:09	01:32	Initial cal 1
V2A8671-IC8671	2A200469.D	02/04/20	17:38	02:01	Initial cal 2
V2A8671-IC8671	2A200470.D	02/04/20	18:06	02:29	Initial cal 4
V2A8671-IC8671	2A200471.D	02/04/20	18:35	02:58	Initial cal 8
V2A8671-IC8671	2A200472.D	02/04/20	19:04	03:27	Initial cal 20
V2A8671-ICC8671	2A200473.D	02/04/20	19:32	03:55	Initial cal 50
V2A8671-IC8671	2A200474.D	02/04/20	20:01	04:24	Initial cal 100
V2A8671-IC8671	2A200475.D	02/04/20	20:30	04:53	Initial cal 200
V2A8671-ICV8671	2A200478.D	02/04/20	21:55	06:18	Initial cal verification 50
V2A8671-ICV8671	2A200479.D	02/04/20	22:24	06:47	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8715-BFB
Lab File ID: 2A201355.D
Instrument ID: GCMS2A
Injection Date: 03/12/20
Injection Time: 07:15

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	21624	16.8		Pass
75	30.0 - 60.0% of mass 95	60139	46.8		Pass
95	Base peak, 100% relative abundance	128440	100.0		Pass
96	5.0 - 9.0% of mass 95	8685	6.76		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	109587	85.3		Pass
175	5.0 - 9.0% of mass 174	8300	6.46	(7.57) [a]	Pass
176	95.0 - 101.0% of mass 174	109408	85.2	(99.8) [a]	Pass
177	5.0 - 9.0% of mass 176	7205	5.61	(6.59) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A8715-CC8671	2A201355.D	03/12/20	07:15	00:00	Continuing cal 20
V2A8715-BS	2A201356.D	03/12/20	07:50	00:35	Blank Spike
V2A8715-MB	2A201358.D	03/12/20	08:48	01:33	Method Blank
ZZZZZZ	2A201359.D	03/12/20	09:22	02:07	(unrelated sample)
ZZZZZZ	2A201360.D	03/12/20	09:51	02:36	(unrelated sample)
JD4440-2	2A201361.D	03/12/20	10:20	03:05	MW-4
JD4440-1	2A201362.D	03/12/20	10:49	03:34	MW-3
JD4440-3	2A201363.D	03/12/20	11:18	04:03	MW-5
ZZZZZZ	2A201364.D	03/12/20	11:47	04:32	(unrelated sample)
JD4440-2MS	2A201365.D	03/12/20	12:16	05:01	Matrix Spike
JD4440-2MSD	2A201366.D	03/12/20	12:45	05:30	Matrix Spike Duplicate
ZZZZZZ	2A201368.D	03/12/20	13:42	06:27	(unrelated sample)
ZZZZZZ	2A201369.D	03/12/20	14:11	06:56	(unrelated sample)
ZZZZZZ	2A201370.D	03/12/20	14:39	07:24	(unrelated sample)
ZZZZZZ	2A201371.D	03/12/20	15:07	07:52	(unrelated sample)
ZZZZZZ	2A201372.D	03/12/20	15:36	08:21	(unrelated sample)
ZZZZZZ	2A201373.D	03/12/20	16:05	08:50	(unrelated sample)
ZZZZZZ	2A201374.D	03/12/20	16:34	09:19	(unrelated sample)
ZZZZZZ	2A201375.D	03/12/20	17:03	09:48	(unrelated sample)
ZZZZZZ	2A201376.D	03/12/20	17:33	10:18	(unrelated sample)
ZZZZZZ	2A201377.D	03/12/20	18:02	10:47	(unrelated sample)
V2A8715-ECC8671	2A201378.D	03/12/20	18:30	11:15	Ending cal 50

Instrument Performance Check (BFB)

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8717-BFB
Lab File ID: 2A201385.D
Instrument ID: GCMS2A
Injection Date: 03/13/20
Injection Time: 07:14

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	20763	17.2		Pass
75	30.0 - 60.0% of mass 95	56797	47.1		Pass
95	Base peak, 100% relative abundance	120555	100.0		Pass
96	5.0 - 9.0% of mass 95	7601	6.31		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	103747	86.1		Pass
175	5.0 - 9.0% of mass 174	7805	6.47	(7.52) [a]	Pass
176	95.0 - 101.0% of mass 174	100877	83.7	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	7071	5.87	(7.01) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A8717-CC8671	2A201385.D	03/13/20	07:14	00:00	Continuing cal 20
V2A8717-BS	2A201386.D	03/13/20	07:49	00:35	Blank Spike
V2A8717-MB	2A201388.D	03/13/20	08:48	01:34	Method Blank
JD4440-5	2A201389.D	03/13/20	09:32	02:18	MW-E
JD4440-6	2A201390.D	03/13/20	10:01	02:47	DUPLICATE
JD4440-4	2A201391.D	03/13/20	10:30	03:16	MW-8A
ZZZZZZ	2A201392.D	03/13/20	10:59	03:45	(unrelated sample)
ZZZZZZ	2A201393.D	03/13/20	11:28	04:14	(unrelated sample)
ZZZZZZ	2A201394.D	03/13/20	11:57	04:43	(unrelated sample)
ZZZZZZ	2A201395.D	03/13/20	12:26	05:12	(unrelated sample)
ZZZZZZ	2A201396.D	03/13/20	12:55	05:41	(unrelated sample)
ZZZZZZ	2A201397.D	03/13/20	13:24	06:10	(unrelated sample)
ZZZZZZ	2A201398.D	03/13/20	13:53	06:39	(unrelated sample)
ZZZZZZ	2A201399.D	03/13/20	14:22	07:08	(unrelated sample)
JD4440-4MS	2A201400.D	03/13/20	14:52	07:38	Matrix Spike
JD4440-5DUP	2A201402.D	03/13/20	15:50	08:36	Duplicate
ZZZZZZ	2A201403.D	03/13/20	16:19	09:05	(unrelated sample)
ZZZZZZ	2A201406.D	03/13/20	17:46	10:32	(unrelated sample)
ZZZZZZ	2A201407.D	03/13/20	18:15	11:01	(unrelated sample)
ZZZZZZ	2A201408.D	03/13/20	18:44	11:30	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8720-BFB
Lab File ID: 2A201438.D
Instrument ID: GCMS2A
Injection Date: 03/16/20
Injection Time: 07:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18723	16.6		Pass
75	30.0 - 60.0% of mass 95	52227	46.2		Pass
95	Base peak, 100% relative abundance	113112	100.0		Pass
96	5.0 - 9.0% of mass 95	7568	6.69		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	99528	88.0		Pass
175	5.0 - 9.0% of mass 174	7615	6.73	(7.65) [a]	Pass
176	95.0 - 101.0% of mass 174	100349	88.7	(100.8) [a]	Pass
177	5.0 - 9.0% of mass 176	6775	5.99	(6.75) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A8720-CC8671	2A201438.D	03/16/20	07:16	00:00	Continuing cal 20
V2A8720-BS	2A201439.D	03/16/20	08:05	00:49	Blank Spike
V2A8720-MB	2A201441.D	03/16/20	09:02	01:46	Method Blank
JD4593-8	2A201442.D	03/16/20	09:37	02:21	(used for QC only; not part of job JD4440)
JD4593-9	2A201443.D	03/16/20	10:06	02:50	(used for QC only; not part of job JD4440)
ZZZZZZ	2A201444.D	03/16/20	10:35	03:19	(unrelated sample)
ZZZZZZ	2A201445.D	03/16/20	11:04	03:48	(unrelated sample)
ZZZZZZ	2A201446.D	03/16/20	11:32	04:16	(unrelated sample)
ZZZZZZ	2A201447.D	03/16/20	12:01	04:45	(unrelated sample)
JD4593-8MS	2A201448.D	03/16/20	12:29	05:13	Matrix Spike
JD4593-9DUP	2A201450.D	03/16/20	13:27	06:11	Duplicate
ZZZZZZ	2A201451.D	03/16/20	13:56	06:40	(unrelated sample)
ZZZZZZ	2A201452.D	03/16/20	14:25	07:09	(unrelated sample)
JD4440-7	2A201453.D	03/16/20	14:54	07:38	FIELD BLANK
JD4440-8	2A201454.D	03/16/20	15:22	08:06	EQUIPMENT BLANK
JD4440-9	2A201455.D	03/16/20	15:51	08:35	TRIP BLANK
ZZZZZZ	2A201456.D	03/16/20	16:20	09:04	(unrelated sample)
ZZZZZZ	2A201457.D	03/16/20	16:49	09:33	(unrelated sample)
ZZZZZZ	2A201458.D	03/16/20	17:17	10:01	(unrelated sample)
ZZZZZZ	2A201459.D	03/16/20	17:46	10:30	(unrelated sample)
ZZZZZZ	2A201460.D	03/16/20	18:15	10:59	(unrelated sample)
V2A8720-ECC8671	2A201461.D	03/16/20	18:44	11:28	Ending cal 50

Internal Standard Area Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Check Std:	V2A8715-CC8671	**Injection Date:**	03/12/20
Lab File ID:	2A201355.D	**Injection Time:**	07:15
Instrument ID:	GCMS2A	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	110470	7.30	339981	9.56	504154	10.49	416764	13.61	215662	15.93
Upper Limit [a]	220940	7.80	679962	10.06	1008308	10.99	833528	14.11	431324	16.43
Lower Limit [b]	55235	6.80	169991	9.06	252077	9.99	208382	13.11	107831	15.43

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2A8715-BS	99978	7.30	338816	9.56	504558	10.49	409676	13.61	213179	15.93
V2A8715-MB	95820	7.31	337542	9.56	500366	10.49	411162	13.61	210673	15.93
ZZZZZZ	57451	7.30	252440	9.57	370819	10.49	304843	13.61	151954	15.93
ZZZZZZ	80328	7.30	325679	9.56	480422	10.49	394205	13.61	199947	15.93
JD4440-2	88003	7.30	327448	9.56	480174	10.49	394666	13.61	203749	15.93
JD4440-1	83243	7.30	316062	9.56	465985	10.49	379198	13.61	197120	15.93
JD4440-3	103505	7.30	313610	9.56	461656	10.49	377877	13.61	196958	15.93
ZZZZZZ	128464	7.30	317768	9.56	465856	10.49	386915	13.61	201450	15.93
JD4440-2MS	94340	7.31	326910	9.56	488080	10.49	391033	13.61	200214	15.93
JD4440-2MSD	96347	7.30	324464	9.56	483318	10.49	390600	13.61	200531	15.93
ZZZZZZ	100641	7.30	340316	9.56	507772	10.49	409717	13.61	209102	15.93
ZZZZZZ	103549	7.29	341075	9.56	502759	10.48	412873	13.61	213605	15.93
ZZZZZZ	98849	7.30	327210	9.56	486773	10.49	397888	13.61	206882	15.93
ZZZZZZ	98252	7.30	328277	9.56	485025	10.49	397397	13.61	201796	15.93
ZZZZZZ	96361	7.30	325363	9.56	483758	10.49	397279	13.61	202686	15.93
ZZZZZZ	94462	7.30	323617	9.56	476046	10.49	386188	13.61	201076	15.93
ZZZZZZ	94782	7.30	322157	9.56	482840	10.49	396116	13.61	202222	15.93
ZZZZZZ	93621	7.31	317222	9.56	467681	10.49	380874	13.61	199897	15.93
ZZZZZZ	93032	7.30	326339	9.56	485899	10.49	393147	13.61	201662	15.93
ZZZZZZ	96999	7.30	326065	9.56	481209	10.49	396392	13.61	206383	15.93
V2A8715-ECC8671	97460	7.30	320525	9.57	481433	10.49	383273	13.61	197106	15.93

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Check Std:	V2A8717-CC8671	**Injection Date:**	03/13/20
Lab File ID:	2A201385.D	**Injection Time:**	07:14
Instrument ID:	GCMS2A	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	102644	7.30	324251	9.56	482590	10.49	401824	13.61	207228	15.93
Upper Limit [a]	205288	7.80	648502	10.06	965180	10.99	803648	14.11	414456	16.43
Lower Limit [b]	51322	6.80	162126	9.06	241295	9.99	200912	13.11	103614	15.43

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2A8717-BS	100399	7.31	326168	9.57	480843	10.49	396386	13.61	206304	15.93
V2A8717-MB	100188	7.30	327034	9.57	478686	10.49	395559	13.61	203961	15.93
JD4440-5	64985	7.30	242375	9.56	351461	10.49	292213	13.61	142306	15.93
JD4440-6	85661	7.30	322278	9.56	477175	10.49	391876	13.61	199973	15.93
JD4440-4	92526	7.31	322102	9.57	474452	10.49	390133	13.61	200747	15.93
ZZZZZZ	92387	7.30	318364	9.56	468935	10.49	389888	13.61	197577	15.93
ZZZZZZ	79937	7.30	306902	9.56	450943	10.49	370152	13.61	192313	15.93
ZZZZZZ	87966	7.30	318219	9.56	468554	10.49	385387	13.61	199389	15.93
ZZZZZZ	88619	7.30	310603	9.57	462030	10.49	380131	13.61	194443	15.93
ZZZZZZ	94861	7.30	311862	9.56	469342	10.49	382765	13.61	197966	15.93
ZZZZZZ	105023	7.30	309749	9.56	455519	10.49	375489	13.61	192918	15.93
ZZZZZZ	112934	7.31	325150	9.57	480527	10.49	396711	13.61	205391	15.93
ZZZZZZ	132980	7.30	328953	9.56	491401	10.49	403680	13.61	206660	15.93
JD4440-4MS	98754	7.30	336814	9.56	498561	10.49	404671	13.61	208337	15.93
JD4440-5DUP	109879	7.30	343794	9.56	506901	10.49	412171	13.61	212952	15.93
ZZZZZZ	96467	7.29	336321	9.56	498898	10.49	412921	13.61	210363	15.93
ZZZZZZ	103879	7.30	340046	9.56	504111	10.49	413900	13.61	213819	15.93
ZZZZZZ	128683	7.30	330161	9.56	493699	10.49	407842	13.61	210118	15.93
ZZZZZZ	108230	7.30	335000	9.56	492813	10.49	407469	13.61	211647	15.93

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Check Std:	V2A8720-CC8671	**Injection Date:**	03/16/20
Lab File ID:	2A201438.D	**Injection Time:**	07:16
Instrument ID:	GCMS2A	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	89813	7.31	313389	9.56	457336	10.49	376848	13.61	193251	15.93
Upper Limit [a]	179626	7.81	626778	10.06	914672	10.99	753696	14.11	386502	16.43
Lower Limit [b]	44907	6.81	156695	9.06	228668	9.99	188424	13.11	96626	15.43

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2A8720-BS	88567	7.30	332860	9.56	473054	10.49	384685	13.61	193585	15.93
V2A8720-MB	83496	7.30	310407	9.56	451093	10.49	369133	13.61	190327	15.93
JD4593-8	60090	7.30	268167	9.56	388869	10.49	318709	13.61	157215	15.93
JD4593-9	73183	7.29	304581	9.56	440004	10.49	364469	13.61	186182	15.93
ZZZZZZ	78698	7.29	298750	9.56	437549	10.49	361380	13.61	184327	15.93
ZZZZZZ	81062	7.30	303686	9.56	443255	10.49	367469	13.61	185500	15.93
ZZZZZZ	84495	7.30	296356	9.56	431115	10.49	361853	13.61	180817	15.93
ZZZZZZ	84013	7.30	297217	9.56	434706	10.49	363863	13.61	181709	15.93
JD4593-8MS	81581	7.30	299035	9.56	439279	10.49	351375	13.61	182331	15.93
JD4593-9DUP	82551	7.29	307437	9.56	446622	10.49	370243	13.61	190833	15.93
ZZZZZZ	82112	7.30	306201	9.56	448132	10.49	369953	13.61	189022	15.93
ZZZZZZ	81653	7.30	307148	9.56	451429	10.49	366346	13.61	185476	15.93
JD4440-7	83132	7.30	302411	9.56	443799	10.49	365164	13.61	188088	15.93
JD4440-8	83277	7.30	300824	9.56	438447	10.49	361744	13.61	188443	15.93
JD4440-9	78867	7.30	297983	9.56	437851	10.49	355608	13.61	184267	15.93
ZZZZZZ	81268	7.29	295430	9.56	444225	10.49	361097	13.61	182737	15.93
ZZZZZZ	77046	7.29	292170	9.56	424728	10.49	346532	13.61	177354	15.93
ZZZZZZ	83447	7.30	294857	9.56	430883	10.49	353681	13.61	181133	15.93
ZZZZZZ	83479	7.30	289577	9.56	424658	10.49	344810	13.61	179919	15.93
ZZZZZZ	84995	7.29	295489	9.56	434824	10.48	357795	13.61	187765	15.93
V2A8720-ECC8678	84376	7.30	301136	9.56	448736	10.49	355343	13.61	186383	15.93

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD4440-1	2A201362.D	101	97	100	97
JD4440-2	2A201361.D	101	98	99	96
JD4440-3	2A201363.D	103	99	100	96
JD4440-4	2A201391.D	102	100	100	97
JD4440-5	2A201389.D	99	98	99	99
JD4440-6	2A201390.D	103	98	99	98
JD4440-7	2A201453.D	100	96	100	95
JD4440-8	2A201454.D	99	97	100	96
JD4440-9	2A201455.D	100	96	100	97
JD4440-2MS	2A201365.D	103	98	102	98
JD4440-2MSD	2A201366.D	103	97	102	98
JD4440-4MS	2A201400.D	103	97	101	98
JD4440-5DUP	2A201402.D	101	97	101	98
JD4593-8MS	2A201448.D	100	94	103	97
JD4593-9DUP	2A201450.D	99	95	100	95
V2A8715-BS	2A201356.D	103	99	101	97
V2A8715-MB	2A201358.D	102	99	100	97
V2A8717-BS	2A201386.D	102	101	99	97
V2A8717-MB	2A201388.D	102	100	100	97
V2A8720-BS	2A201439.D	93	98	100	98
V2A8720-MB	2A201441.D	100	97	100	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8671-ICC8671
Lab FileID: 2A200473.D

Response Factor Report Instrumen

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
Last Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Calibration Files
4 =2A200470.D 8 =2A200471.D 0.5 =2A200467.D 50 =2A200473.D
100 =2A200474.D 1 =2A200468.D 200 =2A200475.D 20 =2A200472.D
2 =2A200469.D 0.2 =2A200466.D = =

Compound	4	8	0.5	50	100	1	200	20	2	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	----------ISTD----------											
2) ethanol	0.142	0.158	0.152	0.161	0.115	0.153	0.148	0.176			0.150	11.77
3) tertiary butyl alcohol	1.315	1.393	1.432	1.536		1.476	1.402	1.532			1.441	5.55
4) 1,4-dioxane	0.125	0.131	0.135	0.147		0.142	0.137	0.142			0.137	5.50
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane												
This compound does not meet initial calibration criteria												
	0.725	0.692	0.656	0.698	0.735	0.700	0.654	0.714	0.742		0.702	4.51
7) dichlorodifluoromethane												
	0.817	0.830	0.792	0.800	0.496	0.751	0.817	0.719			0.753	14.63
8) chloromethane												
	0.916	0.926	0.903	0.892	0.888	0.992	0.834	0.931	0.891		0.908	4.66
9) vinyl chloride												
	0.917	0.880	0.770	0.877	0.881	0.864	0.829	0.920	0.848		0.865	5.32
10) 1,3-butadiene												
	0.513	0.495	0.503	0.539	0.459	0.478	0.515	0.539			0.505	5.51
11) bromomethane												
	0.572	0.584	0.541	0.528	0.690	0.488	0.568	0.586			0.570	10.33
12) chloroethane												
	0.449	0.444	0.458	0.446	0.448	0.431	0.427	0.452	0.439		0.444	2.21
13) vinyl bromide												
	0.466	0.482	0.383	0.474	0.486	0.409	0.460	0.492	0.449		0.456	8.12
14) trichlorofluoromethane												
	0.909	0.928	0.914	0.919		0.869	0.922	0.852			0.902	3.23
15) ethyl ether												
	0.278	0.287	0.301	0.319	0.280	0.299	0.306	0.344			0.302	7.35
16) 2-chloropropane												
	0.224	0.235	0.237	0.252		0.236	0.240	0.255			0.240	4.49
17) acrolein												
	0.063	0.073	0.084	0.091		0.086	0.084				0.080	12.85
18) freon 113												
	0.408	0.421	0.430	0.458		0.423	0.427	0.382			0.421	5.47
19) 1,1-dichloroethene												
	0.484	0.497	0.395	0.496	0.526	0.471	0.487	0.499	0.532		0.488	8.16
20) acetone												
	0.111	0.115	0.117	0.123	0.104	0.114	0.117	0.137			0.117	8.06
21) acetonitrile												
	0.056	0.058	0.059	0.062		0.058	0.060	0.066			0.060	5.48
22) iodomethane												
	0.734	0.738	0.742	0.797	0.705	0.739	0.747	0.860			0.758	6.42

Initial Calibration Summary

Job Number: JD4440 **Sample:** V2A8671-ICC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A200473.D
Project: Orangetown Shopping Center, Orangeburg, NY

23) carbon disulfide
1.457 1.419 1.432 1.525 1.441 1.603 1.479 4.79
24) methylene chloride
0.565 0.569 0.568 0.572 0.606 0.582 0.565 0.571 0.690 0.588 6.92
25) methyl acetate
0.342 0.341 0.351 0.377 0.354 0.360 0.386 0.359 4.79
26) methyl tert butyl ether
1.420 1.412 1.325 1.425 1.468 1.441 1.357 1.442 1.740 1.267 1.430 8.77
27) trans-1,2-dichloroethene
0.553 0.543 0.496 0.543 0.581 0.570 0.542 0.546 0.650 0.558 7.46
28) hexane
0.821 0.832 0.862 0.901 0.607 0.843 0.846 0.789 0.812 10.99
29) di-isopropyl ether
1.938 1.975 1.923 1.987 2.069 2.027 1.891 2.020 2.320 1.881 2.003 6.34
30) ethyl tert-butyl ether
1.792 1.793 1.759 1.790 1.841 1.814 1.679 1.828 2.132 1.796 1.822 6.46
31) 2-butanone
0.043 0.044 0.049 0.052 0.049 0.048 0.050 0.048 6.65
32) 1,1-dichloroethane
1.044 1.034 1.039 1.037 1.087 1.075 1.010 1.044 1.206 1.064 5.45
33) chloroprene
0.830 0.818 0.755 0.862 0.908 0.808 0.852 0.852 0.944 0.848 6.55
34) acrylonitrile
0.141 0.175 0.175 0.189 0.178 0.177 0.169 0.172 8.70
35) vinyl acetate
0.092 0.094 0.103 0.112 0.108 0.105 0.103 7.55
36) ethyl acetate
0.064 0.066 0.071 0.076 0.073 0.075 0.071 7.00
37) 2,2-dichloropropane
0.850 0.800 0.836 0.808 0.847 0.775 0.776 0.834 0.989 0.835 7.71
38) cis-1,2-dichloroethene
0.617 0.618 0.621 0.653 0.589 0.615 0.623 0.751 0.636 7.81
39) propionitrile
0.051 0.052 0.054 0.057 0.044 0.053 0.055 0.064 0.054 10.33
40) bromochloromethane
0.379 0.385 0.390 0.414 0.341 0.391 0.393 0.443 0.392 7.49
41) tetrahydrofuran
0.128 0.118 0.126 0.136 0.127 0.130 0.130 0.128 4.20
42) chloroform
1.015 0.986 0.937 1.009 1.060 1.016 0.988 1.032 1.189 1.048 1.028 6.47
43) tert-butyl formate
0.420 0.439 0.447 0.482 0.444 0.457 0.512 0.457 6.66
44) isobutyl alcohol
0.016 0.015 0.017 0.019 0.018 0.018 0.017 9.81
45) dibromofluoromethane (s)
0.453 0.455 0.455 0.453 0.451 0.453 0.458 0.460 0.450 0.456 0.454 0.61
46) methacrylonitrile
0.173 0.178 0.189 0.204 0.194 0.191 0.209 0.191 6.79
47) 1,1,1-trichloroethane
0.874 0.889 0.811 0.896 0.939 0.854 0.876 0.901 1.011 0.895 6.23
48) cyclohexane
0.848 0.828 0.799 0.827 0.785 0.822 0.793 0.815 2.77
49) 1,1-dichloropropene
0.764 0.766 0.766 0.780 0.825 0.727 0.775 0.788 0.890 0.787 5.89
50) tert-amyl alcohol
0.020 0.020 0.021 0.023 0.022 0.021 0.021 5.78
51) carbon tetrachloride
0.785 0.812 0.810 0.853 0.760 0.801 0.805 0.890 0.814 4.94

52) I 1,4-difluorobenzene ----------ISTD----------

Initial Calibration Summary

Job Number: JD4440 **Sample:** V2A8671-ICC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A200473.D
Project: Orangetown Shopping Center, Orangeburg, NY

53) 1,2-dichloroethane-d4 (s)
0.335 0.336 0.332 0.330 0.328 0.335 0.322 0.332 0.333 0.334 0.332 1.24
54) 2,2,4-trimethylpentane
1.457 1.449 1.496 1.543 1.155 1.387 1.470 1.399 1.419 8.32
55) tert-amyl methyl ether
1.129 1.146 1.070 1.131 1.152 1.136 1.029 1.141 1.352 1.071 1.136 7.61
56) n-butyl alcohol
0.007 0.007 0.008 0.008 0.008 0.008 0.008 0.008 6.70
57) benzene
1.480 1.489 1.624 1.481 1.534 1.493 1.392 1.480 1.736 1.423 1.513 6.59
58) heptane
0.297 0.306 0.322 0.338 0.232 0.314 0.316 0.291 0.302 10.56
59) isopropyl acetate
0.061 0.064 0.072 0.076 0.072 0.070 0.069 8.10
60) 1,2-dichloroethane
0.515 0.507 0.568 0.503 0.521 0.539 0.481 0.508 0.611 0.528 7.49
61) trichloroethene
0.393 0.378 0.365 0.389 0.409 0.383 0.384 0.383 0.452 0.393 6.40
62) ethyl acrylate
0.380 0.406 0.426 0.445 0.344 0.413 0.425 0.459 0.412 8.84
63) 2-nitropropane
0.066 0.072 0.077 0.082 0.078 0.071 0.075 7.65
64) 2-chloroethyl vinyl ether
0.164 0.169 0.144 0.180 0.188 0.166 0.173 0.176 0.198 0.173 8.94
65) methyl methacrylate
0.072 0.081 0.085 0.089 0.085 0.083 0.079 0.082 6.63
66) 1,2-dichloropropane
0.417 0.399 0.370 0.412 0.428 0.401 0.394 0.408 0.454 0.409 5.68
67) methylcyclohexane
0.643 0.643 0.661 0.689 0.471 0.631 0.641 0.618 0.625 10.50
68) dibromomethane
0.225 0.223 0.230 0.240 0.199 0.226 0.228 0.260 0.229 7.51
69) bromodichloromethane
0.525 0.521 0.484 0.534 0.563 0.524 0.522 0.533 0.604 0.485 0.530 6.60
70) epichlorohydrin
0.028 0.029 0.030 0.031 0.030 0.030 0.032 0.030 4.45
71) cis-1,3-dichloropropene
0.613 0.628 0.555 0.649 0.678 0.587 0.628 0.644 0.740 0.636 8.33
72) 4-methyl-2-pentanone
0.113 0.118 0.109 0.120 0.123 0.116 0.115 0.119 0.143 0.120 8.19
73) 3-methyl-1-butanol
0.006 0.006 0.007 0.008 0.007 0.007 0.007 0.007 7.56

74) I chlorobenzene-d5 ----------ISTD----------
75) toluene-d8 (s)
1.252 1.261 1.262 1.271 1.297 1.266 1.323 1.261 1.258 1.241 1.269 1.88
76) toluene
1.045 1.009 1.063 1.042 1.109 1.080 1.059 1.032 1.206 1.040 1.069 5.20
77) trans-1,3-dichloropropene
0.632 0.623 0.559 0.656 0.699 0.585 0.668 0.649 0.722 0.603 0.640 7.82
78) ethyl methacrylate
0.450 0.466 0.495 0.530 0.408 0.514 0.485 0.535 0.485 8.87
79) 1,1,2-trichloroethane
0.296 0.305 0.283 0.312 0.332 0.273 0.322 0.313 0.376 0.313 9.63
80) 2-hexanone
0.119 0.124 0.128 0.133 0.110 0.129 0.125 0.138 0.126 6.82
81) tetrachloroethene
0.464 0.457 0.452 0.474 0.504 0.480 0.485 0.472 0.542 0.481 5.74
82) 1,3-dichloropropane
0.587 0.599 0.559 0.608 0.644 0.606 0.612 0.600 0.687 0.611 5.89

```
 83)  butyl acetate
       0.237 0.244       0.255 0.273       0.265 0.254 0.272        0.257    5.41
 84)  dibromochloromethane
       0.427 0.424 0.441 0.464 0.497 0.410 0.479 0.449 0.510        0.456    7.53
 85)  1,2-dibromoethane
       0.398 0.396 0.357 0.421 0.438 0.356 0.422 0.413 0.469        0.408    8.90
 86)  n-butyl ether
       1.906 1.890 1.696 1.924 1.994 1.833 1.804 1.921 2.178 1.629  1.877    8.15
 87)  chlorobenzene
       1.134 1.129 1.146 1.159 1.210 1.167 1.135 1.143 1.370 1.022  1.161    7.52
 88)  1,1,1,2-tetrachloroethane
       0.420 0.432 0.419 0.450 0.481 0.399 0.452 0.439 0.505        0.444    7.38
 89)  ethylbenzene
       1.943 1.916 1.987 1.915 1.989 2.007 1.779 1.930 2.288 1.709  1.946    7.85
 90)  m,p-xylene
       0.732 0.746 0.748 0.750 0.789 0.710 0.738 0.745 0.864 0.629  0.745    7.89
 91)  o-xylene
       1.556 1.554 1.576 1.553 1.614 1.535 1.472 1.559 1.854 1.553  1.583    6.41
 92)  styrene
       1.198 1.220 1.131 1.231 1.296 1.146 1.196 1.238 1.379 0.966  1.200    9.07
 93)  n-amyl acetate
       0.272 0.258       0.278 0.294 0.220 0.290 0.268 0.291        0.271    8.98
 94)  bromoform
       0.252 0.261 0.253 0.292 0.316 0.238 0.307 0.280 0.305        0.278   10.12
 95)  butyl acrylate
       0.711 0.772       0.827 0.866 0.671 0.825 0.797 0.865        0.792    8.91
 96)  isopropylbenzene
       1.875 1.879 1.852 1.889 1.960 1.900 1.777 1.887 2.192 1.687  1.890    6.88
 97)  cis-1,4-dichloro-2-butene
       0.132 0.145       0.169 0.180       0.177 0.153              0.159   11.97

 98) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 99)  4-bromofluorobenzene (s)
       0.944 0.942 0.937 0.946 0.946 0.942 0.951 0.944 0.938 0.937  0.943    0.48
100)  bromobenzene
       1.000 0.985 0.974 1.006 1.042 0.901 0.969 1.015 1.194 0.855  0.994    9.00
101)  1,1,2,2-tetrachloroethane
       0.859 0.834 0.735 0.877 0.906 0.789 0.847 0.857 1.014        0.858    8.99
102)  trans-1,4-dichloro-2-butene
       0.192 0.203       0.221 0.234       0.226 0.217 0.216        0.216    6.54
103)  1,2,3-trichloropropane
       0.206 0.218       0.221 0.229       0.216 0.220 0.249        0.223    6.05
104)  n-propylbenzene
       4.383 4.343 4.197 4.299 4.370 4.305 3.810 4.362 5.061 4.120  4.325    7.20
105)  2-chlorotoluene
       0.926 0.903 0.868 0.943 0.987 0.923 0.916 0.925 1.099        0.943    7.04
106)  4-chlorotoluene
       2.689 2.635 2.608 2.633 2.734 2.642 2.477 2.658 3.094 2.305  2.647    7.53
107)  1,3,5-trimethylbenzene
       3.036 3.033 2.885 3.088 3.186 2.936 2.834 3.110 3.486 2.755  3.035    6.82
108)  tert-butylbenzene
       2.606 2.540 2.475 2.635 2.703 2.545 2.454 2.623 2.914 2.168  2.566    7.46
109)  1,2,4-trimethylbenzene
       3.129 3.051 2.839 3.068 3.167 2.883 2.839 3.078 3.562 2.718  3.034    7.83
110)  sec-butylbenzene
       3.933 3.978 3.709 3.933 4.024 3.821 3.523 3.953 4.426 3.632  3.893    6.40
111)  1,3-dichlorobenzene
       1.765 1.812 1.760 1.816 1.885 1.755 1.715 1.812 2.117 1.537  1.797    8.06
112)  p-isopropyltoluene
       3.296 3.267 3.017 3.323 3.419 3.145 3.029 3.348 3.621 2.857  3.232    6.92
```

Initial Calibration Summary

Job Number: JD4440 **Sample:** V2A8671-ICC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A200473.D
Project: Orangetown Shopping Center, Orangeburg, NY

```
113)  benzyl chloride
       1.561 1.517 1.465 1.657 1.724 1.465 1.599 1.606 1.886        1.609    8.35
114)  1,4-dichlorobenzene
       1.848 1.770 1.840 1.822 1.904 1.792 1.739 1.839 2.098 1.895  1.855    5.37
115)  1,2-dichlorobenzene
       1.749 1.691 1.726 1.737 1.807 1.661 1.648 1.755 2.022 1.400  1.720    8.94
116)  n-butylbenzene
       1.766 1.723 1.600 1.778 1.855 1.621 1.701 1.774 1.912 1.526  1.726    6.85
117)  1,2-dibromo-3-chloropropane
       0.151 0.160       0.178 0.188 0.143 0.181 0.172 0.176        0.168    9.37
118)  1,3,5-trichlorobenzene
       1.552 1.561 1.404 1.605 1.651 1.431 1.482 1.581 1.741 1.211  1.522    9.74
119)  1,2,4-trichlorobenzene
       1.253 1.295 1.030 1.361 1.420 1.139 1.290 1.311 1.456 1.152  1.271   10.39
120)  hexachlorobutadiene
       0.710 0.704 0.652 0.730 0.774 0.665 0.682 0.720 0.766 0.580  0.698    8.21
121)  naphthalene
       2.064 2.162 1.775 2.383 2.473 1.891 2.263 2.301 2.357        2.185   10.74
122)  1,2,3-trichlorobenzene
       1.037 1.080 1.028 1.161 1.221 1.003 1.102 1.117 1.180 0.982  1.091    7.30
123)  hexachloroethane
       0.547 0.560 0.491 0.617 0.665 0.536 0.624 0.585 0.625        0.583    9.35
124)  2-ethylhexyl acrylate
             0.518       0.811 0.978       0.926 0.633              0.773   25.16
             ----- Linear regression -----  Coefficient =  0.9961
               Response Ratio = -0.01768 + 0.95910 *A

125)  2-methylnaphthalene
             0.790       1.094 1.209       1.152 0.949              1.039   16.31
126)  bis(chloromethyl)ether
                                                                    0.000   -1.00
127)  ethylenimine
                                                                    0.000   -1.00

128)     pentafluorobenzene(a) ----------------ISTD---------------------
129)  freon 142b
       0.876 0.845       0.907 0.854 0.901 0.819 0.884 0.811        0.862    4.18

130)     chlorobenzene-d5(a)   ----------------ISTD---------------------
131)  cyclohexanone
       0.010 0.010       0.011 0.010       0.010 0.010 0.009        0.010    3.81
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2A8671.M         Mon Mar 09 11:38:24 2020   MS2A
```

Initial Calibration Verification

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8671-ICV8671
Lab FileID: 2A200478.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\V2A8671\2A200478.D Vial: 14
Acq On : 4 Feb 2020 9:55 pm Operator: CHELSEAS
Sample : ICV8671-50 Inst : Instrumen
Misc : MS40388,V2A8671,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
Last Update : Thu Feb 06 10:48:34 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	106	0.00	7.30
2	ethanol	0.150	0.152	-1.3	107	0.00	6.01
3	tertiary butyl alcohol	1.441	1.384	4.0	103	0.00	7.41
4	1,4-dioxane	0.137	0.142	-3.6	112	0.00	11.13
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	9.56
6	chlorodifluoromethane		----------NA----------				
7	dichlorodifluoromethane	0.753	0.621	17.5	82	0.00	4.01
8	chloromethane	0.908	0.797	12.2	93	0.00	4.38
9	vinyl chloride	0.865	0.776	10.3	92	0.00	4.61
10	1,3-butadiene	0.505	0.639	-26.5	132	0.00	4.65
11	bromomethane	0.570	0.624	-9.5	120	0.00	5.22
12	chloroethane	0.444	0.386	13.1	90	-0.01	5.39
13	vinyl bromide	0.456	0.528	-15.8	116	-0.01	5.73
14	trichlorofluoromethane	0.902	0.852	5.5	97	0.00	5.85
15	ethyl ether	0.302	0.307	-1.7	106	0.00	6.23
16	2-chloropropane	0.240	0.238	0.8	105	0.00	6.44
17	acrolein	0.080	0.082	-2.5	102	0.00	6.46
18	freon 113	0.421	0.422	-0.2	102	0.00	6.66
19	1,1-dichloroethene	0.488	0.479	1.8	101	0.00	6.65
20	acetone	0.117	0.117	0.0	105	0.00	6.65
21	acetonitrile		----------NA----------				
22	iodomethane	0.758	0.985	-29.9	138	0.00	6.90
23	carbon disulfide	1.479	1.774	-19.9	129	0.00	7.03
24	methylene chloride	0.588	0.574	2.4	104	0.00	7.35
25	methyl acetate	0.359	0.335	6.7	99	0.00	7.11
26	methyl tert butyl ether	1.430	1.388	2.9	102	0.00	7.70
27	trans-1,2-dichloroethene	0.558	0.550	1.4	105	0.00	7.74
28	hexane	0.812	0.672	17.2	81	0.00	8.09
29	di-isopropyl ether	2.003	1.888	5.7	99	0.00	8.30
30	ethyl tert-butyl ether	1.822	1.696	6.9	99	0.00	8.75
31	2-butanone	0.048	0.048	0.0	102	0.00	8.96
32	1,1-dichloroethane	1.064	1.052	1.1	106	0.00	8.31
33	chloroprene	0.848	0.875	-3.2	106	0.00	8.41
34	acrylonitrile		----------NA----------				
35	vinyl acetate	0.103	0.102	1.0	103	0.00	8.25
36	ethyl acetate	0.071	0.067	5.6	97	0.00	8.97
37	2,2-dichloropropane	0.835	0.756	9.5	97	0.00	9.05
38	cis-1,2-dichloroethene	0.636	0.602	5.3	101	0.00	9.02
39	propionitrile	0.054	0.062	-14.8	119	0.00	9.04
40	bromochloromethane	0.392	0.392	0.0	105	0.00	9.31
41	tetrahydrofuran	0.128	0.128	0.0	106	0.00	9.34

Initial Calibration Verification

Job Number: JD4440 **Sample:** V2A8671-ICV8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A200478.D
Project: Orangetown Shopping Center, Orangeburg, NY

42	chloroform	1.028	1.007	2.0	104	0.00	9.40
43	tert-butyl formate	0.457	0.476	-4.2	111	0.00	9.44
44	isobutyl alcohol	0.017	0.017	0.0	103	0.00	9.80
45 S	dibromofluoromethane (s)	0.454	0.457	-0.7	105	0.00	9.59
46	methacrylonitrile	0.191	0.199	-4.2	110	0.00	9.23
47	1,1,1-trichloroethane	0.895	0.874	2.3	102	0.00	9.66
48	cyclohexane	0.815	0.773	5.2	101	0.00	9.76
49	1,1-dichloropropene	0.787	0.776	1.4	104	0.00	9.83
50	tert-amyl alcohol	0.021	0.021	0.0	103	0.00	9.96
51	carbon tetrachloride	0.814	0.814	0.0	105	0.00	9.85
52 I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	10.49
53 S	1,2-dichloroethane-d4 (s)	0.332	0.327	1.5	105	0.00	10.01
54	2,2,4-trimethylpentane	1.419	1.404	1.1	100	0.00	10.17
55	tert-amyl methyl ether	1.136	1.009	11.2	95	0.00	10.16
56	n-butyl alcohol	0.008	0.008	0.0	102	0.00	10.54
57	benzene	1.513	1.465	3.2	105	0.00	10.07
58	heptane	0.302	0.297	1.7	98	0.00	10.33
59	isopropyl acetate	0.069	0.066	4.3	98	0.00	9.99
60	1,2-dichloroethane	0.528	0.482	8.7	102	0.00	10.10
61	trichloroethene	0.393	0.387	1.5	105	0.00	10.80
62	ethyl acrylate	0.412	0.401	2.7	100	0.00	10.79
63	2-nitropropane	0.075	0.078	-4.0	107	0.00	11.56
64	2-chloroethyl vinyl ether	0.173	0.185	-6.9	109	0.00	11.59
65	methyl methacrylate	0.082	0.084	-2.4	106	0.00	11.05
66	1,2-dichloropropane	0.409	0.396	3.2	102	0.00	11.09
67	methylcyclohexane	0.625	0.633	-1.3	102	0.00	11.09
68	dibromomethane	0.229	0.220	3.9	101	0.00	11.19
69	bromodichloromethane	0.530	0.512	3.4	102	0.00	11.35
70	epichlorohydrin	0.030	0.030	0.0	105	0.00	11.67
71	cis-1,3-dichloropropene	0.636	0.632	0.6	103	0.00	11.80
72	4-methyl-2-pentanone	0.120	0.116	3.3	102	0.00	11.91
73	3-methyl-1-butanol	0.007	0.007	0.0	102	0.00	11.91
74 I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	13.61
75 S	toluene-d8 (s)	1.269	1.285	-1.3	107	0.00	12.11
76	toluene	1.069	1.034	3.3	105	0.00	12.18
77	trans-1,3-dichloropropene	0.640	0.657	-2.7	106	0.00	12.37
78	ethyl methacrylate	0.485	0.508	-4.7	108	0.00	12.36
79	1,1,2-trichloroethane	0.313	0.314	-0.3	106	0.00	12.59
80	2-hexanone	0.126	0.122	3.2	101	0.00	12.76
81	tetrachloroethene		----------NA----------				
82	1,3-dichloropropane	0.611	0.600	1.8	104	0.00	12.77
83	butyl acetate	0.257	0.249	3.1	103	0.00	12.83
84	dibromochloromethane	0.456	0.470	-3.1	107	0.00	13.01
85	1,2-dibromoethane	0.408	0.420	-2.9	105	0.00	13.16
86	n-butyl ether	1.877	1.821	3.0	100	0.00	13.60
87	chlorobenzene	1.161	1.153	0.7	105	0.00	13.64
88	1,1,1,2-tetrachloroethane	0.444	0.442	0.5	103	0.00	13.71
89	ethylbenzene	1.946	1.880	3.4	104	0.00	13.70
90	m,p-xylene	0.745	0.739	0.8	104	0.00	13.82
91	o-xylene	1.583	1.511	4.5	103	0.00	14.22
92	styrene	1.200	1.211	-0.9	104	0.00	14.23
93	n-amyl acetate	0.271	0.254	6.3	96	0.00	14.27
94	bromoform	0.278	0.307	-10.4	111	0.00	14.46
95	butyl acrylate	0.792	0.786	0.8	100	0.00	14.06
96	isopropylbenzene	1.890	1.843	2.5	103	0.00	14.57
97	cis-1,4-dichloro-2-butene	0.159	0.166	-4.4	104	0.00	14.61
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	15.93

Initial Calibration Verification

Job Number: JD4440 **Sample:** V2A8671-ICV8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A200478.D
Project: Orangetown Shopping Center, Orangeburg, NY

99 S	4-bromofluorobenzene (s)	0.943	0.928	1.6	104	0.00	14.76
100	bromobenzene	0.994	0.973	2.1	103	0.00	14.95
101	1,1,2,2-tetrachloroethane	0.858	0.849	1.0	103	0.00	14.85
102	trans-1,4-dichloro-2-bute	0.216	0.207	4.2	100	0.00	14.88
103	1,2,3-trichloropropane	0.223	0.210	5.8	101	0.00	14.93
104	n-propylbenzene	4.325	4.213	2.6	104	0.00	14.98
105	2-chlorotoluene	0.943	0.893	5.3	101	0.00	15.11
106	4-chlorotoluene	2.647	2.597	1.9	105	0.00	15.22
107	1,3,5-trimethylbenzene	3.035	2.965	2.3	102	0.00	15.14
108	tert-butylbenzene	2.566	2.526	1.6	102	0.00	15.48
109	1,2,4-trimethylbenzene	3.034	3.040	-0.2	105	0.00	15.53
110	sec-butylbenzene	3.893	3.821	1.8	103	0.00	15.70
111	1,3-dichlorobenzene	1.797	1.803	-0.3	106	0.00	15.86
112	p-isopropyltoluene	3.232	3.261	-0.9	104	0.00	15.83
113	benzyl chloride	1.609	1.195	25.7	77	0.00	16.05
114	1,4-dichlorobenzene	1.855	1.794	3.3	105	0.00	15.96
115	1,2-dichlorobenzene	1.720	1.716	0.2	105	0.00	16.33
116	n-butylbenzene	1.726	1.722	0.2	103	0.00	16.23
117	1,2-dibromo-3-chloropropa	0.168	0.159	5.4	95	0.00	17.09
118	1,3,5-trichlorobenzene	1.522	1.581	-3.9	105	0.00	17.28
119	1,2,4-trichlorobenzene	1.271	1.298	-2.1	101	0.00	17.92
120	hexachlorobutadiene	0.698	0.683	2.1	99	0.00	18.04
121	naphthalene	2.185	2.274	-4.1	102	0.00	18.21
122	1,2,3-trichlorobenzene	1.091	1.101	-0.9	101	0.00	18.44
123	hexachloroethane	0.583	0.603	-3.4	104	0.00	16.62
	----------	True	Calc.	% Drift	----------		
124	2-ethylhexyl acrylate	10.000	9.824	1.8	112	0.00	17.95
	----------	AvgRF	CCRF	% Dev	----------		
125	2-methylnaphthalene	1.039	1.045	-0.6	102	0.00	19.45
126	bis(chloromethyl)ether		----------NA----------				
127	ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A200473.D M2A8671.M Thu Feb 06 10:52:09 2020 MS2A

Initial Calibration Verification

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8671-ICV8671
Lab FileID: 2A200479.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\V2A8671\2A200479.D Vial: 15
Acq On : 4 Feb 2020 10:24 pm Operator: CHELSEAS
Sample : ICV8671-50 Inst : Instrumen
Misc : MS40388,V2A8671,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
Last Update : Thu Feb 06 10:48:34 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	107	0.00	7.30
2		ethanol		-----	NA	-----		
3		tertiary butyl alcohol		-----	NA	-----		
4		1,4-dioxane		-----	NA	-----		
5	I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	9.56
6		chlorodifluoromethane		-----	NA	-----		
7		dichlorodifluoromethane		-----	NA	-----		
8		chloromethane		-----	NA	-----		
9		vinyl chloride		-----	NA	-----		
10		1,3-butadiene		-----	NA	-----		
11		bromomethane		-----	NA	-----		
12		chloroethane		-----	NA	-----		
13		vinyl bromide		-----	NA	-----		
14		trichlorofluoromethane		-----	NA	-----		
15		ethyl ether		-----	NA	-----		
16		2-chloropropane		-----	NA	-----		
17		acrolein		-----	NA	-----		
18		freon 113		-----	NA	-----		
19		1,1-dichloroethene		-----	NA	-----		
20		acetone		-----	NA	-----		
21		acetonitrile	0.060	0.056	6.7	99	0.00	7.07
22		iodomethane		-----	NA	-----		
23		carbon disulfide		-----	NA	-----		
24		methylene chloride		-----	NA	-----		
25		methyl acetate		-----	NA	-----		
26		methyl tert butyl ether		-----	NA	-----		
27		trans-1,2-dichloroethene		-----	NA	-----		
28		hexane		-----	NA	-----		
29		di-isopropyl ether		-----	NA	-----		
30		ethyl tert-butyl ether		-----	NA	-----		
31		2-butanone		-----	NA	-----		
32		1,1-dichloroethane		-----	NA	-----		
33		chloroprene		-----	NA	-----		
34		acrylonitrile	0.172	0.164	4.7	98	0.00	7.64
35		vinyl acetate		-----	NA	-----		
36		ethyl acetate		-----	NA	-----		
37		2,2-dichloropropane		-----	NA	-----		
38		cis-1,2-dichloroethene		-----	NA	-----		
39		propionitrile		-----	NA	-----		
40		bromochloromethane		-----	NA	-----		
41		tetrahydrofuran		-----	NA	-----		

Initial Calibration Verification

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8671-ICV8671
Lab FileID: 2A200479.D

42		chloroform	----------NA----------						
43		tert-butyl formate	----------NA----------						
44		isobutyl alcohol	----------NA----------						
45	S	dibromofluoromethane (s)	0.454	0.454	0.0	104	0.00	9.59
46		methacrylonitrile	----------NA----------						
47		1,1,1-trichloroethane	----------NA----------						
48		cyclohexane	----------NA----------						
49		1,1-dichloropropene	----------NA----------						
50		tert-amyl alcohol	----------NA----------						
51		carbon tetrachloride	----------NA----------						
52	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	10.49
53	S	1,2-dichloroethane-d4 (s)	0.332	0.340	-2.4	108	0.00	10.01
54		2,2,4-trimethylpentane	----------NA----------						
55		tert-amyl methyl ether	----------NA----------						
56		n-butyl alcohol	----------NA----------						
57		benzene	----------NA----------						
58		heptane	----------NA----------						
59		isopropyl acetate	----------NA----------						
60		1,2-dichloroethane	----------NA----------						
61		trichloroethene	----------NA----------						
62		ethyl acrylate	----------NA----------						
63		2-nitropropane	----------NA----------						
64		2-chloroethyl vinyl ether	----------NA----------						
65		methyl methacrylate	----------NA----------						
66		1,2-dichloropropane	----------NA----------						
67		methylcyclohexane	----------NA----------						
68		dibromomethane	----------NA----------						
69		bromodichloromethane	----------NA----------						
70		epichlorohydrin	----------NA----------						
71		cis-1,3-dichloropropene	----------NA----------						
72		4-methyl-2-pentanone	----------NA----------						
73		3-methyl-1-butanol	----------NA----------						
74	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	13.61
75	S	toluene-d8 (s)	1.269	1.258	0.9	104	0.00	12.11
76		toluene	----------NA----------						
77		trans-1,3-dichloropropene	----------NA----------						
78		ethyl methacrylate	----------NA----------						
79		1,1,2-trichloroethane	----------NA----------						
80		2-hexanone	----------NA----------						
81		tetrachloroethene	0.481	0.490	-1.9	109	0.00	12.73
82		1,3-dichloropropane	----------NA----------						
83		butyl acetate	----------NA----------						
84		dibromochloromethane	----------NA----------						
85		1,2-dibromoethane	----------NA----------						
86		n-butyl ether	----------NA----------						
87		chlorobenzene	----------NA----------						
88		1,1,1,2-tetrachloroethane	----------NA----------						
89		ethylbenzene	----------NA----------						
90		m,p-xylene	----------NA----------						
91		o-xylene	----------NA----------						
92		styrene	----------NA----------						
93		n-amyl acetate	----------NA----------						
94		bromoform	----------NA----------						
95		butyl acrylate	----------NA----------						
96		isopropylbenzene	----------NA----------						
97		cis-1,4-dichloro-2-butene	----------NA----------						
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	15.93

Initial Calibration Verification

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: V2A8671-ICV8671
Lab FileID: 2A200479.D

99	S	4-bromofluorobenzene (s)	0.943	0.952	-1.0	105	0.00	14.76
100		bromobenzene	----------	NA	----------			
101		1,1,2,2-tetrachloroethane	----------	NA	----------			
102		trans-1,4-dichloro-2-bute	----------	NA	----------			
103		1,2,3-trichloropropane	----------	NA	----------			
104		n-propylbenzene	----------	NA	----------			
105		2-chlorotoluene	----------	NA	----------			
106		4-chlorotoluene	----------	NA	----------			
107		1,3,5-trimethylbenzene	----------	NA	----------			
108		tert-butylbenzene	----------	NA	----------			
109		1,2,4-trimethylbenzene	----------	NA	----------			
110		sec-butylbenzene	----------	NA	----------			
111		1,3-dichlorobenzene	----------	NA	----------			
112		p-isopropyltoluene	----------	NA	----------			
113		benzyl chloride	----------	NA	----------			
114		1,4-dichlorobenzene	----------	NA	----------			
115		1,2-dichlorobenzene	----------	NA	----------			
116		n-butylbenzene	----------	NA	----------			
117		1,2-dibromo-3-chloropropa	----------	NA	----------			
118		1,3,5-trichlorobenzene	----------	NA	----------			
119		1,2,4-trichlorobenzene	----------	NA	----------			
120		hexachlorobutadiene	----------	NA	----------			
121		naphthalene	----------	NA	----------			
122		1,2,3-trichlorobenzene	----------	NA	----------			
123		hexachloroethane	----------	NA	----------			
		----------	True	Calc.	% Drift	----------		
124		2-ethylhexyl acrylate	----------	NA	----------			
		----------	AvgRF	CCRF	% Dev	----------		
125		2-methylnaphthalene	----------	NA	----------			
126		bis(chloromethyl)ether	----------	NA	----------			
127		ethylenimine	----------	NA	----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2A200473.D M2A8671.M Thu Feb 06 10:52:09 2020 MS2A

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8715-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201355.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...20\v2a8715\2a201355.d Vial: 2
Acq On : 12 Mar 2020 7:15 am Operator: edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	153	0.00	7.30
2	ethanol	0.150	0.160	-6.7	166	0.01	6.02
3	tertiary butyl alcohol	1.441	1.346	6.6	147	0.00	7.41
4	1,4-dioxane	0.137	0.152	-10.9	170	0.00	11.13
5 I	pentafluorobenzene	1.000	1.000	0.0	146	0.00	9.56
6	chlorodifluoromethane	0.702	0.802	-14.2	165	0.02	4.05
7	dichlorodifluoromethane	0.753	0.893	-18.6	160	0.02	4.02
8	chloromethane	0.908	0.943	-3.9	148	0.01	4.39
9	vinyl chloride	0.865	0.833	3.7	133	0.01	4.63
10	1,3-butadiene	0.505	0.582	-15.2	165	0.01	4.66
11	bromomethane	0.570	0.563	1.2	145	0.00	5.23
12	chloroethane	0.444	0.451	-1.6	146	0.00	5.40
13	vinyl bromide	0.456	0.506	-11.0	151	0.00	5.74
14	trichlorofluoromethane	0.902	1.011	-12.1	161	0.00	5.86
15	ethyl ether	0.302	0.306	-1.3	147	0.00	6.23
16	2-chloropropane	0.240	0.257	-7.1	157	0.00	6.45
17	acrolein	0.080	0.088	-10.0	153	0.00	6.46
18	freon 113	0.421	0.467	-10.9	160	0.00	6.66
19	1,1-dichloroethene	0.488	0.529	-8.4	155	0.00	6.65
20	acetone	0.117	0.118	-0.9	147	0.01	6.66
21	acetonitrile	0.060	0.059	1.7	145	0.00	7.08
22	iodomethane	0.758	0.811	-7.0	159	0.00	6.90
23	carbon disulfide	1.479	1.530	-3.4	156	0.00	7.04
24	methylene chloride	0.588	0.607	-3.2	156	0.00	7.35
25	methyl acetate	0.359	0.353	1.7	144	0.00	7.11
26	methyl tert butyl ether	1.430	1.532	-7.1	156	0.00	7.71
27	trans-1,2-dichloroethene	0.558	0.568	-1.8	152	0.00	7.74
28	hexane	0.812	0.947	-16.6	164	0.00	8.09
29	di-isopropyl ether	2.003	1.991	0.6	144	0.00	8.30
30	ethyl tert-butyl ether	1.822	1.851	-1.6	148	0.00	8.75
31	2-butanone	0.048	0.047	2.1	146	0.00	8.96
32	1,1-dichloroethane	1.064	1.046	1.7	147	0.00	8.31
33	chloroprene	0.848	0.829	2.2	143	0.00	8.41
34	acrylonitrile	0.172	0.177	-2.9	147	0.00	7.65
35	vinyl acetate	0.103	0.104	-1.0	144	0.00	8.25
36	ethyl acetate	0.071	0.070	1.4	137	0.00	8.97
37	2,2-dichloropropane	0.835	0.864	-3.5	152	0.00	9.05
38	cis-1,2-dichloroethene	0.636	0.645	-1.4	152	0.00	9.02
39	propionitrile	0.054	0.055	-1.9	148	0.00	9.04
40	bromochloromethane	0.392	0.409	-4.3	152	0.00	9.31
41	tetrahydrofuran	0.128	0.126	1.6	142	0.00	9.33

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8715-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201355.D
Project: Orangetown Shopping Center, Orangeburg, NY

42		chloroform	1.028	1.046	-1.8	148	0.00	9.40
43		tert-butyl formate	0.457	0.456	0.2	146	0.00	9.44
44		isobutyl alcohol	0.017	0.017	0.0	138	0.00	9.80
45	S	dibromofluoromethane (s)	0.454	0.469	-3.3	150	0.00	9.59
46		methacrylonitrile	0.191	0.184	3.7	141	0.00	9.23
47		1,1,1-trichloroethane	0.895	0.924	-3.2	150	0.00	9.66
48		cyclohexane	0.815	0.868	-6.5	155	0.00	9.76
49		1,1-dichloropropene	0.787	0.786	0.1	146	0.00	9.83
50		tert-amyl alcohol	0.021	0.022	-4.8	152	0.00	9.95
51		carbon tetrachloride	0.814	0.848	-4.2	154	0.00	9.85
52	I	1,4-difluorobenzene	1.000	1.000	0.0	143	0.00	10.49
53	S	1,2-dichloroethane-d4 (s)	0.332	0.330	0.6	142	0.00	10.01
54		2,2,4-trimethylpentane	1.419	1.558	-9.8	152	0.00	10.17
55		tert-amyl methyl ether	1.136	1.166	-2.6	146	0.00	10.16
56		n-butyl alcohol	0.008	0.008	0.0	147	0.00	10.54
57		benzene	1.513	1.503	0.7	146	0.00	10.07
58		heptane	0.302	0.332	-9.9	151	0.00	10.33
59		isopropyl acetate	0.069	0.074	-7.2	151	0.00	9.98
60		1,2-dichloroethane	0.528	0.509	3.6	144	0.00	10.10
61		trichloroethene	0.393	0.389	1.0	146	0.00	10.79
62		ethyl acrylate	0.412	0.410	0.5	138	0.00	10.79
63		2-nitropropane	0.075	0.071	5.3	143	0.00	11.55
64		2-chloroethyl vinyl ether	0.173	0.211	-22.0#	172	0.00	11.58
65		methyl methacrylate	0.082	0.083	-1.2	144	0.00	11.05
66		1,2-dichloropropane	0.409	0.405	1.0	142	0.00	11.09
67		methylcyclohexane	0.625	0.709	-13.4	159	0.00	11.09
68		dibromomethane	0.229	0.233	-1.7	146	0.00	11.19
69		bromodichloromethane	0.530	0.537	-1.3	144	0.00	11.34
70		epichlorohydrin	0.030	0.029	3.3	141	0.00	11.67
71		cis-1,3-dichloropropene	0.636	0.646	-1.6	144	0.00	11.80
72		4-methyl-2-pentanone	0.120	0.114	5.0	138	0.00	11.91
73		3-methyl-1-butanol	0.007	0.007	0.0	144	0.00	11.91
74	I	chlorobenzene-d5	1.000	1.000	0.0	138	0.00	13.61
75	S	toluene-d8 (s)	1.269	1.260	0.7	138	0.00	12.11
76		toluene	1.069	1.066	0.3	143	0.00	12.18
77		trans-1,3-dichloropropene	0.640	0.672	-5.0	143	0.00	12.37
78		ethyl methacrylate	0.485	0.494	-1.9	141	0.00	12.36
79		1,1,2-trichloroethane	0.313	0.322	-2.9	142	0.00	12.59
80		2-hexanone	0.126	0.122	3.2	134	0.00	12.76
81		tetrachloroethene	0.481	0.502	-4.4	147	0.00	12.73
82		1,3-dichloropropane	0.611	0.625	-2.3	144	0.00	12.77
83		butyl acetate	0.257	0.239	7.0	130	0.00	12.83
84		dibromochloromethane	0.456	0.469	-2.9	144	0.00	13.01
85		1,2-dibromoethane	0.408	0.442	-8.3	148	0.00	13.16
86		n-butyl ether	1.877	1.861	0.9	134	0.00	13.60
87		chlorobenzene	1.161	1.158	0.3	140	0.00	13.64
88		1,1,1,2-tetrachloroethane	0.444	0.465	-4.7	146	0.00	13.70
89		ethylbenzene	1.946	1.939	0.4	139	0.00	13.70
90		m,p-xylene	0.745	0.759	-1.9	141	0.00	13.82
91		o-xylene	1.583	1.570	0.8	139	0.00	14.22
92		styrene	1.200	1.234	-2.8	138	0.00	14.23
93		n-amyl acetate	0.271	0.265	2.2	137	0.00	14.26
94		bromoform	0.278	0.296	-6.5	146	0.00	14.46
95		butyl acrylate	0.792	0.768	3.0	133	0.00	14.05
96		isopropylbenzene	1.890	1.910	-1.1	140	0.00	14.57
97		cis-1,4-dichloro-2-butene	0.159	0.161	-1.3	146	0.00	14.61
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	139	0.00	15.93

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8715-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201355.D
Project: Orangetown Shopping Center, Orangeburg, NY

99 S	4-bromofluorobenzene (s)	0.943	0.929	1.5	137	0.00	14.76
100	bromobenzene	0.994	1.042	-4.8	143	0.00	14.95
101	1,1,2,2-tetrachloroethane	0.858	0.844	1.6	137	0.00	14.85
102	trans-1,4-dichloro-2-bute	0.216	0.206	4.6	132	0.00	14.88
103	1,2,3-trichloropropane	0.223	0.216	3.1	137	0.00	14.93
104	n-propylbenzene	4.325	4.316	0.2	137	0.00	14.98
105	2-chlorotoluene	0.943	0.948	-0.5	142	0.00	15.11
106	4-chlorotoluene	2.647	2.667	-0.8	139	0.00	15.22
107	1,3,5-trimethylbenzene	3.035	3.104	-2.3	139	0.00	15.14
108	tert-butylbenzene	2.566	2.645	-3.1	140	0.00	15.47
109	1,2,4-trimethylbenzene	3.034	3.114	-2.6	141	0.00	15.53
110	sec-butylbenzene	3.893	3.942	-1.3	139	0.00	15.69
111	1,3-dichlorobenzene	1.797	1.858	-3.4	142	0.00	15.86
112	p-isopropyltoluene	3.232	3.382	-4.6	140	0.00	15.83
113	benzyl chloride	1.609	1.686	-4.8	146	0.00	16.05
114	1,4-dichlorobenzene	1.855	1.872	-0.9	141	0.00	15.95
115	1,2-dichlorobenzene	1.720	1.774	-3.1	140	0.00	16.32
116	n-butylbenzene	1.726	1.763	-2.1	138	0.00	16.23
117	1,2-dibromo-3-chloropropa	0.168	0.170	-1.2	137	0.00	17.09
118	1,3,5-trichlorobenzene	1.522	1.628	-7.0	143	0.00	17.28
119	1,2,4-trichlorobenzene	1.271	1.363	-7.2	144	0.00	17.92
120	hexachlorobutadiene	0.698	0.755	-8.2	146	0.00	18.03
121	naphthalene	2.185	2.314	-5.9	140	0.00	18.21
122	1,2,3-trichlorobenzene	1.091	1.168	-7.1	145	0.00	18.44
123	hexachloroethane	0.583	0.616	-5.7	146	0.00	16.62
	----------	True	Calc.	% Drift	----------		
124	2-ethylhexyl acrylate	4.000	3.449	13.8	133	0.00	17.95
	----------	AvgRF	CCRF	% Dev	----------		
125	2-methylnaphthalene	1.039	1.008	3.0	148	0.00	19.45
126	bis(chloromethyl)ether		----------NA----------				
127	ethylenimine		----------NA----------				
128	pentafluorobenzene(a)	1.000	1.000	0.0	116	0.00	9.56
129	freon 142b		----------NA----------				
130	chlorobenzene-d5(a)	1.000	1.000	0.0	114	0.00	13.61
131	cyclohexanone		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A200472.D M2A8671.M Thu Mar 12 20:36:48 2020

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8715-ECC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201378.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...20\v2a8715\2a201378.d Vial: 25
Acq On : 12 Mar 2020 6:30 pm Operator: edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41777,V2A8715,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	138	0.00	7.30
2	ethanol	0.150	0.163	-8.7	148	0.01	6.02
3	tertiary butyl alcohol	1.441	1.487	-3.2	143	0.00	7.41
4	1,4-dioxane	0.137	0.153	-11.7	156	0.00	11.13
5 I	pentafluorobenzene	1.000	1.000	0.0	135	0.00	9.57
6	chlorodifluoromethane	0.702	0.752	-7.1	146	0.01	4.05
7	dichlorodifluoromethane	0.753	0.808	-7.3	138	0.02	4.02
8	chloromethane	0.908	0.880	3.1	133	0.01	4.39
9	vinyl chloride	0.865	0.889	-2.8	137	0.01	4.63
10	1,3-butadiene	0.505	0.546	-8.1	147	0.00	4.66
11	bromomethane	0.570	0.558	2.1	140	0.00	5.23
12	chloroethane	0.444	0.456	-2.7	138	0.00	5.40
13	vinyl bromide	0.456	0.519	-13.8	148	0.00	5.74
14	trichlorofluoromethane	0.902	0.984	-9.1	146	0.00	5.85
15	ethyl ether	0.302	0.315	-4.3	142	0.00	6.23
16	2-chloropropane	0.240	0.254	-5.8	145	0.00	6.45
17	acrolein	0.080	0.068	15.0	110	0.00	6.46
18	freon 113	0.421	0.484	-15.0	152	0.00	6.66
19	1,1-dichloroethene	0.488	0.534	-9.4	146	0.00	6.65
20	acetone	0.117	0.117	0.0	135	0.00	6.66
21	acetonitrile	0.060	0.059	1.7	136	0.00	7.08
22	iodomethane	0.758	0.814	-7.4	148	0.00	6.90
23	carbon disulfide	1.479	1.481	-0.1	140	0.00	7.04
24	methylene chloride	0.588	0.613	-4.3	145	0.00	7.35
25	methyl acetate	0.359	0.358	0.3	138	0.00	7.11
26	methyl tert butyl ether	1.430	1.533	-7.2	146	0.00	7.71
27	trans-1,2-dichloroethene	0.558	0.577	-3.4	144	0.00	7.74
28	hexane	0.812	0.944	-16.3	148	0.00	8.09
29	di-isopropyl ether	2.003	1.997	0.3	136	0.00	8.30
30	ethyl tert-butyl ether	1.822	1.845	-1.3	139	0.00	8.76
31	2-butanone	0.048	0.047	2.1	131	0.00	8.96
32	1,1-dichloroethane	1.064	1.085	-2.0	142	0.00	8.32
33	chloroprene	0.848	0.876	-3.3	138	0.00	8.41
34	acrylonitrile	0.172	0.180	-4.7	139	0.00	7.65
35	vinyl acetate	0.103	0.050	51.5#	65	0.00	8.25
36	ethyl acetate	0.071	0.067	5.6	128	0.00	8.97
37	2,2-dichloropropane	0.835	0.774	7.3	130	0.00	9.05
38	cis-1,2-dichloroethene	0.636	0.657	-3.3	143	0.00	9.02
39	propionitrile	0.054	0.054	0.0	136	0.00	9.04
40	bromochloromethane	0.392	0.424	-8.2	147	0.00	9.31
41	tetrahydrofuran	0.128	0.122	4.7	131	0.00	9.33

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8715-ECC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201378.D
Project: Orangetown Shopping Center, Orangeburg, NY

42		chloroform	1.028	1.085	-5.5	145	0.00	9.40
43		tert-butyl formate	0.457	0.274	40.0	83	0.00	9.44
44		isobutyl alcohol	0.017	0.017	0.0	136	0.01	9.80
45	S	dibromofluoromethane (s)	0.454	0.471	-3.7	140	0.00	9.59
46		methacrylonitrile	0.191	0.193	-1.0	138	0.00	9.24
47		1,1,1-trichloroethane	0.895	0.971	-8.5	147	0.00	9.66
48		cyclohexane	0.815	0.882	-8.2	149	0.00	9.77
49		1,1-dichloropropene	0.787	0.816	-3.7	141	0.00	9.83
50		tert-amyl alcohol	0.021	0.022	-4.8	139	0.00	9.95
51		carbon tetrachloride	0.814	0.894	-9.8	149	0.00	9.85
52	I	1,4-difluorobenzene	1.000	1.000	0.0	137	0.00	10.49
53	S	1,2-dichloroethane-d4 (s)	0.332	0.323	2.7	134	0.00	10.01
54		2,2,4-trimethylpentane	1.419	1.614	-13.7	147	0.00	10.17
55		tert-amyl methyl ether	1.136	1.161	-2.2	140	0.00	10.16
56		n-butyl alcohol	0.008	0.008	0.0	135	0.00	10.55
57		benzene	1.513	1.540	-1.8	142	0.00	10.07
58		heptane	0.302	0.319	-5.6	136	0.00	10.33
59		isopropyl acetate	0.069	0.074	-7.2	141	0.00	9.99
60		1,2-dichloroethane	0.528	0.517	2.1	140	0.00	10.10
61		trichloroethene	0.393	0.434	-10.4	152	0.00	10.79
62		ethyl acrylate	0.412	0.396	3.9	127	0.00	10.78
63		2-nitropropane	0.075	0.068	9.3	120	0.00	11.56
64		2-chloroethyl vinyl ether	0.173	0.206	-19.1	157	0.00	11.58
65		methyl methacrylate	0.082	0.084	-2.4	136	0.00	11.05
66		1,2-dichloropropane	0.409	0.407	0.5	135	0.00	11.09
67		methylcyclohexane	0.625	0.730	-16.8	151	0.00	11.09
68		dibromomethane	0.229	0.239	-4.4	142	0.00	11.19
69		bromodichloromethane	0.530	0.555	-4.7	142	0.00	11.35
70		epichlorohydrin	0.030	0.028	6.7	128	0.00	11.67
71		cis-1,3-dichloropropene	0.636	0.640	-0.6	135	0.00	11.80
72		4-methyl-2-pentanone	0.120	0.113	5.8	129	0.00	11.91
73		3-methyl-1-butanol	0.007	0.007	0.0	133	0.00	11.91
74	I	chlorobenzene-d5	1.000	1.000	0.0	127	0.00	13.61
75	S	toluene-d8 (s)	1.269	1.304	-2.8	131	0.00	12.11
76		toluene	1.069	1.136	-6.3	139	0.00	12.18
77		trans-1,3-dichloropropene	0.640	0.683	-6.7	133	0.00	12.37
78		ethyl methacrylate	0.485	0.521	-7.4	134	0.00	12.36
79		1,1,2-trichloroethane	0.313	0.337	-7.7	138	0.00	12.59
80		2-hexanone	0.126	0.126	0.0	126	0.00	12.76
81		tetrachloroethene	0.481	0.526	-9.4	141	0.00	12.73
82		1,3-dichloropropane	0.611	0.637	-4.3	134	0.00	12.77
83		butyl acetate	0.257	0.253	1.6	126	0.00	12.83
84		dibromochloromethane	0.456	0.511	-12.1	140	0.00	13.01
85		1,2-dibromoethane	0.408	0.452	-10.8	137	0.00	13.16
86		n-butyl ether	1.877	1.951	-3.9	129	0.00	13.60
87		chlorobenzene	1.161	1.230	-5.9	135	0.00	13.64
88		1,1,1,2-tetrachloroethane	0.444	0.504	-13.5	143	0.00	13.70
89		ethylbenzene	1.946	2.037	-4.7	136	0.00	13.70
90		m,p-xylene	0.745	0.792	-6.3	135	0.00	13.82
91		o-xylene	1.583	1.634	-3.2	134	0.00	14.22
92		styrene	1.200	1.285	-7.1	133	0.00	14.23
93		n-amyl acetate	0.271	0.281	-3.7	129	0.00	14.27
94		bromoform	0.278	0.315	-13.3	138	0.00	14.46
95		butyl acrylate	0.792	0.819	-3.4	126	0.00	14.05
96		isopropylbenzene	1.890	2.014	-6.6	136	0.00	14.57
97		cis-1,4-dichloro-2-butene	0.159	0.154	3.1	116	0.00	14.61
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	127	0.00	15.93

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8715-ECC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201378.D
Project: Orangetown Shopping Center, Orangeburg, NY

99 S	4-bromofluorobenzene (s)	0.943	0.928	1.6	125	0.00	14.76
100	bromobenzene	0.994	1.083	-9.0	137	0.00	14.95
101	1,1,2,2-tetrachloroethane	0.858	0.809	5.7	117	0.00	14.85
102	trans-1,4-dichloro-2-bute	0.216	0.191	11.6	110	0.00	14.88
103	1,2,3-trichloropropane	0.223	0.227	-1.8	131	0.00	14.93
104	n-propylbenzene	4.325	4.490	-3.8	133	0.00	14.98
105	2-chlorotoluene	0.943	0.993	-5.3	134	0.00	15.11
106	4-chlorotoluene	2.647	2.796	-5.6	135	0.00	15.22
107	1,3,5-trimethylbenzene	3.035	3.320	-9.4	137	0.00	15.14
108	tert-butylbenzene	2.566	2.846	-10.9	137	0.00	15.48
109	1,2,4-trimethylbenzene	3.034	3.266	-7.6	135	0.00	15.53
110	sec-butylbenzene	3.893	4.167	-7.0	135	0.00	15.70
111	1,3-dichlorobenzene	1.797	1.917	-6.7	134	0.00	15.86
112	p-isopropyltoluene	3.232	3.528	-9.2	135	0.00	15.83
113	benzyl chloride	1.609	1.401	12.9	107	0.00	16.05
114	1,4-dichlorobenzene	1.855	1.938	-4.5	135	0.00	15.95
115	1,2-dichlorobenzene	1.720	1.866	-8.5	137	0.00	16.33
116	n-butylbenzene	1.726	1.831	-6.1	131	0.00	16.23
117	1,2-dibromo-3-chloropropa	0.168	0.184	-9.5	131	0.00	17.09
118	1,3,5-trichlorobenzene	1.522	1.705	-12.0	135	0.00	17.28
119	1,2,4-trichlorobenzene	1.271	1.459	-14.8	136	0.00	17.92
120	hexachlorobutadiene	0.698	0.771	-10.5	134	0.00	18.03
121	naphthalene	2.185	2.559	-17.1	136	0.00	18.21
122	1,2,3-trichlorobenzene	1.091	1.265	-15.9	138	0.00	18.44
123	hexachloroethane	0.583	0.694	-19.0	143	0.00	16.62
	----------	True	Calc.	% Drift	----------		
124	2-ethylhexyl acrylate	10.000	9.235	7.7	125	0.00	17.95
	----------	AvgRF	CCRF	% Dev	----------		
125	2-methylnaphthalene	1.039	1.219	-17.3	142	0.00	19.45
126	bis(chloromethyl)ether		----------NA----------				
127	ethylenimine		----------NA----------				
128	pentafluorobenzene(a)	1.000	1.000	0.0	108	0.00	9.57
129	freon 142b		----------NA----------				
130	chlorobenzene-d5(a)	1.000	1.000	0.0	102	0.00	13.61
131	cyclohexanone		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A200473.D M2A8671.M Thu Mar 12 20:33:27 2020

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8717-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201385.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...a8717-rush\2a201385.d Vial: 2
Acq On : 13 Mar 2020 7:14 am Operator: edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	142	0.00	7.30
2	ethanol	0.150	0.154	-2.7	148	0.02	6.04
3	tertiary butyl alcohol	1.441	1.338	7.1	136	0.01	7.42
4	1,4-dioxane	0.137	0.142	-3.6	148	0.00	11.13
5 I	pentafluorobenzene	1.000	1.000	0.0	140	0.00	9.56
6	chlorodifluoromethane	0.702	0.823	-17.2	161	0.02	4.05
7	dichlorodifluoromethane	0.753	0.917	-21.8#	157	0.01	4.02
8	chloromethane	0.908	0.942	-3.7	141	0.01	4.39
9	vinyl chloride	0.865	0.856	1.0	130	0.01	4.63
10	1,3-butadiene	0.505	0.589	-16.6	160	0.00	4.66
11	bromomethane	0.570	0.569	0.2	140	0.00	5.23
12	chloroethane	0.444	0.449	-1.1	139	0.00	5.40
13	vinyl bromide	0.456	0.506	-11.0	144	0.00	5.74
14	trichlorofluoromethane	0.902	1.025	-13.6	155	0.00	5.86
15	ethyl ether	0.302	0.307	-1.7	140	0.00	6.23
16	2-chloropropane	0.240	0.259	-7.9	151	0.00	6.45
17	acrolein	0.080	0.091	-13.7	151	0.00	6.46
18	freon 113	0.421	0.489	-16.2	160	0.00	6.66
19	1,1-dichloroethene	0.488	0.540	-10.7	151	0.00	6.65
20	acetone	0.117	0.121	-3.4	144	0.01	6.66
21	acetonitrile	0.060	0.058	3.3	135	0.00	7.08
22	iodomethane	0.758	0.827	-9.1	155	0.00	6.90
23	carbon disulfide	1.479	1.536	-3.9	149	0.00	7.04
24	methylene chloride	0.588	0.610	-3.7	149	0.00	7.35
25	methyl acetate	0.359	0.346	3.6	134	0.00	7.11
26	methyl tert butyl ether	1.430	1.536	-7.4	149	0.00	7.71
27	trans-1,2-dichloroethene	0.558	0.583	-4.5	149	0.00	7.74
28	hexane	0.812	0.980	-20.7#	162	0.00	8.09
29	di-isopropyl ether	2.003	1.980	1.1	137	0.00	8.30
30	ethyl tert-butyl ether	1.822	1.852	-1.6	142	0.00	8.76
31	2-butanone	0.048	0.047	2.1	139	0.00	8.96
32	1,1-dichloroethane	1.064	1.082	-1.7	145	0.00	8.32
33	chloroprene	0.848	0.853	-0.6	140	0.00	8.41
34	acrylonitrile	0.172	0.174	-1.2	138	0.00	7.65
35	vinyl acetate	0.103	0.099	3.9	131	0.00	8.25
36	ethyl acetate	0.071	0.067	5.6	126	0.00	8.97
37	2,2-dichloropropane	0.835	0.894	-7.1	150	0.00	9.05
38	cis-1,2-dichloroethene	0.636	0.657	-3.3	147	0.00	9.03
39	propionitrile	0.054	0.054	0.0	137	0.00	9.04
40	bromochloromethane	0.392	0.423	-7.9	150	0.00	9.32
41	tetrahydrofuran	0.128	0.125	2.3	134	0.00	9.34

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8717-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201385.D
Project: Orangetown Shopping Center, Orangeburg, NY

42		chloroform	1.028	1.096	-6.6	148	0.00	9.40
43		tert-butyl formate	0.457	0.464	-1.5	142	0.00	9.44
44		isobutyl alcohol	0.017	0.016	5.9	125	0.00	9.80
45	S	dibromofluoromethane (s)	0.454	0.468	-3.1	142	0.00	9.59
46		methacrylonitrile	0.191	0.190	0.5	139	0.00	9.23
47		1,1,1-trichloroethane	0.895	0.965	-7.8	150	0.00	9.66
48		cyclohexane	0.815	0.879	-7.9	149	0.00	9.76
49		1,1-dichloropropene	0.787	0.804	-2.2	143	0.00	9.83
50		tert-amyl alcohol	0.021	0.021	0.0	138	0.00	9.95
51		carbon tetrachloride	0.814	0.880	-8.1	153	0.00	9.85
52	I	1,4-difluorobenzene	1.000	1.000	0.0	137	0.00	10.49
53	S	1,2-dichloroethane-d4 (s)	0.332	0.331	0.3	137	0.00	10.01
54		2,2,4-trimethylpentane	1.419	1.613	-13.7	151	0.00	10.17
55		tert-amyl methyl ether	1.136	1.172	-3.2	141	0.00	10.16
56		n-butyl alcohol	0.008	0.007	12.5	131	0.00	10.55
57		benzene	1.513	1.538	-1.7	143	0.00	10.07
58		heptane	0.302	0.339	-12.3	147	0.00	10.33
59		isopropyl acetate	0.069	0.070	-1.4	138	0.00	9.99
60		1,2-dichloroethane	0.528	0.520	1.5	140	0.00	10.10
61		trichloroethene	0.393	0.410	-4.3	147	0.00	10.79
62		ethyl acrylate	0.412	0.401	2.7	129	0.00	10.79
63		2-nitropropane	0.075	0.078	-4.0	149	0.00	11.55
64		2-chloroethyl vinyl ether	0.173	0.209	-20.8#	163	0.00	11.58
65		methyl methacrylate	0.082	0.080	2.4	133	0.00	11.05
66		1,2-dichloropropane	0.409	0.400	2.2	134	0.00	11.09
67		methylcyclohexane	0.625	0.718	-14.9	154	0.00	11.09
68		dibromomethane	0.229	0.234	-2.2	141	0.00	11.20
69		bromodichloromethane	0.530	0.546	-3.0	141	0.00	11.35
70		epichlorohydrin	0.030	0.028	6.7	131	0.00	11.67
71		cis-1,3-dichloropropene	0.636	0.658	-3.5	140	0.00	11.80
72		4-methyl-2-pentanone	0.120	0.113	5.8	131	0.00	11.91
73		3-methyl-1-butanol	0.007	0.007	0.0	136	0.00	11.91
74	I	chlorobenzene-d5	1.000	1.000	0.0	133	0.00	13.61
75	S	toluene-d8 (s)	1.269	1.242	2.1	131	0.00	12.11
76		toluene	1.069	1.060	0.8	137	0.00	12.18
77		trans-1,3-dichloropropene	0.640	0.664	-3.8	136	0.00	12.37
78		ethyl methacrylate	0.485	0.484	0.2	133	0.00	12.36
79		1,1,2-trichloroethane	0.313	0.315	-0.6	134	0.00	12.59
80		2-hexanone	0.126	0.120	4.8	128	0.00	12.76
81		tetrachloroethene	0.481	0.503	-4.6	142	0.00	12.73
82		1,3-dichloropropane	0.611	0.600	1.8	133	0.00	12.77
83		butyl acetate	0.257	0.234	8.9	123	0.00	12.83
84		dibromochloromethane	0.456	0.483	-5.9	143	0.00	13.01
85		1,2-dibromoethane	0.408	0.419	-2.7	135	0.00	13.16
86		n-butyl ether	1.877	1.850	1.4	128	0.00	13.60
87		chlorobenzene	1.161	1.175	-1.2	137	0.00	13.64
88		1,1,1,2-tetrachloroethane	0.444	0.471	-6.1	143	0.00	13.70
89		ethylbenzene	1.946	1.949	-0.2	134	0.00	13.70
90		m,p-xylene	0.745	0.753	-1.1	135	0.00	13.82
91		o-xylene	1.583	1.581	0.1	135	0.00	14.22
92		styrene	1.200	1.235	-2.9	133	0.00	14.23
93		n-amyl acetate	0.271	0.266	1.8	132	0.00	14.27
94		bromoform	0.278	0.290	-4.3	138	0.00	14.46
95		butyl acrylate	0.792	0.770	2.8	129	0.00	14.06
96		isopropylbenzene	1.890	1.929	-2.1	136	0.00	14.57
97		cis-1,4-dichloro-2-butene	0.159	0.156	1.9	136	0.00	14.61
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	133	0.00	15.93

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8717-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201385.D
Project: Orangetown Shopping Center, Orangeburg, NY

99	S	4-bromofluorobenzene (s)	0.943	0.914	3.1	129	0.00	14.76
100		bromobenzene	0.994	1.031	-3.7	136	0.00	14.95
101		1,1,2,2-tetrachloroethane	0.858	0.820	4.4	128	0.00	14.85
102		trans-1,4-dichloro-2-bute	0.216	0.194	10.2	120	0.00	14.88
103		1,2,3-trichloropropane	0.223	0.209	6.3	127	0.00	14.93
104		n-propylbenzene	4.325	4.325	0.0	132	0.00	14.98
105		2-chlorotoluene	0.943	0.950	-0.7	137	0.00	15.11
106		4-chlorotoluene	2.647	2.642	0.2	133	0.00	15.22
107		1,3,5-trimethylbenzene	3.035	3.167	-4.3	136	0.00	15.14
108		tert-butylbenzene	2.566	2.664	-3.8	136	0.00	15.48
109		1,2,4-trimethylbenzene	3.034	3.117	-2.7	135	0.00	15.53
110		sec-butylbenzene	3.893	3.986	-2.4	135	0.00	15.70
111		1,3-dichlorobenzene	1.797	1.849	-2.9	136	0.00	15.86
112		p-isopropyltoluene	3.232	3.402	-5.3	136	0.00	15.83
113		benzyl chloride	1.609	1.699	-5.6	141	0.00	16.05
114		1,4-dichlorobenzene	1.855	1.830	1.3	133	0.00	15.95
115		1,2-dichlorobenzene	1.720	1.780	-3.5	135	0.00	16.33
116		n-butylbenzene	1.726	1.744	-1.0	131	0.00	16.23
117		1,2-dibromo-3-chloropropa	0.168	0.169	-0.6	132	0.00	17.09
118		1,3,5-trichlorobenzene	1.522	1.640	-7.8	139	0.00	17.28
119		1,2,4-trichlorobenzene	1.271	1.363	-7.2	139	0.00	17.92
120		hexachlorobutadiene	0.698	0.767	-9.9	142	0.00	18.03
121		naphthalene	2.185	2.340	-7.1	136	0.00	18.21
122		1,2,3-trichlorobenzene	1.091	1.185	-8.6	142	0.00	18.44
123		hexachloroethane	0.583	0.642	-10.1	147	0.00	16.62
		----------	True	Calc.	% Drift	----------		
124		2-ethylhexyl acrylate	4.000	3.214	19.7	116	0.00	17.95
		----------	AvgRF	CCRF	% Dev	----------		
125		2-methylnaphthalene	1.039	0.988	4.9	139	0.00	19.45
126		bis(chloromethyl)ether		----------NA----------				
127		ethylenimine		----------NA----------				
128		pentafluorobenzene(a)	1.000	1.000	0.0	111	0.00	9.56
129		freon 142b		----------NA----------				
130		chlorobenzene-d5(a)	1.000	1.000	0.0	110	0.00	13.61
131		cyclohexanone		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A200472.D M2A8671.M Fri Mar 13 15:01:29 2020

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8720-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201438.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...17\v2a8720\2a201438.d Vial: 2
Acq On : 16 Mar 2020 7:16 am Operator: payalr
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	124	0.01	7.31
2	ethanol	0.150	0.160	-6.7	135	0.00	6.02
3	tertiary butyl alcohol	1.441	1.355	6.0	120	0.00	7.41
4	1,4-dioxane	0.137	0.155	-13.1	141	0.00	11.13
5 I	pentafluorobenzene	1.000	1.000	0.0	135	0.00	9.56
6	chlorodifluoromethane	0.702	0.785	-11.8	148	0.02	4.05
7	dichlorodifluoromethane	0.753	0.785	-4.2	130	0.01	4.02
8	chloromethane	0.908	0.873	3.9	127	0.00	4.38
9	vinyl chloride	0.865	0.793	8.3	116	0.00	4.62
10	1,3-butadiene	0.505	0.566	-12.1	148	0.00	4.65
11	bromomethane	0.570	0.563	1.2	134	0.00	5.23
12	chloroethane	0.444	0.440	0.9	131	0.00	5.40
13	vinyl bromide	0.456	0.485	-6.4	133	0.00	5.73
14	trichlorofluoromethane	0.902	0.950	-5.3	139	0.00	5.86
15	ethyl ether	0.302	0.292	3.3	129	0.00	6.23
16	2-chloropropane	0.240	0.243	-1.3	137	0.00	6.45
17	acrolein	0.080	0.087	-8.7	141	0.00	6.46
18	freon 113	0.421	0.454	-7.8	144	0.00	6.66
19	1,1-dichloroethene	0.488	0.510	-4.5	138	0.00	6.65
20	acetone	0.117	0.109	6.8	126	0.00	6.65
21	acetonitrile	0.060	0.054	10.0	122	0.00	7.08
22	iodomethane	0.758	0.797	-5.1	144	0.00	6.90
23	carbon disulfide	1.479	1.488	-0.6	139	0.00	7.03
24	methylene chloride	0.588	0.576	2.0	136	0.00	7.35
25	methyl acetate	0.359	0.322	10.3	121	0.00	7.11
26	methyl tert butyl ether	1.430	1.451	-1.5	136	0.00	7.71
27	trans-1,2-dichloroethene	0.558	0.542	2.9	134	0.00	7.73
28	hexane	0.812	0.895	-10.2	143	0.00	8.09
29	di-isopropyl ether	2.003	1.870	6.6	125	0.00	8.30
30	ethyl tert-butyl ether	1.822	1.764	3.2	130	0.00	8.76
31	2-butanone	0.048	0.043	10.4	122	0.00	8.96
32	1,1-dichloroethane	1.064	0.990	7.0	128	0.00	8.31
33	chloroprene	0.848	0.805	5.1	128	0.00	8.41
34	acrylonitrile	0.172	0.153	11.0	117	0.00	7.65
35	vinyl acetate	0.103	0.098	4.9	126	0.00	8.25
36	ethyl acetate	0.071	0.060	15.5	109	0.00	8.97
37	2,2-dichloropropane	0.835	0.859	-2.9	139	0.00	9.05
38	cis-1,2-dichloroethene	0.636	0.614	3.5	133	0.00	9.02
39	propionitrile	0.054	0.049	9.3	121	0.00	9.04
40	bromochloromethane	0.392	0.400	-2.0	138	0.00	9.31
41	tetrahydrofuran	0.128	0.107	16.4	112	0.00	9.33

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8720-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201438.D
Project: Orangetown Shopping Center, Orangeburg, NY

42		chloroform	1.028	1.014	1.4	133	0.00	9.40
43		tert-butyl formate	0.457	0.430	5.9	127	0.00	9.44
44		isobutyl alcohol	0.017	0.015	11.8	115	0.00	9.79
45	S	dibromofluoromethane (s)	0.454	0.448	1.3	132	0.00	9.59
46		methacrylonitrile	0.191	0.178	6.8	126	0.00	9.23
47		1,1,1-trichloroethane	0.895	0.916	-2.3	137	0.00	9.66
48		cyclohexane	0.815	0.826	-1.3	136	0.00	9.76
49		1,1-dichloropropene	0.787	0.756	3.9	129	0.00	9.83
50		tert-amyl alcohol	0.021	0.019	9.5	125	0.00	9.96
51		carbon tetrachloride	0.814	0.837	-2.8	140	0.00	9.85
52	I	1,4-difluorobenzene	1.000	1.000	0.0	130	0.00	10.49
53	S	1,2-dichloroethane-d4 (s)	0.332	0.320	3.6	125	0.00	10.01
54		2,2,4-trimethylpentane	1.419	1.527	-7.6	135	0.00	10.17
55		tert-amyl methyl ether	1.136	1.127	0.8	128	0.00	10.16
56		n-butyl alcohol	0.008	0.007	12.5	120	0.00	10.54
57		benzene	1.513	1.477	2.4	130	0.00	10.07
58		heptane	0.302	0.311	-3.0	128	0.00	10.33
59		isopropyl acetate	0.069	0.068	1.4	125	0.00	9.99
60		1,2-dichloroethane	0.528	0.481	8.9	123	0.00	10.10
61		trichloroethene	0.393	0.380	3.3	129	0.00	10.80
62		ethyl acrylate	0.412	0.381	7.5	116	0.00	10.79
63		2-nitropropane	0.075	0.067	10.7	122	0.00	11.56
64		2-chloroethyl vinyl ether	0.173	0.205	-18.5	152	0.00	11.58
65		methyl methacrylate	0.082	0.081	1.2	127	0.00	11.05
66		1,2-dichloropropane	0.409	0.390	4.6	124	0.00	11.08
67		methylcyclohexane	0.625	0.681	-9.0	138	0.00	11.09
68		dibromomethane	0.229	0.224	2.2	128	0.00	11.19
69		bromodichloromethane	0.530	0.535	-0.9	131	0.00	11.35
70		epichlorohydrin	0.030	0.027	10.0	119	0.00	11.67
71		cis-1,3-dichloropropene	0.636	0.628	1.3	127	0.00	11.80
72		4-methyl-2-pentanone	0.120	0.105	12.5	116	0.00	11.91
73		3-methyl-1-butanol	0.007	0.006	14.3	118	0.00	11.91
74	I	chlorobenzene-d5	1.000	1.000	0.0	125	0.00	13.61
75	S	toluene-d8 (s)	1.269	1.258	0.9	125	0.00	12.11
76		toluene	1.069	1.043	2.4	126	0.00	12.18
77		trans-1,3-dichloropropene	0.640	0.648	-1.3	124	0.00	12.37
78		ethyl methacrylate	0.485	0.468	3.5	120	0.00	12.36
79		1,1,2-trichloroethane	0.313	0.303	3.2	121	0.00	12.59
80		2-hexanone	0.126	0.112	11.1	112	0.00	12.76
81		tetrachloroethene	0.481	0.495	-2.9	131	0.00	12.73
82		1,3-dichloropropane	0.611	0.584	4.4	121	0.00	12.77
83		butyl acetate	0.257	0.229	10.9	112	0.00	12.83
84		dibromochloromethane	0.456	0.472	-3.5	131	0.00	13.01
85		1,2-dibromoethane	0.408	0.415	-1.7	125	0.00	13.16
86		n-butyl ether	1.877	1.788	4.7	116	0.00	13.60
87		chlorobenzene	1.161	1.144	1.5	125	0.00	13.64
88		1,1,1,2-tetrachloroethane	0.444	0.477	-7.4	136	0.00	13.70
89		ethylbenzene	1.946	1.919	1.4	124	0.00	13.70
90		m,p-xylene	0.745	0.732	1.7	123	0.00	13.82
91		o-xylene	1.583	1.563	1.3	125	0.00	14.22
92		styrene	1.200	1.223	-1.9	123	0.00	14.23
93		n-amyl acetate	0.271	0.245	9.6	114	0.00	14.26
94		bromoform	0.278	0.289	-4.0	129	0.00	14.46
95		butyl acrylate	0.792	0.718	9.3	112	0.00	14.05
96		isopropylbenzene	1.890	1.903	-0.7	126	0.00	14.57
97		cis-1,4-dichloro-2-butene	0.159	0.154	3.1	126	0.00	14.61
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	124	0.00	15.93

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8720-CC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201438.D
Project: Orangetown Shopping Center, Orangeburg, NY

99	S	4-bromofluorobenzene (s)	0.943	0.915	3.0	121	0.00	14.76
100		bromobenzene	0.994	1.020	-2.6	125	0.00	14.95
101		1,1,2,2-tetrachloroethane	0.858	0.794	7.5	115	0.00	14.85
102		trans-1,4-dichloro-2-bute	0.216	0.197	8.8	113	0.00	14.88
103		1,2,3-trichloropropane	0.223	0.208	6.7	117	0.00	14.93
104		n-propylbenzene	4.325	4.223	2.4	121	0.00	14.98
105		2-chlorotoluene	0.943	0.928	1.6	125	0.00	15.11
106		4-chlorotoluene	2.647	2.614	1.2	122	0.00	15.22
107		1,3,5-trimethylbenzene	3.035	3.135	-3.3	126	0.00	15.14
108		tert-butylbenzene	2.566	2.636	-2.7	125	0.00	15.47
109		1,2,4-trimethylbenzene	3.034	3.118	-2.8	126	0.00	15.53
110		sec-butylbenzene	3.893	3.921	-0.7	123	0.00	15.69
111		1,3-dichlorobenzene	1.797	1.845	-2.7	127	0.00	15.86
112		p-isopropyltoluene	3.232	3.411	-5.5	127	0.00	15.82
113		benzyl chloride	1.609	1.676	-4.2	130	0.00	16.05
114		1,4-dichlorobenzene	1.855	1.838	0.9	124	0.00	15.95
115		1,2-dichlorobenzene	1.720	1.758	-2.2	125	0.00	16.32
116		n-butylbenzene	1.726	1.746	-1.2	122	0.00	16.23
117		1,2-dibromo-3-chloropropa	0.168	0.163	3.0	118	0.00	17.09
118		1,3,5-trichlorobenzene	1.522	1.639	-7.7	129	0.00	17.27
119		1,2,4-trichlorobenzene	1.271	1.353	-6.5	128	0.00	17.92
120		hexachlorobutadiene	0.698	0.778	-11.5	135	0.00	18.03
121		naphthalene	2.185	2.207	-1.0	119	0.00	18.21
122		1,2,3-trichlorobenzene	1.091	1.139	-4.4	127	0.00	18.44
123		hexachloroethane	0.583	0.655	-12.3	139	0.00	16.61
		----------	True	Calc.	% Drift			----------
124		2-ethylhexyl acrylate	4.000	3.616	9.6	127	0.00	17.95
		----------	AvgRF	CCRF	% Dev			----------
125		2-methylnaphthalene	1.039	0.896	13.8	117	0.00	19.45
126		bis(chloromethyl)ether		----------NA----------				
127		ethylenimine		----------NA----------				
128		pentafluorobenzene(a)	1.000	1.000	0.0	107	0.00	9.56
129		freon 142b		----------NA----------				
130		chlorobenzene-d5(a)	1.000	1.000	0.0	103	0.00	13.61
131		cyclohexanone		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A200472.D M2A8671.M Tue Mar 17 08:27:32 2020

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8720-ECC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201461.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...17\v2a8720\2a201461.d Vial: 25
Acq On : 16 Mar 2020 6:44 pm Operator: edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41684,V2A8720,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	119	0.00	7.30
2	ethanol	0.150	0.153	-2.0	120	0.00	6.01
3	tertiary butyl alcohol	1.441	1.412	2.0	117	0.00	7.42
4	1,4-dioxane	0.137	0.147	-7.3	130	0.00	11.13
5 I	pentafluorobenzene	1.000	1.000	0.0	127	0.00	9.56
6	chlorodifluoromethane	0.702	0.816	-16.2	149	0.01	4.05
7	dichlorodifluoromethane	0.753	0.900	-19.5	144	0.00	4.01
8	chloromethane	0.908	0.862	5.1	123	0.00	4.39
9	vinyl chloride	0.865	0.818	5.4	119	0.00	4.61
10	1,3-butadiene	0.505	0.613	-21.4	155	0.00	4.65
11	bromomethane	0.570	0.563	1.2	132	0.00	5.23
12	chloroethane	0.444	0.456	-2.7	130	0.00	5.39
13	vinyl bromide	0.456	0.514	-12.7	138	0.00	5.73
14	trichlorofluoromethane	0.902	1.047	-16.1	146	0.00	5.85
15	ethyl ether	0.302	0.302	0.0	128	0.00	6.23
16	2-chloropropane	0.240	0.258	-7.5	139	0.00	6.44
17	acrolein	0.080	0.078	2.5	117	-0.01	6.45
18	freon 113	0.421	0.510	-21.1	151	0.00	6.65
19	1,1-dichloroethene	0.488	0.542	-11.1	139	0.00	6.65
20	acetone	0.117	0.106	9.4	115	0.00	6.65
21	acetonitrile	0.060	0.054	10.0	117	0.00	7.07
22	iodomethane	0.758	0.833	-9.9	143	0.00	6.89
23	carbon disulfide	1.479	1.568	-6.0	139	0.00	7.03
24	methylene chloride	0.588	0.596	-1.4	132	0.00	7.35
25	methyl acetate	0.359	0.329	8.4	119	0.00	7.11
26	methyl tert butyl ether	1.430	1.507	-5.4	134	0.00	7.71
27	trans-1,2-dichloroethene	0.558	0.580	-3.9	136	0.00	7.73
28	hexane	0.812	0.993	-22.3	146	0.00	8.09
29	di-isopropyl ether	2.003	1.912	4.5	122	0.00	8.30
30	ethyl tert-butyl ether	1.822	1.801	1.2	128	0.00	8.75
31	2-butanone	0.048	0.046	4.2	120	0.00	8.95
32	1,1-dichloroethane	1.064	1.041	2.2	128	0.00	8.31
33	chloroprene	0.848	0.856	-0.9	126	0.00	8.41
34	acrylonitrile	0.172	0.171	0.6	124	0.00	7.64
35	vinyl acetate	0.103	0.104	-1.0	128	0.00	8.25
36	ethyl acetate	0.071	0.066	7.0	117	0.00	8.97
37	2,2-dichloropropane	0.835	0.843	-1.0	133	0.00	9.05
38	cis-1,2-dichloroethene	0.636	0.648	-1.9	132	0.00	9.02
39	propionitrile	0.054	0.051	5.6	119	0.00	9.04
40	bromochloromethane	0.392	0.416	-6.1	136	0.00	9.31
41	tetrahydrofuran	0.128	0.116	9.4	117	0.00	9.33

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8720-ECC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201461.D
Project: Orangetown Shopping Center, Orangeburg, NY

42		chloroform	1.028	1.040	-1.2	131	0.00	9.40
43		tert-butyl formate	0.457	0.474	-3.7	135	0.00	9.44
44		isobutyl alcohol	0.017	0.017	0.0	126	0.00	9.80
45	S	dibromofluoromethane (s)	0.454	0.468	-3.1	131	0.00	9.59
46		methacrylonitrile	0.191	0.188	1.6	127	0.00	9.24
47		1,1,1-trichloroethane	0.895	0.967	-8.0	137	0.00	9.66
48		cyclohexane	0.815	0.922	-13.1	147	0.00	9.76
49		1,1-dichloropropene	0.787	0.808	-2.7	132	0.00	9.83
50		tert-amyl alcohol	0.021	0.020	4.8	121	0.00	9.96
51		carbon tetrachloride	0.814	0.897	-10.2	141	0.00	9.85
52	I	1,4-difluorobenzene	1.000	1.000	0.0	127	0.00	10.49
53	S	1,2-dichloroethane-d4 (s)	0.332	0.316	4.8	122	0.00	10.01
54		2,2,4-trimethylpentane	1.419	1.620	-14.2	138	0.00	10.17
55		tert-amyl methyl ether	1.136	1.138	-0.2	128	0.00	10.16
56		n-butyl alcohol	0.008	0.007	12.5	114	0.00	10.54
57		benzene	1.513	1.518	-0.3	131	0.00	10.07
58		heptane	0.302	0.338	-11.9	134	0.00	10.32
59		isopropyl acetate	0.069	0.071	-2.9	126	0.00	9.99
60		1,2-dichloroethane	0.528	0.496	6.1	126	0.00	10.10
61		trichloroethene	0.393	0.400	-1.8	131	0.00	10.80
62		ethyl acrylate	0.412	0.392	4.9	117	0.00	10.78
63		2-nitropropane	0.075	0.067	10.7	111	0.00	11.55
64		2-chloroethyl vinyl ether	0.173	0.205	-18.5	145	0.00	11.58
65		methyl methacrylate	0.082	0.081	1.2	122	0.00	11.05
66		1,2-dichloropropane	0.409	0.393	3.9	121	0.00	11.09
67		methylcyclohexane	0.625	0.741	-18.6	143	0.00	11.09
68		dibromomethane	0.229	0.230	-0.4	127	0.00	11.19
69		bromodichloromethane	0.530	0.541	-2.1	129	0.00	11.35
70		epichlorohydrin	0.030	0.027	10.0	116	0.00	11.67
71		cis-1,3-dichloropropene	0.636	0.642	-0.9	126	0.00	11.80
72		4-methyl-2-pentanone	0.120	0.107	10.8	114	0.00	11.91
73		3-methyl-1-butanol	0.007	0.007	0.0	114	0.00	11.91
74	I	chlorobenzene-d5	1.000	1.000	0.0	118	0.00	13.61
75	S	toluene-d8 (s)	1.269	1.317	-3.8	122	0.00	12.11
76		toluene	1.069	1.115	-4.3	126	0.00	12.18
77		trans-1,3-dichloropropene	0.640	0.685	-7.0	123	0.00	12.37
78		ethyl methacrylate	0.485	0.501	-3.3	119	0.00	12.36
79		1,1,2-trichloroethane	0.313	0.330	-5.4	125	0.00	12.59
80		2-hexanone	0.126	0.118	6.3	109	0.00	12.76
81		tetrachloroethene	0.481	0.538	-11.9	134	0.00	12.73
82		1,3-dichloropropane	0.611	0.623	-2.0	121	0.00	12.77
83		butyl acetate	0.257	0.245	4.7	113	0.00	12.83
84		dibromochloromethane	0.456	0.507	-11.2	129	0.00	13.01
85		1,2-dibromoethane	0.408	0.445	-9.1	125	0.00	13.16
86		n-butyl ether	1.877	1.874	0.2	115	0.00	13.60
87		chlorobenzene	1.161	1.216	-4.7	124	0.00	13.64
88		1,1,1,2-tetrachloroethane	0.444	0.494	-11.3	130	0.00	13.70
89		ethylbenzene	1.946	1.999	-2.7	123	0.00	13.70
90		m,p-xylene	0.745	0.788	-5.8	124	0.00	13.82
91		o-xylene	1.583	1.613	-1.9	123	0.00	14.22
92		styrene	1.200	1.285	-7.1	123	0.00	14.23
93		n-amyl acetate	0.271	0.270	0.4	115	0.00	14.26
94		bromoform	0.278	0.316	-13.7	128	0.00	14.46
95		butyl acrylate	0.792	0.790	0.3	113	0.00	14.05
96		isopropylbenzene	1.890	2.013	-6.5	126	0.00	14.57
97		cis-1,4-dichloro-2-butene	0.159	0.163	-2.5	114	0.00	14.61
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	120	0.00	15.93

Continuing Calibration Summary

Job Number: JD4440 **Sample:** V2A8720-ECC8671
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** 2A201461.D
Project: Orangetown Shopping Center, Orangeburg, NY

99	S	4-bromofluorobenzene (s)	0.943	0.919	2.5	117	0.00	14.76
100		bromobenzene	0.994	1.064	-7.0	127	0.00	14.95
101		1,1,2,2-tetrachloroethane	0.858	0.838	2.3	115	0.00	14.85
102		trans-1,4-dichloro-2-bute	0.216	0.199	7.9	108	0.00	14.88
103		1,2,3-trichloropropane	0.223	0.221	0.9	120	0.00	14.93
104		n-propylbenzene	4.325	4.345	-0.5	121	0.00	14.98
105		2-chlorotoluene	0.943	0.969	-2.8	123	0.00	15.11
106		4-chlorotoluene	2.647	2.692	-1.7	123	0.00	15.22
107		1,3,5-trimethylbenzene	3.035	3.208	-5.7	125	0.00	15.14
108		tert-butylbenzene	2.566	2.792	-8.8	127	0.00	15.48
109		1,2,4-trimethylbenzene	3.034	3.218	-6.1	126	0.00	15.53
110		sec-butylbenzene	3.893	4.077	-4.7	125	0.00	15.70
111		1,3-dichlorobenzene	1.797	1.892	-5.3	125	0.00	15.86
112		p-isopropyltoluene	3.232	3.495	-8.1	126	0.00	15.83
113		benzyl chloride	1.609	1.656	-2.9	120	0.00	16.05
114		1,4-dichlorobenzene	1.855	1.899	-2.4	125	0.00	15.95
115		1,2-dichlorobenzene	1.720	1.817	-5.6	126	0.00	16.33
116		n-butylbenzene	1.726	1.807	-4.7	122	0.00	16.23
117		1,2-dibromo-3-chloropropa	0.168	0.186	-10.7	125	0.00	17.09
118		1,3,5-trichlorobenzene	1.522	1.683	-10.6	126	0.00	17.28
119		1,2,4-trichlorobenzene	1.271	1.433	-12.7	127	0.00	17.92
120		hexachlorobutadiene	0.698	0.797	-14.2	131	0.00	18.03
121		naphthalene	2.185	2.433	-11.4	123	0.00	18.21
122		1,2,3-trichlorobenzene	1.091	1.217	-11.5	126	0.00	18.44
123		hexachloroethane	0.583	0.691	-18.5	135	0.00	16.62
		----------	True	Calc.	% Drift	----------		
124		2-ethylhexyl acrylate	10.000	9.593	4.1	123	0.00	17.95
		----------	AvgRF	CCRF	% Dev	----------		
125		2-methylnaphthalene	1.039	1.272	-22.4	140	0.00	19.45
126		bis(chloromethyl)ether		----------NA----------				
127		ethylenimine		----------NA----------				
128		pentafluorobenzene(a)	1.000	1.000	0.0	102	0.00	9.56
129		freon 142b		----------NA----------				
130		chlorobenzene-d5(a)	1.000	1.000	0.0	95	0.00	13.61
131		cyclohexanone		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A200473.D M2A8671.M Tue Mar 17 09:18:23 2020

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: V2A8671	**Method:** SW846 8260C	**Instrument ID:** GCMS2A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2A8671-BFB	2A200465.D	02/04/20 15:37	n/a	BFB Tune
V2A8671-IC8671	2A200466.D	02/04/20 16:12	n/a	Initial cal 0.2
V2A8671-IC8671	2A200467.D	02/04/20 16:41	n/a	Initial cal 0.5
V2A8671-IC8671	2A200468.D	02/04/20 17:09	n/a	Initial cal 1
V2A8671-IC8671	2A200469.D	02/04/20 17:38	n/a	Initial cal 2
V2A8671-IC8671	2A200470.D	02/04/20 18:06	n/a	Initial cal 4
V2A8671-IC8671	2A200471.D	02/04/20 18:35	n/a	Initial cal 8
V2A8671-IC8671	2A200472.D	02/04/20 19:04	n/a	Initial cal 20
V2A8671-ICC8671	2A200473.D	02/04/20 19:32	n/a	Initial cal 50
V2A8671-IC8671	2A200474.D	02/04/20 20:01	n/a	Initial cal 100
V2A8671-IC8671	2A200475.D	02/04/20 20:30	n/a	Initial cal 200
V2A8671-ICV8671	2A200478.D	02/04/20 21:55	n/a	Initial cal verification 50
V2A8671-ICV8671	2A200479.D	02/04/20 22:24	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: V2A8715 **Method:** SW846 8260C **Instrument ID:** GCMS2A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2A8715-BFB	2A201355.D	03/12/20 07:15	n/a	BFB Tune
V2A8715-CC8671	2A201355.D	03/12/20 07:15	n/a	Continuing cal 20
V2A8715-BS	2A201356.D	03/12/20 07:50	n/a	Blank Spike
V2A8715-MB	2A201358.D	03/12/20 08:48	n/a	Method Blank
ZZZZZZ	2A201359.D	03/12/20 09:22	n/a	(unrelated sample)
ZZZZZZ	2A201360.D	03/12/20 09:51	n/a	(unrelated sample)
JD4440-2	2A201361.D	03/12/20 10:20	n/a	MW-4
JD4440-1	2A201362.D	03/12/20 10:49	n/a	MW-3
JD4440-3	2A201363.D	03/12/20 11:18	n/a	MW-5
ZZZZZZ	2A201364.D	03/12/20 11:47	n/a	(unrelated sample)
JD4440-2MS	2A201365.D	03/12/20 12:16	n/a	Matrix Spike
JD4440-2MSD	2A201366.D	03/12/20 12:45	n/a	Matrix Spike Duplicate
ZZZZZZ	2A201368.D	03/12/20 13:42	n/a	(unrelated sample)
ZZZZZZ	2A201369.D	03/12/20 14:11	n/a	(unrelated sample)
ZZZZZZ	2A201370.D	03/12/20 14:39	n/a	(unrelated sample)
ZZZZZZ	2A201371.D	03/12/20 15:07	n/a	(unrelated sample)
ZZZZZZ	2A201372.D	03/12/20 15:36	n/a	(unrelated sample)
ZZZZZZ	2A201373.D	03/12/20 16:05	n/a	(unrelated sample)
ZZZZZZ	2A201374.D	03/12/20 16:34	n/a	(unrelated sample)
ZZZZZZ	2A201375.D	03/12/20 17:03	n/a	(unrelated sample)
ZZZZZZ	2A201376.D	03/12/20 17:33	n/a	(unrelated sample)
ZZZZZZ	2A201377.D	03/12/20 18:02	n/a	(unrelated sample)
V2A8715-ECC8671	2A201378.D	03/12/20 18:30	n/a	Ending cal 50

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: V2A8717 **Method:** SW846 8260C **Instrument ID:** GCMS2A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2A8717-BFB	2A201385.D	03/13/20 07:14	n/a	BFB Tune
V2A8717-CC8671	2A201385.D	03/13/20 07:14	n/a	Continuing cal 20
V2A8717-BS	2A201386.D	03/13/20 07:49	n/a	Blank Spike
V2A8717-MB	2A201388.D	03/13/20 08:48	n/a	Method Blank
JD4440-5	2A201389.D	03/13/20 09:32	n/a	MW-E
JD4440-6	2A201390.D	03/13/20 10:01	n/a	DUPLICATE
JD4440-4	2A201391.D	03/13/20 10:30	n/a	MW-8A
ZZZZZZ	2A201392.D	03/13/20 10:59	n/a	(unrelated sample)
ZZZZZZ	2A201393.D	03/13/20 11:28	n/a	(unrelated sample)
ZZZZZZ	2A201394.D	03/13/20 11:57	n/a	(unrelated sample)
ZZZZZZ	2A201395.D	03/13/20 12:26	n/a	(unrelated sample)
ZZZZZZ	2A201396.D	03/13/20 12:55	n/a	(unrelated sample)
ZZZZZZ	2A201397.D	03/13/20 13:24	n/a	(unrelated sample)
ZZZZZZ	2A201398.D	03/13/20 13:53	n/a	(unrelated sample)
ZZZZZZ	2A201399.D	03/13/20 14:22	n/a	(unrelated sample)
JD4440-4MS	2A201400.D	03/13/20 14:52	n/a	Matrix Spike
JD4440-5DUP	2A201402.D	03/13/20 15:50	n/a	Duplicate
ZZZZZZ	2A201403.D	03/13/20 16:19	n/a	(unrelated sample)
ZZZZZZ	2A201406.D	03/13/20 17:46	n/a	(unrelated sample)
ZZZZZZ	2A201407.D	03/13/20 18:15	n/a	(unrelated sample)
ZZZZZZ	2A201408.D	03/13/20 18:44	n/a	(unrelated sample)

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: V2A8720	**Method:** SW846 8260C	**Instrument ID:** GCMS2A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2A8720-BFB	2A201438.D	03/16/20 07:16	n/a	BFB Tune
V2A8720-CC8671	2A201438.D	03/16/20 07:16	n/a	Continuing cal 20
V2A8720-BS	2A201439.D	03/16/20 08:05	n/a	Blank Spike
V2A8720-MB	2A201441.D	03/16/20 09:02	n/a	Method Blank
JD4593-8	2A201442.D	03/16/20 09:37	n/a	(used for QC only; not part of job JD4440)
JD4593-9	2A201443.D	03/16/20 10:06	n/a	(used for QC only; not part of job JD4440)
ZZZZZZ	2A201444.D	03/16/20 10:35	n/a	(unrelated sample)
ZZZZZZ	2A201445.D	03/16/20 11:04	n/a	(unrelated sample)
ZZZZZZ	2A201446.D	03/16/20 11:32	n/a	(unrelated sample)
ZZZZZZ	2A201447.D	03/16/20 12:01	n/a	(unrelated sample)
JD4593-8MS	2A201448.D	03/16/20 12:29	n/a	Matrix Spike
JD4593-9DUP	2A201450.D	03/16/20 13:27	n/a	Duplicate
ZZZZZZ	2A201451.D	03/16/20 13:56	n/a	(unrelated sample)
ZZZZZZ	2A201452.D	03/16/20 14:25	n/a	(unrelated sample)
JD4440-7	2A201453.D	03/16/20 14:54	n/a	FIELD BLANK
JD4440-8	2A201454.D	03/16/20 15:22	n/a	EQUIPMENT BLANK
JD4440-9	2A201455.D	03/16/20 15:51	n/a	TRIP BLANK
ZZZZZZ	2A201456.D	03/16/20 16:20	n/a	(unrelated sample)
ZZZZZZ	2A201457.D	03/16/20 16:49	n/a	(unrelated sample)
ZZZZZZ	2A201458.D	03/16/20 17:17	n/a	(unrelated sample)
ZZZZZZ	2A201459.D	03/16/20 17:46	n/a	(unrelated sample)
ZZZZZZ	2A201460.D	03/16/20 18:15	n/a	(unrelated sample)
V2A8720-ECC8671	2A201461.D	03/16/20 18:44	n/a	Ending cal 50

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201362.d
Acq On : 12 Mar 2020 10:49 am
Operator : edwardd
Sample : JD4440-1 Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:49:55 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

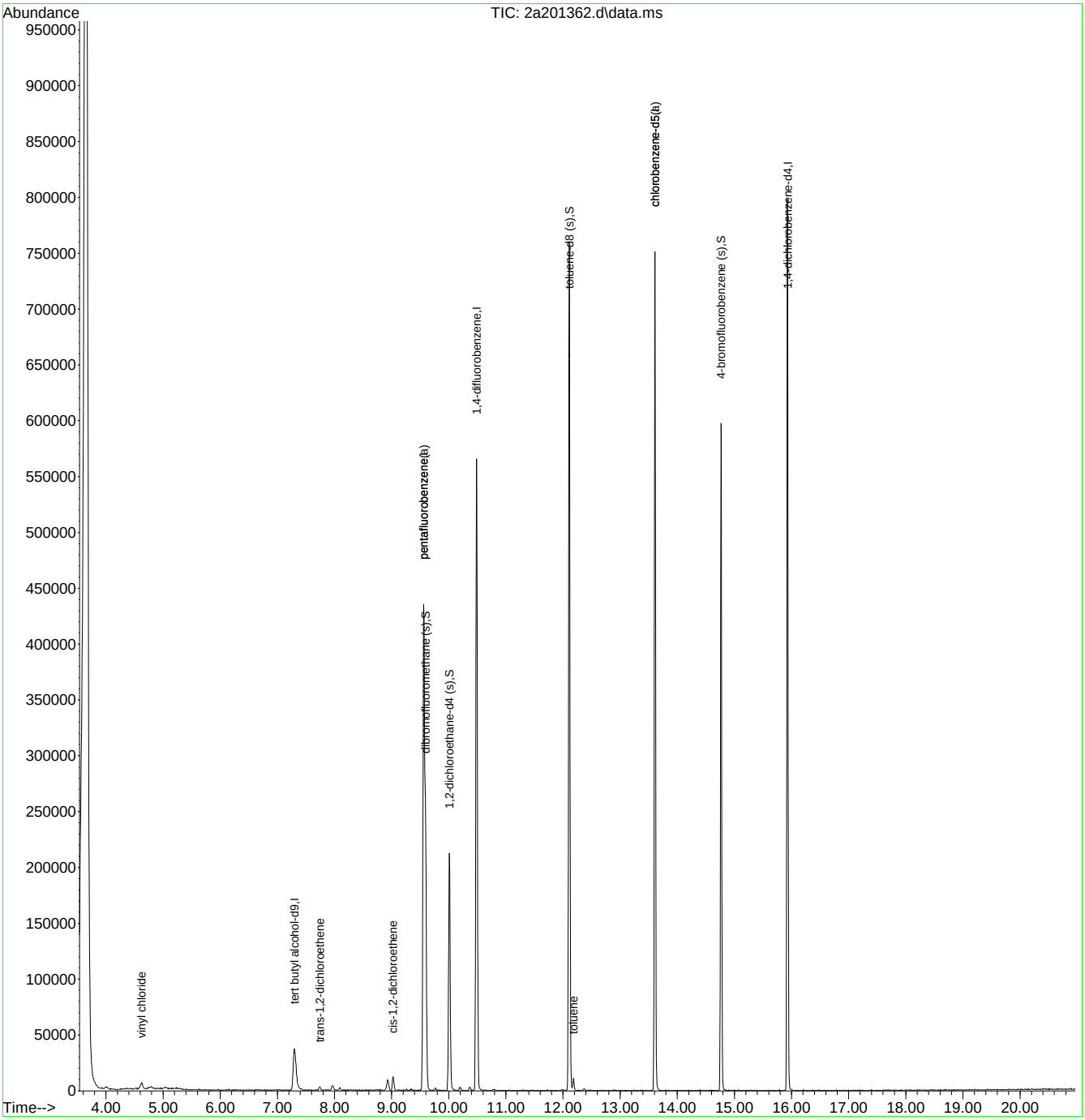
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.301	65	83243	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	316062	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	465985	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	379198	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	197120	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	316062	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	379198	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	144743	50.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.78%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	150691	48.73	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.46%			
75) toluene-d8 (s)	12.107	98	483485	50.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.46%			
99) 4-bromofluorobenzene (s)	14.764	95	179938	48.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.82%			
Target Compounds						Qvalue
9) vinyl chloride	4.623	62	10898	1.99	ug/L	94
27) trans-1,2-dichloroethene	7.745	96	1597	0.45	ug/L	91
38) cis-1,2-dichloroethene	9.022	96	6034	1.50	ug/L	92
76) toluene	12.181	92	4544	0.56	ug/L	96

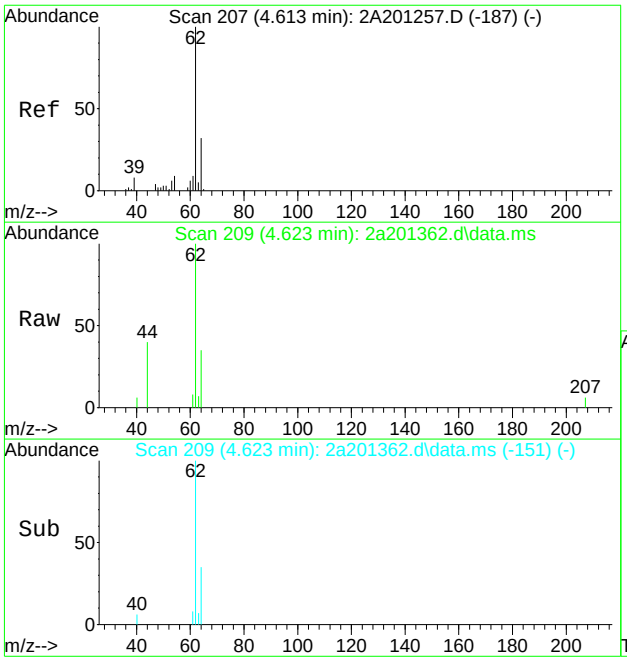
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201362.d
Acq On : 12 Mar 2020 10:49 am
Operator : edwardd
Sample : JD4440-1 Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:49:55 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

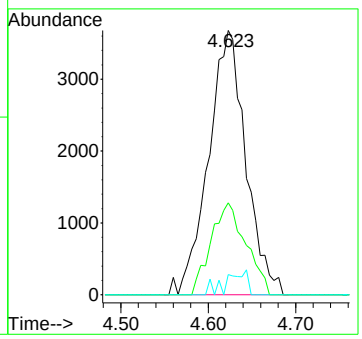


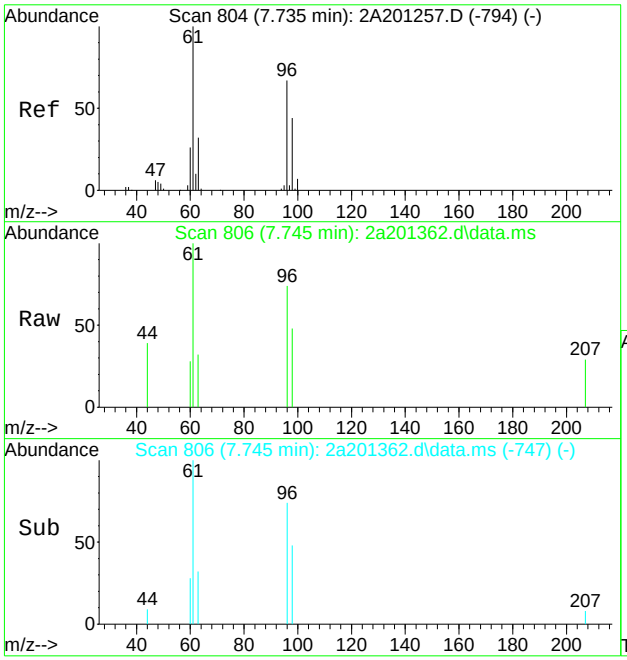


#9
vinyl chloride
Concen: 1.99 ug/L
RT: 4.623 min Scan# 209
Delta R.T. 0.005 min
Lab File: 2a201362.d
Acq: 12 Mar 2020 10:49 am

Tgt Ion: 62 Resp: 10898

Ion	Ratio	Lower	Upper
62	100		
64	34.8	1.3	61.3
61	7.7	0.0	39.0

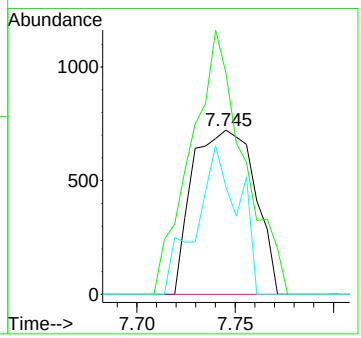


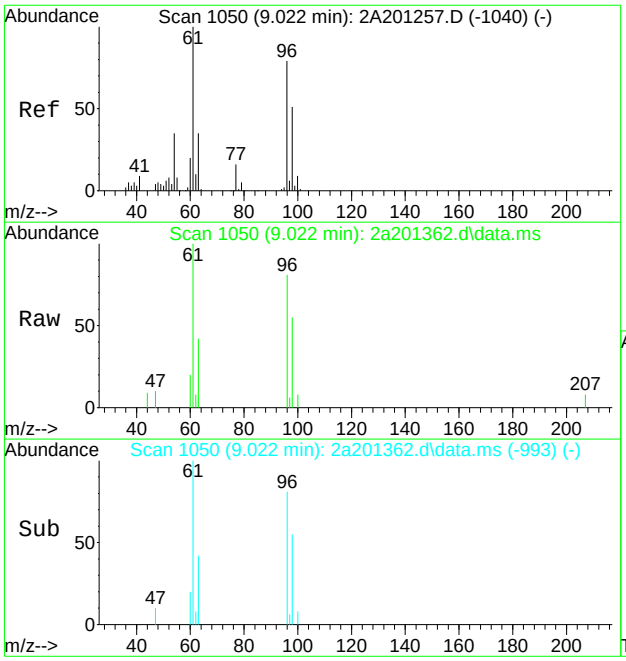


#27
trans-1,2-dichloroethene
Concen: 0.45 ug/L
RT: 7.745 min Scan# 806
Delta R.T. 0.011 min
Lab File: 2a201362.d
Acq: 12 Mar 2020 10:49 am

Tgt Ion: 96 Resp: 1597

Ion	Ratio	Lower	Upper
96	100		
61	134.6	120.2	180.2
98	65.1	33.4	93.4

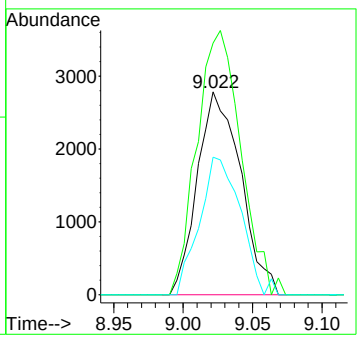


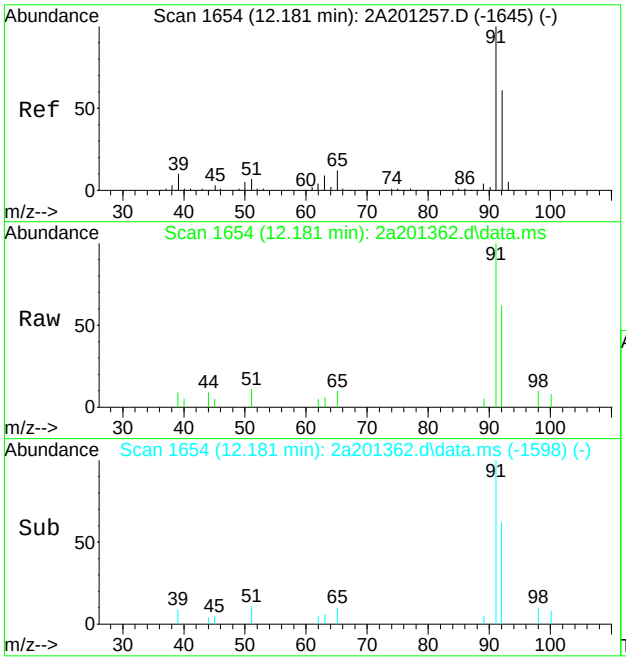


#38
cis-1,2-dichloroethene
Concen: 1.50 ug/L
RT: 9.022 min Scan# 1050
Delta R.T. 0.000 min
Lab File: 2a201362.d
Acq: 12 Mar 2020 10:49 am

Tgt Ion: 96 Resp: 6034

Ion	Ratio	Lower	Upper
96	100		
61	124.2	104.7	164.7
98	67.9	32.8	92.8

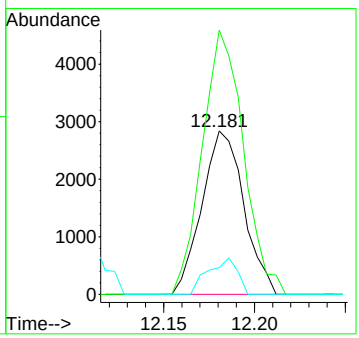




#76
toluene
Concen: 0.56 ug/L
RT: 12.181 min Scan# 1654
Delta R.T. -0.005 min
Lab File: 2a201362.d
Acq: 12 Mar 2020 10:49 am

Tgt Ion: 92 Resp: 4544

Ion	Ratio	Lower	Upper
92	100		
91	161.8	146.8	186.8
65	16.3	0.0	39.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201361.d
Acq On : 12 Mar 2020 10:20 am
Operator : edwardd
Sample : JD4440-2 Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:48:41 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

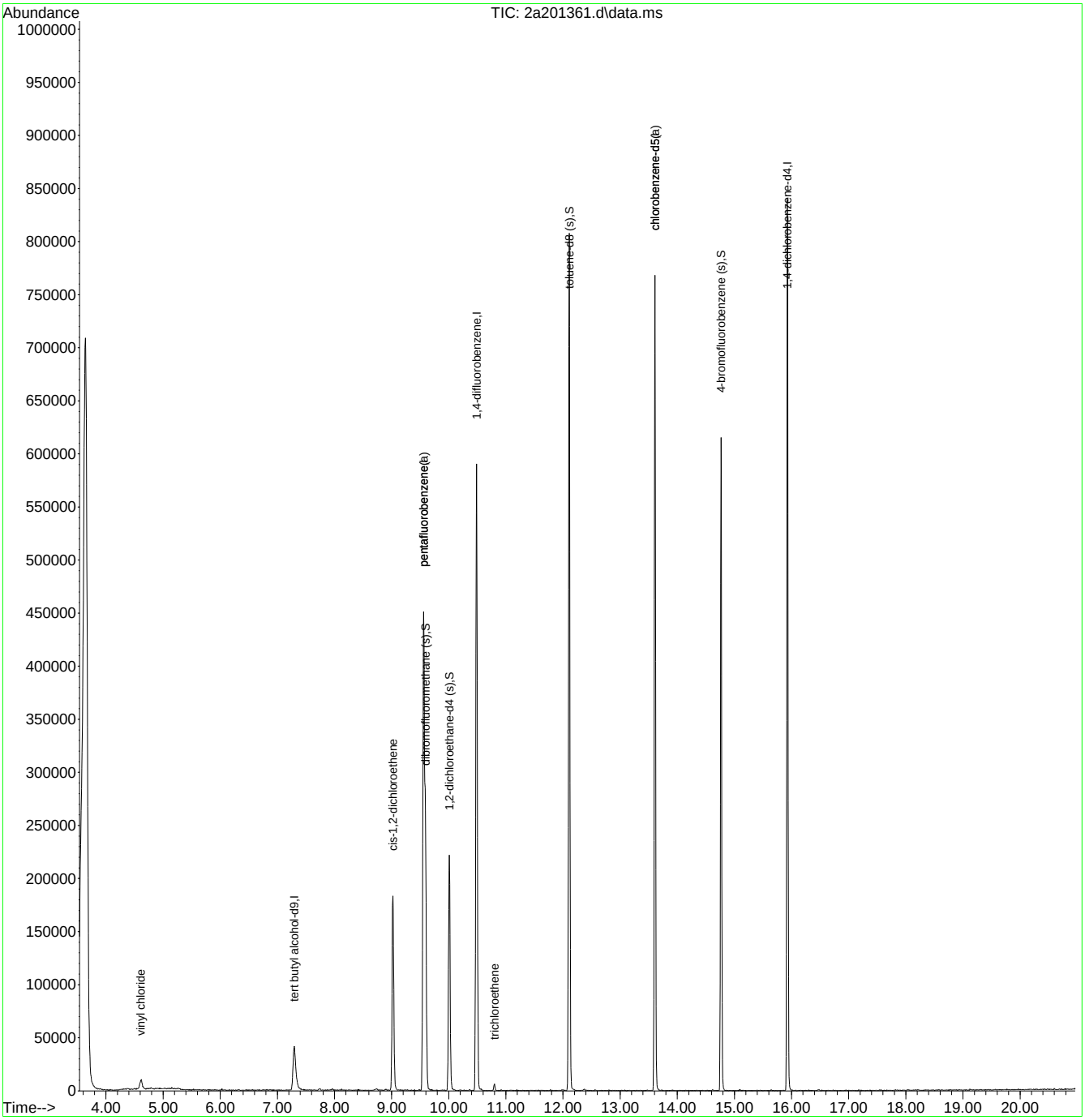
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	88003	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	327448	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	480174	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	394666	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	203749	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	327448	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	394666	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	150775	50.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.32%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	156848	49.23	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.46%			
75) toluene-d8 (s)	12.107	98	498095	49.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%			
99) 4-bromofluorobenzene (s)	14.764	95	185199	48.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.42%			
Target Compounds						Qvalue
9) vinyl chloride	4.607	62	16153	2.85	ug/L	96
38) cis-1,2-dichloroethene	9.022	96	89648	21.52	ug/L	99
61) trichloroethene	10.800	95	2160	0.57	ug/L	88

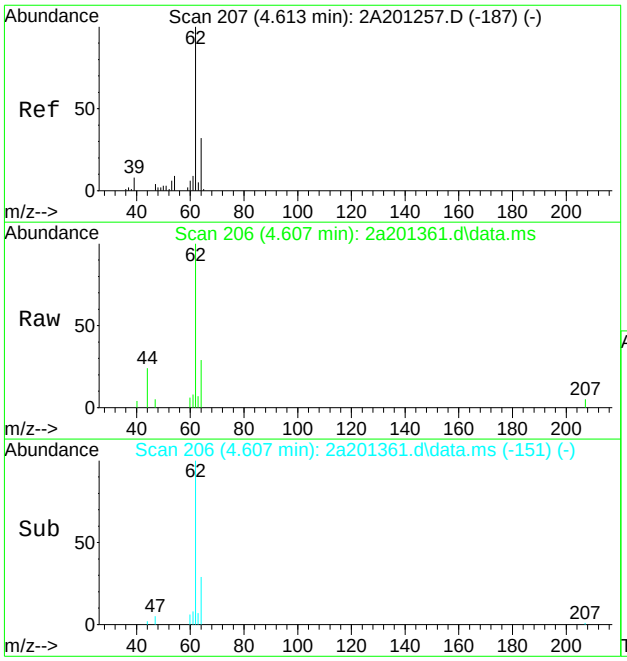
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201361.d
Acq On : 12 Mar 2020 10:20 am
Operator : edwardd
Sample : JD4440-2 Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:48:41 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

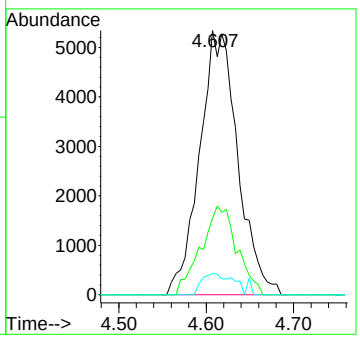


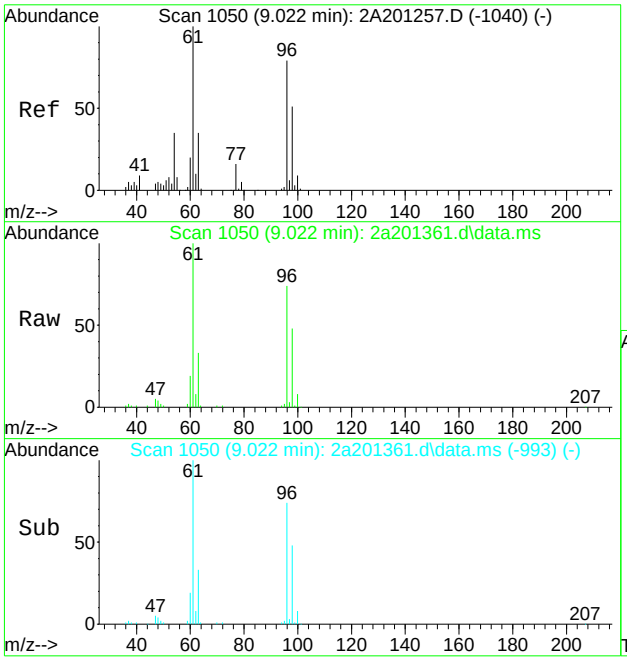


#9
vinyl chloride
Concen: 2.85 ug/L
RT: 4.607 min Scan# 206
Delta R.T. -0.010 min
Lab File: 2a201361.d
Acq: 12 Mar 2020 10:20 am

Tgt Ion: 62 Resp: 16153

Ion	Ratio	Lower	Upper
62	100		
64	28.9	1.3	61.3
61	8.0	0.0	39.0

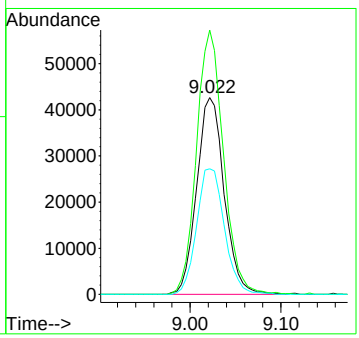


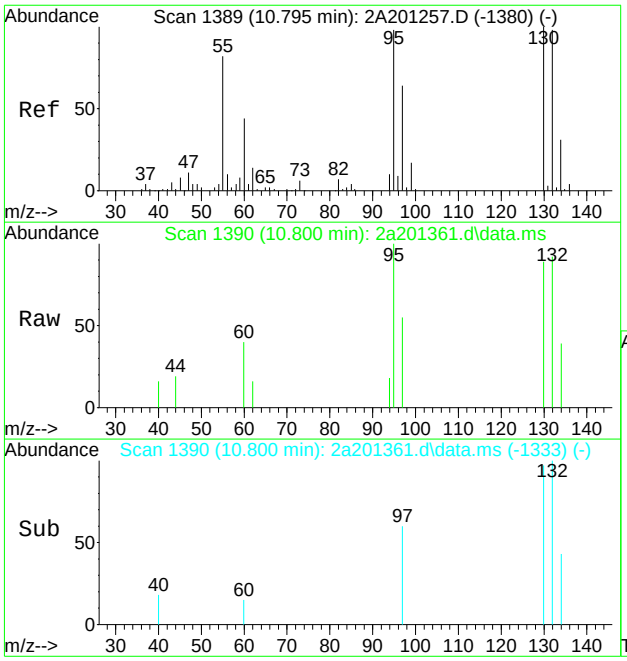


#38
cis-1,2-dichloroethene
Concen: 21.52 ug/L
RT: 9.022 min Scan# 1050
Delta R.T. 0.000 min
Lab File: 2a201361.d
Acq: 12 Mar 2020 10:20 am

Tgt Ion: 96 Resp: 89648

Ion	Ratio	Lower	Upper
96	100		
61	134.4	104.7	164.7
98	63.9	32.8	92.8

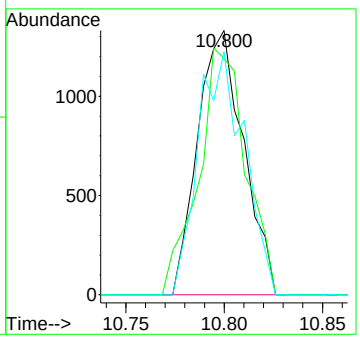




#61
trichloroethene
Concen: 0.57 ug/L
RT: 10.800 min Scan# 1390
Delta R.T. 0.000 min
Lab File: 2a201361.d
Acq: 12 Mar 2020 10:20 am

Tgt Ion: 95 Resp: 2160

Ion	Ratio	Lower	Upper
95	100		
130	89.3	74.8	134.8
132	92.0	70.4	130.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201363.d
Acq On : 12 Mar 2020 11:18 am
Operator : edwardd
Sample : JD4440-3 Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:51:14 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

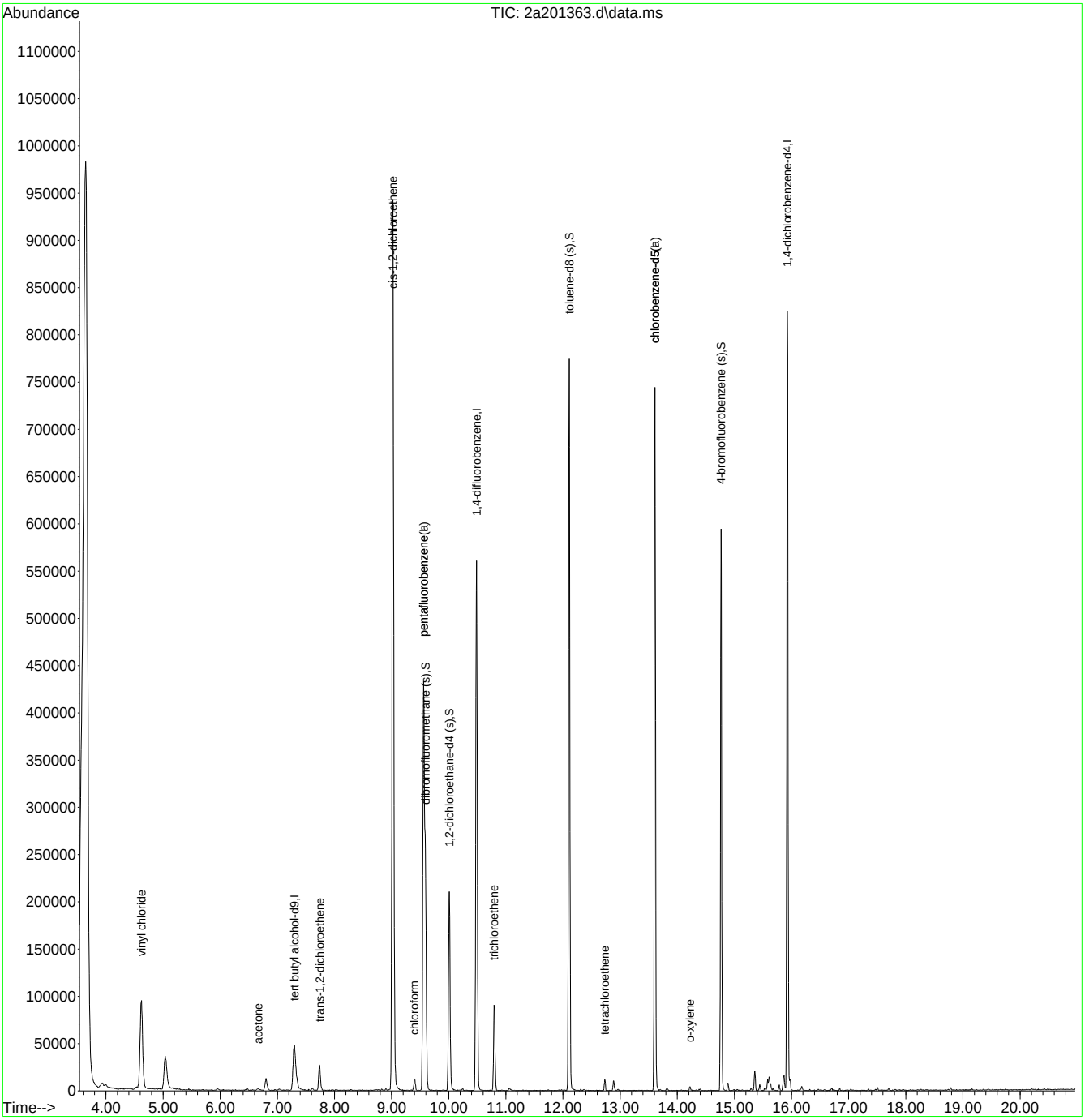
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.301	65	103505	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	313610	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	461656	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	377877	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	196958	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	313610	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	377877	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	146278	51.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.64%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	152098	49.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.30%			
75) toluene-d8 (s)	12.107	98	480510	50.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%			
99) 4-bromofluorobenzene (s)	14.764	95	178798	48.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.30%			
Target Compounds						Qvalue
9) vinyl chloride	4.623	62	182661	33.66	ug/L	99
20) acetone	6.663	43	3248	4.42	ug/L	90
27) trans-1,2-dichloroethene	7.740	96	13045	3.73	ug/L	97
38) cis-1,2-dichloroethene	9.022	96	457162	114.59	ug/L	98
42) chloroform	9.398	83	10381	1.61	ug/L	91
61) trichloroethene	10.795	95	29629	8.16	ug/L	99
81) tetrachloroethene	12.730	166	3196	0.88	ug/L	96
91) o-xylene	14.220	91	2932	0.25	ug/L	95

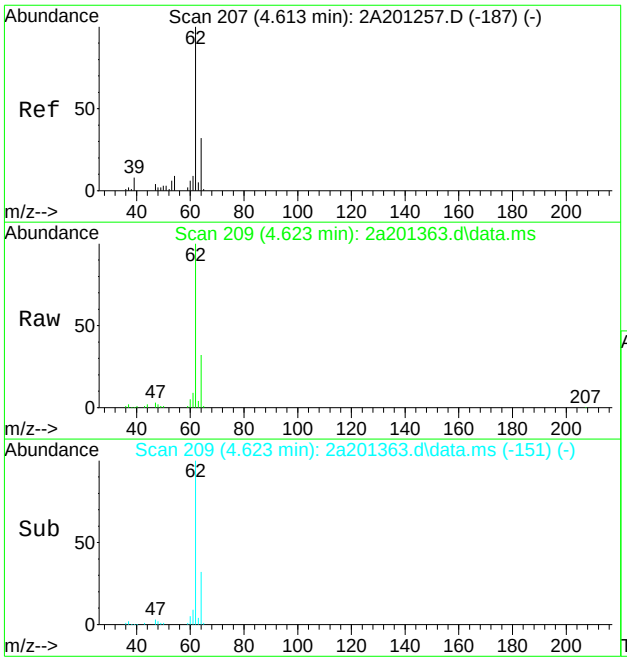
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201363.d
Acq On : 12 Mar 2020 11:18 am
Operator : edwardd
Sample : JD4440-3 Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:51:14 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

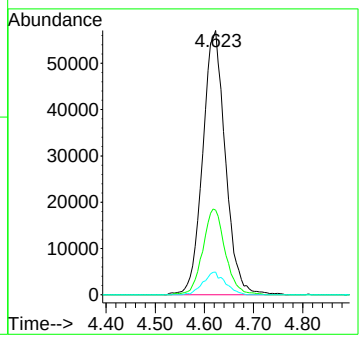


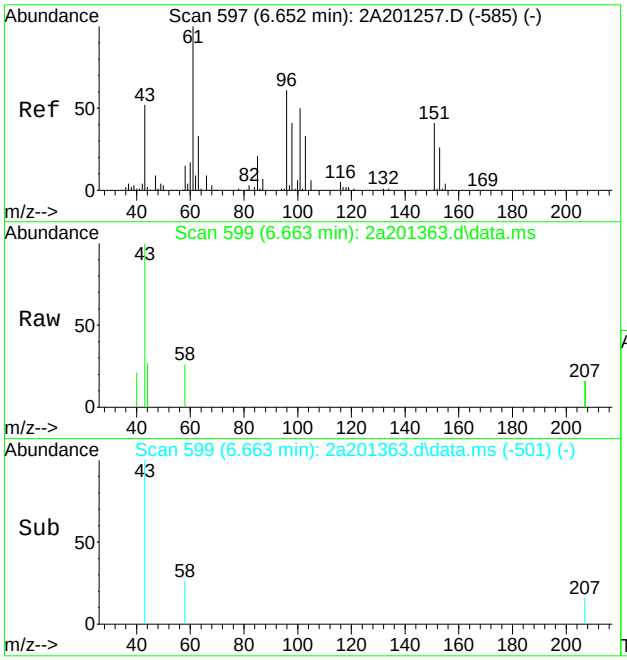


#9
vinyl chloride
Concen: 33.66 ug/L
RT: 4.623 min Scan# 209
Delta R.T. 0.005 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion: 62 Resp: 182661

Ion	Ratio	Lower	Upper
62	100		
64	32.1	1.3	61.3
61	8.6	0.0	39.0

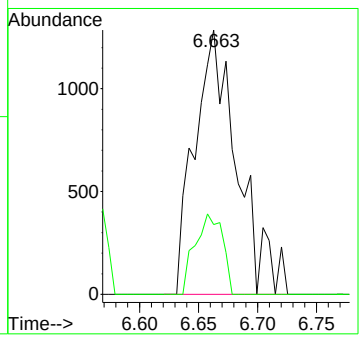


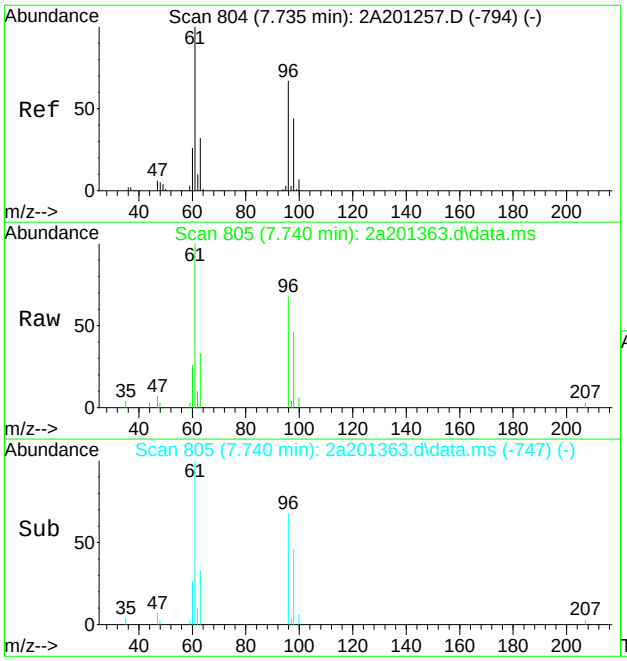


#20
acetone
Concen: 4.42 ug/L
RT: 6.663 min Scan# 599
Delta R.T. 0.011 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion: 43 Resp: 3248

Ion	Ratio	Lower	Upper
43	100		
58	26.4	1.7	61.7

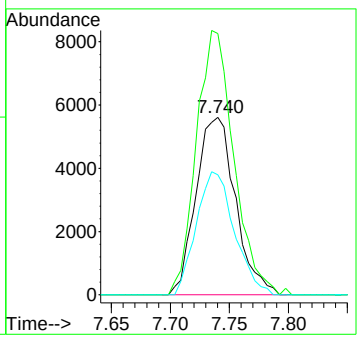


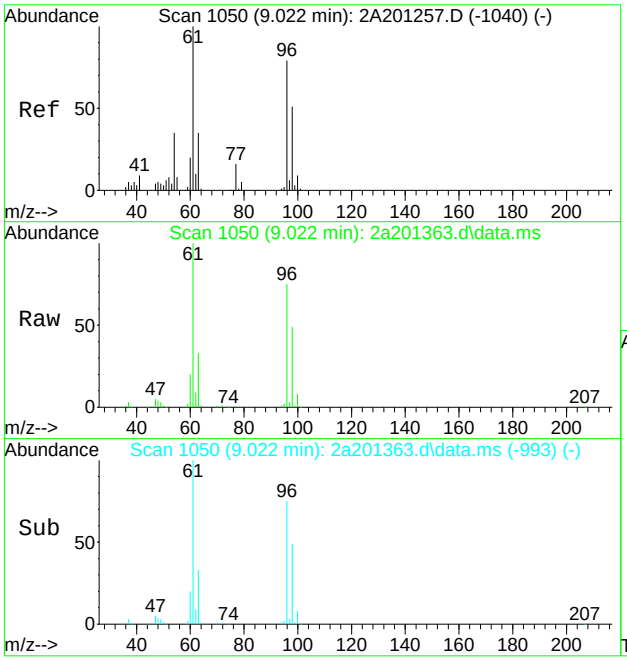


#27
trans-1,2-dichloroethene
Concen: 3.73 ug/L
RT: 7.740 min Scan# 805
Delta R.T. 0.005 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion: 96 Resp: 13045

Ion	Ratio	Lower	Upper
96	100		
61	147.3	120.2	180.2
98	67.7	33.4	93.4

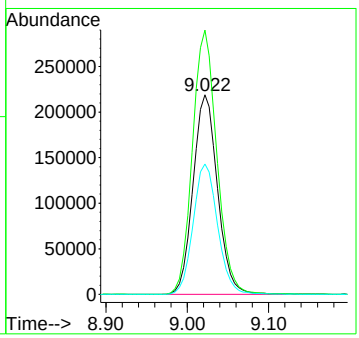


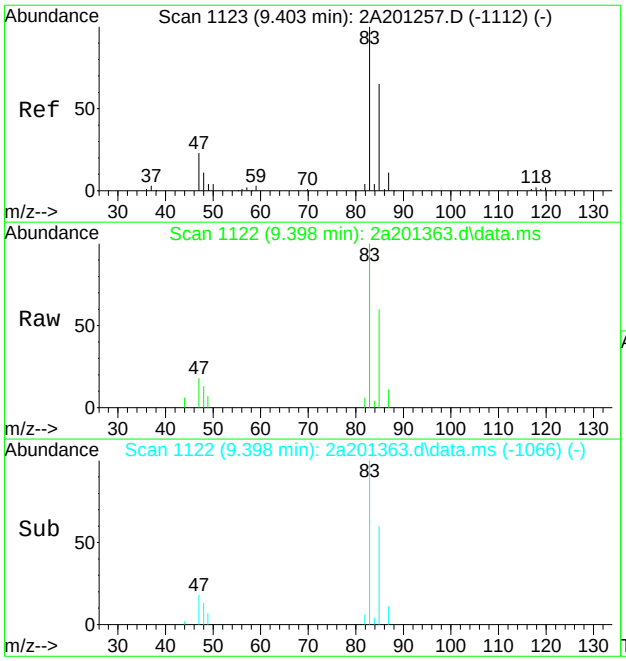


#38
cis-1,2-dichloroethene
Concen: 114.59 ug/L
RT: 9.022 min Scan# 1050
Delta R.T. 0.000 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion: 96 Resp: 457162

Ion	Ratio	Lower	Upper
96	100		
61	132.5	104.7	164.7
98	65.3	32.8	92.8

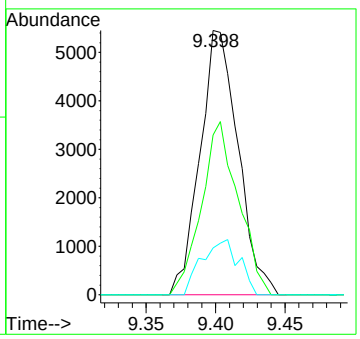


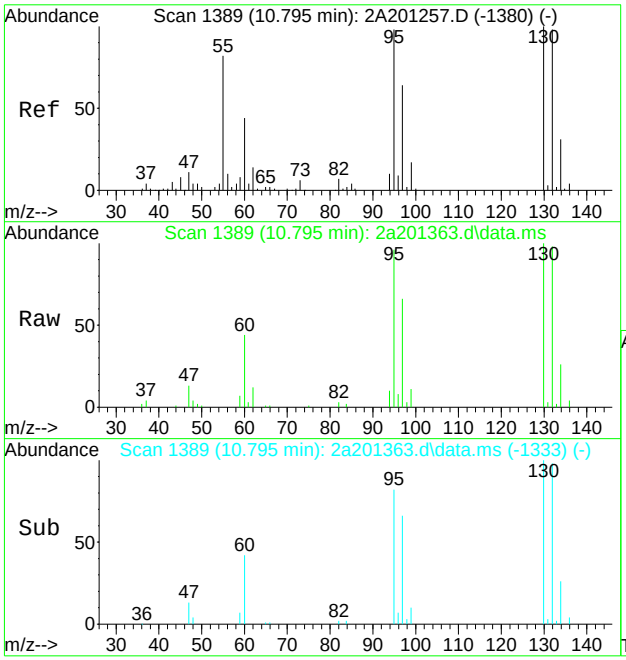


#42
chloroform
Concen: 1.61 ug/L
RT: 9.398 min Scan# 1122
Delta R.T. -0.005 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion: 83 Resp: 10381

Ion	Ratio	Lower	Upper
83	100		
85	60.4	36.5	96.5
47	17.7	0.0	55.0

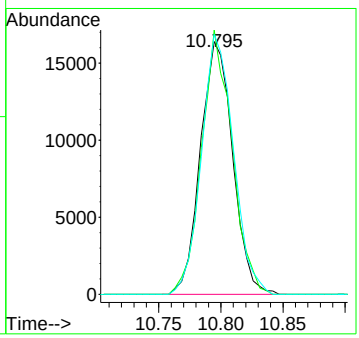


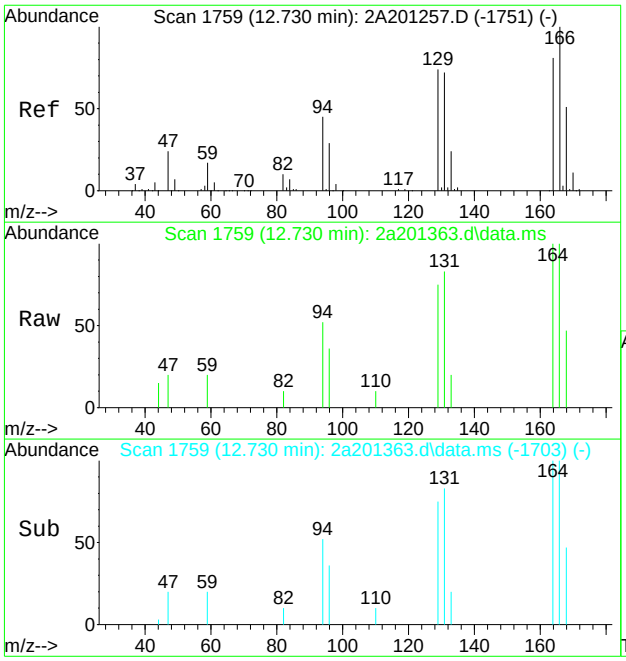


#61
trichloroethene
Concen: 8.16 ug/L
RT: 10.795 min Scan# 1389
Delta R.T. -0.005 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion: 95 Resp: 29629

Ion	Ratio	Lower	Upper
95	100		
130	104.6	74.8	134.8
132	102.8	70.4	130.4

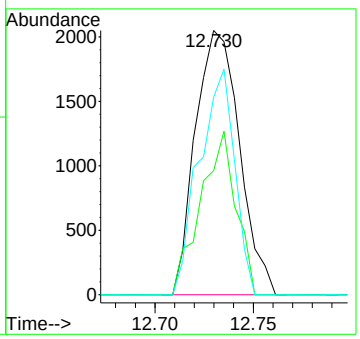


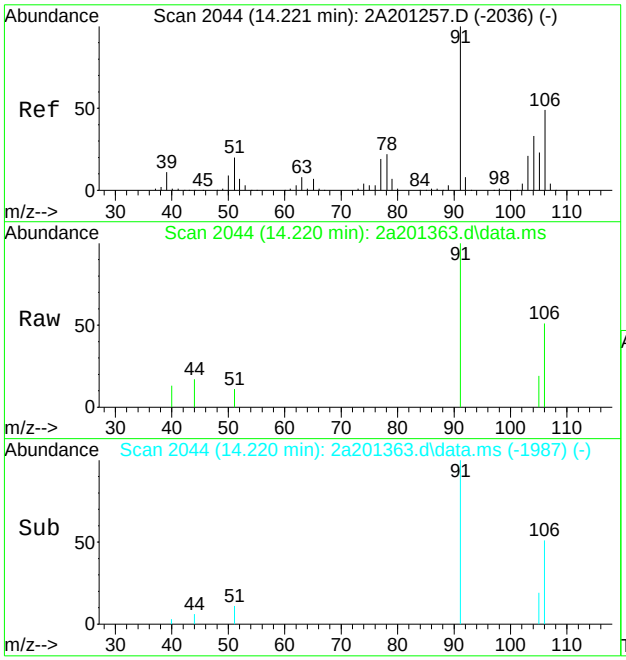


#81
tetrachloroethene
Concen: 0.88 ug/L
RT: 12.730 min Scan# 1759
Delta R.T. -0.005 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion:166 Resp: 3196

Ion	Ratio	Lower	Upper
166	100		
168	46.9	19.2	79.2
129	74.7	40.7	100.7

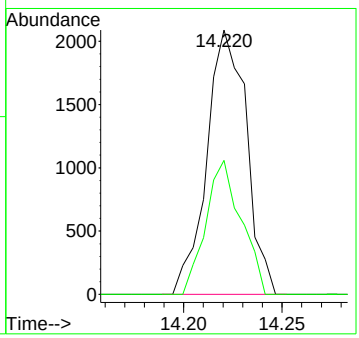




#91
o-xylene
Concen: 0.25 ug/L
RT: 14.220 min Scan# 2044
Delta R.T. 0.000 min
Lab File: 2a201363.d
Acq: 12 Mar 2020 11:18 am

Tgt Ion: 91 Resp: 2932

Ion	Ratio	Lower	Upper
91	100		
106	50.6	17.5	77.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201391.d
Acq On : 13 Mar 2020 10:30 am
Operator : edwardd
Sample : JD4440-4 Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:14:48 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

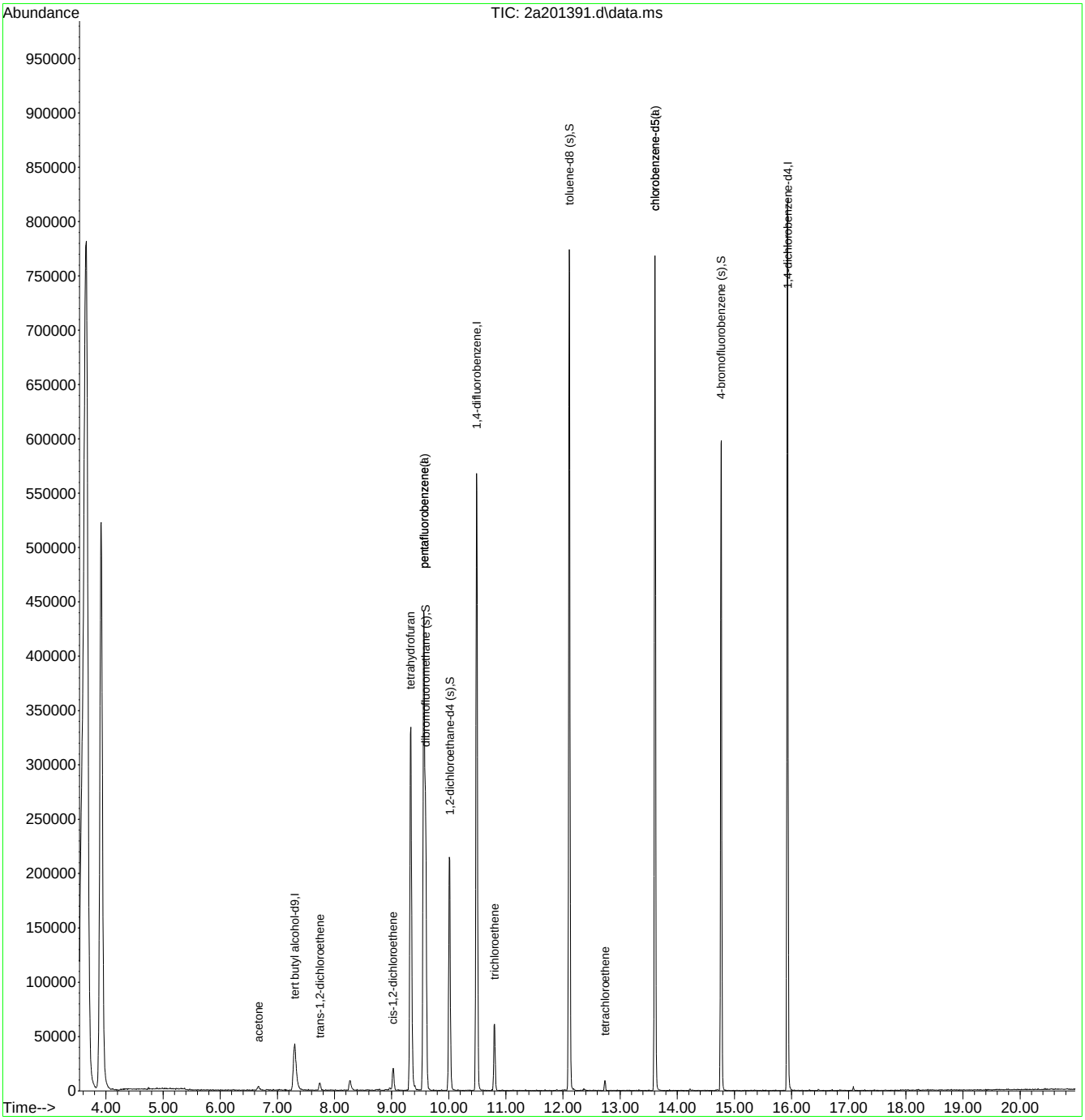
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.306	65	92526	500.00	ug/L	0.01
5) pentafluorobenzene	9.565	168	322102	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	474452	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	390133	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	200747	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.565	168	322102	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	390133	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	149658	51.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.24%			
53) 1,2-dichloroethane-d4 (s)	10.015	65	156961	49.86	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.72%			
75) toluene-d8 (s)	12.107	98	492972	49.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.56%			
99) 4-bromofluorobenzene (s)	14.764	95	183125	48.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.76%			
Target Compounds						Qvalue
20) acetone	6.668	43	6617	8.76	ug/L	97
27) trans-1,2-dichloroethene	7.740	96	3820	1.06	ug/L #	77
38) cis-1,2-dichloroethene	9.022	96	10906	2.66	ug/L	94
41) tetrahydrofuran	9.330	42	240556	291.55	ug/L	96
61) trichloroethene	10.800	95	20597	5.52	ug/L	97
81) tetrachloroethene	12.735	166	2778	0.74	ug/L	99

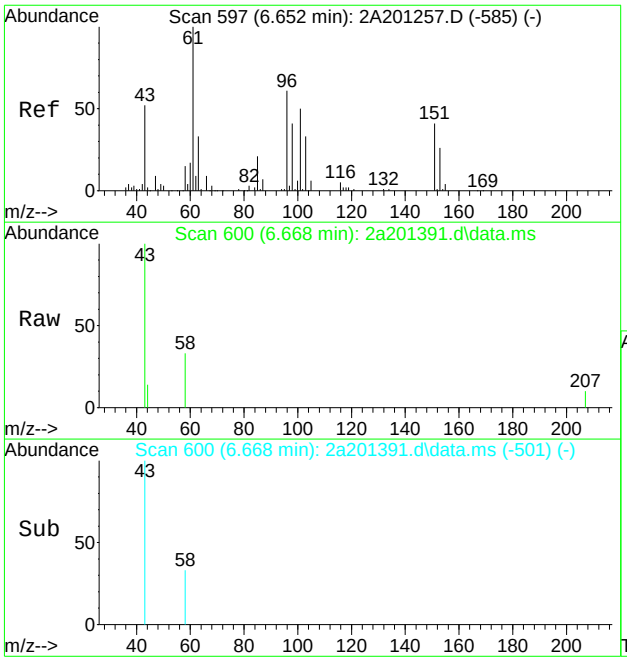
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201391.d
Acq On : 13 Mar 2020 10:30 am
Operator : edwardd
Sample : JD4440-4 Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:14:48 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

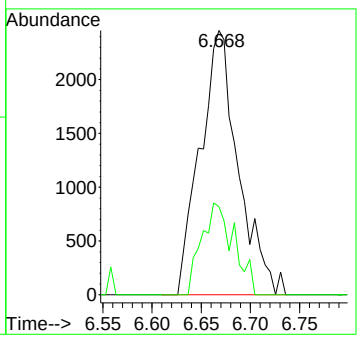


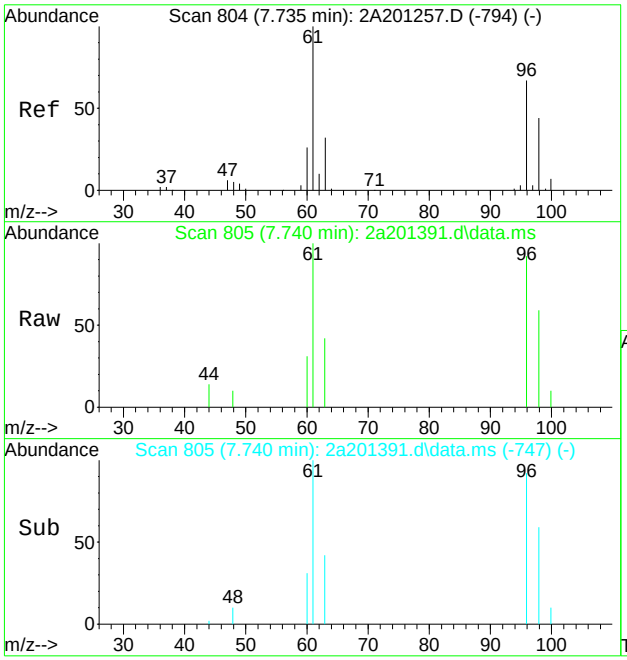


#20
acetone
Concen: 8.76 ug/L
RT: 6.668 min Scan# 600
Delta R.T. 0.016 min
Lab File: 2a201391.d
Acq: 13 Mar 2020 10:30 am

Tgt Ion: 43 Resp: 6617

Ion	Ratio	Lower	Upper
43	100		
58	33.2	1.7	61.7

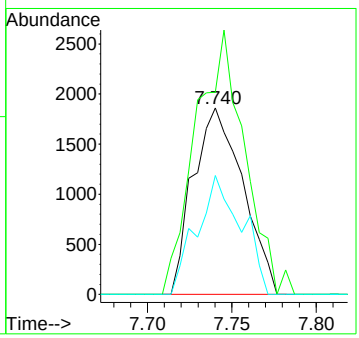


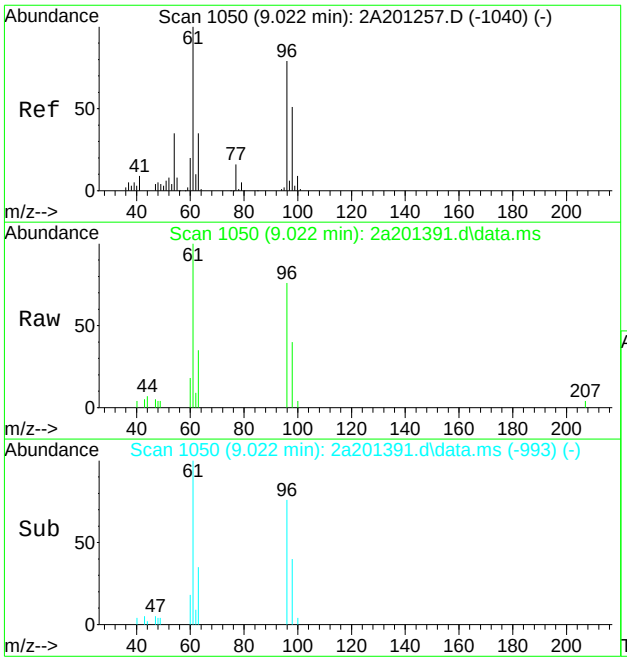


#27
trans-1,2-dichloroethene
Concen: 1.06 ug/L
RT: 7.740 min Scan# 805
Delta R.T. 0.005 min
Lab File: 2a201391.d
Acq: 13 Mar 2020 10:30 am

Tgt Ion: 96 Resp: 3820

Ion	Ratio	Lower	Upper
96	100		
61	108.4	120.2	180.2#
98	63.7	33.4	93.4

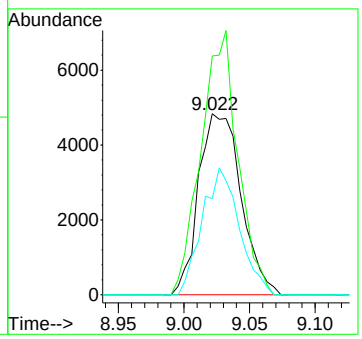


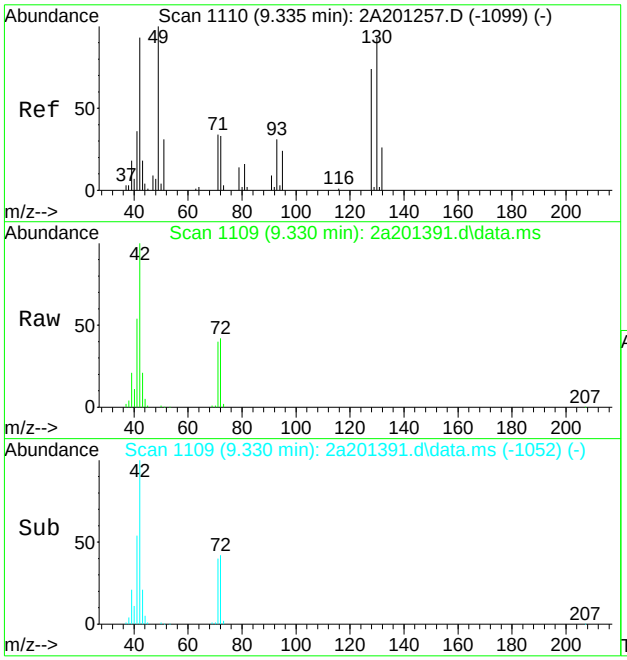


#38
cis-1,2-dichloroethene
Concen: 2.66 ug/L
RT: 9.022 min Scan# 1050
Delta R.T. 0.000 min
Lab File: 2a201391.d
Acq: 13 Mar 2020 10:30 am

Tgt Ion: 96 Resp: 10906

Ion	Ratio	Lower	Upper
96	100		
61	131.8	104.7	164.7
98	53.0	32.8	92.8

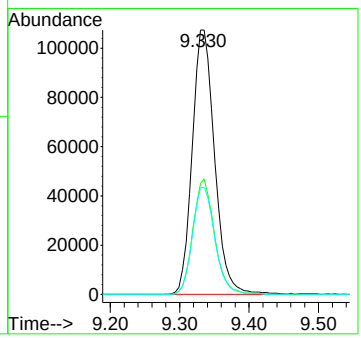


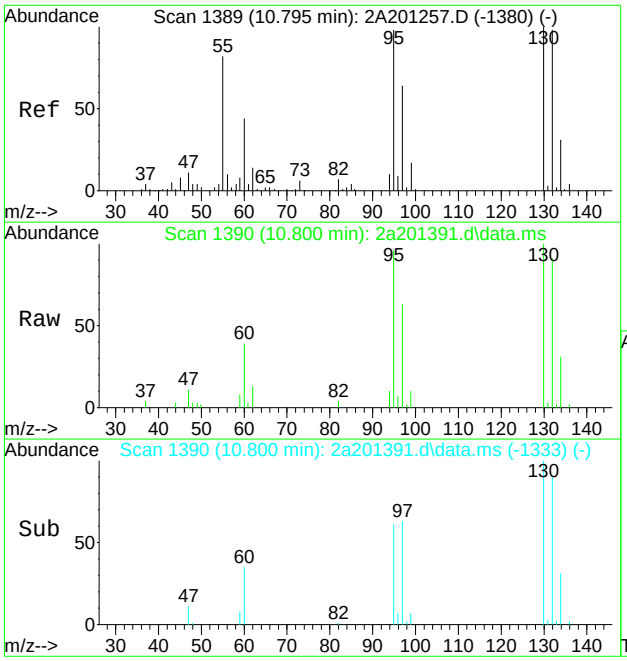


#41
tetrahydrofuran
Concen: 291.55 ug/L
RT: 9.330 min Scan# 1109
Delta R.T. 0.000 min
Lab File: 2a201391.d
Acq: 13 Mar 2020 10:30 am

Tgt Ion: 42 Resp: 240556

Ion	Ratio	Lower	Upper
42	100		
72	41.8	10.4	70.4
71	40.4	7.5	67.5

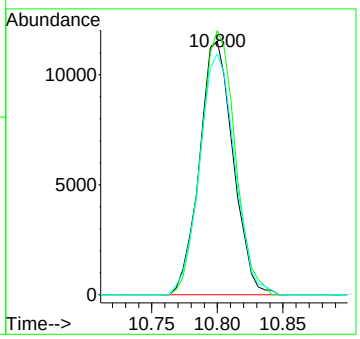


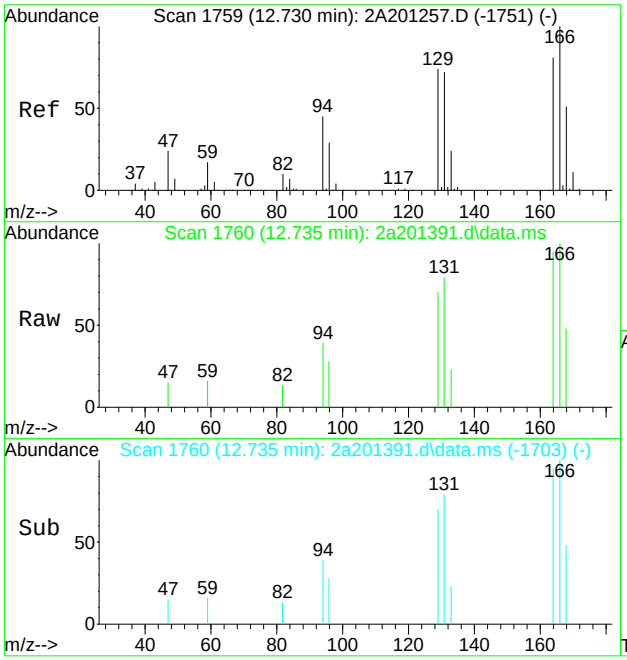


#61
trichloroethene
Concen: 5.52 ug/L
RT: 10.800 min Scan# 1390
Delta R.T. 0.000 min
Lab File: 2a201391.d
Acq: 13 Mar 2020 10:30 am

Tgt Ion: 95 Resp: 20597

Ion	Ratio	Lower	Upper
95	100		
130	104.2	74.8	134.8
132	95.0	70.4	130.4

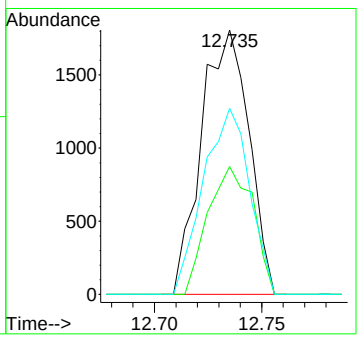




#81
tetrachloroethene
Concen: 0.74 ug/L
RT: 12.735 min Scan# 1760
Delta R.T. 0.000 min
Lab File: 2a201391.d
Acq: 13 Mar 2020 10:30 am

Tgt Ion:166 Resp: 2778

Ion	Ratio	Lower	Upper
166	100		
168	48.3	19.2	79.2
129	70.4	40.7	100.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201389.d
Acq On : 13 Mar 2020 9:32 am
Operator : edwardd
Sample : JD4440-5 Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:12:33 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

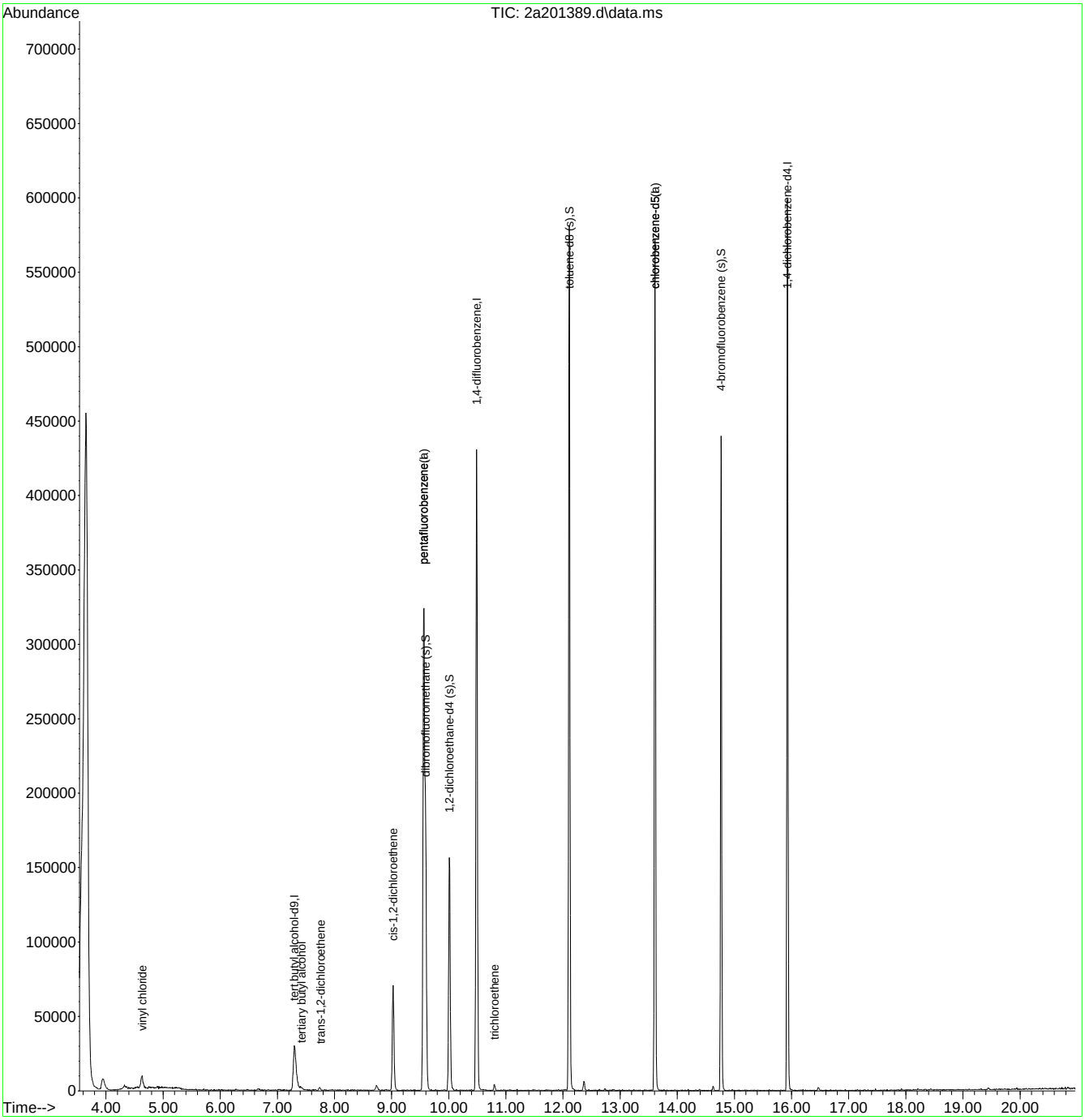
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	64985	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	242375	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	351461	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	292213	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	142306	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	242375	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	292213	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.597	113	109054	49.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.00%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	114271	49.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.00%			
75) toluene-d8 (s)	12.108	98	366264	49.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.76%			
99) 4-bromofluorobenzene (s)	14.765	95	132928	49.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	7.421	59	3102	16.56	ug/L	60
9) vinyl chloride	4.634	62	11075	2.64	ug/L	87
27) trans-1,2-dichloroethene	7.756	96	814	0.30	ug/L #	62
38) cis-1,2-dichloroethene	9.027	96	34136	11.07	ug/L	98
61) trichloroethene	10.800	95	1443	0.52	ug/L	84

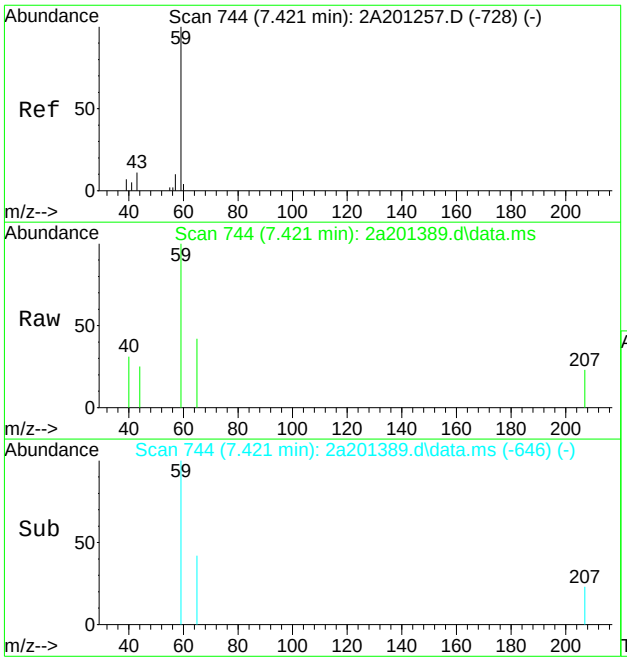
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201389.d
Acq On : 13 Mar 2020 9:32 am
Operator : edwardd
Sample : JD4440-5 Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:12:33 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

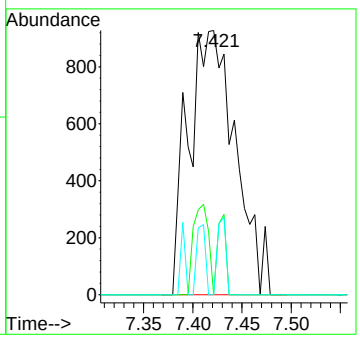


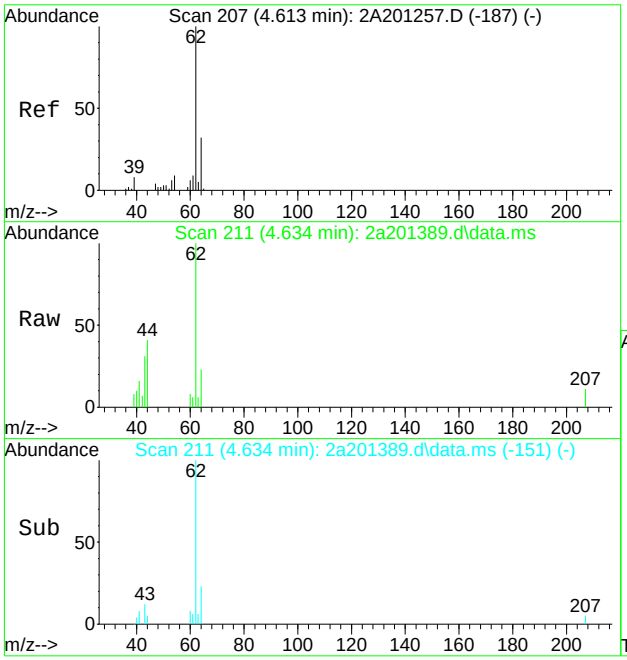


#3
tertiary butyl alcohol
Concen: 16.56 ug/L
RT: 7.421 min Scan# 744
Delta R.T. 0.011 min
Lab File: 2a201389.d
Acq: 13 Mar 2020 9:32 am

Tgt Ion: 59 Resp: 3102

Ion	Ratio	Lower	Upper
59	100		
41	0.0	0.0	50.6
43	0.0	0.0	42.9

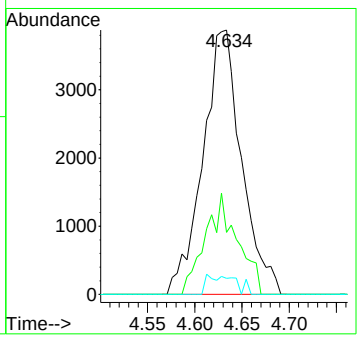


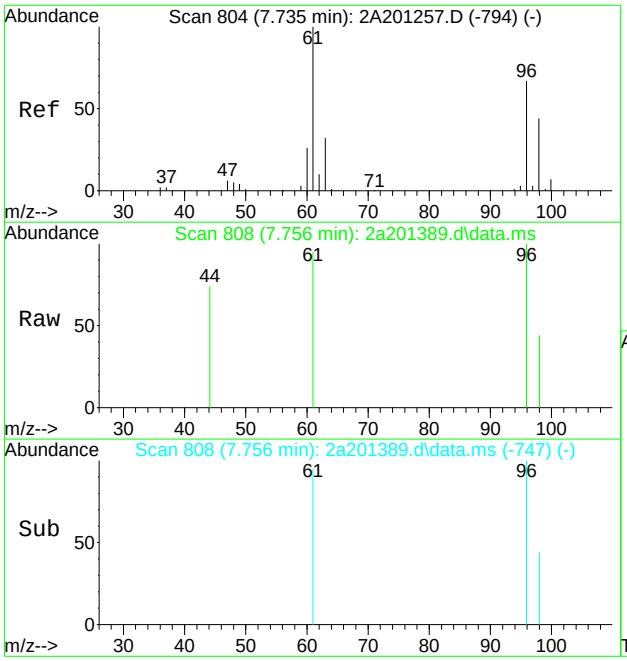


#9
vinyl chloride
Concen: 2.64 ug/L
RT: 4.634 min Scan# 211
Delta R.T. 0.016 min
Lab File: 2a201389.d
Acq: 13 Mar 2020 9:32 am

Tgt Ion: 62 Resp: 11075

Ion	Ratio	Lower	Upper
62	100		
64	23.4	1.3	61.3
61	6.0	0.0	39.0

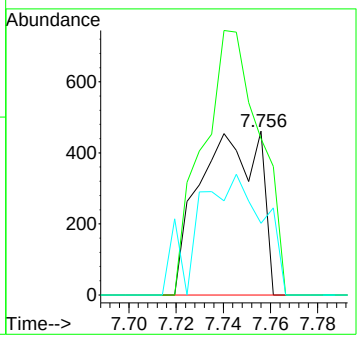


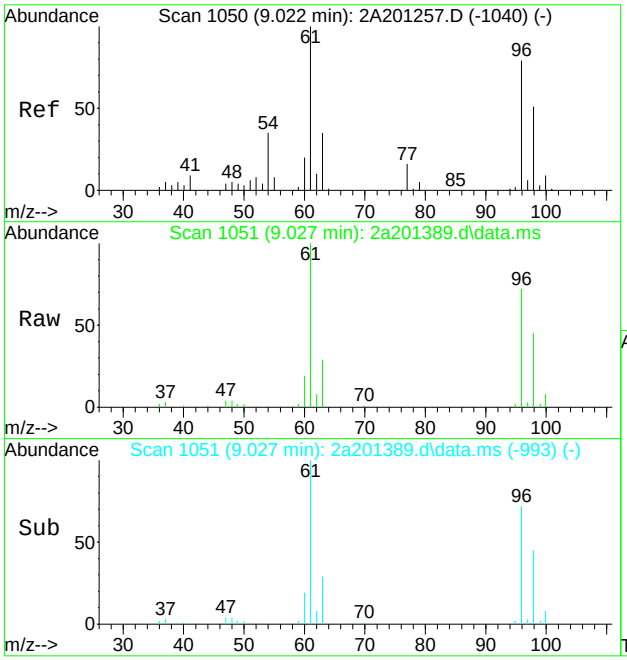


#27
trans-1,2-dichloroethene
Concen: 0.30 ug/L
RT: 7.756 min Scan# 808
Delta R.T. 0.021 min
Lab File: 2a201389.d
Acq: 13 Mar 2020 9:32 am

Tgt Ion: 96 Resp: 814

Ion	Ratio	Lower	Upper
96	100		
61	95.4	120.2	180.2#
98	43.8	33.4	93.4

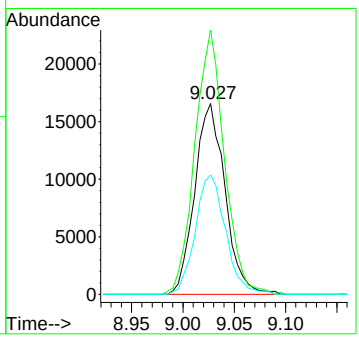


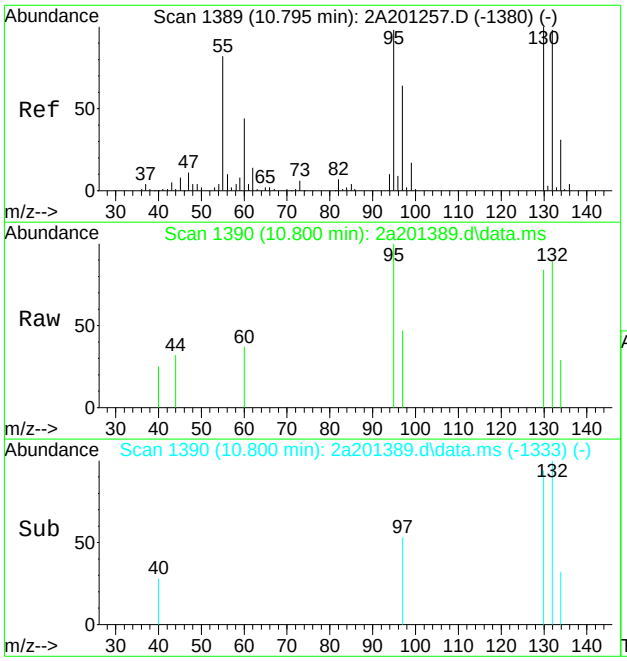


#38
cis-1,2-dichloroethene
Concen: 11.07 ug/L
RT: 9.027 min Scan# 1051
Delta R.T. 0.005 min
Lab File: 2a201389.d
Acq: 13 Mar 2020 9:32 am

Tgt Ion: 96 Resp: 34136

Ion	Ratio	Lower	Upper
96	100		
61	138.6	104.7	164.7
98	62.6	32.8	92.8

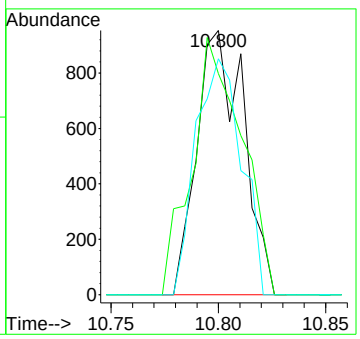




#61
trichloroethene
Concen: 0.52 ug/L
RT: 10.800 min Scan# 1390
Delta R.T. 0.000 min
Lab File: 2a201389.d
Acq: 13 Mar 2020 9:32 am

Tgt Ion: 95 Resp: 1443

Ion	Ratio	Lower	Upper
95	100		
130	83.6	74.8	134.8
132	89.2	70.4	130.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201390.d
Acq On : 13 Mar 2020 10:01 am
Operator : edwardd
Sample : JD4440-6 Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:13:33 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

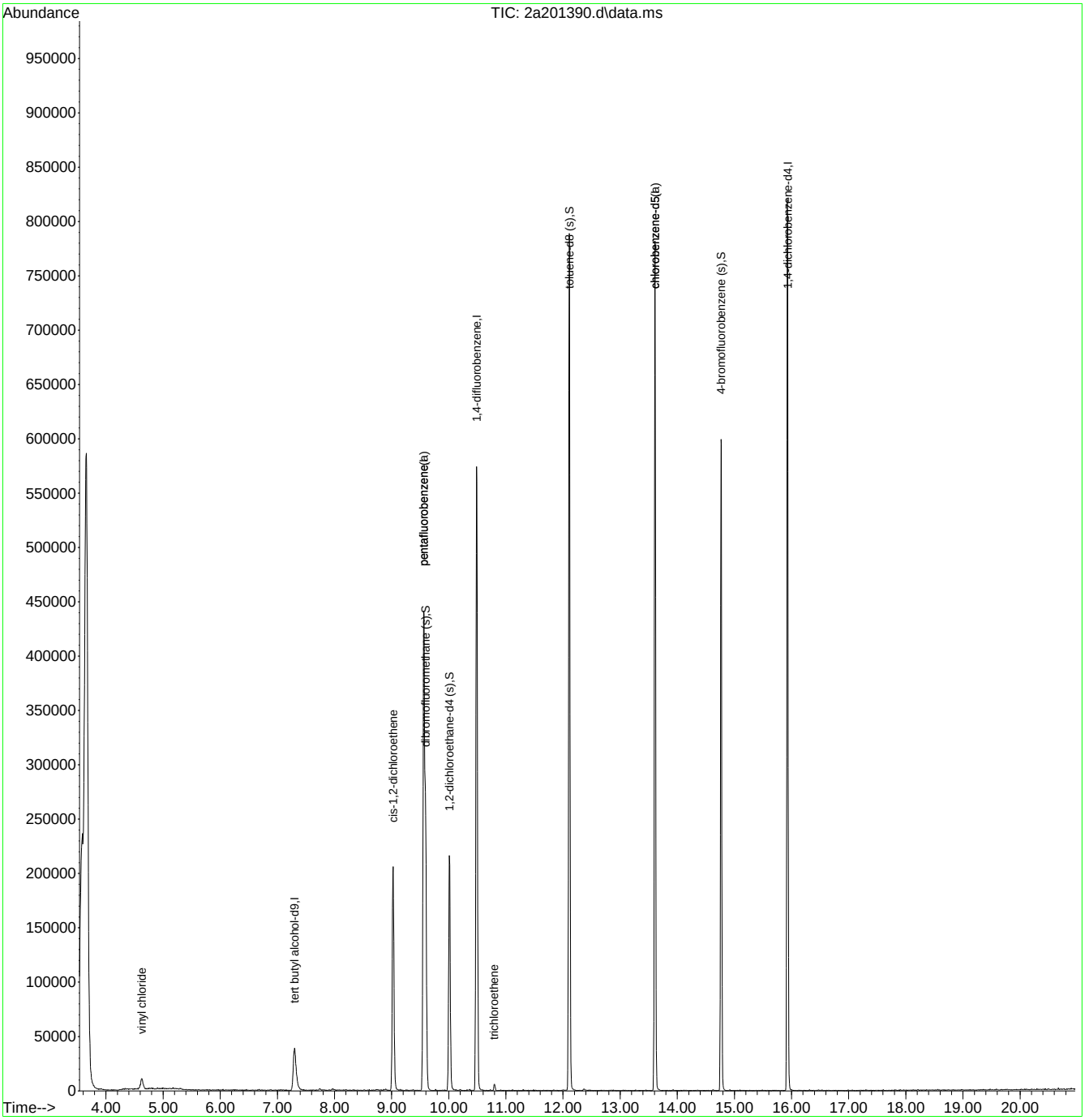
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.301	65	85661	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	322278	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	477175	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	391876	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	199973	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	322278	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	391876	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	150545	51.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.78%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	154687	48.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.70%			
75) toluene-d8 (s)	12.107	98	494125	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%			
99) 4-bromofluorobenzene (s)	14.764	95	184329	48.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.78%			
Target Compounds						Qvalue
9) vinyl chloride	4.628	62	19385	3.48	ug/L	96
38) cis-1,2-dichloroethene	9.027	96	100696	24.56	ug/L	94
61) trichloroethene	10.795	95	2210	0.59	ug/L #	75

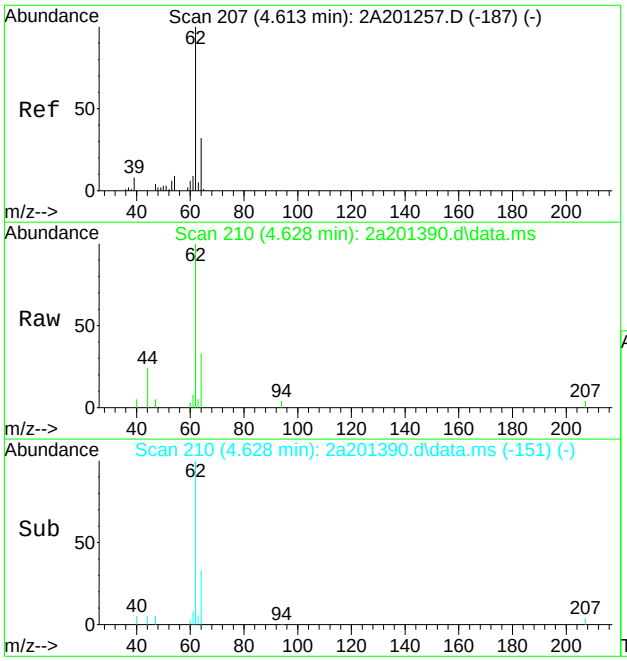
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201390.d
Acq On : 13 Mar 2020 10:01 am
Operator : edwardd
Sample : JD4440-6 Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:13:33 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

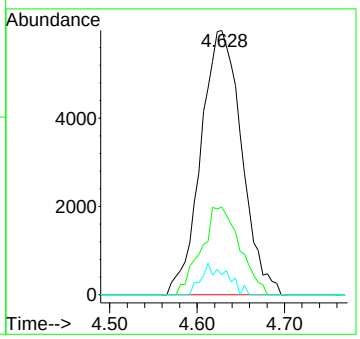


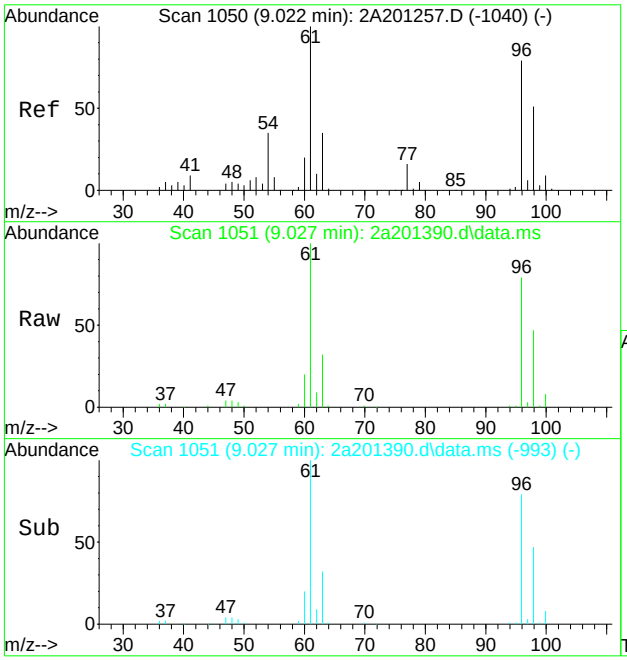


#9
vinyl chloride
Concen: 3.48 ug/L
RT: 4.628 min Scan# 210
Delta R.T. 0.011 min
Lab File: 2a201390.d
Acq: 13 Mar 2020 10:01 am

Tgt Ion: 62 Resp: 19385

Ion	Ratio	Lower	Upper
62	100		
64	33.2	1.3	61.3
61	7.5	0.0	39.0

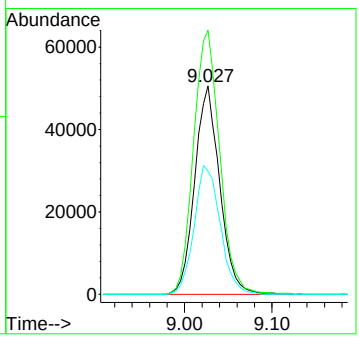


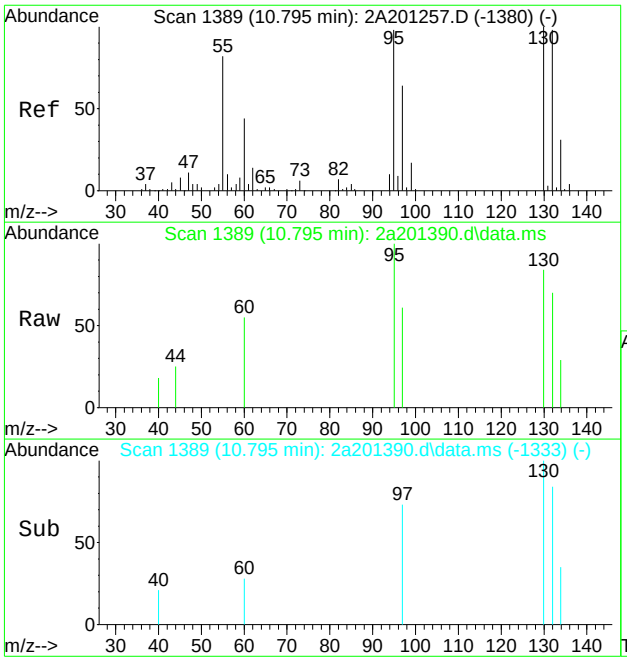


#38
cis-1,2-dichloroethene
Concen: 24.56 ug/L
RT: 9.027 min Scan# 1051
Delta R.T. 0.005 min
Lab File: 2a201390.d
Acq: 13 Mar 2020 10:01 am

Tgt Ion: 96 Resp: 100696

Ion	Ratio	Lower	Upper
96	100		
61	126.8	104.7	164.7
98	59.1	32.8	92.8

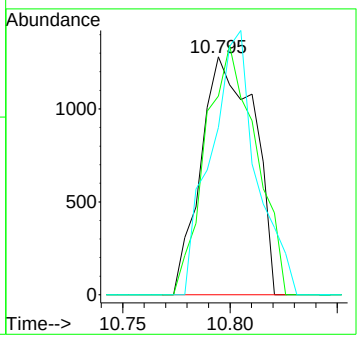




#61
trichloroethene
Concen: 0.59 ug/L
RT: 10.795 min Scan# 1389
Delta R.T. -0.005 min
Lab File: 2a201390.d
Acq: 13 Mar 2020 10:01 am

Tgt Ion: 95 Resp: 2210

Ion	Ratio	Lower	Upper
95	100		
130	83.5	74.8	134.8
132	70.3	70.4	130.4#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201453.d
Acq On : 16 Mar 2020 2:54 pm
Operator : edwardd
Sample : JD4440-7 Inst : Instrument #1
Misc : MS41754,V2A8720,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:56:56 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

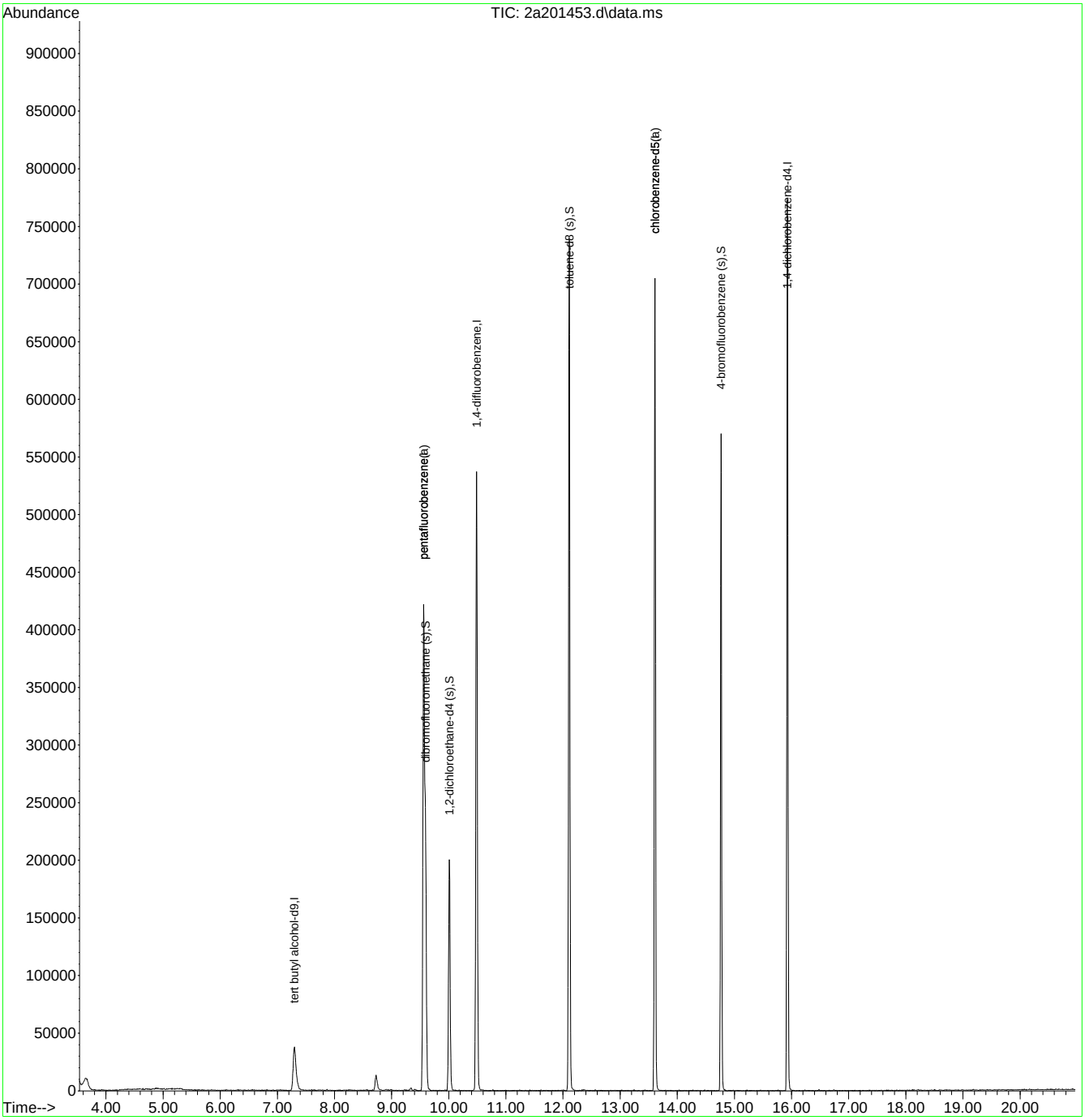
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	83132	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	302411	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	443799	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	365164	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	188088	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	302411	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	365164	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	137031	49.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.70%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	141260	47.97	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.94%			
75) toluene-d8 (s)	12.107	98	462369	49.88	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.76%			
99) 4-bromofluorobenzene (s)	14.764	95	168948	47.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.28%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201453.d
Acq On : 16 Mar 2020 2:54 pm
Operator : edwardd
Sample : JD4440-7 Inst : Instrument #1
Misc : MS41754,V2A8720,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:56:56 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201454.d
Acq On : 16 Mar 2020 3:22 pm
Operator : edwardd
Sample : JD4440-8 Inst : Instrument #1
Misc : MS41754,V2A8720,w,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:58:24 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

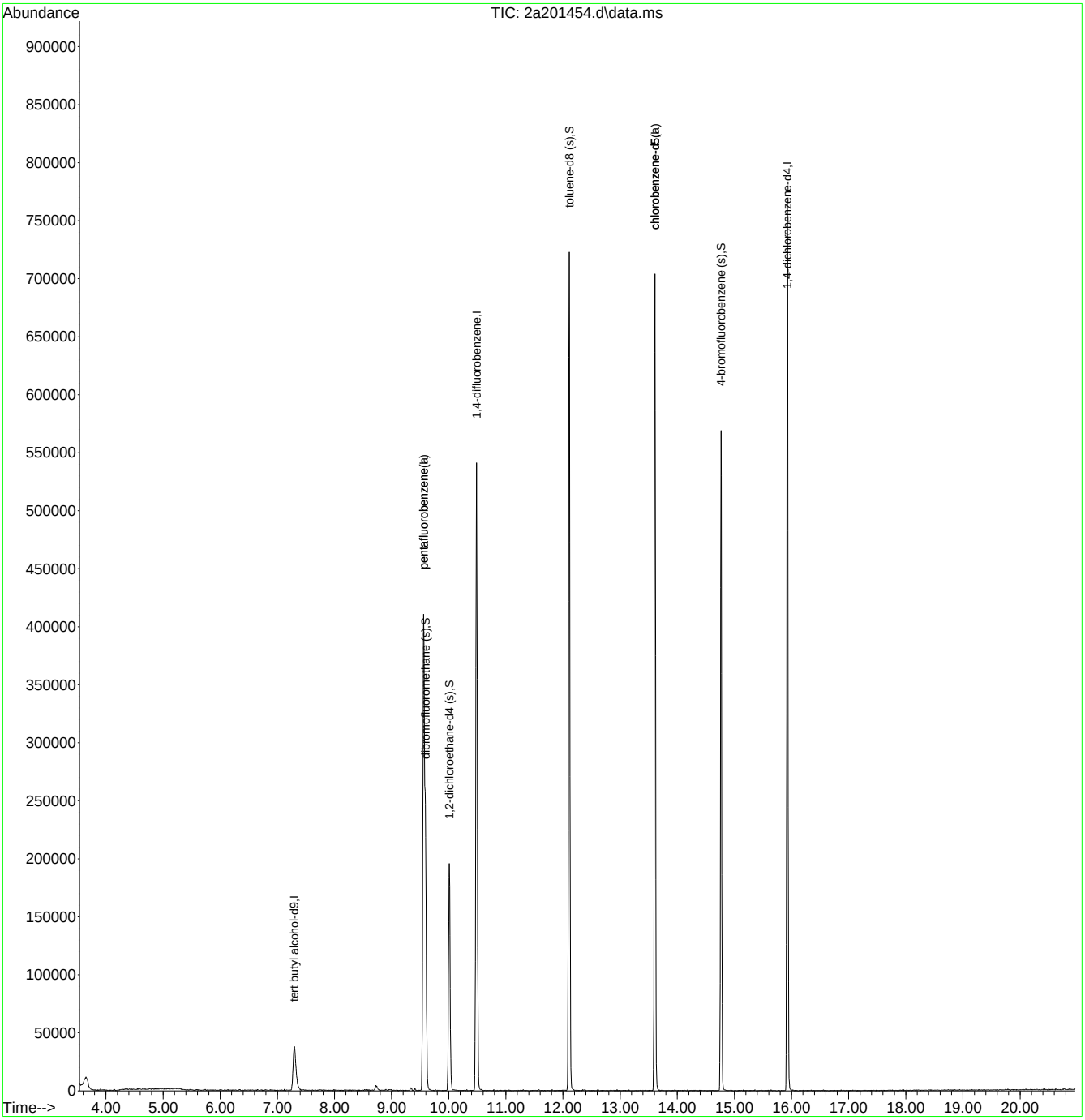
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	83277	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	300824	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	438447	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	361744	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	188443	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	300824	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	361744	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	135956	49.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	141085	48.49	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.98%			
75) toluene-d8 (s)	12.107	98	458096	49.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.78%			
99) 4-bromofluorobenzene (s)	14.764	95	171231	48.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.38%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201454.d
Acq On : 16 Mar 2020 3:22 pm
Operator : edwardd
Sample : JD4440-8 Inst : Instrument #1
Misc : MS41754,V2A8720,w,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:58:24 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201455.d
Acq On : 16 Mar 2020 3:51 pm
Operator : edwardd
Sample : JD4440-9 Inst : Instrument #1
Misc : MS41754,V2A8720,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:59:43 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

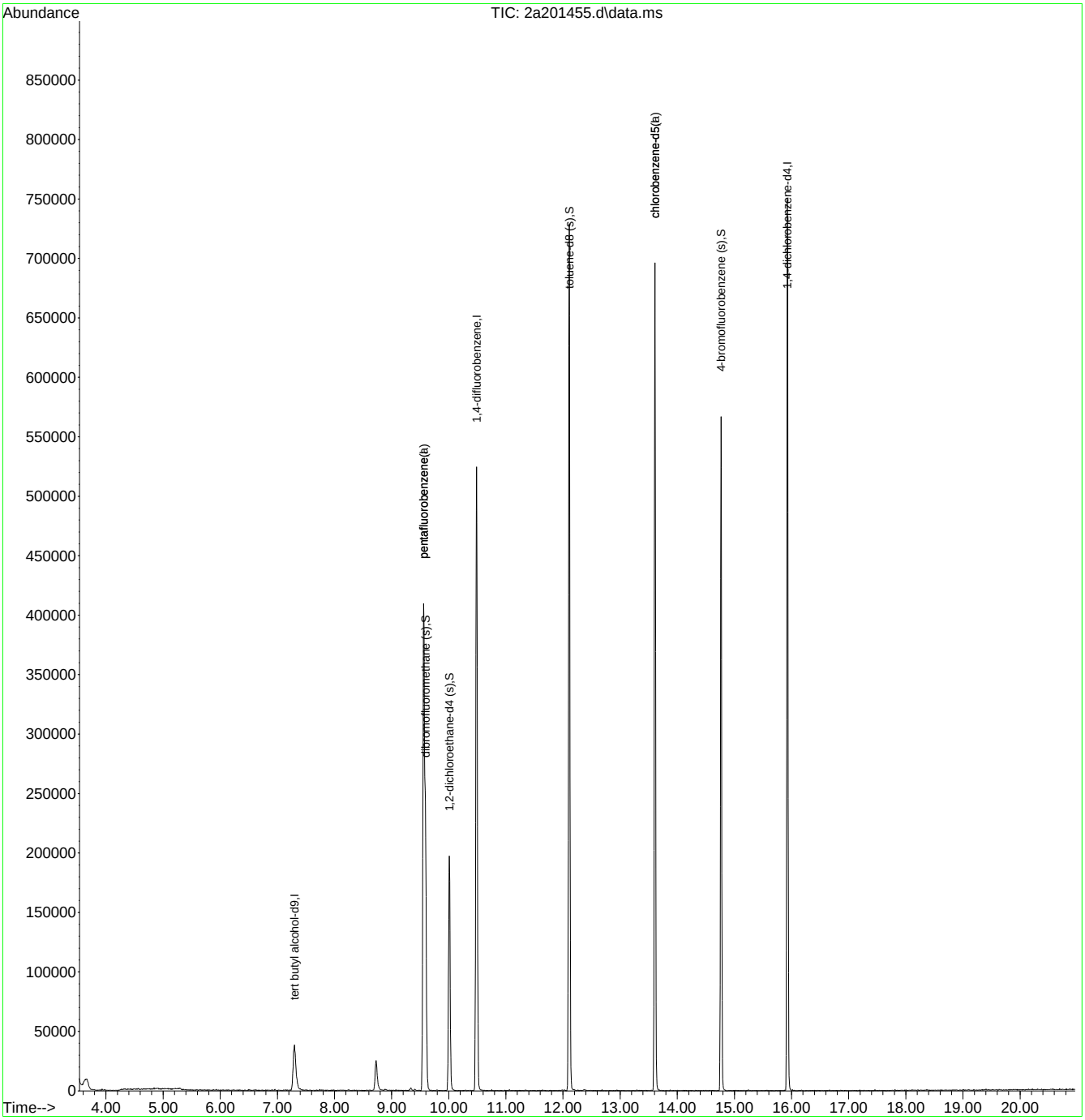
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.301	65	78867	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	297983	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	437851	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	355608	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.925	152	184267	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	297983	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	355608	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	135998	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	139284	47.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.88%			
75) toluene-d8 (s)	12.107	98	451350	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	14.764	95	168354	48.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.92%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201455.d
Acq On : 16 Mar 2020 3:51 pm
Operator : edwardd
Sample : JD4440-9 Inst : Instrument #1
Misc : MS41754,V2A8720,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:59:43 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201358.d
Acq On : 12 Mar 2020 8:48 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS41777,V2A8715,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:44:42 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

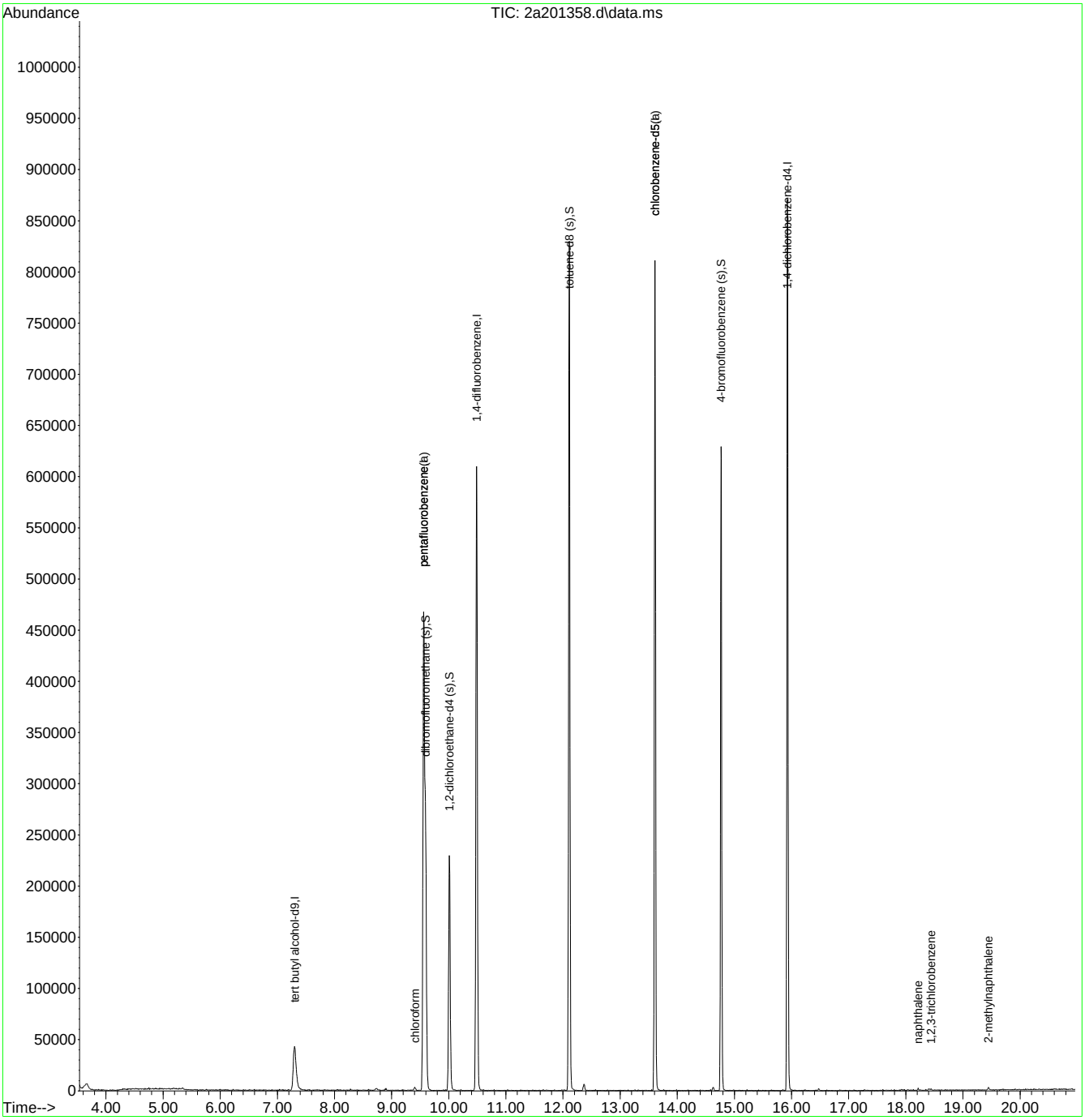
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.306	65	95820	500.00	ug/L	0.01
5) pentafluorobenzene	9.560	168	337542	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	500366	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	411162	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	210673	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	337542	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	411162	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	155982	50.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.68%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	163587	49.27	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.54%			
75) toluene-d8 (s)	12.107	98	519678	49.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%			
99) 4-bromofluorobenzene (s)	14.764	95	193332	48.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.34%			
Target Compounds						Qvalue
42) chloroform	9.409	83	2582	0.37	ug/L	86
121) naphthalene	18.216	128	1589	0.17	ug/L	78
122) 1,2,3-trichlorobenzene	18.441	180	503	0.11	ug/L	82
125) 2-methylnaphthalene	19.445	142	1563	0.36	ug/L	93

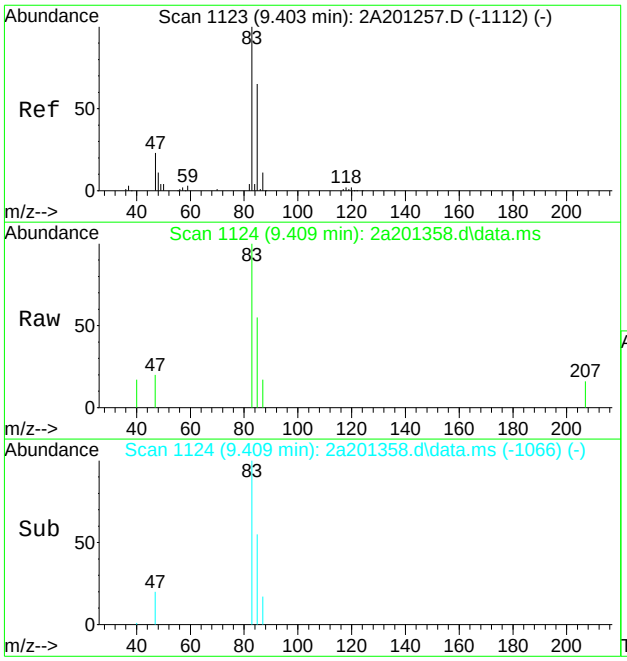
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201358.d
Acq On : 12 Mar 2020 8:48 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS41777,V2A8715,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:44:42 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

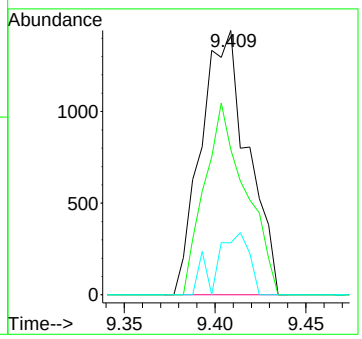


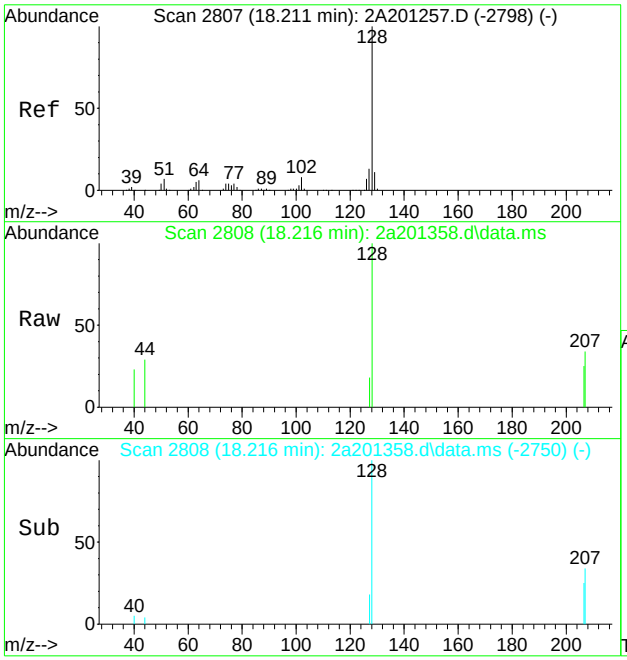


#42
chloroform
Concen: 0.37 ug/L
RT: 9.409 min Scan# 1124
Delta R.T. 0.005 min
Lab File: 2a201358.d
Acq: 12 Mar 2020 8:48 am

Tgt Ion: 83 Resp: 2582

Ion	Ratio	Lower	Upper
83	100		
85	54.9	36.5	96.5
47	19.6	0.0	55.0

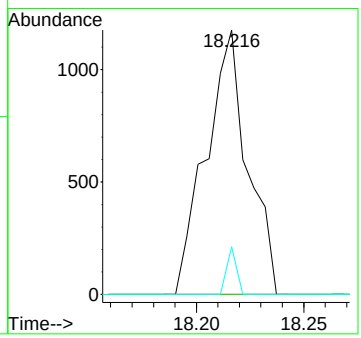


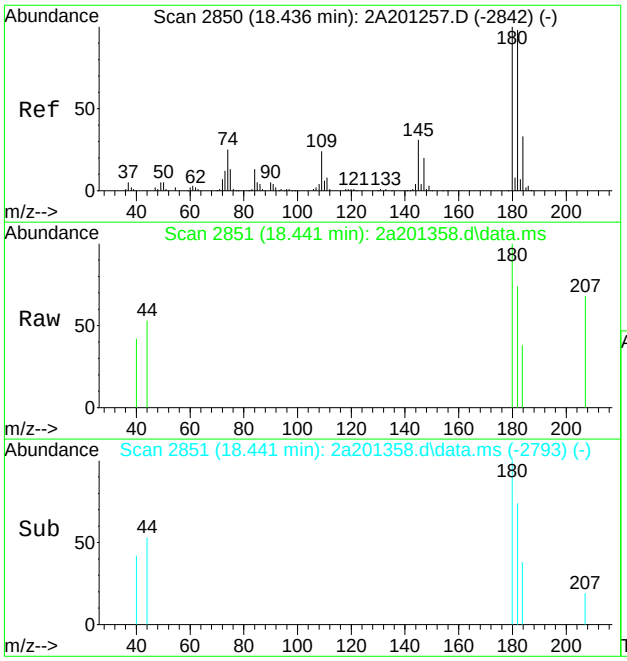


#121
naphthalene
Concen: 0.17 ug/L
RT: 18.216 min Scan# 2808
Delta R.T. 0.005 min
Lab File: 2a201358.d
Acq: 12 Mar 2020 8:48 am

Tgt Ion:128 Resp: 1589

Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	41.1
127	18.0	0.0	42.3

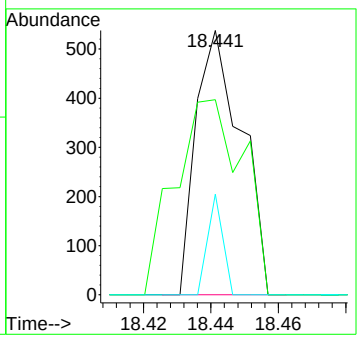


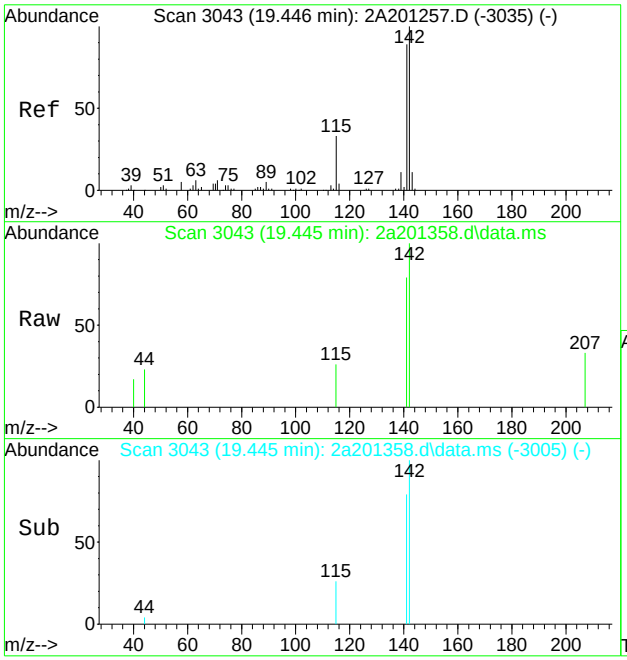


#122
1,2,3-trichlorobenzene
Concen: 0.11 ug/L
RT: 18.441 min Scan# 2851
Delta R.T. 0.005 min
Lab File: 2a201358.d
Acq: 12 Mar 2020 8:48 am

Tgt Ion:180 Resp: 503

Ion	Ratio	Lower	Upper
180	100		
182	73.8	63.6	123.6
184	38.1	1.5	61.5

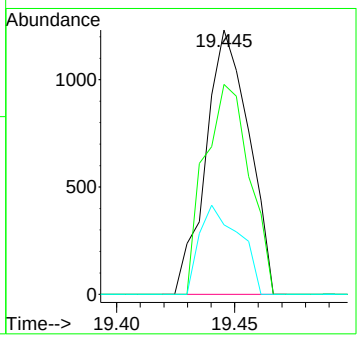




#125
2-methylnaphthalene
Concen: 0.36 ug/L
RT: 19.445 min Scan# 3043
Delta R.T. 0.000 min
Lab File: 2a201358.d
Acq: 12 Mar 2020 8:48 am

Tgt Ion:142 Resp: 1563

Ion	Ratio	Lower	Upper
142	100		
141	79.4	63.1	103.1
115	26.3	13.5	53.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201388.d
Acq On : 13 Mar 2020 8:48 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS41807,V2A8717,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:05:21 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

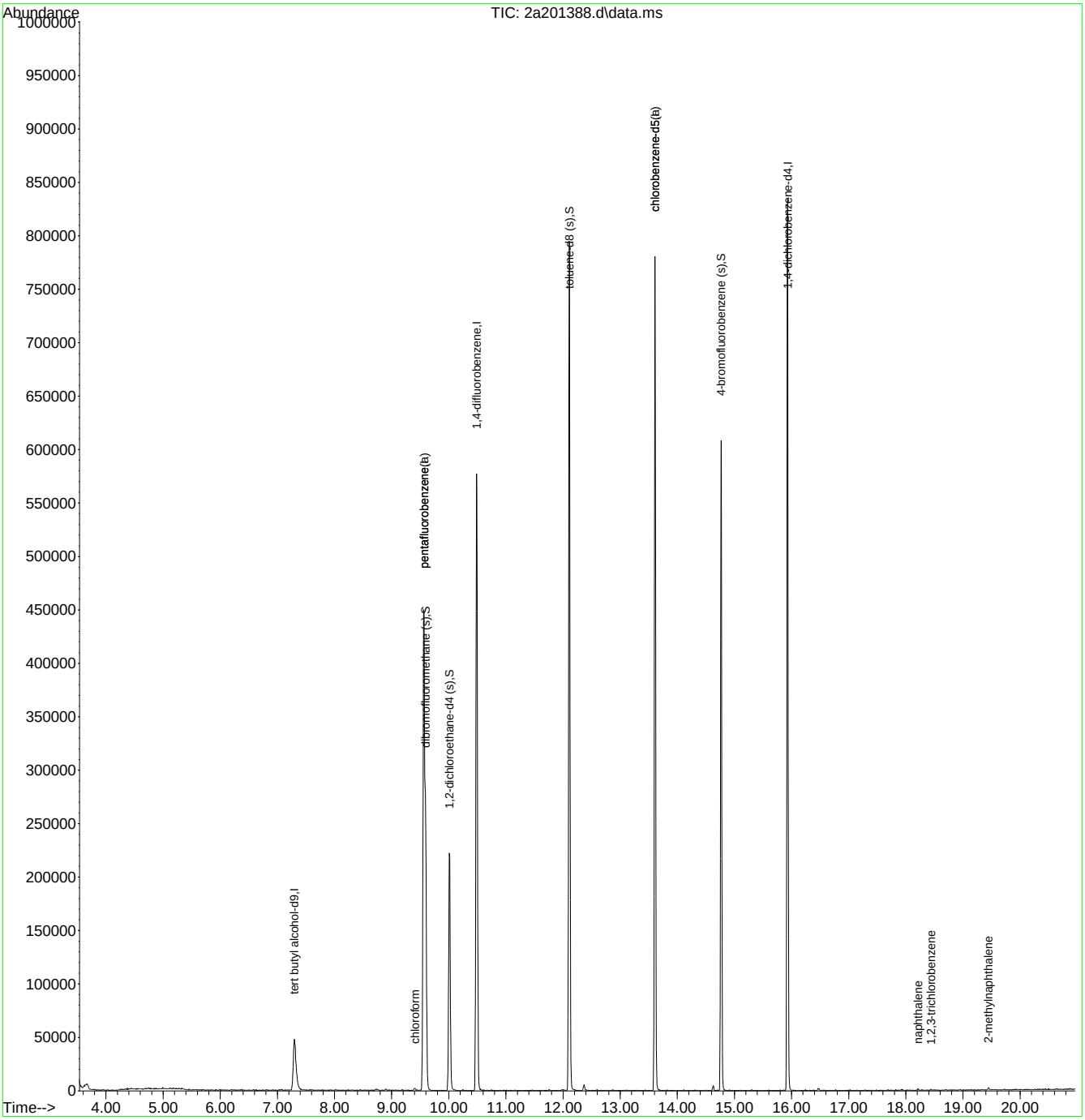
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.295	65	100188	500.00	ug/L	0.00
5) pentafluorobenzene	9.565	168	327034	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	478686	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	395559	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	203961	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.565	168	327034	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	395559	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	150967	50.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.58%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	158675	49.95	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.90%			
75) toluene-d8 (s)	12.107	98	503100	50.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.20%			
99) 4-bromofluorobenzene (s)	14.764	95	186665	48.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.08%			
Target Compounds						Qvalue
42) chloroform	9.409	83	2312	0.34	ug/L	86
121) naphthalene	18.216	128	1702	0.19	ug/L	70
122) 1,2,3-trichlorobenzene	18.441	180	556	0.12	ug/L #	61
125) 2-methylnaphthalene	19.445	142	1204	0.28	ug/L	90

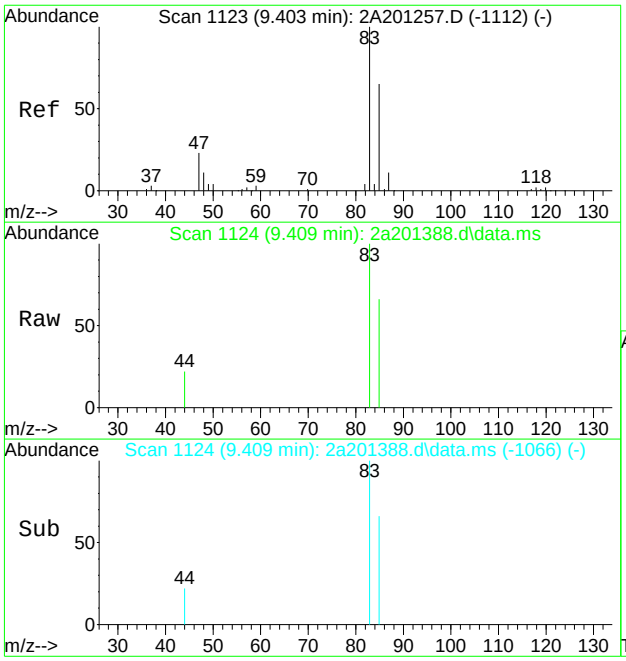
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201388.d
Acq On : 13 Mar 2020 8:48 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS41807,V2A8717,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:05:21 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

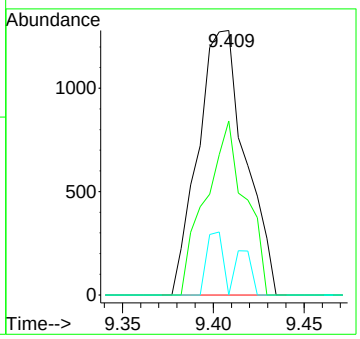


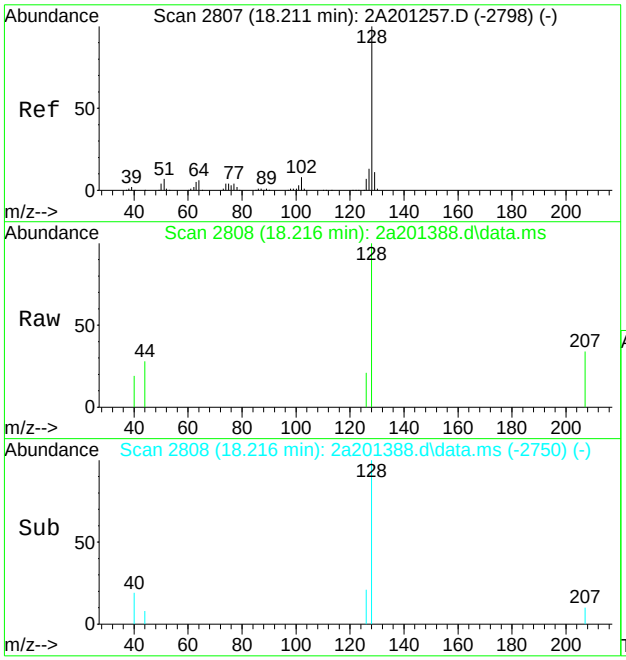


#42
chloroform
Concen: 0.34 ug/L
RT: 9.409 min Scan# 1124
Delta R.T. 0.005 min
Lab File: 2a201388.d
Acq: 13 Mar 2020 8:48 am

Tgt Ion: 83 Resp: 2312

Ion	Ratio	Lower	Upper
83	100		
85	65.7	36.5	96.5
47	0.0	0.0	55.0

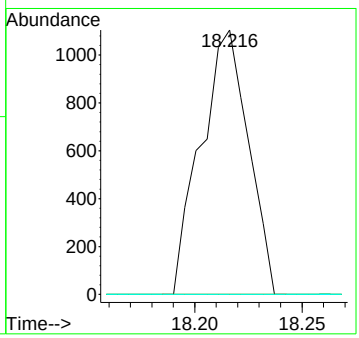


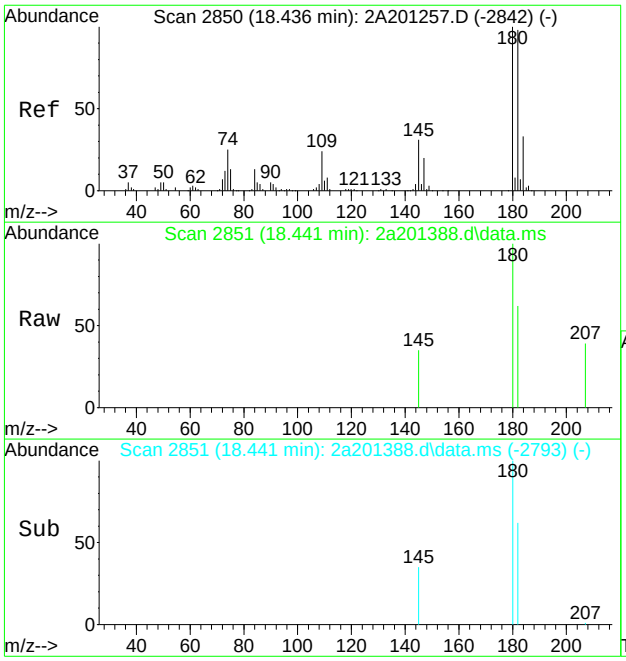


#121
naphthalene
Concen: 0.19 ug/L
RT: 18.216 min Scan# 2808
Delta R.T. 0.005 min
Lab File: 2a201388.d
Acq: 13 Mar 2020 8:48 am

Tgt Ion:128 Resp: 1702

Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	41.1
127	0.0	0.0	42.3

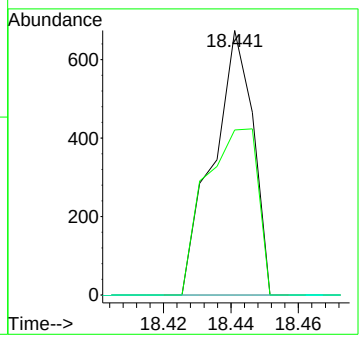


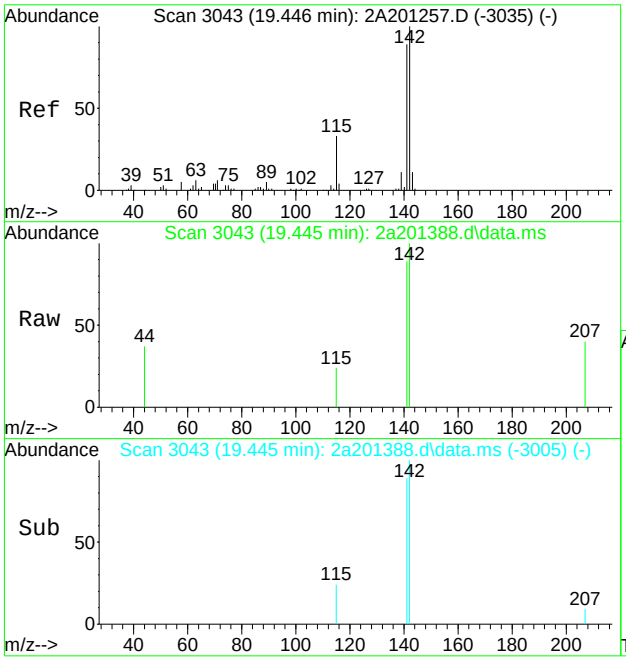


#122
1,2,3-trichlorobenzene
Concen: 0.12 ug/L
RT: 18.441 min Scan# 2851
Delta R.T. 0.005 min
Lab File: 2a201388.d
Acq: 13 Mar 2020 8:48 am

Tgt Ion:180 Resp: 556

Ion	Ratio	Lower	Upper
180	100		
182	62.4	63.6	123.6#
184	0.0	1.5	61.5#

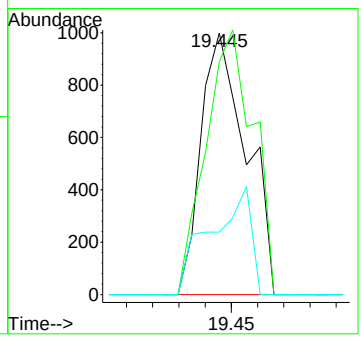




#125
2-methylnaphthalene
Concen: 0.28 ug/L
RT: 19.445 min Scan# 3043
Delta R.T. 0.000 min
Lab File: 2a201388.d
Acq: 13 Mar 2020 8:48 am

Tgt Ion:142 Resp: 1204

Ion	Ratio	Lower	Upper
142	100		
141	89.0	63.1	103.1
115	23.8	13.5	53.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201441.d
Acq On : 16 Mar 2020 9:02 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:31:11 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

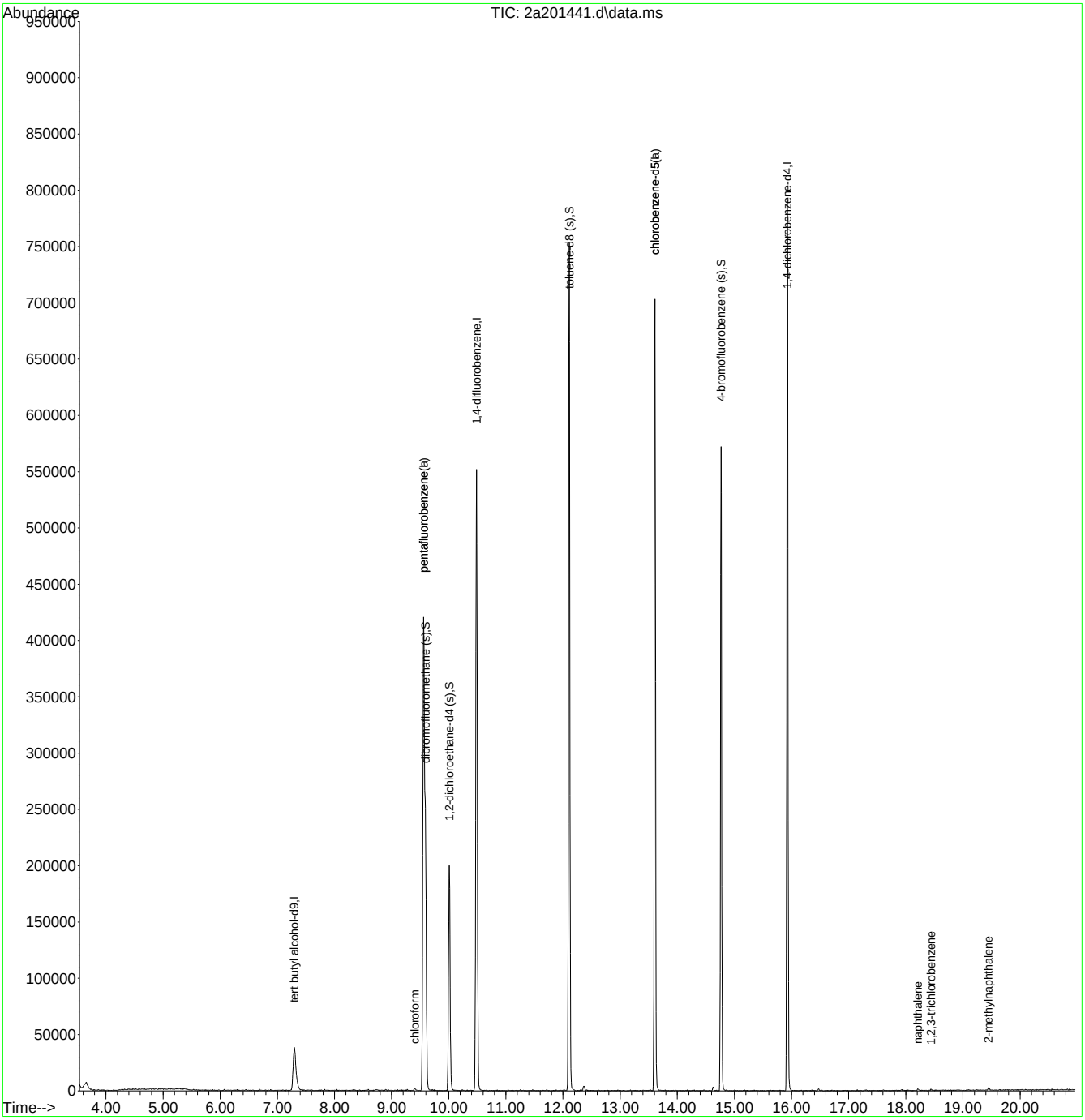
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	83496	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	310407	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	451093	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	369133	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	190327	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	310407	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	369133	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	140409	49.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	144442	48.26	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.52%			
75) toluene-d8 (s)	12.107	98	468571	50.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.02%			
99) 4-bromofluorobenzene (s)	14.764	95	174081	48.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.02%			
Target Compounds						Qvalue
42) chloroform	9.403	83	1859	0.29	ug/L	88
121) naphthalene	18.206	128	1532	0.18	ug/L	70
122) 1,2,3-trichlorobenzene	18.441	180	505	0.12	ug/L	70
125) 2-methylnaphthalene	19.446	142	1210	0.31	ug/L	93

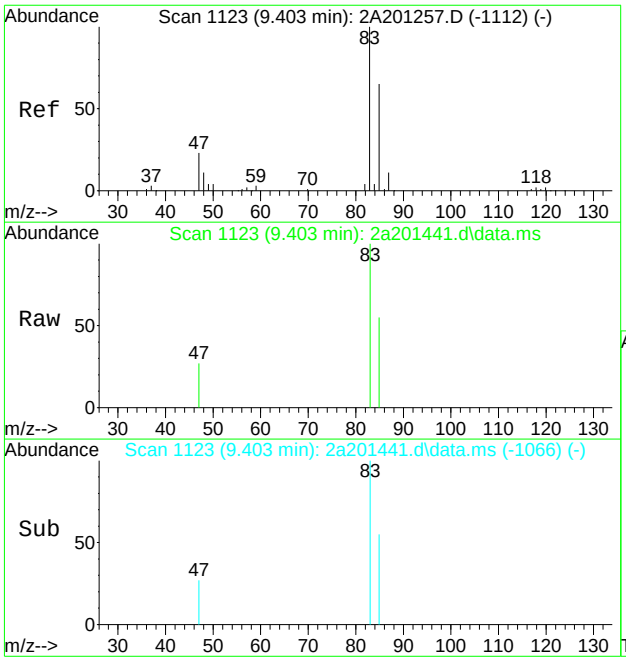
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201441.d
Acq On : 16 Mar 2020 9:02 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:31:11 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

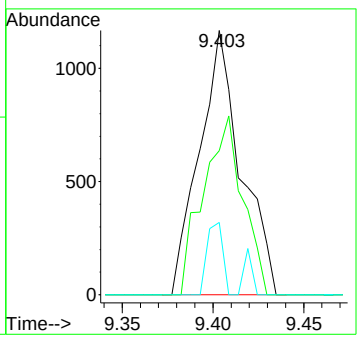


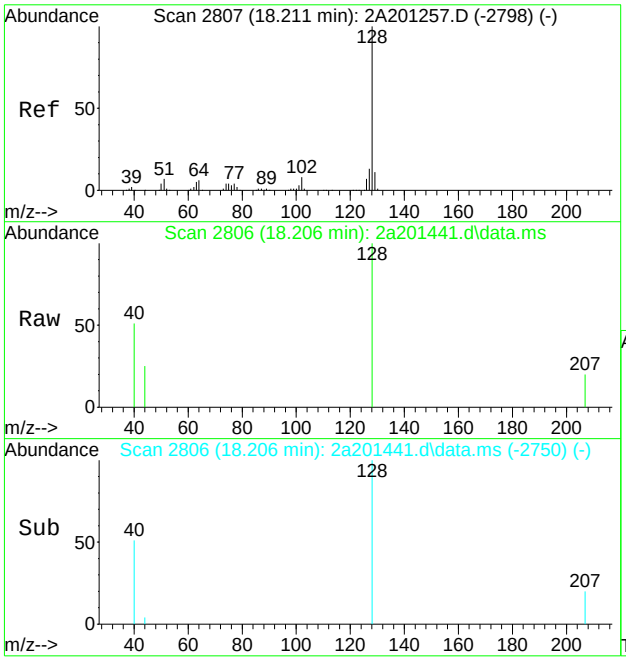


#42
chloroform
Concen: 0.29 ug/L
RT: 9.403 min Scan# 1123
Delta R.T. 0.000 min
Lab File: 2a201441.d
Acq: 16 Mar 2020 9:02 am

Tgt Ion: 83 Resp: 1859

Ion	Ratio	Lower	Upper
83	100		
85	54.5	36.5	96.5
47	27.4	0.0	55.0

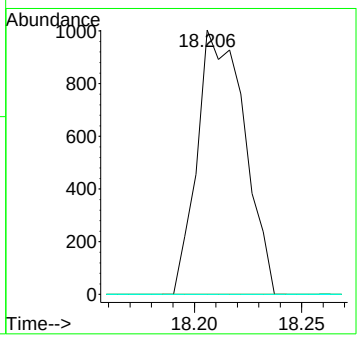


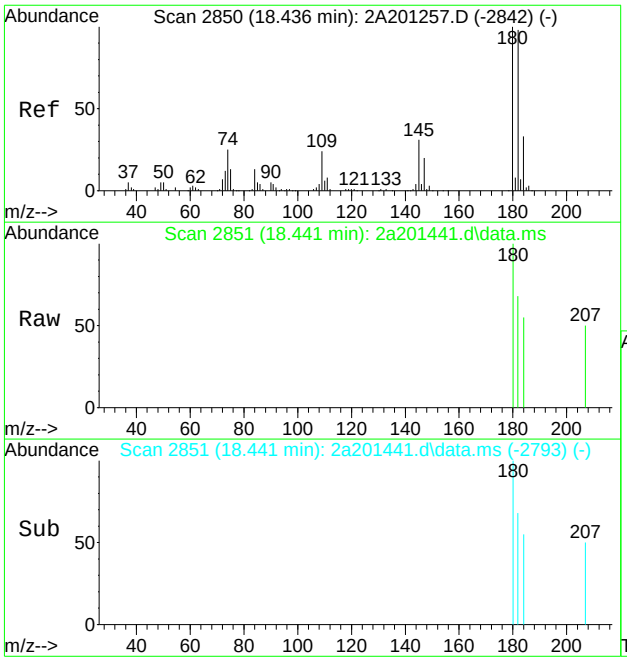


#121
naphthalene
Concen: 0.18 ug/L
RT: 18.206 min Scan# 2806
Delta R.T. -0.005 min
Lab File: 2a201441.d
Acq: 16 Mar 2020 9:02 am

Tgt Ion:128 Resp: 1532

Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	41.1
127	0.0	0.0	42.3

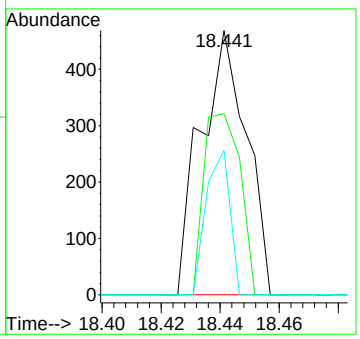


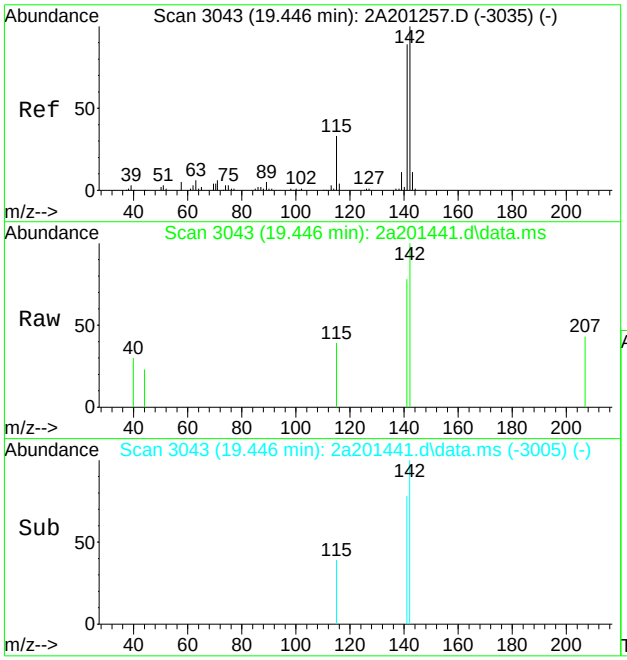


#122
1,2,3-trichlorobenzene
Concen: 0.12 ug/L
RT: 18.441 min Scan# 2851
Delta R.T. 0.005 min
Lab File: 2a201441.d
Acq: 16 Mar 2020 9:02 am

Tgt Ion:180 Resp: 505

Ion	Ratio	Lower	Upper
180	100		
182	68.4	63.6	123.6
184	54.6	1.5	61.5

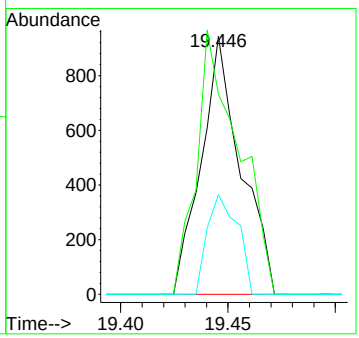




#125
2-methylnaphthalene
Concen: 0.31 ug/L
RT: 19.446 min Scan# 3043
Delta R.T. 0.000 min
Lab File: 2a201441.d
Acq: 16 Mar 2020 9:02 am

Tgt Ion:142 Resp: 1210

Ion	Ratio	Lower	Upper
142	100		
141	77.5	63.1	103.1
115	38.7	13.5	53.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201356.d
Acq On : 12 Mar 2020 7:50 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:43:59 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	99978	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	338816	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	504558	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	409676	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	213179	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	338816	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	409676	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	158045	51.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.64%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	166354	49.69	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.38%			
75) toluene-d8 (s)	12.107	98	524372	50.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%			
99) 4-bromofluorobenzene (s)	14.770	95	195666	48.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.36%			
Target Compounds						Qvalue
2) ethanol	6.009	45	173641	5770.48	ug/L	97
3) tertiary butyl alcohol	7.411	59	71434	247.95	ug/L	99
4) 1,4-dioxane	11.135	88	40081	1463.23	ug/L	85
6) chlorodifluoromethane	4.042	51	242199	50.93	ug/L	100
7) dichlorodifluoromethane	4.011	85	245436	48.12	ug/L	99
8) chloromethane	4.388	50	281477	45.73	ug/L	99
9) vinyl chloride	4.618	62	283711	48.39	ug/L	99
10) 1,3-butadiene	4.654	54	171559	50.12	ug/L	97
11) bromomethane	5.230	94	183273	47.48	ug/L	99
12) chloroethane	5.397	64	140150	46.60	ug/L	94
13) vinyl bromide	5.732	106	170416	55.20	ug/L	99
14) trichlorofluoromethane	5.852	101	306775	50.19	ug/L	98
15) ethyl ether	6.229	74	102087	49.93	ug/L	98
16) 2-chloropropane	6.448	63	81835	50.35	ug/L	90
17) acrolein	6.459	56	25098	46.29	ug/L	92
18) freon 113	6.657	151	146183	51.21	ug/L	97
19) 1,1-dichloroethene	6.647	96	171094	51.78	ug/L	95
20) acetone	6.652	43	162774	204.81	ug/L	99
21) acetonitrile	7.071	41	201877	498.33	ug/L	96
22) iodomethane	6.893	142	264561	51.53	ug/L	98
23) carbon disulfide	7.034	76	481787	48.06	ug/L	97
24) methylene chloride	7.353	84	199395	50.07	ug/L	98
25) methyl acetate	7.107	43	115735	47.61	ug/L	98
26) methyl tert butyl ether	7.709	73	512966	52.95	ug/L	98
27) trans-1,2-dichloroethene	7.735	96	188457	49.83	ug/L	99
28) hexane	8.091	57	293070	53.23	ug/L	99
29) di-isopropyl ether	8.300	45	658799	48.54	ug/L	99
30) ethyl tert-butyl ether	8.760	59	614254	49.74	ug/L	99
31) 2-butanone	8.954	72	63947	197.47	ug/L #	75
32) 1,1-dichloroethane	8.310	63	344238	47.74	ug/L	99
33) chloroprene	8.410	53	278013	48.41	ug/L	98
34) acrylonitrile	7.641	53	59358	50.94	ug/L	96
35) vinyl acetate	8.253	86	33068	47.58	ug/L	99
36) ethyl acetate	8.974	45	23506	49.00	ug/L	99
37) 2,2-dichloropropane	9.053	77	287109	50.74	ug/L	98
38) cis-1,2-dichloroethene	9.022	96	213208	49.47	ug/L	97
39) propionitrile	9.037	54	181445	497.04	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201356.d
Acq On : 12 Mar 2020 7:50 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:43:59 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	bromochloromethane	9.314	130	139207	52.42	ug/L		98
41)	tetrahydrofuran	9.330	42	41036	47.28	ug/L		98
42)	chloroform	9.403	83	351416	50.44	ug/L		96
43)	tert-butyl formate	9.440	59	157479	50.85	ug/L		98
44)	isobutyl alcohol	9.801	43	57976	498.13	ug/L	#	66
46)	methacrylonitrile	9.231	67	63632	49.15	ug/L		98
47)	1,1,1-trichloroethane	9.660	97	312519	51.55	ug/L		97
48)	cyclohexane	9.769	84	273018	49.46	ug/L	#	83
49)	1,1-dichloropropene	9.827	75	261146	48.99	ug/L		98
50)	tert-amyl alcohol	9.963	73	34866	244.25	ug/L		90
51)	carbon tetrachloride	9.853	117	284712	51.59	ug/L		99
54)	2,2,4-trimethylpentane	10.172	57	721854	50.40	ug/L		99
55)	tert-amyl methyl ether	10.156	73	574862	50.16	ug/L		97
56)	n-butyl alcohol	10.544	56	197364	2541.81	ug/L		99
57)	benzene	10.073	78	746312	48.87	ug/L		99
58)	heptane	10.329	57	152405	50.00	ug/L		94
59)	isopropyl acetate	9.989	87	36604	52.52	ug/L	#	86
60)	1,2-dichloroethane	10.099	62	252278	47.34	ug/L		99
61)	trichloroethene	10.795	95	196516	49.55	ug/L		95
62)	ethyl acrylate	10.789	55	199430	47.94	ug/L		99
63)	2-nitropropane	11.553	41	39623	52.63	ug/L		90
64)	2-chloroethyl vinyl ether	11.590	63	519944	297.69	ug/L		99
65)	methyl methacrylate	11.051	100	41717	50.45	ug/L		93
66)	1,2-dichloropropane	11.087	63	198379	48.03	ug/L		98
67)	methylcyclohexane	11.093	83	334457	53.04	ug/L		98
68)	dibromomethane	11.192	93	115028	49.80	ug/L		97
69)	bromodichloromethane	11.349	83	271847	50.87	ug/L		100
70)	epichlorohydrin	11.673	57	73974	245.06	ug/L		96
71)	cis-1,3-dichloropropene	11.804	75	325932	50.79	ug/L		97
72)	4-methyl-2-pentanone	11.914	58	223598	185.40	ug/L		98
73)	3-methyl-1-butanol	11.914	70	72418	1017.74	ug/L		94
76)	toluene	12.186	92	438618	50.10	ug/L		100
77)	trans-1,3-dichloropropene	12.369	75	279834	53.40	ug/L		100
78)	ethyl methacrylate	12.364	69	204081	51.32	ug/L		96
79)	1,1,2-trichloroethane	12.589	83	130279	50.87	ug/L		98
80)	2-hexanone	12.756	58	198813	192.93	ug/L		97
81)	tetrachloroethene	12.735	166	205656	52.17	ug/L		99
82)	1,3-dichloropropane	12.772	76	251973	50.30	ug/L		98
83)	butyl acetate	12.834	56	99403	47.19	ug/L		96
84)	dibromochloromethane	13.012	129	201644	54.00	ug/L		99
85)	1,2-dibromoethane	13.164	107	179521	53.72	ug/L		96
86)	n-butyl ether	13.603	57	751674	48.86	ug/L		99
87)	chlorobenzene	13.640	112	480774	50.52	ug/L		99
88)	1,1,1,2-tetrachloroethane	13.708	131	195456	53.71	ug/L		98
89)	ethylbenzene	13.703	91	773561	48.51	ug/L		98
90)	m,p-xylene	13.823	106	615790	100.87	ug/L		98
91)	o-xylene	14.220	91	635223	48.99	ug/L		100
92)	styrene	14.231	104	504059	51.26	ug/L		99
93)	n-amyl acetate	14.267	70	108515	48.79	ug/L		96
94)	bromoform	14.456	173	124905	54.79	ug/L		99
95)	butyl acrylate	14.058	55	321714	49.60	ug/L		98
96)	isopropylbenzene	14.571	105	775984	50.12	ug/L		99
97)	cis-1,4-dichloro-2-butene	14.607	88	68895	52.79	ug/L		97
100)	bromobenzene	14.947	156	217155	51.23	ug/L		97
101)	1,1,2,2-tetrachloroethane	14.848	83	179821	49.18	ug/L		98
102)	trans-1,4-dichloro-2-b...	14.885	53	45918	49.96	ug/L		96
103)	1,2,3-trichloropropane	14.932	110	46356	48.83	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201356.d
Acq On : 12 Mar 2020 7:50 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:43:59 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

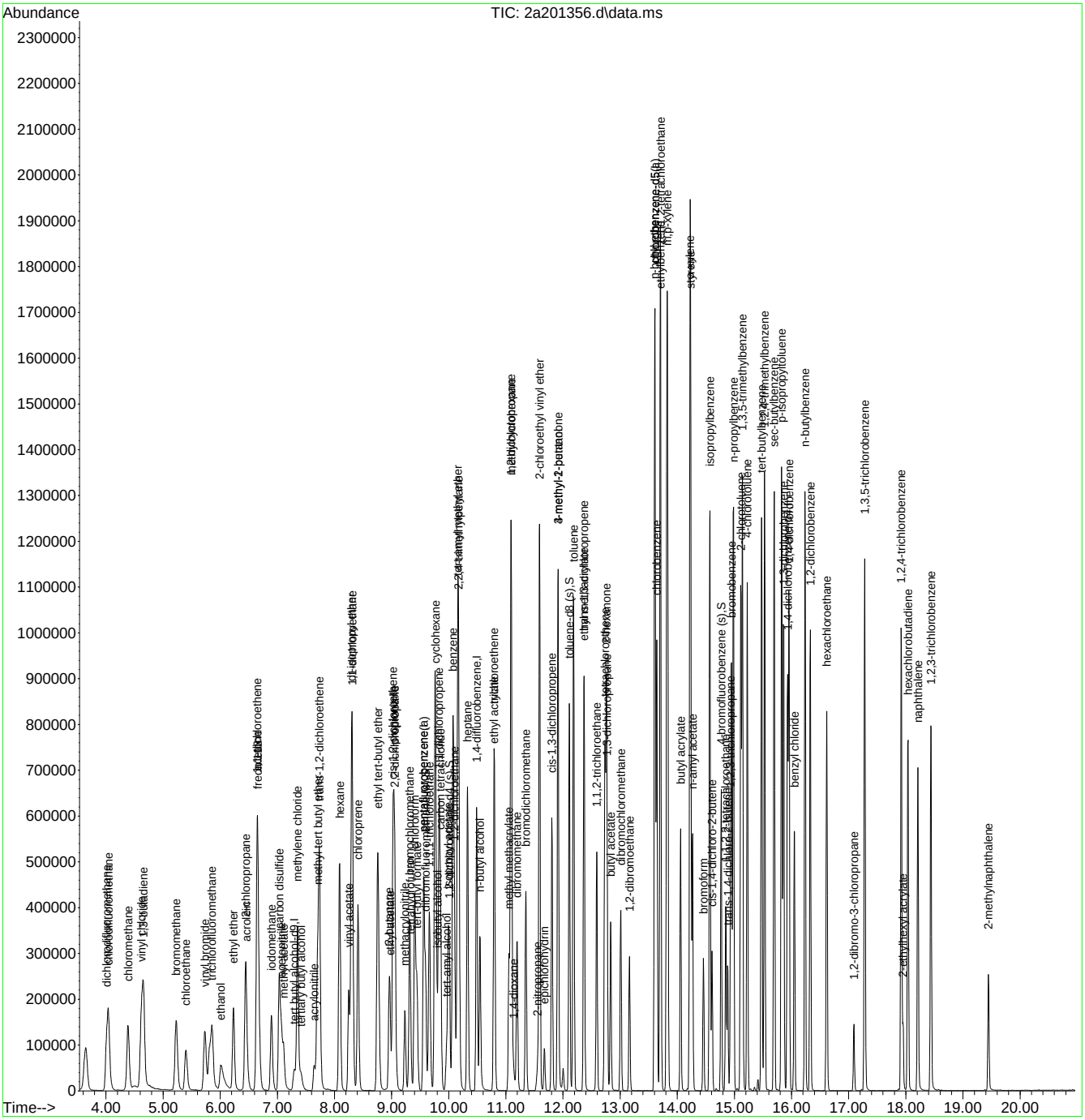
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.984	91	898093	48.70	ug/L	100
105) 2-chlorotoluene	15.115	126	199635	49.63	ug/L	99
106) 4-chlorotoluene	15.225	91	559118	49.53	ug/L	99
107) 1,3,5-trimethylbenzene	15.141	105	655834	50.68	ug/L	99
108) tert-butylbenzene	15.476	119	566349	51.76	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	655720	50.70	ug/L	100
110) sec-butylbenzene	15.695	105	826428	49.79	ug/L	99
111) 1,3-dichlorobenzene	15.863	146	388155	50.65	ug/L	99
112) p-isopropyltoluene	15.826	119	706580	51.27	ug/L	99
113) benzyl chloride	16.051	91	369160	53.81	ug/L	99
114) 1,4-dichlorobenzene	15.957	146	391812	49.55	ug/L	99
115) 1,2-dichlorobenzene	16.328	146	374441	51.07	ug/L	99
116) n-butylbenzene	16.234	92	371511	50.50	ug/L	100
117) 1,2-dibromo-3-chloropr...	17.092	157	37646	52.40	ug/L	98
118) 1,3,5-trichlorobenzene	17.280	180	342088	52.72	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	296577	54.74	ug/L	98
120) hexachlorobutadiene	18.038	225	157841	53.02	ug/L	98
121) naphthalene	18.211	128	522219	56.04	ug/L	99
122) 1,2,3-trichlorobenzene	18.441	180	256482	55.13	ug/L	98
123) hexachloroethane	16.616	201	137596	55.32	ug/L	99
124) 2-ethylhexyl acrylate	17.950	70	32279	8.82	ug/L	96
125) 2-methylnaphthalene	19.445	142	126332	28.52	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201356.d
Acq On : 12 Mar 2020 7:50 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:43:59 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201386.d
Acq On : 13 Mar 2020 7:49 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:04:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.306	65	100399	500.00	ug/L	0.01
5) pentafluorobenzene	9.566	168	326168	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.491	114	480843	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	396386	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	206304	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.566	168	326168	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	396386	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.597	113	150577	50.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.58%			
53) 1,2-dichloroethane-d4 (s)	10.015	65	161064	50.48	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.96%			
75) toluene-d8 (s)	12.113	98	497725	49.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.94%			
99) 4-bromofluorobenzene (s)	14.770	95	189307	48.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.34%			
Target Compounds						Qvalue
2) ethanol	6.020	45	164926	5457.88	ug/L	96
3) tertiary butyl alcohol	7.421	59	72108	249.24	ug/L	98
4) 1,4-dioxane	11.135	88	38922	1414.96	ug/L	94
6) chlorodifluoromethane	4.053	51	135033	29.50	ug/L	96
7) dichlorodifluoromethane	4.016	85	242022	49.29	ug/L	96
8) chloromethane	4.393	50	272416	45.98	ug/L	98
9) vinyl chloride	4.623	62	277704	49.21	ug/L	97
10) 1,3-butadiene	4.660	54	95353	28.94	ug/L	94
11) bromomethane	5.235	94	179356	48.27	ug/L	98
12) chloroethane	5.402	64	137878	47.62	ug/L	98
13) vinyl bromide	5.737	106	164360	55.31	ug/L	99
14) trichlorofluoromethane	5.857	101	311304	52.91	ug/L	98
15) ethyl ether	6.234	74	89384	45.42	ug/L	100
16) 2-chloropropane	6.454	63	71242	45.53	ug/L	96
17) acrolein	6.459	56	27280	52.27	ug/L	94
18) freon 113	6.668	151	134140	48.82	ug/L	94
19) 1,1-dichloroethene	6.652	96	148035	46.54	ug/L	97
20) acetone	6.658	43	156067	203.99	ug/L	97
21) acetonitrile	7.076	41	189937	487.04	ug/L	99
22) iodomethane	6.903	142	225373	45.60	ug/L	100
23) carbon disulfide	7.034	76	375181	38.88	ug/L	98
24) methylene chloride	7.353	84	183044	47.74	ug/L	96
25) methyl acetate	7.113	43	109136	46.63	ug/L	98
26) methyl tert butyl ether	7.709	73	480171	51.48	ug/L	95
27) trans-1,2-dichloroethene	7.740	96	171847	47.20	ug/L	96
28) hexane	8.091	57	260993	49.24	ug/L	99
29) di-isopropyl ether	8.300	45	609095	46.62	ug/L	98
30) ethyl tert-butyl ether	8.760	59	582033	48.96	ug/L	100
31) 2-butanone	8.959	72	60435	193.87	ug/L #	83
32) 1,1-dichloroethane	8.316	63	324526	46.75	ug/L	99
33) chloroprene	8.415	53	260883	47.19	ug/L	96
34) acrylonitrile	7.646	53	55497	49.48	ug/L	92
35) vinyl acetate	8.253	86	30569	45.69	ug/L	97
36) ethyl acetate	8.975	45	21774	47.15	ug/L	90
37) 2,2-dichloropropane	9.053	77	274759	50.44	ug/L	97
38) cis-1,2-dichloroethene	9.027	96	202201	48.73	ug/L	98
39) propionitrile	9.043	54	173858	494.72	ug/L	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201386.d
Acq On : 13 Mar 2020 7:49 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:04:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) bromochloromethane	9.320	130	129780	50.76	ug/L		94
41) tetrahydrofuran	9.330	42	39096	46.79	ug/L		99
42) chloroform	9.404	83	338836	50.52	ug/L		97
43) tert-butyl formate	9.440	59	150481	50.47	ug/L		94
44) isobutyl alcohol	9.801	43	61679	550.49	ug/L	#	71
46) methacrylonitrile	9.236	67	61633	49.46	ug/L		96
47) 1,1,1-trichloroethane	9.660	97	301933	51.73	ug/L		97
48) cyclohexane	9.770	84	273312	51.43	ug/L		87
49) 1,1-dichloropropene	9.832	75	251326	48.98	ug/L		98
50) tert-amyl alcohol	9.963	73	34759	252.95	ug/L	#	87
51) carbon tetrachloride	9.853	117	279529	52.61	ug/L		99
54) 2,2,4-trimethylpentane	10.172	57	705647	51.69	ug/L		100
55) tert-amyl methyl ether	10.157	73	549072	50.27	ug/L		98
56) n-butyl alcohol	10.549	56	193094	2609.47	ug/L		99
57) benzene	10.078	78	702818	48.29	ug/L		99
58) heptane	10.329	57	147712	50.85	ug/L		98
59) isopropyl acetate	9.989	87	34118	51.36	ug/L	#	84
60) 1,2-dichloroethane	10.104	62	240926	47.44	ug/L		99
61) trichloroethene	10.800	95	192022	50.80	ug/L		99
62) ethyl acrylate	10.790	55	193480	48.80	ug/L		99
63) 2-nitropropane	11.558	41	33870	47.21	ug/L		98
64) 2-chloroethyl vinyl ether	11.590	63	497839	299.09	ug/L		99
65) methyl methacrylate	11.056	100	41509	52.68	ug/L	#	83
66) 1,2-dichloropropane	11.088	63	188217	47.82	ug/L		98
67) methylcyclohexane	11.093	83	324180	53.95	ug/L		98
68) dibromomethane	11.197	93	111573	50.69	ug/L		98
69) bromodichloromethane	11.349	83	262466	51.54	ug/L		99
70) epichlorohydrin	11.673	57	69534	241.71	ug/L		96
71) cis-1,3-dichloropropene	11.804	75	308416	50.43	ug/L		97
72) 4-methyl-2-pentanone	11.914	58	216319	188.21	ug/L		98
73) 3-methyl-1-butanol	11.914	70	71318	1051.71	ug/L		96
76) toluene	12.186	92	416002	49.11	ug/L		99
77) trans-1,3-dichloropropene	12.369	75	267411	52.74	ug/L		99
78) ethyl methacrylate	12.364	69	196421	51.05	ug/L		97
79) 1,1,2-trichloroethane	12.589	83	126746	51.15	ug/L		97
80) 2-hexanone	12.756	58	193040	193.61	ug/L		98
81) tetrachloroethene	12.735	166	195748	51.32	ug/L		98
82) 1,3-dichloropropane	12.772	76	239970	49.51	ug/L		99
83) butyl acetate	12.835	56	96714	47.45	ug/L		99
84) dibromochloromethane	13.012	129	191302	52.95	ug/L		99
85) 1,2-dibromoethane	13.164	107	172428	53.33	ug/L		98
86) n-butyl ether	13.603	57	727330	48.87	ug/L		99
87) chlorobenzene	13.640	112	461786	50.16	ug/L		98
88) 1,1,1,2-tetrachloroethane	13.708	131	188291	53.48	ug/L		95
89) ethylbenzene	13.703	91	759262	49.21	ug/L		99
90) m,p-xylene	13.828	106	593380	100.46	ug/L		97
91) o-xylene	14.221	91	620706	49.47	ug/L		100
92) styrene	14.236	104	484236	50.89	ug/L		95
93) n-amyl acetate	14.268	70	105468	49.01	ug/L		92
94) bromoform	14.456	173	122512	55.54	ug/L		100
95) butyl acrylate	14.058	55	311690	49.66	ug/L		98
96) isopropylbenzene	14.571	105	762975	50.93	ug/L		99
97) cis-1,4-dichloro-2-butene	14.608	88	67380	53.36	ug/L		97
100) bromobenzene	14.948	156	209605	51.10	ug/L		97
101) 1,1,2,2-tetrachloroethane	14.848	83	174727	49.38	ug/L		97
102) trans-1,4-dichloro-2-b...	14.880	53	43555	48.97	ug/L		96
103) 1,2,3-trichloropropane	14.932	110	45281	49.29	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201386.d
Acq On : 13 Mar 2020 7:49 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:04:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

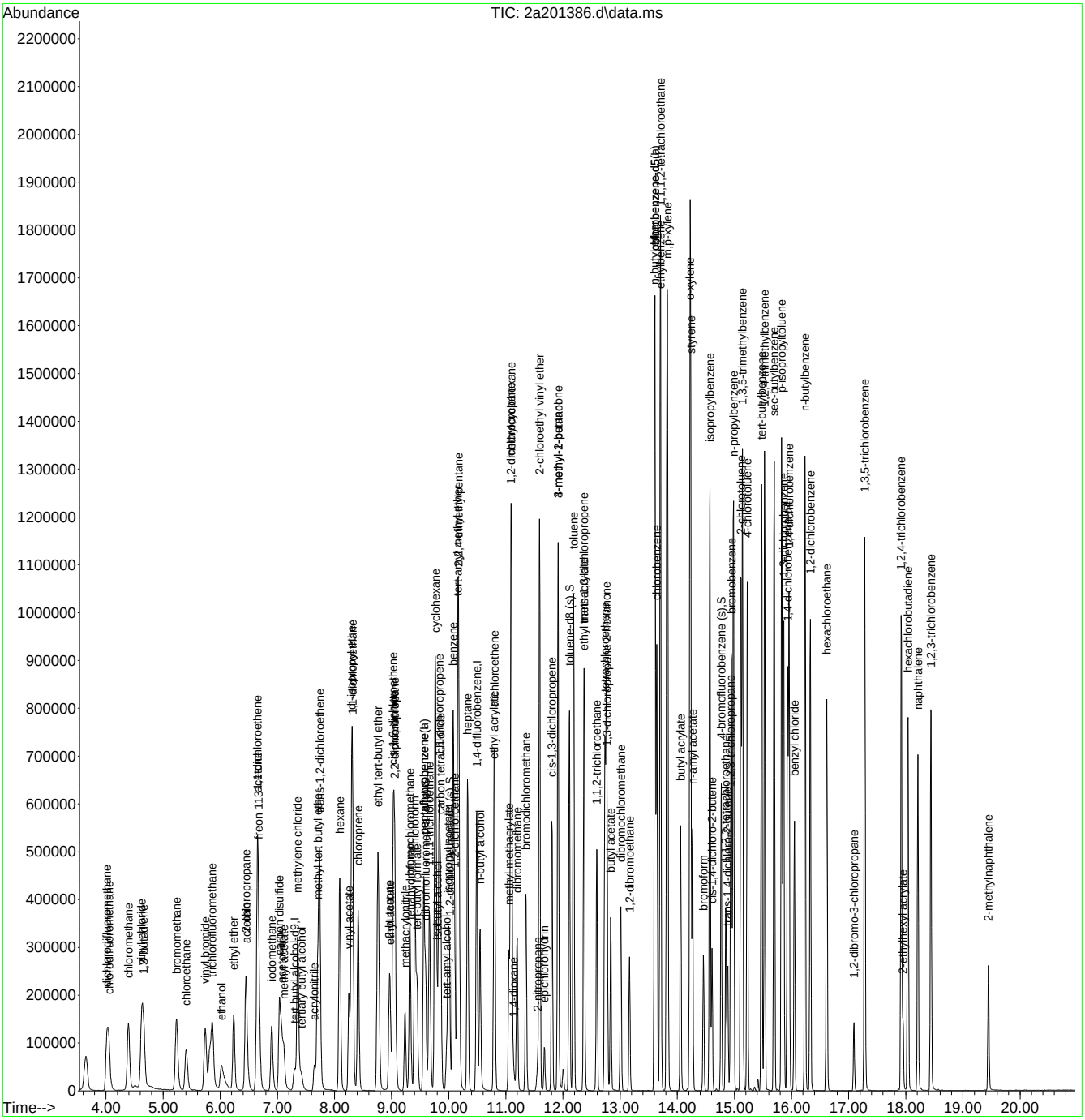
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.984	91	876728	49.13	ug/L	100
105) 2-chlorotoluene	15.115	126	195113	50.12	ug/L	99
106) 4-chlorotoluene	15.225	91	541139	49.54	ug/L	99
107) 1,3,5-trimethylbenzene	15.141	105	644855	51.50	ug/L	98
108) tert-butylbenzene	15.476	119	561934	53.07	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	638871	51.04	ug/L	99
110) sec-butylbenzene	15.695	105	812809	50.60	ug/L	100
111) 1,3-dichlorobenzene	15.863	146	374817	50.54	ug/L	99
112) p-isopropyltoluene	15.826	119	705424	52.89	ug/L	100
113) benzyl chloride	16.051	91	361048	54.38	ug/L	99
114) 1,4-dichlorobenzene	15.957	146	377729	49.36	ug/L	99
115) 1,2-dichlorobenzene	16.328	146	362960	51.15	ug/L	98
116) n-butylbenzene	16.234	92	369081	51.84	ug/L	97
117) 1,2-dibromo-3-chloropr...	17.092	157	37561	54.03	ug/L	98
118) 1,3,5-trichlorobenzene	17.280	180	341254	54.34	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	293720	56.02	ug/L	99
120) hexachlorobutadiene	18.039	225	161230	55.96	ug/L	99
121) naphthalene	18.211	128	514145	57.02	ug/L	99
122) 1,2,3-trichlorobenzene	18.441	180	255177	56.68	ug/L	95
123) hexachloroethane	16.616	201	136466	56.70	ug/L	97
124) 2-ethylhexyl acrylate	17.950	70	32530	9.14	ug/L	95
125) 2-methylnaphthalene	19.446	142	126906	29.61	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201386.d
Acq On : 13 Mar 2020 7:49 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 15:04:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201439.d
Acq On : 16 Mar 2020 8:05 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:30:04 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.301	65	88567	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	332860	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	473054	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	384685	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.925	152	193585	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	332860	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	384685	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	140272	46.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.72%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	154075	49.08	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.16%			
75) toluene-d8 (s)	12.107	98	490049	50.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.36%			
99) 4-bromofluorobenzene (s)	14.764	95	179114	49.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.14%			
Target Compounds						Qvalue
2) ethanol	6.019	45	151495	5683.17	ug/L	96
3) tertiary butyl alcohol	7.416	59	62687	245.62	ug/L	98
4) 1,4-dioxane	11.129	88	36327	1497.05	ug/L	94
6) chlorodifluoromethane	4.048	51	241687	51.73	ug/L	98
7) dichlorodifluoromethane	4.016	85	265179	52.92	ug/L	98
8) chloromethane	4.388	50	282007	46.64	ug/L	98
9) vinyl chloride	4.623	62	267377	46.42	ug/L	99
10) 1,3-butadiene	4.654	54	168931	50.23	ug/L	97
11) bromomethane	5.235	94	176508	46.54	ug/L	99
12) chloroethane	5.397	64	138780	46.97	ug/L	95
13) vinyl bromide	5.737	106	158839	52.37	ug/L	97
14) trichlorofluoromethane	5.857	101	317320	52.85	ug/L	96
15) ethyl ether	6.234	74	92064	45.84	ug/L	99
16) 2-chloropropane	6.448	63	77874	48.77	ug/L	98
17) acrolein	6.459	56	24462	45.93	ug/L	96
18) freon 113	6.657	151	147386	52.56	ug/L	98
19) 1,1-dichloroethene	6.647	96	161662	49.80	ug/L	93
20) acetone	6.657	43	138169	176.96	ug/L	99
21) acetonitrile	7.071	41	175424	440.78	ug/L	98
22) iodomethane	6.898	142	249279	49.42	ug/L	97
23) carbon disulfide	7.034	76	457241	46.43	ug/L	96
24) methylene chloride	7.353	84	181214	46.32	ug/L	96
25) methyl acetate	7.113	43	101009	42.29	ug/L	97
26) methyl tert butyl ether	7.709	73	464313	48.78	ug/L	96
27) trans-1,2-dichloroethene	7.735	96	173966	46.82	ug/L	95
28) hexane	8.091	57	288459	53.33	ug/L	98
29) di-isopropyl ether	8.300	45	577588	43.32	ug/L	99
30) ethyl tert-butyl ether	8.760	59	551584	45.46	ug/L	98
31) 2-butanone	8.954	72	57000	179.17	ug/L #	76
32) 1,1-dichloroethane	8.315	63	317592	44.84	ug/L	99
33) chloroprene	8.415	53	257680	45.67	ug/L	98
34) acrylonitrile	7.646	53	52774	46.10	ug/L	96
35) vinyl acetate	8.247	86	31362	45.93	ug/L #	87
36) ethyl acetate	8.974	45	19988	42.42	ug/L	94
37) 2,2-dichloropropane	9.053	77	267722	48.16	ug/L	98
38) cis-1,2-dichloroethene	9.022	96	193872	45.78	ug/L	100
39) propionitrile	9.037	54	159463	444.64	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201439.d
Acq On : 16 Mar 2020 8:05 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:30:04 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) bromochloromethane	9.314	130	126883	48.63	ug/L		94
41) tetrahydrofuran	9.335	42	36349	42.63	ug/L		98
42) chloroform	9.403	83	321411	46.96	ug/L		98
43) tert-butyl formate	9.440	59	148331	48.75	ug/L		98
44) isobutyl alcohol	9.801	43	48901	427.67	ug/L	#	67
46) methacrylonitrile	9.231	67	56064	44.08	ug/L		93
47) 1,1,1-trichloroethane	9.660	97	296391	49.76	ug/L		97
48) cyclohexane	9.769	84	270339	49.85	ug/L	#	80
49) 1,1-dichloropropene	9.827	75	244779	46.74	ug/L		98
50) tert-amyl alcohol	9.958	73	31829	226.97	ug/L	#	83
51) carbon tetrachloride	9.853	117	272749	50.30	ug/L		100
54) 2,2,4-trimethylpentane	10.167	57	700602	52.17	ug/L		98
55) tert-amyl methyl ether	10.157	73	519179	48.32	ug/L		98
56) n-butyl alcohol	10.544	56	174232	2393.34	ug/L		96
57) benzene	10.073	78	678719	47.41	ug/L		99
58) heptane	10.329	57	147196	51.51	ug/L		97
59) isopropyl acetate	9.989	87	31334	47.95	ug/L	#	80
60) 1,2-dichloroethane	10.099	62	227492	45.53	ug/L		98
61) trichloroethene	10.800	95	179932	48.39	ug/L		97
62) ethyl acrylate	10.784	55	178836	45.85	ug/L		99
63) 2-nitropropane	11.558	41	31767	45.01	ug/L		96
64) 2-chloroethyl vinyl ether	11.584	63	480138	293.20	ug/L		99
65) methyl methacrylate	11.051	100	37757	48.71	ug/L	#	89
66) 1,2-dichloropropane	11.088	63	178445	46.08	ug/L		97
67) methylcyclohexane	11.093	83	321552	54.39	ug/L		99
68) dibromomethane	11.192	93	103643	47.86	ug/L		98
69) bromodichloromethane	11.349	83	242994	48.50	ug/L		97
70) epichlorohydrin	11.673	57	63919	225.85	ug/L		97
71) cis-1,3-dichloropropene	11.804	75	292676	48.65	ug/L		97
72) 4-methyl-2-pentanone	11.909	58	193099	170.78	ug/L		98
73) 3-methyl-1-butanol	11.914	70	62141	931.47	ug/L		92
76) toluene	12.181	92	399786	48.63	ug/L		99
77) trans-1,3-dichloropropene	12.369	75	250856	50.98	ug/L		98
78) ethyl methacrylate	12.364	69	179736	48.13	ug/L		96
79) 1,1,2-trichloroethane	12.589	83	117575	48.90	ug/L		98
80) 2-hexanone	12.756	58	170194	175.89	ug/L		98
81) tetrachloroethene	12.730	166	190710	51.52	ug/L		97
82) 1,3-dichloropropane	12.766	76	220519	46.89	ug/L		99
83) butyl acetate	12.834	56	86602	43.78	ug/L		96
84) dibromochloromethane	13.007	129	183328	52.29	ug/L		100
85) 1,2-dibromoethane	13.164	107	158953	50.65	ug/L		97
86) n-butyl ether	13.603	57	673902	46.65	ug/L		98
87) chlorobenzene	13.640	112	432698	48.43	ug/L		99
88) 1,1,1,2-tetrachloroethane	13.708	131	176081	51.53	ug/L		95
89) ethylbenzene	13.703	91	721436	48.18	ug/L		99
90) m,p-xylene	13.823	106	558613	97.45	ug/L		100
91) o-xylene	14.220	91	578516	47.51	ug/L		100
92) styrene	14.231	104	456420	49.43	ug/L		99
93) n-amyl acetate	14.267	70	94363	45.19	ug/L		92
94) bromoform	14.456	173	113992	53.25	ug/L		96
95) butyl acrylate	14.058	55	279833	45.94	ug/L		99
96) isopropylbenzene	14.566	105	712391	49.00	ug/L		99
97) cis-1,4-dichloro-2-butene	14.607	88	63510	51.83	ug/L		93
100) bromobenzene	14.947	156	195220	50.72	ug/L		95
101) 1,1,2,2-tetrachloroethane	14.848	83	157791	47.53	ug/L		99
102) trans-1,4-dichloro-2-b...	14.879	53	39580	47.43	ug/L		96
103) 1,2,3-trichloropropane	14.932	110	42108	48.85	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201439.d
Acq On : 16 Mar 2020 8:05 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:30:04 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

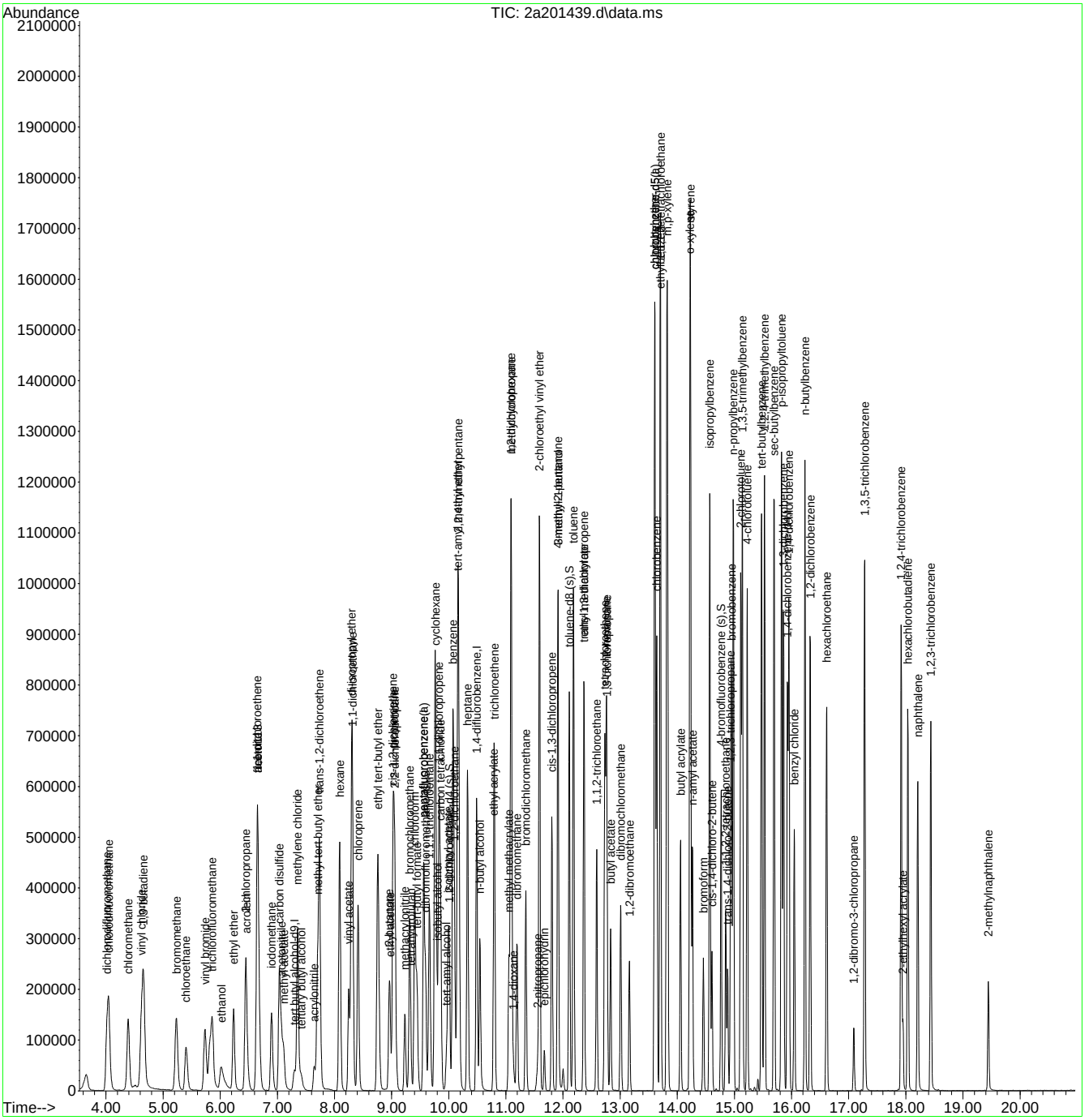
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.979	91	824119	49.21	ug/L	99
105) 2-chlorotoluene	15.110	126	182413	49.94	ug/L	95
106) 4-chlorotoluene	15.225	91	506013	49.37	ug/L	99
107) 1,3,5-trimethylbenzene	15.141	105	606949	51.65	ug/L	100
108) tert-butylbenzene	15.476	119	524373	52.77	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	603509	51.38	ug/L	100
110) sec-butylbenzene	15.695	105	767888	50.94	ug/L	100
111) 1,3-dichlorobenzene	15.857	146	352687	50.68	ug/L	96
112) p-isopropyltoluene	15.826	119	658696	52.63	ug/L	99
113) benzyl chloride	16.046	91	333008	53.46	ug/L	99
114) 1,4-dichlorobenzene	15.952	146	353845	49.28	ug/L	98
115) 1,2-dichlorobenzene	16.328	146	340113	51.08	ug/L	99
116) n-butylbenzene	16.234	92	338313	50.64	ug/L	99
117) 1,2-dibromo-3-chloropr...	17.092	157	34519	52.91	ug/L	97
118) 1,3,5-trichlorobenzene	17.280	180	319214	54.17	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	273746	55.64	ug/L	100
120) hexachlorobutadiene	18.033	225	152583	56.44	ug/L	98
121) naphthalene	18.211	128	466394	55.12	ug/L	98
122) 1,2,3-trichlorobenzene	18.436	180	232885	55.13	ug/L	99
123) hexachloroethane	16.616	201	131212	58.09	ug/L	97
124) 2-ethylhexyl acrylate	17.950	70	30617	9.17	ug/L	88
125) 2-methylnaphthalene	19.445	142	106966	26.60	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201439.d
Acq On : 16 Mar 2020 8:05 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:30:04 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
MoHui Huang
03/13/20 14:40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201365.d
Acq On : 12 Mar 2020 12:16 pm
Operator : edwardd
Sample : JD4440-2ms Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:10:21 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.306	65	94340	500.00	ug/L	0.01
5) pentafluorobenzene	9.560	168	326910	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	488080	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	391033	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	200214	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	326910	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	391033	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.597	113	153533	51.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.34%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	157943	48.77	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.54%			
75) toluene-d8 (s)	12.108	98	504379	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
99) 4-bromofluorobenzene (s)	14.764	95	185088	49.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.06%			
Target Compounds						Qvalue
2) ethanol	6.025	45	142217	5008.64	ug/L	97
3) tertiary butyl alcohol	7.416	59	65780	241.97	ug/L	97
4) 1,4-dioxane	11.129	88	31880	1233.39	ug/L	97
6) chlorodifluoromethane	4.053	51	274817	59.90	ug/L	99
7) dichlorodifluoromethane	4.027	85	297287	60.41	ug/L	99
8) chloromethane	4.393	50	283105	47.67	ug/L	98
9) vinyl chloride	4.623	62	288748	51.05	ug/L	97
10) 1,3-butadiene	4.660	54	218669	66.21	ug/L	95
11) bromomethane	5.235	94	176732	47.45	ug/L	99
12) chloroethane	5.402	64	151051	52.05	ug/L	99
13) vinyl bromide	5.732	106	166438	55.88	ug/L	96
14) trichlorofluoromethane	5.857	101	354349	60.09	ug/L	99
15) ethyl ether	6.239	74	94923	48.12	ug/L	98
16) 2-chloropropane	6.454	63	86147	54.93	ug/L	98
17) acrolein	6.464	56	26807	51.25	ug/L	99
18) freon 113	6.663	151	176411	64.05	ug/L	97
19) 1,1-dichloroethene	6.652	96	181132	56.82	ug/L	97
20) acetone	6.658	43	135319	176.47	ug/L	95
21) acetonitrile	7.076	41	176485	451.52	ug/L	97
22) iodomethane	6.898	142	265846	53.67	ug/L	98
23) carbon disulfide	7.034	76	516515	53.40	ug/L	97
24) methylene chloride	7.353	84	193765	50.43	ug/L	96
25) methyl acetate	7.113	43	104241	44.44	ug/L	99
26) methyl tert butyl ether	7.709	73	469041	50.18	ug/L	98
27) trans-1,2-dichloroethene	7.740	96	188755	51.73	ug/L	95
28) hexane	8.091	57	373209	70.25	ug/L	97
29) di-isopropyl ether	8.300	45	616492	47.08	ug/L	98
30) ethyl tert-butyl ether	8.760	59	570984	47.92	ug/L	99
31) 2-butanone	8.954	72	55570	177.85	ug/L #	80
32) 1,1-dichloroethane	8.316	63	338227	48.62	ug/L	99
33) chloroprene	8.415	53	285082	51.45	ug/L	97
34) acrylonitrile	7.646	53	52339	46.56	ug/L	97
35) vinyl acetate	8.253	86	32708	48.77	ug/L	95
36) ethyl acetate	8.969	45	19887	42.97	ug/L	95
37) 2,2-dichloropropane	9.053	77	296445	54.29	ug/L	97
38) cis-1,2-dichloroethene	9.027	96	289373	69.58	ug/L	97
39) propionitrile	9.037	54	157609	447.47	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201365.d
Acq On : 12 Mar 2020 12:16 pm
Operator : edwardd
Sample : JD4440-2ms Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:10:21 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	bromochloromethane	9.320	130	128144	50.01	ug/L		94
41)	tetrahydrofuran	9.335	42	37272	44.51	ug/L		98
42)	chloroform	9.403	83	335856	49.97	ug/L		98
43)	tert-butyl formate	9.440	59	106812	35.75	ug/L		97
44)	isobutyl alcohol	9.791	43	52399m	466.61	ug/L		
46)	methacrylonitrile	9.231	67	56898	45.55	ug/L		95
47)	1,1,1-trichloroethane	9.660	97	314573	53.78	ug/L		97
48)	cyclohexane	9.770	84	315381	59.21	ug/L	#	80
49)	1,1-dichloropropene	9.827	75	269598	52.42	ug/L		99
50)	tert-amyl alcohol	9.958	73	32107	233.12	ug/L		96
51)	carbon tetrachloride	9.853	117	295668	55.52	ug/L		99
54)	2,2,4-trimethylpentane	10.172	57	884924	63.87	ug/L		98
55)	tert-amyl methyl ether	10.157	73	533289	48.10	ug/L		98
56)	n-butyl alcohol	10.544	56	172362	2294.76	ug/L		96
57)	benzene	10.073	78	730949	49.48	ug/L		99
58)	heptane	10.329	57	186404	63.22	ug/L		99
59)	isopropyl acetate	9.989	87	32783	48.62	ug/L		94
60)	1,2-dichloroethane	10.099	62	234762	45.54	ug/L		97
61)	trichloroethene	10.795	95	196431	51.20	ug/L		97
62)	ethyl acrylate	10.789	55	183654	45.64	ug/L		99
63)	2-nitropropane	11.553	41	29736	40.83	ug/L		98
65)	methyl methacrylate	11.056	100	38911	48.65	ug/L	#	84
66)	1,2-dichloropropane	11.088	63	188227	47.11	ug/L		98
67)	methylcyclohexane	11.093	83	388928	63.77	ug/L		98
68)	dibromomethane	11.192	93	107874	48.28	ug/L		99
69)	bromodichloromethane	11.349	83	257401	49.80	ug/L		100
70)	epichlorohydrin	11.673	57	61478	210.54	ug/L		98
71)	cis-1,3-dichloropropene	11.804	75	303000	48.81	ug/L		96
72)	4-methyl-2-pentanone	11.909	58	209300	179.41	ug/L		98
73)	3-methyl-1-butanol	11.914	70	65977	958.52	ug/L		92
76)	toluene	12.181	92	424125	50.75	ug/L		99
77)	trans-1,3-dichloropropene	12.369	75	255309	51.05	ug/L		98
78)	ethyl methacrylate	12.364	69	188223	49.59	ug/L		98
79)	1,1,2-trichloroethane	12.589	83	120688	49.38	ug/L		98
80)	2-hexanone	12.756	58	183106	186.16	ug/L		99
81)	tetrachloroethene	12.730	166	204947	54.47	ug/L		96
82)	1,3-dichloropropane	12.767	76	229617	48.03	ug/L		99
83)	butyl acetate	12.829	56	93953	46.73	ug/L		98
84)	dibromochloromethane	13.007	129	185516	52.05	ug/L		100
85)	1,2-dibromoethane	13.159	107	163608	51.29	ug/L		95
86)	n-butyl ether	13.603	57	722056	49.18	ug/L		99
87)	chlorobenzene	13.640	112	460606	50.71	ug/L		98
88)	1,1,1,2-tetrachloroethane	13.708	131	183539	52.84	ug/L		98
89)	ethylbenzene	13.703	91	757268	49.75	ug/L		99
90)	m,p-xylene	13.823	106	599993	102.97	ug/L		96
91)	o-xylene	14.221	91	615452	49.73	ug/L		98
92)	styrene	14.231	104	480549	51.20	ug/L		99
93)	n-amyl acetate	14.268	70	108283	51.01	ug/L		93
94)	bromoform	14.456	173	113461	52.14	ug/L		100
95)	butyl acrylate	14.058	55	311989	50.39	ug/L		99
96)	isopropylbenzene	14.566	105	762378	51.58	ug/L		99
97)	cis-1,4-dichloro-2-butene	14.608	88	51727	41.53	ug/L		97
100)	bromobenzene	14.948	156	207284	52.07	ug/L		90
101)	1,1,2,2-tetrachloroethane	14.848	83	165569	48.22	ug/L		99
102)	trans-1,4-dichloro-2-b...	14.880	53	36213	41.96	ug/L		97
103)	1,2,3-trichloropropane	14.932	110	42662	47.85	ug/L		96
104)	n-propylbenzene	14.979	91	877839	50.69	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201365.d
Acq On : 12 Mar 2020 12:16 pm
Operator : edwardd
Sample : JD4440-2ms Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:10:21 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

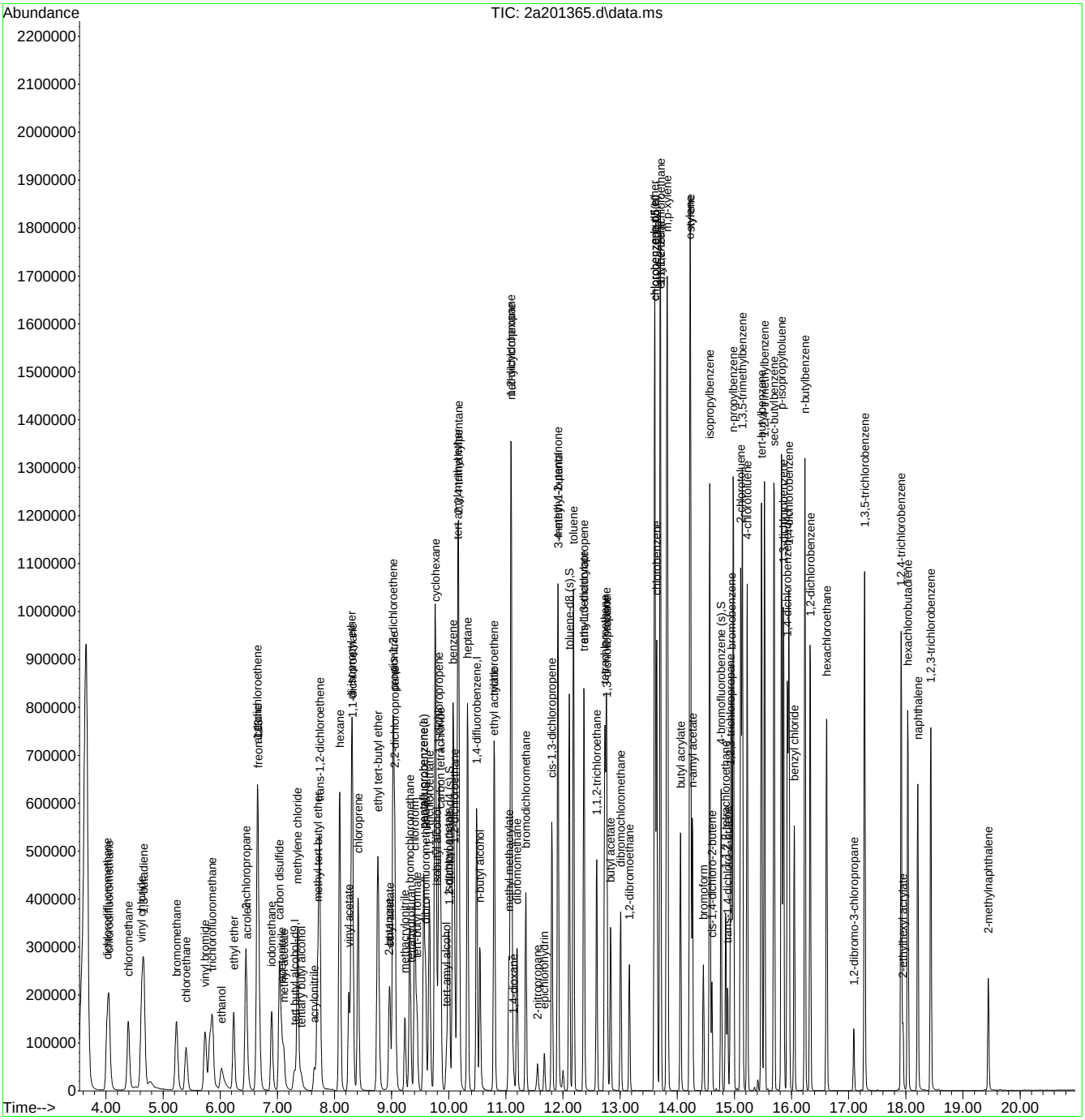
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 2-chlorotoluene	15.110	126	192233	50.88	ug/L	98
106) 4-chlorotoluene	15.225	91	536712	50.63	ug/L	99
107) 1,3,5-trimethylbenzene	15.141	105	642735	52.89	ug/L	99
108) tert-butylbenzene	15.476	119	552074	53.72	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	632082	52.03	ug/L	100
110) sec-butylbenzene	15.695	105	823958	52.85	ug/L	100
111) 1,3-dichlorobenzene	15.858	146	369123	51.29	ug/L	98
112) p-isopropyltoluene	15.826	119	696434	53.81	ug/L	99
113) benzyl chloride	16.046	91	351357	54.53	ug/L	98
114) 1,4-dichlorobenzene	15.952	146	373535	50.30	ug/L	98
115) 1,2-dichlorobenzene	16.328	146	349972	50.82	ug/L	99
116) n-butylbenzene	16.234	92	365280	52.87	ug/L	99
117) 1,2-dibromo-3-chloropr...	17.092	157	35479	52.59	ug/L	86
118) 1,3,5-trichlorobenzene	17.280	180	329110	54.00	ug/L	100
119) 1,2,4-trichlorobenzene	17.918	180	278822	54.80	ug/L	99
120) hexachlorobutadiene	18.033	225	155534	55.62	ug/L	98
121) naphthalene	18.211	128	484177	55.33	ug/L	99
122) 1,2,3-trichlorobenzene	18.436	180	234613	53.70	ug/L	97
123) hexachloroethane	16.616	201	132969	56.92	ug/L	98
124) 2-ethylhexyl acrylate	17.950	70	30732	8.92	ug/L	94
125) 2-methylnaphthalene	19.446	142	116796	28.08	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201365.d
Acq On : 12 Mar 2020 12:16 pm
Operator : edwardd
Sample : JD4440-2ms Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:10:21 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Manual Integration Approval Summary

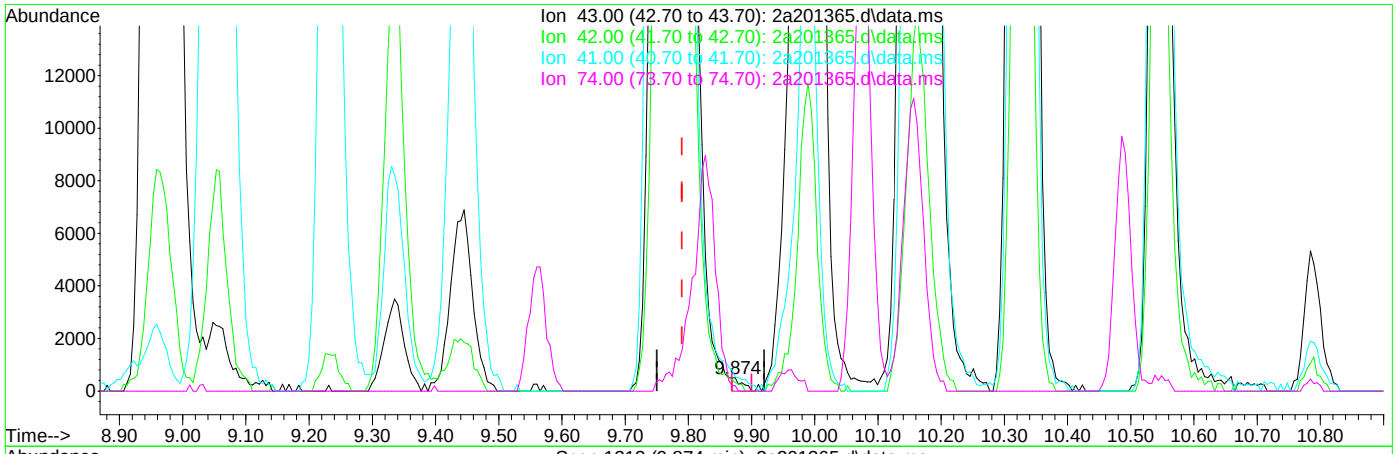
Sample Number:	JD4440-2MS	**Method:**	SW846 8260C
Lab FileID:	2A201365.D	**Analyst approved:**	03/12/20 20:38 Janelle Cordova
Injection Time:	03/12/20 12:16	**Supervisor approved:**	03/13/20 14:40 MoHui Huang

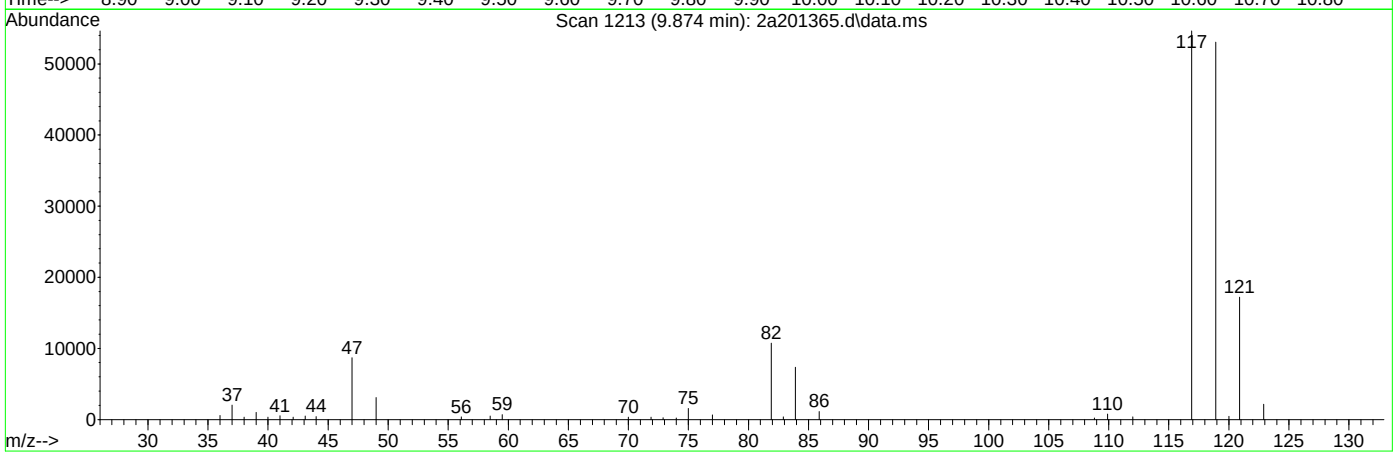
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		9.79	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201365.d
Acq On : 12 Mar 2020 12:16 pm
Operator : edwardd
Sample : JD4440-2ms Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:08:41 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration





TIC: 2a201365.d\data.ms

(44) isobutyl alcohol

9.874min (+0.084) 4.22ug/L

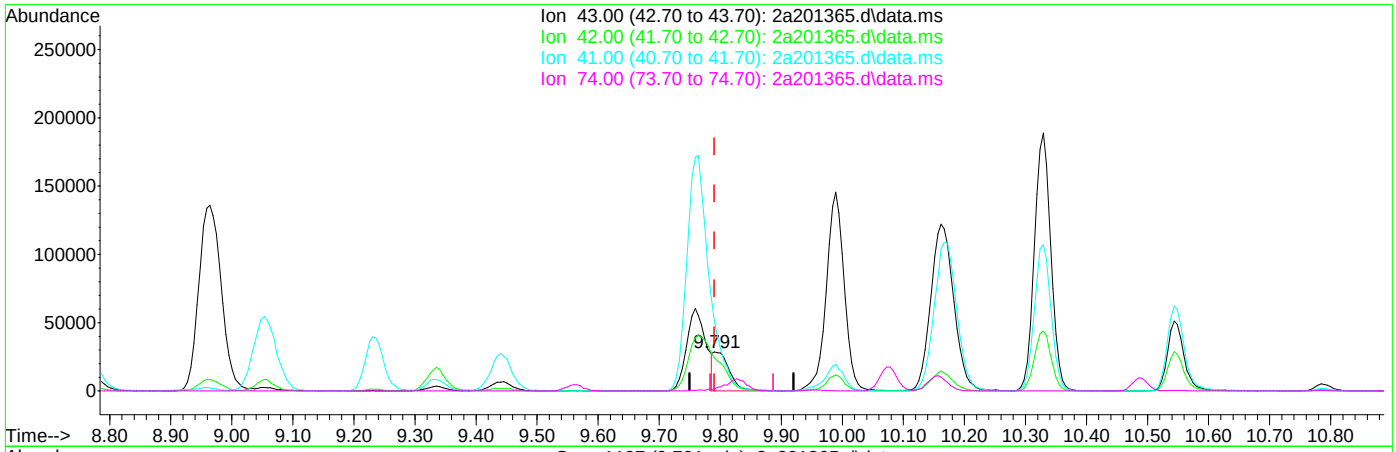
response 474

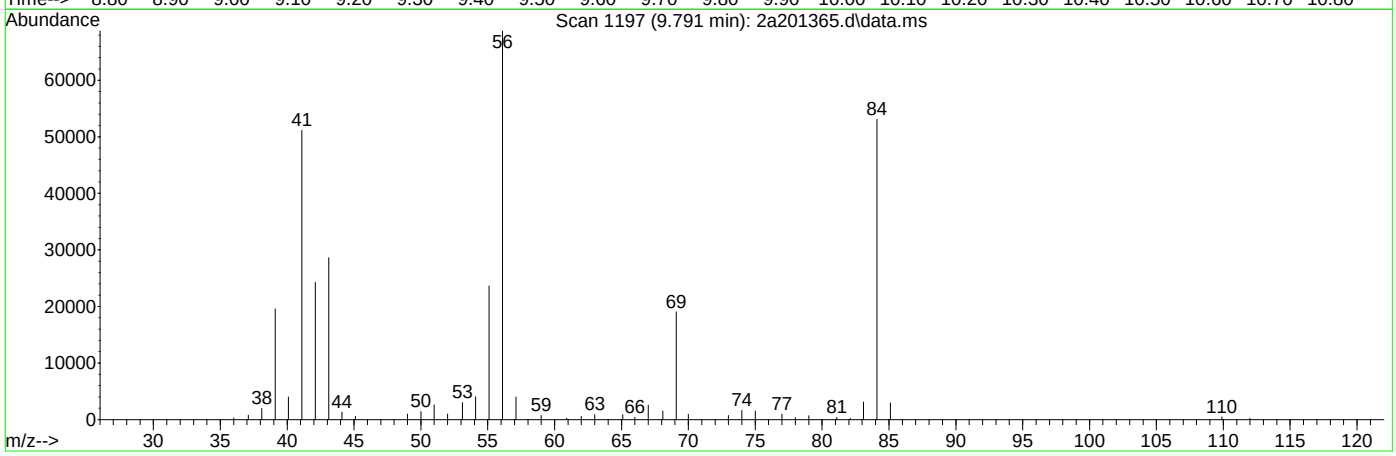
Ion	Exp%	Act%
43.00	100	100
42.00	79.70	65.22
41.00	153.80	59.68#
74.00	7.60	42.09#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201365.d
Acq On : 12 Mar 2020 12:16 pm
Operator : edwardd
Sample : JD4440-2ms Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:08:41 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration





TIC: 2a201365.d\data.ms

(44) isobutyl alcohol

9.791min (+0.000) 466.61ug/L m

response 52399

Ion	Exp%	Act%
43.00	100	100
42.00	79.70	84.75
41.00	153.80	178.50#
74.00	7.60	5.65

2A201365.D edits: isobutyl alcohol

Manual Integrations APPROVED (compounds with "m" flag)
MoHui Huang
03/13/20 14:40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201366.d
Acq On : 12 Mar 2020 12:45 pm
Operator : edwardd
Sample : JD4440-2msd Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:09:37 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.301	65	96347	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	324464	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	483318	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	390600	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	200531	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	324464	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	390600	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	152384	51.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.34%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	156058	48.66	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.32%			
75) toluene-d8 (s)	12.108	98	505674	51.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.00%			
99) 4-bromofluorobenzene (s)	14.764	95	185600	49.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.18%			
Target Compounds						Qvalue
2) ethanol	6.014	45	147136	5073.94	ug/L	97
3) tertiary butyl alcohol	7.416	59	67127	241.78	ug/L	94
4) 1,4-dioxane	11.129	88	35479	1344.04	ug/L	95
6) chlorodifluoromethane	4.053	51	265947	58.40	ug/L	99
7) dichlorodifluoromethane	4.022	85	299748	61.36	ug/L	99
8) chloromethane	4.393	50	292870	49.69	ug/L	99
9) vinyl chloride	4.623	62	296017	52.73	ug/L	97
10) 1,3-butadiene	4.660	54	217187	66.26	ug/L	96
11) bromomethane	5.230	94	179799	48.64	ug/L	99
12) chloroethane	5.397	64	155115	53.85	ug/L	99
13) vinyl bromide	5.737	106	172563	58.37	ug/L	94
14) trichlorofluoromethane	5.857	101	362926	62.01	ug/L	99
15) ethyl ether	6.234	74	94485	48.26	ug/L	97
16) 2-chloropropane	6.454	63	84337	54.18	ug/L	96
17) acrolein	6.459	56	27007	52.02	ug/L	95
18) freon 113	6.658	151	171995	62.92	ug/L	98
19) 1,1-dichloroethene	6.652	96	180946	57.19	ug/L	95
20) acetone	6.652	43	136445	179.28	ug/L	97
21) acetonitrile	7.071	41	178048	458.95	ug/L	97
22) iodomethane	6.898	142	264838	53.87	ug/L	100
23) carbon disulfide	7.034	76	516732	53.83	ug/L	98
24) methylene chloride	7.353	84	191300	50.16	ug/L	97
25) methyl acetate	7.113	43	103450	44.44	ug/L	100
26) methyl tert butyl ether	7.709	73	471615	50.83	ug/L	97
27) trans-1,2-dichloroethene	7.740	96	188184	51.96	ug/L	93
28) hexane	8.091	57	360735	68.42	ug/L	98
29) di-isopropyl ether	8.300	45	613468	47.20	ug/L	98
30) ethyl tert-butyl ether	8.755	59	574451	48.57	ug/L	100
31) 2-butanone	8.959	72	56935	183.60	ug/L	98
32) 1,1-dichloroethane	8.310	63	337334	48.85	ug/L	98
33) chloroprene	8.415	53	283342	51.52	ug/L	98
34) acrylonitrile	7.646	53	53452	47.91	ug/L	97
35) vinyl acetate	8.253	86	31783	47.75	ug/L	97
36) ethyl acetate	8.969	45	21379	46.54	ug/L	92
37) 2,2-dichloropropane	9.053	77	288543	53.25	ug/L	97
38) cis-1,2-dichloroethene	9.022	96	290338	70.34	ug/L	99
39) propionitrile	9.037	54	161921	463.18	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201366.d
Acq On : 12 Mar 2020 12:45 pm
Operator : edwardd
Sample : JD4440-2msd Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:09:37 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) bromochloromethane	9.315	130	129244	50.82	ug/L		98
41) tetrahydrofuran	9.330	42	36825	44.31	ug/L		96
42) chloroform	9.403	83	335209	50.25	ug/L		99
43) tert-butyl formate	9.440	59	88203	29.74	ug/L		99
44) isobutyl alcohol	9.796	43	42233m	378.92	ug/L		
46) methacrylonitrile	9.236	67	57525	46.40	ug/L		92
47) 1,1,1-trichloroethane	9.660	97	312793	53.88	ug/L		97
48) cyclohexane	9.770	84	325076	61.49	ug/L	#	76
49) 1,1-dichloropropene	9.827	75	267097	52.32	ug/L		99
50) tert-amyl alcohol	9.958	73	32916	240.79	ug/L		94
51) carbon tetrachloride	9.853	117	293000	55.44	ug/L		99
54) 2,2,4-trimethylpentane	10.172	57	857319	62.48	ug/L		97
55) tert-amyl methyl ether	10.157	73	528559	48.14	ug/L		98
56) n-butyl alcohol	10.544	56	180662	2428.96	ug/L		99
57) benzene	10.073	78	727329	49.72	ug/L		99
58) heptane	10.329	57	181330	62.11	ug/L		98
59) isopropyl acetate	9.989	87	32690	48.96	ug/L	#	90
60) 1,2-dichloroethane	10.099	62	235234	46.08	ug/L		96
61) trichloroethene	10.795	95	193622	50.96	ug/L		97
62) ethyl acrylate	10.784	55	183686	46.10	ug/L		99
63) 2-nitropropane	11.553	41	29940	41.52	ug/L		87
65) methyl methacrylate	11.051	100	38310	48.37	ug/L	#	96
66) 1,2-dichloropropane	11.088	63	187778	47.46	ug/L		98
67) methylcyclohexane	11.093	83	383651	63.52	ug/L		97
68) dibromomethane	11.192	93	106233	48.02	ug/L		99
69) bromodichloromethane	11.349	83	251523	49.14	ug/L		98
70) epichlorohydrin	11.673	57	60225	208.28	ug/L		99
71) cis-1,3-dichloropropene	11.804	75	301145	48.99	ug/L		95
72) 4-methyl-2-pentanone	11.909	58	207594	179.70	ug/L		98
73) 3-methyl-1-butanol	11.914	70	66383	973.92	ug/L		92
76) toluene	12.181	92	417677	50.04	ug/L		100
77) trans-1,3-dichloropropene	12.369	75	251786	50.40	ug/L		98
78) ethyl methacrylate	12.359	69	190939	50.36	ug/L		99
79) 1,1,2-trichloroethane	12.589	83	119393	48.90	ug/L		99
80) 2-hexanone	12.756	58	183150	186.41	ug/L		99
81) tetrachloroethene	12.730	166	202369	53.84	ug/L		98
82) 1,3-dichloropropane	12.767	76	229536	48.06	ug/L		99
83) butyl acetate	12.829	56	94831	47.22	ug/L		97
84) dibromochloromethane	13.007	129	184355	51.78	ug/L		99
85) 1,2-dibromoethane	13.159	107	164576	51.65	ug/L		98
86) n-butyl ether	13.603	57	722610	49.27	ug/L		98
87) chlorobenzene	13.640	112	456251	50.29	ug/L		98
88) 1,1,1,2-tetrachloroethane	13.703	131	183644	52.93	ug/L		98
89) ethylbenzene	13.703	91	753331	49.55	ug/L		100
90) m,p-xylene	13.823	106	592542	101.80	ug/L		94
91) o-xylene	14.221	91	607473	49.13	ug/L		99
92) styrene	14.231	104	471025	50.24	ug/L		98
93) n-amyl acetate	14.262	70	106827	50.38	ug/L		98
94) bromoform	14.456	173	114037	52.47	ug/L		98
95) butyl acrylate	14.053	55	312354	50.51	ug/L		99
96) isopropylbenzene	14.566	105	762580	51.66	ug/L		100
97) cis-1,4-dichloro-2-butene	14.608	88	52798	42.43	ug/L		98
100) bromobenzene	14.948	156	203658	51.08	ug/L		92
101) 1,1,2,2-tetrachloroethane	14.848	83	167001	48.56	ug/L		99
102) trans-1,4-dichloro-2-b...	14.880	53	36809	42.58	ug/L		98
103) 1,2,3-trichloropropane	14.932	110	42596	47.70	ug/L		94
104) n-propylbenzene	14.979	91	872251	50.28	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201366.d
Acq On : 12 Mar 2020 12:45 pm
Operator : edwardd
Sample : JD4440-2msd Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:09:37 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

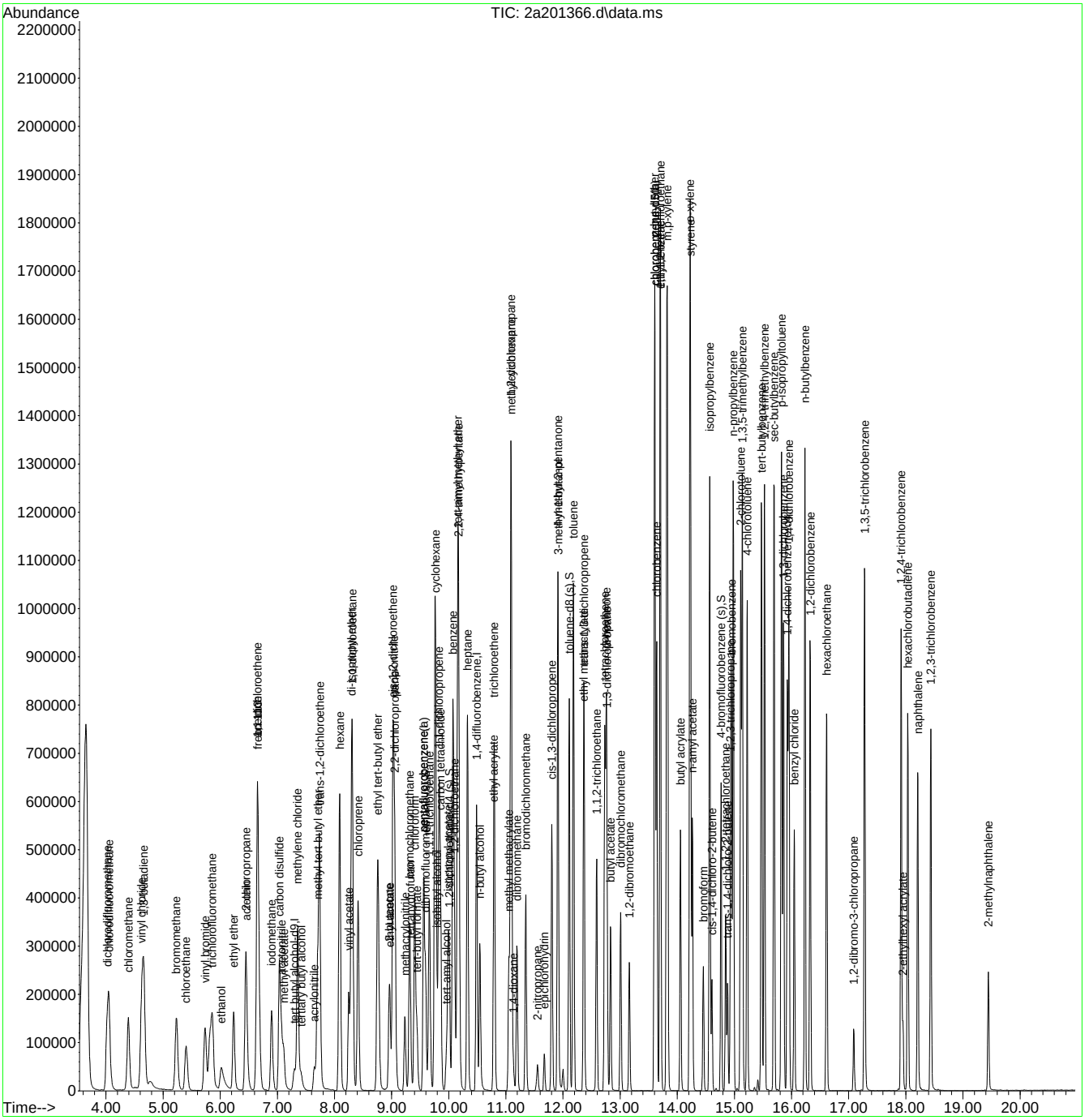
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 2-chlorotoluene	15.110	126	191529	50.62	ug/L	97
106) 4-chlorotoluene	15.225	91	529254	49.84	ug/L	99
107) 1,3,5-trimethylbenzene	15.141	105	632994	52.00	ug/L	99
108) tert-butylbenzene	15.476	119	549905	53.43	ug/L	98
109) 1,2,4-trimethylbenzene	15.528	105	627216	51.55	ug/L	99
110) sec-butylbenzene	15.695	105	820748	52.56	ug/L	100
111) 1,3-dichlorobenzene	15.858	146	365399	50.69	ug/L	97
112) p-isopropyltoluene	15.826	119	689737	53.21	ug/L	99
113) benzyl chloride	16.046	91	347452	53.84	ug/L	99
114) 1,4-dichlorobenzene	15.952	146	371188	49.90	ug/L	98
115) 1,2-dichlorobenzene	16.328	146	351885	51.02	ug/L	99
116) n-butylbenzene	16.234	92	364089	52.61	ug/L	96
117) 1,2-dibromo-3-chloropr...	17.087	157	34705	51.36	ug/L	95
118) 1,3,5-trichlorobenzene	17.280	180	327649	53.68	ug/L	98
119) 1,2,4-trichlorobenzene	17.918	180	277882	54.53	ug/L	100
120) hexachlorobutadiene	18.033	225	154061	55.01	ug/L	98
121) naphthalene	18.211	128	488596	55.74	ug/L	98
122) 1,2,3-trichlorobenzene	18.436	180	241451	55.17	ug/L	98
123) hexachloroethane	16.616	201	132147	56.48	ug/L	99
124) 2-ethylhexyl acrylate	17.950	70	31163	9.02	ug/L	95
125) 2-methylnaphthalene	19.446	142	123196	29.57	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201366.d
Acq On : 12 Mar 2020 12:45 pm
Operator : edwardd
Sample : JD4440-2msd Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:09:37 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Manual Integration Approval Summary

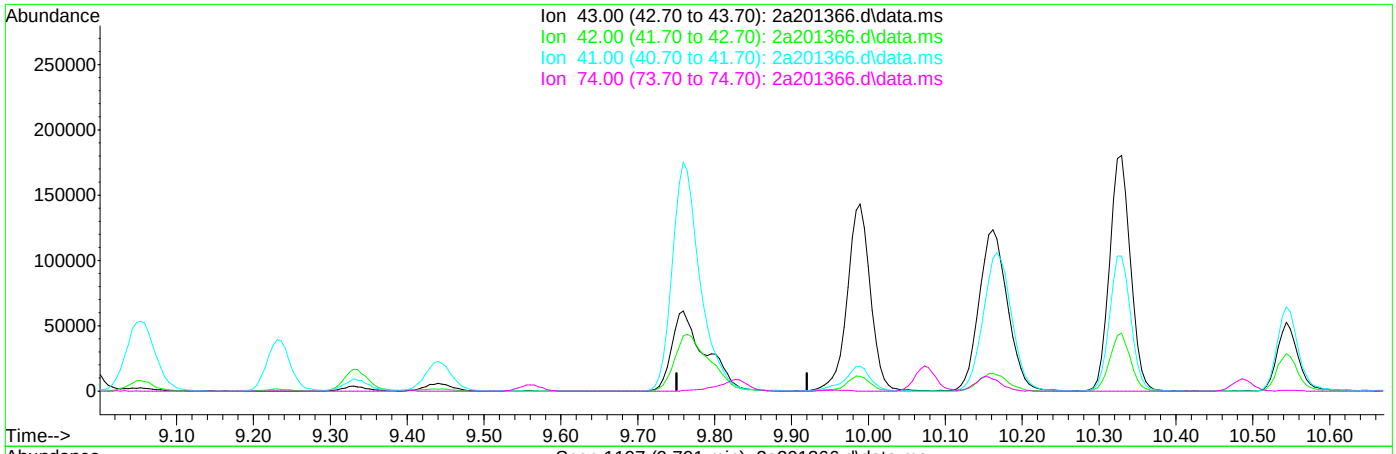
Sample Number:	JD4440-2MSD	**Method:**	SW846 8260C
Lab FileID:	2A201366.D	**Analyst approved:**	03/12/20 20:38 Janelle Cordova
Injection Time:	03/12/20 12:45	**Supervisor approved:**	03/13/20 14:40 MoHui Huang

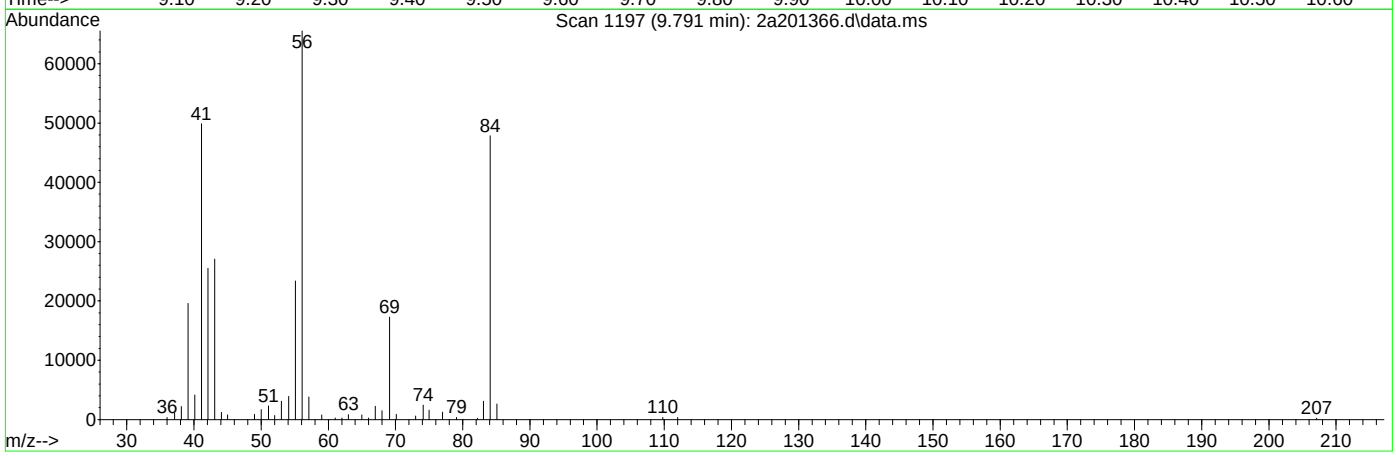
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		9.80	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201366.d
Acq On : 12 Mar 2020 12:45 pm
Operator : edwardd
Sample : JD4440-2msd Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 14:32:30 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration





TIC: 2a201366.d\data.ms

(44) isobutyl alcohol

9.790min (-9.790) 0.00ug/L

response 0

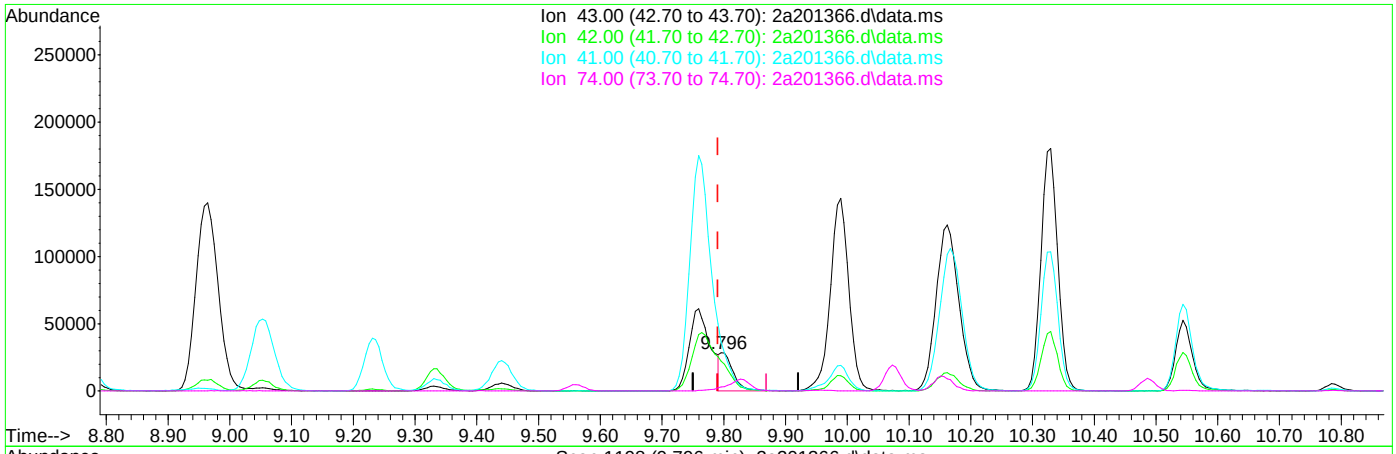
Ion	Exp%	Act%
43.00	100	0.00
42.00	79.70	0.00#
41.00	153.80	0.00#
74.00	7.60	0.00

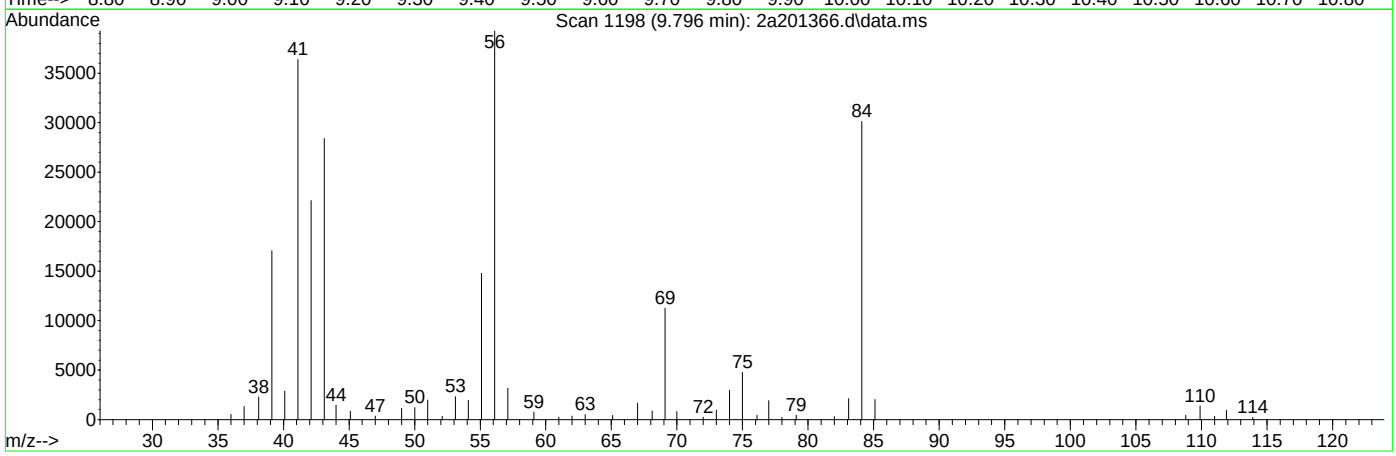
2A201366.D edits: isobutyl alcohol

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201366.d
Acq On : 12 Mar 2020 12:45 pm
Operator : edwardd
Sample : JD4440-2msd Inst : Instrument #1
Misc : MS41754,V2A8715,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 14:32:30 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration





TIC: 2a201366.d\data.ms

(44) isobutyl alcohol

9.796min (+0.005) 378.92ug/L m

response 42233

Ion	Exp%	Act%
43.00	100	100
42.00	79.70	77.92
41.00	153.80	128.11#
74.00	7.60	10.38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-16\v2a8717\
Data File : 2a201400.d
Acq On : 13 Mar 2020 2:52 pm
Operator : edwardd
Sample : JD4440-4ms Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 16 04:49:27 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.301	65	98754	500.00	ug/L		0.00
5) pentafluorobenzene	9.560	168	336814	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.486	114	498561	50.00	ug/L		0.00
74) chlorobenzene-d5	13.608	117	404671	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.931	152	208337	50.00	ug/L		0.00
128) pentafluorobenzene(a)	9.560	168	336814	50.00	ug/L		0.00
130) chlorobenzene-d5(a)	13.608	117	404671	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	9.591	113	157191	51.35	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.70%				
53) 1,2-dichloroethane-d4 (s)	10.010	65	160401	48.48	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.96%				
75) toluene-d8 (s)	12.107	98	520187	50.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%				
99) 4-bromofluorobenzene (s)	14.764	95	192838	49.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.18%				
Target Compounds							Qvalue
2) ethanol	6.019	45	143719	4835.30	ug/L		96
3) tertiary butyl alcohol	7.416	59	73173	257.13	ug/L		100
4) 1,4-dioxane	11.134	88	33102	1223.43	ug/L		90
6) chlorodifluoromethane	4.047	51	248610	52.59	ug/L		99
7) dichlorodifluoromethane	4.016	85	284597	56.13	ug/L		99
8) chloromethane	4.387	50	294503	48.13	ug/L		98
9) vinyl chloride	4.623	62	283385	48.63	ug/L		98
10) 1,3-butadiene	4.659	54	189025	55.55	ug/L		93
11) bromomethane	5.235	94	189789	49.46	ug/L		99
12) chloroethane	5.402	64	159111	53.21	ug/L		97
13) vinyl bromide	5.737	106	176216	57.42	ug/L		99
14) trichlorofluoromethane	5.862	101	367217	60.44	ug/L		99
15) ethyl ether	6.234	74	93044	45.78	ug/L		96
16) 2-chloropropane	6.448	63	84003	51.99	ug/L		98
17) acrolein	6.459	56	29311	54.38	ug/L		98
18) freon 113	6.663	151	163371	57.58	ug/L		98
19) 1,1-dichloroethene	6.652	96	175230	53.35	ug/L		95
20) acetone	6.657	43	140829	178.25	ug/L		98
21) acetonitrile	7.076	41	172051	427.23	ug/L		98
22) iodomethane	6.903	142	257747	50.50	ug/L		98
23) carbon disulfide	7.034	76	496675	49.84	ug/L		97
24) methylene chloride	7.353	84	189481	47.86	ug/L		96
25) methyl acetate	7.112	43	100445	41.56	ug/L		99
26) methyl tert butyl ether	7.709	73	476166	49.44	ug/L		97
27) trans-1,2-dichloroethene	7.740	96	190961	50.79	ug/L		92
28) hexane	8.090	57	316127	57.76	ug/L		99
29) di-isopropyl ether	8.300	45	610564	45.25	ug/L		98
30) ethyl tert-butyl ether	8.760	59	575493	46.88	ug/L		99
31) 2-butanone	8.959	72	60054	186.55	ug/L		91
32) 1,1-dichloroethane	8.315	63	334793	46.71	ug/L		99
33) chloroprene	8.415	53	278975	48.86	ug/L		98
34) acrylonitrile	7.651	53	53650	46.32	ug/L		94
35) vinyl acetate	8.253	86	33327	48.23	ug/L	#	81
36) ethyl acetate	8.969	45	21462	45.01	ug/L		96
37) 2,2-dichloropropane	9.053	77	286116	50.86	ug/L		99
38) cis-1,2-dichloroethene	9.027	96	219996	51.34	ug/L		96
39) propionitrile	9.037	54	166679	459.30	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-16\v2a8717\
Data File : 2a201400.d
Acq On : 13 Mar 2020 2:52 pm
Operator : edwardd
Sample : JD4440-4ms Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 16 04:49:27 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) bromochloromethane	9.314	130	131321	49.74	ug/L		94
41) tetrahydrofuran	9.330	42	294970	341.88	ug/L		95
42) chloroform	9.403	83	341850	49.36	ug/L		96
43) tert-butyl formate	9.440	59	49620	16.12	ug/L		99
44) isobutyl alcohol	9.795	43	54602	471.93	ug/L	#	89
46) methacrylonitrile	9.231	67	60421	46.95	ug/L		88
47) 1,1,1-trichloroethane	9.659	97	313362	51.99	ug/L		95
48) cyclohexane	9.769	84	318634	58.06	ug/L	#	82
49) 1,1-dichloropropene	9.827	75	268189	50.61	ug/L		99
50) tert-amyl alcohol	9.963	73	35358	249.17	ug/L	#	88
51) carbon tetrachloride	9.853	117	292461	53.31	ug/L		99
54) 2,2,4-trimethylpentane	10.172	57	725245	51.24	ug/L		98
55) tert-amyl methyl ether	10.156	73	555626	49.06	ug/L		97
56) n-butyl alcohol	10.543	56	183856	2396.33	ug/L		99
57) benzene	10.073	78	735624	48.75	ug/L		100
58) heptane	10.329	57	155037	51.48	ug/L		98
59) isopropyl acetate	9.994	87	34661	50.33	ug/L	#	81
60) 1,2-dichloroethane	10.099	62	238414	45.28	ug/L		99
61) trichloroethene	10.800	95	217401	55.47	ug/L		98
62) ethyl acrylate	10.789	55	193913	47.17	ug/L		99
63) 2-nitropropane	11.558	41	31452	42.28	ug/L		84
65) methyl methacrylate	11.051	100	41071	50.27	ug/L		95
66) 1,2-dichloropropane	11.087	63	194363	47.63	ug/L		97
67) methylcyclohexane	11.093	83	360203	57.81	ug/L		98
68) dibromomethane	11.192	93	111960	49.06	ug/L		97
69) bromodichloromethane	11.349	83	266111	50.40	ug/L		99
70) epichlorohydrin	11.673	57	59385	199.10	ug/L		94
71) cis-1,3-dichloropropene	11.804	75	315651	49.78	ug/L		96
72) 4-methyl-2-pentanone	11.908	58	218094	183.01	ug/L		98
73) 3-methyl-1-butanol	11.914	70	69827	993.13	ug/L		96
76) toluene	12.180	92	436935	50.53	ug/L		98
77) trans-1,3-dichloropropene	12.369	75	270288	52.22	ug/L		99
78) ethyl methacrylate	12.363	69	201460	51.29	ug/L		96
79) 1,1,2-trichloroethane	12.588	83	127219	50.29	ug/L		98
80) 2-hexanone	12.756	58	195658	192.22	ug/L		94
81) tetrachloroethene	12.730	166	211967	54.43	ug/L		97
82) 1,3-dichloropropane	12.766	76	245381	49.59	ug/L		99
83) butyl acetate	12.834	56	100025	48.07	ug/L		92
84) dibromochloromethane	13.012	129	193994	52.60	ug/L		100
85) 1,2-dibromoethane	13.164	107	176375	53.43	ug/L		98
86) n-butyl ether	13.603	57	747908	49.22	ug/L		99
87) chlorobenzene	13.640	112	481150	51.19	ug/L		99
88) 1,1,1,2-tetrachloroethane	13.708	131	192578	53.58	ug/L		97
89) ethylbenzene	13.702	91	792207	50.30	ug/L		99
90) m,p-xylene	13.823	106	618817	102.62	ug/L		97
91) o-xylene	14.220	91	638595	49.86	ug/L		99
92) styrene	14.231	104	491359	50.59	ug/L		99
93) n-amyl acetate	14.267	70	111467	50.74	ug/L		91
94) bromoform	14.456	173	122195	54.26	ug/L		99
95) butyl acrylate	14.058	55	330003	51.50	ug/L		98
96) isopropylbenzene	14.565	105	784512	51.29	ug/L		100
97) cis-1,4-dichloro-2-butene	14.607	88	64505	50.04	ug/L		96
100) bromobenzene	14.947	156	212984	51.42	ug/L		93
101) 1,1,2,2-tetrachloroethane	14.848	83	175997	49.26	ug/L		100
102) trans-1,4-dichloro-2-b...	14.879	53	42448	47.26	ug/L		96
103) 1,2,3-trichloropropane	14.932	110	44796	48.29	ug/L		94
104) n-propylbenzene	14.979	91	901192	50.01	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-16\v2a8717\
Data File : 2a201400.d
Acq On : 13 Mar 2020 2:52 pm
Operator : edwardd
Sample : JD4440-4ms Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 16 04:49:27 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

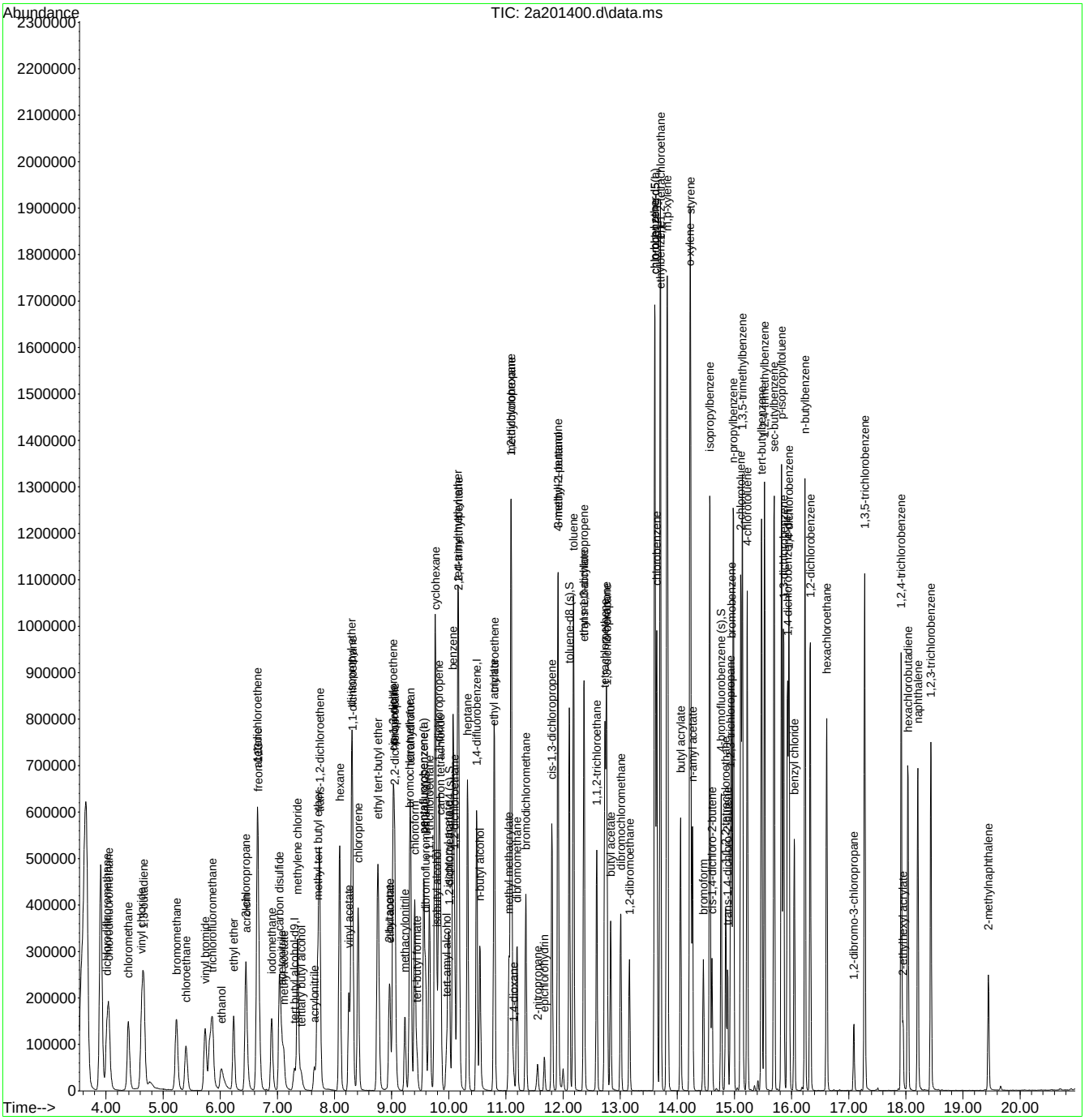
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 2-chlorotoluene	15.109	126	200305	50.95	ug/L	98
106) 4-chlorotoluene	15.224	91	549971	49.85	ug/L	99
107) 1,3,5-trimethylbenzene	15.141	105	651428	51.51	ug/L	98
108) tert-butylbenzene	15.475	119	557355	52.12	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	647683	51.24	ug/L	99
110) sec-butylbenzene	15.695	105	820151	50.56	ug/L	100
111) 1,3-dichlorobenzene	15.863	146	378228	50.50	ug/L	99
112) p-isopropyltoluene	15.826	119	699726	51.95	ug/L	99
113) benzyl chloride	16.046	91	355259	52.99	ug/L	98
114) 1,4-dichlorobenzene	15.951	146	384636	49.77	ug/L	97
115) 1,2-dichlorobenzene	16.328	146	366998	51.22	ug/L	99
116) n-butylbenzene	16.234	92	362471	50.41	ug/L	98
117) 1,2-dibromo-3-chloropr...	17.092	157	38237	54.46	ug/L	95
118) 1,3,5-trichlorobenzene	17.280	180	331169	52.22	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	275745	52.08	ug/L	97
120) hexachlorobutadiene	18.038	225	144151	49.54	ug/L	99
121) naphthalene	18.211	128	509816	55.98	ug/L	99
122) 1,2,3-trichlorobenzene	18.436	180	239400	52.66	ug/L	99
123) hexachloroethane	16.616	201	134417	55.30	ug/L	99
124) 2-ethylhexyl acrylate	17.949	70	32838	9.14	ug/L	93
125) 2-methylnaphthalene	19.445	142	127555	29.47	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-16\v2a8717\
Data File : 2a201400.d
Acq On : 13 Mar 2020 2:52 pm
Operator : edwardd
Sample : JD4440-4ms Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 16 04:49:27 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201448.d
Acq On : 16 Mar 2020 12:29 pm
Operator : edwardd
Sample : JD4593-8ms Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:51:14 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	81581	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	299035	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	439279	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	351375	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.925	152	182331	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	299035	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	351375	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	135911	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	137065	47.02	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.04%			
75) toluene-d8 (s)	12.107	98	458008	51.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.70%			
99) 4-bromofluorobenzene (s)	14.764	95	166583	48.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.90%			
Target Compounds						Qvalue
2) ethanol	6.019	45	126979	5171.39	ug/L	99
3) tertiary butyl alcohol	7.411	59	60233	256.21	ug/L	99
4) 1,4-dioxane	11.129	88	31650	1416.00	ug/L	92
6) chlorodifluoromethane	4.053	51	257643	61.39	ug/L	99
7) dichlorodifluoromethane	4.021	85	311525	69.20	ug/L	99
8) chloromethane	4.398	50	277098	51.01	ug/L	98
9) vinyl chloride	4.623	62	272471	52.66	ug/L	97
10) 1,3-butadiene	4.660	54	199959	66.19	ug/L	97
11) bromomethane	5.235	94	176810	51.90	ug/L	96
12) chloroethane	5.402	64	145051	54.64	ug/L	97
13) vinyl bromide	5.737	106	165666	60.80	ug/L	94
14) trichlorofluoromethane	5.857	101	346637	64.26	ug/L	95
15) ethyl ether	6.234	74	88499	49.05	ug/L	99
16) 2-chloropropane	6.448	63	78541	54.75	ug/L	92
17) acrolein	6.464	56	23646	49.42	ug/L	97
18) freon 113	6.657	151	169022	67.09	ug/L	99
19) 1,1-dichloroethene	6.652	96	170942	58.62	ug/L	95
20) acetone	6.657	43	121658	173.44	ug/L	98
21) acetonitrile	7.076	41	155220	434.13	ug/L	98
22) iodomethane	6.898	142	252502	55.73	ug/L	98
23) carbon disulfide	7.034	76	489420	55.32	ug/L	96
24) methylene chloride	7.353	84	179126	50.96	ug/L	97
25) methyl acetate	7.107	43	91993	42.87	ug/L	99
26) methyl tert butyl ether	7.709	73	440738	51.54	ug/L	96
27) trans-1,2-dichloroethene	7.740	96	176448	52.86	ug/L	93
28) hexane	8.091	57	347791	71.57	ug/L	98
29) di-isopropyl ether	8.300	45	563271	47.02	ug/L	98
30) ethyl tert-butyl ether	8.755	59	528695	48.51	ug/L	99
31) 2-butanone	8.959	72	50602	177.05	ug/L	100
32) 1,1-dichloroethane	8.310	63	311069	48.88	ug/L	99
33) chloroprene	8.415	53	261574	51.60	ug/L	97
34) acrylonitrile	7.646	53	48449	47.11	ug/L	95
35) vinyl acetate	8.247	86	29983	48.88	ug/L	99
36) ethyl acetate	8.969	45	18347	43.34	ug/L	94
37) 2,2-dichloropropane	9.053	77	271398	54.34	ug/L	97
38) cis-1,2-dichloroethene	9.022	96	191933	50.45	ug/L	98
39) propionitrile	9.037	54	145396	451.27	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201448.d
Acq On : 16 Mar 2020 12:29 pm
Operator : edwardd
Sample : JD4593-8ms Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:51:14 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) bromochloromethane	9.314	130	122595	52.30	ug/L		95
41) tetrahydrofuran	9.330	42	33027	43.12	ug/L		93
42) chloroform	9.403	83	312223	50.78	ug/L		97
43) tert-butyl formate	9.440	59	78369	28.67	ug/L		99
44) isobutyl alcohol	9.879	43	110	1.07	ug/L	#	62
46) methacrylonitrile	9.231	67	51980	45.50	ug/L		97
47) 1,1,1-trichloroethane	9.660	97	296355	55.39	ug/L		98
48) cyclohexane	9.764	84	305233	62.65	ug/L		86
49) 1,1-dichloropropene	9.827	75	249337	53.00	ug/L		98
50) tert-amyl alcohol	9.958	73	28770	228.36	ug/L		91
51) carbon tetrachloride	9.853	117	275966	56.66	ug/L		99
54) 2,2,4-trimethylpentane	10.172	57	830582	66.60	ug/L		97
55) tert-amyl methyl ether	10.157	73	491089	49.22	ug/L		98
56) n-butyl alcohol	10.544	56	149451	2210.78	ug/L		97
57) benzene	10.073	78	676619	50.89	ug/L		100
58) heptane	10.329	57	174554	65.78	ug/L		99
59) isopropyl acetate	9.989	87	29532	48.67	ug/L		97
60) 1,2-dichloroethane	10.099	62	216651	46.70	ug/L		99
61) trichloroethene	10.795	95	179790	52.07	ug/L		98
62) ethyl acrylate	10.784	55	162563	44.88	ug/L		98
63) 2-nitropropane	11.553	41	26150	39.90	ug/L		92
65) methyl methacrylate	11.051	100	34729	48.24	ug/L	#	87
66) 1,2-dichloropropane	11.088	63	174584	48.55	ug/L		97
67) methylcyclohexane	11.093	83	365341	66.55	ug/L		96
68) dibromomethane	11.192	93	99209	49.34	ug/L		99
69) bromodichloromethane	11.349	83	236916	50.92	ug/L		100
70) epichlorohydrin	11.673	57	54144	206.02	ug/L		94
71) cis-1,3-dichloropropene	11.804	75	280470	50.20	ug/L		97
72) 4-methyl-2-pentanone	11.909	58	181428	172.79	ug/L		94
73) 3-methyl-1-butanol	11.909	70	55902	902.38	ug/L		95
76) toluene	12.181	92	393883	52.46	ug/L		99
77) trans-1,3-dichloropropene	12.369	75	238878	53.15	ug/L		98
78) ethyl methacrylate	12.358	69	171198	50.19	ug/L		96
79) 1,1,2-trichloroethane	12.589	83	111735	50.87	ug/L		95
80) 2-hexanone	12.756	58	159211	180.14	ug/L		95
81) tetrachloroethene	12.730	166	192857	57.04	ug/L		99
82) 1,3-dichloropropane	12.766	76	211509	49.23	ug/L		99
83) butyl acetate	12.829	56	80362	44.48	ug/L		98
84) dibromochloromethane	13.007	129	172110	53.74	ug/L		100
85) 1,2-dibromoethane	13.159	107	154100	53.76	ug/L		98
86) n-butyl ether	13.603	57	655604	49.69	ug/L		98
87) chlorobenzene	13.640	112	428624	52.52	ug/L		97
88) 1,1,1,2-tetrachloroethane	13.703	131	170521	54.64	ug/L		99
89) ethylbenzene	13.703	91	707734	51.75	ug/L		99
90) m,p-xylene	13.823	106	556722	106.33	ug/L		97
91) o-xylene	14.220	91	568844	51.15	ug/L		99
92) styrene	14.231	104	443747	52.61	ug/L		98
93) n-amyl acetate	14.262	70	91262	47.85	ug/L		96
94) bromoform	14.456	173	106817	54.63	ug/L		98
95) butyl acrylate	14.053	55	268270	48.22	ug/L		99
96) isopropylbenzene	14.566	105	711492	53.58	ug/L		99
97) cis-1,4-dichloro-2-butene	14.607	88	56498	50.47	ug/L		98
100) bromobenzene	14.947	156	189981	52.40	ug/L		90
101) 1,1,2,2-tetrachloroethane	14.848	83	149376	47.77	ug/L		99
102) trans-1,4-dichloro-2-b...	14.879	53	36149	45.99	ug/L		94
103) 1,2,3-trichloropropane	14.932	110	37970	46.77	ug/L		95
104) n-propylbenzene	14.979	91	811578	51.46	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201448.d
Acq On : 16 Mar 2020 12:29 pm
Operator : edwardd
Sample : JD4593-8ms Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:51:14 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

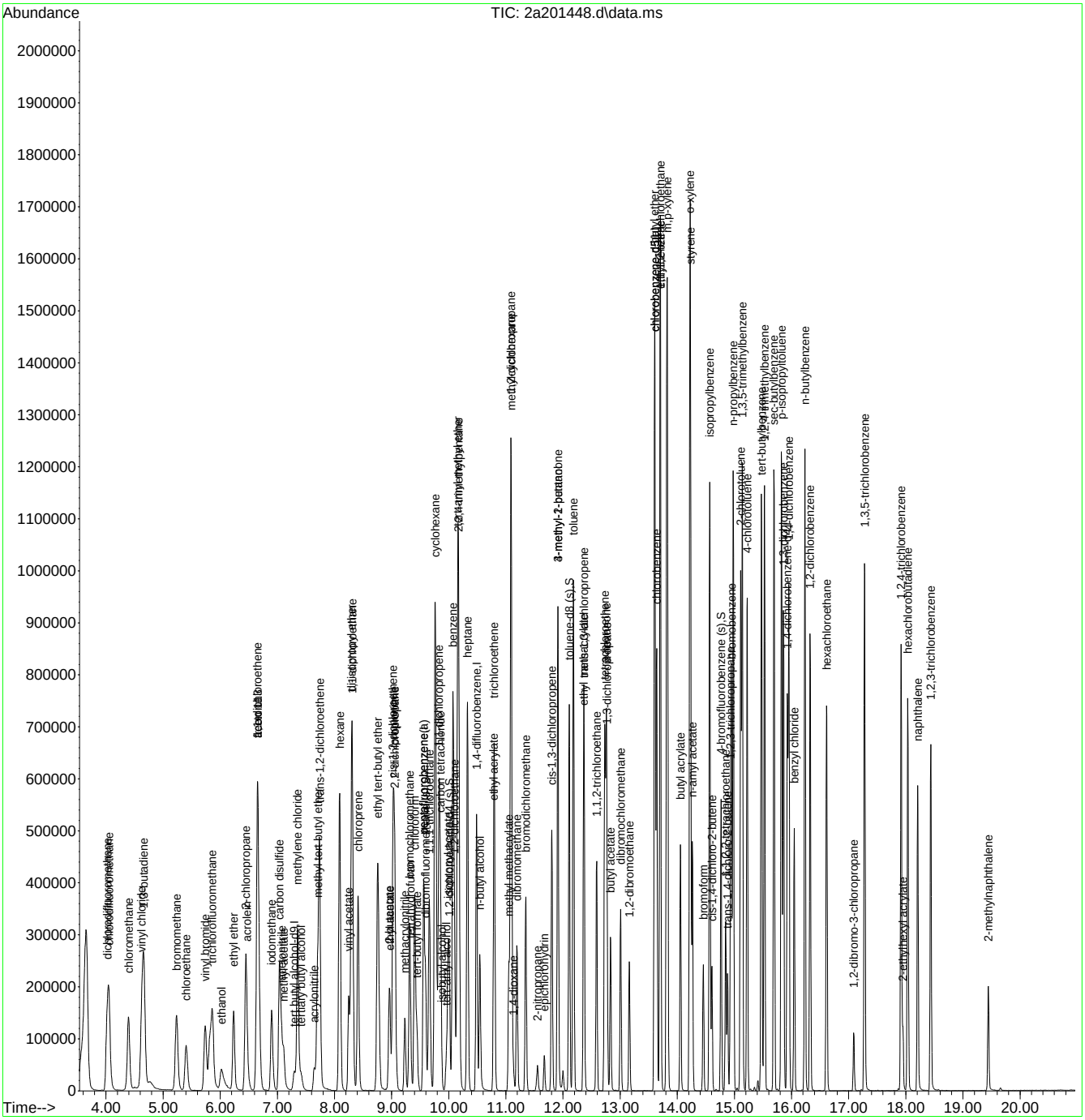
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 2-chlorotoluene	15.110	126	179577	52.20	ug/L	98
106) 4-chlorotoluene	15.225	91	494295	51.20	ug/L	98
107) 1,3,5-trimethylbenzene	15.136	105	596630	53.91	ug/L	99
108) tert-butylbenzene	15.476	119	516529	55.19	ug/L	98
109) 1,2,4-trimethylbenzene	15.528	105	591389	53.46	ug/L	100
110) sec-butylbenzene	15.690	105	763362	53.77	ug/L	99
111) 1,3-dichlorobenzene	15.858	146	344201	52.51	ug/L	98
112) p-isopropyltoluene	15.826	119	654129	55.50	ug/L	99
113) benzyl chloride	16.046	91	315894	53.84	ug/L	98
114) 1,4-dichlorobenzene	15.952	146	344558	50.95	ug/L	99
115) 1,2-dichlorobenzene	16.323	146	328740	52.42	ug/L	99
116) n-butylbenzene	16.234	92	338225	53.75	ug/L	96
117) 1,2-dibromo-3-chloropr...	17.087	157	30738	50.03	ug/L	95
118) 1,3,5-trichlorobenzene	17.280	180	307409	55.39	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	256229	55.29	ug/L	99
120) hexachlorobutadiene	18.033	225	149923	58.88	ug/L	99
121) naphthalene	18.206	128	430791	54.05	ug/L	98
122) 1,2,3-trichlorobenzene	18.436	180	213309	53.61	ug/L	95
123) hexachloroethane	16.616	201	126452	59.44	ug/L	98
124) 2-ethylhexyl acrylate	17.950	70	26772	8.58	ug/L	97
125) 2-methylnaphthalene	19.445	142	102881	27.16	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201448.d
Acq On : 16 Mar 2020 12:29 pm
Operator : edwardd
Sample : JD4593-8ms Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:51:14 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-16\v2a8717\
Data File : 2a201402.d
Acq On : 13 Mar 2020 3:50 pm
Operator : edwardd
Sample : JD4440-5dup Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 16 04:50:40 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

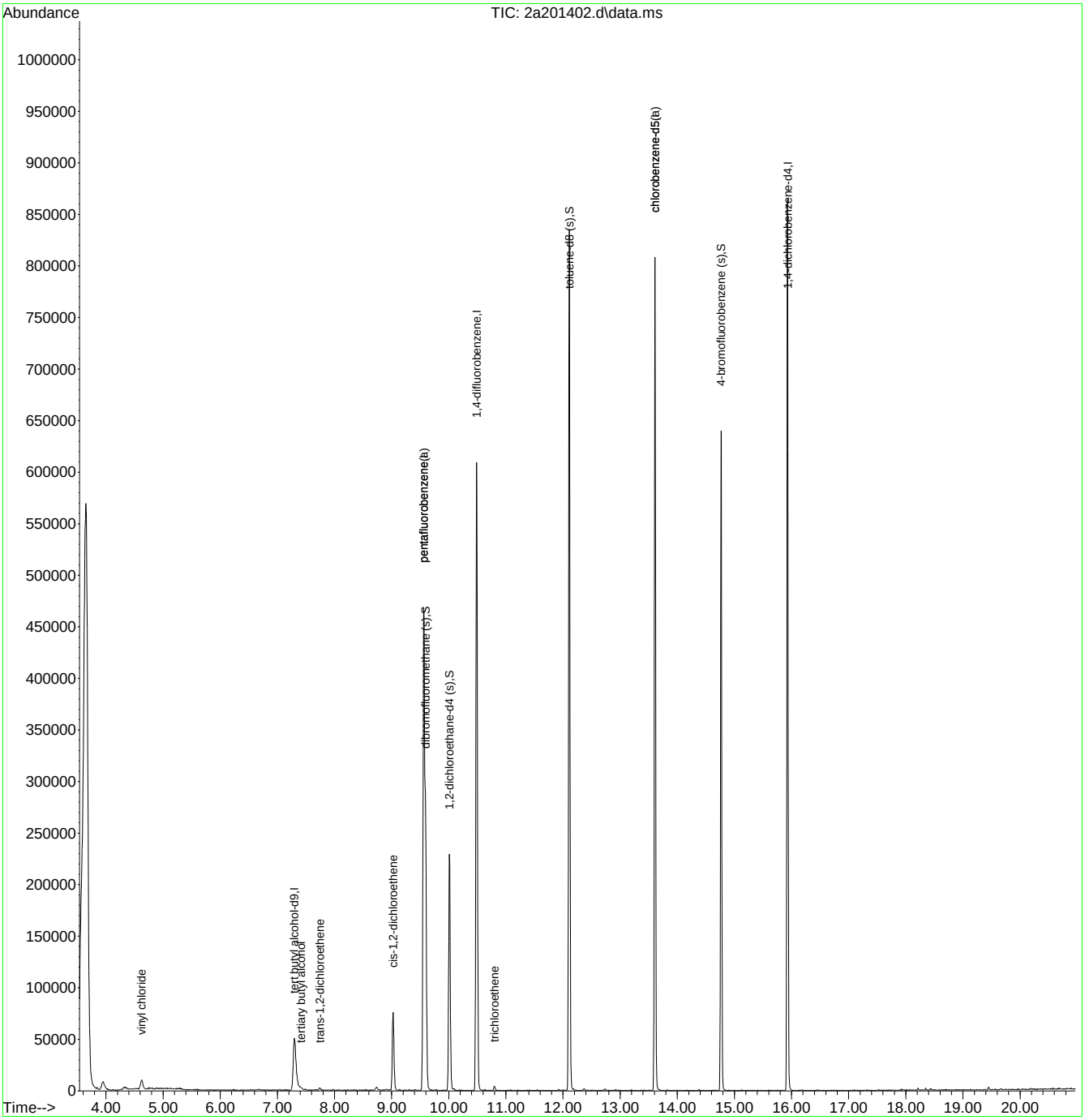
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	109879	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	343794	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	506901	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	412171	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	212952	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	343794	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	412171	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	157712	50.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.94%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	162542	48.32	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.64%			
75) toluene-d8 (s)	12.107	98	525985	50.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.54%			
99) 4-bromofluorobenzene (s)	14.764	95	197642	49.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.44%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	7.411	59	3326	10.50	ug/L	76
9) vinyl chloride	4.623	62	11845	1.99	ug/L	87
27) trans-1,2-dichloroethene	7.740	96	1192	0.31	ug/L #	66
38) cis-1,2-dichloroethene	9.027	96	38500	8.80	ug/L	95
61) trichloroethene	10.800	95	1446	0.36	ug/L	92

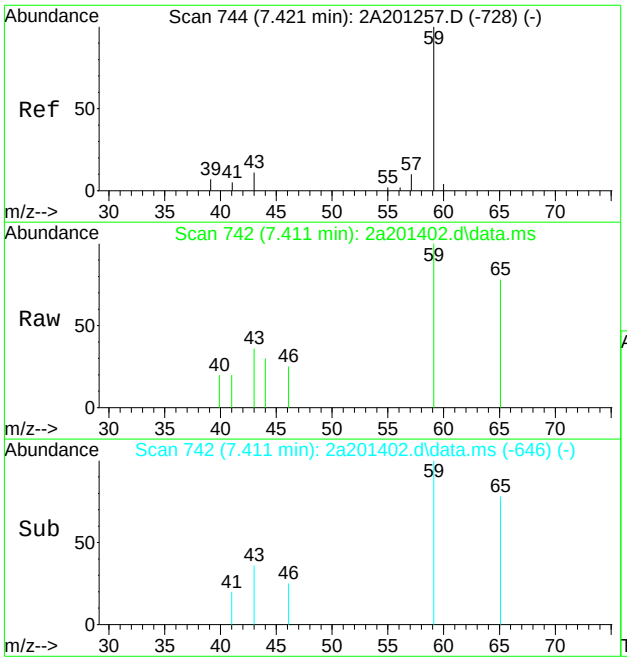
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-16\v2a8717\
Data File : 2a201402.d
Acq On : 13 Mar 2020 3:50 pm
Operator : edwardd
Sample : JD4440-5dup Inst : Instrument #1
Misc : MS41754,V2A8717,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 16 04:50:40 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

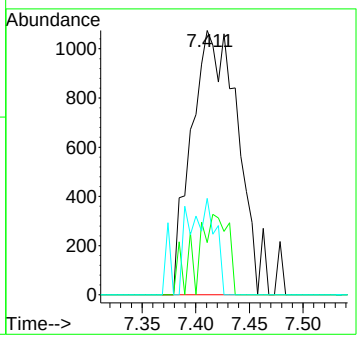


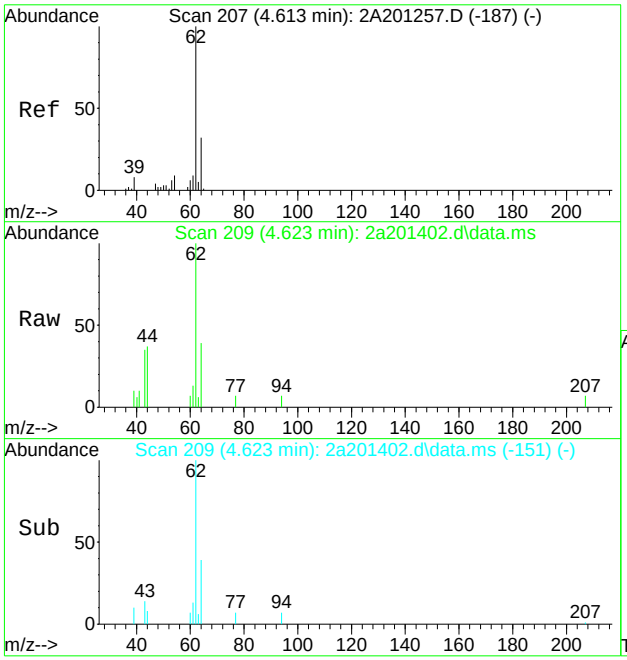


#3
tertiary butyl alcohol
Concen: 10.50 ug/L
RT: 7.411 min Scan# 742
Delta R.T. 0.000 min
Lab File: 2a201402.d
Acq: 13 Mar 2020 3:50 pm

Tgt Ion: 59 Resp: 3326

Ion	Ratio	Lower	Upper
59	100		
41	19.7	0.0	50.6
43	36.5	0.0	42.9

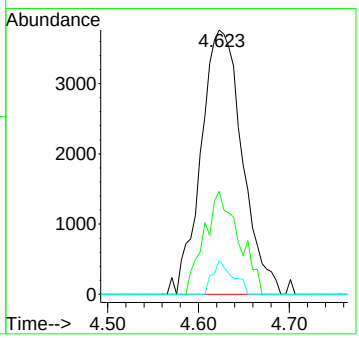


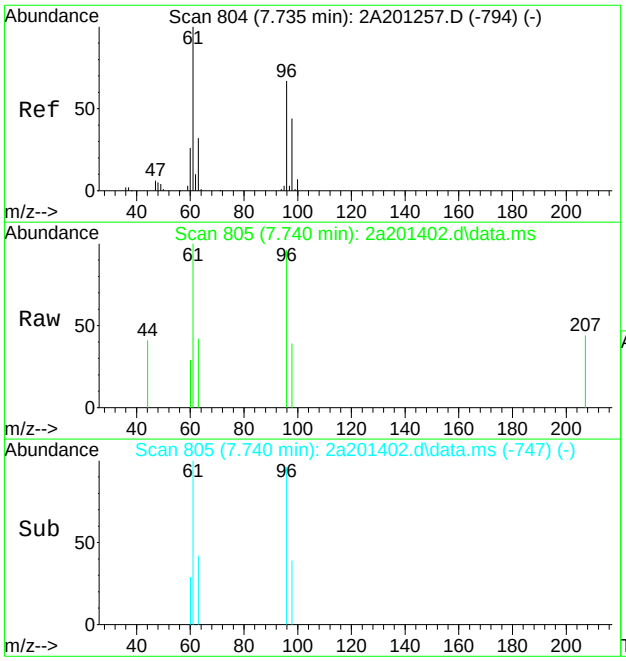


#9
vinyl chloride
Concen: 1.99 ug/L
RT: 4.623 min Scan# 209
Delta R.T. 0.005 min
Lab File: 2a201402.d
Acq: 13 Mar 2020 3:50 pm

Tgt Ion: 62 Resp: 11845

Ion	Ratio	Lower	Upper
62	100		
64	39.0	1.3	61.3
61	12.8	0.0	39.0

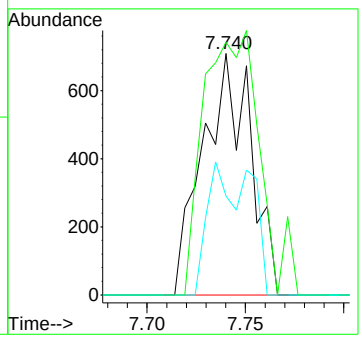


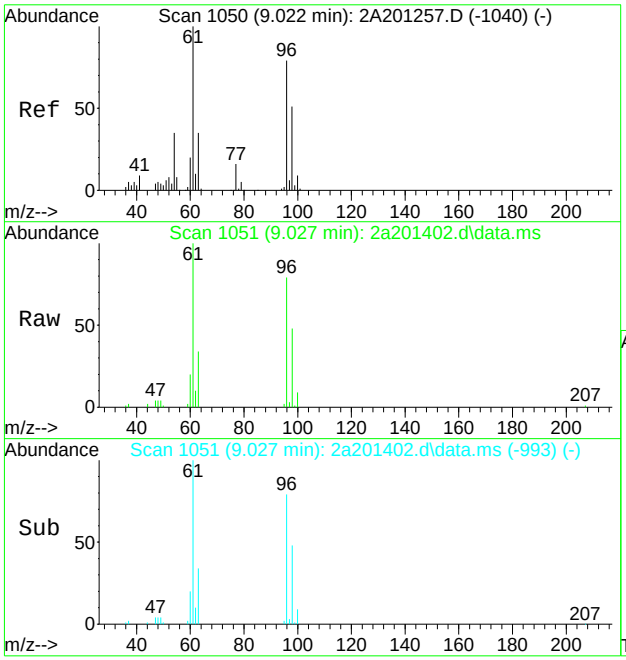


#27
trans-1,2-dichloroethene
Concen: 0.31 ug/L
RT: 7.740 min Scan# 805
Delta R.T. 0.005 min
Lab File: 2a201402.d
Acq: 13 Mar 2020 3:50 pm

Tgt Ion: 96 Resp: 1192

Ion	Ratio	Lower	Upper
96	100		
61	104.7	120.2	180.2#
98	40.9	33.4	93.4

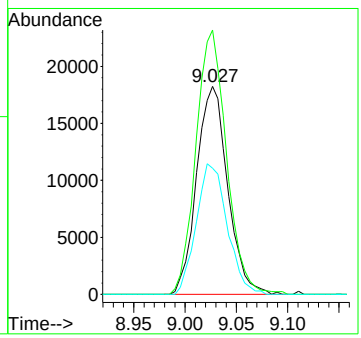


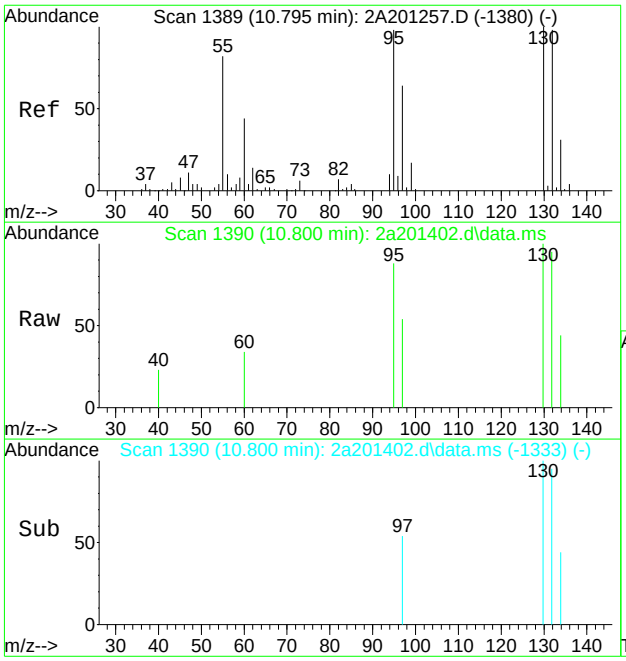


#38
cis-1,2-dichloroethene
Concen: 8.80 ug/L
RT: 9.027 min Scan# 1051
Delta R.T. 0.005 min
Lab File: 2a201402.d
Acq: 13 Mar 2020 3:50 pm

Tgt Ion: 96 Resp: 38500

Ion	Ratio	Lower	Upper
96	100		
61	127.1	104.7	164.7
98	60.7	32.8	92.8

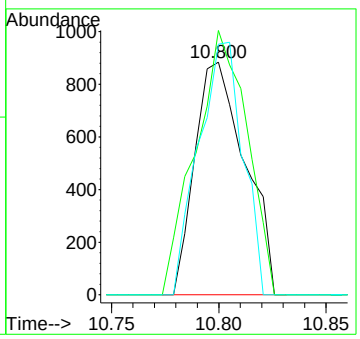




#61
trichloroethene
Concen: 0.36 ug/L
RT: 10.800 min Scan# 1390
Delta R.T. 0.000 min
Lab File: 2a201402.d
Acq: 13 Mar 2020 3:50 pm

Tgt Ion: 95 Resp: 1446

Ion	Ratio	Lower	Upper
95	100		
130	113.7	74.8	134.8
132	107.7	70.4	130.4



7.5.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201450.d
Acq On : 16 Mar 2020 1:27 pm
Operator : edwardd
Sample : JD4593-9dup Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:52:43 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

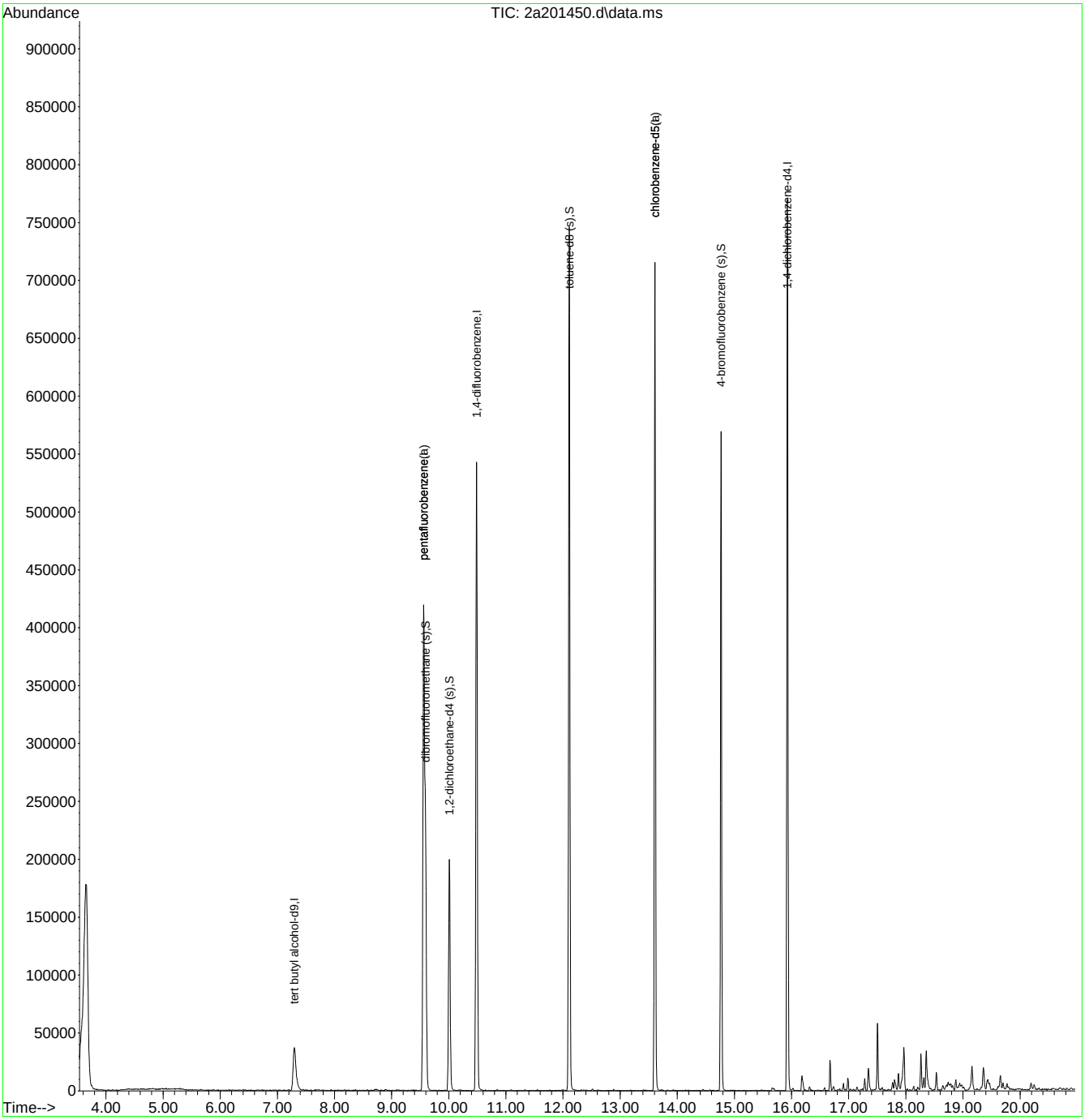
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.290	65	82551	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	307437	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	446622	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	370243	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.925	152	190833	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	307437	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	370243	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	138439	49.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	141331	47.69	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.38%			
75) toluene-d8 (s)	12.107	98	468144	49.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.62%			
99) 4-bromofluorobenzene (s)	14.764	95	171297	47.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.22%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201450.d
Acq On : 16 Mar 2020 1:27 pm
Operator : edwardd
Sample : JD4593-9dup Inst : Instrument #1
Misc : MS41798,V2A8720,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

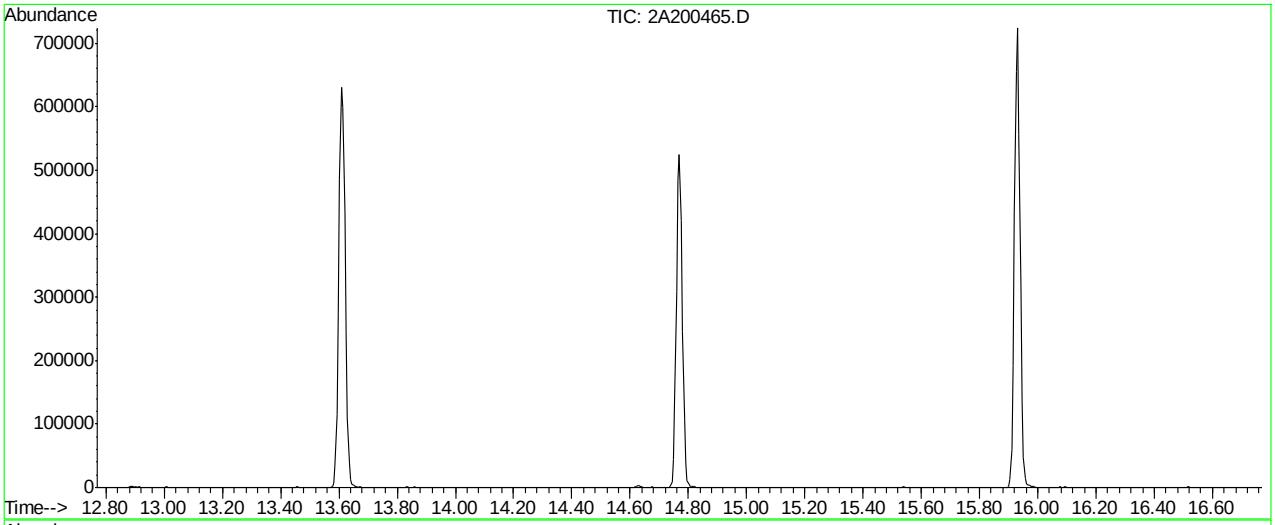
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:52:43 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

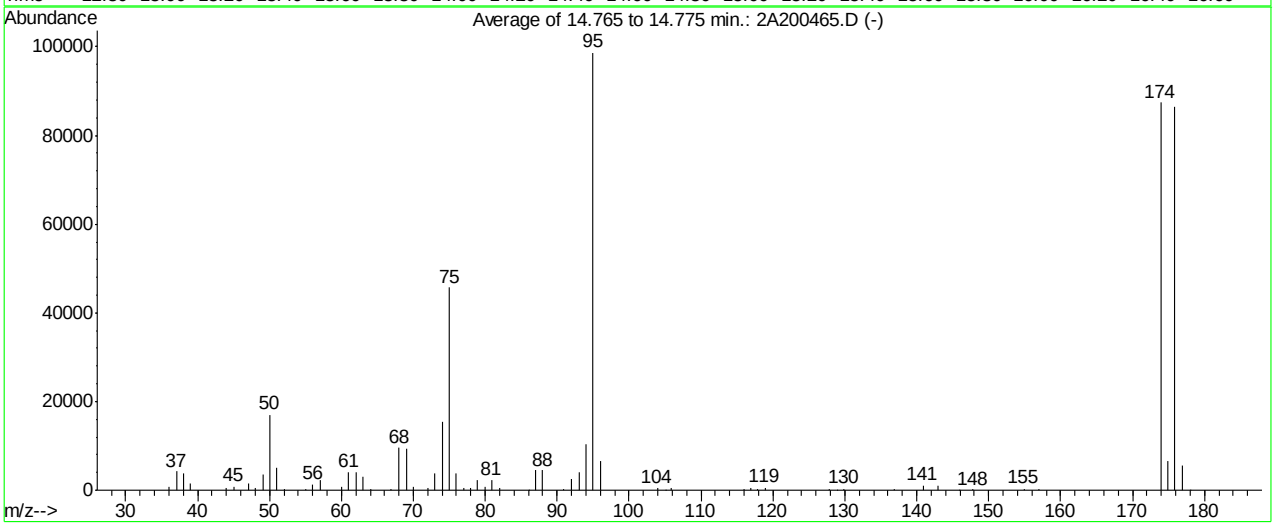


SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\V2A8671\2A200465.D Vial: 1
Acq On : 4 Feb 2020 3:37 pm Operator: CHELSEAS
Sample : BFB Inst : Instrumen
Misc : MS40388,V2A8671,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 09:46:56 2020





AutoFind: Scans 2148, 2149, 2150; Background Corrected with Scan 2140

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	17057	PASS
75	95	30	60	46.3	45730	PASS
95	95	100	100	100.0	98709	PASS
96	95	5	9	6.8	6674	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.6	87456	PASS
175	174	5	9	7.6	6650	PASS
176	174	95	101	98.9	86488	PASS
177	176	5	9	6.5	5598	PASS

2A200465.D M2A8671.M Thu Feb 06 10:36:12 2020 MS2A

Average of 14.765 to 14.775 min.: 2A200465.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	841	52.00	161	69.00	9247	80.90	2297
37.05	4268	55.00	245	70.00	650	81.95	482
38.05	3858	56.00	1289	72.00	434	86.00	76
39.05	1505	57.00	2292	73.00	3827	87.00	4486
44.00	589	60.00	721	74.00	15409	88.00	4507
45.05	801	61.00	4155	75.00	45730	90.95	374
47.05	1474	62.00	3974	76.00	3737	92.00	2487
48.05	605	63.05	3107	77.00	540	93.00	3981
49.05	3470	64.00	274	77.90	488	94.00	10491
50.00	17057	66.95	248	78.90	2403	95.00	98709
51.05	4954	68.00	9539	79.95	726	96.00	6674

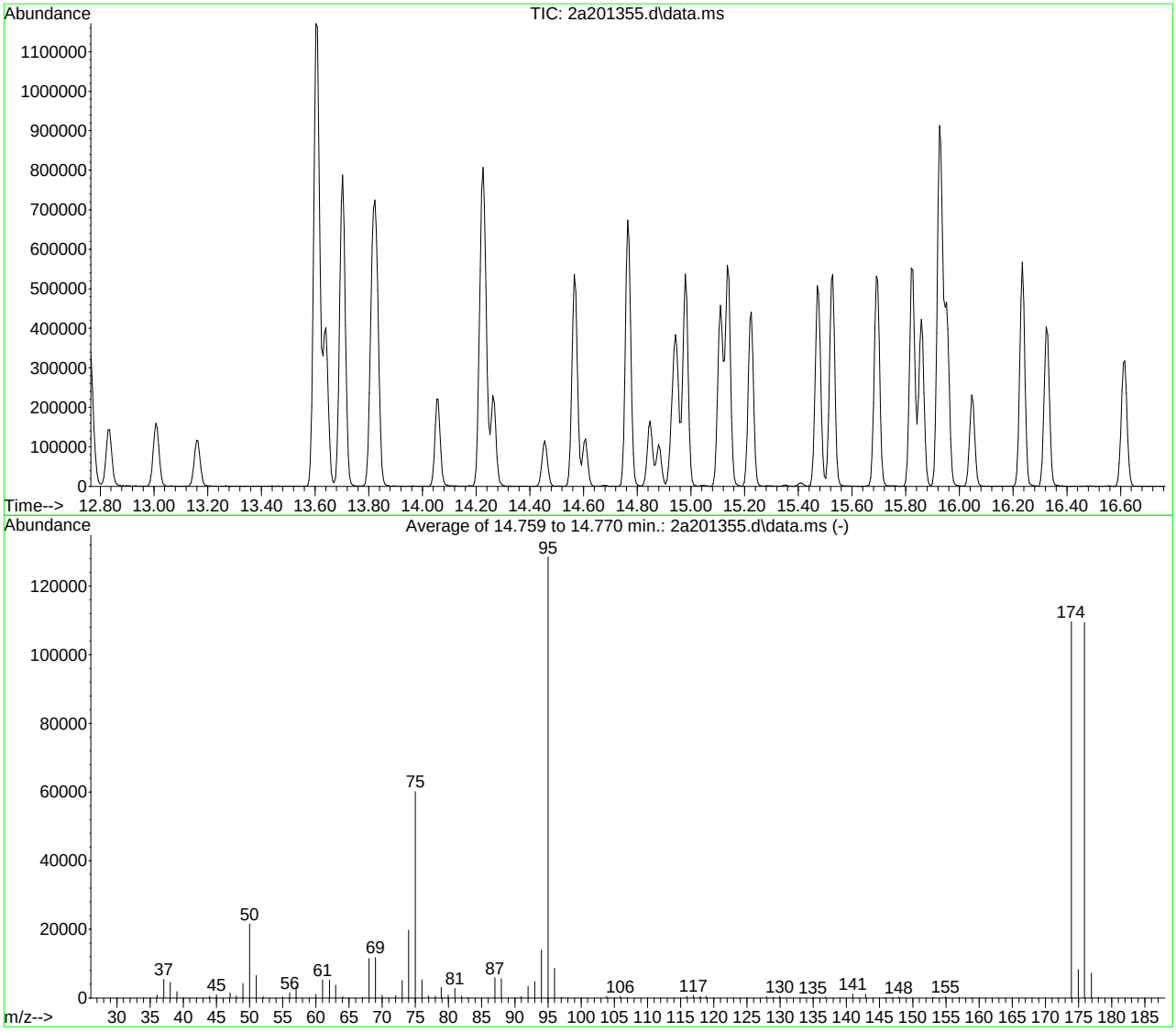
Average of 14.765 to 14.775 min.: 2A200465.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.95	492	140.90	1021				
105.00	75	142.90	959				
105.90	432	145.90	93				
115.95	373	147.85	168				
116.95	521	154.95	280				
117.85	348	156.90	177				
118.90	575	173.90	87456				
127.85	364	174.90	6650				
128.90	78	175.90	86488				
129.90	373	176.90	5598				
136.80	140	178.00	86				

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...20\v2a8715\2a201355.d Vial: 2
Acq On : 12 Mar 2020 7:15 am Operator: edwardd
Sample : BFB Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020



AutoFind: Scans 2147, 2148, 2149; Background Corrected with Scan 2139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	21624	PASS
75	95	30	60	46.8	60139	PASS
95	95	100	100	100.0	128440	PASS
96	95	5	9	6.8	8685	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	85.3	109587	PASS
175	174	5	9	7.6	8300	PASS
176	174	95	101	99.8	109408	PASS
177	176	5	9	6.6	7205	PASS

2a201355.d M2A8671.M Thu Mar 12 19:33:07 2020

Average of 14.759 to 14.770 min.: 2a201355.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	886	51.00	6573	68.00	11500	79.95	854
37.05	5400	52.05	313	69.00	11804	80.95	2826
38.05	4563	54.95	297	70.00	805	81.95	539
39.05	1847	56.05	1560	72.05	721	82.90	67
40.10	94	57.00	3330	73.00	5068	86.00	69
43.95	521	60.00	991	74.00	19728	87.00	5864
45.00	970	61.00	5319	75.00	60139	87.95	5679
47.05	1479	62.05	5241	76.00	5307	90.95	437
48.00	628	63.00	3679	76.95	628	92.00	3423
49.00	4248	64.05	362	78.00	559	93.00	4790
50.00	21624	67.10	114	78.90	3022	94.00	13972

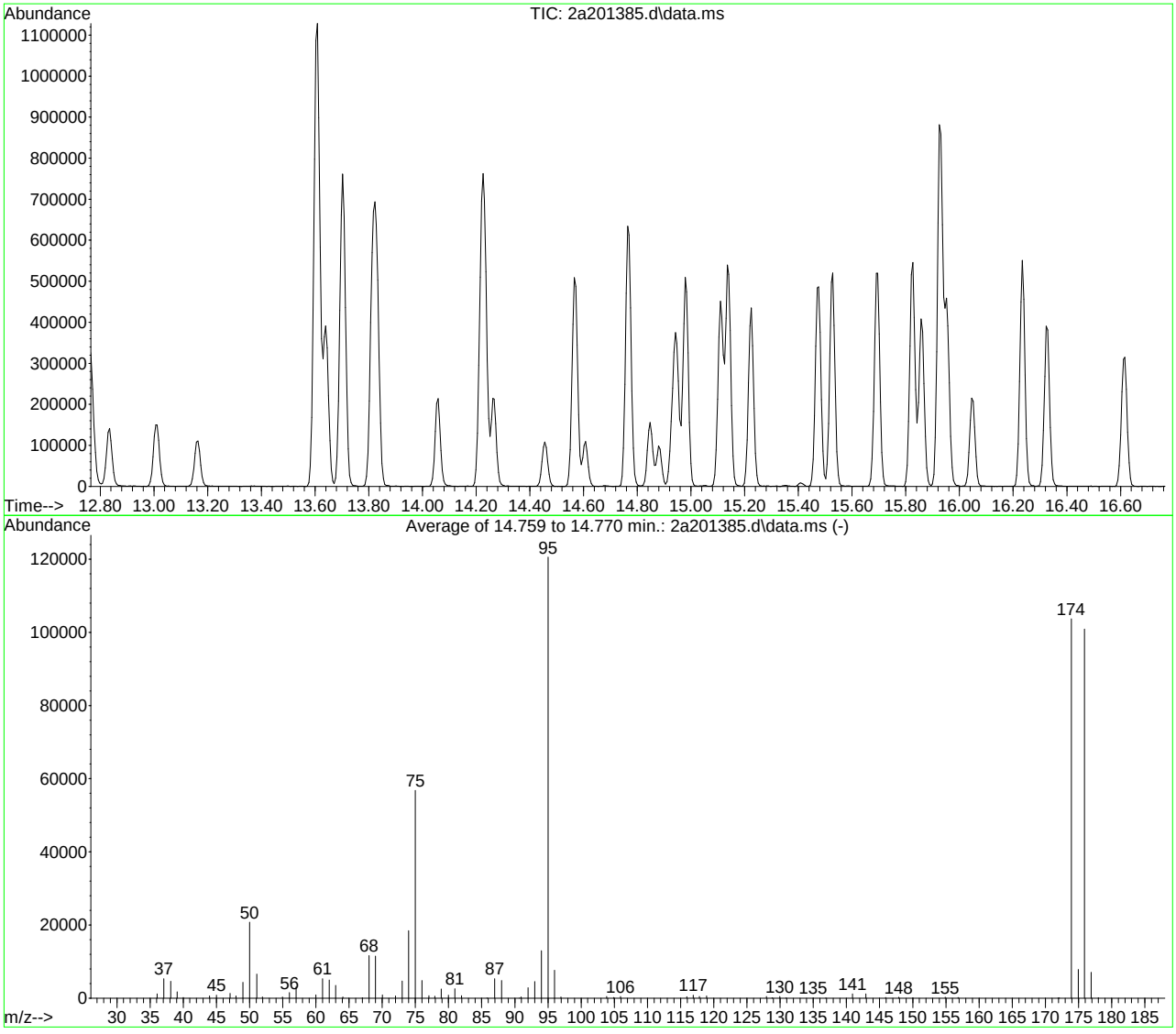
Average of 14.759 to 14.770 min.: 2a201355.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	128440	128.95	178	156.95	186		
96.00	8685	129.95	488	158.90	72		
97.05	231	134.95	229	173.90	109587		
103.85	497	136.85	246	174.95	8300		
105.90	522	140.95	1169	175.90	109408		
106.90	75	142.90	1093	176.95	7205		
115.95	472	145.80	67	178.00	98		
116.95	773	146.90	77				
117.95	446	147.90	298				
118.85	553	153.10	91				
127.95	427	154.95	317				

SW-846 Method 8260

Data File : C:\msdchem\1\data\lo...a8717-rush\2a201385.d Vial: 2
Acq On : 13 Mar 2020 7:14 am Operator: edwardd
Sample : BFB Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020



AutoFind: Scans 2147, 2148, 2149; Background Corrected with Scan 2139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	20763	PASS
75	95	30	60	47.1	56797	PASS
95	95	100	100	100.0	120555	PASS
96	95	5	9	6.3	7601	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.1	103747	PASS
175	174	5	9	7.5	7805	PASS
176	174	95	101	97.2	100877	PASS
177	176	5	9	7.0	7071	PASS

2a201385.d M2A8671.M Fri Mar 13 14:59:05 2020

Average of 14.759 to 14.770 min.: 2a201385.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1137	51.10	6545	68.00	11603	80.00	847
37.05	5323	51.95	285	69.00	11470	80.95	2546
38.10	4581	54.95	344	70.05	854	81.95	641
39.10	1695	56.00	1519	72.00	605	85.80	70
40.00	166	57.00	3088	73.00	4665	86.95	5336
43.95	578	60.00	873	74.00	18479	88.00	4821
45.00	815	61.00	5311	75.00	56797	90.70	75
47.05	1309	62.00	4945	76.00	4821	90.95	319
47.95	629	63.00	3463	77.05	698	92.00	2883
49.00	4346	64.05	321	77.95	559	93.00	4560
50.00	20763	67.00	97	78.90	2501	94.00	12958

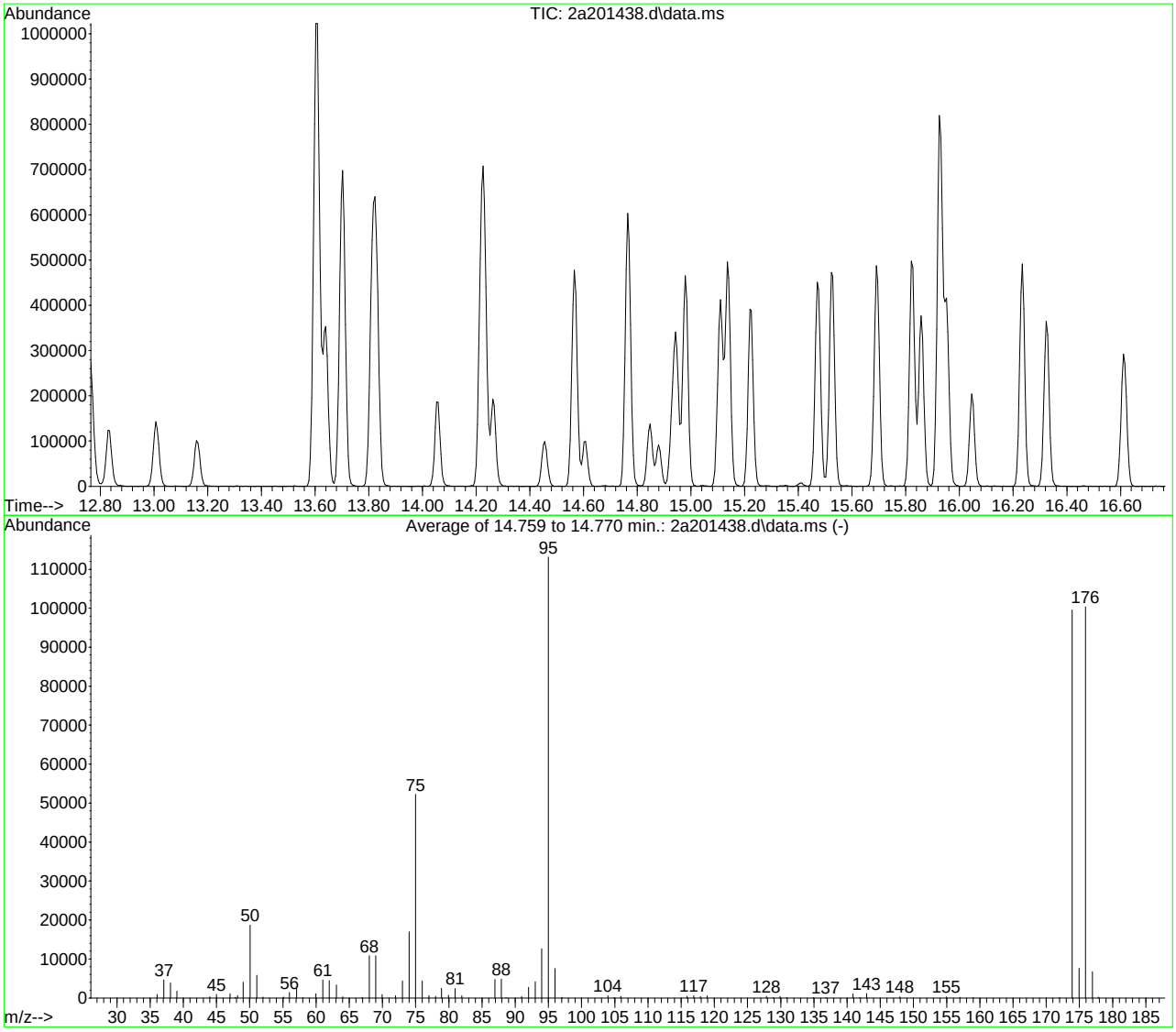
Average of 14.759 to 14.770 min.: 2a201385.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	120555	128.80	80	156.85	152		
96.00	7601	129.95	445	171.90	71		
96.95	289	130.90	67	172.10	77		
103.85	443	135.00	70	173.90	103747		
104.90	212	136.90	68	174.95	7805		
105.95	464	140.90	1170	175.90	100877		
115.95	384	142.95	1136	176.90	7071		
116.90	828	145.90	156	178.00	85		
117.85	445	147.90	231				
118.90	577	150.00	89				
127.95	437	154.90	270				

SW-846 Method 8260

```
Data File : C:\msdchem\1\data\lo...17\v2a8720\2a201438.d Vial: 2
Acq On    : 16 Mar 2020   7:16 am                    Operator: payalr
Sample    : BFB                                     Inst    : Instrument #1
Misc      : MS41791,V2A8720,w,,,,1                  Multiplr: 1.00
MS Integration Params: lscint.p

Method    : C:\MSDCHEM\1\METHODS\M2A8671.M (RTE Integrator)
Title     : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
```



AutoFind: Scans 2147, 2148, 2149; Background Corrected with Scan 2139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	18723	PASS
75	95	30	60	46.2	52227	PASS
95	95	100	100	100.0	113112	PASS
96	95	5	9	6.7	7568	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.0	99528	PASS
175	174	5	9	7.7	7615	PASS
176	174	95	101	100.8	100349	PASS
177	176	5	9	6.8	6775	PASS

2a201438.d M2A8671.M Tue Mar 17 08:24:52 2020

Average of 14.759 to 14.770 min.: 2a201438.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	893	51.05	5832	66.95	169	78.90	2457
37.05	4631	52.00	256	68.00	10870	79.95	667
38.05	3884	55.10	206	69.00	10832	80.95	2389
39.05	1763	56.00	1436	69.95	890	81.95	576
44.00	304	57.05	2487	71.95	555	86.95	4703
45.00	907	58.00	73	73.00	4400	87.90	4847
47.05	1111	59.95	1118	74.00	16953	88.60	164
47.80	152	61.00	4675	75.00	52227	90.95	399
48.15	617	62.00	4449	76.00	4382	92.00	2738
49.00	4061	63.05	3327	77.00	614	93.00	4191
50.05	18723	64.05	331	78.00	430	94.00	12645

Average of 14.759 to 14.770 min.: 2a201438.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	113112	128.90	91	159.00	74		
96.00	7568	129.90	353	172.00	69		
97.05	190	130.90	77	173.90	99528		
103.95	538	134.90	72	174.95	7615		
104.90	76	136.80	104	175.90	100349		
105.90	455	140.90	1062	176.95	6775		
115.90	408	141.90	68	177.85	224		
116.90	556	142.95	1148				
117.90	388	147.95	279				
118.90	535	154.95	296				
127.85	416	157.00	159				

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200466.D
Acq On : 4 Feb 2020 4:12 pm
Operator : CHELSEAS
Sample : IC8671-0.2
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 06 10:37:59 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:46:28 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	7.30	65	70091	500.00	ug/L		0.00
5) pentafluorobenzene	9.57	168	235657	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.49	114	352000	50.00	ug/L		0.00
74) chlorobenzene-d5	13.61	117	308321	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.93	152	157267	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	9.60	113	107388	50.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.50%				
53) 1,2-dichloroethane-d4 (s)	10.02	65	117497	50.58	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.16%				
75) toluene-d8 (s)	12.11	98	382638	48.82	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.64%				
99) 4-bromofluorobenzene (s)	14.77	95	147437	49.54	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%				
Target Compounds							Qvalue
26) methyl tert butyl ether	7.71	73	1194	0.18	ug/L		54
29) di-isopropyl ether	8.30	45	1773	0.19	ug/L		75
30) ethyl tert-butyl ether	8.76	59	1693	0.20	ug/L		92
42) chloroform	9.40	83	988	0.21	ug/L		73
55) tert-amyl methyl ether	10.17	73	1508	0.19	ug/L	#	51
57) benzene	10.08	78	2004	0.19	ug/L		81
69) bromodichloromethane	11.35	83	683	0.18	ug/L		78
76) toluene	12.19	92	1282	0.20	ug/L		88
77) trans-1,3-dichloropropene	12.38	75	744	0.18	ug/L	#	51
86) n-butyl ether	13.61	57	2009	0.17	ug/L	#	1
87) chlorobenzene	13.65	112	1260	0.18	ug/L		89
89) ethylbenzene	13.71	91	2108	0.18	ug/L		90
90) m,p-xylene	13.83	106	1551	0.34	ug/L		100
91) o-xylene	14.23	91	1915	0.20	ug/L		100
92) styrene	14.25	104	1191	0.16	ug/L		86
96) isopropylbenzene	14.57	105	2080	0.18	ug/L		95
100) bromobenzene	14.95	156	538	0.17	ug/L	#	72
104) n-propylbenzene	14.98	91	2592	0.19	ug/L		97
106) 4-chlorotoluene	15.23	91	1450	0.18	ug/L		88
107) 1,3,5-trimethylbenzene	15.15	105	1733	0.18	ug/L		92
108) tert-butylbenzene	15.48	119	1364	0.16	ug/L		90
109) 1,2,4-trimethylbenzene	15.53	105	1710	0.18	ug/L		70
110) sec-butylbenzene	15.70	105	2285	0.18	ug/L		92
111) 1,3-dichlorobenzene	15.87	146	967	0.17	ug/L	#	74
112) p-isopropyltoluene	15.83	119	1797	0.17	ug/L		94
114) 1,4-dichlorobenzene	15.96	146	1192	0.21	ug/L		92
115) 1,2-dichlorobenzene	16.33	146	881	0.16	ug/L		97
116) n-butylbenzene	16.24	92	960	0.17	ug/L	#	80
118) 1,3,5-trichlorobenzene	17.28	180	762	0.15	ug/L	#	76
119) 1,2,4-trichlorobenzene	17.92	180	725	0.17	ug/L	#	73
120) hexachlorobutadiene	18.04	225	365	0.16	ug/L	#	55
122) 1,2,3-trichlorobenzene	18.44	180	618	0.17	ug/L	#	62

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200466.D
Acq On : 4 Feb 2020 4:12 pm
Operator : CHELSEAS
Sample : IC8671-0.2
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 06 10:37:59 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:46:28 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

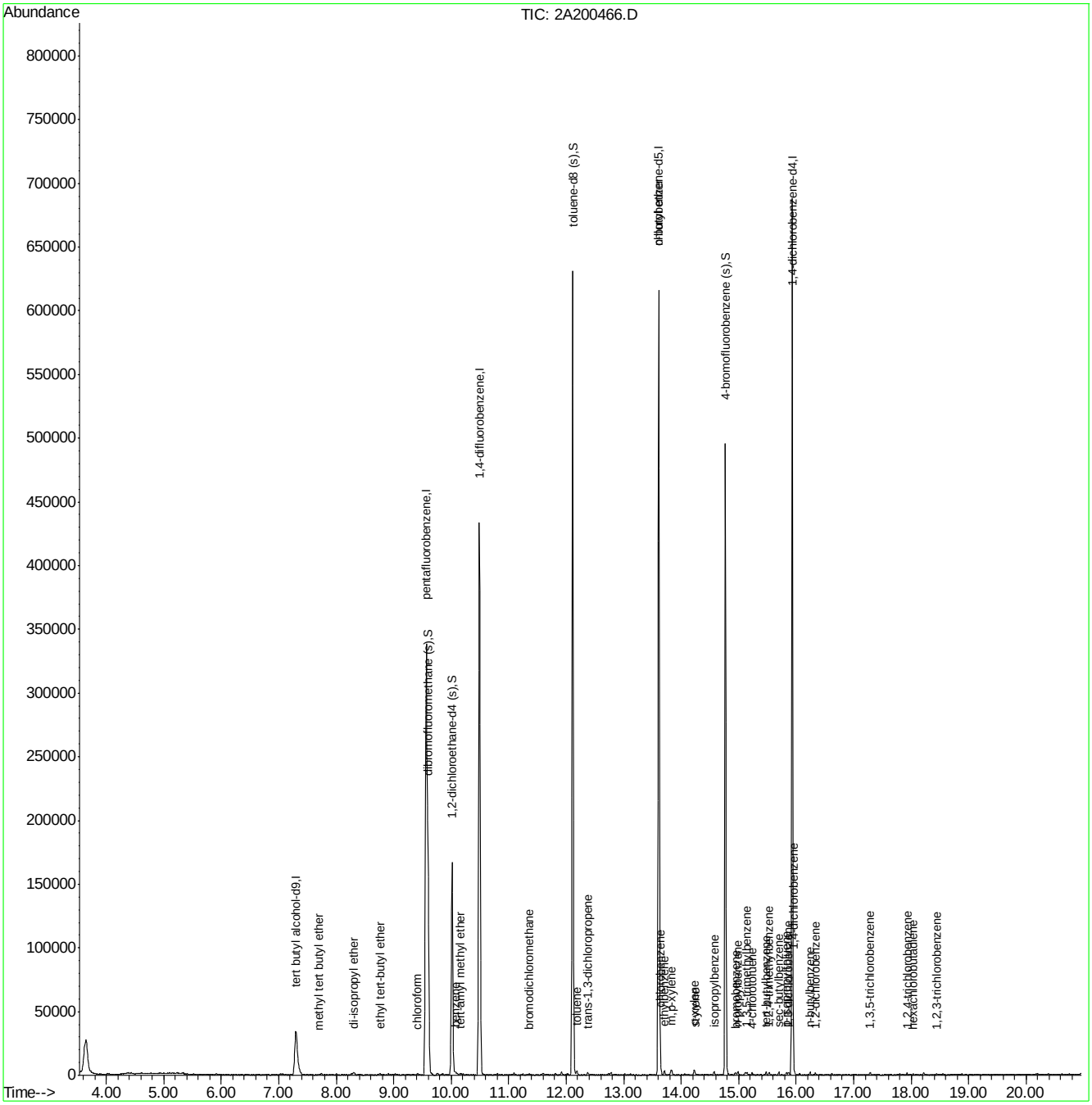
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200466.D
Acq On : 4 Feb 2020 4:12 pm
Operator : CHELSEAS
Sample : IC8671-0.2
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 06 10:37:59 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:46:28 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200467.D
Acq On : 4 Feb 2020 4:41 pm
Operator : CHELSEAS
Sample : IC8671-0.5
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 10:39:22 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	7.30	65	69786	500.00	ug/L		0.00
5) pentafluorobenzene	9.57	168	233962	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.49	114	350226	50.00	ug/L		0.00
74) chlorobenzene-d5	13.61	117	300716	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.93	152	154091	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	9.59	113	106514	50.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%				
53) 1,2-dichloroethane-d4 (s)	10.02	65	116432	50.37	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.74%				
75) toluene-d8 (s)	12.11	98	379626	49.66	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.32%				
99) 4-bromofluorobenzene (s)	14.77	95	144333	49.50	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.05	51	1534	0.47	ug/L		65
8) chloromethane	4.39	50	2113	0.51	ug/L		92
9) vinyl chloride	4.63	62	1802	0.44	ug/L		68
12) chloroethane	5.41	64	1072	0.51	ug/L		47
13) vinyl bromide	5.74	106	895	0.40	ug/L		92
19) 1,1-dichloroethene	6.66	96	923	0.40	ug/L	#	68
24) methylene chloride	7.36	84	1330	0.50	ug/L		89
26) methyl tert butyl ether	7.71	73	3101	0.47	ug/L		77
27) trans-1,2-dichloroethene	7.75	96	1160	0.46	ug/L		91
29) di-isopropyl ether	8.30	45	4498	0.48	ug/L		86
30) ethyl tert-butyl ether	8.76	59	4115	0.49	ug/L		95
32) 1,1-dichloroethane	8.32	63	2431	0.50	ug/L		83
33) chloroprene	8.42	53	1766	0.44	ug/L		97
37) 2,2-dichloropropane	9.06	77	1955	0.52	ug/L		82
42) chloroform	9.41	83	2192	0.46	ug/L		90
47) 1,1,1-trichloroethane	9.66	97	1898	0.45	ug/L		91
49) 1,1-dichloropropene	9.84	75	1792	0.49	ug/L	#	76
55) tert-amyl methyl ether	10.16	73	3749	0.47	ug/L		92
57) benzene	10.07	78	5688	0.55	ug/L		92
60) 1,2-dichloroethane	10.10	62	1989	0.56	ug/L		86
61) trichloroethene	10.79	95	1280	0.47	ug/L		78
64) 2-chloroethyl vinyl ether	11.59	63	2518	2.00	ug/L		83
66) 1,2-dichloropropane	11.09	63	1296	0.45	ug/L		90
69) bromodichloromethane	11.35	83	1695	0.45	ug/L		93
71) cis-1,3-dichloropropene	11.81	75	1944	0.43	ug/L		92
72) 4-methyl-2-pentanone	11.91	58	1525	1.82	ug/L	#	79
76) toluene	12.19	92	3196	0.51	ug/L		89
77) trans-1,3-dichloropropene	12.37	75	1682	0.43	ug/L		84
79) 1,1,2-trichloroethane	12.59	83	851	0.45	ug/L		90
81) tetrachloroethene	12.74	166	1359	0.48	ug/L		95
82) 1,3-dichloropropane	12.78	76	1682	0.46	ug/L		87
84) dibromochloromethane	13.01	129	1326	0.47	ug/L		97
85) 1,2-dibromoethane	13.17	107	1075	0.42	ug/L		81

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200467.D
Acq On : 4 Feb 2020 4:41 pm
Operator : CHELSEAS
Sample : IC8671-0.5
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 10:39:22 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

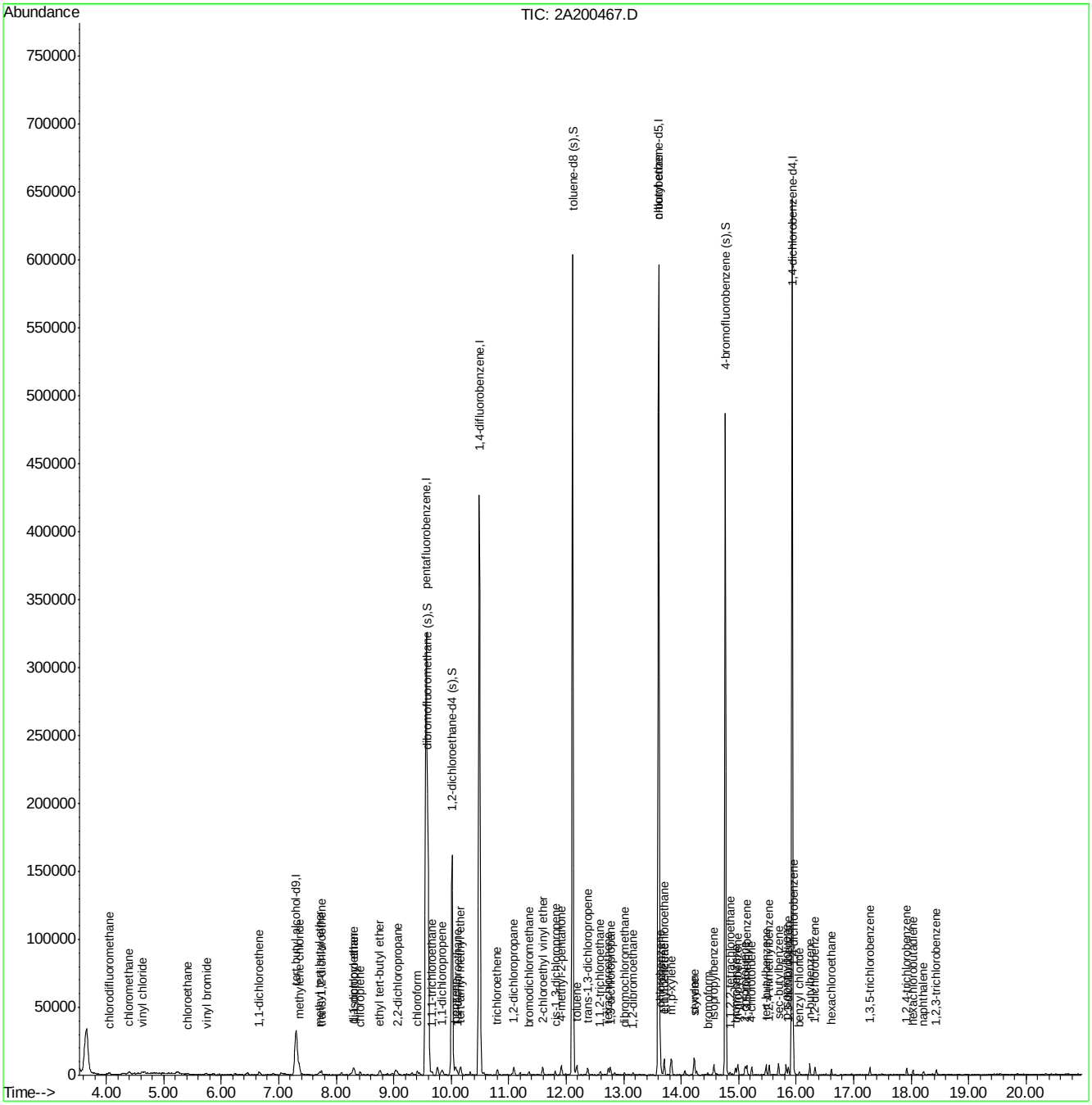
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
86) n-butyl ether	13.61	57	5101	0.44 ug/L #	1
87) chlorobenzene	13.65	112	3445	0.49 ug/L	98
88) 1,1,1,2-tetrachloroethane	13.71	131	1260	0.47 ug/L	97
89) ethylbenzene	13.70	91	5974	0.52 ug/L	98
90) m,p-xylene	13.82	106	4497	1.00 ug/L	96
91) o-xylene	14.22	91	4739	0.51 ug/L	97
92) styrene	14.24	104	3402	0.46 ug/L	97
94) bromoform	14.46	173	762	0.43 ug/L	93
96) isopropylbenzene	14.57	105	5569	0.49 ug/L	94
100) bromobenzene	14.95	156	1501	0.48 ug/L #	81
101) 1,1,2,2-tetrachloroethane	14.85	83	1133	0.42 ug/L	84
104) n-propylbenzene	14.98	91	6467	0.49 ug/L	94
105) 2-chlorotoluene	15.11	126	1338	0.46 ug/L	98
106) 4-chlorotoluene	15.22	91	4019	0.50 ug/L	82
107) 1,3,5-trimethylbenzene	15.14	105	4446	0.47 ug/L	82
108) tert-butylbenzene	15.48	119	3814	0.47 ug/L	93
109) 1,2,4-trimethylbenzene	15.53	105	4375	0.46 ug/L	86
110) sec-butylbenzene	15.70	105	5715	0.47 ug/L	95
111) 1,3-dichlorobenzene	15.86	146	2712	0.48 ug/L	92
112) p-isopropyltoluene	15.83	119	4649	0.45 ug/L	98
113) benzyl chloride	16.05	91	2258	0.44 ug/L	95
114) 1,4-dichlorobenzene	15.96	146	2835	0.50 ug/L	96
115) 1,2-dichlorobenzene	16.33	146	2660	0.50 ug/L	84
116) n-butylbenzene	16.24	92	2465	0.45 ug/L	99
118) 1,3,5-trichlorobenzene	17.28	180	2163	0.44 ug/L	85
119) 1,2,4-trichlorobenzene	17.92	180	1587	0.38 ug/L	89
120) hexachlorobutadiene	18.04	225	1004	0.45 ug/L	87
121) naphthalene	18.21	128	2735	0.37 ug/L	85
122) 1,2,3-trichlorobenzene	18.44	180	1584	0.44 ug/L	92
123) hexachloroethane	16.61	201	757	0.40 ug/L #	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200467.D
Acq On : 4 Feb 2020 4:41 pm
Operator : CHELSEAS
Sample : IC8671-0.5
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 10:39:22 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200468.D
Acq On : 4 Feb 2020 5:09 pm
Operator : CHELSEAS
Sample : IC8671-1
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 06 10:41:01 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	7.30	65	69939	500.00	ug/L		0.00
5) pentafluorobenzene	9.57	168	235904	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.49	114	348368	50.00	ug/L		0.00
74) chlorobenzene-d5	13.61	117	301936	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.93	152	155350	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	9.59	113	106877	49.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.92%				
53) 1,2-dichloroethane-d4 (s)	10.01	65	116707	50.76	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.52%				
75) toluene-d8 (s)	12.11	98	382382	49.82	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.64%				
99) 4-bromofluorobenzene (s)	14.77	95	146338	49.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.56%				
Target Compounds							Qvalue
2) ethanol	6.03	45	1607	75.71	ug/L	#	38
6) chlorodifluoromethane	4.05	51	3301	1.00	ug/L		87
7) dichlorodifluoromethane	4.02	85	2342	0.63	ug/L		90
8) chloromethane	4.39	50	4678	1.11	ug/L		82
9) vinyl chloride	4.62	62	4077	0.99	ug/L		90
10) 1,3-butadiene	4.66	54	2167	0.91	ug/L		94
11) bromomethane	5.22	94	3257	1.28	ug/L		71
12) chloroethane	5.40	64	2035	0.97	ug/L		75
13) vinyl bromide	5.74	106	1930	0.86	ug/L		75
15) ethyl ether	6.23	74	1322	0.93	ug/L		89
19) 1,1-dichloroethene	6.65	96	2224	0.95	ug/L	#	79
20) acetone	6.66	43	1969	3.58	ug/L		89
22) iodomethane	6.89	142	3325	0.95	ug/L		95
24) methylene chloride	7.35	84	2747	1.02	ug/L		85
26) methyl tert butyl ether	7.71	73	6799	1.01	ug/L		98
27) trans-1,2-dichloroethene	7.74	96	2691	1.05	ug/L	#	76
28) hexane	8.09	57	2862	0.70	ug/L		94
29) di-isopropyl ether	8.30	45	9564	1.02	ug/L		95
30) ethyl tert-butyl ether	8.75	59	8560	1.01	ug/L		97
32) 1,1-dichloroethane	8.32	63	5074	1.04	ug/L		92
33) chloroprene	8.41	53	3810	0.94	ug/L		99
37) 2,2-dichloropropane	9.04	77	3655	0.96	ug/L		95
38) cis-1,2-dichloroethene	9.03	96	2778	0.95	ug/L		92
39) propionitrile	9.04	54	2081	8.14	ug/L		83
40) bromochloromethane	9.31	130	1607	0.87	ug/L		92
42) chloroform	9.41	83	4794	1.01	ug/L		98
47) 1,1,1-trichloroethane	9.65	97	4030	0.95	ug/L		86
49) 1,1-dichloropropene	9.83	75	3430	0.93	ug/L		93
51) carbon tetrachloride	9.85	117	3585	0.94	ug/L	#	82
54) 2,2,4-trimethylpentane	10.17	57	8045	0.77	ug/L		92
55) tert-amyl methyl ether	10.16	73	7915	1.00	ug/L		97
57) benzene	10.08	78	10404	1.01	ug/L		96
58) heptane	10.33	57	1615	0.72	ug/L		86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200468.D
Acq On : 4 Feb 2020 5:09 pm
Operator : CHELSEAS
Sample : IC8671-1
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 06 10:41:01 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
60) 1,2-dichloroethane	10.10	62	3758	1.07 ug/L		85
61) trichloroethene	10.80	95	2669	0.98 ug/L		90
62) ethyl acrylate	10.79	55	2399	0.81 ug/L		81
64) 2-chloroethyl vinyl ether	11.59	63	5785	4.62 ug/L		96
66) 1,2-dichloropropane	11.09	63	2794	0.97 ug/L		98
67) methylcyclohexane	11.09	83	3283	0.71 ug/L		98
68) dibromomethane	11.20	93	1384	0.86 ug/L		84
69) bromodichloromethane	11.35	83	3649	0.98 ug/L		92
71) cis-1,3-dichloropropene	11.81	75	4091	0.90 ug/L		96
72) 4-methyl-2-pentanone	11.91	58	3233	3.87 ug/L	#	83
76) toluene	12.19	92	6519	1.04 ug/L		91
77) trans-1,3-dichloropropene	12.38	75	3532	0.89 ug/L		99
78) ethyl methacrylate	12.36	69	2465	0.82 ug/L		95
79) 1,1,2-trichloroethane	12.59	83	1648	0.87 ug/L		92
80) 2-hexanone	12.76	58	2656	3.44 ug/L	#	87
81) tetrachloroethene	12.73	166	2897	1.01 ug/L		93
82) 1,3-dichloropropane	12.77	76	3659	1.00 ug/L		93
84) dibromochloromethane	13.01	129	2476	0.88 ug/L		96
85) 1,2-dibromoethane	13.16	107	2151	0.85 ug/L		94
86) n-butyl ether	13.60	57	11071	0.95 ug/L	#	59
87) chlorobenzene	13.64	112	7046	1.01 ug/L		96
88) 1,1,1,2-tetrachloroethane	13.71	131	2410	0.89 ug/L		92
89) ethylbenzene	13.70	91	12119	1.05 ug/L		95
90) m,p-xylene	13.82	106	8578	1.89 ug/L		99
91) o-xylene	14.22	91	9272	0.99 ug/L		98
92) styrene	14.24	104	6921	0.93 ug/L		98
93) n-amyl acetate	14.27	70	1329	0.79 ug/L	#	81
94) bromoform	14.46	173	1437	0.82 ug/L		94
95) butyl acrylate	14.06	55	4050	0.81 ug/L		85
96) isopropylbenzene	14.57	105	11473	1.01 ug/L		99
100) bromobenzene	14.95	156	2800	0.90 ug/L		95
101) 1,1,2,2-tetrachloroethane	14.85	83	2450	0.90 ug/L		96
104) n-propylbenzene	14.98	91	13377	1.00 ug/L		98
105) 2-chlorotoluene	15.11	126	2869	0.98 ug/L		97
106) 4-chlorotoluene	15.22	91	8209	1.00 ug/L		98
107) 1,3,5-trimethylbenzene	15.14	105	9122	0.95 ug/L		96
108) tert-butylbenzene	15.48	119	7908	0.97 ug/L		86
109) 1,2,4-trimethylbenzene	15.53	105	8959	0.94 ug/L		96
110) sec-butylbenzene	15.70	105	11871	0.97 ug/L		96
111) 1,3-dichlorobenzene	15.86	146	5453	0.97 ug/L		98
112) p-isopropyltoluene	15.83	119	9771	0.95 ug/L		98
113) benzyl chloride	16.05	91	4552	0.88 ug/L		93
114) 1,4-dichlorobenzene	15.95	146	5569	0.98 ug/L		100
115) 1,2-dichlorobenzene	16.33	146	5161	0.96 ug/L		95
116) n-butylbenzene	16.23	92	5036	0.91 ug/L		92
117) 1,2-dibromo-3-chloropropan	17.10	157	443	0.80 ug/L		82
118) 1,3,5-trichlorobenzene	17.28	180	4446	0.89 ug/L		95
119) 1,2,4-trichlorobenzene	17.92	180	3538	0.84 ug/L		92
120) hexachlorobutadiene	18.03	225	2066	0.91 ug/L		93
121) naphthalene	18.21	128	5876	0.79 ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200468.D
Acq On : 4 Feb 2020 5:09 pm
Operator : CHELSEAS
Sample : IC8671-1
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 06 10:41:01 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
122) 1,2,3-trichlorobenzene	18.45	180	3116	0.86	ug/L	80
123) hexachloroethane	16.62	201	1666	0.87	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

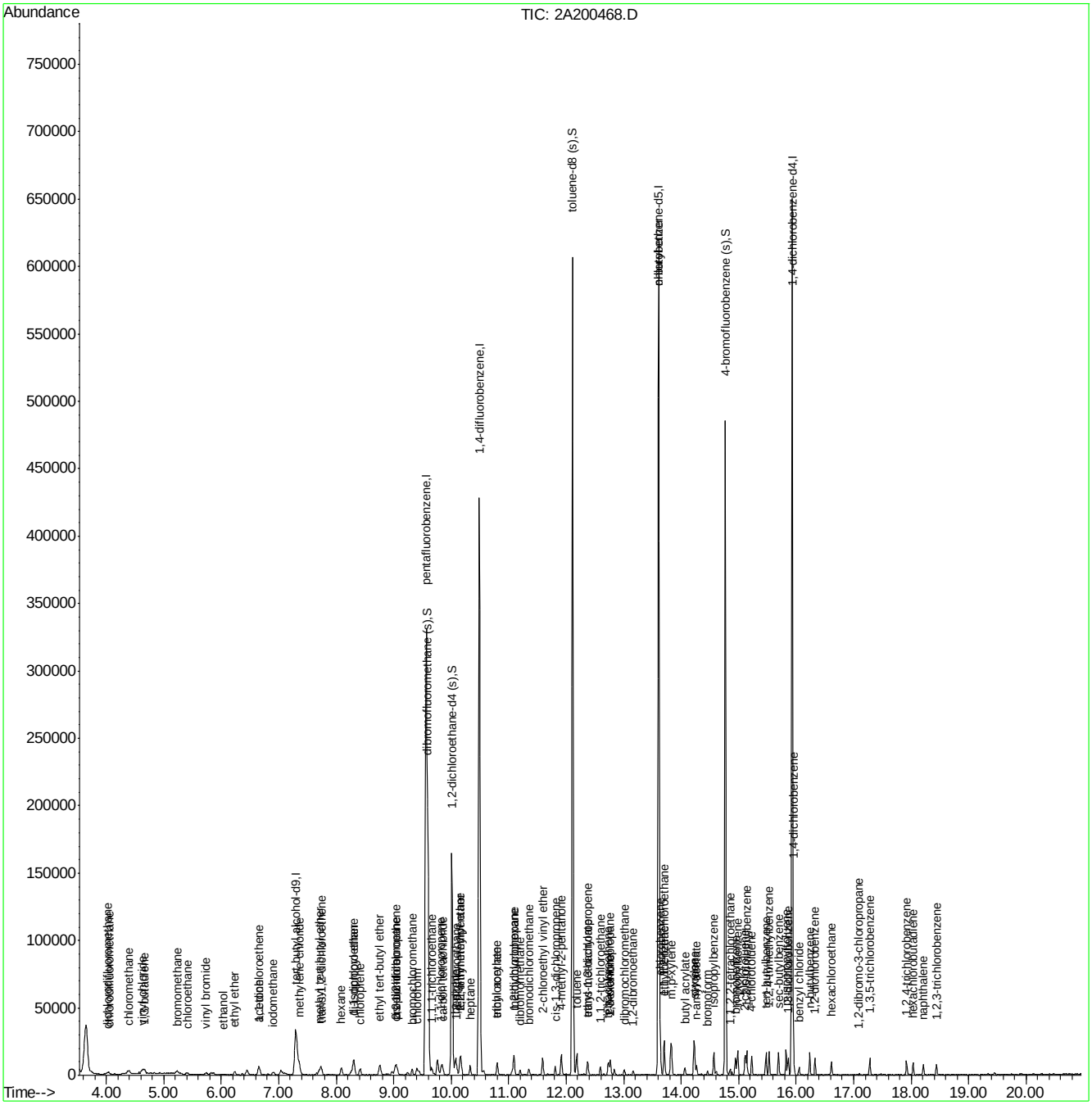
7.7.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200468.D
Acq On : 4 Feb 2020 5:09 pm
Operator : CHELSEAS
Sample : IC8671-1
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 06 10:41:01 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200469.D
Acq On : 4 Feb 2020 5:38 pm
Operator : CHELSEAS
Sample : IC8671-2
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 06 10:42:41 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	72095	500.00	ug/L	0.00
5) pentafluorobenzene	9.56	168	239415	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	356691	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	307340	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	157210	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	107804	49.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.30%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	118682	50.41	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.82%			
75) toluene-d8 (s)	12.11	98	386572	49.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.96%			
99) 4-bromofluorobenzene (s)	14.77	95	147423	49.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.10%			
Target Compounds						Qvalue
2) ethanol	6.03	45	5084	232.35	ug/L	99
3) tertiary butyl alcohol	7.43	59	2209	10.70	ug/L	79
4) 1,4-dioxane	11.15	88	1021	52.57	ug/L	95
6) chlorodifluoromethane	4.05	51	7107	2.13	ug/L	99
7) dichlorodifluoromethane	4.02	85	6882	1.82	ug/L	93
8) chloromethane	4.39	50	8536	2.00	ug/L	90
9) vinyl chloride	4.62	62	8118	1.93	ug/L	99
10) 1,3-butadiene	4.66	54	5164	2.15	ug/L	96
11) bromomethane	5.23	94	5614	2.17	ug/L	96
12) chloroethane	5.40	64	4208	1.97	ug/L	82
13) vinyl bromide	5.74	106	4296	1.89	ug/L	79
14) trichlorofluoromethane	5.87	101	8163	1.87	ug/L	94
15) ethyl ether	6.23	74	3299	2.29	ug/L	98
16) 2-chloropropane	6.44	63	2444	2.16	ug/L #	77
18) freon 113	6.67	151	3657	1.78	ug/L	92
19) 1,1-dichloroethene	6.65	96	5092	2.14	ug/L	87
20) acetone	6.66	43	5235	9.37	ug/L	82
21) acetonitrile	7.08	41	6321	22.38	ug/L	90
22) iodomethane	6.90	142	8239	2.32	ug/L	92
23) carbon disulfide	7.04	76	15347	2.24	ug/L	97
24) methylene chloride	7.36	84	6612	2.41	ug/L	92
25) methyl acetate	7.12	43	3701	2.20	ug/L	92
26) methyl tert butyl ether	7.70	73	16668	2.44	ug/L	96
27) trans-1,2-dichloroethene	7.74	96	6225	2.39	ug/L	92
28) hexane	8.09	57	7554	1.83	ug/L	96
29) di-isopropyl ether	8.30	45	22220	2.34	ug/L	93
30) ethyl tert-butyl ether	8.76	59	20422	2.38	ug/L	99
31) 2-butanone	8.96	72	1923	8.20	ug/L #	72
32) 1,1-dichloroethane	8.31	63	11551	2.33	ug/L	99
33) chloroprene	8.41	53	9041	2.19	ug/L	91
34) acrylonitrile	7.65	53	1622	1.94	ug/L #	73
37) 2,2-dichloropropane	9.05	77	9472	2.45	ug/L	92
38) cis-1,2-dichloroethene	9.03	96	7194	2.42	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200469.D
Acq On : 4 Feb 2020 5:38 pm
Operator : CHELSEAS
Sample : IC8671-2
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 06 10:42:41 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) propionitrile	9.04	54	6139	23.66	ug/L		89
40) bromochloromethane	9.32	130	4246	2.28	ug/L		94
41) tetrahydrofuran	9.33	42	1247	2.06	ug/L	#	63
42) chloroform	9.40	83	11390	2.36	ug/L		98
43) tert-butyl formate	9.44	59	4899	2.29	ug/L		91
46) methacrylonitrile	9.24	67	2001	2.21	ug/L		85
47) 1,1,1-trichloroethane	9.66	97	9678	2.26	ug/L		93
48) cyclohexane	9.77	84	7597	1.98	ug/L		84
49) 1,1-dichloropropene	9.83	75	8520	2.28	ug/L		98
51) carbon tetrachloride	9.86	117	8520	2.20	ug/L		89
54) 2,2,4-trimethylpentane	10.17	57	19956	1.87	ug/L		95
55) tert-amyl methyl ether	10.16	73	19294	2.39	ug/L		99
56) n-butyl alcohol	10.55	56	5788	103.07	ug/L		97
57) benzene	10.08	78	24768	2.34	ug/L		98
58) heptane	10.33	57	4156	1.81	ug/L		92
60) 1,2-dichloroethane	10.10	62	8719	2.43	ug/L		99
61) trichloroethene	10.80	95	6453	2.32	ug/L		95
62) ethyl acrylate	10.79	55	6545	2.15	ug/L		97
64) 2-chloroethyl vinyl ether	11.59	63	14160	11.05	ug/L		97
65) methyl methacrylate	11.06	100	1129	1.87	ug/L	#	51
66) 1,2-dichloropropane	11.09	63	6477	2.20	ug/L		95
67) methylcyclohexane	11.09	83	8818	1.87	ug/L		91
68) dibromomethane	11.20	93	3708	2.26	ug/L		96
69) bromodichloromethane	11.35	83	8624	2.26	ug/L		97
70) epichlorohydrin	11.68	57	2286	10.78	ug/L		87
71) cis-1,3-dichloropropene	11.80	75	10561	2.28	ug/L		98
72) 4-methyl-2-pentanone	11.91	58	8169	9.56	ug/L		90
73) 3-methyl-1-butanol	11.91	70	2017	38.92	ug/L		92
76) toluene	12.18	92	14830	2.32	ug/L		97
77) trans-1,3-dichloropropene	12.37	75	8874	2.20	ug/L		91
78) ethyl methacrylate	12.37	69	6578	2.16	ug/L		95
79) 1,1,2-trichloroethane	12.59	83	4619	2.41	ug/L		96
80) 2-hexanone	12.76	58	6776	8.61	ug/L	#	84
81) tetrachloroethene	12.74	166	6663	2.29	ug/L		89
82) 1,3-dichloropropane	12.77	76	8441	2.26	ug/L		97
83) butyl acetate	12.83	56	3347	2.13	ug/L		87
84) dibromochloromethane	13.01	129	6270	2.20	ug/L		98
85) 1,2-dibromoethane	13.16	107	5770	2.23	ug/L		95
86) n-butyl ether	13.60	57	26778	2.26	ug/L		86
87) chlorobenzene	13.64	112	16845	2.37	ug/L		95
88) 1,1,1,2-tetrachloroethane	13.71	131	6211	2.24	ug/L		98
89) ethylbenzene	13.70	91	28125	2.39	ug/L		95
90) m,p-xylene	13.82	106	21249	4.61	ug/L		94
91) o-xylene	14.22	91	22787	2.39	ug/L		99
92) styrene	14.24	104	16952	2.24	ug/L		96
93) n-amyl acetate	14.26	70	3581	2.10	ug/L		92
94) bromoform	14.46	173	3748	2.09	ug/L		97
95) butyl acrylate	14.06	55	10631	2.09	ug/L		94
96) isopropylbenzene	14.57	105	26950	2.32	ug/L		97
100) bromobenzene	14.95	156	7511	2.38	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200469.D
Acq On : 4 Feb 2020 5:38 pm
Operator : CHELSEAS
Sample : IC8671-2
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 06 10:42:41 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

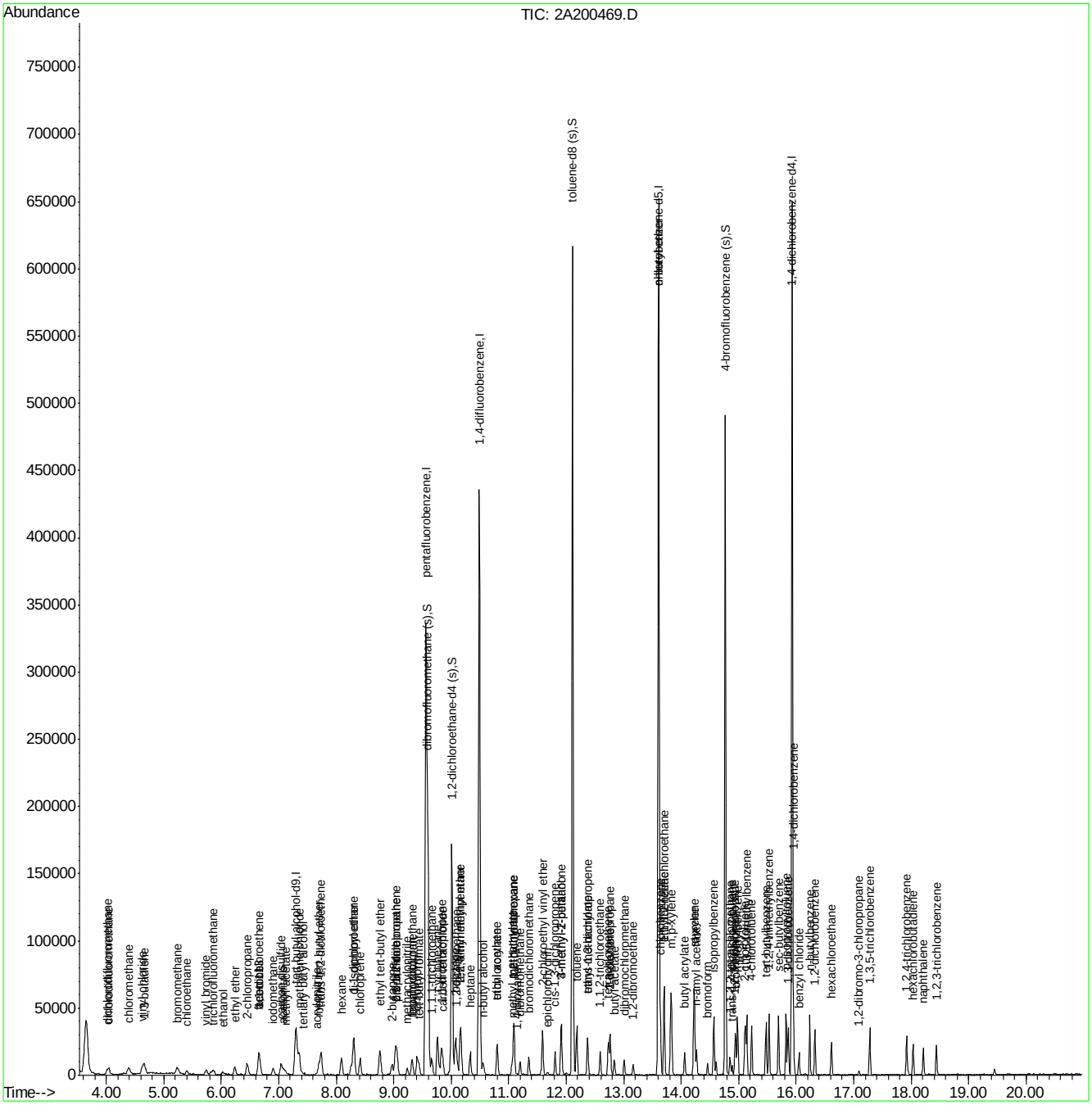
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,1,2,2-tetrachloroethane	14.85	83	6375	2.31	ug/L	96
102) trans-1,4-dichloro-2-buten	14.88	53	1358	1.95	ug/L	98
103) 1,2,3-trichloropropane	14.93	110	1564	2.25	ug/L	85
104) n-propylbenzene	14.98	91	31827	2.35	ug/L	98
105) 2-chlorotoluene	15.11	126	6913	2.33	ug/L	92
106) 4-chlorotoluene	15.22	91	19459	2.35	ug/L	98
107) 1,3,5-trimethylbenzene	15.14	105	21924	2.26	ug/L	98
108) tert-butylbenzene	15.48	119	18327	2.21	ug/L	95
109) 1,2,4-trimethylbenzene	15.53	105	22402	2.32	ug/L	98
110) sec-butylbenzene	15.70	105	27834	2.25	ug/L	99
111) 1,3-dichlorobenzene	15.86	146	13310	2.33	ug/L	98
112) p-isopropyltoluene	15.83	119	22772	2.18	ug/L	98
113) benzyl chloride	16.05	91	11859	2.28	ug/L	96
114) 1,4-dichlorobenzene	15.95	146	13190	2.30	ug/L	99
115) 1,2-dichlorobenzene	16.33	146	12718	2.33	ug/L	97
116) n-butylbenzene	16.23	92	12026	2.15	ug/L	98
117) 1,2-dibromo-3-chloropropan	17.09	157	1104	1.97	ug/L	84
118) 1,3,5-trichlorobenzene	17.28	180	10950	2.17	ug/L	96
119) 1,2,4-trichlorobenzene	17.92	180	9153	2.14	ug/L	95
120) hexachlorobutadiene	18.03	225	4819	2.10	ug/L	94
121) naphthalene	18.21	128	14822	1.98	ug/L	99
122) 1,2,3-trichlorobenzene	18.44	180	7419	2.03	ug/L	95
123) hexachloroethane	16.62	201	3931	2.03	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200469.D
Acq On : 4 Feb 2020 5:38 pm
Operator : CHELSEAS
Sample : IC8671-2
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 06 10:42:41 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200470.D
Acq On : 4 Feb 2020 6:06 pm
Operator : CHELSEAS
Sample : IC8671-4
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 06 10:43:51 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	70439	500.00	ug/L	0.00
5) pentafluorobenzene	9.56	168	234503	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	352234	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	302862	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	153796	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	106251	49.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.92%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	117824	50.68	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.36%			
75) toluene-d8 (s)	12.11	98	379107	49.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.48%			
99) 4-bromofluorobenzene (s)	14.77	95	145219	49.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.78%			
Target Compounds						Qvalue
2) ethanol	6.01	45	7977	373.13	ug/L	100
3) tertiary butyl alcohol	7.43	59	3704	18.36	ug/L	86
4) 1,4-dioxane	11.13	88	1759	92.69	ug/L	79
6) chlorodifluoromethane	4.04	51	13610	4.16	ug/L	98
7) dichlorodifluoromethane	4.01	85	15329	4.13	ug/L	99
8) chloromethane	4.38	50	17191	4.11	ug/L	97
9) vinyl chloride	4.62	62	17211	4.19	ug/L	98
10) 1,3-butadiene	4.66	54	9620	4.08	ug/L	96
11) bromomethane	5.23	94	10723	4.23	ug/L	99
12) chloroethane	5.40	64	8417	4.02	ug/L	96
13) vinyl bromide	5.73	106	8737	3.93	ug/L	99
14) trichlorofluoromethane	5.86	101	17051	3.98	ug/L	99
15) ethyl ether	6.23	74	5208	3.69	ug/L	93
16) 2-chloropropane	6.45	63	4200	3.78	ug/L #	84
17) acrolein	6.47	56	1181	3.00	ug/L	92
18) freon 113	6.66	151	7653	3.80	ug/L #	84
19) 1,1-dichloroethene	6.64	96	9087	3.90	ug/L	94
20) acetone	6.66	43	8358	15.27	ug/L	88
21) acetonitrile	7.08	41	10526	38.04	ug/L	93
22) iodomethane	6.90	142	13767	3.95	ug/L	97
23) carbon disulfide	7.03	76	27330	4.07	ug/L	99
24) methylene chloride	7.36	84	10598	3.95	ug/L	93
25) methyl acetate	7.12	43	6420	3.90	ug/L	84
26) methyl tert butyl ether	7.70	73	26634	3.99	ug/L	98
27) trans-1,2-dichloroethene	7.74	96	10367	4.07	ug/L	98
28) hexane	8.09	57	15401	3.81	ug/L	94
29) di-isopropyl ether	8.29	45	36351	3.90	ug/L	91
30) ethyl tert-butyl ether	8.76	59	33618	4.00	ug/L	100
31) 2-butanone	8.96	72	3232	14.07	ug/L #	80
32) 1,1-dichloroethane	8.31	63	19593	4.03	ug/L	96
33) chloroprene	8.41	53	15569	3.85	ug/L	97
34) acrylonitrile	7.65	53	2642	3.22	ug/L	84
35) vinyl acetate	8.25	86	1734	3.59	ug/L #	41

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200470.D
Acq On : 4 Feb 2020 6:06 pm
Operator : CHELSEAS
Sample : IC8671-4
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 06 10:43:51 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	8.97	45	1199	3.58	ug/L		81
37) 2,2-dichloropropane	9.05	77	15952	4.21	ug/L		94
38) cis-1,2-dichloroethene	9.03	96	11577	3.97	ug/L		89
39) propionitrile	9.04	54	9654	37.99	ug/L		93
40) bromochloromethane	9.31	130	7102	3.89	ug/L		92
41) tetrahydrofuran	9.34	42	2405	4.06	ug/L		99
42) chloroform	9.40	83	19042	4.02	ug/L		97
43) tert-butyl formate	9.44	59	7877	3.76	ug/L		97
44) isobutyl alcohol	9.80	43	2995	36.75	ug/L	#	48
46) methacrylonitrile	9.23	67	3241	3.66	ug/L		83
47) 1,1,1-trichloroethane	9.66	97	16401	3.90	ug/L		95
48) cyclohexane	9.76	84	15903	4.24	ug/L		87
49) 1,1-dichloropropene	9.83	75	14338	3.92	ug/L		97
50) tert-amyl alcohol	9.97	73	1848	18.76	ug/L	#	88
51) carbon tetrachloride	9.85	117	14720	3.88	ug/L		94
54) 2,2,4-trimethylpentane	10.17	57	41068	3.90	ug/L		97
55) tert-amyl methyl ether	10.15	73	31822	3.99	ug/L		99
56) n-butyl alcohol	10.55	56	9456	170.51	ug/L		99
57) benzene	10.07	78	41716	4.00	ug/L		98
58) heptane	10.33	57	8365	3.69	ug/L		93
59) isopropyl acetate	9.99	87	1716	3.40	ug/L	#	66
60) 1,2-dichloroethane	10.10	62	14499	4.09	ug/L		97
61) trichloroethene	10.80	95	11086	4.04	ug/L		92
62) ethyl acrylate	10.79	55	10696	3.56	ug/L		97
63) 2-nitropropane	11.56	41	1872	3.44	ug/L		89
64) 2-chloroethyl vinyl ether	11.59	63	23087	18.24	ug/L		99
65) methyl methacrylate	11.06	100	2025	3.40	ug/L	#	79
66) 1,2-dichloropropane	11.09	63	11747	4.05	ug/L		95
67) methylcyclohexane	11.09	83	18116	3.89	ug/L		97
68) dibromomethane	11.20	93	6345	3.91	ug/L		89
69) bromodichloromethane	11.35	83	14793	3.93	ug/L		95
70) epichlorohydrin	11.68	57	3987	19.04	ug/L		93
71) cis-1,3-dichloropropene	11.80	75	17272	3.78	ug/L		96
72) 4-methyl-2-pentanone	11.91	58	12727	15.07	ug/L		91
73) 3-methyl-1-butanol	11.91	70	3515	68.69	ug/L		96
76) toluene	12.19	92	25329	4.01	ug/L		99
77) trans-1,3-dichloropropene	12.37	75	15303	3.85	ug/L		100
78) ethyl methacrylate	12.36	69	10893	3.63	ug/L		93
79) 1,1,2-trichloroethane	12.59	83	7167	3.79	ug/L		94
80) 2-hexanone	12.76	58	11528	14.87	ug/L		94
81) tetrachloroethene	12.73	166	11236	3.91	ug/L		97
82) 1,3-dichloropropane	12.77	76	14222	3.86	ug/L		96
83) butyl acetate	12.83	56	5736	3.71	ug/L		86
84) dibromochloromethane	13.01	129	10349	3.68	ug/L		97
85) 1,2-dibromoethane	13.16	107	9648	3.78	ug/L		97
86) n-butyl ether	13.60	57	46191	3.96	ug/L		94
87) chlorobenzene	13.64	112	27465	3.91	ug/L		99
88) 1,1,1,2-tetrachloroethane	13.71	131	10171	3.73	ug/L		95
89) ethylbenzene	13.70	91	47068	4.06	ug/L		98
90) m,p-xylene	13.83	106	35486	7.81	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200470.D
Acq On : 4 Feb 2020 6:06 pm
Operator : CHELSEAS
Sample : IC8671-4
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 06 10:43:51 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

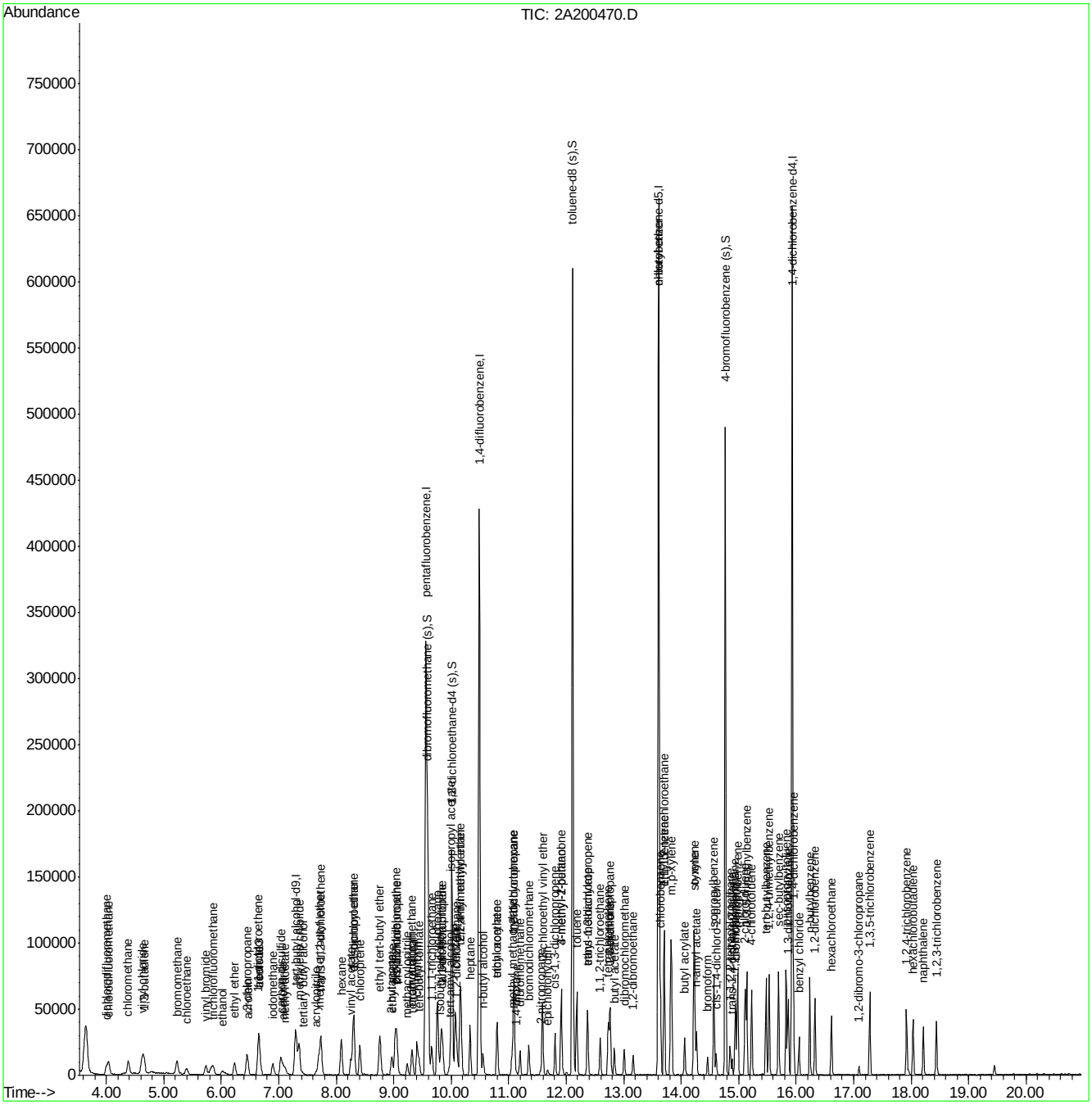
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
91) o-xylene	14.22	91	37692	4.01 ug/L	95
92) styrene	14.24	104	29037	3.90 ug/L	92
93) n-amyl acetate	14.27	70	6586	3.91 ug/L	98
94) bromoform	14.46	173	6113	3.46 ug/L	98
95) butyl acrylate	14.06	55	17236	3.44 ug/L	96
96) isopropylbenzene	14.57	105	45430	3.97 ug/L	98
97) cis-1,4-dichloro-2-butene	14.61	88	3197	3.13 ug/L	96
100) bromobenzene	14.95	156	12302	3.98 ug/L	98
101) 1,1,2,2-tetrachloroethane	14.85	83	10567	3.92 ug/L	96
102) trans-1,4-dichloro-2-buten	14.88	53	2363	3.47 ug/L	89
103) 1,2,3-trichloropropane	14.93	110	2533	3.73 ug/L	91
104) n-propylbenzene	14.98	91	53927	4.08 ug/L	97
105) 2-chlorotoluene	15.11	126	11394	3.93 ug/L	94
106) 4-chlorotoluene	15.22	91	33079	4.09 ug/L	99
107) 1,3,5-trimethylbenzene	15.14	105	37354	3.93 ug/L	96
108) tert-butylbenzene	15.48	119	32060	3.96 ug/L	99
109) 1,2,4-trimethylbenzene	15.53	105	38497	4.08 ug/L	97
110) sec-butylbenzene	15.70	105	48388	4.00 ug/L	99
111) 1,3-dichlorobenzene	15.86	146	21722	3.89 ug/L	94
112) p-isopropyltoluene	15.83	119	40559	3.97 ug/L	97
113) benzyl chloride	16.05	91	19211	3.77 ug/L	96
114) 1,4-dichlorobenzene	15.96	146	22736	4.06 ug/L	94
115) 1,2-dichlorobenzene	16.33	146	21513	4.03 ug/L	98
116) n-butylbenzene	16.23	92	21724	3.97 ug/L	97
117) 1,2-dibromo-3-chloropropan	17.09	157	1861	3.39 ug/L	95
118) 1,3,5-trichlorobenzene	17.28	180	19092	3.87 ug/L	97
119) 1,2,4-trichlorobenzene	17.92	180	15422	3.68 ug/L	97
120) hexachlorobutadiene	18.03	225	8737	3.89 ug/L	97
121) naphthalene	18.21	128	25398	3.46 ug/L	98
122) 1,2,3-trichlorobenzene	18.44	180	12758	3.57 ug/L	97
123) hexachloroethane	16.62	201	6732	3.55 ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200470.D
Acq On : 4 Feb 2020 6:06 pm
Operator : CHELSEAS
Sample : IC8671-4
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 06 10:43:51 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200471.D
Acq On : 4 Feb 2020 6:35 pm
Operator : CHELSEAS
Sample : IC8671-8
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 07:47:52 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	69842	500.00	ug/L	0.00
5) pentafluorobenzene	9.57	168	235303	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	348683	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	302265	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	155046	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	107069	50.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.34%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	117330	50.98	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.96%			
75) toluene-d8 (s)	12.11	98	381074	49.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%			
99) 4-bromofluorobenzene (s)	14.76	95	146108	49.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.60%			
Target Compounds						Qvalue
2) ethanol	6.01	45	17624	831.42	ug/L	95
3) tertiary butyl alcohol	7.42	59	7785	38.93	ug/L	94
4) 1,4-dioxane	11.13	88	3669	194.99	ug/L	91
6) chlorodifluoromethane	4.04	51	26047	7.93	ug/L	95
7) dichlorodifluoromethane	4.01	85	31233	8.38	ug/L	99
8) chloromethane	4.38	50	34865	8.30	ug/L	98
9) vinyl chloride	4.62	62	33137	8.03	ug/L	99
10) 1,3-butadiene	4.65	54	18641	7.88	ug/L	91
11) bromomethane	5.22	94	21985	8.64	ug/L	97
12) chloroethane	5.39	64	16698	7.96	ug/L	94
13) vinyl bromide	5.74	106	18129	8.13	ug/L	92
14) trichlorofluoromethane	5.85	101	34926	8.12	ug/L	97
15) ethyl ether	6.23	74	10793	7.63	ug/L	95
16) 2-chloropropane	6.45	63	8855	7.95	ug/L	95
17) acrolein	6.46	56	2733	6.92	ug/L	88
18) freon 113	6.66	151	15860	7.84	ug/L	90
19) 1,1-dichloroethene	6.65	96	18726	8.02	ug/L	90
20) acetone	6.66	43	17284	31.47	ug/L	96
21) acetonitrile	7.08	41	21675	78.07	ug/L	93
22) iodomethane	6.90	142	27768	7.95	ug/L	97
23) carbon disulfide	7.03	76	53426	7.93	ug/L	99
24) methylene chloride	7.36	84	21413	7.95	ug/L	98
25) methyl acetate	7.11	43	12835	7.77	ug/L	95
26) methyl tert butyl ether	7.70	73	53173	7.93	ug/L	98
27) trans-1,2-dichloroethene	7.73	96	20442	8.00	ug/L	95
28) hexane	8.09	57	31305	7.71	ug/L	99
29) di-isopropyl ether	8.30	45	74342	7.95	ug/L	95
30) ethyl tert-butyl ether	8.76	59	67499	8.01	ug/L	99
31) 2-butanone	8.96	72	6615	28.70	ug/L	96
32) 1,1-dichloroethane	8.31	63	38927	7.98	ug/L	97
33) chloroprene	8.41	53	30788	7.59	ug/L	98
34) acrylonitrile	7.65	53	6586	8.00	ug/L	88
35) vinyl acetate	8.25	86	3556	7.34	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200471.D
Acq On : 4 Feb 2020 6:35 pm
Operator : CHELSEAS
Sample : IC8671-8
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 07:47:52 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	8.98	45	2475	7.37	ug/L		88
37) 2,2-dichloropropane	9.05	77	30129	7.92	ug/L		99
38) cis-1,2-dichloroethene	9.03	96	23285	7.96	ug/L		97
39) propionitrile	9.04	54	19737	77.41	ug/L		89
40) bromochloromethane	9.32	130	14476	7.90	ug/L		91
41) tetrahydrofuran	9.33	42	4457	7.50	ug/L		88
42) chloroform	9.40	83	37116	7.82	ug/L		96
43) tert-butyl formate	9.43	59	16519	7.85	ug/L		92
44) isobutyl alcohol	9.80	43	5463	66.81	ug/L	#	72
46) methacrylonitrile	9.24	67	6685	7.52	ug/L		98
47) 1,1,1-trichloroethane	9.66	97	33480	7.94	ug/L		99
48) cyclohexane	9.76	84	31178	8.29	ug/L		98
49) 1,1-dichloropropene	9.83	75	28828	7.85	ug/L		94
50) tert-amyl alcohol	9.96	73	3737	37.80	ug/L		85
51) carbon tetrachloride	9.85	117	30575	8.02	ug/L		95
54) 2,2,4-trimethylpentane	10.17	57	80841	7.75	ug/L		98
55) tert-amyl methyl ether	10.16	73	63929	8.10	ug/L		99
56) n-butyl alcohol	10.55	56	20510	373.60	ug/L		98
57) benzene	10.07	78	83044	8.04	ug/L		99
58) heptane	10.32	57	17091	7.62	ug/L		93
59) isopropyl acetate	9.99	87	3563	7.14	ug/L		97
60) 1,2-dichloroethane	10.10	62	28259	8.05	ug/L		97
61) trichloroethene	10.80	95	21075	7.76	ug/L		94
62) ethyl acrylate	10.79	55	22649	7.62	ug/L		99
63) 2-nitropropane	11.56	41	4014	7.46	ug/L		92
64) 2-chloroethyl vinyl ether	11.59	63	47279	37.74	ug/L		97
65) methyl methacrylate	11.06	100	4534	7.69	ug/L	#	81
66) 1,2-dichloropropane	11.09	63	22267	7.75	ug/L		93
67) methylcyclohexane	11.09	83	35894	7.78	ug/L		98
68) dibromomethane	11.20	93	12431	7.74	ug/L		96
69) bromodichloromethane	11.35	83	29086	7.81	ug/L		100
70) epichlorohydrin	11.68	57	7989	38.54	ug/L		91
71) cis-1,3-dichloropropene	11.80	75	35050	7.74	ug/L		97
72) 4-methyl-2-pentanone	11.91	58	26303	31.47	ug/L		97
73) 3-methyl-1-butanol	11.91	70	7211	142.36	ug/L		96
76) toluene	12.19	92	48803	7.75	ug/L		96
77) trans-1,3-dichloropropene	12.37	75	30112	7.60	ug/L		97
78) ethyl methacrylate	12.36	69	22527	7.52	ug/L		98
79) 1,1,2-trichloroethane	12.59	83	14766	7.82	ug/L		95
80) 2-hexanone	12.76	58	24008	31.03	ug/L		95
81) tetrachloroethene	12.73	166	22119	7.72	ug/L		96
82) 1,3-dichloropropane	12.77	76	28945	7.88	ug/L		99
83) butyl acetate	12.83	56	11777	7.63	ug/L		96
84) dibromochloromethane	13.01	129	20527	7.31	ug/L		95
85) 1,2-dibromoethane	13.16	107	19137	7.52	ug/L		100
86) n-butyl ether	13.60	57	91387	7.86	ug/L		96
87) chlorobenzene	13.64	112	54623	7.80	ug/L		96
88) 1,1,1,2-tetrachloroethane	13.71	131	20874	7.67	ug/L		97
89) ethylbenzene	13.70	91	92677	8.01	ug/L		99
90) m,p-xylene	13.82	106	72117	15.91	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200471.D
Acq On : 4 Feb 2020 6:35 pm
Operator : CHELSEAS
Sample : IC8671-8
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 07:47:52 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

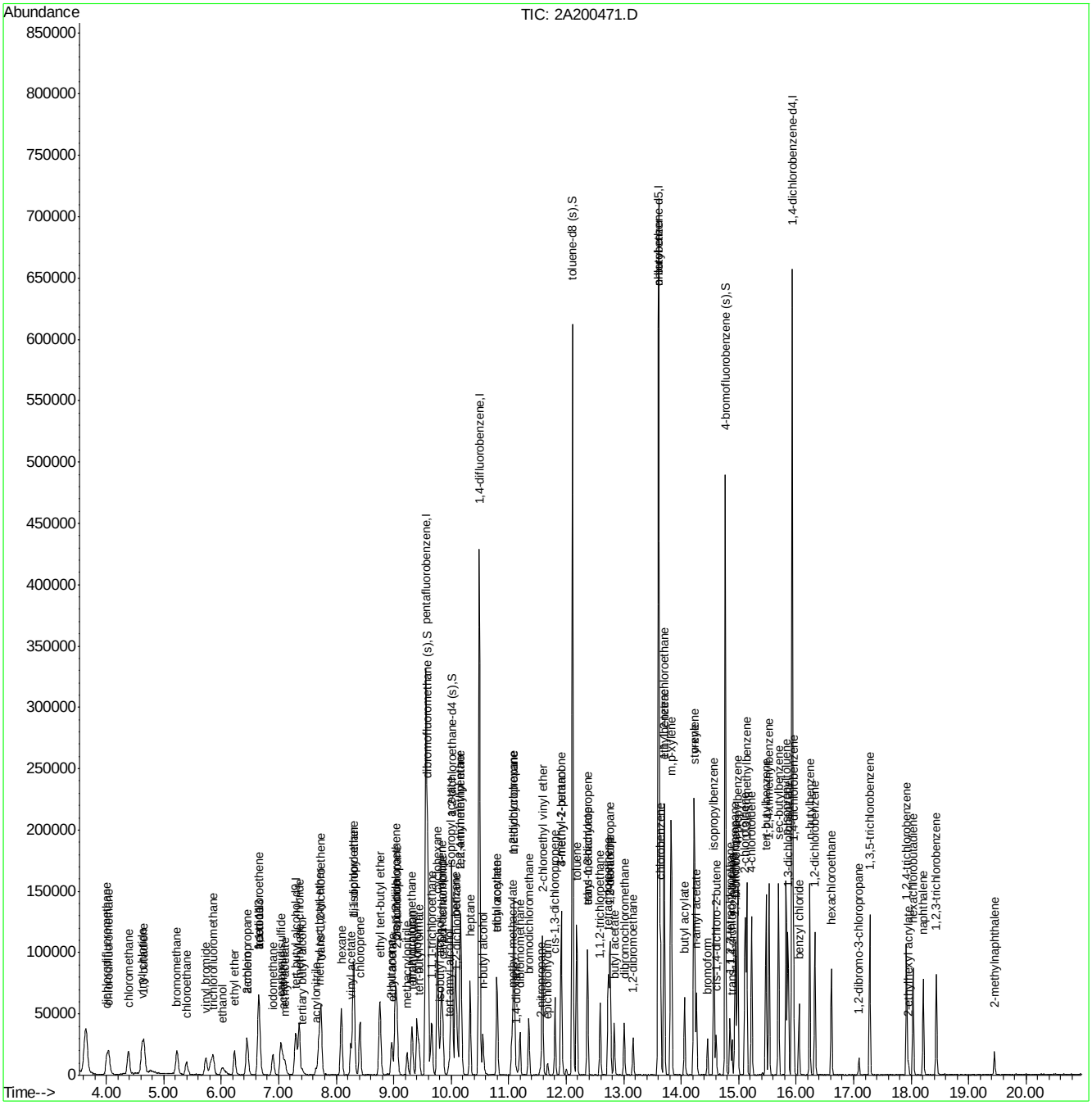
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
91) o-xylene	14.22	91	75165	8.00	ug/L		99
92) styrene	14.24	104	58998	7.93	ug/L		95
93) n-amyl acetate	14.27	70	12454	7.41	ug/L		90
94) bromoform	14.46	173	12637	7.17	ug/L		95
95) butyl acrylate	14.06	55	37315	7.46	ug/L		98
96) isopropylbenzene	14.57	105	90894	7.96	ug/L		98
97) cis-1,4-dichloro-2-butene	14.61	88	7030	6.89	ug/L		97
100) bromobenzene	14.95	156	24434	7.83	ug/L		93
101) 1,1,2,2-tetrachloroethane	14.85	83	20699	7.61	ug/L		98
102) trans-1,4-dichloro-2-buten	14.88	53	5032	7.33	ug/L		97
103) 1,2,3-trichloropropane	14.93	110	5403	7.88	ug/L		87
104) n-propylbenzene	14.98	91	107746	8.08	ug/L		98
105) 2-chlorotoluene	15.11	126	22406	7.66	ug/L		87
106) 4-chlorotoluene	15.22	91	65356	8.01	ug/L		99
107) 1,3,5-trimethylbenzene	15.14	105	75242	7.86	ug/L		100
108) tert-butylbenzene	15.48	119	63011	7.71	ug/L		99
109) 1,2,4-trimethylbenzene	15.53	105	75682	7.95	ug/L		98
110) sec-butylbenzene	15.70	105	98692	8.09	ug/L		98
111) 1,3-dichlorobenzene	15.86	146	44957	7.98	ug/L		97
112) p-isopropyltoluene	15.83	119	81051	7.86	ug/L		99
113) benzyl chloride	16.05	91	37632	7.32	ug/L		98
114) 1,4-dichlorobenzene	15.96	146	43911	7.77	ug/L		99
115) 1,2-dichlorobenzene	16.33	146	41959	7.79	ug/L		97
116) n-butylbenzene	16.23	92	42747	7.75	ug/L		100
117) 1,2-dibromo-3-chloropropan	17.09	157	3961	7.16	ug/L		92
118) 1,3,5-trichlorobenzene	17.28	180	38734	7.78	ug/L		98
119) 1,2,4-trichlorobenzene	17.92	180	32117	7.61	ug/L		99
120) hexachlorobutadiene	18.04	225	17463	7.71	ug/L		94
121) naphthalene	18.21	128	53632	7.26	ug/L		98
122) 1,2,3-trichlorobenzene	18.44	180	26796	7.44	ug/L		99
123) hexachloroethane	16.62	201	13883	7.25	ug/L		94
124) 2-ethylhexyl acrylate	17.95	70	2571	1.02	ug/L	#	76
125) 2-methylnaphthalene	19.45	142	9797	2.89	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200471.D
Acq On : 4 Feb 2020 6:35 pm
Operator : CHELSEAS
Sample : IC8671-8
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 07:47:52 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200472.D
Acq On : 4 Feb 2020 7:04 pm
Operator : CHELSEAS
Sample : IC8671-20
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 07:47:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	72273	500.00	ug/L	0.00
5) pentafluorobenzene	9.56	168	232139	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	351567	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	301890	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	155235	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	106684	50.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.36%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	116887	50.38	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.76%			
75) toluene-d8 (s)	12.11	98	380653	49.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%			
99) 4-bromofluorobenzene (s)	14.77	95	146510	49.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%			
Target Compounds						Qvalue
2) ethanol	6.02	45	42664	1945.00	ug/L	95
3) tertiary butyl alcohol	7.41	59	20269	97.94	ug/L	99
4) 1,4-dioxane	11.13	88	9881	507.47	ug/L	93
6) chlorodifluoromethane	4.04	51	66303	20.46	ug/L	99
7) dichlorodifluoromethane	4.01	85	75908	20.66	ug/L	98
8) chloromethane	4.39	50	86488	20.87	ug/L	97
9) vinyl chloride	4.61	62	85397	20.98	ug/L	98
10) 1,3-butadiene	4.65	54	47833	20.50	ug/L	95
11) bromomethane	5.22	94	52756	21.01	ug/L	100
12) chloroethane	5.39	64	42008	20.29	ug/L	98
13) vinyl bromide	5.73	106	45694	20.77	ug/L	94
14) trichlorofluoromethane	5.85	101	85641	20.18	ug/L	100
15) ethyl ether	6.23	74	28409	20.36	ug/L	95
16) 2-chloropropane	6.44	63	22256	20.25	ug/L	88
17) acrolein	6.45	56	7798	20.00	ug/L	94
18) freon 113	6.66	151	39648	19.87	ug/L	98
19) 1,1-dichloroethene	6.65	96	46374	20.13	ug/L	95
20) acetone	6.65	43	43572	80.42	ug/L	97
21) acetonitrile	7.07	41	55502	202.63	ug/L	96
22) iodomethane	6.89	142	69326	20.11	ug/L	98
23) carbon disulfide	7.03	76	133769	20.12	ug/L	98
24) methylene chloride	7.35	84	52980	19.94	ug/L	97
25) methyl acetate	7.11	43	33442	20.52	ug/L	95
26) methyl tert butyl ether	7.71	73	133909	20.24	ug/L	99
27) trans-1,2-dichloroethene	7.74	96	50716	20.12	ug/L	98
28) hexane	8.09	57	78518	19.61	ug/L	99
29) di-isopropyl ether	8.30	45	187569	20.33	ug/L	99
30) ethyl tert-butyl ether	8.76	59	169716	20.42	ug/L	98
31) 2-butanone	8.96	72	17661	77.67	ug/L	96
32) 1,1-dichloroethane	8.31	63	96904	20.13	ug/L	97
33) chloroprene	8.41	53	79099	19.77	ug/L	95
34) acrylonitrile	7.64	53	16396	20.19	ug/L	98
35) vinyl acetate	8.25	86	9774	20.46	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200472.D
Acq On : 4 Feb 2020 7:04 pm
Operator : CHELSEAS
Sample : IC8671-20
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 07:47:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	8.97	45	6929	20.92	ug/L		83
37) 2,2-dichloropropane	9.05	77	77450	20.64	ug/L		96
38) cis-1,2-dichloroethene	9.02	96	57826	20.04	ug/L		100
39) propionitrile	9.04	54	50953	202.56	ug/L		97
40) bromochloromethane	9.31	130	36489	20.17	ug/L		97
41) tetrahydrofuran	9.34	42	12050	20.56	ug/L		98
42) chloroform	9.40	83	95845	20.46	ug/L		97
43) tert-butyl formate	9.44	59	42389	20.42	ug/L		97
44) isobutyl alcohol	9.80	43	16514	204.70	ug/L	#	75
46) methacrylonitrile	9.24	67	17756	20.24	ug/L		96
47) 1,1,1-trichloroethane	9.66	97	83651	20.11	ug/L		96
48) cyclohexane	9.76	84	76316	20.56	ug/L		98
49) 1,1-dichloropropene	9.83	75	73153	20.20	ug/L		97
50) tert-amyl alcohol	9.96	73	9756	100.02	ug/L	#	89
51) carbon tetrachloride	9.85	117	74765	19.88	ug/L		96
54) 2,2,4-trimethylpentane	10.17	57	206660	19.65	ug/L		99
55) tert-amyl methyl ether	10.16	73	160452	20.17	ug/L		99
56) n-butyl alcohol	10.55	56	54615	986.69	ug/L		98
57) benzene	10.07	78	208093	19.99	ug/L		99
58) heptane	10.33	57	44483	19.67	ug/L		99
59) isopropyl acetate	9.98	87	9856	19.58	ug/L		98
60) 1,2-dichloroethane	10.10	62	71472	20.20	ug/L		98
61) trichloroethene	10.80	95	53886	19.68	ug/L		98
62) ethyl acrylate	10.79	55	59804	19.96	ug/L		98
63) 2-nitropropane	11.56	41	10046	18.51	ug/L		93
64) 2-chloroethyl vinyl ether	11.59	63	123634	97.89	ug/L		99
65) methyl methacrylate	11.06	100	11669	19.62	ug/L		97
66) 1,2-dichloropropane	11.09	63	57426	19.83	ug/L		98
67) methylcyclohexane	11.09	83	90150	19.39	ug/L		97
68) dibromomethane	11.19	93	32105	19.82	ug/L		94
69) bromodichloromethane	11.35	83	74929	19.94	ug/L		98
70) epichlorohydrin	11.67	57	20871	99.86	ug/L		94
71) cis-1,3-dichloropropene	11.80	75	90540	19.83	ug/L		99
72) 4-methyl-2-pentanone	11.91	58	66677	79.13	ug/L		97
73) 3-methyl-1-butanol	11.91	70	20153	394.58	ug/L		96
76) toluene	12.19	92	124654	19.81	ug/L		96
77) trans-1,3-dichloropropene	12.37	75	78422	19.81	ug/L		99
78) ethyl methacrylate	12.36	69	58608	19.60	ug/L		98
79) 1,1,2-trichloroethane	12.59	83	37845	20.08	ug/L		96
80) 2-hexanone	12.76	58	60516	78.30	ug/L		99
81) tetrachloroethene	12.74	166	57032	19.93	ug/L		98
82) 1,3-dichloropropane	12.77	76	72487	19.76	ug/L		96
83) butyl acetate	12.83	56	30644	19.89	ug/L		96
84) dibromochloromethane	13.01	129	54197	19.33	ug/L		97
85) 1,2-dibromoethane	13.16	107	49841	19.61	ug/L		98
86) n-butyl ether	13.60	57	231931	19.97	ug/L		99
87) chlorobenzene	13.64	112	138036	19.73	ug/L		100
88) 1,1,1,2-tetrachloroethane	13.71	131	53052	19.52	ug/L		96
89) ethylbenzene	13.70	91	233052	20.16	ug/L		99
90) m,p-xylene	13.82	106	179933	39.75	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200472.D
Acq On : 4 Feb 2020 7:04 pm
Operator : CHELSEAS
Sample : IC8671-20
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 07:47:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

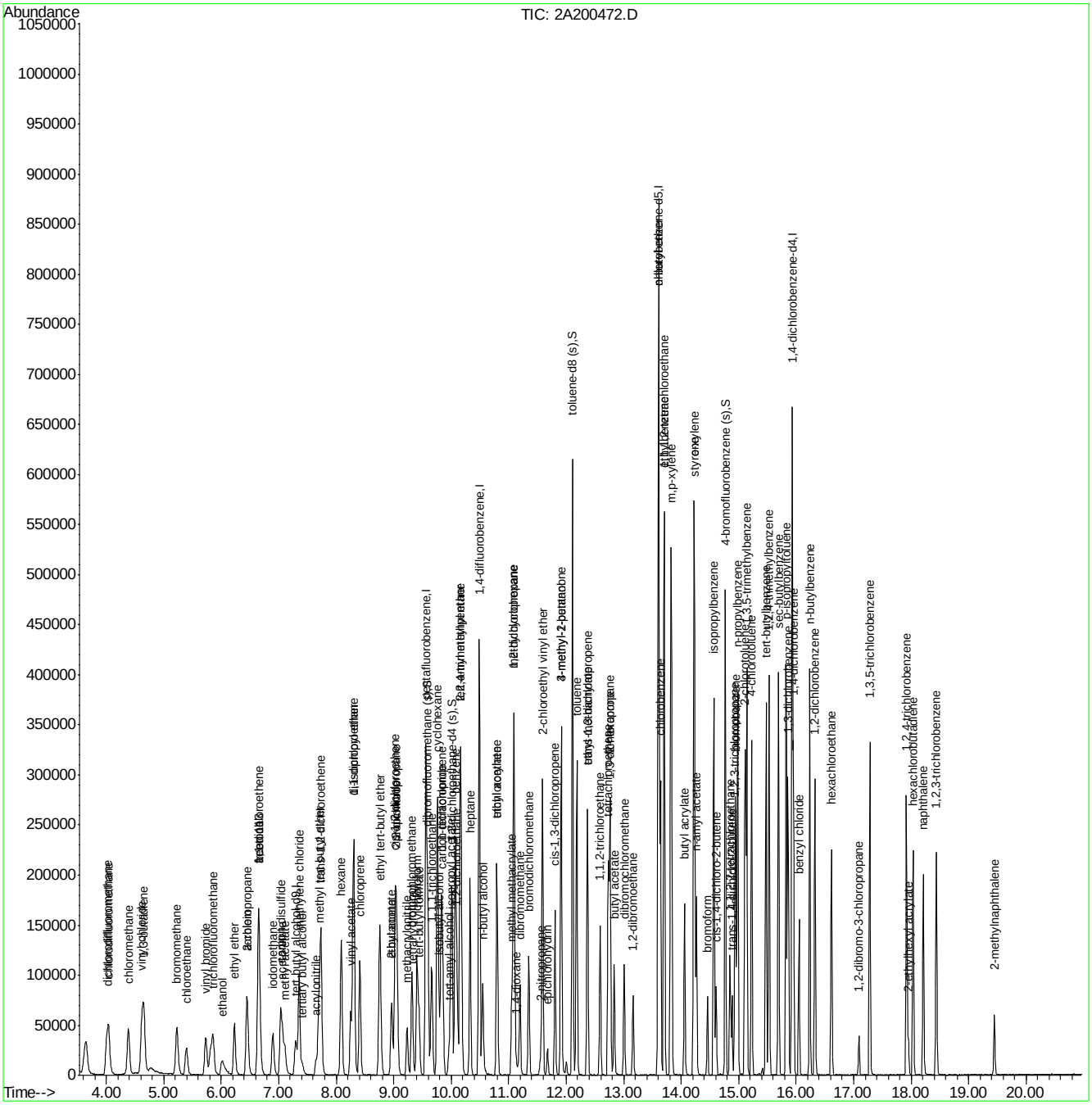
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) o-xylene	14.22	91	188271	20.07	ug/L	98
92) styrene	14.24	104	149552	20.13	ug/L	92
93) n-amyl acetate	14.27	70	32368	19.28	ug/L	93
94) bromoform	14.46	173	33755	19.16	ug/L	96
95) butyl acrylate	14.06	55	96226	19.27	ug/L	99
96) isopropylbenzene	14.57	105	227862	19.98	ug/L	99
97) cis-1,4-dichloro-2-butene	14.61	88	18436	18.09	ug/L	93
100) bromobenzene	14.95	156	63025	20.18	ug/L	94
101) 1,1,2,2-tetrachloroethane	14.85	83	53188	19.53	ug/L	99
102) trans-1,4-dichloro-2-buten	14.88	53	13464	19.58	ug/L	96
103) 1,2,3-trichloropropane	14.93	110	13673	19.92	ug/L	98
104) n-propylbenzene	14.98	91	270852	20.29	ug/L	99
105) 2-chlorotoluene	15.11	126	57417	19.61	ug/L	96
106) 4-chlorotoluene	15.22	91	165069	20.20	ug/L	97
107) 1,3,5-trimethylbenzene	15.14	105	193102	20.14	ug/L	100
108) tert-butylbenzene	15.48	119	162848	19.90	ug/L	99
109) 1,2,4-trimethylbenzene	15.53	105	191136	20.07	ug/L	99
110) sec-butylbenzene	15.70	105	245477	20.10	ug/L	99
111) 1,3-dichlorobenzene	15.86	146	112499	19.95	ug/L	100
112) p-isopropyltoluene	15.83	119	207907	20.15	ug/L	100
113) benzyl chloride	16.05	91	99713	19.38	ug/L	98
114) 1,4-dichlorobenzene	15.96	146	114185	20.18	ug/L	98
115) 1,2-dichlorobenzene	16.33	146	108995	20.21	ug/L	98
116) n-butylbenzene	16.23	92	110179	19.96	ug/L	94
117) 1,2-dibromo-3-chloropropan	17.09	157	10654	19.24	ug/L	96
118) 1,3,5-trichlorobenzene	17.28	180	98163	19.70	ug/L	99
119) 1,2,4-trichlorobenzene	17.92	180	81399	19.26	ug/L	99
120) hexachlorobutadiene	18.04	225	44706	19.72	ug/L	97
121) naphthalene	18.21	128	142868	19.31	ug/L	98
122) 1,2,3-trichlorobenzene	18.44	180	69332	19.23	ug/L	99
123) hexachloroethane	16.62	201	36309	18.95	ug/L	97
124) 2-ethylhexyl acrylate	17.95	70	7867	3.12	ug/L	87
125) 2-methylnaphthalene	19.45	142	29476	8.68	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200472.D
Acq On : 4 Feb 2020 7:04 pm
Operator : CHELSEAS
Sample : IC8671-20
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 07:47:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200473.D
Acq On : 4 Feb 2020 7:32 pm
Operator : CHELSEAS
Sample : ICC8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 07:47:54 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	70845	500.00	ug/L	0.00
5) pentafluorobenzene	9.56	168	236920	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	352469	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	300820	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	155140	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	107430	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	116313	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
75) toluene-d8 (s)	12.11	98	382376	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	14.77	95	146797	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) ethanol	6.01	45	107509	5000.00	ug/L	100
3) tertiary butyl alcohol	7.41	59	50716	250.00	ug/L	100
4) 1,4-dioxane	11.13	88	23858	1250.00	ug/L	100
6) chlorodifluoromethane	4.04	51	165368	50.00	ug/L	100
7) dichlorodifluoromethane	4.01	85	187534	50.00	ug/L	100
8) chloromethane	4.38	50	211447	50.00	ug/L	100
9) vinyl chloride	4.62	62	207723	50.00	ug/L	100
10) 1,3-butadiene	4.65	54	119081	50.00	ug/L	100
11) bromomethane	5.23	94	128111	50.00	ug/L	100
12) chloroethane	5.40	64	105663	50.00	ug/L	100
13) vinyl bromide	5.74	106	112269	50.00	ug/L	100
14) trichlorofluoromethane	5.85	101	216518	50.00	ug/L	100
15) ethyl ether	6.23	74	71206	50.00	ug/L	100
16) 2-chloropropane	6.45	63	56077	50.00	ug/L	100
17) acrolein	6.46	56	19895	50.00	ug/L	100
18) freon 113	6.66	151	101839	50.00	ug/L	100
19) 1,1-dichloroethene	6.65	96	117560	50.00	ug/L	100
20) acetone	6.65	43	110597	200.00	ug/L	100
21) acetonitrile	7.07	41	139774	500.00	ug/L	100
22) iodomethane	6.90	142	175880	50.00	ug/L	100
23) carbon disulfide	7.03	76	339266	50.00	ug/L	100
24) methylene chloride	7.35	84	135577	50.00	ug/L	100
25) methyl acetate	7.11	43	83147	50.00	ug/L	100
26) methyl tert butyl ether	7.71	73	337598	50.00	ug/L	100
27) trans-1,2-dichloroethene	7.73	96	128639	50.00	ug/L	100
28) hexane	8.09	57	204307	50.00	ug/L	100
29) di-isopropyl ether	8.30	45	470715	50.00	ug/L	100
30) ethyl tert-butyl ether	8.76	59	424157	50.00	ug/L	100
31) 2-butanone	8.96	72	46416	200.00	ug/L	100
32) 1,1-dichloroethane	8.31	63	245660	50.00	ug/L	100
33) chloroprene	8.41	53	204200	50.00	ug/L	100
34) acrylonitrile	7.65	53	41436	50.00	ug/L	100
35) vinyl acetate	8.25	86	24375	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200473.D
Acq On : 4 Feb 2020 7:32 pm
Operator : CHELSEAS
Sample : ICC8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 07:47:54 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) ethyl acetate	8.97	45	16901	50.00	ug/L	100
37) 2,2-dichloropropane	9.05	77	191503	50.00	ug/L	100
38) cis-1,2-dichloroethene	9.02	96	147231	50.00	ug/L	100
39) propionitrile	9.04	54	128363	500.00	ug/L	100
40) bromochloromethane	9.31	130	92301	50.00	ug/L	100
41) tetrahydrofuran	9.33	42	29901	50.00	ug/L	100
42) chloroform	9.40	83	239068	50.00	ug/L	100
43) tert-butyl formate	9.44	59	105955	50.00	ug/L	100
44) isobutyl alcohol	9.79	43	41168	500.00	ug/L	100
46) methacrylonitrile	9.23	67	44758	50.00	ug/L	100
47) 1,1,1-trichloroethane	9.66	97	212287	50.00	ug/L	100
48) cyclohexane	9.76	84	189416	50.00	ug/L	100
49) 1,1-dichloropropene	9.83	75	184845	50.00	ug/L	100
50) tert-amyl alcohol	9.96	73	24887	250.00	ug/L	100
51) carbon tetrachloride	9.85	117	191881	50.00	ug/L	100
54) 2,2,4-trimethylpentane	10.17	57	527170	50.00	ug/L	100
55) tert-amyl methyl ether	10.16	73	398699	50.00	ug/L	100
56) n-butyl alcohol	10.54	56	138735	2500.00	ug/L	100
57) benzene	10.07	78	521888	50.00	ug/L	100
58) heptane	10.33	57	113375	50.00	ug/L	100
59) isopropyl acetate	9.99	87	25239	50.00	ug/L	100
60) 1,2-dichloroethane	10.10	62	177368	50.00	ug/L	100
61) trichloroethene	10.80	95	137233	50.00	ug/L	100
62) ethyl acrylate	10.79	55	150161	50.00	ug/L	100
63) 2-nitropropane	11.56	41	27209	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	11.59	63	316569	250.00	ug/L	100
65) methyl methacrylate	11.06	100	29808	50.00	ug/L	100
66) 1,2-dichloropropane	11.09	63	145201	50.00	ug/L	100
67) methylcyclohexane	11.09	83	233107	50.00	ug/L	100
68) dibromomethane	11.20	93	81182	50.00	ug/L	100
69) bromodichloromethane	11.35	83	188333	50.00	ug/L	100
70) epichlorohydrin	11.67	57	52385	250.00	ug/L	100
71) cis-1,3-dichloropropene	11.80	75	228873	50.00	ug/L	100
72) 4-methyl-2-pentanone	11.91	58	168964	200.00	ug/L	100
73) 3-methyl-1-butanol	11.91	70	51205	1000.00	ug/L	100
76) toluene	12.19	92	313452	50.00	ug/L	100
77) trans-1,3-dichloropropene	12.37	75	197230	50.00	ug/L	100
78) ethyl methacrylate	12.36	69	148986	50.00	ug/L	100
79) 1,1,2-trichloroethane	12.59	83	93923	50.00	ug/L	100
80) 2-hexanone	12.76	58	154022	200.00	ug/L	100
81) tetrachloroethene	12.73	166	142608	50.00	ug/L	100
82) 1,3-dichloropropane	12.77	76	182793	50.00	ug/L	100
83) butyl acetate	12.83	56	76776	50.00	ug/L	100
84) dibromochloromethane	13.01	129	139690	50.00	ug/L	100
85) 1,2-dibromoethane	13.16	107	126639	50.00	ug/L	100
86) n-butyl ether	13.60	57	578772	50.00	ug/L	100
87) chlorobenzene	13.64	112	348561	50.00	ug/L	100
88) 1,1,1,2-tetrachloroethane	13.71	131	135434	50.00	ug/L	100
89) ethylbenzene	13.70	91	575954	50.00	ug/L	100
90) m,p-xylene	13.82	106	451035	100.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200473.D
Acq On : 4 Feb 2020 7:32 pm
Operator : CHELSEAS
Sample : ICC8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 07:47:54 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

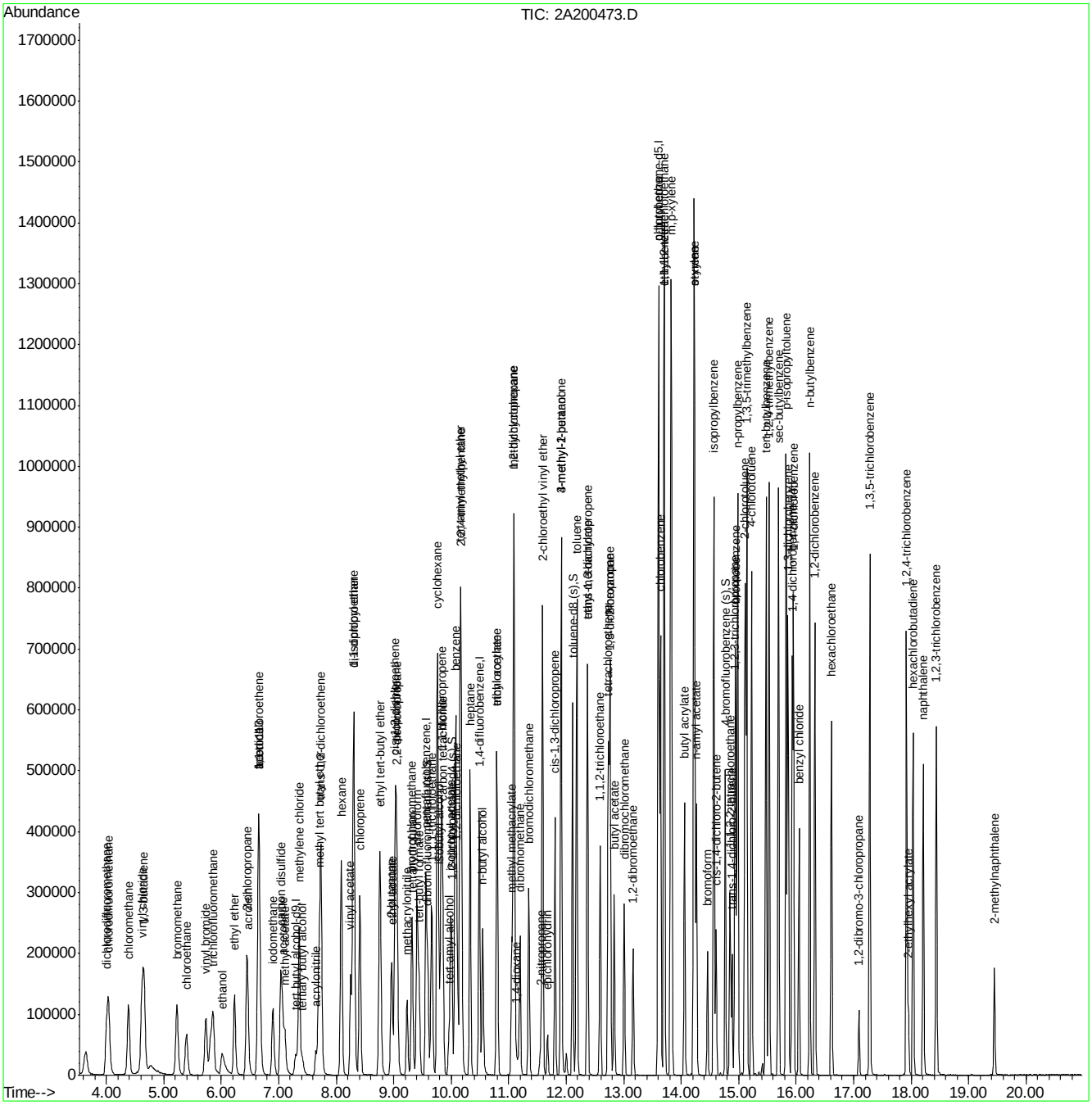
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) o-xylene	14.22	91	467278	50.00	ug/L	100
92) styrene	14.23	104	370213	50.00	ug/L	100
93) n-amyl acetate	14.27	70	83645	50.00	ug/L	100
94) bromoform	14.46	173	87758	50.00	ug/L	100
95) butyl acrylate	14.06	55	248814	50.00	ug/L	100
96) isopropylbenzene	14.57	105	568229	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	14.61	88	50780	50.00	ug/L	100
100) bromobenzene	14.95	156	156040	50.00	ug/L	100
101) 1,1,2,2-tetrachloroethane	14.85	83	136090	50.00	ug/L	100
102) trans-1,4-dichloro-2-buten	14.88	53	34355	50.00	ug/L	100
103) 1,2,3-trichloropropane	14.93	110	34296	50.00	ug/L	100
104) n-propylbenzene	14.98	91	666925	50.00	ug/L	100
105) 2-chlorotoluene	15.11	126	146321	50.00	ug/L	100
106) 4-chlorotoluene	15.22	91	408417	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	15.14	105	479030	50.00	ug/L	100
108) tert-butylbenzene	15.48	119	408842	50.00	ug/L	100
109) 1,2,4-trimethylbenzene	15.53	105	475991	50.00	ug/L	100
110) sec-butylbenzene	15.70	105	610144	50.00	ug/L	100
111) 1,3-dichlorobenzene	15.86	146	281741	50.00	ug/L	100
112) p-isopropyltoluene	15.83	119	515605	50.00	ug/L	100
113) benzyl chloride	16.05	91	257118	50.00	ug/L	100
114) 1,4-dichlorobenzene	15.96	146	282677	50.00	ug/L	100
115) 1,2-dichlorobenzene	16.33	146	269428	50.00	ug/L	100
116) n-butylbenzene	16.23	92	275787	50.00	ug/L	100
117) 1,2-dibromo-3-chloropropan	17.09	157	27664	50.00	ug/L	100
118) 1,3,5-trichlorobenzene	17.28	180	248970	50.00	ug/L	100
119) 1,2,4-trichlorobenzene	17.92	180	211134	50.00	ug/L	100
120) hexachlorobutadiene	18.04	225	113272	50.00	ug/L	100
121) naphthalene	18.21	128	369765	50.00	ug/L	100
122) 1,2,3-trichlorobenzene	18.44	180	180164	50.00	ug/L	100
123) hexachloroethane	16.62	201	95742	50.00	ug/L	100
124) 2-ethylhexyl acrylate	17.95	70	25160	10.00	ug/L	100
125) 2-methylnaphthalene	19.45	142	84840	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200473.D
Acq On : 4 Feb 2020 7:32 pm
Operator : CHELSEAS
Sample : ICC8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 07:47:54 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200474.D
Acq On : 4 Feb 2020 8:01 pm
Operator : CHELSEAS
Sample : IC8671-100
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 07:47:55 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	72143	500.00	ug/L	0.00
5) pentafluorobenzene	9.57	168	240492	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	360479	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	302369	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	157736	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.60	113	108579	49.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.56%			
53) 1,2-dichloroethane-d4 (s)	10.02	65	118235	49.70	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.40%			
75) toluene-d8 (s)	12.11	98	392109	51.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.02%			
99) 4-bromofluorobenzene (s)	14.77	95	149230	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
Target Compounds						Qvalue
2) ethanol	6.02	45	232417	10614.71	ug/L	99
3) tertiary butyl alcohol	7.42	59	110823	536.46	ug/L	99
4) 1,4-dioxane	11.13	88	53124	2733.27	ug/L	97
6) chlorodifluoromethane	4.05	51	353716	105.36	ug/L	99
7) dichlorodifluoromethane	4.02	85	384816	101.08	ug/L	99
8) chloromethane	4.39	50	427040	99.48	ug/L	99
9) vinyl chloride	4.62	62	423881	100.51	ug/L	98
10) 1,3-butadiene	4.66	54	259297	107.26	ug/L	96
11) bromomethane	5.23	94	253982	97.65	ug/L	100
12) chloroethane	5.40	64	215375	100.40	ug/L	96
13) vinyl bromide	5.74	106	233867	102.61	ug/L	99
14) trichlorofluoromethane	5.86	101	442120	100.58	ug/L	99
15) ethyl ether	6.24	74	153644	106.28	ug/L	98
16) 2-chloropropane	6.45	63	121423	106.66	ug/L	92
17) acrolein	6.46	56	43753	108.33	ug/L	95
18) freon 113	6.66	151	220254	106.53	ug/L	98
19) 1,1-dichloroethene	6.65	96	253055	106.03	ug/L	98
20) acetone	6.66	43	236388	421.13	ug/L	99
21) acetonitrile	7.08	41	297327	1047.80	ug/L	98
22) iodomethane	6.90	142	383336	107.36	ug/L	99
23) carbon disulfide	7.04	76	733482	106.49	ug/L	99
24) methylene chloride	7.36	84	291692	105.98	ug/L	98
25) methyl acetate	7.11	43	181236	107.37	ug/L	97
26) methyl tert butyl ether	7.71	73	706057	103.02	ug/L	100
27) trans-1,2-dichloroethene	7.74	96	279218	106.92	ug/L	98
28) hexane	8.09	57	433505	104.52	ug/L	99
29) di-isopropyl ether	8.31	45	995093	104.13	ug/L	99
30) ethyl tert-butyl ether	8.76	59	885447	102.83	ug/L	100
31) 2-butanone	8.96	72	99151	420.88	ug/L #	87
32) 1,1-dichloroethane	8.32	63	522828	104.83	ug/L	99
33) chloroprene	8.41	53	436804	105.37	ug/L	99
34) acrylonitrile	7.65	53	90941	108.11	ug/L	94
35) vinyl acetate	8.25	86	53916	108.95	ug/L #	91

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200474.D
Acq On : 4 Feb 2020 8:01 pm
Operator : CHELSEAS
Sample : IC8671-100
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 07:47:55 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	8.97	45	36733	107.06	ug/L		95
37) 2,2-dichloropropane	9.05	77	407594	104.84	ug/L		98
38) cis-1,2-dichloroethene	9.03	96	314249	105.13	ug/L		96
39) propionitrile	9.04	54	272183	1044.46	ug/L		84
40) bromochloromethane	9.32	130	199351	106.39	ug/L		100
41) tetrahydrofuran	9.34	42	65589	108.05	ug/L		97
42) chloroform	9.41	83	509796	105.04	ug/L		99
43) tert-butyl formate	9.45	59	231618	107.68	ug/L		98
44) isobutyl alcohol	9.80	43	92452	1106.18	ug/L	#	72
46) methacrylonitrile	9.24	67	97928	107.77	ug/L		96
47) 1,1,1-trichloroethane	9.66	97	451836	104.84	ug/L		95
48) cyclohexane	9.77	84	397755	103.44	ug/L		94
49) 1,1-dichloropropene	9.83	75	396715	105.72	ug/L		99
50) tert-amyl alcohol	9.96	73	55045	544.74	ug/L		93
51) carbon tetrachloride	9.86	117	410386	105.35	ug/L		100
54) 2,2,4-trimethylpentane	10.17	57	1112684	103.19	ug/L		99
55) tert-amyl methyl ether	10.16	73	830568	101.85	ug/L		98
56) n-butyl alcohol	10.55	56	296632	5226.52	ug/L		97
57) benzene	10.08	78	1106246	103.63	ug/L		99
58) heptane	10.33	57	243667	105.07	ug/L		98
59) isopropyl acetate	9.99	87	54669	105.90	ug/L		97
60) 1,2-dichloroethane	10.10	62	375471	103.49	ug/L		99
61) trichloroethene	10.80	95	294989	105.09	ug/L		97
62) ethyl acrylate	10.79	55	320660	104.40	ug/L		99
63) 2-nitropropane	11.56	41	59271	106.50	ug/L		98
64) 2-chloroethyl vinyl ether	11.59	63	676553	522.41	ug/L		99
65) methyl methacrylate	11.06	100	64295	105.45	ug/L		98
66) 1,2-dichloropropane	11.09	63	308308	103.81	ug/L		98
67) methylcyclohexane	11.09	83	496999	104.23	ug/L		100
68) dibromomethane	11.20	93	173146	104.27	ug/L		99
69) bromodichloromethane	11.35	83	405872	105.36	ug/L		100
70) epichlorohydrin	11.67	57	112586	525.36	ug/L		98
71) cis-1,3-dichloropropene	11.80	75	488886	104.43	ug/L		100
72) 4-methyl-2-pentanone	11.91	58	355793	411.79	ug/L		97
73) 3-methyl-1-butanol	11.91	70	112156	2141.66	ug/L		96
76) toluene	12.19	92	670734	106.44	ug/L		97
77) trans-1,3-dichloropropene	12.37	75	422461	106.55	ug/L		99
78) ethyl methacrylate	12.36	69	320318	106.95	ug/L		99
79) 1,1,2-trichloroethane	12.59	83	200976	106.44	ug/L		99
80) 2-hexanone	12.76	58	322557	416.70	ug/L		96
81) tetrachloroethene	12.74	166	304884	106.35	ug/L		98
82) 1,3-dichloropropane	12.77	76	389568	106.01	ug/L		99
83) butyl acetate	12.83	56	165093	106.97	ug/L		97
84) dibromochloromethane	13.01	129	300684	107.07	ug/L		98
85) 1,2-dibromoethane	13.16	107	264985	104.09	ug/L		100
86) n-butyl ether	13.60	57	1205661	103.62	ug/L		99
87) chlorobenzene	13.64	112	731660	104.42	ug/L		97
88) 1,1,1,2-tetrachloroethane	13.71	131	290654	106.75	ug/L		97
89) ethylbenzene	13.70	91	1202553	103.86	ug/L		98
90) m,p-xylene	13.82	106	954557	210.55	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200474.D
Acq On : 4 Feb 2020 8:01 pm
Operator : CHELSEAS
Sample : IC8671-100
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 07:47:55 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration

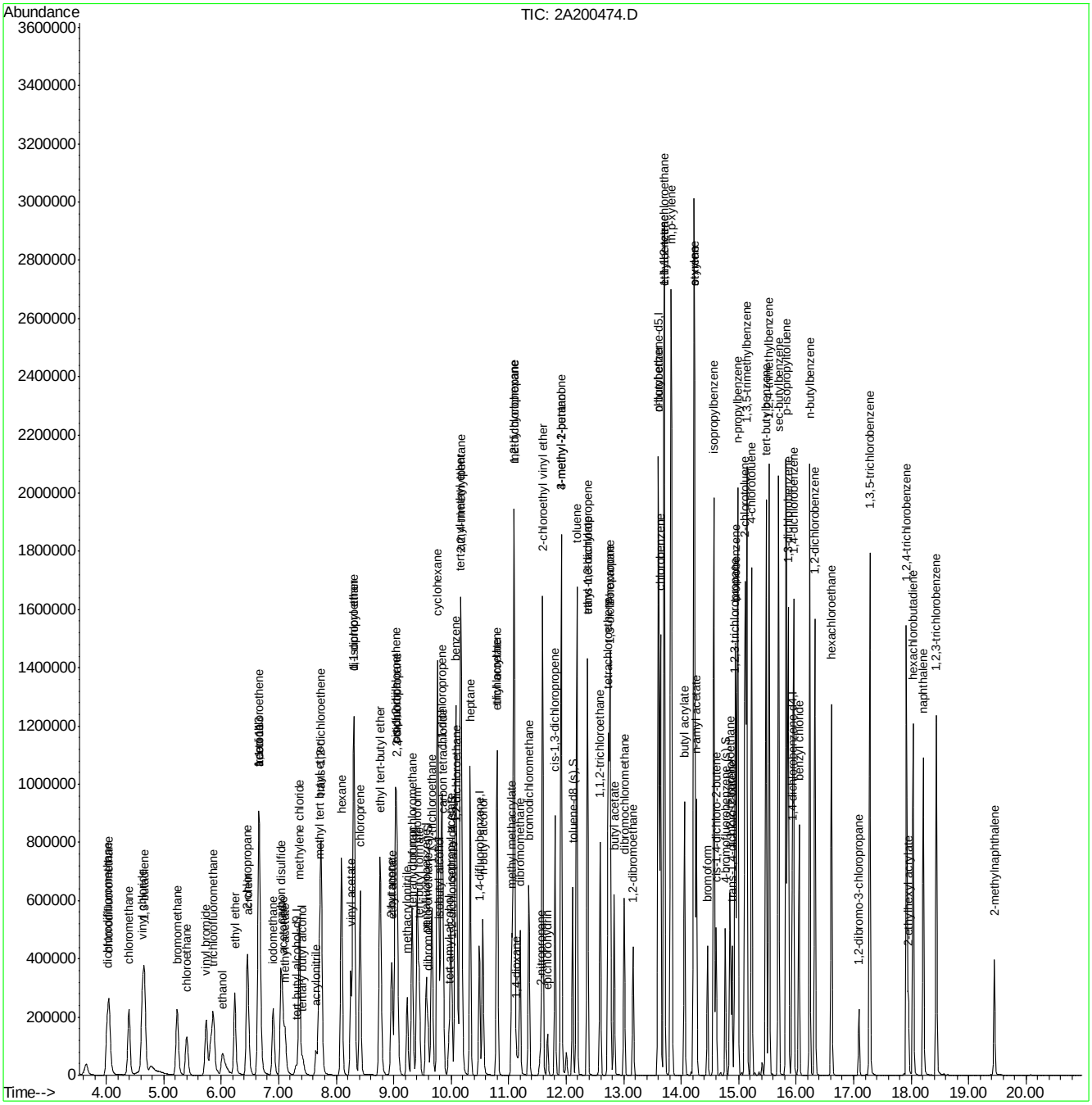
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
91) o-xylene	14.22	91	976008	103.90 ug/L	99
92) styrene	14.24	104	783878	105.33 ug/L	96
93) n-amyl acetate	14.27	70	177997	105.86 ug/L	99
94) bromoform	14.46	173	190803	108.15 ug/L	100
95) butyl acrylate	14.06	55	523970	104.75 ug/L	100
96) isopropylbenzene	14.57	105	1185158	103.75 ug/L	99
97) cis-1,4-dichloro-2-butene	14.61	88	109021	106.80 ug/L	97
100) bromobenzene	14.95	156	328579	103.55 ug/L	99
101) 1,1,2,2-tetrachloroethane	14.85	83	285829	103.29 ug/L	98
102) trans-1,4-dichloro-2-buten	14.88	53	73782	105.61 ug/L	94
103) 1,2,3-trichloropropane	14.93	110	72346	103.74 ug/L	97
104) n-propylbenzene	14.98	91	1378566	101.65 ug/L	99
105) 2-chlorotoluene	15.11	126	311368	104.65 ug/L	96
106) 4-chlorotoluene	15.22	91	862527	103.86 ug/L	99
107) 1,3,5-trimethylbenzene	15.14	105	1005210	103.19 ug/L	98
108) tert-butylbenzene	15.48	119	852806	102.58 ug/L	99
109) 1,2,4-trimethylbenzene	15.53	105	999219	103.23 ug/L	98
110) sec-butylbenzene	15.70	105	1269504	102.32 ug/L	98
111) 1,3-dichlorobenzene	15.86	146	594624	103.79 ug/L	98
112) p-isopropyltoluene	15.83	119	1078685	102.88 ug/L	97
113) benzyl chloride	16.05	91	544018	104.05 ug/L	100
114) 1,4-dichlorobenzene	15.96	146	600789	104.52 ug/L	99
115) 1,2-dichlorobenzene	16.33	146	570009	104.04 ug/L	98
116) n-butylbenzene	16.23	92	585239	104.36 ug/L	98
117) 1,2-dibromo-3-chloropropan	17.09	157	59408	105.61 ug/L	92
118) 1,3,5-trichlorobenzene	17.28	180	520934	102.90 ug/L	98
119) 1,2,4-trichlorobenzene	17.92	180	448099	104.37 ug/L	98
120) hexachlorobutadiene	18.04	225	244239	106.04 ug/L	98
121) naphthalene	18.21	128	780229	103.77 ug/L	99
122) 1,2,3-trichlorobenzene	18.44	180	385309	105.17 ug/L	96
123) hexachloroethane	16.62	201	209830	107.78 ug/L	98
124) 2-ethylhexyl acrylate	17.95	70	61726	24.13 ug/L	94
125) 2-methylnaphthalene	19.45	142	190657	55.26 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200474.D
Acq On : 4 Feb 2020 8:01 pm
Operator : CHELSEAS
Sample : IC8671-100
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 07:47:55 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 07:47:36 2020
QLast Update : Wed Feb 05 07:47:36 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200475.D
Acq On : 4 Feb 2020 8:30 pm
Operator : CHELSEAS
Sample : IC8671-200
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 06 10:46:38 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 09:46:56 2020
QLast Update : Wed Feb 05 09:46:56 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	73099	500.00	ug/L	0.00
5) pentafluorobenzene	9.56	168	247103	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	374245	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	303610	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	161323	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	113088	50.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	120642	48.58	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.16%			
75) toluene-d8 (s)	12.11	98	401748	52.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.26%			
99) 4-bromofluorobenzene (s)	14.77	95	153427	50.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.88%			
Target Compounds						Qvalue
2) ethanol	6.02	45	447511	20340.26	ug/L	99
3) tertiary butyl alcohol	7.42	59	215752	1024.23	ug/L	86
4) 1,4-dioxane	11.13	88	104114	5198.47	ug/L	97
6) chlorodifluoromethane	4.04	51	646138	186.31	ug/L	100
7) dichlorodifluoromethane	4.01	85	742394	199.56	ug/L	99
8) chloromethane	4.38	50	824489	181.50	ug/L	99
9) vinyl chloride	4.61	62	819471	191.66	ug/L	98
10) 1,3-butadiene	4.65	54	472290	189.19	ug/L	95
11) bromomethane	5.22	94	482553	171.41	ug/L	99
12) chloroethane	5.39	64	422531	192.62	ug/L	97
13) vinyl bromide	5.73	106	455029	202.11	ug/L	100
14) trichlorofluoromethane	5.85	101	859044	192.72	ug/L	97
15) ethyl ether	6.23	74	295293	198.04	ug/L	95
16) 2-chloropropane	6.44	63	233276	196.78	ug/L	96
17) acrolein	6.45	56	84596	213.95	ug/L	98
18) freon 113	6.65	151	417870	200.73	ug/L	98
19) 1,1-dichloroethene	6.65	96	481480	199.81	ug/L	99
20) acetone	6.65	43	451666	779.24	ug/L	100
21) acetonitrile	7.07	41	575355	1947.38	ug/L	99
22) iodomethane	6.89	142	730041	194.98	ug/L	99
24) methylene chloride	7.35	84	558762	192.38	ug/L	99
25) methyl acetate	7.11	43	349706	197.24	ug/L	99
26) methyl tert butyl ether	7.71	73	1340950	189.78	ug/L	99
27) trans-1,2-dichloroethene	7.73	96	535308	194.08	ug/L	97
28) hexane	8.09	57	833111	207.48	ug/L	99
29) di-isopropyl ether	8.30	45	1868803	188.79	ug/L	99
30) ethyl tert-butyl ether	8.76	59	1659831	184.29	ug/L	98
31) 2-butanone	8.96	72	194733	824.55	ug/L #	90
32) 1,1-dichloroethane	8.31	63	998107	194.34	ug/L	99
33) chloroprene	8.41	53	841951	201.01	ug/L	98
34) acrylonitrile	7.64	53	175862	206.96	ug/L	99
35) vinyl acetate	8.25	86	107048	211.18	ug/L #	94
36) ethyl acetate	8.97	45	71903	205.53	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200475.D
Acq On : 4 Feb 2020 8:30 pm
Operator : CHELSEAS
Sample : IC8671-200
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 06 10:46:38 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 09:46:56 2020
QLast Update : Wed Feb 05 09:46:56 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	9.05	77	766963	185.84	ug/L		98
38) cis-1,2-dichloroethene	9.02	96	608253	193.50	ug/L		98
39) propionitrile	9.04	54	526188	1976.39	ug/L		98
40) bromochloromethane	9.31	130	386677	199.64	ug/L		99
41) tetrahydrofuran	9.34	42	125948	198.98	ug/L		98
42) chloroform	9.40	83	976562	192.21	ug/L		99
43) tert-butyl formate	9.44	59	438573	194.17	ug/L		100
44) isobutyl alcohol	9.80	43	179855	2118.86	ug/L	#	64
46) methacrylonitrile	9.24	67	192002	203.37	ug/L		99
47) 1,1,1-trichloroethane	9.66	97	866096	199.15	ug/L		95
48) cyclohexane	9.77	84	775869	192.72	ug/L		88
49) 1,1-dichloropropene	9.83	75	765625	196.93	ug/L		100
50) tert-amyl alcohol	9.96	73	108369	1040.95	ug/L		97
51) carbon tetrachloride	9.85	117	791761	196.71	ug/L		100
54) 2,2,4-trimethylpentane	10.17	57	2076288	195.43	ug/L		98
55) tert-amyl methyl ether	10.16	73	1539708	181.12	ug/L		98
56) n-butyl alcohol	10.55	56	585011	10157.69	ug/L		100
57) benzene	10.08	78	2083987	183.99	ug/L		97
58) heptane	10.33	57	470224	207.99	ug/L		98
59) isopropyl acetate	9.99	87	107987	208.88	ug/L		96
60) 1,2-dichloroethane	10.10	62	720216	182.21	ug/L		100
61) trichloroethene	10.80	95	574208	195.19	ug/L		99
62) ethyl acrylate	10.79	55	618644	200.50	ug/L		99
63) 2-nitropropane	11.56	41	117375	210.19	ug/L		98
64) 2-chloroethyl vinyl ether	11.59	63	1294248	999.02	ug/L		96
65) methyl methacrylate	11.06	100	126595	206.42	ug/L		95
66) 1,2-dichloropropane	11.09	63	590532	192.77	ug/L		99
67) methylcyclohexane	11.09	83	945099	202.08	ug/L		99
68) dibromomethane	11.20	93	337929	197.26	ug/L		98
69) bromodichloromethane	11.35	83	781086	197.07	ug/L		99
70) epichlorohydrin	11.68	57	222829	995.23	ug/L		96
71) cis-1,3-dichloropropene	11.80	75	940100	197.52	ug/L		99
72) 4-methyl-2-pentanone	11.91	58	689033	770.27	ug/L		91
73) 3-methyl-1-butanol	11.91	70	221058	4188.43	ug/L		95
76) toluene	12.19	92	1286045	198.21	ug/L		92
77) trans-1,3-dichloropropene	12.37	75	811243	208.91	ug/L		97
78) ethyl methacrylate	12.36	69	624128	211.77	ug/L		99
79) 1,1,2-trichloroethane	12.59	83	391263	206.16	ug/L		98
80) 2-hexanone	12.76	58	625161	818.62	ug/L		95
81) tetrachloroethene	12.74	166	589093	201.63	ug/L		98
82) 1,3-dichloropropane	12.77	76	743833	200.38	ug/L		99
83) butyl acetate	12.83	56	322026	206.28	ug/L		96
84) dibromochloromethane	13.01	129	581157	210.01	ug/L		100
85) 1,2-dibromoethane	13.16	107	512548	206.95	ug/L		97
86) n-butyl ether	13.60	57	2190321	192.13	ug/L		97
87) chlorobenzene	13.64	112	1377913	195.39	ug/L		96
88) 1,1,1,2-tetrachloroethane	13.71	131	549017	203.59	ug/L		97
89) ethylbenzene	13.70	91	2160118	182.79	ug/L		93
90) m,p-xylene	13.82	106	1791995	396.09	ug/L		87
91) o-xylene	14.22	91	1787937	186.05	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200475.D
Acq On : 4 Feb 2020 8:30 pm
Operator : CHELSEAS
Sample : IC8671-200
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 06 10:46:38 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 09:46:56 2020
QLast Update : Wed Feb 05 09:46:56 2020
Response via : Initial Calibration

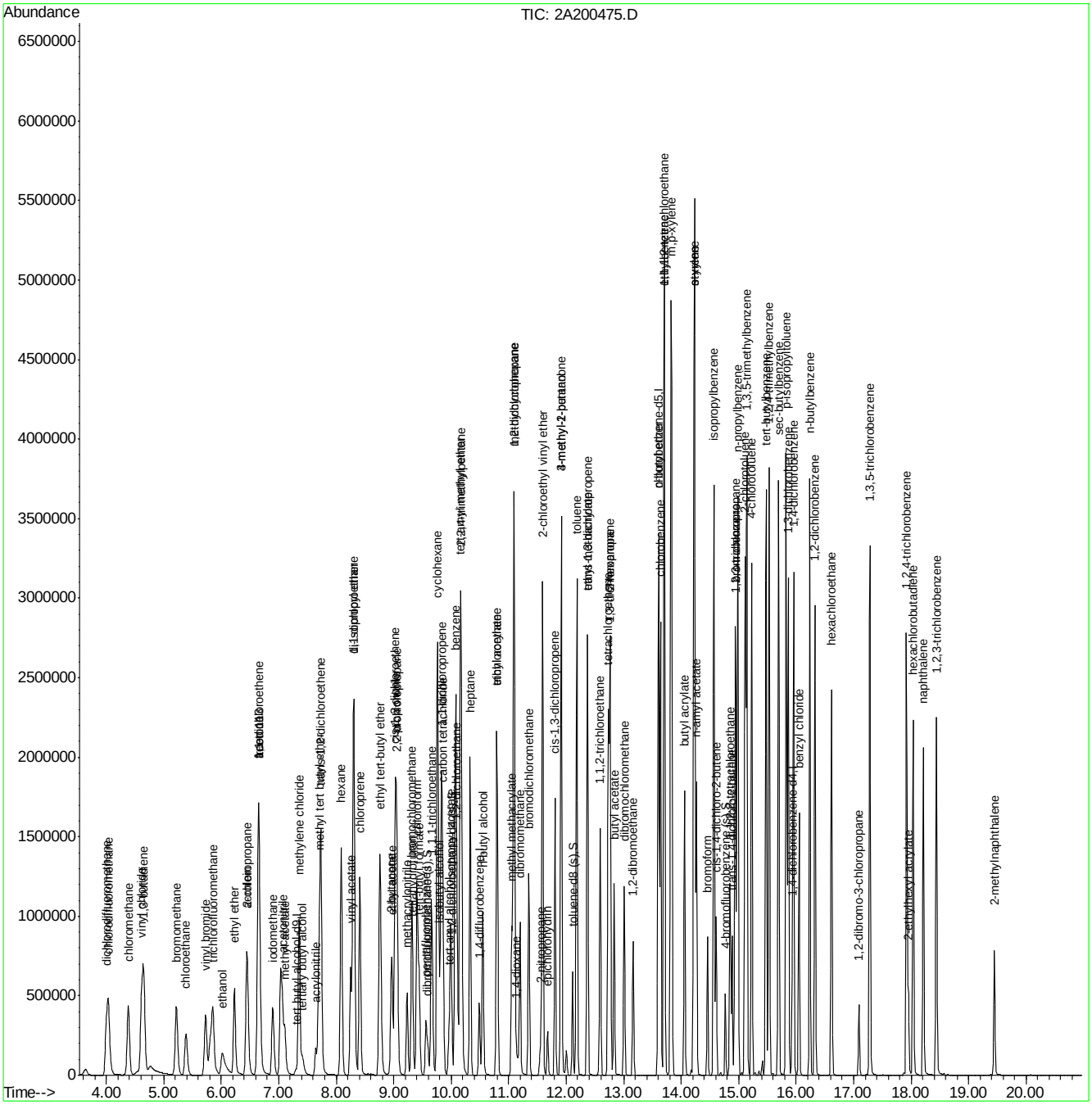
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
92) styrene	14.24	104	1452348	199.29 ug/L	99
93) n-amyl acetate	14.27	70	352471	213.86 ug/L	96
94) bromoform	14.46	173	373437	221.04 ug/L	100
95) butyl acrylate	14.06	55	1001432	208.32 ug/L	97
96) isopropylbenzene	14.57	105	2157901	188.05 ug/L	94
97) cis-1,4-dichloro-2-butene	14.61	88	214481	221.76 ug/L	98
100) bromobenzene	14.95	156	625497	195.01 ug/L	99
101) 1,1,2,2-tetrachloroethane	14.85	83	546488	197.52 ug/L	98
102) trans-1,4-dichloro-2-buten	14.88	53	145730	209.54 ug/L	94
103) 1,2,3-trichloropropane	14.94	110	139118	193.66 ug/L	99
104) n-propylbenzene	14.98	91	2458840	176.20 ug/L	94
105) 2-chlorotoluene	15.11	126	591061	194.17 ug/L	95
106) 4-chlorotoluene	15.22	91	1598452	187.13 ug/L	98
107) 1,3,5-trimethylbenzene	15.14	105	1829032	186.78 ug/L	94
108) tert-butylbenzene	15.48	119	1583583	191.24 ug/L	96
109) 1,2,4-trimethylbenzene	15.53	105	1832160	187.19 ug/L	95
110) sec-butylbenzene	15.70	105	2273677	181.00 ug/L	94
111) 1,3-dichlorobenzene	15.86	146	1106422	190.79 ug/L	93
112) p-isopropyltoluene	15.83	119	1954304	187.39 ug/L	94
113) benzyl chloride	16.05	91	1031680	201.56 ug/L	97
114) 1,4-dichlorobenzene	15.96	146	1121970	187.49 ug/L	97
115) 1,2-dichlorobenzene	16.33	146	1063547	191.68 ug/L	96
116) n-butylbenzene	16.24	92	1097440	197.12 ug/L	92
117) 1,2-dibromo-3-chloropropan	17.09	157	116580	214.45 ug/L	96
118) 1,3,5-trichlorobenzene	17.28	180	956630	194.81 ug/L	98
119) 1,2,4-trichlorobenzene	17.92	180	832594	203.07 ug/L	98
120) hexachlorobutadiene	18.04	225	439839	195.22 ug/L	98
121) naphthalene	18.21	128	1460052	207.06 ug/L	98
122) 1,2,3-trichlorobenzene	18.44	180	711055	201.98 ug/L	98
123) hexachloroethane	16.62	201	402590	213.89 ug/L	99
124) 2-ethylhexyl acrylate	17.95	70	119536	39.55 ug/L	94
125) 2-methylnaphthalene	19.45	142	371833	110.94 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200475.D
Acq On : 4 Feb 2020 8:30 pm
Operator : CHELSEAS
Sample : IC8671-200
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 06 10:46:38 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Wed Feb 05 09:46:56 2020
QLast Update : Wed Feb 05 09:46:56 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200478.D
Acq On : 4 Feb 2020 9:55 pm
Operator : CHELSEAS
Sample : ICV8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 06 10:51:08 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
QLast Update : Thu Feb 06 10:48:34 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	75328	500.00	ug/L	0.00
5) pentafluorobenzene	9.56	168	246730	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	373927	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	317146	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	165027	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	112637	50.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.46%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	122434	49.34	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.68%			
75) toluene-d8 (s)	12.11	98	407549	50.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.24%			
99) 4-bromofluorobenzene (s)	14.76	95	153121	49.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.42%			
Target Compounds						Qvalue
2) ethanol	6.01	45	114727	5060.27	ug/L	100
3) tertiary butyl alcohol	7.41	59	52112	240.07	ug/L	96
4) 1,4-dioxane	11.13	88	26658	1291.66	ug/L	94
7) dichlorodifluoromethane	4.01	85	153153	41.23	ug/L	99
8) chloromethane	4.38	50	196736	43.90	ug/L	99
9) vinyl chloride	4.61	62	191448	44.84	ug/L	99
10) 1,3-butadiene	4.65	54	157757	63.29	ug/L	100
11) bromomethane	5.22	94	153853	54.73	ug/L	98
12) chloroethane	5.39	64	95346	43.53	ug/L	97
13) vinyl bromide	5.73	106	130184	57.91	ug/L	98
14) trichlorofluoromethane	5.85	101	210318	47.26	ug/L	97
15) ethyl ether	6.23	74	75684	50.84	ug/L	99
16) 2-chloropropane	6.44	63	58797	49.67	ug/L	91
17) acrolein	6.46	56	20227	51.23	ug/L	94
18) freon 113	6.66	151	104181	50.12	ug/L	98
19) 1,1-dichloroethene	6.65	96	118249	49.15	ug/L	95
20) acetone	6.65	43	115759	200.02	ug/L	98
22) iodomethane	6.90	142	243138	65.03	ug/L	98
23) carbon disulfide	7.03	76	437733	59.96	ug/L	98
24) methylene chloride	7.35	84	141569	48.82	ug/L	98
25) methyl acetate	7.11	43	82730	46.73	ug/L	100
26) methyl tert butyl ether	7.70	73	684911	97.08	ug/L	99
27) trans-1,2-dichloroethene	7.74	96	135662	49.26	ug/L	100
28) hexane	8.09	57	165734	41.34	ug/L	99
29) di-isopropyl ether	8.30	45	465862	47.13	ug/L	99
30) ethyl tert-butyl ether	8.75	59	418454	46.53	ug/L	98
31) 2-butanone	8.96	72	47404	201.02	ug/L	94
32) 1,1-dichloroethane	8.31	63	259538	49.43	ug/L	100
33) chloroprene	8.41	53	215871	51.62	ug/L	99
35) vinyl acetate	8.25	86	25124	49.64	ug/L #	86
36) ethyl acetate	8.97	45	16450	47.09	ug/L	95
37) 2,2-dichloropropane	9.05	77	186474	45.25	ug/L	97
38) cis-1,2-dichloroethene	9.02	96	148459	47.30	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200478.D
Acq On : 4 Feb 2020 9:55 pm
Operator : CHELSEAS
Sample : ICV8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 06 10:51:08 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
QLast Update : Thu Feb 06 10:48:34 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) propionitrile	9.04	54	152315	572.97	ug/L		97
40) bromochloromethane	9.31	130	96658	49.98	ug/L		97
41) tetrahydrofuran	9.34	42	31677	50.12	ug/L		96
42) chloroform	9.40	83	248429	48.97	ug/L		98
43) tert-butyl formate	9.44	59	117383	52.05	ug/L		98
44) isobutyl alcohol	9.80	43	42364	499.84	ug/L	#	69
46) methacrylonitrile	9.23	67	49201	52.19	ug/L		97
47) 1,1,1-trichloroethane	9.66	97	215650	48.85	ug/L		97
48) cyclohexane	9.76	84	190692	47.44	ug/L		96
49) 1,1-dichloropropene	9.83	75	191453	49.32	ug/L		99
50) tert-amyl alcohol	9.96	73	25709	247.32	ug/L		93
51) carbon tetrachloride	9.85	117	200748	49.95	ug/L		98
54) 2,2,4-trimethylpentane	10.17	57	525158	49.47	ug/L		99
55) tert-amyl methyl ether	10.16	73	377245	44.41	ug/L		99
56) n-butyl alcohol	10.54	56	141903	2465.99	ug/L		100
57) benzene	10.07	78	547937	48.42	ug/L		99
58) heptane	10.33	57	110979	49.13	ug/L		97
59) isopropyl acetate	9.99	87	24828	48.07	ug/L		97
60) 1,2-dichloroethane	10.10	62	180320	45.66	ug/L		98
61) trichloroethene	10.80	95	144582	49.19	ug/L		99
62) ethyl acrylate	10.79	55	150100	48.69	ug/L		99
63) 2-nitropropane	11.56	41	29222	52.37	ug/L		96
64) 2-chloroethyl vinyl ether	11.59	63	345815	267.16	ug/L		99
65) methyl methacrylate	11.05	100	31506	51.42	ug/L	#	73
66) 1,2-dichloropropane	11.09	63	148064	48.37	ug/L		99
67) methylcyclohexane	11.09	83	236758	50.67	ug/L		99
68) dibromomethane	11.19	93	82116	47.97	ug/L		96
69) bromodichloromethane	11.35	83	191331	48.31	ug/L		98
70) epichlorohydrin	11.67	57	55159	246.57	ug/L		97
71) cis-1,3-dichloropropene	11.80	75	236321	49.69	ug/L		100
72) 4-methyl-2-pentanone	11.91	58	172811	193.35	ug/L		99
73) 3-methyl-1-butanol	11.91	70	52326	992.28	ug/L		98
76) toluene	12.18	92	327933	48.39	ug/L		99
77) trans-1,3-dichloropropene	12.37	75	208423	51.38	ug/L		99
78) ethyl methacrylate	12.36	69	161029	52.31	ug/L		99
79) 1,1,2-trichloroethane	12.59	83	99581	50.23	ug/L		97
80) 2-hexanone	12.76	58	155063	194.38	ug/L		99
82) 1,3-dichloropropane	12.77	76	190427	49.11	ug/L		99
83) butyl acetate	12.83	56	79112	48.51	ug/L		99
84) dibromochloromethane	13.01	129	148939	51.53	ug/L		98
85) 1,2-dibromoethane	13.16	107	133134	51.46	ug/L		100
86) n-butyl ether	13.60	57	577587	48.50	ug/L		100
87) chlorobenzene	13.64	112	365679	49.64	ug/L		100
88) 1,1,1,2-tetrachloroethane	13.71	131	140131	49.75	ug/L		99
89) ethylbenzene	13.70	91	596131	48.29	ug/L		100
90) m,p-xylene	13.82	106	468435	99.12	ug/L		98
91) o-xylene	14.22	91	479146	47.73	ug/L		99
92) styrene	14.23	104	384068	50.45	ug/L		98
93) n-amyl acetate	14.27	70	80480	46.75	ug/L		100
94) bromoform	14.46	173	97229	55.09	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200478.D
Acq On : 4 Feb 2020 9:55 pm
Operator : CHELSEAS
Sample : ICV8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 06 10:51:08 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
QLast Update : Thu Feb 06 10:48:34 2020
Response via : Initial Calibration

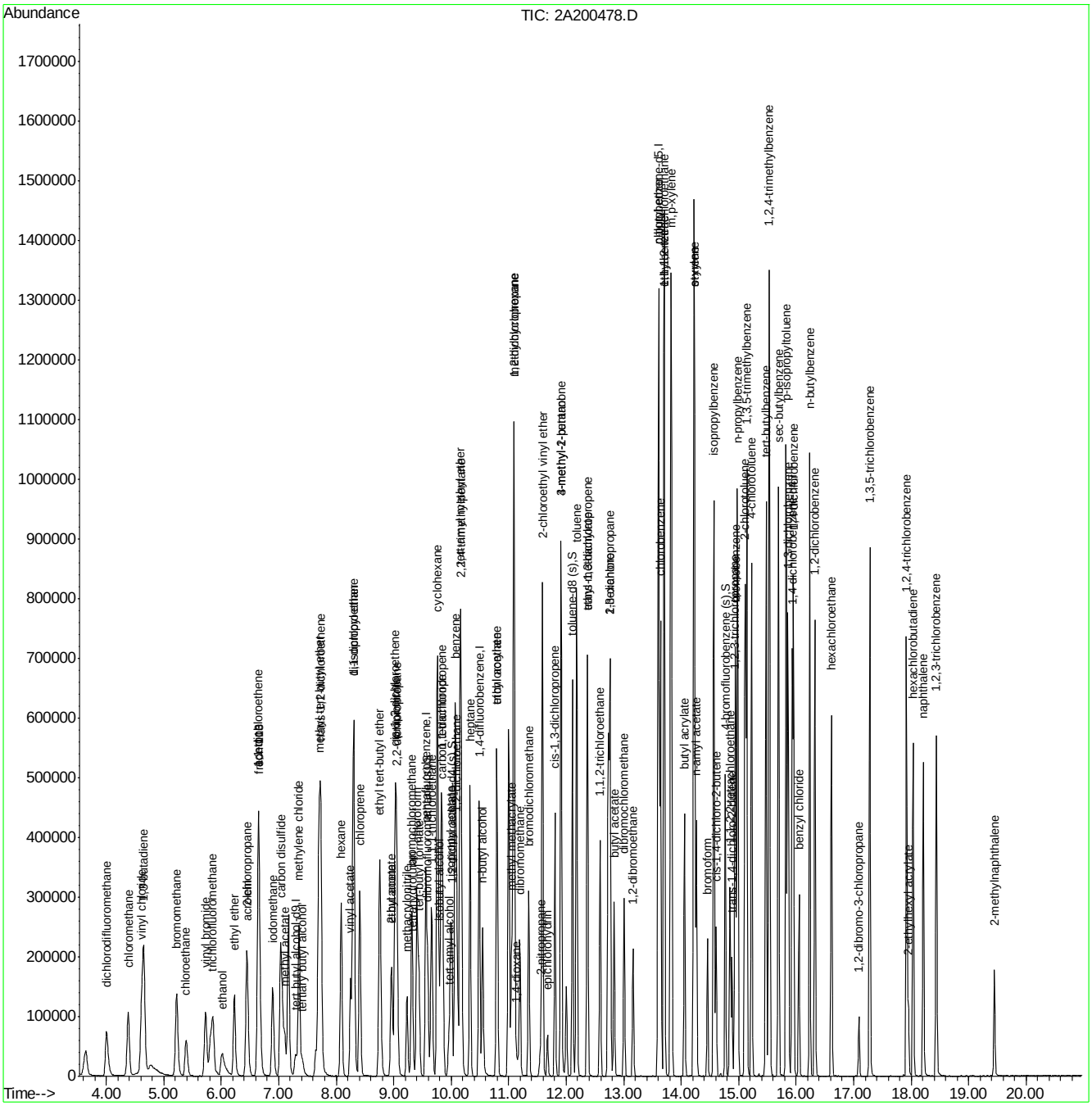
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) butyl acrylate	14.06	55	249141	49.61	ug/L	100
96) isopropylbenzene	14.57	105	584498	48.76	ug/L	99
97) cis-1,4-dichloro-2-butene	14.61	88	52694	52.16	ug/L	93
100) bromobenzene	14.95	156	160619	48.95	ug/L	97
101) 1,1,2,2-tetrachloroethane	14.85	83	140047	49.48	ug/L	100
102) trans-1,4-dichloro-2-buten	14.88	53	34216	48.09	ug/L	97
103) 1,2,3-trichloropropane	14.93	110	34735	47.27	ug/L	99
104) n-propylbenzene	14.98	91	695223	48.70	ug/L	99
105) 2-chlorotoluene	15.11	126	147359	47.32	ug/L	99
106) 4-chlorotoluene	15.22	91	428609	49.05	ug/L	99
107) 1,3,5-trimethylbenzene	15.14	105	489298	48.85	ug/L	98
108) tert-butylbenzene	15.48	119	416799	49.21	ug/L	99
109) 1,2,4-trimethylbenzene	15.53	105	501712	50.11	ug/L	95
110) sec-butylbenzene	15.70	105	630625	49.08	ug/L	100
111) 1,3-dichlorobenzene	15.86	146	297589	50.16	ug/L	99
112) p-isopropyltoluene	15.83	119	538151	50.44	ug/L	100
113) benzyl chloride	16.05	91	197224	37.14	ug/L	99
114) 1,4-dichlorobenzene	15.96	146	296006	48.36	ug/L	100
115) 1,2-dichlorobenzene	16.33	146	283166	49.89	ug/L	99
116) n-butylbenzene	16.23	92	284243	49.91	ug/L	99
117) 1,2-dibromo-3-chloropropan	17.09	157	26230	47.17	ug/L	98
118) 1,3,5-trichlorobenzene	17.28	180	260903	51.94	ug/L	99
119) 1,2,4-trichlorobenzene	17.92	180	214254	51.08	ug/L	100
120) hexachlorobutadiene	18.04	225	112657	48.88	ug/L	98
121) naphthalene	18.21	128	375342	52.03	ug/L	99
122) 1,2,3-trichlorobenzene	18.44	180	181720	50.46	ug/L	98
123) hexachloroethane	16.62	201	99589	51.72	ug/L	96
124) 2-ethylhexyl acrylate	17.95	70	28180	9.82	ug/L	94
125) 2-methylnaphthalene	19.45	142	86256	25.16	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200478.D
Acq On : 4 Feb 2020 9:55 pm
Operator : CHELSEAS
Sample : ICV8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 06 10:51:08 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
QLast Update : Thu Feb 06 10:48:34 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200479.D
Acq On : 4 Feb 2020 10:24 pm
Operator : CHELSEAS
Sample : ICV8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 06 10:51:32 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
QLast Update : Thu Feb 06 10:48:34 2020
Response via : Initial Calibration

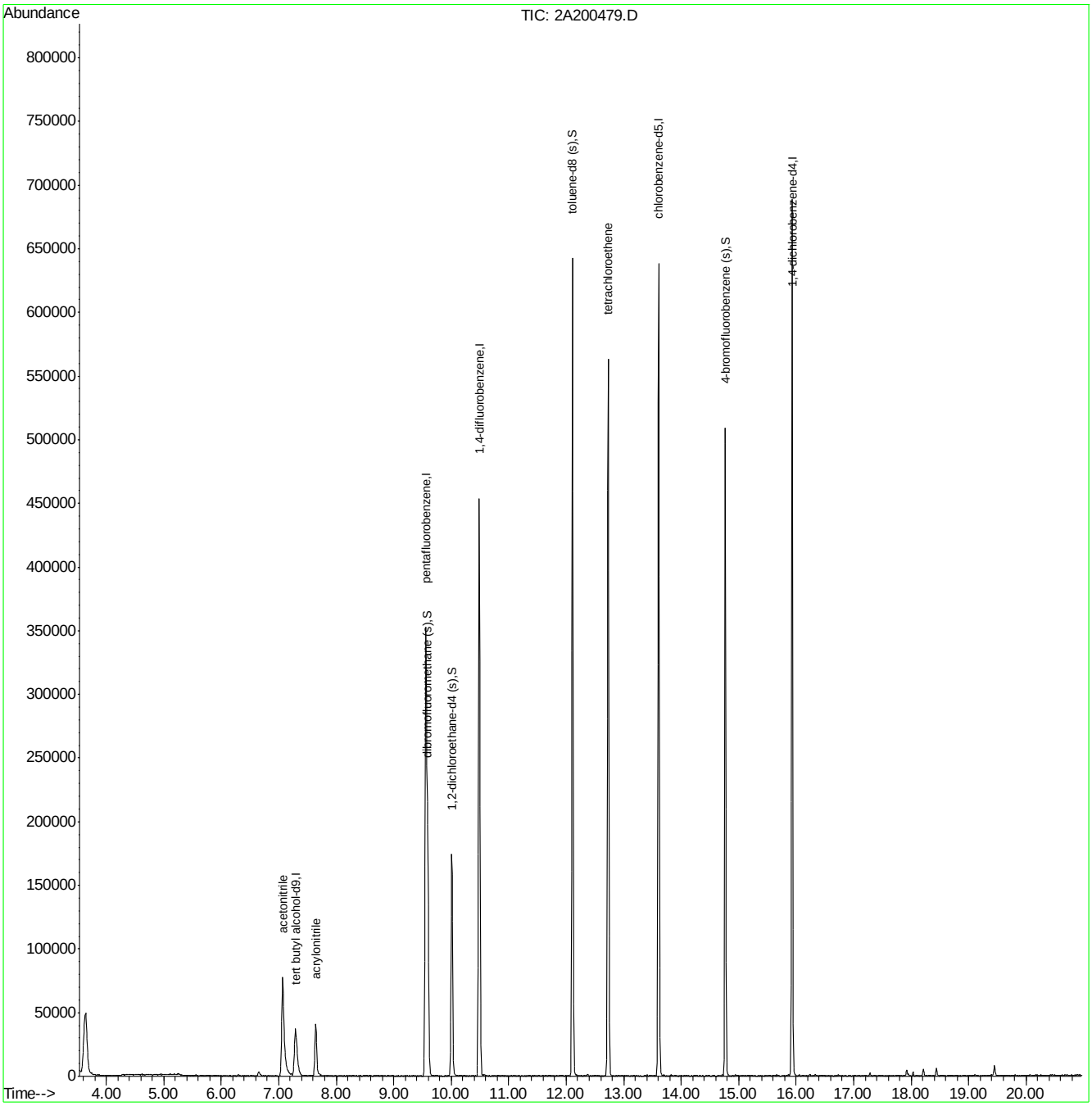
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.30	65	75739	500.00	ug/L	0.00
5) pentafluorobenzene	9.56	168	247018	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.49	114	368131	50.00	ug/L	0.00
74) chlorobenzene-d5	13.61	117	316671	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.93	152	162015	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.59	113	112038	49.90	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.80%			
53) 1,2-dichloroethane-d4 (s)	10.01	65	125328	51.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.62%			
75) toluene-d8 (s)	12.11	98	398270	49.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.10%			
99) 4-bromofluorobenzene (s)	14.76	95	154254	50.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.00%			
Target Compounds						Qvalue
21) acetonitrile	7.07	41	138223	468.00	ug/L	99
34) acrylonitrile	7.64	53	40440	47.61	ug/L	94
81) tetrachloroethene	12.73	166	155096	50.90	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V2A8671\
Data File : 2A200479.D
Acq On : 4 Feb 2020 10:24 pm
Operator : CHELSEAS
Sample : ICV8671-50
Misc : MS40388,V2A8671,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 06 10:51:32 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Thu Feb 06 10:48:34 2020
QLast Update : Thu Feb 06 10:48:34 2020
Response via : Initial Calibration



M2A8671.M Fri Feb 07 15:04:22 2020 MS2A Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201355.d
Acq On : 12 Mar 2020 7:15 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:34:07 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.296	65	110470	500.00	ug/L		0.00
5) pentafluorobenzene	9.560	168	339981	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.486	114	504154	50.00	ug/L		0.00
74) chlorobenzene-d5	13.609	117	416764	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.926	152	215662	50.00	ug/L		0.00
128) pentafluorobenzene(a)	9.560	168	339981	50.00	ug/L		0.00
130) chlorobenzene-d5(a)	13.609	117	416764	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	9.592	113	159520	51.62	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.24%				
53) 1,2-dichloroethane-d4 (s)	10.010	65	166251	49.70	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.40%				
75) toluene-d8 (s)	12.108	98	525258	49.65	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.30%				
99) 4-bromofluorobenzene (s)	14.764	95	200251	49.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.50%				
Target Compounds							Qvalue
2) ethanol	6.025	45	70866	2131.36	ug/L		99
3) tertiary butyl alcohol	7.411	59	29745	93.44	ug/L		97
4) 1,4-dioxane	11.129	88	16832	556.12	ug/L		90
6) chlorodifluoromethane	4.053	51	109127	22.87	ug/L		99
7) dichlorodifluoromethane	4.022	85	121446	23.73	ug/L		97
8) chloromethane	4.393	50	128205	20.76	ug/L		99
9) vinyl chloride	4.628	62	113284	19.26	ug/L		99
10) 1,3-butadiene	4.665	54	79087	23.03	ug/L		93
11) bromomethane	5.235	94	76526	19.76	ug/L		99
12) chloroethane	5.397	64	61298	20.31	ug/L		96
13) vinyl bromide	5.737	106	68788	22.21	ug/L		92
14) trichlorofluoromethane	5.857	101	137530	22.43	ug/L		97
15) ethyl ether	6.234	74	41650	20.30	ug/L		95
16) 2-chloropropane	6.448	63	34996	21.46	ug/L		93
17) acrolein	6.459	56	11958	21.98	ug/L		81
18) freon 113	6.658	151	63487	22.17	ug/L		94
19) 1,1-dichloroethene	6.652	96	71886	21.68	ug/L		98
20) acetone	6.663	43	64159	80.45	ug/L		99
21) acetonitrile	7.076	41	80557	198.17	ug/L		98
22) iodomethane	6.898	142	110240	21.40	ug/L		100
23) carbon disulfide	7.039	76	208030	20.68	ug/L		97
24) methylene chloride	7.353	84	82596	20.67	ug/L		96
25) methyl acetate	7.113	43	48057	19.70	ug/L		99
26) methyl tert butyl ether	7.709	73	208332	21.43	ug/L		97
27) trans-1,2-dichloroethene	7.735	96	77237	20.35	ug/L		95
28) hexane	8.091	57	128759	23.31	ug/L		98
29) di-isopropyl ether	8.300	45	270805	19.88	ug/L		99
30) ethyl tert-butyl ether	8.755	59	251720	20.31	ug/L		99
31) 2-butanone	8.959	72	25721	79.16	ug/L		95
32) 1,1-dichloroethane	8.310	63	142222	19.66	ug/L		99
33) chloroprene	8.410	53	112772	19.57	ug/L		97
34) acrylonitrile	7.646	53	24047	20.57	ug/L		96
35) vinyl acetate	8.248	86	14079	20.19	ug/L	#	89
36) ethyl acetate	8.969	45	9494	19.72	ug/L		96
37) 2,2-dichloropropane	9.053	77	117555	20.70	ug/L		97
38) cis-1,2-dichloroethene	9.022	96	87771	20.29	ug/L		98
39) propionitrile	9.043	54	75234	205.39	ug/L		68

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201355.d
Acq On : 12 Mar 2020 7:15 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:34:07 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	bromochloromethane	9.315	130	55553	20.85	ug/L		97
41)	tetrahydrofuran	9.330	42	17102	19.64	ug/L		99
42)	chloroform	9.403	83	142285	20.35	ug/L		98
43)	tert-butyl formate	9.440	59	61996	19.95	ug/L		99
44)	isobutyl alcohol	9.796	43	22839	195.56	ug/L	#	73
46)	methacrylonitrile	9.231	67	25051	19.29	ug/L		96
47)	1,1,1-trichloroethane	9.660	97	125668	20.66	ug/L		98
48)	cyclohexane	9.764	84	118103	21.32	ug/L		90
49)	1,1-dichloropropene	9.827	75	106900	19.98	ug/L		97
50)	tert-amyl alcohol	9.953	73	14832	103.55	ug/L	#	71
51)	carbon tetrachloride	9.853	117	115379	20.83	ug/L		96
54)	2,2,4-trimethylpentane	10.167	57	314091	21.95	ug/L		99
55)	tert-amyl methyl ether	10.157	73	235048	20.52	ug/L		99
56)	n-butyl alcohol	10.544	56	80239	1034.21	ug/L		98
57)	benzene	10.073	78	303142	19.87	ug/L		99
58)	heptane	10.329	57	67015	22.00	ug/L		96
59)	isopropyl acetate	9.984	87	14914	21.41	ug/L	#	76
60)	1,2-dichloroethane	10.099	62	102697	19.29	ug/L		99
61)	trichloroethene	10.795	95	78463	19.80	ug/L		98
62)	ethyl acrylate	10.789	55	82604	19.87	ug/L		99
63)	2-nitropropane	11.553	41	14409	19.15	ug/L		94
64)	2-chloroethyl vinyl ether	11.584	63	213025	122.06	ug/L		99
65)	methyl methacrylate	11.051	100	16810	20.35	ug/L	#	85
66)	1,2-dichloropropane	11.088	63	81661	19.79	ug/L		96
67)	methylcyclohexane	11.093	83	142918	22.68	ug/L		98
68)	dibromomethane	11.192	93	46999	20.37	ug/L		94
69)	bromodichloromethane	11.344	83	108236	20.27	ug/L		98
70)	epichlorohydrin	11.673	57	29370	97.37	ug/L		93
71)	cis-1,3-dichloropropene	11.804	75	130350	20.33	ug/L		97
72)	4-methyl-2-pentanone	11.909	58	91952	76.31	ug/L		99
73)	3-methyl-1-butanol	11.914	70	28937	407.00	ug/L		95
76)	toluene	12.181	92	177791	19.96	ug/L		99
77)	trans-1,3-dichloropropene	12.369	75	112044	21.02	ug/L		98
78)	ethyl methacrylate	12.364	69	82428	20.37	ug/L		95
79)	1,1,2-trichloroethane	12.589	83	53720	20.62	ug/L		96
80)	2-hexanone	12.756	58	81110	77.37	ug/L		98
81)	tetrachloroethene	12.730	166	83737	20.88	ug/L		99
82)	1,3-dichloropropane	12.767	76	104271	20.46	ug/L		99
83)	butyl acetate	12.835	56	39866	18.60	ug/L		98
84)	dibromochloromethane	13.007	129	78235	20.60	ug/L		96
85)	1,2-dibromoethane	13.164	107	73662	21.67	ug/L		98
86)	n-butyl ether	13.603	57	310157	19.82	ug/L		98
87)	chlorobenzene	13.640	112	193093	19.95	ug/L		98
88)	1,1,1,2-tetrachloroethane	13.703	131	77536	20.95	ug/L		97
89)	ethylbenzene	13.703	91	323164	19.92	ug/L		99
90)	m,p-xylene	13.823	106	252983	40.74	ug/L		99
91)	o-xylene	14.221	91	261659	19.84	ug/L		97
92)	styrene	14.231	104	205753	20.57	ug/L		97
93)	n-amyl acetate	14.262	70	44254	19.56	ug/L		97
94)	bromoform	14.456	173	49384	21.29	ug/L		98
95)	butyl acrylate	14.053	55	128092	19.41	ug/L		98
96)	isopropylbenzene	14.566	105	318468	20.22	ug/L		97
97)	cis-1,4-dichloro-2-butene	14.608	88	26901	20.26	ug/L		95
100)	bromobenzene	14.948	156	89930	20.97	ug/L		87
101)	1,1,2,2-tetrachloroethane	14.848	83	72786	19.68	ug/L		99
102)	trans-1,4-dichloro-2-b...	14.880	53	17767	19.11	ug/L		99
103)	1,2,3-trichloropropane	14.932	110	18666	19.44	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201355.d
Acq On : 12 Mar 2020 7:15 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:34:07 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

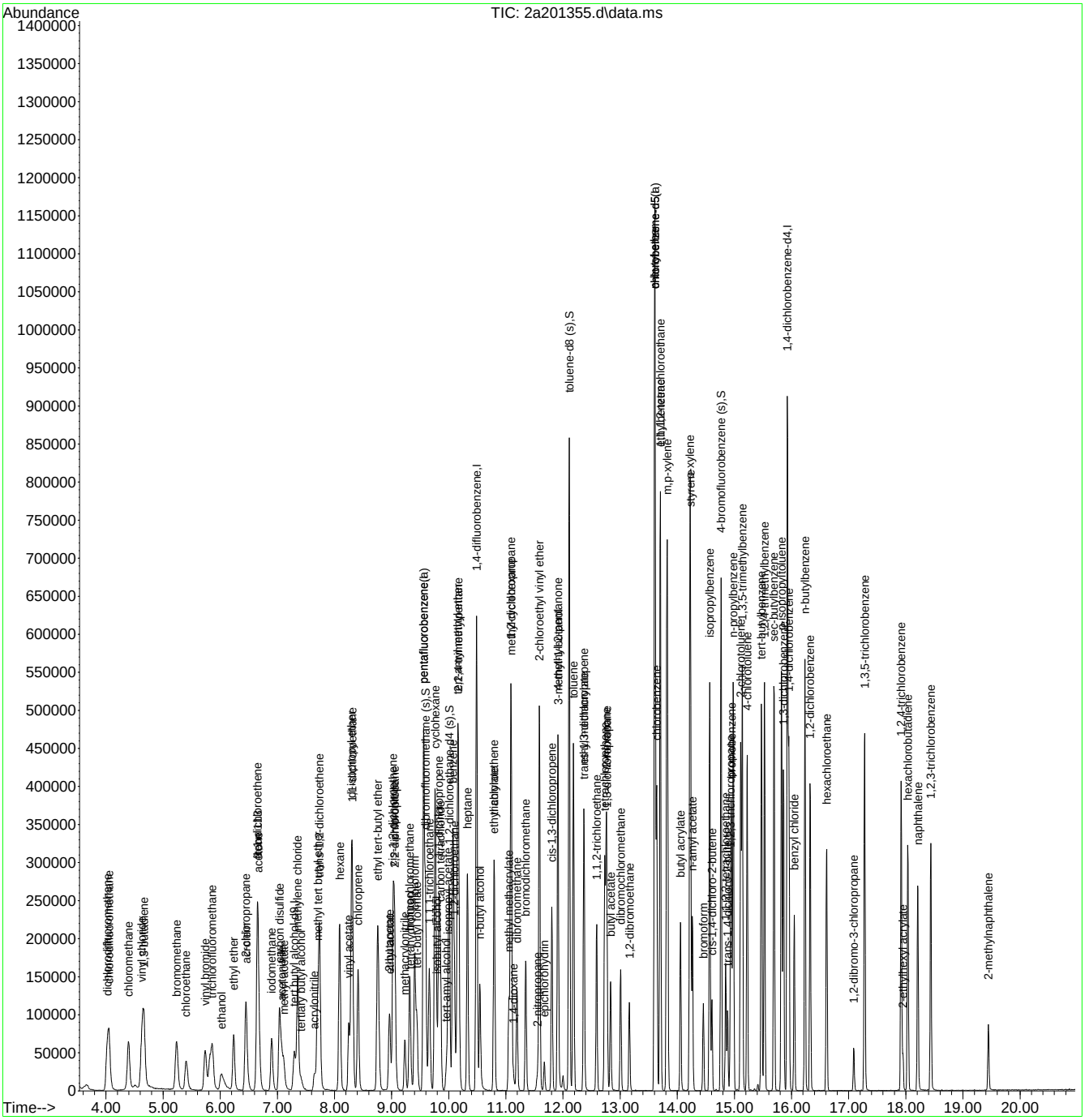
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.979	91	372345	19.96	ug/L	98
105) 2-chlorotoluene	15.110	126	81759	20.09	ug/L	96
106) 4-chlorotoluene	15.225	91	230069	20.15	ug/L	98
107) 1,3,5-trimethylbenzene	15.136	105	267797	20.46	ug/L	99
108) tert-butylbenzene	15.471	119	228129	20.61	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	268634	20.53	ug/L	97
110) sec-butylbenzene	15.690	105	340081	20.25	ug/L	99
111) 1,3-dichlorobenzene	15.858	146	160282	20.67	ug/L	99
112) p-isopropyltoluene	15.826	119	291779	20.93	ug/L	99
113) benzyl chloride	16.046	91	145434	20.96	ug/L	99
114) 1,4-dichlorobenzene	15.952	146	161452	20.18	ug/L	98
115) 1,2-dichlorobenzene	16.323	146	153047	20.63	ug/L	100
116) n-butylbenzene	16.234	92	152048	20.43	ug/L	100
117) 1,2-dibromo-3-chloropr...	17.087	157	14649	20.16	ug/L	94
118) 1,3,5-trichlorobenzene	17.280	180	140435	21.39	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	117586	21.45	ug/L	97
120) hexachlorobutadiene	18.033	225	65135	21.63	ug/L	97
121) naphthalene	18.211	128	199619	21.18	ug/L	98
122) 1,2,3-trichlorobenzene	18.436	180	100725	21.40	ug/L	99
123) hexachloroethane	16.616	201	53152	21.12	ug/L	95
124) 2-ethylhexyl acrylate	17.950	70	10455	3.45	ug/L	98
125) 2-methylnaphthalene	19.446	142	43480	9.70	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201355.d
Acq On : 12 Mar 2020 7:15 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41690,V2A8715,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 19:34:07 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201378.d
Acq On : 12 Mar 2020 6:30 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41777,V2A8715,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:27:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	97460	500.00	ug/L	0.00
5) pentafluorobenzene	9.566	168	320525	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	481433	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	383273	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	197106	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.566	168	320525	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	383273	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	150869	51.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.58%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	155420	48.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.30%			
75) toluene-d8 (s)	12.108	98	499673	51.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.72%			
99) 4-bromofluorobenzene (s)	14.765	95	182962	49.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.46%			
Target Compounds						Qvalue
2) ethanol	6.025	45	158832	5414.72	ug/L	97
3) tertiary butyl alcohol	7.411	59	72475	258.06	ug/L	97
4) 1,4-dioxane	11.130	88	37325	1397.82	ug/L	95
6) chlorodifluoromethane	4.048	51	241072	53.59	ug/L	97
7) dichlorodifluoromethane	4.022	85	258886	53.65	ug/L	98
8) chloromethane	4.393	50	282044	48.44	ug/L	98
9) vinyl chloride	4.628	62	284909	51.37	ug/L	99
10) 1,3-butadiene	4.660	54	175015	54.05	ug/L	97
11) bromomethane	5.230	94	179002	49.02	ug/L	98
12) chloroethane	5.397	64	146118	51.35	ug/L	97
13) vinyl bromide	5.737	106	166390	56.98	ug/L	97
14) trichlorofluoromethane	5.852	101	315513	54.57	ug/L	99
15) ethyl ether	6.234	74	101035	52.24	ug/L	99
16) 2-chloropropane	6.448	63	81533	53.02	ug/L	98
17) acrolein	6.464	56	21904	42.71	ug/L	95
18) freon 113	6.663	151	155132	57.45	ug/L	97
19) 1,1-dichloroethene	6.652	96	171231	54.78	ug/L	95
20) acetone	6.658	43	149647	199.04	ug/L	98
21) acetonitrile	7.076	41	189486	494.43	ug/L	99
22) iodomethane	6.898	142	260835	53.71	ug/L	98
23) carbon disulfide	7.039	76	474690	50.06	ug/L	96
24) methylene chloride	7.353	84	196400	52.13	ug/L	98
25) methyl acetate	7.113	43	114777	49.91	ug/L	99
26) methyl tert butyl ether	7.709	73	491236	53.60	ug/L	99
27) trans-1,2-dichloroethene	7.740	96	185005	51.71	ug/L	96
28) hexane	8.091	57	302650	58.11	ug/L	99
29) di-isopropyl ether	8.300	45	640145	49.86	ug/L	98
30) ethyl tert-butyl ether	8.760	59	591279	50.61	ug/L	97
31) 2-butanone	8.959	72	60748	198.30	ug/L	94
32) 1,1-dichloroethane	8.316	63	347615	50.96	ug/L	99
33) chloroprene	8.410	53	280856	51.69	ug/L	97
34) acrylonitrile	7.646	53	57550	52.21	ug/L	98
35) vinyl acetate	8.248	86	15897	24.18	ug/L	95
36) ethyl acetate	8.975	45	21589	47.58	ug/L	94
37) 2,2-dichloropropane	9.053	77	248073	46.34	ug/L	98
38) cis-1,2-dichloroethene	9.022	96	210682	51.67	ug/L	97
39) propionitrile	9.037	54	174686	505.83	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201378.d
Acq On : 12 Mar 2020 6:30 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41777,V2A8715,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:27:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	bromochloromethane	9.315	130	135768	54.04	ug/L		96
41)	tetrahydrofuran	9.330	42	39248	47.80	ug/L		98
42)	chloroform	9.404	83	347784	52.77	ug/L		98
43)	tert-butyl formate	9.440	59	87737	29.95	ug/L		98
44)	isobutyl alcohol	9.801	43	55953	508.18	ug/L	#	67
46)	methacrylonitrile	9.236	67	61714	50.39	ug/L		95
47)	1,1,1-trichloroethane	9.660	97	311079	54.24	ug/L		99
48)	cyclohexane	9.770	84	282793	54.15	ug/L		84
49)	1,1-dichloropropene	9.827	75	261527	51.86	ug/L		99
50)	tert-amyl alcohol	9.953	73	34688	256.87	ug/L	#	80
51)	carbon tetrachloride	9.853	117	286393	54.85	ug/L		99
54)	2,2,4-trimethylpentane	10.172	57	777215	56.87	ug/L		99
55)	tert-amyl methyl ether	10.157	73	558756	51.09	ug/L		98
56)	n-butyl alcohol	10.549	56	186793	2521.22	ug/L		98
57)	benzene	10.073	78	741194	50.87	ug/L		100
58)	heptane	10.329	57	153718	52.86	ug/L		99
59)	isopropyl acetate	9.989	87	35527	53.42	ug/L		94
60)	1,2-dichloroethane	10.099	62	248893	48.95	ug/L		100
61)	trichloroethene	10.795	95	208774	55.17	ug/L		97
62)	ethyl acrylate	10.784	55	190873	48.09	ug/L		99
63)	2-nitropropane	11.558	41	32767	45.61	ug/L		91
64)	2-chloroethyl vinyl ether	11.585	63	496874	298.14	ug/L		99
65)	methyl methacrylate	11.051	100	40545	51.39	ug/L		92
66)	1,2-dichloropropane	11.088	63	195806	49.69	ug/L		96
67)	methylcyclohexane	11.093	83	351374	58.40	ug/L		98
68)	dibromomethane	11.192	93	114932	52.15	ug/L		94
69)	bromodichloromethane	11.349	83	267372	52.44	ug/L		99
70)	epichlorohydrin	11.673	57	67070	232.86	ug/L		97
71)	cis-1,3-dichloropropene	11.804	75	307965	50.30	ug/L		96
72)	4-methyl-2-pentanone	11.909	58	218031	189.47	ug/L		98
73)	3-methyl-1-butanol	11.914	70	67958	1000.94	ug/L		93
76)	toluene	12.181	92	435485	53.17	ug/L		98
77)	trans-1,3-dichloropropene	12.369	75	261868	53.42	ug/L		98
78)	ethyl methacrylate	12.364	69	199776	53.70	ug/L		96
79)	1,1,2-trichloroethane	12.589	83	129233	53.94	ug/L		98
80)	2-hexanone	12.756	58	193483	200.70	ug/L		97
81)	tetrachloroethene	12.730	166	201433	54.62	ug/L		98
82)	1,3-dichloropropane	12.767	76	244111	52.09	ug/L		99
83)	butyl acetate	12.829	56	96856	49.15	ug/L		95
84)	dibromochloromethane	13.007	129	195855	56.07	ug/L		100
85)	1,2-dibromoethane	13.159	107	173210	55.40	ug/L		96
86)	n-butyl ether	13.603	57	747900	51.97	ug/L		99
87)	chlorobenzene	13.640	112	471494	52.96	ug/L		99
88)	1,1,1,2-tetrachloroethane	13.703	131	193050	56.71	ug/L		98
89)	ethylbenzene	13.703	91	780819	52.34	ug/L		100
90)	m,p-xylene	13.823	106	607180	106.31	ug/L		95
91)	o-xylene	14.221	91	626348	51.63	ug/L		99
92)	styrene	14.231	104	492435	53.53	ug/L		100
93)	n-amyl acetate	14.268	70	107645	51.74	ug/L		94
94)	bromoform	14.456	173	120803	56.64	ug/L		100
95)	butyl acrylate	14.053	55	314045	51.75	ug/L		99
96)	isopropylbenzene	14.566	105	771897	53.29	ug/L		99
97)	cis-1,4-dichloro-2-butene	14.608	88	58913	48.25	ug/L		94
100)	bromobenzene	14.948	156	213544	54.49	ug/L		91
101)	1,1,2,2-tetrachloroethane	14.848	83	159463	47.17	ug/L		98
102)	trans-1,4-dichloro-2-b...	14.880	53	37677	44.34	ug/L		90
103)	1,2,3-trichloropropane	14.932	110	44795	51.04	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201378.d
Acq On : 12 Mar 2020 6:30 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41777,V2A8715,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:27:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

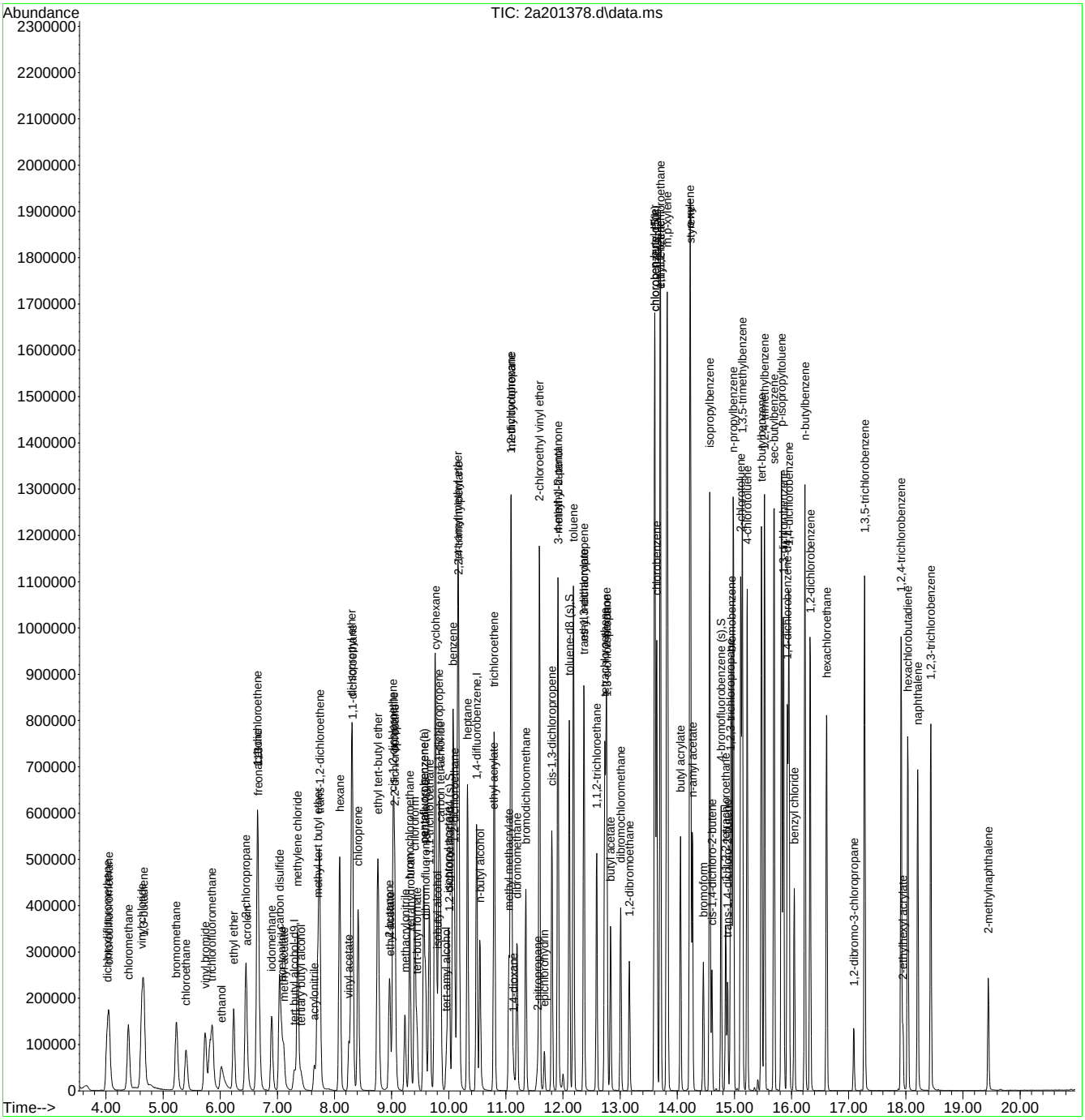
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.979	91	885078	51.91	ug/L	98
105) 2-chlorotoluene	15.110	126	195636	52.60	ug/L	100
106) 4-chlorotoluene	15.225	91	551052	52.80	ug/L	99
107) 1,3,5-trimethylbenzene	15.136	105	654396	54.70	ug/L	99
108) tert-butylbenzene	15.476	119	560986	55.45	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	643791	53.83	ug/L	98
110) sec-butylbenzene	15.696	105	821288	53.51	ug/L	99
111) 1,3-dichlorobenzene	15.858	146	377923	53.34	ug/L	96
112) p-isopropyltoluene	15.826	119	695426	54.58	ug/L	99
113) benzyl chloride	16.046	91	276159	43.54	ug/L	98
114) 1,4-dichlorobenzene	15.952	146	382064	52.26	ug/L	99
115) 1,2-dichlorobenzene	16.328	146	367840	54.26	ug/L	99
116) n-butylbenzene	16.234	92	360963	53.06	ug/L	98
117) 1,2-dibromo-3-chloropr...	17.092	157	36243	54.56	ug/L	96
118) 1,3,5-trichlorobenzene	17.280	180	336148	56.03	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	287529	57.40	ug/L	99
120) hexachlorobutadiene	18.033	225	151901	55.18	ug/L	99
121) naphthalene	18.206	128	504366	58.54	ug/L	99
122) 1,2,3-trichlorobenzene	18.436	180	249315	57.96	ug/L	98
123) hexachloroethane	16.616	201	136750	59.46	ug/L	98
124) 2-ethylhexyl acrylate	17.950	70	31430	9.23	ug/L	99
125) 2-methylnaphthalene	19.446	142	120095	29.33	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\03-13-2020\v2a8715\
Data File : 2a201378.d
Acq On : 12 Mar 2020 6:30 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41777,V2A8715,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 12 20:27:12 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201385.d
Acq On : 13 Mar 2020 7:14 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 14:54:51 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.301	65	102644	500.00	ug/L		0.00
5) pentafluorobenzene	9.560	168	324251	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.486	114	482590	50.00	ug/L		0.00
74) chlorobenzene-d5	13.609	117	401824	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.926	152	207228	50.00	ug/L		0.00
128) pentafluorobenzene(a)	9.560	168	324251	50.00	ug/L		0.00
130) chlorobenzene-d5(a)	13.609	117	401824	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	9.592	113	151699	51.47	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.94%				
53) 1,2-dichloroethane-d4 (s)	10.010	65	159780	49.90	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.80%				
75) toluene-d8 (s)	12.107	98	498894	48.91	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.82%				
99) 4-bromofluorobenzene (s)	14.764	95	189415	48.48	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.96%				
Target Compounds							Qvalue
2) ethanol	6.035	45	63301	2049.00	ug/L		98
3) tertiary butyl alcohol	7.421	59	27477	92.89	ug/L		93
4) 1,4-dioxane	11.129	88	14586	518.66	ug/L		97
6) chlorodifluoromethane	4.053	51	106724	23.45	ug/L		99
7) dichlorodifluoromethane	4.016	85	118889	24.35	ug/L		99
8) chloromethane	4.393	50	122117	20.73	ug/L		98
9) vinyl chloride	4.628	62	111017	19.79	ug/L		98
10) 1,3-butadiene	4.660	54	76394	23.32	ug/L		97
11) bromomethane	5.235	94	73763	19.97	ug/L		100
12) chloroethane	5.402	64	58197	20.22	ug/L		90
13) vinyl bromide	5.737	106	65613	22.21	ug/L		93
14) trichlorofluoromethane	5.857	101	132958	22.73	ug/L		98
15) ethyl ether	6.234	74	39826	20.35	ug/L		97
16) 2-chloropropane	6.454	63	33648	21.63	ug/L		91
17) acrolein	6.459	56	11778	22.70	ug/L		95
18) freon 113	6.663	151	63380	23.20	ug/L		94
19) 1,1-dichloroethene	6.652	96	70023	22.15	ug/L		90
20) acetone	6.663	43	62548	82.24	ug/L		96
21) acetonitrile	7.076	41	74966	193.36	ug/L		95
22) iodomethane	6.898	142	107259	21.83	ug/L		98
23) carbon disulfide	7.039	76	199156	20.76	ug/L		97
24) methylene chloride	7.353	84	79092	20.75	ug/L		98
25) methyl acetate	7.113	43	44903	19.30	ug/L		95
26) methyl tert butyl ether	7.709	73	199175	21.48	ug/L		99
27) trans-1,2-dichloroethene	7.740	96	75616	20.89	ug/L		92
28) hexane	8.091	57	127070	24.12	ug/L		98
29) di-isopropyl ether	8.300	45	256827	19.77	ug/L		98
30) ethyl tert-butyl ether	8.760	59	240192	20.32	ug/L		100
31) 2-butanone	8.959	72	24587	79.34	ug/L		99
32) 1,1-dichloroethane	8.316	63	140334	20.34	ug/L		98
33) chloroprene	8.410	53	110631	20.13	ug/L		99
34) acrylonitrile	7.646	53	22590	20.26	ug/L		95
35) vinyl acetate	8.248	86	12795	19.24	ug/L	#	86
36) ethyl acetate	8.969	45	8712	18.98	ug/L		94
37) 2,2-dichloropropane	9.053	77	115954	21.41	ug/L		99
38) cis-1,2-dichloroethene	9.027	96	85166	20.65	ug/L		97
39) propionitrile	9.037	54	69756	199.67	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201385.d
Acq On : 13 Mar 2020 7:14 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 14:54:51 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	bromochloromethane	9.320	130	54846	21.58	ug/L		93
41)	tetrahydrofuran	9.335	42	16205	19.51	ug/L		95
42)	chloroform	9.403	83	142173	21.33	ug/L		96
43)	tert-butyl formate	9.440	59	60119	20.28	ug/L		97
44)	isobutyl alcohol	9.796	43	20617	185.10	ug/L	#	79
46)	methacrylonitrile	9.231	67	24612	19.87	ug/L		93
47)	1,1,1-trichloroethane	9.660	97	125152	21.57	ug/L		98
48)	cyclohexane	9.764	84	113962	21.57	ug/L		92
49)	1,1-dichloropropene	9.827	75	104269	20.44	ug/L		97
50)	tert-amyl alcohol	9.953	73	13503	98.84	ug/L	#	80
51)	carbon tetrachloride	9.853	117	114196	21.62	ug/L		99
54)	2,2,4-trimethylpentane	10.167	57	311413	22.73	ug/L		98
55)	tert-amyl methyl ether	10.157	73	226268	20.64	ug/L		99
56)	n-butyl alcohol	10.549	56	71694	965.36	ug/L		98
57)	benzene	10.073	78	296940	20.33	ug/L		99
58)	heptane	10.329	57	65371	22.42	ug/L		97
59)	isopropyl acetate	9.989	87	13597	20.40	ug/L	#	87
60)	1,2-dichloroethane	10.099	62	100292	19.68	ug/L		95
61)	trichloroethene	10.795	95	79127	20.86	ug/L		95
62)	ethyl acrylate	10.789	55	77409	19.46	ug/L		98
63)	2-nitropropane	11.553	41	14979	20.80	ug/L		94
64)	2-chloroethyl vinyl ether	11.584	63	201295	120.49	ug/L		98
65)	methyl methacrylate	11.051	100	15476	19.57	ug/L		94
66)	1,2-dichloropropane	11.088	63	77233	19.55	ug/L		96
67)	methylcyclohexane	11.093	83	138686	23.00	ug/L		100
68)	dibromomethane	11.197	93	45222	20.47	ug/L		95
69)	bromodichloromethane	11.349	83	105333	20.61	ug/L		98
70)	epichlorohydrin	11.673	57	27280	94.49	ug/L		97
71)	cis-1,3-dichloropropene	11.804	75	127099	20.71	ug/L		96
72)	4-methyl-2-pentanone	11.909	58	87182	75.58	ug/L		97
73)	3-methyl-1-butanol	11.914	70	27327	401.53	ug/L		94
76)	toluene	12.181	92	170451	19.85	ug/L		97
77)	trans-1,3-dichloropropene	12.369	75	106684	20.76	ug/L		97
78)	ethyl methacrylate	12.364	69	77768	19.94	ug/L		97
79)	1,1,2-trichloroethane	12.589	83	50654	20.17	ug/L		97
80)	2-hexanone	12.756	58	77266	76.45	ug/L		96
81)	tetrachloroethene	12.730	166	80789	20.89	ug/L		96
82)	1,3-dichloropropane	12.766	76	96422	19.63	ug/L		99
83)	butyl acetate	12.834	56	37599	18.20	ug/L		99
84)	dibromochloromethane	13.007	129	77620	21.19	ug/L		96
85)	1,2-dibromoethane	13.164	107	67329	20.54	ug/L		97
86)	n-butyl ether	13.603	57	297382	19.71	ug/L		99
87)	chlorobenzene	13.640	112	188909	20.24	ug/L		98
88)	1,1,1,2-tetrachloroethane	13.703	131	75695	21.21	ug/L		97
89)	ethylbenzene	13.703	91	313266	20.03	ug/L		98
90)	m,p-xylene	13.823	106	242127	40.44	ug/L		98
91)	o-xylene	14.220	91	254180	19.98	ug/L		100
92)	styrene	14.231	104	198489	20.58	ug/L		98
93)	n-amyl acetate	14.268	70	42763	19.60	ug/L		95
94)	bromoform	14.456	173	46671	20.87	ug/L		99
95)	butyl acrylate	14.058	55	123713	19.44	ug/L		98
96)	isopropylbenzene	14.566	105	310019	20.41	ug/L		98
97)	cis-1,4-dichloro-2-butene	14.608	88	25054	19.57	ug/L		93
100)	bromobenzene	14.947	156	85448	20.74	ug/L		91
101)	1,1,2,2-tetrachloroethane	14.848	83	67989	19.13	ug/L		97
102)	trans-1,4-dichloro-2-b...	14.885	53	16112	18.04	ug/L		91
103)	1,2,3-trichloropropane	14.932	110	17334	18.78	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201385.d
Acq On : 13 Mar 2020 7:14 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 14:54:51 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

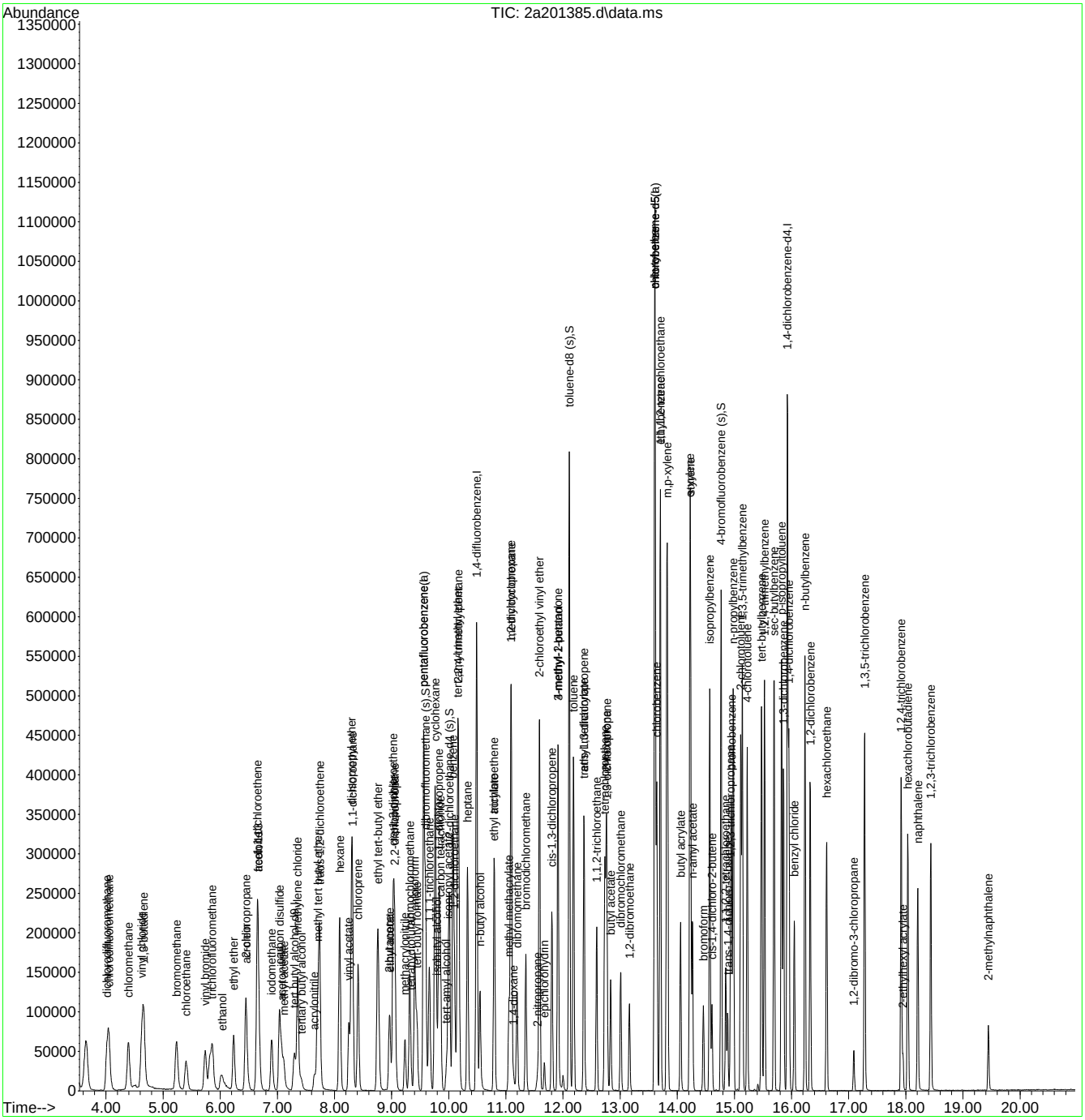
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.979	91	358475	20.00	ug/L	97
105) 2-chlorotoluene	15.110	126	78748	20.14	ug/L	95
106) 4-chlorotoluene	15.225	91	219023	19.96	ug/L	99
107) 1,3,5-trimethylbenzene	15.136	105	262477	20.87	ug/L	96
108) tert-butylbenzene	15.476	119	220803	20.76	ug/L	99
109) 1,2,4-trimethylbenzene	15.528	105	258397	20.55	ug/L	98
110) sec-butylbenzene	15.695	105	330386	20.48	ug/L	100
111) 1,3-dichlorobenzene	15.858	146	153302	20.58	ug/L	98
112) p-isopropyltoluene	15.826	119	282013	21.05	ug/L	99
113) benzyl chloride	16.046	91	140834	21.12	ug/L	98
114) 1,4-dichlorobenzene	15.952	146	151678	19.73	ug/L	99
115) 1,2-dichlorobenzene	16.328	146	147555	20.70	ug/L	98
116) n-butylbenzene	16.234	92	144544	20.21	ug/L	99
117) 1,2-dibromo-3-chloropr...	17.092	157	14020	20.08	ug/L	90
118) 1,3,5-trichlorobenzene	17.280	180	135959	21.55	ug/L	100
119) 1,2,4-trichlorobenzene	17.918	180	112986	21.45	ug/L	99
120) hexachlorobutadiene	18.033	225	63596	21.97	ug/L	97
121) naphthalene	18.211	128	193963	21.41	ug/L	99
122) 1,2,3-trichlorobenzene	18.436	180	98218	21.72	ug/L	94
123) hexachloroethane	16.616	201	53223	22.01	ug/L	99
124) 2-ethylhexyl acrylate	17.950	70	9111	3.21	ug/L	88
125) 2-methylnaphthalene	19.445	142	40959	9.51	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-13\v2a8717-rush\
Data File : 2a201385.d
Acq On : 13 Mar 2020 7:14 am
Operator : edwardd
Sample : CC8671-20 Inst : Instrument #1
Misc : MS40223,V2A8717,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 13 14:54:51 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201438.d
Acq On : 16 Mar 2020 7:16 am
Operator : payalr
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:24:11 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.306	65	89813	500.00	ug/L	0.01
5) pentafluorobenzene	9.560	168	313389	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	457336	50.00	ug/L	0.00
74) chlorobenzene-d5	13.609	117	376848	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.926	152	193251	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	313389	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.609	117	376848	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	140425	49.30	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.60%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	146286	48.20	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.40%			
75) toluene-d8 (s)	12.107	98	474188	49.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%			
99) 4-bromofluorobenzene (s)	14.764	95	176875	48.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.08%			
Target Compounds						Qvalue
2) ethanol	6.019	45	57633	2132.04	ug/L	98
3) tertiary butyl alcohol	7.411	59	24342	94.05	ug/L	94
4) 1,4-dioxane	11.135	88	13908	565.20	ug/L	87
6) chlorodifluoromethane	4.053	51	98424	22.38	ug/L	97
7) dichlorodifluoromethane	4.016	85	98455	20.87	ug/L	97
8) chloromethane	4.382	50	109414	19.22	ug/L	96
9) vinyl chloride	4.623	62	99406	18.33	ug/L	99
10) 1,3-butadiene	4.654	54	70907	22.40	ug/L	94
11) bromomethane	5.230	94	70574	19.77	ug/L	99
12) chloroethane	5.397	64	55147	19.82	ug/L	96
13) vinyl bromide	5.732	106	60746	21.27	ug/L	97
14) trichlorofluoromethane	5.857	101	119089	21.07	ug/L	95
15) ethyl ether	6.234	74	36575	19.34	ug/L	96
16) 2-chloropropane	6.448	63	30420	20.23	ug/L	90
17) acrolein	6.464	56	10960	21.86	ug/L	92
18) freon 113	6.658	151	56920	21.56	ug/L	97
19) 1,1-dichloroethene	6.647	96	63994	20.94	ug/L	93
20) acetone	6.652	43	54885	74.66	ug/L	96
21) acetonitrile	7.076	41	67980	181.42	ug/L	99
22) iodomethane	6.898	142	99863	21.03	ug/L	97
23) carbon disulfide	7.034	76	186581	20.12	ug/L	98
24) methylene chloride	7.353	84	72262	19.62	ug/L	99
25) methyl acetate	7.107	43	40406	17.97	ug/L	98
26) methyl tert butyl ether	7.709	73	181830	20.29	ug/L	96
27) trans-1,2-dichloroethene	7.735	96	67951	19.42	ug/L	100
28) hexane	8.091	57	112225	22.04	ug/L	97
29) di-isopropyl ether	8.300	45	234438	18.67	ug/L	98
30) ethyl tert-butyl ether	8.760	59	221122	19.36	ug/L	96
31) 2-butanone	8.959	72	21506	71.80	ug/L #	82
32) 1,1-dichloroethane	8.310	63	124096	18.61	ug/L	99
33) chloroprene	8.410	53	100880	18.99	ug/L	97
34) acrylonitrile	7.646	53	19221	17.84	ug/L	95
35) vinyl acetate	8.253	86	12302	19.14	ug/L #	81
36) ethyl acetate	8.975	45	7569	17.06	ug/L	96
37) 2,2-dichloropropane	9.053	77	107632	20.56	ug/L	94
38) cis-1,2-dichloroethene	9.022	96	76972	19.31	ug/L	98
39) propionitrile	9.037	54	61811	183.06	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201438.d
Acq On : 16 Mar 2020 7:16 am
Operator : payalr
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:24:11 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) bromochloromethane	9.315	130	50175	20.43	ug/L		93
41) tetrahydrofuran	9.330	42	13460	16.77	ug/L		88
42) chloroform	9.403	83	127141	19.73	ug/L		97
43) tert-butyl formate	9.440	59	53961	18.84	ug/L		94
44) isobutyl alcohol	9.790	43	18919	175.74	ug/L		95
46) methacrylonitrile	9.231	67	22312	18.63	ug/L		94
47) 1,1,1-trichloroethane	9.660	97	114764	20.47	ug/L		99
48) cyclohexane	9.764	84	103552	20.28	ug/L		90
49) 1,1-dichloropropene	9.827	75	94716	19.21	ug/L		99
50) tert-amyl alcohol	9.963	73	12182	92.27	ug/L	#	86
51) carbon tetrachloride	9.853	117	104916	20.55	ug/L		96
54) 2,2,4-trimethylpentane	10.167	57	279372	21.52	ug/L		99
55) tert-amyl methyl ether	10.157	73	206128	19.84	ug/L		100
56) n-butyl alcohol	10.544	56	65450	929.95	ug/L		99
57) benzene	10.073	78	270242	19.52	ug/L		99
58) heptane	10.329	57	56818	20.57	ug/L		97
59) isopropyl acetate	9.989	87	12357	19.56	ug/L	#	78
60) 1,2-dichloroethane	10.099	62	87989	18.22	ug/L		99
61) trichloroethene	10.800	95	69462	19.32	ug/L		94
62) ethyl acrylate	10.789	55	69613	18.46	ug/L		98
63) 2-nitropropane	11.558	41	12218	17.90	ug/L		93
64) 2-chloroethyl vinyl ether	11.584	63	187575	118.48	ug/L		97
65) methyl methacrylate	11.051	100	14859	19.83	ug/L	#	89
66) 1,2-dichloropropane	11.082	63	71277	19.04	ug/L		97
67) methylcyclohexane	11.093	83	124656	21.81	ug/L		97
68) dibromomethane	11.192	93	40949	19.56	ug/L		96
69) bromodichloromethane	11.349	83	97792	20.19	ug/L		100
70) epichlorohydrin	11.673	57	24808	90.67	ug/L		95
71) cis-1,3-dichloropropene	11.804	75	114881	19.75	ug/L		97
72) 4-methyl-2-pentanone	11.909	58	77197	70.62	ug/L		95
73) 3-methyl-1-butanol	11.914	70	23728	367.90	ug/L		92
76) toluene	12.181	92	157246	19.53	ug/L		97
77) trans-1,3-dichloropropene	12.369	75	97635	20.26	ug/L		99
78) ethyl methacrylate	12.364	69	70617	19.30	ug/L		95
79) 1,1,2-trichloroethane	12.589	83	45730	19.41	ug/L		98
80) 2-hexanone	12.756	58	67621	71.34	ug/L		94
81) tetrachloroethene	12.730	166	74611	20.57	ug/L		96
82) 1,3-dichloropropane	12.766	76	88012	19.10	ug/L		98
83) butyl acetate	12.829	56	34468	17.79	ug/L		91
84) dibromochloromethane	13.007	129	71163	20.72	ug/L		97
85) 1,2-dibromoethane	13.159	107	62499	20.33	ug/L		97
86) n-butyl ether	13.603	57	269462	19.04	ug/L		98
87) chlorobenzene	13.640	112	172381	19.69	ug/L		98
88) 1,1,1,2-tetrachloroethane	13.703	131	71921	21.49	ug/L		97
89) ethylbenzene	13.703	91	289245	19.72	ug/L		98
90) m,p-xylene	13.823	106	220591	39.28	ug/L		98
91) o-xylene	14.220	91	235547	19.75	ug/L		97
92) styrene	14.231	104	184369	20.38	ug/L		95
93) n-amyl acetate	14.262	70	36948	18.06	ug/L		100
94) bromoform	14.456	173	43574	20.78	ug/L		94
95) butyl acrylate	14.053	55	108193	18.13	ug/L		98
96) isopropylbenzene	14.566	105	286822	20.14	ug/L		99
97) cis-1,4-dichloro-2-butene	14.608	88	23220	19.34	ug/L		90
100) bromobenzene	14.947	156	78816	20.51	ug/L		88
101) 1,1,2,2-tetrachloroethane	14.848	83	61363	18.51	ug/L		98
102) trans-1,4-dichloro-2-b...	14.879	53	15233	18.28	ug/L		91
103) 1,2,3-trichloropropane	14.932	110	16050	18.65	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201438.d
Acq On : 16 Mar 2020 7:16 am
Operator : payalr
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:24:11 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

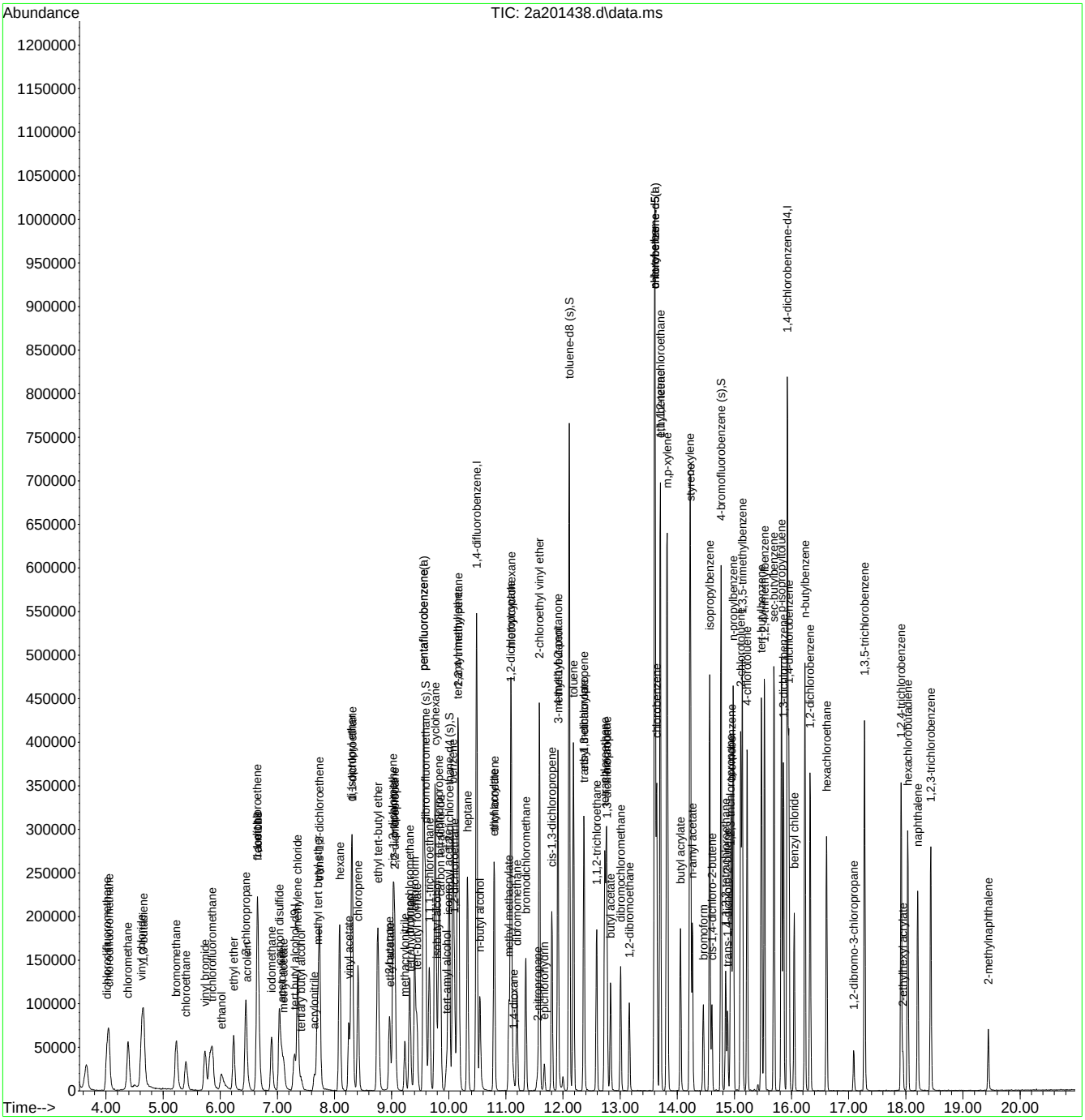
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.979	91	326441	19.53	ug/L	98
105) 2-chlorotoluene	15.110	126	71761	19.68	ug/L	99
106) 4-chlorotoluene	15.219	91	202092	19.75	ug/L	98
107) 1,3,5-trimethylbenzene	15.136	105	242366	20.66	ug/L	97
108) tert-butylbenzene	15.471	119	203763	20.54	ug/L	98
109) 1,2,4-trimethylbenzene	15.528	105	240990	20.55	ug/L	99
110) sec-butylbenzene	15.690	105	303082	20.14	ug/L	98
111) 1,3-dichlorobenzene	15.858	146	142640	20.53	ug/L	99
112) p-isopropyltoluene	15.821	119	263702	21.11	ug/L	99
113) benzyl chloride	16.046	91	129589	20.84	ug/L	99
114) 1,4-dichlorobenzene	15.952	146	142073	19.82	ug/L	98
115) 1,2-dichlorobenzene	16.323	146	135880	20.44	ug/L	98
116) n-butylbenzene	16.234	92	134961	20.24	ug/L	98
117) 1,2-dibromo-3-chloropr...	17.092	157	12610	19.36	ug/L	95
118) 1,3,5-trichlorobenzene	17.275	180	126658	21.53	ug/L	98
119) 1,2,4-trichlorobenzene	17.918	180	104590	21.30	ug/L	97
120) hexachlorobutadiene	18.033	225	60133	22.28	ug/L	97
121) naphthalene	18.206	128	170572	20.19	ug/L	98
122) 1,2,3-trichlorobenzene	18.436	180	88015	20.87	ug/L	97
123) hexachloroethane	16.611	201	50615	22.45	ug/L	97
124) 2-ethylhexyl acrylate	17.950	70	9988	3.62	ug/L	97
125) 2-methylnaphthalene	19.445	142	34613	8.62	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201438.d
Acq On : 16 Mar 2020 7:16 am
Operator : payalr
Sample : CC8671-20 Inst : Instrument #1
Misc : MS41791,V2A8720,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 08:24:11 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201461.d
Acq On : 16 Mar 2020 6:44 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41684,V2A8720,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 09:17:20 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.296	65	84376	500.00	ug/L	0.00
5) pentafluorobenzene	9.560	168	301136	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.486	114	448736	50.00	ug/L	0.00
74) chlorobenzene-d5	13.608	117	355343	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.931	152	186383	50.00	ug/L	0.00
128) pentafluorobenzene(a)	9.560	168	301136	50.00	ug/L	0.00
130) chlorobenzene-d5(a)	13.608	117	355343	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.592	113	140820	51.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.90%			
53) 1,2-dichloroethane-d4 (s)	10.010	65	141879	47.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.30%			
75) toluene-d8 (s)	12.107	98	468072	51.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.78%			
99) 4-bromofluorobenzene (s)	14.764	95	171209	48.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.44%			
Target Compounds						Qvalue
2) ethanol	6.014	45	128690	5067.46	ug/L	99
3) tertiary butyl alcohol	7.416	59	59569	244.99	ug/L	98
4) 1,4-dioxane	11.129	88	30915	1337.30	ug/L	98
6) chlorodifluoromethane	4.048	51	245659	58.12	ug/L	98
7) dichlorodifluoromethane	4.011	85	270974	59.77	ug/L	98
8) chloromethane	4.388	50	259441	47.43	ug/L	98
9) vinyl chloride	4.612	62	246210	47.25	ug/L	99
10) 1,3-butadiene	4.654	54	184639	60.69	ug/L	96
11) bromomethane	5.230	94	169412	49.38	ug/L	98
12) chloroethane	5.392	64	137428	51.41	ug/L	95
13) vinyl bromide	5.732	106	154767	56.41	ug/L	98
14) trichlorofluoromethane	5.852	101	315369	58.06	ug/L	97
15) ethyl ether	6.229	74	91017	50.09	ug/L	99
16) 2-chloropropane	6.443	63	77797	53.85	ug/L	97
17) acrolein	6.453	56	23342	48.44	ug/L	97
18) freon 113	6.652	151	153656	60.57	ug/L	96
19) 1,1-dichloroethene	6.647	96	163207	55.58	ug/L	94
20) acetone	6.652	43	127536	180.55	ug/L	96
21) acetonitrile	7.071	41	162875	452.36	ug/L	98
22) iodomethane	6.893	142	250834	54.97	ug/L	98
23) carbon disulfide	7.034	76	472282	53.01	ug/L	96
24) methylene chloride	7.348	84	179533	50.72	ug/L	95
25) methyl acetate	7.112	43	99000	45.82	ug/L	96
26) methyl tert butyl ether	7.709	73	453938	52.72	ug/L	97
27) trans-1,2-dichloroethene	7.735	96	174705	51.97	ug/L	94
28) hexane	8.085	57	298951	61.09	ug/L	99
29) di-isopropyl ether	8.300	45	575831	47.73	ug/L	97
30) ethyl tert-butyl ether	8.755	59	542476	49.42	ug/L	99
31) 2-butanone	8.954	72	55740	193.67	ug/L #	77
32) 1,1-dichloroethane	8.310	63	313417	48.91	ug/L	98
33) chloroprene	8.410	53	257850	50.51	ug/L	98
34) acrylonitrile	7.641	53	51528	49.76	ug/L	95
35) vinyl acetate	8.253	86	31243	50.58	ug/L #	78
36) ethyl acetate	8.969	45	19843	46.54	ug/L	97
37) 2,2-dichloropropane	9.053	77	253859	50.47	ug/L	97
38) cis-1,2-dichloroethene	9.021	96	195066	50.92	ug/L	98
39) propionitrile	9.037	54	152194	469.08	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201461.d
Acq On : 16 Mar 2020 6:44 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41684,V2A8720,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 09:17:20 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) bromochloromethane	9.314	130	125190	53.04	ug/L		95
41) tetrahydrofuran	9.330	42	34869	45.20	ug/L		94
42) chloroform	9.403	83	313304	50.60	ug/L		98
43) tert-butyl formate	9.440	59	142818	51.89	ug/L		99
44) isobutyl alcohol	9.796	43	52006	502.74	ug/L	#	80
46) methacrylonitrile	9.236	67	56702	49.28	ug/L		91
47) 1,1,1-trichloroethane	9.660	97	291133	54.03	ug/L		97
48) cyclohexane	9.764	84	277690	56.60	ug/L		86
49) 1,1-dichloropropene	9.827	75	243407	51.37	ug/L		98
50) tert-amyl alcohol	9.958	73	30012	236.56	ug/L	#	88
51) carbon tetrachloride	9.853	117	270064	55.06	ug/L		99
54) 2,2,4-trimethylpentane	10.167	57	726971	57.07	ug/L		99
55) tert-amyl methyl ether	10.156	73	510848	50.12	ug/L		98
56) n-butyl alcohol	10.544	56	158649	2297.38	ug/L		99
57) benzene	10.073	78	681386	50.17	ug/L		99
58) heptane	10.324	57	151677	55.95	ug/L		99
59) isopropyl acetate	9.989	87	31703	51.14	ug/L	#	88
60) 1,2-dichloroethane	10.099	62	222638	46.98	ug/L		98
61) trichloroethene	10.800	95	179337	50.84	ug/L		98
62) ethyl acrylate	10.784	55	176125	47.60	ug/L		99
63) 2-nitropropane	11.553	41	30198	45.10	ug/L		98
64) 2-chloroethyl vinyl ether	11.584	63	460025	296.14	ug/L		99
65) methyl methacrylate	11.051	100	36266	49.32	ug/L	#	84
66) 1,2-dichloropropane	11.087	63	176336	48.01	ug/L		96
67) methylcyclohexane	11.093	83	332660	59.32	ug/L		97
68) dibromomethane	11.192	93	103045	50.16	ug/L		98
69) bromodichloromethane	11.349	83	242720	51.07	ug/L		99
70) epichlorohydrin	11.673	57	60765	226.34	ug/L		96
71) cis-1,3-dichloropropene	11.804	75	287952	50.46	ug/L		97
72) 4-methyl-2-pentanone	11.909	58	192133	179.13	ug/L		98
73) 3-methyl-1-butanol	11.914	70	58345	921.96	ug/L		93
76) toluene	12.181	92	396197	52.17	ug/L		99
77) trans-1,3-dichloropropene	12.369	75	243307	53.53	ug/L		98
78) ethyl methacrylate	12.364	69	177863	51.56	ug/L		94
79) 1,1,2-trichloroethane	12.589	83	117170	52.75	ug/L		98
80) 2-hexanone	12.756	58	168122	188.10	ug/L		92
81) tetrachloroethene	12.730	166	191104	55.89	ug/L		98
82) 1,3-dichloropropane	12.766	76	221355	50.95	ug/L		98
83) butyl acetate	12.829	56	87079	47.66	ug/L		97
84) dibromochloromethane	13.007	129	180207	55.64	ug/L		100
85) 1,2-dibromoethane	13.159	107	158302	54.61	ug/L		95
86) n-butyl ether	13.603	57	665807	49.90	ug/L		99
87) chlorobenzene	13.640	112	432112	52.35	ug/L		99
88) 1,1,1,2-tetrachloroethane	13.703	131	175634	55.65	ug/L		99
89) ethylbenzene	13.703	91	710154	51.35	ug/L		99
90) m,p-xylene	13.823	106	560072	105.77	ug/L		99
91) o-xylene	14.220	91	573338	50.98	ug/L		99
92) styrene	14.231	104	456580	53.53	ug/L		98
93) n-amyl acetate	14.262	70	96009	49.77	ug/L		99
94) bromoform	14.456	173	112194	56.74	ug/L		98
95) butyl acrylate	14.053	55	280799	49.91	ug/L		98
96) isopropylbenzene	14.566	105	715140	53.25	ug/L		99
97) cis-1,4-dichloro-2-butene	14.607	88	57881	51.13	ug/L		95
100) bromobenzene	14.947	156	198330	53.52	ug/L		91
101) 1,1,2,2-tetrachloroethane	14.848	83	156168	48.86	ug/L		97
102) trans-1,4-dichloro-2-b...	14.879	53	37002	46.05	ug/L		96
103) 1,2,3-trichloropropane	14.932	110	41222	49.67	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201461.d
Acq On : 16 Mar 2020 6:44 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41684,V2A8720,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 09:17:20 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration

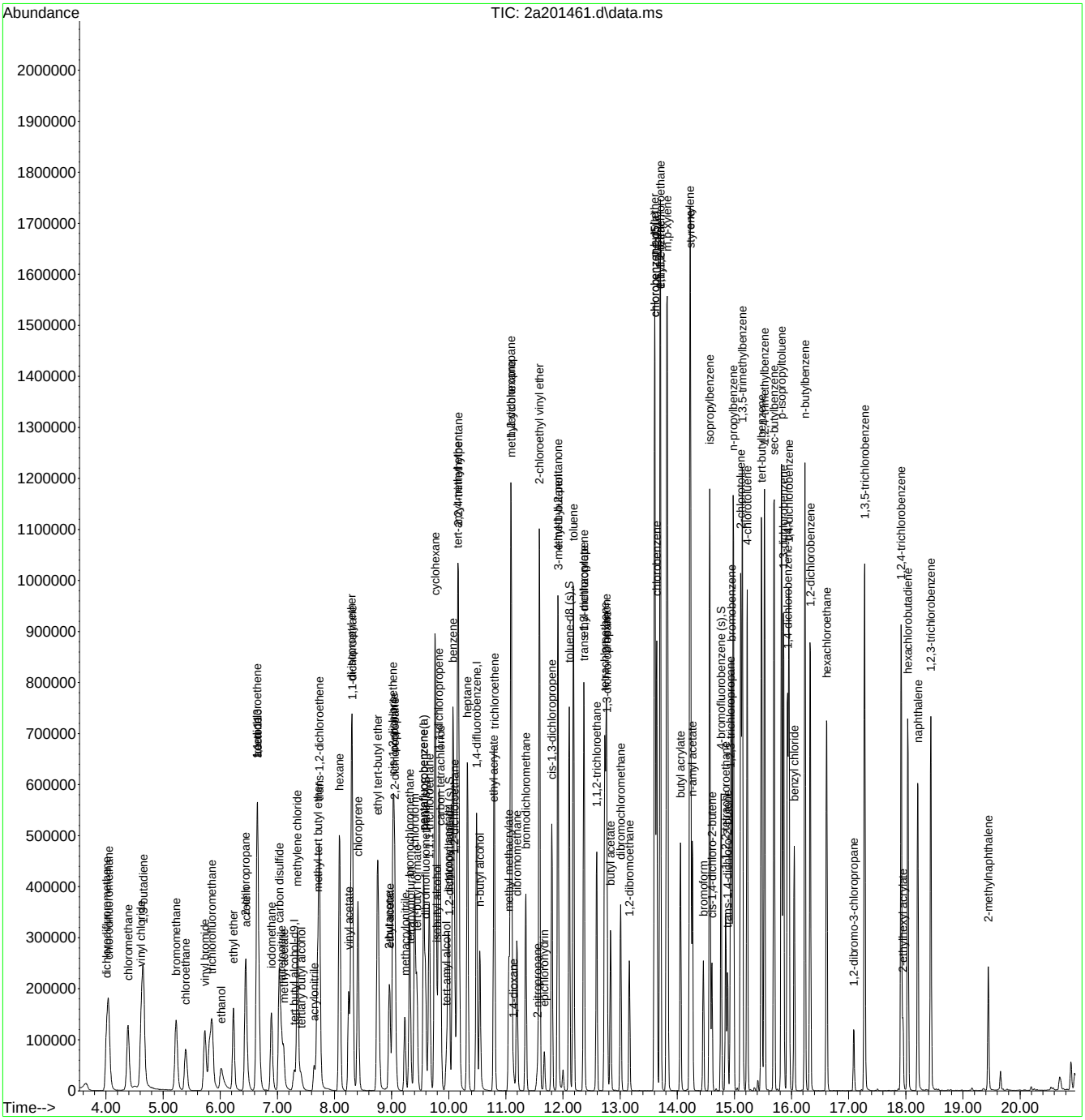
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	14.979	91	809823	50.23	ug/L	99
105) 2-chlorotoluene	15.110	126	180560	51.34	ug/L	96
106) 4-chlorotoluene	15.225	91	501652	50.83	ug/L	99
107) 1,3,5-trimethylbenzene	15.136	105	597971	52.85	ug/L	99
108) tert-butylbenzene	15.476	119	520468	54.40	ug/L	100
109) 1,2,4-trimethylbenzene	15.528	105	599762	53.04	ug/L	100
110) sec-butylbenzene	15.695	105	759874	52.36	ug/L	100
111) 1,3-dichlorobenzene	15.857	146	352607	52.63	ug/L	97
112) p-isopropyltoluene	15.826	119	651372	54.06	ug/L	99
113) benzyl chloride	16.046	91	308598	51.45	ug/L	98
114) 1,4-dichlorobenzene	15.952	146	353935	51.19	ug/L	99
115) 1,2-dichlorobenzene	16.328	146	338719	52.84	ug/L	99
116) n-butylbenzene	16.234	92	336733	52.35	ug/L	99
117) 1,2-dibromo-3-chloropr...	17.092	157	34667	55.19	ug/L	89
118) 1,3,5-trichlorobenzene	17.280	180	313703	55.29	ug/L	99
119) 1,2,4-trichlorobenzene	17.918	180	267116	56.39	ug/L	98
120) hexachlorobutadiene	18.033	225	148630	57.10	ug/L	98
121) naphthalene	18.211	128	453474	55.66	ug/L	99
122) 1,2,3-trichlorobenzene	18.436	180	226757	55.75	ug/L	99
123) hexachloroethane	16.616	201	128774	59.22	ug/L	98
124) 2-ethylhexyl acrylate	17.950	70	31000	9.59	ug/L	90
125) 2-methylnaphthalene	19.445	142	118577	30.62	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA-SVOA\Mar-2020\3-17\v2a8720\
Data File : 2a201461.d
Acq On : 16 Mar 2020 6:44 pm
Operator : edwardd
Sample : ecc8671-50 Inst : Instrument #1
Misc : MS41684,V2A8720,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2A8671.M
Quant Results File: M2A8671.RES
Quant Time: Mar 17 09:17:20 2020
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm xFri May 03Mon Mar 09 11:34:45 2020
QLast Update : Mon Mar 09 11:34:45 2020
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(30mx0.25mmx1.4um)
Standards	ABK: v019-2692-77.22	EC: v019-2692-79.5	Acrolein: v019-2692-44.54		Method	V8260C
Standard Concentrations	100-10,000 ppm	100ppm	100ppm		Init Calib Date	2/4/2020
Expiration Date	3/4/2020	2/10/2020	2/10/2020			
Standards	Ext ABK: V019-2692-78.1	Ext EC: v019-2692-73.3	Ext Acrolein: v019-2692-76.1	Ext PA: V019-2692-45.2		
Standard Concentrations	100-10,000 ppm	100 ppm	100 ppm	100/1000 ppm	Analysis Date	2/4/2020
Expiration Date	3/4/2020	2/6/2020	3/2/2020	2/10/2020	Sequence loaded by	Robert Szot
Internal Surrogate	v019-2692-83				Data processed by	Robert Szot
Internal Surrogate Concentration	250/2500ppm				Batch ID	V2A8671
Expiration Date	3/4/2020				Matrix	AQ
			Rough Reviewed By:		Approved By:	KANYAV
			Initial Calibration Method	M2A8671	Approved Date:	2/6/2020 5:11:21 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	200465	BFB		NA			5			1	ok	3:37pm
2A	200466	IC8671-0.2		NA		8260 initial calibration	5			2	ok	1 uL ABK, EC, Acrolein / 500 mL DI H2O
2A	200467	IC8671-0.5		NA		8260 initial calibration	5			3	ok	2.5 uL ABK, EC, Acrolein / 500 mL DI H2O
2A	200468	IC8671-1		NA		8260 initial calibration	5			4	ok	5 uL ABK, EC, Acrolein / 500 mL DI H2O
2A	200469	IC8671-2		NA		8260 initial calibration	5			5	ok	2 uL ABK, EC, Acrolein / 100 mL DI H2O
2A	200470	IC8671-4		NA		8260 initial calibration	5			6	ok	4 uL ABK, EC, Acrolein / 100 mL DI H2O
2A	200471	IC8671-8		NA		8260 initial calibration	5			7	ok	8 uL ABK, EC, Acrolein / 100 mL DI H2O
2A	200472	IC8671-20		NA		8260 initial calibration	5			8	ok	20 uL ABK, EC, Acrolein / 100 mL DI H2O
2A	200473	ICC8671-50		NA		8260 initial calibration	5			9	ok	50 uL ABK, EC, Acrolein / 100 mL DI H2O
2A	200474	IC8671-100		NA		8260 initial calibration	5			10	ok	100 uL ABK, EC, Acrolein / 100 mL DI H2O
2A	200475	IC8671-200		NA		8260 initial calibration	5			11	ok	200 uL ABK, EC, Acrolein / 100 mL DI H2O

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	200476	IB		NA			5			12	ok	
2A	200477	IB		NA			5			13	ok	
2A	200478	ICV8671-50		NA		8260 initial calibration	5			14	ok	50 uL Ext ABK, Ext EC, Ext Acrolein / 100 mL DI H2O
2A	200479	ICV8671-50		NA		8260 initial calibration	5			15	ok	50 uL Ext PA / 100 mL DI H2O

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(30mx0.25mmx1.4um)
Standards	ABK: V019-2692-112.21	EC: V019-2692-127	Acrolein: V019-2692-116.11		Method	v8260c
Standard Concentrations	100-10000ppm	100ppm	100ppm		Init Calib Date	3/6/2020
Expiration Date	3/29/2020	3/17/2020	4/3/2020			
Internal Surrogate	v019-2692-97					
Internal Surrogate Concentration	250/2500ppm				Analysis Date	3/12/2020
Expiration Date	3/18/2020				Sequence loaded by	janellec
					Data processed by	Edward Durner
					Batch ID	V2A8715
					Matrix	AQ
Review:					Approved By:	MOHUI
pH Paper Lot (wide range) #221419	Exp. 08/01/2022		Initial Calibration Method	M2A8671	Approved Date:	3/13/2020 2:48:50 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	201354	IB		NA			5			1	OK	
2A	201355	BFB/CC8671-20		NA			5			2	OK/OK	20ul abk,ec,acrolein/100ml, 7:15am
2A	201356	BS		NA			5			3	OK	50ul abk,ec,acrolein/100ml
2A	201357	IB		NA			5			4	OK	
2A	201358	MB		NA			5			5	OK	
2A	201359	JD4346-45	7	NA	MS41725	V8260TCL20+	5		1	6	OK	
2A	201360	JD4415-1	6	NA	MS41746	V8260TCL20+	5		1	7	OK	
2A	201361	JD4440-2	15	NA	MS41754	V8260TCL20	5		1	8	OK	
2A	201362	JD4440-1	7	NA	MS41754	V8260TCL20	5		1	9	OK	
2A	201363	JD4440-3	9	NA	MS41754	V8260TCL20	5		1	10	OK	
2A	201364	JD4273-13	1	2.5	MS41669	V8260TCL20+, TBA	20/50		1	11	OK	+

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	201365	JD4440-2MS	13	NA	MS41754	V8260TCL20	5		1	12	OK	20ul abk,ec,acrolein/40ml
2A	201366	JD4440-2MSD	11	NA	MS41754	V8260TCL20	5		1	13	OK	20ul abk,ec,acrolein/40ml
2A	201367	IB		NA			5			14	OK	
2A	201368	JD4502-5	4	NA	MS41777	V8260TCL20+	5		1	15	OK	
2A	201369	JD4502-10	1	NA	MS41777	V8260TCL20+	5		1	16	OK	
2A	201370	JD4502-2	5	NA	MS41777	V8260TCL20+	5		1	17	OK	
2A	201371	JD4502-3	4	NA	MS41777	V8260TCL20+	5		1	18	OK	
2A	201372	JD4502-4	4	NA	MS41777	V8260TCL20+	5		1	19	OK	
2A	201373	JD4502-6	4	NA	MS41777	V8260TCL20+	5		1	20	OK	
2A	201374	JD4502-1	5	NA	MS41777	V8260TCL20+	5		1	1	OK	
2A	201375	JD4502-7	4	NA	MS41777	V8260TCL20+	5		1	2	OK	
2A	201376	JD4502-8	4	NA	MS41777	V8260TCL20+	5		1	3	OK	
2A	201377	JD4502-9	4	NA	MS41777	V8260TCL20+	5		1	4	OK	
2A	201378	ECC8671-50		NA			5			5	OK	50ul abk,ec,acrolein/100ml. (6:30PM)

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standards	ABK: V019-2692-112.21	EC: V019-2692-127.2	Acrolein: V019-2692-116.11		Column	RXI624(30mx0.25mmx1.4um)
Standard Concentrations	100-10000ppm	100ppm	100ppm		Method	v8260c
Expiration Date	3/29/2020	3/17/2020	4/3/2020		Init Calib Date	3/6/2020
Internal Surrogate	v019-2692-97					
Internal Surrogate Concentration	250/2500ppm				Analysis Date	3/13/2020
Expiration Date	3/18/2020				Sequence loaded by	Edward Durner
					Data processed by	Lotusa
					Batch ID	V2A8717
					Matrix	AQ
Review:					Approved By:	MEI
pH Paper Lot (wide range) #221419	Exp. 08/01/2022		Initial Calibration Method	M2A8671	Approved Date:	3/16/2020 2:48:47 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	201384	IB		NA			5			1	OK	
2A	201385	BFB/CC8671-20		NA			5			2	OK/OK	20ul abk,ec,acrolein/100ml, 7:14am
2A	201386	BS		NA			5			3	OK	50ul abk,ec,acrolein/100ml
2A	201387	IB		NA			5			4	OK	
2A	201388	MB		NA			5			5	OK	
2A	201389	JD4440-5	9	NA	MS41754	V8260TCL20	5		1	6	OK	
2A	201390	JD4440-6	1	NA	MS41754	V8260TCL20	5		1	7	OK	
2A	201391	JD4440-4	10	NA	MS41754	V8260TCL20	5		1	8	OK	
2A	201392	JD4299-1	3	10	MS41682	V8260MASTD	5/50		1	9	OK	
2A	201393	JD4579-1	1	NA	MS41807	V8260TCL20+	5		1	10	OK	
2A	201394	JD4579-2	1	NA	MS41807	V8260TCL20+	5		1	11	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	201395	JD4579-3	1	NA	MS41807	V8260TCL20+	5		1	12	OK	
2A	201396	JD4579-4	1	NA	MS41807	V8260TCL20+	5		1	13	OK	
2A	201397	JD4298-8	2	NA	MS41684	V8260BTXM	5		1	14	OK	
2A	201398	JD4279-3	4	NA	MS41682	V8260MDVO, VLS	5		1	15	OK	
2A	201399	JD4279-1	3	2	MS41682	V8260MDVO, VLS	25/50		1	16	OK	
2A	201400	JD4440-4MS	9	NA	MS41754	V8260TCL20	5		1	17	OK	20ul abk,ec,acrolein/40ml
2A	201401	IB		NA			5			18	OK	
2A	201402	JD4440-5DUP	10	NA	MS41754	V8260TCL20	5		1	19	ok	
2A	201403	JD4418-7	5	25	MS41734	V8260MDVO	2/50		1	20	OK	
2A	201404	JD4418-7	5	NA	MS41734	V8260MDVO	5		1	21	OK	
2A	201405	IB		NA			5			22	OK	
2A	201406	JD4298-21	1	NA	MS41684	V8260BTXM	5		1	23	OK	
2A	201407	JD4298-22	1	NA	MS41684	V8260BTXM	5		1	24	OK	
2A	201408	JD4298-9	1	NA	MS41684	V8260BTXM	5		1	25	OK	
2A	201409	JD4298-10	1	NA	MS41684	V8260BTXM	5		1	26	OK/rr	rr 1x matrix c/o, 7:13pm

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(30mx0.25mmx1.4um)
Standards	ABK: V019-2692-112.21	EC: V019-2692-133.7	Acrolein: V019-2692-116.11		Method	v8260c
Standard Concentrations	100-10000ppm	100ppm	100ppm		Init Calib Date	3/6/2020
Expiration Date	3/29/2020	3/19/2020	4/3/2020			
Internal Surrogate	v019-2692-97					
Internal Surrogate Concentration	250/2500ppm				Analysis Date	3/16/2020
Expiration Date	3/18/2020				Sequence loaded by	Edward Durner
					Data processed by	Lotusa
					Batch ID	V2A8720
					Matrix	AQ
					Approved By:	KANYAV
pH Paper Lot (wide range) #221419	Exp. 08/01/2022		Initial Calibration Method	M2A8671	Approved Date:	3/25/2020 2:05:47 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	201437	IB		NA			5			1	OK	
2A	201438	BFB/CC8671-20		NA			5			2	OK/OK	20ul abk,ec,acrolein/100ml, 7:16am
2A	201439	BS		NA			5			3	OK	50ul abk,ec,acrolein/100ml
2A	201440	IB		NA			5			4	OK	
2A	201441	MB		NA			5			5	OK	
2A	201442	JD4593-8	4	NA	MS41798	V8260TCL20+	5		1	6	OK	DOD-QSM5
2A	201443	JD4593-9	4	NA	MS41798	V8260TCL20+	5		1	7	OK	DOD-QSM5
2A	201444	JD4593-10	4	NA	MS41798	V8260TCL20+	5		1	8	OK	DOD-QSM5
2A	201445	JD4342-6	1	10x	MS41715	V8260TCL20+124TMB,NAP,TBA	5/50		1	9	OK	
2A	201446	JD4342-4	2	NA	MS41715	V8260TCL20+,124TMB,NAP,TBA	5		1	10	OK	
2A	201447	JD4500-18	1	5x	MS41776	V8260PAUGTMB	10/50		1	11	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2A	201448	JD4593-8MS	5	NA	MS41798	V8260TCL20+	5		1	12	OK	20ul abk,ec,acrolein/40ml, DOD-QSM5
2A	201449	IB		NA			5			13	OK	
2A	201450	JD4593-9DUP	5	NA	MS41798	V8260TCL20+	5		1	14	OK	DOD-QSM5
2A	201451	JD4593-3	4	NA	MS41798	V8260TCL20+	5		1	15	OK	DOD-QSM5
2A	201452	JD4593-4	1	NA	MS41798	V8260TCL20+	5		1	16	OK	DOD-QSM5
2A	201453	JD4440-7	1	NA	MS41754	V8260TCL20	5		1	17	OK	
2A	201454	JD4440-8	2	NA	MS41754	V8260TCL20	5		1	18	OK	
2A	201455	JD4440-9	2	NA	MS41754	V8260TCL20	5		1	19	OK	
2A	201456	JD4593-1	8	NA	MS41798	V8260TCL20+	5		1	20	OK	DOD-QSM5
2A	201457	JD4593-2	5	NA	MS41798	V8260TCL20+	5		1	21	OK	DOD-QSM5
2A	201458	JD4593-5	4	NA	MS41798	V8260TCL20+	5		1	22	OK	DOD-QSM5
2A	201459	JD4593-6	4	NA	MS41798	V8260TCL20+	5		1	23	OK	DOD-QSM5
2A	201460	JD4593-7	4	NA	MS41798	V8260TCL20+	5		1	24	OK	DOD-QSM5
2A	201461	ECC8671-50		NA			5			25	OK	50ul abk,ec,acrolein/100ml, 6:44pm

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1968-MB	AA79725.D	1	03/21/20	PS	n/a	n/a	GAA1968

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-1, JD4440-2

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1969-MB	AA79762.D	1	03/22/20	DFT	n/a	n/a	GAA1969

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-4, JD4440-5

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

Method Blank Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1970-MB	AA79789.D	1	03/23/20	PS	n/a	n/a	GAA1970

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-3

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

Laboratory Control Sample Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1968-LCS	AA79722.D	1	03/21/20	PS	n/a	n/a	GAA1968

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-1, JD4440-2

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
74-85-1	Ethene	31	26.2	85	62-133

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1969-LCS	AA79760.D	1	03/22/20	DFT	n/a	n/a	GAA1969

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-4, JD4440-5

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
74-85-1	Ethene	31	28.7	93	62-133

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1970-LCS	AA79787.D	1	03/23/20	PS	n/a	n/a	GAA1970

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-3

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
74-85-1	Ethene	31	25.3	82	62-133

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4404-2DUP	AA79732.D	1	03/21/20	PS	n/a	n/a	GAA1968
JD4404-2	AA79731.D	1	03/21/20	PS	n/a	n/a	GAA1968

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-1, JD4440-2

CAS No.	Compound	JD4404-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-85-1	Ethene	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4478-2DUP	AA79767.D	1	03/22/20	DFT	n/a	n/a	GAA1969
JD4478-2	AA79766.D	1	03/22/20	DFT	n/a	n/a	GAA1969

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-4, JD4440-5

CAS No.	Compound	JD4478-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-85-1	Ethene	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4588-1DUP	AA79805.D	1	03/23/20	PS	n/a	n/a	GAA1970
JD4588-1	AA79804.D	1	03/23/20	PS	n/a	n/a	GAA1970

The QC reported here applies to the following samples: **Method:** RSK-175

JD4440-3

CAS No.	Compound	JD4588-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-85-1	Ethene	ND		ND		nc	20

* = Outside of Control Limits.

Initial Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: GAA1942-ICC1942
Lab FileID: AA79119.D

Response Factor Report GCAA

Method : C:\msdchem\1\METHODS\maa1942.m (ChemStation Integrator)
Title : METHOD V8015 DG by GC-FID
Last Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration

Calibration Files
200 =AA79120.d 100 =AA79119.d 20 =AA79118.d 10 =AA79117.d
2 =AA79116.d 1 =AA79115.d 500 =AA79121.d 1000=AA79122.d
= =

Compound	200	100	20	10	2	1	500	1000	Avg	%RSD
1) Methane	2.554	2.621	2.569	2.049	3.445	4.359	2.265	2.062	2.741 E4	28.78
2) Ethane	4.931	4.990	4.617	3.489	4.735	4.992	4.385	3.993	4.516 E4	11.92
3) Ethene	4.914	4.972	4.600	3.437	4.458	5.075	4.373	3.985	4.477 E4	12.37
4) Propane	7.597	7.600	7.008	5.303	6.650	7.693	6.759	6.109	6.840 E4	12.17
5) n-Butane	0.994	0.954	0.862	0.681	0.783	1.029	0.892	0.785	0.873 E5	13.62
6) n-Pentane	1.212	1.028	0.890	0.819	0.790	1.351	1.131	0.952	1.022 E5	19.37
7) Hexane	1.351	0.901	0.792	0.945	0.792	1.767	1.350	1.128	1.128 E5	30.30

(#) = Out of Range ### Number of calibration levels exceeded format ###

maa1942.m Fri Feb 28 10:19:10 2020

8.4.1

8

Initial Calibration Verification

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: GAA1942-ICV1942
Lab FileID: AA79124.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79124.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 3:27 pm
Operator : thomash
Sample : icv1942-100
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 15:50:34 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	27.142 E3	1.0	104	0.00
2	Ethane	45.165	50.302 E3	-11.4	101	0.00
3	Ethene	44.768	50.336 E3	-12.4	101	0.00
4	Propane	68.398	75.465 E3	-10.3	99	0.00
5	n-Butane	87.253	94.775 E3	-8.6	99	0.00
6	n-Pentane	102.169	114.833 E3	-12.4	112	0.00
7	Hexane	112.836	123.867 E3	-9.8	137	0.01

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Fri Feb 28 10:18:36 2020

Continuing Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: GAA1968-CC1942
Lab FileID: AA79721.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79721.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 7:18 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 07:28:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	27.266 E3	0.5	104	-0.01
2	Ethane	45.165	50.011 E3	-10.7	100	0.00
3	Ethene	44.768	50.522 E3	-12.9	102	0.00
4	Propane	68.398	71.471 E3	-4.5	94	0.00
5	n-Butane	87.253	84.354 E3	3.3	88	0.00
6	n-Pentane	102.169	95.560 E3	6.5	93	0.03
7	Hexane	112.836	106.870 E3	5.3	119	0.05

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Sun Mar 22 13:36:25 2020

Continuing Calibration Summary

Job Number: JD4440 **Sample:** GAA1968-CC1942
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** AA79736.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79736.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 11:06 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55913,GAA1968,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 11:16:43 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	26.690 E3	2.6	102	0.00
2	Ethane	45.165	49.229 E3	-9.0	99	0.00
3	Ethene	44.768	50.015 E3	-11.7	101	0.01
4	Propane	68.398	69.538 E3	-1.7	92	0.00
5	n-Butane	87.253	79.834 E3	8.5	84	0.01
6	n-Pentane	102.169	88.937 E3	13.0	87	0.01
7	Hexane	112.836	98.500 E3	12.7	109	0.02

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Sun Mar 22 13:50:29 2020

Continuing Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Sample: GAA1968-CC1942
Lab FileID: AA79751.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79751.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 2:45 pm
Operator : PrashanS
Sample : cc1942-100
Misc : GC55912,GAA1968,,,,,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 14:55:51 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	26.697 E3	2.6	102	0.00
2	Ethane	45.165	49.651 E3	-9.9	100	0.00
3	Ethene	44.768	50.106 E3	-11.9	101	0.01
4	Propane	68.398	72.110 E3	-5.4	95	0.00
5	n-Butane	87.253	86.701 E3	0.6	91	0.01
6	n-Pentane	102.169	99.335 E3	2.8	97	0.01
7	Hexane	112.836	108.621 E3	3.7	121	0.02

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Sun Mar 22 13:56:12 2020

Continuing Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY
Sample: GAA1968-ECC1942
Lab FileID: AA79757.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79757.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 4:06 pm
Operator : PrashanS
Sample : ecc1942-100
Misc : GC55920,GAA1968,,,,,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 16:16:35 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	26.793 E3	2.2	102	-0.01
2	Ethane	45.165	50.180 E3	-11.1	101	0.00
3	Ethene	44.768	50.493 E3	-12.8	102	0.01
4	Propane	68.398	73.426 E3	-7.4	97	0.00
5	n-Butane	87.253	89.363 E3	-2.4	94	0.01
6	n-Pentane	102.169	103.948 E3	-1.7	101	0.01
7	Hexane	112.836	116.335 E3	-3.1	129	0.02

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Sun Mar 22 13:58:58 2020

8.4.6

8

Continuing Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: GAA1969-CC1942
Lab FileID: AA79759.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79759.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 9:23 am
Operator : danat
Sample : cc1942-100
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 16:15:08 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	27.551 E3	-0.5	105	0.02
2	Ethane	45.165	53.118 E3	-17.6#	106	0.02
3	Ethene	44.768	52.969 E3	-18.3#	107	0.03
4	Propane	68.398	81.362 E3	-19.0#	107	0.02
5	n-Butane	87.253	105.064 E3	-20.4#	110	0.02
6	n-Pentane	102.169	126.327 E3	-23.6#	123	0.02
7	Hexane	112.836	141.771 E3	-25.6#	157#	0.03

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Mon Mar 23 16:15:46 2020

Continuing Calibration Summary

Job Number: JD4440 **Sample:** GAA1969-CC1942
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** AA79773.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79773.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 12:52 pm
Operator : danat
Sample : cc1942-100
Misc : GC55924,GAA1969,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 13:02:27 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	26.811 E3	2.2	102	0.02
2	Ethane	45.165	52.244 E3	-15.7#	105	0.02
3	Ethene	44.768	52.107 E3	-16.4#	105	0.03
4	Propane	68.398	80.232 E3	-17.3#	106	0.02
5	n-Butane	87.253	103.843 E3	-19.0#	109	0.01
6	n-Pentane	102.169	125.355 E3	-22.7#	122	0.00
7	Hexane	112.836	143.771 E3	-27.4#	160#	0.02

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Mon Mar 23 16:21:57 2020

Continuing Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: GAA1970-CC1942
Lab FileID: AA79786.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79786.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 7:21 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55931,GAA1970,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 07:31:55 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	27.835 E3	-1.6	106	-0.01
2	Ethane	45.165	50.710 E3	-12.3	102	-0.01
3	Ethene	44.768	51.148 E3	-14.3	103	0.00
4	Propane	68.398	72.229 E3	-5.6	95	0.00
5	n-Butane	87.253	82.852 E3	5.0	87	0.00
6	n-Pentane	102.169	89.349 E3	12.5	87	0.03
7	Hexane	112.836	93.387 E3	17.2#	104	0.05

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Fri Mar 27 15:29:23 2020

Continuing Calibration Summary

Job Number: JD4440 **Sample:** GAA1970-CC1942
Account: GESNYP Groundwater & Environmental Services **Lab FileID:** AA79801.D
Project: Orangetown Shopping Center, Orangeburg, NY

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79801.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 10:44 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 10:54:36 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	27.147 E3	0.9	104	-0.01
2	Ethane	45.165	50.264 E3	-11.3	101	0.00
3	Ethene	44.768	50.791 E3	-13.5	102	0.00
4	Propane	68.398	72.273 E3	-5.7	95	0.00
5	n-Butane	87.253	85.505 E3	2.0	90	0.00
6	n-Pentane	102.169	97.863 E3	4.2	95	0.01
7	Hexane	112.836	109.791 E3	2.7	122	0.02

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Fri Mar 27 15:38:48 2020

Continuing Calibration Summary

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Sample: GAA1970-CC1942
Lab FileID: AA79816.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA79816.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 2:07 pm
Operator : PrashanS
Sample : cc1942-100
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 14:17:06 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	27.406	26.366 E3	3.8	101	-0.01
2	Ethane	45.165	49.466 E3	-9.5	99	0.00
3	Ethene	44.768	49.747 E3	-11.1	100	0.01
4	Propane	68.398	72.588 E3	-6.1	96	0.00
5	n-Butane	87.253	88.361 E3	-1.3	93	0.01
6	n-Pentane	102.169	102.816 E3	-0.6	100	0.01
7	Hexane	112.836	116.009 E3	-2.8	129	0.02

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

maa1942.m Fri Mar 27 15:46:46 2020

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: GAA1942	**Method:** RSK-175	**Instrument ID:** GCAA

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GAA1942-IC1942	AA79115.D	02/27/20 11:53	n/a	Initial cal 1.0
GAA1942-IC1942	AA79116.D	02/27/20 12:12	n/a	Initial cal 2.0
GAA1942-IC1942	AA79117.D	02/27/20 12:31	n/a	Initial cal 10
GAA1942-IC1942	AA79118.D	02/27/20 12:44	n/a	Initial cal 20
GAA1942-ICC1942	AA79119.D	02/27/20 12:58	n/a	Initial cal 100
GAA1942-IC1942	AA79120.D	02/27/20 13:14	n/a	Initial cal 200
GAA1942-IC1942	AA79121.D	02/27/20 14:39	n/a	Initial cal 500
GAA1942-IC1942	AA79122.D	02/27/20 14:52	n/a	Initial cal 1000
GAA1942-ICV1942	AA79124.D	02/27/20 15:27	n/a	Initial cal verification 100

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: GAA1968 **Method:** RSK-175 **Instrument ID:** GCAA

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GAA1968-CC1942	AA79721.D	03/21/20 07:18	n/a	Continuing cal 100
GAA1968-LCS	AA79722.D	03/21/20 07:32	n/a	Laboratory Control Sample
GAA1968-MB	AA79725.D	03/21/20 08:36	n/a	Method Blank
ZZZZZZ	AA79727.D	03/21/20 09:04	n/a	(unrelated sample)
ZZZZZZ	AA79730.D	03/21/20 09:45	n/a	(unrelated sample)
JD4404-2	AA79731.D	03/21/20 09:59	n/a	(used for QC only; not part of job JD4440)
JD4404-2DUP	AA79732.D	03/21/20 10:12	n/a	Duplicate
ZZZZZZ	AA79733.D	03/21/20 10:26	n/a	(unrelated sample)
ZZZZZZ	AA79734.D	03/21/20 10:39	n/a	(unrelated sample)
ZZZZZZ	AA79735.D	03/21/20 10:52	n/a	(unrelated sample)
GAA1968-CC1942	AA79736.D	03/21/20 11:06	n/a	Continuing cal 100
ZZZZZZ	AA79738.D	03/21/20 11:36	n/a	(unrelated sample)
ZZZZZZ	AA79739.D	03/21/20 11:50	n/a	(unrelated sample)
ZZZZZZ	AA79741.D	03/21/20 12:16	n/a	(unrelated sample)
ZZZZZZ	AA79743.D	03/21/20 12:47	n/a	(unrelated sample)
ZZZZZZ	AA79745.D	03/21/20 13:13	n/a	(unrelated sample)
JD4422-1	AA79746.D	03/21/20 13:26	n/a	(used for QC only; not part of job JD4440)
JD4422-1DUP	AA79747.D	03/21/20 13:39	n/a	Duplicate
ZZZZZZ	AA79749.D	03/21/20 14:19	n/a	(unrelated sample)
GAA1968-CC1942	AA79751.D	03/21/20 14:45	n/a	Continuing cal 100
ZZZZZZ	AA79752.D	03/21/20 14:59	n/a	(unrelated sample)
ZZZZZZ	AA79754.D	03/21/20 15:26	n/a	(unrelated sample)
JD4440-1	AA79755.D	03/21/20 15:39	n/a	MW-3
JD4440-2	AA79756.D	03/21/20 15:52	n/a	MW-4
GAA1968-ECC1942	AA79757.D	03/21/20 16:06	n/a	Ending cal 100

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: GAA1969 **Method:** RSK-175 **Instrument ID:** GCAA

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GAA1969-CC1942	AA79759.D	03/22/20 09:23	n/a	Continuing cal 100
GAA1969-LCS	AA79760.D	03/22/20 09:36	n/a	Laboratory Control Sample
GAA1969-MB	AA79762.D	03/22/20 10:03	n/a	Method Blank
JD4440-4	AA79764.D	03/22/20 10:30	n/a	MW-8A
JD4440-5	AA79765.D	03/22/20 10:44	n/a	MW-E
JD4478-2	AA79766.D	03/22/20 10:57	n/a	(used for QC only; not part of job JD4440)
JD4478-2DUP	AA79767.D	03/22/20 11:11	n/a	Duplicate
ZZZZZZ	AA79768.D	03/22/20 11:24	n/a	(unrelated sample)
ZZZZZZ	AA79769.D	03/22/20 11:37	n/a	(unrelated sample)
ZZZZZZ	AA79770.D	03/22/20 11:51	n/a	(unrelated sample)
ZZZZZZ	AA79772.D	03/22/20 12:39	n/a	(unrelated sample)
GAA1969-CC1942	AA79773.D	03/22/20 12:52	n/a	Continuing cal 100
ZZZZZZ	AA79774.D	03/22/20 13:05	n/a	(unrelated sample)
ZZZZZZ	AA79775.D	03/22/20 13:19	n/a	(unrelated sample)
ZZZZZZ	AA79776.D	03/22/20 13:32	n/a	(unrelated sample)
JD4484-5	AA79778.D	03/22/20 14:02	n/a	(used for QC only; not part of job JD4440)
JD4484-5DUP	AA79780.D	03/22/20 14:35	n/a	Duplicate
ZZZZZZ	AA79781.D	03/22/20 14:56	n/a	(unrelated sample)
ZZZZZZ	AA79782.D	03/22/20 15:09	n/a	(unrelated sample)
ZZZZZZ	AA79783.D	03/22/20 15:22	n/a	(unrelated sample)
ZZZZZZ	AA79784.D	03/22/20 15:36	n/a	(unrelated sample)
GAA1969-ECC1942	AA79785.D	03/22/20 15:50	n/a	Ending cal 10

Run Sequence Report

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Run ID: GAA1970 **Method:** RSK-175 **Instrument ID:** GCAA

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GAA1970-CC1942	AA79786.D	03/23/20 07:21	n/a	Continuing cal 100
GAA1970-LCS	AA79787.D	03/23/20 07:35	n/a	Laboratory Control Sample
GAA1970-MB	AA79789.D	03/23/20 08:03	n/a	Method Blank
JD4440-3	AA79790.D	03/23/20 08:18	n/a	MW-5
TD52510-1	AA79791.D	03/23/20 08:31	n/a	(used for QC only; not part of job JD4440)
TD52510-1DUP	AA79792.D	03/23/20 08:44	n/a	Duplicate
ZZZZZZ	AA79793.D	03/23/20 08:57	n/a	(unrelated sample)
ZZZZZZ	AA79794.D	03/23/20 09:10	n/a	(unrelated sample)
ZZZZZZ	AA79795.D	03/23/20 09:24	n/a	(unrelated sample)
ZZZZZZ	AA79796.D	03/23/20 09:37	n/a	(unrelated sample)
ZZZZZZ	AA79797.D	03/23/20 09:50	n/a	(unrelated sample)
ZZZZZZ	AA79798.D	03/23/20 10:04	n/a	(unrelated sample)
ZZZZZZ	AA79799.D	03/23/20 10:17	n/a	(unrelated sample)
ZZZZZZ	AA79800.D	03/23/20 10:30	n/a	(unrelated sample)
GAA1970-CC1942	AA79801.D	03/23/20 10:44	n/a	Continuing cal 100
ZZZZZZ	AA79802.D	03/23/20 10:57	n/a	(unrelated sample)
ZZZZZZ	AA79803.D	03/23/20 11:11	n/a	(unrelated sample)
JD4588-1	AA79804.D	03/23/20 11:24	n/a	(used for QC only; not part of job JD4440)
JD4588-1DUP	AA79805.D	03/23/20 11:39	n/a	Duplicate
ZZZZZZ	AA79806.D	03/23/20 11:53	n/a	(unrelated sample)
ZZZZZZ	AA79807.D	03/23/20 12:06	n/a	(unrelated sample)
ZZZZZZ	AA79808.D	03/23/20 12:19	n/a	(unrelated sample)
ZZZZZZ	AA79809.D	03/23/20 12:33	n/a	(unrelated sample)
ZZZZZZ	AA79810.D	03/23/20 12:46	n/a	(unrelated sample)
ZZZZZZ	AA79811.D	03/23/20 12:59	n/a	(unrelated sample)
ZZZZZZ	AA79812.D	03/23/20 13:13	n/a	(unrelated sample)
ZZZZZZ	AA79813.D	03/23/20 13:26	n/a	(unrelated sample)
ZZZZZZ	AA79814.D	03/23/20 13:39	n/a	(unrelated sample)
ZZZZZZ	AA79815.D	03/23/20 13:53	n/a	(unrelated sample)
GAA1970-CC1942	AA79816.D	03/23/20 14:07	n/a	Continuing cal 100
ZZZZZZ	AA79817.D	03/23/20 14:21	n/a	(unrelated sample)
GAA1970-ECC1942	AA79818.D	03/23/20 14:35	n/a	Ending cal 100

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79755.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 3:39 pm
Operator : PrashanS
Sample : jd4440-1
Misc : GC55920,GAA1968,,,,,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 15:49:26 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.318	526394119	19207.600	PPMV
2)	Ethane	1.737	393843	8.720	PPMV

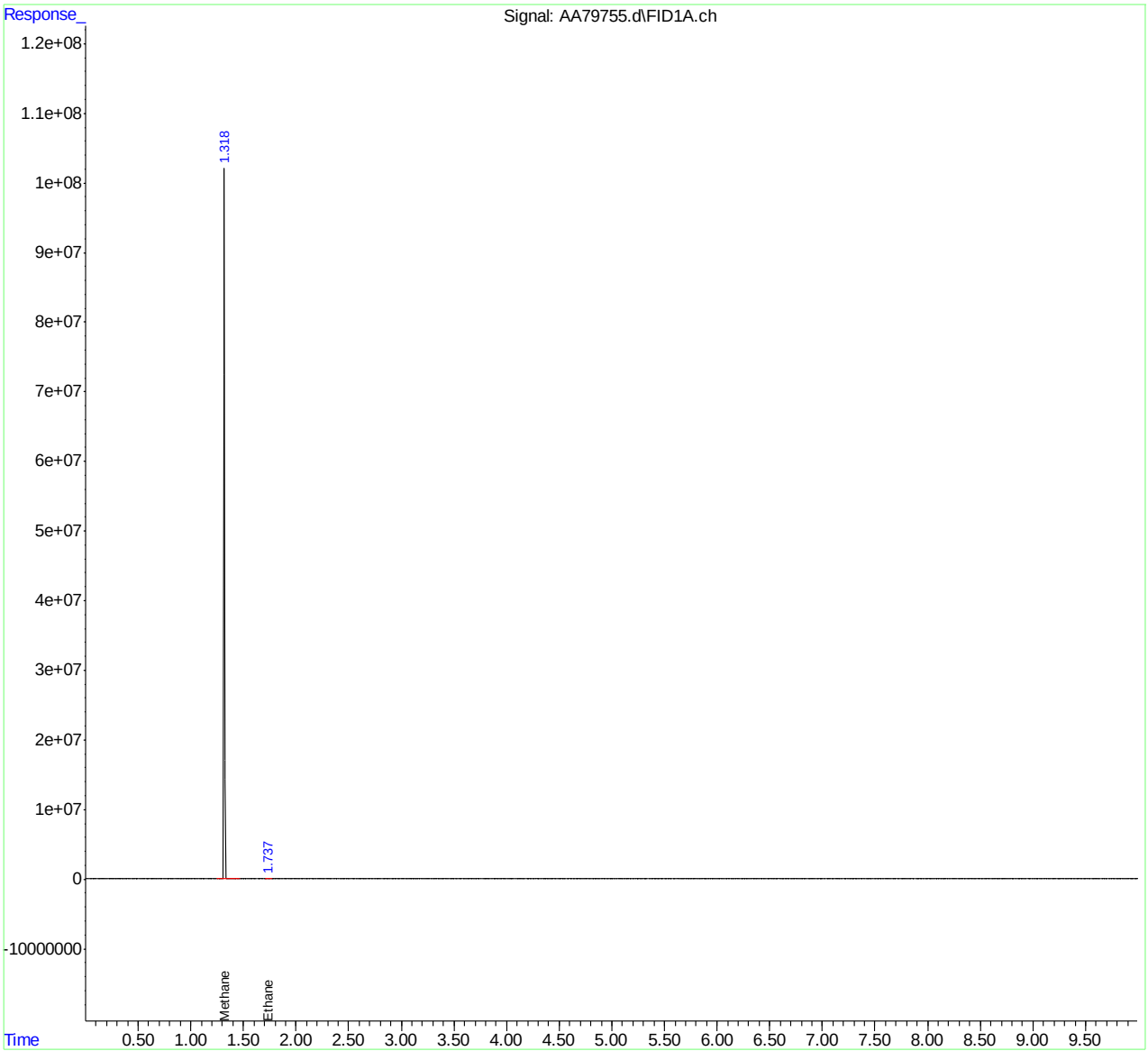
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79755.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 3:39 pm
Operator : PrashanS
Sample : jd4440-1
Misc : GC55920,GAA1968,,,,,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 15:49:26 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79755.d**
Date Acquired **3/21/2020 15:39**
Sample Name **jd4440-1**
Sample Multiplier **1**
Temperature(C) **25**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	298	24.45	526394119	3254	19207.48	12568.65	1653.77	41300	412.984	2066.75	0.11	**2066.75**
Ethane	30	22.4	55.5	298	24.45	393843.23	0	8.72	10.70	1.41	30200	0.481	1.889	0.23	**1.889**
Ethene	28	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11400	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	36978	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	14529	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	63913	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	45514	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles	1 Liter of water is equal to 55.5g-moles
Temp-kelvin	Is defined as 273 + degress C
Corrected Gas Density	Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l)	Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l)	Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l)	Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79756.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 3:52 pm
Operator : PrashanS
Sample : jd4440-2
Misc : GC55920,GAA1968,,,,,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 16:02:45 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.322	25400815	926.851	PPMV
2)	Ethane	1.739	283103	6.268	PPMV

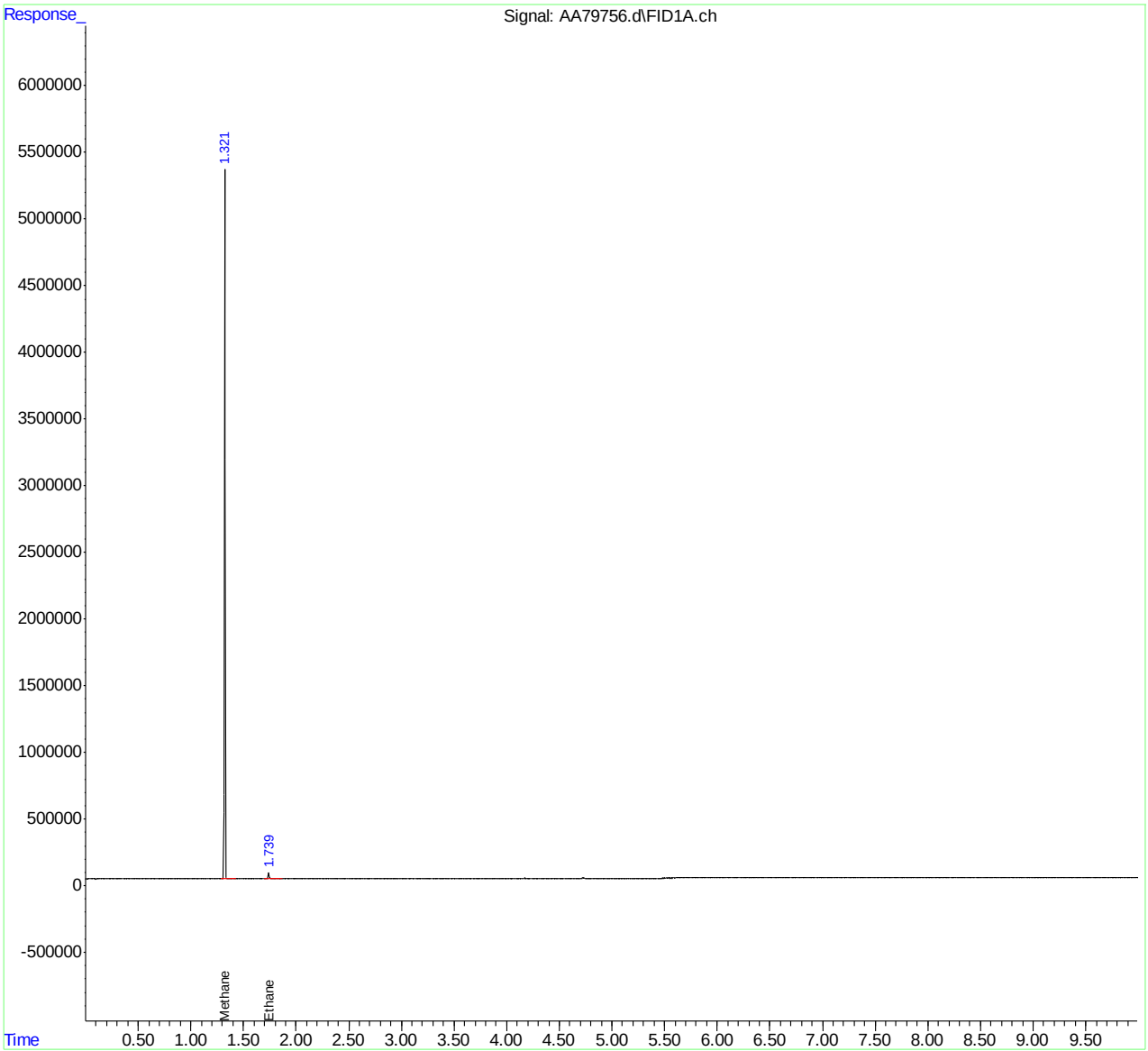
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79756.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 3:52 pm
Operator : PrashanS
Sample : jd4440-2
Misc : GC55920,GAA1968,,,,,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 16:02:45 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79756.d**
Date Acquired **3/21/2020 15:52**
Sample Name **jd4440-2**
Sample Multiplier **1**
Temperature(C) **25**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	298	24.45	25400815	3254	926.73	606.42	79.79	41300	19.926	99.72	0.11	**99.72**
Ethane	30	22.4	55.5	298	24.45	283102.63	0	6.27	7.69	1.01	30200	0.346	1.358	0.23	**1.358**
Ethene	28	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11400	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	36978	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	14529	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	63913	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	45514	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79790.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 8:18 am
Operator : PrashanS
Sample : jd4440-3
Misc : GC55920,GAA1970,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 08:28:11 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.324	49002666	1788.059	PPMV
2)	Ethane	1.740	825642	18.281	PPMV
3)	Ethene	2.426	1098084	24.528	PPMV

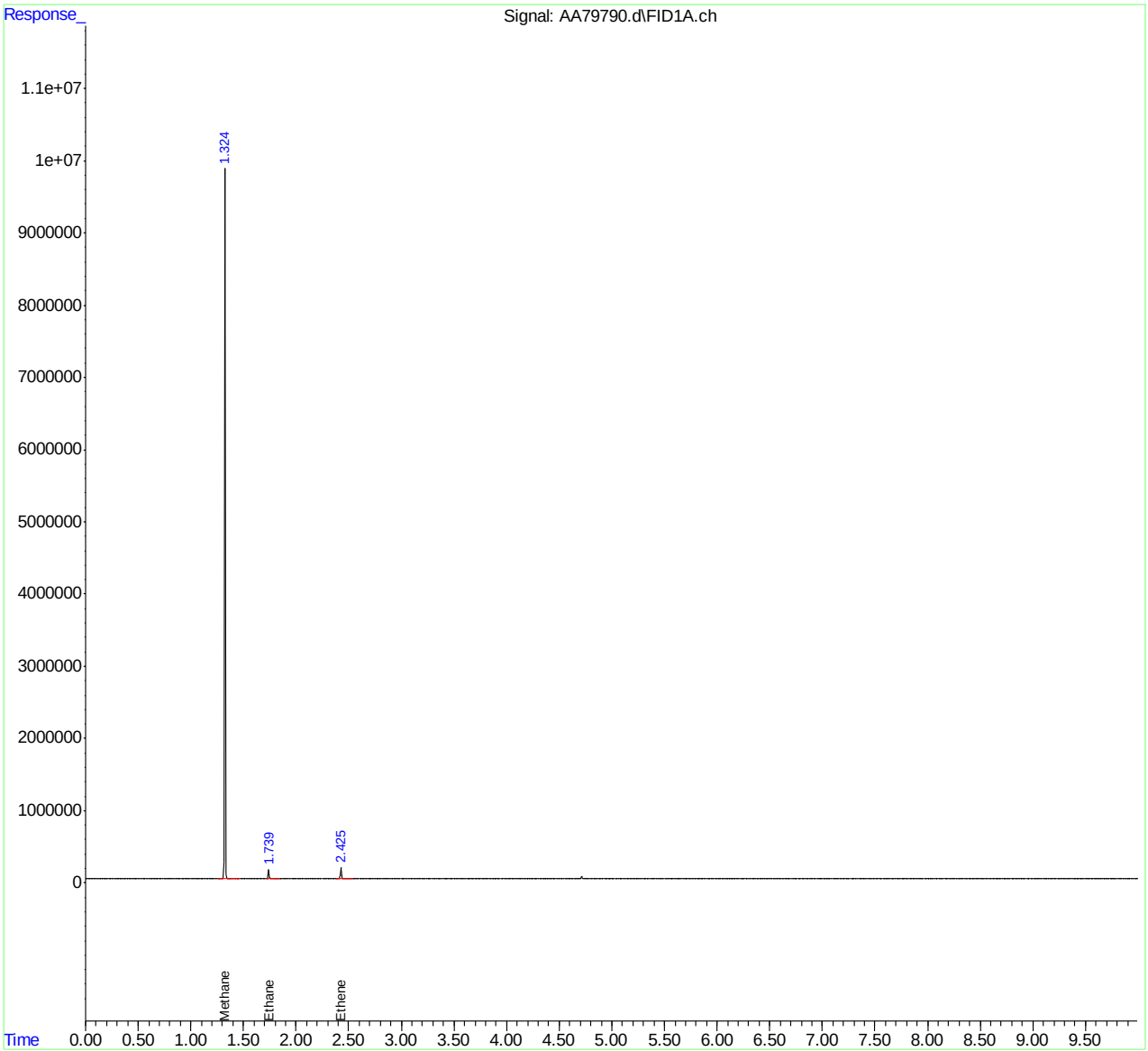
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79790.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 8:18 am
Operator : PrashanS
Sample : jd4440-3
Misc : GC55920,GAA1970,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 08:28:11 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



maa1942.m Fri Mar 27 15:32:16 2020 Page: 2

Dissolved Gas Calculation Worksheet

Data File Name **AA79790.d**
Date Acquired **3/23/2020 8:18**
Sample Name **jd4440-3**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	49002666	0	1788.06	1173.98	154.47	40560	39.147	193.62	0.11	**193.62**
Ethane	30	22.4	55.5	297	24.37	825641.62	0	18.28	22.50	2.96	29420	1.035	3.996	0.23	**3.996**
Ethene	28	22.4	55.5	297	24.37	1098084	0	24.53	28.18	3.71	11160	3.416	7.124	0.31	**7.124**
Propane	44	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	35857	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	13981	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	61993	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	43947	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles	1 Liter of water is equal to 55.5g-moles
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Corrected Gas Density	Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l)	Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l)	Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l)	Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79764.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:30 am
Operator : danat
Sample : jd4440-4
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 10:40:59 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) Methane	1.339	1912555	69.787	PPMV

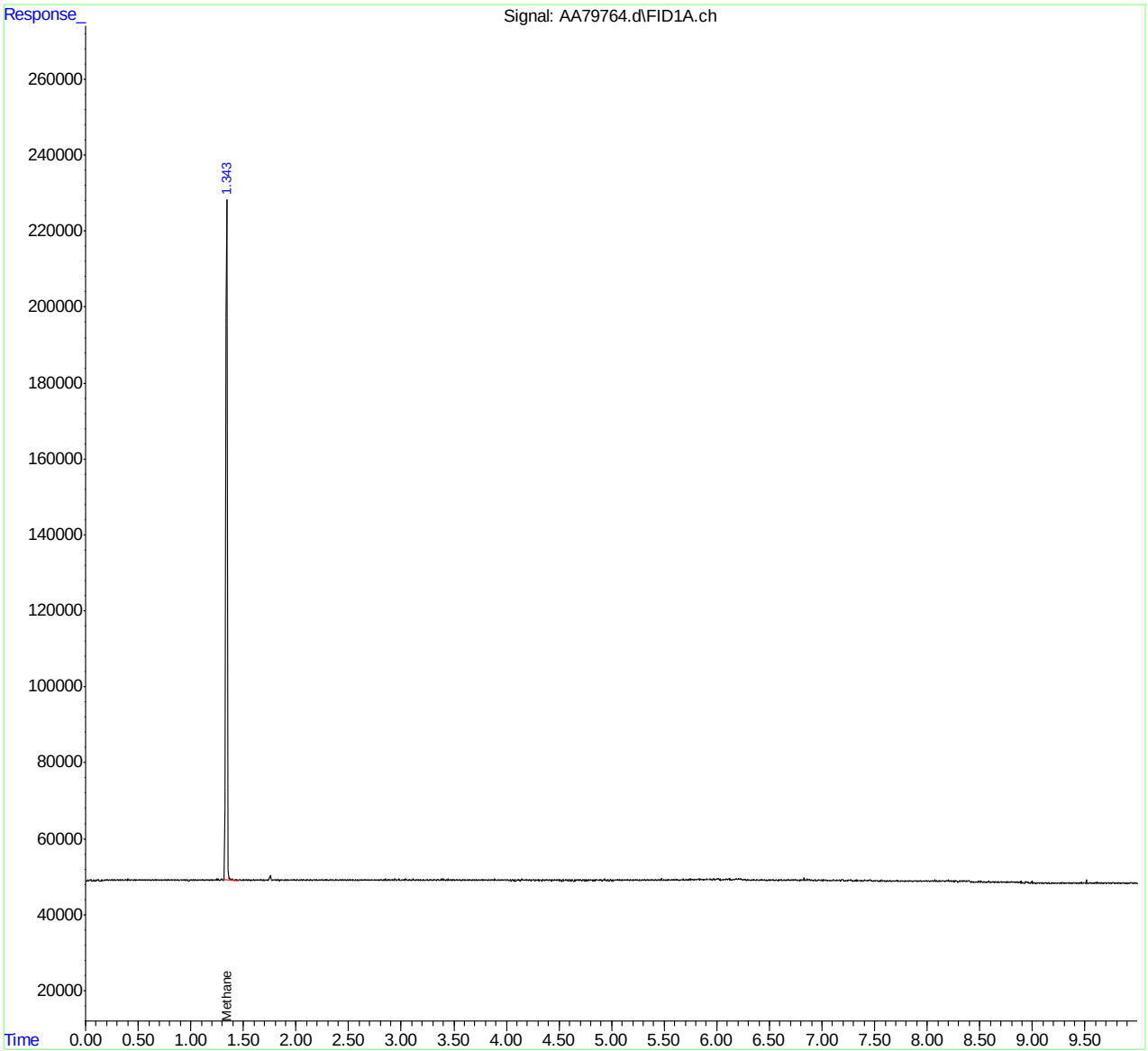
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79764.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:30 am
Operator : danat
Sample : jd4440-4
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 10:40:59 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79764.d**
Date Acquired **3/22/2020 10:30**
Sample Name **jd4440-4**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	1912554.8	4225	69.63	45.72	6.02	40560	1.525	7.54	0.11	**7.54**
Ethane	30	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	29420	#DIV/0!	#DIV/0!	0.23	**#DIV/0!**
Ethene	28	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11160	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	35857	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	13981	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	61993	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	43947	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

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Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

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temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79765.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:44 am
Operator : danat
Sample : jd4440-5
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 10:54:22 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.336	31965924	1166.405	PPMV
2)	Ethane	1.751	1014704	22.467	PPMV
4)	Propane	2.877	249119	3.642	PPMV

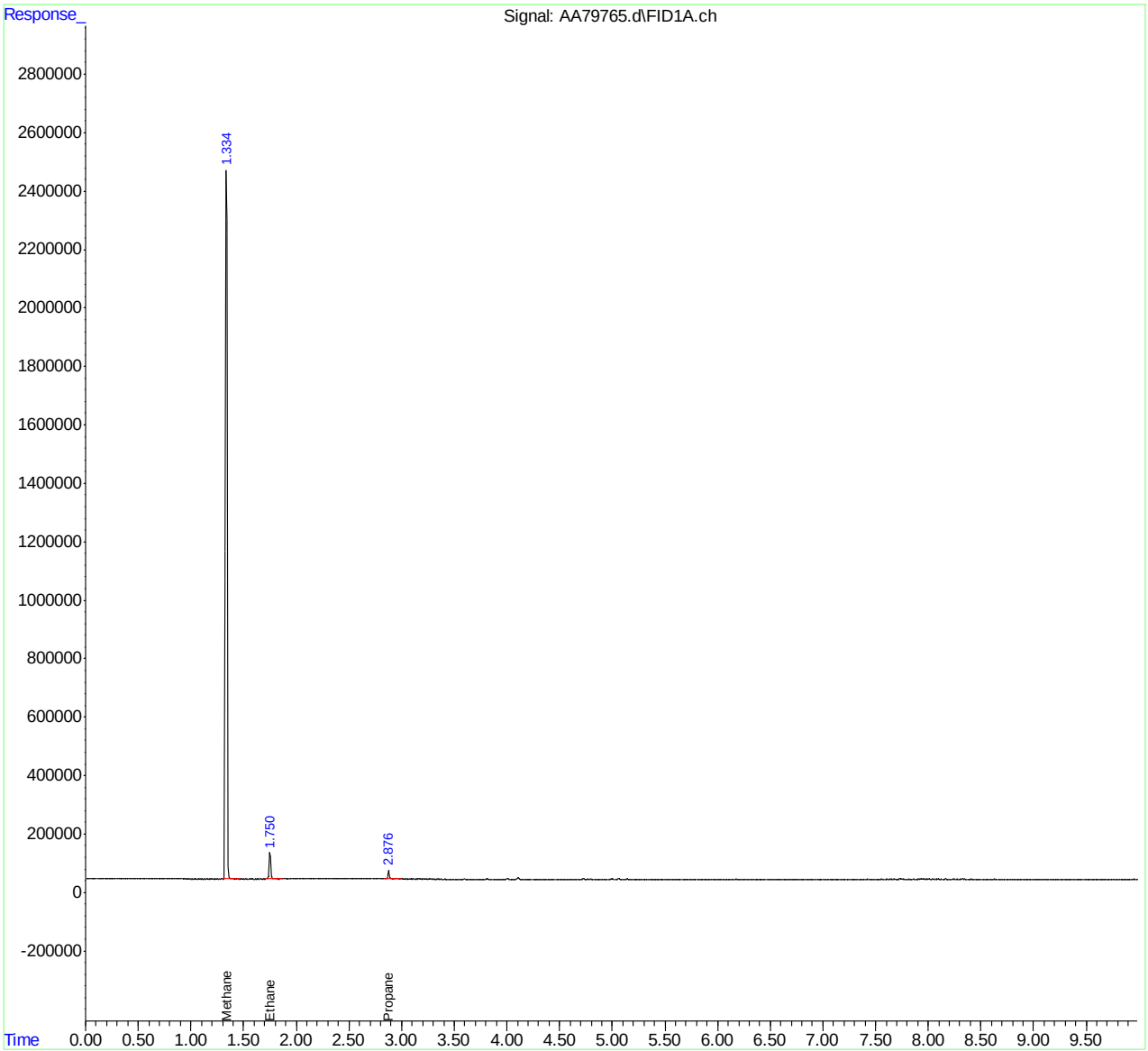
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79765.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:44 am
Operator : danat
Sample : jd4440-5
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 10:54:22 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



maa1942.m Mon Mar 23 16:18:15 2020 Page: 2

Dissolved Gas Calculation Worksheet

Data File Name **AA79765.d**
Date Acquired **3/22/2020 10:44**
Sample Name **jd4440-5**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	31965924	4225	1166.25	765.72	100.75	40560	25.533	126.29	0.11	**126.29**
Ethane	30	22.4	55.5	297	24.37	1014704.3	0	22.47	27.66	3.64	29420	1.271	4.911	0.23	**4.911**
Ethene	28	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11160	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	297	24.37	249119	0	3.64	6.58	0.87	35857	0.25	1.11	0.32	**1.11**
n-Butane	42	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	13981	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	61993	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	43947	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 03/23/20 19:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79725.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 8:36 am
Operator : PrashanS
Sample : mb
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 13:38:03 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units
Target Compounds			
1) Methane	1.318	3542	0.129 PPMV m

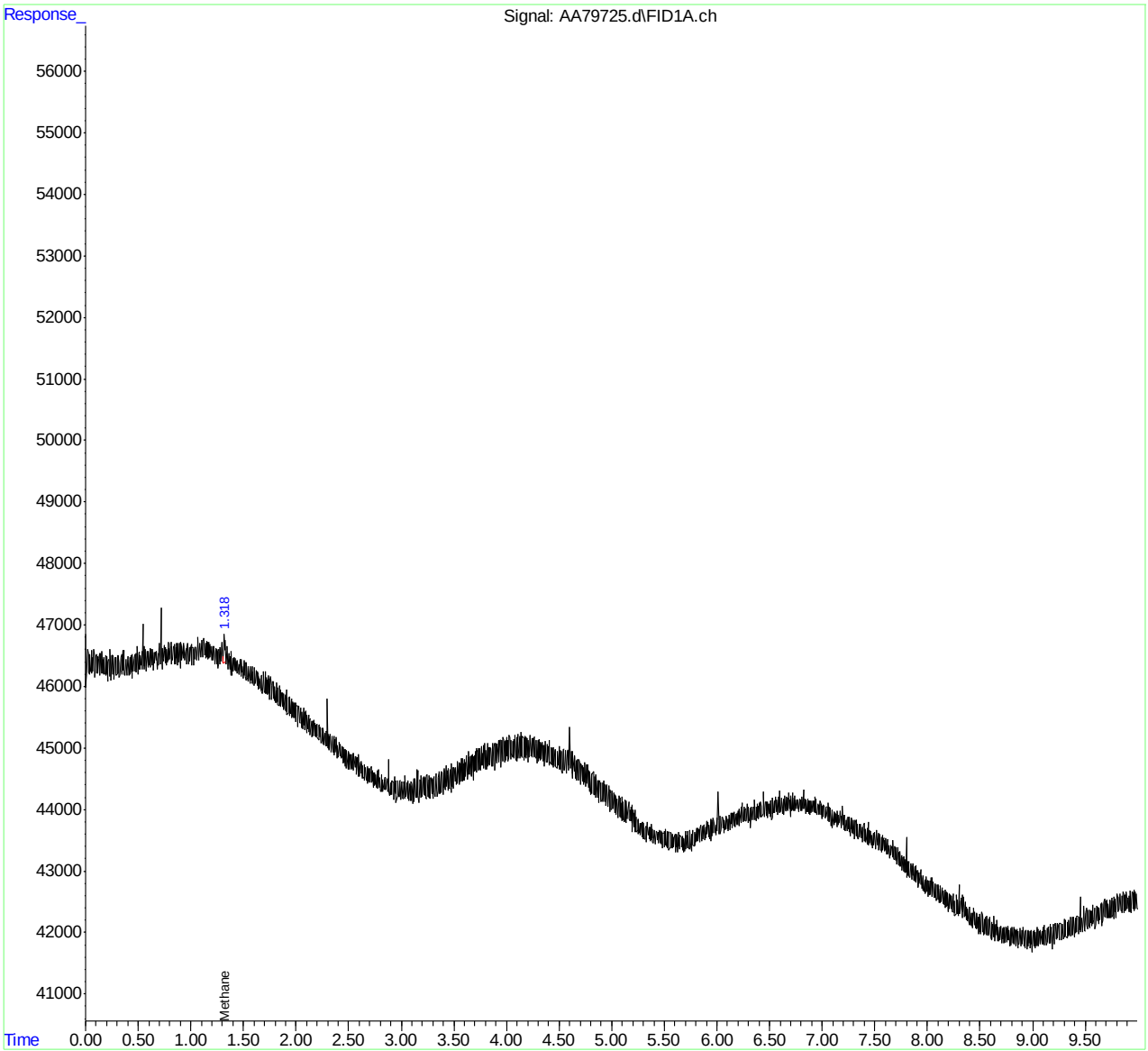
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79725.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 8:36 am
Operator : PrashanS
Sample : mb
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 13:38:03 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number: GAA1968-MB
Lab FileID: AA79725.D
Injection Time: 03/21/20 08:36
Method: RSK-175
Analyst approved: 03/22/20 15:11 Dana Tryon
Supervisor approved: 03/23/20 19:13 Kanya Veerawat

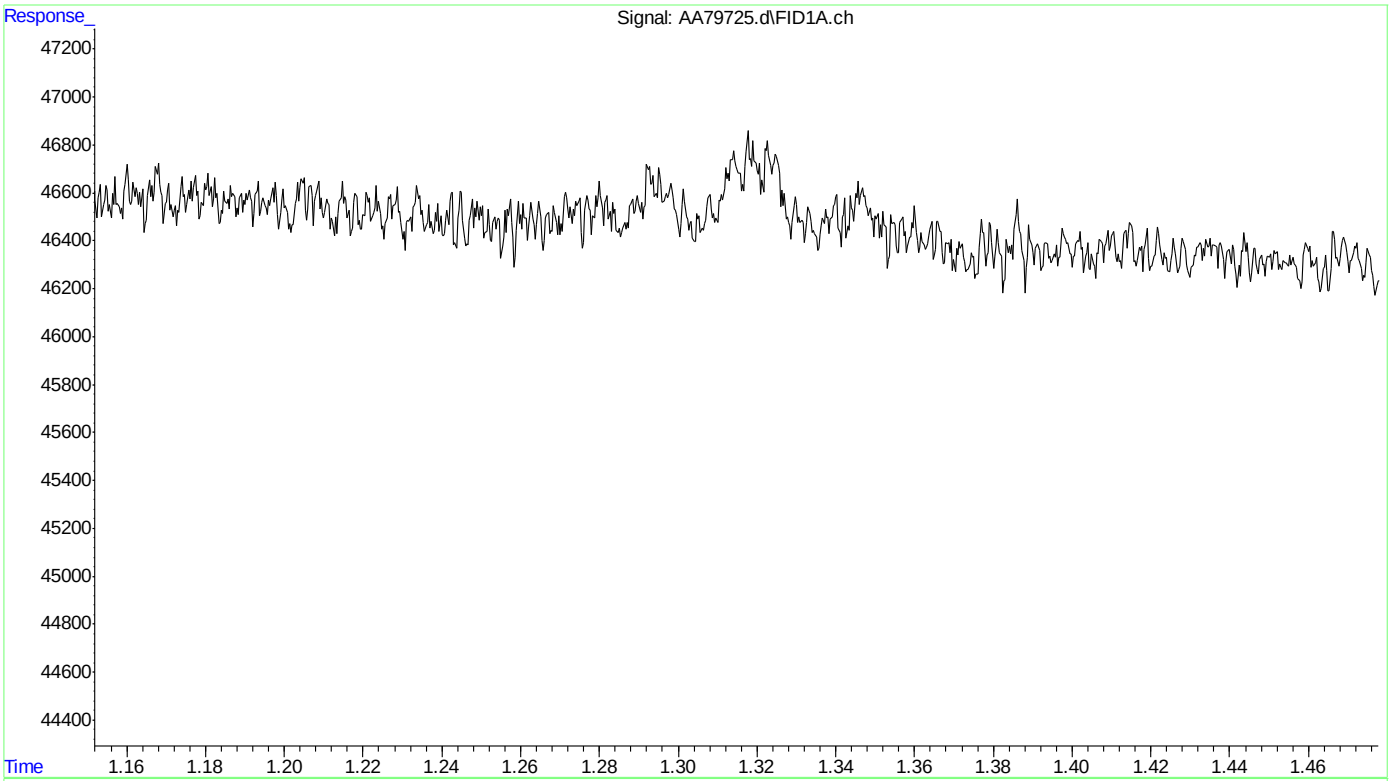
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.32	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79725.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 8:36 am
Operator : PrashanS
Sample : mb
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 08:46:24 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.330min 0.000 PPMV

response 0

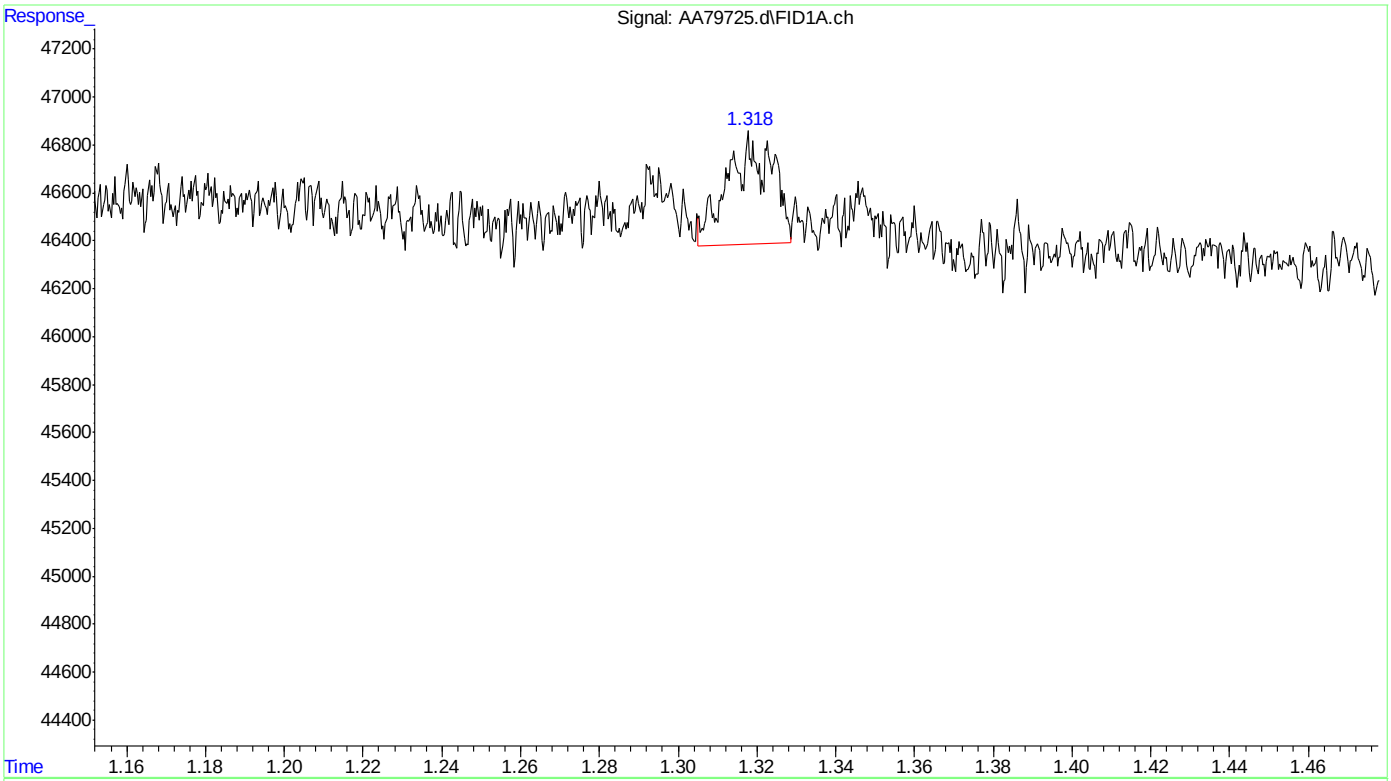
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79725.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 8:36 am
Operator : PrashanS
Sample : mb
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 08:46:24 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.318min 0.129 PPMV m

response 3542

(+) = Expected Retention Time

Dissolved Gas Calculation Worksheet

Data File Name **AA79725.d**
Date Acquired **3/21/2020 8:36**
Sample Name **mb**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **37**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	3541.641	3254	0.01	0.01	0.00	40560	0.000	0.00	0.11	**ND**
Ethane	30	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	29420	#DIV/0!	#DIV/0!	0.23	**#DIV/0!**
Ethene	28	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11160	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	35857	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	13981	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	61993	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	43947	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 03/24/20 23:36

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79762.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:03 am
Operator : danat
Sample : mb
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 16:17:05 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.335	14507	0.529	PPMV m

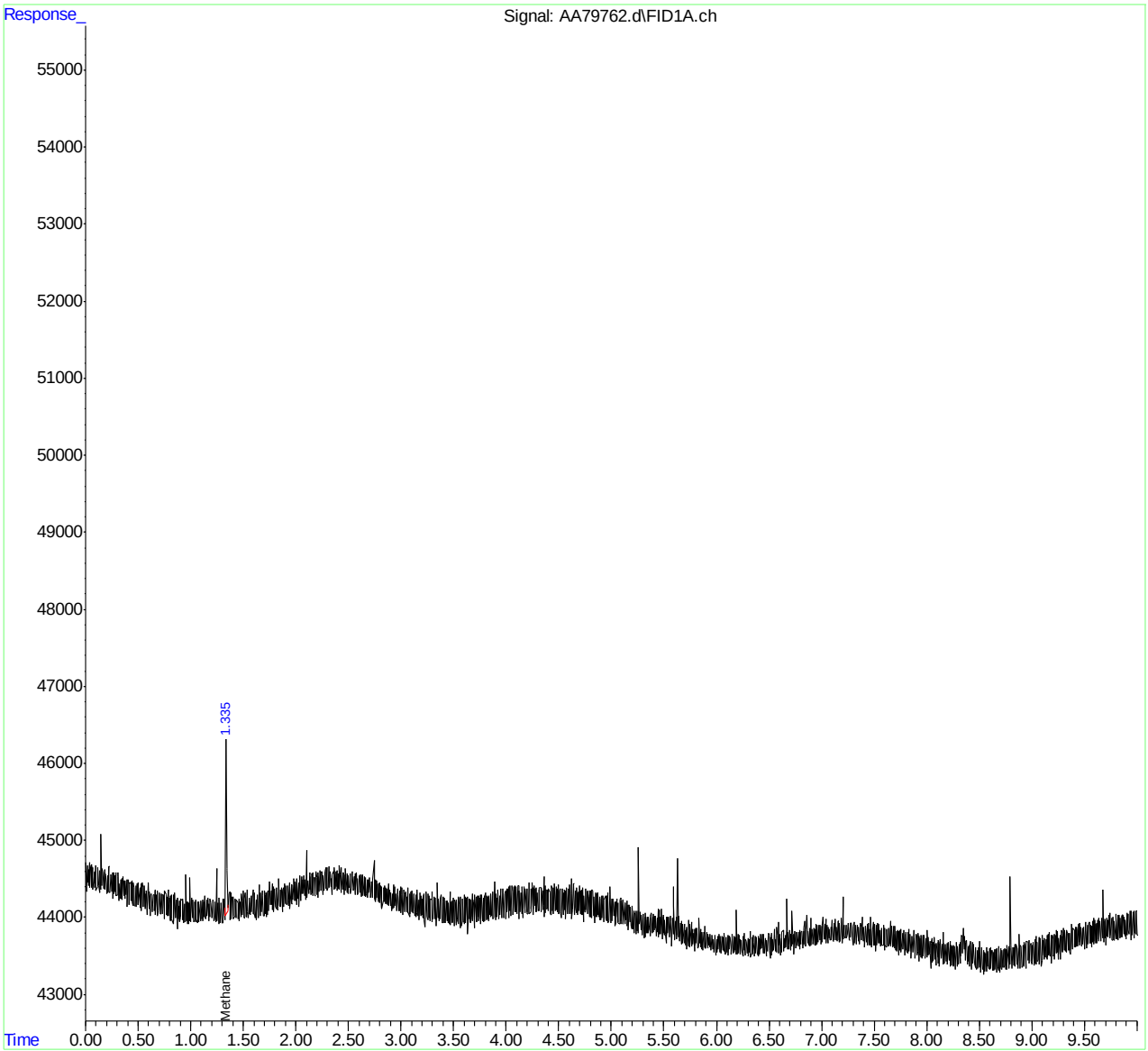
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79762.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:03 am
Operator : danat
Sample : mb
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 16:17:05 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



maa1942.m Mon Mar 23 16:17:14 2020 Page: 2

Manual Integration Approval Summary

Sample Number: GAA1969-MB
Lab FileID: AA79762.D
Injection Time: 03/22/20 10:03
Method: RSK-175
Analyst approved: 03/23/20 17:36 Dana Tryon
Supervisor approved: 03/24/20 23:36 Kanya Veerawat

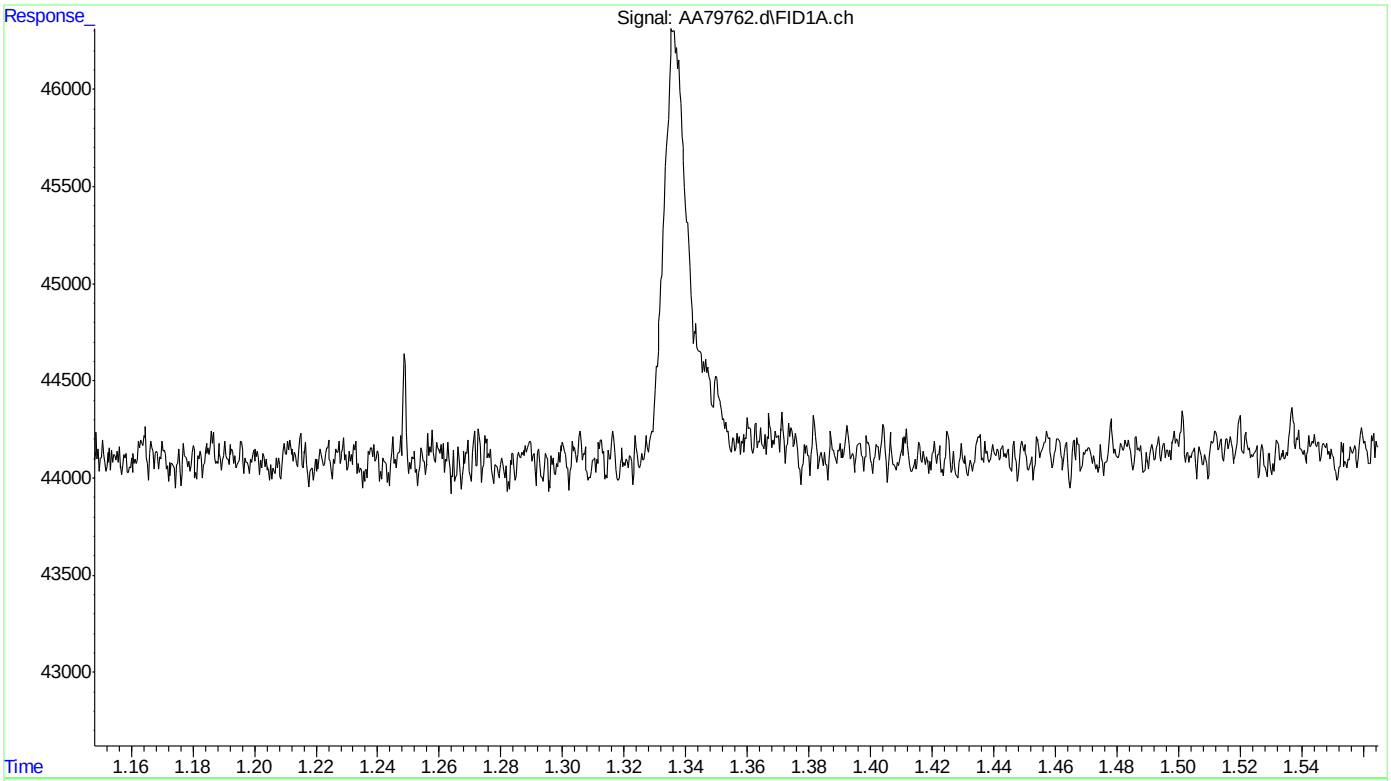
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.34	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79762.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:03 am
Operator : danat
Sample : mb
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 10:13:04 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.330min 0.000 PPMV

response 0

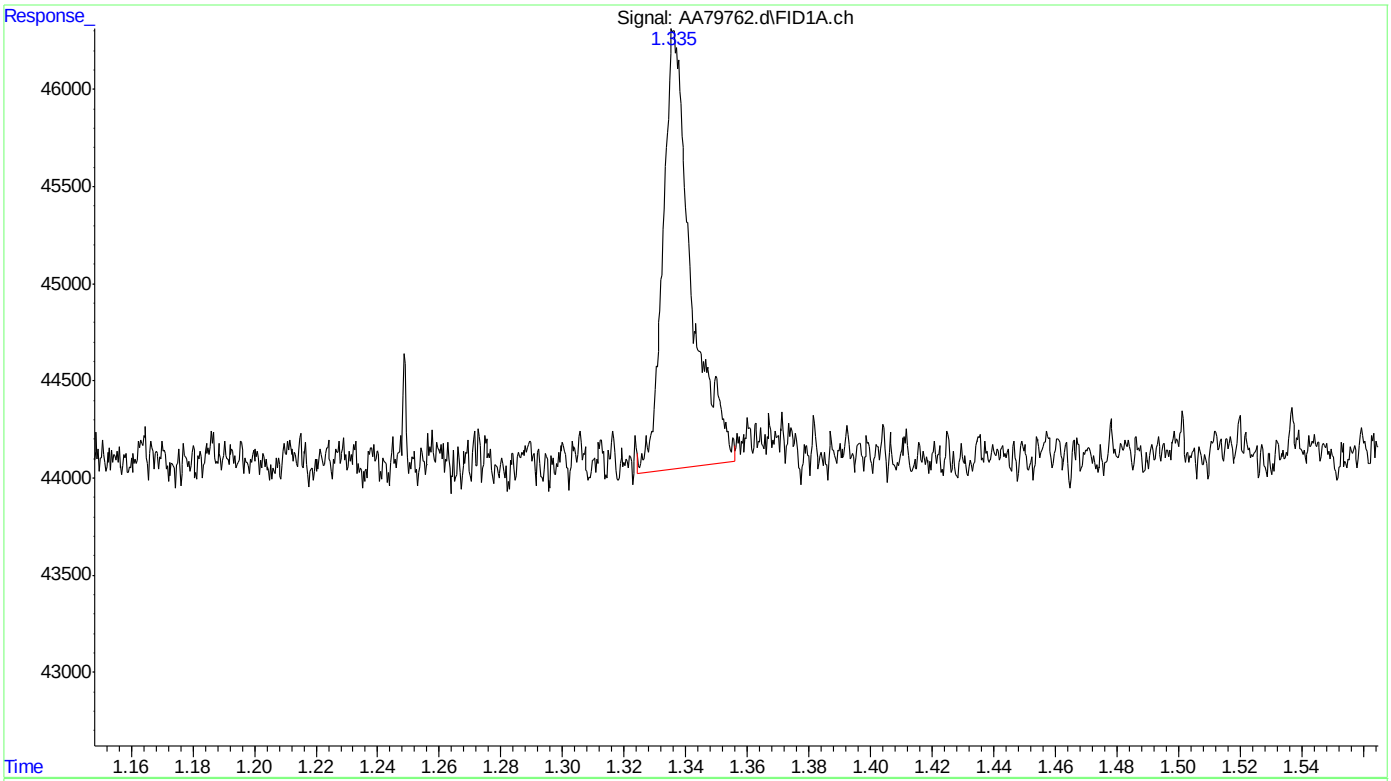
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79762.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 10:03 am
Operator : danat
Sample : mb
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 10:13:04 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.335min 0.529 PPMV m

response 14507

(+) = Expected Retention Time

Dissolved Gas Calculation Worksheet

Data File Name **AA79762.d**
Date Acquired **3/22/2020 10:03**
Sample Name **mb**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	14506.872	4225	0.38	0.25	0.03	40560	0.008	0.04	0.11	**ND**
Ethane	30	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	29420	#DIV/0!	#DIV/0!	0.23	**#DIV/0!**
Ethene	28	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11160	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	35857	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	13981	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	61993	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	43947	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79789.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 8:03 am
Operator : PrashanS
Sample : mb
Misc : GC55931,GAA1970,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 08:13:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units
Target Compounds			

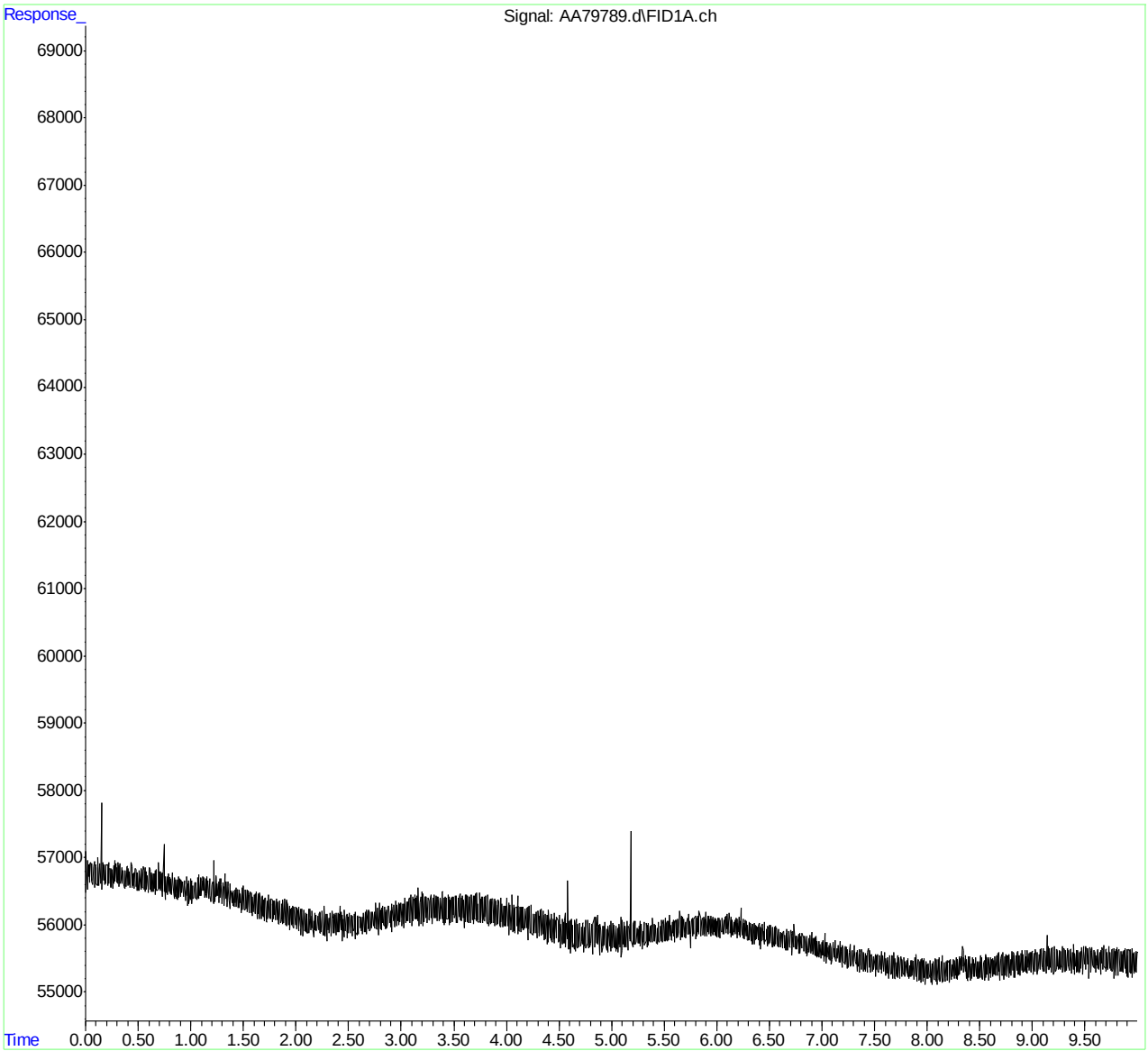
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79789.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 8:03 am
Operator : PrashanS
Sample : mb
Misc : GC55931,GAA1970,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 08:13:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79789.d**
Date Acquired **3/23/2020 8:03**
Sample Name **mb**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	40560	#DIV/0!	#DIV/0!	0.11	**#DIV/0!**
Ethane	30	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	29420	#DIV/0!	#DIV/0!	0.23	**#DIV/0!**
Ethene	28	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11160	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	35857	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	13981	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	61993	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	43947	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79722.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 7:32 am
Operator : PrashanS
Sample : lcs
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 07:42:10 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.316	2306465	84.161	PPMV
2)	Ethane	1.733	3975796	88.029	PPMV
3)	Ethene	2.427	3980456	88.913	PPMV
4)	Propane	2.870	6532916	95.513	PPMV
5)	n-Butane	4.099	7699747	88.246	PPMV
6)	n-Pentane	5.138	9195470	90.002	PPMV
7)	Hexane	6.298	9213428	81.653	PPMV

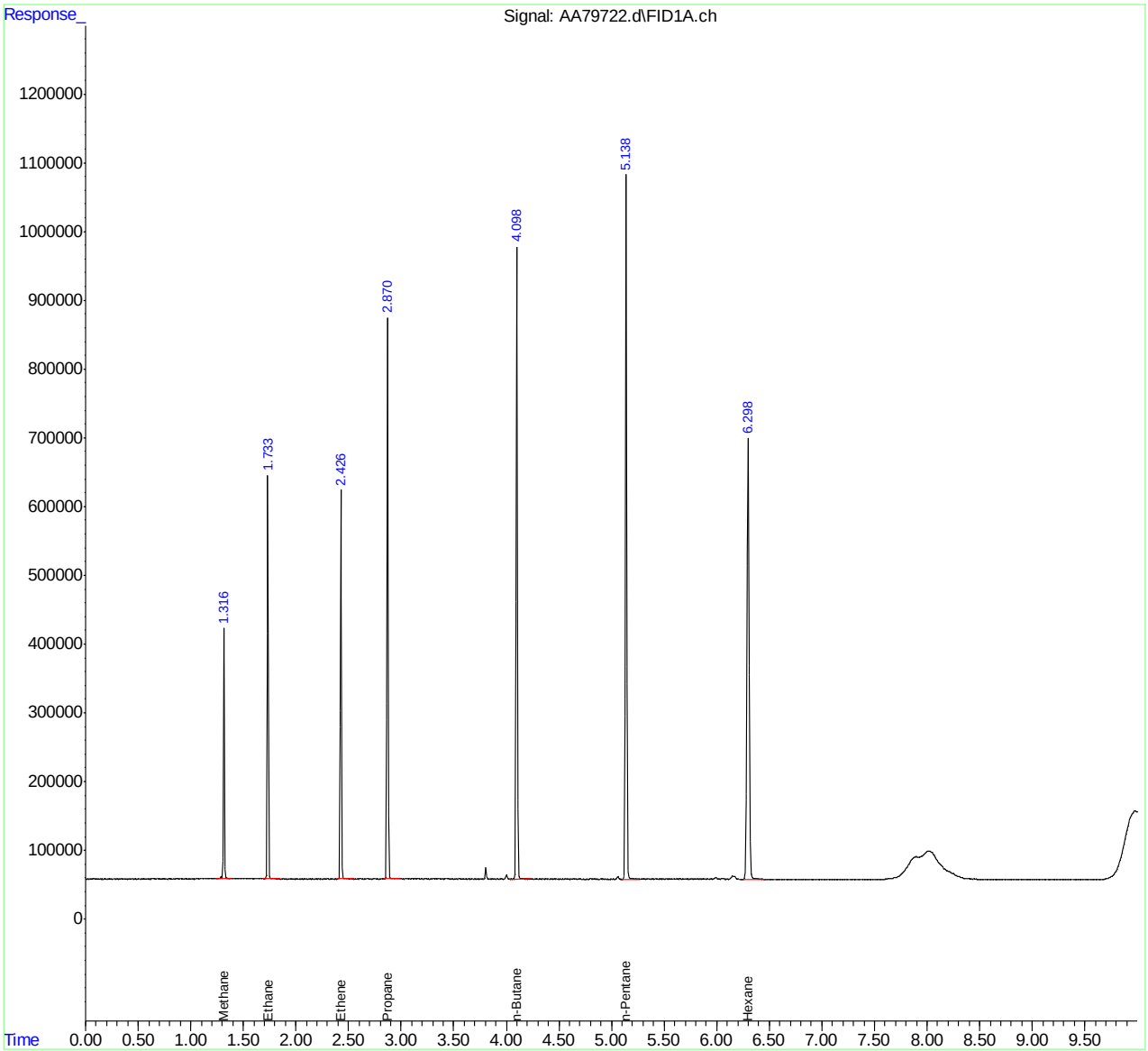
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79722.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 7:32 am
Operator : PrashanS
Sample : lcs
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 07:42:10 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79722.d**
Date Acquired **3/21/2020 7:32**
Sample Name **lcs**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **37**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	2306465	0	84.16	55.26	7.47	40560	1.843	9.31	0.11	**9.31**
Ethane	30	22.4	55.5	297	24.37	3975796.3	0	88.03	108.37	14.64	29420	4.982	19.626	0.23	**19.626**
Ethene	28	22.4	55.5	297	24.37	3980456	0	88.91	102.16	13.81	11160	12.381	26.186	0.31	**26.186**
Propane	44	22.4	55.5	297	24.37	6532916	0	95.51	172.45	23.30	35857	6.50	29.81	0.32	**29.81**
n-Butane	42	22.4	55.5	297	24.37	7699747	0	88.25	152.09	20.55	13981	14.71	35.27	0.43	**35.27**
n-Pentane	58	22.4	55.5	297	24.37	9195470	0	90.00	214.21	28.95	61993	4.67	33.62	0.38	**33.62**
Hexane	58	22.4	55.5	297	24.37	9213428	0	81.65	194.34	26.26	43947	5.98	32.24	0.41	**32.24**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79760.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 9:36 am
Operator : danat
Sample : lcs
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 09:46:24 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.345	2308716	84.243	PPMV
2)	Ethane	1.760	4415093	97.755	PPMV
3)	Ethene	2.445	4425588	98.856	PPMV
4)	Propane	2.884	7633253	111.600	PPMV
5)	n-Butane	4.106	9289965	106.471	PPMV
6)	n-Pentane	5.143	11556854	113.115	PPMV
7)	Hexane	6.303	12866751	114.030	PPMV

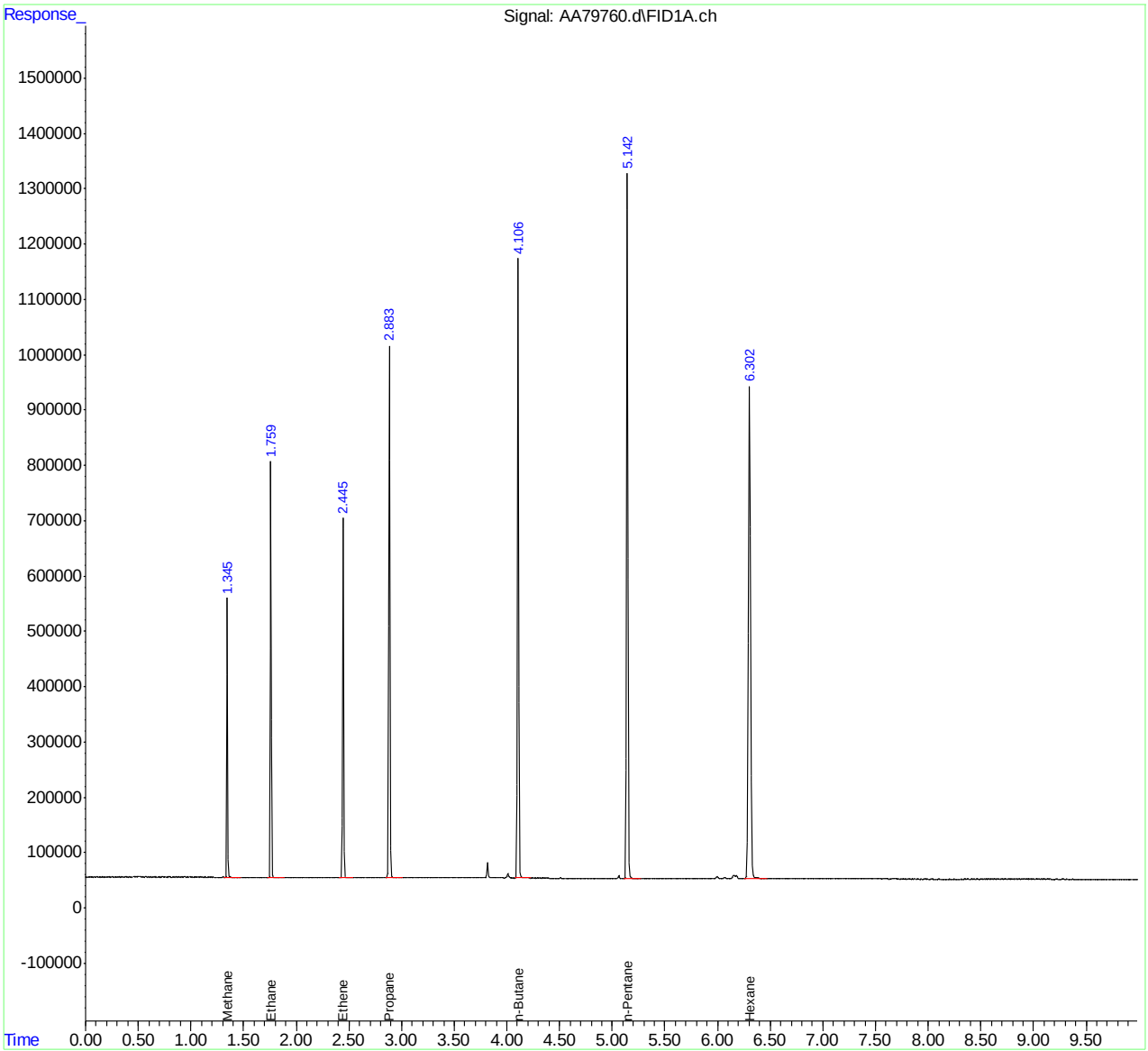
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79760.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 9:36 am
Operator : danat
Sample : lcs
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 09:46:24 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79760.d**
Date Acquired **3/22/2020 9:36**
Sample Name **lcs**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	2308716	0	84.24	55.31	7.28	40560	1.844	9.12	0.11	**9.12**
Ethane	30	22.4	55.5	297	24.37	4415093	0	97.76	120.34	15.83	29420	5.532	21.367	0.23	**21.367**
Ethene	28	22.4	55.5	297	24.37	4425588	0	98.86	113.58	14.95	11160	13.765	28.711	0.31	**28.711**
Propane	44	22.4	55.5	297	24.37	7633253	0	111.60	201.50	26.51	35857	7.60	34.11	0.32	**34.11**
n-Butane	42	22.4	55.5	297	24.37	9289965	0	106.47	183.50	24.14	13981	17.75	41.90	0.43	**41.90**
n-Pentane	58	22.4	55.5	297	24.37	11556854	0	113.11	269.22	35.42	61993	5.87	41.30	0.38	**41.30**
Hexane	58	22.4	55.5	297	24.37	12866751	0	114.03	271.40	35.71	43947	8.35	44.06	0.41	**44.06**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79787.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 7:35 am
Operator : PrashanS
Sample : lcs
Misc : GC55931,GAA1970,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 07:45:18 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.320	2350462	85.766	PPMV
2)	Ethane	1.736	4218044	93.393	PPMV
3)	Ethene	2.426	3854853	86.107	PPMV
4)	Propane	2.870	7249189	105.985	PPMV
5)	n-Butane	4.097	8764877	100.453	PPMV
6)	n-Pentane	5.138	10668836	104.423	PPMV
7)	Hexane	6.298	11248606	99.690	PPMV

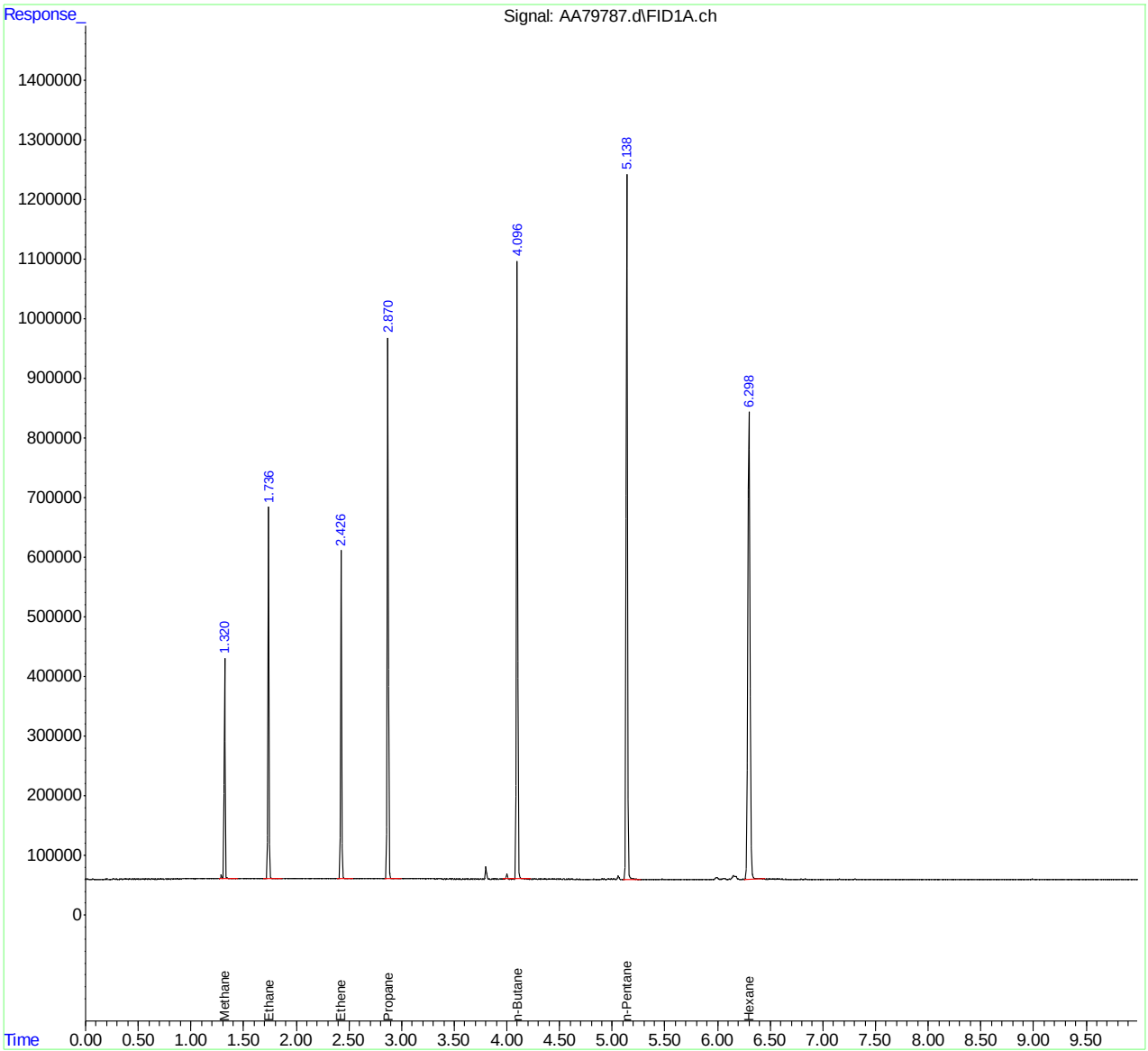
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79787.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 7:35 am
Operator : PrashanS
Sample : lcs
Misc : GC55931,GAA1970,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 07:45:18 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79787.d**
Date Acquired **3/23/2020 7:35**
Sample Name **lcs**
Sample Multiplier **1**
Temperature(C) **23**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	296	24.29	2350461.5	0	85.77	56.50	7.43	39820	1.913	9.35	0.11	**9.35**
Ethane	30	22.4	55.5	296	24.29	4218043.7	0	93.39	115.36	15.18	28640	5.429	20.608	0.23	**20.608**
Ethene	28	22.4	55.5	296	24.29	3854853	0	86.11	99.27	13.06	10920	12.254	25.316	0.31	**25.316**
Propane	44	22.4	55.5	296	24.29	7249189	0	105.98	192.01	25.26	34744	7.45	32.71	0.32	**32.71**
n-Butane	42	22.4	55.5	296	24.29	8764877	0	100.45	173.71	22.86	13451	17.41	40.27	0.43	**40.27**
n-Pentane	58	22.4	55.5	296	24.29	10668836	0	104.42	249.37	32.81	60118	5.59	38.40	0.38	**38.40**
Hexane	58	22.4	55.5	296	24.29	11248606	0	99.69	238.07	31.32	42425	7.56	38.89	0.41	**38.89**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79732.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 10:12 am
Operator : PrashanS
Sample : jd4404-2dup
Misc : GC55913,GAA1968,,,,,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 10:22:58 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.316	10198784	372.144	PPMV

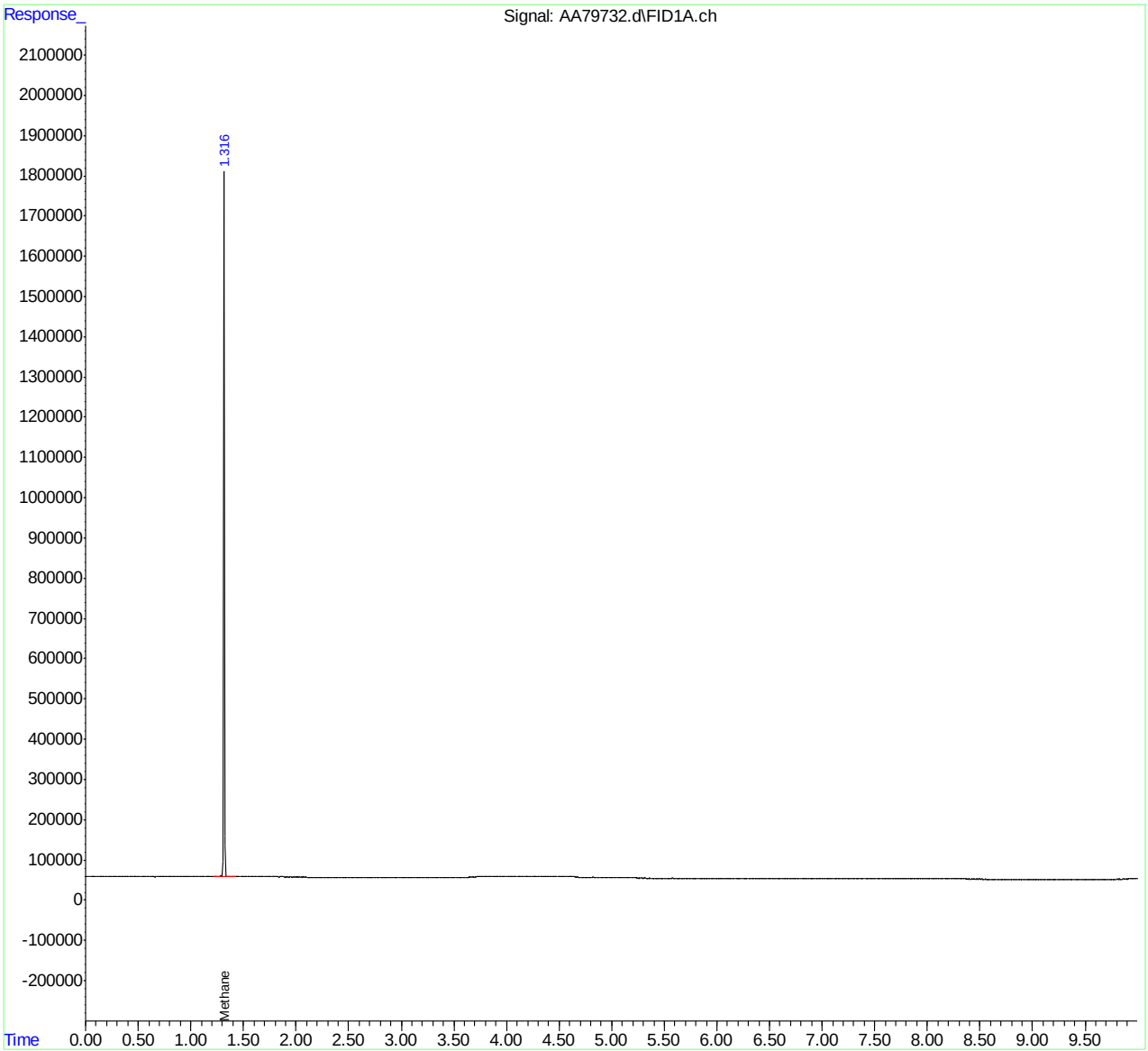
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79732.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 10:12 am
Operator : PrashanS
Sample : jd4404-2dup
Misc : GC55913,GAA1968,,,,,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 10:22:58 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79732.d**
Date Acquired **3/21/2020 10:12**
Sample Name **jd4404-2dup**
Sample Multiplier **1**
Temperature(C) **25**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	298	24.45	10198784	3254	372.02	243.44	32.03	41300	7.999	40.03	0.11	**40.03**
Ethane	30	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	30200	#DIV/0!	#DIV/0!	0.23	**#DIV/0!**
Ethene	28	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11400	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	36978	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	14529	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	63913	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	45514	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79767.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 11:11 am
Operator : danat
Sample : jd4478-2dup
Misc : GC55924,GAA1969,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 11:21:08 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.339	971604	35.453	PPMV
4)	Propane	2.878	79582	1.164	PPMV

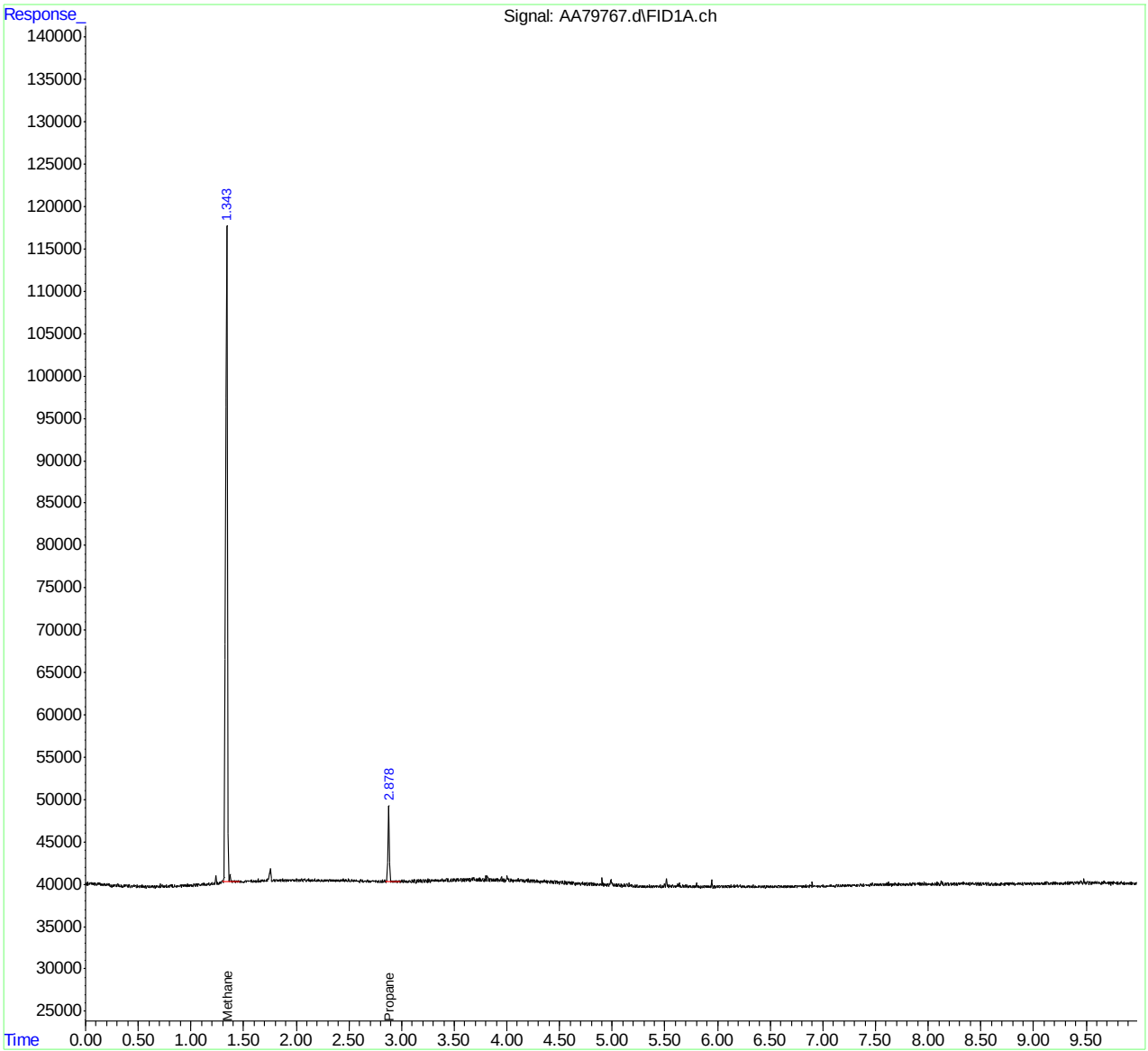
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79767.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 11:11 am
Operator : danat
Sample : jd4478-2dup
Misc : GC55924,GAA1969,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 11:21:08 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

Data File Name **AA79767.d**
Date Acquired **3/22/2020 11:11**
Sample Name **jd4478-2dup**
Sample Multiplier **1**
Temperature(C) **24**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	297	24.37	971604.46	4225	35.30	23.18	3.05	40560	0.773	3.82	0.11	**3.82**
Ethane	30	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	29420	#DIV/0!	#DIV/0!	0.23	**#DIV/0!**
Ethene	28	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11160	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	297	24.37	79582	0	1.16	2.10	0.28	35857	0.08	0.36	0.32	**0.36**
n-Butane	42	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	13981	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	61993	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	297	24.37	0	0	#DIV/0!	#DIV/0!	#DIV/0!	43947	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 03/29/20 22:14

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79805.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 11:39 am
Operator : PrashanS
Sample : jd4588-1dup
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 27 15:41:03 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units
Target Compounds			
1) Methane	1.323	18829	0.687 PPMV m

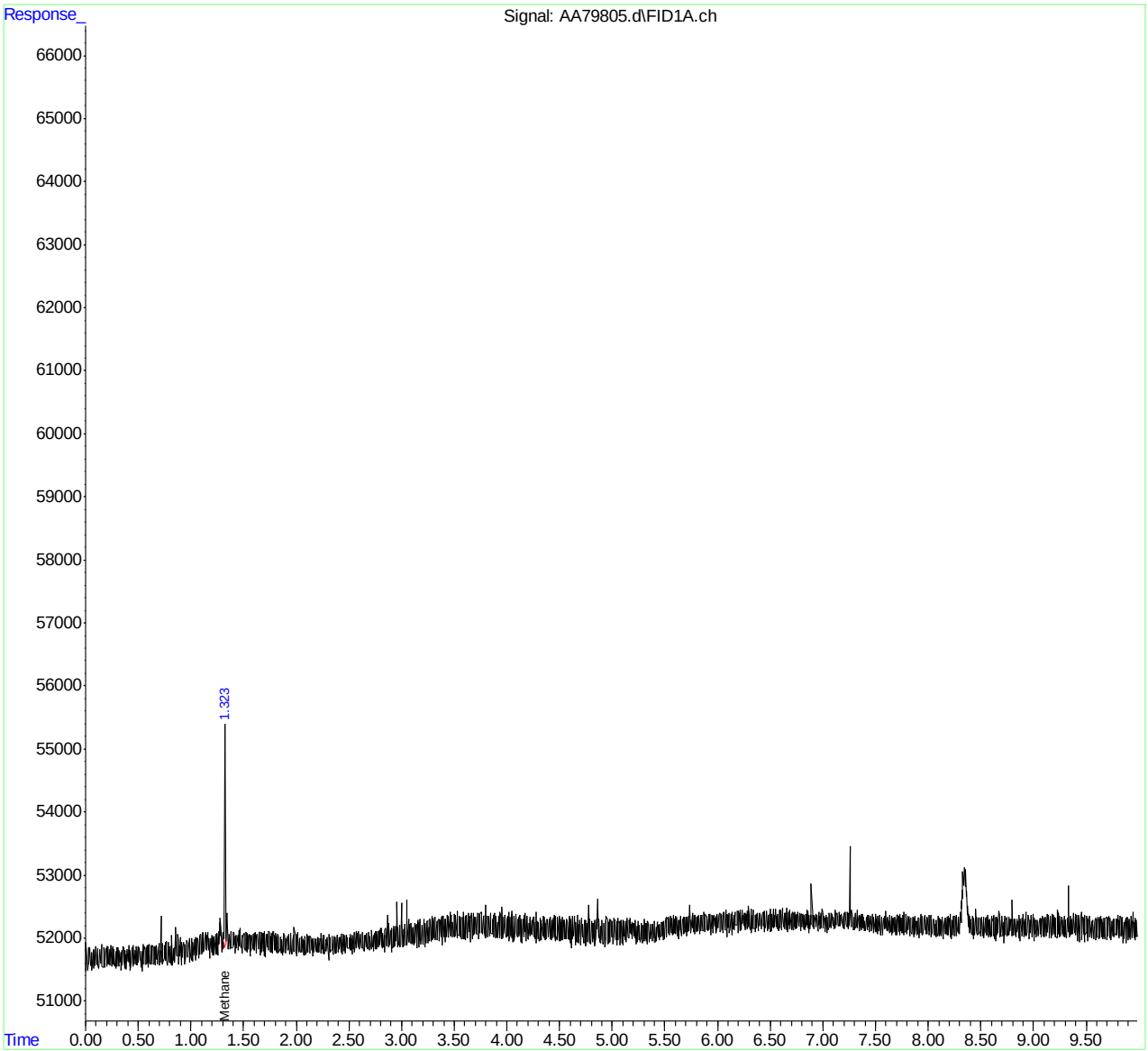
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79805.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 11:39 am
Operator : PrashanS
Sample : jd4588-1dup
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 27 15:41:03 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number: JD4588-1DUP
Lab FileID: AA79805.D
Injection Time: 03/23/20 11:39
Method: RSK-175
Analyst approved: 03/27/20 17:00 Dana Tryon
Supervisor approved: 03/29/20 22:14 Kanya Veerawat

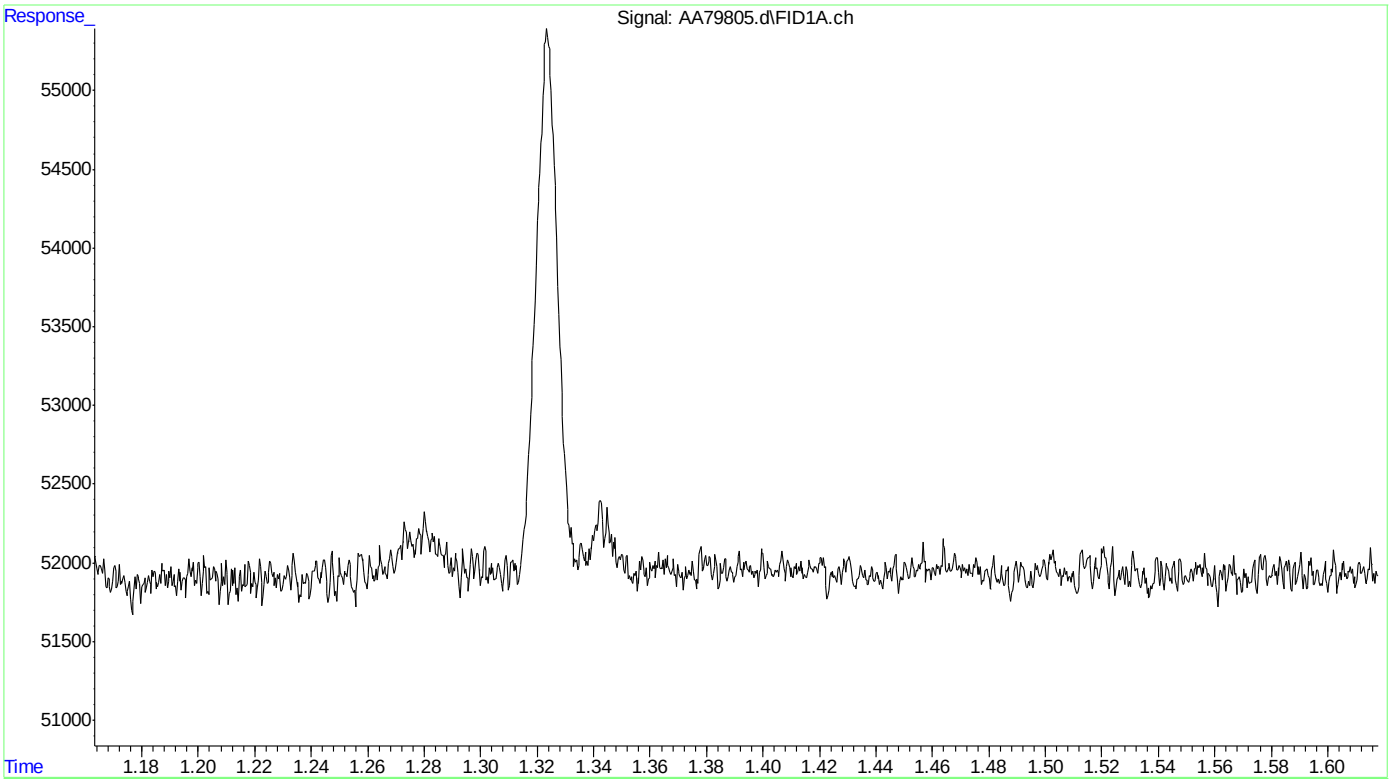
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.32	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79805.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 11:39 am
Operator : PrashanS
Sample : jd4588-1dup
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 11:49:50 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.330min 0.000 PPMV

response 0

(+) = Expected Retention Time

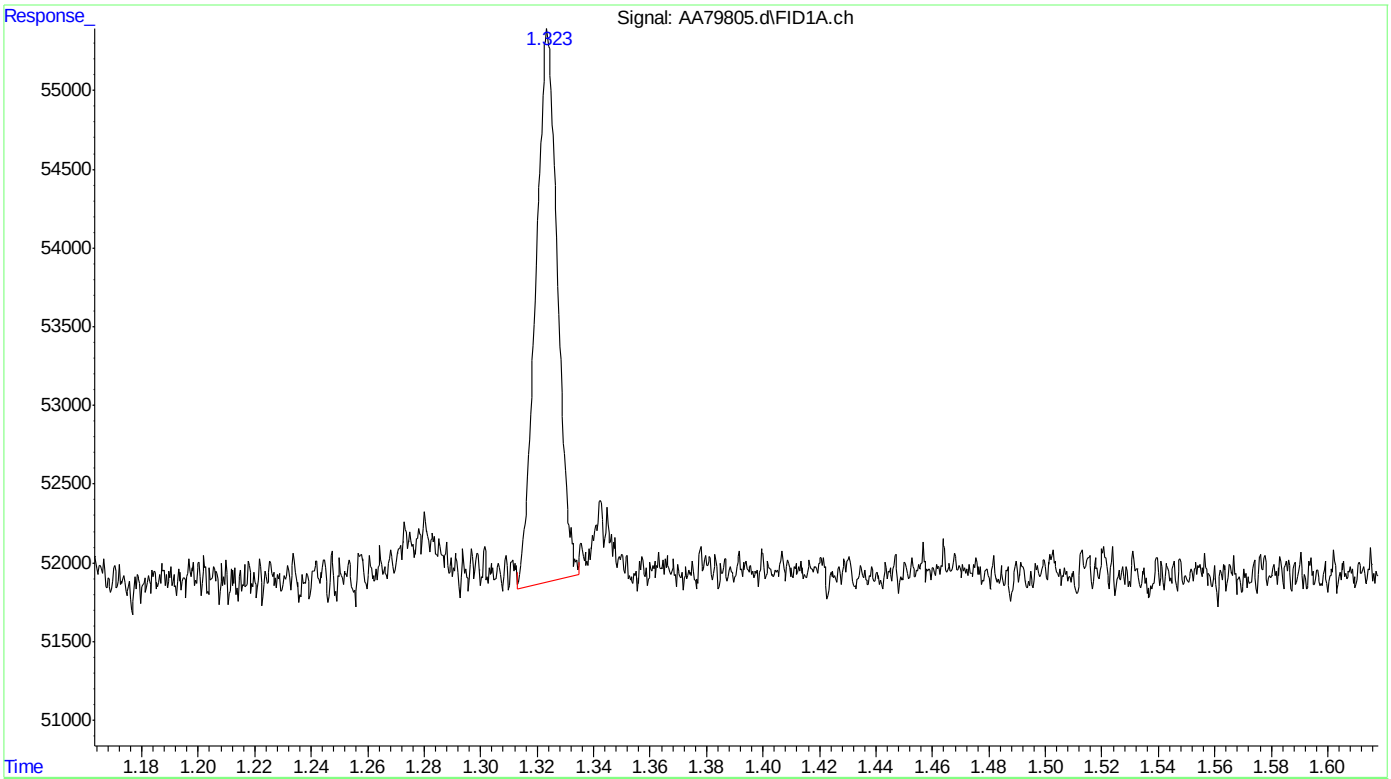
maa1942.m Fri Mar 27 15:41:00 2020 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79805.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 11:39 am
Operator : PrashanS
Sample : jd4588-1dup
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 11:49:50 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.323min 0.687 PPMV m

response 18829

(+) = Expected Retention Time

Dissolved Gas Calculation Worksheet

Data File Name **AA79805.d**
Date Acquired **3/23/2020 11:39**
Sample Name **jd4588-1dup**
Sample Multiplier **1**
Temperature(C) **25**
Headspace Vol. (cc) **5**
Sample Vol(cc) **38**

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	298	24.45	18829.387	0	0.69	0.45	0.06	41300	0.015	0.07	0.11	**ND**
Ethane	30	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	30200	#DIV/0!	#DIV/0!	0.23	**#DIV/0!**
Ethene	28	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	11400	#DIV/0!	#DIV/0!	0.31	**#DIV/0!**
Propane	44	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	36978	#DIV/0!	#DIV/0!	0.32	**#DIV/0!**
n-Butane	42	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	14529	#DIV/0!	#DIV/0!	0.43	**#DIV/0!**
n-Pentane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	63913	#DIV/0!	#DIV/0!	0.38	**#DIV/0!**
Hexane	58	22.4	55.5	298	24.45	0	0	#DIV/0!	#DIV/0!	#DIV/0!	45514	#DIV/0!	#DIV/0!	0.41	**#DIV/0!**

*** ppmv is corrected for helium blank background peak area**

Definitions,

Molar Volume	**The volume of 1 mole of any gas at standard temperature and pressure(STP)**
Water g/Moles	**1 Liter of water is equal to 55.5g-moles**
Temp-kelvin	**Is defined as 273 + degress C**
Corrected Gas Density	**Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)**
Headspace conc(ug/l)	**Is equal to (ppmv reading) x (mw/corrected gas density)**
Water Concentration(ug/l)	**Is equal to headspace conc(ug/l) x headspace vol/sample vol**
Saturation Concentration(ug/l)	**Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)**

Henry's Constants

temp-c	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Proylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	52239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/02/20 13:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79115.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 11:53 am
Operator : thomash
Sample : ic1942-1.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:47:05 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.319	43585	1.663	PPMV m
2)	Ethane	1.733	49919	1.033	PPMV
3)	Ethene	2.412	50753	1.046	PPMV
4)	Propane	2.862	76931	1.093	PPMV
5)	n-Butane	4.091	102904	1.061	PPMV
6)	n-Pentane	5.140	135126	1.117	PPMV
7)	Hexane	6.300	176705	1.173	PPMV

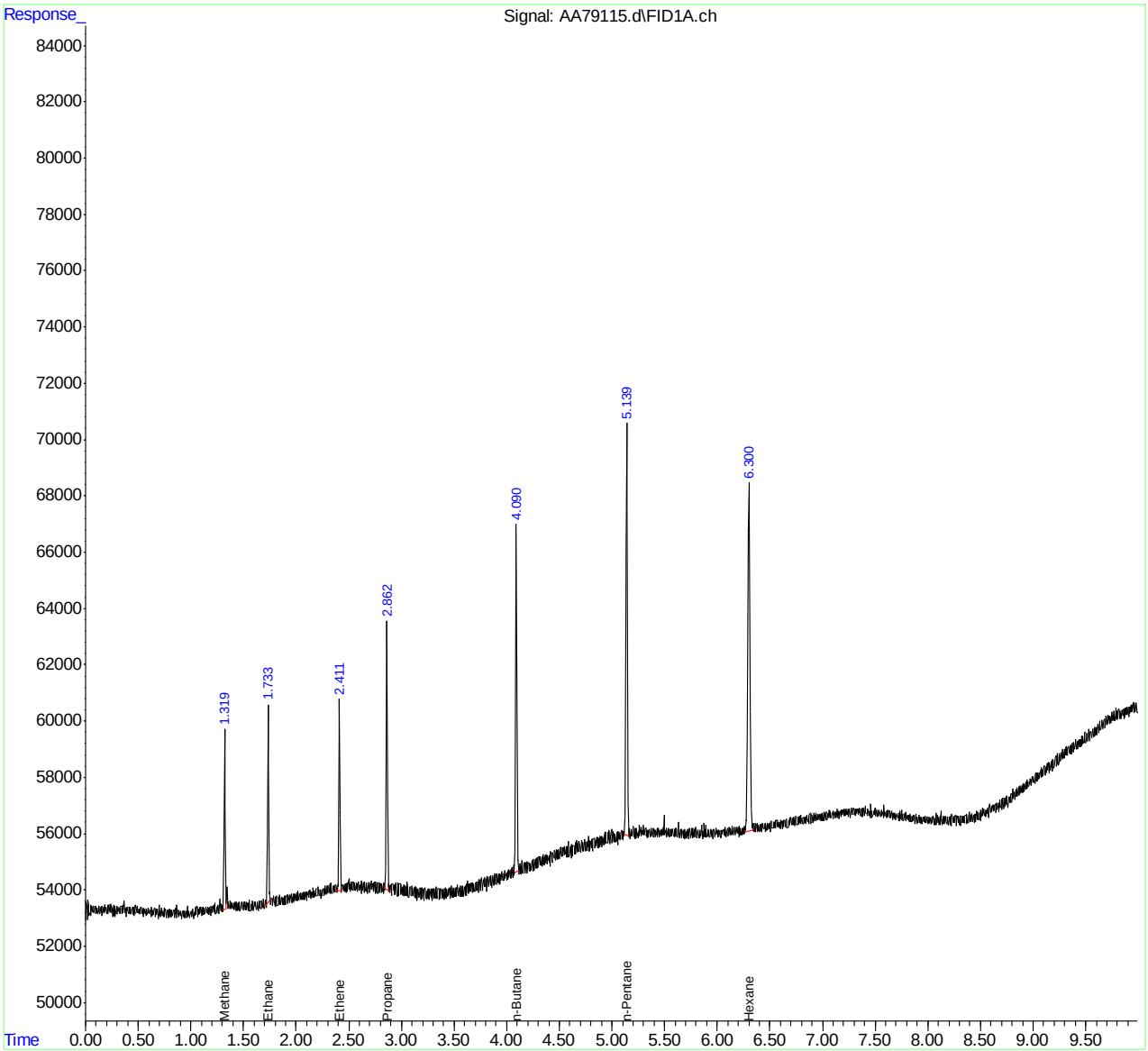
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79115.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 11:53 am
Operator : thomash
Sample : ic1942-1.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:47:05 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number:	GAA1942-IC1942	**Method:**	RSK-175
Lab FileID:	AA79115.D	**Analyst approved:**	02/28/20 10:20 Thomas Hilbig
Injection Time:	02/27/20 11:53	**Supervisor approved:**	03/02/20 13:49 Dana Tryon

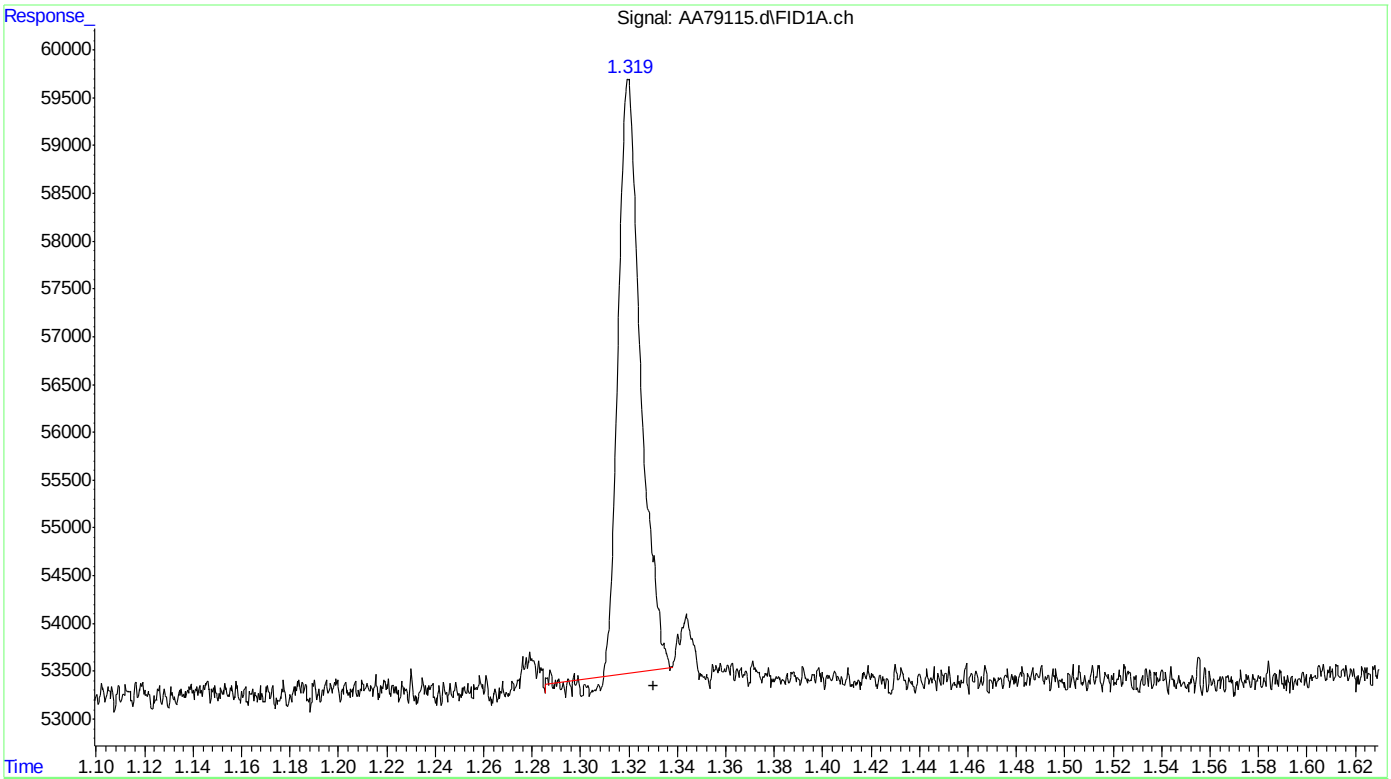
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.32	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79115.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 11:53 am
Operator : thomash
Sample : ic1942-1.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:46:29 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.320min 1.516 PPMV

response 39727

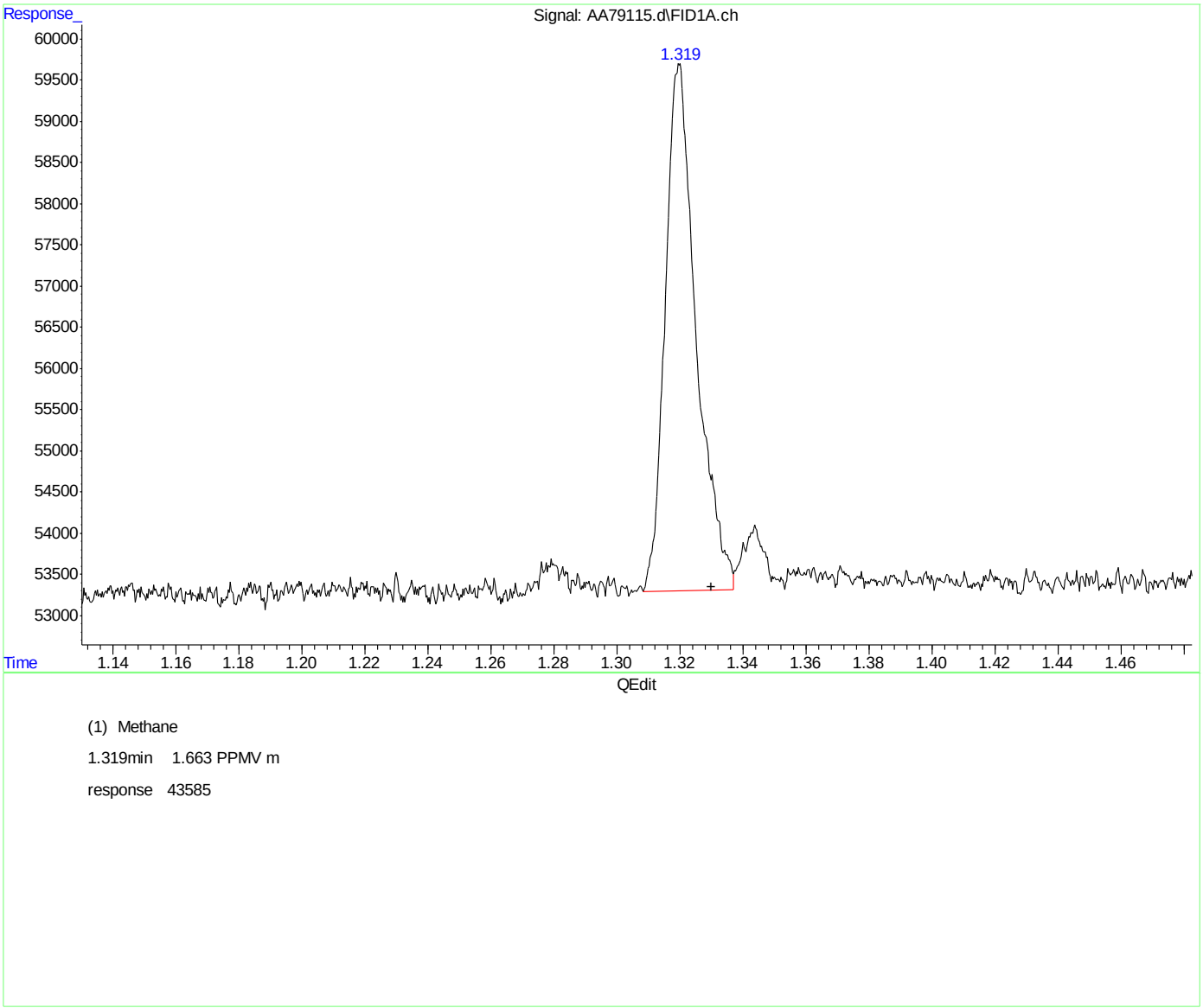
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79115.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 11:53 am
Operator : thomash
Sample : ic1942-1.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:46:29 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.319min 1.663 PPMV m

response 43585

(+) = Expected Retention Time

maa1942.m Thu Feb 27 14:47:16 2020 Page: 1

AA79115.D edits: Methane

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/02/20 13:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79116.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:12 pm
Operator : thomash
Sample : ic1942-2.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:49:08 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.325	68896	2.628	PPMV m
2)	Ethane	1.738	94708	1.960	PPMV
3)	Ethene	2.415	89165	1.837	PPMV
4)	Propane	2.864	132995	1.890	PPMV
5)	n-Butane	4.092	156696	1.615	PPMV
6)	n-Pentane	5.137	157950	1.306	PPMV
7)	Hexane	6.294	158343	1.051	PPMV m

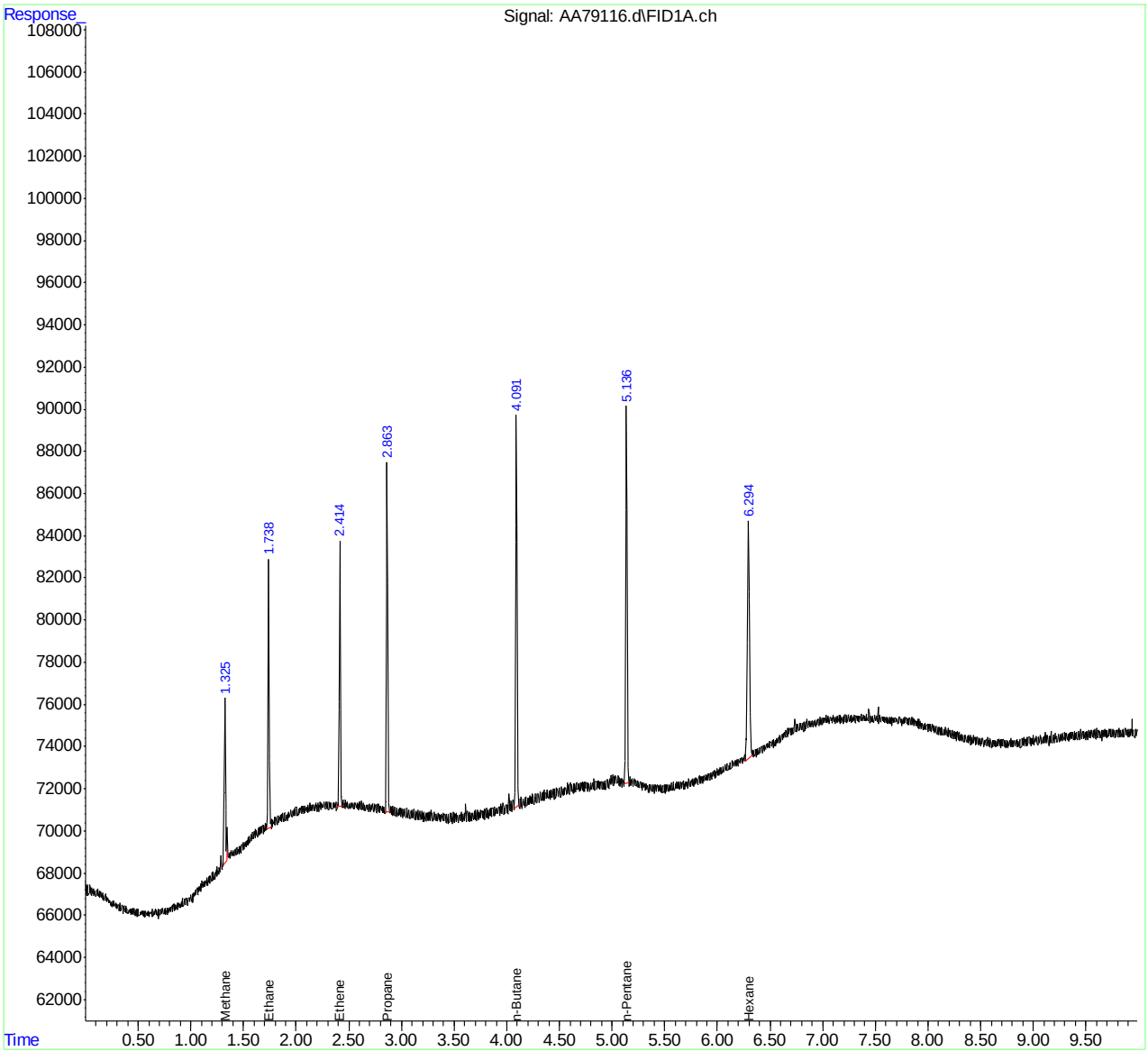
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79116.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:12 pm
Operator : thomash
Sample : ic1942-2.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:49:08 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number: GAA1942-IC1942
Lab FileID: AA79116.D
Injection Time: 02/27/20 12:12
Method: RSK-175
Analyst approved: 02/28/20 10:20 Thomas Hilbig
Supervisor approved: 03/02/20 13:49 Dana Tryon

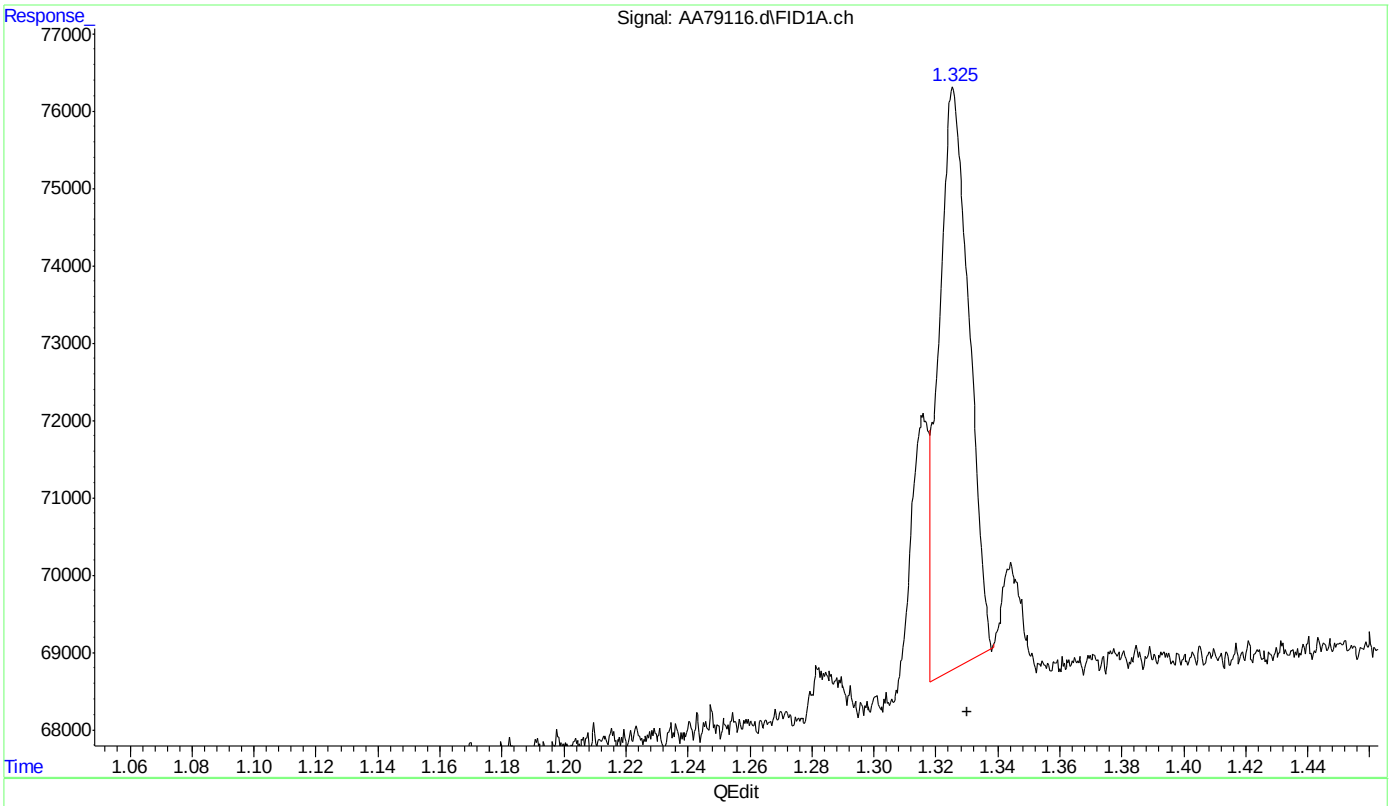
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.33	Split peak
Hexane	110-54-3	1	6.29	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79116.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:12 pm
Operator : thomash
Sample : ic1942-2.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:47:25 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.326min 1.951 PPMV

response 51132

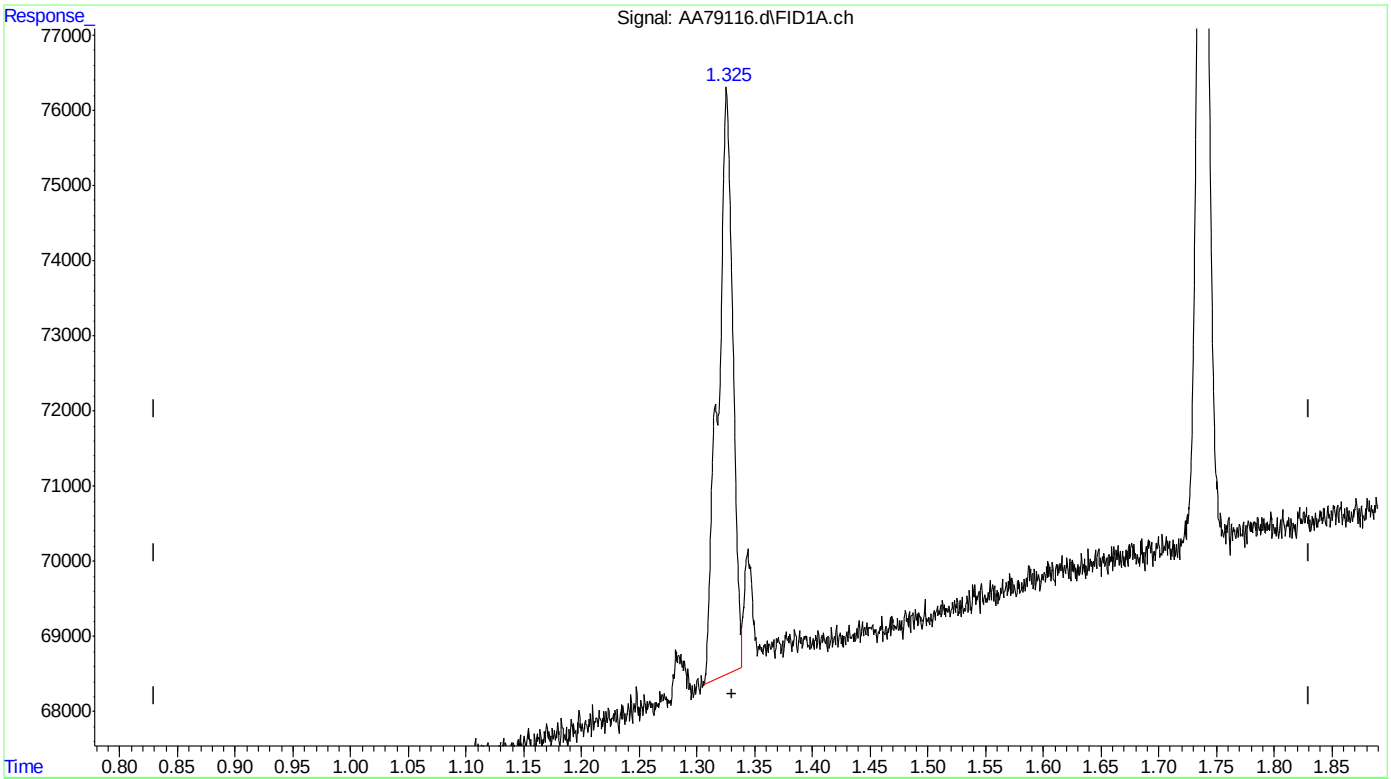
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79116.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:12 pm
Operator : thomash
Sample : ic1942-2.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:47:25 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.325min 2.628 PPMV m

response 68896

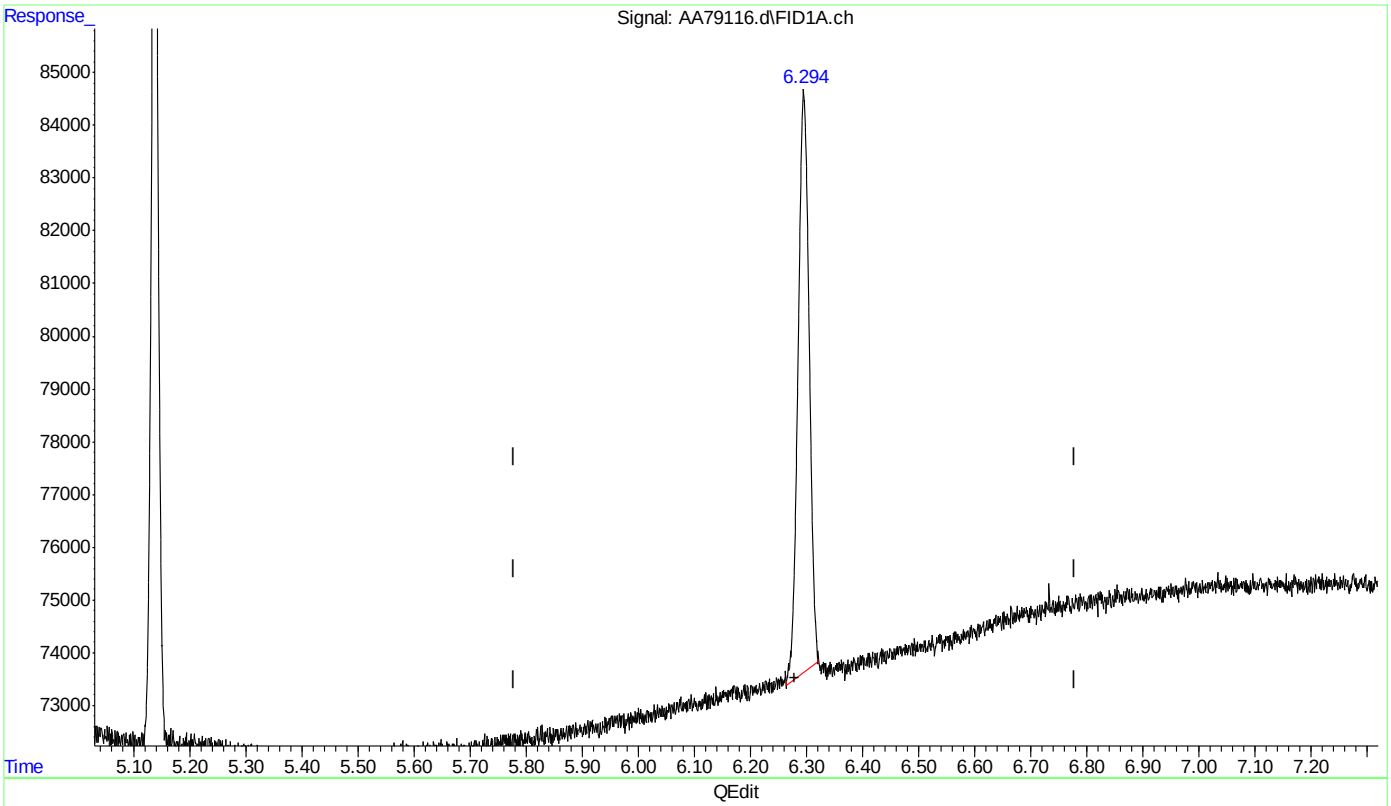
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79116.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:12 pm
Operator : thomash
Sample : ic1942-2.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:47:25 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(7) Hexane

6.295min 1.010 PPMV

response 152190

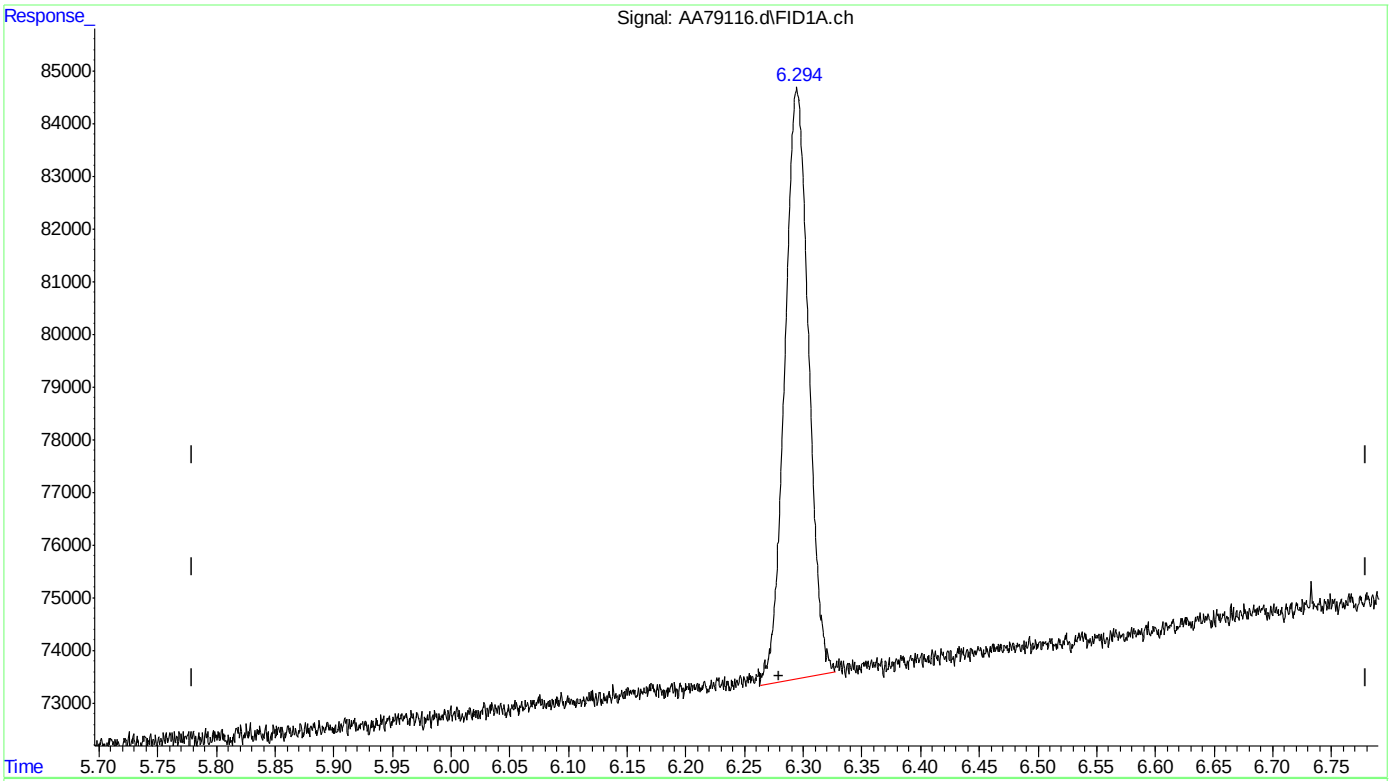
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79116.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:12 pm
Operator : thomash
Sample : ic1942-2.0
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:47:25 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(7) Hexane

6.294min 1.051 PPMV m

response 158343

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/02/20 13:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79117.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:31 pm
Operator : thomash
Sample : ic1942-10
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:50:18 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.323	204931	7.818	PPMV m
2)	Ethane	1.737	348879	7.221	PPMV
3)	Ethene	2.414	343662	7.081	PPMV
4)	Propane	2.864	530279	7.537	PPMV
5)	n-Butane	4.092	680612	7.016	PPMV
6)	n-Pentane	5.137	818781	6.769	PPMV
7)	Hexane	6.295	945305	6.275	PPMV

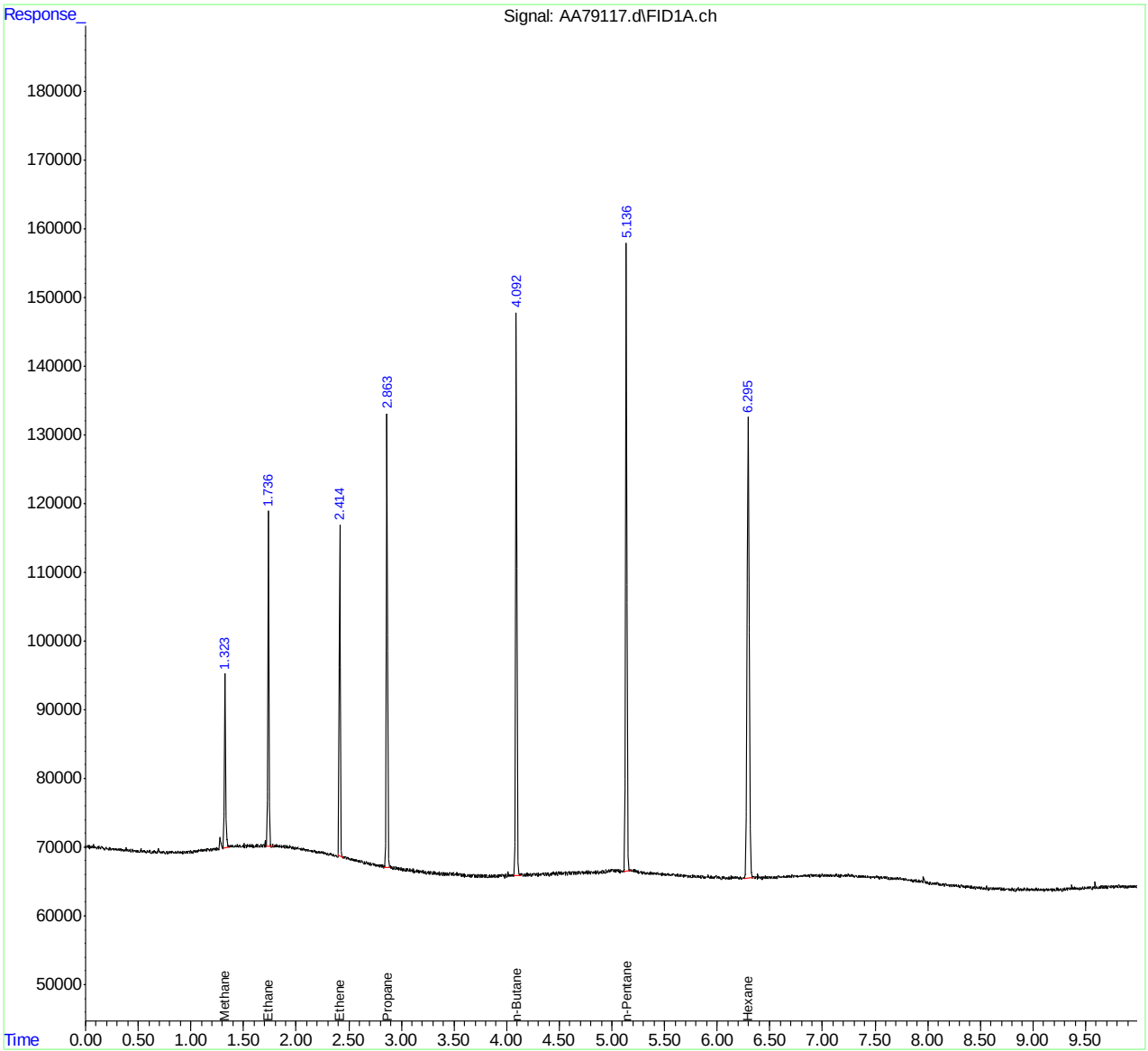
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79117.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:31 pm
Operator : thomash
Sample : ic1942-10
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:50:18 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number:	GAA1942-IC1942	**Method:**	RSK-175
Lab FileID:	AA79117.D	**Analyst approved:**	02/28/20 10:20 Thomas Hilbig
Injection Time:	02/27/20 12:31	**Supervisor approved:**	03/02/20 13:49 Dana Tryon

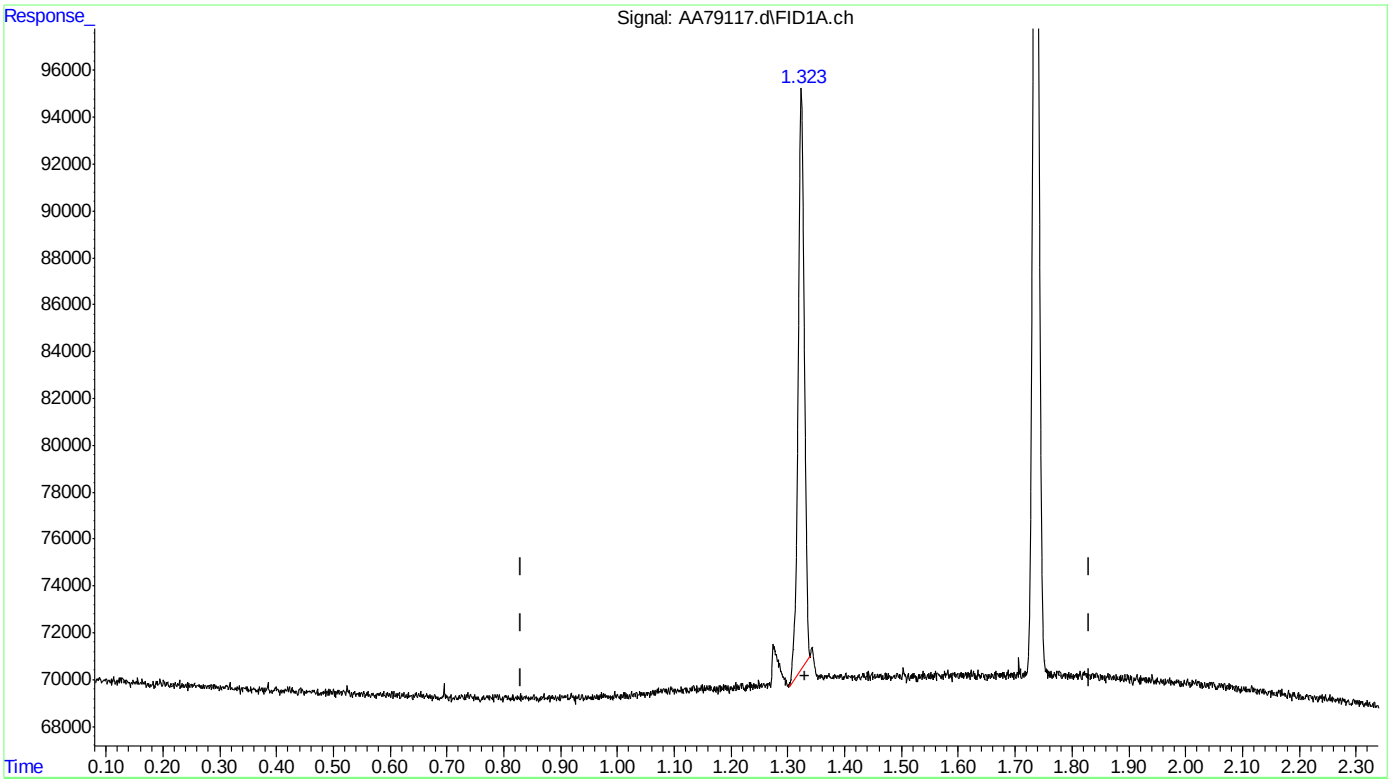
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.32	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79117.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:31 pm
Operator : thomash
Sample : ic1942-10
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:49:23 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.324min 7.138 PPMV

response 187090

(+) = Expected Retention Time

maa1942.m Thu Feb 27 14:49:37 2020 Page: 1

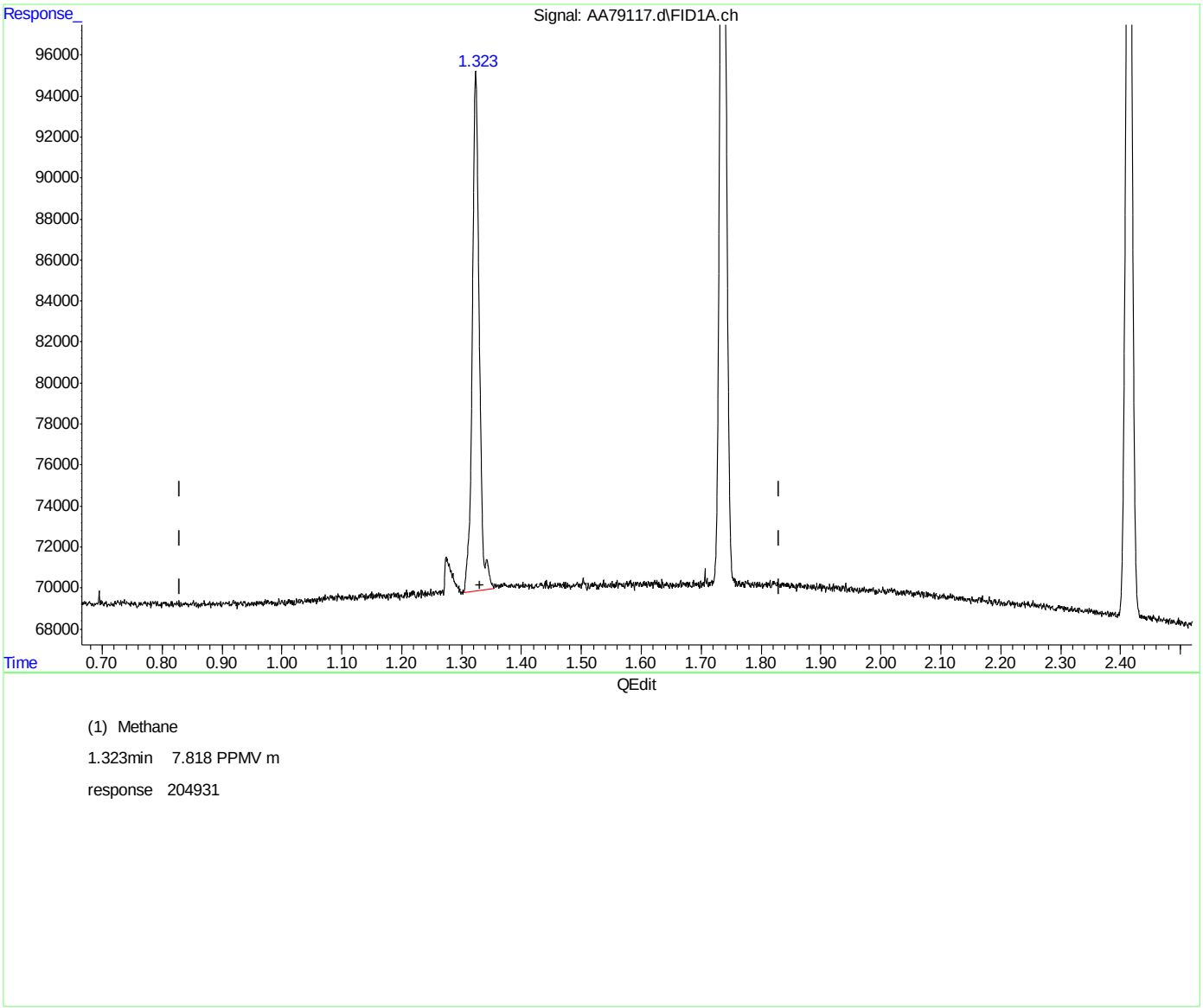
AA79117.D edits: Methane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79117.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:31 pm
Operator : thomash
Sample : ic1942-10
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:49:23 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.323min 7.818 PPMV m

response 204931

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79118.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:44 pm
Operator : thomash
Sample : ic1942-20
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:50:44 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.332	513736	19.600	PPMV
2)	Ethane	1.743	923371	19.112	PPMV
3)	Ethene	2.419	920003	18.956	PPMV
4)	Propane	2.867	1401652	19.922	PPMV
5)	n-Butane	4.092	1724782	17.780	PPMV
6)	n-Pentane	5.130	1779548	14.713	PPMV
7)	Hexane	6.283	1584997	10.522	PPMV

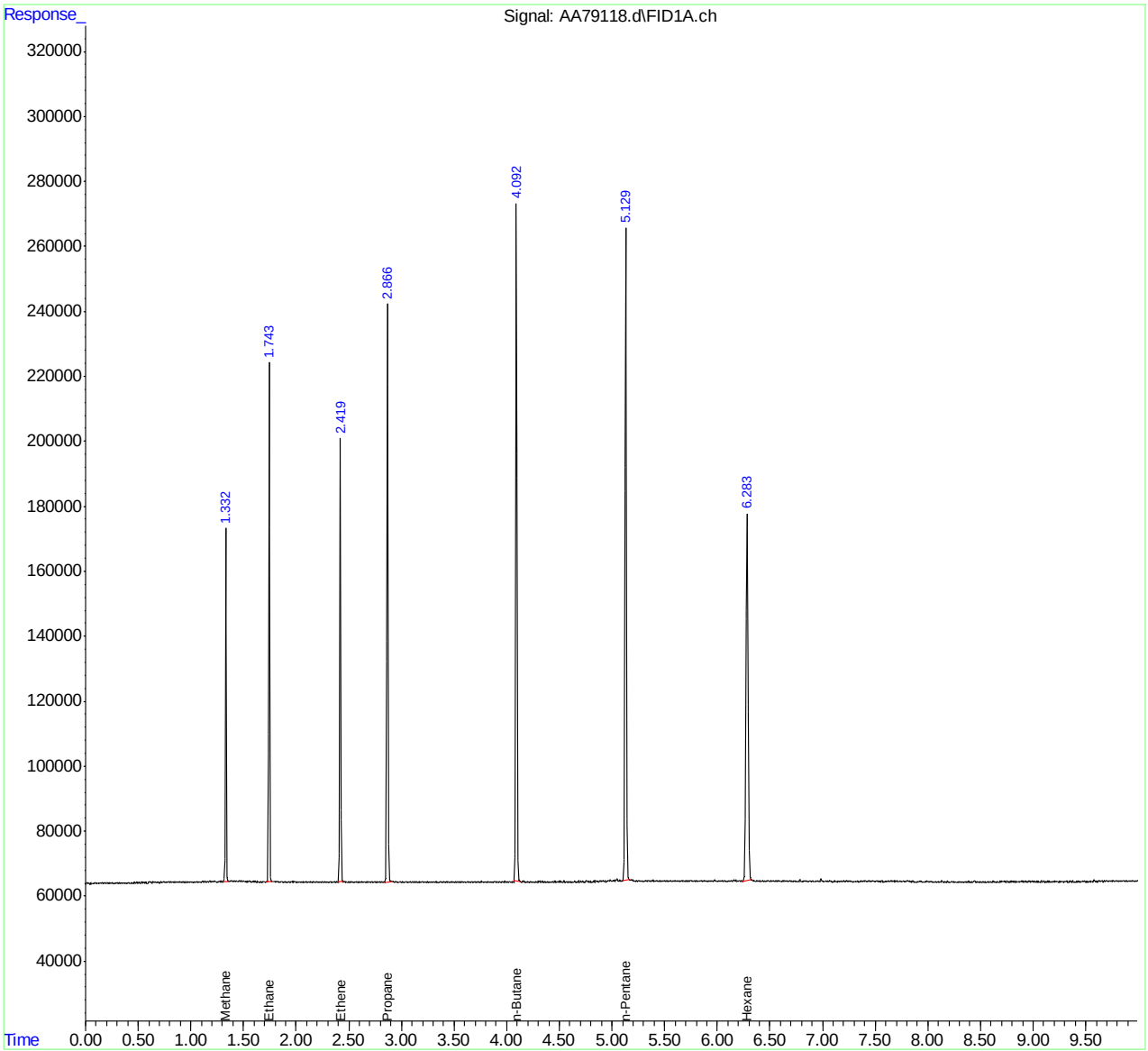
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79118.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:44 pm
Operator : thomash
Sample : ic1942-20
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:50:44 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79119.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:58 pm
Operator : thomash
Sample : icc1942-100
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:50:56 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.330	2621062	99.997	PPMV
2)	Ethane	1.742	4989622	103.274	PPMV
3)	Ethene	2.418	4972120	102.446	PPMV
4)	Propane	2.866	7599549	108.014	PPMV
5)	n-Butane	4.091	9540977	98.351	PPMV
6)	n-Pentane	5.128	10280556	84.996	PPMV
7)	Hexane	6.280	9012135	59.827	PPMV

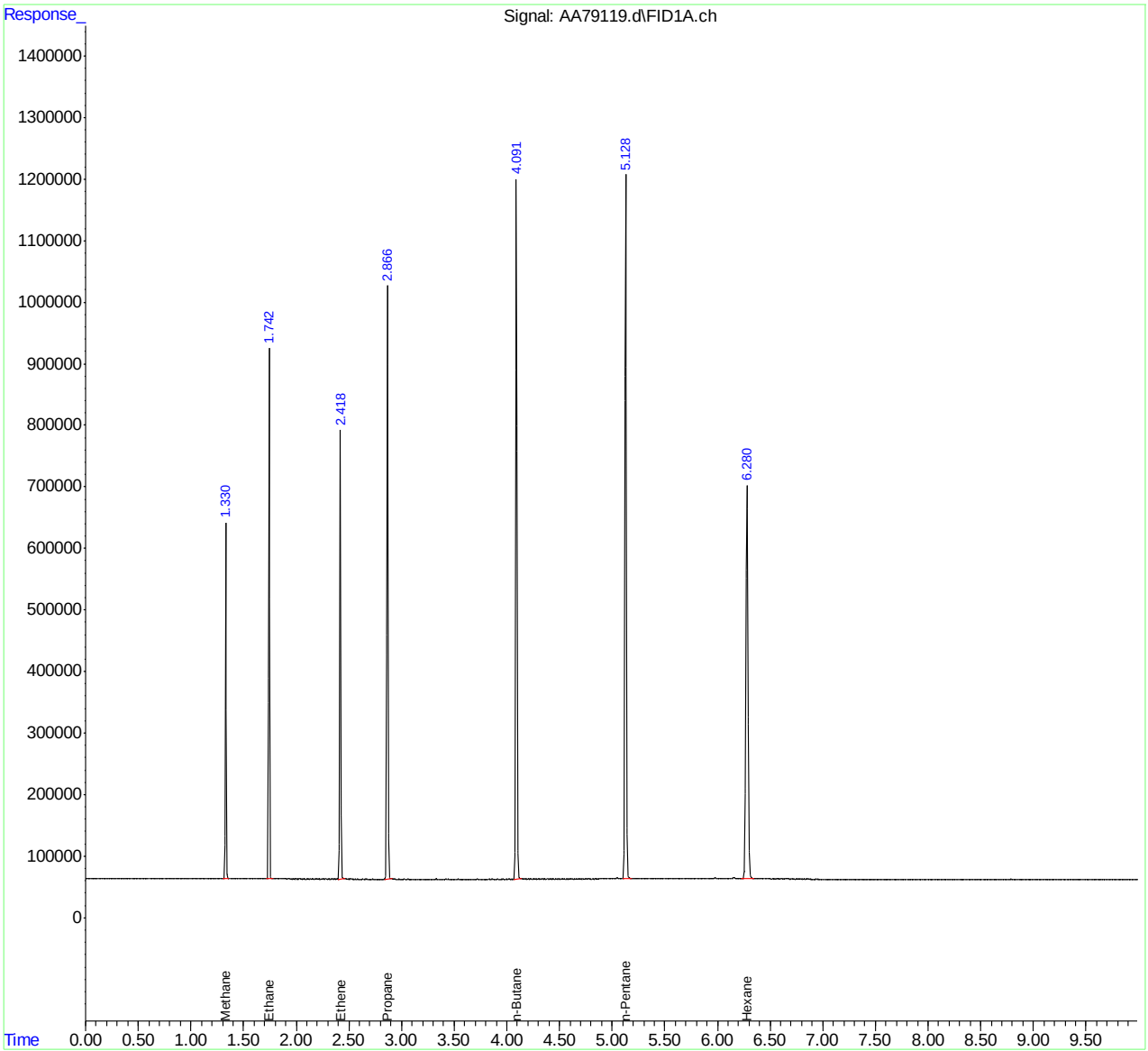
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79119.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 12:58 pm
Operator : thomash
Sample : icc1942-100
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:50:56 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79120.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 1:14 pm
Operator : thomash
Sample : ic1942-200
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:51:08 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.325	5108726	194.904	PPMV
2)	Ethane	1.738	9862867	204.138	PPMV
3)	Ethene	2.416	9828860	202.514	PPMV
4)	Propane	2.864	15194771	215.967	PPMV
5)	n-Butane	4.091	19881259	204.942	PPMV
6)	n-Pentane	5.131	24244681	200.446	PPMV
7)	Hexane	6.285	27027356	179.420	PPMV

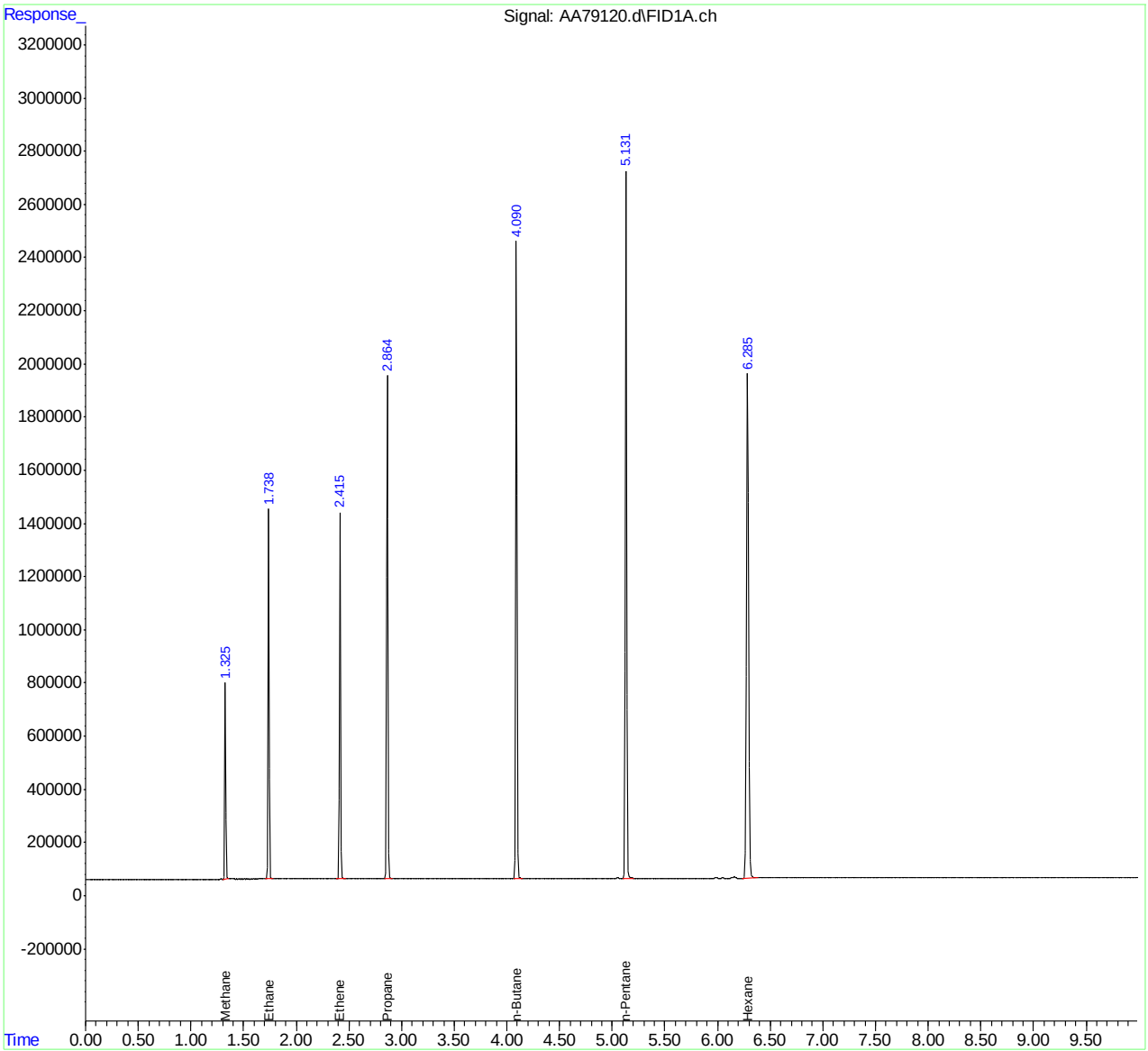
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79120.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 1:14 pm
Operator : thomash
Sample : ic1942-200
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:51:08 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79121.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 2:39 pm
Operator : thomash
Sample : ic1942-500
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:51:40 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.324	11326528	432.121	PPMV
2)	Ethane	1.736	21922661	453.748	PPMV
3)	Ethene	2.414	21862654	450.458	PPMV
4)	Propane	2.862	33794261	480.327	PPMV
5)	n-Butane	4.089	44578872	459.533	PPMV
6)	n-Pentane	5.141	56567090	467.676	PPMV
7)	Hexane	6.306	67494691	448.062	PPMV

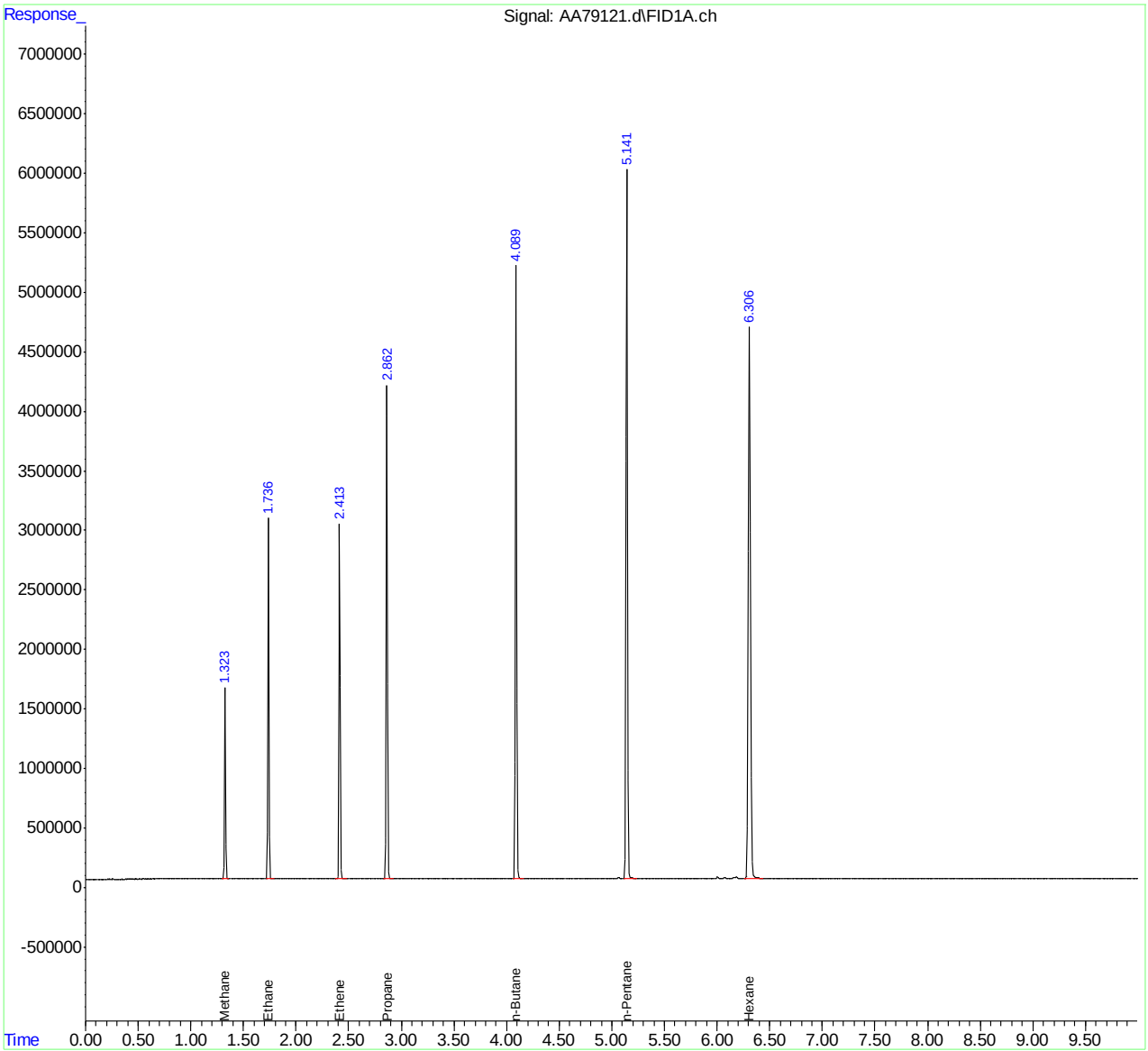
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79121.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 2:39 pm
Operator : thomash
Sample : ic1942-500
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 14:51:40 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:41:30 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79122.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 2:52 pm
Operator : thomash
Sample : ic1942-1000
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 15:05:13 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:55:10 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.324	20623406	726.832	PPMV
2)	Ethane	1.737	39932431	869.758	PPMV
3)	Ethene	2.415	39850941	876.416	PPMV
4)	Propane	2.863	61089952	879.721	PPMV
5)	n-Butane	4.087	78500825	886.978	PPMV
6)	n-Pentane	5.125	95233870	923.167	PPMV
7)	Hexane	6.276	112784512	999.477	PPMV

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.8

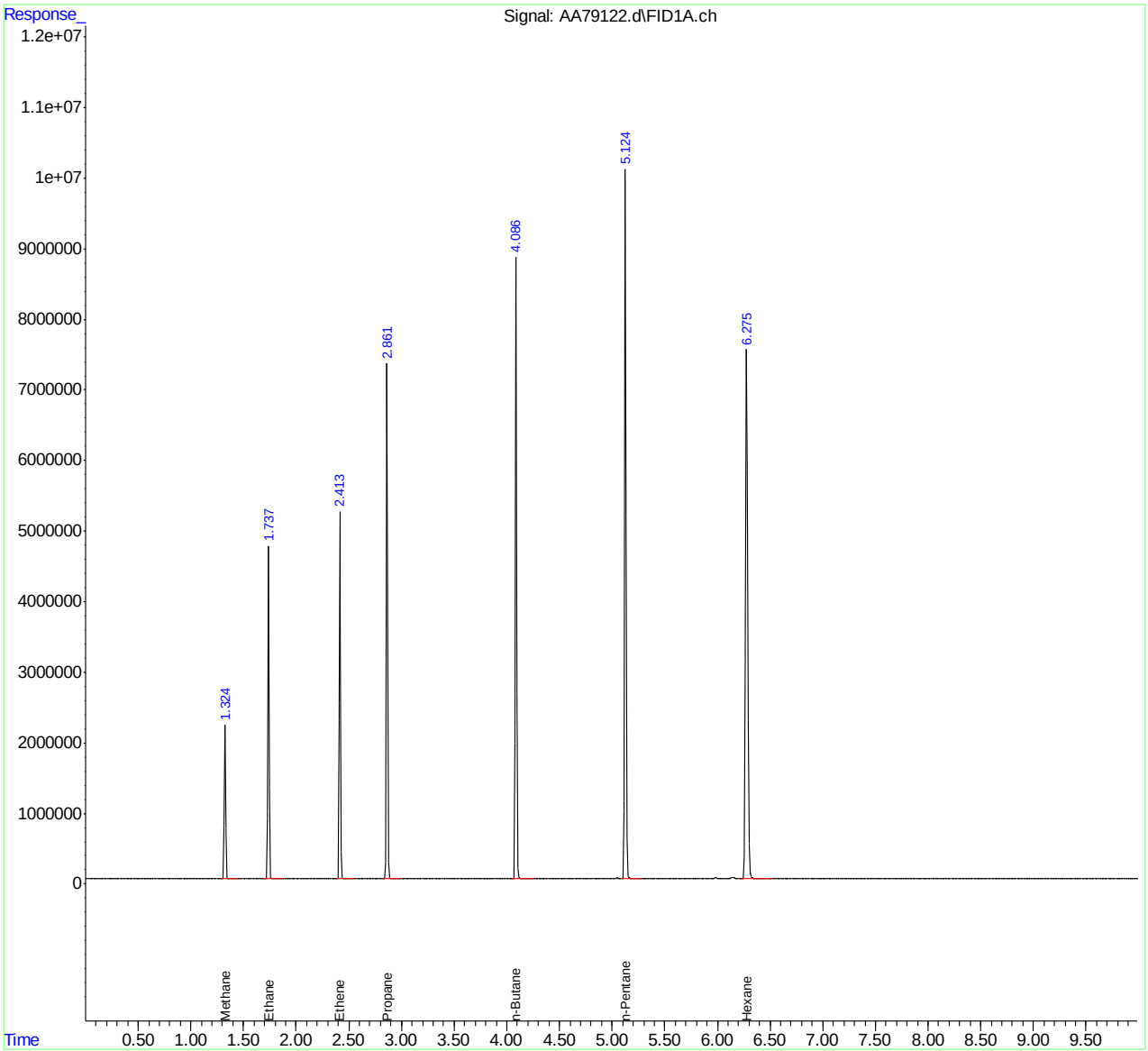
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79122.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 2:52 pm
Operator : thomash
Sample : ic1942-1000
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 15:05:13 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 14:55:10 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/02/20 13:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79124.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 3:27 pm
Operator : thomash
Sample : icv1942-100
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 15:50:34 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.335	2714175	99.038	PPMV
2)	Ethane	1.746	5030236	111.375	PPMV
3)	Ethene	2.422	5033553	112.437	PPMV
4)	Propane	2.869	7546471	110.331	PPMV
5)	n-Butane	4.094	9477496	108.620	PPMV
6)	n-Pentane	5.134	11483264	112.395	PPMV
7)	Hexane	6.290	12386730	109.776	PPMV

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.9

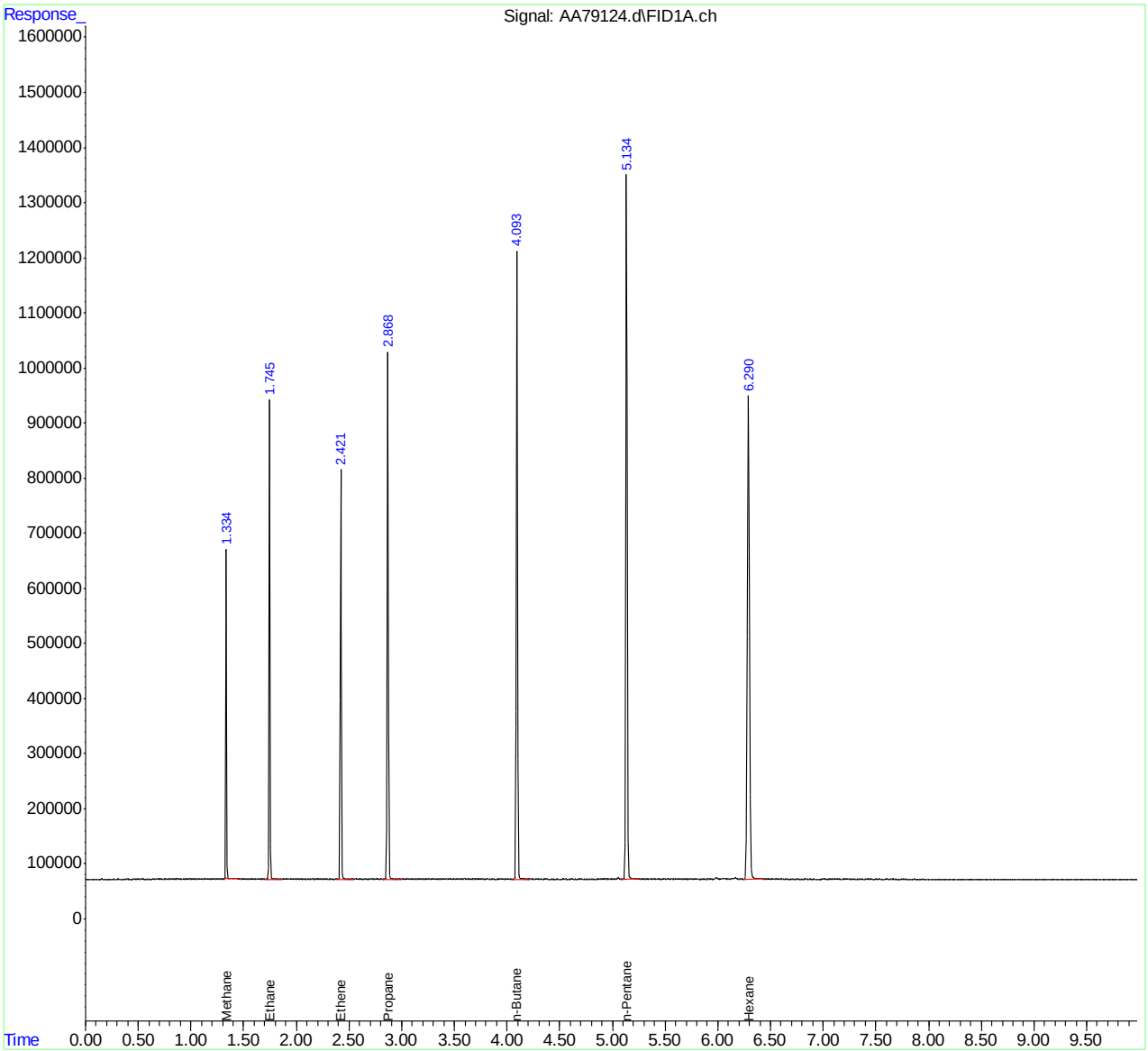
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79124.d
Signal(s) : FID1A.ch
Acq On : 27 Feb 2020 3:27 pm
Operator : thomash
Sample : icv1942-100
Misc : GC55838,GAA1942,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 27 15:50:34 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number: GAA1942-ICV1942
Lab FileID: AA79124.D
Injection Time: 02/27/20 15:27
Method: RSK-175
Analyst approved: 02/28/20 10:20 Thomas Hilbig
Supervisor approved: 03/02/20 13:49 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexane	110-54-3	1	6.29	Missed peak

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79721.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 7:18 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 07:28:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.317	2726599	99.491	PPMV
2)	Ethane	1.734	5001134	110.731	PPMV
3)	Ethene	2.426	5052209	112.853	PPMV
4)	Propane	2.870	7147096	104.492	PPMV
5)	n-Butane	4.100	8435436	96.677	PPMV
6)	n-Pentane	5.155	9556011	93.531	PPMV
7)	Hexane	6.329	10686977	94.712	PPMV

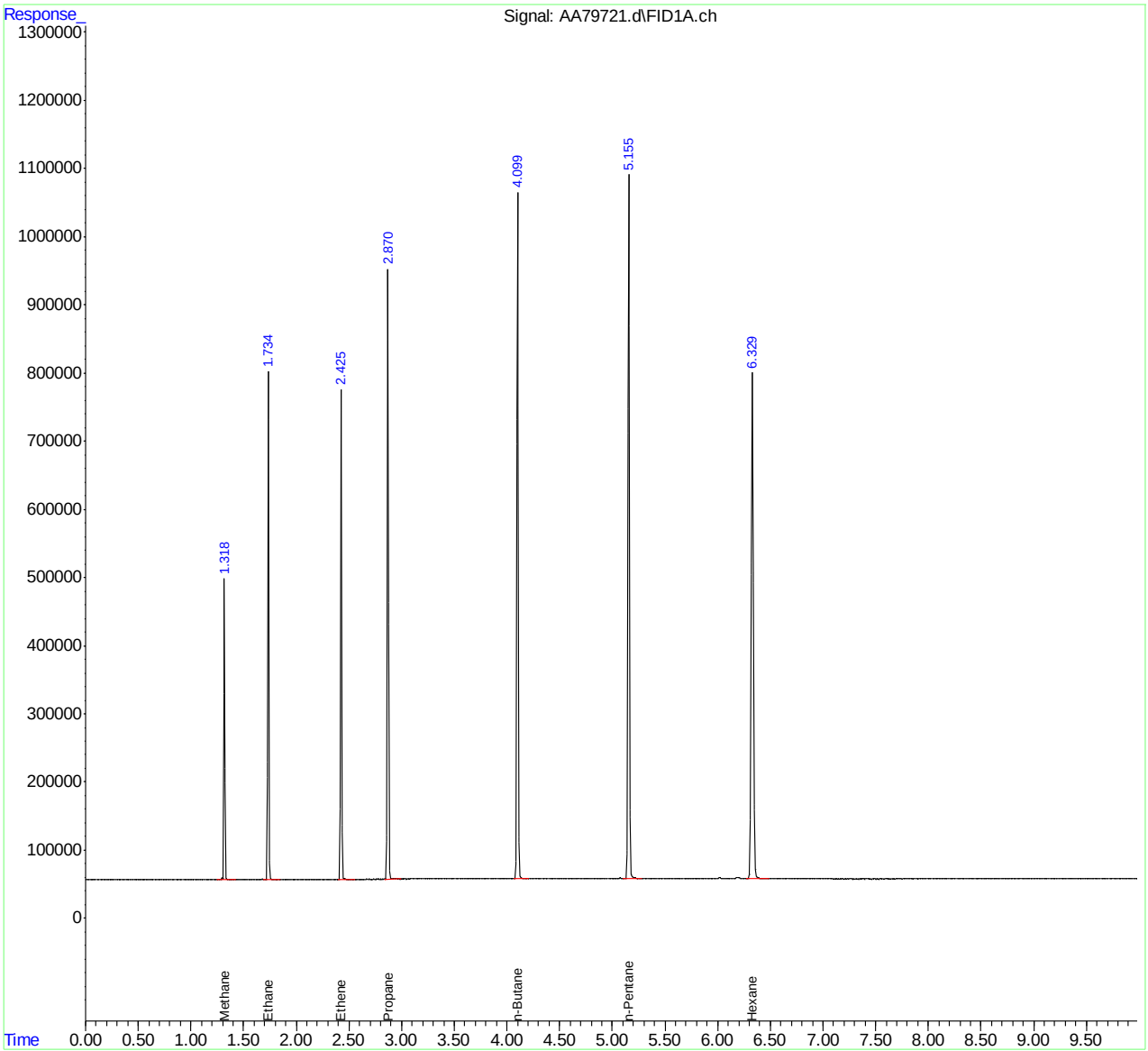
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79721.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 7:18 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55911,GAA1968,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 07:28:53 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79736.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 11:06 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55913,GAA1968,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 11:16:43 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.324	2668991	97.389	PPMV
2)	Ethane	1.742	4922887	108.999	PPMV
3)	Ethene	2.432	5001465	111.720	PPMV
4)	Propane	2.875	6953773	101.666	PPMV
5)	n-Butane	4.102	7983427	91.497	PPMV
6)	n-Pentane	5.140	8893739	87.049	PPMV
7)	Hexane	6.300	9849993	87.295	PPMV

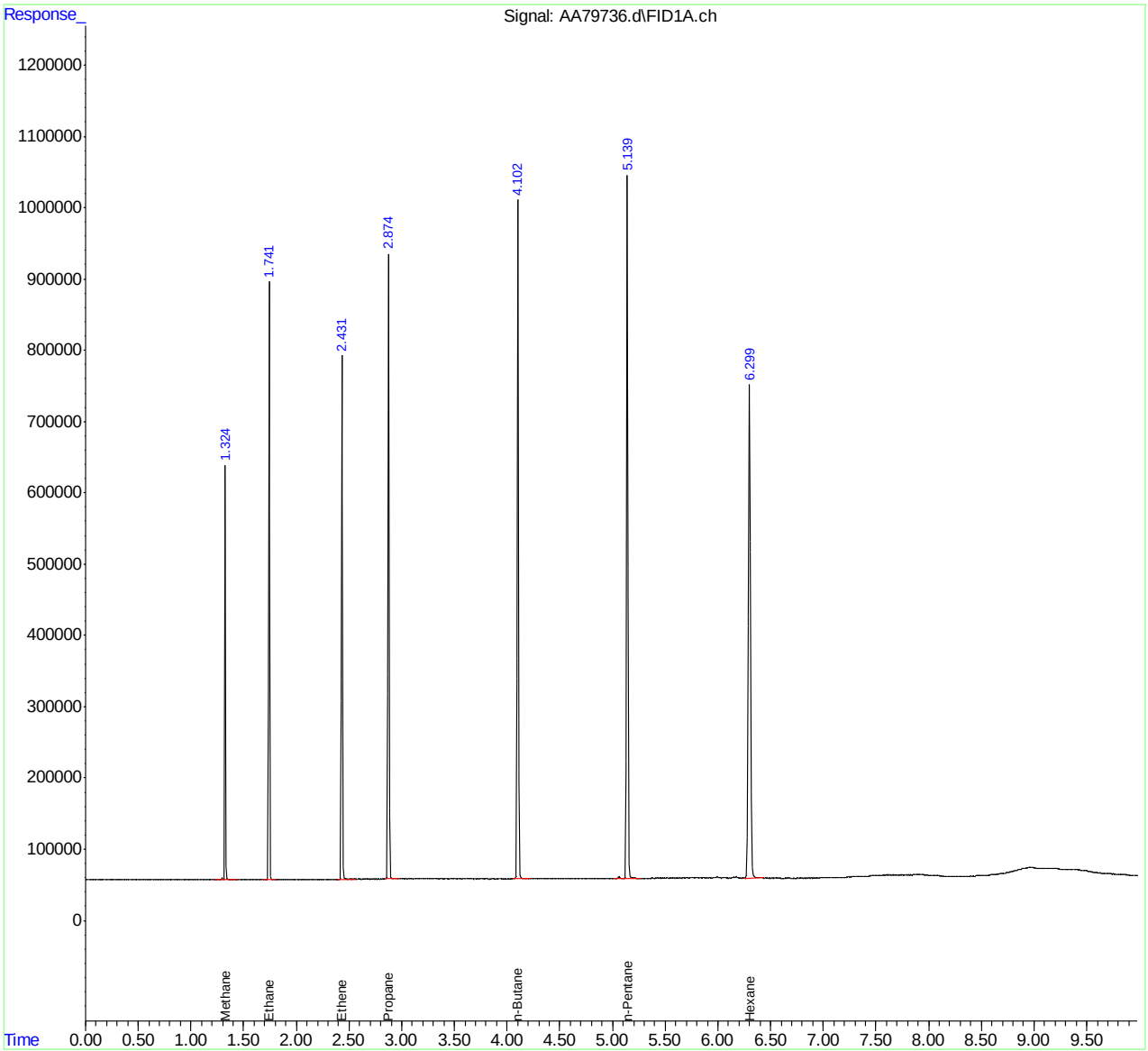
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79736.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 11:06 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55913,GAA1968,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 11:16:43 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79751.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 2:45 pm
Operator : PrashanS
Sample : cc1942-100
Misc : GC55912,GAA1968,,,,,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 14:55:51 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.322	2669720	97.415	PPMV
2)	Ethane	1.738	4965112	109.934	PPMV
3)	Ethene	2.432	5010593	111.924	PPMV
4)	Propane	2.875	7211028	105.427	PPMV
5)	n-Butane	4.104	8670142	99.367	PPMV
6)	n-Pentane	5.143	9933495	97.226	PPMV
7)	Hexane	6.303	10862088	96.264	PPMV

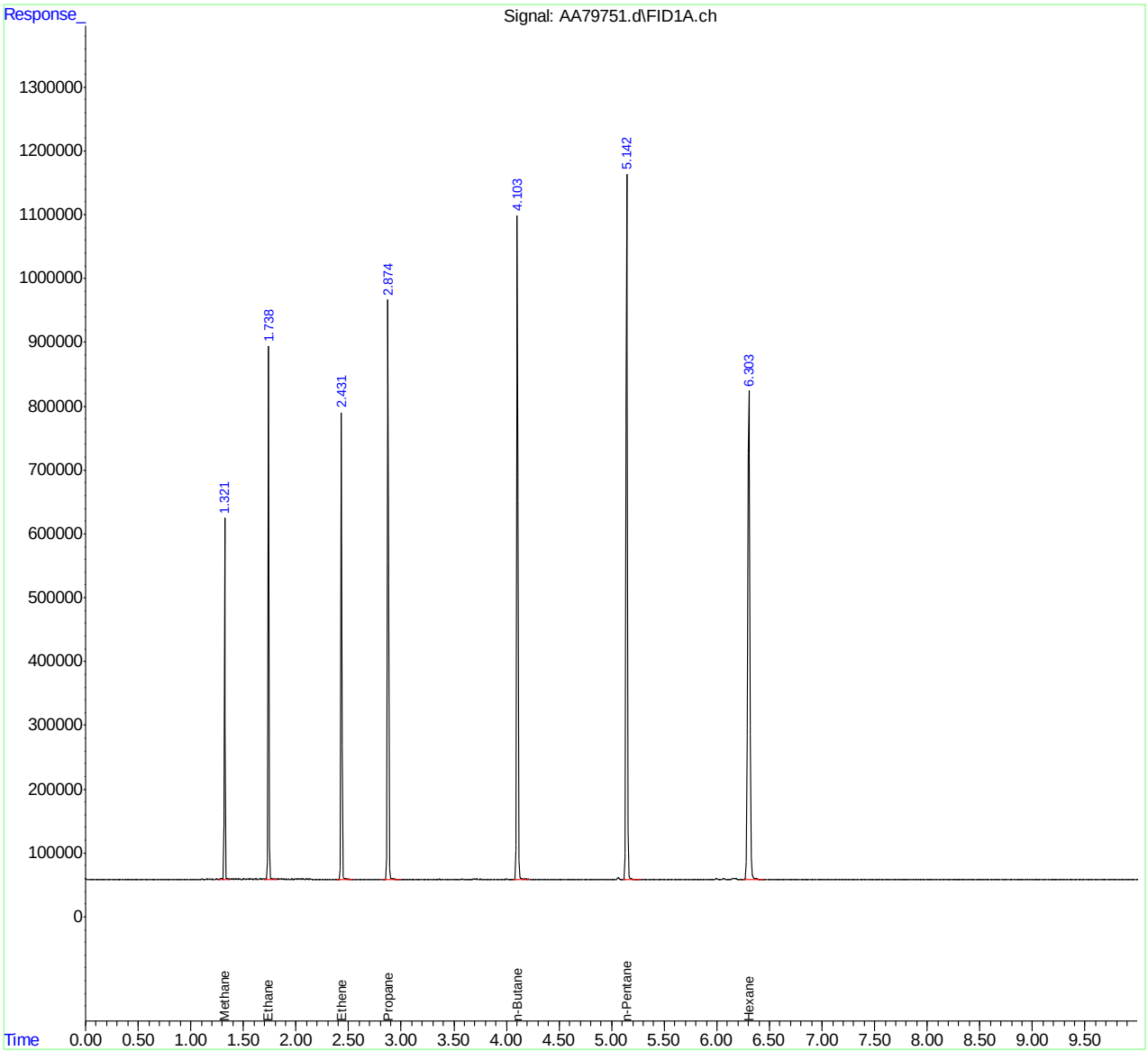
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79751.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 2:45 pm
Operator : PrashanS
Sample : cc1942-100
Misc : GC55912,GAA1968,,,,,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 14:55:51 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79757.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 4:06 pm
Operator : PrashanS
Sample : ecc1942-100
Misc : GC55920,GAA1968,,,,,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 16:16:35 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.317	2679316	97.766	PPMV
2)	Ethane	1.735	5018016	111.105	PPMV
3)	Ethene	2.431	5049276	112.788	PPMV
4)	Propane	2.874	7342618	107.351	PPMV
5)	n-Butane	4.105	8936251	102.417	PPMV
6)	n-Pentane	5.143	10394824	101.741	PPMV
7)	Hexane	6.303	11633541	103.101	PPMV

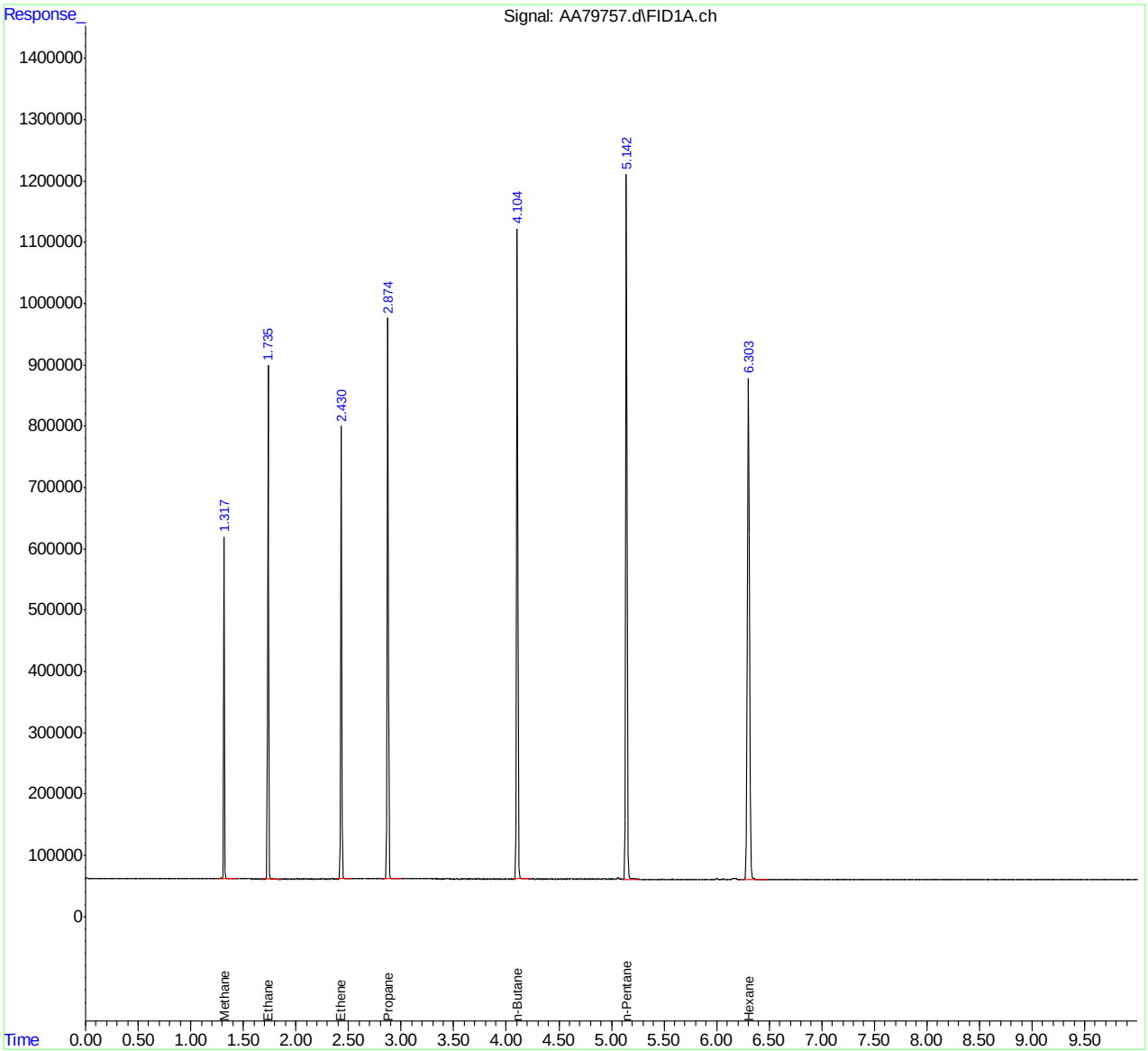
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79757.d
Signal(s) : FID1A.ch
Acq On : 21 Mar 2020 4:06 pm
Operator : PrashanS
Sample : ecc1942-100
Misc : GC55920,GAA1968,,,,,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 21 16:16:35 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 03/24/20 23:36

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79759.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 9:23 am
Operator : danat
Sample : cc1942-100
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 16:15:08 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.345	2755065	100.530	PPMV m
2)	Ethane	1.759	5311817	117.610	PPMV
3)	Ethene	2.444	5296898	118.319	PPMV
4)	Propane	2.883	8136229	118.954	PPMV
5)	n-Butane	4.106	10506450	120.413	PPMV
6)	n-Pentane	5.149	12632730	123.645	PPMV
7)	Hexane	6.314	14177143	125.644	PPMV

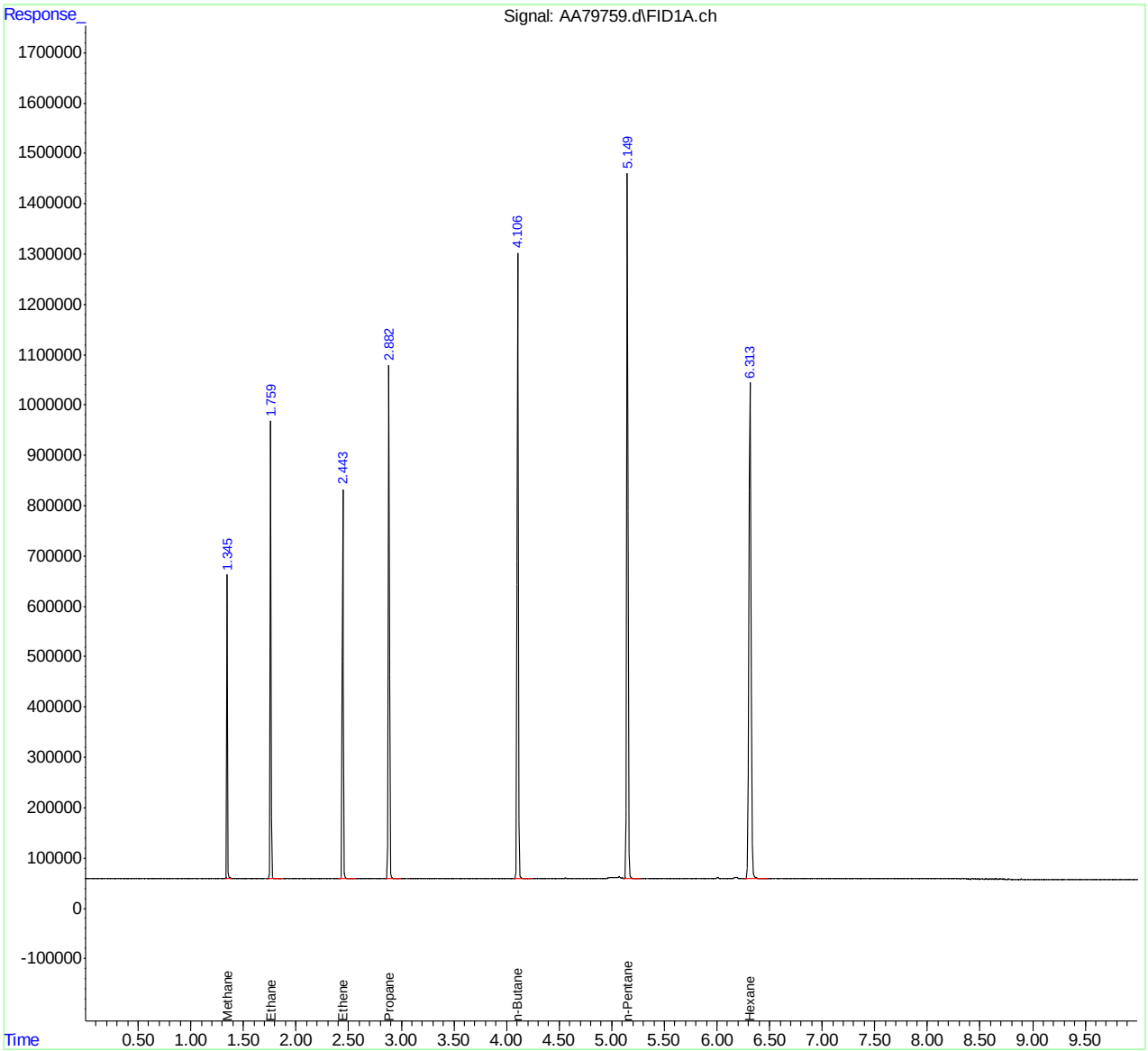
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79759.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 9:23 am
Operator : danat
Sample : cc1942-100
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 16:15:08 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number: GAA1969-CC1942
Lab FileID: AA79759.D
Injection Time: 03/22/20 09:23
Method: RSK-175
Analyst approved: 03/23/20 17:36 Dana Tryon
Supervisor approved: 03/24/20 23:36 Kanya Veerawat

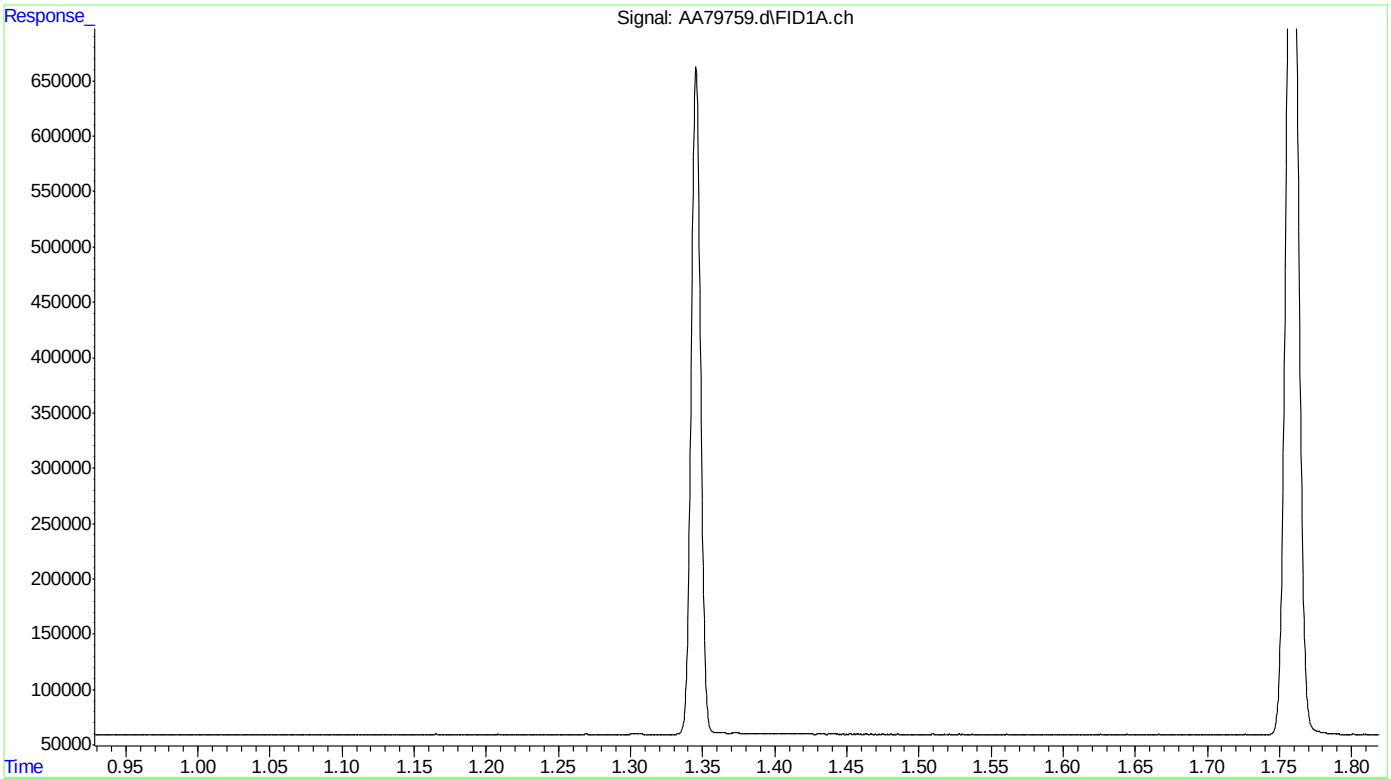
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.35	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79759.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 9:23 am
Operator : danat
Sample : cc1942-100
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 09:33:36 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.330min 0.000 PPMV

response 0

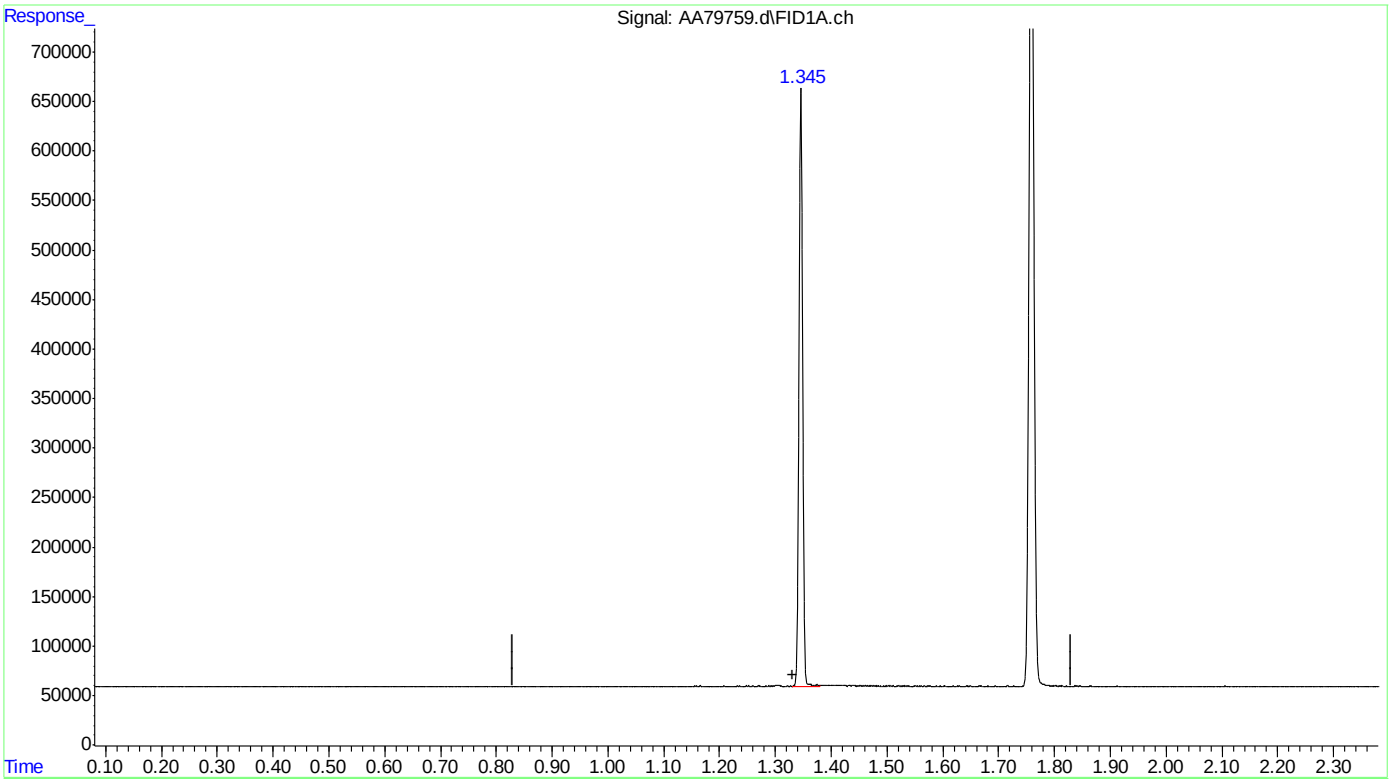
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA79759.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 9:23 am
Operator : danat
Sample : cc1942-100
Misc : GC55920,GAA1969,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 09:33:36 2020
Quant Method : C:\msdchem\1\METHODS\maa1942.m
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:05:29 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.345min 100.530 PPMV m

response 2755065

(+) = Expected Retention Time

maa1942.m Mon Mar 23 16:15:12 2020 Page: 1

AA79759.D edits: Methane

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79773.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 12:52 pm
Operator : danat
Sample : cc1942-100
Misc : GC55924,GAA1969,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 13:02:27 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.348	2681138	97.832	PPMV
2)	Ethane	1.761	5224416	115.675	PPMV
3)	Ethene	2.443	5210700	116.394	PPMV
4)	Propane	2.883	8023233	117.302	PPMV
5)	n-Butane	4.102	10384339	119.014	PPMV
6)	n-Pentane	5.137	12535477	122.693	PPMV
7)	Hexane	6.295	14377113	127.416	PPMV

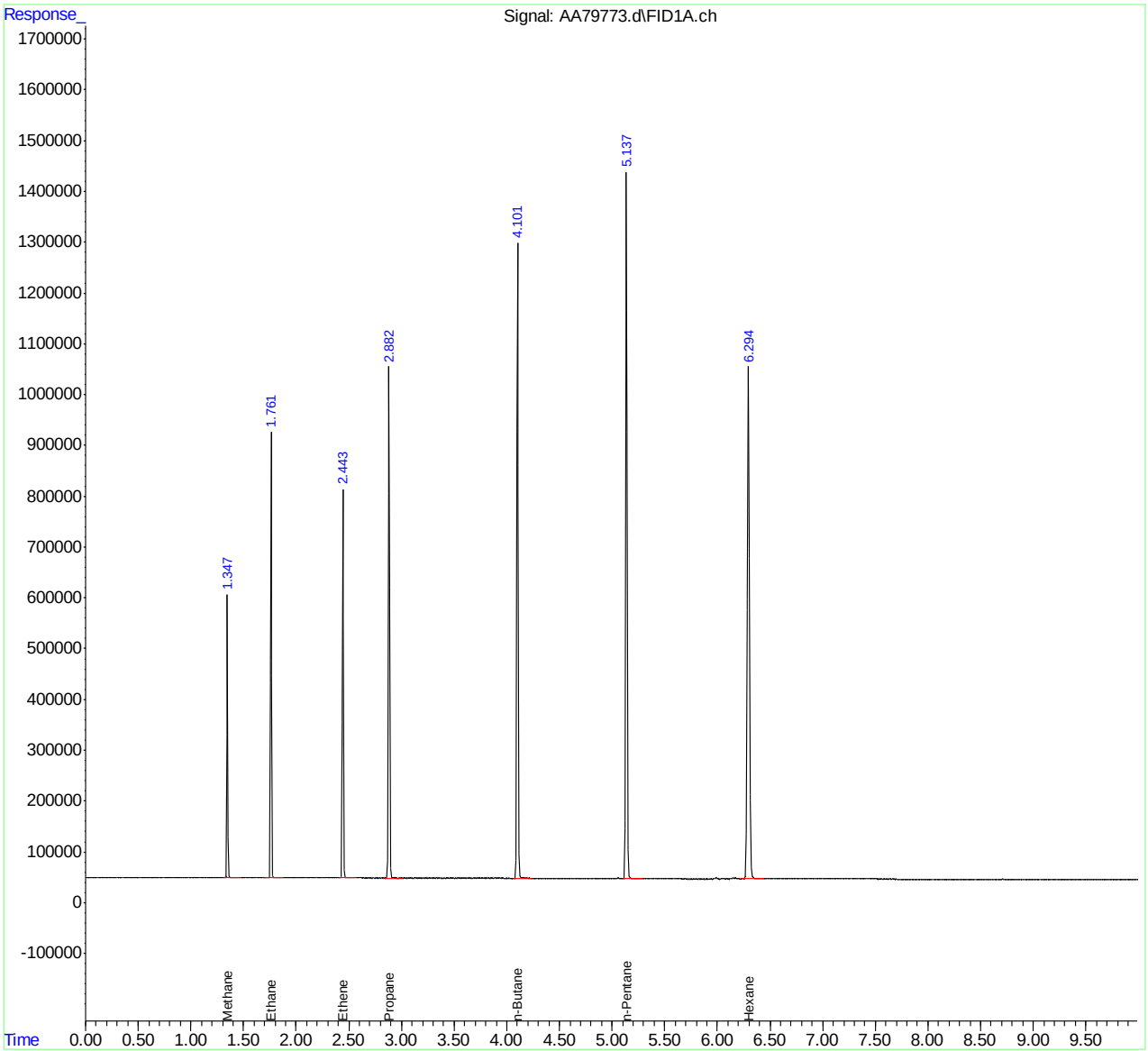
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79773.d
Signal(s) : FID1A.ch
Acq On : 22 Mar 2020 12:52 pm
Operator : danat
Sample : cc1942-100
Misc : GC55924,GAA1969,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 22 13:02:27 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79786.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 7:21 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55931,GAA1970,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 07:31:55 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.315	2783451	101.565	PPMV
2)	Ethane	1.731	5070955	112.277	PPMV
3)	Ethene	2.422	5114811	114.252	PPMV
4)	Propane	2.868	7222864	105.600	PPMV
5)	n-Butane	4.098	8285219	94.956	PPMV
6)	n-Pentane	5.155	8934892	87.452	PPMV
7)	Hexane	6.328	9338707	82.763	PPMV

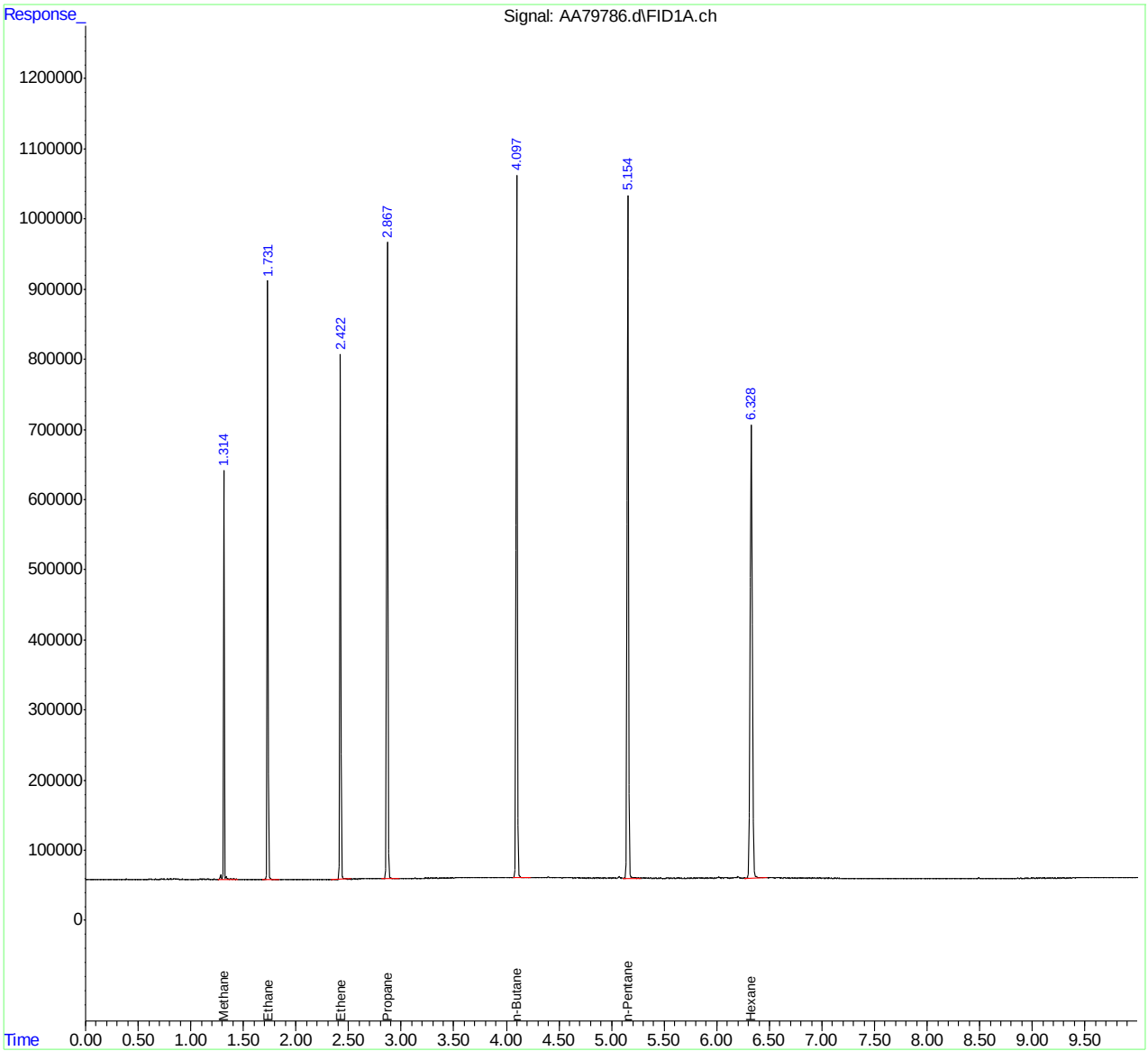
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79786.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 7:21 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55931,GAA1970,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 07:31:55 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79801.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 10:44 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 10:54:36 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.318	2714733	99.058	PPMV
2)	Ethane	1.736	5026415	111.291	PPMV
3)	Ethene	2.427	5079075	113.453	PPMV
4)	Propane	2.871	7227346	105.665	PPMV
5)	n-Butane	4.101	8550461	97.996	PPMV
6)	n-Pentane	5.140	9786302	95.785	PPMV
7)	Hexane	6.299	10979148	97.302	PPMV

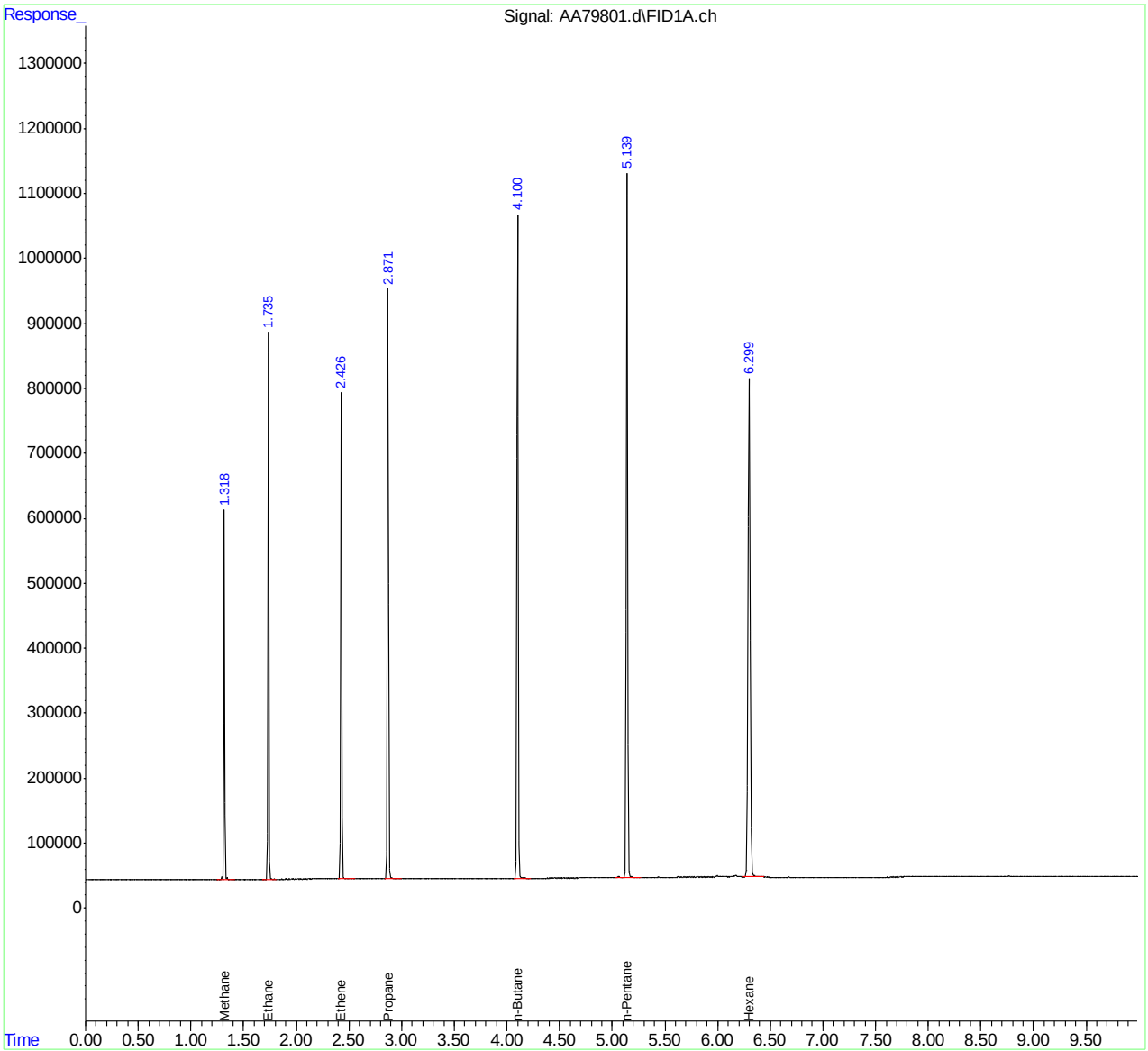
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79801.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 10:44 am
Operator : PrashanS
Sample : cc1942-100
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 10:54:36 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79816.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 2:07 pm
Operator : PrashanS
Sample : cc1942-100
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 14:17:06 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Methane	1.317	2636561	96.206	PPMV
2)	Ethane	1.735	4946635	109.524	PPMV
3)	Ethene	2.429	4974715	111.122	PPMV
4)	Propane	2.873	7258766	106.125	PPMV
5)	n-Butane	4.104	8836125	101.270	PPMV
6)	n-Pentane	5.142	10281604	100.633	PPMV
7)	Hexane	6.303	11600899	102.812	PPMV

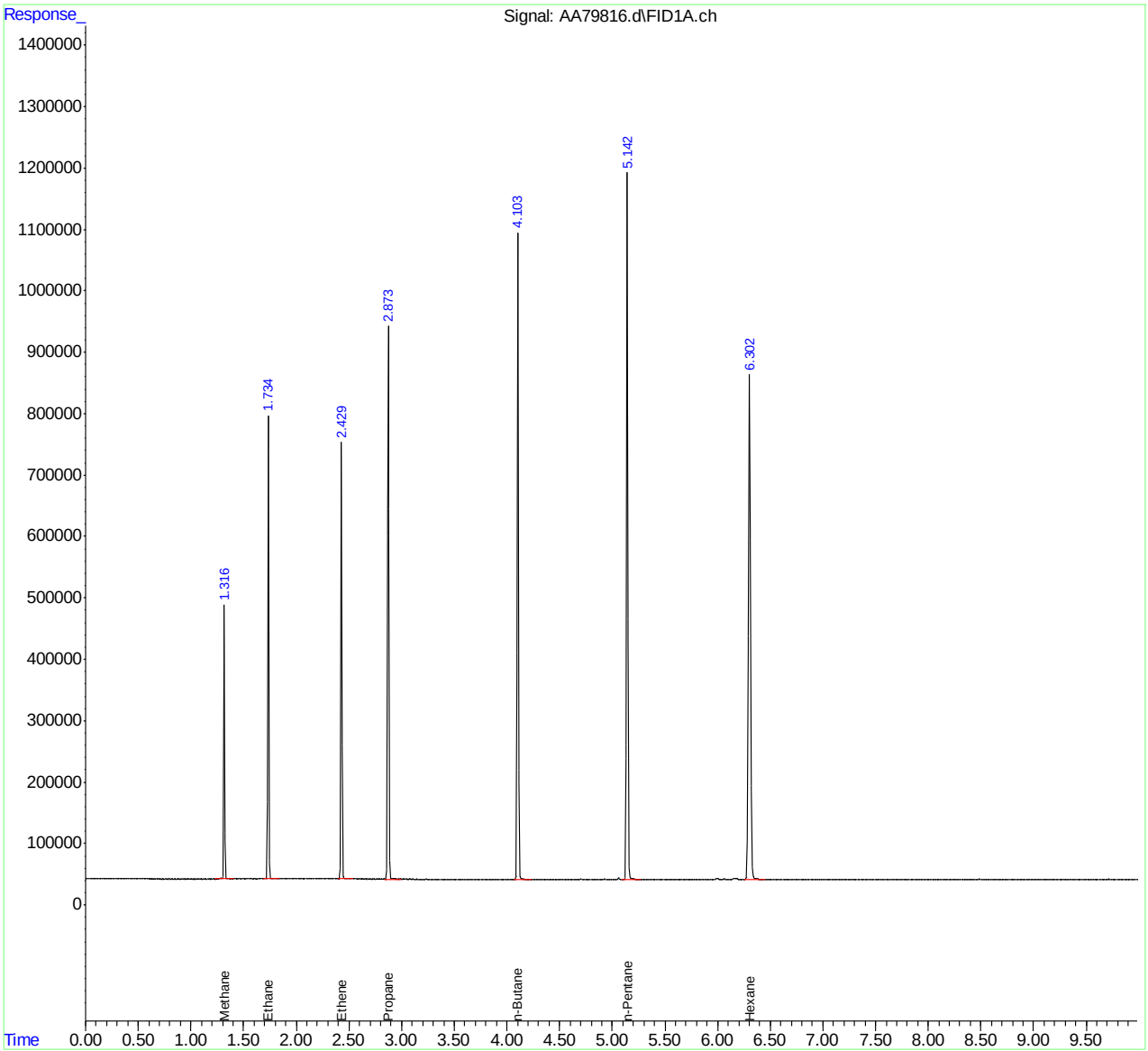
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA79816.d
Signal(s) : FID1A.ch
Acq On : 23 Mar 2020 2:07 pm
Operator : PrashanS
Sample : cc1942-100
Misc : GC55933,GAA1970,,,,,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 23 14:17:06 2020
Quant Method : C:\MSDCHEM\1\METHODS\MAA1942.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Thu Feb 27 15:51:37 2020
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA1942
Date: 2/27/20
Analyst: [signature]

Columns: RT-Alumina w/Na2SO4
Method (Collect.) MAA1942.M
Method (Quant) MAA1942.M
Initial Cal: GAA1942
Seq. file: AA20200227.S
Thermometer ID: 18224 exp. 7/11/20

Standard Data		STD Lot# AS8471		LCS Lot# AS8420		std Lot# AS8757	Lot#		
Components	MW	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000		10			
Ethane	30	1000		1000		10			
Ethene	28	1000		1000		10			
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000		10			
CO2	44	1000		4000		10			

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with tl criteria of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 3/2/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79115	IC1942-1.0					0.05	25		ok	AS8757	
	AA79116	IC1942-2.0					0.1	25		ok	AS8757	
	AA79117	IC1942-10					0.5	25		ok	AS8757	
	AA79118	IC1942-20					0.01	25		ok	AS8471	
	AA79119	ICC1942-100					0.05	25		ok	AS8471	
	AA79120	IC1942-200					0.1	25		ok		
	AA79121	IC1942-500					0.25	25		ok		
	AA79122	IC1942-1000					0.5	25		ok		
	AA79123	ICV1942-100					0.05	25		ok	bad manifold low pressure in regulator	
	AA79124	ICV1942-100					0.05	25		ok		
										JH	2/28/20	

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA1968
Date: 3/21/20
Analyst: Prashant B S

5x2 LCS

Standard Data		Lot# AS8471		Lot# AS8420		Lot#		Lot#	
Components	MW	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

Columns: Rt Alumina 4/Na 2SO4
Method (Collect.) GAA1942
Method (Quant) GAA1942
Initial Cal: GAA1942
Seq. file: AA20200321
Thermometer ID 18224 Exp. 7/16/2
pH Paper lot# 221419 Exp. 8/1/22

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with th criteria of SGS SOP EQA044.

Supervisor Signature: _____ Date: 3/22/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79721	CC1942-100					0.05	24		dl		
	AA79722	LCS		42	5	37	0.05	24		dl		
	AA79723	helium blank					0.5	24		dl		
	AA79724	helium blank					0.5	24		dl	3254	
	AA79725	MB		42	5	37	0.5	24		dl		
	AA79726	JD4396-17	BC559[illegible] CH4	43	5	38	0.5	25	1	pl	CH4↑	1
	AA79727	JD4396-17	✓	43	5	38	0.005	25	100X	dl		1
	AA79728	JD4396-18	✓	43	5	38	0.5	25	1	pl	CH4↑	1
	AA79729	JD4396-18	✓	43	5	38	0.01	25	50X	pl	CH4↑	1
	AA79730	JD4396-18	✓ BC559[illegible] CH4	43	5	38	0.005	25	100X	dl		1
	AA79731	JDHNOH-2		43	5	38	0.5	25	1	dl	Vial #13	1
	AA79732	JDHNOH-20	✓	43	5	38	0.5	25	1	dl	Vial #14	1
	AA79733	JDHNOH-3	✓	43	5	38	0.5	25	1	dl		1
	AA79734	JDHNOH-4	✓	43	5	38	0.5	25	1	dl		1
	AA79735	JDHNOH-5	✓	43	5	38	0.5	25	1	dl		1

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

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SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA1968
Date: 3/21/20
Analyst: Prashant B Shukla

SH Les

Standard Data		Lot# AS8471		Lot# AS8420		Lot#		Lot#	
Components	MW	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

Columns: RT Alumina w/Na2SO4
Method (Collect.) MAA1942
Method (Quant) MAA1942
Initial Cal: GAA1942
Seq. file: AA2020321C
Thermostat ID 18224 Exp 7/11.
pH Paper lot # 221119 Exp. 8/11/2

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with th criteria of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 3/22/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79736	CL1942-100	6655917				0.05	25		DL		
	AA79737	JDHH33-8	CH4	43	5	38	0.5	25	1	DL	CH4↑	1
	AA79738	JDHH33-8	✓	43	5	38	0.005	25	100x	DL		1
	AA79739	JDHH33-9	✓	43	5	37	0.5	25	1	DL		1
	AA79740	JDHH33-10	✓	43	5	38	0.5	25	1	DL	CH4↑	1
	AA79741	JDHH33-10	✓	43	5	38	0.01	25	50X	DL		1
	AA79742	JDHH33-11	✓	43	5	38	0.5	25	1	DL	CH4↑	1
	AA79743	JDHH33-11	✓	43	5	38	0.01	25	50X	DL		1
	AA79744	JDHH33-13	✓	43	5	38	0.5	25	1	DL	CH4↑	1
	AA79745	JDHH33-13	6655912	43	5	38	0.1	25	5X	DL		1
	AA79746	JDHH22-1	CH4	43	5	38	0.5	25	1	DL	Vial # 16	1
	AA79747	JDHH22-1DUP	✓	43	5	38	0.5	25	1	DL	Vial # 17	1
	AA79748	JDHH22-2	✓	43	5	38	0.5	25	1	DL	CH4↑	1
	AA79749	JDHH22-2	✓	43	5	38	0.02	25	25x	DL		1
	AA79750	JDHH22-3	✓	43	5	38	0.5	25	1	DL	CH4↑	1

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA1968
Date: 3/21/20
Analyst: Prashant B Shukla

STD   VS

Standard Data		Lot#		Lot#		Lot#		Lot#	
Components	MW	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		100					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

Columns: RT Alumina W/Na2SO4
Method (Collect.) MAA1942
Method (Quant) MAA1942
Initial Cal: GAA1942
Seq. file:
Thermometer ID 1822n Exp. 7/ak
pH paper lot # 221419 Exp 8/4/...

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: [signature]   Date: 3/22/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79751	CC1942-100					0.05	25		ok		
	AA79752	JD4422-3	GC5592 CH4	43	5	38	0.01	25	50X	ok		1
	AA79753	JD4422-4	✓	43	5	38	0.5	25	1	M	CH4 A	1
	AA79754	JD4422-4	✓ GC5592	43	5	38	0.1	25	5X	ok		1
	AA79755	JD4440-1	ETHENE	43	5	38	0.5	25	1	ok		1
	AA79756	JD4440-2	✓	43	5	38	0.5	25	1	ok		1
	AA79757	ECC1942-100					0.05	25		ok		

PBS 3/21/20

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA1969
Date: 3/2/20
Analyst: [illegible]

Standard Data

Components	MW	Conc. (ppmv) Lot# [illegible] (STD)	Conc. (ug/l)	Conc. (ppmv) Lot# [illegible] (LCS)	Conc. (ug/l)	Conc. (ppmv) Lot#	Conc. (ug/l)	Conc. (ppmv) Lot#	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

Columns: RT Alumina w/Na 2SO4 [illegible]

Method (Collect.) MAA1942

Method (Quant) MAA1942

Initial Cal: GAA1942

Seq. file:

Thermometer ID 18224 Exp 7/1/2?
pH paper lot # 221919 Exp 8/1/2?

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 3/31/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79758	CC 1942-10						24		[illegible]	fairly low	
	AA79759	CC 1942-10						24		ok	ethene/ethane ↑	
	AA79760	LCS		43	5	38		24		ok		
	AA79761	method blank						24		ok	~~5433~~ 4225	
	AA79762	MB		43	5	38		24		ok		
	AA79763	JD4440-3	VRSKIT Ethene	43	5	38	0.5	24	1	R	ethene hit	1
	AA79764	JD4440-4	GC55920	43	5	38	0.5	24	1	ok		1
	AA79765	JD4440-5		43	5	38	0.5	24	1	ok		1
	AA79766	JD4478-2	VRSKIT5	43	5	38	0.5	24	1	ok		1
	AA79767	JD4478-2	apms55924	43	5	38	0.5	24	1	ok		1
	AA79768	JD4478-3		43	5	38	0.5	24	1	ok		1
	AA79769	JD4478-4		43	5	38	0.5	24	1	ok		1
	AA79770	JD4478-5		43	5	38	0.5	24	1	ok		1
	AA79771	JD4484-1		43	5	38	0.5	24	1	R	100X, CH_4↑	1
	AA79772	JD4484-1		43	5	38	0.005	24	1.0	ok		1

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

9.6.3 9

SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA1969
Date: 3/22/20
Analyst : [illegible]

Columns: PJ Alumina w/Na2SO4
Method (Collect.) MAA1942
Method (Quant) MAA1942
Initial Cal: GAA1942
Seq. file:

Thermometer ID 18224 Exp. 7/11/20
pH Paper lot # 221419 Exp. 8/1/22

Standard Data

Components	MW	Conc. (ppmv) SRS Lot# AS84741	Conc. (ug/l)	Conc. (ppmv) LCS Lot# AS84920	Conc. (ug/l)	Conc. (ppmv) Lot#	Conc. (ug/l)	Conc. (ppmv) Lot#	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with th criteria of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 3/23/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79773	CC1942-100					0.05	25		ok	ethane/ethene ↑	
	AA79774	JD4484-2		43	5	38	0.5	25	1	ok		1
	AA79775	JD4484-3		43	5	38	0.5	25	1	ok		1
	AA79776	JD4484-4		43	5	38	0.5	25	1	ok		4
	AA79777	JD4484-5		43	5	38	0.5	25	1	rr	CH4 ↑	1
	AA79778	JD4484-5		43	5	38	0.005	25	100	ok		1
	AA79779	JD52510-1	MS/MSD JD4484	43	5	38	0.5	25	1	M	ethene hit	1
	AA79780	JD4484-5dup	GC55942	43	5	38	0.5	25	100	ok		1
	AA79781	JD4565-2	CH4	43	5	38	0.5	25	1	ok		✓
	AA79782	JD4565-3	GC55431	43	5	38	0.5	25	1	ok		✓
	AA79783	JD4565-4		43	5	38	0.5	25	1	ok		✓
	AA79784	JD4565-5		43	5	38	0.5	25	1	ok		✓
	AA79785	EC4942-10								ok		
	~~AA79786~~						OT 3/22/20					
	AA79787											

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

OR008-02 (dissolved gases)-DAYT-ORG-0048-03-FORM-Dissolved Gases Log.doc
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SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA 1970
Date: 3/23/20
Analyst: Prashant B Shukla

Standard Data

Components	MW	Conc. (ppmv) SH Lot# AS8471	Conc. (ug/l)	Conc. (ppmv) LCS Lot# BS8420	Conc. (ug/l)	Conc. (ppmv) Lot#	Conc. (ug/l)	Conc. (ppmv) Lot#	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

Columns: RT Alumina w/Na2SO4
Method (Collect.) MAA 1942
Method (Quant) MAA1942
Initial Cal: GAA 1942
Seq. file: AA20200323
Thermometer ID 18224 Exp 7/11/..
pH paper lot # 221419 Exp 8/1/..

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with th criteria of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 3/27/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79786	CC 1942-100					0.05	23		OK		
	AA79787	LCS		42	5	37	0.05	23		OK		
	AA79788	helium blank					0.5	24		OK	0	
	AA79789	MB		42	5	37	0.5	24		OK		
	AA79790	JD4440-3	GC55920 ETHENE	43	5	38	0.5	24	1	OK		1
	AA79791	JD52510-1	GC55942 DGMEE	43	5	38	0.5	24	1	OK	Vial # 3	1
	AA79792	JD52510-1DUP	✓	43	5	38	0.5	24	1	OK	Vial # 4	1
	AA79793	JD52510-2	✓	43	5	38	0.5	25	1	OK		1
	AA79794	JD52510-3	✓	43	5	38	0.5	25	1	OK/OR	CH4 ↑	1
	AA79795	JD52510-3	✓	43	5	38	0.1	25	5x	OK/OR		1
	AA79796	JD52510-4	✓	43	5	38	0.5	25	1	OK/OR	CH4 ↑	1
	AA79797	JD52510-4	✓ GC55933	43	5	38	0.025	25	20X	OK/OR		1
	AA79798	JD4588-2	DGMEE	43	5	38	0.5	25	1	OK		1
	AA79799	JD4588-3	✓	43	5	38	0.5	25	1	OK		1
	AA79800	JD4588-4	✓	43	5	38	0.5	25	1	OK		1

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

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9.6.4
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SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA1970
Date: 3/23/20
Analyst: Prashant B Shukla

Columns: RT Alumina w/Na2
Method (Collect.) MAA1942
Method (Quant) MAA1942
Initial Cal: GAA1942
Seq. file: AA20200323
Thermometer ID 18224 Exp. 7/1/2
pH Paper lot # 221419 Exp. 8/1/22

Standard Data

Components	MW	STD Lot# AS8421 Conc. (ppmv)	Conc. (ug/l)	LCS Lot# AS8420 Conc. (ppmv)	Conc. (ug/l)	Lot# Conc. (ppmv)	Conc. (ug/l)	Lot# Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with th criteria of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 3/27/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79801	CC1942.100					0.05	25		ok		
	AA79802	JD4588-5	GC55933 DGMEE	43	5	38	0.5	25	1	ok		1
	AA79803	JD4588-6	✓	43	5	38	0.5	25	1	ok		1
	AA79804	JD4588-1	✓	43	5	38	0.5	25	1	ok		1
	AA79805	JD4588-1DUP	✓	43	5	38	0.5	25	1	ok		1
	AA79806	JD4588-7	✓	43	5	38	0.5	25	1	ok		1
	AA79807	JD4588-8	✓	43	5	38	0.5	25	1	ok		1
	AA79808	JD4588-9	✓	43	5	38	0.5	25	1	ok/ol	CH4 ↑	1
	AA79809	JD4588-9	✓	43	5	38	0.01	25	50X	ok/ol		1
	AA79810	JD4588-10	✓	43	5	38	0.5	25	1	ok/ol	CH4 ↑	1
	AA79811	JD4588-10	✓	43	5	38	0.005	25	100X	ok/ol		1
	AA79812	JD4588-12	✓	43	5	38	0.5	25	1	ok		1
	AA79813	JD4588-13	✓	43	5	38	0.5	25	1	ok		1
	AA79814	JD4588-14	✓	43	5	-38	0.5	25	1	ok		1
	AA79815	JD4588-15	✓	43	5	38	0.5	25	1	ok		1

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

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SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOG

Batch ID: GAA 1970
Date: 3/23/20
Analyst: Prashant B Shukla

STD LCS

Standard Data Lot# AS8471 Lot# AS8420 Lot# Lot#

Components	MW	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28	1000		1000					
CO2	44	1000		1000					

ug/L = (ppmv) x (mw/24.45)

Columns: RT Alumina W/Na 2SO4
Method (Collect.) MAA 1942
Method (Quant) MAA 1942
Initial Cal: GAA 1942
Seq. file:

Thermometer ID 18224 Exp 7/1/2x
pH Paper lot # 221419 Exp 8/1/22

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 3/24/20

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA79816	CC1942-100	6LG5933				0.05	25		OK		
	AA79817	~~ECC~~ JD4588-16	DGMEE	43	5	38	0.5	25	1	OK		1
	AA79818	ECC1942-100					0.05	25		OK		

PS 3/23/20

*If pH> 2, comment on sample result.
All strikeouts must be initialed, dated, and reason applied if not transcription error.

OR008-02 (dissolved gases)-DAYT-ORG-0048-03-FORM-Dissolved Gases Log.doc
1/25/18

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:29	MA48411-STD1	1		STDA
12:34	MA48411-STD2	1		STDB
12:39	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:49	MA48411-ICV1	1		
12:57	MA48411-ICB1	1		
13:02	MA48411-ICCV1	1		
13:10	MA48411-CCB1	1		
13:15	MA48411-CRI1	1		
13:20	MA48411-CRID1	1		
13:25	ZZZZZZ	1		
13:30	MA48411-CRID2	1		
13:35	MA48411-ICSA1	1		
13:40	MA48411-ICSAB1	1		
13:45	MA48411-HSTD1	1		
13:50	MA48411-HSTD2	1		
13:56	MA48411-CCV1	1		
14:01	MA48411-CCB2	1		
14:06	ZZZZZZ	1		
14:11	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:36	MA48411-CCV2	1		
14:41	MA48411-CCB3	1		
14:46	MP20189-S1	10		
14:51	MP20189-S2	10		
14:56	JD4275-1Q	10		(sample used for QC only; not part of login JD4440)
15:01	MP20189-SD1	50		
15:07	ZZZZZZ	2		
15:12	ZZZZZZ	2		
15:17	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:22	ZZZZZZ	5		
15:27	MA48411-CCV3	1		
15:32	MA48411-CCB4	1		
15:37	MP20235-MB1	1		
15:42	MP20235-B1	1		
15:47	MP20235-S1	1		
15:52	MP20235-S2	1		
15:56	JD4515-2	1		(sample used for QC only; not part of login JD4440)
16:01	MP20235-SD1	5		
16:06	ZZZZZZ	1		
16:11	ZZZZZZ	1		
16:16	ZZZZZZ	1		
16:22	MA48411-CCV4	1		
16:26	MA48411-CCB5	1		
16:32	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:47	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:57	ZZZZZZ	1		
17:02	ZZZZZZ	1		
17:07	ZZZZZZ	1		
17:12	ZZZZZZ	1		
17:17	MA48411-CCV5	1		
17:22	MA48411-CCB6	1		
17:27	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:42	ZZZZZZ	1		
17:47	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:57	ZZZZZZ	1		
18:02	MP20209-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:07	MP20209-B1	1		
18:12	MA48411-CCV6	1		
18:17	MA48411-CCB7	1		
18:22	MA48411-ICSA2	1		
18:27	MA48411-ICSAB2	1		
18:32	ZZZZZZ	1		
18:37	MA48411-CCV7	1		
18:42	MA48411-CCB8	1		
18:47	ZZZZZZ	1		
18:53	ZZZZZZ	1		
18:58	ZZZZZZ	1		
19:03	ZZZZZZ	1		
19:08	ZZZZZZ	1		
19:13	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:29	ZZZZZZ	1		
19:34	ZZZZZZ	1		
19:39	ZZZZZZ	1		
19:44	ZZZZZZ	1		
19:50	MA48411-CCV8	1		
19:54	MA48411-CCB9	1		
20:00	MP20209-S1	1		
20:04	MP20209-S2	1		
20:09	JD4404-5	1		(sample used for QC only; not part of login JD4440)
20:14	MP20209-SD1	5		
20:19	ZZZZZZ	1		
20:24	ZZZZZZ	1		
20:29	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:40	ZZZZZZ	1		
20:45	ZZZZZZ	1		
20:50	MA48411-CCV9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:55	MA48411-CCB10	1		
21:00	ZZZZZZ	1		
21:05	ZZZZZZ	1		
21:11	ZZZZZZ	1		
21:16	ZZZZZZ	1		
21:21	ZZZZZZ	1		
21:26	ZZZZZZ	1		
21:31	ZZZZZZ	1		
21:36	ZZZZZZ	1		
21:41	JD4440-1	1		
21:46	JD4440-2	1		
21:51	MA48411-CCV10	1		
21:56	MA48411-CCB11	1		
22:01	JD4440-3	1		
22:07	JD4440-4	1		
---------->	Last reportable sample/prep for job JD4440			
22:11	MP20204-MB1	1		
22:17	ZZZZZZ	1		
22:21	MP20204-B2	1		missed cup
22:27	MP20204-S1	1		
22:31	MP20204-S2	1		
22:36	JD4453-2	1		(sample used for QC only; not part of login JD4440)
22:41	MP20204-SD1	5		
22:46	ZZZZZZ	1		
22:51	MA48411-CCV11	1		
22:56	MA48411-CCB12	1		
---------->	Last reportable CCB for job JD4440			
23:01	ZZZZZZ	1		
23:06	ZZZZZZ	1		
23:12	ZZZZZZ	1		
23:17	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:27	ZZZZZZ	1		
23:33	ZZZZZZ	1		
23:38	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:43	ZZZZZZ	1		
23:48	ZZZZZZ	1		
23:53	MA48411-CCV12	1		
23:58	MA48411-CCB13	1		
00:03	ZZZZZZ	1		
00:08	ZZZZZZ	1		
00:13	ZZZZZZ	1		
00:18	ZZZZZZ	1		
00:24	ZZZZZZ	1		
00:29	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:39	MP20206-MB1	1		
00:44	MP20206-B1	1		
00:49	MP20206-S1	1		
00:54	MA48411-CCV13	1		
00:59	MA48411-CCB14	1		
01:04	MP20206-S2	1		
01:09	JD4378-3	1		(sample used for QC only; not part of login JD4440)
01:14	MP20206-SD1	5		
01:19	ZZZZZZ	1		
01:24	ZZZZZZ	1		
01:29	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:39	ZZZZZZ	1		
01:44	ZZZZZZ	1		
01:49	ZZZZZZ	1		
01:54	MA48411-CCV14	1		
01:59	MA48411-CCB15	1		
02:04	ZZZZZZ	1		
02:10	MP20216-MB1	5		
02:15	MP20216-B1	5		
02:20	MP20216-S1	1		
02:24	MP20216-S2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:29	JD4435-1	1		(sample used for QC only; not part of login JD4440)
02:34	MP20216-SD1	5		
02:39	ZZZZZZ	5		
02:44	ZZZZZZ	5		
02:49	ZZZZZZ	5		
02:55	MA48411-CCV15	1		
02:59	MA48411-CCB16	1		
03:05	MP20212-MB1	1		
03:10	MP20212-B1	1		
03:14	MP20212-S1	1		
03:19	MP20212-S2	1		
03:24	JD4478-2	1		(sample used for QC only; not part of login JD4440)
03:29	MP20212-SD1	5		
03:34	ZZZZZZ	1		
03:39	ZZZZZZ	1		
03:44	ZZZZZZ	1		
03:50	ZZZZZZ	1		
03:55	MA48411-CCV16	1		
03:59	MA48411-CCB17	1		
04:05	ZZZZZZ	1		
04:10	ZZZZZZ	1		
04:15	ZZZZZZ	1		
04:20	ZZZZZZ	1		
04:25	ZZZZZZ	1		
04:30	ZZZZZZ	1		
04:35	ZZZZZZ	1		
04:40	ZZZZZZ	1		
04:45	ZZZZZZ	1		
04:50	ZZZZZZ	1		
04:55	MA48411-CCV17	1		
05:00	MA48411-CCB18	1		
05:05	ZZZZZZ	1		
05:11	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:16	ZZZZZZ	1		
05:21	ZZZZZZ	1		
05:26	ZZZZZZ	1		
05:31	MP20222-MB1	1		
05:36	MP20222-B1	1		
05:41	MP20222-S1	1		
05:46	MP20222-S2	1		
05:51	JD4317-21	1		(sample used for QC only; not part of login JD4440)
05:56	MA48411-CCV18	1		
06:01	MA48411-CCB19	1		
06:06	MP20222-SD1	5		
06:11	ZZZZZZ	1		
06:16	ZZZZZZ	1		
06:21	ZZZZZZ	1		
06:26	ZZZZZZ	1		
06:31	ZZZZZZ	1		
06:36	ZZZZZZ	1		
06:41	ZZZZZZ	1		
06:46	ZZZZZZ	1		
06:51	ZZZZZZ	1		
06:56	MA48411-CCV19	1		
07:01	MA48411-CCB20	1		
07:06	ZZZZZZ	1		
07:11	ZZZZZZ	1		
07:16	ZZZZZZ	1		
07:21	ZZZZZZ	1		
07:26	ZZZZZZ	1		
07:31	ZZZZZZ	1		
07:36	ZZZZZZ	1		
07:41	ZZZZZZ	1		
07:46	ZZZZZZ	1		
07:51	ZZZZZZ	1		
07:56	MA48411-CCV20	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:01	MA48411-CCB21	1		
08:06	MP20215-MB1	5		
08:11	MP20215-B1	5		
08:16	ZZZZZZ	1		
08:21	ZZZZZZ	1		
08:27	ZZZZZZ	5		
08:32	ZZZZZZ	5		
08:37	ZZZZZZ	5		
08:42	ZZZZZZ	5		
08:47	ZZZZZZ	5		
08:52	MA48411-CCV21	1		
08:57	MA48411-CCB22	1		
09:02	ZZZZZZ	5		
09:07	ZZZZZZ	1		
09:12	ZZZZZZ	1		
09:33	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
12:39	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:49	MA48411-ICV1	1	X	
12:57	MA48411-ICB1	1	X	
13:02	MA48411-ICCV1	1	X	
13:10	MA48411-CCB1	1	X	
13:15	MA48411-CRI1	1	X	
13:20	MA48411-CRID1	1		
13:25	ZZZZZZ	1		
13:30	MA48411-CRID2	1	X	
13:35	MA48411-ICSA1	1	X	
13:40	MA48411-ICSAB1	1	X	
13:45	MA48411-HSTD1	1	X	
13:50	MA48411-HSTD2	1	X	
13:56	MA48411-CCV1	1	X	
14:01	MA48411-CCB2	1	X	
14:06	ZZZZZZ	1		
14:11	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:36	MA48411-CCV2	1	X	
14:41	MA48411-CCB3	1	X	
14:46	MP20189-S1	10		
14:51	MP20189-S2	10		
14:56	JD4275-1Q	10		(a)
15:01	MP20189-SD1	50		
15:07	ZZZZZZ	2		
15:12	ZZZZZZ	2		
15:17	ZZZZZZ	5		
15:22	ZZZZZZ	5		
15:27	MA48411-CCV3	1	X	
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
15:32	MA48411-CCB4	1	X	
15:37	MP20235-MB1	1		
15:42	MP20235-B1	1		
15:47	MP20235-S1	1		
15:52	MP20235-S2	1		
15:56	JD4515-2	1		(a)
16:01	MP20235-SD1	5		
16:06	ZZZZZZ	1		
16:11	ZZZZZZ	1		
16:16	ZZZZZZ	1		
16:22	MA48411-CCV4	1	X	
16:26	MA48411-CCB5	1	X	
16:32	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:47	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:57	ZZZZZZ	1		
17:02	ZZZZZZ	1		
17:07	ZZZZZZ	1		
17:12	ZZZZZZ	1		
17:17	MA48411-CCV5	1	X	
17:22	MA48411-CCB6	1	X	
17:27	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:42	ZZZZZZ	1		
17:47	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:57	ZZZZZZ	1		
18:02	MP20209-MB1	1	X	
18:07	MP20209-B1	1	X	
18:12	MA48411-CCV6	1	X	
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
18:17	MA48411-CCB7	1	X	
18:22	MA48411-ICSA2	1	X	
18:27	MA48411-ICSAB2	1	X	
18:32	ZZZZZZ	1		
18:37	MA48411-CCV7	1	X	
18:42	MA48411-CCB8	1	X	
18:47	ZZZZZZ	1		
18:53	ZZZZZZ	1		
18:58	ZZZZZZ	1		
19:03	ZZZZZZ	1		
19:08	ZZZZZZ	1		
19:13	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:29	ZZZZZZ	1		
19:34	ZZZZZZ	1		
19:39	ZZZZZZ	1		
19:44	ZZZZZZ	1		
19:50	MA48411-CCV8	1	X	
19:54	MA48411-CCB9	1	X	
20:00	MP20209-S1	1	X	
20:04	MP20209-S2	1	X	
20:09	JD4404-5	1		(a)
20:14	MP20209-SD1	5	X	
20:19	ZZZZZZ	1		
20:24	ZZZZZZ	1		
20:29	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:40	ZZZZZZ	1		
20:45	ZZZZZZ	1		
20:50	MA48411-CCV9	1	X	
20:55	MA48411-CCB10	1	X	
21:00	ZZZZZZ	1		
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe
21:05	ZZZZZZ	1	
21:11	ZZZZZZ	1	
21:16	ZZZZZZ	1	
21:21	ZZZZZZ	1	
21:26	ZZZZZZ	1	
21:31	ZZZZZZ	1	
21:36	ZZZZZZ	1	
21:41	JD4440-1	1	X
21:46	JD4440-2	1	X
21:51	MA48411-CCV10	1	X
21:56	MA48411-CCB11	1	X
22:01	JD4440-3	1	X
22:07	JD4440-4	1	X
22:11	MP20204-MB1	1	
22:17	ZZZZZZ	1	
22:21	MP20204-B2	1	missed cup
22:27	MP20204-S1	1	X
22:31	MP20204-S2	1	X
22:36	JD4453-2	1	(a)
22:41	MP20204-SD1	5	X
22:46	ZZZZZZ	1	
22:51	MA48411-CCV11	1	X
22:56	MA48411-CCB12	1	X
23:01	ZZZZZZ	1	
23:06	ZZZZZZ	1	
23:12	ZZZZZZ	1	
23:17	ZZZZZZ	1	
23:22	ZZZZZZ	1	
23:27	ZZZZZZ	1	
23:33	ZZZZZZ	1	
23:38	ZZZZZZ	1	
23:43	ZZZZZZ	1	
23:48	ZZZZZZ	1	
		Element:	Fe

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
23:53	MA48411-CCV12	1	X	
23:58	MA48411-CCB13	1	X	
00:03	ZZZZZZ	1		
00:08	ZZZZZZ	1		
00:13	ZZZZZZ	1		
00:18	ZZZZZZ	1		
00:24	ZZZZZZ	1		
00:29	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:39	MP20206-MB1	1		
00:44	MP20206-B1	1		
00:49	MP20206-S1	1		
00:54	MA48411-CCV13	1	X	
00:59	MA48411-CCB14	1	X	
01:04	MP20206-S2	1		
01:09	JD4378-3	1		(a)
01:14	MP20206-SD1	5		
01:19	ZZZZZZ	1		
01:24	ZZZZZZ	1		
01:29	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:39	ZZZZZZ	1		
01:44	ZZZZZZ	1		
01:49	ZZZZZZ	1		
01:54	MA48411-CCV14	1	X	
01:59	MA48411-CCB15	1	X	
02:04	ZZZZZZ	1		
02:10	MP20216-MB1	5		
02:15	MP20216-B1	5		
02:20	MP20216-S1	1		
02:24	MP20216-S2	1		
02:29	JD4435-1	1		(a)
02:34	MP20216-SD1	5		
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
02:39	ZZZZZZ	5		
02:44	ZZZZZZ	5		
02:49	ZZZZZZ	5		
02:55	MA48411-CCV15	1	X	
02:59	MA48411-CCB16	1	X	
03:05	MP20212-MB1	1	X	
03:10	MP20212-B1	1	X	
03:14	MP20212-S1	1	X	
03:19	MP20212-S2	1	X	
03:24	JD4478-2	1		(a)
03:29	MP20212-SD1	5	X	
03:34	ZZZZZZ	1		
03:39	ZZZZZZ	1		
03:44	ZZZZZZ	1		
03:50	ZZZZZZ	1		
03:55	MA48411-CCV16	1	X	
03:59	MA48411-CCB17	1	X	
04:05	ZZZZZZ	1		
04:10	ZZZZZZ	1		
04:15	ZZZZZZ	1		
04:20	ZZZZZZ	1		
04:25	ZZZZZZ	1		
04:30	ZZZZZZ	1		
04:35	ZZZZZZ	1		
04:40	ZZZZZZ	1		
04:45	ZZZZZZ	1		
04:50	ZZZZZZ	1		
04:55	MA48411-CCV17	1	X	
05:00	MA48411-CCB18	1	X	
05:05	ZZZZZZ	1		
05:11	ZZZZZZ	1		
05:16	ZZZZZZ	1		
05:21	ZZZZZZ	1		
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
05:26	ZZZZZZ	1		
05:31	MP20222-MB1	1		
05:36	MP20222-B1	1		
05:41	MP20222-S1	1		
05:46	MP20222-S2	1		
05:51	JD4317-21	1		(a)
05:56	MA48411-CCV18	1	X	
06:01	MA48411-CCB19	1	X	
06:06	MP20222-SD1	5		
06:11	ZZZZZZ	1		
06:16	ZZZZZZ	1		
06:21	ZZZZZZ	1		
06:26	ZZZZZZ	1		
06:31	ZZZZZZ	1		
06:36	ZZZZZZ	1		
06:41	ZZZZZZ	1		
06:46	ZZZZZZ	1		
06:51	ZZZZZZ	1		
06:56	MA48411-CCV19	1	X	
07:01	MA48411-CCB20	1	X	
07:06	ZZZZZZ	1		
07:11	ZZZZZZ	1		
07:16	ZZZZZZ	1		
07:21	ZZZZZZ	1		
07:26	ZZZZZZ	1		
07:31	ZZZZZZ	1		
07:36	ZZZZZZ	1		
07:41	ZZZZZZ	1		
07:46	ZZZZZZ	1		
07:51	ZZZZZZ	1		
07:56	MA48411-CCV20	1	X	
08:01	MA48411-CCB21	1	X	
08:06	MP20215-MB1	5		
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe
08:11	MP20215-B1	5	
08:16	ZZZZZZ	1	
08:21	ZZZZZZ	1	
08:27	ZZZZZZ	5	
08:32	ZZZZZZ	5	
08:37	ZZZZZZ	5	
08:42	ZZZZZZ	5	
08:47	ZZZZZZ	5	
08:52	MA48411-CCV21	1	X
08:57	MA48411-CCB22	1	X
09:02	ZZZZZZ	5	
09:07	ZZZZZZ	1	
09:12	ZZZZZZ	1	
09:33	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JD4440.

Element: Fe

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:29	MA48411-STD1	4407 R	115160 R	14971 R	10485 R
12:34	MA48411-STD2	4095	106910	14711	9050
12:39	ZZZZZZ	4202	110000	14899	9386
12:44	ZZZZZZ	4418	116630	15019	10479
12:49	MA48411-ICV1	4222	109450	14767	9425
12:57	MA48411-ICB1	4447	115920	14991	10538
13:02	MA48411-ICCV1	4230	109650	14874	9439
13:10	MA48411-CCB1	4438	115860	15124	10533
13:15	MA48411-CRI1	4376	114380	15199	10241
13:20	MA48411-CRID1	No results reported for the elements associated with this internal standard.			
13:25	ZZZZZZ	4400	113610	15205	10275
13:30	MA48411-CRID2	4398	115120	15074	10381
13:35	MA48411-ICSA1	3887	100790	14468	8357
13:40	MA48411-ICSAB1	3881	100790	14536	8352
13:45	MA48411-HSTD1	4331	113300	15162	10064
13:50	MA48411-HSTD2	3880	101430	14482	8317
13:56	MA48411-CCV1	4242	109560	14984	9458
14:01	MA48411-CCB2	4434	115750	15080	10523
14:06	ZZZZZZ	4355	114160	15077	10204
14:11	ZZZZZZ	4353	113860	15158	10285
14:16	ZZZZZZ	4382	114440	15176	10509
14:21	ZZZZZZ	4441	116150	15341	10505
14:26	ZZZZZZ	4425	116720	15434	10487
14:32	ZZZZZZ	4281	112110	15172	9675
14:36	MA48411-CCV2	4236	109600	15045	9445
14:41	MA48411-CCB3	4413	115850	15259	10451
14:46	MP20189-S1	4408	115990	15249	10263
14:51	MP20189-S2	4424	115210	15319	10294
14:56	JD4275-1Q	4434	115410	15215	10414
15:01	MP20189-SD1	4420	115420	15373	10450
15:07	ZZZZZZ	4149	108540	15196	9222
15:12	ZZZZZZ	4256	110070	15380	9182
15:17	ZZZZZZ	4238	109670	15254	9504

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:22	ZZZZZZ	4176	108650	15242	9332
15:27	MA48411-CCV3	4229	110480	15083	9426
15:32	MA48411-CCB4	4441	115460	15259	10524
15:37	MP20235-MB1	4410	116320	15561	10476
15:42	MP20235-B1	4240	113570	15316	9592
15:47	MP20235-S1	4289	112170	15497	9461
15:52	MP20235-S2	4260	111160	15490	9403
15:56	JD4515-2	4333	113900	15516	9808
16:01	MP20235-SD1	4429	115670	15295	10308
16:06	ZZZZZZ	4398	118450	17271	8341
16:11	ZZZZZZ	4168	110840	15901	8569
16:16	ZZZZZZ	3909	102800	14925	7990
16:22	MA48411-CCV4	4220	109730	14984	9407
16:26	MA48411-CCB5	4407	115130	15131	10434
16:32	ZZZZZZ	3851	100890	14831	7897
16:37	ZZZZZZ	4590	123660	18206	8318
16:42	ZZZZZZ	4277	114780	16601	8288
16:47	ZZZZZZ	No results reported for the elements associated with this internal standard.			
16:52	ZZZZZZ	3827	101150	15027	8182
16:57	ZZZZZZ	3954	104850	15252	8460
17:02	ZZZZZZ	3909	104630	14998	8501
17:07	ZZZZZZ	4143	111000	16173	8573
17:12	ZZZZZZ	4133	112020	16347	8790
17:17	MA48411-CCV5	4192	108880	15098	9340
17:22	MA48411-CCB6	4400	116000	15399	10403
17:27	ZZZZZZ	4035	106170	14906	8990
17:32	ZZZZZZ	3976	104560	15291	8168
17:37	ZZZZZZ	3994	105130	15432	8138
17:42	ZZZZZZ	4238	112440	16070	9000
17:47	ZZZZZZ	3939	105610	15345	8647
17:52	ZZZZZZ	4437	115740	15893	9917
17:57	ZZZZZZ	11070 !	253190 !	24750 !	25462 !
18:02	MP20209-MB1	4350	114430	15239	10297

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:07	MP20209-B1	4219	108240	15164	9496
18:12	MA48411-CCV6	4160	107680	14780	9261
18:17	MA48411-CCB7	4357	114060	15034	10315
18:22	MA48411-ICSA2	3836	99592	14545	8229
18:27	MA48411-ICSAB2	3846	99759	14444	8229
18:32	ZZZZZZ	No results reported for the elements associated with this internal standard.			
18:37	MA48411-CCV7	4153	108150	14873	9233
18:42	MA48411-CCB8	4336	113720	15079	10250
18:47	ZZZZZZ	4414	108790	15317	9320
18:53	ZZZZZZ	3946	105230	14671	8828
18:58	ZZZZZZ	4319	114170	14929	10225
19:03	ZZZZZZ	4342	113390	15004	10246
19:08	ZZZZZZ	4364	114150	15131	10274
19:13	ZZZZZZ	4390	113600	15111	10354
19:18	ZZZZZZ	4362	114000	15063	10321
19:24	ZZZZZZ	4358	114960	15033	10291
19:29	ZZZZZZ	4370	113790	14902	10304
19:34	ZZZZZZ	4371	113880	15029	10344
19:39	ZZZZZZ	4326	112820	15038	10198
19:44	ZZZZZZ	4371	113680	15000	10298
19:50	MA48411-CCV8	4151	108600	14938	9211
19:54	MA48411-CCB9	4367	113600	14907	10319
20:00	MP20209-S1	4163	108880	14911	9276
20:04	MP20209-S2	4155	107310	14551	9255
20:09	JD4404-5	4153	111040	14986	9454
20:14	MP20209-SD1	4281	112000	14977	9976
20:19	ZZZZZZ	4017	103280	14758	8729
20:24	ZZZZZZ	4097	106120	14821	9079
20:29	ZZZZZZ	3828	99214	14579	8209
20:35	ZZZZZZ	3714	96049	14415	7897
20:40	ZZZZZZ	3898	100320	14478	8378
20:45	ZZZZZZ	3786	98541	14809	8099
20:50	MA48411-CCV9	4181	108060	14765	9282

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:55	MA48411-CCB10	4350	112560	14864	10274
21:00	ZZZZZZ	4040	103750	14603	8809
21:05	ZZZZZZ	4378	113570	14994	10333
21:11	ZZZZZZ	3800	96425	14490	8098
21:16	ZZZZZZ	3811	97786	14505	8124
21:21	ZZZZZZ	3545	91582	14257	7501
21:26	ZZZZZZ	4249	110900	14961	9667
21:31	ZZZZZZ	4274	110690	14848	9799
21:36	ZZZZZZ	4229	109680	14830	9604
21:41	JD4440-1	4071	105670	14707	8858
21:46	JD4440-2	4018	104310	14584	8781
21:51	MA48411-CCV10	4136	107190	14545	9189
21:56	MA48411-CCB11	4325	112550	14954	10196
22:01	JD4440-3	3514	90630	14151	7285 !a
22:07	JD4440-4	4172	108160	14961	9228
22:11	MP20204-MB1	4381	114350	15188	10312
22:17	ZZZZZZ	4213	109800	15046	9457
22:21	MP20204-B2	No results reported for the elements associated with this internal standard.			
22:27	MP20204-S1	4057	105160	14522	8978
22:31	MP20204-S2	4091	105610	14640	9037
22:36	JD4453-2	4164	107490	14768	9394
22:41	MP20204-SD1	4279	110420	14889	9909
22:46	ZZZZZZ	4256	110230	14974	9892
22:51	MA48411-CCV11	4144	107060	14775	9181
22:56	MA48411-CCB12	4317	113010	14907	10169
23:01	ZZZZZZ	3586	92965	14357	7606
23:06	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:12	ZZZZZZ	3851	98519	14388	8286
23:17	ZZZZZZ	3940	100320	14461	8577
23:22	ZZZZZZ	3926	100130	14463	8473
23:27	ZZZZZZ	3931	100150	14359	8489
23:33	ZZZZZZ	4143	107040	14711	9342
23:38	ZZZZZZ	4156	107460	14643	9378

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:43	ZZZZZZ	4099	104280	14622	9120
23:48	ZZZZZZ	4160	108320	14719	9424
23:53	MA48411-CCV12	4109	104790	14269	9080
23:58	MA48411-CCB13	4316	110230	14596	10136
00:03	ZZZZZZ	3977	102680	14460	8678
00:08	ZZZZZZ	3920	100820	14483	8502
00:13	ZZZZZZ	4105	105290	14604	9062
00:18	ZZZZZZ	4008	102910	14447	8749
00:24	ZZZZZZ	3558	91292	13982	7561
00:29	ZZZZZZ	3792	97895	14354	8138
00:34	ZZZZZZ	4004	102680	14520	8728
00:39	MP20206-MB1	4300	111320	14812	10224
00:44	MP20206-B1	4125	108740	14689	9298
00:49	MP20206-S1	3933	101840	14463	8565
00:54	MA48411-CCV13	4082	105150	14541	9028
00:59	MA48411-CCB14	4280	110900	14829	10042
01:04	MP20206-S2	3928	103670	14611	8529
01:09	JD4378-3	3963	102380	14655	8773
01:14	MP20206-SD1	4158	106580	14558	9521
01:19	ZZZZZZ	4162	108240	14731	9508
01:24	ZZZZZZ	3956	102080	14582	8734
01:29	ZZZZZZ	4186	110050	14873	9927
01:34	ZZZZZZ	4139	106560	14801	9438
01:39	ZZZZZZ	3919	101500	14660	8671
01:44	ZZZZZZ	3947	102330	14584	8730
01:49	ZZZZZZ	3582	90760	13785	7622
01:54	MA48411-CCV14	4033	103690	14431	8926
01:59	MA48411-CCB15	4222	110080	14830	9918
02:04	ZZZZZZ	3333	94651	19304	4965 !a
02:10	MP20216-MB1	4243	109950	14725	9974
02:15	MP20216-B1	4220	109210	14757	9747
02:20	MP20216-S1	3873	100370	14375	8361
02:24	MP20216-S2	3854	99396	14523	8307

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
02:29	JD4435-1	3866	99823	14522	8517
02:34	MP20216-SD1	4133	106830	14682	9368
02:39	ZZZZZZ	3849	99451	14412	8402
02:44	ZZZZZZ	3842	99445	14340	8430
02:49	ZZZZZZ	3828	99501	14391	8430
02:55	MA48411-CCV15	4100	105090	14689	9052
02:59	MA48411-CCB16	4232	110640	14613	9929
03:05	MP20212-MB1	4268	110690	14945	9997
03:10	MP20212-B1	4133	106700	14844	9211
03:14	MP20212-S1	4020	103220	14673	8871
03:19	MP20212-S2	4048	104630	14667	8939
03:24	JD4478-2	4130	106810	14775	9350
03:29	MP20212-SD1	4214	109380	14736	9777
03:34	ZZZZZZ	4266	110370	14947	9989
03:39	ZZZZZZ	4251	109140	14856	9947
03:44	ZZZZZZ	4154	107430	14757	9383
03:50	ZZZZZZ	4170	108050	14613	9521
03:55	MA48411-CCV16	4060	104420	14466	8947
03:59	MA48411-CCB17	4243	109640	14728	9944
04:05	ZZZZZZ	4183	108070	14874	9573
04:10	ZZZZZZ	4180	108840	14955	9616
04:15	ZZZZZZ	3877	100710	14452	8533
04:20	ZZZZZZ	4239	108280	14961	9736
04:25	ZZZZZZ	4052	104380	14813	8915
04:30	ZZZZZZ	4062	105060	14837	8926
04:35	ZZZZZZ	3871	98756	14686	8344
04:40	ZZZZZZ	4082	104890	14704	9075
04:45	ZZZZZZ	No results reported for the elements associated with this internal standard.			
04:50	ZZZZZZ	4067	104820	14712	9020
04:55	MA48411-CCV17	4023	103710	14607	8860
05:00	MA48411-CCB18	4217	108980	14796	9852
05:05	ZZZZZZ	No results reported for the elements associated with this internal standard.			
05:11	ZZZZZZ	No results reported for the elements associated with this internal standard.			

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
05:16	ZZZZZZ	4028	103750	14626	8893
05:21	ZZZZZZ	3625	92482	14377	7723
05:26	ZZZZZZ	4214	109810	15017	9864
05:31	MP20222-MB1	4212	109620	14932	9867
05:36	MP20222-B1	4059	104400	14705	9058
05:41	MP20222-S1	4102	105520	14970	8906
05:46	MP20222-S2	4094	105390	15005	8890
05:51	JD4317-21	4176	107630	15145	9262
05:56	MA48411-CCV18	3974	102490	14313	8766
06:01	MA48411-CCB19	4175	106260	14524	9764
06:06	MP20222-SD1	4223	107600	14690	9637
06:11	ZZZZZZ	4164	107330	15006	9184
06:16	ZZZZZZ	4187	106770	15158	9149
06:21	ZZZZZZ	4165	106460	15031	9150
06:26	ZZZZZZ	4189	107480	15008	9287
06:31	ZZZZZZ	4148	107010	14906	9248
06:36	ZZZZZZ	4186	107180	14990	9186
06:41	ZZZZZZ	4099	105000	14829	8997
06:46	ZZZZZZ	4146	106650	14945	9157
06:51	ZZZZZZ	4184	106480	15054	9214
06:56	MA48411-CCV19	3979	101840	14267	8768
07:01	MA48411-CCB20	4162	107400	14245	9761
07:06	ZZZZZZ	4202	107390	15047	9267
07:11	ZZZZZZ	4148	106750	14847	9271
07:16	ZZZZZZ	4176	107020	14856	9260
07:21	ZZZZZZ	4176	106720	14949	9275
07:26	ZZZZZZ	4140	105690	14747	9189
07:31	ZZZZZZ	4180	107340	14938	9156
07:36	ZZZZZZ	4139	106370	14857	9126
07:41	ZZZZZZ	4192	107350	15143	8939
07:46	ZZZZZZ	4036	104190	14718	8912
07:51	ZZZZZZ	4057	106020	14805	8947
07:56	MA48411-CCV20	3955	101340	14061	8717

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA48411
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:01	MA48411-CCB21	4129	106380	14513	9660
08:06	MP20215-MB1	4130	107520	14354	9696
08:11	MP20215-B1	4092	106040	14563	9428
08:16	ZZZZZZ	3789	98694	14270	8455
08:21	ZZZZZZ	3755	97509	14151	8346
08:27	ZZZZZZ	3805	98786	14104	8463
08:32	ZZZZZZ	3787	98889	14257	8398
08:37	ZZZZZZ	3762	97897	14141	8360
08:42	ZZZZZZ	3794	98822	14198	8434
08:47	ZZZZZZ	3708	96362	14048	8229
08:52	MA48411-CCV21	3948	101600	14304	8726
08:57	MA48411-CCB22	4132	106820	14434	9720
09:02	ZZZZZZ	3784	98887	14247	8407
09:07	ZZZZZZ	4040	103820	14642	9153
09:12	ZZZZZZ	4154	107320	14769	9888
09:33	ZZZZZZ	4090	104380	14682	9252

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time:			12:57		13:10		14:01		14:41	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	16	anr							
Antimony	6.0	2.5	anr							
Arsenic	3.0	2	anr							
Barium	200	.4	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	3.6								
Boron	100	1.9	anr							
Cadmium	3.0	.4	anr							
Calcium	5000	5.6								
Cerium	100									
Chromium	10	.5	anr							
Cobalt	50	.5	anr							
Copper	10	1	anr							
Iron	100	11	9.00	<100	11.1	<100	16.5	<100	11.5	<100
Lead	3.0	1.2	anr							
Lithium	50	2.3								
Magnesium	5000	65								
Manganese	15	.2	anr							
Molybdenum	20	.4	anr							
Nickel	10	.3	anr							
Phosphorus	50	4.1								
Potassium	10000	55	anr							
Selenium	10	3.5	anr							
Silicon	200	1.6								
Silver	10	1.1	anr							
Sodium	10000	11	anr							
Strontium	10	.1								
Sulfur	50	4.4								
Thallium	10	2.5	anr							
Tin	10	1	anr							
Titanium	10	.4								
Tungsten	50	2.8								
Vanadium	50	.6								

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time:			12:57		13:10		14:01		14:41	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.1	anr							
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time:			15:32		16:26		17:22		18:17	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	16	anr							
Antimony	6.0	2.5	anr							
Arsenic	3.0	2	anr							
Barium	200	.4	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	3.6								
Boron	100	1.9	anr							
Cadmium	3.0	.4	anr							
Calcium	5000	5.6								
Cerium	100									
Chromium	10	.5	anr							
Cobalt	50	.5	anr							
Copper	10	1	anr							
Iron	100	11	16.2	<100	17.1	<100	14.6	<100	5.70	<100
Lead	3.0	1.2	anr							
Lithium	50	2.3								
Magnesium	5000	65								
Manganese	15	.2	anr							
Molybdenum	20	.4	anr							
Nickel	10	.3	anr							
Phosphorus	50	4.1								
Potassium	10000	55	anr							
Selenium	10	3.5	anr							
Silicon	200	1.6								
Silver	10	1.1	anr							
Sodium	10000	11	anr							
Strontium	10	.1								
Sulfur	50	4.4								
Thallium	10	2.5	anr							
Tin	10	1	anr							
Titanium	10	.4								
Tungsten	50	2.8								
Vanadium	50	.6								

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time: / Sample ID:			15:32 CCB4		16:26 CCB5		17:22 CCB6		18:17 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.1	anr							
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time:			18:42		19:54		20:55		21:56	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	16	anr							
Antimony	6.0	2.5	anr							
Arsenic	3.0	2	anr							
Barium	200	.4	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	3.6								
Boron	100	1.9	anr							
Cadmium	3.0	.4	anr							
Calcium	5000	5.6								
Cerium	100									
Chromium	10	.5	anr							
Cobalt	50	.5	anr							
Copper	10	1	anr							
Iron	100	11	13.1	<100	11.7	<100	7.30	<100	9.30	<100
Lead	3.0	1.2	anr							
Lithium	50	2.3								
Magnesium	5000	65								
Manganese	15	.2	anr							
Molybdenum	20	.4	anr							
Nickel	10	.3	anr							
Phosphorus	50	4.1								
Potassium	10000	55	anr							
Selenium	10	3.5	anr							
Silicon	200	1.6								
Silver	10	1.1	anr							
Sodium	10000	11	anr							
Strontium	10	.1								
Sulfur	50	4.4								
Thallium	10	2.5	anr							
Tin	10	1	anr							
Titanium	10	.4								
Tungsten	50	2.8								
Vanadium	50	.6								

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time: / Sample ID:			18:42 CCB8		19:54 CCB9		20:55 CCB10		21:56 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.1	anr							
Zirconium	10	.4								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time:			22:56	
Sample ID:			CCB12	
Metal	RL	IDL	raw	final
Aluminum	200	16	anr	
Antimony	6.0	2.5	anr	
Arsenic	3.0	2	anr	
Barium	200	.4	anr	
Beryllium	1.0	.1	anr	
Bismuth	20	3.6		
Boron	100	1.9	anr	
Cadmium	3.0	.4	anr	
Calcium	5000	5.6		
Cerium	100			
Chromium	10	.5	anr	
Cobalt	50	.5	anr	
Copper	10	1	anr	
Iron	100	11	15.6	<100
Lead	3.0	1.2	anr	
Lithium	50	2.3		
Magnesium	5000	65		
Manganese	15	.2	anr	
Molybdenum	20	.4	anr	
Nickel	10	.3	anr	
Phosphorus	50	4.1		
Potassium	10000	55	anr	
Selenium	10	3.5	anr	
Silicon	200	1.6		
Silver	10	1.1	anr	
Sodium	10000	11	anr	
Strontium	10	.1		
Sulfur	50	4.4		
Thallium	10	2.5	anr	
Tin	10	1	anr	
Titanium	10	.4		
Tungsten	50	2.8		
Vanadium	50	.6		

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48411 Units: ug/l

Time:			22:56	
Sample ID:			CCB12	
Metal	RL	IDL	raw	final
Zinc	20	.1	anr	
Zirconium	10	.4		

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA48411 Units: ug/l

Time:		13:02	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	anr		
Calcium			
Cerium			
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	40000	40200	100.5
Lead	anr		
Lithium			
Magnesium			
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon			
Silver	anr		
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin	anr		
Titanium			
Tungsten			
Vanadium			

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA48411 Units: ug/l

Time:		13:02	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zinc	anr		
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		12:49			13:56			14:36	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium									
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40400	101.0	40000	39900	99.8	40000	40100	100.3
Lead	anr								
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		12:49			13:56			14:36	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		15:27			16:22			17:17	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium									
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40500	101.3	40000	39900	99.8	40000	40300	100.8
Lead	anr								
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		15:27			16:22			17:17	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		18:12			18:37			19:50	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium									
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40700	101.8	40000	39900	99.8	40000	40400	101.0
Lead	anr								
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		18:12			18:37			19:50	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		20:50			21:51			22:51	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium									
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40500	101.3	40000	40800	102.0	40000	40800	102.0
Lead	anr								
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48411 Units: ug/l

Time:		20:50			21:51			22:51	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA48411 Units: ug/l

Time:		13:45			13:50	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	anr					
Calcium						
Cerium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron				200000	195000	97.5
Lead	anr					
Lithium						
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin	anr					
Titanium						
Tungsten						
Vanadium						

HIGH STANDARD CHECK SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA48411 Units: ug/l

Time:		13:45			13:50	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zinc	anr					
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA48411 Units: ug/l

Time:				13:15		13:30	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	anr			
Barium	200		4.0	anr			
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10	anr			
Cadmium	3.0		1.0	anr			
Calcium	5000	2000	1000				
Cerium							
Chromium	10		2.0	anr			
Cobalt	50		3.0	anr			
Copper	10		2.0	anr			
Iron	100	500		115	115.0		
Lead	3.0	20	2.5	anr			
Lithium	50						
Magnesium	5000	2000	100				
Manganese	15		3.0	anr			
Molybdenum	20			anr			
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	anr			
Silicon	200						
Silver	5.0		2.0	anr			
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0	anr			
Tin	10			anr			
Titanium	10						
Tungsten	50						
Vanadium	50		2.0				

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA48411 Units: ug/l

Time:				13:15		13:30	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zinc	20		10	anr			
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA48411 Units: ug/l

Time:			13:35		13:40		18:22		18:27	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	506000	101.2	512000	102.4	500000	100.0	513000	102.6
Antimony		1000	0.900		1030	103.0	1.60		1030	103.0
Arsenic		1000	-0.500		1060	106.0	-0.500		1070	107.0
Barium		500	-0.900		521	104.2	-0.900		522	104.4
Beryllium		500	0.200		506	101.2	0.300		509	101.8
Bismuth		500	-6.00		507	101.4	-7.80		506	101.2
Boron		500	-4.30		470	94.0	-2.40		469	93.8
Cadmium		1000	0.300		1060	106.0	0.300		1060	106.0
Calcium	400000	400000	389000	97.3	394000	98.5	390000	97.5	396000	99.0
Cerium			44.0		31.5		49.0		33.6	
Chromium		500	1.50		501	100.2	1.50		503	100.6
Cobalt		500	-0.300		502	100.4	-0.500		511	102.2
Copper		500	0.00		519	103.8	0.800		523	104.6
Iron	200000	200000	190000	95.0	191000	95.5	191000	95.5	192000	96.0
Lead		1000	-1.50		995	99.5	-2.30		999	99.9
Lithium		500	0.200		562	112.4	-0.300		559	111.8
Magnesium	500000	500000	507000	101.4	506000	101.2	509000	101.8	508000	101.6
Manganese		500	-0.900		513	102.6	-1.10		518	103.6
Molybdenum		500	-1.20		472	94.4	-1.10		476	95.2
Nickel		1000	-0.400		1010	101.0	-0.300		1010	101.0
Phosphorus		500	-7.60		453	90.6	-2.10		450	90.0
Potassium			-356		-395		-282		-398	
Selenium		1000	1.10		1060	106.0	5.40		1060	106.0
Silicon		500	-9.70		506	101.2	-10.2		508	101.6
Silver		1000	3.80		1090	109.0	3.30		1100	110.0
Sodium			50.0		35.3		53.9		11.8	
Strontium		500	-0.200		516	103.2	-0.200		517	103.4
Sulfur		500	-2.60		507	101.4	251*		816	163.2*
Thallium		1000	-4.80		989	98.9	-4.10		986	98.6
Tin		500	-2.20		457	91.4	-1.80		456	91.2
Titanium		500	0.00		491	98.2	-0.100		481	96.2
Tungsten		500	8.70		481	96.2	12.2		486	97.2
Vanadium		500	-0.500		506	101.2	-0.800		511	102.2

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SE031620M1.ICP Date Analyzed: 03/16/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA48411 Units: ug/l

Time:			13:35		13:40		18:22		18:27	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zinc		1000	-1.10		983	98.3	-1.00		978	97.8
Zirconium		500	0.800		492	98.4	1.20		505	101.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:23	MA48424-STD1	1		STDA
15:28	MA48424-STD2	1		STDB
15:33	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:43	MA48424-ICV1	1		
15:48	MA48424-ICB1	1		
15:54	MA48424-ICCV1	1		
16:15	MA48424-CCB1	1		
16:21	MA48424-CRID1	1		
16:26	MA48424-CRI1	1		
16:31	MA48424-ICSA1	1		
16:36	MA48424-ICSAB1	1		
16:42	MA48424-HSTD1	1		
16:47	MA48424-HSTD2	1		
16:53	ZZZZZZ	1		
16:58	ZZZZZZ	1		
17:03	MA48424-CRI2	1		
17:08	ZZZZZZ	1		
17:13	MA48424-CCV1	1		
17:18	MA48424-CCB2	1		
17:24	MA48424-CRI3	1		
17:29	MP20283-MB1	5		
17:34	MP20283-B1	5		
17:39	MP20283-S1	5		
17:44	MP20283-S2	5		
17:49	JD4263-1A	5		(sample used for QC only; not part of login JD4440)
17:54	MP20283-SD1	25		
17:59	ZZZZZZ	5		
18:04	ZZZZZZ	5		
18:09	ZZZZZZ	5		
18:14	MA48424-CCV2	1		
18:19	MA48424-CCB3	1		
18:24	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:29	MP20282-MB1	5		
18:34	MP20282-B1	5		
18:39	MP20282-S1	1		
18:44	MP20282-S2	1		
18:49	JD4436-10A	1		(sample used for QC only; not part of login JD4440)
18:55	MP20282-SD1	5		
19:00	ZZZZZZ	5		
19:05	ZZZZZZ	5		
19:10	MA48424-CCV3	1		
19:15	MA48424-CCB4	1		
19:20	ZZZZZZ	5		
19:25	ZZZZZZ	5		
19:30	ZZZZZZ	5		
19:35	ZZZZZZ	5		
19:40	ZZZZZZ	1		
19:45	ZZZZZZ	1		
19:50	MP20236-PS1	1		
19:55	ZZZZZZ	2		
20:00	ZZZZZZ	5		
20:05	MA48424-CCV4	1		
20:10	MA48424-CCB5	1		
20:15	ZZZZZZ	2		
20:20	ZZZZZZ	2		
20:25	ZZZZZZ	2		
20:30	ZZZZZZ	2		
20:35	ZZZZZZ	2		
20:40	MP20241-B1	1		
20:45	MP20241-MB1	1		
20:51	MP20241-S1	1		Na high
20:56	MP20241-S2	1		Na high
21:01	MA48424-CCV5	1		
21:06	MA48424-CCB6	1		
21:11	JD4583-1	1		(sample used for QC only; not part of login JD4440)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:16	MP20241-SD1	5		Na high
21:21	ZZZZZZ	1		
21:26	ZZZZZZ	1		
21:31	ZZZZZZ	1		
21:36	ZZZZZZ	1		
21:41	ZZZZZZ	1		
21:46	ZZZZZZ	1		
21:51	ZZZZZZ	1		
21:56	MA48424-CCV6	1		
22:01	MA48424-CCB7	1		
22:06	ZZZZZZ	1		
22:11	ZZZZZZ	1		
22:16	ZZZZZZ	1		
22:22	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:37	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:47	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:57	ZZZZZZ	1		
23:02	ZZZZZZ	1		
23:07	MA48424-CCV7	1		
23:12	MA48424-CCB8	1		
23:17	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:27	ZZZZZZ	1		
23:32	ZZZZZZ	1		
23:37	ZZZZZZ	1		
23:42	ZZZZZZ	1		
23:47	ZZZZZZ	1		
23:52	ZZZZZZ	1		
23:57	MP20258-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:02	MP20258-B1	1		
00:07	MA48424-CCV8	1		
00:12	MA48424-CCB9	1		
00:17	MP20258-S1	1		Ca high. Needs post spike for Sb
00:22	MP20258-S2	1		Ca high
00:27	JD4270-26	1		(sample used for QC only; not part of login JD4440)
00:33	MP20258-SD1	5		Ca high
00:38	ZZZZZZ	1		
00:43	ZZZZZZ	1		
00:48	ZZZZZZ	1		
00:53	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:03	ZZZZZZ	1		
01:09	MA48424-CCV9	1		
01:14	MA48424-CCB10	1		
01:19	ZZZZZZ	1		
01:24	ZZZZZZ	1		
01:29	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:45	ZZZZZZ	1		
01:50	ZZZZZZ	1		
01:55	ZZZZZZ	1		
02:00	ZZZZZZ	1		
02:05	MA48424-CCV10	1		
02:10	MA48424-CCB11	1		
02:15	ZZZZZZ	1		
02:21	ZZZZZZ	1		
02:26	ZZZZZZ	1		
02:31	ZZZZZZ	1		
02:36	MP20259-MB1	1		
02:41	MP20259-B1	1		
02:46	MP20259-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:51	MP20259-S2	1		
02:56	JD4572-3	1		(sample used for QC only; not part of login JD4440)
03:01	MA48424-CCV11	1		
03:06	MA48424-CCB12	1		
03:11	MP20259-SD1	5		
03:16	ZZZZZZ	1		
03:21	ZZZZZZ	1		
03:26	ZZZZZZ	1		
03:31	JD4440-5	1		
---------->	Last reportable sample/prep for job JD4440			
03:36	ZZZZZZ	1		
03:41	ZZZZZZ	1		
03:46	MA48424-CCV12	1		
03:51	MA48424-CCB13	1		
---------->	Last reportable CCB for job JD4440			
03:56	ZZZZZZ	1		
04:01	ZZZZZZ	1		
04:06	ZZZZZZ	1		
04:11	ZZZZZZ	1		
04:16	ZZZZZZ	1		
04:21	ZZZZZZ	1		
04:26	ZZZZZZ	1		
04:31	ZZZZZZ	1		
04:36	ZZZZZZ	1		
04:41	ZZZZZZ	1		
04:46	MA48424-CCV13	1		
04:51	MA48424-CCB14	1		
04:56	ZZZZZZ	1		
05:01	ZZZZZZ	1		
05:06	MP20257-MB1	1		
05:11	MP20257-B1	1		
05:16	MP20257-S1	1		
05:22	MP20257-S2	1		
05:27	JD4174-1	1		(sample used for QC only; not part of login JD4440)
05:33	MP20257-SD1	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:38	ZZZZZZ	1		
05:42	ZZZZZZ	1		
05:47	MA48424-CCV14	1		
05:52	MA48424-CCB15	1		
05:57	ZZZZZZ	1		
06:03	ZZZZZZ	1		
06:07	ZZZZZZ	1		
06:13	ZZZZZZ	1		
06:18	ZZZZZZ	1		
06:23	ZZZZZZ	1		
06:29	ZZZZZZ	1		
06:34	ZZZZZZ	1		
06:39	ZZZZZZ	1		
06:44	MA48424-CCV15	1		
06:49	MA48424-CCB16	1		
06:54	ZZZZZZ	1		
07:00	ZZZZZZ	1		
07:05	ZZZZZZ	1		
07:10	ZZZZZZ	1		
07:16	ZZZZZZ	1		
07:21	ZZZZZZ	1		
07:26	ZZZZZZ	1		
07:31	ZZZZZZ	1		
07:36	MA48424-CCV16	1		
07:41	MA48424-CCB17	1		
07:46	ZZZZZZ	1		
07:51	ZZZZZZ	1		
08:06	MP20257-S1	5		
08:11	MP20257-S2	5		
08:16	JD4174-1	5		(sample used for QC only; not part of login JD4440)
08:21	MP20257-SD1	25		
08:26	ZZZZZZ	5		
08:31	ZZZZZZ	10		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:36	ZZZZZZ	20		
08:41	MA48424-CCV17	1		
08:46	MA48424-CCB18	1		
08:51	ZZZZZZ	5		
08:56	ZZZZZZ	5		
09:01	ZZZZZZ	5		
09:06	ZZZZZZ	2		
09:11	ZZZZZZ	10		
09:16	ZZZZZZ	10		
09:21	ZZZZZZ	5		
09:26	ZZZZZZ	1		
09:34	ZZZZZZ	1		
09:39	MA48424-CCV18	1		
09:44	MA48424-CCB19	1		
09:51	ZZZZZZ	1		
09:57	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
15:33	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:43	MA48424-ICV1	1	X	
15:48	MA48424-ICB1	1	X	
15:54	MA48424-ICCV1	1	X	
16:15	MA48424-CCB1	1	X	
16:21	MA48424-CRID1	1	X	
16:26	MA48424-CRI1	1		
16:31	MA48424-ICSA1	1	X	
16:36	MA48424-ICSAB1	1	X	
16:42	MA48424-HSTD1	1	X	
16:47	MA48424-HSTD2	1	X	
16:53	ZZZZZZ	1		
16:58	ZZZZZZ	1		
17:03	MA48424-CRI2	1		
17:08	ZZZZZZ	1		
17:13	MA48424-CCV1	1	X	
17:18	MA48424-CCB2	1	X	
17:24	MA48424-CRI3	1	X	
17:29	MP20283-MB1	5		
17:34	MP20283-B1	5		
17:39	MP20283-S1	5		
17:44	MP20283-S2	5		
17:49	JD4263-1A	5		(a)
17:54	MP20283-SD1	25		
17:59	ZZZZZZ	5		
18:04	ZZZZZZ	5		
18:09	ZZZZZZ	5		
18:14	MA48424-CCV2	1	X	
18:19	MA48424-CCB3	1	X	
18:24	ZZZZZZ	5		
18:29	MP20282-MB1	5		
18:34	MP20282-B1	5		
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
18:39	MP20282-S1	1		
18:44	MP20282-S2	1		
18:49	JD4436-10A	1		(a)
18:55	MP20282-SD1	5		
19:00	ZZZZZZ	5		
19:05	ZZZZZZ	5		
19:10	MA48424-CCV3	1	X	
19:15	MA48424-CCB4	1	X	
19:20	ZZZZZZ	5		
19:25	ZZZZZZ	5		
19:30	ZZZZZZ	5		
19:35	ZZZZZZ	5		
19:40	ZZZZZZ	1		
19:45	ZZZZZZ	1		
19:50	MP20236-PS1	1		
19:55	ZZZZZZ	2		
20:00	ZZZZZZ	5		
20:05	MA48424-CCV4	1	X	
20:10	MA48424-CCB5	1	X	
20:15	ZZZZZZ	2		
20:20	ZZZZZZ	2		
20:25	ZZZZZZ	2		
20:30	ZZZZZZ	2		
20:35	ZZZZZZ	2		
20:40	MP20241-B1	1		
20:45	MP20241-MB1	1		
20:51	MP20241-S1	1		
20:56	MP20241-S2	1		
21:01	MA48424-CCV5	1	X	
21:06	MA48424-CCB6	1	X	
21:11	JD4583-1	1		(a)
21:16	MP20241-SD1	5		
21:21	ZZZZZZ	1		
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe
21:26	ZZZZZZ	1	
21:31	ZZZZZZ	1	
21:36	ZZZZZZ	1	
21:41	ZZZZZZ	1	
21:46	ZZZZZZ	1	
21:51	ZZZZZZ	1	
21:56	MA48424-CCV6	1	X
22:01	MA48424-CCB7	1	X
22:06	ZZZZZZ	1	
22:11	ZZZZZZ	1	
22:16	ZZZZZZ	1	
22:22	ZZZZZZ	1	
22:27	ZZZZZZ	1	
22:32	ZZZZZZ	1	
22:37	ZZZZZZ	1	
22:42	ZZZZZZ	1	
22:47	ZZZZZZ	1	
22:52	ZZZZZZ	1	
22:57	ZZZZZZ	1	
23:02	ZZZZZZ	1	
23:07	MA48424-CCV7	1	X
23:12	MA48424-CCB8	1	X
23:17	ZZZZZZ	1	
23:22	ZZZZZZ	1	
23:27	ZZZZZZ	1	
23:32	ZZZZZZ	1	
23:37	ZZZZZZ	1	
23:42	ZZZZZZ	1	
23:47	ZZZZZZ	1	
23:52	ZZZZZZ	1	
23:57	MP20258-MB1	1	X
00:02	MP20258-B1	1	X
00:07	MA48424-CCV8	1	X
		Element:	Fe

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
00:12	MA48424-CCB9	1	X	
00:17	MP20258-S1	1	X	
00:22	MP20258-S2	1	X	
00:27	JD4270-26	1	X	(a)
00:33	MP20258-SD1	5	X	
00:38	ZZZZZZ	1		
00:43	ZZZZZZ	1		
00:48	ZZZZZZ	1		
00:53	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:03	ZZZZZZ	1		
01:09	MA48424-CCV9	1	X	
01:14	MA48424-CCB10	1	X	
01:19	ZZZZZZ	1		
01:24	ZZZZZZ	1		
01:29	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:45	ZZZZZZ	1		
01:50	ZZZZZZ	1		
01:55	ZZZZZZ	1		
02:00	ZZZZZZ	1		
02:05	MA48424-CCV10	1	X	
02:10	MA48424-CCB11	1	X	
02:15	ZZZZZZ	1		
02:21	ZZZZZZ	1		
02:26	ZZZZZZ	1		
02:31	ZZZZZZ	1		
02:36	MP20259-MB1	1	X	
02:41	MP20259-B1	1	X	
02:46	MP20259-S1	1	X	
02:51	MP20259-S2	1	X	
02:56	JD4572-3	1		(a)
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe
03:01	MA48424-CCV11	1	X
03:06	MA48424-CCB12	1	X
03:11	MP20259-SD1	5	X
03:16	ZZZZZZ	1	
03:21	ZZZZZZ	1	
03:26	ZZZZZZ	1	
03:31	JD4440-5	1	X
03:36	ZZZZZZ	1	
03:41	ZZZZZZ	1	
03:46	MA48424-CCV12	1	X
03:51	MA48424-CCB13	1	X
03:56	ZZZZZZ	1	
04:01	ZZZZZZ	1	
04:06	ZZZZZZ	1	
04:11	ZZZZZZ	1	
04:16	ZZZZZZ	1	
04:21	ZZZZZZ	1	
04:26	ZZZZZZ	1	
04:31	ZZZZZZ	1	
04:36	ZZZZZZ	1	
04:41	ZZZZZZ	1	
04:46	MA48424-CCV13	1	X
04:51	MA48424-CCB14	1	X
04:56	ZZZZZZ	1	
05:01	ZZZZZZ	1	
05:06	MP20257-MB1	1	
05:11	MP20257-B1	1	
05:16	MP20257-S1	1	
05:22	MP20257-S2	1	
05:27	JD4174-1	1	
05:33	MP20257-SD1	5	
05:38	ZZZZZZ	1	
05:42	ZZZZZZ	1	
		Element:	Fe

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe	
05:47	MA48424-CCV14	1	X	
05:52	MA48424-CCB15	1	X	
05:57	ZZZZZZ	1		
06:03	ZZZZZZ	1		
06:07	ZZZZZZ	1		
06:13	ZZZZZZ	1		
06:18	ZZZZZZ	1		
06:23	ZZZZZZ	1		
06:29	ZZZZZZ	1		
06:34	ZZZZZZ	1		
06:39	ZZZZZZ	1		
06:44	MA48424-CCV15	1	X	
06:49	MA48424-CCB16	1	X	
06:54	ZZZZZZ	1		
07:00	ZZZZZZ	1		
07:05	ZZZZZZ	1		
07:10	ZZZZZZ	1		
07:16	ZZZZZZ	1		
07:21	ZZZZZZ	1		
07:26	ZZZZZZ	1		
07:31	ZZZZZZ	1		
07:36	MA48424-CCV16	1	X	
07:41	MA48424-CCB17	1	X	
07:46	ZZZZZZ	1		
07:51	ZZZZZZ	1		
08:06	MP20257-S1	5		
08:11	MP20257-S2	5		
08:16	JD4174-1	5		(a)
08:21	MP20257-SD1	25		
08:26	ZZZZZZ	5		
08:31	ZZZZZZ	10		
08:36	ZZZZZZ	20		
08:41	MA48424-CCV17	1	X	
		Element:	Fe	

REPORTED ELEMENTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Element: Dilution	Fe
08:46	MA48424-CCB18	1	X
08:51	ZZZZZZ	5	
08:56	ZZZZZZ	5	
09:01	ZZZZZZ	5	
09:06	ZZZZZZ	2	
09:11	ZZZZZZ	10	
09:16	ZZZZZZ	10	
09:21	ZZZZZZ	5	
09:26	ZZZZZZ	1	
09:34	ZZZZZZ	1	
09:39	MA48424-CCV18	1	X
09:44	MA48424-CCB19	1	X
09:51	ZZZZZZ	1	
09:57	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JD4440.

Element:	Fe

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:23	MA48424-STD1	7656 R	248030 R	42148 R	14131 R
15:28	MA48424-STD2	7230	234310	41611	12694
15:33	ZZZZZZ	7436	240220	41521	13089
15:38	ZZZZZZ	7742	248240	42288	14250
15:43	MA48424-ICV1	7487	244080	41751	13187
15:48	MA48424-ICB1	7674	251850	42232	14141
15:54	MA48424-ICCV1	7496	242940	41735	13189
16:15	MA48424-CCB1	7841	252710	41925	14412
16:21	MA48424-CRID1	7731	251540	41993	14219
16:26	MA48424-CRI1	No results reported for the elements associated with this internal standard.			
16:31	MA48424-ICSA1	6960	222640	41061	11943
16:36	MA48424-ICSAB1	6978	222840	41282	11980
16:42	MA48424-HSTD1	7576	247420	42587	13991
16:47	MA48424-HSTD2	6982	223530	40631	11941
16:53	ZZZZZZ	7687	248570	42657	14297
16:58	ZZZZZZ	7552	249230	42071	14153
17:03	MA48424-CRI2	No results reported for the elements associated with this internal standard.			
17:08	ZZZZZZ	7781	248170	42769	14325
17:13	MA48424-CCV1	7453	237350	41942	13119
17:18	MA48424-CCB2	7770	253120	42683	14304
17:24	MA48424-CRI3	7704	249290	42302	14040
17:29	MP20283-MB1	7776	253360	43040	14321
17:34	MP20283-B1	7751	251190	42792	14067
17:39	MP20283-S1	7219	234460	41597	12732
17:44	MP20283-S2	7228	234940	41641	12746
17:49	JD4263-1A	7187	232730	41565	12752
17:54	MP20283-SD1	7625	243760	42324	13790
17:59	ZZZZZZ	7133	231990	41424	12466
18:04	ZZZZZZ	7027	230510	41032	12329
18:09	ZZZZZZ	7112	229960	41186	12448
18:14	MA48424-CCV2	7495	240840	41711	13172
18:19	MA48424-CCB3	7730	249990	42579	14233
18:24	ZZZZZZ	7169	231260	41445	12625

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:29	MP20282-MB1	7484	241870	41962	13094
18:34	MP20282-B1	7536	240750	41887	13064
18:39	MP20282-S1	7145	231640	41631	12294
18:44	MP20282-S2	7142	230730	41338	12312
18:49	JD4436-10A	7223	232180	41680	12554
18:55	MP20282-SD1	7590	245370	42412	13555
19:00	ZZZZZZ	7350	237510	41701	12706
19:05	ZZZZZZ	7453	240000	41845	12916
19:10	MA48424-CCV3	7553	241650	41927	13270
19:15	MA48424-CCB4	7797	249620	42295	14332
19:20	ZZZZZZ	7466	236540	41985	12984
19:25	ZZZZZZ	7459	237520	41976	12938
19:30	ZZZZZZ	7452	238830	41567	12910
19:35	ZZZZZZ	7429	237730	41667	12916
19:40	ZZZZZZ	7820	251250	42891	14366
19:45	ZZZZZZ	7632	245980	42247	13535
19:50	MP20236-PS1	7689	246360	43027	13408
19:55	ZZZZZZ	7810	250380	43207	14135
20:00	ZZZZZZ	7781	253560	42683	14197
20:05	MA48424-CCV4	7598	245100	41734	13327
20:10	MA48424-CCB5	7821	251780	42212	14356
20:15	ZZZZZZ	7769	250730	42775	13648
20:20	ZZZZZZ	7813	249420	43365	13718
20:25	ZZZZZZ	7939	249880	43537	13984
20:30	ZZZZZZ	8025	251610	43811	14001
20:35	ZZZZZZ	7830	250410	43275	13872
20:40	MP20241-B1	7721	249980	42729	13657
20:45	MP20241-MB1	7882	253420	43140	14461
20:51	MP20241-S1	7425	237030	41829	12803
20:56	MP20241-S2	7384	236330	42108	12716
21:01	MA48424-CCV5	7613	241440	42086	13346
21:06	MA48424-CCB6	7859	252590	42636	14421
21:11	JD4583-1	7511	239400	41770	13014

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:16	MP20241-SD1	7737	248090	42252	13825
21:21	ZZZZZZ	7300	231710	41569	12503
21:26	ZZZZZZ	7612	243290	42283	13426
21:31	ZZZZZZ	7205	227300	41443	12306
21:36	ZZZZZZ	7529	240310	42139	12888
21:41	ZZZZZZ	7109	224520	40655	11955
21:46	ZZZZZZ	7643	246780	41927	13261
21:51	ZZZZZZ	7858	251540	42543	14407
21:56	MA48424-CCV6	7607	242900	41760	13343
22:01	MA48424-CCB7	7838	254390	42518	14381
22:06	ZZZZZZ	7861	255140	42306	14381
22:11	ZZZZZZ	7898	257050	42603	14498
22:16	ZZZZZZ	7842	252760	42400	14359
22:22	ZZZZZZ	7845	253700	42454	14414
22:27	ZZZZZZ	8035	241420	44412	13344
22:32	ZZZZZZ	7293	235680	41343	12823
22:37	ZZZZZZ	7874	255740	42317	14423
22:42	ZZZZZZ	7913	253340	42373	14463
22:47	ZZZZZZ	7922	256100	42342	14565
22:52	ZZZZZZ	7969	255780	42343	14566
22:57	ZZZZZZ	7271	233220	40975	12681
23:02	ZZZZZZ	7919	253910	42711	14489
23:07	MA48424-CCV7	7640	243470	41583	13386
23:12	MA48424-CCB8	7896	253730	41965	14481
23:17	ZZZZZZ	7769	251710	42260	14079
23:22	ZZZZZZ	7709	250210	42280	13883
23:27	ZZZZZZ	7594	238980	41850	13201
23:32	ZZZZZZ	7542	238210	41710	13022
23:37	ZZZZZZ	7874	252890	42721	14234
23:42	ZZZZZZ	7881	253600	42633	14311
23:47	ZZZZZZ	7643	243900	41802	13192
23:52	ZZZZZZ	7975	258820	42383	14606
23:57	MP20258-MB1	7872	254890	42529	14435

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:02	MP20258-B1	7707	247120	42190	13655
00:07	MA48424-CCV8	7636	243420	41148	13389
00:12	MA48424-CCB9	8003	252660	42315	14650
00:17	MP20258-S1	7257	230160	41824	12052
00:22	MP20258-S2	7301	231640	41780	12113
00:27	JD4270-26	7355	233080	41475	12133
00:33	MP20258-SD1	7676	244540	41927	13331
00:38	ZZZZZZ	7576	239750	42588	12857
00:43	ZZZZZZ	7800	250860	43216	13626
00:48	ZZZZZZ	7571	240890	42484	12779
00:53	ZZZZZZ	7438	235410	41957	12311
00:58	ZZZZZZ	7338	233480	41060	12276
01:03	ZZZZZZ	7041	227760	41185	11520
01:09	MA48424-CCV9	7610	242640	41351	13336
01:14	MA48424-CCB10	7883	252000	41675	14445
01:19	ZZZZZZ	7402	236040	41671	12348
01:24	ZZZZZZ	7488	236190	42938	11775
01:29	ZZZZZZ	7653	244520	42351	12735
01:34	ZZZZZZ	6870	221040	39828	11308
01:40	ZZZZZZ	8211	256280	45637	12407
01:45	ZZZZZZ	7456	237230	41968	12580
01:50	ZZZZZZ	7306	231430	41351	12180
01:55	ZZZZZZ	7735	245080	42030	13376
02:00	ZZZZZZ	7228	232460	41117	12096
02:05	MA48424-CCV10	7657	243440	41226	13401
02:10	MA48424-CCB11	7925	251830	41660	14506
02:15	ZZZZZZ	7757	246360	42910	13266
02:21	ZZZZZZ	7680	244640	41761	14484
02:26	ZZZZZZ	7783	241880	42541	13046
02:31	ZZZZZZ	7739	244490	42270	13156
02:36	MP20259-MB1	8011	257290	42501	14651
02:41	MP20259-B1	7821	251440	42455	13812
02:46	MP20259-S1	7716	248220	42039	13450

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
02:51	MP20259-S2	7766	246860	42012	13525
02:56	JD4572-3	7830	249810	41898	13981
03:01	MA48424-CCV11	7676	244090	41249	13429
03:06	MA48424-CCB12	8003	254800	42261	14620
03:11	MP20259-SD1	7858	251060	41956	14306
03:16	ZZZZZZ	8010	258210	42336	14656
03:21	ZZZZZZ	8072	264680	42499	14748
03:26	ZZZZZZ	7975	261590	42253	14580
03:31	JD4440-5	8045	257570	42675	14066
03:36	ZZZZZZ	8156	255770	44348	13244
03:41	ZZZZZZ	7831	248700	41665	13763
03:46	MA48424-CCV12	7747	244090	41372	13537
03:51	MA48424-CCB13	8016	256250	42149	14648
03:56	ZZZZZZ	7937	251020	42291	14049
04:01	ZZZZZZ	7895	256190	42147	14300
04:06	ZZZZZZ	7988	257430	41841	14484
04:11	ZZZZZZ	7851	250620	41734	14078
04:16	ZZZZZZ	8017	255330	42590	14507
04:21	ZZZZZZ	7948	252700	42186	14386
04:26	ZZZZZZ	7948	256140	42348	14473
04:31	ZZZZZZ	8010	257010	42313	14604
04:36	ZZZZZZ	8065	258720	42502	14577
04:41	ZZZZZZ	7606	244480	41440	13307
04:46	MA48424-CCV13	7808	247350	41942	13617
04:51	MA48424-CCB14	7991	256300	42063	14605
04:56	ZZZZZZ	8501	261510	47676	12120
05:01	ZZZZZZ	7681	245600	41740	13540
05:06	MP20257-MB1	7987	257590	42409	14611
05:11	MP20257-B1	7770	248830	41485	13744
05:16	MP20257-S1	No results reported for the elements associated with this internal standard.			
05:22	MP20257-S2	No results reported for the elements associated with this internal standard.			
05:27	JD4174-1	No results reported for the elements associated with this internal standard.			
05:33	MP20257-SD1	No results reported for the elements associated with this internal standard.			

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
05:38	ZZZZZZ	7945	251790	42713	14061
05:42	ZZZZZZ	7966	250570	42554	14030
05:47	MA48424-CCV14	7692	243500	40761	13449
05:52	MA48424-CCB15	8001	254950	42011	14624
05:57	ZZZZZZ	7839	249190	42516	13706
06:03	ZZZZZZ	7926	251070	42285	14048
06:07	ZZZZZZ	8077	254220	43991	13719
06:13	ZZZZZZ	7369	243330	42122	13282
06:18	ZZZZZZ	6337	229440	40685	12729
06:23	ZZZZZZ	5965	220680	40255	12441
06:29	ZZZZZZ	7971	251430	42817	14025
06:34	ZZZZZZ	7339	243360	42098	13430
06:39	ZZZZZZ	8059	251110	43201	14244
06:44	MA48424-CCV15	7740	245020	40889	13519
06:49	MA48424-CCB16	8025	255960	41317	14652
06:54	ZZZZZZ	7436	247370	42517	13411
07:00	ZZZZZZ	7992	253700	43075	14096
07:05	ZZZZZZ	7980	253970	43456	13935
07:10	ZZZZZZ	6915	235060	41491	12953
07:16	ZZZZZZ	8086	255230	42648	14194
07:21	ZZZZZZ	7821	249890	41779	13885
07:26	ZZZZZZ	7400	248060	42044	13870
07:31	ZZZZZZ	7581	251400	42090	14267
07:36	MA48424-CCV16	7775	247400	40826	13571
07:41	MA48424-CCB17	8063	253340	41625	14712
07:46	ZZZZZZ	27767 !	799850 !	110070 !	48755 !
07:51	ZZZZZZ	28068 !	810550 !	108980 !	49246 !
08:06	MP20257-S1	7802	249950	41041	13940
08:11	MP20257-S2	7807	248260	41341	13924
08:16	JD4174-1	7811	249460	41275	14003
08:21	MP20257-SD1	7999	254390	41632	14433
08:26	ZZZZZZ	7817	249200	41240	13959
08:31	ZZZZZZ	7745	248740	41109	13905

INTERNAL STANDARD SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA48424
Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:36	ZZZZZZ	7841	253870	41386	14063
08:41	MA48424-CCV17	7584	242790	40130	13282
08:46	MA48424-CCB18	8124	257000	41815	14811
08:51	ZZZZZZ	7820	248440	41560	14041
08:56	ZZZZZZ	7826	249700	41387	14004
09:01	ZZZZZZ	8061	254540	41661	14379
09:06	ZZZZZZ	7963	251740	41897	13988
09:11	ZZZZZZ	7866	251410	41381	14100
09:16	ZZZZZZ	7984	255840	41509	14447
09:21	ZZZZZZ	7954	252100	41385	14378
09:26	ZZZZZZ	999999 !	242970	42664	999999 !
09:34	ZZZZZZ	8043	256490	41702	14674
09:39	MA48424-CCV18	7807	246370	40890	13597
09:44	MA48424-CCB19	8087	257240	41440	14745
09:51	ZZZZZZ	8377	267400	43067	15398
09:57	ZZZZZZ	8411	256130	42906	15420

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

Time:			15:48		16:15		17:18		18:19	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.1	anr							
Antimony	6.0	2.1	anr							
Arsenic	3.0	1.5	anr							
Barium	200	.3	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.6								
Boron	100	2.7								
Cadmium	3.0	.2	anr							
Calcium	5000	3.8	anr							
Cerium	100									
Chromium	10	.1	anr							
Cobalt	50	.2	anr							
Copper	10	.4	anr							
Iron	100	1.3	1.30	<100	2.40	<100	3.70	<100	0.800	<100
Lead	3.0	.9	anr							
Lithium	50	1.6								
Magnesium	5000	21	anr							
Manganese	15	.1	anr							
Molybdenum	20	.2								
Nickel	10	.2	anr							
Phosphorus	50	2.5								
Potassium	10000	23	anr							
Selenium	10	1.7	anr							
Silicon	200	.9								
Silver	10	.4	anr							
Sodium	10000	8.6	anr							
Strontium	10	.1								
Sulfur	50	4.2								
Thallium	10	2.3	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.1								
Vanadium	50	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

Time:			15:48		16:15		17:18		18:19	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.2	anr							
Zirconium	10	.1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

Time:			19:15		20:10		21:06		22:01	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.1	anr							
Antimony	6.0	2.1	anr							
Arsenic	3.0	1.5	anr							
Barium	200	.3	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.6								
Boron	100	2.7								
Cadmium	3.0	.2	anr							
Calcium	5000	3.8	anr							
Cerium	100									
Chromium	10	.1	anr							
Cobalt	50	.2	anr							
Copper	10	.4	anr							
Iron	100	1.3	2.90	<100	3.80	<100	4.50	<100	4.70	<100
Lead	3.0	.9	anr							
Lithium	50	1.6								
Magnesium	5000	21	anr							
Manganese	15	.1	anr							
Molybdenum	20	.2								
Nickel	10	.2	anr							
Phosphorus	50	2.5								
Potassium	10000	23	anr							
Selenium	10	1.7	anr							
Silicon	200	.9								
Silver	10	.4	anr							
Sodium	10000	8.6	anr							
Strontium	10	.1								
Sulfur	50	4.2								
Thallium	10	2.3	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.1								
Vanadium	50	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

Time:			19:15		20:10		21:06		22:01	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.2	anr							
Zirconium	10	.1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

Time:			23:12		00:12		01:14		02:10	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.1	anr							
Antimony	6.0	2.1	anr							
Arsenic	3.0	1.5	anr							
Barium	200	.3	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.6								
Boron	100	2.7								
Cadmium	3.0	.2	anr							
Calcium	5000	3.8	anr							
Cerium	100									
Chromium	10	.1	anr							
Cobalt	50	.2	anr							
Copper	10	.4	anr							
Iron	100	1.3	5.20	<100	3.50	<100	3.50	<100	6.50	<100
Lead	3.0	.9	anr							
Lithium	50	1.6								
Magnesium	5000	21	anr							
Manganese	15	.1	anr							
Molybdenum	20	.2								
Nickel	10	.2	anr							
Phosphorus	50	2.5								
Potassium	10000	23	anr							
Selenium	10	1.7	anr							
Silicon	200	.9								
Silver	10	.4	anr							
Sodium	10000	8.6	anr							
Strontium	10	.1								
Sulfur	50	4.2								
Thallium	10	2.3	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.1								
Vanadium	50	.3	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

Time: / Sample ID:			23:12 CCB8		00:12 CCB9		01:14 CCB10		02:10 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.2	anr							
Zirconium	10	.1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

Time:			03:06		03:51	
Sample ID:			CCB12		CCB13	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	8.1	anr			
Antimony	6.0	2.1	anr			
Arsenic	3.0	1.5	anr			
Barium	200	.3	anr			
Beryllium	1.0	.1	anr			
Bismuth	20	1.6				
Boron	100	2.7				
Cadmium	3.0	.2	anr			
Calcium	5000	3.8	anr			
Cerium	100					
Chromium	10	.1	anr			
Cobalt	50	.2	anr			
Copper	10	.4	anr			
Iron	100	1.3	3.90	<100	3.80	<100
Lead	3.0	.9	anr			
Lithium	50	1.6				
Magnesium	5000	21	anr			
Manganese	15	.1	anr			
Molybdenum	20	.2				
Nickel	10	.2	anr			
Phosphorus	50	2.5				
Potassium	10000	23	anr			
Selenium	10	1.7	anr			
Silicon	200	.9				
Silver	10	.4	anr			
Sodium	10000	8.6	anr			
Strontium	10	.1				
Sulfur	50	4.2				
Thallium	10	2.3	anr			
Tin	10	1.1				
Titanium	10	.3				
Tungsten	50	1.1				
Vanadium	50	.3	anr			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA48424 Units: ug/l

			Time:		03:06		03:51	
			Sample ID:		CCB12		CCB13	
Metal	RL	IDL			raw	final	raw	final
Zinc	20	.2			anr			
Zirconium	10	.1						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA48424 Units: ug/l

Time:		15:54	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Bismuth			
Boron			
Cadmium	anr		
Calcium	anr		
Cerium			
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	40000	41100	102.8
Lead	anr		
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon			
Silver	anr		
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA48424 Units: ug/l

Time:		15:54	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zinc	anr		
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		15:43			17:13			18:14	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40300	100.8	40000	40000	100.0	40000	40100	100.3
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		15:43			17:13			18:14	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		19:10			20:05			21:01	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40200	100.5	40000	41100	102.8	40000	40200	100.5
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		19:10			20:05			21:01	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		21:56			23:07			00:07	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40600	101.5	40000	40600	101.5	40000	40800	102.0
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		21:56			23:07			00:07	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		01:09			02:05			03:01	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Cerium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40900	102.3	40000	41400	103.5	40000	41000	102.5
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		01:09			02:05			03:01	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		03:46	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Bismuth			
Boron			
Cadmium	anr		
Calcium	anr		
Cerium			
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	40000	41100	102.8
Lead	anr		
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon			
Silver	anr		
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA48424 Units: ug/l

Time:		03:46	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Zinc	anr		
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA48424 Units: ug/l

Time:		16:42			16:47	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium						
Cerium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron				200000	191000	95.5
Lead	anr					
Lithium						
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA48424 Units: ug/l

Time:		16:42			16:47	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zinc	anr					
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA48424 Units: ug/l

Time:				16:21		17:24	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0				
Arsenic	8.0	20	3.0	anr			
Barium	200		4.0	anr			
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	anr			
Calcium	5000	2000	1000	anr			
Cerium							
Chromium	10		2.0				
Cobalt	50		3.0	anr			
Copper	10		2.0				
Iron	100	500				104	104.0
Lead	3.0	20	2.5				
Lithium	50						
Magnesium	5000	2000	100	anr			
Manganese	15		3.0	anr			
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	anr			
Silicon	200						
Silver	5.0		2.0				
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0				
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA48424 Units: ug/l

Time:				16:21		17:24	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zinc	20		10	anr			
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA48424 Units: ug/l

Time:			16:31		16:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	483000	96.6	487000	97.4
Antimony		1000	-2.60		1000	100.0
Arsenic		1000	-2.50		1030	103.0
Barium		500	0.200		499	99.8
Beryllium		500	-0.200		500	100.0
Bismuth		500	5.60		499	99.8
Boron		500	1.40		467	93.4
Cadmium		1000	0.700		1010	101.0
Calcium	400000	400000	370000	92.5	367000	91.8
Cerium			48.0		45.9	
Chromium		500	2.70		484	96.8
Cobalt		500	1.80		476	95.2
Copper		500	2.60		506	101.2
Iron	200000	200000	181000	90.5	179000	89.5
Lead		1000	-0.200		947	94.7
Lithium		500	-1.10		527	105.4
Magnesium	500000	500000	495000	99.0	489000	97.8
Manganese		500	-1.70		502	100.4
Molybdenum		500	-0.300		453	90.6
Nickel		1000	-1.80		956	95.6
Phosphorus		500	13.5		470	94.0
Potassium			-57.8		-16.6	
Selenium		1000	1.60		1030	103.0
Silicon		500	-25.2		473	94.6
Silver		1000	-2.20		1020	102.0
Sodium			72.5		93.3	
Strontium		500	-0.500		502	100.4
Sulfur		500	-8.90		486	97.2
Thallium		1000	0.200		962	96.2
Tin		500	1.10		447	89.4
Titanium		500	-0.400		484	96.8
Tungsten		500	7.40		457	91.4
Vanadium		500	7.20		494	98.8

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: SD031720M2.ICP Date Analyzed: 03/17/20 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA48424 Units: ug/l

Time:			16:31		16:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Zinc		1000	-1.40		941	94.1
Zirconium		500	-4.20		511	102.2

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	16	46		
Antimony	6.0	2.5	4.7		
Arsenic	3.0	2	2.8		
Barium	200	.4	13		
Beryllium	1.0	.1	.5		
Bismuth	20	3.6	4		
Boron	100	1.9	63		
Cadmium	3.0	.4	1		
Calcium	5000	5.6	99		
Cerium	100				
Chromium	10	.5	2		
Cobalt	50	.5	2.6		
Copper	10	1	5.9		
Iron	100	11	32	8.2	<100
Lead	3.0	1.2	1.8		
Lithium	50	2.3	7.3		
Magnesium	5000	65	140		
Manganese	15	.2	1.4		
Molybdenum	20	.4	3.6		
Nickel	10	.3	1.7		
Phosphorus	50	4.1	18		
Potassium	10000	55	200		
Selenium	10	3.5	4.9		
Silicon	200	1.6	100		
Silver	10	1.1	1.9		
Sodium	10000	11	570		
Strontium	10	.1	1		
Sulfur	50	4.4	45		
Thallium	10	2.5	1.8		
Tin	10	1	3.7		
Titanium	10	.4	2.5		
Tungsten	50	2.8	40		
Vanadium	50	.6	1.8		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	RL	IDL	MDL	MB raw	final
Zinc	20	.1	6.9		
Zirconium	10	.4	4.1		

Associated samples MP20209: JD4440-1, JD4440-2, JD4440-3, JD4440-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	JD4404-5 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Bismuth					
Boron					
Cadmium					
Calcium					
Cerium					
Chromium					
Cobalt					
Copper					
Iron	13200	38800	25000	102.4	75-125
Lead					
Lithium					
Magnesium					
Manganese	anr				
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	JD4404-5 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zinc				
Zirconium				

Associated samples MP20209: JD4440-1, JD4440-2, JD4440-3, JD4440-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	JD4404-5 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Cerium						
Chromium						
Cobalt						
Copper						
Iron	13200	40700	25000	110.0	4.8	20
Lead						
Lithium						
Magnesium						
Manganese	anr					
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	JD4404-5 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zinc						
Zirconium						

Associated samples MP20209: JD4440-1, JD4440-2, JD4440-3, JD4440-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Cerium				
Chromium				
Cobalt				
Copper				
Iron	26300	25000	105.2	80-120
Lead				
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zinc				
Zirconium				

Associated samples MP20209: JD4440-1, JD4440-2, JD4440-3, JD4440-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	JD4404-5 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Cerium				
Chromium				
Cobalt				
Copper				
Iron	13200	13300	0.3	0-10
Lead				
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20209
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/12/20

Metal	JD4404-5 Original SDL 1:5	%DIF	QC Limits
Zinc			
Zirconium			

Associated samples MP20209: JD4440-1, JD4440-2, JD4440-3, JD4440-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.1	46		
Antimony	6.0	2.1	4.7		
Arsenic	3.0	1.5	2.8		
Barium	200	.3	13		
Beryllium	1.0	.1	.5		
Bismuth	20	1.6	4		
Boron	100	2.7	63		
Cadmium	3.0	.2	1		
Calcium	5000	3.8	99		
Cerium	100				
Chromium	10	.1	2		
Cobalt	50	.2	2.6		
Copper	10	.4	5.9		
Iron	100	1.3	32	2.5	<100
Lead	3.0	.9	1.8		
Lithium	50	1.6	7.3		
Magnesium	5000	21	140		
Manganese	15	.1	1.4		
Molybdenum	20	.2	3.6		
Nickel	10	.2	1.7		
Phosphorus	50	2.5	18		
Potassium	10000	23	200		
Selenium	10	1.7	4.9		
Silicon	200	.9	100		
Silver	10	.4	1.9		
Sodium	10000	8.6	570		
Strontium	10	.1	1		
Sulfur	50	4.2	45		
Thallium	10	2.3	1.8		
Tin	10	1.1	3.7		
Titanium	10	.3	2.5		
Tungsten	50	1.1	40		
Vanadium	50	.3	1.8		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	RL	IDL	MDL	MB raw	final
Zinc	20	.2	6.9		
Zirconium	10	.1	4.1		

Associated samples MP20259: JD4440-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	JD4572-3 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Bismuth					
Boron					
Cadmium	anr				
Calcium	anr				
Cerium					
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	39.8	25900	25000	103.4	75-125
Lead	anr				
Lithium					
Magnesium	anr				
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	anr				
Selenium	anr				
Silicon					
Silver	anr				
Sodium	anr				
Strontium					
Sulfur					
Thallium	anr				
Tin					
Titanium					
Tungsten					
Vanadium	anr				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	JD4572-3 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zinc	anr			
Zirconium				

Associated samples MP20259: JD4440-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	JD4572-3 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium	anr					
Cerium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	39.8	25700	25000	102.6	0.8	20
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	anr					
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	JD4572-3 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zinc	anr				
Zirconium					

Associated samples MP20259: JD4440-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron				
Cadmium	anr			
Calcium	anr			
Cerium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	25600	25000	102.4	80-120
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zinc	anr			
Zirconium				

Associated samples MP20259: JD4440-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	JD4572-3 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron				
Cadmium	anr			
Calcium	anr			
Cerium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	39.8	50.6	27.1 (a)	0-10
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

QC Batch ID: MP20259
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/16/20

Metal	JD4572-3 Original SDL 1:5	%DIF	QC Limits
Zinc	anr		
Zirconium			

Associated samples MP20259: JD4440-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Instrument Detection Limits

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Instrument ID: SSTRACE4 **Effective Date:** 01/10/20

Analyte	IDL ug/l
Aluminum	8.1
Antimony	2.1
Arsenic	1.5
Barium	.3
Beryllium	.1
Bismuth	1.6
Boron	2.7
Cadmium	.2
Calcium	3.8
Chromium	.1
Cobalt	.2
Copper	.4
Iron	1.3
Lead	.9
Lithium	1.6
Magnesium	20.8
Manganese	.1
Molybdenum	.2
Nickel	.2
Phosphorus	2.5
Potassium	23
Selenium	1.7
Silicon	.9
Silver	.4
Sodium	8.6
Sulfur	4.2
Strontium	.1
Thallium	2.3
Tin	1.1
Titanium	.3
Tungsten	1.1
Vanadium	.3
Zinc	.2
Zirconium	.1

The above applies to the following instrument runs:
MA48424

Instrument Detection Limits

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Instrument ID: SSTRACE5 **Effective Date:** 01/10/20

Analyte	IDL ug/l
Aluminum	15.9
Antimony	2.5
Arsenic	2
Barium	.4
Beryllium	.1
Bismuth	3.6
Boron	1.9
Cadmium	.4
Calcium	5.6
Chromium	.5
Cobalt	.5
Copper	1
Iron	11.1
Lead	1.2
Lithium	2.3
Magnesium	64.9
Manganese	.2
Molybdenum	.4
Nickel	.3
Phosphorus	4.1
Potassium	55.1
Selenium	3.5
Silicon	1.6
Silver	1.1
Sodium	11.1
Sulfur	4.4
Strontium	.1
Thallium	2.5
Tin	1
Titanium	.4
Tungsten	2.8
Vanadium	.6
Zinc	.1
Zirconium	.4

The above applies to the following instrument runs:
MA48411

Instrument Linear Ranges

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Instrument ID: SSTRACE4 **Effective Date:** 08/22/19

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Cerium	8000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA48424

Instrument Linear Ranges

Job Number: JD4440
Account: GESNYP Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Instrument ID: SSTRACE5 **Effective Date:** 08/22/19

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Cerium	8000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA48411

Metals Analysis

Raw Data

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/16/2020 12:29:22 Type: Cal
Method: SGS 070219(v298) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0013**	**-.0001**	**.0001**	**-.0003**	**.0000**	**.0014**	**.0000**	**-.0001**	**.0000**
Stddev	.0002	.0000	.0001	.0000	.0000	.0001	.0000	.0001	.0000
%RSD	18.56	36.55	57.57	12.28	494.7	6.665	172.0	92.72	24.82
#1	.0012	-.0002	.0001	-.0003	-.0000	.0013	.0000	-.0001	.0000
#2	.0016	-.0001	.0002	-.0003	.0000	.0013	.0000	.0000	.0000
#3	.0012	-.0001	.0001	-.0003	.0000	.0015	-.0000	-.0002	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0004**	**.0000**	**.0003**	**-.0004**	**.0006**	**.0002**	**-.0020**	**.0052**
Stddev	.0000	.0002	.0000	.0000	.0001	.0002	.0002	.0001	.0000
%RSD	69.90	38.45	2176.	14.27	19.93	26.70	127.0	5.129	.2589
#1	.0000	.0003	.0000	.0004	-.0004	.0004	.0000	-.0020	.0052
#2	.0000	.0004	.0000	.0003	-.0004	.0006	.0004	-.0019	.0052
#3	.0001	.0006	-.0000	.0003	-.0003	.0007	.0001	-.0021	.0051

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0000**	**.0003**	**-.0011**	**.0001**	**-.0000**	**.0018**	**.0001**	**.0001**
Stddev	.0001	.0001	.0004	.0007	.0001	.0001	.0002	.0001	.0001
%RSD	112.3	522.3	169.4	69.39	97.75	1370.	9.002	74.21	108.0
#1	.0000	-.0001	.0005	-.0015	.0002	.0000	.0016	.0000	.0000
#2	.0000	.0000	.0005	-.0015	.0000	-.0001	.0019	.0001	.0001
#3	.0001	.0001	-.0002	-.0002	.0000	.0000	.0019	.0001	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**.0011**	**-.0001**	**-.0008**	**-.0007**	**-.0035**	**-.0010**	**.0003**
Stddev	.0000	.0000	.0001	.0001	.0001	.0003	.0000	.0000
%RSD	38.83	2.840	44.00	16.72	7.803	7.598	4.744	15.58
#1	-.0000	.0011	-.0001	-.0009	-.0007	-.0036	-.0010	.0004
#2	-.0000	.0010	-.0001	-.0006	-.0007	-.0032	-.0010	.0003
#3	-.0000	.0011	-.0002	-.0008	-.0008	-.0036	-.0009	.0003

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/16/2020 12:29:22 Type: Cal
Method: SGS 070219(v298) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115160.**	**14971.**	**4407.3**	**10485.**
Stddev	463.	112.	5.8	6.
%RSD	.40233	.75027	.13081	.05250
#1	114840.	14848.	4413.8	10491.
#2	115690.	15000.	4403.2	10483.
#3	114950.	15067.	4404.8	10480.

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/16/2020 12:34:28 Type: Cal
Method: SGS 070219(v298) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.654**	**2.933**	**2.758**	**1.410**	**.0908**	**.4246**	**.3764**	**1.118**	**.0333**
Stddev	.039	.019	.002	.001	.0003	.0011	.0012	.001	.0001
%RSD	.6804	.6586	.0753	.0745	.2996	.2557	.3223	.0926	.4263
#1	5.676	2.943	2.758	1.410	.0911	.4259	.3777	1.119	.0335
#2	5.609	2.911	2.761	1.410	.0905	.4240	.3758	1.118	.0332
#3	5.676	2.945	2.757	1.409	.0907	.4239	.3755	1.117	.0334

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2124**	**3.708**	**.3563**	**.0635**	**.5081**	**.2820**	**.4983**	**2.244**	**2.427**
Stddev	.0008	.003	.0004	.0005	.0007	.0002	.0007	.014	.013
%RSD	.3579	.0894	.1202	.7099	.1364	.0786	.1339	.6153	.5455
#1	.2131	3.710	.3558	.0630	.5088	.2818	.4979	2.252	2.433
#2	.2116	3.709	.3565	.0636	.5081	.2820	.4991	2.228	2.412
#3	.2124	3.704	.3566	.0639	.5074	.2823	.4979	2.252	2.437

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4808**	**.1173**	**1.874**	**5.882**	**.5858**	**2.205**	**1.684**	**.5544**	**9.680**
Stddev	.0024	.0004	.011	.032	.0008	.002	.002	.0007	.061
%RSD	.4904	.3081	.5715	.5465	.1298	.1073	.1030	.1352	.6266
#1	.4820	.1174	1.879	5.905	.5849	2.202	1.682	.5542	9.715
#2	.4781	.1169	1.861	5.845	.5863	2.206	1.686	.5552	9.610
#3	.4824	.1175	1.880	5.896	.5860	2.206	1.684	.5537	9.715

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2352**	**1.223**	**.8123**	**.0937**	**.6412**	**1.854**	**.0431**	**.1078**
Stddev	.0007	.001	.0020	.0003	.0007	.014	.0003	.0003
%RSD	.2942	.1167	.2438	.2707	.1098	.7538	.6873	.2762
#1	.2360	1.224	.8144	.0935	.6410	1.864	.0434	.1080
#2	.2349	1.223	.8104	.0936	.6420	1.838	.0431	.1075
#3	.2347	1.221	.8122	.0940	.6406	1.861	.0429	.1081

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/16/2020 12:34:28 Type: Cal
Method: SGS 070219(v298) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106910.**	**14711.**	**4095.3**	**9050.4**
Stddev	284.	26.	5.3	11.3
%RSD	.26569	.17945	.13059	.12474
#1	106590.	14736.	4096.1	9047.0
#2	107140.	14714.	4089.5	9041.3
#3	107000.	14683.	4100.1	9063.1

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/16/2020 12:39:14 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**2.017**	**2.046**	**2.009**	**2.030**	**1.976**	**2.035**	**2.037**	**.2508**
Stddev	.006	.008	.020	.021	.009	.013	.009	.021	.0011
%RSD	.2833	.4129	.9572	1.040	.4342	.6745	.4367	1.005	.4301
#1	2.010	2.026	2.033	1.994	2.020	1.961	2.025	2.022	.2497
#2	2.004	2.014	2.036	2.000	2.035	1.986	2.042	2.029	.2518
#3	1.998	2.010	2.068	2.033	2.035	1.981	2.037	2.060	.2508
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.019**	**2.058**	**2.016**	**2.106**	**2.049**	**2.023**	**2.022**	**39.28**	**39.87**
Stddev	.010	.020	.021	.035	.019	.022	.021	.10	.08
%RSD	.4824	.9902	1.036	1.682	.9062	1.096	1.040	.2558	.1999
#1	2.009	2.042	2.001	2.072	2.036	2.006	2.009	39.38	39.92
#2	2.028	2.052	2.007	2.104	2.042	2.014	2.011	39.27	39.90
#3	2.021	2.081	2.040	2.143	2.070	2.048	2.046	39.18	39.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.09**	**39.49**	**39.09**	**39.45**	**2.056**	**2.054**	**5.150**	**2.072**	**2.008**
Stddev	.16	.10	.16	.13	.018	.022	.058	.024	.008
%RSD	.3889	.2637	.4068	.3214	.8975	1.093	1.134	1.156	.3923
#1	40.27	39.42	39.23	39.58	2.046	2.039	5.113	2.051	2.016
#2	40.01	39.61	39.13	39.44	2.046	2.044	5.119	2.066	2.007
#3	39.99	39.45	38.92	39.33	2.078	2.080	5.217	2.098	2.000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/16/2020 12:39:14 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.016**	**2.036**	**2.012**	**2.000**	**2.048**	**2.000**	**1.970**	**2.018**
Stddev	.010	.020	.013	.015	.023	.004	.009	.017
%RSD	.4814	.9888	.6275	.7546	1.125	.2195	.4678	.8576
#1	2.005	2.022	1.999	1.996	2.034	2.004	1.974	1.998
#2	2.022	2.027	2.024	1.987	2.035	2.000	1.959	2.030
#3	2.021	2.059	2.014	2.016	2.074	1.996	1.976	2.026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110000.**	**14899.**	**4202.2**	**9386.3**
Stddev	369.	30.	34.4	77.8
%RSD	.33560	.20339	.81793	.82878
#1	110400.	14900.	4226.1	9446.1
#2	109680.	14868.	4217.8	9414.5
#3	109930.	14928.	4162.8	9298.4

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/16/2020 12:44:03 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0002**	**.0002**	**.0002**	**-.0002**	**.0001**	**.0002**	**.0006**	**-.0004**
Stddev	.0002	.0001	.0002	.0003	.0007	.0003	.0000	.0003	.0008
%RSD	124.6	68.07	116.5	153.6	381.3	300.8	21.97	42.01	238.4
#1	-.0000	.0001	.0004	.0000	-.0003	.0000	.0002	.0005	.0003
#2	.0001	.0002	.0002	.0005	.0005	.0004	.0002	.0009	-.0001
#3	.0005	.0003	-.0001	.0000	-.0008	-.0002	.0002	.0005	-.0013
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0004**	**-.0000**	**.0010**	**-.0005**	**.0012**	**.0001**	**.0056**	**-.0007**
Stddev	.0004	.0002	.0003	.0042	.0002	.0013	.0011	.0018	.0041
%RSD	365.2	63.04	1712.	439.0	40.82	114.2	755.3	32.47	611.4
#1	-.0002	.0001	-.0002	.0041	-.0003	.0026	.0011	.0035	-.0037
#2	.0003	.0005	-.0001	.0025	-.0005	.0008	-.0010	.0066	.0039
#3	-.0004	.0005	.0003	-.0038	-.0007	.0001	.0004	.0068	-.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079**	**-.0055**	**.0727**	**.0074**	**.0010**	F **.0032**	**.0013**	**.0005**	**.0001**
Stddev	.0042	.0456	.0107	.0065	.0004	.0004	.0011	.0007	.0001
%RSD	53.24	828.8	14.68	87.91	33.63	12.37	87.13	133.7	100.5
#1	.0075	-.0480	.0815	.0145	.0008	.0036	.0024	.0002	.0001
#2	.0039	-.0111	.0608	.0063	.0014	.0033	.0014	.0000	.0000
#3	.0124	.0426	.0757	.0015	.0009	.0028	.0001	.0013	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit						.0020			
Low Limit						-.0020			

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/16/2020 12:44:03 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0016**	**.0005**	**.0008**	**-.0009**	**-.0002**	**.0077**	**-.0015**
Stddev	.0003	.0012	.0001	.0018	.0009	.0009	.0038	.0020
%RSD	32.63	79.97	23.60	235.9	97.24	536.2	49.92	135.2
#1	.0006	.0016	.0006	.0008	-.0018	.0006	.0065	-.0038
#2	.0010	.0028	.0006	.0026	-.0006	-.0000	.0046	-.0002
#3	.0013	.0003	.0004	-.0011	-.0002	-.0011	.0120	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**116630.**	**15019.**	**4417.8**	**10479.**
Stddev	2808.	16.	15.7	29.
%RSD	2.4080	.10341	.35534	.27820
#1	119800.	15031.	4406.3	10453.
#2	114480.	15025.	4435.7	10511.
#3	115590.	15002.	4411.4	10473.

Zoom In Zoom Out

Sample Name: ICV 1 Acquired: 3/16/2020 12:49:14 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.029**	**2.070**	**2.058**	**1.963**	**2.025**	**1.984**	**2.005**	**2.015**	**.2460**
Stddev	.004	.003	.001	.004	.007	.002	.004	.003	.0006
%RSD	.2130	.1345	.0692	.1765	.3424	.1091	.2083	.1467	.2480
#1	2.034	2.073	2.058	1.966	2.018	1.982	2.003	2.014	.2464
#2	2.029	2.071	2.060	1.964	2.031	1.984	2.010	2.018	.2462
#3	2.025	2.067	2.058	1.959	2.026	1.986	2.003	2.012	.2453
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.043**	**2.026**	**2.017**	**2.058**	**2.049**	**2.063**	**2.005**	**39.56**	**40.28**
Stddev	.004	.003	.006	.013	.003	.005	.004	.08	.09
%RSD	.1914	.1554	.2837	.6315	.1307	.2558	.1907	.1970	.2217
#1	2.040	2.027	2.016	2.047	2.050	2.068	2.001	39.64	40.37
#2	2.047	2.027	2.012	2.055	2.050	2.058	2.008	39.54	40.28
#3	2.042	2.022	2.023	2.073	2.045	2.064	2.005	39.49	40.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.41**	**40.34**	**39.65**	**39.31**	**2.013**	**1.977**	**5.125**	**2.017**	**2.063**
Stddev	.08	.13	.04	.07	.005	.001	.008	.002	.003
%RSD	.1994	.3252	.1098	.1895	.2739	.0473	.1639	.1065	.1534
#1	40.45	40.43	39.70	39.40	2.007	1.977	5.116	2.019	2.066
#2	40.46	40.39	39.62	39.28	2.015	1.977	5.127	2.016	2.062
#3	40.32	40.19	39.63	39.26	2.017	1.978	5.133	2.015	2.060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV 1 Acquired: 3/16/2020 12:49:14 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.989**	F **1.807**	F **1.872**	**1.928**	**1.968**	**2.032**	**1.923**	**1.970**
Stddev	.004	.005	.001	.004	.002	.005	.007	.004
%RSD	.2068	.2915	.0487	.2136	.1201	.2351	.3555	.2234
#1	1.985	1.802	1.871	1.925	1.966	2.038	1.923	1.966
#2	1.993	1.808	1.872	1.928	1.969	2.029	1.929	1.970
#3	1.990	1.812	1.873	1.933	1.971	2.030	1.916	1.975
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.000	2.000					
Range		-5.000%	-5.000%					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109450.**	**14767.**	**4222.0**	**9424.7**
Stddev	275.	29.	2.3	8.9
%RSD	.25150	.19588	.05430	.09473
#1	109520.	14737.	4219.8	9415.9
#2	109150.	14768.	4224.3	9424.6
#3	109690.	14795.	4221.8	9433.7

Zoom In Zoom Out

Sample Name: ICB 7 Acquired: 3/16/2020 12:57:04 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0001**	**-.0001**	**-.0005**	**.0003**	**.0002**	**.0003**	**-.0003**
Stddev	.0002	.0000	.0003	.0003	.0008	.0002	.0002	.0000	.0006
%RSD	90.93	67.61	249.9	215.4	150.5	61.70	115.0	2.572	211.1
#1	.0003	.0000	.0002	-.0003	.0003	.0002	.0001	.0004	-.0001
#2	.0004	.0001	-.0002	.0002	-.0007	.0002	.0001	.0004	.0002
#3	.0000	.0001	.0004	-.0002	-.0013	.0005	.0004	.0003	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**-.0003**	**-.0029**	**-.0006**	**-.0008**	**.0023**	**.0028**	**-.0034**
Stddev	.0002	.0001	.0009	.0012	.0004	.0023	.0021	.0100	.0022
%RSD	103.3	432.5	323.0	40.19	71.17	297.3	88.82	352.4	64.35
#1	-.0000	.0001	-.0005	-.0028	-.0011	.0008	-.0001	.0001	-.0009
#2	-.0001	-.0001	-.0010	-.0042	-.0004	-.0034	.0035	.0139	-.0052
#3	-.0004	-.0000	.0007	-.0019	-.0003	.0003	.0035	-.0055	-.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090**	**-.0126**	**.0233**	**-.0045**	**.0013**	**.0011**	**.0008**	**-.0005**	**.0001**
Stddev	.0105	.0451	.0087	.0054	.0002	.0003	.0013	.0001	.0001
%RSD	116.1	358.5	37.11	120.0	16.57	24.78	167.6	27.49	141.7
#1	.0148	-.0627	.0219	-.0106	.0011	.0012	.0015	-.0004	.0002
#2	.0153	.0246	.0155	-.0019	.0015	.0014	-.0007	-.0006	.0001
#3	-.0031	.0004	.0326	-.0009	.0012	.0008	.0016	-.0004	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICB 7 Acquired: 3/16/2020 12:57:04 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0053**	**.0006**	**.0010**	**-.0010**	**-.0005**	**.0091**	**.0013**
Stddev	.0001	.0004	.0003	.0018	.0014	.0011	.0039	.0016
%RSD	33.49	8.074	47.55	172.3	142.1	221.6	42.66	123.7
#1	.0005	.0048	.0005	-.0007	-.0002	-.0011	.0119	.0016
#2	.0004	.0057	.0003	.0010	-.0002	-.0012	.0047	-.0004
#3	.0003	.0054	.0008	.0029	-.0026	.0008	.0108	.0026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115920.**	**14991.**	**4446.7**	**10538.**
Stddev	566.	89.	33.2	73.
%RSD	.48791	.59090	.74674	.69743
#1	115300.	15066.	4431.8	10499.
#2	116070.	14893.	4423.5	10492.
#3	116400.	15014.	4484.7	10622.

Zoom In Zoom Out

Sample Name: ICCV 1 Acquired: 3/16/2020 13:02:59 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.003**	**2.021**	**2.030**	**1.997**	**2.040**	**1.973**	**2.043**	**2.022**	**.2505**
Stddev	.002	.003	.003	.004	.006	.003	.003	.005	.0005
%RSD	.1014	.1553	.1426	.2049	.2889	.1572	.1402	.2416	.1830
#1	2.002	2.024	2.033	2.002	2.045	1.977	2.043	2.027	.2505
#2	2.003	2.023	2.028	1.993	2.040	1.972	2.046	2.016	.2510
#3	2.000	2.019	2.032	1.999	2.043	1.970	2.045	2.024	.2505
#4	2.005	2.018	2.027	1.996	2.032	1.973	2.040	2.019	.2499
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**2.045**	**2.004**	**2.014**	**2.038**	**2.001**	**2.004**	**39.22**	**39.93**
Stddev	.004	.007	.006	.015	.004	.004	.003	.07	.10
%RSD	.2222	.3291	.3268	.7288	.1876	.1827	.1240	.1764	.2475
#1	2.018	2.054	2.013	2.035	2.042	2.005	2.007	39.29	40.03
#2	2.018	2.039	2.001	2.015	2.034	2.000	2.001	39.28	40.00
#3	2.023	2.045	2.003	2.005	2.039	1.997	2.004	39.16	39.83
#4	2.012	2.042	1.998	2.003	2.035	2.001	2.002	39.17	39.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICCV 1 Acquired: 3/16/2020 13:02:59 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.21**	**39.59**	**39.01**	**39.46**	**2.037**	**2.031**	**5.112**	**2.056**	**2.008**
Stddev	.10	.17	.08	.06	.002	.004	.006	.005	.002
%RSD	.2483	.4227	.2012	.1644	.0976	.2095	.1173	.2371	.0961
#1	40.32	39.68	39.05	39.52	2.037	2.036	5.114	2.062	2.008
#2	40.20	39.75	39.08	39.51	2.039	2.028	5.109	2.051	2.009
#3	40.23	39.55	38.90	39.38	2.037	2.033	5.120	2.056	2.005
#4	40.08	39.37	39.02	39.43	2.034	2.027	5.106	2.053	2.010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**2.024**	**2.010**	**1.982**	**2.038**	**1.993**	**1.937**	**2.011**
Stddev	.004	.002	.004	.006	.004	.005	.005	.005
%RSD	.2072	.1209	.1721	.3015	.2101	.2638	.2800	.2344
#1	2.013	2.027	2.011	1.984	2.039	1.998	1.933	2.018
#2	2.013	2.021	2.013	1.975	2.031	1.993	1.932	2.007
#3	2.020	2.025	2.010	1.989	2.039	1.985	1.938	2.012
#4	2.011	2.024	2.005	1.980	2.041	1.994	1.944	2.008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: ICCV 1 Acquired: 3/16/2020 13:02:59 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109650.**	**14874.**	**4229.7**	**9438.9**
Stddev	279.	112.	3.8	8.2
%RSD	.25466	.75403	.09095	.08737
#1	109860.	14793.	4226.0	9434.1
#2	109400.	14773.	4232.4	9450.2
#3	109430.	14920.	4226.7	9431.6
#4	109930.	15012.	4233.6	9439.6

Zoom In Zoom Out

Sample Name: CCB 7 Acquired: 3/16/2020 13:10:39 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0001**	**-.0001**	**-.0000**	**.0002**	**.0001**	**.0002**	**.0003**
Stddev	.0002	.0001	.0001	.0002	.0012	.0004	.0001	.0003	.0005
%RSD	298.1	44.31	146.9	305.3	4936.	165.2	72.40	179.7	151.0
#1	.0001	.0002	-.0001	-.0002	-.0014	.0002	.0001	-.0002	-.0002
#2	-.0002	.0001	.0002	.0002	.0006	-.0001	.0002	.0003	.0006
#3	-.0001	.0001	.0002	-.0002	.0007	.0006	.0000	.0003	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0004**	**-.0017**	**-.0005**	**.0004**	**.0003**	**.0054**	**-.0054**
Stddev	.0001	.0001	.0011	.0024	.0005	.0032	.0018	.0017	.0024
%RSD	109.3	79.73	284.0	142.1	107.2	774.1	536.3	31.38	44.77
#1	-.0000	.0002	-.0012	.0010	-.0004	-.0028	.0023	.0072	-.0040
#2	.0002	.0000	.0009	-.0037	-.0000	.0036	-.0000	.0040	-.0082
#3	.0002	.0001	-.0008	-.0024	-.0010	.0004	-.0012	.0048	-.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0111**	**-.0198**	**.0127**	**-.0115**	**.0004**	**.0013**	**.0006**	**-.0001**	**.0000**
Stddev	.0051	.0314	.0551	.0086	.0002	.0002	.0007	.0006	.0000
%RSD	46.43	158.0	434.4	74.66	42.92	16.71	119.6	475.6	57.40
#1	.0051	-.0060	-.0495	-.0198	.0005	.0016	.0004	-.0005	.0000
#2	.0139	.0022	.0319	-.0026	.0003	.0012	.0000	-.0004	.0001
#3	.0141	-.0557	.0556	-.0122	.0003	.0011	.0014	.0005	.0000
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: CCB 7 Acquired: 3/16/2020 13:10:39 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0032**	**.0006**	**-.0008**	**-.0002**	**.0006**	**.0094**	**-.0030**
Stddev	.0007	.0009	.0001	.0023	.0013	.0012	.0036	.0027
%RSD	121.2	27.87	16.46	293.6	826.4	194.4	37.92	92.22
#1	.0001	.0023	.0005	-.0033	.0013	.0013	.0096	.0002
#2	.0014	.0040	.0007	.0013	-.0005	.0013	.0058	-.0044
#3	.0003	.0033	.0006	-.0003	-.0012	-.0008	.0129	-.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115860.**	**15124.**	**4438.1**	**10533.**
Stddev	450.	54.	66.8	152.
%RSD	.38860	.35924	1.5053	1.4471
#1	115580.	15186.	4380.4	10398.
#2	115610.	15085.	4511.3	10698.
#3	116380.	15100.	4422.7	10503.

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/16/2020 13:15:10 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2038**	**.0022**	**.0031**	**.0495**	**.0104**	**.0102**	**.0160**	**.0104**	**.0046**
Stddev	.0008	.0001	.0001	.0002	.0005	.0001	.0002	.0005	.0006
%RSD	.3712	4.988	2.201	.4930	4.758	1.067	.9552	5.117	12.94
#1	.2046	.0023	.0031	.0496	.0110	.0103	.0162	.0098	.0047
#2	.2030	.0021	.0030	.0493	.0100	.0102	.0161	.0104	.0040
#3	.2038	.0021	.0031	.0497	.0103	.0101	.0159	.0109	.0052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0514**	**.0213**	**.0083**	**.0109**	**.0029**	**.0105**	**.0069**	**.2174**	**5.284**
Stddev	.0003	.0003	.0006	.0017	.0007	.0016	.0008	.0019	.015
%RSD	.5342	1.308	7.500	15.56	25.20	15.62	12.06	.8777	.2839
#1	.0514	.0210	.0083	.0105	.0030	.0086	.0069	.2158	5.297
#2	.0516	.0215	.0089	.0095	.0021	.0115	.0078	.2195	5.268
#3	.0511	.0214	.0076	.0128	.0035	.0114	.0061	.2168	5.287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1152**	**5.162**	**4.963**	**5.089**	**.1039**	**.0213**	**.2178**	**.0109**	**.0103**
Stddev	.0012	.072	.000	.015	.0006	.0004	.0013	.0005	.0001
%RSD	1.062	1.401	.0075	.2959	.5957	1.897	.5902	4.376	.6678
#1	.1159	5.242	4.963	5.101	.1039	.0217	.2187	.0114	.0103
#2	.1138	5.143	4.963	5.072	.1032	.0214	.2184	.0105	.0103
#3	.1158	5.101	4.962	5.093	.1045	.0209	.2163	.0108	.0104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/16/2020 13:15:10 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0108**	**.0529**	F **.0152**	**.0495**	F **.0247**	**.0588**	F **.0612**	**-.0057**
Stddev	.0002	.0013	.0004	.0055	.0006	.0002	.0047	.0014
%RSD	2.011	2.397	2.702	11.20	2.314	.4066	7.643	24.95
#1	.0105	.0543	.0156	.0506	.0250	.0588	.0583	-.0047
#2	.0110	.0519	.0152	.0544	.0241	.0585	.0666	-.0073
#3	.0108	.0524	.0148	.0435	.0251	.0590	.0587	-.0051
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Fail	None
Value			.0100		.0200		.0500	
Range			20.00%		20.00%		20.00%	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114380.**	**15199.**	**4375.6**	**10241.**
Stddev	329.	67.	5.8	13.
%RSD	.28747	.43964	.13174	.12526
#1	114520.	15128.	4375.6	10248.
#2	114620.	15207.	4369.8	10226.
#3	114010.	15261.	4381.4	10249.

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/16/2020 13:20:19 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0011**	**.0010**	**.0030**	**.0017**	F **.0003**	**.0032**	**.0043**
Stddev	.0002	.0001	.0002	.0002	.0008	.0004	.0000	.0002
%RSD	4.287	9.275	22.29	6.008	47.11	134.7	1.410	4.092
#1	.0041	.0010	.0008	.0032	.0024	-.0001	.0031	.0044
#2	.0040	.0010	.0013	.0030	.0017	.0006	.0032	.0044
#3	.0044	.0012	.0010	.0029	.0009	.0004	.0032	.0041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0007**	**.0018**	**.0107**	F **.0014**	F **.0025**	F **-.0002**	F **.0081**	F **-.0002**
Stddev	.0003	.0002	.0002	.0010	.0005	.0007	.0004	.0014
%RSD	42.18	8.559	2.077	67.92	21.60	369.0	4.694	839.2
#1	-.0009	.0019	.0109	.0024	.0022	-.0009	.0076	.0008
#2	-.0007	.0018	.0106	.0004	.0021	.0006	.0082	.0006
#3	-.0004	.0016	.0105	.0015	.0031	-.0003	.0083	-.0018
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	.0020			.0030	.0020	.0025	.0050	.0030
Range	-30.00%			-20.00%	20.00%	-30.00%	30.00%	-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1051**	**1.056**	**.0053**	F **.0643**	**1.997**	**1.011**	F **.0003**	**.0004**
Stddev	.0136	.004	.0064	.0528	.018	.011	.0012	.0001
%RSD	12.94	.3799	119.4	82.11	.9186	1.090	380.5	21.92
#1	.1148	1.059	.0121	.1104	2.018	.9992	-.0002	.0005
#2	.0896	1.051	.0043	.0067	1.985	1.021	-.0005	.0003
#3	.1110	1.057	-.0005	.0756	1.988	1.014	.0016	.0004
Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
Value				.1000			.0100	
Range				-30.00%			-30.00%	

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/16/2020 13:20:19 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**-.0004**	**-.0000**	**.0012**	F **.0024**	F **.0002**	F **.0009**	F **-.0029**
Stddev	.0002	.0005	.0001	.0006	.0005	.0001	.0019	.0014
%RSD	15.16	133.4	1045.	51.56	21.36	56.22	221.1	46.40
#1	-.0019	.0002	-.0000	.0006	.0025	.0003	.0025	-.0036
#2	-.0014	-.0006	.0000	.0012	.0028	.0001	-.0012	-.0038
#3	-.0016	-.0007	-.0001	.0019	.0018	.0002	.0013	-.0014
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	F **-.0012**	F **.0089**	**-.0024**
Stddev	.0003	.0046	.0020
%RSD	21.95	51.24	84.07
#1	-.0013	.0071	-.0046
#2	-.0009	.0055	-.0016
#3	-.0014	.0141	-.0009
Check ?	Chk Fail	Chk Fail	None
Value	.0040	.0040	
Range	-30.00%	30.00%	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115150.**	**15071.**	**4399.1**	**10387.**
Stddev	380.	43.	40.7	90.
%RSD	.32977	.28305	.92561	.86430
#1	114720.	15090.	4408.9	10403.
#2	115310.	15101.	4354.4	10291.
#3	115420.	15022.	4434.1	10468.

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 3/16/2020 13:25:29 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2043**	**.0022**	**.0032**	**.0498**	**.0100**	**.0103**	**.0161**	**.0102**	**.0052**
Stddev	.0023	.0001	.0003	.0002	.0004	.0004	.0001	.0002	.0001
%RSD	1.110	4.579	9.127	.4841	3.490	3.802	.7198	1.652	1.602
#1	.2056	.0022	.0035	.0501	.0104	.0103	.0162	.0101	.0051
#2	.2056	.0023	.0031	.0496	.0100	.0099	.0161	.0102	.0052
#3	.2017	.0021	.0029	.0497	.0097	.0107	.0160	.0104	.0052

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0516**	**.0212**	**.0076**	**.0122**	**.0019**	**.0102**	**.0054**	**.2111**	**5.286**
Stddev	.0001	.0001	.0008	.0006	.0004	.0017	.0006	.0116	.054
%RSD	.1897	.3280	10.40	4.579	21.48	16.14	10.68	5.517	1.017
#1	.0517	.0211	.0082	.0123	.0018	.0120	.0059	.2214	5.311
#2	.0515	.0213	.0067	.0116	.0016	.0099	.0048	.2133	5.322
#3	.0516	.0212	.0080	.0126	.0024	.0088	.0055	.1985	5.224

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1042**	**5.085**	**4.969**	**5.101**	**.1024**	**.0208**	**.2143**	**.0108**	**.0102**
Stddev	.0062	.017	.054	.064	.0010	.0003	.0019	.0005	.0001
%RSD	5.967	.3323	1.088	1.256	.9813	1.644	.8708	4.917	.7653
#1	.1002	5.104	4.988	5.150	.1034	.0211	.2153	.0111	.0102
#2	.1113	5.077	5.012	5.125	.1014	.0204	.2121	.0110	.0103
#3	.1010	5.073	4.909	5.029	.1025	.0208	.2154	.0101	.0101

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0105**	**.0514**	**.0123**	**.0506**	**.0242**	**.0567**	**.0573**	**-.0004**
Stddev	.0002	.0006	.0002	.0009	.0017	.0029	.0062	.0021
%RSD	1.815	1.216	1.877	1.716	7.164	5.039	10.83	508.6
#1	.0103	.0521	.0126	.0496	.0262	.0534	.0608	-.0015
#2	.0106	.0509	.0122	.0512	.0232	.0586	.0502	-.0017
#3	.0107	.0513	.0122	.0510	.0232	.0580	.0610	.0020

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 3/16/2020 13:25:29 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113610.**	**15205.**	**4399.7**	**10275.**
Stddev	86.	114.	29.5	58.
%RSD	.07608	.75173	.67001	.56890
#1	113530.	15159.	4370.8	10218.
#2	113700.	15122.	4429.7	10335.
#3	113590.	15336.	4398.5	10273.

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/16/2020 13:30:37 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0011**	**.0011**	**.0029**	**.0015**	F **.0004**	**.0033**	**.0041**
Stddev	.0000	.0001	.0000	.0004	.0007	.0003	.0001	.0001
%RSD	1.012	7.341	2.604	14.26	45.01	66.19	2.530	2.789
#1	.0039	.0010	.0010	.0025	.0014	.0007	.0033	.0040
#2	.0040	.0012	.0011	.0030	.0022	.0004	.0033	.0040
#3	.0040	.0011	.0011	.0033	.0009	.0001	.0034	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-30.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0003**	**.0018**	**.0105**	**.0029**	F **.0014**	F **-.0004**	F **.0067**	F **.0005**
Stddev	.0006	.0007	.0003	.0006	.0020	.0006	.0025	.0007
%RSD	221.5	40.18	2.641	21.69	141.4	146.9	37.37	130.5
#1	-.0004	.0027	.0102	.0022	.0036	-.0006	.0067	.0007
#2	.0004	.0017	.0106	.0031	-.0003	-.0010	.0042	-.0002
#3	-.0008	.0012	.0108	.0034	.0009	.0003	.0093	.0012
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	.0020				.0020	.0025	.0050	.0030
Range	-30.00%				-20.00%	-30.00%	30.00%	-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1080**	**1.056**	**.0049**	F **.0458**	**1.956**	**1.004**	F **-.0001**	**.0002**
Stddev	.0079	.004	.0130	.0207	.024	.003	.0003	.0001
%RSD	7.349	.3577	268.1	45.23	1.243	.3049	236.5	59.05
#1	.1076	1.059	-.0101	.0238	1.947	1.000	-.0002	.0003
#2	.1161	1.057	.0136	.0649	1.984	1.006	.0002	.0001
#3	.1003	1.052	.0111	.0486	1.938	1.004	-.0004	.0002
Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
Value				.1000			.0100	
Range				-30.00%			-30.00%	

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/16/2020 13:30:37 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0004**	**.0000**	**.0006**	F **.0012**	F **.0000**	F **-.0015**	F **-.0005**
Stddev	.0009	.0005	.0000	.0002	.0001	.0001	.0023	.0012
%RSD	108.0	127.3	327.3	35.95	9.840	988.7	154.2	264.3
#1	-.0019	.0002	-.0000	.0007	.0010	-.0001	.0004	.0004
#2	-.0005	.0000	.0000	.0003	.0012	.0001	-.0008	.0001
#3	-.0002	.0010	.0001	.0007	.0012	.0000	-.0041	-.0018
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0040	.0040	.0040	.0040
Range					-30.00%	-30.00%	-30.00%	-30.00%

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	F **.0001**	F **.0105**	**.0030**
Stddev	.0007	.0033	.0017
%RSD	501.1	31.57	57.23
#1	.0002	.0138	.0043
#2	.0008	.0105	.0036
#3	-.0006	.0072	.0011
Check ?	Chk Fail	Chk Fail	None
Value	.0040	.0040	
Range	-30.00%	30.00%	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115120.**	**15074.**	**4397.9**	**10381.**
Stddev	471.	51.	30.1	57.
%RSD	.40907	.34020	.68422	.54859
#1	114580.	15015.	4411.4	10403.
#2	115370.	15103.	4418.8	10424.
#3	115430.	15104.	4363.4	10317.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/16/2020 13:35:47 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0002**	**.0003**	**-.0003**	**.0015**	**-.0000**	**-.0009**	**-.0004**	**.0038**
Stddev	.0003	.0001	.0001	.0001	.0005	.0004	.0002	.0004	.0002
%RSD	28.63	67.52	28.14	45.33	34.22	36350.	19.28	89.29	6.274
#1	-.0011	.0004	.0003	-.0002	.0021	.0003	-.0007	-.0008	.0041
#2	-.0006	.0001	.0002	-.0004	.0010	.0001	-.0011	-.0001	.0037
#3	-.0010	.0002	.0004	-.0005	.0016	-.0005	-.0008	-.0003	.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0011**	**-.0005**	**-.0048**	**-.0015**	**.0011**	**.0009**	**506.4**	**389.4**
Stddev	.0004	.0002	.0013	.0045	.0012	.0035	.0020	4.4	2.2
%RSD	80.33	16.38	236.3	94.33	78.11	314.4	229.4	.8626	.5603
#1	-.0010	-.0012	-.0016	-.0053	-.0019	.0002	.0019	509.1	390.8
#2	-.0002	-.0013	.0009	-.0090	-.0002	-.0018	-.0015	508.7	390.5
#3	-.0004	-.0009	-.0009	-.0000	-.0025	.0050	.0022	501.3	386.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**190.3**	**507.2**	**-.3557**	**.0500**	**-.0043**	**-.0012**	**-.0097**	**-.0022**	**-.0002**
Stddev	1.3	1.8	.0435	.0027	.0004	.0005	.0030	.0019	.0001
%RSD	.6904	.3510	12.22	5.443	8.784	40.93	31.12	84.71	62.72
#1	191.4	507.8	-.3472	.0531	-.0039	-.0014	-.0092	-.0017	-.0001
#2	190.8	508.7	-.4027	.0488	-.0043	-.0016	-.0129	-.0006	-.0001
#3	188.9	505.2	-.3170	.0480	-.0047	-.0006	-.0069	-.0043	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/16/2020 13:35:47 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0087**	**.0008**	**-.0026**	**-.0060**	**.0002**	**-.0076**	**.0440**
Stddev	.0005	.0009	.0003	.0018	.0036	.0004	.0072	.0015
%RSD	1335.	10.23	33.20	67.71	59.89	254.0	94.10	3.454
#1	.0006	.0098	.0009	-.0044	-.0083	.0003	-.0066	.0436
#2	-.0003	.0083	.0010	-.0026	-.0019	-.0003	-.0010	.0457
#3	-.0002	.0082	.0005	-.0009	-.0079	.0004	-.0153	.0427
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**100790.**	**14468.**	**3886.6**	**8357.0**
Stddev	97.	41.	6.2	11.5
%RSD	.09642	.28308	.15997	.13732
#1	100850.	14458.	3893.1	8368.0
#2	100680.	14434.	3880.6	8345.1
#3	100840.	14513.	3886.2	8357.8

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/16/2020 13:40:52 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5209**	**.5061**	**1.057**	**.5024**	**.5007**	**.5186**	**.5131**	**1.005**	**1.085**
Stddev	.0011	.0008	.003	.0008	.0068	.0088	.0091	.001	.019
%RSD	.2169	.1642	.2319	.1677	1.351	1.693	1.767	.1084	1.751
#1	.5213	.5066	1.056	.5016	.5005	.5161	.5125	1.004	1.084
#2	.5217	.5066	1.055	.5025	.5076	.5283	.5225	1.004	1.105
#3	.5196	.5051	1.060	.5032	.4941	.5113	.5044	1.006	1.067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5058**	**.9829**	**1.062**	**.9888**	**.9949**	**1.060**	**1.032**	**512.3**	**393.5**
Stddev	.0089	.0009	.003	.0088	.0042	.005	.004	2.7	1.0
%RSD	1.755	.0928	.2695	.8908	.4206	.4531	.3778	.5211	.2530
#1	.5045	.9821	1.059	.9933	.9950	1.061	1.032	514.7	393.6
#2	.5153	.9826	1.060	.9944	.9906	1.055	1.027	509.4	394.4
#3	.4977	.9839	1.065	.9786	.9990	1.065	1.035	512.8	392.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**191.1**	**506.4**	**-.3952**	**.0353**	**.4702**	**.4715**	**.5063**	**.4569**	**.5163**
Stddev	.6	1.1	.0024	.0034	.0007	.0013	.0008	.0009	.0011
%RSD	.3211	.2081	.6056	9.582	.1515	.2817	.1539	.2042	.2123
#1	191.4	505.9	-.3968	.0317	.4710	.4708	.5071	.4576	.5174
#2	191.6	507.7	-.3924	.0384	.4696	.4707	.5055	.4573	.5165
#3	190.4	505.8	-.3962	.0359	.4701	.4731	.5063	.4559	.5152
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/16/2020 13:40:52 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4911**	**.4808**	**.4917**	**.5072**	**.5073**	**.5616**	**.4533**	**.0315**
Stddev	.0091	.0020	.0079	.0047	.0030	.0017	.0036	.0018
%RSD	1.848	.4139	1.601	.9169	.5994	.3075	.7898	5.860
#1	.4883	.4815	.4884	.5033	.5044	.5621	.4537	.0336
#2	.5013	.4785	.5007	.5060	.5072	.5630	.4566	.0302
#3	.4838	.4823	.4860	.5124	.5104	.5597	.4495	.0306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**100790.**	**14536.**	**3881.1**	**8351.9**
Stddev	1419.	14.	8.0	13.1
%RSD	1.4079	.09962	.20741	.15705
#1	101000.	14553.	3887.7	8364.9
#2	99281.	14526.	3883.5	8352.2
#3	102100.	14530.	3872.1	8338.7

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/16/2020 13:45:46 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.256**	**8.264**	**7.754**	**8.128**	**8.211**	**8.233**	**8.191**	**8.029**	**.6397**
Stddev	.114	.171	.018	.014	.018	.026	.018	.017	.0016
%RSD	1.381	2.068	.2253	.1736	.2200	.3104	.2152	.2163	.2490
#1	8.379	8.454	7.736	8.125	8.232	8.263	8.211	8.023	.6415
#2	8.233	8.216	7.755	8.115	8.200	8.216	8.181	8.015	.6392
#3	8.154	8.122	7.770	8.143	8.201	8.222	8.180	8.049	.6384
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.232**	**8.267**	**8.022**	**8.448**	**8.713**	**8.090**	**8.098**	**.2607**	**-.0450**
Stddev	.012	.033	.006	.016	.017	.028	.020	.0055	.0044
%RSD	.1447	.3933	.0731	.1899	.1903	.3503	.2476	2.093	9.758
#1	8.245	8.239	8.018	8.442	8.704	8.080	8.083	.2667	-.0474
#2	8.225	8.261	8.019	8.436	8.703	8.068	8.091	.2560	-.0476
#3	8.225	8.303	8.029	8.466	8.732	8.122	8.121	.2596	-.0399
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1356**	**-.0143**	**.2312**	**.1284**	**8.048**	**8.242**	**25.73**	**8.417**	**7.933**
Stddev	.0021	.0466	.0238	.0074	.019	.019	.06	.030	.202
%RSD	1.557	325.8	10.28	5.761	.2345	.2263	.2215	.3557	2.546
#1	.1359	-.0036	.2205	.1317	8.026	8.228	25.69	8.396	8.167
#2	.1375	-.0653	.2147	.1199	8.054	8.235	25.71	8.404	7.821
#3	.1334	.0260	.2584	.1335	8.063	8.263	25.80	8.452	7.813
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/16/2020 13:45:46 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.059**	**8.374**	**8.055**	**100.7**	**8.294**	**8.108**	**7.360**	**-.2889**
Stddev	.011	.014	.046	.3	.012	.146	.016	.0035
%RSD	.1370	.1638	.5761	.2554	.1482	1.800	.2190	1.198
#1	8.071	8.369	8.060	100.6	8.286	8.268	7.376	-.2895
#2	8.051	8.363	8.007	100.6	8.288	8.072	7.358	-.2920
#3	8.053	8.389	8.099	101.0	8.308	7.983	7.344	-.2852
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113300.**	**15162.**	**4330.9**	**10064.**
Stddev	174.	273.	19.2	39.
%RSD	.15387	1.8017	.44288	.38283
#1	113100.	14906.	4348.3	10091.
#2	113430.	15131.	4334.1	10080.
#3	113370.	15450.	4310.4	10020.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/16/2020 13:50:58 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0005**	**.0001**	**-.0001**	**.0021**	**.0010**	**-.0006**	**-.0002**	**.0181**
Stddev	.0001	.0000	.0003	.0005	.0010	.0006	.0002	.0001	.0005
%RSD	36.01	3.576	361.3	444.3	49.07	57.91	32.10	60.05	2.919
#1	-.0001	.0005	.0001	-.0004	.0023	.0008	-.0005	-.0004	.0175
#2	-.0002	.0005	-.0002	.0005	.0010	.0017	-.0008	-.0001	.0185
#3	-.0003	.0005	.0004	-.0005	.0030	.0005	-.0005	-.0001	.0182
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0004**	**.0003**	**-.0046**	**-.0023**	**.0029**	**-.0012**	**304.3**	**197.1**
Stddev	.0004	.0000	.0014	.0028	.0031	.0003	.0032	2.1	1.4
%RSD	77.24	5.881	467.0	61.39	136.6	10.61	262.7	.6793	.6848
#1	-.0009	.0005	-.0012	-.0024	-.0010	.0030	-.0048	303.2	196.2
#2	-.0001	.0004	.0014	-.0077	-.0059	.0031	-.0006	303.0	196.5
#3	-.0007	.0004	.0007	-.0035	-.0000	.0025	.0016	306.7	198.7
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**195.0**	**301.3**	**202.4**	**198.1**	**-.0001**	**.0071**	**-.0019**	**-.0019**	**.0001**
Stddev	1.1	2.5	1.1	3.4	.0007	.0008	.0015	.0003	.0001
%RSD	.5867	.8221	.5221	1.741	478.1	11.30	79.69	13.51	113.7
#1	194.1	299.8	201.8	197.3	.0005	.0078	-.0015	-.0021	.0003
#2	194.6	300.0	201.8	201.9	-.0008	.0073	-.0006	-.0019	-.0000
#3	196.3	304.2	203.6	195.2	-.0001	.0062	-.0036	-.0016	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/16/2020 13:50:58 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0083**	**.0018**	**-.0001**	**-.0030**	**.0057**	**.0075**	**.0490**
Stddev	.0003	.0010	.0002	.0021	.0020	.0017	.0047	.0028
%RSD	146.7	12.06	8.677	3251.	64.98	29.42	63.15	5.615
#1	.0004	.0090	.0019	.0012	-.0047	.0071	.0127	.0474
#2	.0003	.0088	.0019	.0012	-.0008	.0061	.0063	.0522
#3	-.0001	.0072	.0016	-.0025	-.0035	.0038	.0035	.0475
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**101430.**	**14482.**	**3880.2**	**8317.1**
Stddev	477.	152.	1.7	4.7
%RSD	.47030	1.0470	.04452	.05701
#1	101960.	14635.	3880.1	8322.5
#2	101280.	14479.	3881.9	8315.6
#3	101040.	14332.	3878.4	8313.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 13:56:14 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.989**	**2.009**	**2.016**	**1.997**	**2.037**	**1.972**	**2.043**	**2.012**	**.2524**
Stddev	.021	.020	.007	.005	.011	.012	.015	.005	.0023
%RSD	1.031	1.006	.3345	.2439	.5205	.6205	.7167	.2447	.9108
#1	1.997	2.023	2.014	1.996	2.046	1.976	2.053	2.012	.2549
#2	1.965	1.986	2.011	1.992	2.039	1.982	2.050	2.007	.2519
#3	2.003	2.018	2.024	2.002	2.025	1.959	2.026	2.017	.2504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.029**	**2.036**	**1.997**	**2.082**	**2.033**	**1.999**	**1.994**	**38.98**	**39.78**
Stddev	.015	.004	.008	.010	.008	.009	.013	.43	.42
%RSD	.7259	.2157	.4212	.4950	.3751	.4384	.6305	1.105	1.063
#1	2.038	2.034	1.995	2.089	2.033	1.997	1.988	39.17	40.02
#2	2.038	2.033	1.989	2.070	2.025	1.992	1.986	38.49	39.29
#3	2.012	2.041	2.006	2.087	2.040	2.009	2.009	39.29	40.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.89**	**39.41**	**38.72**	**39.24**	**2.026**	**2.034**	**5.105**	**2.052**	**1.990**
Stddev	.49	.59	.37	.42	.008	.006	.018	.007	.021
%RSD	1.238	1.491	.9481	1.072	.3936	.2870	.3545	.3483	1.041
#1	40.22	39.78	38.92	39.47	2.022	2.033	5.100	2.049	2.000
#2	39.32	38.73	38.30	38.75	2.022	2.029	5.090	2.048	1.966
#3	40.13	39.71	38.95	39.49	2.036	2.040	5.125	2.061	2.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 13:56:14 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**2.019**	**2.022**	**1.980**	**2.026**	**1.982**	**1.897**	**2.030**
Stddev	.010	.008	.015	.010	.012	.020	.010	.013
%RSD	.5002	.3742	.7180	.5146	.5840	.9817	.5213	.6400
#1	1.985	2.017	2.029	1.972	2.017	1.992	1.902	2.037
#2	1.991	2.013	2.032	1.976	2.022	1.960	1.886	2.037
#3	1.971	2.028	2.006	1.992	2.040	1.995	1.903	2.015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109560.**	**14984.**	**4242.1**	**9457.8**
Stddev	953.	170.	9.1	16.9
%RSD	.86959	1.1369	.21537	.17819
#1	108900.	14849.	4245.1	9457.8
#2	109120.	15175.	4249.2	9474.6
#3	110650.	14926.	4231.8	9440.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 14:01:01 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	F **.0003**	**.0001**	**-.0001**	**.0009**	**.0006**	**.0002**	**-.0001**	**-.0002**
Stddev	.0003	.0001	.0001	.0004	.0005	.0001	.0001	.0001	.0005
%RSD	65.97	32.02	123.9	519.2	61.34	17.30	46.61	139.9	205.2
#1	.0002	.0002	.0002	-.0000	.0008	.0007	.0003	-.0002	.0002
#2	.0004	.0004	-.0000	.0003	.0014	.0005	.0002	-.0001	-.0002
#3	.0008	.0004	.0002	-.0005	.0003	.0007	.0001	.0000	-.0007
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**-.0005**	**-.0007**	**.0002**	**-.0013**	**-.0001**	**.0143**	**.0049**
Stddev	.0004	.0001	.0012	.0035	.0005	.0026	.0020	.0139	.0053
%RSD	193.2	48.37	255.0	500.0	198.1	201.9	2671.	96.93	107.6
#1	.0000	.0001	-.0017	.0017	-.0003	-.0042	-.0003	.0000	-.0009
#2	.0006	.0001	-.0005	-.0048	.0005	-.0005	-.0019	.0152	.0095
#3	-.0001	.0002	.0008	.0010	.0005	.0008	.0020	.0278	.0063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0165**	**.0236**	**.0386**	**.0156**	**.0028**	F **.0029**	**.0008**	**-.0005**	**.0003**
Stddev	.0018	.0007	.0212	.0081	.0011	.0004	.0011	.0005	.0002
%RSD	11.06	3.126	54.91	52.13	37.41	15.04	136.6	99.30	56.10
#1	.0147	.0228	.0235	.0137	.0022	.0034	.0011	-.0011	.0001
#2	.0165	.0243	.0629	.0245	.0041	.0029	-.0004	-.0005	.0003
#3	.0184	.0237	.0296	.0086	.0023	.0025	.0017	-.0000	.0004
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100					.0020			
Low Limit	-.0100					-.0020			

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 14:01:01 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0022**	**.0005**	**.0005**	**-.0019**	**.0011**	**.0181**	**.0010**
Stddev	.0004	.0005	.0002	.0021	.0007	.0015	.0057	.0018
%RSD	38.84	21.59	47.24	431.7	36.99	135.9	31.69	172.9
#1	.0012	.0024	.0006	-.0015	-.0018	-.0006	.0152	.0029
#2	.0006	.0025	.0002	.0003	-.0026	.0023	.0144	-.0006
#3	.0013	.0016	.0007	.0027	-.0012	.0016	.0247	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115750.**	**15080.**	**4433.8**	**10523.**
Stddev	436.	178.	13.0	32.
%RSD	.37700	1.1805	.29276	.30854
#1	115260.	15170.	4438.7	10526.
#2	116080.	15196.	4443.5	10554.
#3	115920.	14875.	4419.0	10489.

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 3/16/2020 14:06:13 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2047**	**.0021**	**.0032**	**.0500**	**.0100**	**.0104**	**.0160**	**.0103**	**.0050**
Stddev	.0005	.0002	.0003	.0003	.0000	.0003	.0001	.0003	.0005
%RSD	.2680	8.262	10.65	.5254	.2414	2.646	.9261	3.188	9.115
#1	.2053	.0023	.0036	.0498	.0100	.0107	.0162	.0105	.0046
#2	.2044	.0021	.0031	.0503	.0100	.0103	.0160	.0099	.0049
#3	.2043	.0019	.0029	.0501	.0100	.0101	.0159	.0104	.0055

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0517**	**.0215**	**.0086**	**.0086**	**.0025**	**.0112**	**.0063**	**.2173**	**5.301**
Stddev	.0005	.0002	.0015	.0002	.0004	.0003	.0018	.0125	.014
%RSD	.8874	1.045	17.09	1.824	15.93	2.319	28.94	5.763	.2682
#1	.0520	.0216	.0084	.0084	.0026	.0114	.0083	.2172	5.305
#2	.0512	.0217	.0102	.0087	.0021	.0113	.0059	.2298	5.285
#3	.0520	.0212	.0073	.0086	.0029	.0109	.0047	.2048	5.313

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1224**	**5.192**	**4.975**	**5.100**	**.1051**	**.0220**	**.2169**	**.0106**	**.0102**
Stddev	.0016	.024	.039	.018	.0014	.0003	.0026	.0004	.0001
%RSD	1.340	.4662	.7861	.3434	1.335	1.253	1.221	3.443	.4899
#1	.1233	5.211	5.019	5.120	.1046	.0222	.2174	.0108	.0102
#2	.1234	5.201	4.944	5.088	.1067	.0221	.2193	.0102	.0102
#3	.1205	5.165	4.963	5.092	.1040	.0217	.2141	.0109	.0103

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107**	**.0509**	**.0150**	**.0496**	**.0250**	**.0576**	**.0603**	**-.0012**
Stddev	.0003	.0010	.0007	.0007	.0012	.0002	.0060	.0036
%RSD	2.500	1.913	4.943	1.324	4.918	.4030	9.984	304.7
#1	.0104	.0514	.0158	.0488	.0249	.0577	.0585	-.0051
#2	.0106	.0515	.0149	.0499	.0263	.0578	.0554	.0021
#3	.0110	.0498	.0143	.0500	.0238	.0573	.0670	-.0006

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 3/16/2020 14:06:13 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114160.**	**15077.**	**4355.1**	**10204.**
Stddev	277.	72.	26.1	60.
%RSD	.24234	.47431	.59948	.58846
#1	114470.	15024.	4366.7	10241.
#2	114100.	15158.	4325.3	10134.
#3	113920.	15049.	4373.5	10236.

Zoom In Zoom Out

Sample Name: FECONF Acquired: 3/16/2020 14:11:21 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0004**	**-.0000**	**-.0001**	**-.0000**	**-.0000**	**.0000**	**.0003**	**-.0001**
Stddev	.0003	.0001	.0001	.0002	.0005	.0008	.0003	.0002	.0003
%RSD	3435.	20.46	177.8	424.2	5255.	4448.	628.5	61.66	318.9
#1	.0000	.0004	-.0000	-.0003	.0006	.0007	-.0001	.0001	-.0003
#2	-.0003	.0004	.0000	.0001	-.0003	-.0008	-.0002	.0003	.0003
#3	.0002	.0005	-.0001	-.0000	-.0003	-.0000	.0004	.0004	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**-.0000**	**.0001**	**-.0000**	**.0000**	**.0005**	**-.0001**	**-.0103**
Stddev	.0004	.0001	.0011	.0013	.0011	.0010	.0012	.0053	.0028
%RSD	1590.	108.0	7313.	2528.	7347.	126500.	236.6	6272.	27.68
#1	.0002	-.0001	-.0009	-.0010	.0009	.0001	.0002	.0033	-.0092
#2	-.0004	.0000	.0012	.0015	-.0013	.0009	.0018	.0026	-.0135
#3	.0003	-.0002	-.0003	-.0004	.0004	-.0010	-.0005	-.0062	-.0082

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**182.3**	**-.0652**	**.0290**	**.0006**	**-.0010**	**.0010**	**-.0025**	**-.0007**	**-.0004**
Stddev	1.2	.0210	.0057	.0030	.0005	.0004	.0010	.0008	.0000
%RSD	.6709	32.21	19.63	454.9	53.49	43.14	40.04	123.2	5.206
#1	183.3	-.0831	.0328	.0020	-.0015	.0005	-.0033	.0001	-.0004
#2	180.9	-.0421	.0224	.0027	-.0012	.0013	-.0029	-.0015	-.0003
#3	182.8	-.0705	.0316	-.0027	-.0004	.0012	-.0014	-.0006	-.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0033**	**.0008**	**.0043**	**-.0042**	**-.0003**	**.0078**	**.0430**
Stddev	.0004	.0004	.0001	.0076	.0006	.0003	.0022	.0039
%RSD	139.7	12.53	12.26	179.5	14.92	78.94	28.09	9.175
#1	-.0002	.0030	.0009	.0129	-.0043	-.0000	.0093	.0389
#2	.0004	.0038	.0007	.0011	-.0047	-.0004	.0088	.0467
#3	.0006	.0032	.0008	-.0013	-.0035	-.0006	.0053	.0435

Zoom In Zoom Out

Sample Name: FECONF Acquired: 3/16/2020 14:11:21 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113860.**	**15158.**	**4352.5**	**10285.**
Stddev	566.	113.	4.0	2.
%RSD	.49699	.74327	.09248	.01969
#1	113530.	15063.	4357.2	10286.
#2	113540.	15283.	4350.4	10283.
#3	114520.	15128.	4350.0	10286.

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 3/16/2020 14:16:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**-.0000**	**-.0000**	F **10.33**	**.0002**	**-.0001**	**-.0001**	**-.0001**
Stddev	.0001	.0001	.0002	.0004	.14	.0002	.0001	.0001	.0006
%RSD	67.94	38.23	744.2	1242.	1.320	108.6	202.7	152.0	732.8
#1	.0002	.0001	-.0000	-.0004	10.24	.0004	-.0000	-.0000	-.0000
#2	.0001	.0002	-.0002	.0003	10.26	.0000	-.0002	-.0002	-.0007
#3	.0004	.0001	.0002	.0001	10.48	.0002	.0000	-.0000	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0008**	**.0000**	**.0006**	**.0000**	**.0006**	**.0007**	**.0036**	**-.0060**
Stddev	.0004	.0001	.0018	.0010	.0006	.0008	.0015	.0096	.0011
%RSD	105.9	11.60	7264.	188.9	1137.	134.9	219.3	269.0	17.85
#1	.0003	.0007	.0013	-.0003	.0005	.0009	.0023	-.0040	-.0053
#2	.0000	.0009	.0008	.0003	-.0006	-.0003	-.0006	.0143	-.0073
#3	.0008	.0009	-.0020	.0017	.0003	.0012	.0003	.0003	-.0056

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091**	**-.0282**	**.0120**	**-.0065**	**.0014**	**.0012**	**.0047**	**-.0009**	**.0001**
Stddev	.0003	.0228	.0187	.0020	.0007	.0001	.0013	.0000	.0001
%RSD	3.327	80.87	155.9	30.86	47.82	9.840	27.71	3.601	89.15
#1	.0093	-.0407	-.0025	-.0069	.0010	.0013	.0036	-.0009	.0000
#2	.0091	-.0019	.0054	-.0044	.0010	.0011	.0062	-.0009	.0002
#3	.0087	-.0419	.0330	-.0084	.0021	.0013	.0045	-.0009	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0050**	**.0050**	**-.0005**	**.0021**	**.0002**	**.0142**	**.0031**
Stddev	.0007	.0002	.0001	.0032	.0005	.0006	.0038	.0016
%RSD	59.39	3.731	1.632	614.9	22.97	351.2	26.98	53.08
#1	-.0013	.0050	.0050	-.0038	.0019	.0005	.0184	.0017
#2	-.0017	.0049	.0050	-.0004	.0027	.0005	.0110	.0027
#3	-.0004	.0053	.0049	.0026	.0018	-.0005	.0132	.0049

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 3/16/2020 14:16:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114440.**	**15176.**	**4382.3**	**10509.**
Stddev	1438.	85.	23.7	59.
%RSD	1.2564	.55838	.54146	.55789
#1	115440.	15109.	4406.3	10568.
#2	115080.	15271.	4381.7	10507.
#3	112790.	15148.	4358.8	10451.

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 3/16/2020 14:21:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0005**	**-.0009**	**-.0002**	**-.0001**	**.0001**	**.0000**	**-.0004**
Stddev	.0001	.0001	.0004	.0002	.0004	.0007	.0001	.0003	.0005
%RSD	90.91	147.0	92.85	26.55	256.7	778.6	71.28	1613.	126.5
#1	-.0000	-.0000	-.0009	-.0007	-.0003	-.0007	.0002	-.0003	-.0010
#2	.0002	.0001	-.0005	-.0011	.0003	.0006	.0000	.0001	-.0004
#3	.0001	.0001	-.0000	-.0009	-.0005	-.0002	.0002	.0003	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0002**	**5.208**	**.0001**	**-.0000**	**.0018**	**.0011**	**.0042**	**-.0009**
Stddev	.0000	.0002	.037	.0018	.0008	.0010	.0005	.0134	.0025
%RSD	5.706	69.34	.7072	3172.	1998.	53.85	44.02	320.1	285.3
#1	-.0005	.0004	5.226	.0013	-.0003	.0007	.0012	-.0042	-.0028
#2	-.0006	.0001	5.165	.0009	-.0006	.0025	.0005	-.0029	.0019
#3	-.0006	.0001	5.232	-.0020	.0008	.0022	.0015	.0196	-.0018

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063**	**.0091**	**-.0341**	**-.0107**	**.0006**	**.0000**	**.0059**	**-.0007**	**.0001**
Stddev	.0082	.0392	.0087	.0047	.0002	.0003	.0007	.0003	.0001
%RSD	129.5	430.6	25.59	44.11	26.78	3562.	12.72	45.84	64.07
#1	.0036	.0542	-.0432	-.0085	.0006	.0000	.0051	-.0008	.0001
#2	.0155	-.0173	-.0258	-.0074	.0008	-.0003	.0060	-.0010	.0001
#3	-.0001	-.0095	-.0334	-.0160	.0005	.0002	.0065	-.0003	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0011**	**.0001**	**.0005**	**-.0007**	**.0005**	**.0115**	**-.0058**
Stddev	.0002	.0012	.0001	.0039	.0011	.0010	.0031	.0015
%RSD	70.60	101.1	100.0	748.2	155.4	198.9	26.97	25.91
#1	.0000	.0017	.0001	.0041	.0005	-.0006	.0104	-.0046
#2	.0003	-.0002	.0002	.0010	-.0009	.0014	.0149	-.0075
#3	.0003	.0019	.0000	-.0035	-.0018	.0008	.0090	-.0054

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 3/16/2020 14:21:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**116150.**	**15341.**	**4441.3**	**10505.**
Stddev	407.	93.	10.7	28.
%RSD	.35025	.60366	.23994	.26916
#1	116070.	15384.	4435.5	10486.
#2	115780.	15234.	4453.6	10537.
#3	116590.	15404.	4434.8	10492.

Zoom In Zoom Out

Sample Name: MP20189-MB1CONF Acquired: 3/16/2020 14:26:50 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0002**	**.0001**	**.0012**	**.0000**	**.0003**	**.0002**	**-.0003**
Stddev	.0002	.0000	.0003	.0003	.0001	.0002	.0000	.0004	.0003
%RSD	1392.	91.60	161.2	428.8	4.694	704.2	14.28	200.9	73.87
#1	.0002	.0000	.0001	.0004	.0013	.0002	.0003	.0006	-.0001
#2	-.0002	.0000	.0005	-.0002	.0012	-.0001	.0004	-.0002	-.0005
#3	.0000	.0001	-.0000	-.0000	.0012	-.0000	.0003	.0001	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0009**	**.0003**	**.0005**	**-.0001**	**.0007**	**.0003**	**.0030**	**-.0047**
Stddev	.0004	.0001	.0012	.0019	.0006	.0003	.0007	.0052	.0019
%RSD	144.7	11.90	449.5	408.4	1177.	43.39	265.8	175.5	40.21
#1	-.0001	.0010	.0012	-.0015	.0006	.0007	.0002	.0089	-.0050
#2	.0000	.0008	-.0011	.0005	-.0006	.0010	.0010	.0002	-.0063
#3	-.0007	.0008	.0006	.0024	-.0002	.0004	-.0004	-.0002	-.0026

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0162**	**-.0160**	**-.0432**	**-.0271**	**.0004**	**.0004**	**.0083**	**-.0004**	**-.0000**
Stddev	.0060	.0266	.0249	.0025	.0008	.0001	.0002	.0002	.0001
%RSD	37.13	166.0	57.69	9.096	182.3	23.00	2.952	50.60	609.0
#1	.0223	.0012	-.0498	-.0252	-.0004	.0005	.0080	-.0002	-.0000
#2	.0103	-.0027	-.0640	-.0299	.0004	.0004	.0085	-.0006	-.0001
#3	.0159	-.0466	-.0156	-.0262	.0013	.0003	.0083	-.0003	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0006**	**.0003**	**-.0022**	**-.0013**	**-.0002**	**.0214**	**-.0005**
Stddev	.0002	.0004	.0001	.0023	.0019	.0006	.0068	.0005
%RSD	101.4	68.49	31.17	104.5	142.0	374.6	31.67	101.3
#1	-.0000	.0010	.0003	-.0011	-.0034	-.0009	.0241	-.0002
#2	.0004	.0007	.0002	-.0049	-.0006	.0001	.0263	-.0010
#3	.0003	.0002	.0003	-.0007	.0001	.0003	.0137	-.0002

Zoom In Zoom Out

Sample Name: MP20189-MB1CONF Acquired: 3/16/2020 14:26:50 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**116720.**	**15434.**	**4425.4**	**10487.**
Stddev	477.	63.	12.5	29.
%RSD	.40826	.40692	.28326	.28013
#1	117130.	15437.	4431.0	10501.
#2	116850.	15369.	4434.1	10507.
#3	116200.	15494.	4411.0	10454.

Zoom In Zoom Out

Sample Name: MP20189-B1CONF Acquired: 3/16/2020 14:32:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.964**	**1.996**	**1.982**	**1.951**	**1.987**	**1.942**	**2.001**	**1.967**
Stddev	.005	.007	.004	.003	.008	.012	.009	.004
%RSD	.2778	.3624	.1824	.1639	.4060	.6002	.4557	.1808
#1	1.970	2.003	1.987	1.954	1.996	1.948	2.007	1.970
#2	1.960	1.988	1.980	1.949	1.980	1.929	1.991	1.967
#3	1.963	1.997	1.981	1.949	1.986	1.950	2.006	1.963

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2609**	**1.973**	**1.994**	**1.997**	**1.987**	**1.986**	**1.940**	**2.013**
Stddev	.0006	.010	.004	.005	.042	.007	.005	.003
%RSD	.2410	.5294	.1906	.2774	2.125	.3355	.2724	.1422
#1	.2611	1.983	1.998	2.003	2.032	1.993	1.946	2.016
#2	.2602	1.962	1.991	1.996	1.982	1.980	1.939	2.010
#3	.2614	1.975	1.993	1.993	1.948	1.983	1.936	2.013

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.04**	**25.57**	**25.82**	**25.21**	**24.67**	**25.19**	**1.962**	**2.059**
Stddev	.06	.06	.09	.14	.06	.06	.006	.006
%RSD	.2405	.2356	.3423	.5587	.2582	.2491	.2965	.2912
#1	25.11	25.64	25.93	25.32	24.72	25.26	1.969	2.066
#2	25.01	25.54	25.77	25.05	24.70	25.15	1.960	2.055
#3	25.00	25.54	25.78	25.27	24.60	25.15	1.957	2.056

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0997**	**2.089**	**1.969**	**1.993**	**1.984**	**2.013**	F **-.1213**	F **-.0483**
Stddev	.0008	.006	.006	.015	.003	.012	.0057	.0021
%RSD	.7862	.3075	.3172	.7532	.1362	.5738	4.710	4.336
#1	.0992	2.095	1.976	2.002	1.987	2.020	-.1207	-.0491
#2	.1006	2.083	1.963	1.975	1.983	2.000	-.1159	-.0459
#3	.0994	2.088	1.968	2.001	1.981	2.020	-.1273	-.0499

Zoom In Zoom Out

Sample Name: MP20189-B1CONF Acquired: 3/16/2020 14:32:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0005**	**1.859**	W **-.0667**
Stddev	.0009	.009	.0051
%RSD	175.7	.5128	7.646
#1	.0005	1.855	-.0665
#2	-.0013	1.852	-.0617
#3	-.0007	1.870	-.0719

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112110.**	**15172.**	**4281.4**	**9675.4**
Stddev	76.	35.	5.5	15.8
%RSD	.06780	.22812	.12915	.16331
#1	112050.	15157.	4275.5	9659.4
#2	112200.	15148.	4286.5	9675.8
#3	112080.	15211.	4282.1	9691.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 14:36:51 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.998**	**2.018**	**2.020**	**2.000**	**2.038**	**1.985**	**2.049**	**2.014**	**.2512**
Stddev	.008	.010	.001	.002	.012	.006	.010	.001	.0011
%RSD	.4078	.5113	.0522	.1053	.5771	.2991	.4705	.0349	.4375
#1	1.993	2.010	2.019	1.998	2.028	1.979	2.040	2.014	.2500
#2	2.008	2.030	2.021	2.002	2.051	1.991	2.059	2.015	.2521
#3	1.994	2.015	2.021	2.000	2.036	1.984	2.049	2.013	.2516
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**2.040**	**2.005**	**2.104**	**2.037**	**2.013**	**2.001**	**39.07**	**39.82**
Stddev	.010	.005	.005	.003	.003	.002	.002	.15	.22
%RSD	.4797	.2704	.2674	.1387	.1620	.0892	.1176	.3956	.5585
#1	2.017	2.035	2.009	2.102	2.033	2.012	2.001	38.98	39.65
#2	2.036	2.046	1.999	2.107	2.040	2.015	1.999	39.25	40.07
#3	2.022	2.038	2.005	2.103	2.037	2.013	2.004	38.98	39.73
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.07**	**39.34**	**38.80**	**39.39**	**2.030**	**2.041**	**5.119**	**2.058**	**2.000**
Stddev	.27	.21	.17	.19	.003	.002	.005	.006	.009
%RSD	.6693	.5324	.4481	.4706	.1577	.0783	.0999	.2875	.4304
#1	39.87	39.23	38.68	39.28	2.028	2.040	5.125	2.051	1.994
#2	40.38	39.58	39.00	39.60	2.034	2.039	5.116	2.062	2.010
#3	39.97	39.21	38.72	39.28	2.028	2.043	5.117	2.060	1.996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 14:36:51 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**2.027**	**2.024**	**1.972**	**2.029**	**1.988**	**1.874**	**2.025**
Stddev	.009	.002	.005	.005	.003	.008	.019	.005
%RSD	.4741	.1169	.2593	.2559	.1483	.3889	1.017	.2724
#1	1.977	2.028	2.019	1.973	2.030	1.983	1.865	2.021
#2	1.996	2.029	2.030	1.976	2.025	1.997	1.895	2.031
#3	1.986	2.024	2.024	1.966	2.031	1.984	1.860	2.023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109600.**	**15045.**	**4235.9**	**9444.6**
Stddev	631.	120.	6.4	14.6
%RSD	.57570	.79703	.15063	.15488
#1	110120.	15150.	4243.0	9461.3
#2	108900.	14914.	4230.6	9433.8
#3	109780.	15069.	4234.1	9438.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 14:41:38 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0003**	**-.0000**	**.0004**	**.0001**	**.0003**	**.0003**
Stddev	.0001	.0000	.0001	.0004	.0007	.0002	.0000	.0000
%RSD	49.54	30.01	42.44	4883.	156.5	192.5	14.77	11.48
#1	.0002	.0002	.0004	.0004	-.0003	-.0001	.0002	.0003
#2	.0001	.0001	.0004	-.0004	.0010	.0003	.0003	.0003
#3	.0002	.0002	.0002	-.0000	.0006	.0002	.0003	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0000**	**.0002**	**-.0009**	F **-.0025**	**-.0006**	**.0009**	**.0001**
Stddev	.0005	.0005	.0001	.0012	.0005	.0002	.0016	.0016
%RSD	126.5	18630.	84.28	136.6	18.37	31.69	188.1	1107.
#1	-.0008	-.0004	.0003	.0005	-.0026	-.0005	.0018	.0015
#2	.0002	-.0002	.0000	-.0016	-.0020	-.0008	-.0010	.0004
#3	-.0006	.0006	.0002	-.0014	-.0029	-.0005	.0018	-.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					.0019			
Low Limit					-.0019			

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0136**	**.0019**	F **.0115**	**-.0223**	**.0169**	**-.0101**	**.0016**	F **.0024**
Stddev	.0083	.0028	.0061	.0210	.0112	.0018	.0007	.0003
%RSD	61.02	146.7	53.34	94.20	66.33	17.72	45.38	13.10
#1	.0218	.0016	.0180	-.0405	.0297	-.0102	.0014	.0027
#2	.0139	-.0007	.0059	-.0270	.0118	-.0082	.0025	.0023
#3	.0052	.0049	.0105	.0007	.0091	-.0118	.0010	.0021
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit			.0100					.0020
Low Limit			-.0100					-.0020

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 14:41:38 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**-.0003**	**.0000**	**.0004**	**.0026**	**.0008**	**-.0002**	**.0001**
Stddev	.0007	.0010	.0000	.0005	.0009	.0001	.0047	.0015
%RSD	34.83	400.9	1982.	117.4	33.81	11.19	2406.	1975.
#1	.0028	.0007	.0000	.0008	.0036	.0009	-.0016	-.0005
#2	.0021	-.0013	.0000	.0006	.0022	.0008	-.0041	.0017
#3	.0013	-.0001	-.0000	-.0001	.0020	.0007	.0051	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0000**	**.0175**	**-.0004**
Stddev	.0014	.0073	.0019
%RSD	3266.	42.07	534.1
#1	-.0008	.0107	.0011
#2	-.0007	.0253	.0004
#3	.0016	.0164	-.0026
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115850.**	**15259.**	**4412.6**	**10451.**
Stddev	422.	101.	55.2	123.
%RSD	.36430	.65927	1.2503	1.1803
#1	116310.	15263.	4447.0	10524.
#2	115480.	15156.	4441.7	10521.
#3	115760.	15357.	4348.9	10309.

Zoom In Zoom Out

Sample Name: MP20189-S1 7 Acquired: 3/16/2020 14:46:49 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.151**	**1.990**	**1.973**	**1.915**	**2.050**	**1.924**	**3.239**	**1.976**	**.2526**
Stddev	.020	.019	.020	.020	.021	.035	.049	.022	.0062
%RSD	.9227	.9610	1.005	1.047	1.025	1.830	1.514	1.110	2.439
#1	2.174	2.012	1.972	1.917	2.039	1.927	3.256	1.980	.2576
#2	2.141	1.979	1.953	1.894	2.074	1.958	3.277	1.952	.2545
#3	2.138	1.978	1.993	1.933	2.036	1.888	3.184	1.996	.2457

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**2.150**	**1.942**	**2.020**	**1.986**	**1.891**	**1.851**	**63.73**	**33.80**
Stddev	.028	.023	.010	.030	.020	.036	.012	.71	.31
%RSD	1.382	1.062	.5070	1.481	1.026	1.907	.6516	1.114	.9200
#1	2.000	2.154	1.935	2.003	1.995	1.907	1.846	64.54	34.15
#2	2.016	2.125	1.937	2.002	1.962	1.849	1.842	63.45	33.56
#3	1.962	2.171	1.953	2.054	2.000	1.916	1.865	63.20	33.68

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**59.82**	**38.90**	**36.55**	**27.82**	**2.081**	**2.040**	**56.76**	**2.064**	**1.988**
Stddev	.58	.28	.43	.26	.022	.020	.68	.019	.019
%RSD	.9727	.7131	1.185	.9338	1.050	.9990	1.205	.9145	.9386
#1	60.49	39.16	36.99	28.10	2.062	2.050	56.86	2.057	2.009
#2	59.57	38.61	36.52	27.76	2.076	2.017	56.03	2.051	1.979
#3	59.41	38.95	36.12	27.59	2.105	2.053	57.39	2.086	1.975

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.620**	**1.889**	**1.881**	**.0375**	**-.0684**	**.0558**	**3.227**	**.0849**
Stddev	.039	.024	.033	.0281	.0075	.0052	.045	.0230
%RSD	1.486	1.278	1.754	75.06	10.98	9.394	1.390	27.08
#1	2.629	1.897	1.889	.0136	-.0665	.0501	3.193	.0978
#2	2.653	1.862	1.908	.0304	-.0766	.0568	3.278	.0985
#3	2.577	1.909	1.844	.0685	-.0619	.0604	3.210	.0583

Zoom In Zoom Out

Sample Name: MP20189-S1 7 Acquired: 3/16/2020 14:46:49 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115990.**	**15249.**	**4407.6**	**10263.**
Stddev	1307.	129.	41.8	87.
%RSD	1.1267	.84397	.94810	.84691
#1	115300.	15102.	4405.0	10257.
#2	115180.	15343.	4450.6	10353.
#3	117500.	15301.	4367.2	10180.

Zoom In Zoom Out

Sample Name: MP20189-S2 Acquired: 3/16/2020 14:51:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.159**	**1.989**	**1.974**	**1.922**	**2.091**	**1.965**	**3.297**	**1.979**	**.2600**
Stddev	.012	.014	.001	.007	.011	.003	.016	.004	.0046
%RSD	.5346	.7150	.0732	.3885	.5100	.1636	.4822	.1754	1.753
#1	2.166	1.981	1.973	1.920	2.081	1.961	3.300	1.975	.2648
#2	2.164	2.005	1.973	1.931	2.102	1.968	3.311	1.981	.2596
#3	2.145	1.980	1.975	1.916	2.089	1.965	3.280	1.981	.2557

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.029**	**2.146**	**1.945**	**2.112**	**1.980**	**1.892**	**1.865**	**62.28**	**33.53**
Stddev	.004	.006	.012	.008	.016	.037	.010	.24	.05
%RSD	.2113	.2878	.6284	.3889	.7990	1.946	.5227	.3868	.1592
#1	2.028	2.146	1.953	2.121	1.963	1.918	1.873	62.38	33.59
#2	2.026	2.153	1.952	2.106	1.994	1.850	1.854	62.46	33.49
#3	2.034	2.140	1.931	2.108	1.984	1.908	1.868	62.01	33.51

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**57.68**	**38.66**	**36.24**	**27.64**	**2.067**	**2.061**	**53.92**	**2.072**	**1.991**
Stddev	.24	.52	.31	.05	.016	.008	.06	.003	.010
%RSD	.4209	1.343	.8445	.1661	.7494	.3901	.1131	.1304	.5037
#1	57.50	38.18	36.59	27.67	2.050	2.051	53.86	2.069	1.997
#2	57.95	39.21	36.03	27.59	2.080	2.065	53.98	2.073	1.997
#3	57.58	38.59	36.11	27.66	2.071	2.066	53.93	2.075	1.980

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.629**	**1.899**	**1.971**	**-.0313**	**-.0638**	**.0525**	**3.237**	**.0335**
Stddev	.004	.015	.006	.0241	.0100	.0055	.017	.0239
%RSD	.1373	.7750	.3313	76.98	15.72	10.48	.5233	71.29
#1	2.628	1.884	1.978	-.0035	-.0752	.0470	3.247	.0080
#2	2.633	1.900	1.968	-.0468	-.0599	.0527	3.218	.0554
#3	2.626	1.913	1.966	-.0435	-.0563	.0580	3.248	.0370

Zoom In Zoom Out

Sample Name: MP20189-S2 Acquired: 3/16/2020 14:51:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115210.**	**15319.**	**4423.7**	**10294.**
Stddev	509.	10.	9.8	16.
%RSD	.44148	.06513	.22244	.15653
#1	114950.	15328.	4434.6	10312.
#2	114880.	15320.	4421.2	10281.
#3	115790.	15308.	4415.4	10288.

Zoom In Zoom Out

Sample Name: JD4275-1Q Acquired: 3/16/2020 14:56:44 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1788**	**.0023**	**.0021**	**.0176**	**.1038**	**.0725**	**1.379**	**.0544**	**-.0011**
Stddev	.0046	.0012	.0002	.0021	.0058	.0014	.007	.0026	.0008
%RSD	2.547	51.53	10.84	11.98	5.597	1.907	.4939	4.747	78.67
#1	.1758	.0036	.0021	.0190	.1024	.0732	1.385	.0574	-.0005
#2	.1766	.0020	.0018	.0152	.1102	.0735	1.379	.0528	-.0020
#3	.1841	.0013	.0023	.0186	.0989	.0710	1.372	.0531	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0591**	**.1531**	**.0068**	**-.0196**	**.0249**	**.0031**	**.0053**	**30.78**	**7.802**
Stddev	.0014	.0023	.0072	.0031	.0079	.0061	.0038	.89	.252
%RSD	2.299	1.475	105.3	15.67	31.61	192.9	70.63	2.906	3.224
#1	.0606	.1557	.0149	-.0214	.0169	.0074	.0077	30.58	7.712
#2	.0582	.1514	.0014	-.0214	.0326	.0059	.0010	30.00	7.608
#3	.0583	.1522	.0041	-.0160	.0251	-.0038	.0074	31.76	8.086

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.84**	**13.15**	**9.081**	**2.658**	**.1199**	**.0169**	**42.19**	**-.0040**	**.0354**
Stddev	1.38	.40	.169	.070	.0053	.0019	.27	.0035	.0018
%RSD	2.777	3.070	1.863	2.615	4.458	11.42	.6366	89.00	5.182
#1	49.46	13.19	9.166	2.670	.1183	.0173	41.91	-.0048	.0356
#2	48.69	12.73	8.886	2.583	.1259	.0148	42.23	-.0001	.0335
#3	51.38	13.54	9.191	2.720	.1156	.0187	42.44	-.0070	.0371

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8994**	**.0496**	**.0196**	**.1337**	**-.0144**	**.0598**	**1.607**	**.1775**
Stddev	.0036	.0051	.0023	.0316	.0104	.0036	.097	.0161
%RSD	.3953	10.37	11.78	23.60	72.27	5.989	6.011	9.070
#1	.9023	.0539	.0197	.1605	-.0025	.0628	1.507	.1781
#2	.9006	.0439	.0173	.1418	-.0215	.0558	1.699	.1933
#3	.8955	.0511	.0219	.0989	-.0194	.0608	1.616	.1611

Zoom In Zoom Out

Sample Name: JD4275-1Q Acquired: 3/16/2020 14:56:44 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115410.**	**15215.**	**4434.2**	**10414.**
Stddev	598.	351.	18.4	37.
%RSD	.51832	2.3065	.41484	.35648
#1	114740.	15313.	4454.8	10456.
#2	115610.	15507.	4428.1	10399.
#3	115890.	14826.	4419.6	10386.

Zoom In Zoom Out

Sample Name: MP20189-SD1 Acquired: 3/16/2020 15:01:51 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1753**	**.0014**	**.0103**	**.0163**	**.0622**	**.0683**	**1.385**	**.0542**	**-.0147**
Stddev	.0061	.0055	.0058	.0049	.0052	.0164	.022	.0174	.0132
%RSD	3.486	377.1	56.33	30.24	8.344	23.97	1.575	32.17	90.14
#1	.1716	-.0030	.0157	.0180	.0648	.0686	1.369	.0587	-.0195
#2	.1824	-.0002	.0110	.0108	.0655	.0518	1.375	.0689	-.0248
#3	.1719	.0075	.0042	.0202	.0562	.0845	1.410	.0349	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0426**	**.2407**	**-.0123**	**-.0927**	**-.0123**	**.0048**	**-.0819**	**30.60**	**10.16**
Stddev	.0204	.0118	.0079	.1346	.0441	.0704	.0936	.38	.16
%RSD	47.99	4.886	64.20	145.3	359.3	1464.	114.2	1.246	1.537
#1	.0416	.2353	-.0205	-.0722	.0283	.0861	-.1348	30.36	9.981
#2	.0635	.2542	-.0117	-.2363	-.0593	-.0380	.0261	31.04	10.25
#3	.0227	.2326	-.0047	.0306	-.0058	-.0336	-.1371	30.39	10.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.27**	**13.07**	**6.057**	**1.943**	**.1139**	**.0260**	**43.09**	**-.0374**	**.0362**
Stddev	.95	1.41	.459	.522	.0183	.0269	.07	.0328	.0052
%RSD	1.899	10.75	7.582	26.89	16.05	103.5	.1562	87.55	14.47
#1	50.45	14.67	6.547	2.228	.1223	.0063	43.09	-.0642	.0358
#2	51.12	12.06	5.989	2.261	.0929	.0566	43.03	-.0473	.0312
#3	49.24	12.47	5.637	1.340	.1264	.0150	43.16	-.0009	.0416

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9330**	**.1336**	**.0470**	**.3346**	**-.0960**	**.0022**	**1.951**	**.0971**
Stddev	.0175	.0484	.0196	.1527	.0090	.0901	.101	.0564
%RSD	1.879	36.20	41.59	45.62	9.407	4081.	5.173	58.07
#1	.9129	.1510	.0674	.3435	-.1055	-.0863	1.940	.0342
#2	.9413	.1708	.0452	.4826	-.0875	-.0009	2.057	.1141
#3	.9448	.0789	.0284	.1777	-.0950	.0938	1.856	.1431

Zoom In Zoom Out

Sample Name: MP20189-SD1 Acquired: 3/16/2020 15:01:51 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 50.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115420.**	**15373.**	**4419.7**	**10450.**
Stddev	801.	129.	8.3	18.
%RSD	.69366	.84059	.18681	.17502
#1	116160.	15433.	4421.0	10446.
#2	115520.	15224.	4410.9	10434.
#3	114570.	15461.	4427.3	10470.

Zoom In Zoom Out

Sample Name: JD4384-2 Acquired: 3/16/2020 15:07:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0735**	**.0006**	**.0009**	**.4189**	**.0079**	**.0093**	**4.113**	**.0850**	**.0004**
Stddev	.0009	.0002	.0007	.0014	.0010	.0009	.030	.0004	.0003
%RSD	1.248	27.69	82.94	.3260	12.09	10.06	.7318	.4156	57.55
#1	.0730	.0007	.0015	.4186	.0086	.0084	4.130	.0850	.0005
#2	.0730	.0004	.0010	.4203	.0082	.0094	4.078	.0854	.0007
#3	.0746	.0007	.0001	.4176	.0068	.0103	4.130	.0847	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.1135**	**-.0011**	**.0067**	**.0016**	**.0032**	**-.0008**	**1.053**	**75.88**
Stddev	.0006	.0004	.0012	.0022	.0011	.0037	.0019	.026	.06
%RSD	15.57	.3862	108.7	32.88	65.63	116.8	220.9	2.441	.0754
#1	.0042	.1132	-.0012	.0042	.0028	-.0000	-.0026	1.066	75.82
#2	.0033	.1140	.0001	.0085	.0007	.0072	-.0010	1.069	75.92
#3	.0044	.1133	-.0023	.0074	.0014	.0023	.0011	1.023	75.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.601**	**19.37**	**5.399**	**340.3**	**.1448**	**.0011**	**5.938**	**-.0030**	**.4306**
Stddev	.023	.23	.085	.3	.0006	.0003	.030	.0011	.0008
%RSD	.3546	1.184	1.571	.0744	.4108	30.95	.5063	35.02	.1901
#1	6.596	19.24	5.307	340.5	.1448	.0008	5.908	-.0021	.4313
#2	6.627	19.25	5.418	340.2	.1454	.0009	5.968	-.0027	.4308
#3	6.581	19.64	5.473	340.0	.1442	.0014	5.938	-.0042	.4297

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0115**	**.0106**	**.0025**	**30.91**	**-.0051**	**.0300**	**.3731**	**.1179**
Stddev	.0005	.0013	.0006	.09	.0017	.0020	.0111	.0051
%RSD	4.459	12.56	23.72	.2914	34.13	6.543	2.979	4.351
#1	.0120	.0121	.0023	30.87	-.0063	.0316	.3774	.1185
#2	.0110	.0101	.0020	31.01	-.0059	.0278	.3813	.1227
#3	.0116	.0095	.0031	30.84	-.0031	.0305	.3604	.1125

Zoom In Zoom Out

Sample Name: JD4384-2 Acquired: 3/16/2020 15:07:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108540.**	**15196.**	**4148.8**	**9221.9**
Stddev	642.	71.	6.7	16.6
%RSD	.59123	.46493	.16242	.18037
#1	108240.	15275.	4151.7	9234.0
#2	109270.	15175.	4141.1	9203.0
#3	108090.	15139.	4153.6	9228.9

Zoom In Zoom Out

Sample Name: JD4384-3 Acquired: 3/16/2020 15:12:04 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0511**	**.0080**	**.0013**	**.1465**	**.0102**	**.1738**	**3.644**	**.1100**	**.0000**
Stddev	.0005	.0003	.0005	.0013	.0009	.0024	.018	.0016	.0007
%RSD	1.009	3.196	37.72	.8817	8.641	1.365	.4847	1.438	1797.
#1	.0517	.0077	.0010	.1474	.0094	.1765	3.654	.1102	.0007
#2	.0507	.0080	.0019	.1471	.0111	.1728	3.654	.1115	-.0007
#3	.0509	.0082	.0012	.1450	.0101	.1721	3.624	.1084	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.4123**	**.0057**	**.0050**	**.0018**	**.0013**	**.0029**	**14.78**	**99.27**
Stddev	.0001	.0035	.0016	.0078	.0020	.0029	.0052	.07	.49
%RSD	3.420	.8516	27.70	155.0	111.4	225.9	175.0	.4896	.4887
#1	.0023	.4124	.0075	.0113	.0018	-.0020	.0076	14.75	99.27
#2	.0021	.4158	.0052	.0075	-.0002	.0024	.0039	14.73	98.79
#3	.0022	.4087	.0045	-.0037	.0037	.0035	-.0026	14.86	99.76

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.873**	**27.84**	**6.006**	**379.8**	**.1212**	**.0011**	**8.425**	**-.0039**	**.5716**
Stddev	.003	.17	.055	6.0	.0018	.0005	.061	.0012	.0014
%RSD	.1706	.6254	.9202	1.584	1.506	47.43	.7246	30.97	.2478
#1	1.870	27.67	5.953	381.2	.1228	.0007	8.419	-.0048	.5724
#2	1.876	27.82	6.063	373.2	.1192	.0016	8.489	-.0044	.5700
#3	1.873	28.02	6.003	385.0	.1217	.0008	8.368	-.0025	.5725

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091**	**.0100**	**.0034**	**55.28**	**-.0063**	**.0532**	**.3283**	**.4627**
Stddev	.0012	.0020	.0004	.40	.0020	.0011	.0169	.0033
%RSD	12.92	20.12	12.33	.7145	32.31	2.096	5.158	.7078
#1	.0078	.0123	.0036	55.22	-.0043	.0543	.3087	.4642
#2	.0101	.0091	.0029	55.70	-.0084	.0532	.3384	.4650
#3	.0094	.0086	.0037	54.92	-.0062	.0521	.3377	.4590

Zoom In Zoom Out

Sample Name: JD4384-3 Acquired: 3/16/2020 15:12:04 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110070.**	**15380.**	**4255.8**	**9182.0**
Stddev	405.	186.	23.0	51.0
%RSD	.36759	1.2106	.53992	.55520
#1	109950.	15339.	4260.8	9183.8
#2	109740.	15583.	4230.7	9130.2
#3	110520.	15217.	4275.8	9232.1

Zoom In Zoom Out

Sample Name: JD4384-11 Acquired: 3/16/2020 15:17:13 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7164**	**.0006**	**-.0002**	**-.0001**	**.0084**	**.0091**	**.0042**	**.0029**	**.0413**
Stddev	.0011	.0002	.0014	.0021	.0046	.0027	.0003	.0003	.0013
%RSD	.1574	40.92	637.2	3047.	55.50	29.01	6.667	10.00	3.238
#1	.7162	.0003	.0012	-.0003	.0137	.0114	.0039	.0026	.0428
#2	.7153	.0007	-.0016	.0021	.0052	.0097	.0044	.0031	.0401
#3	.7176	.0008	-.0003	-.0020	.0062	.0062	.0044	.0029	.0411

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0399**	**.0059**	**-.0073**	**-.0007**	**.0134**	**.0041**	**3.107**	**111.8**
Stddev	.0016	.0005	.0059	.0156	.0024	.0030	.0080	.063	.3
%RSD	37.29	1.269	101.2	213.8	333.8	22.57	196.4	2.020	.2298
#1	.0051	.0393	.0121	.0078	.0010	.0157	.0028	3.057	111.9
#2	.0024	.0401	.0051	-.0234	.0003	.0100	.0127	3.087	111.5
#3	.0053	.0403	.0004	-.0063	-.0035	.0144	-.0032	3.177	112.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6534**	**.1052**	**535.8**	**231.1**	**.0181**	**.0495**	**2.792**	**-.0031**	**3.666**
Stddev	.0365	.0306	.6	.4	.0042	.0004	.010	.0012	.005
%RSD	5.593	29.13	.1184	.1678	23.36	.8949	.3635	38.61	.1308
#1	.6264	.0728	535.7	230.7	.0195	.0498	2.785	-.0038	3.661
#2	.6949	.1089	535.2	231.1	.0215	.0498	2.788	-.0038	3.665
#3	.6387	.1337	536.5	231.5	.0134	.0490	2.804	-.0017	3.670

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068**	**.0166**	**.0033**	**13.48**	**-.0028**	**1.788**	**.1261**	**.0010**
Stddev	.0022	.0028	.0010	.06	.0008	.009	.0183	.0101
%RSD	32.65	16.89	29.84	.4660	29.37	.4738	14.51	981.0
#1	.0059	.0149	.0033	13.54	-.0019	1.787	.1346	.0102
#2	.0094	.0198	.0043	13.42	-.0033	1.797	.1386	-.0097
#3	.0053	.0151	.0023	13.48	-.0033	1.780	.1051	.0026

Zoom In Zoom Out

Sample Name: JD4384-11 Acquired: 3/16/2020 15:17:13 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109670.**	**15254.**	**4237.5**	**9503.7**
Stddev	82.	68.	18.7	35.4
%RSD	.07443	.44313	.44146	.37197
#1	109730.	15206.	4221.9	9472.8
#2	109580.	15331.	4258.3	9542.3
#3	109700.	15226.	4232.5	9496.0

Zoom In Zoom Out

Sample Name: JD4390-1 Acquired: 3/16/2020 15:22:20 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5797**	**.0002**	**.0002**	**.0051**	**.0125**	**.0058**	**.5367**	**.0204**	**.0069**
Stddev	.0013	.0003	.0003	.0015	.0045	.0017	.0012	.0014	.0015
%RSD	.2291	114.8	170.7	29.24	35.60	29.73	.2238	6.730	21.34
#1	.5804	.0006	.0003	.0037	.0078	.0078	.5368	.0216	.0085
#2	.5782	.0000	-.0001	.0067	.0132	.0050	.5379	.0189	.0055
#3	.5805	.0002	.0003	.0049	.0166	.0046	.5355	.0208	.0068

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044**	**.0145**	**.0028**	**-.0048**	**.0014**	**.0071**	**-.0029**	**.0515**	**168.4**
Stddev	.0017	.0005	.0030	.0099	.0052	.0069	.0030	.0224	.1
%RSD	39.30	3.390	106.1	207.6	371.3	98.46	103.3	43.53	.0633
#1	.0034	.0140	.0009	-.0051	-.0037	.0128	.0001	.0485	168.5
#2	.0034	.0144	.0012	.0053	.0013	-.0007	-.0060	.0752	168.3
#3	.0063	.0150	.0062	-.0145	.0066	.0090	-.0029	.0307	168.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.621**	**73.41**	**106.7**	**656.0**	**1.627**	**.0028**	**13.84**	**.0017**	**1.381**
Stddev	.064	.32	.2	.7	.007	.0008	.01	.0045	.002
%RSD	.7368	.4359	.1689	.1017	.4062	28.83	.0572	267.9	.1483
#1	8.694	73.72	106.7	655.7	1.621	.0022	13.85	.0056	1.379
#2	8.592	73.08	106.6	655.5	1.634	.0025	13.85	-.0032	1.382
#3	8.577	73.43	106.9	656.8	1.626	.0038	13.83	.0026	1.383

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0097**	**.0235**	**.0067**	**31.74**	**-.0030**	**.0320**	**.6395**	**.0063**
Stddev	.0037	.0045	.0014	.06	.0091	.0037	.0354	.0070
%RSD	37.81	19.26	21.06	.1852	307.0	11.43	5.538	110.8
#1	.0121	.0246	.0051	31.81	-.0017	.0350	.6768	-.0017
#2	.0115	.0274	.0073	31.72	-.0127	.0279	.6063	.0098
#3	.0055	.0185	.0077	31.70	.0055	.0332	.6355	.0108

Zoom In Zoom Out

Sample Name: JD4390-1 Acquired: 3/16/2020 15:22:20 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108650.**	**15242.**	**4175.6**	**9331.7**
Stddev	348.	120.	5.1	17.3
%RSD	.32057	.78977	.12101	.18543
#1	108290.	15135.	4181.0	9351.5
#2	108690.	15372.	4174.8	9324.6
#3	108980.	15219.	4171.0	9319.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 15:27:28 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**2.036**	**2.021**	**1.998**	**2.012**	**1.978**	**2.038**	**2.012**	**.2485**
Stddev	.015	.013	.025	.026	.016	.017	.018	.026	.0019
%RSD	.7564	.6587	1.241	1.299	.7948	.8556	.8652	1.318	.7741
#1	2.025	2.044	2.016	1.993	2.020	1.987	2.047	2.008	.2493
#2	1.997	2.020	1.999	1.975	2.021	1.989	2.049	1.988	.2499
#3	2.022	2.043	2.048	2.027	1.993	1.959	2.017	2.041	.2463
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**2.032**	**1.998**	**2.086**	**2.032**	**2.001**	**2.001**	**39.20**	**39.87**
Stddev	.016	.025	.025	.030	.030	.027	.027	.25	.27
%RSD	.7959	1.239	1.245	1.424	1.457	1.362	1.363	.6473	.6670
#1	2.010	2.026	1.991	2.082	2.024	2.001	1.993	39.41	40.07
#2	2.012	2.011	1.978	2.058	2.008	1.974	1.980	38.92	39.57
#3	1.983	2.060	2.026	2.117	2.065	2.028	2.032	39.28	39.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.46**	**39.14**	**39.07**	**39.56**	**2.030**	**2.037**	**5.125**	**2.054**	**2.021**
Stddev	.28	.31	.26	.29	.026	.027	.058	.029	.014
%RSD	.6821	.7954	.6541	.7312	1.267	1.336	1.133	1.386	.7027
#1	40.66	39.48	39.27	39.81	2.019	2.031	5.113	2.052	2.032
#2	40.15	38.86	38.78	39.24	2.012	2.014	5.074	2.026	2.005
#3	40.58	39.09	39.15	39.64	2.059	2.067	5.188	2.083	2.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 15:27:28 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**2.022**	**2.000**	**1.966**	**2.031**	**1.996**	**1.867**	**2.007**
Stddev	.020	.028	.016	.025	.027	.013	.030	.014
%RSD	1.031	1.406	.7931	1.257	1.349	.6558	1.604	.6734
#1	1.991	2.016	2.009	1.954	2.024	2.005	1.841	2.014
#2	1.992	1.998	2.009	1.949	2.009	1.981	1.861	2.015
#3	1.956	2.053	1.981	1.994	2.062	2.002	1.900	1.991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110480.**	**15083.**	**4229.1**	**9426.3**
Stddev	697.	93.	43.1	98.0
%RSD	.63122	.61500	1.0190	1.0392
#1	110360.	14977.	4243.7	9453.5
#2	109840.	15151.	4263.0	9507.7
#3	111220.	15122.	4180.6	9317.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 15:32:16 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0002**	**.0002**	**.0003**	**-.0006**	**.0001**	**.0003**	**.0006**	**-.0005**
Stddev	.0000	.0001	.0001	.0006	.0004	.0002	.0000	.0003	.0003
%RSD	12.90	48.81	42.40	195.9	73.57	183.8	17.50	48.43	66.24
#1	.0003	.0001	.0004	-.0000	-.0007	-.0000	.0003	.0009	-.0001
#2	.0003	.0001	.0002	-.0000	-.0001	.0003	.0003	.0004	-.0007
#3	.0003	.0003	.0002	.0009	-.0010	.0000	.0002	.0004	-.0005
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0002**	**.0001**	**-.0015**	**.0007**	**.0008**	**.0020**	**.0138**	**.0001**
Stddev	.0002	.0002	.0011	.0008	.0007	.0023	.0009	.0114	.0025
%RSD	96.74	87.85	1487.	53.37	93.37	289.3	44.86	82.44	2157.
#1	.0005	.0004	.0013	-.0006	.0015	-.0002	.0012	.0135	.0029
#2	.0000	.0001	-.0009	-.0022	.0004	.0034	.0029	.0026	-.0015
#3	.0002	.0001	-.0002	-.0016	.0003	-.0009	.0017	.0254	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0162**	**-.0084**	**.0336**	**.0062**	**.0010**	**.0017**	**.0037**	**.0008**	**.0001**
Stddev	.0077	.0179	.0412	.0039	.0007	.0005	.0011	.0001	.0000
%RSD	47.69	212.3	122.4	62.63	65.26	28.40	29.83	10.13	26.96
#1	.0167	-.0115	.0292	.0091	.0017	.0021	.0045	.0008	.0001
#2	.0236	.0108	.0768	.0018	.0003	.0017	.0043	.0009	.0002
#3	.0082	-.0247	-.0051	.0077	.0011	.0012	.0025	.0009	.0002
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 15:32:16 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0012**	**.0006**	**.0008**	**-.0006**	**.0005**	**.0129**	**-.0050**
Stddev	.0002	.0008	.0002	.0028	.0011	.0012	.0045	.0030
%RSD	19.06	69.06	30.38	327.3	166.2	226.3	34.88	60.66
#1	.0012	.0014	.0004	.0012	.0003	-.0005	.0180	-.0027
#2	.0008	.0003	.0008	-.0021	-.0005	.0002	.0100	-.0084
#3	.0009	.0019	.0006	.0034	-.0018	.0019	.0105	-.0039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115460.**	**15259.**	**4441.0**	**10524.**
Stddev	305.	82.	74.4	161.
%RSD	.26384	.53773	1.6748	1.5336
#1	115770.	15221.	4432.2	10501.
#2	115440.	15353.	4371.3	10376.
#3	115160.	15202.	4519.3	10696.

Zoom In Zoom Out

Sample Name: MP20235-MB1 7 Acquired: 3/16/2020 15:37:26 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**.0001**	**.0001**	**-.0001**	**.0004**	**.0017**	**.0003**	**.0005**	**-.0007**
Stddev	.0002	.0002	.0001	.0002	.0002	.0002	.0001	.0002	.0004
%RSD	8.688	166.7	67.04	225.8	60.35	12.36	46.74	39.87	50.89
#1	.0022	.0002	.0000	-.0000	.0002	.0018	.0002	.0004	-.0003
#2	.0019	-.0001	.0002	.0001	.0006	.0014	.0002	.0008	-.0011
#3	.0022	.0001	.0001	-.0002	.0003	.0017	.0005	.0004	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0049**	**-.0001**	**-.0012**	**-.0007**	**-.0010**	**.0011**	**.0226**	**.0590**
Stddev	.0006	.0001	.0001	.0009	.0004	.0025	.0010	.0012	.0021
%RSD	535.3	2.249	162.7	72.54	53.15	242.3	94.66	5.211	3.619
#1	-.0000	.0048	.0000	-.0012	-.0012	.0007	.0010	.0213	.0589
#2	.0008	.0049	-.0003	-.0003	-.0006	-.0039	.0022	.0236	.0612
#3	-.0004	.0050	-.0000	-.0021	-.0004	.0001	.0001	.0229	.0569

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0302**	**-.0158**	**.0023**	**.0480**	**.0199**	**.0009**	**.0339**	**.0166**	**.0003**
Stddev	.0078	.0458	.0204	.0025	.0002	.0002	.0011	.0003	.0001
%RSD	25.83	290.3	884.5	5.281	1.210	18.11	3.198	1.769	33.48
#1	.0256	-.0028	.0037	.0451	.0199	.0009	.0327	.0165	.0004
#2	.0257	-.0667	.0220	.0492	.0201	.0011	.0344	.0165	.0003
#3	.0392	.0222	-.0187	.0498	.0196	.0007	.0348	.0170	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0001**	**.0009**	**.0090**	**-.0028**	**-.0013**	**.0311**	**-.0036**
Stddev	.0004	.0005	.0001	.0024	.0027	.0014	.0078	.0051
%RSD	28.31	574.0	11.18	26.19	95.43	101.3	25.11	141.5
#1	.0009	.0000	.0010	.0113	-.0006	.0001	.0318	.0017
#2	.0016	.0006	.0008	.0066	-.0058	-.0015	.0230	-.0086
#3	.0016	-.0004	.0009	.0092	-.0021	-.0026	.0386	-.0039

Zoom In Zoom Out

Sample Name: MP20235-MB1 7 Acquired: 3/16/2020 15:37:26 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**116320.**	**15561.**	**4410.2**	**10476.**
Stddev	159.	42.	7.6	19.
%RSD	.13688	.27249	.17174	.18569
#1	116150.	15524.	4402.8	10461.
#2	116460.	15607.	4410.0	10469.
#3	116360.	15551.	4417.9	10498.

Zoom In Zoom Out

Sample Name: MP20235-B1 Acquired: 3/16/2020 15:42:34 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.931**	**1.960**	**1.972**	**1.942**	**1.916**	**1.891**	**1.942**	**1.956**
Stddev	.005	.005	.023	.022	.021	.020	.018	.022
%RSD	.2763	.2606	1.160	1.152	1.096	1.080	.9135	1.140
#1	1.937	1.966	1.998	1.966	1.938	1.912	1.961	1.981
#2	1.928	1.956	1.965	1.935	1.897	1.872	1.926	1.950
#3	1.929	1.959	1.953	1.923	1.914	1.888	1.941	1.938

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2530**	**1.900**	**1.990**	**2.004**	**2.063**	**1.978**	**1.940**	**2.016**
Stddev	.0021	.018	.022	.017	.026	.021	.019	.023
%RSD	.8269	.9233	1.083	.8615	1.276	1.047	.9618	1.160
#1	.2552	1.918	2.015	2.023	2.092	2.001	1.961	2.042
#2	.2510	1.884	1.983	2.001	2.058	1.970	1.933	2.009
#3	.2527	1.897	1.973	1.989	2.040	1.962	1.926	1.997

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.48**	**25.03**	**25.30**	**24.61**	**24.19**	**24.69**	**1.949**	**2.034**
Stddev	.09	.09	.08	.22	.09	.08	.024	.022
%RSD	.3673	.3626	.3305	.8886	.3623	.3152	1.232	1.071
#1	24.56	25.11	25.38	24.69	24.25	24.77	1.975	2.058
#2	24.38	24.93	25.21	24.36	24.09	24.61	1.944	2.027
#3	24.49	25.05	25.30	24.77	24.22	24.68	1.928	2.017

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1076**	**2.103**	**1.936**	**1.941**	**1.355**	**1.951**	F **-.0780**	F **-.0346**
Stddev	.0008	.020	.005	.019	.007	.022	.0033	.0017
%RSD	.7643	.9694	.2606	.9678	.5485	1.108	4.274	4.828
#1	.1080	2.126	1.941	1.960	1.359	1.973	-.0818	-.0359
#2	.1067	2.095	1.931	1.923	1.347	1.930	-.0755	-.0327
#3	.1082	2.088	1.935	1.941	1.360	1.951	-.0767	-.0353

Zoom In Zoom Out

Sample Name: MP20235-B1 Acquired: 3/16/2020 15:42:34 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0008**	**1.774**	W **-.0660**
Stddev	.0019	.017	.0018
%RSD	229.4	.9397	2.768
#1	-.0005	1.792	-.0661
#2	-.0000	1.760	-.0678
#3	.0029	1.769	-.0642

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113570.**	**15316.**	**4240.2**	**9592.1**
Stddev	757.	160.	35.1	78.0
%RSD	.66676	1.0441	.82871	.81302
#1	112770.	15202.	4200.9	9504.7
#2	114280.	15499.	4250.9	9617.2
#3	113660.	15248.	4268.7	9654.5

Zoom In Zoom Out

Sample Name: MP20235-S1 Acquired: 3/16/2020 15:47:20 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.112**	**1.941**	**1.932**	**1.953**	**2.002**	**1.980**	**3.072**	**1.990**
Stddev	.007	.009	.003	.001	.003	.002	.005	.001
%RSD	.3128	.4601	.1543	.0557	.1323	.0764	.1734	.0571
#1	2.119	1.952	1.930	1.953	2.004	1.981	3.076	1.990
#2	2.106	1.938	1.935	1.953	1.999	1.982	3.074	1.989
#3	2.110	1.935	1.930	1.951	2.002	1.979	3.066	1.992

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2563**	**1.997**	**2.223**	**2.013**	**2.021**	**2.189**	**1.898**	**1.588**
Stddev	.0006	.003	.003	.004	.009	.001	.005	.006
%RSD	.2466	.1350	.1210	.2248	.4385	.0562	.2861	.3837
#1	.2558	1.994	2.220	2.011	2.012	2.188	1.895	1.581
#2	.2562	1.999	2.224	2.018	2.029	2.189	1.904	1.593
#3	.2570	1.996	2.225	2.009	2.023	2.190	1.895	1.588

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**75.01**	**49.24**	**84.49**	**33.79**	**33.13**	**28.65**	**1.928**	**1.966**
Stddev	.32	.28	.38	.23	.13	.12	.005	.003
%RSD	.4247	.5609	.4451	.6758	.3961	.4124	.2391	.1711
#1	75.37	49.53	84.91	34.01	33.27	28.79	1.923	1.963
#2	74.81	49.20	84.37	33.81	33.12	28.60	1.932	1.970
#3	74.84	48.98	84.18	33.56	33.01	28.57	1.929	1.966

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.141**	**1.994**	**2.110**	**4.262**	**1.118**	**1.902**	**.5762**	F **-.0344**
Stddev	.009	.002	.006	.003	.001	.002	.0083	.0021
%RSD	.2806	.0945	.3089	.0582	.1219	.1253	1.439	6.145
#1	3.131	1.993	2.118	4.265	1.117	1.899	.5695	-.0353
#2	3.149	1.993	2.106	4.262	1.118	1.903	.5855	-.0360
#3	3.142	1.997	2.108	4.260	1.119	1.903	.5735	-.0320

Zoom In Zoom Out

Sample Name: MP20235-S1 Acquired: 3/16/2020 15:47:20 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0875**	**4.729**	**.2161**
Stddev	.0010	.021	.0018
%RSD	1.121	.4341	.8473
#1	.0886	4.715	.2161
#2	.0866	4.720	.2143
#3	.0874	4.753	.2180

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112170.**	**15497.**	**4289.2**	**9461.0**
Stddev	153.	137.	3.8	7.3
%RSD	.13670	.88352	.08845	.07695
#1	112210.	15388.	4289.6	9452.8
#2	112000.	15451.	4285.2	9466.6
#3	112290.	15651.	4292.8	9463.6

Zoom In Zoom Out

Sample Name: MP20235-S2 Acquired: 3/16/2020 15:52:06 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.126**	**1.943**	**1.949**	**1.959**	**1.998**	**1.991**	**2.960**	**1.993**
Stddev	.003	.004	.006	.005	.030	.029	.041	.009
%RSD	.1192	.2333	.3161	.2703	1.512	1.464	1.397	.4291
#1	2.127	1.944	1.947	1.955	1.987	1.987	2.954	1.986
#2	2.123	1.938	1.944	1.956	1.975	1.964	2.922	1.989
#3	2.128	1.947	1.956	1.965	2.033	2.022	3.004	2.002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2594**	**2.003**	**2.244**	**2.030**	**2.028**	**2.172**	**1.909**	**1.644**
Stddev	.0038	.027	.009	.004	.014	.011	.006	.007
%RSD	1.466	1.345	.3838	.2139	.6880	.5159	.3149	.4249
#1	.2578	1.995	2.238	2.029	2.014	2.162	1.906	1.645
#2	.2567	1.980	2.240	2.027	2.027	2.169	1.904	1.636
#3	.2637	2.033	2.254	2.035	2.042	2.184	1.916	1.650

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**73.74**	**60.34**	**85.02**	**32.78**	**32.07**	**28.25**	**1.935**	**1.973**
Stddev	.09	.06	.23	.07	.10	.04	.012	.008
%RSD	.1165	.1019	.2756	.2044	.2979	.1397	.6085	.4167
#1	73.80	60.41	85.22	32.73	32.08	28.27	1.928	1.968
#2	73.65	60.28	84.76	32.86	31.97	28.21	1.929	1.969
#3	73.79	60.34	85.07	32.75	32.16	28.28	1.949	1.982

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.928**	**2.030**	**2.100**	**4.036**	**1.088**	**1.931**	**.6091**	F **-.0331**
Stddev	.003	.007	.004	.067	.005	.030	.0053	.0005
%RSD	.0923	.3623	.2159	1.647	.4202	1.574	.8722	1.507
#1	2.926	2.024	2.102	4.016	1.083	1.924	.6030	-.0336
#2	2.926	2.027	2.095	3.982	1.090	1.905	.6125	-.0326
#3	2.931	2.038	2.103	4.111	1.092	1.965	.6119	-.0331

Zoom In Zoom Out

Sample Name: MP20235-S2 Acquired: 3/16/2020 15:52:06 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0835**	**4.649**	**.1884**
Stddev	.0005	.031	.0075
%RSD	.6010	.6689	3.982
#1	.0829	4.663	.1829
#2	.0836	4.614	.1854
#3	.0838	4.671	.1970

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**111160.**	**15490.**	**4260.0**	**9402.9**
Stddev	1094.	36.	7.9	17.7
%RSD	.98447	.23388	.18611	.18800
#1	111540.	15531.	4261.4	9416.0
#2	112020.	15477.	4267.1	9409.9
#3	109930.	15462.	4251.5	9382.8

Zoom In Zoom Out

Sample Name: JD4515-2 Acquired: 3/16/2020 15:56:52 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2543**	**.0028**	**.0008**	**.0224**	**.0841**	**.0640**	**1.072**	**.0480**	**.0001**
Stddev	.0003	.0001	.0003	.0004	.0009	.0003	.000	.0012	.0009
%RSD	.1274	2.475	42.69	1.585	1.012	.4674	.0304	2.601	862.2
#1	.2542	.0028	.0011	.0222	.0850	.0643	1.072	.0476	.0006
#2	.2546	.0029	.0008	.0221	.0833	.0637	1.072	.0470	-.0010
#3	.2540	.0028	.0004	.0228	.0838	.0639	1.072	.0494	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0885**	**.3714**	**.0596**	**-.0011**	**.2836**	**.0026**	**.0002**	**47.77**	**18.27**
Stddev	.0002	.0073	.0018	.0025	.0066	.0020	.0010	.10	.08
%RSD	.2641	1.969	3.005	214.6	2.334	74.53	559.9	.2000	.4306
#1	.0882	.3673	.0593	.0014	.2789	.0005	.0003	47.83	18.35
#2	.0886	.3671	.0579	-.0035	.2807	.0044	-.0009	47.81	18.27
#3	.0887	.3799	.0615	-.0013	.2911	.0030	.0011	47.66	18.20

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**66.74**	**10.73**	**8.691**	**3.635**	**.0789**	**.0060**	**2.107**	**.0225**	**.1438**
Stddev	.23	.14	.041	.010	.0007	.0003	.017	.0012	.0003
%RSD	.3435	1.262	.4686	.2863	.8898	4.764	.8173	5.463	.1928
#1	66.95	10.88	8.730	3.639	.0785	.0063	2.092	.0236	.1439
#2	66.78	10.66	8.649	3.642	.0785	.0061	2.103	.0211	.1440
#3	66.50	10.64	8.693	3.623	.0797	.0057	2.126	.0227	.1435

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.165**	**.0211**	**.0160**	**.5881**	**-.0047**	**.0858**	**3.010**	**.2758**
Stddev	.003	.0005	.0006	.0084	.0017	.0008	.053	.0007
%RSD	.1213	2.361	3.552	1.429	37.13	.9900	1.753	.2500
#1	2.164	.0212	.0165	.5799	-.0058	.0849	2.986	.2763
#2	2.164	.0205	.0160	.5876	-.0056	.0859	2.974	.2759
#3	2.168	.0214	.0154	.5967	-.0027	.0866	3.071	.2750

Zoom In Zoom Out

Sample Name: JD4515-2 Acquired: 3/16/2020 15:56:52 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113900.**	**15516.**	**4332.5**	**9808.1**
Stddev	153.	70.	63.5	143.4
%RSD	.13459	.44997	1.4659	1.4625
#1	113980.	15440.	4366.5	9881.8
#2	113720.	15529.	4371.7	9899.7
#3	113990.	15578.	4259.2	9642.8

Zoom In Zoom Out

Sample Name: MP20235-SD1 Acquired: 3/16/2020 16:01:52 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2557**	**.0035**	**.0015**	**.0212**	**.0787**	**.0629**	**1.092**	**.0468**
Stddev	.0014	.0003	.0006	.0011	.0010	.0027	.011	.0021
%RSD	.5587	8.467	39.34	5.333	1.215	4.286	.9645	4.428
#1	.2568	.0032	.0011	.0200	.0792	.0649	1.099	.0488
#2	.2541	.0037	.0012	.0222	.0776	.0599	1.080	.0468
#3	.2562	.0036	.0022	.0215	.0793	.0641	1.098	.0447

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**.0900**	**.3879**	**.0553**	F **-.0121**	**.2782**	**.0105**	**.0071**
Stddev	.0022	.0007	.0015	.0037	.0070	.0068	.0107	.0115
%RSD	167.8	.7957	.3867	6.746	58.06	2.447	101.6	162.7
#1	-.0039	.0902	.3892	.0521	-.0131	.2861	.0061	.0192
#2	.0002	.0907	.3883	.0545	-.0046	.2743	.0226	.0057
#3	-.0002	.0893	.3863	.0594	-.0185	.2743	.0027	-.0037

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.11**	**18.68**	**68.15**	**10.97**	**8.680**	**3.623**	**.0878**	**.0077**
Stddev	.15	.03	.22	.14	.057	.048	.0034	.0014
%RSD	.3093	.1472	.3214	1.271	.6581	1.333	3.901	17.84
#1	48.24	18.70	68.34	11.13	8.728	3.591	.0879	.0085
#2	47.95	18.68	68.19	10.87	8.695	3.600	.0912	.0061
#3	48.13	18.65	67.91	10.92	8.617	3.679	.0843	.0085

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**.0203**	**.1454**	**2.167**	**.0693**	**.0180**	**.5721**	**-.0146**
Stddev	.049	.0034	.0005	.025	.0022	.0018	.0169	.0116
%RSD	2.396	16.58	.3120	1.135	3.160	9.800	2.959	79.55
#1	2.094	.0178	.1457	2.169	.0710	.0194	.5817	-.0071
#2	2.009	.0191	.1456	2.141	.0668	.0187	.5820	-.0279
#3	2.009	.0242	.1449	2.190	.0701	.0160	.5525	-.0087

Zoom In Zoom Out

Sample Name: MP20235-SD1 Acquired: 3/16/2020 16:01:52 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0838**	**3.057**	**.2907**
Stddev	.0039	.028	.0087
%RSD	4.706	.9203	2.997
#1	.0883	3.066	.2807
#2	.0822	3.080	.2948
#3	.0809	3.026	.2966

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115670.**	**15295.**	**4429.4**	**10308.**
Stddev	859.	128.	5.3	12.
%RSD	.74287	.83826	.11989	.11902
#1	115170.	15236.	4428.9	10307.
#2	116660.	15207.	4424.4	10296.
#3	115170.	15442.	4435.0	10320.

Zoom In Zoom Out

Sample Name: JD4436-2 Acquired: 3/16/2020 16:06:56 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5801**	**.0077**	**.5478**	**1.173**	F **15.46**	F **14.09**	**5.083**	**.3865**	**.0084**
Stddev	.0005	.0001	.0010	.002	.02	.03	.005	.0008	.0003
%RSD	.0873	1.812	.1786	.1380	.1290	.1888	.0980	.2025	4.117
#1	.5795	.0075	.5468	1.171	15.47	14.11	5.089	.3862	.0087
#2	.5805	.0078	.5479	1.173	15.44	14.08	5.079	.3874	.0081
#3	.5803	.0078	.5487	1.173	15.47	14.06	5.082	.3859	.0085

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1931**	F **14.60**	**.0502**	**.0091**	**4.657**	**.0256**	**.0160**	**61.08**	F **957.7**
Stddev	.0013	.03	.0017	.0023	.008	.0032	.0009	.03	4.2
%RSD	.6858	.2334	3.350	24.75	.1743	12.62	5.693	.0545	.4371
#1	.1943	14.63	.0491	.0075	4.662	.0274	.0168	61.11	960.5
#2	.1933	14.61	.0522	.0117	4.662	.0218	.0150	61.04	952.9
#3	.1917	14.56	.0495	.0082	4.648	.0275	.0163	61.09	959.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**185.7**	**24.93**	**7.082**	**4.481**	**1.024**	**.0274**	**2.307**	**.2241**	**1.193**
Stddev	.2	.06	.018	.008	.003	.0003	.005	.0016	.000
%RSD	.1325	.2215	.2581	.1869	.2405	1.061	.2057	.7259	.0327
#1	185.5	24.91	7.076	4.488	1.021	.0273	2.301	.2250	1.193
#2	185.6	24.88	7.103	4.472	1.023	.0271	2.309	.2222	1.192
#3	186.0	24.99	7.068	4.482	1.026	.0277	2.310	.2251	1.193

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.301**	**.0547**	**.1122**	F **367.8**	**-.0075**	**.0898**	**6.772**	**.2533**
Stddev	.003	.0007	.0005	.4	.0019	.0013	.031	.0050
%RSD	.1001	1.259	.4887	.1110	25.78	1.498	.4516	1.991
#1	3.304	.0546	.1125	368.0	-.0053	.0897	6.803	.2573
#2	3.299	.0540	.1127	368.0	-.0091	.0885	6.771	.2476
#3	3.298	.0554	.1116	367.3	-.0080	.0911	6.742	.2549

Zoom In Zoom Out

Sample Name: JD4436-2 Acquired: 3/16/2020 16:06:56 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**118450.**	**17271.**	**4397.9**	**8340.5**
Stddev	196.	66.	3.0	3.2
%RSD	.16544	.38265	.06859	.03811
#1	118260.	17249.	4396.0	8340.6
#2	118650.	17345.	4401.4	8343.6
#3	118420.	17218.	4396.3	8337.2

Zoom In Zoom Out

Sample Name: JD4436-3 Acquired: 3/16/2020 16:11:56 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8755**	**.0061**	**.6739**	**.0939**	**3.998**	**5.704**	**.8867**	**.2643**	**.0098**
Stddev	.0013	.0001	.0020	.0003	.003	.015	.0013	.0004	.0000
%RSD	.1497	.8547	.2971	.3317	.0813	.2626	.1512	.1588	.4089
#1	.8763	.0061	.6756	.0936	3.997	5.701	.8883	.2641	.0098
#2	.8763	.0062	.6717	.0942	3.995	5.720	.8862	.2648	.0098
#3	.8740	.0061	.6745	.0938	4.001	5.690	.8858	.2640	.0097

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0794**	**3.046**	**.0465**	**-.0004**	F **18.81**	**.0276**	**.0166**	**31.87**	F **814.0**
Stddev	.0003	.006	.0014	.0048	.02	.0020	.0007	.08	8.4
%RSD	.3605	.2070	3.111	1336.	.0991	7.311	4.057	.2537	1.037
#1	.0790	3.047	.0468	.0042	18.80	.0261	.0168	31.93	805.0
#2	.0796	3.051	.0478	.0002	18.83	.0268	.0159	31.90	821.7
#3	.0794	3.039	.0449	-.0055	18.79	.0299	.0172	31.78	815.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**166.6**	**7.141**	**13.57**	**11.18**	**.2740**	**.2665**	**2.263**	**.6376**	**1.247**
Stddev	.4	.040	.01	.02	.0024	.0009	.006	.0019	.002
%RSD	.2180	.5640	.0535	.2007	.8752	.3252	.2607	.2905	.1480
#1	166.5	7.187	13.57	11.18	.2750	.2664	2.262	.6361	1.249
#2	167.0	7.114	13.58	11.21	.2712	.2657	2.257	.6371	1.248
#3	166.2	7.122	13.57	11.17	.2757	.2674	2.269	.6397	1.245

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.852**	**.0343**	**.1060**	F **623.7**	**-.0052**	**.0254**	F **17.75**	**.1843**
Stddev	.007	.0014	.0005	.4	.0023	.0001	.14	.0031
%RSD	.2608	4.125	.4599	.0629	45.16	.4362	.7608	1.688
#1	2.860	.0360	.1064	624.0	-.0036	.0253	17.68	.1808
#2	2.846	.0336	.1061	623.2	-.0079	.0254	17.66	.1857
#3	2.849	.0335	.1054	623.8	-.0041	.0255	17.90	.1866

Zoom In Zoom Out

Sample Name: JD4436-3 Acquired: 3/16/2020 16:11:56 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110840.**	**15901.**	**4167.5**	**8568.8**
Stddev	303.	144.	6.4	10.4
%RSD	.27299	.90727	.15274	.12164
#1	110550.	15893.	4164.1	8573.8
#2	111150.	15760.	4174.8	8575.8
#3	110810.	16048.	4163.5	8556.8

Zoom In Zoom Out

Sample Name: JD4436-5 Acquired: 3/16/2020 16:16:58 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5004**	**.0121**	**.0078**	**.0614**	**.1786**	**.1237**	**.6417**	**.2179**	**.0070**
Stddev	.0005	.0001	.0001	.0002	.0007	.0002	.0019	.0015	.0005
%RSD	.0977	.5779	1.200	.2659	.3719	.1476	.3009	.6767	6.772
#1	.5008	.0121	.0079	.0614	.1786	.1238	.6438	.2196	.0069
#2	.5005	.0121	.0077	.0613	.1792	.1235	.6413	.2169	.0066
#3	.4999	.0122	.0078	.0616	.1779	.1238	.6399	.2172	.0076

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2813**	**.7647**	**.0612**	**.0044**	**.2581**	**.0194**	**.0088**	**126.9**	F **1472.**
Stddev	.0003	.0053	.0007	.0033	.0018	.0031	.0010	.2	7.
%RSD	.1193	.6878	1.076	75.72	.6806	16.21	11.71	.1485	.4794
#1	.2814	.7708	.0609	.0039	.2600	.0230	.0079	127.1	1480.
#2	.2815	.7611	.0608	.0079	.2578	.0171	.0099	126.7	1467.
#3	.2809	.7624	.0620	.0013	.2565	.0181	.0086	126.8	1470.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**57.99**	**31.40**	**10.34**	**6.461**	**1.449**	**.0322**	**1.415**	**.0240**	**1.455**
Stddev	.12	.14	.03	.008	.013	.0007	.010	.0011	.002
%RSD	.2050	.4539	.2835	.1243	.8679	2.058	.7138	4.378	.1407
#1	58.11	31.32	10.38	6.463	1.463	.0324	1.426	.0252	1.457
#2	57.87	31.57	10.34	6.452	1.440	.0315	1.407	.0236	1.454
#3	57.98	31.32	10.32	6.467	1.443	.0328	1.410	.0232	1.453

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.389**	**.0268**	**.1814**	**96.04**	**.0012**	**.1052**	**.9963**	**.2474**
Stddev	.009	.0026	.0005	.71	.0024	.0015	.0074	.0075
%RSD	.1324	9.701	.2934	.7425	208.4	1.450	.7469	3.020
#1	6.392	.0298	.1809	96.85	-.0014	.1058	1.005	.2470
#2	6.379	.0255	.1815	95.51	.0034	.1063	.9935	.2550
#3	6.395	.0251	.1819	95.76	.0016	.1034	.9907	.2401

Zoom In Zoom Out

Sample Name: JD4436-5 Acquired: 3/16/2020 16:16:58 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**102800.**	**14925.**	**3909.1**	**7990.2**
Stddev	235.	29.	22.9	40.9
%RSD	.22850	.19563	.58523	.51131
#1	102560.	14905.	3882.7	7943.6
#2	103020.	14958.	3922.7	8007.6
#3	102840.	14911.	3921.9	8019.5

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 16:22:05 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**2.015**	**2.008**	**1.998**	**2.011**	**1.964**	**2.033**	**2.005**	**.2488**
Stddev	.006	.001	.003	.001	.003	.004	.003	.001	.0007
%RSD	.2933	.0401	.1254	.0586	.1226	.2054	.1604	.0371	.2766
#1	1.993	2.016	2.006	1.999	2.014	1.962	2.036	2.004	.2496
#2	1.990	2.015	2.011	1.998	2.009	1.961	2.032	2.006	.2483
#3	1.982	2.015	2.006	1.997	2.009	1.969	2.030	2.005	.2485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**2.028**	**1.994**	**2.087**	**2.025**	**1.993**	**1.982**	**38.82**	**39.65**
Stddev	.002	.004	.004	.008	.004	.004	.001	.10	.08
%RSD	.1209	.2188	.1836	.3720	.1958	.2183	.0463	.2694	.1930
#1	2.009	2.033	1.998	2.089	2.029	1.988	1.981	38.85	39.65
#2	2.004	2.024	1.994	2.094	2.026	1.994	1.983	38.91	39.73
#3	2.005	2.028	1.991	2.079	2.021	1.996	1.982	38.71	39.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.86**	**39.06**	**38.48**	**39.06**	**2.014**	**2.035**	**5.111**	**2.051**	**1.992**
Stddev	.03	.07	.11	.09	.003	.001	.011	.003	.003
%RSD	.0730	.1776	.2786	.2343	.1391	.0643	.2167	.1477	.1334
#1	39.82	38.98	38.53	39.08	2.011	2.033	5.102	2.053	1.994
#2	39.88	39.09	38.56	39.13	2.017	2.035	5.124	2.051	1.993
#3	39.87	39.11	38.36	38.95	2.014	2.036	5.108	2.047	1.989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 16:22:05 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.941**	**2.020**	**2.008**	**2.017**	**2.016**	**1.975**	**1.893**	**2.008**
Stddev	.005	.004	.001	.001	.004	.003	.013	.005
%RSD	.2436	.1956	.0662	.0283	.2004	.1245	.6722	.2327
#1	1.947	2.020	2.008	2.016	2.011	1.974	1.895	2.009
#2	1.939	2.024	2.008	2.017	2.018	1.978	1.905	2.002
#3	1.938	2.016	2.006	2.017	2.019	1.973	1.880	2.011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109730.**	**14984.**	**4219.6**	**9407.2**
Stddev	528.	95.	5.0	10.4
%RSD	.48109	.63106	.11734	.11017
#1	109130.	15006.	4218.8	9405.5
#2	109930.	14880.	4224.9	9418.3
#3	110130.	15065.	4215.1	9397.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 16:26:53 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0002**	**-.0000**	**-.0005**	**.0002**	**.0003**	**.0003**
Stddev	.0001	.0001	.0002	.0001	.0006	.0004	.0001	.0001
%RSD	233.2	59.86	103.5	1869.	137.3	144.9	31.08	16.73
#1	-.0000	.0000	.0001	.0001	.0000	-.0001	.0003	.0003
#2	.0000	.0002	.0000	-.0002	-.0002	.0003	.0004	.0003
#3	.0001	.0002	.0003	.0001	-.0012	.0006	.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0007**	**.0002**	**.0007**	F **-.0024**	**-.0003**	**.0010**	**.0014**
Stddev	.0002	.0002	.0002	.0009	.0014	.0008	.0014	.0008
%RSD	45.53	22.61	77.75	131.6	56.73	225.0	136.7	59.57
#1	-.0002	.0006	.0001	-.0003	-.0027	.0003	-.0005	.0023
#2	-.0006	.0009	.0002	.0009	-.0036	-.0001	.0012	.0012
#3	-.0005	.0007	.0004	.0014	-.0009	-.0012	.0023	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					.0019			
Low Limit					-.0019			

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**.0028**	F **.0171**	**.0092**	**.0621**	**.0059**	**.0019**	F **.0020**
Stddev	.0089	.0015	.0049	.0398	.0094	.0065	.0004	.0006
%RSD	372.2	53.23	28.73	431.7	15.16	110.3	21.80	27.49
#1	.0053	.0016	.0117	-.0141	.0716	.0133	.0023	.0025
#2	-.0076	.0045	.0214	.0552	.0528	.0016	.0017	.0021
#3	.0096	.0023	.0181	-.0134	.0618	.0026	.0016	.0014
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit			.0100					.0020
Low Limit			-.0100					-.0020

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 16:26:53 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.0002**	**.0002**	**.0009**	**.0051**	**.0007**	F **.0333**	**-.0008**
Stddev	.0013	.0008	.0001	.0003	.0006	.0001	.0024	.0010
%RSD	47.83	478.5	34.84	28.85	11.14	7.073	7.294	118.7
#1	.0039	.0007	.0002	.0011	.0056	.0007	.0349	-.0017
#2	.0014	-.0008	.0002	.0009	.0053	.0007	.0345	-.0011
#3	.0026	.0006	.0003	.0006	.0045	.0008	.0305	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit							.0102	
Low Limit							-.0102	

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0002**	**.0150**	**-.0015**
Stddev	.0011	.0078	.0022
%RSD	604.0	52.35	145.3
#1	-.0006	.0061	-.0027
#2	.0014	.0211	.0010
#3	-.0002	.0177	-.0029
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115130.**	**15131.**	**4407.0**	**10434.**
Stddev	448.	276.	1.5	14.
%RSD	.38905	1.8208	.03411	.13713
#1	114620.	15300.	4408.3	10438.
#2	115310.	14813.	4405.4	10419.
#3	115460.	15279.	4407.4	10447.

Zoom In Zoom Out

Sample Name: JD4436-6 Acquired: 3/16/2020 16:32:03 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2394**	**.0114**	**.0075**	**.0625**	**.1715**	**.1369**	**.8945**	**.2597**	**.0072**
Stddev	.0005	.0002	.0003	.0004	.0008	.0008	.0003	.0003	.0005
%RSD	.2019	1.677	3.600	.5784	.4930	.5962	.0348	.1047	6.989
#1	.2396	.0112	.0078	.0622	.1724	.1376	.8948	.2595	.0075
#2	.2398	.0116	.0074	.0629	.1707	.1370	.8942	.2600	.0066
#3	.2389	.0114	.0073	.0624	.1714	.1360	.8946	.2595	.0075

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2599**	**.7584**	**.0732**	**.0069**	**.4004**	**.0218**	**.0121**	**114.8**	F **1679.**
Stddev	.0006	.0033	.0017	.0035	.0024	.0010	.0039	.1	20.
%RSD	.2481	.4342	2.261	49.85	.6024	4.529	31.91	.0629	1.162
#1	.2605	.7597	.0713	.0087	.4031	.0228	.0110	114.8	1681.
#2	.2601	.7608	.0736	.0091	.3998	.0216	.0089	114.7	1658.
#3	.2592	.7546	.0745	.0029	.3983	.0209	.0164	114.8	1697.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**62.91**	**29.24**	**3.313**	**4.202**	**1.267**	**.0554**	**1.683**	**.0242**	**.9622**
Stddev	.05	.11	.015	.009	.003	.0006	.003	.0004	.0015
%RSD	.0812	.3685	.4620	.2227	.2507	1.081	.1741	1.661	.1596
#1	62.85	29.24	3.328	4.196	1.269	.0555	1.680	.0246	.9613
#2	62.96	29.13	3.298	4.212	1.268	.0559	1.685	.0238	.9640
#3	62.92	29.35	3.314	4.197	1.263	.0547	1.684	.0241	.9614

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.774**	**.0264**	**.1692**	F **108.6**	**-.0000**	**.0543**	**1.150**	**.2394**
Stddev	.006	.0013	.0005	.3	.0014	.0005	.018	.0006
%RSD	.1073	4.961	.2899	.2666	5636.	.8812	1.526	.2573
#1	5.776	.0268	.1687	108.8	.0004	.0539	1.168	.2400
#2	5.767	.0275	.1693	108.7	-.0016	.0548	1.147	.2395
#3	5.779	.0250	.1697	108.2	.0012	.0542	1.133	.2388

Zoom In Zoom Out

Sample Name: JD4436-6 Acquired: 3/16/2020 16:32:03 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**100890.**	**14831.**	**3850.7**	**7896.5**
Stddev	126.	39.	8.9	10.1
%RSD	.12475	.26104	.23031	.12770
#1	101000.	14833.	3845.3	7893.5
#2	100910.	14869.	3845.8	7888.3
#3	100750.	14792.	3860.9	7907.8

Zoom In Zoom Out

Sample Name: JD4436-8 Acquired: 3/16/2020 16:37:10 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6077**	**.0081**	**.4053**	**1.407**	F **16.96**	F **19.47**	**7.084**	**.4936**
Stddev	.0002	.0002	.0011	.001	.04	.04	.015	.0004
%RSD	.0269	2.082	.2726	.0514	.2453	.2088	.2099	.0837
#1	.6076	.0080	.4041	1.408	17.00	19.52	7.099	.4940
#2	.6075	.0083	.4057	1.407	16.92	19.44	7.070	.4931
#3	.6078	.0079	.4062	1.407	16.96	19.45	7.081	.4936

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081**	**.2130**	F **15.89**	**.0568**	**.0130**	**5.421**	**.0241**	**.0142**
Stddev	.0001	.0002	.02	.0025	.0022	.005	.0016	.0033
%RSD	1.651	.1066	.1100	4.325	17.06	.0998	6.563	23.14
#1	.0082	.2131	15.91	.0596	.0140	5.421	.0255	.0112
#2	.0079	.2128	15.88	.0550	.0146	5.415	.0245	.0138
#3	.0080	.2133	15.90	.0557	.0105	5.426	.0224	.0177

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**60.48**	F **895.8**	F **214.5**	**43.71**	**6.525**	**5.574**	**1.044**	**.0343**
Stddev	.03	6.4	.2	.14	.018	.001	.002	.0004
%RSD	.0442	.7152	.1155	.3285	.2731	.0099	.2295	1.169
#1	60.46	889.3	214.4	43.54	6.505	5.574	1.043	.0347
#2	60.51	902.1	214.7	43.80	6.530	5.575	1.047	.0340
#3	60.47	896.1	214.2	43.78	6.540	5.574	1.042	.0342

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.333**	**.2717**	**1.276**	**3.240**	**.0581**	**.1137**	F **317.3**	W **-.0122**
Stddev	.005	.0014	.001	.008	.0008	.0002	.4	.0017
%RSD	.1954	.5246	.0530	.2463	1.347	.1821	.1197	13.67
#1	2.330	.2725	1.276	3.249	.0573	.1139	317.6	-.0108
#2	2.331	.2701	1.276	3.234	.0581	.1136	316.9	-.0116
#3	2.338	.2726	1.275	3.238	.0589	.1135	317.5	-.0140

Zoom In Zoom Out

Sample Name: JD4436-8 Acquired: 3/16/2020 16:37:10 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.1019**	**7.810**	**.2897**
Stddev	.0012	.004	.0027
%RSD	1.196	.0504	.9459
#1	.1028	7.806	.2870
#2	.1005	7.814	.2925
#3	.1025	7.811	.2897

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**123660.**	**18206.**	**4590.3**	**8317.8**
Stddev	359.	36.	4.0	10.1
%RSD	.29040	.19765	.08698	.12133
#1	123250.	18241.	4593.2	8328.3
#2	123770.	18169.	4591.9	8316.8
#3	123940.	18209.	4585.8	8308.2

Zoom In Zoom Out

Sample Name: JD4436-9 Acquired: 3/16/2020 16:42:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5930**	**.0026**	**.2846**	**.4418**	**5.427**	**5.388**	**2.466**	**.3203**	**.0056**
Stddev	.0008	.0000	.0052	.0083	.020	.007	.007	.0061	.0003
%RSD	.1399	1.740	1.823	1.882	.3652	.1400	.3061	1.900	6.007
#1	.5939	.0027	.2813	.4374	5.445	5.396	2.472	.3167	.0053
#2	.5925	.0026	.2906	.4513	5.406	5.389	2.458	.3274	.0059
#3	.5925	.0026	.2820	.4365	5.431	5.381	2.469	.3169	.0055

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.058**	**5.804**	**.0321**	**.0018**	**7.811**	**.0173**	**.0096**	**20.30**	F **968.8**
Stddev	.004	.095	.0023	.0042	.140	.0016	.0005	.09	3.7
%RSD	.4181	1.631	7.123	237.8	1.798	9.527	5.456	.4464	.3779
#1	1.063	5.721	.0328	.0020	7.716	.0176	.0096	20.40	972.7
#2	1.055	5.907	.0339	.0059	7.972	.0187	.0100	20.22	968.3
#3	1.055	5.783	.0295	-.0025	7.744	.0155	.0090	20.29	965.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**106.8**	**3.574**	**5.222**	**7.957**	**.1429**	**.0686**	**2.000**	**.2194**	**.8500**
Stddev	.2	.004	.015	.018	.0020	.0017	.048	.0049	.0006
%RSD	.1408	.1064	.2812	.2275	1.425	2.506	2.407	2.253	.0742
#1	107.0	3.571	5.239	7.977	.1426	.0676	1.975	.2155	.8506
#2	106.7	3.579	5.215	7.942	.1450	.0706	2.056	.2249	.8494
#3	106.7	3.573	5.212	7.951	.1410	.0676	1.970	.2178	.8499

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.949**	**.0260**	**.0584**	F **686.6**	**-.0028**	**.0189**	**6.787**	**.1486**
Stddev	.004	.0006	.0001	10.2	.0010	.0009	.083	.0037
%RSD	.2285	2.477	.1028	1.480	36.80	4.744	1.223	2.484
#1	1.953	.0266	.0584	678.6	-.0017	.0186	6.743	.1509
#2	1.949	.0253	.0585	698.0	-.0037	.0182	6.883	.1443
#3	1.944	.0261	.0583	683.2	-.0030	.0199	6.736	.1505

Zoom In Zoom Out

Sample Name: JD4436-9 Acquired: 3/16/2020 16:42:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114780.**	**16601.**	**4277.2**	**8288.2**
Stddev	431.	85.	59.7	129.1
%RSD	.37508	.51449	1.3965	1.5578
#1	114470.	16542.	4322.7	8375.7
#2	115270.	16562.	4209.6	8139.9
#3	114600.	16699.	4299.4	8349.1

Zoom In Zoom Out

Sample Name: JD4436-10 Acquired: 3/16/2020 16:47:14 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0001**	**-.0001**	**.0002**	**-.0008**	W **-.0032**	**-.0000**	**.0004**
Stddev	.0001	.0000	.0000	.0001	.0002	.0002	.0001	.0002
%RSD	33.15	34.19	64.19	56.16	30.60	4.803	44010.	46.45
#1	-.0002	-.0002	-.0000	.0002	-.0008	-.0033	.0001	.0002
#2	-.0004	-.0001	-.0001	.0002	-.0010	-.0030	-.0001	.0005
#3	-.0002	-.0001	-.0001	.0004	-.0005	-.0033	-.0001	.0005

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0017**	**.0001**	**-.0002**	**.0002**	F **-.0099**	**.0010**	**-.0040**	**.0006**
Stddev	.0003	.0001	.0001	.0004	.0008	.0005	.0005	.0004
%RSD	15.67	90.19	82.29	235.0	7.609	44.65	12.65	70.14
#1	-.0020	.0002	-.0002	-.0003	-.0090	.0005	-.0038	.0001
#2	-.0016	.0001	-.0000	.0006	-.0102	.0011	-.0037	.0008
#3	-.0015	.0000	-.0003	.0002	-.0104	.0014	-.0046	.0010

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0118**	**.0004**	**.0008**	**-.0175**	**-.0458**	**-.0514**	**.0010**	**-.0003**
Stddev	.0035	.0006	.0021	.0323	.0054	.0019	.0005	.0001
%RSD	29.47	131.2	264.8	184.5	11.79	3.784	50.50	33.39
#1	.0079	.0010	.0018	-.0355	-.0488	-.0493	.0005	-.0003
#2	.0129	-.0001	.0023	.0198	-.0490	-.0521	.0015	-.0002
#3	.0146	.0003	-.0017	-.0367	-.0396	-.0530	.0010	-.0004

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0031**	**-.0009**	**-.0001**	**.0006**	**-.0012**	**.0003**	**.0260**	**.0004**
Stddev	.0034	.0003	.0001	.0001	.0004	.0001	.0021	.0010
%RSD	107.1	30.85	179.0	19.49	33.44	23.09	7.900	231.6
#1	-.0052	-.0006	-.0001	.0007	-.0017	.0003	.0279	-.0003
#2	.0007	-.0009	.0001	.0007	-.0009	.0004	.0263	.0001
#3	-.0050	-.0012	-.0001	.0005	-.0010	.0003	.0238	.0015

Zoom In Zoom Out

Sample Name: JD4436-10 Acquired: 3/16/2020 16:47:14 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0011**	W **-.1355**	**-.0019**
Stddev	.0004	.0083	.0008
%RSD	37.05	6.148	40.69
#1	-.0007	-.1261	-.0018
#2	-.0015	-.1384	-.0028
#3	-.0011	-.1420	-.0012

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251810.**	**24941.**	**11040.**	**25381.**
Stddev	2768.	48.	46.	112.
%RSD	1.0993	.19078	.41551	.44013
#1	251520.	24956.	11082.	25489.
#2	249190.	24888.	11047.	25388.
#3	254710.	24979.	10991.	25266.

Zoom In Zoom Out

Sample Name: JD4436-12 Acquired: 3/16/2020 16:52:26 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3726**	**.0002**	**1.424**	**.1522**	**2.032**	**1.106**	**.4214**	**.1434**	**.0079**
Stddev	.0001	.0001	.016	.0021	.006	.002	.0019	.0027	.0003
%RSD	.0337	28.51	1.108	1.386	.2884	.1880	.4531	1.900	3.343
#1	.3725	.0002	1.442	.1545	2.025	1.109	.4207	.1465	.0077
#2	.3725	.0003	1.418	.1516	2.033	1.105	.4199	.1416	.0078
#3	.3728	.0002	1.412	.1504	2.037	1.105	.4235	.1421	.0082

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0385**	**1.205**	**.0214**	**.0072**	**6.258**	**.0240**	**.0151**	**7.447**	F **1112.**
Stddev	.0004	.028	.0012	.0027	.122	.0014	.0020	.035	12.
%RSD	1.043	2.345	5.570	37.09	1.951	5.655	12.94	.4743	1.123
#1	.0381	1.238	.0218	.0093	6.396	.0230	.0172	7.487	1106.
#2	.0389	1.193	.0201	.0042	6.211	.0235	.0134	7.423	1103.
#3	.0386	1.185	.0224	.0080	6.166	.0256	.0145	7.430	1126.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**62.61**	**1.656**	**5.980**	**6.425**	**.1288**	**.0914**	**1.905**	**.2461**	**.9743**
Stddev	.07	.046	.024	.009	.0011	.0014	.017	.0038	.0018
%RSD	.1082	2.758	.4031	.1430	.8744	1.564	.8789	1.556	.1806
#1	62.68	1.606	5.993	6.435	.1282	.0930	1.924	.2503	.9763
#2	62.59	1.696	5.994	6.423	.1301	.0910	1.895	.2454	.9734
#3	62.55	1.666	5.952	6.418	.1280	.0902	1.896	.2427	.9732

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.688**	**.0181**	**.0731**	F **831.4**	**-.0012**	**.0195**	**3.897**	**.1159**
Stddev	.006	.0018	.0002	20.3	.0024	.0008	.168	.0029
%RSD	.3366	10.07	.2825	2.439	195.2	3.871	4.322	2.481
#1	1.682	.0189	.0730	854.2	-.0014	.0201	4.082	.1132
#2	1.690	.0160	.0734	824.4	-.0036	.0187	3.857	.1156
#3	1.693	.0195	.0731	815.5	.0012	.0198	3.753	.1189

Zoom In Zoom Out

Sample Name: JD4436-12 Acquired: 3/16/2020 16:52:26 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**101150.**	**15027.**	**3826.9**	**8181.5**
Stddev	229.	30.	53.7	117.3
%RSD	.22601	.20145	1.4020	1.4336
#1	101320.	15048.	3765.5	8047.9
#2	101230.	15041.	3850.6	8229.5
#3	100890.	14992.	3864.6	8267.2

Zoom In Zoom Out

Sample Name: JD4436-13 Acquired: 3/16/2020 16:57:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3229**	**.0047**	**.0554**	**.1209**	**5.548**	**1.889**	**1.264**	**.2083**	**.0080**
Stddev	.0007	.0001	.0002	.0011	.008	.001	.003	.0008	.0001
%RSD	.2256	1.417	.4447	.8972	.1367	.0762	.2499	.3613	1.519
#1	.3231	.0047	.0554	.1197	5.556	1.887	1.268	.2075	.0080
#2	.3235	.0048	.0556	.1214	5.542	1.890	1.264	.2090	.0079
#3	.3221	.0047	.0551	.1217	5.545	1.890	1.262	.2083	.0081

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1559**	**2.145**	**.0575**	**.0015**	**4.947**	**.0217**	**.0045**	**37.87**	F **897.1**
Stddev	.0012	.005	.0008	.0039	.010	.0001	.0015	.05	9.9
%RSD	.7942	.2193	1.321	262.7	.2041	.5195	33.14	.1357	1.099
#1	.1573	2.142	.0568	.0054	4.947	.0217	.0037	37.93	908.3
#2	.1554	2.151	.0583	-.0024	4.957	.0216	.0036	37.85	892.9
#3	.1550	2.143	.0574	.0014	4.937	.0218	.0062	37.84	890.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **244.8**	**7.239**	**22.34**	**7.349**	**.4528**	**.0816**	**2.247**	**.1524**	**1.003**
Stddev	.2	.030	.08	.014	.0010	.0003	.006	.0006	.001
%RSD	.0880	.4170	.3557	.1913	.2120	.3481	.2568	.4137	.1209
#1	245.0	7.261	22.40	7.357	.4537	.0813	2.245	.1522	1.005
#2	244.5	7.205	22.37	7.332	.4518	.0816	2.253	.1532	1.003
#3	244.8	7.252	22.25	7.357	.4528	.0818	2.242	.1520	1.003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.532**	**.0253**	**.1125**	F **656.8**	**-.0018**	**.0303**	F **12.15**	**.1880**
Stddev	.006	.0009	.0005	1.6	.0009	.0002	.17	.0032
%RSD	.1628	3.650	.4489	.2409	46.46	.7935	1.360	1.690
#1	3.539	.0242	.1130	657.5	-.0025	.0301	12.31	.1860
#2	3.528	.0259	.1122	657.9	-.0009	.0305	12.16	.1863
#3	3.530	.0258	.1122	655.0	-.0021	.0304	11.98	.1916

Zoom In Zoom Out

Sample Name: JD4436-13 Acquired: 3/16/2020 16:57:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**104850.**	**15252.**	**3954.4**	**8459.9**
Stddev	260.	40.	2.8	5.0
%RSD	.24803	.26465	.07101	.05960
#1	104550.	15254.	3954.7	8461.5
#2	104990.	15291.	3951.5	8454.2
#3	105010.	15211.	3957.1	8463.9

Zoom In Zoom Out

Sample Name: JD4436-16 Acquired: 3/16/2020 17:02:32 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.756**	**.0017**	**.1336**	**.5003**	**4.600**	**4.055**	**1.930**	**.0939**	**.0073**
Stddev	.001	.0001	.0004	.0006	.022	.010	.008	.0002	.0005
%RSD	.0375	4.849	.2785	.1174	.4731	.2551	.4230	.1608	6.613
#1	1.755	.0018	.1339	.5001	4.609	4.056	1.935	.0939	.0075
#2	1.757	.0018	.1338	.5009	4.617	4.044	1.935	.0941	.0077
#3	1.756	.0016	.1332	.4997	4.576	4.065	1.921	.0938	.0068

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0283**	**2.530**	**.0412**	**.0105**	F **57.73**	**.0389**	**.0140**	**11.96**	F **849.7**
Stddev	.0005	.008	.0013	.0031	.12	.0006	.0010	.02	4.4
%RSD	1.605	.3208	3.180	29.27	.2105	1.519	7.185	.2062	.5153
#1	.0286	2.520	.0404	.0116	57.59	.0396	.0137	11.98	853.8
#2	.0285	2.535	.0427	.0070	57.78	.0386	.0131	11.96	845.1
#3	.0278	2.534	.0405	.0128	57.81	.0385	.0151	11.94	850.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**114.3**	**1.510**	**6.349**	**5.626**	**.2516**	**.2450**	**1.854**	**2.079**	**2.146**
Stddev	.3	.030	.026	.005	.0006	.0005	.011	.002	.002
%RSD	.2477	1.971	.4111	.0872	.2353	.1950	.5988	.1107	.0998
#1	114.5	1.523	6.330	5.626	.2514	.2453	1.856	2.077	2.146
#2	114.5	1.531	6.379	5.632	.2523	.2444	1.864	2.082	2.148
#3	114.0	1.476	6.339	5.622	.2512	.2452	1.842	2.079	2.144

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.755**	**.0430**	**.0728**	F **672.8**	**-.0027**	**.0067**	F **27.11**	**.2075**
Stddev	.004	.0008	.0003	.9	.0018	.0006	.04	.0006
%RSD	.2084	1.974	.4577	.1283	67.54	9.050	.1425	.2911
#1	1.758	.0439	.0730	671.8	-.0006	.0071	27.16	.2075
#2	1.756	.0427	.0730	673.4	-.0039	.0060	27.08	.2081
#3	1.751	.0422	.0724	673.2	-.0035	.0069	27.09	.2069

Zoom In Zoom Out

Sample Name: JD4436-16 Acquired: 3/16/2020 17:02:32 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**104630.**	**14998.**	**3908.5**	**8500.9**
Stddev	613.	111.	5.9	12.8
%RSD	.58635	.74020	.14991	.15061
#1	104310.	14910.	3914.7	8515.6
#2	104240.	14962.	3903.0	8492.4
#3	105330.	15123.	3908.0	8494.6

Zoom In Zoom Out

Sample Name: JD4436-17 Acquired: 3/16/2020 17:07:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.161**	**.0086**	**.2114**	**1.447**	**4.936**	**4.802**	**6.116**	**.9975**
Stddev	.002	.0001	.0006	.003	.023	.002	.022	.0010
%RSD	.1429	1.325	.2681	.1850	.4677	.0445	.3610	.1026
#1	1.163	.0084	.2119	1.449	4.952	4.802	6.125	.9973
#2	1.161	.0087	.2115	1.444	4.947	4.800	6.132	.9965
#3	1.160	.0086	.2108	1.446	4.910	4.804	6.090	.9986

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0136**	**.1536**	F **8.174**	**.0598**	F **-.0044**	F **22.22**	**.0324**	**.0071**
Stddev	.0004	.0006	.040	.0013	.0027	.05	.0005	.0009
%RSD	2.909	.4002	.4893	2.128	60.47	.2201	1.588	13.18
#1	.0133	.1530	8.192	.0607	-.0033	22.25	.0327	.0081
#2	.0141	.1542	8.128	.0603	-.0075	22.17	.0328	.0070
#3	.0135	.1535	8.202	.0583	-.0025	22.25	.0319	.0062

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**82.71**	F **817.6**	F **358.2**	**3.612**	**8.678**	**7.776**	**1.021**	**.2154**
Stddev	.22	7.4	1.4	.026	.020	.021	.001	.0006
%RSD	.2637	.9040	.4044	.7201	.2284	.2667	.1314	.2572
#1	82.87	818.4	359.4	3.608	8.695	7.799	1.022	.2151
#2	82.81	824.5	358.6	3.640	8.681	7.769	1.019	.2161
#3	82.46	809.8	356.6	3.589	8.656	7.759	1.022	.2151

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.583**	**1.111**	**2.074**	**2.621**	**.0446**	**.0863**	F **613.6**	**-.0057**
Stddev	.011	.005	.005	.004	.0011	.0007	2.3	.0012
%RSD	.4138	.4189	.2293	.1544	2.373	.8163	.3777	20.34
#1	2.586	1.112	2.079	2.624	.0449	.0870	616.0	-.0058
#2	2.591	1.106	2.073	2.622	.0434	.0863	611.3	-.0068
#3	2.571	1.115	2.069	2.616	.0455	.0856	613.6	-.0045

Zoom In Zoom Out

Sample Name: JD4436-17 Acquired: 3/16/2020 17:07:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0964**	F **20.36**	**.2786**
Stddev	.0004	.24	.0018
%RSD	.4417	1.202	.6482
#1	.0965	20.64	.2776
#2	.0959	20.21	.2807
#3	.0968	20.22	.2776

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**111000.**	**16173.**	**4143.1**	**8573.1**
Stddev	441.	81.	3.6	4.0
%RSD	.39694	.50193	.08649	.04670
#1	110940.	16131.	4139.0	8568.5
#2	110600.	16122.	4145.2	8575.1
#3	111470.	16267.	4145.2	8575.7

Zoom In Zoom Out

Sample Name: JD4436-18 Acquired: 3/16/2020 17:12:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.929**	**.0043**	**2.141**	**.5236**	**2.926**	**2.712**	**3.305**	**.4603**	**.0568**
Stddev	.003	.0001	.016	.0051	.018	.004	.019	.0044	.0005
%RSD	.1367	1.704	.7516	.9807	.6334	.1606	.5729	.9663	.8344
#1	1.929	.0043	2.156	.5291	2.917	2.708	3.294	.4647	.0563
#2	1.931	.0042	2.124	.5189	2.914	2.712	3.294	.4558	.0567
#3	1.926	.0043	2.143	.5229	2.947	2.716	3.327	.4604	.0573

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0653**	F **31.66**	**.0645**	**.0019**	F **175.8**	**.1268**	**.0373**	**23.86**	F **551.5**
Stddev	.0004	.30	.0017	.0066	1.5	.0025	.0014	.07	6.3
%RSD	.6853	.9428	2.661	339.2	.8672	1.934	3.672	.2878	1.140
#1	.0653	31.97	.0650	.0096	177.3	.1290	.0389	23.90	557.7
#2	.0650	31.37	.0626	-.0019	174.3	.1273	.0367	23.90	545.1
#3	.0658	31.66	.0659	-.0018	175.7	.1241	.0364	23.78	551.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **217.8**	**4.723**	**11.87**	**9.821**	**.7699**	**.5663**	**1.966**	**.4843**	F **14.06**
Stddev	.7	.073	.03	.027	.0053	.0049	.015	.0018	.05
%RSD	.3371	1.556	.2558	.2717	.6926	.8670	.7750	.3634	.3683
#1	218.5	4.708	11.91	9.839	.7750	.5712	1.980	.4863	14.01
#2	217.6	4.803	11.87	9.835	.7643	.5614	1.950	.4828	14.06
#3	217.1	4.658	11.85	9.791	.7703	.5663	1.969	.4839	14.12

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.585**	**.1339**	**.0685**	F **436.1**	**-.0065**	**.0195**	F **9.028**	**.4793**
Stddev	.007	.0012	.0003	3.7	.0009	.0007	.106	.0043
%RSD	.4604	.9117	.4522	.8521	13.20	3.533	1.170	.8980
#1	1.582	.1350	.0682	440.0	-.0055	.0189	9.141	.4810
#2	1.580	.1326	.0685	432.5	-.0070	.0193	8.931	.4744
#3	1.593	.1342	.0688	435.8	-.0070	.0202	9.013	.4825

Zoom In Zoom Out

Sample Name: JD4436-18 Acquired: 3/16/2020 17:12:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112020.**	**16347.**	**4132.5**	**8789.7**
Stddev	749.	134.	29.9	65.7
%RSD	.66870	.81789	.72455	.74771
#1	112630.	16224.	4105.2	8727.8
#2	112250.	16328.	4164.5	8858.7
#3	111180.	16490.	4127.7	8782.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 17:17:40 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.019**	**2.042**	**2.028**	**2.019**	**2.032**	**2.002**	**2.061**	**2.022**	**.2527**
Stddev	.004	.003	.018	.018	.051	.047	.044	.019	.0054
%RSD	.1893	.1343	.9144	.8833	2.500	2.320	2.148	.9336	2.123
#1	2.024	2.044	2.036	2.026	2.012	1.987	2.044	2.030	.2512
#2	2.018	2.042	2.007	1.999	1.995	1.965	2.028	2.001	.2482
#3	2.016	2.039	2.041	2.032	2.090	2.054	2.112	2.037	.2586
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.036**	**2.023**	**2.083**	**2.048**	**2.024**	**2.013**	**39.24**	**40.01**
Stddev	.043	.017	.015	.009	.015	.018	.019	.06	.05
%RSD	2.137	.8359	.7187	.4274	.7478	.8742	.9308	.1496	.1328
#1	2.021	2.043	2.028	2.084	2.053	2.030	2.016	39.30	39.96
#2	2.001	2.016	2.007	2.074	2.031	2.005	1.993	39.18	40.00
#3	2.084	2.048	2.034	2.092	2.061	2.039	2.030	39.23	40.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.26**	**39.25**	**38.70**	**39.27**	**2.035**	**2.058**	**5.177**	**2.067**	**2.020**
Stddev	.18	.08	.03	.06	.021	.019	.048	.018	.004
%RSD	.4578	.2082	.0788	.1569	1.056	.9072	.9332	.8891	.2120
#1	40.44	39.15	38.73	39.34	2.045	2.063	5.191	2.073	2.025
#2	40.26	39.29	38.71	39.24	2.010	2.038	5.123	2.047	2.018
#3	40.07	39.30	38.67	39.23	2.050	2.074	5.216	2.082	2.018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 17:17:40 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.960**	**2.041**	**2.033**	**2.117**	**2.049**	**1.998**	**1.839**	**2.047**
Stddev	.042	.024	.049	.018	.019	.003	.026	.053
%RSD	2.135	1.171	2.420	.8552	.9185	.1682	1.424	2.585
#1	1.945	2.051	2.018	2.131	2.057	2.000	1.837	2.029
#2	1.928	2.013	1.993	2.097	2.028	2.000	1.814	2.006
#3	2.008	2.057	2.088	2.124	2.063	1.994	1.867	2.107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108880.**	**15098.**	**4192.0**	**9339.5**
Stddev	1808.	61.	29.6	59.6
%RSD	1.6606	.40415	.70524	.63809
#1	109590.	15155.	4182.8	9318.9
#2	110230.	15107.	4225.0	9406.7
#3	106830.	15033.	4168.0	9293.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 17:22:28 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0004**	**.0003**	**.0002**	**.0002**	**.0003**	**.0002**	**.0001**	**-.0007**
Stddev	.0003	.0001	.0000	.0003	.0002	.0002	.0002	.0001	.0006
%RSD	131.0	34.93	.4890	152.1	135.0	71.57	87.47	92.55	97.92
#1	.0003	.0003	.0003	.0003	.0004	.0003	.0003	.0001	-.0009
#2	-.0001	.0003	.0003	-.0001	.0002	.0001	.0000	.0000	.0001
#3	.0005	.0005	.0003	.0003	-.0000	.0005	.0002	.0002	-.0011
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002							
Low Limit		-.0002							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0010**	**-.0000**	**-.0004**	**.0002**	**.0014**	**.0007**	**.0082**	**.0012**
Stddev	.0002	.0002	.0009	.0019	.0001	.0015	.0010	.0048	.0022
%RSD	160.5	15.01	4367.	421.3	51.07	107.8	136.8	57.83	176.1
#1	.0001	.0012	-.0004	.0016	.0002	.0016	-.0004	.0036	.0020
#2	-.0001	.0009	-.0007	-.0021	.0002	.0028	.0010	.0131	-.0012
#3	.0003	.0011	.0010	-.0008	.0001	-.0002	.0016	.0080	.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0146**	**-.0152**	**.0214**	**.0147**	**.0025**	**.0018**	**.0013**	**.0000**	**.0002**
Stddev	.0047	.0155	.0105	.0088	.0010	.0002	.0003	.0006	.0002
%RSD	31.99	101.9	49.29	60.03	41.12	12.41	24.85	59630.	63.60
#1	.0198	-.0126	.0094	.0218	.0034	.0019	.0015	.0006	.0001
#2	.0131	-.0012	.0290	.0175	.0014	.0019	.0010	-.0006	.0002
#3	.0109	-.0319	.0257	.0048	.0027	.0015	.0015	.0000	.0004
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 17:22:28 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0027**	**.0009**	F **.0907**	**-.0004**	**.0005**	F **.0219**	**-.0029**
Stddev	.0004	.0014	.0001	.0008	.0007	.0013	.0008	.0008
%RSD	77.62	52.36	16.44	.9164	168.0	249.2	3.517	27.96
#1	.0001	.0014	.0007	.0897	-.0010	-.0006	.0220	-.0022
#2	.0009	.0042	.0010	.0911	-.0004	.0002	.0211	-.0028
#3	.0007	.0024	.0009	.0912	.0003	.0019	.0226	-.0038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				.0102			.0200	
Low Limit				-.0102			-.0200	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**116000.**	**15399.**	**4399.8**	**10403.**
Stddev	1585.	183.	18.5	38.
%RSD	1.3660	1.1906	.42149	.36940
#1	114760.	15382.	4382.9	10364.
#2	115450.	15590.	4419.7	10441.
#3	117790.	15225.	4396.7	10404.

Zoom In Zoom Out

Sample Name: JD4436-19 Acquired: 3/16/2020 17:27:40 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9583**	**.0047**	**.3668**	F **11.48**	**3.719**	**4.004**	F **32.30**	**.4525**
Stddev	.0014	.0001	.0001	.01	.006	.001	.04	.0010
%RSD	.1427	1.889	.0383	.0457	.1494	.0194	.1127	.2299
#1	.9586	.0048	.3668	11.49	3.725	4.004	32.33	.4526
#2	.9595	.0047	.3666	11.48	3.720	4.004	32.32	.4514
#3	.9568	.0046	.3669	11.49	3.714	4.003	32.26	.4534

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079**	**.2043**	**7.768**	**.0212**	F **-.0226**	F **34.78**	**.0279**	F **-.0453**
Stddev	.0005	.0014	.022	.0010	.0040	.07	.0029	.0010
%RSD	6.499	.6757	.2806	4.730	17.88	.1980	10.50	2.194
#1	.0075	.2058	7.784	.0220	-.0269	34.82	.0307	-.0447
#2	.0085	.2032	7.743	.0215	-.0219	34.70	.0280	-.0447
#3	.0078	.2038	7.777	.0201	-.0190	34.81	.0249	-.0464

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**36.78**	F **407.3**	F **298.3**	**8.066**	**8.329**	**8.053**	**.2863**	**.1138**
Stddev	.04	1.3	.7	.171	.043	.015	.0028	.0006
%RSD	.1179	.3090	.2406	2.118	.5125	.1810	.9839	.5311
#1	36.83	408.4	299.1	8.164	8.358	8.070	.2842	.1144
#2	36.76	406.0	297.7	7.868	8.280	8.043	.2852	.1132
#3	36.76	407.6	298.0	8.164	8.349	8.047	.2895	.1139

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.273**	**.1050**	**.6904**	**2.233**	**.0306**	**.0658**	F **196.2**	**.0886**
Stddev	.003	.0009	.0016	.007	.0016	.0010	.1	.0013
%RSD	.0834	.8262	.2257	.3098	5.234	1.443	.0523	1.451
#1	3.273	.1040	.6914	2.238	.0290	.0669	196.3	.0873
#2	3.276	.1055	.6913	2.236	.0306	.0655	196.1	.0898
#3	3.271	.1056	.6886	2.225	.0322	.0651	196.2	.0887

Zoom In Zoom Out

Sample Name: JD4436-19 Acquired: 3/16/2020 17:27:40 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0322**	F **9.199**	**.5384**
Stddev	.0013	.048	.0047
%RSD	3.948	.5264	.8739
#1	.0319	9.253	.5329
#2	.0335	9.187	.5408
#3	.0310	9.158	.5414

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106170.**	**14906.**	**4034.8**	**8990.1**
Stddev	334.	117.	4.6	8.8
%RSD	.31454	.78258	.11404	.09816
#1	105940.	14815.	4032.8	8984.6
#2	106020.	15038.	4031.5	8985.4
#3	106550.	14866.	4040.0	9000.3

Zoom In Zoom Out

Sample Name: JD4436-20 Acquired: 3/16/2020 17:32:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5516**	**.0097**	**.0903**	**.6039**	**2.709**	**1.699**	**3.565**	**.3586**
Stddev	.0010	.0001	.0003	.0009	.003	.002	.000	.0010
%RSD	.1739	1.031	.3125	.1537	.1198	.0980	.0077	.2749
#1	.5513	.0096	.0905	.6050	2.712	1.700	3.565	.3575
#2	.5527	.0097	.0900	.6035	2.710	1.697	3.565	.3594
#3	.5508	.0098	.0905	.6033	2.705	1.699	3.565	.3589

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0097**	**.2575**	F **9.949**	**.0721**	**.0088**	**2.110**	**.0244**	F **-.0313**
Stddev	.0004	.0004	.023	.0017	.0037	.003	.0009	.0006
%RSD	3.695	.1624	.2324	2.314	41.98	.1549	3.850	1.759
#1	.0101	.2571	9.972	.0704	.0046	2.112	.0239	-.0319
#2	.0094	.2575	9.950	.0737	.0105	2.106	.0238	-.0308
#3	.0096	.2580	9.925	.0721	.0114	2.111	.0255	-.0312

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**97.08**	F **1277.**	**175.9**	**21.90**	**8.805**	**3.630**	**.4293**	**.0225**
Stddev	.17	12.	.4	.10	.021	.002	.0009	.0005
%RSD	.1758	.9251	.2192	.4655	.2346	.0473	.2109	2.130
#1	97.07	1276.	175.5	21.81	8.813	3.629	.4282	.0220
#2	97.25	1289.	176.2	22.01	8.821	3.629	.4297	.0226
#3	96.91	1266.	176.0	21.89	8.782	3.632	.4298	.0229

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.781**	**.3720**	**1.045**	**4.858**	**.0384**	**.1480**	F **214.5**	**.2137**
Stddev	.010	.0009	.002	.003	.0015	.0005	.3	.0011
%RSD	.3662	.2382	.1829	.0559	3.991	.3410	.1333	.5377
#1	2.769	.3730	1.045	4.861	.0379	.1474	214.8	.2140
#2	2.784	.3716	1.047	4.856	.0372	.1481	214.6	.2147
#3	2.789	.3713	1.043	4.856	.0401	.1484	214.2	.2124

Zoom In Zoom Out

Sample Name: JD4436-20 Acquired: 3/16/2020 17:32:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0814**	**4.615**	**.2668**
Stddev	.0011	.036	.0020
%RSD	1.407	.7919	.7683
#1	.0816	4.657	.2686
#2	.0803	4.595	.2646
#3	.0825	4.592	.2672

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**104560.**	**15291.**	**3976.1**	**8167.7**
Stddev	37.	76.	2.4	6.0
%RSD	.03577	.49665	.06028	.07402
#1	104530.	15364.	3973.7	8166.8
#2	104600.	15213.	3978.5	8174.1
#3	104540.	15296.	3976.1	8162.1

Zoom In Zoom Out

Sample Name: JD4436-21 Acquired: 3/16/2020 17:37:44 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5597**	**.0095**	**.1322**	**.4702**	**2.885**	**1.855**	**3.282**	**.3737**
Stddev	.0010	.0001	.0003	.0003	.004	.006	.007	.0007
%RSD	.1720	.7454	.2109	.0651	.1256	.3006	.2017	.1860
#1	.5609	.0096	.1326	.4703	2.890	1.857	3.284	.3730
#2	.5592	.0095	.1321	.4698	2.884	1.849	3.275	.3738
#3	.5592	.0095	.1320	.4704	2.883	1.860	3.288	.3744

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0123**	**.2462**	F **9.174**	**.0740**	**.0122**	**2.173**	**.0232**	F **-.0311**
Stddev	.0003	.0006	.008	.0019	.0011	.010	.0006	.0010
%RSD	2.524	.2533	.0869	2.582	8.960	.4533	2.571	3.058
#1	.0120	.2456	9.172	.0722	.0124	2.167	.0225	-.0309
#2	.0126	.2462	9.183	.0760	.0110	2.184	.0237	-.0303
#3	.0122	.2468	9.168	.0737	.0132	2.167	.0233	-.0322

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**99.39**	F **1228.**	**167.9**	**24.08**	**9.967**	**4.162**	**.4423**	**.0206**
Stddev	.07	5.	.3	.04	.010	.007	.0009	.0006
%RSD	.0740	.4311	.1893	.1611	.1043	.1722	.2079	3.010
#1	99.47	1231.	168.3	24.08	9.979	4.170	.4431	.0198
#2	99.39	1230.	167.6	24.11	9.962	4.158	.4425	.0209
#3	99.32	1221.	167.9	24.03	9.960	4.158	.4413	.0209

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.997**	**.3146**	**1.008**	**4.926**	**.0336**	**.1494**	F **113.1**	**.2162**
Stddev	.005	.0018	.001	.011	.0009	.0002	.2	.0027
%RSD	.2461	.5772	.1294	.2133	2.609	.1089	.1912	1.262
#1	1.992	.3125	1.010	4.918	.0329	.1495	113.3	.2150
#2	2.002	.3154	1.008	4.924	.0333	.1493	113.2	.2143
#3	1.997	.3158	1.007	4.938	.0346	.1492	112.9	.2193

Zoom In Zoom Out

Sample Name: JD4436-21 Acquired: 3/16/2020 17:37:44 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.1191**	**4.494**	**.2695**
Stddev	.0008	.046	.0019
%RSD	.6723	1.019	.6870
#1	.1182	4.542	.2713
#2	.1197	4.491	.2676
#3	.1195	4.450	.2697

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105130.**	**15432.**	**3993.5**	**8138.4**
Stddev	200.	32.	1.3	2.1
%RSD	.18984	.20764	.03151	.02578
#1	105190.	15449.	3992.7	8136.0
#2	105290.	15395.	3994.9	8139.8
#3	104900.	15452.	3992.7	8139.5

Zoom In Zoom Out

Sample Name: JD4436-24 Acquired: 3/16/2020 17:42:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7501**	**.0224**	**.0553**	**1.954**	**3.115**	**1.949**	**6.918**	**.4105**
Stddev	.0254	.0006	.0002	.001	.008	.002	.006	.0018
%RSD	3.392	2.724	.2932	.0590	.2491	.1119	.0830	.4375
#1	.7279	.0218	.0554	1.953	3.122	1.951	6.915	.4123
#2	.7779	.0230	.0554	1.955	3.107	1.948	6.915	.4105
#3	.7444	.0223	.0551	1.953	3.117	1.947	6.925	.4087

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**.5547**	**4.766**	**.1477**	**.0100**	**.4372**	**.0372**	F **-.0554**
Stddev	.0046	.0014	.006	.0014	.0053	.0009	.0014	.0008
%RSD	110.3	.2531	.1190	.9436	53.06	.2060	3.829	1.428
#1	.0008	.5559	4.766	.1478	.0106	.4374	.0381	-.0553
#2	.0093	.5552	4.772	.1490	.0150	.4362	.0356	-.0563
#3	.0022	.5532	4.760	.1462	.0044	.4380	.0380	-.0547

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**141.6**	F **393.6**	F **411.9**	**15.99**	**11.99**	**2.677**	**2.246**	**.1215**
Stddev	4.9	13.2	13.7	.61	.39	.087	.004	.0003
%RSD	3.477	3.356	3.315	3.791	3.263	3.246	.1761	.2487
#1	137.4	381.6	399.5	15.47	11.63	2.605	2.250	.1219
#2	147.0	407.7	426.5	16.65	12.41	2.773	2.242	.1213
#3	140.6	391.4	409.7	15.85	11.94	2.653	2.246	.1214

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.339**	**.0500**	**.7864**	**6.240**	**.0354**	**.1692**	F **151.2**	**.2656**
Stddev	.005	.0010	.0267	.009	.0004	.0013	.1	.0020
%RSD	.2320	1.941	3.395	.1387	1.137	.7903	.0918	.7528
#1	2.345	.0488	.7633	6.249	.0358	.1677	151.2	.2676
#2	2.338	.0505	.8156	6.237	.0355	.1701	151.4	.2655
#3	2.335	.0505	.7803	6.232	.0350	.1699	151.1	.2636

Zoom In Zoom Out

Sample Name: JD4436-24 Acquired: 3/16/2020 17:42:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0959**	**7.238**	**.4191**
Stddev	.0025	.013	.0026
%RSD	2.613	.1753	.6160
#1	.0931	7.248	.4161
#2	.0979	7.243	.4206
#3	.0967	7.224	.4206

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112440.**	**16070.**	**4238.1**	**8999.8**
Stddev	168.	429.	1.8	5.1
%RSD	.14918	2.6676	.04186	.05698
#1	112460.	16471.	4237.4	8994.0
#2	112590.	15618.	4236.7	9001.9
#3	112260.	16121.	4240.1	9003.6

Zoom In Zoom Out

Sample Name: JD4436-25 Acquired: 3/16/2020 17:47:39 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4554**	**.0076**	**.0295**	**.3646**	F **11.59**	**.6579**	**7.980**	**.2348**
Stddev	.0011	.0002	.0001	.0011	.04	.0023	.026	.0008
%RSD	.2452	2.773	.3003	.3113	.3355	.3513	.3243	.3529
#1	.4554	.0075	.0294	.3647	11.63	.6582	8.010	.2339
#2	.4564	.0078	.0296	.3658	11.56	.6554	7.968	.2354
#3	.4542	.0074	.0295	.3635	11.56	.6600	7.963	.2353

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**.5422**	**1.570**	**.2459**	**.0092**	**.1963**	**.0284**	F **-.1206**
Stddev	.0003	.0017	.002	.0019	.0035	.0010	.0022	.0018
%RSD	5.048	.3110	.1356	.7752	38.16	.5350	7.578	1.476
#1	.0052	.5441	1.569	.2441	.0116	.1959	.0288	-.1218
#2	.0055	.5411	1.573	.2455	.0052	.1974	.0303	-.1215
#3	.0050	.5413	1.569	.2479	.0108	.1954	.0261	-.1185

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**110.7**	F **698.2**	F **356.7**	**21.25**	**9.727**	**3.045**	**.7787**	**.5488**
Stddev	.2	2.9	1.1	.17	.008	.010	.0007	.0007
%RSD	.2181	.4196	.3179	.7906	.0812	.3223	.0905	.1235
#1	110.9	700.2	357.1	21.36	9.724	3.055	.7792	.5480
#2	110.8	699.6	357.7	21.32	9.735	3.036	.7791	.5492
#3	110.4	694.9	355.5	21.05	9.720	3.042	.7779	.5492

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.095**	**.1974**	**.7221**	F **8.732**	**.0437**	**.1703**	F **119.4**	**.3827**
Stddev	.007	.0008	.0015	.015	.0009	.0002	.1	.0024
%RSD	.2374	.3975	.2019	.1659	2.156	.1452	.0716	.6359
#1	3.088	.1972	.7229	8.749	.0426	.1701	119.3	.3852
#2	3.094	.1968	.7229	8.723	.0443	.1703	119.5	.3824
#3	3.103	.1983	.7204	8.725	.0442	.1705	119.4	.3804

Zoom In Zoom Out

Sample Name: JD4436-25 Acquired: 3/16/2020 17:47:39 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0627**	F **39.51**	**.3173**
Stddev	.0008	.31	.0022
%RSD	1.343	.7739	.7055
#1	.0618	39.67	.3198
#2	.0634	39.70	.3164
#3	.0629	39.16	.3156

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105610.**	**15345.**	**3939.0**	**8646.7**
Stddev	225.	48.	3.0	7.8
%RSD	.21328	.31562	.07529	.09007
#1	105380.	15359.	3937.1	8650.2
#2	105610.	15291.	3937.5	8637.8
#3	105830.	15384.	3942.5	8652.2

Zoom In Zoom Out

Sample Name: JD4515-4 Acquired: 3/16/2020 17:52:40 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2660**	**.0047**	**.0006**	**.0174**	**.0678**	**.0646**	**.7293**	**.0510**
Stddev	.0004	.0000	.0001	.0002	.0007	.0000	.0015	.0003
%RSD	.1678	.5640	10.89	1.157	1.095	.0750	.2046	.5374
#1	.2663	.0048	.0005	.0176	.0686	.0646	.7298	.0507
#2	.2662	.0047	.0006	.0172	.0672	.0646	.7305	.0510
#3	.2655	.0047	.0006	.0175	.0675	.0647	.7276	.0512

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0932**	**.2026**	**.0428**	F **-.0024**	**.2962**	**.0038**	**-.0009**
Stddev	.0007	.0005	.0003	.0016	.0038	.0013	.0021	.0009
%RSD	67.28	.5471	.1466	3.623	155.4	.4342	55.27	103.4
#1	-.0005	.0938	.2026	.0418	-.0051	.2959	.0026	-.0004
#2	-.0008	.0929	.2022	.0421	-.0041	.2950	.0062	-.0003
#3	-.0019	.0929	.2028	.0446	.0019	.2976	.0026	-.0020

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**80.05**	**7.023**	**62.70**	**8.763**	**4.144**	**.4390**	**.0337**	**.0043**
Stddev	.07	.022	.11	.050	.027	.0058	.0007	.0003
%RSD	.0937	.3210	.1735	.5667	.6426	1.323	2.207	7.680
#1	80.03	7.002	62.83	8.817	4.174	.4360	.0343	.0041
#2	80.14	7.020	62.64	8.719	4.124	.4353	.0329	.0046
#3	79.99	7.046	62.64	8.755	4.134	.4457	.0338	.0040

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.143**	**.0204**	**.0468**	**2.377**	**.0071**	**.0079**	**2.306**	**-.0079**
Stddev	.010	.0009	.0002	.003	.0004	.0005	.004	.0020
%RSD	.2338	4.384	.3700	.1256	5.039	6.643	.1952	24.72
#1	4.144	.0194	.0467	2.379	.0067	.0084	2.304	-.0102
#2	4.133	.0211	.0470	2.378	.0074	.0080	2.302	-.0065
#3	4.153	.0207	.0468	2.373	.0073	.0073	2.311	-.0072

Zoom In Zoom Out

Sample Name: JD4515-4 Acquired: 3/16/2020 17:52:40 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0794**	**6.180**	**.4390**
Stddev	.0009	.025	.0019
%RSD	1.078	.4112	.4230
#1	.0797	6.202	.4372
#2	.0800	6.152	.4409
#3	.0784	6.186	.4389

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115740.**	**15893.**	**4436.5**	**9916.7**
Stddev	192.	106.	4.8	8.3
%RSD	.16628	.66982	.10927	.08415
#1	115660.	15775.	4431.9	9912.7
#2	115600.	15983.	4441.5	9926.3
#3	115960.	15922.	4436.0	9911.0

Zoom In Zoom Out

Sample Name: MISSEDCONF Acquired: 3/16/2020 17:57:39 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0001**	**-.0001**	**.0001**	**-.0006**	W **-.0037**	**.0000**	**.0002**
Stddev	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001
%RSD	843.6	67.79	113.9	204.7	17.14	6.703	731.3	49.43
#1	-.0001	-.0000	-.0002	-.0000	-.0007	-.0034	-.0001	.0004
#2	.0001	-.0002	.0000	.0000	-.0006	-.0039	.0001	.0002
#3	-.0000	-.0002	-.0001	.0002	-.0005	-.0039	.0000	.0002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0019**	**-.0002**	**-.0002**	**.0001**	F **-.0097**	**.0010**	**-.0041**	**-.0001**
Stddev	.0002	.0002	.0000	.0006	.0004	.0002	.0005	.0006
%RSD	13.30	133.7	8.830	498.0	4.030	22.74	11.89	469.2
#1	-.0016	.0000	-.0002	.0006	-.0101	.0012	-.0036	-.0007
#2	-.0020	-.0004	-.0002	-.0005	-.0098	.0008	-.0045	-.0002
#3	-.0021	-.0001	-.0002	.0003	-.0093	.0009	-.0043	.0005

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107**	**-.0043**	**.0055**	**.0076**	**-.0319**	**-.0546**	**.0007**	**-.0001**
Stddev	.0021	.0013	.0074	.0382	.0162	.0041	.0006	.0000
%RSD	20.02	29.31	133.9	500.2	50.78	7.576	81.71	52.53
#1	.0109	-.0031	.0103	.0217	-.0200	-.0504	.0011	-.0001
#2	.0127	-.0043	.0091	-.0356	-.0504	-.0548	.0000	-.0000
#3	.0085	-.0056	-.0030	.0369	-.0253	-.0586	.0009	-.0001

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0052**	**-.0008**	**.0000**	**.0007**	**-.0017**	**.0002**	**.0117**	**.0000**
Stddev	.0006	.0002	.0000	.0002	.0008	.0001	.0012	.0005
%RSD	12.36	19.89	120.0	23.18	44.30	25.76	10.03	2137.
#1	-.0047	-.0008	.0000	.0009	-.0008	.0002	.0105	-.0005
#2	-.0050	-.0009	.0000	.0007	-.0022	.0003	.0129	.0003
#3	-.0059	-.0006	.0001	.0005	-.0021	.0002	.0118	.0003

Zoom In Zoom Out

Sample Name: MISSEDCONF Acquired: 3/16/2020 17:57:39 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0003**	W **-.1365**	**-.0025**
Stddev	.0008	.0071	.0008
%RSD	309.5	5.211	31.79
#1	.0012	-.1326	-.0022
#2	-.0002	-.1322	-.0019
#3	-.0002	-.1447	-.0034

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253190.**	**24750.**	**11070.**	**25462.**
Stddev	3853.	129.	40.	98.
%RSD	1.5218	.52148	.35800	.38367
#1	256100.	24895.	11025.	25350.
#2	254640.	24704.	11098.	25533.
#3	248820.	24650.	11087.	25502.

Zoom In Zoom Out

Sample Name: MP20209-MB1 7 Acquired: 3/16/2020 18:02:52 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0001**	**-.0001**	**-.0007**	**-.0003**	**.0002**	**.0001**
Stddev	.0001	.0001	.0001	.0001	.0007	.0002	.0001	.0002
%RSD	221.0	91.35	148.5	166.3	93.97	73.99	57.31	195.8
#1	-.0001	-.0000	-.0001	-.0002	.0000	-.0005	.0003	-.0001
#2	.0001	.0002	-.0001	-.0000	-.0013	-.0003	.0001	.0003
#3	.0002	.0002	.0000	.0000	-.0009	-.0001	.0003	.0000

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0001**	**.0029**	**-.0012**	F **-.0041**	**-.0008**	**.0002**	**.0000**
Stddev	.0005	.0006	.0001	.0009	.0014	.0012	.0022	.0017
%RSD	128.9	874.5	3.230	81.34	34.56	151.5	950.7	3821.
#1	-.0009	.0006	.0028	-.0001	-.0057	.0006	.0014	.0011
#2	-.0001	-.0005	.0029	-.0020	-.0032	-.0018	.0016	.0009
#3	-.0001	-.0003	.0030	-.0014	-.0034	-.0012	-.0023	-.0019

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**.0172**	**.0082**	**-.0300**	**-.0139**	**-.0036**	**.0014**	**.0002**
Stddev	.0060	.0024	.0012	.0231	.0221	.0029	.0009	.0000
%RSD	60.32	13.91	15.22	76.93	158.5	79.68	64.04	24.57
#1	.0165	.0157	.0073	-.0370	-.0336	-.0004	.0020	.0002
#2	.0046	.0200	.0096	-.0487	.0099	-.0060	.0004	.0001
#3	.0088	.0159	.0077	-.0042	-.0181	-.0044	.0020	.0002

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0314**	**-.0011**	**-.0000**	**.0013**	**.0031**	**.0004**	**.0661**	**-.0009**
Stddev	.0006	.0002	.0001	.0002	.0015	.0002	.0034	.0004
%RSD	1.842	19.07	629.8	11.94	48.46	37.52	5.143	40.92
#1	.0309	-.0011	-.0001	.0013	.0014	.0005	.0633	-.0012
#2	.0314	-.0009	.0001	.0012	.0039	.0002	.0651	-.0005
#3	.0320	-.0013	-.0000	.0015	.0040	.0005	.0698	-.0010

Zoom In Zoom Out

Sample Name: MP20209-MB1 7 Acquired: 3/16/2020 18:02:52 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0012**	**.0194**	**-.0005**
Stddev	.0007	.0053	.0013
%RSD	60.13	27.47	259.2
#1	-.0019	.0160	.0010
#2	-.0012	.0255	-.0012
#3	-.0004	.0166	-.0014

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114430.**	**15239.**	**4350.3**	**10297.**
Stddev	370.	109.	21.5	45.
%RSD	.32360	.71585	.49483	.43913
#1	114100.	15195.	4361.3	10323.
#2	114370.	15160.	4325.5	10245.
#3	114830.	15364.	4364.1	10324.

Zoom In Zoom Out

Sample Name: MP20209-B1 Acquired: 3/16/2020 18:07:59 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.002**	**2.037**	**2.023**	**2.019**	**2.071**	**2.042**	**2.105**	**2.017**
Stddev	.015	.012	.001	.001	.074	.075	.076	.001
%RSD	.7496	.6088	.0596	.0310	3.593	3.675	3.630	.0558
#1	1.991	2.030	2.022	2.020	2.017	1.986	2.052	2.018
#2	1.996	2.029	2.024	2.019	2.156	2.127	2.193	2.016
#3	2.019	2.051	2.022	2.018	2.039	2.012	2.072	2.018

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2771**	**2.079**	**2.039**	**2.073**	**2.102**	**2.045**	**2.006**	**2.070**
Stddev	.0080	.076	.001	.004	.010	.002	.002	.004
%RSD	2.895	3.654	.0255	.2050	.4664	.1063	.1095	.1742
#1	.2712	2.024	2.039	2.076	2.107	2.047	2.007	2.072
#2	.2862	2.165	2.038	2.076	2.107	2.045	2.008	2.072
#3	.2739	2.047	2.039	2.068	2.090	2.043	2.004	2.066

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.56**	**26.17**	**26.34**	**25.62**	**24.97**	**25.57**	**1.999**	**2.134**
Stddev	.20	.21	.17	.10	.23	.18	.004	.001
%RSD	.7846	.8134	.6575	.3878	.9302	.7024	.2097	.0481
#1	25.45	26.07	26.27	25.53	24.84	25.48	2.003	2.134
#2	25.45	26.03	26.21	25.60	24.83	25.45	2.000	2.135
#3	25.80	26.42	26.54	25.73	25.23	25.78	1.995	2.133

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5894**	**2.155**	**2.001**	**2.041**	**1.995**	**2.143**	F **-.0709**	F **-.0478**
Stddev	.0004	.003	.014	.071	.009	.077	.0037	.0010
%RSD	.0743	.1274	.7081	3.461	.4356	3.606	5.172	2.127
#1	.5889	2.156	1.993	1.991	1.992	2.088	-.0746	-.0481
#2	.5894	2.157	1.993	2.121	2.005	2.231	-.0709	-.0467
#3	.5898	2.152	2.018	2.010	1.989	2.110	-.0673	-.0487

Zoom In Zoom Out

Sample Name: MP20209-B1 Acquired: 3/16/2020 18:07:59 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0000**	**1.924**	W **-.0652**
Stddev	.0007	.007	.0042
%RSD	1337.	.3841	6.502
#1	-.0004	1.920	-.0658
#2	-.0002	1.932	-.0692
#3	.0008	1.919	-.0607

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108240.**	**15164.**	**4218.5**	**9495.7**
Stddev	2861.	163.	2.7	2.7
%RSD	2.6433	1.0765	.06482	.02862
#1	110330.	15173.	4219.7	9497.4
#2	104980.	15322.	4215.4	9492.5
#3	109400.	14996.	4220.4	9497.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 18:12:47 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.062**	**2.053**	**2.053**	**2.070**	**2.019**	**2.095**	**2.056**	**.2579**
Stddev	.002	.002	.003	.001	.004	.002	.002	.002	.0003
%RSD	.1024	.1183	.1643	.0622	.1733	.1000	.0921	.0814	.1058
#1	2.038	2.063	2.053	2.053	2.068	2.021	2.097	2.054	.2581
#2	2.035	2.063	2.049	2.055	2.068	2.017	2.094	2.058	.2580
#3	2.034	2.059	2.056	2.052	2.074	2.018	2.093	2.056	.2576
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.079**	**2.074**	**2.045**	**2.124**	**2.078**	**2.048**	**2.035**	**39.81**	**40.72**
Stddev	.002	.003	.002	.014	.003	.006	.004	.02	.09
%RSD	.0837	.1496	.1003	.6557	.1513	.2745	.1809	.0468	.2133
#1	2.081	2.073	2.044	2.133	2.079	2.042	2.037	39.83	40.65
#2	2.078	2.073	2.045	2.108	2.074	2.053	2.037	39.80	40.82
#3	2.078	2.078	2.048	2.131	2.080	2.048	2.031	39.80	40.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.73**	**40.05**	**39.11**	**39.80**	**2.062**	**2.091**	**5.242**	**2.099**	**2.033**
Stddev	.11	.11	.11	.06	.002	.001	.003	.004	.001
%RSD	.2810	.2792	.2728	.1463	.0974	.0245	.0555	.1939	.0523
#1	40.61	39.95	39.05	39.83	2.063	2.090	5.245	2.100	2.034
#2	40.84	40.17	39.23	39.82	2.064	2.091	5.241	2.095	2.033
#3	40.76	40.03	39.04	39.73	2.060	2.091	5.240	2.103	2.032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 18:12:47 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**2.074**	**2.079**	**2.084**	**2.065**	**2.015**	**1.944**	**2.080**
Stddev	.001	.005	.002	.011	.001	.003	.008	.002
%RSD	.0268	.2293	.1141	.5488	.0320	.1519	.4161	.1011
#1	1.977	2.068	2.081	2.084	2.065	2.018	1.942	2.082
#2	1.976	2.075	2.079	2.095	2.066	2.013	1.953	2.079
#3	1.976	2.078	2.076	2.072	2.066	2.013	1.937	2.079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107680.**	**14780.**	**4160.0**	**9261.1**
Stddev	94.	102.	9.7	19.3
%RSD	.08753	.69127	.23280	.20791
#1	107580.	14873.	4169.0	9281.2
#2	107700.	14671.	4161.1	9259.5
#3	107760.	14797.	4149.7	9242.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 18:17:35 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0000**	**.0001**	**-.0001**	**-.0004**	**-.0000**	**.0001**	**.0001**	**-.0005**
Stddev	.0001	.0001	.0002	.0001	.0003	.0003	.0001	.0002	.0002
%RSD	34.79	3926.	210.8	162.6	86.46	1383.	92.44	125.9	39.22
#1	.0004	-.0000	-.0001	-.0000	-.0007	.0003	.0001	.0001	-.0006
#2	.0002	.0001	.0002	-.0002	-.0000	-.0003	-.0000	.0003	-.0007
#3	.0005	-.0000	.0002	.0000	-.0005	-.0001	.0002	-.0000	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**-.0010**	**.0017**	**.0001**	**-.0005**	**.0007**	**.0094**	**-.0073**
Stddev	.0003	.0001	.0003	.0016	.0004	.0014	.0005	.0192	.0040
%RSD	333.3	56.35	27.66	91.81	291.8	257.1	63.24	203.9	55.29
#1	-.0005	-.0001	-.0007	.0009	.0004	.0002	.0006	.0304	-.0111
#2	.0001	-.0001	-.0010	.0008	-.0003	-.0021	.0004	.0050	-.0031
#3	.0001	-.0002	-.0012	.0036	.0003	.0003	.0013	-.0072	-.0076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057**	**-.0289**	**.0330**	**-.0060**	**.0011**	**.0018**	**.0011**	**-.0003**	**-.0001**
Stddev	.0062	.0132	.0153	.0061	.0002	.0004	.0005	.0004	.0001
%RSD	109.8	45.69	46.37	101.6	16.73	22.62	48.19	135.3	110.3
#1	.0125	-.0442	.0406	-.0020	.0011	.0023	.0009	-.0008	.0000
#2	.0042	-.0222	.0154	-.0129	.0012	.0017	.0017	-.0000	-.0001
#3	.0003	-.0204	.0431	-.0029	.0009	.0015	.0007	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 18:17:35 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0046**	**.0006**	F **.0456**	**-.0013**	**.0002**	**.0182**	**-.0032**
Stddev	.0002	.0014	.0001	.0050	.0013	.0010	.0022	.0030
%RSD	21.17	31.26	17.35	11.04	96.56	602.1	11.97	95.99
#1	.0009	.0058	.0007	.0404	-.0000	.0012	.0172	-.0065
#2	.0013	.0048	.0005	.0505	-.0026	-.0007	.0168	-.0006
#3	.0009	.0030	.0007	.0459	-.0013	-.0000	.0207	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0102				
Low Limit				-.0102				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114060.**	**15034.**	**4356.9**	**10315.**
Stddev	150.	86.	4.9	9.
%RSD	.13122	.57480	.11344	.09160
#1	114070.	15072.	4362.6	10320.
#2	114200.	14935.	4353.6	10305.
#3	113900.	15095.	4354.4	10322.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/16/2020 18:22:45 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0003**	**.0003**	**-.0005**	**.0015**	**.0008**	**-.0011**	**-.0003**	**.0033**
Stddev	.0002	.0000	.0002	.0003	.0002	.0009	.0001	.0001	.0006
%RSD	21.06	10.23	72.42	49.87	14.48	116.9	10.02	49.42	17.01
#1	-.0011	.0003	.0005	-.0008	.0017	-.0001	-.0011	-.0004	.0028
#2	-.0010	.0003	.0003	-.0004	.0013	.0007	-.0012	-.0002	.0032
#3	-.0007	.0003	.0001	-.0003	.0016	.0018	-.0010	-.0002	.0039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**-.0010**	**-.0005**	**-.0041**	**-.0023**	**.0054**	**.0016**	**500.4**	**390.3**
Stddev	.0001	.0001	.0018	.0016	.0010	.0059	.0010	3.8	1.0
%RSD	13.97	7.912	392.7	39.37	43.35	109.5	61.33	.7555	.2610
#1	-.0008	-.0011	.0016	-.0050	-.0014	.0009	.0018	496.4	391.5
#2	-.0007	-.0010	-.0017	-.0051	-.0022	.0032	.0005	503.9	389.5
#3	-.0008	-.0011	-.0012	-.0023	-.0034	.0121	.0025	500.9	390.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**190.7**	**509.4**	**-.2821**	**.0539**	**-.0024**	**-.0011**	**-.0102**	**-.0018**	**-.0002**
Stddev	.4	1.8	.0184	.0109	.0024	.0008	.0016	.0024	.0001
%RSD	.2300	.3535	6.518	20.20	99.40	72.43	15.65	134.6	43.36
#1	191.1	511.4	-.2872	.0648	.0002	-.0004	-.0085	-.0012	-.0001
#2	190.2	508.8	-.2974	.0430	-.0028	-.0009	-.0107	.0003	-.0001
#3	190.7	507.9	-.2617	.0538	-.0046	-.0020	-.0116	-.0044	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/16/2020 18:22:45 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0122**	**.0012**	F **.2508**	**-.0078**	**-.0003**	**-.0021**	**.0490**
Stddev	.0002	.0011	.0001	.0225	.0003	.0004	.0011	.0028
%RSD	164.7	8.744	11.40	8.966	3.981	130.6	50.08	5.781
#1	-.0004	.0126	.0011	.2311	-.0076	.0001	-.0021	.0502
#2	.0001	.0109	.0013	.2459	-.0077	-.0003	-.0011	.0509
#3	-.0002	.0129	.0014	.2753	-.0082	-.0007	-.0032	.0457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
High Limit				.0500				
Low Limit				-.0500				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**99592.**	**14545.**	**3836.1**	**8229.3**
Stddev	426.	70.	9.1	14.6
%RSD	.42759	.48158	.23615	.17688
#1	99496.	14468.	3831.7	8222.2
#2	99222.	14563.	3830.1	8219.8
#3	100060.	14605.	3846.5	8246.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/16/2020 18:27:58 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5222**	**.5094**	**1.056**	**.5105**	**.5029**	**.5234**	**.5180**	**1.011**	**1.098**
Stddev	.0006	.0009	.001	.0018	.0031	.0005	.0014	.003	.004
%RSD	.1186	.1816	.0793	.3435	.6086	.0933	.2729	.2840	.3211
#1	.5216	.5094	1.057	.5085	.5052	.5237	.5195	1.012	1.102
#2	.5221	.5084	1.056	.5110	.5041	.5237	.5178	1.013	1.097
#3	.5228	.5103	1.056	.5119	.4994	.5229	.5167	1.008	1.096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5105**	**.9777**	**1.068**	**.9857**	**.9990**	**1.056**	**1.034**	**513.1**	**396.0**
Stddev	.0012	.0006	.001	.0076	.0019	.005	.006	3.0	.2
%RSD	.2413	.0608	.1288	.7693	.1869	.4481	.5817	.5893	.0565
#1	.5115	.9770	1.068	.9775	.9982	1.058	1.029	516.6	396.2
#2	.5109	.9781	1.069	.9871	1.001	1.051	1.041	511.4	395.8
#3	.5091	.9778	1.066	.9925	.9977	1.060	1.033	511.2	396.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**191.9**	**507.6**	**-.3975**	**.0118**	**.4689**	**.4763**	**.5077**	**.4564**	**.5168**
Stddev	.2	.4	.0310	.0118	.0016	.0009	.0013	.0018	.0002
%RSD	.1276	.0871	7.792	99.89	.3363	.1789	.2636	.3998	.0422
#1	192.2	507.1	-.4222	-.0009	.4671	.4769	.5064	.4584	.5170
#2	191.7	508.0	-.3627	.0139	.4694	.4767	.5077	.4550	.5166
#3	191.9	507.8	-.4076	.0224	.4702	.4753	.5090	.4556	.5168
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/16/2020 18:27:58 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4807**	**.4864**	**.5046**	F **.8161**	**.5064**	**.5585**	**.4499**	**.0336**
Stddev	.0008	.0040	.0018	.0055	.0021	.0030	.0005	.0041
%RSD	.1569	.8280	.3618	.6734	.4212	.5300	.1176	12.11
#1	.4800	.4817	.5026	.8202	.5040	.5553	.4504	.0382
#2	.4815	.4882	.5050	.8182	.5081	.5589	.4499	.0305
#3	.4807	.4891	.5062	.8098	.5071	.5612	.4493	.0321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value				.5000				
Range				20.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**99759.**	**14444.**	**3845.5**	**8229.0**
Stddev	78.	34.	1.6	4.7
%RSD	.07804	.23301	.04261	.05710
#1	99683.	14406.	3844.5	8227.5
#2	99754.	14470.	3847.4	8225.3
#3	99839.	14456.	3844.6	8234.3

Zoom In Zoom Out

Sample Name: JD4525-2 Acquired: 3/16/2020 18:32:49 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5514**	**.0067**	**.0005**	**.0827**	**.3023**	**.1934**	**2.011**	**.1438**
Stddev	.0011	.0001	.0003	.0024	.0009	.0005	.006	.0043
%RSD	.1921	.9455	72.31	2.853	.2838	.2575	.3111	2.971
#1	.5519	.0066	.0001	.0854	.3032	.1929	2.013	.1486
#2	.5502	.0067	.0008	.0809	.3020	.1938	2.016	.1405
#3	.5521	.0068	.0005	.0819	.3015	.1937	2.004	.1423

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**.3857**	**.4712**	**.0830**	**-.0017**	**.2703**	**.0019**	**.0022**
Stddev	.0003	.0010	.0147	.0019	.0033	.0067	.0025	.0014
%RSD	21.33	.2700	3.129	2.292	189.8	2.477	132.5	65.57
#1	-.0015	.3854	.4870	.0847	-.0011	.2778	.0032	.0031
#2	-.0014	.3848	.4578	.0809	-.0053	.2649	.0034	.0029
#3	-.0010	.3868	.4687	.0832	.0012	.2682	-.0010	.0005

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**159.1**	**21.62**	F **250.2**	**26.52**	**10.07**	**.9311**	**.0400**	**.0144**
Stddev	.2	.02	.4	.18	.01	.0075	.0014	.0003
%RSD	.1515	.0873	.1508	.6614	.0528	.8056	3.441	2.235
#1	159.1	21.63	250.2	26.55	10.07	.9275	.0414	.0145
#2	158.9	21.60	249.8	26.34	10.08	.9397	.0387	.0147
#3	159.4	21.64	250.6	26.68	10.07	.9260	.0400	.0141

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.147**	**.0237**	**.1701**	**2.096**	**.0138**	**.1049**	**.8362**	W **-.0168**
Stddev	.061	.0011	.0005	.005	.0005	.0013	.0261	.0019
%RSD	2.860	4.694	.2805	.2635	3.407	1.229	3.119	11.42
#1	2.213	.0249	.1697	2.098	.0137	.1062	.8654	-.0163
#2	2.092	.0227	.1701	2.099	.0143	.1048	.8154	-.0188
#3	2.136	.0234	.1706	2.089	.0134	.1036	.8277	-.0151

Zoom In Zoom Out

Sample Name: JD4525-2 Acquired: 3/16/2020 18:32:49 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.1857**	**3.380**	**.7858**
Stddev	.0011	.111	.0031
%RSD	.6074	3.280	.3979
#1	.1848	3.506	.7835
#2	.1853	3.298	.7894
#3	.1870	3.337	.7847

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112430.**	**15600.**	**4283.9**	**9482.5**
Stddev	348.	25.	103.1	222.7
%RSD	.30982	.15878	2.4055	2.3485
#1	112530.	15611.	4174.2	9245.1
#2	112050.	15571.	4378.7	9686.7
#3	112720.	15617.	4298.8	9515.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 18:37:47 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.987**	**2.020**	**2.035**	**2.042**	**2.036**	**1.991**	**2.067**	**2.042**	**.2534**
Stddev	.006	.006	.022	.023	.014	.013	.014	.021	.0008
%RSD	.3276	.3100	1.067	1.123	.6768	.6617	.6657	1.048	.3158
#1	1.983	2.016	2.015	2.020	2.048	2.000	2.079	2.022	.2540
#2	1.994	2.027	2.058	2.066	2.040	1.996	2.071	2.065	.2536
#3	1.983	2.016	2.032	2.041	2.021	1.976	2.052	2.040	.2525
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.042**	**2.061**	**2.033**	**2.084**	**2.067**	**2.025**	**2.008**	**38.90**	**39.88**
Stddev	.018	.023	.018	.024	.021	.024	.019	.16	.16
%RSD	.8720	1.121	.8789	1.143	1.018	1.173	.9561	.4114	.4017
#1	2.055	2.042	2.019	2.057	2.046	2.005	1.993	38.77	39.73
#2	2.050	2.087	2.053	2.100	2.088	2.051	2.029	39.08	40.05
#3	2.022	2.055	2.027	2.097	2.065	2.018	2.001	38.85	39.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.89**	**39.24**	**38.20**	**38.99**	**2.036**	**2.066**	**5.199**	**2.083**	**1.987**
Stddev	.24	.33	.15	.17	.023	.021	.051	.022	.006
%RSD	.6137	.8331	.4033	.4256	1.125	.9923	.9788	1.039	.3007
#1	39.67	38.90	38.04	38.85	2.015	2.048	5.152	2.065	1.983
#2	40.15	39.55	38.34	39.18	2.060	2.088	5.253	2.107	1.994
#3	39.85	39.26	38.22	38.95	2.032	2.062	5.194	2.078	1.984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 18:37:47 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.931**	**2.049**	**2.044**	**2.100**	**2.050**	**1.967**	**1.949**	**2.044**
Stddev	.014	.022	.013	.024	.025	.009	.020	.010
%RSD	.7393	1.068	.6528	1.142	1.195	.4430	1.001	.4945
#1	1.943	2.030	2.054	2.074	2.023	1.961	1.936	2.047
#2	1.935	2.073	2.049	2.122	2.072	1.977	1.972	2.053
#3	1.915	2.044	2.029	2.104	2.055	1.964	1.940	2.033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108150.**	**14873.**	**4152.5**	**9232.9**
Stddev	632.	149.	32.9	75.1
%RSD	.58475	1.0020	.79167	.81344
#1	107670.	15036.	4176.4	9290.9
#2	107900.	14743.	4115.0	9148.1
#3	108860.	14842.	4166.0	9259.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 18:42:35 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0000**	**.0003**	**.0002**	**-.0004**	**.0002**	**.0002**	**.0004**	**-.0010**
Stddev	.0001	.0001	.0003	.0004	.0001	.0003	.0002	.0003	.0001
%RSD	75.87	2830.	86.40	256.7	29.26	213.5	89.04	82.14	10.89
#1	.0001	-.0000	.0006	.0002	-.0004	.0006	.0001	.0005	-.0009
#2	.0001	-.0001	.0004	-.0003	-.0005	.0001	.0001	.0007	-.0010
#3	.0004	.0001	.0000	.0006	-.0003	-.0001	.0004	.0000	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0003**	**-.0000**	**-.0004**	**-.0004**	**.0018**	**.0005**	**.0101**	**-.0013**
Stddev	.0003	.0001	.0013	.0014	.0006	.0008	.0002	.0032	.0024
%RSD	56.39	42.93	90060.	325.0	149.4	45.48	46.73	31.93	187.2
#1	.0002	.0005	.0013	-.0001	-.0008	.0026	.0007	.0138	-.0011
#2	.0007	.0003	-.0012	.0008	-.0006	.0009	.0005	.0078	-.0038
#3	.0008	.0002	-.0001	-.0019	.0003	.0018	.0002	.0087	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0131**	**-.0185**	**-.0227**	**-.0149**	**.0021**	**.0020**	**.0018**	**-.0004**	**.0001**
Stddev	.0025	.0369	.0130	.0071	.0006	.0005	.0006	.0002	.0000
%RSD	19.09	199.9	57.26	47.89	29.46	23.43	36.39	49.48	37.11
#1	.0103	-.0610	-.0099	-.0167	.0027	.0023	.0025	-.0002	.0001
#2	.0149	.0047	-.0359	-.0071	.0014	.0021	.0013	-.0004	.0001
#3	.0141	.0009	-.0223	-.0210	.0021	.0014	.0015	-.0005	.0002
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 18:42:35 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0029**	**.0005**	F **.0643**	**-.0016**	**-.0010**	**.0184**	**-.0041**
Stddev	.0005	.0009	.0002	.0013	.0007	.0007	.0082	.0011
%RSD	76.05	29.62	39.59	1.984	44.71	69.37	44.46	26.22
#1	.0011	.0037	.0003	.0640	-.0011	-.0004	.0139	-.0053
#2	.0004	.0020	.0004	.0657	-.0013	-.0009	.0278	-.0035
#3	.0003	.0031	.0007	.0632	-.0024	-.0018	.0134	-.0035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0102				
Low Limit				-.0102				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113720.**	**15079.**	**4336.0**	**10250.**
Stddev	231.	194.	28.3	66.
%RSD	.20320	1.2851	.65210	.64194
#1	113490.	15287.	4312.4	10201.
#2	113700.	15049.	4328.4	10224.
#3	113950.	14903.	4367.3	10325.

Zoom In Zoom Out

Sample Name: alconf Acquired: 3/16/2020 18:47:47 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0000**	**-.0001**	**-.0003**	**.0000**	**-.0003**	**-.0007**	**-.0003**	**.0005**
Stddev	.0001	.0001	.0001	.0002	.0002	.0003	.0001	.0001	.0004
%RSD	15.39	264.9	117.4	70.04	703.9	96.35	15.16	21.30	90.37
#1	-.0006	-.0000	.0000	-.0001	-.0002	-.0005	-.0007	-.0003	.0010
#2	-.0006	.0000	-.0001	-.0003	.0001	-.0000	-.0008	-.0004	.0002
#3	-.0008	.0001	-.0001	-.0005	.0002	-.0003	-.0006	-.0003	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0025**	**.0000**	**-.0004**	**.0000**	**.0001**	**.0001**	F **471.6**	**-.0006**
Stddev	.0003	.0002	.0008	.0038	.0012	.0011	.0022	5.7	.0024
%RSD	58.39	9.802	3417.	876.0	6459.	1176.	3402.	1.219	389.3
#1	-.0002	.0028	-.0009	-.0016	-.0007	-.0005	.0000	473.0	-.0027
#2	-.0008	.0024	.0007	-.0036	.0014	-.0005	-.0021	476.4	.0020
#3	-.0008	.0024	.0003	.0038	-.0007	.0013	.0022	465.2	-.0011

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0088**	**-.0183**	**-.1608**	**-.0234**	**-.0088**	**-.0011**	**.0038**	**-.0008**	**-.0000**
Stddev	.0040	.0221	.0473	.0034	.0015	.0004	.0026	.0008	.0001
%RSD	45.06	121.0	29.38	14.52	177.7	30.62	67.83	104.8	262.3
#1	.0080	-.0236	-.2047	-.0231	-.0024	-.0008	.0040	-.0015	-.0001
#2	.0053	.0060	-.1670	-.0270	-.0004	-.0014	.0062	.0001	.0001
#3	.0131	-.0373	-.1108	-.0202	.0004	-.0012	.0011	-.0009	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0047**	**.0003**	**.1143**	**-.0041**	**.0006**	**.0123**	**-.0085**
Stddev	.0002	.0023	.0001	.0046	.0028	.0007	.0101	.0019
%RSD	45.87	49.56	36.76	4.017	68.97	128.3	82.48	22.02
#1	.0002	.0026	.0002	.1172	-.0061	.0004	.0177	-.0105
#2	.0004	.0071	.0004	.1090	-.0009	-.0000	.0185	-.0068
#3	.0006	.0043	.0003	.1166	-.0052	.0014	.0006	-.0080

Zoom In Zoom Out

Sample Name: alconf Acquired: 3/16/2020 18:47:47 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108790.**	**15317.**	**4413.8**	**9319.8**
Stddev	557.	164.	5.9	15.1
%RSD	.51214	1.0713	.13402	.16157
#1	108270.	15233.	4420.3	9337.2
#2	108730.	15212.	4412.3	9311.6
#3	109370.	15506.	4408.7	9310.6

Zoom In Zoom Out

Sample Name: caconf Acquired: 3/16/2020 18:53:02 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0003**	**.0003**	**-.0002**	**.0002**	**.0012**	**.0001**	**-.0001**
Stddev	.0002	.0000	.0001	.0003	.0006	.0006	.0001	.0005
%RSD	32.26	12.58	22.79	135.6	235.8	55.11	54.05	405.3
#1	.0007	-.0003	.0003	-.0001	.0002	.0019	.0002	-.0003
#2	.0007	-.0002	.0003	-.0000	-.0003	.0007	.0001	-.0005
#3	.0004	-.0003	.0002	-.0005	.0009	.0009	.0001	.0004

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0001**	W **-.0074**	**.0007**	**-.0000**	**.0000**	**.0000**	**-.0001**
Stddev	.0001	.0001	.0002	.0014	.0028	.0007	.0014	.0005
%RSD	4.090	137.9	2.446	208.3	32330.	2068.	12030.	1075.
#1	.0013	-.0000	-.0073	-.0008	-.0016	.0003	.0009	-.0003
#2	.0014	-.0001	-.0072	.0008	.0032	-.0008	-.0016	.0006
#3	.0013	.0000	-.0076	.0021	-.0016	.0006	.0007	-.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0282**	F **413.8**	**-.0061**	**.0093**	**-.1965**	**-.0299**	**.0011**	**-.0012**
Stddev	.0025	.6	.0022	.0374	.0169	.0046	.0007	.0001
%RSD	8.781	.1439	35.97	404.1	8.602	15.45	60.80	5.236
#1	-.0299	413.9	-.0037	.0208	-.2095	-.0281	.0006	-.0013
#2	-.0253	414.3	-.0080	.0395	-.1774	-.0352	.0009	-.0012
#3	-.0293	413.1	-.0065	-.0326	-.2025	-.0264	.0019	-.0012

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0087**	**-.0020**	**-.0000**	**.0003**	**.0033**	**.0004**	**.0644**	**.0000**
Stddev	.0006	.0005	.0001	.0003	.0002	.0002	.0083	.0005
%RSD	6.909	27.86	2206.	106.8	6.301	49.60	12.94	66280.
#1	.0090	-.0025	-.0001	.0006	.0035	.0003	.0715	.0003
#2	.0080	-.0014	.0000	-.0000	.0033	.0006	.0552	-.0006
#3	.0091	-.0020	.0001	.0002	.0031	.0003	.0666	.0003

Zoom In Zoom Out

Sample Name: caconf Acquired: 3/16/2020 18:53:02 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0001**	**-.0063**	**-.0019**
Stddev	.0006	.0073	.0040
%RSD	677.8	115.7	207.5
#1	.0007	-.0142	.0025
#2	-.0005	.0002	-.0030
#3	.0001	-.0049	-.0053

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105230.**	**14671.**	**3945.6**	**8828.2**
Stddev	196.	68.	80.9	166.6
%RSD	.18671	.46408	2.0503	1.8866
#1	105410.	14661.	3856.8	8642.4
#2	105020.	14609.	3965.0	8878.4
#3	105260.	14744.	4015.0	8964.0

Zoom In Zoom Out

Sample Name: snconf Acquired: 3/16/2020 18:58:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0000**	**.0001**	**-.0002**	**-.0007**	**-.0010**	**.0001**	**-.0006**	**.0008**
Stddev	.0001	.0001	.0004	.0001	.0004	.0004	.0001	.0002	.0005
%RSD	46.28	263.7	494.0	76.80	62.43	41.02	145.6	29.84	54.83
#1	.0001	-.0000	.0001	-.0000	-.0006	-.0006	.0001	-.0005	.0004
#2	.0003	.0000	.0004	-.0002	-.0012	-.0010	-.0000	-.0008	.0007
#3	.0001	.0001	-.0003	-.0003	-.0003	-.0013	.0001	-.0005	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0008**	**.0009**	**-.0014**	**.0002**	**.0031**	**-.0008**	**.0049**	**.0023**
Stddev	.0005	.0001	.0005	.0019	.0007	.0017	.0017	.0048	.0045
%RSD	407.6	19.93	58.67	135.5	373.4	54.17	230.5	96.49	193.9
#1	.0004	-.0009	.0007	-.0036	-.0007	.0047	-.0005	.0021	-.0028
#2	-.0004	-.0007	.0005	-.0005	.0006	.0014	.0008	.0104	.0042
#3	-.0004	-.0007	.0015	-.0001	.0006	.0031	-.0026	.0022	.0056

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0086**	**-.0253**	**.0362**	**-.0334**	**.0006**	**.0003**	**-.0159**	F **11.24**	**.0001**
Stddev	.0047	.0536	.0220	.0061	.0009	.0002	.0013	.16	.0000
%RSD	55.09	212.0	60.72	18.23	159.7	61.01	7.948	1.388	28.61
#1	.0113	-.0136	.0111	-.0311	.0002	.0002	-.0158	11.13	.0001
#2	.0031	.0215	.0455	-.0404	.0016	.0005	-.0147	11.18	.0002
#3	.0114	-.0837	.0521	-.0289	-.0001	.0001	-.0173	11.42	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0017**	**.0134**	**.0506**	**-.0001**	**-.0015**	**.0070**	**-.0024**
Stddev	.0001	.0009	.0006	.0021	.0015	.0005	.0097	.0044
%RSD	18.90	57.40	4.207	4.205	1358.	35.56	139.7	185.1
#1	.0006	.0024	.0140	.0485	.0017	-.0018	.0156	-.0064
#2	.0005	.0020	.0135	.0507	-.0010	-.0019	.0089	-.0030
#3	.0008	.0006	.0128	.0528	-.0011	-.0009	-.0036	.0023

Zoom In Zoom Out

Sample Name: snconf Acquired: 3/16/2020 18:58:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114170.**	**14929.**	**4319.3**	**10225.**
Stddev	939.	48.	42.6	102.
%RSD	.82221	.31862	.98709	.99280
#1	113700.	14877.	4348.8	10292.
#2	115250.	14969.	4338.7	10274.
#3	113560.	14941.	4270.4	10108.

Zoom In Zoom Out

Sample Name: mnconf Acquired: 3/16/2020 19:03:22 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0002**	**-.0000**	**.0000**	**-.0000**	F **10.22**	**.0003**	**.0008**
Stddev	.0001	.0000	.0001	.0003	.0003	.0002	.01	.0004	.0002
%RSD	60.81	13.16	90.22	763.8	3690.	908.0	.1073	127.7	23.57
#1	.0002	.0002	.0003	-.0003	.0003	.0000	10.21	.0007	.0010
#2	.0001	.0002	.0002	-.0001	.0001	-.0002	10.23	.0003	.0008
#3	.0001	.0003	-.0000	.0002	-.0004	.0001	10.22	-.0001	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**-.0007**	**-.0005**	**-.0003**	**-.0003**	**-.0002**	**.0048**	**-.0035**
Stddev	.0001	.0002	.0011	.0019	.0003	.0037	.0006	.0125	.0004
%RSD	133.1	255.9	175.7	371.3	108.9	1248.	295.4	262.0	11.19
#1	.0000	.0002	-.0016	.0014	.0001	-.0045	-.0008	.0154	-.0033
#2	.0001	-.0001	-.0009	-.0006	-.0006	.0018	.0002	-.0089	-.0033
#3	-.0000	.0001	.0006	-.0023	-.0004	.0018	.0001	.0078	-.0040

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0134**	**-.0555**	**-.0557**	**-.0263**	**.0007**	**.0002**	**.0011**	**.0003**	**.0001**
Stddev	.0030	.0195	.0288	.0019	.0008	.0002	.0008	.0002	.0000
%RSD	22.22	35.16	51.63	7.349	122.2	133.0	69.76	94.77	3.438
#1	.0106	-.0740	-.0467	-.0248	-.0002	.0002	.0007	.0001	.0001
#2	.0131	-.0576	-.0326	-.0285	.0009	.0004	.0021	.0002	.0001
#3	.0166	-.0351	-.0879	-.0256	.0014	-.0000	.0006	.0005	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0032**	**.0001**	**.0618**	**-.0005**	**-.0006**	**.8403**	**.1053**
Stddev	.0006	.0009	.0001	.0050	.0025	.0011	.0035	.0045
%RSD	80.16	27.75	115.4	8.140	487.7	196.2	.4159	4.259
#1	.0013	.0040	.0001	.0663	-.0033	.0003	.8405	.1100
#2	.0002	.0022	-.0000	.0564	.0002	-.0018	.8437	.1046
#3	.0007	.0034	.0003	.0628	.0016	-.0002	.8367	.1011

Zoom In Zoom Out

Sample Name: mnconf Acquired: 3/16/2020 19:03:22 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113390.**	**15004.**	**4342.2**	**10246.**
Stddev	215.	96.	13.1	20.
%RSD	.18990	.63827	.30251	.19474
#1	113610.	15076.	4329.7	10225.
#2	113180.	14896.	4341.1	10247.
#3	113380.	15041.	4355.9	10265.

Zoom In Zoom Out

Sample Name: siconf Acquired: 3/16/2020 19:08:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0002**	**-.0003**	**-.0009**	**.0005**	**.0001**	**.0006**	**-.0007**
Stddev	.0003	.0001	.0002	.0003	.0004	.0006	.0002	.0002	.0004
%RSD	952.0	166.4	82.55	106.7	45.32	136.8	233.7	31.36	59.07
#1	-.0003	.0000	.0004	-.0006	-.0009	.0006	-.0001	.0008	-.0003
#2	.0001	.0002	.0000	-.0004	-.0005	.0010	.0001	.0004	-.0007
#3	.0002	-.0000	.0003	.0001	-.0012	-.0002	.0003	.0007	-.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0007**	**-.0005**	**.0001**	**.0001**	**.0004**	**.0006**	**.0012**	**-.0045**
Stddev	.0003	.0001	.0007	.0023	.0016	.0009	.0016	.0089	.0009
%RSD	677.9	22.20	150.6	2529.	1180.	241.0	281.0	714.3	19.19
#1	.0002	-.0008	.0003	-.0004	.0019	.0000	.0019	.0111	-.0053
#2	-.0004	-.0006	-.0011	.0026	-.0013	-.0003	-.0012	-.0062	-.0048
#3	.0001	-.0005	-.0008	-.0019	-.0003	.0014	.0009	-.0011	-.0036

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**-.0374**	**.0056**	**-.0204**	**.0050**	**-.0000**	**10.85**	**-.0014**	**.0000**
Stddev	.0024	.0391	.0027	.0044	.0005	.0004	.10	.0006	.0001
%RSD	77.45	104.7	47.64	21.74	10.30	1133.	.8852	41.51	319.8
#1	.0057	-.0291	.0053	-.0237	.0044	-.0004	10.82	-.0010	-.0000
#2	.0011	-.0030	.0030	-.0153	.0054	.0000	10.96	-.0010	.0000
#3	.0024	-.0799	.0083	-.0220	.0053	.0003	10.77	-.0020	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0120**	**.0082**	**.0407**	**-.0019**	**-.0015**	**.0106**	**-.0027**
Stddev	.0004	.0001	.0007	.0051	.0007	.0018	.0021	.0019
%RSD	810.1	.7915	8.416	12.45	36.24	124.4	19.46	68.96
#1	.0003	.0119	.0089	.0351	-.0025	.0006	.0105	-.0026
#2	-.0004	.0120	.0082	.0420	-.0020	-.0028	.0085	-.0009
#3	.0002	.0121	.0075	.0450	-.0012	-.0022	.0126	-.0046

Zoom In Zoom Out

Sample Name: siconf Acquired: 3/16/2020 19:08:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114150.**	**15131.**	**4363.9**	**10274.**
Stddev	1150.	135.	25.7	62.
%RSD	1.0070	.89351	.58874	.60465
#1	112840.	15065.	4370.6	10295.
#2	114600.	15042.	4335.5	10205.
#3	115000.	15287.	4385.5	10324.

Zoom In Zoom Out

Sample Name: sconf Acquired: 3/16/2020 19:13:43 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0000**	**-.0002**	**-.0007**	**.0001**	**.0000**	**-.0000**	**.0086**
Stddev	.0002	.0001	.0001	.0003	.0004	.0003	.0001	.0004	.0001
%RSD	167.4	88.78	553.5	174.7	56.60	223.4	275.5	2567.	.5913
#1	-.0001	.0002	-.0000	-.0001	-.0008	-.0000	.0001	.0004	.0086
#2	.0003	.0001	-.0001	-.0005	-.0010	.0005	-.0001	-.0002	.0086
#3	.0003	.0000	.0002	.0001	-.0003	-.0001	.0001	-.0002	.0085

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0009**	**-.0000**	**.0008**	**-.0000**	**.0001**	**-.0038**	**-.0015**
Stddev	.0002	.0001	.0011	.0029	.0015	.0024	.0011	.0175	.0015
%RSD	370.5	1031.	119.1	20890.	186.6	21660.	1523.	459.7	101.3
#1	-.0003	.0001	.0002	-.0034	-.0010	-.0018	.0008	.0141	-.0011
#2	-.0000	.0000	.0022	.0013	.0016	.0027	-.0012	-.0208	-.0002
#3	.0001	-.0001	.0004	.0020	.0018	-.0009	.0005	-.0047	-.0032

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0258**	**-.0409**	**-.0271**	**.0004**	**.0002**	**.0010**	**.0007**	**.0000**
Stddev	.0031	.0276	.0146	.0083	.0006	.0001	.0004	.0009	.0001
%RSD	1241.	107.0	35.73	30.64	162.8	57.45	34.86	122.2	257.2
#1	-.0032	-.0576	-.0574	-.0346	-.0002	.0001	.0014	.0015	-.0000
#2	.0013	-.0084	-.0296	-.0284	.0009	.0002	.0007	-.0002	-.0000
#3	.0027	-.0113	-.0358	-.0182	.0004	.0002	.0010	.0008	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0020**	**.0006**	F **101.1**	**-.0016**	**-.0009**	**.0157**	**-.0001**
Stddev	.0002	.0002	.0002	.7	.0010	.0007	.0030	.0020
%RSD	55.87	12.07	41.93	.6785	62.24	71.52	19.33	1743.
#1	.0004	.0017	.0004	100.9	-.0026	-.0017	.0151	.0022
#2	.0001	.0021	.0005	101.9	-.0016	-.0005	.0131	-.0009
#3	.0004	.0021	.0008	100.6	-.0006	-.0006	.0190	-.0016

Zoom In Zoom Out

Sample Name: sconf Acquired: 3/16/2020 19:13:43 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113600.**	**15111.**	**4389.5**	**10354.**
Stddev	1093.	52.	21.9	48.
%RSD	.96235	.34677	.49877	.46600
#1	114290.	15163.	4399.2	10369.
#2	114170.	15058.	4364.4	10300.
#3	112340.	15112.	4404.9	10393.

Zoom In Zoom Out

Sample Name: moconf Acquired: 3/16/2020 19:18:53 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**.0001**	**.0000**	**-.0000**	**.0000**	**-.0006**	**.0002**	**.0000**
Stddev	.0003	.0001	.0001	.0002	.0007	.0005	.0000	.0001	.0002
%RSD	292.2	32.57	85.30	563.4	1410.	991.7	6.202	23.90	460.3
#1	-.0002	-.0001	.0000	.0002	-.0008	-.0005	-.0005	.0002	.0000
#2	-.0003	-.0002	.0002	-.0001	.0004	.0004	-.0006	.0003	-.0001
#3	.0002	-.0001	.0002	-.0000	.0002	.0002	-.0006	.0002	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0006**	**-.0001**	**.0011**	**.0000**	**-.0000**	**.0000**	**-.0085**	**-.0040**
Stddev	.0025	.0001	.0003	.0024	.0007	.0008	.0009	.0201	.0053
%RSD	103400.	10.52	437.8	221.7	38380.	3202.	2478.	236.4	133.9
#1	.0024	-.0006	.0002	.0038	.0006	-.0009	.0009	-.0317	-.0059
#2	-.0026	-.0007	-.0002	.0001	.0002	.0002	-.0009	.0023	-.0080
#3	.0002	-.0006	-.0002	-.0007	-.0007	.0007	.0002	.0039	.0020

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032**	**.0048**	**-.0414**	**-.0068**	**.0057**	F **10.52**	**.0011**	**-.0003**	**.0001**
Stddev	.0082	.0358	.0341	.0030	.0009	.14	.0007	.0003	.0001
%RSD	256.5	739.3	82.34	43.46	15.35	1.290	67.24	97.39	123.8
#1	.0110	.0416	-.0083	-.0034	.0052	10.67	.0008	.0000	-.0000
#2	.0040	.0029	-.0394	-.0083	.0067	10.41	.0019	-.0006	.0001
#3	-.0054	-.0300	-.0764	-.0088	.0052	10.47	.0006	-.0004	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0068**	**.0048**	**.0001**	**-.0023**	**-.0017**	**.0115**	**-.0015**
Stddev	.0010	.0007	.0001	.0019	.0014	.0010	.0035	.0030
%RSD	1379.	10.96	2.396	2860.	58.42	57.21	30.46	205.4
#1	-.0011	.0070	.0047	.0009	-.0016	-.0007	.0077	-.0050
#2	.0007	.0060	.0050	.0014	-.0039	-.0017	.0122	.0002
#3	.0007	.0074	.0048	-.0021	-.0015	-.0027	.0146	.0004

Zoom In Zoom Out

Sample Name: moconf Acquired: 3/16/2020 19:18:53 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114000.**	**15063.**	**4362.0**	**10321.**
Stddev	506.	193.	45.0	99.
%RSD	.44411	1.2808	1.0322	.95859
#1	113850.	15282.	4311.2	10208.
#2	113580.	14917.	4396.9	10394.
#3	114560.	14990.	4377.8	10360.

Zoom In Zoom Out

Sample Name: ticonf Acquired: 3/16/2020 19:24:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0000**	**.0000**	**-.0000**	**-.0000**	**.0000**	**.0004**	**-.0000**
Stddev	.0002	.0003	.0001	.0008	.0005	.0006	.0000	.0003	.0001
%RSD	119.4	1322.	822.6	1613.	1151.	8237.	3724.	72.83	702.1
#1	.0001	.0002	.0000	.0001	.0001	-.0007	.0000	.0006	-.0001
#2	.0003	.0002	-.0001	-.0008	.0004	.0003	-.0000	.0006	.0001
#3	-.0000	-.0004	.0002	.0008	-.0006	.0003	.0000	.0001	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0006**	**.0003**	**.0004**	**-.0006**	**-.0002**	**.0000**	**.0105**	**-.0049**
Stddev	.0001	.0001	.0005	.0020	.0005	.0010	.0003	.0166	.0029
%RSD	20.58	12.85	158.6	535.5	86.34	487.8	1051.	158.5	58.93
#1	.0005	-.0006	.0009	-.0019	-.0000	-.0003	.0002	-.0086	-.0042
#2	.0007	-.0005	-.0001	.0018	-.0009	-.0012	.0002	.0221	-.0081
#3	.0005	-.0007	.0002	.0012	-.0009	.0008	-.0003	.0179	-.0024

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104**	**-.0293**	**-.0407**	**-.0362**	**.0005**	**.0100**	**-.0089**	**.0131**	**.0000**
Stddev	.0126	.0367	.0132	.0037	.0011	.0020	.0019	.0007	.0001
%RSD	120.8	125.2	32.38	10.12	207.6	20.02	21.03	5.245	165.0
#1	.0038	-.0571	-.0296	-.0390	.0005	.0122	-.0092	.0130	.0001
#2	.0249	.0123	-.0552	-.0376	.0015	.0096	-.0106	.0138	.0001
#3	.0025	-.0432	-.0372	-.0321	-.0006	.0083	-.0069	.0124	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **10.72**	**.0022**	**.0038**	**.0384**	**-.0035**	**.0001**	**.0191**	**-.0151**
Stddev	.19	.0013	.0003	.0035	.0011	.0012	.0064	.0016
%RSD	1.749	56.64	7.526	9.178	30.71	1977.	33.49	10.55
#1	10.82	.0009	.0040	.0413	-.0030	-.0011	.0230	-.0163
#2	10.84	.0034	.0039	.0345	-.0028	.0014	.0225	-.0133
#3	10.51	.0023	.0034	.0393	-.0048	-.0001	.0117	-.0157

Zoom In Zoom Out

Sample Name: ticonf Acquired: 3/16/2020 19:24:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114960.**	**15033.**	**4358.3**	**10291.**
Stddev	1668.	47.	42.5	102.
%RSD	1.4513	.31091	.97614	.98937
#1	114220.	15060.	4342.7	10253.
#2	113790.	15060.	4406.4	10407.
#3	116870.	14979.	4325.7	10214.

Zoom In Zoom Out

Sample Name: vconf Acquired: 3/16/2020 19:29:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0003**	**-.0004**	**.0001**	**-.0007**	**.0003**	**-.0001**	**.0004**
Stddev	.0002	.0001	.0000	.0001	.0008	.0000	.0000	.0001
%RSD	567.2	39.63	7.404	107.8	120.3	7.195	85.94	18.94
#1	-.0002	-.0004	-.0005	.0002	-.0006	.0003	-.0000	.0005
#2	-.0001	-.0004	-.0004	.0002	-.0015	.0003	-.0000	.0005
#3	.0002	-.0002	-.0004	-.0000	.0001	.0003	-.0001	.0003

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **10.26**	**-.0001**	**-.0001**	F **-.0047**	**-.0001**	**.0001**	**-.0000**
Stddev	.0003	.08	.0002	.0008	.0094	.0007	.0013	.0013
%RSD	421.5	.7366	151.1	1412.	199.7	853.2	1140.	5677.
#1	-.0001	10.32	-.0002	.0004	-.0007	.0003	-.0006	.0002
#2	-.0001	10.28	.0001	.0004	.0020	-.0009	-.0007	-.0014
#3	.0004	10.17	-.0002	-.0010	-.0155	.0004	.0016	.0011

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**-.0004**	**.0075**	**-.0076**	**-.0585**	**.0149**	**-.0002**	**.0023**
Stddev	.0120	.0081	.0049	.0183	.0145	.0102	.0002	.0003
%RSD	746.8	2050.	64.57	240.8	24.85	68.30	124.9	11.92
#1	-.0110	.0078	.0020	-.0284	-.0695	.0119	-.0004	.0025
#2	.0130	-.0084	.0093	.0061	-.0640	.0066	.0000	.0025
#3	.0028	-.0006	.0112	-.0005	-.0420	.0263	-.0001	.0020

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**-.0003**	**-.0000**	**.0014**	**.0034**	**.0043**	**.0324**	**.0013**	
Stddev	.0060	.0008	.0001	.0007	.0005	.0001	.0038	.0034
%RSD	96.78	250.0	225.3	48.45	14.60	2.802	11.74	260.0
#1	.0022	.0006	-.0002	.0010	.0029	.0044	.0355	-.0025
#2	.0033	-.0009	.0000	.0021	.0037	.0043	.0336	.0040
#3	.0132	-.0006	-.0000	.0010	.0037	.0042	.0282	.0024

Zoom In Zoom Out

Sample Name: vconf Acquired: 3/16/2020 19:29:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0018**	**.0155**	**.0417**
Stddev	.0003	.0074	.0026
%RSD	18.82	47.88	6.164
#1	-.0014	.0070	.0414
#2	-.0018	.0189	.0444
#3	-.0021	.0206	.0393

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113790.**	**14902.**	**4370.1**	**10304.**
Stddev	444.	55.	42.5	86.
%RSD	.38985	.36794	.97157	.83880
#1	113330.	14886.	4346.1	10257.
#2	113800.	14857.	4419.2	10403.
#3	114220.	14963.	4345.1	10251.

Zoom In Zoom Out

Sample Name: coconf Acquired: 3/16/2020 19:34:22 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0000**	**-.0001**	F **10.36**	**-.0006**	**.0000**	**.0001**	**-.0001**	**-.0008**
Stddev	.0001	.0001	.0002	.04	.0002	.0002	.0001	.0002	.0004
%RSD	381.6	640.8	281.7	.3874	41.15	610.3	77.79	160.5	46.15
#1	.0000	-.0001	-.0002	10.34	-.0003	.0003	.0000	.0000	-.0012
#2	-.0000	-.0000	.0001	10.40	-.0006	-.0001	.0002	-.0000	-.0008
#3	-.0001	.0002	-.0001	10.32	-.0008	-.0001	.0001	-.0004	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0004**	**.0001**	**.0007**	**-.0000**	**.0000**	**.0008**	**.0027**	**-.0043**
Stddev	.0005	.0000	.0010	.0028	.0005	.0015	.0018	.0088	.0007
%RSD	147.1	7.459	1735.	401.7	1932.	7711.	219.0	328.8	15.43
#1	.0005	.0005	.0000	-.0019	-.0001	.0006	-.0001	.0117	-.0037
#2	-.0002	.0004	-.0009	.0036	-.0004	.0011	-.0004	-.0059	-.0050
#3	.0006	.0005	.0010	.0003	.0005	-.0016	.0030	.0022	-.0041

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0142**	**-.0351**	**-.0380**	**-.0311**	**-.0014**	**.0010**	**.0002**	**-.0009**	**.0001**
Stddev	.0067	.0490	.0116	.0029	.0006	.0004	.0008	.0000	.0001
%RSD	46.75	139.4	30.41	9.374	41.27	36.33	471.9	4.147	74.39
#1	.0207	-.0422	-.0281	-.0280	-.0008	.0014	-.0005	-.0008	.0000
#2	.0074	.0170	-.0507	-.0316	-.0017	.0011	.0000	-.0009	.0002
#3	.0147	-.0801	-.0353	-.0337	-.0018	.0006	.0010	-.0009	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0005**	**.0001**	**.0244**	**-.0078**	**-.0022**	**.0128**	**.0039**
Stddev	.0001	.0002	.0001	.0005	.0014	.0006	.0028	.0022
%RSD	20.52	36.98	58.29	2.183	18.13	29.48	21.57	57.06
#1	.0004	-.0004	.0000	.0238	-.0094	-.0017	.0120	.0064
#2	.0006	-.0005	.0002	.0244	-.0066	-.0029	.0104	.0033
#3	.0006	-.0008	.0001	.0249	-.0075	-.0019	.0158	.0021

Zoom In Zoom Out

Sample Name: coconf Acquired: 3/16/2020 19:34:22 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113880.**	**15029.**	**4371.1**	**10344.**
Stddev	235.	51.	13.6	20.
%RSD	.20604	.33813	.31179	.18981
#1	113860.	15060.	4369.3	10347.
#2	113660.	15056.	4358.4	10323.
#3	114130.	14970.	4385.5	10362.

Zoom In Zoom Out

Sample Name: niconf Acquired: 3/16/2020 19:39:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0000**	**-.0000**	**.0006**	**-.0005**	**-.0002**	**-.0003**	F **11.05**	**-.0006**
Stddev	.0002	.0001	.0002	.0003	.0004	.0004	.0001	.24	.0006
%RSD	111.1	294.0	5242.	54.55	90.90	177.6	49.06	2.205	99.34
#1	.0003	-.0000	.0002	.0008	-.0008	-.0004	-.0001	11.33	.0000
#2	-.0000	.0002	.0000	.0002	-.0006	.0002	-.0004	10.94	-.0011
#3	.0004	-.0000	-.0002	.0008	.0000	-.0005	-.0003	10.88	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0006**	**.0000**	**.0000**	**-.0014**	**-.0000**	**.0084**	**-.0158**
Stddev	.0002	.0002	.0004	.0032	.0006	.0008	.0014	.0086	.0013
%RSD	86.61	134.1	60.71	182300.	3577.	54.57	3409.	101.9	8.131
#1	.0003	.0000	.0010	.0033	-.0006	-.0016	.0015	.0156	-.0149
#2	.0002	.0000	.0003	-.0032	.0005	-.0006	-.0014	.0106	-.0151
#3	.0000	.0003	.0006	-.0001	.0002	-.0020	-.0002	-.0011	-.0172

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0197**	**-.0391**	**-.0310**	**-.0014**	**.0005**	**.0035**	**-.0003**	**-.0000**
Stddev	.0010	.0298	.0101	.0034	.0005	.0002	.0008	.0009	.0001
%RSD	24.47	151.7	25.84	11.01	34.57	43.08	22.26	306.0	302.9
#1	.0046	.0440	-.0417	-.0341	-.0019	.0008	.0041	-.0002	-.0002
#2	.0029	-.0136	-.0279	-.0316	-.0010	.0004	.0026	-.0012	.0000
#3	.0047	.0286	-.0476	-.0274	-.0012	.0004	.0039	.0006	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0044**	**.0001**	**.0150**	**-.0033**	**-.0009**	**.0117**	**-.0008**
Stddev	.0004	.0008	.0001	.0035	.0013	.0020	.0045	.0020
%RSD	55.84	18.14	126.4	23.58	38.03	228.9	38.07	257.9
#1	.0003	.0053	-.0000	.0168	-.0046	.0007	.0073	.0003
#2	.0005	.0042	.0002	.0110	-.0032	-.0031	.0162	-.0032
#3	.0010	.0038	.0001	.0174	-.0021	-.0002	.0117	.0005

Zoom In Zoom Out

Sample Name: niconf Acquired: 3/16/2020 19:39:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112820.**	**15038.**	**4325.9**	**10198.**
Stddev	1915.	89.	78.3	171.
%RSD	1.6976	.59081	1.8094	1.6749
#1	110610.	15119.	4236.0	10002.
#2	113830.	14943.	4362.5	10274.
#3	114020.	15052.	4379.1	10318.

Zoom In Zoom Out

Sample Name: srconf Acquired: 3/16/2020 19:44:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0000**	**.0001**	**-.0000**	**.0006**	**.0004**	**.0002**	**.0003**	**-.0009**
Stddev	.0002	.0001	.0001	.0001	.0002	.0003	.0001	.0003	.0007
%RSD	77.48	359.9	154.5	2149.	36.74	62.56	74.20	89.36	77.20
#1	.0004	.0000	.0001	-.0000	.0004	.0004	.0003	.0001	-.0002
#2	.0005	.0001	-.0001	.0001	.0008	.0002	.0001	.0002	-.0008
#3	.0000	-.0002	.0002	-.0001	.0006	.0007	.0001	.0007	-.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**-.0006**	**-.0001**	**.0008**	**.0018**	**-.0012**	**.0054**	**.0094**
Stddev	.0006	.0002	.0002	.0012	.0011	.0008	.0007	.0035	.0016
%RSD	1590.	78.54	36.26	2048.	138.0	45.25	59.92	65.70	16.96
#1	.0002	.0003	-.0004	.0013	.0010	.0020	-.0006	.0070	.0104
#2	-.0007	.0001	-.0006	-.0009	.0019	.0009	-.0011	.0078	.0101
#3	.0006	.0006	-.0009	-.0006	-.0004	.0025	-.0020	.0013	.0075

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0166**	**-.0191**	**-.0502**	**-.0258**	**-.0002**	**.0002**	**-.0002**	**.0012**	F **10.83**
Stddev	.0052	.0426	.0205	.0086	.0002	.0001	.0004	.0008	.15
%RSD	31.30	223.1	40.71	33.29	148.6	43.20	244.5	67.60	1.372
#1	.0211	-.0030	-.0506	-.0335	-.0001	.0003	-.0005	.0004	10.66
#2	.0180	.0131	-.0705	-.0272	.0000	.0001	-.0002	.0021	10.86
#3	.0109	-.0673	-.0296	-.0166	-.0004	.0002	.0003	.0011	10.95

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0104**	**.0002**	**.0278**	**-.0008**	**-.0004**	**.0209**	**-.0054**
Stddev	.0004	.0008	.0000	.0013	.0023	.0005	.0062	.0037
%RSD	131.6	7.605	23.79	4.750	266.7	114.5	29.74	69.19
#1	.0006	.0103	.0001	.0283	.0006	-.0002	.0277	-.0091
#2	-.0001	.0097	.0002	.0263	.0003	-.0001	.0155	-.0054
#3	.0004	.0113	.0002	.0287	-.0034	-.0010	.0195	-.0016

Zoom In Zoom Out

Sample Name: srconf Acquired: 3/16/2020 19:44:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113680.**	**15000.**	**4370.8**	**10298.**
Stddev	191.	44.	12.6	30.
%RSD	.16770	.29187	.28740	.28958
#1	113580.	15021.	4356.4	10264.
#2	113560.	14950.	4376.3	10320.
#3	113900.	15029.	4379.6	10309.

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 19:50:03 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.009**	**2.048**	**2.058**	**2.074**	**2.044**	**2.006**	**2.086**	**2.067**	**.2544**
Stddev	.005	.004	.019	.022	.012	.014	.013	.021	.0017
%RSD	.2585	.2039	.9394	1.079	.5853	.6896	.6225	1.026	.6535
#1	2.003	2.044	2.037	2.050	2.046	2.008	2.085	2.044	.2535
#2	2.013	2.051	2.075	2.095	2.031	1.991	2.074	2.086	.2534
#3	2.011	2.050	2.060	2.076	2.054	2.018	2.100	2.070	.2563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.053**	**2.092**	**2.057**	**2.114**	**2.098**	**2.054**	**2.031**	**39.26**	**40.32**
Stddev	.011	.024	.022	.031	.023	.022	.017	.19	.22
%RSD	.5310	1.159	1.076	1.478	1.084	1.060	.8160	.4963	.5401
#1	2.051	2.067	2.033	2.079	2.076	2.030	2.013	39.06	40.13
#2	2.044	2.115	2.076	2.138	2.122	2.074	2.046	39.44	40.56
#3	2.065	2.092	2.063	2.124	2.097	2.057	2.035	39.27	40.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.36**	**39.52**	**38.55**	**39.38**	**2.053**	**2.094**	**5.262**	**2.114**	**2.012**
Stddev	.20	.32	.19	.17	.021	.021	.054	.025	.006
%RSD	.5061	.8168	.4911	.4403	1.005	1.008	1.022	1.161	.3184
#1	40.13	39.35	38.38	39.22	2.032	2.072	5.205	2.090	2.005
#2	40.52	39.89	38.75	39.56	2.073	2.114	5.312	2.139	2.018
#3	40.43	39.32	38.51	39.36	2.055	2.097	5.268	2.113	2.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 19:50:03 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.934**	**2.077**	**2.048**	**2.072**	**2.062**	**1.983**	**1.957**	**2.056**
Stddev	.013	.020	.014	.016	.017	.008	.009	.013
%RSD	.6600	.9826	.7045	.7548	.8150	.3858	.4546	.6118
#1	1.934	2.055	2.046	2.055	2.045	1.975	1.955	2.053
#2	1.922	2.095	2.034	2.085	2.079	1.989	1.966	2.046
#3	1.947	2.082	2.063	2.077	2.063	1.986	1.949	2.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108600.**	**14938.**	**4151.1**	**9211.2**
Stddev	589.	172.	39.6	82.5
%RSD	.54228	1.1512	.95498	.89552
#1	108590.	15080.	4190.1	9292.1
#2	109190.	14747.	4110.9	9127.2
#3	108010.	14987.	4152.3	9214.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 19:54:51 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0004**	**.0003**	**.0005**	**.0002**	**.0002**	**.0004**	**-.0003**
Stddev	.0001	.0001	.0000	.0001	.0003	.0002	.0001	.0003	.0002
%RSD	72.18	84.68	9.664	34.74	56.34	123.4	24.52	90.74	60.34
#1	.0001	.0001	.0004	.0002	.0008	.0004	.0002	.0000	-.0002
#2	.0001	.0001	.0004	.0004	.0006	-.0001	.0003	.0007	-.0006
#3	.0004	.0003	.0003	.0003	.0002	.0002	.0002	.0004	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0002**	**.0009**	**.0002**	**-.0010**	**.0014**	**.0065**	**-.0040**
Stddev	.0003	.0001	.0005	.0006	.0005	.0015	.0013	.0050	.0012
%RSD	583.1	44.00	275.3	68.68	303.7	161.6	87.77	76.82	29.21
#1	.0004	.0001	-.0004	.0002	-.0000	-.0002	.0006	.0062	-.0037
#2	-.0002	.0003	-.0005	.0013	-.0002	.0000	.0008	.0017	-.0052
#3	-.0000	.0001	.0004	.0012	.0007	-.0027	.0029	.0116	-.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0117**	**-.0344**	**-.0321**	**-.0160**	**.0010**	F **.0022**	**.0020**	**.0006**	**.0002**
Stddev	.0031	.0662	.0212	.0058	.0004	.0005	.0010	.0011	.0001
%RSD	26.19	192.5	66.23	36.37	35.93	21.25	51.75	184.3	54.71
#1	.0096	-.0762	-.0334	-.0199	.0008	.0027	.0011	-.0003	.0001
#2	.0103	.0419	-.0102	-.0188	.0008	.0021	.0032	.0002	.0003
#3	.0153	-.0688	-.0526	-.0093	.0015	.0018	.0018	.0018	.0001
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100					.0020			
Low Limit	-.0100					-.0020			

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 19:54:51 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0023**	**.0007**	F **.0272**	**-.0006**	**-.0001**	**.0154**	**-.0015**
Stddev	.0000	.0002	.0002	.0050	.0004	.0005	.0099	.0033
%RSD	4.152	8.302	22.07	18.28	69.24	444.9	64.65	225.3
#1	.0005	.0020	.0009	.0319	-.0002	-.0007	.0164	-.0048
#2	.0005	.0023	.0006	.0220	-.0010	.0003	.0050	-.0013
#3	.0005	.0024	.0006	.0278	-.0005	.0000	.0248	.0017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0102				
Low Limit				-.0102				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113600.**	**14907.**	**4367.2**	**10319.**
Stddev	575.	32.	51.0	116.
%RSD	.50584	.21470	1.1684	1.1242
#1	113450.	14911.	4419.7	10438.
#2	114230.	14874.	4317.7	10207.
#3	113110.	14937.	4364.4	10311.

Zoom In Zoom Out

Sample Name: MP20209-S1 Acquired: 3/16/2020 20:00:02 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.505**	**2.025**	**2.006**	**2.001**	**1.997**	**1.972**	**5.557**	**1.995**
Stddev	.027	.022	.006	.008	.014	.017	.050	.004
%RSD	1.067	1.091	.3094	.3917	.7075	.8574	.8928	.1954
#1	2.493	2.015	2.007	2.006	1.981	1.953	5.500	1.997
#2	2.535	2.050	2.011	2.006	2.004	1.977	5.576	1.997
#3	2.486	2.009	1.999	1.992	2.007	1.985	5.594	1.990

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2690**	**2.001**	**2.011**	**2.057**	**2.041**	**2.011**	**1.982**	**2.055**
Stddev	.0012	.015	.008	.003	.006	.007	.005	.005
%RSD	.4420	.7702	.4084	.1300	.2965	.3569	.2358	.2259
#1	.2676	1.983	2.014	2.055	2.048	2.011	1.982	2.056
#2	.2698	2.009	2.017	2.060	2.038	2.018	1.987	2.058
#3	.2695	2.010	2.002	2.056	2.037	2.004	1.978	2.049

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.39**	**60.09**	**38.83**	**44.22**	**26.84**	**58.61**	**1.981**	**2.101**
Stddev	.25	.65	.39	.62	.28	.60	.007	.005
%RSD	.9898	1.079	1.013	1.403	1.055	1.030	.3682	.2555
#1	25.30	59.82	38.61	44.00	26.74	58.36	1.980	2.102
#2	25.68	60.83	39.28	44.92	27.16	59.29	1.989	2.105
#3	25.20	59.61	38.60	43.74	26.62	58.16	1.974	2.095

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.71**	**2.102**	**2.725**	**1.986**	**2.044**	**2.060**	**5.006**	F **-.0525**
Stddev	.05	.011	.030	.017	.009	.016	.025	.0016
%RSD	.2637	.5410	1.086	.8592	.4338	.7770	.5041	3.016
#1	19.73	2.104	2.711	1.968	2.046	2.041	5.023	-.0535
#2	19.76	2.113	2.759	1.989	2.051	2.068	5.018	-.0507
#3	19.66	2.090	2.706	2.002	2.034	2.070	4.977	-.0534

Zoom In Zoom Out

Sample Name: MP20209-S1 Acquired: 3/16/2020 20:00:02 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0108**	**2.271**	W **-.0279**
Stddev	.0018	.023	.0024
%RSD	16.92	1.024	8.723
#1	.0128	2.281	-.0251
#2	.0102	2.288	-.0293
#3	.0093	2.245	-.0293

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108880.**	**14911.**	**4162.5**	**9276.4**
Stddev	678.	131.	16.4	34.0
%RSD	.62300	.87644	.39440	.36664
#1	109660.	14982.	4161.2	9266.9
#2	108560.	14760.	4146.8	9248.1
#3	108430.	14991.	4179.5	9314.1

Zoom In Zoom Out

Sample Name: MP20209-S2 Acquired: 3/16/2020 20:04:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.601**	**2.112**	**2.045**	**2.042**	**2.060**	**2.034**	**5.652**	**2.035**
Stddev	.019	.018	.016	.015	.011	.013	.029	.016
%RSD	.7471	.8436	.7620	.7560	.5549	.6599	.5130	.7694
#1	2.581	2.094	2.058	2.056	2.073	2.049	5.684	2.048
#2	2.604	2.112	2.048	2.045	2.056	2.029	5.645	2.039
#3	2.619	2.130	2.028	2.026	2.052	2.024	5.627	2.018

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2784**	**2.072**	**2.050**	**2.097**	**2.084**	**2.051**	**2.023**	**2.088**
Stddev	.0016	.010	.015	.017	.006	.015	.013	.017
%RSD	.5920	.4699	.7512	.8211	.3038	.7499	.6315	.8069
#1	.2802	2.083	2.064	2.114	2.090	2.067	2.031	2.103
#2	.2780	2.068	2.053	2.098	2.083	2.052	2.030	2.091
#3	.2770	2.065	2.033	2.080	2.077	2.036	2.008	2.069

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.00**	**62.45**	**40.65**	**46.30**	**28.51**	**60.88**	**2.026**	**2.142**
Stddev	.23	.55	.32	.58	.30	.51	.013	.016
%RSD	.8670	.8862	.7808	1.256	1.062	.8455	.6310	.7609
#1	26.74	61.87	40.32	45.67	28.22	60.34	2.039	2.156
#2	27.04	62.53	40.67	46.39	28.50	60.92	2.026	2.144
#3	27.21	62.97	40.96	46.83	28.82	61.37	2.013	2.124

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.87**	**2.142**	**2.826**	**2.044**	**2.085**	**2.134**	**5.010**	F **-.0513**
Stddev	.16	.016	.020	.010	.017	.010	.035	.0011
%RSD	.8156	.7581	.7204	.4685	.8283	.4728	.6895	2.219
#1	20.02	2.160	2.805	2.055	2.101	2.146	5.045	-.0514
#2	19.88	2.139	2.826	2.042	2.086	2.130	5.011	-.0524
#3	19.70	2.127	2.846	2.036	2.067	2.127	4.976	-.0501

Zoom In Zoom Out

Sample Name: MP20209-S2 Acquired: 3/16/2020 20:04:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0112**	**2.335**	W **-.0276**
Stddev	.0009	.024	.0011
%RSD	7.772	1.024	4.167
#1	.0105	2.357	-.0289
#2	.0122	2.338	-.0271
#3	.0109	2.309	-.0267

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107310.**	**14551.**	**4154.8**	**9254.5**
Stddev	455.	158.	27.3	61.7
%RSD	.42418	1.0845	.65592	.66638
#1	106810.	14713.	4129.0	9198.2
#2	107410.	14544.	4152.0	9244.9
#3	107710.	14397.	4183.3	9320.4

Zoom In Zoom Out

Sample Name: JD4404-5 Acquired: 3/16/2020 20:09:29 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5317**	**.0002**	**.0003**	**.0101**	**.0009**	**.0013**	**3.678**	**.0033**	**.0003**
Stddev	.0018	.0001	.0002	.0002	.0010	.0006	.020	.0001	.0002
%RSD	.3292	57.40	52.02	2.101	108.5	49.44	.5459	3.185	58.06
#1	.5337	.0001	.0002	.0102	.0019	.0017	3.701	.0032	.0003
#2	.5306	.0002	.0002	.0102	-.0000	.0006	3.662	.0034	.0004
#3	.5308	.0002	.0005	.0098	.0008	.0016	3.672	.0032	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0030**	**-.0001**	**.0041**	**.0003**	**.0027**	**.0015**	**.0464**	**35.22**
Stddev	.0001	.0001	.0020	.0023	.0005	.0020	.0015	.0099	.18
%RSD	66.42	4.504	1873.	56.70	169.9	73.18	99.20	21.35	.5164
#1	-.0001	.0029	.0006	.0068	.0000	.0012	.0030	.0422	35.42
#2	-.0000	.0032	-.0023	.0026	-.0000	.0020	.0000	.0577	35.16
#3	-.0001	.0029	.0014	.0029	.0008	.0050	.0015	.0394	35.07

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.24**	**19.33**	**1.850**	**33.85**	**.0143**	**.0019**	**20.55**	**-.0029**	**.7537**
Stddev	.02	.20	.008	.11	.0006	.0002	.62	.0003	.0024
%RSD	.1341	1.051	.4153	.3292	4.180	12.68	2.999	11.06	.3173
#1	13.26	19.53	1.843	33.98	.0144	.0020	20.17	-.0027	.7564
#2	13.24	19.34	1.848	33.79	.0148	.0021	21.26	-.0033	.7520
#3	13.23	19.12	1.858	33.78	.0136	.0016	20.22	-.0028	.7526

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0255**	**.0009**	**5.342**	**-.0043**	**.0102**	**.3991**	**.0429**
Stddev	.0001	.0014	.0003	.172	.0036	.0005	.0012	.0012
%RSD	27.76	5.349	30.44	3.218	84.39	4.995	.3028	2.902
#1	-.0004	.0249	.0010	5.224	-.0084	.0107	.3979	.0417
#2	-.0003	.0270	.0006	5.539	-.0025	.0100	.4003	.0429
#3	-.0003	.0245	.0011	5.263	-.0019	.0098	.3991	.0442

Zoom In Zoom Out

Sample Name: JD4404-5 Acquired: 3/16/2020 20:09:29 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**111040.**	**14986.**	**4153.2**	**9454.1**
Stddev	667.	139.	102.7	224.1
%RSD	.60044	.92863	2.4722	2.3706
#1	110280.	14831.	4214.1	9578.5
#2	111510.	15027.	4034.7	9195.4
#3	111340.	15100.	4210.8	9588.4

Zoom In Zoom Out

Sample Name: MP20209-SD1 Acquired: 3/16/2020 20:14:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5350**	**.0006**	**.0012**	**.0109**	**-.0015**	**.0022**	**3.792**	**.0035**	**-.0020**
Stddev	.0021	.0005	.0004	.0006	.0012	.0030	.004	.0021	.0015
%RSD	.3852	86.86	33.91	5.283	79.37	133.6	.1003	58.40	75.72
#1	.5341	.0009	.0007	.0115	-.0020	.0028	3.789	.0049	-.0014
#2	.5335	-.0000	.0014	.0109	-.0001	.0049	3.791	.0045	-.0037
#3	.5373	.0009	.0014	.0104	-.0024	-.0010	3.796	.0012	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.0222**	**-.0001**	**.0101**	**.0031**	**.0043**	**-.0000**	**.0392**	**36.20**
Stddev	.0012	.0007	.0075	.0152	.0036	.0107	.0061	.0556	.15
%RSD	98.88	3.063	10540.	150.1	115.4	250.2	25690.	141.8	.4189
#1	.0012	.0217	.0045	-.0029	-.0008	-.0078	-.0055	-.0190	36.18
#2	.0025	.0219	.0040	.0064	.0062	.0079	-.0010	.0916	36.35
#3	.0000	.0229	-.0087	.0268	.0039	.0127	.0064	.0450	36.05

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.28**	**19.43**	**1.778**	**34.12**	**.0170**	**.0030**	**20.51**	**-.0057**	**.7545**
Stddev	.14	.37	.079	.05	.0013	.0014	.39	.0014	.0008
%RSD	1.054	1.928	4.425	.1474	7.579	47.16	1.908	25.31	.1023
#1	13.44	19.61	1.868	34.18	.0156	.0042	20.30	-.0041	.7538
#2	13.21	19.69	1.730	34.10	.0175	.0015	20.26	-.0068	.7545
#3	13.18	19.00	1.734	34.08	.0180	.0032	20.96	-.0062	.7553

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0357**	**.0040**	**5.370**	**-.0094**	**.0042**	**.4462**	**.0407**
Stddev	.0020	.0049	.0013	.083	.0050	.0054	.0218	.0087
%RSD	2294.	13.64	33.20	1.539	52.54	128.7	4.893	21.43
#1	-.0022	.0300	.0027	5.310	-.0132	.0028	.4322	.0314
#2	.0013	.0385	.0054	5.336	-.0114	.0103	.4714	.0487
#3	.0011	.0384	.0040	5.464	-.0038	-.0003	.4351	.0421

Zoom In Zoom Out

Sample Name: MP20209-SD1 Acquired: 3/16/2020 20:14:33 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112000.**	**14977.**	**4281.2**	**9975.6**
Stddev	216.	111.	64.1	145.3
%RSD	.19267	.74110	1.4964	1.4562
#1	111750.	14937.	4316.0	10061.
#2	112160.	14891.	4320.4	10058.
#3	112080.	15102.	4207.3	9807.9

Zoom In Zoom Out

Sample Name: JD4396-2 Acquired: 3/16/2020 20:19:38 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7925**	**.0000**	**.0000**	**-.0001**	**.0030**	**.0078**	**.6900**	**.0014**	**-.0003**
Stddev	.0010	.0001	.0003	.0001	.0003	.0004	.0003	.0008	.0002
%RSD	.1266	1651.	726.6	139.6	11.25	5.080	.0405	57.23	68.74
#1	.7925	.0001	.0003	.0001	.0033	.0082	.6902	.0006	-.0003
#2	.7935	-.0000	-.0000	-.0002	.0030	.0074	.6897	.0015	-.0005
#3	.7915	-.0001	-.0002	-.0002	.0026	.0077	.6901	.0022	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0258**	**.0020**	**.0012**	**.0006**	**.0037**	**.0008**	**.0953**	**57.68**
Stddev	.0007	.0001	.0010	.0006	.0004	.0010	.0007	.0051	.10
%RSD	50.82	.4525	52.70	45.15	60.37	28.07	84.78	5.350	.1649
#1	.0019	.0257	.0016	.0006	.0006	.0048	.0007	.0904	57.70
#2	.0006	.0258	.0031	.0014	.0003	.0035	.0015	.1005	57.58
#3	.0015	.0259	.0012	.0017	.0010	.0028	.0002	.0949	57.76

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.74**	**8.626**	**4.806**	F **322.0**	**1.214**	**.0008**	**6.725**	**-.0022**	**.2948**
Stddev	.01	.021	.038	2.8	.004	.0004	.005	.0004	.0002
%RSD	.0537	.2374	.7842	.8629	.3533	57.48	.0812	17.23	.0657
#1	12.75	8.612	4.762	323.0	1.214	.0013	6.728	-.0020	.2949
#2	12.74	8.617	4.826	318.9	1.219	.0004	6.728	-.0027	.2946
#3	12.74	8.650	4.829	324.1	1.210	.0006	6.719	-.0020	.2949

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**.0121**	**.0015**	**.6001**	**-.0023**	**.0067**	**.7459**	**.0120**
Stddev	.0002	.0009	.0002	.0072	.0014	.0010	.0107	.0011
%RSD	2.938	7.426	11.52	1.197	59.76	14.37	1.440	9.262
#1	.0057	.0111	.0017	.5919	-.0035	.0068	.7447	.0130
#2	.0054	.0122	.0014	.6029	-.0008	.0076	.7572	.0121
#3	.0055	.0129	.0014	.6055	-.0027	.0057	.7358	.0108

Zoom In Zoom Out

Sample Name: JD4396-2 Acquired: 3/16/2020 20:19:38 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103280.**	**14758.**	**4017.0**	**8729.2**
Stddev	235.	95.	.3	2.0
%RSD	.22759	.64696	.00761	.02280
#1	103020.	14671.	4016.8	8727.2
#2	103330.	14861.	4017.3	8729.3
#3	103480.	14743.	4016.8	8731.2

Zoom In Zoom Out

Sample Name: JD4396-4 Acquired: 3/16/2020 20:24:50 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0607**	**.0002**	**.0000**	**.0006**	**.0061**	**.0223**	**.1624**	**.0038**	**.0007**
Stddev	.0002	.0001	.0002	.0004	.0001	.0005	.0008	.0002	.0002
%RSD	.2814	65.07	5045.	68.12	1.584	2.079	.4755	4.243	23.31
#1	.0608	.0001	.0002	.0005	.0061	.0224	.1631	.0039	.0008
#2	.0606	.0001	-.0002	.0002	.0059	.0226	.1625	.0036	.0005
#3	.0605	.0003	-.0001	.0010	.0061	.0217	.1615	.0039	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**.0273**	**.0294**	**.0043**	**.0043**	**.0034**	**.0000**	**.7072**	**71.84**
Stddev	.0004	.0004	.0026	.0031	.0003	.0032	.0004	.0059	.35
%RSD	12.19	1.370	8.744	70.70	6.947	94.32	2757.	.8412	.4920
#1	.0038	.0271	.0294	.0041	.0046	.0069	-.0004	.7099	72.10
#2	.0035	.0272	.0320	.0014	.0040	.0008	.0001	.7004	71.98
#3	.0030	.0278	.0269	.0075	.0042	.0024	.0004	.7114	71.44

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**57.66**	**8.652**	**6.472**	**148.0**	**.5292**	**.0018**	**10.31**	**-.0023**	**.4308**
Stddev	.32	.062	.059	.5	.0061	.0002	.10	.0009	.0020
%RSD	.5569	.7216	.9189	.3480	1.159	8.600	.9587	39.08	.4602
#1	57.97	8.665	6.538	148.4	.5274	.0019	10.30	-.0019	.4328
#2	57.68	8.708	6.422	148.1	.5242	.0018	10.22	-.0034	.4306
#3	57.33	8.585	6.455	147.4	.5360	.0016	10.42	-.0017	.4288

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0515**	**.0152**	**.0013**	**.5472**	**-.0022**	**.0096**	**.5169**	**.0190**
Stddev	.0005	.0010	.0001	.0088	.0001	.0004	.0031	.0035
%RSD	.8864	6.419	7.497	1.610	5.180	4.526	.5978	18.35
#1	.0521	.0142	.0014	.5526	-.0022	.0094	.5199	.0230
#2	.0512	.0162	.0014	.5370	-.0023	.0094	.5137	.0175
#3	.0513	.0151	.0012	.5520	-.0021	.0101	.5171	.0166

Zoom In Zoom Out

Sample Name: JD4396-4 Acquired: 3/16/2020 20:24:50 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**106120.**	**14821.**	**4096.7**	**9079.2**
Stddev	307.	119.	25.3	48.4
%RSD	.28944	.80348	.61693	.53328
#1	105790.	14797.	4104.5	9095.5
#2	106410.	14715.	4117.1	9117.4
#3	106140.	14950.	4068.4	9024.8

Zoom In Zoom Out

Sample Name: JD4396-5 Acquired: 3/16/2020 20:29:54 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3305**	**.0000**	**-.0000**	**.0011**	**.0038**	**.0056**	**.4243**	**.0042**	**.0022**
Stddev	.0022	.0001	.0002	.0003	.0003	.0003	.0077	.0001	.0003
%RSD	.6792	1766.	2644.	29.79	8.948	6.041	1.823	1.947	12.71
#1	.3331	-.0001	-.0002	.0008	.0036	.0053	.4266	.0043	.0025
#2	.3295	.0001	-.0001	.0014	.0041	.0056	.4306	.0043	.0021
#3	.3290	.0000	.0002	.0011	.0036	.0060	.4157	.0041	.0020

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0045**	**.0176**	**.0013**	**-.0012**	**.0015**	**-.0002**	**.0621**	**120.1**
Stddev	.0005	.0002	.0011	.0009	.0013	.0032	.0016	.0108	.8
%RSD	89.38	5.430	6.294	69.24	111.7	209.7	912.2	17.33	.6952
#1	.0010	.0045	.0164	.0003	-.0025	.0030	.0007	.0614	121.0
#2	.0007	.0042	.0186	.0020	-.0011	-.0022	.0007	.0732	119.9
#3	.0000	.0047	.0177	.0017	.0001	.0038	-.0020	.0517	119.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**35.07**	**51.83**	**27.62**	F **627.5**	**1.026**	**.0011**	**10.88**	**-.0028**	**.9894**
Stddev	.16	.25	.17	12.9	.007	.0003	.04	.0008	.0062
%RSD	.4631	.4819	.6075	2.056	.7221	29.02	.3526	27.73	.6294
#1	35.22	52.12	27.81	637.0	1.030	.0007	10.90	-.0019	.9965
#2	35.09	51.68	27.54	632.8	1.030	.0011	10.91	-.0033	.9869
#3	34.90	51.69	27.50	612.8	1.017	.0013	10.84	-.0032	.9848

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0156**	**.0008**	**.5112**	**-.0041**	**.0203**	**.9169**	**.0162**
Stddev	.0003	.0006	.0002	.0075	.0015	.0017	.0049	.0037
%RSD	8.290	3.681	28.88	1.475	37.61	8.381	.5293	22.73
#1	.0041	.0151	.0007	.5187	-.0023	.0195	.9145	.0121
#2	.0036	.0156	.0006	.5114	-.0052	.0192	.9225	.0193
#3	.0042	.0162	.0010	.5036	-.0046	.0223	.9137	.0172

Zoom In Zoom Out

Sample Name: JD4396-5 Acquired: 3/16/2020 20:29:54 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**99214.**	**14579.**	**3828.0**	**8208.7**
Stddev	1541.	91.	13.9	19.7
%RSD	1.5528	.62476	.36365	.23971
#1	98811.	14481.	3820.2	8197.1
#2	97916.	14597.	3819.7	8197.5
#3	100920.	14660.	3844.1	8231.4

Zoom In Zoom Out

Sample Name: JD4396-6 Acquired: 3/16/2020 20:35:07 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0595**	**-.0001**	**.0001**	**.0002**	**.0014**	**.0028**	**.6725**	**.0010**	**.0035**
Stddev	.0003	.0001	.0001	.0001	.0006	.0010	.0029	.0005	.0004
%RSD	.5718	101.0	156.0	68.87	44.88	34.45	.4373	52.70	11.33
#1	.0594	-.0000	-.0000	.0003	.0015	.0023	.6732	.0006	.0035
#2	.0598	-.0001	.0001	.0000	.0007	.0022	.6693	.0009	.0031
#3	.0592	-.0002	.0002	.0002	.0019	.0040	.6751	.0016	.0039

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0017**	**.0237**	**.0070**	**-.0008**	**.0011**	**.0009**	**-.0134**	F **208.1**
Stddev	.0002	.0001	.0010	.0019	.0013	.0022	.0013	.0137	.9
%RSD	764.6	5.221	4.291	27.22	158.7	190.8	141.8	101.6	.4228
#1	-.0000	.0017	.0249	.0092	-.0013	.0016	.0014	-.0116	208.7
#2	-.0002	.0016	.0234	.0060	.0007	-.0012	.0020	-.0279	208.4
#3	.0002	.0017	.0230	.0059	-.0018	.0031	-.0006	-.0008	207.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.364**	**49.93**	**32.11**	F **785.0**	**1.142**	**.0016**	**8.446**	**-.0023**	**1.756**
Stddev	.014	.12	.06	10.2	.008	.0002	.046	.0002	.007
%RSD	.4073	.2342	.1911	1.293	.6636	14.44	.5417	10.12	.3732
#1	3.350	49.99	32.14	773.3	1.151	.0019	8.498	-.0026	1.761
#2	3.377	50.02	32.16	790.4	1.136	.0016	8.411	-.0022	1.758
#3	3.364	49.80	32.04	791.4	1.141	.0014	8.428	-.0021	1.748

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0146**	**.0005**	**2.657**	**-.0029**	**.0144**	**2.312**	**.0048**
Stddev	.0007	.0002	.0002	.023	.0023	.0013	.018	.0028
%RSD	59.93	1.542	33.73	.8731	79.80	9.285	.7847	58.31
#1	-.0014	.0143	.0004	2.683	-.0010	.0133	2.314	.0017
#2	-.0016	.0147	.0007	2.651	-.0021	.0141	2.328	.0071
#3	-.0004	.0147	.0006	2.638	-.0054	.0159	2.292	.0056

Zoom In Zoom Out

Sample Name: JD4396-6 Acquired: 3/16/2020 20:35:07 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**96049.**	**14415.**	**3714.0**	**7897.4**
Stddev	325.	92.	16.6	37.0
%RSD	.33825	.63712	.44612	.46872
#1	95911.	14356.	3696.1	7858.6
#2	96420.	14368.	3728.8	7932.3
#3	95815.	14521.	3717.2	7901.4

Zoom In Zoom Out

Sample Name: JD4396-7 Acquired: 3/16/2020 20:40:19 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2769**	**.0000**	**-.0000**	**-.0001**	**.0048**	**.0063**	**.7055**	**.0033**	**.0015**
Stddev	.0056	.0002	.0003	.0003	.0005	.0004	.0009	.0006	.0005
%RSD	2.030	891.4	755.7	218.5	10.67	6.270	.1253	19.43	34.91
#1	.2739	-.0001	.0002	-.0005	.0053	.0061	.7054	.0039	.0015
#2	.2834	-.0000	.0000	-.0000	.0043	.0067	.7064	.0027	.0021
#3	.2734	.0002	-.0003	.0001	.0047	.0060	.7046	.0033	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0044**	**.0313**	**.0033**	**.0003**	**.0024**	**.0009**	**.2343**	**92.39**
Stddev	.0007	.0001	.0005	.0032	.0007	.0006	.0015	.0052	2.03
%RSD	40.66	3.039	1.554	95.73	225.2	22.87	171.7	2.200	2.201
#1	.0024	.0042	.0316	.0062	.0011	.0021	.0022	.2359	91.21
#2	.0014	.0044	.0307	.0039	-.0004	.0021	-.0008	.2384	94.74
#3	.0012	.0045	.0316	-.0001	.0002	.0031	.0012	.2285	91.23

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.64**	**33.25**	**21.24**	F **543.3**	**1.214**	**.0035**	**12.36**	**-.0014**	**.7918**
Stddev	.64	.72	.46	5.3	.002	.0001	.02	.0002	.0166
%RSD	2.170	2.178	2.169	.9690	.1788	4.019	.1326	11.00	2.098
#1	29.23	32.73	21.02	542.1	1.216	.0037	12.36	-.0012	.7832
#2	30.38	34.08	21.77	549.1	1.211	.0035	12.37	-.0014	.8109
#3	29.30	32.95	20.93	538.7	1.215	.0034	12.34	-.0015	.7812

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0178**	**.0008**	**1.072**	**-.0034**	**.0139**	**.9440**	**.0143**
Stddev	.0004	.0006	.0002	.006	.0027	.0008	.0109	.0057
%RSD	4.062	3.203	29.35	.5482	80.13	5.454	1.159	39.83
#1	.0100	.0180	.0009	1.068	-.0040	.0145	.9403	.0086
#2	.0095	.0183	.0010	1.070	-.0057	.0141	.9563	.0142
#3	.0103	.0172	.0005	1.079	-.0004	.0130	.9353	.0200

Zoom In Zoom Out

Sample Name: JD4396-7 Acquired: 3/16/2020 20:40:19 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**100320.**	**14478.**	**3898.4**	**8377.5**
Stddev	114.	267.	3.2	10.3
%RSD	.11390	1.8419	.08189	.12262
#1	100260.	14654.	3894.9	8370.1
#2	100250.	14171.	3899.1	8389.2
#3	100450.	14609.	3901.2	8373.1

Zoom In Zoom Out

Sample Name: JD4396-8 Acquired: 3/16/2020 20:45:30 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.133**	**.0000**	**.0002**	**-.0002**	**.0019**	**.0023**	**.5461**	**.0019**	**.0023**
Stddev	.045	.0001	.0002	.0006	.0004	.0002	.0163	.0003	.0009
%RSD	3.961	470.0	107.3	389.0	18.98	7.162	2.977	14.59	38.88
#1	1.155	-.0000	-.0000	-.0008	.0023	.0025	.5364	.0017	.0032
#2	1.082	.0001	.0004	.0005	.0016	.0021	.5649	.0023	.0014
#3	1.163	-.0001	.0002	-.0001	.0019	.0023	.5370	.0019	.0025

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0011**	**-.0001**	**.0021**	**-.0011**	**.0014**	**.0004**	**-.0065**	**104.8**
Stddev	.0006	.0001	.0016	.0021	.0005	.0007	.0013	.0053	3.9
%RSD	1365.	9.618	1319.	99.95	42.80	52.54	314.7	81.10	3.725
#1	.0001	.0011	.0005	-.0002	-.0007	.0011	-.0001	-.0126	106.8
#2	-.0007	.0010	-.0019	.0040	-.0010	.0009	-.0005	-.0037	100.3
#3	.0005	.0012	.0010	.0025	-.0016	.0022	.0018	-.0032	107.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.490**	**66.53**	**31.40**	F **664.9**	**1.269**	**.0004**	**7.945**	**-.0029**	**1.021**
Stddev	.264	2.39	1.13	19.1	.022	.0002	.124	.0007	.039
%RSD	4.070	3.589	3.592	2.868	1.737	56.88	1.561	22.36	3.843
#1	6.604	67.63	31.98	670.7	1.256	.0007	7.876	-.0026	1.041
#2	6.188	63.79	30.10	643.6	1.257	.0003	7.870	-.0026	.9757
#3	6.678	68.16	32.12	680.4	1.295	.0003	8.088	-.0037	1.046

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0114**	**.0004**	**2.786**	**-.0022**	**.0182**	**1.328**	**.0070**
Stddev	.0005	.0006	.0001	.043	.0009	.0010	.010	.0033
%RSD	45.48	5.026	30.74	1.536	41.91	5.399	.7284	46.23
#1	.0013	.0113	.0004	2.768	-.0025	.0184	1.328	.0061
#2	.0005	.0108	.0003	2.755	-.0012	.0171	1.319	.0107
#3	.0013	.0120	.0005	2.834	-.0030	.0191	1.338	.0043

Zoom In Zoom Out

Sample Name: JD4396-8 Acquired: 3/16/2020 20:45:30 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**98541.**	**14809.**	**3786.3**	**8099.0**
Stddev	2529.	425.	44.5	92.0
%RSD	2.5661	2.8724	1.1750	1.1355
#1	99956.	14570.	3808.6	8142.6
#2	95622.	15300.	3815.2	8161.1
#3	100050.	14557.	3735.1	7993.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 20:50:43 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.047**	**2.036**	**2.050**	**2.049**	**2.011**	**2.093**	**2.047**	**.2556**
Stddev	.003	.003	.017	.021	.004	.006	.004	.019	.0005
%RSD	.1544	.1597	.8353	1.007	.1756	.2769	.1683	.9224	.1985
#1	2.004	2.043	2.051	2.068	2.051	2.018	2.093	2.063	.2561
#2	2.008	2.047	2.039	2.054	2.045	2.010	2.089	2.050	.2553
#3	2.010	2.050	2.017	2.027	2.051	2.007	2.096	2.026	.2552
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.056**	**2.075**	**2.038**	**2.106**	**2.080**	**2.030**	**2.010**	**39.24**	**40.35**
Stddev	.005	.016	.018	.023	.018	.018	.015	.11	.15
%RSD	.2680	.7883	.8921	1.081	.8614	.8996	.7324	.2692	.3622
#1	2.060	2.090	2.055	2.127	2.097	2.049	2.024	39.13	40.18
#2	2.050	2.077	2.040	2.110	2.081	2.028	2.012	39.26	40.38
#3	2.059	2.058	2.019	2.082	2.062	2.013	1.995	39.34	40.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.47**	**39.68**	**38.53**	**38.84**	**2.034**	**2.071**	**5.202**	**2.092**	**2.011**
Stddev	.11	.08	.10	.14	.016	.016	.040	.020	.006
%RSD	.2707	.2022	.2575	.3511	.7837	.7780	.7624	.9324	.2862
#1	40.35	39.59	38.43	38.73	2.049	2.087	5.241	2.109	2.006
#2	40.52	39.71	38.53	38.81	2.035	2.071	5.203	2.097	2.011
#3	40.55	39.74	38.63	38.99	2.018	2.055	5.162	2.071	2.017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 20:50:43 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.942**	**2.051**	**2.053**	**2.041**	**2.039**	**1.983**	**1.949**	**2.058**
Stddev	.003	.014	.004	.020	.017	.003	.015	.011
%RSD	.1747	.6601	.1766	.9944	.8189	.1595	.7639	.5079
#1	1.945	2.064	2.057	2.061	2.058	1.980	1.966	2.062
#2	1.939	2.053	2.049	2.042	2.034	1.982	1.941	2.046
#3	1.943	2.037	2.053	2.020	2.025	1.986	1.940	2.065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108060.**	**14765.**	**4180.9**	**9281.6**
Stddev	329.	103.	22.8	59.6
%RSD	.30456	.69829	.54565	.64257
#1	107880.	14883.	4159.2	9228.0
#2	108440.	14720.	4178.9	9270.9
#3	107860.	14693.	4204.7	9345.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 20:55:32 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0002**	**.0003**	**.0002**	**.0002**	**.0003**	**.0006**	**-.0007**
Stddev	.0003	.0001	.0003	.0003	.0008	.0005	.0001	.0003	.0008
%RSD	291.3	133.5	126.9	113.0	397.5	335.9	19.83	55.13	104.7
#1	.0001	.0002	.0000	.0007	-.0000	-.0002	.0003	.0003	-.0010
#2	.0004	.0001	.0006	.0001	.0011	.0007	.0004	.0009	-.0014
#3	-.0002	-.0000	.0001	.0001	-.0005	-.0001	.0003	.0006	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0013**	**.0011**	**-.0003**	**.0016**	**.0007**	**.0052**	**-.0012**
Stddev	.0004	.0001	.0006	.0039	.0008	.0015	.0009	.0113	.0010
%RSD	351.8	165.1	44.29	343.3	249.2	93.91	129.1	218.8	83.01
#1	-.0004	-.0001	-.0009	-.0027	-.0005	-.0001	.0003	.0135	-.0001
#2	.0004	.0002	-.0019	.0009	.0005	.0022	.0017	.0096	-.0015
#3	.0003	.0001	-.0010	.0051	-.0010	.0027	.0001	-.0077	-.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073**	**-.0001**	**.0643**	**.1073**	**.0022**	**.0016**	**.0014**	**-.0003**	**.0001**
Stddev	.0045	.0236	.0260	.0073	.0001	.0003	.0011	.0008	.0000
%RSD	61.92	29470.	40.51	6.777	4.065	19.42	80.00	266.7	21.45
#1	.0125	.0220	.0522	.1014	.0021	.0020	.0023	.0005	.0001
#2	.0044	.0027	.0941	.1154	.0023	.0015	.0002	-.0012	.0001
#3	.0050	-.0249	.0465	.1051	.0021	.0014	.0016	-.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 20:55:32 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0026**	**.0005**	F **.0147**	**-.0010**	**-.0012**	**.0125**	**-.0007**
Stddev	.0009	.0003	.0001	.0044	.0010	.0005	.0042	.0019
%RSD	220.2	10.69	13.69	29.67	101.6	42.58	33.69	290.2
#1	-.0006	.0030	.0004	.0172	-.0012	-.0007	.0092	.0000
#2	.0009	.0025	.0005	.0096	-.0019	-.0013	.0110	.0008
#3	.0010	.0025	.0006	.0172	.0001	-.0017	.0172	-.0028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0102				
Low Limit				-.0102				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112560.**	**14864.**	**4349.6**	**10274.**
Stddev	963.	142.	15.6	34.
%RSD	.85554	.95426	.35902	.33091
#1	112130.	14753.	4366.8	10312.
#2	113670.	15024.	4345.5	10264.
#3	111900.	14815.	4336.4	10246.

Zoom In Zoom Out

Sample Name: JD4396-9 Acquired: 3/16/2020 21:00:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0327**	**.0000**	**-.0001**	**.0000**	**.0009**	**.0029**	**.2599**	**.0061**
Stddev	.0008	.0001	.0002	.0003	.0001	.0006	.0028	.0002
%RSD	2.586	163.6	283.8	18990.	7.739	20.45	1.067	3.349
#1	.0321	.0001	-.0002	.0002	.0009	.0022	.2628	.0063
#2	.0337	-.0000	.0001	-.0004	.0008	.0034	.2572	.0062
#3	.0323	.0000	-.0001	.0001	.0009	.0030	.2597	.0059

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0000**	**.0008**	**.0090**	**.0002**	**-.0003**	**.0014**	**.0012**
Stddev	.0002	.0006	.0001	.0006	.0021	.0018	.0022	.0007
%RSD	27.47	2130.	12.69	6.878	985.8	540.0	153.9	58.69
#1	.0008	.0006	.0008	.0096	.0001	.0008	.0024	.0015
#2	.0011	-.0004	.0010	.0083	-.0018	.0006	-.0011	.0016
#3	.0007	-.0003	.0008	.0091	.0024	-.0024	.0029	.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0080**	**66.77**	**2.395**	**11.44**	**12.91**	W **282.9**	**.4605**	**.0077**
Stddev	.0062	1.41	.035	.31	.26	1.7	.0014	.0001
%RSD	77.36	2.113	1.478	2.710	2.016	.5904	.2958	1.021
#1	.0134	65.96	2.367	11.31	12.76	281.1	.4590	.0076
#2	.0013	68.40	2.435	11.80	13.21	283.4	.4617	.0077
#3	.0093	65.96	2.383	11.22	12.76	284.3	.4608	.0077

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.893**	**-.0025**	**.3886**	**-.0002**	**.0086**	**.0020**	**3.624**	**-.0019**
Stddev	.007	.0010	.0086	.0002	.0002	.0001	.006	.0018
%RSD	.1197	40.81	2.222	85.12	1.968	7.284	.1725	92.21
#1	5.885	-.0035	.3847	-.0000	.0088	.0019	3.617	-.0039
#2	5.899	-.0015	.3985	-.0003	.0085	.0021	3.629	-.0007
#3	5.894	-.0026	.3826	-.0003	.0084	.0018	3.625	-.0011

Zoom In Zoom Out

Sample Name: JD4396-9 Acquired: 3/16/2020 21:00:42 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0058**	**.9149**	**.0040**
Stddev	.0024	.0108	.0019
%RSD	40.78	1.182	47.04
#1	.0086	.9091	.0061
#2	.0043	.9274	.0025
#3	.0046	.9083	.0034

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**103750.**	**14603.**	**4040.3**	**8808.5**
Stddev	745.	199.	4.6	4.7
%RSD	.71853	1.3609	.11401	.05359
#1	102900.	14747.	4041.1	8812.7
#2	104300.	14376.	4035.4	8803.4
#3	104050.	14686.	4044.5	8809.3

Zoom In Zoom Out

Sample Name: JD4396-13 Acquired: 3/16/2020 21:05:54 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**-.0001**	**-.0002**	**-.0001**	**.0003**	**.0003**	**.0000**	**-.0009**
Stddev	.0002	.0001	.0000	.0004	.0004	.0003	.0001	.0003	.0005
%RSD	292.8	283.8	76.55	196.5	320.2	77.73	53.07	605.1	61.36
#1	-.0000	.0000	-.0000	.0000	.0003	.0002	.0004	.0001	-.0014
#2	-.0000	-.0001	-.0001	-.0006	-.0001	.0006	.0002	.0002	-.0003
#3	.0002	.0001	-.0001	.0000	-.0005	.0002	.0001	-.0002	-.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0013**	**-.0005**	**-.0017**	**-.0002**	**.0020**	**.0008**	**.0175**	**.0679**
Stddev	.0004	.0001	.0008	.0017	.0001	.0002	.0010	.0154	.0060
%RSD	114.4	10.97	168.1	98.10	54.35	7.797	127.0	87.99	8.896
#1	.0001	.0011	-.0004	-.0028	-.0002	.0021	.0002	.0352	.0611
#2	.0001	.0013	.0003	-.0026	-.0003	.0019	.0002	.0094	.0726
#3	.0008	.0014	-.0014	.0002	-.0001	.0019	.0020	.0078	.0701

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0231**	**.0077**	**.0608**	**.4395**	**.0012**	**.0011**	**.0393**	**-.0005**	**.0003**
Stddev	.0064	.0509	.0049	.0237	.0003	.0000	.0009	.0005	.0000
%RSD	27.64	657.2	7.986	5.396	21.26	1.640	2.164	101.8	6.326
#1	.0233	.0505	.0621	.4619	.0009	.0012	.0398	.0001	.0003
#2	.0166	-.0485	.0649	.4419	.0014	.0011	.0398	-.0007	.0003
#3	.0293	.0212	.0554	.4146	.0013	.0011	.0383	-.0008	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0064**	**.0008**	**.0142**	**-.0023**	**-.0001**	**.0108**	**-.0021**
Stddev	.0003	.0017	.0001	.0028	.0008	.0011	.0032	.0039
%RSD	26.94	26.73	13.74	19.71	36.33	2083.	29.29	183.5
#1	.0014	.0083	.0007	.0126	-.0031	.0007	.0073	-.0055
#2	.0008	.0050	.0008	.0174	-.0014	-.0014	.0133	-.0030
#3	.0011	.0058	.0009	.0126	-.0022	.0005	.0120	.0021

Zoom In Zoom Out

Sample Name: JD4396-13 Acquired: 3/16/2020 21:05:54 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113570.**	**14994.**	**4377.7**	**10333.**
Stddev	360.	38.	23.0	49.
%RSD	.31704	.25356	.52641	.47620
#1	113300.	14997.	4369.6	10317.
#2	113430.	14955.	4359.8	10294.
#3	113980.	15031.	4403.7	10388.

Zoom In Zoom Out

Sample Name: JD4396-16 Acquired: 3/16/2020 21:11:01 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.061**	**-.0001**	**.0003**	**-.0001**	**.0154**	**.0035**	**1.145**	**.0023**	**.0020**
Stddev	.004	.0001	.0002	.0004	.0006	.0004	.014	.0002	.0008
%RSD	.3863	164.5	87.15	304.3	3.630	12.06	1.210	7.590	42.02
#1	1.065	.0000	.0000	.0003	.0147	.0035	1.130	.0023	.0014
#2	1.057	-.0000	.0005	-.0002	.0157	.0030	1.158	.0025	.0029
#3	1.061	-.0002	.0003	-.0005	.0157	.0039	1.146	.0021	.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0036**	**.0059**	**.0026**	**.0003**	**.0029**	**.0007**	**.0154**	**126.4**
Stddev	.0004	.0000	.0023	.0015	.0006	.0035	.0011	.0071	.4
%RSD	53.78	1.241	38.77	56.04	191.7	120.1	154.9	46.13	.3482
#1	.0011	.0035	.0054	.0040	.0004	.0026	-.0005	.0200	126.9
#2	.0008	.0036	.0084	.0027	.0009	-.0004	.0011	.0190	126.1
#3	.0003	.0036	.0039	.0011	-.0003	.0066	.0017	.0072	126.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.81**	**42.20**	**22.55**	F **699.3**	**1.754**	**.0018**	**8.002**	**-.0023**	**.9703**
Stddev	.07	.10	.06	6.8	.004	.0004	.017	.0009	.0043
%RSD	.4522	.2475	.2879	.9772	.2081	24.40	.2062	38.13	.4442
#1	15.89	42.25	22.60	698.9	1.758	.0013	8.019	-.0030	.9751
#2	15.77	42.08	22.48	706.3	1.751	.0019	8.002	-.0013	.9668
#3	15.76	42.27	22.58	692.7	1.753	.0022	7.986	-.0027	.9690

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0142**	**.0013**	**5.592**	**-.0029**	**.0173**	**1.059**	**.0171**
Stddev	.0010	.0003	.0002	.013	.0010	.0011	.014	.0025
%RSD	237.6	1.766	14.61	.2377	32.99	6.074	1.273	14.78
#1	-.0006	.0142	.0012	5.595	-.0037	.0175	1.055	.0173
#2	.0004	.0145	.0011	5.603	-.0032	.0162	1.074	.0145
#3	.0014	.0140	.0015	5.577	-.0019	.0183	1.048	.0195

Zoom In Zoom Out

Sample Name: JD4396-16 Acquired: 3/16/2020 21:11:01 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**96425.**	**14490.**	**3799.7**	**8097.5**
Stddev	1076.	32.	8.8	19.7
%RSD	1.1159	.21812	.23082	.24307
#1	97554.	14468.	3792.5	8078.7
#2	95411.	14475.	3797.1	8095.9
#3	96309.	14526.	3809.5	8118.0

Zoom In Zoom Out

Sample Name: JD4396-17 Acquired: 3/16/2020 21:16:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.048**	**.0000**	**-.0000**	**-.0002**	**.0037**	**.0034**	**1.115**	**.0015**	**.0020**
Stddev	.005	.0001	.0002	.0007	.0005	.0005	.019	.0003	.0004
%RSD	.4884	171.7	541.5	286.1	12.55	15.82	1.736	20.62	22.09
#1	1.052	.0000	-.0002	-.0008	.0041	.0031	1.104	.0018	.0019
#2	1.050	.0001	.0000	.0005	.0037	.0032	1.104	.0013	.0025
#3	1.042	-.0000	.0001	-.0003	.0032	.0041	1.138	.0013	.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0038**	**.0061**	**.0000**	**-.0012**	**.0038**	**.0005**	**.0080**	**125.3**
Stddev	.0004	.0003	.0011	.0016	.0021	.0009	.0005	.0087	.7
%RSD	80.76	6.688	17.69	9238.	171.1	23.00	98.34	108.0	.5487
#1	.0001	.0036	.0067	.0008	-.0002	.0040	.0006	.0162	126.0
#2	.0009	.0038	.0068	.0010	-.0036	.0045	.0009	-.0011	125.3
#3	.0005	.0041	.0049	-.0018	.0002	.0028	-.0000	.0090	124.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.46**	**41.67**	**22.64**	F **683.0**	**1.739**	**.0014**	**7.938**	**-.0026**	**.9679**
Stddev	.08	.22	.13	4.0	.009	.0001	.052	.0010	.0043
%RSD	.5068	.5204	.5740	.5819	.5405	3.561	.6604	39.74	.4480
#1	15.54	41.84	22.76	682.8	1.729	.0015	7.893	-.0017	.9721
#2	15.45	41.73	22.66	679.2	1.740	.0014	7.926	-.0024	.9682
#3	15.38	41.42	22.51	687.1	1.748	.0014	7.996	-.0037	.9634

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0136**	**.0010**	**5.888**	**-.0032**	**.0187**	**1.048**	**.0126**
Stddev	.0006	.0011	.0001	.036	.0012	.0006	.005	.0012
%RSD	130.0	8.388	6.850	.6079	37.97	3.180	.4854	9.578
#1	.0003	.0144	.0009	5.852	-.0044	.0187	1.049	.0133
#2	-.0000	.0123	.0011	5.888	-.0020	.0181	1.042	.0133
#3	.0012	.0141	.0011	5.924	-.0031	.0193	1.052	.0112

Zoom In Zoom Out

Sample Name: JD4396-17 Acquired: 3/16/2020 21:16:11 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**97786.**	**14505.**	**3811.1**	**8124.4**
Stddev	1403.	76.	22.9	39.3
%RSD	1.4345	.52187	.60057	.48330
#1	98639.	14429.	3830.6	8159.8
#2	98551.	14503.	3816.8	8131.2
#3	96167.	14581.	3785.9	8082.2

Zoom In Zoom Out

Sample Name: JD4396-18 Acquired: 3/16/2020 21:21:21 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4193**	**.0000**	**.0000**	**.0021**	**.0071**	**.0033**	**1.291**	**.0192**	**.0068**
Stddev	.0012	.0000	.0003	.0006	.0005	.0005	.008	.0004	.0006
%RSD	.2978	64.56	959.6	28.27	7.120	16.40	.6202	2.021	8.836
#1	.4207	.0000	-.0004	.0022	.0067	.0031	1.284	.0187	.0063
#2	.4187	.0000	.0002	.0027	.0077	.0029	1.300	.0194	.0075
#3	.4185	.0001	.0002	.0015	.0070	.0039	1.289	.0193	.0067

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.0016**	**.0302**	**.0035**	**-.0021**	**.0031**	**.0003**	**.4059**	**120.1**
Stddev	.0002	.0000	.0010	.0021	.0019	.0032	.0004	.0127	.6
%RSD	13.15	2.357	3.180	59.32	94.09	103.5	128.6	3.121	.4595
#1	.0013	.0016	.0312	.0057	-.0021	.0066	.0002	.3944	120.7
#2	.0011	.0016	.0293	.0017	-.0001	.0005	.0007	.4195	120.0
#3	.0013	.0016	.0302	.0029	-.0040	.0021	-.0000	.4039	119.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.54**	**177.6**	**85.34**	F **1118.**	**1.801**	**.0172**	**11.05**	**-.0020**	**1.907**
Stddev	.08	1.5	.32	18.	.005	.0002	.04	.0004	.005
%RSD	.4179	.8583	.3716	1.583	.2665	1.428	.3973	19.64	.2583
#1	18.63	179.2	85.65	1138.	1.797	.0173	11.00	-.0023	1.912
#2	18.50	177.5	85.35	1111.	1.806	.0170	11.08	-.0016	1.907
#3	18.48	176.1	85.01	1105.	1.801	.0174	11.07	-.0023	1.903

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0129**	**.0181**	**.0022**	**.7304**	**-.0019**	**.0168**	**1.741**	**.0190**
Stddev	.0004	.0004	.0003	.0076	.0018	.0026	.013	.0062
%RSD	3.143	2.412	11.46	1.045	92.61	15.39	.7231	32.79
#1	.0127	.0186	.0022	.7321	-.0003	.0177	1.749	.0203
#2	.0126	.0178	.0025	.7370	-.0038	.0138	1.727	.0122
#3	.0133	.0180	.0020	.7220	-.0016	.0187	1.749	.0244

Zoom In Zoom Out

Sample Name: JD4396-18 Acquired: 3/16/2020 21:21:21 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**91582.**	**14257.**	**3544.7**	**7500.5**
Stddev	512.	107.	10.5	16.4
%RSD	.55888	.75157	.29518	.21811
#1	92013.	14137.	3556.3	7514.0
#2	91016.	14292.	3535.9	7482.3
#3	91716.	14342.	3542.0	7505.1

Zoom In Zoom Out

Sample Name: JD4404-2 Acquired: 3/16/2020 21:26:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0785**	**.0000**	**.0003**	**.0064**	**.0008**	**.0072**	**1.468**	**.0145**	**-.0007**
Stddev	.0003	.0001	.0002	.0003	.0007	.0010	.001	.0004	.0007
%RSD	.3388	227.9	62.15	4.849	84.26	13.64	.0703	2.480	102.0
#1	.0788	-.0000	.0002	.0066	.0011	.0082	1.467	.0147	.0001
#2	.0783	.0000	.0002	.0065	.0000	.0072	1.467	.0147	-.0010
#3	.0786	.0001	.0005	.0060	.0014	.0063	1.469	.0141	-.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0035**	**.0011**	**.0044**	**-.0001**	**.0018**	**.0018**	**-.0071**	**34.38**
Stddev	.0003	.0001	.0009	.0022	.0005	.0011	.0006	.0005	.01
%RSD	147.4	2.768	82.17	50.25	435.6	59.62	32.82	7.493	.0389
#1	-.0006	.0034	.0021	.0019	.0002	.0008	.0019	-.0077	34.39
#2	-.0000	.0035	.0002	.0060	-.0006	.0017	.0011	-.0066	34.36
#3	-.0001	.0036	.0011	.0053	.0001	.0030	.0023	-.0070	34.39

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7086**	**25.06**	**.6813**	**21.86**	**.0292**	**.0004**	**15.60**	**-.0017**	**.2450**
Stddev	.0027	.05	.0209	.04	.0006	.0002	.02	.0008	.0003
%RSD	.3855	.1883	3.074	.1885	1.947	50.00	.1252	43.93	.1121
#1	.7114	25.09	.6941	21.86	.0290	.0003	15.59	-.0025	.2447
#2	.7085	25.00	.6927	21.91	.0298	.0006	15.62	-.0010	.2452
#3	.7060	25.08	.6571	21.82	.0287	.0002	15.59	-.0017	.2452

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0155**	**-.0003**	**7.256**	**-.0045**	**.0067**	**.1454**	**.0232**
Stddev	.0003	.0003	.0002	.029	.0009	.0004	.0041	.0025
%RSD	32.47	1.953	66.93	.4044	20.27	5.295	2.841	10.81
#1	-.0007	.0152	-.0004	7.267	-.0034	.0064	.1500	.0204
#2	-.0011	.0158	-.0001	7.278	-.0051	.0066	.1420	.0252
#3	-.0013	.0155	-.0004	7.223	-.0049	.0071	.1443	.0239

Zoom In Zoom Out

Sample Name: JD4404-2 Acquired: 3/16/2020 21:26:31 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110900.**	**14961.**	**4248.9**	**9667.3**
Stddev	205.	86.	8.8	9.5
%RSD	.18505	.57505	.20820	.09873
#1	110670.	14866.	4249.6	9667.5
#2	111040.	14986.	4239.7	9657.6
#3	111000.	15032.	4257.4	9676.7

Zoom In Zoom Out

Sample Name: JD4404-3 Acquired: 3/16/2020 21:31:36 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0893**	**.0001**	**.0001**	**-.0002**	**.0000**	**.0009**	**.0352**	**.0005**	**-.0003**
Stddev	.0004	.0002	.0001	.0002	.0010	.0000	.0003	.0002	.0002
%RSD	.4858	167.7	85.30	89.75	2416.	3.782	.9618	32.55	67.25
#1	.0897	.0001	.0001	-.0005	.0010	.0009	.0352	.0006	-.0005
#2	.0888	.0002	.0002	-.0001	.0001	.0009	.0348	.0003	-.0002
#3	.0894	-.0001	.0000	-.0001	-.0010	.0009	.0355	.0006	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0020**	**.0001**	**-.0001**	**-.0001**	**.0012**	**.0012**	**-.0072**	**35.65**
Stddev	.0001	.0002	.0009	.0007	.0008	.0023	.0021	.0023	.09
%RSD	127.6	8.453	795.1	841.6	1213.	191.1	180.9	31.85	.2629
#1	-.0000	.0021	.0012	-.0006	.0009	.0004	.0030	-.0099	35.66
#2	.0002	.0022	-.0006	.0007	-.0007	.0037	-.0011	-.0058	35.55
#3	.0001	.0019	-.0002	-.0003	-.0004	-.0006	.0016	-.0060	35.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0121**	**14.36**	**1.825**	**11.07**	**.0126**	**.0007**	**14.43**	**-.0024**	**.2611**
Stddev	.0035	.14	.013	.02	.0001	.0003	.14	.0006	.0007
%RSD	28.71	1.006	.7124	.1611	.6846	42.06	.9499	23.87	.2496
#1	.0127	14.21	1.827	11.07	.0125	.0005	14.52	-.0030	.2613
#2	.0152	14.36	1.811	11.05	.0125	.0005	14.48	-.0019	.2604
#3	.0084	14.50	1.836	11.08	.0127	.0010	14.27	-.0023	.2617

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0159**	**-.0005**	**6.058**	**-.0045**	**.0023**	**.1087**	**-.0037**
Stddev	.0008	.0004	.0002	.054	.0007	.0015	.0057	.0016
%RSD	118.4	2.540	42.99	.8973	15.07	66.61	5.259	44.15
#1	-.0015	.0155	-.0003	6.086	-.0039	.0034	.1045	-.0018
#2	.0001	.0162	-.0006	6.094	-.0045	.0029	.1065	-.0047
#3	-.0006	.0162	-.0007	5.996	-.0052	.0005	.1152	-.0045

Zoom In Zoom Out

Sample Name: JD4404-3 Acquired: 3/16/2020 21:31:36 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110690.**	**14848.**	**4274.4**	**9799.3**
Stddev	770.	20.	27.7	59.3
%RSD	.69559	.13479	.64762	.60494
#1	111020.	14846.	4261.7	9772.6
#2	111230.	14869.	4255.5	9758.1
#3	109810.	14829.	4306.2	9867.3

Zoom In Zoom Out

Sample Name: JD4404-4 Acquired: 3/16/2020 21:36:40 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3223**	**-.0000**	**.0004**	**.0029**	**.0018**	**.0014**	**1.574**	**.0037**	**-.0006**
Stddev	.0016	.0001	.0001	.0004	.0008	.0006	.006	.0001	.0007
%RSD	.5020	230.9	31.49	13.55	43.02	41.62	.3748	2.032	109.0
#1	.3238	.0000	.0003	.0028	.0027	.0012	1.575	.0036	-.0008
#2	.3206	-.0001	.0005	.0026	.0016	.0021	1.579	.0037	-.0012
#3	.3226	-.0000	.0004	.0033	.0012	.0009	1.568	.0037	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0034**	**-.0007**	**.0042**	**-.0005**	**.0022**	**.0007**	**-.0099**	**36.06**
Stddev	.0000	.0001	.0014	.0031	.0006	.0002	.0018	.0069	.16
%RSD	36.12	2.857	199.5	73.13	117.9	11.16	256.1	69.86	.4471
#1	-.0001	.0035	.0000	.0007	.0002	.0021	-.0002	-.0151	36.24
#2	-.0001	.0033	-.0023	.0064	-.0009	.0025	-.0004	-.0020	35.92
#3	-.0001	.0035	.0002	.0054	-.0007	.0021	.0028	-.0126	36.02

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.061**	**18.79**	**1.871**	**32.90**	**.0133**	**-.0000**	**18.66**	**-.0029**	**1.177**
Stddev	.022	.07	.026	.18	.0006	.0002	.06	.0008	.006
%RSD	.5359	.3496	1.392	.5450	4.300	429.6	.3105	26.51	.5196
#1	4.057	18.81	1.895	33.07	.0127	.0000	18.67	-.0027	1.182
#2	4.041	18.72	1.843	32.71	.0138	-.0002	18.71	-.0023	1.170
#3	4.084	18.85	1.875	32.93	.0136	.0001	18.60	-.0038	1.178

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0186**	**-.0010**	**5.144**	**-.0035**	**.0118**	**.1702**	**.0172**
Stddev	.0003	.0006	.0001	.015	.0012	.0012	.0041	.0024
%RSD	528.6	3.424	9.044	.2922	35.90	10.15	2.395	13.80
#1	-.0004	.0181	-.0011	5.127	-.0030	.0108	.1712	.0151
#2	.0002	.0194	-.0010	5.157	-.0025	.0131	.1737	.0168
#3	.0000	.0184	-.0009	5.147	-.0049	.0114	.1657	.0198

Zoom In Zoom Out

Sample Name: JD4404-4 Acquired: 3/16/2020 21:36:40 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109680.**	**14830.**	**4229.1**	**9604.3**
Stddev	550.	113.	3.8	14.8
%RSD	.50131	.76331	.08910	.15405
#1	109930.	14701.	4231.4	9611.7
#2	109040.	14915.	4224.8	9587.3
#3	110050.	14874.	4231.2	9613.9

Zoom In Zoom Out

Sample Name: JD4440-1 Acquired: 3/16/2020 21:41:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.210**	**.0009**	**.0148**	**.0040**	**.0355**	**.2854**	F **13.71**	**.0237**	**.0035**
Stddev	.003	.0002	.0001	.0005	.0009	.0010	.02	.0002	.0003
%RSD	.2366	19.73	.6304	11.73	2.414	.3604	.1423	.8965	7.671
#1	1.213	.0010	.0147	.0045	.0352	.2846	13.73	.0238	.0032
#2	1.209	.0007	.0148	.0040	.0348	.2851	13.70	.0234	.0036
#3	1.207	.0009	.0149	.0036	.0364	.2866	13.70	.0238	.0037

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0183**	**.1686**	**.0060**	**.0116**	**.0205**	**.0016**	**.0038**	**7.948**	**137.5**
Stddev	.0003	.0004	.0004	.0030	.0020	.0026	.0006	.028	.4
%RSD	1.684	.2384	6.336	25.74	9.840	164.3	16.17	.3575	.2742
#1	.0181	.1683	.0065	.0092	.0183	-.0013	.0034	7.974	137.8
#2	.0181	.1685	.0059	.0149	.0210	.0023	.0035	7.953	137.1
#3	.0187	.1691	.0057	.0106	.0223	.0038	.0045	7.918	137.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.23**	**31.11**	**29.08**	**122.5**	**.0708**	**.0029**	**24.22**	**-.0022**	**.5553**
Stddev	.03	.10	.04	.3	.0006	.0003	.01	.0012	.0007
%RSD	.2124	.3102	.1525	.2277	.7909	8.796	.0472	54.92	.1305
#1	16.26	31.21	29.12	122.7	.0706	.0026	24.21	-.0013	.5561
#2	16.19	31.01	29.03	122.2	.0703	.0031	24.23	-.0017	.5550
#3	16.23	31.11	29.08	122.5	.0714	.0029	24.21	-.0035	.5547

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3066**	**.0315**	**.0012**	**7.238**	**-.0039**	**.0168**	**4.685**	**.1807**
Stddev	.0012	.0006	.0001	.004	.0010	.0009	.007	.0017
%RSD	.3887	2.014	6.978	.0626	24.47	5.214	.1526	.9418
#1	.3052	.0312	.0012	7.239	-.0037	.0174	4.684	.1825
#2	.3074	.0311	.0011	7.233	-.0031	.0172	4.692	.1791
#3	.3070	.0322	.0012	7.242	-.0050	.0158	4.678	.1806

Zoom In Zoom Out

Sample Name: JD4440-1 Acquired: 3/16/2020 21:41:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105670.**	**14707.**	**4070.7**	**8857.6**
Stddev	306.	83.	.4	4.9
%RSD	.28966	.56658	.01080	.05509
#1	105330.	14649.	4071.2	8861.3
#2	105920.	14802.	4070.5	8859.6
#3	105770.	14669.	4070.5	8852.1

Zoom In Zoom Out

Sample Name: JD4440-2 Acquired: 3/16/2020 21:46:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8548**	**.0007**	**.0042**	**.0036**	**.0095**	**.0468**	**7.152**	**.0374**	**.0010**
Stddev	.0012	.0001	.0002	.0002	.0002	.0003	.002	.0003	.0005
%RSD	.1401	9.544	4.407	5.365	2.620	.5911	.0292	.8291	47.01
#1	.8556	.0007	.0044	.0035	.0097	.0468	7.151	.0376	.0013
#2	.8554	.0007	.0043	.0034	.0092	.0471	7.155	.0375	.0013
#3	.8534	.0006	.0040	.0038	.0097	.0466	7.151	.0370	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0123**	**.0362**	**.0022**	**.0056**	**.0095**	**.0009**	**.0017**	**4.474**	**192.4**
Stddev	.0003	.0002	.0016	.0040	.0003	.0036	.0017	.028	.4
%RSD	2.680	.4945	73.08	70.94	3.238	399.3	96.73	.6300	.2196
#1	.0119	.0360	.0022	.0099	.0092	.0026	.0032	4.460	192.7
#2	.0123	.0363	.0038	.0049	.0098	-.0032	.0020	4.456	191.9
#3	.0126	.0363	.0006	.0021	.0096	.0033	-.0001	4.507	192.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.066**	**33.65**	**6.073**	**135.9**	**.0580**	**.0006**	**16.42**	**-.0026**	**.4905**
Stddev	.016	.11	.037	.3	.0011	.0002	.01	.0001	.0013
%RSD	.2648	.3193	.6080	.2034	1.851	37.24	.0877	3.970	.2701
#1	6.049	33.60	6.068	136.1	.0571	.0004	16.43	-.0027	.4906
#2	6.080	33.58	6.112	136.0	.0592	.0006	16.41	-.0027	.4917
#3	6.071	33.77	6.039	135.6	.0578	.0008	16.40	-.0025	.4891

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1603**	**.0207**	**.0010**	**7.229**	**-.0024**	**.0107**	**.8328**	**.1030**
Stddev	.0004	.0016	.0000	.019	.0020	.0001	.0061	.0041
%RSD	.2555	7.592	.7832	.2590	81.00	.9294	.7372	3.998
#1	.1599	.0193	.0010	7.231	-.0047	.0108	.8322	.0983
#2	.1607	.0224	.0010	7.210	-.0011	.0106	.8392	.1055
#3	.1603	.0204	.0010	7.247	-.0015	.0106	.8269	.1053

Zoom In Zoom Out

Sample Name: JD4440-2 Acquired: 3/16/2020 21:46:46 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**104310.**	**14584.**	**4017.5**	**8780.8**
Stddev	187.	68.	5.1	10.3
%RSD	.17922	.46738	.12726	.11744
#1	104280.	14552.	4012.1	8768.9
#2	104150.	14662.	4022.3	8787.7
#3	104520.	14538.	4018.1	8785.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 21:51:49 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.021**	**2.065**	**2.048**	**2.064**	**2.058**	**2.019**	**2.099**	**2.056**	**.2568**
Stddev	.014	.015	.004	.002	.005	.003	.004	.002	.0002
%RSD	.6725	.7309	.2133	.0716	.2613	.1620	.1741	.0901	.0748
#1	2.026	2.069	2.047	2.065	2.052	2.017	2.095	2.058	.2568
#2	2.031	2.077	2.053	2.065	2.063	2.018	2.102	2.054	.2567
#3	2.005	2.048	2.044	2.062	2.060	2.023	2.101	2.057	.2571
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.066**	**2.083**	**2.051**	**2.089**	**2.087**	**2.044**	**2.024**	**39.66**	**40.69**
Stddev	.004	.002	.003	.016	.005	.001	.003	.27	.26
%RSD	.1981	.1059	.1544	.7678	.2456	.0559	.1576	.6701	.6445
#1	2.067	2.085	2.052	2.106	2.092	2.046	2.027	39.74	40.77
#2	2.069	2.083	2.053	2.086	2.083	2.043	2.025	39.87	40.91
#3	2.061	2.081	2.047	2.074	2.085	2.044	2.021	39.36	40.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.76**	**39.98**	**38.83**	**39.39**	**2.042**	**2.084**	**5.241**	**2.102**	**2.025**
Stddev	.18	.25	.25	.29	.002	.003	.005	.001	.014
%RSD	.4536	.6175	.6447	.7286	.0902	.1472	.0889	.0646	.7091
#1	40.92	39.96	38.89	39.47	2.043	2.081	5.241	2.100	2.031
#2	40.79	40.23	39.04	39.63	2.044	2.087	5.246	2.103	2.035
#3	40.56	39.74	38.55	39.08	2.040	2.083	5.236	2.102	2.009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 21:51:49 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.949**	**2.066**	**2.063**	**2.041**	**2.058**	**1.994**	**1.984**	**2.069**
Stddev	.003	.001	.003	.002	.004	.012	.004	.006
%RSD	.1454	.0656	.1321	.0937	.2204	.5755	.1862	.3058
#1	1.946	2.064	2.061	2.038	2.053	2.002	1.980	2.072
#2	1.950	2.066	2.066	2.042	2.061	2.000	1.985	2.073
#3	1.952	2.067	2.062	2.042	2.060	1.981	1.988	2.062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107190.**	**14545.**	**4136.2**	**9188.8**
Stddev	303.	47.	4.3	6.8
%RSD	.28232	.32314	.10332	.07404
#1	107470.	14564.	4135.2	9181.1
#2	106870.	14491.	4132.4	9191.0
#3	107230.	14579.	4140.8	9194.2

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 21:56:38 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0000**	**.0002**	**.0001**	**-.0002**	**.0004**	**.0003**	**.0001**	**-.0004**
Stddev	.0002	.0001	.0001	.0002	.0005	.0007	.0001	.0002	.0004
%RSD	71.39	403.4	28.63	181.0	268.1	160.3	19.42	251.1	106.3
#1	.0001	-.0001	.0002	.0002	-.0003	.0012	.0003	.0002	-.0007
#2	.0003	-.0000	.0001	.0002	.0004	-.0001	.0004	.0002	.0001
#3	.0005	.0002	.0003	-.0001	-.0006	.0002	.0003	-.0001	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0002**	**-.0007**	**.0012**	**-.0006**	**.0008**	**-.0005**	**.0031**	**-.0022**
Stddev	.0005	.0000	.0005	.0011	.0009	.0008	.0018	.0034	.0056
%RSD	124.7	32.23	77.50	87.20	140.0	96.65	338.1	110.3	257.7
#1	.0010	.0002	-.0007	.0012	-.0016	.0001	.0015	.0071	-.0060
#2	.0005	.0001	-.0002	.0002	.0002	.0017	-.0012	.0013	-.0047
#3	-.0001	.0002	-.0012	.0024	-.0005	.0006	-.0018	.0010	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0093**	**-.0447**	**.0116**	**.0570**	**.0009**	**.0017**	**.0015**	**.0003**	**.0000**
Stddev	.0021	.0319	.0184	.0017	.0011	.0003	.0002	.0008	.0001
%RSD	22.52	71.54	159.0	2.960	111.9	20.68	10.27	291.0	226.2
#1	.0073	-.0369	.0024	.0588	.0021	.0018	.0016	-.0002	-.0000
#2	.0092	-.0173	-.0004	.0567	.0008	.0019	.0016	.0012	.0001
#3	.0115	-.0798	.0328	.0555	-.0000	.0013	.0013	-.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 21:56:38 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0007**	**.0005**	**.0089**	**-.0024**	**.0004**	**.0134**	**-.0004**
Stddev	.0003	.0011	.0001	.0064	.0011	.0013	.0020	.0025
%RSD	27.97	145.8	26.00	72.46	44.90	354.4	15.08	653.3
#1	.0012	.0013	.0006	.0062	-.0030	.0004	.0157	.0007
#2	.0010	-.0005	.0004	.0042	-.0012	.0017	.0128	-.0032
#3	.0007	.0014	.0006	.0162	-.0030	-.0010	.0118	.0014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**112550.**	**14954.**	**4324.6**	**10196.**
Stddev	661.	55.	49.5	108.
%RSD	.58762	.36677	1.1435	1.0569
#1	112010.	15016.	4366.9	10285.
#2	113290.	14910.	4270.2	10076.
#3	112340.	14937.	4336.6	10226.

Zoom In Zoom Out

Sample Name: JD4440-3 Acquired: 3/16/2020 22:01:50 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.714**	**.0005**	**.0563**	**.0027**	**.0071**	**.1417**	F **12.55**	**.0394**	**.0031**
Stddev	.076	.0001	.0004	.0004	.0005	.0013	.16	.0005	.0001
%RSD	2.811	28.11	.6395	15.37	6.916	.9310	1.313	1.245	2.843
#1	2.641	.0003	.0568	.0028	.0068	.1427	12.66	.0399	.0030
#2	2.794	.0006	.0561	.0022	.0069	.1402	12.36	.0390	.0031
#3	2.707	.0006	.0562	.0030	.0077	.1421	12.63	.0391	.0030

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0088**	**.2751**	**.0044**	**.0037**	**.0069**	**.0039**	**.0024**	**.7660**	F **255.6**
Stddev	.0006	.0025	.0010	.0015	.0032	.0019	.0023	.0209	6.8
%RSD	7.311	.9126	22.19	40.64	47.11	47.44	96.63	2.728	2.669
#1	.0087	.2779	.0039	.0048	.0035	.0057	.0001	.7439	248.9
#2	.0095	.2734	.0055	.0045	.0071	.0041	.0024	.7855	262.5
#3	.0082	.2739	.0037	.0020	.0100	.0020	.0047	.7685	255.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.79**	**31.87**	**12.06**	F **1417.**	**.1169**	**.0036**	**9.814**	**-.0024**	**1.191**
Stddev	.73	.84	.40	18.	.0008	.0003	.090	.0007	.033
%RSD	2.961	2.632	3.305	1.254	.6886	7.773	.9211	27.69	2.799
#1	24.08	31.01	11.65	1408.	.1178	.0038	9.918	-.0017	1.159
#2	25.55	32.69	12.45	1437.	.1162	.0038	9.765	-.0030	1.225
#3	24.74	31.92	12.09	1405.	.1166	.0033	9.758	-.0023	1.187

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0447**	**.0243**	**.0028**	**8.231**	**-.0035**	**.0248**	**2.170**	**.1488**
Stddev	.0011	.0010	.0001	.063	.0006	.0007	.033	.0035
%RSD	2.460	4.111	3.948	.7675	17.47	2.932	1.514	2.366
#1	.0459	.0255	.0029	8.302	-.0028	.0240	2.206	.1457
#2	.0437	.0238	.0029	8.181	-.0039	.0249	2.143	.1526
#3	.0445	.0236	.0027	8.210	-.0037	.0254	2.160	.1480

Zoom In Zoom Out

Sample Name: JD4440-3 Acquired: 3/16/2020 22:01:50 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**90630.**	**14151.**	**3513.5**	**7285.1**
Stddev	1004.	281.	26.4	58.8
%RSD	1.1072	1.9886	.75047	.80651
#1	89930.	14438.	3483.1	7217.2
#2	91780.	13876.	3530.2	7320.5
#3	90181.	14140.	3527.2	7317.4

Zoom In Zoom Out

Sample Name: JD4440-4 Acquired: 3/16/2020 22:07:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2323**	**.0003**	**.0387**	**.0036**	**.0121**	**.1370**	**.8620**	**.1023**	**-.0001**
Stddev	.0009	.0001	.0001	.0005	.0012	.0010	.0025	.0005	.0005
%RSD	.3763	21.36	.3852	14.97	9.665	.7219	.2902	.5046	541.5
#1	.2332	.0003	.0388	.0037	.0117	.1369	.8600	.1028	-.0003
#2	.2321	.0002	.0389	.0030	.0112	.1380	.8648	.1023	-.0004
#3	.2315	.0004	.0386	.0041	.0135	.1361	.8612	.1017	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0145**	**1.109**	**.0018**	**.0023**	**.0271**	**.0001**	**.0015**	**5.039**	**86.74**
Stddev	.0002	.002	.0006	.0010	.0013	.0017	.0009	.017	.09
%RSD	1.234	.1963	33.68	43.16	4.815	2885.	61.72	.3385	.1074
#1	.0147	1.110	.0025	.0018	.0271	.0008	.0026	5.022	86.84
#2	.0145	1.107	.0014	.0034	.0284	-.0019	.0013	5.056	86.67
#3	.0144	1.111	.0015	.0017	.0258	.0013	.0007	5.037	86.70

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.59**	**10.11**	**2.783**	**85.84**	**.0558**	**.0014**	**12.83**	**.0027**	**.2310**
Stddev	.03	.03	.020	.19	.0005	.0003	.01	.0003	.0007
%RSD	.2822	.2843	.7333	.2180	.9371	21.35	.0941	11.62	.2941
#1	10.63	10.07	2.806	85.85	.0552	.0012	12.82	.0024	.2317
#2	10.57	10.12	2.774	85.65	.0562	.0018	12.85	.0029	.2310
#3	10.58	10.13	2.769	86.02	.0559	.0013	12.83	.0030	.2304

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1028**	**.0156**	**.0013**	**2.355**	**-.0043**	**.0051**	**.3478**	**.0384**
Stddev	.0005	.0004	.0003	.007	.0022	.0010	.0040	.0033
%RSD	.4780	2.826	21.14	.2849	50.51	20.66	1.139	8.503
#1	.1026	.0159	.0015	2.363	-.0048	.0061	.3453	.0358
#2	.1034	.0158	.0010	2.349	-.0019	.0040	.3457	.0420
#3	.1024	.0151	.0013	2.354	-.0061	.0050	.3523	.0373

Zoom In Zoom Out

Sample Name: JD4440-4 Acquired: 3/16/2020 22:07:00 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**108160.**	**14961.**	**4171.8**	**9227.7**
Stddev	364.	62.	2.3	15.3
%RSD	.33628	.41552	.05488	.16582
#1	108390.	14893.	4171.6	9212.1
#2	107740.	15014.	4174.1	9228.4
#3	108340.	14977.	4169.6	9242.6

Zoom In Zoom Out

Sample Name: MP20204-MB1 7 Acquired: 3/16/2020 22:11:59 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0001**	**-.0001**	**-.0009**	**.0000**	**.0001**	**.0001**
Stddev	.0002	.0001	.0003	.0002	.0003	.0001	.0001	.0001
%RSD	1353.	162.6	288.8	226.0	31.43	162.4	124.6	81.79
#1	.0000	.0000	.0004	.0001	-.0010	-.0000	.0000	.0000
#2	-.0002	.0002	-.0000	-.0003	-.0011	.0001	.0001	.0001
#3	.0002	-.0000	-.0001	-.0001	-.0006	.0001	-.0000	.0003

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0002**	**.0016**	**-.0005**	F **-.0049**	**-.0010**	**.0015**	**.0011**
Stddev	.0001	.0004	.0001	.0002	.0008	.0005	.0011	.0006
%RSD	8.462	195.0	3.548	51.53	15.66	48.83	76.30	60.50
#1	-.0012	-.0000	.0017	-.0006	-.0043	-.0011	.0011	.0017
#2	-.0013	.0007	.0016	-.0006	-.0058	-.0014	.0006	.0009
#3	-.0011	-.0000	.0016	-.0002	-.0047	-.0005	.0027	.0005

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063**	**.0144**	**.0081**	**.0244**	**.0659**	**.1813**	**.0006**	**.0008**
Stddev	.0084	.0027	.0017	.0358	.0366	.0067	.0009	.0003
%RSD	134.2	18.96	21.20	146.8	55.57	3.691	149.9	33.27
#1	.0094	.0171	.0067	.0650	.0960	.1874	.0016	.0009
#2	-.0033	.0144	.0100	-.0027	.0765	.1741	.0005	.0009
#3	.0126	.0116	.0076	.0109	.0251	.1825	-.0002	.0005

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0324**	**-.0002**	**.0000**	**.0007**	**.0068**	**.0006**	**.0156**	**-.0015**
Stddev	.0010	.0009	.0001	.0003	.0012	.0002	.0016	.0014
%RSD	2.946	490.0	146.3	38.80	17.39	35.85	10.19	87.70
#1	.0329	-.0009	.0000	.0008	.0079	.0007	.0165	-.0029
#2	.0330	.0008	-.0000	.0004	.0069	.0006	.0165	-.0002
#3	.0313	-.0005	.0001	.0010	.0056	.0003	.0137	-.0016

Zoom In Zoom Out

Sample Name: MP20204-MB1 7 Acquired: 3/16/2020 22:11:59 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0007**	**.0218**	**-.0023**
Stddev	.0007	.0021	.0005
%RSD	89.01	9.706	20.18
#1	-.0011	.0214	-.0028
#2	.0000	.0241	-.0020
#3	-.0012	.0200	-.0020

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114350.**	**15188.**	**4381.2**	**10312.**
Stddev	180.	54.	16.7	34.
%RSD	.15741	.35766	.38139	.32659
#1	114500.	15128.	4368.2	10290.
#2	114390.	15203.	4375.3	10295.
#3	114150.	15234.	4400.1	10350.

Zoom In Zoom Out

Sample Name: MP20204-B1CONF Acquired: 3/16/2020 22:17:07 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.998**	**2.048**	**2.024**	**2.042**	**2.036**	**2.016**	**2.092**	**2.031**
Stddev	.002	.002	.010	.009	.021	.016	.020	.007
%RSD	.0913	.0789	.5049	.4287	1.029	.7756	.9313	.3395
#1	1.999	2.050	2.023	2.040	2.025	2.009	2.083	2.029
#2	1.996	2.047	2.035	2.051	2.022	2.004	2.079	2.039
#3	1.998	2.048	2.014	2.034	2.060	2.034	2.114	2.025

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2707**	**2.049**	**2.062**	**2.074**	**2.065**	**2.069**	**2.008**	**2.062**
Stddev	.0032	.019	.010	.010	.017	.011	.014	.012
%RSD	1.180	.9375	.4717	.4819	.8059	.5112	.7002	.5578
#1	.2689	2.039	2.062	2.072	2.047	2.064	2.002	2.062
#2	.2689	2.036	2.071	2.085	2.080	2.081	2.023	2.074
#3	.2744	2.071	2.052	2.065	2.069	2.062	1.997	2.051

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.59**	**26.39**	**26.51**	**25.60**	**24.98**	**25.39**	**1.992**	**2.138**
Stddev	.00	.03	.07	.07	.05	.03	.008	.011
%RSD	.0130	.1299	.2649	.2611	.2144	.1342	.3845	.5032
#1	25.59	26.36	26.44	25.68	24.96	25.37	1.992	2.133
#2	25.59	26.38	26.50	25.56	24.95	25.36	1.999	2.150
#3	25.59	26.43	26.58	25.56	25.04	25.43	1.984	2.129

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4699**	**2.158**	**2.000**	**1.974**	**2.004**	**2.104**	F **-.1172**	F **-.0496**
Stddev	.0042	.009	.002	.017	.009	.020	.0005	.0012
%RSD	.8916	.4302	.1052	.8436	.4657	.9539	.3860	2.434
#1	.4704	2.160	2.001	1.966	1.999	2.094	-.1167	-.0483
#2	.4738	2.166	1.997	1.962	2.015	2.091	-.1172	-.0498
#3	.4655	2.148	2.001	1.993	1.999	2.127	-.1176	-.0507

Zoom In Zoom Out

Sample Name: MP20204-B1CONF Acquired: 3/16/2020 22:17:07 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0016**	**1.936**	W **-.0646**
Stddev	.0024	.017	.0014
%RSD	148.2	.8874	2.220
#1	-.0007	1.916	-.0639
#2	.0040	1.946	-.0636
#3	.0015	1.945	-.0662

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**109800.**	**15046.**	**4213.4**	**9457.2**
Stddev	1051.	73.	17.6	33.9
%RSD	.95722	.48208	.41762	.35893
#1	110410.	15091.	4220.0	9475.6
#2	110400.	15083.	4193.5	9418.1
#3	108580.	14962.	4226.7	9478.0

Zoom In Zoom Out

Sample Name: MP20204-B2 Acquired: 3/16/2020 22:21:54 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**-.0001**	**.0001**	**-.0006**	W **-.0033**	**.0000**	**.0003**
Stddev	.0001	.0001	.0000	.0002	.0002	.0002	.0001	.0000
%RSD	72.46	47.38	8.793	334.4	33.47	7.169	553.4	7.453
#1	-.0001	-.0001	-.0001	-.0001	-.0007	-.0031	.0000	.0003
#2	-.0003	-.0002	-.0001	-.0000	-.0006	-.0034	.0001	.0003
#3	-.0001	-.0002	-.0001	.0003	-.0004	-.0036	-.0001	.0003

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0024**	**-.0000**	**-.0002**	**.0011**	F **-.0093**	**.0006**	**-.0047**	**-.0006**
Stddev	.0003	.0003	.0001	.0005	.0007	.0005	.0011	.0004
%RSD	11.41	599.2	23.71	47.19	8.061	83.20	23.69	64.68
#1	-.0027	-.0003	-.0002	.0016	-.0098	.0005	-.0043	-.0009
#2	-.0022	-.0000	-.0002	.0009	-.0097	.0012	-.0038	-.0002
#3	-.0023	.0002	-.0003	.0007	-.0084	.0002	-.0060	-.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090**	**-.0054**	**.0039**	**-.0443**	**-.0257**	**-.0283**	**.0004**	**.0003**
Stddev	.0052	.0005	.0052	.0255	.0028	.0035	.0001	.0001
%RSD	58.09	9.054	133.9	57.67	11.05	12.35	16.88	47.29
#1	.0055	-.0058	-.0009	-.0478	-.0289	-.0323	.0005	.0003
#2	.0150	-.0054	.0095	-.0172	-.0236	-.0271	.0004	.0004
#3	.0066	-.0049	.0032	-.0679	-.0245	-.0256	.0003	.0001

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0034**	**-.0007**	**.0000**	**.0005**	**-.0009**	**.0003**	**-.0083**	**.0008**	
Stddev	.0030	.0001	.0000	.0004	.0009	.0000	.0013	.0005
%RSD	88.96	9.658	243.5	76.56	103.4	10.63	15.29	63.63
#1	-.0000	-.0007	.0000	.0001	-.0002	.0004	-.0093	.0008
#2	-.0044	-.0008	-.0000	.0005	-.0019	.0004	-.0087	.0013
#3	-.0059	-.0007	.0001	.0008	-.0005	.0003	-.0069	.0003

Zoom In Zoom Out

Sample Name: MP20204-B2 Acquired: 3/16/2020 22:21:54 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0006**	W **-.1362**	**-.0035**
Stddev	.0007	.0066	.0017
%RSD	114.4	4.874	49.89
#1	.0007	-.1295	-.0022
#2	-.0001	-.1362	-.0028
#3	.0012	-.1428	-.0055

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244470.**	**23934.**	**10671.**	**24561.**
Stddev	2445.	132.	14.	23.
%RSD	1.0001	.55043	.13490	.09305
#1	244330.	23978.	10686.	24578.
#2	246980.	23786.	10658.	24535.
#3	242100.	24039.	10667.	24571.

Zoom In Zoom Out

Sample Name: MP20204-S1 Acquired: 3/16/2020 22:27:05 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.124**	**2.130**	**2.100**	**2.118**	**2.111**	**2.155**	**2.213**	**2.112**
Stddev	.002	.005	.014	.015	.001	.007	.004	.015
%RSD	.1146	.2185	.6783	.7040	.0682	.3076	.1929	.7196
#1	2.123	2.129	2.109	2.127	2.112	2.162	2.218	2.120
#2	2.122	2.126	2.084	2.101	2.109	2.149	2.210	2.094
#3	2.127	2.135	2.108	2.126	2.110	2.155	2.211	2.121

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2849**	**2.128**	**2.449**	**2.167**	**2.128**	**2.138**	**2.095**	**2.142**
Stddev	.0008	.005	.019	.017	.021	.013	.016	.014
%RSD	.2924	.2186	.7857	.7861	.9886	.6051	.7808	.6671
#1	.2856	2.133	2.461	2.182	2.142	2.148	2.108	2.152
#2	.2840	2.124	2.426	2.148	2.104	2.123	2.077	2.126
#3	.2852	2.128	2.459	2.171	2.138	2.143	2.099	2.149

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.90**	**51.68**	**27.83**	**29.72**	**28.69**	**98.32**	**2.111**	**2.209**
Stddev	.05	.07	.05	.19	.04	.10	.015	.016
%RSD	.1877	.1406	.1873	.6404	.1506	.1045	.7062	.7436
#1	26.92	51.74	27.87	29.81	28.67	98.31	2.119	2.219
#2	26.85	51.60	27.78	29.50	28.67	98.23	2.093	2.190
#3	26.94	51.69	27.86	29.84	28.74	98.43	2.119	2.218

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.418**	**2.207**	**2.204**	**2.067**	**2.148**	**2.187**	**5.181**	F **-.0543**
Stddev	.041	.021	.002	.005	.012	.004	.034	.0013
%RSD	.7481	.9323	.1080	.2392	.5523	.1866	.6487	2.420
#1	5.441	2.214	2.202	2.072	2.156	2.192	5.214	-.0528
#2	5.371	2.184	2.204	2.062	2.135	2.184	5.147	-.0547
#3	5.442	2.223	2.207	2.066	2.154	2.186	5.182	-.0554

Zoom In Zoom Out

Sample Name: MP20204-S1 Acquired: 3/16/2020 22:27:05 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0002**	**2.248**	W **-.0684**
Stddev	.0009	.038	.0028
%RSD	361.0	1.700	4.110
#1	-.0001	2.292	-.0656
#2	-.0012	2.220	-.0683
#3	.0005	2.232	-.0712

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105160.**	**14522.**	**4056.7**	**8978.3**
Stddev	150.	49.	22.6	53.2
%RSD	.14265	.33466	.55682	.59259
#1	105060.	14489.	4046.1	8950.8
#2	105080.	14578.	4082.7	9039.6
#3	105330.	14498.	4041.4	8944.4

Zoom In Zoom Out

Sample Name: MP20204-S2 Acquired: 3/16/2020 22:31:49 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.077**	**2.082**	**2.054**	**2.079**	**2.068**	**2.109**	**2.170**	**2.070**
Stddev	.003	.004	.014	.010	.002	.002	.001	.011
%RSD	.1368	.1742	.6794	.4740	.0822	.0973	.0655	.5081
#1	2.078	2.082	2.058	2.086	2.069	2.112	2.169	2.076
#2	2.074	2.078	2.065	2.083	2.066	2.108	2.170	2.077
#3	2.080	2.085	2.038	2.067	2.067	2.108	2.172	2.058

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2791**	**2.089**	**2.413**	**2.132**	**2.097**	**2.100**	**2.050**	**2.103**
Stddev	.0006	.002	.014	.012	.020	.013	.012	.017
%RSD	.2255	.0893	.5858	.5777	.9372	.6000	.5896	.8218
#1	.2796	2.091	2.417	2.136	2.101	2.106	2.053	2.108
#2	.2784	2.088	2.425	2.141	2.115	2.109	2.060	2.118
#3	.2794	2.088	2.397	2.118	2.076	2.086	2.036	2.084

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.34**	**50.75**	**27.22**	**29.20**	**28.09**	**96.36**	**2.065**	**2.170**
Stddev	.03	.07	.03	.04	.07	.13	.016	.013
%RSD	.1273	.1321	.1158	.1432	.2333	.1340	.7500	.6162
#1	26.34	50.78	27.26	29.21	28.09	96.30	2.069	2.174
#2	26.30	50.68	27.20	29.16	28.02	96.27	2.077	2.182
#3	26.37	50.81	27.20	29.24	28.15	96.51	2.047	2.156

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.135**	**2.175**	**2.153**	**2.026**	**2.116**	**2.157**	**5.054**	F **-.0524**
Stddev	.035	.012	.002	.002	.015	.003	.039	.0019
%RSD	.6815	.5408	.0971	.1017	.6917	.1592	.7610	3.549
#1	5.151	2.179	2.154	2.028	2.119	2.160	5.058	-.0544
#2	5.159	2.185	2.150	2.026	2.129	2.153	5.091	-.0519
#3	5.095	2.162	2.153	2.024	2.100	2.158	5.014	-.0508

Zoom In Zoom Out

Sample Name: MP20204-S2 Acquired: 3/16/2020 22:31:49 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0002**	**2.084**	W **-.0656**
Stddev	.0008	.009	.0030
%RSD	487.8	.4086	4.593
#1	-.0011	2.092	-.0656
#2	.0004	2.085	-.0627
#3	.0002	2.075	-.0687

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**105610.**	**14640.**	**4091.4**	**9037.1**
Stddev	55.	40.	19.6	35.5
%RSD	.05214	.27619	.47954	.39326
#1	105550.	14678.	4081.8	9013.5
#2	105640.	14645.	4078.4	9019.9
#3	105650.	14597.	4113.9	9078.0

Zoom In Zoom Out

Sample Name: JD4453-2 Acquired: 3/16/2020 22:36:34 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0446**	**-.0000**	**.0002**	**-.0002**	**.0006**	**.0706**	**.0647**	**.0035**	**-.0002**
Stddev	.0003	.0000	.0001	.0002	.0006	.0004	.0004	.0004	.0008
%RSD	.6780	125.5	64.98	95.87	102.7	.5568	.6758	11.99	377.1
#1	.0449	-.0001	.0001	-.0000	.0008	.0708	.0645	.0031	-.0011
#2	.0443	-.0000	.0003	-.0002	-.0001	.0709	.0653	.0040	.0003
#3	.0445	-.0000	.0002	-.0004	.0011	.0702	.0645	.0035	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.3405**	**-.0008**	**.0024**	**.0088**	**.0030**	**.0018**	**.1264**	**24.07**
Stddev	.0002	.0001	.0011	.0004	.0007	.0025	.0013	.0023	.04
%RSD	24.88	.0255	136.3	15.67	8.285	85.50	74.89	1.814	.1522
#1	.0006	.3405	-.0020	.0022	.0097	.0005	.0030	.1254	24.09
#2	.0010	.3404	-.0006	.0028	.0085	.0028	.0020	.1291	24.03
#3	.0009	.3406	.0002	.0022	.0084	.0056	.0003	.1248	24.10

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2328**	**2.971**	**2.321**	**70.17**	**.0538**	**.0020**	**4.865**	**-.0012**	**.1201**
Stddev	.0068	.027	.028	.11	.0006	.0004	.014	.0009	.0004
%RSD	2.924	.9057	1.214	.1510	1.166	21.49	.2788	76.01	.3540
#1	.2349	2.957	2.342	70.15	.0542	.0022	4.877	-.0002	.1200
#2	.2252	3.002	2.333	70.07	.0530	.0023	4.867	-.0019	.1197
#3	.2383	2.954	2.289	70.28	.0540	.0015	4.850	-.0016	.1205

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043**	**.0118**	**.0021**	**5.147**	**-.0016**	**-.0002**	**.0419**	**-.0012**
Stddev	.0003	.0003	.0001	.018	.0009	.0010	.0061	.0043
%RSD	6.917	2.918	7.018	.3466	58.16	461.2	14.61	357.4
#1	.0045	.0122	.0022	5.167	-.0021	.0005	.0456	-.0016
#2	.0044	.0117	.0020	5.132	-.0005	.0002	.0349	.0033
#3	.0039	.0115	.0020	5.141	-.0021	-.0013	.0453	-.0052

Zoom In Zoom Out

Sample Name: JD4453-2 Acquired: 3/16/2020 22:36:34 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107490.**	**14768.**	**4163.5**	**9393.6**
Stddev	180.	35.	6.6	9.9
%RSD	.16786	.23632	.15867	.10489
#1	107340.	14743.	4156.5	9382.8
#2	107690.	14808.	4164.5	9395.8
#3	107450.	14753.	4169.6	9402.1

Zoom In Zoom Out

Sample Name: MP20204-SD1 Acquired: 3/16/2020 22:41:38 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0443**	**-.0001**	**.0004**	**-.0011**	**-.0036**	**.0691**	**.0638**	**.0038**	**-.0032**
Stddev	.0005	.0004	.0005	.0004	.0049	.0041	.0012	.0015	.0021
%RSD	1.174	512.1	124.3	38.21	136.1	5.901	1.914	39.04	65.75
#1	.0440	.0003	.0004	-.0006	-.0046	.0644	.0624	.0055	-.0056
#2	.0439	-.0005	.0008	-.0014	.0017	.0714	.0641	.0025	-.0021
#3	.0449	-.0000	-.0001	-.0012	-.0079	.0715	.0648	.0035	-.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.3511**	**-.0019**	**-.0029**	**.0053**	**.0129**	**-.0023**	**.1449**	**23.72**
Stddev	.0014	.0018	.0054	.0085	.0019	.0029	.0028	.0321	.06
%RSD	46280.	.5067	289.4	297.8	35.72	22.48	123.1	22.12	.2731
#1	-.0007	.3524	-.0081	.0064	.0061	.0150	-.0036	.1114	23.68
#2	.0016	.3518	.0006	-.0103	.0067	.0142	-.0041	.1479	23.68
#3	-.0009	.3491	.0019	-.0046	.0031	.0096	.0009	.1753	23.79

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2679**	**2.940**	**2.265**	**68.94**	**.0538**	**.0033**	**4.785**	**-.0019**	**.1172**
Stddev	.0142	.103	.093	.12	.0027	.0006	.028	.0027	.0003
%RSD	5.292	3.513	4.097	.1801	4.997	18.96	.5778	139.7	.2765
#1	.2572	2.852	2.186	68.89	.0531	.0040	4.814	.0003	.1171
#2	.2840	2.914	2.367	68.84	.0515	.0031	4.783	-.0049	.1169
#3	.2625	3.054	2.242	69.08	.0568	.0028	4.759	-.0012	.1175

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068**	**.0334**	**.0044**	**4.940**	**-.0126**	**-.0009**	**.1334**	**.0061**
Stddev	.0032	.0030	.0012	.029	.0030	.0046	.0375	.0043
%RSD	47.01	8.892	26.93	.5977	24.00	488.1	28.14	70.21
#1	.0040	.0302	.0035	4.959	-.0131	.0030	.1750	.0107
#2	.0102	.0340	.0039	4.954	-.0153	.0001	.1232	.0022
#3	.0061	.0361	.0057	4.906	-.0094	-.0059	.1020	.0054

Zoom In Zoom Out

Sample Name: MP20204-SD1 Acquired: 3/16/2020 22:41:38 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110420.**	**14889.**	**4278.9**	**9908.9**
Stddev	1273.	58.	17.4	34.9
%RSD	1.1530	.38930	.40682	.35219
#1	111000.	14842.	4258.9	9868.7
#2	111290.	14872.	4287.0	9928.5
#3	108960.	14954.	4290.7	9929.6

Zoom In Zoom Out

Sample Name: JD4379-1 Acquired: 3/16/2020 22:46:43 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0584**	**.0009**	**.0001**	**.0122**	**.0154**	**.0397**	**1.273**	**.0121**	**-.0000**
Stddev	.0002	.0001	.0002	.0001	.0006	.0007	.008	.0002	.0004
%RSD	.3169	16.19	124.4	.5851	3.626	1.813	.6343	1.524	1016.
#1	.0586	.0009	.0002	.0123	.0158	.0398	1.282	.0119	.0003
#2	.0583	.0011	-.0001	.0122	.0148	.0389	1.271	.0121	-.0004
#3	.0583	.0008	.0003	.0122	.0156	.0403	1.267	.0123	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4500**	**.0687**	**.0081**	**-.0014**	**.0177**	**.0025**	**.0041**	**16.60**	**3.229**
Stddev	.0035	.0005	.0010	.0031	.0012	.0012	.0012	.02	.005
%RSD	.7831	.7800	12.29	228.2	6.545	48.08	29.13	.1095	.1668
#1	.4540	.0681	.0092	.0022	.0189	.0037	.0031	16.60	3.223
#2	.4489	.0691	.0076	-.0036	.0165	.0013	.0038	16.62	3.233
#3	.4473	.0688	.0074	-.0027	.0178	.0026	.0054	16.58	3.231

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **228.7**	**.8098**	**.4481**	**1.585**	**.0271**	**.0128**	**9.267**	**.0010**	**.0184**
Stddev	.1	.0464	.0146	.013	.0002	.0001	.074	.0009	.0000
%RSD	.0499	5.728	3.253	.7951	.5998	.7307	.8033	87.16	.2100
#1	228.7	.7789	.4610	1.594	.0273	.0127	9.225	.0001	.0184
#2	228.7	.8632	.4510	1.571	.0270	.0129	9.353	.0018	.0184
#3	228.9	.7874	.4323	1.590	.0271	.0128	9.223	.0012	.0184

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2772**	**.0169**	**.0035**	**4.072**	**-.0075**	**.0014**	**2.902**	**.0872**
Stddev	.0013	.0010	.0006	.035	.0014	.0013	.023	.0058
%RSD	.4684	6.098	15.89	.8722	19.04	92.75	.7869	6.692
#1	.2784	.0157	.0039	4.040	-.0086	.0011	2.887	.0938
#2	.2774	.0177	.0037	4.110	-.0081	.0003	2.929	.0853
#3	.2758	.0173	.0028	4.066	-.0059	.0029	2.892	.0826

Zoom In Zoom Out

Sample Name: JD4379-1 Acquired: 3/16/2020 22:46:43 Type: Unk
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**110230.**	**14974.**	**4255.8**	**9891.7**
Stddev	618.	77.	27.2	56.1
%RSD	.56043	.51743	.64008	.56675
#1	109540.	15012.	4272.1	9932.9
#2	110440.	14885.	4224.4	9827.8
#3	110720.	15024.	4271.0	9914.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 22:51:45 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.022**	**2.068**	**2.045**	**2.082**	**2.062**	**2.025**	**2.115**	**2.064**	**.2569**
Stddev	.006	.006	.002	.001	.004	.002	.004	.002	.0002
%RSD	.3109	.2841	.0921	.0635	.2006	.1182	.1905	.0935	.0714
#1	2.028	2.075	2.047	2.080	2.066	2.028	2.119	2.063	.2570
#2	2.022	2.067	2.045	2.082	2.058	2.023	2.111	2.064	.2570
#3	2.016	2.063	2.043	2.082	2.061	2.025	2.114	2.067	.2567
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.079**	**2.092**	**2.062**	**2.057**	**2.102**	**2.044**	**2.013**	**39.54**	**40.76**
Stddev	.006	.001	.003	.005	.003	.003	.001	.07	.11
%RSD	.2788	.0425	.1618	.2571	.1548	.1597	.0711	.1827	.2777
#1	2.083	2.092	2.061	2.061	2.102	2.043	2.014	39.61	40.88
#2	2.073	2.091	2.059	2.051	2.105	2.042	2.012	39.54	40.67
#3	2.082	2.092	2.066	2.059	2.098	2.048	2.014	39.46	40.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.82**	**39.65**	**38.67**	**39.37**	**2.034**	**2.091**	**5.255**	**2.111**	**2.025**
Stddev	.16	.11	.09	.10	.001	.002	.007	.002	.004
%RSD	.3915	.2736	.2257	.2591	.0626	.1063	.1285	.1014	.2163
#1	40.99	39.75	38.76	39.48	2.035	2.090	5.253	2.109	2.028
#2	40.81	39.68	38.67	39.33	2.033	2.094	5.249	2.112	2.026
#3	40.67	39.53	38.58	39.29	2.034	2.090	5.262	2.113	2.020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/16/2020 22:51:45 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.912**	**2.073**	**2.083**	**2.053**	**2.052**	**1.999**	**2.005**	**2.084**
Stddev	.001	.002	.004	.001	.007	.008	.017	.000
%RSD	.0588	.0806	.1762	.0591	.3482	.4049	.8482	.0184
#1	1.912	2.071	2.087	2.053	2.046	2.007	2.017	2.084
#2	1.910	2.073	2.079	2.052	2.050	1.998	2.013	2.084
#3	1.913	2.074	2.084	2.054	2.060	1.991	1.986	2.084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**107060.**	**14775.**	**4143.7**	**9180.8**
Stddev	336.	49.	3.8	11.2
%RSD	.31426	.33108	.09132	.12191
#1	106690.	14766.	4148.1	9192.9
#2	107340.	14828.	4141.8	9179.0
#3	107160.	14732.	4141.3	9170.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/16/2020 22:56:33 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0001**	**.0003**	**-.0000**	**-.0001**	**.0003**	**.0002**	**-.0006**
Stddev	.0001	.0001	.0001	.0003	.0006	.0003	.0001	.0002	.0006
%RSD	34.96	107.1	64.09	106.5	2025.	199.0	23.25	102.8	105.1
#1	.0004	.0000	.0002	-.0001	.0001	-.0001	.0003	.0001	.0001
#2	.0002	.0001	.0001	.0004	-.0007	.0001	.0004	.0004	-.0009
#3	.0004	.0000	.0000	.0005	.0005	-.0004	.0003	.0000	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0003**	**.0003**	**.0013**	**.0000**	**.0029**	**.0006**	**.0038**	**.0015**
Stddev	.0002	.0001	.0002	.0010	.0014	.0006	.0015	.0073	.0047
%RSD	189.1	38.27	63.59	73.01	4105.	21.10	242.6	191.7	324.8
#1	-.0004	.0002	.0005	.0022	.0014	.0022	-.0011	-.0021	.0067
#2	-.0000	.0004	.0001	.0014	-.0015	.0032	.0018	.0120	-.0024
#3	.0001	.0003	.0003	.0003	.0002	.0033	.0012	.0015	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0156**	**-.0468**	**.0574**	**.0561**	**.0015**	F **.0021**	**.0018**	**-.0003**	**.0001**
Stddev	.0022	.0257	.0310	.0021	.0004	.0005	.0007	.0007	.0001
%RSD	14.22	54.98	54.01	3.660	28.38	26.05	42.07	246.9	50.48
#1	.0130	-.0211	.0612	.0582	.0020	.0026	.0022	.0001	.0002
#2	.0167	-.0725	.0863	.0541	.0014	.0021	.0022	-.0011	.0001
#3	.0170	-.0467	.0247	.0561	.0012	.0015	.0009	.0001	.0001
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100					.0020			
Low Limit	-.0100					-.0020			

Zoom In
Zoom Out

Sample Name: CCB Acquired: 3/16/2020 22:56:33 Type: QC
Method: SGS 070219(v298) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0021**	**.0007**	**.0092**	**-.0003**	**.0000**	**.0195**	**-.0019**
Stddev	.0003	.0007	.0004	.0041	.0005	.0015	.0027	.0029
%RSD	29.70	31.37	47.76	44.16	166.1	31630.	13.72	152.2
#1	.0013	.0027	.0003	.0137	-.0008	.0012	.0165	.0004
#2	.0012	.0022	.0009	.0084	-.0002	-.0017	.0216	-.0009
#3	.0007	.0014	.0010	.0057	.0001	.0005	.0204	-.0051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**113010.**	**14907.**	**4316.7**	**10169.**
Stddev	1778.	41.	12.1	23.
%RSD	1.5733	.27319	.28088	.22438
#1	111900.	14861.	4307.9	10148.
#2	112070.	14922.	4330.5	10194.
#3	115060.	14938.	4311.6	10167.

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	3	Mg	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			Zr	0.000727	0.000000	No
Be 313.042 {108}	☒	9	V	0.000154	0.000000	No
			Mo	-0.000030	0.000000	No
			Ti	-0.001063	0.000000	No
			Mn	-0.000018	0.000000	No
			Ni	0.000001	0.000000	No
			Ca	-0.000000	0.000000	No
			Cu	0.000014	0.000000	No
			Zn	-0.000010	0.000000	No
			Fe	-0.000002	0.000000	No
Cd 228.802 {448}	☒	13	As	0.006727	0.000000	No
			Ni	-0.000518	0.000000	No
			Fe	-0.000000	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000054	0.000000	No
			Co	-0.000635	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000014	0.000000	No
			Cr	0.000007	0.000000	No
			Cu	0.000024	0.000000	No
			Al	0.000000	0.000000	No
			Mo	0.000004	0.000000	No
			W	0.000000	0.000000	No
Co 228.616 {448}	☒	9	Fe	-0.000010	0.000000	No
			Cr	0.000100	0.000000	No
			Mo	-0.001880	0.000000	No
			Ni	0.000084	0.000000	No
			Ti	0.002318	0.000000	No
			W	0.000160	0.000000	No
			Cd	-0.000188	0.000000	No
			Ca	0.000000	0.000000	No
			As	0.000150	0.000000	No
Cr 267.716 {126}	☒	11	Mn	0.000118	0.000000	No
			Mo	-0.000042	0.000000	No
			Fe	-0.000027	0.000000	No
			Cd	-0.000050	0.000000	No
			Al	-0.000000	0.000000	No
			Ca	0.000002	0.000000	No
			Mg	0.000001	0.000000	No
			Ti	-0.000053	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	17	Cr	0.000000	0.000000	No
			V	-0.000408	0.000000	No
			Mo	0.000632	0.000000	No
			Ti	0.000024	0.000000	No
			Fe	-0.000182	0.000000	No
			Al	0.000003	0.000000	No
			Sn	0.000103	0.000000	No
			Co	-0.001135	0.000000	No
			Zr	0.000100	0.000000	No
			Si	-0.000002	0.000000	No
			Mn	0.000026	0.000000	No
			Se	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ag	0.000166	0.000000	No
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000051	0.000000	No
			Si	0.000044	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	☒	11	Fe	0.000017	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000360	0.000000	No
			Tl	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	-0.000014	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
			W	0.000830	0.000000	No
Ag 328.068 {103}	☒	16	Mn	0.000090	0.000000	No
			Mo	0.000036	0.000000	No
			Ti	-0.000036	0.000000	No
			Fe	0.000001	0.000000	No
			V	-0.000953	0.000000	No
			Zn	-0.000100	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000002	0.000000	No
			Mg	-0.000002	0.000000	No
			Ba	-0.000089	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.005000	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
			K	-0.000080	0.000000	No
			Ce	-0.000545	0.000000	No
V 292.402 {115}	☒	7	Ti	0.000806	0.000000	No
			Mo	-0.014338	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.003900	0.000000	No
			Mn	-0.000596	0.000000	No
			W	0.000050	0.000000	No
Zn 206.200 {464}	☒	15	Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000019	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.000056	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Bi	-0.000400	0.000000	No
				W	0.000000	0.000000	No
				Ti	0.000030	0.000000	No
	As 189.042 {478}	☒	24	Al	0.000009	0.000000	No
				Fe	-0.000139	0.000000	No
				Ca	-0.000002	0.000000	No
				Mn	-0.000010	0.000000	No
				Mo	0.003349	0.000000	No
				Cr	0.001469	0.000000	No
				V	-0.000045	0.000000	No
				Co	-0.000104	0.000000	No
				W	0.000000	0.000000	No
				Sn	-0.000123	0.000000	No
				Cd	-0.000194	0.000000	No
				Tl	0.000385	0.000000	No
				Be	-0.000017	0.000000	No
				Mg	0.000003	0.000000	No
				Si	-0.000013	0.000000	No
				Zn	0.000070	0.000000	No
				Sr	-0.000080	0.000000	No
				Zr	-0.000326	0.000000	No
				Ti	0.000009	0.000000	No
				Cu	0.000077	0.000000	No
				K	0.000000	0.000000	No
				B	-0.000030	0.000000	No
				S	-0.000010	0.000000	No
				Ce	-0.000364	0.000000	No
	Tl 190.856 {477}	☒	24	Cr	0.000100	0.000000	No
				Mo	-0.008708	0.000000	No
				Al	0.000099	0.000000	No
				Fe	-0.000057	0.000000	No
				V	-0.035342	0.000000	No
				Mn	0.004096	0.000000	No
				Si	-0.000210	0.000000	No
				Ca	-0.000001	0.000000	No
				Ti	-0.005004	0.000000	No
				Mg	-0.000002	0.000000	No
				Co	0.011091	0.000000	No
				Sr	0.000250	0.000000	No
				B	-0.000130	0.000000	No
				Ba	0.000110	0.000000	No
				Zn	0.000025	0.000000	No
				As	-0.000370	0.000000	No
				Ni	0.000451	0.000000	No
				Cu	-0.000032	0.000000	No
				W	0.000000	0.000000	No
				Sn	-0.000080	0.000000	No
				Se	0.000040	0.000000	No
				S	-0.000002	0.000000	No
				K	0.000000	0.000000	No
				P	0.000000	0.000000	No
	Pb 220.353 {453}	☒	23	Al	-0.000138	0.000000	No
				Fe	0.000029	0.000000	No
				Ca	-0.000010	0.000000	No
				Mn	0.000095	0.000000	No
				Zn	0.000064	0.000000	No
				Mo	-0.000839	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Cu	0.000410	0.000000	No
				V	-0.000167	0.000000	No
				Co	0.000071	0.000000	No
				Ti	-0.000270	0.000000	No
				Si	0.000016	0.000000	No
				Ba	-0.000012	0.000000	No
				Sb	0.000006	0.000000	No
				Sr	-0.000100	0.000000	No
				W	0.000000	0.000000	No
				Mg	0.000015	0.000000	No
				Cd	0.000476	0.000000	No
				Zr	-0.000300	0.000000	No
				Ni	0.000202	0.000000	No
				S	0.000000	0.000000	No
				Se	0.000036	0.000000	No
				As	-0.000224	0.000000	No
				Cr	-0.000066	0.000000	No
	Se 196.090 {472}	☒	23	Al	0.000033	0.000000	No
				Ca	-0.000002	0.000000	No
				Mn	0.000640	0.000000	No
				Mo	0.000120	0.000000	No
				Fe	-0.000132	0.000000	No
				Co	0.000152	0.000000	No
				V	0.000211	0.000000	No
				Sr	-0.000008	0.000000	No
				Cu	-0.000113	0.000000	No
				W	0.000000	0.000000	No
				Si	0.000037	0.000000	No
				Tl	0.000180	0.000000	No
				Be	-0.000143	0.000000	No
				Zn	-0.000250	0.000000	No
				B	-0.000141	0.000000	No
				Ti	0.000016	0.000000	No
				Cd	0.000090	0.000000	No
				Zr	-0.000280	0.000000	No
				Ba	-0.000220	0.000000	No
				Mg	-0.000002	0.000000	No
				Cr	-0.000039	0.000000	No
				S	-0.000011	0.000000	No
				Ce	-0.001564	0.000000	No
	Sb 206.833 {463}	☒	16	Fe	0.000036	0.000000	No
				Al	0.000009	0.000000	No
				Ca	-0.000012	0.000000	No
				Ni	-0.000079	0.000000	No
				Cr	0.011891	0.000000	No
				V	-0.003284	0.000000	No
				Zn	-0.000200	0.000000	No
				Mo	0.000226	0.000000	No
				Ti	0.000290	0.000000	No
				Sn	-0.007286	0.000000	No
				Mg	-0.000002	0.000000	No
				Zr	-0.000627	0.000000	No
				Sr	0.000209	0.000000	No
				W	0.000000	0.000000	No
				Si	0.000000	0.000000	No
				Ce	-0.001300	0.000000	No
	Al 396.152 { 85}	☒	6	Si	0.000913	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.006000	0.000000	No
			Ti	-0.000017	0.000000	No
			Ce	-0.005455	0.000000	No
Ca 317.933 {106}	☒	13	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	☒	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	1	Mo	-0.020780	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
			Mg	0.000400	0.000000	No
Na 589.592 { 57}	☒	5	K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.053333	0.000000	No
Mo 202.030 {467}	☒	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	0.000000	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	☒	14	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.026760	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	0.004440	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	0.002213	0.000000	No
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No
			Pb	0.000471	0.000000	No
			V	0.018202	0.000000	No
			W	-0.025000	0.000000	No
Sn 189.989 {478}	☒	6	Ti	-0.001411	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	2	Fe	0.000002	0.000000	No
			Ca	0.000012	0.000000	No
Ti 334.904 {101}	☒	4	Cr	-0.000084	0.000000	No
			Mo	0.003149	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	25	Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	0.000000	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	-0.050000	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
			Ag	0.000224	0.000000	No
Zr 339.198 { 99}	☒	8	Mo	0.000323	0.000000	No
			Ti	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Cr	-0.000900	0.000000	No
				V	0.000200	0.000000	No
				Sn	-0.000400	0.000000	No
	S 182.034 {485}	☒	11	Ca	-0.000099	0.000000	No
				Mo	0.003017	0.000000	No
				Al	-0.000206	0.000000	No
				Fe	-0.000131	0.000000	No
				Mn	0.003900	0.000000	No
				W	0.000000	0.000000	No
				Zn	-0.001538	0.000000	No
				Cr	-0.000200	0.000000	No
				Mg	-0.000025	0.000000	No
				Ti	0.000300	0.000000	No
				Li	0.000200	0.000000	No
	Bi 223.061 {451}	☒	9	V	-0.000680	0.000000	No
				Co	-0.002200	0.000000	No
				Ca	-0.000005	0.000000	No
				Mg	-0.000002	0.000000	No
				W	0.020000	0.000000	No
				Cu	-0.001186	0.000000	No
				Fe	0.000122	0.000000	No
				Cr	0.001500	0.000000	No
				Ti	-0.005211	0.000000	No
	Li 670.784 { 50}	☒	1	Ca	0.000014	0.000000	No
	P 177.495 {490}	☒	2	Mn	-0.083600	0.000000	No
				Ca	0.000034	0.000000	No
	Ce 404.076 { 83}	☒	3	V	-0.004000	0.000000	No
				Mn	-0.009800	0.000000	No
				Zr	-0.033000	0.000000	No

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
	Ba 455.403 { 74}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.001334	1.411979	0.000000	1.000000
	Be 313.042 {108}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000119	0.734033	0.000000	1.000000
	Cd 228.802 {448}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000139	0.685588	0.000000	1.000000
	Co 228.616 {448}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000297	0.352305	0.000000	1.000000
	Cr 267.716 {126}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000002	0.022702	0.000000	1.000000
	Cu 324.754 {104}2	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.001364	0.106250	0.000000	1.000000
	Mn 257.610 {131}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000006	0.094181	0.000000	1.000000
	Ni 231.604 {446}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000098	0.279354	0.000000	1.000000
	Ag 328.068 {103}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000036	0.065805	0.000000	1.000000
	V 292.402 {115}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000036	0.054041	0.000000	1.000000
	Zn 206.200 {464}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000434	0.927425	0.000000	1.000000
	As 189.042 {478}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000002	0.088939	0.000000	1.000000
	Tl 190.856 {477}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000337	0.016335	0.000000	1.000000
	Pb 220.353 {453}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000354	0.127455	0.000000	1.000000
	Se 196.090 {472}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000592	0.070598	0.000000	1.000000
	Sb 206.833 {463}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000177	0.124479	0.000000	1.000000
	Al 396.152 { 85}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.001977	0.028022	0.000000	1.000000
	Ca 317.933 {106}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.005156	0.030242	0.000000	1.000000
	Fe 259.940 {130}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000051	0.006012	0.000000	1.000000
	Mg 279.079 {121}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000013	0.001467	0.000000	1.000000
	K 766.490 { 44}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000257	0.023417	0.000000	1.000000
	Na 589.592 { 57}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.001050	0.073542	0.000000	1.000000
	B 208.959 {462}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000071	0.139007	0.000000	1.000000
	Mo 202.030 {467}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000004	0.551358	0.000000	1.000000
	Si 212.412 {459}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.001796	0.166230	0.000000	1.000000
	Sn 189.989 {478}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000081	0.138713	0.000000	1.000000
	Sr 407.771 { 83}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000133	2.419318	0.000000	1.000000
	Ti 334.904 {101}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000029	0.058625	0.000000	1.000000
	Y 360.073 { 94}*	3/17/2020 10:52:33	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	3/17/2020 10:52:33	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	3/17/2020 10:52:33	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	3/17/2020 10:52:33	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.001074	0.320560	0.000000	1.000000
	Zr 339.198 { 99}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000142	0.203431	0.000000	1.000000
	S 182.034 {485}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000785	0.023702	0.000000	1.000000
	Bi 223.061 {451}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000697	0.158179	0.000000	1.000000
	Li 670.784 { 50}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.003464	0.464323	0.000000	1.000000
	P 177.495 {490}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	-0.000977	0.012020	0.000000	1.000000
	Ce 404.076 { 83}	3/17/2020 10:52:33	3/16/2020 12:39:08	Linear	1/Conc	0.000313	0.028204	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ba 455.403 { 74}	1.000000	0.000000	0.000267	0.000890	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000151	0.000503	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000264	0.000879	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000354	0.001180	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000828	0.002759	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000581	0.001938	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000156	0.000519	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000385	0.001284	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000636	0.002120	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000547	0.001822	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000172	0.000574	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001440	0.004801	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.003238	0.010795	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001264	0.004212	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.002377	0.007922	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.001732	0.005773	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.012184	0.040612	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.004664	0.015545	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.008518	0.028393	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.047947	0.159823	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.031852	0.106174	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.009829	0.032762	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.001020	0.003401	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000334	0.001113	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001288	0.004293	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000884	0.002945	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000114	0.000379	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000685	0.002282	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.001181	0.003936	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000256	0.000854	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.005161	0.017202	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.001867	0.006223	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.001654	0.005512	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.007549	0.025162	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	1.000000	0.000000	0.004073	0.013577	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/17/2020 15:23:28 Type: Cal
Method: SGS No Vlave3(v173) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0006**	**-.0004**	**.0007**	**-.0003**	**-.0001**	**.0040**	**.0000**	**.0001**	**-.0008**
Stddev	.0002	.0000	.0001	.0000	.0000	.0000	.0000	.0002	.0000
%RSD	29.80	10.77	9.796	12.21	31.12	.8046	59.82	212.5	2.101
#1	.0007	-.0004	.0006	-.0002	-.0001	.0040	.0000	.0002	-.0009
#2	.0004	-.0004	.0008	-.0002	-.0000	.0040	.0000	.0001	-.0008
#3	.0008	-.0003	.0007	-.0003	-.0001	.0041	.0000	-.0001	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**.0005**	**-.0003**	**-.0001**	**-.0000**	**.0003**	**.0002**	**-.0016**	**.0059**
Stddev	.0000	.0001	.0001	.0000	.0001	.0001	.0001	.0003	.0001
%RSD	1.852	22.78	26.25	25.21	515.7	19.39	52.27	22.30	1.553
#1	.0004	.0005	-.0004	-.0001	.0000	.0003	.0004	-.0012	.0059
#2	.0004	.0004	-.0004	-.0001	-.0000	.0003	.0002	-.0016	.0059
#3	.0003	.0006	-.0002	-.0001	-.0000	.0004	.0001	-.0019	.0058

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0000**	**.0029**	**.0009**	**.0004**	**.0003**	**.0026**	**.0002**	**-.0009**
Stddev	.0001	.0001	.0001	.0002	.0000	.0000	.0002	.0001	.0001
%RSD	33.16	536.9	4.787	20.27	11.25	9.600	6.558	50.25	9.648
#1	.0001	.0001	.0030	.0010	.0004	.0004	.0024	.0002	-.0008
#2	.0003	-.0001	.0031	.0007	.0005	.0003	.0026	.0001	-.0010
#3	.0002	.0001	.0028	.0010	.0004	.0003	.0027	.0003	-.0009

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0011**	**-.0004**	**-.0003**	**-.0008**	**.0056**	**-.0071**	**-.0011**
Stddev	.0000	.0002	.0000	.0001	.0001	.0004	.0001	.0001
%RSD	36.98	20.99	4.273	32.77	16.46	7.239	1.570	9.268
#1	-.0000	.0011	-.0004	-.0003	-.0009	.0055	-.0071	-.0011
#2	-.0001	.0008	-.0004	-.0002	-.0007	.0053	-.0072	-.0009
#3	-.0000	.0013	-.0004	-.0003	-.0009	.0061	-.0070	-.0011

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/17/2020 15:23:28 Type: Cal
Method: SGS No Vlave3(v173) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**248030.**	**42148.**	**7656.3**	**14131.**
Stddev	1681.	324.	55.3	88.
%RSD	.67769	.76778	.72280	.62126
#1	248480.	42409.	7643.6	14113.
#2	249440.	41786.	7608.4	14053.
#3	246170.	42250.	7716.9	14226.

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/17/2020 15:28:28 Type: Cal
Method: SGS No Vlave3(v173) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.369**	**7.876**	**3.738**	**2.166**	**.3888**	**.7490**	**2.374**	**1.820**	**.0541**
Stddev	.054	.054	.005	.004	.0013	.0025	.005	.002	.0002
%RSD	1.001	.6888	.1279	.1728	.3252	.3352	.2332	.0981	.4559
#1	5.315	7.815	3.736	2.164	.3889	.7499	2.375	1.819	.0541
#2	5.423	7.894	3.735	2.163	.3875	.7462	2.368	1.818	.0539
#3	5.369	7.918	3.743	2.170	.3900	.7510	2.379	1.822	.0544

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4507**	**4.415**	**.3472**	**.1631**	**.7311**	**.2814**	**.5195**	**2.507**	**5.021**
Stddev	.0005	.004	.0002	.0004	.0008	.0002	.0003	.008	.018
%RSD	.1040	.0973	.0637	.2571	.1134	.0748	.0595	.3074	.3691
#1	.4505	4.415	.3472	.1629	.7315	.2812	.5192	2.514	5.041
#2	.4503	4.412	.3470	.1629	.7301	.2814	.5195	2.499	5.004
#3	.4512	4.420	.3474	.1636	.7316	.2816	.5198	2.509	5.018

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.839**	**.5470**	**1.331**	**4.464**	**.7379**	**2.687**	**1.821**	**.7034**	**10.80**
Stddev	.010	.0019	.006	.016	.0007	.002	.001	.0013	.33
%RSD	.3664	.3510	.4518	.3494	.0947	.0744	.0587	.1901	3.022
#1	2.849	.5488	1.338	4.479	.7380	2.685	1.820	.7021	10.50
#2	2.828	.5450	1.326	4.448	.7372	2.686	1.820	.7034	10.74
#3	2.840	.5472	1.331	4.466	.7386	2.689	1.822	.7047	11.15

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5728**	**1.335**	**1.068**	**.1812**	**.6589**	**1.557**	**.4482**	**.1070**
Stddev	.0013	.001	.003	.0003	.0005	.003	.0008	.0002
%RSD	.2285	.1014	.2989	.1846	.0742	.1907	.1790	.2249
#1	.5722	1.334	1.071	.1809	.6588	1.558	.4478	.1071
#2	.5719	1.335	1.069	.1816	.6584	1.553	.4477	.1067
#3	.5743	1.337	1.065	.1812	.6594	1.558	.4491	.1071

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/17/2020 15:28:28 Type: Cal
Method: SGS No Vlave3(v173) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**234310.**	**41611.**	**7230.4**	**12694.**
Stddev	902.	90.	10.6	22.
%RSD	.38476	.21524	.14652	.17479
#1	234130.	41684.	7239.2	12706.
#2	235290.	41638.	7233.4	12708.
#3	233510.	41511.	7218.7	12669.

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/17/2020 15:33:51 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.053**	F **2.112**	**2.038**	**2.052**	**2.071**	**2.045**	**2.084**	**2.070**	**.2525**
Stddev	.004	.006	.004	.004	.016	.018	.015	.003	.0018
%RSD	.1866	.3038	.2138	.1689	.7936	.8659	.6959	.1527	.7005
#1	2.049	2.105	2.041	2.054	2.065	2.039	2.067	2.072	.2518
#2	2.053	2.114	2.033	2.048	2.090	2.065	2.092	2.067	.2546
#3	2.057	2.117	2.040	2.053	2.058	2.032	2.093	2.072	.2513
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.000							
Range		5.000%							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.057**	**2.074**	**2.029**	F **2.110**	**2.056**	**2.034**	**2.036**	**40.53**	**41.14**
Stddev	.015	.002	.004	.003	.003	.006	.005	.05	.08
%RSD	.7277	.0918	.1798	.1261	.1598	.2778	.2460	.1330	.2047
#1	2.053	2.075	2.030	2.109	2.057	2.029	2.040	40.47	41.05
#2	2.074	2.072	2.025	2.108	2.053	2.032	2.031	40.55	41.17
#3	2.045	2.075	2.032	2.113	2.060	2.040	2.038	40.58	41.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				2.000					
Range				5.000%					

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.21**	**41.12**	**40.77**	**41.02**	**2.062**	**2.055**	**5.092**	**2.081**	**2.073**
Stddev	.04	.10	.06	.07	.002	.005	.011	.002	.054
%RSD	.0970	.2438	.1585	.1651	.0979	.2292	.2086	.1042	2.605
#1	41.17	41.01	40.72	40.95	2.063	2.059	5.099	2.081	2.015
#2	41.22	41.21	40.74	41.05	2.060	2.050	5.080	2.078	2.121
#3	41.25	41.12	40.84	41.07	2.064	2.056	5.096	2.083	2.081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/17/2020 15:33:51 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.059**	**2.011**	**2.086**	**1.950**	**2.050**	**2.052**	**2.033**	**2.042**
Stddev	.017	.002	.017	.003	.008	.006	.008	.018
%RSD	.8221	.0910	.7953	.1380	.3838	.2899	.3878	.8950
#1	2.053	2.012	2.081	1.947	2.055	2.045	2.031	2.037
#2	2.078	2.009	2.105	1.949	2.041	2.056	2.027	2.062
#3	2.046	2.013	2.073	1.953	2.055	2.054	2.042	2.026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**240220.**	**41521.**	**7435.6**	**13089.**
Stddev	1841.	284.	5.6	8.
%RSD	.76619	.68384	.07494	.06231
#1	240870.	41848.	7440.0	13095.
#2	238140.	41368.	7437.5	13092.
#3	241650.	41346.	7429.3	13079.

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/17/2020 15:38:49 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0001**	**.0001**	**.0001**	**-.0003**	**-.0000**	**.0002**	**.0001**
Stddev	.0002	.0000	.0001	.0001	.0002	.0003	.0000	.0003	.0003
%RSD	155.3	33.35	68.78	82.19	294.4	111.0	138.0	155.7	452.0
#1	-.0001	.0001	.0001	.0001	.0003	-.0003	.0000	-.0001	.0001
#2	-.0004	.0001	.0002	.0002	-.0000	-.0006	-.0000	.0001	.0003
#3	.0001	.0000	.0001	.0000	-.0001	.0000	-.0001	.0005	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0000**	**.0015**	**.0001**	**.0009**	**-.0001**	**-.0003**	**-.0021**
Stddev	.0002	.0001	.0009	.0014	.0004	.0011	.0013	.0031	.0013
%RSD	121.9	86.33	20990.	92.23	313.2	120.0	1858.	1224.	62.17
#1	.0001	-.0003	-.0004	-.0001	.0005	.0014	-.0001	-.0038	-.0030
#2	.0003	-.0001	.0010	.0021	.0001	-.0003	.0013	.0009	-.0006
#3	-.0000	-.0000	-.0006	.0025	-.0002	.0017	-.0014	.0021	-.0027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**-.0078**	**.0405**	**.0177**	**.0030**	**.0000**	**.0005**	**-.0001**	**.0000**
Stddev	.0022	.0010	.0161	.0077	.0001	.0000	.0006	.0002	.0000
%RSD	137.6	12.76	39.64	43.56	3.739	106.8	110.4	131.5	106.8
#1	.0007	-.0082	.0520	.0115	.0031	.0000	.0001	-.0003	.0001
#2	-.0000	-.0067	.0222	.0153	.0029	-.0000	.0003	-.0001	.0000
#3	.0041	-.0085	.0474	.0263	.0031	.0000	.0011	.0000	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/17/2020 15:38:49 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0004**	**.0001**	**.0006**	**.0003**	**.0010**	**-.0003**	**-.0010**
Stddev	.0002	.0002	.0002	.0015	.0018	.0009	.0011	.0006
%RSD	1148.	45.39	281.0	235.3	636.7	87.08	333.5	56.90
#1	-.0002	.0002	-.0001	-.0007	.0024	.0006	-.0010	-.0017
#2	.0002	.0005	.0002	.0003	-.0011	.0021	.0009	-.0008
#3	-.0001	.0006	.0001	.0022	-.0004	.0004	-.0009	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**248240.**	**42288.**	**7741.7**	**14250.**
Stddev	2531.	65.	41.4	72.
%RSD	1.0197	.15271	.53507	.50753
#1	248060.	42238.	7789.5	14333.
#2	250850.	42265.	7720.4	14208.
#3	245800.	42361.	7715.3	14209.

Zoom In Zoom Out

Sample Name: ICV 1 Acquired: 3/17/2020 15:43:55 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.020**	**2.090**	**2.021**	**1.968**	**1.988**	**1.968**	**1.956**	**2.012**	**.2423**
Stddev	.002	.005	.005	.004	.035	.034	.044	.004	.0039
%RSD	.1159	.2436	.2391	.2098	1.735	1.715	2.266	.2201	1.620
#1	2.019	2.087	2.027	1.973	1.948	1.929	1.905	2.017	.2378
#2	2.018	2.087	2.017	1.967	2.009	1.989	1.984	2.008	.2446
#3	2.023	2.096	2.020	1.966	2.006	1.987	1.980	2.012	.2446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**2.002**	**1.993**	**2.092**	**2.005**	**2.037**	**1.998**	**39.46**	**39.87**
Stddev	.031	.005	.007	.011	.004	.007	.007	.01	.04
%RSD	1.578	.2406	.3635	.5057	.1808	.3654	.3476	.0178	.0958
#1	1.955	2.008	2.000	2.100	2.009	2.042	2.003	39.46	39.91
#2	2.013	2.000	1.986	2.095	2.002	2.028	1.990	39.46	39.83
#3	2.005	1.999	1.993	2.080	2.004	2.040	2.000	39.47	39.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.25**	**40.30**	**39.94**	**39.58**	**2.000**	**1.941**	**5.044**	**1.988**	**2.062**
Stddev	.05	.05	.03	.03	.005	.007	.015	.005	.037
%RSD	.1207	.1319	.0844	.0734	.2618	.3541	.3052	.2665	1.813
#1	40.29	40.32	39.92	39.62	2.006	1.948	5.057	1.993	2.094
#2	40.26	40.24	39.92	39.56	1.998	1.934	5.027	1.983	2.021
#3	40.19	40.34	39.98	39.58	1.996	1.941	5.047	1.987	2.071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV 1 Acquired: 3/17/2020 15:43:55 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**1.907**	F **1.878**	F **1.885**	**1.929**	**2.019**	**1.951**	**1.907**
Stddev	.031	.003	.034	.004	.007	.001	.009	.036
%RSD	1.576	.1356	1.816	.2361	.3639	.0543	.4474	1.872
#1	1.944	1.909	1.839	1.891	1.935	2.018	1.960	1.866
#2	1.999	1.904	1.900	1.882	1.922	2.020	1.942	1.929
#3	1.997	1.908	1.895	1.883	1.931	2.020	1.950	1.926
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			2.000	2.000				
Range			-5.000%	-5.000%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244080.**	**41751.**	**7487.2**	**13187.**
Stddev	3663.	103.	10.9	15.
%RSD	1.5008	.24743	.14514	.11090
#1	248290.	41856.	7475.6	13174.
#2	241620.	41748.	7488.8	13184.
#3	242330.	41649.	7497.1	13203.

Zoom In Zoom Out

Sample Name: ICB 7 Acquired: 3/17/2020 15:48:54 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**.0001**	**.0002**	**.0004**	**-.0000**	**.0001**	**.0002**	**.0004**
Stddev	.0001	.0000	.0001	.0001	.0002	.0005	.0000	.0001	.0004
%RSD	47.22	15.58	51.81	49.50	37.10	1655.	56.73	46.52	100.9
#1	-.0002	.0001	.0001	.0002	.0004	-.0003	.0000	.0002	.0008
#2	-.0001	.0001	.0002	.0001	.0006	-.0003	.0001	.0003	.0002
#3	-.0003	.0001	.0001	.0002	.0003	.0005	.0001	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0003**	**.0010**	**.0014**	**-.0010**	**.0005**	**.0001**	**.0065**	**-.0010**
Stddev	.0001	.0001	.0011	.0012	.0006	.0019	.0008	.0011	.0032
%RSD	92.15	33.61	106.2	84.47	61.62	384.9	571.8	16.59	307.0
#1	.0000	-.0002	.0004	.0016	-.0007	.0007	.0006	.0055	-.0046
#2	.0000	-.0002	.0022	.0024	-.0016	.0023	.0007	.0064	.0017
#3	.0001	-.0004	.0004	.0001	-.0005	-.0015	-.0008	.0077	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0028**	**.0368**	**.0160**	**.0030**	**.0000**	**.0013**	**-.0002**	**.0001**
Stddev	.0009	.0080	.0047	.0066	.0005	.0001	.0006	.0002	.0000
%RSD	71.57	282.0	12.78	41.32	16.71	1166.	46.85	146.6	39.18
#1	.0015	-.0120	.0334	.0095	.0032	.0001	.0008	.0001	.0001
#2	.0021	.0021	.0348	.0158	.0024	.0000	.0012	-.0004	.0001
#3	.0003	.0014	.0421	.0227	.0033	-.0001	.0020	-.0002	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICB 7 Acquired: 3/17/2020 15:48:54 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	F **.0059**	**.0004**	**-.0002**	**-.0005**	**-.0003**	**-.0002**	**.0026**
Stddev	.0001	.0003	.0001	.0001	.0007	.0012	.0006	.0041
%RSD	2417.	4.702	28.50	85.10	144.5	368.4	333.2	160.7
#1	-.0000	.0062	.0004	-.0003	.0003	.0003	-.0002	.0070
#2	.0001	.0060	.0003	-.0002	-.0006	.0004	.0004	.0018
#3	-.0000	.0056	.0005	-.0000	-.0012	-.0016	-.0007	-.0011
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050						
Low Limit		-.0050						

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251850.**	**42232.**	**7673.9**	**14141.**
Stddev	1251.	340.	57.3	100.
%RSD	.49656	.80551	.74722	.70809
#1	253290.	42340.	7607.9	14025.
#2	251040.	41851.	7711.3	14201.
#3	251220.	42506.	7702.5	14197.

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 3/17/2020 15:54:55 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.038**	F **2.103**	**1.998**	**2.016**	**2.027**	**1.993**	**2.042**	**2.033**	**.2467**
Stddev	.006	.006	.015	.012	.021	.022	.009	.013	.0026
%RSD	.2856	.2739	.7500	.5971	1.043	1.106	.4592	.6227	1.072
#1	2.038	2.104	2.004	2.020	2.035	2.003	2.046	2.038	.2475
#2	2.042	2.108	2.005	2.022	1.996	1.960	2.028	2.040	.2428
#3	2.043	2.105	2.007	2.023	2.042	2.005	2.049	2.040	.2483
#4	2.030	2.095	1.976	1.998	2.036	2.006	2.045	2.014	.2483
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.000							
Range		5.000%							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**2.036**	**1.989**	**2.064**	**2.017**	**1.994**	**1.992**	**40.28**	**40.85**
Stddev	.021	.015	.013	.009	.015	.016	.017	.13	.15
%RSD	1.061	.7109	.6591	.4314	.7431	.8049	.8552	.3154	.3588
#1	2.030	2.044	1.993	2.068	2.026	2.003	2.002	40.30	40.89
#2	1.987	2.042	1.996	2.066	2.023	1.998	2.002	40.37	40.90
#3	2.032	2.044	1.997	2.072	2.024	2.004	1.997	40.36	40.99
#4	2.025	2.015	1.969	2.051	1.994	1.970	1.967	40.10	40.65
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 3/17/2020 15:54:55 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.06**	**40.85**	**40.40**	**40.75**	**2.023**	**2.011**	**4.979**	**2.039**	**2.050**
Stddev	.17	.16	.19	.19	.014	.014	.036	.014	.014
%RSD	.4153	.3818	.4826	.4738	.6819	.6768	.7227	.6800	.6583
#1	41.16	40.94	40.46	40.86	2.027	2.019	4.993	2.046	2.063
#2	41.11	40.91	40.41	40.79	2.031	2.015	4.994	2.046	2.058
#3	41.17	40.92	40.58	40.87	2.031	2.017	5.002	2.045	2.049
#4	40.81	40.61	40.12	40.46	2.002	1.990	4.925	2.018	2.032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.016**	**1.971**	**2.034**	F **1.887**	**2.006**	**2.038**	**1.989**	**1.988**
Stddev	.022	.015	.023	.009	.016	.006	.010	.021
%RSD	1.073	.7471	1.132	.4828	.7714	.3003	.4806	1.062
#1	2.027	1.981	2.043	1.896	2.014	2.039	1.994	2.003
#2	1.984	1.974	1.999	1.887	2.014	2.045	1.996	1.957
#3	2.028	1.980	2.045	1.890	2.011	2.037	1.993	1.994
#4	2.025	1.950	2.047	1.875	1.983	2.030	1.975	1.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				2.000				
Range				-5.000%				

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 3/17/2020 15:54:55 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**242940.**	**41735.**	**7495.7**	**13189.**
Stddev	2110.	149.	42.2	59.
%RSD	.86847	.35584	.56242	.44436
#1	242360.	41678.	7471.7	13161.
#2	245980.	41563.	7482.7	13159.
#3	241100.	41790.	7470.1	13158.
#4	242330.	41909.	7558.4	13276.

Zoom In Zoom Out

Sample Name: ccb 7 Acquired: 3/17/2020 16:15:13 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0001**	**.0002**	**-.0000**	**.0001**	**-.0002**	**.0000**	**.0001**	**.0004**
Stddev	.0001	.0000	.0001	.0002	.0002	.0003	.0000	.0003	.0002
%RSD	294.8	12.40	84.88	1596.	175.0	147.5	57.20	452.1	66.76
#1	-.0002	.0002	.0003	.0001	.0000	-.0004	.0000	.0001	.0006
#2	-.0000	.0001	.0001	-.0002	.0003	-.0004	.0001	.0004	.0001
#3	.0001	.0001	.0001	.0001	-.0000	.0001	.0000	-.0002	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0001**	**.0010**	**-.0001**	**.0013**	**.0003**	**.0067**	**.0013**
Stddev	.0002	.0001	.0002	.0007	.0005	.0019	.0004	.0011	.0014
%RSD	203.3	94.99	155.6	68.63	650.0	144.0	131.0	16.08	109.9
#1	-.0002	-.0000	.0000	.0012	.0005	-.0008	.0006	.0074	.0020
#2	.0001	-.0000	.0000	.0002	-.0006	.0029	-.0001	.0073	.0022
#3	-.0002	-.0001	.0003	.0015	-.0001	.0019	.0005	.0055	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**.0033**	**.0265**	**-.0062**	**.0015**	**.0000**	**.0010**	**.0001**	**.0002**
Stddev	.0012	.0059	.0126	.0070	.0005	.0001	.0011	.0004	.0000
%RSD	49.04	175.5	47.73	113.7	32.83	595.4	111.6	747.2	24.94
#1	.0013	-.0015	.0143	-.0133	.0010	.0001	.0004	.0002	.0001
#2	.0022	.0099	.0255	-.0060	.0015	-.0001	.0003	-.0004	.0002
#3	.0036	.0017	.0395	.0007	.0021	-.0000	.0023	.0004	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb 7 Acquired: 3/17/2020 16:15:13 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0005**	**.0001**	**.0021**	**.0005**	**-.0002**	**-.0012**	**.0018**
Stddev	.0002	.0007	.0000	.0009	.0009	.0006	.0006	.0027
%RSD	350.8	140.6	31.33	40.59	176.2	248.4	51.72	152.7
#1	.0003	-.0003	.0001	.0011	.0015	-.0002	-.0017	.0002
#2	-.0001	.0009	.0001	.0025	.0002	-.0008	-.0005	.0002
#3	-.0000	.0008	.0002	.0027	-.0002	.0003	-.0013	.0050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**252710.**	**41925.**	**7840.8**	**14412.**
Stddev	1808.	594.	156.9	255.
%RSD	.71529	1.4162	2.0015	1.7718
#1	254070.	41256.	7951.5	14596.
#2	250660.	42128.	7909.8	14519.
#3	253410.	42391.	7661.2	14120.

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/17/2020 16:21:40 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0012**	**.0010**	**.0031**	F **.0025**	**-.0002**	**.0031**	**.0042**	**.0005**
Stddev	.0002	.0000	.0001	.0001	.0001	.0004	.0000	.0001	.0005
%RSD	4.921	4.325	11.44	2.744	5.573	155.1	.2221	1.958	97.31
#1	.0041	.0011	.0010	.0030	.0023	-.0003	.0031	.0042	.0010
#2	.0041	.0012	.0012	.0032	.0025	.0001	.0031	.0041	.0002
#3	.0037	.0012	.0009	.0032	.0026	-.0006	.0031	.0043	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	None
Value					.0020				
Range					20.00%				

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0101**	**.0027**	F **.0028**	**-.0004**	**.0051**	**.0003**	**.1086**	**1.012**
Stddev	.0003	.0001	.0010	.0007	.0003	.0022	.0009	.0054	.021
%RSD	12.12	1.272	38.99	26.65	82.27	44.23	279.1	4.932	2.086
#1	.0023	.0099	.0022	.0034	-.0008	.0069	.0001	.1114	.9908
#2	.0019	.0102	.0020	.0029	-.0002	.0057	-.0005	.1024	1.033
#3	.0024	.0101	.0039	.0020	-.0003	.0026	.0014	.1120	1.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	None	Chk Pass	Chk Pass
Value				.0020					
Range				20.00%					

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0032**	**.1033**	**1.951**	**.9989**	**.0015**	**-.0001**	**.0000**	**.0002**	**.0000**
Stddev	.0007	.0056	.070	.0193	.0009	.0001	.0010	.0002	.0000
%RSD	22.61	5.440	3.569	1.936	63.18	93.43	2103.	119.5	89.44
#1	-.0025	.0977	1.885	.9779	.0024	-.0002	.0001	.0004	.0000
#2	-.0033	.1035	2.024	1.016	.0015	-.0002	.0010	.0001	.0000
#3	-.0040	.1089	1.944	1.003	.0005	.0000	-.0010	.0001	-.0000
Check ?	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/17/2020 16:21:40 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0003**	**.0002**	**-.0024**	**.0002**	**-.0012**	**-.0005**	F **.0012**
Stddev	.0003	.0005	.0002	.0025	.0010	.0008	.0007	.0040
%RSD	419.0	152.6	85.39	101.4	399.1	62.19	130.3	327.9
#1	.0003	.0008	.0002	-.0046	-.0005	-.0005	-.0013	.0018
#2	-.0001	.0005	.0004	-.0029	-.0001	-.0020	-.0003	-.0031
#3	-.0004	-.0002	.0000	.0002	.0013	-.0012	.0000	.0049
Check ?	None	None	None	None	None	None	None	Chk Fail
Value								.0040
Range								-20.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251540.**	**41993.**	**7730.7**	**14219.**
Stddev	919.	908.	48.3	77.
%RSD	.36518	2.1613	.62485	.54102
#1	250860.	42957.	7710.4	14181.
#2	251180.	41155.	7695.9	14167.
#3	252590.	41866.	7785.8	14307.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/17/2020 16:26:40 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2013**	**.0021**	**.0032**	**.0485**	**.0102**	**.0105**	**.0158**	**.0100**
Stddev	.0000	.0000	.0001	.0003	.0002	.0001	.0001	.0001
%RSD	.0208	1.376	2.484	.6731	1.921	1.331	.6053	1.320
#1	.2013	.0021	.0031	.0487	.0104	.0104	.0160	.0101
#2	.2012	.0021	.0032	.0487	.0103	.0107	.0158	.0099
#3	.2013	.0021	.0032	.0481	.0100	.0105	.0158	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0040**	**.0503**	**.0203**	**.0080**	**.0096**	**.0033**	**.0109**	**.0057**
Stddev	.0004	.0004	.0001	.0011	.0017	.0006	.0014	.0002
%RSD	8.900	.7563	.5546	13.21	17.52	17.01	12.96	2.989
#1	.0044	.0501	.0202	.0079	.0098	.0027	.0095	.0056
#2	.0039	.0507	.0204	.0090	.0112	.0038	.0123	.0056
#3	.0037	.0501	.0204	.0069	.0079	.0035	.0109	.0059
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.0050							
Range	-20.00%							

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2078**	**5.090**	**.1024**	**5.147**	**4.915**	**5.052**	**.0982**	**.0197**
Stddev	.0078	.005	.0004	.016	.012	.008	.0003	.0002
%RSD	3.772	.0964	.4209	.3127	.2458	.1528	.3089	.7742
#1	.2129	5.091	.1029	5.157	4.915	5.047	.0980	.0195
#2	.2117	5.095	.1024	5.155	4.927	5.061	.0986	.0197
#3	.1988	5.085	.1020	5.128	4.902	5.048	.0981	.0198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: cri Acquired: 3/17/2020 16:26:40 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2078**	**.0109**	**.0101**	**.0102**	**.0492**	**.0099**	**.0513**	F **.0251**
Stddev	.0016	.0005	.0001	.0002	.0004	.0001	.0012	.0008
%RSD	.7847	4.765	.9161	1.580	.7426	1.480	2.376	3.333
#1	.2061	.0111	.0102	.0102	.0489	.0101	.0506	.0252
#2	.2081	.0114	.0100	.0104	.0491	.0098	.0527	.0242
#3	.2093	.0104	.0102	.0101	.0496	.0100	.0506	.0259
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value								.0200
Range								20.00%

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0562**	**.0497**	F **-.0030**
Stddev	.0009	.0006	.0016
%RSD	1.686	1.289	54.12
#1	.0567	.0489	-.0049
#2	.0551	.0501	-.0023
#3	.0568	.0500	-.0019
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			.2000
Range			-20.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**247500.**	**42398.**	**7709.8**	**14070.**
Stddev	1674.	227.	25.3	44.
%RSD	.67659	.53483	.32830	.31257
#1	246450.	42351.	7738.0	14119.
#2	246610.	42199.	7702.2	14055.
#3	249430.	42645.	7689.1	14035.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/17/2020 16:31:44 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0002**	**.0007**	**.0018**	**.0027**	**.0026**	**-.0017**	**-.0018**	**-.0022**
Stddev	.0002	.0001	.0002	.0002	.0001	.0005	.0000	.0003	.0008
%RSD	100.3	32.03	25.20	11.05	4.682	20.58	1.589	18.91	36.86
#1	-.0000	-.0001	.0009	.0019	.0026	.0020	-.0017	-.0019	-.0018
#2	.0003	-.0001	.0008	.0018	.0027	.0029	-.0017	-.0022	-.0017
#3	.0004	-.0002	.0005	.0015	.0028	.0028	-.0017	-.0015	-.0032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072**	**-.0014**	**-.0025**	**.0002**	**-.0002**	**.0016**	**-.0026**	**483.4**	**369.6**
Stddev	.0003	.0002	.0013	.0010	.0010	.0049	.0041	3.6	.6
%RSD	3.804	13.54	51.51	434.0	480.7	308.8	157.6	.7524	.1555
#1	.0076	-.0014	-.0033	-.0009	-.0000	-.0024	-.0000	484.4	369.2
#2	.0071	-.0016	-.0010	.0010	.0007	.0002	-.0073	486.5	370.2
#3	.0071	-.0012	-.0032	.0005	-.0013	.0070	-.0004	479.4	369.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**180.9**	**494.5**	**-.0578**	**.0725**	**.0014**	**-.0003**	**-.0252**	**.0011**	**-.0005**
Stddev	1.3	.4	.0132	.0034	.0001	.0002	.0009	.0006	.0000
%RSD	.7045	.0848	22.91	4.662	3.881	64.74	3.374	50.36	8.634
#1	179.4	494.8	-.0654	.0686	.0014	-.0003	-.0244	.0015	-.0005
#2	181.9	494.6	-.0654	.0744	.0013	-.0001	-.0253	.0005	-.0005
#3	181.2	494.0	-.0425	.0744	.0014	-.0004	-.0261	.0014	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/17/2020 16:31:44 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0074**	**-.0042**	**-.0089**	**.0056**	**-.0011**	**.0135**	**.0480**
Stddev	.0002	.0016	.0002	.0028	.0012	.0005	.0016	.0029
%RSD	55.94	21.14	3.975	31.76	22.15	46.10	11.63	5.959
#1	-.0002	.0085	-.0043	-.0119	.0070	-.0015	.0145	.0449
#2	-.0006	.0056	-.0043	-.0085	.0046	-.0005	.0117	.0505
#3	-.0003	.0081	-.0040	-.0063	.0052	-.0013	.0143	.0485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**222640.**	**41061.**	**6959.7**	**11943.**
Stddev	741.	106.	18.6	28.
%RSD	.33279	.25770	.26740	.23162
#1	223380.	41086.	6955.6	11940.
#2	222650.	41152.	6980.1	11972.
#3	221900.	40945.	6943.5	11917.

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/17/2020 16:36:58 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4985**	**.4997**	**1.008**	**.4759**	**.4837**	**.5060**	**.5020**	**.9561**	**1.023**
Stddev	.0010	.0003	.001	.0016	.0006	.0024	.0012	.0024	.002
%RSD	.2006	.0594	.1222	.3316	.1275	.4767	.2389	.2497	.1885
#1	.4974	.4998	1.006	.4750	.4830	.5047	.5013	.9543	1.021
#2	.4986	.4994	1.008	.4750	.4839	.5088	.5034	.9552	1.025
#3	.4994	.5000	1.009	.4777	.4842	.5046	.5013	.9588	1.023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4940**	**.9405**	**1.028**	**.9618**	**.9465**	**1.025**	**1.003**	**486.9**	**367.3**
Stddev	.0013	.0019	.004	.0032	.0018	.002	.003	1.9	1.7
%RSD	.2543	.2009	.4045	.3276	.1950	.1492	.3244	.3830	.4669
#1	.4943	.9383	1.026	.9614	.9473	1.025	.9994	486.8	365.8
#2	.4951	.9413	1.025	.9588	.9443	1.024	1.002	488.8	369.2
#3	.4927	.9418	1.032	.9651	.9477	1.027	1.006	485.1	366.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**178.5**	**488.5**	**-.0166**	**.0933**	**.4673**	**.4528**	**.4727**	**.4473**	**.5022**
Stddev	3.2	1.3	.0390	.0020	.0026	.0007	.0002	.0003	.0015
%RSD	1.820	.2748	234.7	2.114	.5581	.1636	.0464	.0644	.2935
#1	174.8	487.1	-.0360	.0955	.4646	.4521	.4730	.4473	.5006
#2	181.0	488.6	-.0421	.0929	.4675	.4536	.4726	.4470	.5024
#3	179.7	489.7	.0283	.0916	.4698	.4526	.4726	.4476	.5035
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/17/2020 16:36:58 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4840**	**.4569**	**.5108**	**.4856**	**.4993**	**.5269**	**.4699**	F **.0459**
Stddev	.0013	.0014	.0021	.0040	.0010	.0009	.0020	.0010
%RSD	.2641	.3032	.4043	.8336	.2056	.1788	.4334	2.230
#1	.4843	.4556	.5092	.4881	.4991	.5259	.4708	.0450
#2	.4850	.4568	.5131	.4809	.4985	.5278	.4675	.0470
#3	.4825	.4583	.5100	.4878	.5005	.5271	.4713	.0456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value								.5000
Range								-20.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**222840.**	**41282.**	**6977.7**	**11980.**
Stddev	635.	243.	3.4	11.
%RSD	.28515	.58915	.04855	.09437
#1	222970.	41541.	6981.3	11991.
#2	222150.	41059.	6977.4	11979.
#3	223400.	41247.	6974.5	11969.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/17/2020 16:42:04 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.902**	**8.148**	**7.877**	**8.032**	**8.200**	**7.932**	**8.036**	**8.033**
Stddev	.037	.062	.022	.018	.029	.075	.059	.020
%RSD	.4727	.7555	.2813	.2304	.3572	.9479	.7326	.2542
#1	7.931	8.079	7.853	8.013	8.185	7.850	7.993	8.011
#2	7.860	8.198	7.897	8.050	8.234	7.948	8.103	8.052
#3	7.915	8.166	7.880	8.032	8.182	7.997	8.012	8.035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6068**	**7.885**	**8.249**	**7.872**	**8.181**	**8.650**	**7.914**	**7.972**
Stddev	.0033	.175	.016	.016	.028	.009	.021	.021
%RSD	.5486	2.215	.1898	.1989	.3430	.1043	.2657	.2655
#1	.6067	7.695	8.235	7.854	8.149	8.640	7.890	7.951
#2	.6101	7.921	8.266	7.881	8.200	8.658	7.931	7.993
#3	.6035	8.039	8.247	7.882	8.195	8.651	7.920	7.973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1511**	**-.0733**	**.1463**	**.1476**	**.3302**	**.1608**	**7.953**	**8.041**
Stddev	.0083	.0013	.0025	.0107	.0025	.0119	.024	.018
%RSD	5.481	1.775	1.730	7.283	.7548	7.410	.3069	.2249
#1	.1606	-.0740	.1447	.1600	.3273	.1478	7.927	8.021
#2	.1473	-.0718	.1492	.1414	.3320	.1711	7.975	8.057
#3	.1454	-.0742	.1449	.1413	.3311	.1636	7.957	8.045
Check ?	None	None	None	None	None	None	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/17/2020 16:42:04 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.77**	**8.259**	**7.919**	**8.039**	**8.249**	**7.991**	**97.97**	**8.098**
Stddev	.06	.019	.100	.046	.012	.060	.36	.017
%RSD	.2227	.2318	1.268	.5770	.1469	.7561	.3711	.2110
#1	24.71	8.237	7.849	8.083	8.237	7.926	97.63	8.079
#2	24.82	8.269	8.034	7.991	8.261	8.001	97.93	8.112
#3	24.78	8.270	7.874	8.044	8.250	8.046	98.35	8.103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**8.068**	**7.842**	F **-.0373**
Stddev	.012	.034	.0024
%RSD	.1512	.4374	6.532
#1	8.062	7.809	-.0394
#2	8.083	7.839	-.0346
#3	8.061	7.877	-.0380
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			8.000
Range			-10.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**247420.**	**42587.**	**7575.7**	**13991.**
Stddev	1069.	166.	5.6	7.
%RSD	.43187	.39018	.07440	.05182
#1	248530.	42735.	7582.1	13997.
#2	246410.	42407.	7571.5	13994.
#3	247310.	42620.	7573.6	13983.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/17/2020 16:47:59 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0001**	**.0012**	**.0021**	**.0020**	**.0024**	**-.0006**	**-.0022**	**-.0002**
Stddev	.0002	.0000	.0003	.0004	.0005	.0010	.0002	.0004	.0012
%RSD	48.01	42.14	20.85	20.59	23.82	41.56	30.83	17.10	574.3
#1	.0002	-.0001	.0009	.0017	.0023	.0034	-.0004	-.0022	.0010
#2	.0006	-.0001	.0014	.0026	.0015	.0021	-.0006	-.0025	-.0003
#3	.0003	-.0001	.0012	.0020	.0023	.0015	-.0007	-.0017	-.0013
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068**	**-.0012**	**.0033**	**.0007**	**.0001**	**.0065**	**-.0024**	**297.1**	**191.9**
Stddev	.0001	.0001	.0011	.0023	.0038	.0045	.0014	2.5	1.2
%RSD	1.967	9.693	33.40	319.0	6149.	69.90	57.09	.8283	.6217
#1	.0069	-.0013	.0042	.0032	-.0043	.0058	-.0038	294.3	191.7
#2	.0066	-.0011	.0021	-.0011	.0021	.0113	-.0010	298.9	193.2
#3	.0069	-.0011	.0037	.0001	.0024	.0023	-.0024	298.1	190.8
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**190.9**	**298.4**	**200.0**	**196.9**	**.0040**	**.0029**	**.0004**	**.0011**	**-.0001**
Stddev	3.6	.3	.6	3.6	.0004	.0003	.0019	.0004	.0001
%RSD	1.903	.1018	.3134	1.812	9.931	11.23	431.1	34.17	136.5
#1	195.0	298.3	199.4	192.9	.0036	.0026	.0021	.0010	-.0001
#2	189.4	298.7	200.7	199.7	.0043	.0031	-.0016	.0008	-.0001
#3	188.2	298.1	199.8	198.1	.0042	.0032	.0007	.0016	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/17/2020 16:47:59 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0130**	**-.0039**	**.0061**	**.0120**	**.0116**	**.0075**	**.0485**
Stddev	.0003	.0003	.0002	.0023	.0018	.0009	.0015	.0023
%RSD	180.4	2.555	4.444	37.13	15.16	8.156	20.36	4.794
#1	.0002	.0128	-.0037	.0056	.0133	.0107	.0089	.0490
#2	-.0002	.0128	-.0039	.0085	.0099	.0126	.0078	.0506
#3	.0004	.0134	-.0040	.0041	.0128	.0116	.0059	.0460
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**223530.**	**40631.**	**6982.1**	**11941.**
Stddev	486.	78.	18.1	26.
%RSD	.21756	.19190	.25851	.21608
#1	223560.	40652.	6967.3	11919.
#2	223020.	40545.	7002.2	11969.
#3	223990.	40697.	6976.9	11933.

Zoom In Zoom Out

Sample Name: FECONF Acquired: 3/17/2020 16:53:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0010**	**.0018**	**.0015**	**.0028**	**.0001**	**-.0022**	**-.0009**
Stddev	.0001	.0000	.0002	.0001	.0003	.0003	.0001	.0003	.0008
%RSD	156.9	29.41	23.07	8.093	20.14	10.75	172.7	11.89	86.91
#1	.0002	-.0001	.0010	.0020	.0012	.0032	.0002	-.0025	-.0003
#2	.0001	-.0002	.0008	.0017	.0015	.0026	.0001	-.0020	-.0005
#3	-.0001	-.0001	.0013	.0018	.0018	.0027	-.0001	-.0021	-.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056**	**-.0022**	**.0006**	**.0020**	**.0011**	**.0079**	**.0004**	**.0048**	**-.0184**
Stddev	.0004	.0000	.0002	.0005	.0007	.0014	.0010	.0039	.0015
%RSD	7.221	1.874	32.57	25.17	63.11	17.87	251.8	80.70	8.182
#1	.0055	-.0021	.0007	.0026	.0012	.0089	.0002	.0090	-.0180
#2	.0060	-.0022	.0008	.0019	.0004	.0085	-.0005	.0014	-.0200
#3	.0052	-.0022	.0004	.0016	.0018	.0063	.0014	.0039	-.0171

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**179.2**	**-.0072**	**.0351**	**.0560**	**.0016**	**.0005**	**.0107**	**.0005**	**-.0000**
Stddev	.9	.0077	.0246	.0039	.0002	.0001	.0011	.0007	.0000
%RSD	.4902	105.9	69.96	6.947	12.80	17.06	10.44	141.5	518.5
#1	179.1	.0001	.0616	.0517	.0019	.0005	.0119	.0004	.0000
#2	178.4	-.0066	.0131	.0572	.0015	.0004	.0097	.0013	.0000
#3	180.2	-.0152	.0307	.0592	.0016	.0005	.0107	-.0002	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0005**	**-.0039**	**.0159**	**.0093**	**.0025**	**-.0006**	**.0443**
Stddev	.0002	.0006	.0000	.0026	.0012	.0006	.0006	.0028
%RSD	140.0	134.3	1.127	16.39	13.42	23.07	98.35	6.213
#1	.0003	.0001	-.0039	.0172	.0102	.0018	-.0004	.0456
#2	.0001	.0001	-.0038	.0175	.0099	.0029	-.0012	.0461
#3	-.0001	.0012	-.0038	.0129	.0079	.0028	-.0001	.0411

Zoom In Zoom Out

Sample Name: FECONF Acquired: 3/17/2020 16:53:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**248570.**	**42657.**	**7686.7**	**14297.**
Stddev	3878.	130.	7.2	9.
%RSD	1.5602	.30542	.09334	.05990
#1	250980.	42703.	7687.1	14292.
#2	250640.	42758.	7693.6	14307.
#3	244100.	42510.	7679.3	14293.

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 3/17/2020 16:58:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0000**	**.0002**	**-.0019**	F **10.24**	**-.0004**	**-.0004**	**-.0004**	**.0002**
Stddev	.0001	.0000	.0001	.0003	.13	.0003	.0000	.0001	.0002
%RSD	1870.	201.0	74.31	13.94	1.256	80.18	6.543	26.85	68.74
#1	-.0001	.0000	.0000	-.0018	10.25	-.0007	-.0004	-.0004	.0001
#2	.0001	-.0000	.0003	-.0016	10.11	-.0003	-.0003	-.0003	.0004
#3	.0001	-.0000	.0002	-.0021	10.36	-.0001	-.0004	-.0006	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0119**	**-.0002**	**.0000**	**.0022**	**.0004**	**.0000**	**-.0041**	**.0002**	**-.0072**
Stddev	.0004	.0000	.0011	.0019	.0007	.0007	.0012	.0042	.0007
%RSD	3.349	14.96	2474.	88.95	187.7	4049.	30.07	2209.	10.27
#1	.0123	-.0002	.0009	.0001	-.0001	-.0004	-.0041	-.0046	-.0076
#2	.0115	-.0002	.0004	.0039	.0000	.0009	-.0028	.0019	-.0076
#3	.0119	-.0002	-.0012	.0026	.0011	-.0004	-.0053	.0033	-.0063

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071**	**-.0001**	**.0347**	**.0154**	**.0026**	**.0004**	**.0078**	**-.0010**	**.0001**
Stddev	.0007	.0065	.0150	.0012	.0006	.0002	.0005	.0005	.0000
%RSD	10.52	7086.	43.21	7.887	21.82	46.40	6.637	50.87	23.15
#1	.0079	-.0067	.0518	.0141	.0023	.0003	.0072	-.0005	.0001
#2	.0070	.0002	.0285	.0165	.0022	.0003	.0079	-.0016	.0001
#3	.0064	.0063	.0238	.0157	.0033	.0006	.0082	-.0010	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0049**	**-.0057**	**.0040**	**.0005**	**.0020**	**-.0008**	**.0016**
Stddev	.0001	.0007	.0001	.0013	.0015	.0010	.0005	.0011
%RSD	21.24	14.92	1.507	33.63	296.7	52.62	58.52	65.69
#1	-.0006	.0043	-.0058	.0041	.0020	.0031	-.0003	.0009
#2	-.0005	.0057	-.0056	.0026	-.0010	.0010	-.0010	.0029
#3	-.0008	.0048	-.0058	.0053	.0006	.0018	-.0013	.0011

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 3/17/2020 16:58:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249230.**	**42071.**	**7552.1**	**14153.**
Stddev	1649.	76.	14.9	16.
%RSD	.66161	.18151	.19785	.11641
#1	249890.	42002.	7551.2	14151.
#2	250440.	42057.	7567.4	14170.
#3	247350.	42153.	7537.6	14137.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/17/2020 17:03:42 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2006**	**.0021**	**.0033**	**.0489**	**.0105**	**.0107**	**.0160**	**.0100**
Stddev	.0005	.0000	.0002	.0002	.0004	.0004	.0001	.0002
%RSD	.2432	1.912	4.545	.3300	3.485	3.619	.8030	2.075
#1	.2002	.0021	.0032	.0491	.0102	.0108	.0159	.0102
#2	.2004	.0021	.0033	.0488	.0109	.0103	.0161	.0098
#3	.2011	.0021	.0035	.0488	.0105	.0110	.0161	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**.0507**	**.0205**	**.0089**	**.0098**	**.0033**	**.0107**	**.0060**
Stddev	.0004	.0007	.0002	.0008	.0015	.0005	.0020	.0013
%RSD	9.143	1.343	.7441	8.951	14.97	14.37	18.45	20.72
#1	.0045	.0499	.0205	.0098	.0109	.0028	.0093	.0072
#2	.0038	.0511	.0203	.0083	.0081	.0037	.0099	.0063
#3	.0039	.0511	.0206	.0087	.0103	.0033	.0130	.0047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2071**	**5.075**	**.1030**	**5.128**	**4.919**	**5.029**	**.0993**	**.0199**
Stddev	.0018	.012	.0009	.013	.023	.019	.0003	.0003
%RSD	.8898	.2385	.9089	.2594	.4640	.3808	.2584	1.435
#1	.2090	5.061	.1025	5.118	4.917	5.008	.0996	.0196
#2	.2053	5.079	.1024	5.122	4.942	5.045	.0991	.0201
#3	.2071	5.084	.1040	5.143	4.897	5.035	.0992	.0201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: cri Acquired: 3/17/2020 17:03:42 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2105**	**.0104**	**.0100**	**.0102**	**.0497**	**.0100**	**.0506**	F **.0250**
Stddev	.0005	.0002	.0000	.0004	.0011	.0001	.0013	.0014
%RSD	.2227	2.176	.4255	4.119	2.263	1.344	2.655	5.546
#1	.2108	.0106	.0100	.0101	.0509	.0099	.0513	.0234
#2	.2099	.0102	.0100	.0098	.0487	.0102	.0490	.0256
#3	.2107	.0103	.0101	.0106	.0494	.0100	.0514	.0260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value								.0200
Range								20.00%

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0558**	**.0503**	F **-.0012**
Stddev	.0007	.0006	.0015
%RSD	1.182	1.179	128.5
#1	.0560	.0504	-.0020
#2	.0563	.0509	-.0020
#3	.0550	.0497	.0006
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			.2000
Range			-20.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244710.**	**42173.**	**7634.4**	**13946.**
Stddev	1748.	14.	13.1	23.
%RSD	.71412	.03427	.17105	.16240
#1	246720.	42175.	7622.3	13931.
#2	243800.	42157.	7648.2	13972.
#3	243600.	42186.	7632.8	13935.

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 3/17/2020 17:08:46 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0003**	**.0001**	**-.0001**	**.0004**	**-.0000**	**-.0001**	**-.0006**
Stddev	.0002	.0000	.0004	.0000	.0001	.0002	.0001	.0001	.0004
%RSD	346.8	36.03	122.8	64.04	162.7	38.83	184.4	133.6	63.02
#1	.0001	.0001	.0006	.0001	-.0000	.0006	-.0000	.0000	-.0011
#2	-.0002	.0000	-.0001	.0001	-.0002	.0005	-.0001	-.0001	-.0004
#3	.0003	.0001	.0003	.0000	.0000	.0003	.0000	-.0001	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0026**	**5.042**	**.0005**	**-.0005**	**.0003**	**.0002**	**.0084**	**-.0134**
Stddev	.0002	.0001	.038	.0007	.0002	.0017	.0003	.0039	.0001
%RSD	71.85	2.795	.7552	137.2	36.82	544.3	188.1	46.17	.4256
#1	.0005	-.0026	5.054	.0012	-.0003	.0016	-.0002	.0113	-.0134
#2	.0004	-.0026	5.073	-.0000	-.0007	-.0016	.0005	.0040	-.0133
#3	.0001	-.0027	5.000	.0002	-.0006	.0010	.0002	.0100	-.0134

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0051**	**.0114**	**-.0053**	**.0014**	**-.0002**	**.0056**	**-.0003**	**.0001**
Stddev	.0011	.0026	.0171	.0048	.0008	.0001	.0002	.0005	.0001
%RSD	120.8	51.20	150.5	90.48	55.20	41.61	4.462	188.4	86.90
#1	.0004	.0021	.0079	-.0012	.0022	-.0002	.0056	-.0006	.0001
#2	-.0016	.0070	-.0038	-.0106	.0010	-.0002	.0058	.0003	.0000
#3	-.0016	.0061	.0300	-.0042	.0009	-.0004	.0053	-.0004	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0045**	**.0003**	**.0017**	**.0005**	**-.0003**	**.0013**	**-.0030**
Stddev	.0004	.0005	.0001	.0007	.0013	.0012	.0008	.0004
%RSD	254.8	10.77	20.64	44.25	236.1	385.2	62.27	12.08
#1	-.0001	.0047	.0002	.0025	.0015	-.0017	.0022	-.0028
#2	.0006	.0039	.0003	.0012	.0010	.0005	.0010	-.0027
#3	-.0000	.0048	.0003	.0012	-.0009	.0003	.0007	-.0034

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 3/17/2020 17:08:46 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**248170.**	**42769.**	**7780.9**	**14325.**
Stddev	2010.	393.	44.7	86.
%RSD	.80990	.91853	.57461	.59966
#1	246190.	43159.	7765.5	14287.
#2	248120.	42775.	7745.9	14264.
#3	250210.	42373.	7831.2	14423.

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/17/2020 17:13:51 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.999**	**2.066**	**2.005**	**2.022**	**2.048**	**2.017**	**2.060**	**2.040**	**.2487**
Stddev	.004	.004	.003	.002	.045	.043	.028	.003	.0055
%RSD	.2130	.2102	.1570	.0785	2.220	2.110	1.350	.1450	2.213
#1	2.001	2.067	2.001	2.021	2.020	1.992	2.056	2.037	.2444
#2	2.003	2.070	2.008	2.024	2.023	1.993	2.035	2.042	.2467
#3	1.995	2.061	2.006	2.021	2.100	2.066	2.090	2.040	.2549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.048**	**2.046**	**1.999**	**2.052**	**2.028**	**2.004**	**2.002**	**39.51**	**40.15**
Stddev	.046	.005	.007	.008	.004	.006	.006	.04	.02
%RSD	2.235	.2558	.3477	.3845	.2186	.3080	.3062	.1045	.0444
#1	2.019	2.040	1.993	2.046	2.025	2.002	1.996	39.54	40.13
#2	2.024	2.050	2.006	2.050	2.033	2.011	2.008	39.54	40.14
#3	2.101	2.047	1.998	2.061	2.026	1.999	2.001	39.47	40.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.96**	**40.08**	**39.55**	**39.72**	**2.029**	**2.018**	**4.990**	**2.040**	**2.014**
Stddev	.04	.01	.05	.04	.005	.007	.015	.004	.015
%RSD	.0960	.0321	.1177	.0974	.2347	.3285	.3077	.1862	.7601
#1	39.92	40.07	39.50	39.69	2.025	2.012	4.979	2.037	1.997
#2	40.00	40.09	39.59	39.76	2.034	2.025	5.008	2.044	2.019
#3	39.96	40.07	39.55	39.70	2.028	2.017	4.984	2.038	2.026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/17/2020 17:13:51 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.043**	**1.981**	**2.054**	**1.874**	**2.018**	**1.993**	**1.986**	**2.017**
Stddev	.045	.005	.043	.006	.004	.002	.007	.044
%RSD	2.228	.2350	2.105	.3225	.1875	.0919	.3468	2.173
#1	2.014	1.979	2.027	1.870	2.015	1.995	1.979	1.989
#2	2.020	1.986	2.031	1.881	2.022	1.994	1.990	1.996
#3	2.095	1.978	2.104	1.872	2.018	1.991	1.991	2.068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**237350.**	**41942.**	**7453.3**	**13119.**
Stddev	5067.	202.	19.4	27.
%RSD	2.1348	.48205	.26084	.20649
#1	240200.	42109.	7474.6	13149.
#2	240350.	42000.	7436.4	13096.
#3	231500.	41717.	7449.0	13112.

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/17/2020 17:18:57 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **.0002**	**.0003**	**-.0001**	**.0007**	**-.0001**	**.0000**	**.0001**	**-.0001**
Stddev	.0001	.0000	.0002	.0001	.0004	.0002	.0000	.0002	.0004
%RSD	201.6	26.60	64.60	200.9	51.41	277.7	79.17	237.2	359.5
#1	.0002	.0001	.0001	-.0001	.0011	-.0002	.0001	.0001	-.0001
#2	.0001	.0002	.0005	.0001	.0007	.0002	.0000	.0002	.0003
#3	-.0001	.0002	.0003	-.0002	.0003	-.0001	.0000	-.0001	-.0005
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001							
Low Limit		-.0001							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0000**	**.0008**	**.0013**	**.0002**	**.0006**	**.0008**	**.0035**	**-.0014**
Stddev	.0001	.0001	.0002	.0011	.0010	.0014	.0014	.0031	.0010
%RSD	13.48	212.7	27.58	84.24	550.7	235.0	167.2	89.67	73.24
#1	.0005	-.0001	.0006	.0016	-.0009	-.0005	.0008	-.0000	-.0014
#2	.0005	.0001	.0009	.0022	.0010	.0022	.0023	.0045	-.0004
#3	.0004	-.0001	.0010	.0001	.0003	.0001	-.0005	.0061	-.0025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**.0039**	**.0189**	**.0010**	**.0028**	**.0001**	**.0009**	**.0001**	**.0001**
Stddev	.0003	.0079	.0052	.0074	.0008	.0002	.0005	.0004	.0001
%RSD	8.574	203.4	27.56	715.7	30.45	276.7	58.37	463.3	159.5
#1	.0033	.0066	.0130	-.0011	.0025	-.0001	.0012	.0000	.0002
#2	.0038	-.0050	.0210	.0093	.0037	.0003	.0012	.0005	-.0001
#3	.0039	.0100	.0228	-.0051	.0021	.0001	.0003	-.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/17/2020 17:18:57 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0008**	**.0001**	**.0011**	**.0001**	**-.0010**	**.0005**	**.0009**
Stddev	.0001	.0004	.0001	.0024	.0011	.0004	.0011	.0010
%RSD	173.9	51.81	99.86	214.2	1558.	37.90	244.9	109.0
#1	.0002	.0004	.0003	.0025	-.0011	-.0015	.0010	.0007
#2	.0001	.0007	.0001	-.0016	.0009	-.0008	.0012	.0001
#3	-.0001	.0012	.0001	.0025	.0004	-.0008	-.0008	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253120.**	**42683.**	**7770.0**	**14304.**
Stddev	2014.	179.	22.3	43.
%RSD	.79556	.42050	.28755	.30301
#1	255420.	42872.	7775.6	14311.
#2	252210.	42515.	7788.9	14344.
#3	251710.	42663.	7745.3	14258.

Zoom In Zoom Out

Sample Name: cri Acquired: 3/17/2020 17:24:07 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2013**	**.0022**	**.0032**	**.0491**	**.0106**	**.0099**	**.0157**	**.0100**
Stddev	.0003	.0001	.0001	.0004	.0003	.0004	.0001	.0002
%RSD	.1492	2.734	3.375	.8890	3.232	3.588	.6672	2.472
#1	.2010	.0021	.0031	.0496	.0109	.0101	.0158	.0103
#2	.2015	.0022	.0032	.0488	.0102	.0101	.0156	.0099
#3	.2015	.0021	.0033	.0489	.0106	.0095	.0157	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0497**	**.0206**	**.0084**	**.0098**	**.0029**	**.0114**	**.0067**
Stddev	.0003	.0003	.0001	.0005	.0010	.0008	.0013	.0011
%RSD	7.080	.6795	.4882	6.434	10.60	27.07	11.03	16.10
#1	.0047	.0500	.0207	.0077	.0095	.0023	.0129	.0066
#2	.0041	.0495	.0206	.0087	.0089	.0027	.0108	.0078
#3	.0047	.0495	.0205	.0086	.0109	.0038	.0106	.0056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2103**	**5.109**	**.1036**	**5.178**	**4.940**	**5.097**	**.1003**	**.0198**
Stddev	.0060	.012	.0010	.040	.022	.027	.0007	.0003
%RSD	2.864	.2277	.9872	.7783	.4480	.5357	.6964	1.440
#1	.2073	5.097	.1042	5.138	4.914	5.070	.1010	.0201
#2	.2172	5.110	.1025	5.178	4.949	5.099	.1002	.0195
#3	.2064	5.120	.1042	5.218	4.955	5.124	.0996	.0199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: cri Acquired: 3/17/2020 17:24:07 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2103**	**.0107**	**.0101**	**.0103**	**.0489**	**.0099**	**.0509**	F **.0247**
Stddev	.0004	.0001	.0001	.0002	.0006	.0002	.0008	.0004
%RSD	.1874	1.183	.9831	1.625	1.237	2.237	1.656	1.600
#1	.2103	.0108	.0101	.0104	.0495	.0102	.0518	.0244
#2	.2099	.0107	.0100	.0104	.0489	.0098	.0505	.0247
#3	.2107	.0105	.0102	.0101	.0483	.0098	.0502	.0251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value								.0200
Range								20.00%

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0554**	**.0488**	F **-.0004**
Stddev	.0007	.0012	.0008
%RSD	1.197	2.377	208.8
#1	.0551	.0494	-.0012
#2	.0549	.0496	.0003
#3	.0561	.0475	-.0002
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			.2000
Range			-20.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249290.**	**42302.**	**7704.2**	**14040.**
Stddev	1897.	371.	38.2	64.
%RSD	.76083	.87800	.49580	.45367
#1	247350.	42621.	7662.8	13972.
#2	251140.	42391.	7738.0	14098.
#3	249370.	41894.	7711.7	14051.

Zoom In Zoom Out

Sample Name: mp20283-mb1 Acquired: 3/17/2020 17:29:05 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047**	**.0005**	**.0007**	**.0008**	**.0007**	**.0003**	**.0009**	**.0023**	**.0011**
Stddev	.0004	.0002	.0005	.0005	.0002	.0032	.0001	.0009	.0008
%RSD	8.029	32.64	73.99	66.07	31.02	1257.	13.71	41.68	70.54
#1	.0048	.0004	.0011	.0003	.0005	-.0035	.0010	.0029	.0013
#2	.0051	.0005	.0008	.0007	.0008	.0023	.0009	.0027	.0003
#3	.0043	.0007	.0001	.0013	.0010	.0019	.0008	.0012	.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0456**	**.0009**	**.0056**	**.0025**	**.0005**	**-.0018**	**.0444**	**.1783**
Stddev	.0007	.0001	.0035	.0057	.0005	.0076	.0028	.0149	.0153
%RSD	54.50	.1296	376.5	102.1	20.55	1620.	160.4	33.49	8.557
#1	-.0010	.0456	.0039	.0040	.0020	-.0038	-.0018	.0426	.1744
#2	-.0020	.0456	.0019	.0120	.0025	-.0040	.0011	.0601	.1654
#3	-.0007	.0455	-.0030	.0009	.0030	.0092	-.0045	.0305	.1951

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0156**	**.0126**	**-.1394**	**-.0137**	**.0095**	**-.0006**	**.1836**	**.0005**	**.0076**
Stddev	.0103	.0385	.0442	.0359	.0023	.0003	.0121	.0005	.0002
%RSD	65.73	306.2	31.71	261.5	24.27	62.09	6.568	96.10	2.994
#1	.0038	.0316	-.1403	.0277	.0121	-.0009	.1751	.0007	.0078
#2	.0227	.0378	-.1832	-.0330	.0077	-.0003	.1783	-.0000	.0073
#3	.0203	-.0317	-.0948	-.0358	.0087	-.0004	.1974	.0008	.0076

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0010**	**.0008**	**.0134**	**-.0003**	**-.0089**	**.0046**	**-.0067**
Stddev	.0011	.0025	.0004	.0125	.0033	.0034	.0049	.0051
%RSD	141.8	240.7	50.98	93.20	1122.	37.59	107.5	75.19
#1	.0004	.0036	.0011	.0278	-.0027	-.0052	.0094	-.0016
#2	-.0001	.0009	.0003	.0063	.0034	-.0118	.0047	-.0117
#3	.0020	-.0014	.0010	.0061	-.0016	-.0098	-.0004	-.0069

Zoom In Zoom Out

Sample Name: mp20283-mb1 Acquired: 3/17/2020 17:29:05 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253360.**	**43040.**	**7775.6**	**14321.**
Stddev	2209.	546.	7.5	16.
%RSD	.87179	1.2681	.09681	.11125
#1	255870.	42513.	7781.5	14335.
#2	252450.	43603.	7778.2	14325.
#3	251740.	43004.	7767.1	14303.

Zoom In Zoom Out

Sample Name: mp20283-b1 Acquired: 3/17/2020 17:34:11 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.849**	**1.887**	**1.844**	**1.809**	**1.875**	**1.785**	**1.936**	**1.875**	**.2356**
Stddev	.003	.004	.005	.004	.022	.023	.018	.003	.0032
%RSD	.1665	.2223	.2689	.2479	1.180	1.299	.9211	.1772	1.349
#1	1.850	1.888	1.845	1.808	1.890	1.800	1.947	1.875	.2369
#2	1.850	1.890	1.839	1.805	1.850	1.758	1.915	1.872	.2319
#3	1.845	1.882	1.848	1.814	1.886	1.797	1.945	1.879	.2378

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.841**	**2.039**	**1.865**	**1.921**	**1.868**	**1.818**	**1.888**	**23.78**	**27.03**
Stddev	.019	.004	.010	.002	.006	.003	.007	.09	.03
%RSD	1.049	.2077	.5535	.1166	.3232	.1542	.3777	.3768	.0956
#1	1.854	2.040	1.864	1.923	1.866	1.820	1.889	23.70	27.02
#2	1.819	2.034	1.855	1.919	1.863	1.815	1.880	23.88	27.06
#3	1.850	2.043	1.876	1.922	1.875	1.820	1.894	23.78	27.00

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.29**	**24.60**	**23.58**	**24.29**	**1.836**	**1.944**	**.2623**	**1.989**	**1.876**
Stddev	.05	.05	.12	.04	.001	.004	.0035	.007	.003
%RSD	.1872	.1902	.4903	.1448	.0616	.1978	1.339	.3409	.1814
#1	24.25	24.59	23.65	24.28	1.835	1.944	.2595	1.987	1.874
#2	24.34	24.65	23.63	24.33	1.837	1.940	.2662	1.983	1.880
#3	24.27	24.56	23.44	24.27	1.835	1.947	.2611	1.996	1.874

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.921**	**1.873**	**1.913**	**.2836**	**-.0009**	**-.0070**	**1.799**	**-.0013**
Stddev	.022	.006	.028	.0032	.0025	.0082	.005	.0039
%RSD	1.149	.3168	1.446	1.142	278.7	117.1	.2857	294.8
#1	1.934	1.874	1.929	.2828	-.0026	-.0166	1.799	-.0019
#2	1.895	1.866	1.881	.2872	-.0021	-.0022	1.793	.0028
#3	1.933	1.878	1.928	.2808	.0020	-.0024	1.804	-.0049

Zoom In Zoom Out

Sample Name: mp20283-b1 Acquired: 3/17/2020 17:34:11 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251190.**	**42792.**	**7751.2**	**14067.**
Stddev	2446.	90.	17.7	30.
%RSD	.97364	.21096	.22859	.21653
#1	249590.	42688.	7740.7	14051.
#2	254000.	42838.	7771.6	14102.
#3	249960.	42851.	7741.2	14048.

Zoom In Zoom Out

Sample Name: mp20283-s1 Acquired: 3/17/2020 17:39:03 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.088**	**1.928**	**1.875**	**1.796**	**1.851**	**1.790**	**1.915**	**1.855**	**.2450**
Stddev	.024	.023	.012	.011	.007	.005	.006	.008	.0015
%RSD	1.164	1.213	.6171	.6147	.3816	.3015	.3186	.4330	.6305
#1	2.113	1.951	1.887	1.808	1.857	1.795	1.920	1.863	.2463
#2	2.088	1.928	1.874	1.791	1.853	1.791	1.916	1.853	.2455
#3	2.064	1.904	1.864	1.787	1.843	1.784	1.908	1.847	.2433

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.883**	**1.880**	**1.939**	**1.843**	**1.837**	**1.876**	**1.939**	**24.22**	F **1833.**
Stddev	.005	.007	.013	.011	.005	.023	.018	.29	22.
%RSD	.2853	.3771	.6573	.5961	.2655	1.211	.9018	1.194	1.176
#1	1.889	1.886	1.949	1.854	1.841	1.885	1.941	24.52	1857.
#2	1.882	1.881	1.944	1.844	1.839	1.893	1.956	24.18	1817.
#3	1.878	1.872	1.925	1.832	1.832	1.850	1.921	23.95	1823.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.38**	**26.08**	**55.54**	**52.25**	**2.095**	**1.945**	**19.69**	**1.925**	**9.392**
Stddev	.29	.28	.71	.71	.006	.008	.08	.011	.190
%RSD	1.208	1.069	1.274	1.358	.2827	.3957	.4032	.5539	2.019
#1	24.70	26.38	56.30	53.00	2.101	1.953	19.78	1.936	9.605
#2	24.32	26.02	55.40	52.14	2.093	1.944	19.66	1.923	9.326
#3	24.12	25.83	54.91	51.59	2.090	1.938	19.64	1.915	9.244

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.926**	**1.903**	**1.911**	**49.87**	**.0042**	**.0295**	**1.885**	**-.0454**
Stddev	.005	.013	.010	.21	.0068	.0033	.012	.0052
%RSD	.2791	.6662	.5267	.4270	162.3	11.29	.6417	11.45
#1	1.931	1.918	1.918	50.12	.0053	.0290	1.898	-.0404
#2	1.927	1.896	1.915	49.74	-.0031	.0331	1.873	-.0451
#3	1.921	1.895	1.899	49.76	.0103	.0265	1.886	-.0508

Zoom In Zoom Out

Sample Name: mp20283-s1 Acquired: 3/17/2020 17:39:03 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**234460.**	**41597.**	**7219.1**	**12732.**
Stddev	520.	127.	5.8	15.
%RSD	.22161	.30500	.08072	.12059
#1	234590.	41573.	7213.0	12714.
#2	233880.	41735.	7219.7	12740.
#3	234900.	41485.	7224.6	12741.

Zoom In Zoom Out

Sample Name: mp20283-s2 Acquired: 3/17/2020 17:44:01 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.122**	**1.965**	**1.951**	**1.873**	**1.914**	**1.858**	**1.980**	**1.930**	**.2528**
Stddev	.002	.001	.011	.013	.005	.003	.005	.012	.0019
%RSD	.1145	.0361	.5808	.6800	.2381	.1473	.2513	.6197	.7450
#1	2.122	1.966	1.955	1.880	1.917	1.856	1.983	1.937	.2549
#2	2.120	1.966	1.938	1.858	1.917	1.861	1.982	1.917	.2513
#3	2.125	1.965	1.960	1.881	1.909	1.857	1.974	1.937	.2521

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.945**	**1.942**	**2.012**	**1.923**	**1.917**	**1.972**	**2.005**	**25.58**	F **1821.**
Stddev	.006	.010	.006	.005	.013	.003	.017	.04	24.
%RSD	.3042	.5211	.2840	.2879	.6834	.1258	.8256	.1485	1.296
#1	1.949	1.944	2.010	1.928	1.925	1.973	2.006	25.57	1845.
#2	1.947	1.930	2.007	1.917	1.902	1.970	1.987	25.55	1797.
#3	1.938	1.950	2.018	1.924	1.924	1.974	2.020	25.63	1822.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.63**	**27.49**	**56.72**	**53.21**	**2.178**	**2.023**	**19.88**	**1.999**	**9.390**
Stddev	.07	.21	.16	.12	.019	.011	.11	.009	.063
%RSD	.2781	.7613	.2897	.2284	.8686	.5616	.5458	.4364	.6715
#1	25.71	27.50	56.88	53.32	2.183	2.029	19.94	1.997	9.370
#2	25.58	27.28	56.55	53.08	2.157	2.010	19.75	1.992	9.339
#3	25.59	27.70	56.75	53.23	2.194	2.030	19.93	2.009	9.461

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**1.981**	**1.970**	**51.18**	**.0019**	**.0322**	**1.973**	**-.0347**
Stddev	.005	.015	.004	.21	.0084	.0056	.012	.0070
%RSD	.2658	.7317	.1978	.4041	448.8	17.43	.5900	20.06
#1	1.987	1.985	1.973	51.23	-.0049	.0346	1.983	-.0340
#2	1.988	1.965	1.972	50.95	.0113	.0257	1.960	-.0282
#3	1.978	1.993	1.966	51.35	-.0008	.0361	1.977	-.0421

Zoom In Zoom Out

Sample Name: mp20283-s2 Acquired: 3/17/2020 17:44:01 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**234940.**	**41641.**	**7227.8**	**12746.**
Stddev	545.	165.	27.6	48.
%RSD	.23194	.39567	.38129	.37950
#1	234460.	41456.	7225.1	12734.
#2	234840.	41772.	7256.6	12799.
#3	235530.	41697.	7201.7	12705.

Zoom In Zoom Out

Sample Name: jd4263-1a Acquired: 3/17/2020 17:49:00 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2089**	**.0002**	**.0010**	**.0016**	**.0107**	**.0046**	**.0035**	**.0050**	**.0042**
Stddev	.0010	.0004	.0003	.0005	.0007	.0017	.0002	.0006	.0016
%RSD	.4790	167.8	30.22	32.98	6.307	36.86	4.735	11.99	38.74
#1	.2099	-.0002	.0012	.0014	.0099	.0036	.0036	.0044	.0027
#2	.2079	.0006	.0010	.0012	.0109	.0066	.0036	.0056	.0059
#3	.2089	.0002	.0006	.0022	.0112	.0037	.0034	.0050	.0041

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0213**	**.0238**	**.0027**	**.0047**	**-.0019**	**.0115**	**.0105**	**-.2058**	F **1814.**
Stddev	.0007	.0007	.0020	.0013	.0051	.0083	.0008	.0460	9.
%RSD	3.418	2.822	72.06	28.01	269.3	71.88	7.603	22.36	.5236
#1	.0220	.0240	.0007	.0034	-.0031	.0105	.0111	-.2586	1809.
#2	.0212	.0230	.0029	.0060	-.0063	.0038	.0107	-.1745	1824.
#3	.0206	.0243	.0046	.0047	.0037	.0202	.0096	-.1843	1807.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0469**	**2.108**	**30.78**	**27.16**	**.2394**	**.0115**	**20.05**	**.0035**	**7.554**
Stddev	.0024	.060	.21	.18	.0020	.0004	.03	.0041	.038
%RSD	5.069	2.865	.6912	.6701	.8489	3.060	.1308	118.5	.5020
#1	.0441	2.162	31.00	27.33	.2399	.0113	20.02	.0069	7.595
#2	.0480	2.119	30.78	27.18	.2411	.0113	20.05	-.0011	7.549
#3	.0485	2.043	30.57	26.97	.2371	.0119	20.08	.0047	7.519

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0065**	**.0088**	**-.0013**	**51.73**	**.0053**	**.0314**	**.0212**	**-.0420**
Stddev	.0011	.0018	.0004	.15	.0091	.0006	.0047	.0076
%RSD	17.02	20.00	34.10	.2970	169.8	1.798	21.96	18.21
#1	-.0078	.0070	-.0018	51.58	.0148	.0320	.0163	-.0499
#2	-.0057	.0105	-.0011	51.72	.0043	.0308	.0256	-.0347
#3	-.0061	.0090	-.0010	51.88	-.0032	.0313	.0216	-.0413

Zoom In Zoom Out

Sample Name: jd4263-1a Acquired: 3/17/2020 17:49:00 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**232730.**	**41565.**	**7187.3**	**12752.**
Stddev	1855.	224.	10.9	6.
%RSD	.79694	.53994	.15188	.04488
#1	233590.	41676.	7176.5	12745.
#2	230600.	41307.	7186.9	12756.
#3	234000.	41712.	7198.4	12755.

Zoom In Zoom Out

Sample Name: mp20283-sd1 Acquired: 3/17/2020 17:54:08 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2182**	**.0010**	**-.0008**	**.0046**	**.0141**	**.0158**	**.0011**	**.0029**	**.0089**
Stddev	.0027	.0012	.0006	.0013	.0027	.0150	.0005	.0058	.0055
%RSD	1.238	128.4	79.84	28.83	18.95	94.84	42.48	202.2	61.48
#1	.2210	.0021	-.0014	.0055	.0169	.0032	.0016	.0041	.0042
#2	.2156	-.0003	-.0007	.0051	.0138	.0118	.0008	.0079	.0076
#3	.2181	.0011	-.0002	.0031	.0116	.0324	.0009	-.0034	.0149

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0167**	**.0440**	**.0082**	**-.0103**	**-.0068**	**.0189**	**.0250**	**.0487**	**2012.**
Stddev	.0094	.0015	.0353	.0245	.0485	.0153	.0141	.0346	4.
%RSD	56.35	3.300	429.9	237.4	710.5	81.07	56.17	71.19	.2231
#1	.0112	.0426	.0241	.0149	.0459	.0035	.0298	.0778	2015.
#2	.0114	.0438	.0328	-.0117	-.0167	.0341	.0092	.0579	2007.
#3	.0276	.0455	-.0323	-.0341	-.0497	.0189	.0361	.0104	2015.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1181**	**2.207**	**30.79**	**28.74**	**.2720**	**.0128**	**21.14**	**-.0087**	**8.031**
Stddev	.0210	.340	.49	.32	.0086	.0020	.03	.0040	.014
%RSD	17.75	15.40	1.590	1.100	3.156	15.80	.1364	45.75	.1718
#1	.1005	2.566	31.32	28.97	.2655	.0126	21.14	-.0090	8.044
#2	.1413	1.890	30.69	28.38	.2817	.0109	21.17	-.0046	8.016
#3	.1126	2.164	30.36	28.86	.2687	.0149	21.11	-.0125	8.033

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0046**	**.0308**	**-.0025**	**53.33**	**-.0007**	**-.0026**	**.0304**	**-.0132**
Stddev	.0028	.0252	.0006	.08	.0225	.0201	.0087	.0239
%RSD	61.59	81.81	22.50	.1462	3394.	773.5	28.80	181.1
#1	-.0059	.0168	-.0024	53.38	-.0258	.0112	.0357	-.0339
#2	-.0065	.0599	-.0021	53.24	.0062	.0067	.0351	-.0186
#3	-.0013	.0157	-.0032	53.37	.0176	-.0257	.0203	.0129

Zoom In Zoom Out

Sample Name: mp20283-sd1 Acquired: 3/17/2020 17:54:08 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**243760.**	**42324.**	**7625.2**	**13790.**
Stddev	944.	244.	10.3	19.
%RSD	.38743	.57662	.13544	.14075
#1	244480.	42205.	7627.8	13799.
#2	244100.	42604.	7634.0	13802.
#3	242690.	42162.	7613.8	13767.

Zoom In Zoom Out

Sample Name: jd4605-1 Acquired: 3/17/2020 17:59:13 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6168**	**-.0002**	**.0063**	**.0054**	**.0019**	**.0640**	**2.034**	**.0200**	**.0080**
Stddev	.0093	.0001	.0010	.0005	.0004	.0017	.011	.0008	.0015
%RSD	1.501	66.08	16.17	8.719	22.07	2.731	.5284	4.020	18.59
#1	.6272	-.0001	.0074	.0051	.0014	.0659	2.038	.0207	.0063
#2	.6136	-.0003	.0054	.0059	.0021	.0635	2.043	.0201	.0088
#3	.6096	-.0001	.0062	.0051	.0022	.0625	2.022	.0191	.0089

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0118**	**.0138**	**.0123**	**-.0007**	**.0055**	**.0117**	**.3324**	**-.1172**	F **2343.**
Stddev	.0026	.0004	.0053	.0073	.0038	.0148	.0034	.0192	45.
%RSD	22.00	3.008	42.84	991.2	69.46	126.1	1.037	16.39	1.907
#1	.0097	.0138	.0063	.0001	.0098	.0142	.3349	-.0953	2388.
#2	.0109	.0135	.0162	-.0084	.0028	.0252	.3339	-.1312	2342.
#3	.0147	.0143	.0144	.0061	.0037	-.0041	.3285	-.1251	2298.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0575**	**61.87**	**190.3**	**290.5**	**1.060**	**.1319**	**1.963**	**.0004**	**3.841**
Stddev	.0010	.74	2.3	3.8	.005	.0014	.160	.0006	.052
%RSD	1.752	1.199	1.185	1.318	.4378	1.075	8.174	164.1	1.358
#1	.0586	62.65	192.8	294.7	1.061	.1303	1.890	.0009	3.898
#2	.0568	61.79	189.7	289.7	1.064	.1329	1.851	.0004	3.832
#3	.0570	61.17	188.4	287.2	1.055	.1324	2.146	-.0003	3.794

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0042**	**.0280**	**-.0005**	**308.2**	**.0081**	**.1358**	**.1249**	**-.0418**
Stddev	.0009	.0035	.0008	.5	.0026	.0038	.0041	.0068
%RSD	20.75	12.46	156.1	.1642	31.78	2.780	3.257	16.36
#1	-.0032	.0257	-.0009	308.6	.0086	.1314	.1294	-.0455
#2	-.0046	.0262	-.0011	308.4	.0104	.1378	.1235	-.0459
#3	-.0047	.0320	.0004	307.7	.0053	.1382	.1217	-.0339

Zoom In Zoom Out

Sample Name: jd4605-1 Acquired: 3/17/2020 17:59:13 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**231990.**	**41424.**	**7133.2**	**12466.**
Stddev	1099.	251.	8.9	15.
%RSD	.47376	.60634	.12440	.12218
#1	233160.	41654.	7125.3	12453.
#2	230970.	41460.	7142.8	12482.
#3	231850.	41156.	7131.6	12462.

Zoom In Zoom Out

Sample Name: jd4605-2 Acquired: 3/17/2020 18:04:16 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6687**	**-.0000**	**.6903**	**.0677**	**.0037**	**.1462**	**2.236**	**.1097**	**.0099**
Stddev	.0107	.0001	.0114	.0021	.0015	.0011	.011	.0021	.0006
%RSD	1.601	332.6	1.644	3.113	41.45	.7285	.5109	1.942	5.786
#1	.6806	.0001	.6875	.0667	.0055	.1470	2.249	.1085	.0100
#2	.6655	-.0000	.7027	.0701	.0029	.1465	2.229	.1122	.0104
#3	.6600	-.0002	.6805	.0663	.0028	.1450	2.229	.1085	.0093

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0127**	**11.00**	**.0023**	**-.0050**	**.0839**	**.0115**	**.2604**	**-.3293**	F **2362.**
Stddev	.0007	.19	.0058	.0084	.0033	.0037	.0073	.0413	60.
%RSD	5.808	1.722	254.2	168.3	3.939	32.65	2.790	12.55	2.520
#1	.0119	10.96	.0066	-.0147	.0862	.0158	.2520	-.3207	2411.
#2	.0133	11.21	-.0043	.0007	.0853	.0092	.2644	-.3742	2379.
#3	.0129	10.84	.0045	-.0010	.0801	.0095	.2647	-.2929	2296.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0598**	**70.95**	**168.4**	**259.5**	**1.161**	**.1240**	**9.589**	**.0031**	**3.117**
Stddev	.0030	.91	2.2	3.7	.018	.0029	.158	.0004	.043
%RSD	5.013	1.277	1.308	1.435	1.592	2.298	1.642	12.15	1.377
#1	.0618	71.94	170.8	263.6	1.162	.1234	9.528	.0027	3.165
#2	.0563	70.77	167.8	258.6	1.179	.1271	9.768	.0031	3.103
#3	.0612	70.15	166.4	256.3	1.142	.1215	9.471	.0035	3.083

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0075**	**.0057**	**-.0003**	**301.5**	**.0064**	**.1334**	**.1174**	**-.0462**
Stddev	.0013	.0049	.0002	5.0	.0070	.0035	.0061	.0131
%RSD	17.83	86.00	79.61	1.669	109.6	2.627	5.196	28.37
#1	-.0087	.0026	-.0004	300.7	.0076	.1372	.1117	-.0312
#2	-.0061	.0031	-.0000	306.9	-.0011	.1302	.1166	-.0516
#3	-.0078	.0114	-.0004	296.9	.0126	.1329	.1239	-.0556

Zoom In Zoom Out

Sample Name: jd4605-2 Acquired: 3/17/2020 18:04:16 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**230510.**	**41032.**	**7027.2**	**12329.**
Stddev	822.	168.	103.5	170.
%RSD	.35648	.40972	1.4724	1.3794
#1	229900.	41032.	7059.8	12385.
#2	231440.	40864.	6911.3	12137.
#3	230180.	41200.	7110.4	12463.

Zoom In Zoom Out

Sample Name: jd4605-3 Acquired: 3/17/2020 18:09:14 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7312**	**-.0002**	**.0163**	**.0208**	**.0022**	**.0472**	**1.269**	**.0302**	**.0076**
Stddev	.0172	.0001	.0005	.0009	.0008	.0011	.009	.0019	.0004
%RSD	2.352	62.46	2.834	4.252	37.84	2.269	.6768	6.453	5.531
#1	.7495	-.0004	.0158	.0199	.0013	.0461	1.279	.0280	.0076
#2	.7288	-.0002	.0167	.0208	.0026	.0474	1.264	.0315	.0081
#3	.7153	-.0001	.0163	.0216	.0028	.0482	1.263	.0311	.0073

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0095**	**.0377**	**.0112**	**-.0052**	**.0022**	**.0102**	**.3706**	**-.3326**	F **2443.**
Stddev	.0007	.0005	.0045	.0039	.0014	.0029	.0055	.0284	53.
%RSD	7.705	1.446	39.95	74.12	65.73	28.16	1.497	8.542	2.156
#1	.0103	.0377	.0164	-.0069	.0006	.0079	.3766	-.3003	2483.
#2	.0088	.0372	.0085	-.0008	.0034	.0134	.3656	-.3534	2464.
#3	.0093	.0383	.0087	-.0080	.0024	.0093	.3697	-.3442	2384.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0601**	**66.96**	**179.7**	**271.2**	**1.175**	**.1039**	**5.652**	**-.0013**	**3.171**
Stddev	.0044	1.57	4.0	6.2	.008	.0011	.049	.0013	.076
%RSD	7.322	2.351	2.246	2.298	.6772	1.099	.8589	102.0	2.412
#1	.0648	68.57	183.9	277.8	1.181	.1039	5.685	-.0027	3.251
#2	.0560	66.86	179.4	270.4	1.166	.1027	5.596	.0000	3.162
#3	.0594	65.43	175.8	265.4	1.177	.1050	5.674	-.0013	3.099

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0067**	**.0275**	**-.0005**	**308.2**	**.0042**	**.1760**	**.1134**	**-.0390**
Stddev	.0022	.0056	.0011	2.1	.0031	.0009	.0014	.0101
%RSD	32.98	20.41	233.4	.6794	74.20	.4941	1.253	25.87
#1	-.0042	.0266	.0003	309.7	.0007	.1769	.1150	-.0502
#2	-.0085	.0225	-.0000	305.8	.0051	.1759	.1129	-.0361
#3	-.0075	.0336	-.0017	309.2	.0067	.1752	.1124	-.0306

Zoom In Zoom Out

Sample Name: jd4605-3 Acquired: 3/17/2020 18:09:14 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**229960.**	**41186.**	**7112.0**	**12448.**
Stddev	1050.	40.	53.5	87.
%RSD	.45645	.09735	.75222	.69605
#1	228810.	41229.	7078.1	12393.
#2	230210.	41180.	7173.6	12548.
#3	230870.	41149.	7084.1	12403.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 18:14:16 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**2.077**	**1.999**	**2.020**	**2.026**	**1.994**	**2.062**	**2.035**	**.2468**
Stddev	.003	.001	.001	.002	.005	.004	.018	.002	.0002
%RSD	.1693	.0365	.0642	.1154	.2462	.1736	.8631	.1017	.0746
#1	2.002	2.076	1.998	2.018	2.031	1.997	2.044	2.032	.2469
#2	1.997	2.076	2.000	2.023	2.025	1.990	2.079	2.036	.2466
#3	2.004	2.078	2.001	2.020	2.021	1.995	2.064	2.036	.2468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.035**	**2.039**	**1.997**	**2.063**	**2.025**	**1.996**	**1.993**	**39.55**	**40.09**
Stddev	.003	.001	.003	.009	.002	.005	.005	.03	.03
%RSD	.1247	.0260	.1547	.4514	.0909	.2619	.2482	.0699	.0728
#1	2.038	2.039	1.994	2.069	2.023	1.991	1.988	39.58	40.12
#2	2.034	2.038	1.996	2.052	2.026	1.995	1.994	39.52	40.08
#3	2.034	2.039	2.000	2.067	2.026	2.002	1.998	39.56	40.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.12**	**40.21**	**39.47**	**39.75**	**2.022**	**2.013**	**5.000**	**2.040**	**2.014**
Stddev	.04	.07	.01	.04	.003	.004	.009	.004	.012
%RSD	.0981	.1737	.0193	.1046	.1578	.1869	.1798	.1841	.5713
#1	40.14	40.23	39.46	39.75	2.023	2.008	4.991	2.036	2.000
#2	40.07	40.26	39.47	39.71	2.019	2.015	4.999	2.039	2.021
#3	40.14	40.13	39.48	39.79	2.025	2.015	5.009	2.044	2.020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 18:14:16 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**1.975**	**2.030**	**1.900**	**2.012**	**2.004**	**1.991**	**2.002**
Stddev	.004	.004	.006	.005	.002	.003	.001	.004
%RSD	.1764	.2007	.2801	.2460	.0916	.1427	.0477	.1778
#1	2.029	1.972	2.036	1.896	2.010	2.002	1.990	2.005
#2	2.022	1.979	2.030	1.899	2.014	2.002	1.990	1.998
#3	2.024	1.974	2.025	1.905	2.013	2.007	1.992	2.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**240840.**	**41711.**	**7495.4**	**13172.**
Stddev	970.	263.	10.3	11.
%RSD	.40286	.63080	.13710	.08556
#1	240490.	41574.	7498.1	13174.
#2	240090.	41544.	7504.1	13181.
#3	241930.	42014.	7484.1	13159.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 18:19:19 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0002**	**-.0000**	**.0002**	**.0005**	**.0001**	**-.0000**	**-.0005**
Stddev	.0003	.0000	.0002	.0002	.0002	.0001	.0000	.0003	.0003
%RSD	301.3	38.40	93.15	474.1	150.4	13.35	35.65	929.0	68.32
#1	-.0001	.0001	.0004	.0001	.0003	.0005	.0001	.0003	-.0002
#2	.0000	.0001	.0002	-.0002	.0003	.0004	.0001	-.0001	-.0004
#3	.0004	.0000	.0000	-.0000	-.0001	.0006	.0001	-.0002	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0004**	**.0004**	**.0006**	**-.0007**	**.0000**	**-.0012**	**.0076**	**-.0041**
Stddev	.0002	.0001	.0003	.0012	.0003	.0023	.0008	.0070	.0004
%RSD	129.2	37.86	89.08	189.7	38.90	5682.	67.18	91.33	8.985
#1	.0000	-.0005	.0004	.0005	-.0009	.0021	-.0005	.0090	-.0037
#2	.0000	-.0003	.0006	.0018	-.0007	.0004	-.0011	.0001	-.0043
#3	.0003	-.0003	.0000	-.0005	-.0004	-.0024	-.0021	.0138	-.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0009**	**.0312**	**.0016**	**.0020**	**-.0001**	**.0008**	**-.0001**	**.0001**
Stddev	.0008	.0034	.0376	.0024	.0009	.0000	.0003	.0006	.0000
%RSD	102.6	366.8	120.4	146.5	45.69	50.45	32.82	421.8	35.22
#1	.0003	-.0047	.0006	-.0001	.0028	-.0001	.0010	-.0007	.0001
#2	.0017	.0019	.0732	.0043	.0021	-.0000	.0008	.0005	.0001
#3	.0003	.0001	.0198	.0006	.0010	-.0001	.0005	-.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 18:19:19 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0006**	**.0002**	**.0064**	**.0013**	**.0011**	**.0010**	**.0013**
Stddev	.0002	.0006	.0001	.0010	.0014	.0008	.0004	.0010
%RSD	102.1	101.8	33.22	15.51	108.9	73.63	40.83	73.90
#1	.0005	-.0001	.0001	.0073	.0029	.0020	.0008	.0005
#2	.0000	.0009	.0001	.0053	.0003	.0003	.0015	.0024
#3	.0002	.0009	.0002	.0068	.0007	.0011	.0007	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249990.**	**42579.**	**7729.5**	**14233.**
Stddev	1437.	33.	45.1	67.
%RSD	.57493	.07693	.58361	.47333
#1	250690.	42580.	7781.5	14308.
#2	248340.	42545.	7702.8	14180.
#3	250950.	42611.	7704.0	14209.

Zoom In Zoom Out

Sample Name: jd4605-4 Acquired: 3/17/2020 18:24:28 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3435**	**.0005**	**.8067**	**.1436**	**.0037**	**.0866**	**2.947**	**.2224**	**.0100**
Stddev	.0013	.0004	.0078	.0015	.0012	.0004	.015	.0013	.0013
%RSD	.3886	71.10	.9659	1.037	31.44	.4802	.5228	.6006	12.93
#1	.3422	.0002	.7977	.1419	.0050	.0862	2.954	.2208	.0111
#2	.3434	.0009	.8116	.1445	.0027	.0864	2.958	.2233	.0102
#3	.3449	.0005	.8107	.1444	.0034	.0870	2.930	.2229	.0086

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0162**	F **54.68**	**.0083**	**-.0077**	**.6432**	**.0236**	**.1576**	**1.040**	F **1937.**
Stddev	.0010	.29	.0042	.0081	.0059	.0053	.0012	.045	30.
%RSD	5.932	.5339	50.71	105.1	.9199	22.43	.7686	4.367	1.557
#1	.0174	54.34	.0039	-.0033	.6365	.0184	.1578	.9994	1918.
#2	.0157	54.85	.0087	-.0171	.6474	.0290	.1563	1.032	1972.
#3	.0157	54.85	.0123	-.0028	.6459	.0234	.1587	1.089	1922.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.924**	**83.94**	**108.2**	**180.6**	**1.271**	**.0583**	**30.86**	**-.0007**	**2.912**
Stddev	.006	.12	.2	.4	.006	.0002	.57	.0033	.002
%RSD	.2040	.1386	.1515	.2103	.4969	.3671	1.844	494.8	.0657
#1	2.918	84.06	108.1	180.6	1.266	.0581	30.24	-.0004	2.914
#2	2.930	83.83	108.4	181.0	1.270	.0585	30.98	-.0041	2.913
#3	2.925	83.93	108.1	180.2	1.278	.0583	31.36	.0025	2.910

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0062**	**-.0829**	**-.0029**	**263.9**	**.0041**	**.1176**	**.0548**	**-.0374**
Stddev	.0032	.0048	.0004	1.3	.0054	.0028	.0077	.0146
%RSD	52.13	5.764	14.72	.4784	132.1	2.381	14.08	39.18
#1	-.0084	-.0794	-.0026	262.5	.0039	.1171	.0483	-.0324
#2	-.0078	-.0884	-.0034	264.4	.0095	.1150	.0527	-.0538
#3	-.0025	-.0809	-.0028	264.8	-.0012	.1206	.0633	-.0258

Zoom In Zoom Out

Sample Name: jd4605-4 Acquired: 3/17/2020 18:24:28 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**231260.**	**41445.**	**7169.3**	**12625.**
Stddev	1128.	312.	42.1	71.
%RSD	.48756	.75378	.58698	.56431
#1	231560.	41751.	7217.9	12707.
#2	230010.	41126.	7146.2	12588.
#3	232210.	41458.	7143.9	12579.

Zoom In Zoom Out

Sample Name: mp20282-mb1 Acquired: 3/17/2020 18:29:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**.0006**	**.0009**	**.0003**	**.0016**	**.0013**	**.0014**	**.0072**	**.0005**
Stddev	.0008	.0001	.0007	.0008	.0017	.0016	.0000	.0012	.0007
%RSD	14.12	17.37	83.73	272.8	107.9	127.2	2.887	16.13	152.4
#1	.0058	.0006	.0009	.0011	.0026	-.0005	.0014	.0075	.0012
#2	.0061	.0005	.0001	-.0005	-.0004	.0026	.0015	.0083	-.0003
#3	.0046	.0007	.0015	.0002	.0025	.0017	.0014	.0060	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0018**	**.0550**	**.0051**	**.0048**	**.0027**	**-.0016**	**.0019**	**.0165**	**.3918**
Stddev	.0019	.0004	.0023	.0011	.0051	.0033	.0039	.0423	.0111
%RSD	106.8	.6699	44.69	23.14	188.1	207.1	201.4	255.7	2.842
#1	-.0013	.0546	.0070	.0038	.0010	-.0021	-.0025	.0024	.4030
#2	-.0039	.0551	.0057	.0060	.0084	-.0046	.0050	-.0169	.3917
#3	-.0001	.0553	.0026	.0045	-.0013	.0019	.0032	.0640	.3807

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0151**	**.0559**	**.4049**	F **1001.**	**.0135**	**-.0003**	**.5330**	**.0021**	**.0114**
Stddev	.0080	.0681	.0311	9.	.0023	.0010	.0270	.0008	.0005
%RSD	52.75	121.8	7.670	.8882	17.31	333.5	5.067	40.31	4.345
#1	.0114	.1322	.4349	995.7	.0109	-.0015	.5611	.0030	.0112
#2	.0097	.0013	.3729	995.4	.0140	.0003	.5305	.0019	.0120
#3	.0243	.0342	.4070	1011.	.0155	.0002	.5073	.0013	.0111

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0006**	**-.0004**	**.0857**	**-.0020**	**.0265**	**.0041**	**-.0032**
Stddev	.0015	.0056	.0003	.0095	.0063	.0016	.0048	.0199
%RSD	1132.	885.6	60.01	11.12	320.9	6.049	118.2	628.2
#1	-.0005	-.0051	-.0003	.0929	-.0026	.0254	.0035	-.0023
#2	.0019	-.0025	-.0003	.0892	.0046	.0283	-.0004	-.0235
#3	-.0010	.0057	-.0008	.0749	-.0079	.0257	.0092	.0163

Zoom In Zoom Out

Sample Name: mp20282-mb1 Acquired: 3/17/2020 18:29:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**241870.**	**41962.**	**7484.2**	**13094.**
Stddev	4998.	165.	15.5	30.
%RSD	2.0663	.39378	.20708	.22627
#1	239410.	41782.	7496.2	13121.
#2	238570.	41996.	7489.7	13100.
#3	247620.	42107.	7466.7	13062.

Zoom In Zoom Out

Sample Name: mp20282-b1 Acquired: 3/17/2020 18:34:33 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**2.071**	**2.015**	**2.021**	**2.027**	**1.906**	**2.052**	**2.083**	**.2600**
Stddev	.001	.005	.022	.018	.006	.002	.009	.015	.0016
%RSD	.0615	.2342	1.076	.8785	.2749	.0817	.4654	.7306	.6117
#1	2.001	2.076	1.991	2.001	2.028	1.908	2.054	2.066	.2586
#2	2.000	2.067	2.032	2.034	2.020	1.905	2.041	2.090	.2597
#3	2.002	2.070	2.023	2.029	2.031	1.906	2.060	2.094	.2618

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.009**	**2.156**	**2.036**	**2.085**	**2.051**	**2.018**	**2.025**	**25.64**	**26.35**
Stddev	.007	.016	.015	.007	.011	.019	.026	.05	.05
%RSD	.3712	.7395	.7151	.3546	.5458	.9257	1.284	.1837	.1714
#1	2.009	2.138	2.020	2.077	2.039	1.999	1.995	25.66	26.40
#2	2.001	2.167	2.040	2.091	2.058	2.036	2.041	25.67	26.33
#3	2.016	2.163	2.049	2.087	2.058	2.019	2.039	25.58	26.31

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.43**	**26.24**	**26.17**	F **1110.**	**1.996**	**2.050**	**.5479**	**2.084**	**2.034**
Stddev	.06	.08	.06	17.	.016	.018	.0083	.023	.001
%RSD	.2080	.3018	.2479	1.500	.7997	.8775	1.515	1.092	.0242
#1	26.49	26.33	26.18	1129.	1.977	2.030	.5491	2.058	2.033
#2	26.40	26.20	26.23	1098.	2.006	2.062	.5391	2.096	2.034
#3	26.39	26.19	26.10	1103.	2.004	2.060	.5556	2.099	2.034

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.058**	**1.992**	**2.045**	**-.0419**	**.0046**	**.0524**	**2.004**	**-.0174**
Stddev	.005	.019	.002	.0029	.0020	.0066	.014	.0065
%RSD	.2596	.9436	.1005	7.043	43.85	12.55	.6875	37.27
#1	2.057	1.971	2.046	-.0391	.0067	.0467	1.992	-.0173
#2	2.053	2.002	2.043	-.0415	.0028	.0596	2.019	-.0110
#3	2.064	2.005	2.047	-.0450	.0042	.0508	2.002	-.0239

Zoom In Zoom Out

Sample Name: mp20282-b1 Acquired: 3/17/2020 18:34:33 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**240750.**	**41887.**	**7536.3**	**13064.**
Stddev	1288.	298.	50.9	81.
%RSD	.53488	.71046	.67478	.62249
#1	240950.	41588.	7595.1	13157.
#2	241930.	41891.	7507.7	13023.
#3	239380.	42183.	7506.3	13010.

Zoom In Zoom Out

Sample Name: mp20282-s1 Acquired: 3/17/2020 18:39:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**2.036**	**1.987**	**1.979**	**1.953**	**1.963**	**1.970**	**1.992**	**.2584**
Stddev	.002	.001	.020	.020	.002	.006	.004	.020	.0006
%RSD	.0821	.0366	.9959	.9962	.0879	.3117	.1844	.9804	.2192
#1	1.994	2.035	1.997	1.991	1.954	1.969	1.967	2.002	.2583
#2	1.993	2.035	1.964	1.956	1.953	1.963	1.974	1.970	.2590
#3	1.991	2.037	2.000	1.989	1.951	1.957	1.969	2.005	.2579

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**1.962**	**2.071**	**1.967**	**1.944**	**2.006**	**2.050**	**25.45**	F **295.9**
Stddev	.003	.019	.019	.022	.018	.017	.020	.07	4.9
%RSD	.1295	.9715	.9288	1.122	.9390	.8388	.9534	.2772	1.657
#1	1.983	1.970	2.081	1.985	1.953	2.021	2.059	25.38	290.5
#2	1.978	1.940	2.049	1.942	1.923	1.988	2.028	25.52	300.1
#3	1.978	1.976	2.083	1.973	1.956	2.010	2.063	25.44	297.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.55**	**24.93**	**31.13**	F **289.9**	**2.137**	**2.030**	**1.343**	**1.996**	**2.391**
Stddev	.11	.13	.05	6.1	.023	.020	.014	.018	.029
%RSD	.4165	.5040	.1701	2.113	1.089	.9770	1.058	.9096	1.219
#1	25.45	24.79	31.09	282.9	2.148	2.038	1.353	2.003	2.375
#2	25.66	25.03	31.19	292.7	2.110	2.007	1.326	1.975	2.374
#3	25.53	24.97	31.11	294.1	2.152	2.044	1.348	2.009	2.425

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.026**	**1.975**	**2.033**	**92.33**	**.0000**	**.0224**	**3.317**	**-.0078**
Stddev	.002	.021	.004	.92	.0015	.0029	.029	.0024
%RSD	.0852	1.053	.2136	.9992	29870.	12.77	.8905	31.10
#1	2.027	1.985	2.037	92.99	.0015	.0195	3.337	-.0056
#2	2.025	1.951	2.033	91.28	.0000	.0223	3.283	-.0075
#3	2.024	1.989	2.029	92.72	-.0015	.0253	3.330	-.0104

Zoom In Zoom Out

Sample Name: mp20282-s1 Acquired: 3/17/2020 18:39:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**231640.**	**41631.**	**7145.2**	**12294.**
Stddev	608.	377.	55.5	93.
%RSD	.26257	.90662	.77732	.75676
#1	232000.	42066.	7128.0	12254.
#2	231990.	41431.	7207.3	12401.
#3	230940.	41395.	7100.3	12228.

Zoom In Zoom Out

Sample Name: mp20282-s2 Acquired: 3/17/2020 18:44:38 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.970**	**2.019**	**1.969**	**1.963**	**1.936**	**1.944**	**1.967**	**1.976**	**.2547**
Stddev	.005	.009	.004	.002	.002	.002	.007	.003	.0001
%RSD	.2561	.4349	.2309	.0980	.1019	.1213	.3657	.1469	.0493
#1	1.968	2.017	1.974	1.965	1.937	1.946	1.971	1.980	.2549
#2	1.967	2.011	1.965	1.961	1.934	1.941	1.959	1.974	.2546
#3	1.976	2.028	1.970	1.962	1.937	1.944	1.972	1.975	.2547

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.970**	**1.950**	**2.064**	**1.933**	**1.939**	**1.991**	**2.044**	**24.93**	F **276.5**
Stddev	.004	.004	.009	.002	.006	.004	.005	.04	2.4
%RSD	.1834	.2208	.4482	.1263	.3088	.2255	.2683	.1570	.8758
#1	1.972	1.954	2.073	1.932	1.945	1.995	2.050	24.90	274.0
#2	1.966	1.945	2.055	1.936	1.936	1.986	2.039	24.92	278.8
#3	1.971	1.951	2.062	1.932	1.935	1.991	2.043	24.98	276.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.98**	**24.45**	**30.10**	F **264.8**	**2.104**	**2.027**	**1.246**	**1.995**	**2.320**
Stddev	.05	.03	.01	4.5	.008	.005	.004	.007	.029
%RSD	.1913	.1139	.0222	1.689	.3850	.2560	.3121	.3513	1.244
#1	25.00	24.44	30.10	267.9	2.109	2.033	1.250	2.003	2.305
#2	24.93	24.42	30.10	266.8	2.095	2.023	1.243	1.989	2.301
#3	25.02	24.48	30.09	259.7	2.109	2.025	1.244	1.993	2.353

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**1.965**	**2.026**	**83.46**	**.0001**	**.0236**	**3.160**	**-.0107**
Stddev	.002	.006	.001	.34	.0016	.0013	.012	.0013
%RSD	.0994	.3187	.0440	.4105	2172.	5.337	.3624	12.57
#1	2.025	1.972	2.027	83.85	.0019	.0224	3.171	-.0108
#2	2.022	1.959	2.026	83.21	-.0012	.0235	3.149	-.0120
#3	2.025	1.964	2.026	83.32	-.0005	.0249	3.161	-.0093

Zoom In Zoom Out

Sample Name: mp20282-s2 Acquired: 3/17/2020 18:44:38 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**230730.**	**41338.**	**7142.0**	**12312.**
Stddev	513.	180.	19.2	27.
%RSD	.22232	.43503	.26832	.21745
#1	230300.	41512.	7126.3	12288.
#2	231300.	41351.	7163.4	12341.
#3	230590.	41153.	7136.3	12306.

Zoom In Zoom Out

Sample Name: jd4436-10a Acquired: 3/17/2020 18:49:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0382**	**-.0000**	**.0001**	**.0008**	**.0019**	**.0045**	**.0002**	**.0096**	**.0009**
Stddev	.0002	.0000	.0001	.0002	.0003	.0001	.0000	.0003	.0002
%RSD	.5473	112.2	94.52	26.57	13.19	2.601	18.56	3.496	21.48
#1	.0381	-.0000	.0002	.0010	.0019	.0046	.0002	.0097	.0010
#2	.0381	-.0001	-.0000	.0008	.0017	.0044	.0001	.0099	.0011
#3	.0385	-.0000	.0002	.0006	.0022	.0044	.0002	.0092	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0019**	**.0013**	**-.0010**	**-.0001**	**.0025**	**.0002**	**.1282**	F **251.4**
Stddev	.0002	.0001	.0001	.0007	.0008	.0018	.0011	.0054	3.3
%RSD	11.47	6.248	9.010	63.72	1510.	71.53	459.6	4.212	1.300
#1	.0016	.0017	.0012	-.0015	-.0009	.0017	.0013	.1331	251.5
#2	.0020	.0019	.0014	-.0003	.0007	.0045	-.0008	.1224	254.7
#3	.0020	.0020	.0014	-.0013	.0000	.0012	.0001	.1290	248.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0111**	**.0882**	**4.842**	F **238.1**	**.1644**	**.0160**	**1.116**	**.0008**	**.4029**
Stddev	.0016	.0059	.027	1.9	.0024	.0005	.020	.0002	.0010
%RSD	14.37	6.646	.5594	.8015	1.460	2.941	1.798	21.49	.2534
#1	.0122	.0930	4.831	238.0	.1660	.0164	1.129	.0006	.4030
#2	.0092	.0816	4.821	240.0	.1655	.0162	1.126	.0009	.4018
#3	.0118	.0900	4.872	236.2	.1617	.0155	1.093	.0010	.4038

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0021**	**-.0002**	**84.09**	**.0007**	**.0205**	**1.181**	**-.0045**
Stddev	.0000	.0003	.0001	1.35	.0003	.0016	.020	.0007
%RSD	4.388	16.60	66.08	1.602	38.86	7.765	1.691	15.96
#1	-.0010	.0024	-.0001	84.72	.0010	.0206	1.192	-.0038
#2	-.0010	.0017	-.0003	85.01	.0008	.0188	1.193	-.0052
#3	-.0011	.0022	-.0001	82.55	.0004	.0220	1.158	-.0043

Zoom In Zoom Out

Sample Name: jd4436-10a Acquired: 3/17/2020 18:49:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**232180.**	**41680.**	**7222.5**	**12554.**
Stddev	471.	222.	84.0	134.
%RSD	.20300	.53231	1.1632	1.0651
#1	232540.	41663.	7165.9	12457.
#2	231650.	41467.	7182.6	12499.
#3	232350.	41909.	7319.0	12707.

Zoom In Zoom Out

Sample Name: mp20282-sd1 Acquired: 3/17/2020 18:55:06 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0392**	**.0005**	**.0008**	**.0006**	**.0032**	**.0067**	**.0002**	**.0093**	**.0023**
Stddev	.0011	.0004	.0005	.0008	.0007	.0026	.0000	.0011	.0014
%RSD	2.765	96.90	69.32	124.7	20.73	38.80	19.76	11.80	62.36
#1	.0391	.0005	.0010	.0011	.0024	.0048	.0003	.0082	.0013
#2	.0404	.0009	.0011	-.0003	.0036	.0056	.0002	.0093	.0016
#3	.0382	.0000	.0002	.0010	.0036	.0096	.0003	.0104	.0039

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0090**	**.0046**	**.0056**	**.0001**	**-.0004**	**-.0051**	**.1850**	**269.6**
Stddev	.0006	.0005	.0017	.0025	.0025	.0078	.0050	.0146	.3
%RSD	94.01	5.215	36.60	45.00	2937.	2183.	98.88	7.878	.1017
#1	.0001	.0089	.0060	.0083	.0025	.0086	-.0080	.1970	269.9
#2	.0012	.0086	.0027	.0051	.0002	-.0047	-.0079	.1688	269.3
#3	.0005	.0095	.0049	.0033	-.0025	-.0049	.0007	.1893	269.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0242**	**.0858**	**5.240**	**254.2**	**.1740**	**.0168**	**1.178**	**.0001**	**.4154**
Stddev	.0094	.0258	.077	.4	.0030	.0010	.008	.0012	.0018
%RSD	38.95	30.08	1.471	.1640	1.730	6.222	.6573	1893.	.4317
#1	.0330	.1068	5.200	254.7	.1774	.0177	1.186	-.0003	.4171
#2	.0143	.0937	5.329	253.9	.1718	.0170	1.171	-.0010	.4135
#3	.0253	.0570	5.191	254.1	.1727	.0157	1.178	.0014	.4157

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0085**	**.0005**	**84.86**	**-.0020**	**.0427**	**1.196**	**-.0064**
Stddev	.0014	.0020	.0006	.33	.0030	.0098	.011	.0106
%RSD	297.0	23.46	132.4	.3923	153.5	22.87	.9033	165.5
#1	-.0011	.0107	.0005	85.08	-.0034	.0518	1.197	.0058
#2	.0011	.0069	-.0002	84.48	-.0040	.0324	1.184	-.0130
#3	-.0015	.0078	.0011	85.02	.0015	.0439	1.206	-.0121

Zoom In Zoom Out

Sample Name: mp20282-sd1 Acquired: 3/17/2020 18:55:06 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**245370.**	**42412.**	**7590.3**	**13555.**
Stddev	403.	80.	40.2	80.
%RSD	.16431	.18942	.52993	.58848
#1	245450.	42339.	7559.6	13507.
#2	244930.	42397.	7635.8	13647.
#3	245730.	42498.	7575.5	13511.

Zoom In Zoom Out

Sample Name: jd4540-1a Acquired: 3/17/2020 19:00:05 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6193**	**.0003**	**.0016**	**.0317**	**.0041**	**.0773**	**1.355**	**.0156**	**.0041**
Stddev	.0018	.0002	.0003	.0008	.0007	.0013	.022	.0008	.0008
%RSD	.2846	66.51	15.68	2.455	16.46	1.732	1.595	5.252	19.96
#1	.6203	.0003	.0019	.0317	.0034	.0787	1.367	.0155	.0043
#2	.6203	.0001	.0014	.0309	.0048	.0771	1.368	.0165	.0032
#3	.6173	.0006	.0016	.0325	.0041	.0760	1.330	.0148	.0049

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056**	**.1987**	**.0069**	**.0048**	**.3034**	**.0051**	**.0023**	**1.106**	**428.5**
Stddev	.0012	.0014	.0097	.0063	.0032	.0093	.0133	.021	.8
%RSD	21.44	.6856	140.9	130.0	1.041	180.9	590.6	1.921	.1786
#1	.0070	.1996	.0104	.0103	.3003	.0108	-.0130	1.119	429.3
#2	.0049	.1993	.0143	-.0021	.3033	-.0056	.0114	1.082	427.8
#3	.0049	.1971	-.0041	.0063	.3066	.0101	.0084	1.118	428.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0290**	**14.86**	**6.432**	F **1265.**	**.2792**	**.0005**	**1.644**	**-.0009**	**2.344**
Stddev	.0045	.08	.048	16.	.0057	.0006	.021	.0010	.006
%RSD	15.44	.5064	.7533	1.262	2.044	111.7	1.275	102.1	.2590
#1	.0336	14.86	6.483	1251.	.2825	.0005	1.656	-.0007	2.350
#2	.0289	14.93	6.387	1263.	.2826	-.0001	1.656	-.0001	2.343
#3	.0246	14.78	6.425	1282.	.2727	.0011	1.620	-.0020	2.338

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0062**	**.0006**	**1.932**	**.0005**	**.0690**	**.0171**	**-.0162**
Stddev	.0008	.0049	.0002	.014	.0084	.0062	.0035	.0133
%RSD	104.3	78.93	34.00	.7141	1765.	8.932	20.29	82.11
#1	-.0004	.0056	.0008	1.945	-.0063	.0621	.0137	-.0058
#2	-.0002	.0016	.0004	1.932	.0098	.0740	.0171	-.0115
#3	-.0017	.0114	.0007	1.918	-.0021	.0709	.0206	-.0311

Zoom In Zoom Out

Sample Name: jd4540-1a Acquired: 3/17/2020 19:00:05 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**237510.**	**41701.**	**7350.2**	**12706.**
Stddev	2407.	245.	26.2	44.
%RSD	1.0134	.58647	.35657	.34651
#1	235880.	41801.	7337.6	12685.
#2	236380.	41880.	7332.6	12677.
#3	240280.	41422.	7380.3	12757.

Zoom In Zoom Out

Sample Name: jd4540-3a Acquired: 3/17/2020 19:05:08 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3390**	**.0007**	**.0010**	**.0187**	**.0044**	**.0095**	**.9072**	**.0318**	**.0043**
Stddev	.0026	.0001	.0009	.0015	.0008	.0014	.0039	.0010	.0008
%RSD	.7737	7.385	84.27	7.756	18.17	14.65	.4257	3.132	17.62
#1	.3414	.0007	.0012	.0181	.0037	.0111	.9117	.0321	.0052
#2	.3393	.0006	.0001	.0177	.0053	.0085	.9048	.0326	.0037
#3	.3362	.0007	.0018	.0204	.0042	.0090	.9052	.0307	.0041

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030**	**.1185**	**.0140**	**-.0032**	**.0710**	**-.0035**	**.0009**	**.2803**	**159.3**
Stddev	.0025	.0006	.0054	.0091	.0030	.0056	.0028	.0206	1.4
%RSD	83.80	.5176	38.23	284.2	4.199	162.2	333.1	7.351	.8551
#1	.0046	.1183	.0195	-.0128	.0738	-.0011	-.0009	.3039	160.4
#2	.0001	.1192	.0137	.0054	.0679	.0006	.0041	.2706	159.6
#3	.0042	.1180	.0088	-.0022	.0713	-.0098	-.0007	.2663	157.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0490**	**11.60**	**8.091**	F **1209.**	**.2634**	**.0001**	**10.18**	**-.0015**	**.8282**
Stddev	.0128	.13	.110	12.	.0018	.0011	.05	.0015	.0086
%RSD	26.16	1.128	1.358	1.023	.6967	1355.	.4835	102.3	1.040
#1	.0514	11.67	8.218	1216.	.2647	.0013	10.21	-.0024	.8361
#2	.0605	11.69	8.027	1195.	.2613	-.0007	10.19	.0003	.8296
#3	.0352	11.45	8.028	1217.	.2641	-.0003	10.12	-.0023	.8190

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0075**	**-.0013**	**4.803**	**.0068**	**.0886**	**.0397**	**-.0086**
Stddev	.0006	.0027	.0005	.028	.0066	.0085	.0012	.0093
%RSD	102.4	36.39	35.33	.5859	97.03	9.607	3.031	107.9
#1	.0010	.0106	-.0015	4.828	.0011	.0788	.0411	.0008
#2	.0007	.0058	-.0017	4.807	.0053	.0930	.0391	-.0178
#3	-.0001	.0060	-.0008	4.773	.0141	.0939	.0390	-.0089

Zoom In Zoom Out

Sample Name: jd4540-3a Acquired: 3/17/2020 19:05:08 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**240000.**	**41845.**	**7452.6**	**12916.**
Stddev	612.	74.	18.2	32.
%RSD	.25487	.17800	.24454	.24447
#1	239290.	41926.	7445.0	12892.
#2	240340.	41781.	7439.5	12906.
#3	240360.	41827.	7473.4	12952.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 19:10:13 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**2.070**	**1.997**	**2.021**	**2.032**	**1.991**	**2.048**	**2.028**	**.2476**
Stddev	.025	.024	.003	.002	.013	.011	.014	.003	.0013
%RSD	1.271	1.142	.1567	.1167	.6388	.5298	.6577	.1246	.5066
#1	2.008	2.086	1.999	2.023	2.023	1.989	2.048	2.031	.2470
#2	2.008	2.081	1.998	2.022	2.025	1.982	2.034	2.027	.2467
#3	1.964	2.043	1.993	2.019	2.047	2.003	2.061	2.026	.2490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**2.037**	**1.983**	**2.081**	**2.015**	**1.991**	**1.986**	**39.44**	**39.84**
Stddev	.017	.001	.000	.014	.003	.004	.003	.50	.47
%RSD	.8041	.0648	.0147	.6543	.1497	.1768	.1515	1.279	1.185
#1	2.037	2.038	1.983	2.091	2.017	1.994	1.990	39.73	40.13
#2	2.048	2.038	1.983	2.086	2.011	1.987	1.985	39.73	40.09
#3	2.069	2.036	1.983	2.066	2.016	1.991	1.984	38.86	39.30
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.24**	**40.07**	**39.38**	**39.90**	**2.013**	**1.994**	**4.994**	**2.026**	**2.009**
Stddev	.51	.46	.45	.53	.002	.001	.003	.003	.011
%RSD	1.258	1.157	1.153	1.325	.0953	.0493	.0679	.1617	.5215
#1	40.57	40.42	39.65	40.23	2.013	1.995	4.994	2.028	2.006
#2	40.49	40.24	39.63	40.18	2.014	1.993	4.990	2.028	2.000
#3	39.66	39.54	38.85	39.29	2.010	1.994	4.996	2.022	2.021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 19:10:13 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.034**	**1.958**	**2.022**	**1.874**	**1.992**	**2.010**	**1.980**	**2.001**
Stddev	.013	.003	.011	.003	.002	.026	.005	.014
%RSD	.6160	.1724	.5281	.1767	.1104	1.320	.2367	.7215
#1	2.025	1.959	2.018	1.877	1.990	2.026	1.986	1.991
#2	2.028	1.954	2.015	1.870	1.993	2.025	1.979	1.994
#3	2.048	1.961	2.035	1.875	1.994	1.979	1.976	2.017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**241650.**	**41927.**	**7553.4**	**13270.**
Stddev	1933.	243.	5.0	3.
%RSD	.79994	.58036	.06558	.02342
#1	243420.	41667.	7558.7	13271.
#2	241950.	41963.	7548.8	13272.
#3	239590.	42150.	7552.8	13266.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 19:15:15 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0002**	**.0002**	**.0002**	**.0001**	**.0007**	**.0001**	**.0001**	**.0004**
Stddev	.0003	.0001	.0001	.0002	.0002	.0002	.0000	.0002	.0002
%RSD	165.2	43.39	60.89	105.0	167.7	35.38	47.25	202.1	51.45
#1	-.0001	.0001	.0002	.0004	.0001	.0004	.0001	-.0000	.0005
#2	.0001	.0002	.0003	.0004	-.0001	.0009	.0001	.0003	.0006
#3	.0005	.0002	.0001	-.0000	.0003	.0007	.0001	-.0000	.0002
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001							
Low Limit		-.0001							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0004**	**.0002**	**.0002**	**.0007**	**-.0003**	**.0102**	**-.0008**
Stddev	.0003	.0001	.0007	.0008	.0003	.0020	.0002	.0040	.0008
%RSD	807.8	41.16	185.7	357.6	141.1	276.0	66.99	39.25	96.71
#1	.0004	-.0001	.0011	.0009	.0003	.0028	-.0004	.0148	.0001
#2	-.0003	-.0003	-.0001	.0003	.0005	.0008	-.0001	.0082	-.0014
#3	-.0000	-.0002	.0001	-.0006	-.0001	-.0013	-.0003	.0076	-.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0063**	**.0391**	**.0713**	**.0022**	**.0001**	**.0014**	**-.0005**	**.0001**
Stddev	.0013	.0099	.0130	.0060	.0005	.0002	.0008	.0005	.0000
%RSD	45.28	156.2	33.18	8.452	21.58	248.9	57.75	93.53	11.06
#1	.0016	-.0046	.0414	.0711	.0021	.0001	.0008	-.0011	.0001
#2	.0043	.0147	.0507	.0774	.0027	-.0001	.0023	-.0003	.0001
#3	.0029	.0089	.0251	.0654	.0018	.0003	.0010	-.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 19:15:15 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0004**	**.0002**	**.0030**	**.0000**	F **.0047**	**.0003**	**.0012**
Stddev	.0002	.0003	.0001	.0013	.0014	.0014	.0003	.0013
%RSD	96.49	63.07	27.78	42.44	4337.	30.25	87.58	113.5
#1	.0000	.0001	.0001	.0024	.0016	.0058	.0006	.0026
#2	.0003	.0006	.0002	.0022	-.0008	.0031	.0005	-.0000
#3	.0001	.0005	.0002	.0045	-.0007	.0052	.0000	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0023		
Low Limit						-.0023		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249620.**	**42295.**	**7796.9**	**14332.**
Stddev	1759.	159.	13.3	28.
%RSD	.70481	.37635	.17086	.19593
#1	247860.	42450.	7795.4	14343.
#2	249620.	42132.	7810.9	14353.
#3	251380.	42304.	7784.4	14300.

Zoom In Zoom Out

Sample Name: jd4540-5a Acquired: 3/17/2020 19:20:21 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2561**	**.0006**	**.0006**	**.0033**	**.0040**	**.0084**	**.1758**	**.0060**	**-.0006**
Stddev	.0010	.0002	.0007	.0010	.0005	.0011	.0013	.0007	.0010
%RSD	.4053	32.25	131.2	29.15	13.00	12.60	.7383	11.36	172.2
#1	.2570	.0008	.0013	.0040	.0037	.0074	.1768	.0061	-.0016
#2	.2563	.0004	.0004	.0036	.0036	.0095	.1762	.0053	-.0006
#3	.2550	.0006	-.0001	.0022	.0045	.0082	.1743	.0066	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0471**	**.0013**	**-.0017**	**.0225**	**.0044**	**.0031**	**.1318**	**38.52**
Stddev	.0018	.0002	.0022	.0062	.0008	.0033	.0039	.0104	.28
%RSD	157.8	.3631	166.4	372.8	3.622	76.50	127.0	7.873	.7390
#1	.0010	.0470	.0010	-.0053	.0216	.0010	.0033	.1358	38.82
#2	.0030	.0473	.0037	.0055	.0232	.0044	-.0009	.1200	38.49
#3	-.0006	.0472	-.0007	-.0051	.0227	.0076	.0069	.1395	38.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0168**	**7.096**	**4.989**	F **1203.**	**.2651**	**-.0004**	**1.434**	**-.0012**	**.2735**
Stddev	.0039	.106	.094	22.	.0045	.0005	.002	.0003	.0026
%RSD	23.47	1.494	1.891	1.832	1.704	131.1	.1597	21.40	.9651
#1	.0193	7.178	5.082	1218.	.2637	-.0001	1.436	-.0013	.2762
#2	.0187	7.133	4.893	1178.	.2615	-.0001	1.432	-.0009	.2734
#3	.0122	6.976	4.992	1214.	.2702	-.0009	1.435	-.0014	.2709

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0035**	**-.0013**	**3.265**	**-.0023**	**.0562**	**.0132**	**-.0045**
Stddev	.0011	.0047	.0003	.023	.0022	.0139	.0031	.0012
%RSD	169.7	136.2	22.95	.7174	94.04	24.71	23.35	27.67
#1	-.0005	.0043	-.0010	3.238	-.0048	.0447	.0159	-.0060
#2	.0017	-.0016	-.0012	3.275	-.0008	.0522	.0099	-.0038
#3	.0007	.0077	-.0016	3.281	-.0014	.0716	.0138	-.0037

Zoom In Zoom Out

Sample Name: jd4540-5a Acquired: 3/17/2020 19:20:21 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**236540.**	**41985.**	**7465.8**	**12984.**
Stddev	1694.	230.	47.3	74.
%RSD	.71633	.54723	.63363	.57366
#1	236740.	41753.	7520.4	13070.
#2	234760.	42212.	7438.0	12932.
#3	238130.	41990.	7438.9	12951.

Zoom In Zoom Out

Sample Name: jd4540-7a Acquired: 3/17/2020 19:25:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5357**	**.0006**	**.0032**	**.0197**	**.0024**	**.0208**	**1.107**	**.0266**	**.0002**
Stddev	.0110	.0001	.0009	.0014	.0000	.0016	.010	.0009	.0023
%RSD	2.047	21.02	28.66	6.939	1.209	7.731	.8674	3.518	1105.
#1	.5470	.0007	.0031	.0210	.0024	.0213	1.106	.0261	.0012
#2	.5351	.0005	.0042	.0183	.0025	.0221	1.118	.0277	-.0024
#3	.5251	.0005	.0023	.0199	.0024	.0190	1.099	.0260	.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.5057**	**.0039**	**.0015**	**.0946**	**.0008**	**.0030**	**.2264**	**76.22**
Stddev	.0029	.0034	.0032	.0026	.0031	.0049	.0019	.0312	1.67
%RSD	60.48	.6639	81.47	174.1	3.250	636.4	65.12	13.79	2.196
#1	.0033	.5094	.0021	.0031	.0938	-.0002	.0012	.2613	78.00
#2	.0082	.5047	.0076	-.0015	.0980	-.0036	.0051	.2012	75.98
#3	.0030	.5029	.0020	.0029	.0920	.0061	.0027	.2167	74.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1804**	**10.14**	**17.70**	F **1256.**	**.2978**	**-.0006**	**2.556**	**-.0002**	**.5115**
Stddev	.0027	.19	.35	49.	.0020	.0013	.014	.0024	.0100
%RSD	1.516	1.854	1.977	3.921	.6581	223.9	.5643	1144.	1.959
#1	.1808	10.35	18.09	1309.	.2992	.0006	2.571	.0026	.5222
#2	.1775	10.08	17.59	1247.	.2956	-.0004	2.543	-.0016	.5100
#3	.1829	9.981	17.42	1212.	.2986	-.0019	2.555	-.0017	.5024

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0020**	**-.0003**	**2.532**	**.0028**	**.0911**	**.0163**	**-.0134**
Stddev	.0006	.0053	.0004	.022	.0028	.0037	.0022	.0079
%RSD	49.34	270.8	144.2	.8609	98.68	4.014	13.65	58.68
#1	.0020	-.0000	-.0007	2.535	.0033	.0951	.0138	-.0046
#2	.0011	.0080	-.0004	2.551	-.0002	.0878	.0173	-.0161
#3	.0008	-.0021	.0002	2.508	.0054	.0904	.0179	-.0197

Zoom In Zoom Out

Sample Name: jd4540-7a Acquired: 3/17/2020 19:25:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**237520.**	**41976.**	**7458.8**	**12938.**
Stddev	1430.	167.	36.4	57.
%RSD	.60196	.39730	.48796	.43714
#1	237680.	41783.	7418.3	12875.
#2	236020.	42066.	7469.5	12957.
#3	238870.	42078.	7488.7	12983.

Zoom In Zoom Out

Sample Name: jd4540-8a Acquired: 3/17/2020 19:30:31 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6019**	**.0006**	**.0029**	**.0345**	**.0061**	**.0424**	**4.121**	**.0352**	**.0040**
Stddev	.0047	.0000	.0003	.0006	.0015	.0006	.019	.0004	.0013
%RSD	.7879	3.835	9.118	1.808	25.16	1.497	.4532	1.155	31.85
#1	.6073	.0006	.0031	.0350	.0044	.0430	4.140	.0352	.0055
#2	.6004	.0006	.0026	.0338	.0074	.0417	4.120	.0356	.0030
#3	.5982	.0006	.0031	.0345	.0064	.0426	4.103	.0348	.0037

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0172**	**.4522**	**.0068**	**.0036**	**.6488**	**.0057**	**.0055**	**.5011**	**120.7**
Stddev	.0009	.0034	.0042	.0104	.0069	.0030	.0033	.0456	1.3
%RSD	5.319	.7584	61.41	288.1	1.066	52.85	59.08	9.101	1.053
#1	.0180	.4552	.0114	-.0075	.6559	.0037	.0024	.4499	122.2
#2	.0162	.4528	.0033	.0131	.6486	.0043	.0089	.5162	120.3
#3	.0174	.4485	.0058	.0052	.6420	.0092	.0053	.5373	119.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9881**	**7.990**	**10.79**	F **1265.**	**.3162**	**.0010**	**3.878**	**.0025**	**.4435**
Stddev	.0198	.122	.08	27.	.0020	.0005	.022	.0025	.0047
%RSD	2.001	1.531	.7008	2.103	.6269	43.83	.5747	97.29	1.067
#1	1.011	8.130	10.86	1295.	.3183	.0008	3.891	.0043	.4487
#2	.9771	7.904	10.71	1254.	.3144	.0016	3.890	.0036	.4421
#3	.9764	7.936	10.81	1245.	.3160	.0008	3.852	-.0003	.4395

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0132**	**.0092**	**.0003**	**2.054**	**.0091**	**.0884**	**.0130**	**-.0131**
Stddev	.0021	.0019	.0007	.022	.0098	.0029	.0089	.0143
%RSD	15.78	20.77	253.7	1.056	107.4	3.333	68.03	109.0
#1	.0108	.0110	-.0005	2.051	-.0006	.0855	.0028	-.0116
#2	.0143	.0095	.0010	2.076	.0190	.0883	.0176	.0004
#3	.0145	.0072	.0003	2.033	.0089	.0914	.0187	-.0281

Zoom In Zoom Out

Sample Name: jd4540-8a Acquired: 3/17/2020 19:30:31 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**238830.**	**41567.**	**7451.8**	**12910.**
Stddev	690.	235.	36.4	65.
%RSD	.28900	.56576	.48892	.50102
#1	238030.	41297.	7431.4	12870.
#2	239200.	41680.	7430.2	12876.
#3	239260.	41724.	7493.9	12985.

Zoom In Zoom Out

Sample Name: jd4540-9a Acquired: 3/17/2020 19:35:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5271**	**.0003**	**.0014**	**.0017**	**.0054**	**.0061**	**.2940**	**.0077**	**.0037**
Stddev	.0002	.0002	.0007	.0010	.0020	.0009	.0009	.0008	.0010
%RSD	.0345	67.66	48.32	61.88	36.87	15.17	.3196	10.41	27.72
#1	.5270	.0004	.0016	.0012	.0060	.0057	.2949	.0084	.0031
#2	.5269	.0005	.0020	.0029	.0069	.0071	.2940	.0079	.0048
#3	.5273	.0001	.0007	.0009	.0031	.0054	.2930	.0069	.0031

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**.1040**	**.0178**	**.0049**	**.0629**	**.0103**	**.0033**	**.2574**	**107.3**
Stddev	.0013	.0004	.0058	.0047	.0040	.0037	.0042	.0079	.1
%RSD	35.69	.4323	32.62	95.07	6.378	35.99	126.0	3.062	.0866
#1	.0025	.1043	.0117	.0025	.0672	.0143	-.0013	.2511	107.2
#2	.0036	.1035	.0233	.0019	.0625	.0099	.0043	.2548	107.2
#3	.0052	.1041	.0183	.0103	.0592	.0069	.0069	.2662	107.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1343**	**7.949**	**9.375**	F **1245.**	**.3112**	**.0001**	**4.483**	**.0036**	**.5950**
Stddev	.0089	.076	.010	7.	.0021	.0001	.026	.0025	.0003
%RSD	6.623	.9575	.1038	.5963	.6716	55.52	.5830	68.06	.0464
#1	.1335	7.863	9.364	1237.	.3133	.0002	4.512	.0037	.5947
#2	.1436	7.976	9.380	1245.	.3091	.0001	4.476	.0061	.5951
#3	.1259	8.008	9.381	1252.	.3113	.0001	4.462	.0011	.5952

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.0034**	**-.0008**	**1.866**	**.0074**	**.0865**	**7.147**	**-.0197**
Stddev	.0006	.0015	.0008	.024	.0032	.0028	.022	.0144
%RSD	11.61	43.52	104.8	1.284	42.77	3.279	.3048	73.34
#1	.0042	.0044	-.0013	1.892	.0083	.0833	7.167	-.0352
#2	.0051	.0017	-.0012	1.860	.0039	.0875	7.149	-.0067
#3	.0053	.0040	.0002	1.845	.0100	.0888	7.124	-.0170

Zoom In Zoom Out

Sample Name: jd4540-9a Acquired: 3/17/2020 19:35:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**237730.**	**41667.**	**7428.5**	**12916.**
Stddev	1043.	217.	18.5	31.
%RSD	.43879	.51978	.24872	.23888
#1	236800.	41917.	7411.9	12889.
#2	237530.	41545.	7448.4	12950.
#3	238860.	41540.	7425.1	12910.

Zoom In Zoom Out

Sample Name: mp20236-mb1conf Acquired: 3/17/2020 19:40:40 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0001**	**-.0000**	**.0001**	**.0008**	**.0013**	**.0001**	**.0002**	**.0005**
Stddev	.0002	.0000	.0000	.0002	.0002	.0004	.0000	.0002	.0001
%RSD	13780.	13.94	288.2	160.5	25.65	30.58	13.30	95.48	23.30
#1	-.0001	.0001	.0000	.0001	.0010	.0009	.0001	.0004	.0004
#2	-.0001	.0001	-.0001	-.0000	.0006	.0017	.0001	.0003	.0006
#3	.0002	.0001	.0000	.0003	.0007	.0013	.0001	-.0000	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0042**	**.0003**	**.0002**	**.0003**	**.0007**	**-.0012**	**.0101**	**.0709**
Stddev	.0002	.0001	.0002	.0005	.0004	.0015	.0005	.0058	.0018
%RSD	570.2	2.014	58.24	183.5	136.2	204.3	40.79	57.55	2.493
#1	-.0002	.0042	.0004	.0000	.0003	.0008	-.0015	.0145	.0730
#2	-.0000	.0041	.0005	-.0001	-.0001	.0022	-.0015	.0035	.0698
#3	.0002	.0043	.0001	.0008	.0007	-.0008	-.0007	.0125	.0700

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072**	**.0069**	**.0488**	**.1805**	**.0106**	**.0002**	**.0304**	**.0163**	**.0002**
Stddev	.0010	.0062	.0245	.0090	.0004	.0002	.0004	.0006	.0001
%RSD	14.62	89.76	50.11	5.001	3.316	104.9	1.338	3.976	30.94
#1	.0081	.0122	.0660	.1896	.0106	.0004	.0305	.0158	.0002
#2	.0073	.0084	.0596	.1715	.0103	.0002	.0299	.0170	.0001
#3	.0060	.0001	.0208	.1803	.0110	-.0000	.0307	.0161	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0001**	**.0002**	**.0074**	**.0012**	**.0052**	**.0171**	**.0011**
Stddev	.0003	.0008	.0001	.0013	.0010	.0009	.0005	.0020
%RSD	115.6	943.8	52.28	17.60	88.59	18.28	3.209	171.8
#1	.0005	-.0009	.0003	.0060	.0001	.0053	.0177	.0004
#2	-.0000	.0005	.0002	.0085	.0022	.0060	.0166	-.0004
#3	.0003	.0001	.0001	.0078	.0012	.0042	.0170	.0034

Zoom In Zoom Out

Sample Name: mp20236-mb1conf Acquired: 3/17/2020 19:40:40 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251250.**	**42891.**	**7820.4**	**14366.**
Stddev	1125.	172.	6.2	16.
%RSD	.44782	.40092	.07926	.11205
#1	251730.	42761.	7823.9	14364.
#2	249970.	43086.	7824.1	14382.
#3	252060.	42826.	7813.3	14350.

Zoom In Zoom Out

Sample Name: mp20236-b1conf Acquired: 3/17/2020 19:45:46 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.945**	**2.031**	**1.940**	**1.972**	**1.975**	**1.925**	**1.996**	**1.978**	**.2471**
Stddev	.001	.004	.001	.001	.003	.003	.016	.001	.0002
%RSD	.0411	.2182	.0379	.0601	.1551	.1708	.7984	.0625	.0967
#1	1.946	2.026	1.940	1.971	1.971	1.924	1.981	1.976	.2474
#2	1.944	2.033	1.939	1.973	1.977	1.923	2.013	1.979	.2469
#3	1.945	2.034	1.940	1.972	1.976	1.929	1.993	1.979	.2470

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.978**	**1.999**	**1.983**	**2.048**	**1.971**	**1.917**	**1.984**	**24.55**	**24.91**
Stddev	.006	.003	.004	.004	.005	.003	.003	.07	.06
%RSD	.3286	.1313	.1924	.1771	.2476	.1390	.1303	.2739	.2325
#1	1.971	2.000	1.980	2.049	1.968	1.920	1.983	24.62	24.97
#2	1.983	2.001	1.987	2.051	1.977	1.915	1.982	24.49	24.87
#3	1.981	1.996	1.982	2.044	1.969	1.916	1.987	24.54	24.88

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.16**	**25.06**	**24.51**	**25.00**	**1.929**	**1.996**	**.0946**	**2.069**	**1.946**
Stddev	.04	.04	.07	.07	.001	.001	.0010	.004	.023
%RSD	.1735	.1666	.2931	.2727	.0622	.0525	1.036	.2177	1.202
#1	25.21	25.11	24.58	25.08	1.928	1.996	.0947	2.066	1.938
#2	25.14	25.03	24.44	24.96	1.930	1.997	.0936	2.075	1.927
#3	25.12	25.05	24.50	24.97	1.928	1.995	.0955	2.068	1.972

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.033**	**1.544**	**2.015**	**-.0429**	**.0063**	**.0053**	**1.927**	**-.0022**
Stddev	.003	.006	.002	.0027	.0011	.0010	.002	.0011
%RSD	.1248	.4101	.0727	6.382	17.61	18.92	.0772	49.14
#1	2.031	1.537	2.014	-.0459	.0076	.0058	1.925	-.0034
#2	2.033	1.547	2.015	-.0422	.0061	.0042	1.928	-.0013
#3	2.036	1.548	2.017	-.0405	.0054	.0060	1.927	-.0018

Zoom In Zoom Out

Sample Name: mp20236-b1conf Acquired: 3/17/2020 19:45:46 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**245980.**	**42247.**	**7632.3**	**13535.**
Stddev	979.	98.	23.6	35.
%RSD	.39819	.23130	.30857	.25987
#1	247040.	42134.	7621.9	13524.
#2	245120.	42302.	7615.7	13508.
#3	245770.	42305.	7659.3	13575.

Zoom In Zoom Out

Sample Name: mp20236-ps1 Acquired: 3/17/2020 19:50:47 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.221**	**1.978**	**1.905**	**1.971**	**2.008**	**2.002**	**3.247**	**2.011**	**.2435**
Stddev	.002	.005	.001	.002	.013	.011	.016	.002	.0008
%RSD	.0910	.2400	.0642	.0861	.6226	.5663	.5048	.0927	.3455
#1	2.223	1.984	1.906	1.973	2.000	1.998	3.259	2.013	.2431
#2	2.219	1.975	1.904	1.969	2.000	1.993	3.228	2.010	.2429
#3	2.220	1.977	1.904	1.971	2.022	2.015	3.254	2.010	.2444

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**2.156**	**1.938**	**1.994**	**1.993**	**1.891**	**1.927**	**84.02**	**31.29**
Stddev	.015	.001	.004	.006	.003	.006	.002	.12	.06
%RSD	.7454	.0594	.2068	.2967	.1513	.3039	.1019	.1399	.1810
#1	2.050	2.157	1.938	1.999	1.997	1.894	1.930	84.15	31.36
#2	2.036	2.157	1.934	1.994	1.992	1.884	1.927	83.96	31.28
#3	2.066	2.155	1.942	1.987	1.991	1.895	1.926	83.94	31.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**115.0**	**38.70**	**28.99**	**25.55**	**1.940**	**1.915**	**2.445**	**1.997**	**1.945**
Stddev	.2	.05	.01	.04	.005	.003	.036	.001	.040
%RSD	.1861	.1375	.0244	.1419	.2581	.1379	1.480	.0413	2.061
#1	115.1	38.76	28.99	25.56	1.943	1.917	2.411	1.997	1.964
#2	115.0	38.69	28.99	25.58	1.942	1.912	2.442	1.996	1.972
#3	114.7	38.66	28.98	25.51	1.934	1.916	2.483	1.997	1.899

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.148**	**1.804**	**2.004**	**1.734**	**.0173**	**.0637**	**3.726**	**.2362**
Stddev	.021	.003	.012	.008	.0012	.0011	.013	.0035
%RSD	.6773	.1887	.6070	.4834	6.898	1.716	.3412	1.477
#1	3.138	1.803	1.997	1.741	.0173	.0626	3.738	.2372
#2	3.133	1.801	1.998	1.725	.0162	.0648	3.713	.2323
#3	3.172	1.808	2.018	1.737	.0185	.0638	3.729	.2391

Zoom In Zoom Out

Sample Name: mp20236-ps1 Acquired: 3/17/2020 19:50:47 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**246360.**	**43027.**	**7688.6**	**13408.**
Stddev	1301.	150.	8.8	22.
%RSD	.52787	.34957	.11495	.16151
#1	247020.	42875.	7679.8	13383.
#2	247190.	43029.	7688.6	13418.
#3	244860.	43176.	7697.5	13423.

Zoom In Zoom Out

Sample Name: jd4477-8 Acquired: 3/17/2020 19:55:47 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.919**	**.0050**	**.0433**	**.0696**	**.3565**	**3.825**	**3.158**	**.3973**	**.0147**
Stddev	.002	.0000	.0005	.0012	.0030	.034	.015	.0031	.0017
%RSD	.0623	.4421	1.085	1.734	.8452	.8913	.4600	.7896	11.52
#1	2.918	.0050	.0429	.0682	.3567	3.828	3.173	.3937	.0128
#2	2.918	.0050	.0439	.0703	.3595	3.857	3.157	.3985	.0157
#3	2.921	.0050	.0432	.0703	.3535	3.789	3.145	.3996	.0156

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2167**	**8.460**	**.1050**	**.0051**	**6.342**	**.0234**	**.0448**	**44.72**	**22.54**
Stddev	.0010	.072	.0023	.0010	.061	.0031	.0018	.04	.02
%RSD	.4453	.8487	2.210	19.78	.9605	13.14	4.094	.0903	.1007
#1	.2173	8.378	.1023	.0062	6.273	.0261	.0446	44.68	22.51
#2	.2171	8.493	.1058	.0043	6.361	.0239	.0467	44.73	22.55
#3	.2156	8.510	.1067	.0047	6.390	.0201	.0431	44.76	22.56

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**355.9**	**7.812**	**3.658**	**.9510**	**.0433**	**.0483**	**1.997**	**1.826**	**.2858**
Stddev	4.4	.008	.026	.0053	.0020	.0007	.016	.014	.0007
%RSD	1.241	.1037	.7051	.5540	4.553	1.450	.7880	.7443	.2484
#1	351.1	7.817	3.673	.9507	.0436	.0475	1.978	1.810	.2851
#2	359.8	7.816	3.673	.9459	.0412	.0488	2.005	1.833	.2857
#3	356.8	7.802	3.628	.9564	.0451	.0487	2.006	1.835	.2865

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9744**	**.0263**	**.0019**	**3.809**	**.0403**	**.0674**	**6.751**	**.4351**
Stddev	.0072	.0027	.0004	.036	.0013	.0008	.060	.0036
%RSD	.7356	10.16	22.15	.9429	3.202	1.180	.8901	.8239
#1	.9764	.0292	.0016	3.768	.0415	.0675	6.684	.4392
#2	.9804	.0259	.0017	3.823	.0406	.0666	6.768	.4332
#3	.9665	.0239	.0024	3.836	.0389	.0682	6.800	.4328

Zoom In Zoom Out

Sample Name: jd4477-8 Acquired: 3/17/2020 19:55:47 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**250380.**	**43207.**	**7810.2**	**14135.**
Stddev	1221.	47.	40.9	76.
%RSD	.48767	.10769	.52388	.53960
#1	249900.	43191.	7857.4	14223.
#2	249460.	43170.	7788.1	14097.
#3	251760.	43259.	7785.0	14085.

Zoom In Zoom Out

Sample Name: jd4477-9 Acquired: 3/17/2020 20:00:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.826**	**.0061**	**.0237**	**.0998**	**1.088**	**2.568**	**3.124**	**.9644**	**.0228**
Stddev	.002	.0001	.0006	.0012	.017	.033	.041	.0096	.0027
%RSD	.1325	1.773	2.409	1.153	1.585	1.267	1.310	.9941	11.75
#1	1.829	.0063	.0244	.1010	1.072	2.543	3.090	.9755	.0241
#2	1.825	.0061	.0233	.0987	1.085	2.556	3.112	.9593	.0245
#3	1.825	.0060	.0235	.0998	1.106	2.605	3.169	.9585	.0197

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1834**	**5.767**	**.1947**	**.0065**	**3.084**	**.0430**	**.0429**	**26.23**	**30.18**
Stddev	.0032	.046	.0021	.0033	.021	.0024	.0012	.06	.07
%RSD	1.729	.7943	1.056	51.27	.6642	5.661	2.813	.2116	.2453
#1	.1812	5.820	.1970	.0073	3.108	.0445	.0415	26.27	30.26
#2	.1820	5.738	.1939	.0028	3.074	.0444	.0435	26.26	30.12
#3	.1870	5.743	.1931	.0093	3.071	.0402	.0436	26.17	30.16

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**632.8**	**5.885**	**2.106**	**3.463**	**.1080**	**.0892**	**2.122**	**5.640**	**.4643**
Stddev	.7	.070	.073	.041	.0011	.0016	.024	.057	.0006
%RSD	.1160	1.189	3.454	1.177	1.002	1.798	1.119	1.017	.1346
#1	633.7	5.884	2.027	3.510	.1074	.0909	2.148	5.706	.4648
#2	632.4	5.815	2.124	3.438	.1073	.0889	2.102	5.603	.4636
#3	632.5	5.955	2.169	3.441	.1092	.0877	2.114	5.610	.4645

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4372**	**.0301**	**-.0012**	**20.76**	**.0710**	**.0449**	**14.38**	**.3152**
Stddev	.0053	.0007	.0008	.23	.0072	.0052	.14	.0035
%RSD	1.203	2.189	68.85	1.123	10.14	11.53	.9867	1.125
#1	.4361	.0308	-.0007	21.03	.0778	.0402	14.55	.3112
#2	.4326	.0299	-.0008	20.65	.0717	.0441	14.31	.3164
#3	.4429	.0295	-.0021	20.61	.0635	.0505	14.29	.3180

Zoom In Zoom Out

Sample Name: jd4477-9 Acquired: 3/17/2020 20:00:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253560.**	**42683.**	**7781.1**	**14197.**
Stddev	3365.	227.	46.0	68.
%RSD	1.3272	.53113	.59127	.48024
#1	256650.	42579.	7729.8	14123.
#2	254060.	42943.	7818.5	14257.
#3	249980.	42527.	7795.1	14212.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 20:05:51 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**2.086**	**1.999**	**2.032**	**2.016**	**1.974**	**2.017**	**2.031**	**.2464**
Stddev	.006	.006	.001	.002	.006	.004	.008	.002	.0006
%RSD	.3227	.2718	.0554	.0738	.2904	.1861	.4075	.0826	.2620
#1	2.013	2.081	2.000	2.032	2.021	1.978	2.009	2.029	.2471
#2	2.025	2.092	1.998	2.034	2.010	1.972	2.026	2.030	.2458
#3	2.015	2.085	1.999	2.031	2.018	1.972	2.016	2.033	.2462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.019**	**2.043**	**1.974**	**2.099**	**2.013**	**1.980**	**1.980**	**40.01**	**40.38**
Stddev	.002	.001	.003	.004	.003	.002	.002	.09	.07
%RSD	.1049	.0561	.1354	.1834	.1250	.0737	.0939	.2250	.1789
#1	2.021	2.044	1.975	2.099	2.012	1.981	1.981	39.93	40.33
#2	2.017	2.042	1.976	2.103	2.012	1.982	1.978	40.11	40.46
#3	2.021	2.043	1.971	2.095	2.016	1.979	1.981	40.00	40.34
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.09**	**40.63**	**39.91**	**40.63**	**2.013**	**1.982**	**4.979**	**2.024**	**2.025**
Stddev	.07	.02	.06	.08	.002	.004	.004	.003	.031
%RSD	.1790	.0518	.1416	.2073	.0876	.1832	.0838	.1441	1.535
#1	41.03	40.63	39.89	40.54	2.012	1.986	4.977	2.028	2.013
#2	41.17	40.65	39.97	40.71	2.011	1.979	4.975	2.022	2.002
#3	41.08	40.61	39.86	40.63	2.015	1.981	4.983	2.023	2.060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 20:05:51 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.008**	**1.948**	**2.006**	**1.857**	**1.976**	**2.027**	**1.975**	**1.962**
Stddev	.004	.003	.005	.004	.001	.006	.005	.004
%RSD	.1868	.1450	.2530	.2113	.0369	.2904	.2346	.1858
#1	2.010	1.949	2.012	1.861	1.976	2.020	1.977	1.964
#2	2.003	1.945	2.003	1.857	1.977	2.032	1.978	1.958
#3	2.009	1.951	2.004	1.853	1.976	2.028	1.969	1.965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**245100.**	**41734.**	**7597.7**	**13327.**
Stddev	1119.	233.	20.0	29.
%RSD	.45647	.55916	.26318	.22055
#1	244920.	41607.	7585.0	13311.
#2	246300.	42004.	7620.8	13361.
#3	244080.	41592.	7587.4	13309.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 20:10:50 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **.0003**	**.0002**	**.0002**	**.0003**	**.0006**	**.0002**	**-.0000**	**.0007**
Stddev	.0001	.0001	.0001	.0001	.0003	.0005	.0000	.0000	.0003
%RSD	93.70	37.37	48.85	33.66	123.6	82.62	29.18	78.66	46.52
#1	.0001	.0004	.0001	.0003	.0003	.0007	.0002	-.0000	.0011
#2	.0000	.0003	.0002	.0001	.0006	.0001	.0001	-.0001	.0004
#3	.0000	.0002	.0003	.0003	-.0001	.0010	.0002	-.0000	.0006
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001							
Low Limit		-.0001							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0003**	**.0010**	**-.0002**	**-.0009**	**.0003**	**.0002**	**.0071**	**-.0006**
Stddev	.0001	.0001	.0002	.0009	.0011	.0025	.0012	.0020	.0015
%RSD	140.8	23.15	19.51	464.8	122.4	796.0	775.0	28.29	236.4
#1	.0002	-.0004	.0012	.0008	.0001	.0032	.0016	.0080	-.0003
#2	-.0001	-.0002	.0008	-.0005	-.0007	-.0010	-.0008	.0086	.0007
#3	.0002	-.0003	.0010	-.0008	-.0022	-.0012	-.0003	.0048	-.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**-.0012**	**.0186**	**.0210**	**.0027**	**.0004**	**.0020**	**-.0003**	**.0001**
Stddev	.0018	.0094	.0423	.0049	.0004	.0001	.0002	.0005	.0000
%RSD	46.26	792.0	227.3	23.17	14.96	34.27	8.021	144.3	28.50
#1	.0059	-.0071	.0664	.0260	.0030	.0004	.0021	-.0001	.0001
#2	.0028	.0096	.0036	.0163	.0022	.0005	.0020	-.0008	.0002
#3	.0028	-.0060	-.0141	.0209	.0027	.0002	.0018	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 20:10:50 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0038**	**.0002**	**.0032**	**-.0010**	F **.0028**	**-.0018**	**.0008**
Stddev	.0000	.0006	.0002	.0017	.0014	.0001	.0007	.0013
%RSD	29.57	15.36	100.6	52.02	133.1	5.145	41.32	164.3
#1	.0001	.0042	.0002	.0041	.0004	.0030	-.0021	-.0007
#2	.0001	.0042	.0004	.0013	-.0022	.0027	-.0009	.0014
#3	.0002	.0032	.0000	.0042	-.0013	.0028	-.0023	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0023		
Low Limit						-.0023		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251780.**	**42212.**	**7821.2**	**14356.**
Stddev	6147.	136.	5.0	7.
%RSD	2.4413	.32269	.06410	.05175
#1	251330.	42250.	7823.6	14364.
#2	258140.	42060.	7815.5	14354.
#3	245870.	42324.	7824.6	14349.

Zoom In Zoom Out

Sample Name: jd4540-1 Acquired: 3/17/2020 20:15:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.112**	**.0080**	**.0019**	**.1075**	**.2423**	**1.282**	**3.337**	**.2070**	**.0045**
Stddev	.018	.0000	.0001	.0008	.0033	.018	.016	.0010	.0015
%RSD	1.617	.5401	7.356	.7616	1.382	1.396	.4730	.4781	32.32
#1	1.092	.0080	.0020	.1084	.2416	1.280	3.331	.2071	.0042
#2	1.117	.0081	.0021	.1068	.2460	1.301	3.355	.2079	.0032
#3	1.128	.0080	.0018	.1072	.2394	1.265	3.326	.2060	.0060

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2783**	**1.205**	**.0458**	**.0033**	**1.630**	**.0149**	**.0018**	**130.6**	**37.34**
Stddev	.0035	.000	.0014	.0006	.003	.0027	.0037	1.6	.63
%RSD	1.256	.0225	2.979	16.96	.1901	18.38	211.5	1.231	1.696
#1	.2790	1.205	.0457	.0033	1.632	.0132	.0030	128.8	36.63
#2	.2814	1.204	.0444	.0039	1.631	.0181	.0047	131.1	37.52
#3	.2745	1.205	.0472	.0027	1.626	.0134	-.0024	131.8	37.86

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**230.2**	**55.13**	**40.85**	**2.805**	**.0446**	**.0097**	**2.071**	**.1146**	**.2776**
Stddev	3.0	.87	.95	.062	.0008	.0003	.003	.0017	.0049
%RSD	1.310	1.586	2.316	2.194	1.902	3.215	.1315	1.470	1.775
#1	226.8	54.16	39.81	2.739	.0451	.0100	2.074	.1140	.2722
#2	231.4	55.38	41.09	2.814	.0436	.0098	2.070	.1165	.2789
#3	232.5	55.85	41.66	2.861	.0451	.0094	2.069	.1133	.2818

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.786**	**.0077**	**.0356**	**2.515**	**.1235**	**.1043**	**3.222**	**.3350**
Stddev	.135	.0027	.0006	.003	.0044	.0026	.008	.0070
%RSD	1.380	34.64	1.723	.1269	3.529	2.513	.2472	2.097
#1	9.778	.0105	.0351	2.519	.1225	.1015	3.230	.3332
#2	9.926	.0075	.0363	2.512	.1283	.1048	3.220	.3428
#3	9.656	.0052	.0354	2.514	.1197	.1066	3.214	.3291

Zoom In Zoom Out

Sample Name: jd4540-1 Acquired: 3/17/2020 20:15:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**250730.**	**42775.**	**7768.5**	**13648.**
Stddev	2894.	163.	5.1	12.
%RSD	1.1542	.38007	.06628	.09156
#1	249690.	42775.	7762.5	13645.
#2	248490.	42613.	7771.1	13637.
#3	254000.	42938.	7771.8	13662.

Zoom In Zoom Out

Sample Name: jd4540-4 Acquired: 3/17/2020 20:20:55 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5848**	**.0062**	**.0013**	**.1797**	**.2485**	**.1476**	**5.858**	**.1395**	**.0014**
Stddev	.0015	.0000	.0003	.0013	.0030	.0020	.084	.0011	.0008
%RSD	.2602	.7407	21.21	.7387	1.213	1.330	1.441	.7746	56.47
#1	.5837	.0062	.0010	.1784	.2486	.1466	5.934	.1388	.0017
#2	.5842	.0063	.0014	.1796	.2516	.1499	5.872	.1389	.0005
#3	.5865	.0062	.0014	.1810	.2455	.1464	5.767	.1407	.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3687**	**.2960**	**.0594**	**.0117**	**.1104**	**.0136**	**.0008**	**175.5**	**47.25**
Stddev	.0047	.0008	.0030	.0021	.0018	.0014	.0028	.5	.16
%RSD	1.270	.2536	5.018	17.89	1.626	10.62	354.1	.3054	.3370
#1	.3712	.2954	.0588	.0131	.1098	.0146	-.0020	175.4	47.25
#2	.3717	.2958	.0568	.0128	.1125	.0141	.0007	175.0	47.09
#3	.3633	.2969	.0627	.0093	.1091	.0119	.0037	176.0	47.41

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**241.9**	**19.46**	**14.36**	**1.756**	**.0687**	**.0077**	**2.212**	**.0347**	**.4891**
Stddev	.9	.05	.06	.018	.0009	.0001	.016	.0016	.0012
%RSD	.3876	.2487	.3955	1.014	1.382	1.188	.7115	4.641	.2428
#1	241.8	19.43	14.34	1.742	.0677	.0078	2.206	.0355	.4886
#2	240.9	19.43	14.32	1.749	.0694	.0077	2.199	.0328	.4882
#3	242.8	19.52	14.42	1.776	.0691	.0078	2.229	.0358	.4904

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.717**	**.0118**	**.0893**	**.7945**	**.0496**	**.1454**	**3.308**	**.5941**
Stddev	.048	.0017	.0009	.0076	.0010	.0016	.016	.0099
%RSD	1.281	14.73	1.010	.9534	2.099	1.103	.4919	1.672
#1	3.730	.0102	.0896	.7886	.0505	.1439	3.292	.5968
#2	3.756	.0137	.0900	.7918	.0498	.1452	3.308	.6025
#3	3.664	.0116	.0883	.8030	.0485	.1471	3.325	.5831

Zoom In Zoom Out

Sample Name: jd4540-4 Acquired: 3/17/2020 20:20:55 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249420.**	**43365.**	**7813.3**	**13718.**
Stddev	2307.	245.	22.7	30.
%RSD	.92497	.56389	.29025	.22055
#1	247680.	43483.	7816.9	13725.
#2	248540.	43528.	7833.9	13743.
#3	252030.	43083.	7789.0	13684.

Zoom In Zoom Out

Sample Name: jd4540-5 Acquired: 3/17/2020 20:25:57 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4807**	**.0059**	**.0015**	**.0806**	**.2642**	**.1322**	**3.168**	**.1163**	**.0007**
Stddev	.0005	.0000	.0004	.0015	.0016	.0012	.026	.0015	.0009
%RSD	.0964	.0892	24.95	1.811	.6102	.8986	.8105	1.288	132.6
#1	.4811	.0059	.0020	.0822	.2630	.1310	3.150	.1166	.0012
#2	.4802	.0059	.0013	.0793	.2636	.1333	3.158	.1146	.0013
#3	.4809	.0059	.0013	.0802	.2661	.1324	3.198	.1176	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3545**	**.2573**	**.0604**	**.0073**	**.1014**	**.0091**	**-.0000**	**155.6**	**11.09**
Stddev	.0025	.0033	.0020	.0024	.0016	.0043	.0014	.1	.02
%RSD	.6952	1.271	3.239	32.15	1.616	46.55	3473.	.0760	.1681
#1	.3523	.2589	.0622	.0081	.1023	.0046	-.0007	155.5	11.08
#2	.3540	.2535	.0583	.0047	.0995	.0098	-.0009	155.7	11.11
#3	.3572	.2594	.0607	.0092	.1023	.0130	.0015	155.6	11.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**238.3**	**15.08**	**8.438**	**5.971**	**.0483**	**.0119**	**1.811**	**.0233**	**.1108**
Stddev	.1	.08	.080	.016	.0018	.0006	.019	.0007	.0003
%RSD	.0527	.5157	.9444	.2746	3.813	4.779	1.044	3.082	.2312
#1	238.2	14.99	8.431	5.977	.0489	.0115	1.828	.0236	.1105
#2	238.4	15.13	8.521	5.953	.0462	.0125	1.791	.0225	.1108
#3	238.4	15.11	8.362	5.984	.0497	.0116	1.813	.0239	.1110

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.065**	**.0094**	**.0886**	**.7052**	**.0410**	**.0974**	**3.053**	**.5709**
Stddev	.021	.0012	.0007	.0053	.0019	.0011	.039	.0070
%RSD	.6852	12.62	.8284	.7524	4.709	1.140	1.291	1.225
#1	3.047	.0108	.0878	.7064	.0392	.0965	3.067	.5634
#2	3.060	.0085	.0886	.6994	.0407	.0986	3.009	.5721
#3	3.088	.0090	.0893	.7098	.0430	.0970	3.084	.5773

Zoom In Zoom Out

Sample Name: jd4540-5 Acquired: 3/17/2020 20:25:57 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249880.**	**43537.**	**7938.6**	**13984.**
Stddev	1810.	326.	75.5	121.
%RSD	.72435	.74915	.95135	.86259
#1	251620.	43646.	7901.5	13930.
#2	250000.	43170.	8025.5	14123.
#3	248010.	43794.	7888.7	13901.

Zoom In Zoom Out

Sample Name: jd4540-6 Acquired: 3/17/2020 20:30:57 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.392**	**.0062**	**.0018**	**.0734**	**.3753**	**.1393**	**2.020**	**.1269**	**.0004**
Stddev	.001	.0000	.0001	.0002	.0056	.0020	.024	.0014	.0003
%RSD	.0881	.3492	7.659	.2664	1.497	1.445	1.199	1.071	79.04
#1	1.391	.0062	.0018	.0736	.3688	.1370	1.993	.1253	.0008
#2	1.391	.0062	.0017	.0732	.3780	.1406	2.040	.1279	.0003
#3	1.393	.0062	.0020	.0733	.3790	.1403	2.026	.1273	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4085**	**.2921**	**.0710**	**.0053**	**.1155**	**.0109**	**.0008**	**175.6**	**6.971**
Stddev	.0046	.0013	.0011	.0006	.0022	.0024	.0012	.2	.011
%RSD	1.115	.4474	1.611	11.88	1.879	21.98	152.1	.1244	.1628
#1	.4036	.2906	.0723	.0046	.1130	.0099	.0010	175.5	6.964
#2	.4127	.2927	.0705	.0055	.1163	.0091	-.0005	175.5	6.965
#3	.4091	.2931	.0701	.0058	.1171	.0136	.0019	175.8	6.984

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**266.6**	**17.00**	**9.112**	**.4198**	**.0548**	**.0089**	**1.752**	**.0227**	**.1397**
Stddev	.5	.06	.008	.0178	.0010	.0000	.011	.0001	.0002
%RSD	.1885	.3416	.0874	4.238	1.786	.4350	.5991	.4603	.1786
#1	266.1	16.93	9.115	.3998	.0552	.0089	1.740	.0226	.1394
#2	266.6	17.01	9.103	.4338	.0556	.0088	1.756	.0227	.1398
#3	267.1	17.05	9.117	.4258	.0537	.0088	1.760	.0229	.1398

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.745**	**.0168**	**.1085**	**1.232**	**.0387**	**.1242**	**3.686**	**.6796**
Stddev	.033	.0024	.0014	.007	.0003	.0034	.014	.0065
%RSD	1.193	14.44	1.288	.5388	.6586	2.759	.3917	.9573
#1	2.709	.0192	.1070	1.226	.0389	.1202	3.673	.6761
#2	2.771	.0144	.1090	1.230	.0385	.1259	3.701	.6871
#3	2.756	.0168	.1097	1.239	.0388	.1264	3.683	.6756

Zoom In Zoom Out

Sample Name: jd4540-6 Acquired: 3/17/2020 20:30:57 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251610.**	**43811.**	**8024.8**	**14001.**
Stddev	3458.	52.	42.6	73.
%RSD	1.3744	.11921	.53136	.52175
#1	255570.	43849.	8073.9	14085.
#2	249210.	43834.	7997.2	13956.
#3	250050.	43752.	8003.2	13961.

Zoom In Zoom Out

Sample Name: jd4540-8 Acquired: 3/17/2020 20:35:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8394**	**.0062**	**.0032**	**.1081**	**.1682**	**.8087**	**2.997**	**.1823**	**.0062**
Stddev	.0007	.0001	.0001	.0006	.0008	.0086	.026	.0001	.0010
%RSD	.0824	1.313	3.711	.5864	.4608	1.069	.8638	.0366	15.73
#1	.8386	.0061	.0032	.1074	.1683	.8060	2.985	.1824	.0071
#2	.8395	.0063	.0032	.1085	.1689	.8184	3.027	.1824	.0052
#3	.8400	.0062	.0034	.1084	.1674	.8018	2.980	.1823	.0063

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2364**	**.9581**	**.0592**	**.0070**	**1.573**	**.0149**	**.0086**	**114.4**	**25.70**
Stddev	.0019	.0027	.0030	.0012	.003	.0008	.0015	.2	.04
%RSD	.8212	.2771	5.130	16.51	.1584	5.095	17.91	.1413	.1405
#1	.2356	.9565	.0602	.0056	1.572	.0151	.0104	114.4	25.69
#2	.2387	.9567	.0617	.0075	1.571	.0156	.0076	114.3	25.66
#3	.2351	.9612	.0558	.0077	1.576	.0141	.0078	114.6	25.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**292.7**	**34.92**	**29.74**	**2.509**	**.0471**	**.0105**	**1.869**	**.2135**	**.1909**
Stddev	2.7	.04	.11	.032	.0003	.0004	.007	.0004	.0002
%RSD	.9107	.1071	.3693	1.289	.6798	4.282	.3926	.1937	.0913
#1	291.5	34.94	29.75	2.474	.0468	.0109	1.861	.2134	.1908
#2	295.7	34.88	29.63	2.513	.0475	.0100	1.874	.2132	.1908
#3	290.8	34.94	29.85	2.538	.0470	.0106	1.873	.2140	.1911

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.782**	**.0190**	**.0394**	**1.718**	**.0865**	**.1036**	**4.893**	**.3755**
Stddev	.052	.0009	.0002	.002	.0039	.0015	.014	.0088
%RSD	.9085	4.597	.4273	.0882	4.494	1.401	.2862	2.337
#1	5.751	.0187	.0395	1.719	.0827	.1045	4.881	.3739
#2	5.842	.0184	.0396	1.719	.0905	.1019	4.888	.3850
#3	5.752	.0200	.0392	1.717	.0864	.1043	4.908	.3677

Zoom In Zoom Out

Sample Name: jd4540-8 Acquired: 3/17/2020 20:35:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**250410.**	**43275.**	**7829.7**	**13872.**
Stddev	2794.	190.	33.2	47.
%RSD	1.1156	.43907	.42430	.33524
#1	252080.	43133.	7858.7	13915.
#2	247190.	43491.	7836.9	13878.
#3	251980.	43200.	7793.4	13823.

Zoom In Zoom Out

Sample Name: mp20241-b1 Acquired: 3/17/2020 20:40:56 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.935**	**2.009**	**1.923**	**1.963**	**1.960**	**1.920**	**1.960**	**1.962**
Stddev	.017	.018	.018	.015	.092	.090	.057	.015
%RSD	.8566	.8722	.9518	.7362	4.695	4.717	2.903	.7848
#1	1.934	2.009	1.944	1.980	1.956	1.919	1.956	1.979
#2	1.919	1.992	1.911	1.954	2.054	2.011	2.018	1.952
#3	1.952	2.027	1.915	1.956	1.870	1.830	1.905	1.954

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2470**	**1.968**	**1.977**	**1.950**	**2.044**	**1.948**	**1.895**	**1.967**
Stddev	.0114	.088	.019	.017	.020	.014	.016	.020
%RSD	4.627	4.495	.9530	.8814	.9812	.7147	.8563	1.013
#1	.2465	1.961	1.999	1.970	2.068	1.964	1.913	1.990
#2	.2587	2.059	1.966	1.938	2.033	1.940	1.883	1.954
#3	.2358	1.883	1.967	1.943	2.033	1.940	1.888	1.957

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.65**	**24.93**	**25.37**	**25.14**	**24.53**	**25.11**	**1.913**	**1.983**
Stddev	.18	.20	.18	.18	.19	.20	.016	.017
%RSD	.7424	.8152	.7281	.7096	.7749	.7877	.8119	.8512
#1	24.63	24.89	25.34	25.13	24.49	25.07	1.931	2.002
#2	24.48	24.75	25.21	24.97	24.36	24.93	1.905	1.972
#3	24.85	25.15	25.57	25.32	24.73	25.32	1.904	1.974

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1162**	**2.026**	**1.949**	**2.016**	**1.921**	**2.003**	F **-.0658**	**.0006**
Stddev	.0020	.021	.019	.095	.017	.096	.0018	.0016
%RSD	1.759	1.055	.9603	4.712	.9077	4.808	2.696	253.7
#1	.1181	2.051	1.966	2.011	1.941	2.002	-.0678	.0011
#2	.1140	2.013	1.951	2.114	1.908	2.101	-.0651	.0019
#3	.1164	2.014	1.929	1.924	1.913	1.908	-.0644	-.0012

Zoom In Zoom Out

Sample Name: mp20241-b1 Acquired: 3/17/2020 20:40:56 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0001**	**1.888**	**-.0048**
Stddev	.0014	.022	.0032
%RSD	1177.	1.186	66.18
#1	-.0017	1.913	-.0042
#2	.0008	1.874	-.0083
#3	.0006	1.875	-.0020

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249980.**	**42729.**	**7721.1**	**13657.**
Stddev	9262.	136.	69.9	105.
%RSD	3.7051	.31774	.90503	.77117
#1	249980.	42760.	7640.7	13536.
#2	240720.	42847.	7767.1	13728.
#3	259240.	42581.	7755.5	13707.

Zoom In Zoom Out

Sample Name: mp20241-mb1 Acquired: 3/17/2020 20:45:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0001**	**-.0000**	**.0008**	**.0013**	**.0000**	**-.0002**	**.0008**
Stddev	.0000	.0000	.0001	.0002	.0002	.0000	.0000	.0002	.0004
%RSD	53.66	60.44	83.60	7075.	29.22	2.128	53.46	123.3	51.79
#1	-.0001	.0000	.0002	-.0002	.0009	.0013	.0000	-.0005	.0012
#2	-.0000	.0001	.0000	.0000	.0005	.0013	.0000	-.0001	.0008
#3	-.0001	.0000	.0001	.0001	.0010	.0013	.0001	.0000	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0007**	**-.0005**	**.0010**	**-.0002**	**.0005**	**-.0005**	**.0060**	**.0049**
Stddev	.0002	.0000	.0007	.0008	.0001	.0004	.0015	.0064	.0005
%RSD	2657.	4.651	147.6	84.10	57.08	95.79	311.1	105.9	11.08
#1	-.0000	.0006	-.0007	.0001	-.0001	-.0000	.0008	.0084	.0056
#2	-.0002	.0007	-.0011	.0017	-.0002	.0008	-.0021	-.0012	.0045
#3	.0002	.0007	.0003	.0012	-.0003	.0006	-.0001	.0108	.0048

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**.0003**	**-.0107**	**-.0049**	**.0022**	**.0002**	**.0168**	**-.0003**	**.0001**
Stddev	.0004	.0117	.0110	.0038	.0002	.0000	.0008	.0003	.0001
%RSD	12.24	4356.	102.9	77.81	8.027	7.728	4.548	75.05	66.54
#1	.0036	.0023	-.0109	-.0088	.0024	.0002	.0160	-.0002	.0001
#2	.0040	-.0123	.0004	-.0011	.0022	.0002	.0175	-.0002	.0001
#3	.0032	.0108	-.0216	-.0049	.0020	.0002	.0168	-.0006	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0049**	**.0003**	**-.0003**	**-.0005**	**-.0005**	**-.0000**	**-.0010**
Stddev	.0002	.0001	.0001	.0012	.0017	.0004	.0008	.0025
%RSD	41.23	3.025	21.26	442.9	351.7	72.99	3361.	245.8
#1	.0003	.0051	.0003	.0006	.0006	-.0010	-.0001	.0018
#2	.0006	.0050	.0003	-.0016	-.0024	-.0004	-.0007	-.0017
#3	.0003	.0048	.0004	.0002	.0003	-.0002	.0008	-.0030

Zoom In Zoom Out

Sample Name: mp20241-mb1 Acquired: 3/17/2020 20:45:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253420.**	**43140.**	**7881.7**	**14461.**
Stddev	1821.	284.	10.8	20.
%RSD	.71846	.65945	.13751	.13547
#1	255520.	43273.	7874.7	14454.
#2	252280.	43333.	7876.3	14446.
#3	252470.	42813.	7894.2	14483.

Zoom In Zoom Out

Sample Name: mp20241-s1 Acquired: 3/17/2020 20:51:00 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.966**	**2.038**	**1.952**	**1.993**	**1.962**	**1.933**	**2.101**	**1.992**	**.2519**
Stddev	.002	.004	.002	.001	.001	.003	.020	.002	.0002
%RSD	.1127	.1967	.0798	.0343	.0296	.1314	.9659	.0847	.0945
#1	1.964	2.035	1.954	1.994	1.963	1.931	2.119	1.994	.2517
#2	1.967	2.037	1.951	1.992	1.962	1.935	2.079	1.991	.2522
#3	1.968	2.043	1.952	1.993	1.962	1.935	2.104	1.991	.2519

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.010**	**1.998**	**2.011**	**1.996**	**1.971**	**1.936**	**1.998**	**24.81**	**53.97**
Stddev	.002	.001	.001	.004	.003	.004	.004	.01	.03
%RSD	.1132	.0533	.0455	.1816	.1265	.1828	.2100	.0313	.0527
#1	2.011	1.998	2.012	1.999	1.971	1.934	2.003	24.81	53.94
#2	2.008	1.999	2.010	1.992	1.974	1.933	1.995	24.81	53.97
#3	2.012	1.997	2.012	1.997	1.969	1.940	1.997	24.80	53.99

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.51**	**29.59**	**26.64**	F **234.7**	**1.947**	**1.999**	**1.869**	**2.009**	**2.173**
Stddev	.03	.02	.01	3.9	.002	.001	.003	.002	.017
%RSD	.1133	.0515	.0551	1.642	.1247	.0579	.1530	.0861	.7673
#1	25.49	29.57	26.63	232.0	1.950	2.000	1.869	2.007	2.163
#2	25.54	29.60	26.64	233.0	1.945	1.999	1.866	2.010	2.192
#3	25.51	29.58	26.66	239.1	1.947	1.997	1.872	2.010	2.164

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**1.957**	**2.024**	**.4833**	**.0010**	**.0055**	**1.974**	**-.0029**
Stddev	.002	.000	.002	.0018	.0014	.0009	.002	.0034
%RSD	.1145	.0209	.0778	.3757	146.5	16.18	.0861	119.3
#1	2.054	1.956	2.024	.4851	.0026	.0045	1.974	-.0054
#2	2.049	1.957	2.026	.4834	.0002	.0059	1.972	-.0043
#3	2.051	1.956	2.022	.4815	.0001	.0062	1.976	.0010

Zoom In Zoom Out

Sample Name: mp20241-s1 Acquired: 3/17/2020 20:51:00 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**237030.**	**41829.**	**7424.5**	**12803.**
Stddev	1365.	45.	.7	2.
%RSD	.57572	.10833	.00918	.01480
#1	235680.	41782.	7425.2	12805.
#2	238410.	41872.	7424.4	12801.
#3	237010.	41834.	7423.9	12804.

Zoom In Zoom Out

Sample Name: mp20241-s2 Acquired: 3/17/2020 20:56:07 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**2.068**	**1.985**	**2.029**	**1.981**	**1.952**	**2.118**	**2.025**	**.2540**
Stddev	.000	.001	.009	.008	.004	.002	.030	.009	.0006
%RSD	.0158	.0249	.4290	.3806	.2153	.1119	1.419	.4293	.2549
#1	1.982	2.068	1.995	2.037	1.984	1.950	2.137	2.035	.2539
#2	1.982	2.068	1.978	2.023	1.976	1.951	2.084	2.019	.2546
#3	1.983	2.069	1.983	2.026	1.982	1.954	2.134	2.022	.2533

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.043**	**2.032**	**2.061**	**2.022**	**2.008**	**1.984**	**2.037**	**24.99**	**54.55**
Stddev	.009	.013	.009	.015	.007	.006	.008	.03	.11
%RSD	.4424	.6244	.4254	.7603	.3375	.3205	.4109	.1340	.1924
#1	2.051	2.047	2.071	2.036	2.015	1.990	2.046	24.95	54.43
#2	2.033	2.023	2.054	2.006	2.003	1.977	2.033	25.00	54.64
#3	2.044	2.027	2.057	2.023	2.005	1.984	2.031	25.01	54.58

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.48**	**29.80**	**26.75**	F **240.7**	**1.977**	**2.033**	**1.909**	**2.047**	**2.159**
Stddev	.05	.12	.04	3.2	.011	.010	.007	.009	.020
%RSD	.2007	.3977	.1501	1.327	.5287	.4755	.3723	.4370	.9428
#1	25.43	29.67	26.70	243.6	1.988	2.044	1.918	2.057	2.146
#2	25.52	29.90	26.78	241.2	1.967	2.028	1.905	2.041	2.182
#3	25.50	29.84	26.76	237.3	1.976	2.027	1.905	2.043	2.148

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.079**	**1.986**	**2.043**	**.5042**	**-.0001**	**.0098**	**2.021**	**-.0033**
Stddev	.004	.006	.001	.0021	.0008	.0014	.012	.0025
%RSD	.1851	.3040	.0692	.4117	1427.	13.95	.5799	73.91
#1	2.083	1.993	2.044	.5054	.0000	.0087	2.033	-.0028
#2	2.075	1.982	2.041	.5018	-.0009	.0095	2.010	-.0060
#3	2.081	1.982	2.042	.5053	.0007	.0114	2.021	-.0012

Zoom In Zoom Out

Sample Name: mp20241-s2 Acquired: 3/17/2020 20:56:07 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**236330.**	**42108.**	**7383.7**	**12716.**
Stddev	1301.	342.	37.4	53.
%RSD	.55055	.81270	.50661	.41635
#1	235040.	42473.	7340.5	12655.
#2	237640.	41794.	7406.9	12750.
#3	236310.	42057.	7403.6	12743.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 21:01:15 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**2.095**	**1.997**	**2.032**	**2.041**	**1.997**	**2.069**	**2.028**	**.2490**
Stddev	.001	.004	.002	.002	.031	.033	.034	.003	.0038
%RSD	.0262	.1811	.1204	.0880	1.506	1.630	1.645	.1221	1.509
#1	2.007	2.099	1.996	2.030	2.026	1.979	2.056	2.026	.2465
#2	2.006	2.094	1.996	2.032	2.021	1.978	2.043	2.027	.2471
#3	2.006	2.092	2.000	2.033	2.077	2.034	2.107	2.030	.2533
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.074**	**2.044**	**1.984**	**2.087**	**2.020**	**1.988**	**1.979**	**39.59**	**39.94**
Stddev	.035	.000	.002	.006	.002	.001	.002	.02	.03
%RSD	1.701	.0138	.1095	.2682	.0946	.0517	.1193	.0544	.0676
#1	2.054	2.044	1.982	2.082	2.019	1.989	1.977	39.61	39.94
#2	2.053	2.044	1.985	2.086	2.022	1.987	1.981	39.59	39.96
#3	2.115	2.044	1.986	2.094	2.019	1.988	1.980	39.56	39.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.23**	**40.20**	**39.33**	**39.82**	**2.011**	**1.983**	**4.996**	**2.026**	**2.015**
Stddev	.04	.05	.06	.03	.003	.002	.005	.002	.018
%RSD	.1057	.1280	.1433	.0681	.1240	.1157	.1022	.0830	.8946
#1	40.25	40.25	39.39	39.81	2.011	1.981	4.992	2.024	2.016
#2	40.27	40.20	39.30	39.85	2.008	1.983	4.993	2.028	2.032
#3	40.19	40.14	39.29	39.80	2.013	1.986	5.001	2.026	1.996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 21:01:15 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.048**	**1.950**	**2.027**	**1.856**	**1.985**	**2.022**	**1.978**	**2.009**
Stddev	.032	.003	.033	.004	.009	.002	.004	.035
%RSD	1.564	.1558	1.624	.2295	.4375	.1014	.1838	1.731
#1	2.030	1.949	2.010	1.856	1.979	2.023	1.976	1.988
#2	2.028	1.948	2.006	1.852	1.980	2.020	1.982	1.989
#3	2.085	1.954	2.065	1.860	1.995	2.023	1.975	2.049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**241440.**	**42086.**	**7613.2**	**13346.**
Stddev	2985.	244.	4.4	5.
%RSD	1.2362	.57928	.05742	.03830
#1	242880.	41843.	7608.3	13340.
#2	243440.	42083.	7616.7	13348.
#3	238010.	42331.	7614.6	13349.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 21:06:18 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	F **.0003**	**.0003**	**.0001**	**.0003**	**.0010**	**.0001**	**.0000**	**.0007**
Stddev	.0001	.0000	.0002	.0002	.0003	.0002	.0001	.0002	.0003
%RSD	49.77	16.11	50.91	177.3	101.8	15.90	73.46	452.8	44.67
#1	.0003	.0003	.0004	.0003	.0006	.0012	.0001	.0001	.0010
#2	.0002	.0002	.0004	.0000	.0000	.0010	.0001	-.0002	.0004
#3	.0001	.0002	.0001	-.0000	.0002	.0009	.0000	.0002	.0007
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001							
Low Limit		-.0001							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0003**	**.0011**	**-.0005**	**-.0004**	**.0013**	**-.0007**	**.0101**	**.0021**
Stddev	.0004	.0000	.0003	.0017	.0002	.0003	.0004	.0034	.0004
%RSD	674.8	8.893	25.31	370.7	57.85	26.04	55.26	33.78	17.11
#1	.0003	-.0003	.0013	-.0010	-.0006	.0014	-.0009	.0119	.0024
#2	-.0003	-.0003	.0008	.0015	-.0004	.0009	-.0002	.0123	.0021
#3	-.0002	-.0003	.0011	-.0018	-.0001	.0016	-.0008	.0062	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0041**	**.0285**	**.0340**	**.0030**	**.0001**	**.0014**	**.0001**	**.0002**
Stddev	.0011	.0074	.0201	.0014	.0003	.0001	.0005	.0004	.0000
%RSD	24.94	182.0	70.66	4.134	10.30	86.67	35.25	695.6	16.07
#1	.0033	.0102	.0496	.0356	.0031	.0001	.0020	-.0003	.0003
#2	.0046	-.0042	.0096	.0336	.0032	.0002	.0013	-.0001	.0002
#3	.0056	.0062	.0263	.0329	.0026	.0000	.0010	.0005	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 21:06:18 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0010**	**.0002**	**.0018**	**.0002**	F **.0026**	**-.0016**	**.0001**
Stddev	.0002	.0002	.0001	.0028	.0008	.0011	.0004	.0002
%RSD	178.1	22.70	43.70	153.9	332.5	40.86	27.20	180.2
#1	.0001	.0010	.0002	.0030	-.0005	.0018	-.0011	.0004
#2	.0003	.0008	.0001	.0038	.0011	.0038	-.0018	.0001
#3	-.0001	.0012	.0003	-.0014	.0001	.0022	-.0018	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0023		
Low Limit						-.0023		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**252590.**	**42636.**	**7859.0**	**14421.**
Stddev	780.	103.	14.8	30.
%RSD	.30886	.24123	.18821	.20849
#1	252590.	42540.	7864.1	14434.
#2	251810.	42624.	7842.3	14387.
#3	253370.	42745.	7870.6	14442.

Zoom In Zoom Out

Sample Name: jd4583-1 Acquired: 3/17/2020 21:11:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0335**	**.0001**	**.0001**	**.0000**	**.0017**	**.0015**	**.1115**	**.0006**	**.0008**
Stddev	.0003	.0000	.0001	.0001	.0003	.0001	.0029	.0001	.0002
%RSD	.7536	24.80	206.4	1442.	17.58	9.034	2.596	18.41	20.31
#1	.0336	.0001	.0001	.0001	.0016	.0014	.1105	.0006	.0010
#2	.0332	.0001	.0001	.0001	.0015	.0015	.1093	.0005	.0008
#3	.0337	.0001	-.0001	-.0001	.0021	.0017	.1148	.0007	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0064**	**.0032**	**.0010**	**.0003**	**.0003**	**.0031**	**.0001**	**.2408**	**30.30**
Stddev	.0005	.0001	.0014	.0013	.0008	.0009	.0008	.0047	.03
%RSD	7.148	3.343	137.6	446.8	233.5	29.65	607.8	1.943	.1020
#1	.0062	.0033	.0019	.0014	-.0000	.0036	.0008	.2450	30.26
#2	.0060	.0031	.0017	-.0012	.0012	.0020	.0003	.2357	30.31
#3	.0069	.0032	-.0006	.0007	-.0002	.0036	-.0008	.2416	30.32

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5128**	**5.014**	**2.029**	F **219.1**	**.0162**	**.0002**	**1.703**	**.0002**	**.2220**
Stddev	.0023	.012	.024	4.0	.0005	.0001	.001	.0005	.0003
%RSD	.4550	.2345	1.198	1.842	3.208	77.19	.0584	259.9	.1270
#1	.5105	5.015	2.003	215.5	.0163	.0003	1.702	.0001	.2217
#2	.5151	5.025	2.050	218.4	.0157	.0002	1.703	.0007	.2223
#3	.5129	5.002	2.036	223.5	.0167	.0000	1.703	-.0003	.2219

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072**	**.0032**	**.0008**	**.8707**	**-.0005**	**.0090**	**.0320**	**-.0004**
Stddev	.0003	.0010	.0001	.0018	.0003	.0010	.0007	.0011
%RSD	4.020	31.90	8.367	.2040	62.36	10.85	2.175	311.1
#1	.0068	.0027	.0009	.8718	-.0002	.0085	.0312	.0002
#2	.0073	.0025	.0008	.8718	-.0008	.0083	.0325	.0004
#3	.0073	.0044	.0008	.8687	-.0004	.0101	.0323	-.0016

Zoom In Zoom Out

Sample Name: jd4583-1 Acquired: 3/17/2020 21:11:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**239400.**	**41770.**	**7511.3**	**13014.**
Stddev	6007.	197.	18.4	25.
%RSD	2.5091	.47121	.24470	.19496
#1	241630.	41980.	7516.3	13013.
#2	243980.	41739.	7490.9	12990.
#3	232600.	41590.	7526.6	13040.

Zoom In Zoom Out

Sample Name: mp20241-sd1 Acquired: 3/17/2020 21:16:28 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0346**	**.0005**	**.0005**	**-.0008**	**.0013**	**.0075**	**.1164**	**.0003**	**.0033**
Stddev	.0017	.0001	.0005	.0014	.0012	.0011	.0008	.0007	.0006
%RSD	4.865	17.04	92.86	183.9	87.49	14.13	.6674	205.8	17.61
#1	.0328	.0006	.0010	.0001	.0020	.0072	.1158	-.0004	.0040
#2	.0350	.0004	.0001	-.0000	-.0000	.0086	.1173	.0006	.0029
#3	.0361	.0006	.0005	-.0024	.0021	.0065	.1162	.0008	.0030

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051**	**.0087**	**.0032**	**.0007**	**-.0008**	**.0051**	**.0007**	**.3063**	**31.10**
Stddev	.0015	.0003	.0012	.0029	.0030	.0040	.0013	.0033	.07
%RSD	29.81	3.734	36.73	429.7	358.6	78.31	168.5	1.082	.2254
#1	.0049	.0091	.0039	.0034	.0026	.0054	-.0005	.3074	31.05
#2	.0067	.0084	.0019	.0011	-.0027	.0089	.0020	.3090	31.18
#3	.0036	.0087	.0039	-.0024	-.0024	.0010	.0007	.3026	31.07

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5321**	**5.243**	**2.280**	**231.1**	**.0249**	**-.0004**	**1.761**	**.0004**	**.2280**
Stddev	.0079	.054	.141	.4	.0010	.0007	.009	.0021	.0008
%RSD	1.488	1.033	6.197	.1898	4.022	186.2	.4979	556.8	.3402
#1	.5280	5.271	2.124	231.0	.0261	-.0003	1.771	.0026	.2272
#2	.5413	5.180	2.399	231.5	.0245	.0003	1.756	-.0017	.2287
#3	.5272	5.276	2.318	230.7	.0242	-.0011	1.756	.0003	.2282

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079**	**.0095**	**.0027**	**.9645**	**.0002**	**.0299**	**.0310**	**-.0018**
Stddev	.0012	.0039	.0003	.0066	.0035	.0063	.0012	.0079
%RSD	14.61	41.28	11.57	.6819	1670.	20.96	3.896	445.3
#1	.0089	.0138	.0031	.9614	-.0016	.0329	.0302	.0012
#2	.0082	.0087	.0025	.9720	.0043	.0227	.0324	.0042
#3	.0066	.0061	.0026	.9600	-.0020	.0341	.0303	-.0107

Zoom In Zoom Out

Sample Name: mp20241-sd1 Acquired: 3/17/2020 21:16:28 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**248090.**	**42252.**	**7736.5**	**13825.**
Stddev	1111.	185.	16.7	27.
%RSD	.44766	.43736	.21564	.19456
#1	249350.	42465.	7720.0	13799.
#2	247250.	42140.	7736.0	13823.
#3	247670.	42151.	7753.4	13853.

Zoom In Zoom Out

Sample Name: jd4515-5f Acquired: 3/17/2020 21:21:28 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1261**	**.0001**	**.0005**	**.0505**	**.0002**	**.0019**	**2.660**	**.0185**	**.0005**
Stddev	.0003	.0000	.0001	.0001	.0002	.0003	.010	.0001	.0001
%RSD	.2596	29.30	11.26	.1204	92.57	18.01	.3824	.5876	26.56
#1	.1262	.0001	.0005	.0504	.0003	.0018	2.654	.0184	.0005
#2	.1258	.0001	.0004	.0504	-.0000	.0023	2.672	.0186	.0006
#3	.1264	.0001	.0005	.0505	.0003	.0017	2.655	.0185	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081**	**.0897**	**.0015**	**.0022**	**-.0005**	**.0027**	**.0015**	**.0127**	**49.63**
Stddev	.0004	.0001	.0006	.0006	.0005	.0018	.0005	.0072	.03
%RSD	4.712	.0689	40.45	27.23	90.31	68.08	31.12	56.53	.0681
#1	.0079	.0898	.0020	.0029	.0000	.0006	.0012	.0205	49.66
#2	.0086	.0897	.0008	.0019	-.0009	.0039	.0013	.0064	49.59
#3	.0079	.0897	.0016	.0018	-.0007	.0036	.0021	.0113	49.64

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.984**	**5.156**	**10.38**	F **505.6**	**.0502**	**.0022**	**6.934**	**.0002**	**.6140**
Stddev	.016	.010	.04	1.5	.0009	.0001	.005	.0005	.0014
%RSD	.3268	.2005	.4029	.3015	1.754	5.102	.0687	277.0	.2247
#1	4.998	5.156	10.37	504.5	.0497	.0022	6.934	-.0003	.6149
#2	4.966	5.167	10.35	505.1	.0512	.0022	6.939	.0002	.6124
#3	4.987	5.146	10.43	507.4	.0497	.0020	6.930	.0007	.6147

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0033**	**-.0003**	**13.19**	**.0009**	**.0260**	**-.0056**	**-.0073**
Stddev	.0002	.0006	.0002	.03	.0008	.0013	.0003	.0007
%RSD	138.4	19.46	60.55	.2441	82.02	5.052	5.386	9.986
#1	-.0001	.0040	-.0001	13.22	.0001	.0263	-.0055	-.0065
#2	.0003	.0031	-.0004	13.16	.0013	.0246	-.0053	-.0080
#3	.0002	.0028	-.0004	13.20	.0015	.0271	-.0059	-.0074

Zoom In Zoom Out

Sample Name: jd4515-5f Acquired: 3/17/2020 21:21:28 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**231710.**	**41569.**	**7299.9**	**12503.**
Stddev	1770.	228.	3.4	6.
%RSD	.76405	.54961	.04649	.05026
#1	231150.	41725.	7300.6	12501.
#2	230290.	41306.	7303.0	12509.
#3	233690.	41674.	7296.3	12497.

Zoom In Zoom Out

Sample Name: jd4539-1 Acquired: 3/17/2020 21:26:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0613**	**.0001**	**.0001**	**.0001**	**.0040**	**.0068**	**.1209**	**.0010**	**.0005**
Stddev	.0001	.0000	.0001	.0001	.0002	.0003	.0002	.0004	.0002
%RSD	.2148	27.36	68.24	85.44	4.323	4.044	.1363	37.49	38.60
#1	.0613	.0001	.0003	.0002	.0038	.0065	.1208	.0007	.0006
#2	.0615	.0001	.0001	.0000	.0041	.0069	.1209	.0014	.0003
#3	.0612	.0001	.0001	.0001	.0039	.0070	.1211	.0010	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0197**	**.0059**	**.0044**	**.0013**	**.0030**	**.0049**	**.0010**	**.2126**	**45.86**
Stddev	.0001	.0001	.0012	.0007	.0002	.0008	.0011	.0033	.02
%RSD	.6302	2.493	27.00	55.15	6.353	16.11	108.5	1.560	.0483
#1	.0196	.0060	.0033	.0019	.0029	.0058	-.0001	.2110	45.88
#2	.0198	.0059	.0043	.0005	.0032	.0042	.0020	.2104	45.84
#3	.0199	.0057	.0056	.0016	.0028	.0047	.0010	.2164	45.86

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7675**	**6.378**	**16.48**	**96.17**	**.1154**	**.0045**	**12.50**	**.0009**	**.4617**
Stddev	.0014	.008	.03	.74	.0016	.0001	.08	.0003	.0007
%RSD	.1770	.1219	.1698	.7710	1.374	2.733	.6146	36.06	.1593
#1	.7672	6.380	16.51	95.42	.1150	.0046	12.41	.0008	.4625
#2	.7664	6.384	16.48	96.17	.1171	.0044	12.54	.0012	.4612
#3	.7690	6.369	16.46	96.90	.1140	.0044	12.55	.0006	.4612

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0163**	**.0021**	**-.0004**	**9.327**	**-.0003**	**.0169**	**1.099**	**-.0006**
Stddev	.0001	.0016	.0002	.072	.0008	.0011	.007	.0009
%RSD	.8781	73.47	40.64	.7715	302.3	6.593	.6512	140.7
#1	.0161	.0026	-.0002	9.244	-.0005	.0175	1.091	-.0016
#2	.0164	.0034	-.0005	9.368	.0006	.0176	1.105	.0001
#3	.0163	.0004	-.0006	9.370	-.0009	.0156	1.101	-.0004

Zoom In Zoom Out

Sample Name: jd4539-1 Acquired: 3/17/2020 21:26:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**243290.**	**42283.**	**7612.4**	**13426.**
Stddev	533.	231.	47.5	78.
%RSD	.21890	.54596	.62424	.58121
#1	243870.	42388.	7666.9	13516.
#2	243170.	42442.	7579.6	13375.
#3	242830.	42018.	7590.7	13387.

Zoom In Zoom Out

Sample Name: jd4539-3 Acquired: 3/17/2020 21:31:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1454**	**.0002**	**.0005**	**.0019**	**.0072**	**.0235**	**.1655**	**.0062**	**.0008**
Stddev	.0003	.0000	.0002	.0001	.0002	.0002	.0011	.0001	.0001
%RSD	.2005	14.69	35.85	7.620	3.427	.9280	.6683	1.422	10.49
#1	.1452	.0001	.0005	.0020	.0075	.0237	.1644	.0061	.0007
#2	.1457	.0001	.0003	.0017	.0070	.0236	.1655	.0063	.0009
#3	.1452	.0002	.0007	.0019	.0072	.0233	.1666	.0061	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107**	**.1453**	**.0035**	**-.0003**	**.0086**	**.0016**	**.0013**	**1.790**	**53.16**
Stddev	.0002	.0004	.0007	.0019	.0001	.0006	.0011	.004	.03
%RSD	2.234	.2782	20.84	555.0	1.729	39.14	89.98	.2234	.0634
#1	.0105	.1452	.0030	-.0024	.0087	.0017	.0017	1.786	53.12
#2	.0107	.1450	.0043	.0014	.0085	.0022	.0021	1.793	53.19
#3	.0109	.1458	.0031	-.0001	.0085	.0010	-.0000	1.792	53.16

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.786**	**70.31**	**26.91**	F **563.7**	**.2797**	**.0029**	**7.444**	**.0009**	**.5774**
Stddev	.005	.10	.09	3.9	.0005	.0000	.011	.0002	.0011
%RSD	.1246	.1365	.3372	.6931	.1965	.4606	.1530	24.76	.1821
#1	3.790	70.21	26.80	560.0	.2800	.0029	7.437	.0009	.5766
#2	3.788	70.40	26.96	563.3	.2791	.0028	7.437	.0006	.5786
#3	3.781	70.31	26.96	567.8	.2801	.0029	7.457	.0011	.5769

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1766**	**.0020**	**-.0003**	**43.77**	**.0024**	**.0429**	**.5997**	**.0038**
Stddev	.0012	.0005	.0002	.17	.0018	.0024	.0018	.0015
%RSD	.6617	26.51	58.08	.3869	75.96	5.478	.2982	38.99
#1	.1759	.0017	-.0002	43.70	.0043	.0403	.5986	.0033
#2	.1760	.0017	-.0006	43.65	.0020	.0448	.5987	.0026
#3	.1780	.0026	-.0003	43.97	.0008	.0437	.6018	.0054

Zoom In Zoom Out

Sample Name: jd4539-3 Acquired: 3/17/2020 21:31:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**227300.**	**41443.**	**7204.8**	**12306.**
Stddev	1069.	96.	19.8	30.
%RSD	.47037	.23275	.27458	.24019
#1	228280.	41348.	7224.2	12336.
#2	227440.	41541.	7205.4	12305.
#3	226160.	41438.	7184.7	12277.

Zoom In Zoom Out

Sample Name: jd4539-4 Acquired: 3/17/2020 21:36:33 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3069**	**.0005**	**.0004**	**.0073**	**.0590**	**.0438**	**.3144**	**.0193**	**.0018**
Stddev	.0006	.0001	.0002	.0003	.0007	.0001	.0004	.0000	.0001
%RSD	.1878	11.23	45.48	4.006	1.179	.2618	.1316	.1243	5.196
#1	.3065	.0006	.0002	.0072	.0595	.0439	.3145	.0193	.0017
#2	.3066	.0006	.0005	.0071	.0582	.0437	.3148	.0193	.0019
#3	.3076	.0005	.0006	.0077	.0592	.0439	.3140	.0193	.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0383**	**.0915**	**.0176**	**.0015**	**.0446**	**.0073**	**.0011**	**11.10**	**34.62**
Stddev	.0001	.0003	.0006	.0008	.0010	.0008	.0002	.03	.05
%RSD	.2208	.3191	3.291	54.94	2.240	11.20	21.25	.2258	.1334
#1	.0382	.0916	.0170	.0009	.0457	.0066	.0008	11.07	34.57
#2	.0384	.0918	.0182	.0024	.0442	.0082	.0010	11.11	34.63
#3	.0383	.0912	.0175	.0012	.0439	.0072	.0013	11.12	34.66

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.70**	**38.57**	**17.46**	F **277.5**	**.1853**	**.0061**	**21.95**	**.0159**	**.4423**
Stddev	.03	.05	.03	1.4	.0001	.0001	.07	.0004	.0013
%RSD	.1685	.1292	.1989	.4981	.0774	1.776	.3307	2.718	.2838
#1	20.67	38.61	17.42	276.1	.1852	.0063	22.01	.0157	.4409
#2	20.70	38.52	17.48	278.8	.1855	.0061	21.99	.0157	.4427
#3	20.74	38.58	17.48	277.6	.1853	.0061	21.87	.0164	.4433

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3470**	**.0012**	**.0023**	**26.71**	**.0047**	**.0448**	**.5643**	**.0437**
Stddev	.0003	.0009	.0001	.06	.0008	.0005	.0015	.0017
%RSD	.0730	75.34	4.507	.2128	17.29	1.031	.2573	3.824
#1	.3472	.0005	.0024	26.77	.0038	.0448	.5660	.0426
#2	.3469	.0009	.0022	26.67	.0051	.0453	.5632	.0456
#3	.3467	.0023	.0022	26.67	.0052	.0444	.5638	.0429

Zoom In Zoom Out

Sample Name: jd4539-4 Acquired: 3/17/2020 21:36:33 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**240310.**	**42139.**	**7529.0**	**12888.**
Stddev	611.	245.	13.4	28.
%RSD	.25441	.58145	.17795	.21624
#1	239730.	41860.	7517.3	12875.
#2	240270.	42240.	7526.0	12869.
#3	240950.	42318.	7543.6	12920.

Zoom In Zoom Out

Sample Name: jd4539-5 Acquired: 3/17/2020 21:41:31 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1211**	**.0004**	**.0019**	**.0062**	**.0255**	**.0352**	**.3058**	**.0145**	**.0013**
Stddev	.0003	.0000	.0000	.0003	.0005	.0001	.0011	.0002	.0005
%RSD	.2888	9.166	.8938	4.326	2.090	.1968	.3623	1.659	41.07
#1	.1208	.0004	.0019	.0059	.0258	.0351	.3070	.0143	.0007
#2	.1210	.0005	.0019	.0064	.0249	.0351	.3048	.0143	.0014
#3	.1215	.0004	.0019	.0063	.0258	.0352	.3057	.0147	.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0259**	**.0978**	**.0179**	**-.0004**	**.0310**	**.0054**	**.0014**	**7.316**	**61.30**
Stddev	.0004	.0009	.0002	.0027	.0010	.0013	.0003	.003	.08
%RSD	1.456	.9551	.9282	639.1	3.134	23.41	23.40	.0362	.1246
#1	.0264	.0967	.0181	.0026	.0301	.0043	.0018	7.315	61.22
#2	.0258	.0984	.0180	-.0027	.0321	.0068	.0012	7.314	61.37
#3	.0257	.0983	.0177	-.0012	.0308	.0052	.0013	7.319	61.31

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.66**	**121.6**	**39.69**	F **909.0**	**.4413**	**.0075**	**15.40**	**.0170**	**.8117**
Stddev	.03	.1	.11	10.7	.0035	.0001	.17	.0002	.0014
%RSD	.1736	.0769	.2703	1.173	.7951	.9175	1.101	.9942	.1773
#1	15.66	121.5	39.59	910.9	.4374	.0076	15.21	.0169	.8108
#2	15.69	121.7	39.80	918.6	.4441	.0075	15.55	.0171	.8134
#3	15.64	121.7	39.67	897.5	.4423	.0075	15.44	.0172	.8110

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2702**	**.0018**	**.0007**	**90.30**	**.0028**	**.0870**	**.3357**	**.0267**
Stddev	.0011	.0006	.0001	.83	.0010	.0023	.0021	.0016
%RSD	.3972	35.68	15.78	.9193	37.07	2.622	.6127	5.921
#1	.2714	.0016	.0006	89.45	.0019	.0852	.3336	.0250
#2	.2693	.0013	.0007	91.10	.0039	.0863	.3377	.0281
#3	.2700	.0025	.0008	90.35	.0026	.0896	.3358	.0268

Zoom In / Zoom Out

Sample Name: jd4539-5 Acquired: 3/17/2020 21:41:31 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**224520.**	**40655.**	**7109.0**	**11955.**
Stddev	1799.	46.	68.7	110.
%RSD	.80119	.11320	.96706	.91672
#1	223070.	40602.	7187.9	12081.
#2	226530.	40685.	7061.8	11881.
#3	223950.	40679.	7077.3	11903.

Zoom In / Zoom Out

Sample Name: jd4539-7 Acquired: 3/17/2020 21:46:29 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1126**	**.0003**	**.0003**	**.0046**	**.0402**	**.0941**	**.1431**	**.0163**	**.0014**
Stddev	.0003	.0000	.0003	.0003	.0006	.0022	.0027	.0003	.0002
%RSD	.2586	14.24	104.7	7.581	1.459	2.377	1.883	2.132	14.62
#1	.1128	.0003	.0002	.0049	.0396	.0916	.1400	.0164	.0014
#2	.1127	.0004	.0000	.0046	.0407	.0959	.1452	.0165	.0015
#3	.1123	.0003	.0006	.0042	.0403	.0949	.1440	.0159	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0381**	**.1736**	**.0071**	**.0019**	**.0791**	**.0057**	**.0033**	**7.910**	**121.3**
Stddev	.0006	.0003	.0010	.0004	.0010	.0012	.0006	.003	1.1
%RSD	1.699	.1729	13.82	19.02	1.213	21.77	18.31	.0341	.9431
#1	.0374	.1733	.0068	.0018	.0801	.0055	.0036	7.914	121.3
#2	.0386	.1739	.0083	.0024	.0791	.0069	.0026	7.909	122.5
#3	.0383	.1735	.0064	.0017	.0782	.0045	.0038	7.909	120.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.263**	**5.333**	**19.71**	**50.62**	**.0680**	**.0091**	**18.06**	**.0048**	**2.631**
Stddev	.017	.008	.07	.11	.0002	.0001	.02	.0007	.033
%RSD	.1800	.1476	.3636	.2179	.2557	.7250	.0988	15.15	1.254
#1	9.279	5.326	19.79	50.68	.0681	.0092	18.07	.0055	2.593
#2	9.246	5.332	19.64	50.68	.0682	.0091	18.07	.0041	2.645
#3	9.264	5.342	19.71	50.49	.0679	.0090	18.04	.0047	2.655

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3356**	**.0036**	**.0023**	**9.987**	**.0039**	**.0281**	**.2478**	**.0171**
Stddev	.0071	.0002	.0001	.005	.0011	.0015	.0010	.0026
%RSD	2.117	5.884	3.992	.0532	28.79	5.217	.4202	14.94
#1	.3275	.0037	.0022	9.983	.0026	.0280	.2477	.0143
#2	.3410	.0034	.0023	9.986	.0047	.0296	.2489	.0178
#3	.3382	.0038	.0024	9.993	.0042	.0267	.2468	.0193

Zoom In / Zoom Out

Sample Name: jd4539-7 Acquired: 3/17/2020 21:46:29 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**246780.**	**41927.**	**7643.1**	**13261.**
Stddev	3781.	181.	10.7	17.
%RSD	1.5322	.43153	.14016	.12996
#1	251070.	42023.	7655.5	13279.
#2	243930.	41718.	7636.4	13244.
#3	245350.	42039.	7637.5	13261.

Zoom In / Zoom Out

Sample Name: jd4539-9 Acquired: 3/17/2020 21:51:37 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0000**	**.0001**	**.0002**	**.0022**	**.0016**	**.0002**	**.0001**	**.0001**
Stddev	.0002	.0000	.0001	.0002	.0001	.0003	.0000	.0001	.0006
%RSD	1454.	95.19	134.3	102.8	4.177	17.41	18.70	187.6	563.0
#1	.0002	.0001	.0002	.0001	.0021	.0016	.0001	.0001	.0003
#2	-.0001	.0000	-.0000	.0001	.0023	.0019	.0002	-.0001	-.0005
#3	-.0001	.0000	.0000	.0004	.0021	.0013	.0001	.0002	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0010**	**.0002**	**-.0002**	**.0006**	**.0008**	**.0010**	**.0047**	**-.0028**
Stddev	.0002	.0001	.0006	.0013	.0005	.0004	.0008	.0056	.0007
%RSD	1966.	5.680	377.2	670.0	73.48	46.96	82.84	119.7	24.47
#1	-.0000	.0009	.0001	.0012	.0002	.0009	.0019	.0093	-.0027
#2	.0002	.0010	-.0004	-.0015	.0005	.0004	.0006	.0063	-.0035
#3	-.0002	.0011	.0008	-.0003	.0011	.0012	.0005	-.0016	-.0022

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0183**	**-.0100**	**.0929**	**.1770**	**.0007**	**-.0001**	**.0118**	**-.0004**	**.0001**
Stddev	.0006	.0066	.0179	.0086	.0004	.0002	.0007	.0003	.0000
%RSD	3.390	66.39	19.31	4.860	53.84	367.3	5.521	58.65	25.09
#1	.0188	-.0035	.0773	.1865	.0010	.0001	.0115	-.0001	.0001
#2	.0185	-.0098	.1125	.1748	.0003	.0001	.0125	-.0006	.0001
#3	.0176	-.0168	.0888	.1697	.0007	-.0003	.0113	-.0006	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0011**	**.0001**	**.0065**	**.0003**	**.0095**	**.0002**	**-.0006**
Stddev	.0001	.0010	.0001	.0016	.0017	.0008	.0003	.0035
%RSD	35.43	94.79	167.5	24.86	537.7	8.220	197.9	625.7
#1	.0005	.0005	.0000	.0056	-.0009	.0086	.0000	.0033
#2	.0002	.0022	.0002	.0055	-.0003	.0099	-.0001	-.0015
#3	.0003	.0005	-.0000	.0083	.0022	.0101	.0006	-.0035

Zoom In Zoom Out

Sample Name: jd4539-9 Acquired: 3/17/2020 21:51:37 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251540.**	**42543.**	**7858.4**	**14407.**
Stddev	496.	361.	65.0	126.
%RSD	.19701	.84949	.82753	.87508
#1	251010.	42145.	7898.5	14491.
#2	251620.	42636.	7783.4	14262.
#3	251990.	42850.	7893.3	14467.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 21:56:44 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.019**	**2.105**	**2.005**	**2.038**	**2.035**	**1.993**	**2.047**	**2.032**	**.2478**
Stddev	.002	.004	.002	.004	.005	.005	.008	.004	.0006
%RSD	.0815	.1910	.1109	.1817	.2304	.2456	.4075	.1847	.2546
#1	2.018	2.109	2.007	2.041	2.036	1.995	2.056	2.036	.2476
#2	2.021	2.105	2.005	2.034	2.040	1.997	2.043	2.029	.2486
#3	2.018	2.101	2.003	2.038	2.031	1.988	2.041	2.030	.2473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.065**	**2.052**	**1.981**	**2.090**	**2.025**	**1.988**	**1.982**	**39.93**	**40.27**
Stddev	.007	.004	.003	.011	.005	.001	.003	.09	.10
%RSD	.3293	.2047	.1254	.5241	.2581	.0529	.1369	.2221	.2403
#1	2.066	2.057	1.980	2.093	2.031	1.987	1.984	39.90	40.26
#2	2.070	2.051	1.978	2.078	2.022	1.987	1.983	40.02	40.38
#3	2.057	2.048	1.983	2.100	2.022	1.989	1.979	39.85	40.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.62**	**40.57**	**39.69**	**40.16**	**2.013**	**1.991**	**5.002**	**2.027**	**2.008**
Stddev	.12	.14	.15	.11	.001	.002	.004	.002	.021
%RSD	.3029	.3559	.3658	.2821	.0537	.1016	.0794	.0893	1.040
#1	40.58	40.61	39.58	40.12	2.013	1.992	5.006	2.028	2.027
#2	40.76	40.69	39.85	40.28	2.014	1.992	5.002	2.025	1.986
#3	40.53	40.41	39.63	40.06	2.012	1.989	4.998	2.027	2.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 21:56:44 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**1.953**	**2.020**	**1.848**	**1.988**	**2.037**	**1.973**	**2.001**
Stddev	.005	.002	.004	.005	.003	.004	.008	.004
%RSD	.2634	.0745	.2222	.2643	.1726	.1857	.3839	.1837
#1	2.043	1.952	2.023	1.845	1.986	2.041	1.971	2.003
#2	2.045	1.954	2.022	1.846	1.992	2.036	1.967	2.002
#3	2.035	1.952	2.015	1.854	1.987	2.033	1.982	1.997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**242900.**	**41760.**	**7606.9**	**13343.**
Stddev	608.	208.	25.9	40.
%RSD	.25015	.49827	.34076	.30119
#1	242290.	41670.	7582.6	13299.
#2	242910.	41611.	7604.0	13355.
#3	243510.	41998.	7634.2	13376.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 22:01:43 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	F **.0002**	**.0001**	**.0001**	**.0001**	**.0009**	**.0000**	**-.0000**	**.0007**
Stddev	.0001	.0000	.0001	.0001	.0000	.0001	.0000	.0003	.0003
%RSD	125.1	19.56	231.2	108.9	59.84	14.47	110.1	1960.	35.06
#1	-.0001	.0002	.0002	.0002	.0000	.0009	.0001	-.0003	.0010
#2	.0000	.0002	-.0000	.0001	.0001	.0009	.0000	.0000	.0005
#3	-.0001	.0003	-.0000	.0000	.0000	.0011	.0000	.0003	.0006
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001							
Low Limit		-.0001							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0004**	**.0004**	**.0012**	**-.0002**	**.0006**	**-.0001**	**.0076**	**.0015**
Stddev	.0001	.0001	.0004	.0010	.0009	.0015	.0009	.0035	.0026
%RSD	213.3	30.09	99.70	87.66	443.7	264.0	1287.	46.40	165.5
#1	.0000	-.0003	.0002	.0016	.0005	-.0010	.0006	.0082	.0015
#2	.0001	-.0003	.0009	.0019	-.0012	.0019	.0003	.0109	.0041
#3	-.0000	-.0005	.0002	-.0000	.0001	.0008	-.0011	.0039	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047**	**.0079**	**.0701**	**.0984**	**.0015**	**-.0000**	**.0021**	**.0002**	**.0002**
Stddev	.0006	.0081	.0023	.0080	.0007	.0001	.0003	.0002	.0000
%RSD	13.31	101.5	3.290	8.177	42.95	593.3	13.46	137.0	20.87
#1	.0053	.0147	.0684	.0994	.0023	.0001	.0018	.0001	.0002
#2	.0047	.0100	.0692	.1059	.0012	-.0000	.0023	.0004	.0002
#3	.0040	-.0010	.0728	.0899	.0011	-.0002	.0022	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 22:01:43 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0006**	**.0001**	**.0021**	**-.0005**	F **.0059**	**-.0018**	**.0034**
Stddev	.0001	.0005	.0000	.0008	.0019	.0009	.0008	.0023
%RSD	731.4	76.81	39.31	38.52	377.8	15.53	43.89	67.64
#1	.0001	.0001	.0001	.0015	-.0020	.0052	-.0009	.0036
#2	-.0000	.0011	.0001	.0030	.0016	.0070	-.0020	.0010
#3	-.0001	.0007	.0001	.0018	-.0012	.0056	-.0025	.0057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0023		
Low Limit						-.0023		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**254390.**	**42518.**	**7837.8**	**14381.**
Stddev	2367.	350.	63.5	122.
%RSD	.93027	.82256	.81019	.85120
#1	254000.	42810.	7864.4	14416.
#2	256930.	42131.	7765.3	14245.
#3	252250.	42615.	7883.7	14482.

Zoom In Zoom Out

Sample Name: vconf Acquired: 3/17/2020 22:06:42 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0009**	**-.0003**	**.0002**	**.0004**	**.0014**	**-.0001**	**.0004**	**.0014**
Stddev	.0001	.0000	.0003	.0002	.0003	.0003	.0000	.0002	.0001
%RSD	46.98	3.399	89.79	81.58	76.38	19.10	24.34	36.55	9.423
#1	.0002	.0009	-.0001	.0004	.0004	.0011	-.0000	.0006	.0015
#2	.0004	.0009	-.0006	.0001	.0007	.0016	-.0001	.0003	.0014
#3	.0002	.0010	-.0002	.0002	.0001	.0014	-.0001	.0003	.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **9.861**	**.0061**	**-.0021**	**.0016**	**.0002**	**.0032**	**.0034**	**.0174**	**.0407**
Stddev	.028	.0001	.0006	.0013	.0002	.0011	.0017	.0043	.0019
%RSD	.2840	1.754	26.72	81.18	91.55	34.73	50.32	24.88	4.703
#1	9.845	.0062	-.0018	.0018	.0003	.0045	.0047	.0163	.0429
#2	9.894	.0061	-.0028	.0002	-.0000	.0029	.0041	.0137	.0395
#3	9.845	.0060	-.0018	.0029	.0003	.0023	.0015	.0221	.0396

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0083**	**.0383**	**.1034**	**.0009**	**-.0027**	**.1563**	**-.0005**	**.0001**
Stddev	.0019	.0125	.0107	.0024	.0003	.0001	.0023	.0003	.0001
%RSD	596.8	151.7	27.94	2.362	36.33	3.522	1.497	66.03	89.64
#1	.0025	-.0062	.0466	.1036	.0013	-.0027	.1543	-.0006	.0001
#2	-.0009	.0164	.0262	.1058	.0007	-.0026	.1558	-.0008	.0000
#3	-.0006	.0146	.0420	.1009	.0008	-.0027	.1589	-.0001	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0032**	**-.0006**	**.0020**	**-.0013**	**.0025**	**-.0077**	**.0028**
Stddev	.0002	.0007	.0002	.0011	.0008	.0008	.0008	.0024
%RSD	80.59	23.11	29.24	53.44	60.11	31.20	10.77	83.47
#1	.0003	.0039	-.0008	.0020	-.0004	.0033	-.0086	.0025
#2	.0000	.0031	-.0005	.0009	-.0019	.0017	-.0076	.0007
#3	.0003	.0025	-.0004	.0030	-.0017	.0025	-.0069	.0054

Zoom In Zoom Out

Sample Name: vconf Acquired: 3/17/2020 22:06:42 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**255140.**	**42306.**	**7860.6**	**14381.**
Stddev	517.	123.	14.9	27.
%RSD	.20250	.28961	.18921	.18889
#1	254570.	42334.	7858.0	14365.
#2	255260.	42171.	7847.2	14365.
#3	255580.	42411.	7876.6	14412.

Zoom In Zoom Out

Sample Name: bconf Acquired: 3/17/2020 22:11:51 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0002**	**.0002**	**.0003**	**.0007**	**-.0000**	**-.0002**	**.0010**
Stddev	.0001	.0000	.0001	.0002	.0001	.0002	.0000	.0003	.0003
%RSD	215.7	44.66	54.59	66.05	26.46	29.66	28.74	152.7	32.03
#1	-.0002	.0001	.0001	.0002	.0002	.0008	-.0000	.0001	.0009
#2	.0001	.0001	.0002	.0004	.0003	.0007	-.0000	-.0001	.0008
#3	-.0001	.0001	.0003	.0001	.0002	.0005	-.0001	-.0005	.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0006**	**.0010**	**-.0004**	**-.0001**	**.0008**	**.0004**	**.0100**	**.0126**
Stddev	.0001	.0001	.0013	.0010	.0003	.0007	.0014	.0042	.0010
%RSD	473.0	15.38	133.6	270.3	468.1	92.31	317.6	42.11	8.242
#1	-.0001	.0005	.0016	-.0014	.0001	.0015	-.0012	.0124	.0122
#2	.0001	.0007	.0018	.0004	-.0004	.0001	.0013	.0125	.0137
#3	-.0001	.0005	-.0005	-.0001	.0001	.0008	.0011	.0051	.0118

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0005**	**.0251**	**.0553**	F **9.925**	**.0001**	**.0112**	**.0036**	**.0001**
Stddev	.0012	.0093	.0103	.0052	.026	.0001	.0006	.0004	.0000
%RSD	236.5	1841.	41.07	9.352	.2658	119.5	5.099	11.59	33.23
#1	-.0009	.0106	.0216	.0517	9.943	.0001	.0106	.0032	.0001
#2	.0009	-.0077	.0171	.0531	9.937	-.0000	.0118	.0040	.0001
#3	-.0015	-.0014	.0368	.0613	9.895	.0002	.0111	.0035	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0035**	**.0002**	**.0138**	**.0001**	**.0024**	**-.0021**	**-.0009**
Stddev	.0000	.0005	.0002	.0009	.0005	.0013	.0009	.0010
%RSD	4.153	13.08	94.11	6.745	678.9	55.74	45.02	108.6
#1	.0009	.0039	.0003	.0129	-.0002	.0022	-.0031	-.0000
#2	.0009	.0030	.0002	.0137	.0007	.0038	-.0016	-.0020
#3	.0009	.0036	-.0000	.0147	-.0002	.0011	-.0014	-.0008

Zoom In Zoom Out

Sample Name: bconf Acquired: 3/17/2020 22:11:51 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**257050.**	**42603.**	**7897.6**	**14498.**
Stddev	706.	23.	12.5	24.
%RSD	.27460	.05411	.15878	.16573
#1	257850.	42597.	7883.9	14473.
#2	256770.	42584.	7900.6	14500.
#3	256520.	42629.	7908.5	14521.

Zoom In Zoom Out

Sample Name: ticonf Acquired: 3/17/2020 22:16:48 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0003**	**.0000**	**-.0023**	**.0000**	**.0014**	**.0001**	**.0002**	**.0018**
Stddev	.0003	.0001	.0004	.0001	.0001	.0003	.0000	.0001	.0001
%RSD	532.6	31.49	1920.	5.963	718.8	25.07	27.82	37.88	3.200
#1	.0002	.0002	-.0004	-.0024	-.0001	.0013	.0001	.0001	.0018
#2	.0003	.0003	.0001	-.0025	-.0000	.0011	.0001	.0003	.0019
#3	-.0003	.0003	.0003	-.0022	.0002	.0018	.0002	.0001	.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0021**	**.0001**	**-.0013**	**-.0016**	**.0014**	**.0024**	**.0126**	**.0252**
Stddev	.0001	.0001	.0003	.0015	.0009	.0020	.0004	.0057	.0027
%RSD	12.94	6.092	285.2	112.5	54.20	150.1	18.37	45.00	10.84
#1	-.0010	.0021	-.0002	-.0026	-.0017	-.0003	.0022	.0120	.0283
#2	-.0008	.0020	.0004	-.0017	-.0007	.0036	.0029	.0186	.0234
#3	-.0007	.0022	.0001	.0003	-.0024	.0008	.0021	.0073	.0238

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0096**	**.1079**	**.0178**	**.0323**	**.0076**	**-.0000**	**-.0214**	**.0105**	**.0001**
Stddev	.0019	.0063	.0199	.0056	.0005	.0001	.0006	.0007	.0000
%RSD	19.99	5.818	111.9	17.19	6.897	633.5	2.966	6.897	38.29
#1	.0116	.1143	.0091	.0365	.0076	-.0001	-.0206	.0097	.0001
#2	.0094	.1018	.0037	.0260	.0071	-.0000	-.0217	.0111	.0000
#3	.0078	.1076	.0406	.0345	.0081	.0001	-.0218	.0108	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **9.403**	**.0014**	**-.0003**	**.0178**	**.1063**	**.0021**	**-.0018**	**-.0067**
Stddev	.112	.0002	.0002	.0030	.0013	.0009	.0009	.0017
%RSD	1.191	12.49	63.65	17.05	1.266	42.04	50.13	24.84
#1	9.279	.0016	-.0004	.0184	.1058	.0027	-.0025	-.0056
#2	9.496	.0012	-.0001	.0146	.1052	.0026	-.0020	-.0059
#3	9.435	.0015	-.0004	.0206	.1078	.0011	-.0008	-.0086

Zoom In Zoom Out

Sample Name: ticonf Acquired: 3/17/2020 22:16:48 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**252760.**	**42400.**	**7841.6**	**14359.**
Stddev	2532.	96.	46.9	72.
%RSD	1.0017	.22597	.59815	.49817
#1	255680.	42467.	7792.0	14281.
#2	251240.	42290.	7847.4	14376.
#3	251360.	42442.	7885.2	14422.

Zoom In Zoom Out

Sample Name: moconf Acquired: 3/17/2020 22:22:03 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0003**	**-.0000**	**.0099**	**.0006**	**-.0005**	**-.0005**	**-.0014**
Stddev	.0002	.0000	.0001	.0001	.0007	.0001	.0001	.0002
%RSD	39.20	6.406	190.6	.8653	117.1	15.67	10.14	15.51
#1	-.0002	.0003	-.0001	.0100	-.0000	-.0005	-.0005	-.0012
#2	-.0006	.0003	-.0001	.0098	.0004	-.0004	-.0006	-.0014
#3	-.0005	.0003	.0000	.0098	.0013	-.0004	-.0005	-.0016

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0031**	**-.0017**	**-.0000**	F **-.0029**	**-.0003**	**-.0024**	**-.0019**
Stddev	.0002	.0002	.0000	.0010	.0008	.0006	.0020	.0015
%RSD	228.8	7.164	1.703	3300.	27.38	220.0	82.60	79.34
#1	-.0001	-.0030	-.0017	-.0012	-.0037	-.0002	-.0044	-.0023
#2	.0003	-.0030	-.0017	.0008	-.0021	-.0009	-.0023	-.0031
#3	.0001	-.0034	-.0017	.0004	-.0029	.0003	-.0005	-.0002

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0711**	**.0035**	**-.0019**	**-.0040**	**-.0427**	**.0393**	**.2395**	F **9.915**
Stddev	.0067	.0014	.0004	.0072	.0499	.0017	.0001	.013
%RSD	9.462	40.52	21.65	181.9	116.9	4.427	.0323	.1278
#1	.0764	.0036	-.0016	-.0029	-.0984	.0382	.2395	9.928
#2	.0734	.0048	-.0023	.0027	-.0021	.0385	.2395	9.915
#3	.0635	.0020	-.0016	-.0116	-.0276	.0413	.2394	9.903

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0847**	**-.0006**	**.0000**	**.0083**	**.0041**	**.0054**	**-.0021**	**.0025**
Stddev	.0001	.0004	.0001	.0003	.0001	.0001	.0014	.0002
%RSD	.1217	75.08	315.5	3.132	2.152	1.102	67.10	8.365
#1	.0848	-.0001	.0000	.0084	.0041	.0055	-.0005	.0028
#2	.0846	-.0006	.0001	.0085	.0041	.0054	-.0030	.0024
#3	.0846	-.0010	-.0000	.0080	.0042	.0054	-.0027	.0024

Zoom In Zoom Out

Sample Name: moconf Acquired: 3/17/2020 22:22:03 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0010**	**.0001**	**-.0031**
Stddev	.0003	.0004	.0031
%RSD	28.40	379.1	99.03
#1	.0011	.0002	-.0017
#2	.0012	-.0003	-.0066
#3	.0007	.0005	-.0009

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253700.**	**42454.**	**7844.6**	**14414.**
Stddev	2128.	175.	20.3	29.
%RSD	.83872	.41199	.25844	.20058
#1	254640.	42254.	7857.8	14426.
#2	251270.	42525.	7821.3	14381.
#3	255200.	42581.	7854.8	14435.

Zoom In Zoom Out

Sample Name: alconf Acquired: 3/17/2020 22:27:05 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0000**	**-.0001**	**.0009**	**.0005**	**-.0008**	**-.0005**
Stddev	.0001	.0000	.0001	.0003	.0002	.0005	.0001	.0001
%RSD	183.2	40.21	168.2	247.3	24.64	84.28	6.157	26.28
#1	-.0001	.0000	.0001	-.0003	.0008	.0008	-.0008	-.0004
#2	-.0001	.0001	.0001	.0002	.0011	.0000	-.0009	-.0004
#3	.0001	.0001	-.0000	-.0003	.0007	.0009	-.0008	-.0006

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**-.0000**	**-.0019**	**-.0009**	**.0023**	F **-.0043**	**.0004**	**-.0015**
Stddev	.0005	.0001	.0002	.0013	.0016	.0023	.0012	.0034
%RSD	30.05	1493.	9.970	154.9	71.62	53.75	320.6	224.6
#1	.0022	.0001	-.0021	-.0012	.0033	-.0017	.0013	.0022
#2	.0016	-.0002	-.0018	-.0020	.0031	-.0048	-.0010	-.0022
#3	.0012	.0000	-.0018	.0006	.0004	-.0062	.0009	-.0045

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **459.2**	**.0048**	**.0030**	**-.0001**	**.0392**	**.0139**	**.0052**	**-.0007**
Stddev	9.4	.0007	.0021	.0070	.0068	.0026	.0008	.0001
%RSD	2.040	14.31	69.21	8702.	17.40	19.04	14.45	12.81
#1	469.3	.0040	.0017	.0066	.0318	.0161	.0053	-.0008
#2	457.6	.0051	.0020	.0005	.0405	.0146	.0059	-.0006
#3	450.8	.0053	.0054	-.0073	.0453	.0110	.0044	-.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0165**	**-.0005**	**.0000**	**.0000**	**.0056**	**.0001**	**-.0091**	**-.0026**
Stddev	.0011	.0006	.0000	.0002	.0014	.0002	.0019	.0023
%RSD	6.858	120.6	130.2	897.3	24.15	247.0	20.89	86.97
#1	-.0177	-.0007	.0001	.0001	.0040	.0002	-.0106	-.0047
#2	-.0155	.0002	.0001	-.0002	.0063	.0001	-.0070	-.0002
#3	-.0162	-.0009	-.0000	.0002	.0065	-.0001	-.0098	-.0029

Zoom In Zoom Out

Sample Name: alconf Acquired: 3/17/2020 22:27:05 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0006**	**.0097**	**-.0020**
Stddev	.0005	.0007	.0018
%RSD	88.65	7.601	92.40
#1	.0010	.0105	-.0002
#2	.0006	.0095	-.0038
#3	.0000	.0091	-.0018

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**241420.**	**44412.**	**8035.2**	**13344.**
Stddev	5729.	259.	3.3	2.
%RSD	2.3729	.58258	.04160	.01700
#1	247250.	44151.	8033.3	13344.
#2	235800.	44416.	8033.2	13342.
#3	241220.	44669.	8039.1	13347.

Zoom In Zoom Out

Sample Name: caconf Acquired: 3/17/2020 22:32:06 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0000**	**.0001**	**.0002**	**.0010**	**.0014**	**.0001**	**.0003**	**.0017**
Stddev	.0000	.0000	.0001	.0001	.0001	.0002	.0000	.0002	.0002
%RSD	17.59	2851.	91.08	71.43	10.19	12.09	81.00	53.16	11.04
#1	.0002	-.0000	.0001	.0001	.0011	.0014	.0001	.0002	.0019
#2	.0002	-.0000	.0003	.0004	.0010	.0012	.0001	.0003	.0015
#3	.0002	.0000	.0000	.0002	.0009	.0015	.0000	.0005	.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0042**	**-.0001**	**.0003**	**.0029**	**.0012**	**-.0483**	F **394.3**
Stddev	.0003	.0001	.0011	.0011	.0006	.0004	.0006	.0055	3.2
%RSD	154.9	28.61	26.56	1283.	213.6	14.12	51.43	11.41	.8138
#1	.0005	.0003	.0042	.0006	.0003	.0024	.0012	-.0546	392.1
#2	-.0001	.0001	.0030	.0005	.0009	.0032	.0018	-.0464	393.0
#3	.0003	.0002	.0052	-.0013	-.0004	.0030	.0006	-.0441	398.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0150**	**.0128**	**-.0463**	**.0245**	**.0020**	**.0014**	**.0009**	**.0154**	**-.0006**
Stddev	.0011	.0046	.0226	.0014	.0004	.0001	.0007	.0002	.0000
%RSD	7.159	36.06	48.82	5.806	21.67	10.72	78.61	1.540	1.749
#1	.0159	.0080	-.0429	.0232	.0022	.0015	.0015	.0154	-.0006
#2	.0153	.0130	-.0704	.0260	.0022	.0012	.0009	.0151	-.0006
#3	.0138	.0173	-.0256	.0243	.0015	.0013	.0002	.0156	-.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023**	**.0090**	**.0004**	**.0311**	**.0019**	**-.0044**	**.0045**	**-.0087**
Stddev	.0001	.0006	.0001	.0011	.0011	.0017	.0014	.0037
%RSD	5.077	6.386	34.84	3.692	58.06	38.89	30.84	42.09
#1	.0023	.0093	.0003	.0317	.0018	-.0036	.0042	-.0054
#2	.0024	.0093	.0004	.0318	.0009	-.0033	.0060	-.0081
#3	.0021	.0083	.0006	.0298	.0031	-.0064	.0033	-.0126

Zoom In Zoom Out

Sample Name: caconf Acquired: 3/17/2020 22:32:06 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**235680.**	**41343.**	**7292.5**	**12823.**
Stddev	370.	107.	22.5	20.
%RSD	.15713	.25855	.30801	.15326
#1	235820.	41365.	7268.3	12801.
#2	235970.	41438.	7312.6	12835.
#3	235260.	41227.	7296.6	12835.

Zoom In Zoom Out

Sample Name: snconf Acquired: 3/17/2020 22:37:15 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0002**	**.0001**	**.0001**	**-.0010**	**.0000**	**.0002**	**.0012**
Stddev	.0002	.0000	.0001	.0001	.0002	.0001	.0000	.0003	.0001
%RSD	1011.	34.19	40.66	188.3	229.3	15.08	39210.	163.8	6.914
#1	-.0001	.0001	.0001	-.0000	.0002	-.0009	-.0000	.0005	.0012
#2	-.0001	.0001	.0001	.0002	-.0002	-.0008	-.0000	-.0001	.0012
#3	.0003	.0001	.0003	.0000	.0002	-.0011	.0000	.0001	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0010**	**.0006**	**.0005**	**.0001**	**.0003**	**-.0004**	**.0062**	**.0050**
Stddev	.0002	.0000	.0008	.0007	.0001	.0006	.0005	.0066	.0021
%RSD	101.3	3.654	136.5	156.2	133.2	189.6	115.2	106.2	41.17
#1	-.0003	-.0010	.0000	.0001	.0002	.0005	.0000	-.0007	.0043
#2	.0000	-.0010	.0002	-.0000	.0000	-.0003	-.0004	.0126	.0034
#3	-.0003	-.0011	.0015	.0013	.0000	.0008	-.0010	.0068	.0074

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0018**	**.0003**	**.0829**	**.0208**	**.0023**	**-.0001**	**.0706**	F **10.78**	**.0001**
Stddev	.0010	.0071	.0223	.0052	.0004	.0001	.0010	.02	.0001
%RSD	55.49	2201.	26.92	25.21	18.94	76.33	1.397	.2199	111.7
#1	-.0022	-.0075	.0860	.0267	.0021	-.0001	.0698	10.81	-.0000
#2	-.0025	.0063	.1035	.0165	.0020	-.0003	.0702	10.76	.0001
#3	-.0006	.0022	.0592	.0192	.0028	-.0001	.0717	10.78	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0130**	**.0010**	**.0107**	**.0000**	**.0009**	**-.0021**	**-.0004**
Stddev	.0001	.0004	.0001	.0006	.0008	.0008	.0007	.0008
%RSD	51.51	2.850	14.71	5.141	19950.	94.27	36.14	185.6
#1	-.0001	-.0125	.0009	.0113	.0007	-.0001	-.0020	-.0006
#2	-.0002	-.0132	.0009	.0103	-.0009	.0014	-.0014	-.0011
#3	-.0001	-.0132	.0011	.0106	.0002	.0013	-.0029	.0004

Zoom In Zoom Out

Sample Name: snconf Acquired: 3/17/2020 22:37:15 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**255740.**	**42317.**	**7874.3**	**14423.**
Stddev	602.	163.	29.7	47.
%RSD	.23523	.38474	.37664	.32314
#1	255730.	42261.	7866.9	14403.
#2	256350.	42189.	7906.9	14477.
#3	255150.	42500.	7849.0	14390.

Zoom In Zoom Out

Sample Name: mnconf Acquired: 3/17/2020 22:42:16 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0002**	**.0001**	**-.0000**	**-.0025**	**.0011**	F **9.774**	**.0001**	**.0008**
Stddev	.0002	.0000	.0002	.0002	.0001	.0005	.112	.0002	.0001
%RSD	207.5	7.221	259.9	641.6	4.406	40.69	1.145	175.7	9.489
#1	.0000	.0002	.0002	-.0002	-.0026	.0010	9.661	.0000	.0008
#2	-.0003	.0002	.0001	.0002	-.0024	.0017	9.885	-.0000	.0007
#3	.0000	.0002	-.0001	-.0001	-.0024	.0008	9.776	.0004	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0164**	**-.0003**	**.0012**	**.0054**	**.0001**	**-.0017**	**-.0015**	**.0032**	**.0212**
Stddev	.0010	.0001	.0004	.0007	.0003	.0003	.0008	.0044	.0002
%RSD	5.983	51.45	35.24	12.84	383.7	17.55	57.95	139.5	.8778
#1	-.0169	-.0004	.0017	.0046	-.0001	-.0016	-.0022	.0022	.0210
#2	-.0170	-.0001	.0011	.0059	.0004	-.0014	-.0005	-.0007	.0212
#3	-.0152	-.0002	.0009	.0058	-.0001	-.0020	-.0017	.0080	.0214

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0148**	**-.0182**	**-.0244**	**.0097**	**.0017**	**-.0001**	**.0017**	**.0009**	**.0001**
Stddev	.0006	.0089	.0077	.0063	.0002	.0000	.0006	.0004	.0000
%RSD	4.229	48.79	31.32	65.18	10.52	34.57	34.53	43.80	21.90
#1	-.0154	-.0233	-.0178	.0167	.0018	-.0001	.0017	.0013	.0001
#2	-.0142	-.0079	-.0226	.0044	.0015	-.0002	.0011	.0008	.0001
#3	-.0148	-.0232	-.0328	.0080	.0018	-.0001	.0023	.0005	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0073**	**-.0000**	**-.0028**	**.0014**	**-.0006**	**-.0391**	**-.0155**
Stddev	.0003	.0006	.0001	.0011	.0006	.0009	.0006	.0013
%RSD	74.46	8.263	179.0	39.10	44.62	145.1	1.656	8.369
#1	.0006	.0068	-.0001	-.0022	.0020	-.0011	-.0397	-.0150
#2	.0003	.0073	-.0000	-.0041	.0015	-.0011	-.0392	-.0170
#3	.0001	.0080	.0000	-.0021	.0008	.0004	-.0384	-.0145

Zoom In Zoom Out

Sample Name: mnconf Acquired: 3/17/2020 22:42:16 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253340.**	**42373.**	**7913.3**	**14463.**
Stddev	2562.	250.	16.4	19.
%RSD	1.0111	.58976	.20750	.12965
#1	254720.	42113.	7931.7	14481.
#2	250380.	42395.	7907.9	14465.
#3	254920.	42612.	7900.2	14443.

Zoom In Zoom Out

Sample Name: sconf Acquired: 3/17/2020 22:47:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0001**	**.0001**	**-.0001**	**.0001**	**.0010**	**.0004**	**-.0000**	**.0012**
Stddev	.0001	.0001	.0002	.0000	.0002	.0002	.0001	.0002	.0002
%RSD	1256.	81.06	165.1	84.49	145.4	21.47	13.52	9542.	13.40
#1	-.0001	.0000	.0002	-.0000	.0001	.0010	.0003	-.0001	.0010
#2	.0001	.0002	.0002	-.0001	.0004	.0008	.0004	.0002	.0013
#3	-.0000	.0001	-.0001	-.0001	-.0000	.0012	.0004	-.0002	.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0109**	**.0015**	**-.0004**	**-.0004**	**-.0008**	**.0007**	**.0363**	**.0902**
Stddev	.0001	.0001	.0002	.0004	.0006	.0008	.0016	.0068	.0016
%RSD	55.77	.8080	15.28	99.45	137.1	101.8	220.0	18.88	1.764
#1	.0002	.0110	.0013	-.0007	.0001	.0001	.0018	.0343	.0885
#2	.0002	.0109	.0016	.0000	-.0004	-.0011	-.0011	.0439	.0904
#3	.0001	.0109	.0018	-.0005	-.0010	-.0013	.0016	.0307	.0916

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.0054**	**.0098**	**.0331**	**.0015**	**.0001**	**.0051**	**.0012**	**.0002**
Stddev	.0016	.0110	.0154	.0065	.0005	.0001	.0004	.0004	.0000
%RSD	86.53	204.3	157.4	19.62	33.04	56.29	8.787	31.72	20.75
#1	.0035	-.0070	.0208	.0268	.0018	.0000	.0049	.0008	.0002
#2	.0004	.0138	.0163	.0398	.0009	.0001	.0047	.0015	.0002
#3	.0016	.0093	-.0078	.0327	.0017	.0002	.0056	.0013	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0052**	**.0004**	**93.41**	**-.0002**	**.0019**	**-.0015**	**.0037**
Stddev	.0003	.0001	.0001	.13	.0006	.0015	.0004	.0008
%RSD	66.52	2.799	37.56	.1367	342.6	77.76	29.10	21.49
#1	.0007	.0051	.0004	93.43	-.0005	.0003	-.0019	.0046
#2	.0003	.0051	.0005	93.52	-.0005	.0021	-.0017	.0030
#3	.0002	.0053	.0002	93.27	.0005	.0033	-.0010	.0036

Zoom In Zoom Out

Sample Name: sconf Acquired: 3/17/2020 22:47:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**256100.**	**42342.**	**7922.2**	**14565.**
Stddev	132.	297.	5.7	8.
%RSD	.05163	.70239	.07175	.05312
#1	255960.	42669.	7924.4	14563.
#2	256220.	42271.	7926.5	14573.
#3	256130.	42087.	7915.7	14558.

Zoom In Zoom Out

Sample Name: siconf Acquired: 3/17/2020 22:52:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**-.0000**	**.0004**	**.0015**	**-.0001**	**-.0001**	**.0008**
Stddev	.0001	.0001	.0001	.0001	.0002	.0004	.0000	.0002	.0001
%RSD	65.09	69.47	123.5	317.7	44.94	30.38	70.40	264.0	10.58
#1	.0002	.0000	-.0000	.0001	.0006	.0013	-.0001	.0001	.0007
#2	.0000	.0001	.0002	-.0001	.0004	.0012	-.0001	-.0001	.0009
#3	.0001	.0001	.0002	-.0001	.0002	.0020	-.0000	-.0002	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0003**	**-.0003**	**.0005**	**-.0006**	**.0029**	**.0007**	**.0110**	**.0017**
Stddev	.0002	.0000	.0008	.0012	.0004	.0016	.0002	.0049	.0023
%RSD	140.4	5.009	245.4	236.6	77.37	55.90	34.47	44.67	129.8
#1	.0003	.0003	-.0004	.0014	-.0009	.0034	.0007	.0103	-.0006
#2	.0001	.0003	-.0010	-.0008	-.0007	.0042	.0009	.0162	.0040
#3	-.0000	.0003	.0005	.0009	-.0001	.0011	.0004	.0065	.0019

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**-.0001**	**.0238**	**.0008**	**.0058**	**.0001**	**10.27**	**.0001**	**.0000**
Stddev	.0007	.0047	.0069	.0021	.0003	.0000	.15	.0005	.0000
%RSD	67.30	3743.	29.06	250.5	4.822	38.55	1.447	945.9	77.24
#1	.0006	.0028	.0162	-.0014	.0059	.0001	10.32	-.0003	.0001
#2	.0006	.0024	.0255	.0011	.0055	.0001	10.10	.0006	.0000
#3	.0019	-.0056	.0297	.0028	.0060	.0001	10.38	-.0002	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0075**	**.0007**	**.0094**	**-.0000**	**-.0006**	**-.0004**	**.0007**
Stddev	.0001	.0002	.0001	.0021	.0007	.0011	.0008	.0018
%RSD	33.44	2.301	15.98	22.13	3527.	167.0	216.0	257.5
#1	.0002	.0075	.0008	.0088	.0005	-.0005	.0006	-.0003
#2	.0002	.0073	.0006	.0077	.0002	-.0017	-.0007	-.0004
#3	.0003	.0076	.0008	.0117	-.0008	.0004	-.0009	.0028

Zoom In Zoom Out

Sample Name: siconf Acquired: 3/17/2020 22:52:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**255780.**	**42343.**	**7969.3**	**14566.**
Stddev	483.	16.	96.1	159.
%RSD	.18877	.03689	1.2062	1.0921
#1	255620.	42349.	7939.9	14523.
#2	255400.	42355.	8076.7	14742.
#3	256330.	42325.	7891.3	14432.

Zoom In Zoom Out

Sample Name: mgconf Acquired: 3/17/2020 22:57:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0002**	**.0006**	**-.0003**	**.0004**	**.0013**	**.0000**
Stddev	.0002	.0001	.0001	.0002	.0003	.0003	.0000	.0001
%RSD	114.9	258.2	88.04	34.93	92.93	82.00	.9623	261.2
#1	.0003	-.0000	.0000	.0006	-.0003	.0002	.0013	.0001
#2	-.0000	-.0000	.0003	.0007	-.0007	.0008	.0013	-.0000
#3	.0002	.0001	.0001	.0003	-.0001	.0002	.0013	.0001

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0014**	**.0057**	**.0014**	**-.0005**	F **-.0073**	**-.0035**	**-.0038**
Stddev	.0003	.0001	.0001	.0005	.0014	.0005	.0006	.0011
%RSD	25.46	6.678	1.500	37.01	303.9	6.869	16.23	29.23
#1	.0016	.0015	.0058	.0008	-.0019	-.0072	-.0033	-.0041
#2	.0009	.0013	.0056	.0016	.0010	-.0078	-.0042	-.0047
#3	.0014	.0014	.0056	.0017	-.0005	-.0069	-.0031	-.0026

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0150**	**.0673**	**-.0024**	F **549.1**	**.0264**	**.0575**	**.0022**	**.0001**
Stddev	.0025	.0018	.0012	6.6	.0068	.0062	.0006	.0001
%RSD	16.97	2.655	51.40	1.209	25.82	10.85	27.99	106.5
#1	.0178	.0659	-.0010	541.4	.0253	.0619	.0025	.0003
#2	.0143	.0667	-.0032	552.9	.0338	.0504	.0026	.0001
#3	.0128	.0693	-.0030	552.9	.0202	.0604	.0015	.0000

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0010**	**.0002**	**.0002**	**.0036**	**.0002**	**.0115**	**.0003**
Stddev	.0015	.0005	.0000	.0001	.0002	.0002	.0011	.0003
%RSD	35.64	53.19	3.262	55.11	5.690	84.83	9.339	91.42
#1	.0055	.0005	.0002	.0001	.0033	.0000	.0103	.0000
#2	.0026	.0010	.0002	.0002	.0037	.0003	.0124	.0003
#3	.0047	.0015	.0002	.0004	.0037	.0003	.0119	.0007

Zoom In Zoom Out

Sample Name: mgconf Acquired: 3/17/2020 22:57:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0030**	**.0029**	**-.0004**
Stddev	.0010	.0007	.0010
%RSD	33.11	25.49	254.9
#1	.0019	.0021	-.0014
#2	.0034	.0032	.0006
#3	.0037	.0034	-.0004

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**233220.**	**40975.**	**7270.5**	**12681.**
Stddev	242.	306.	18.6	33.
%RSD	.10390	.74757	.25623	.26093
#1	233400.	41299.	7284.5	12700.
#2	233330.	40937.	7277.6	12699.
#3	232940.	40690.	7249.3	12642.

Zoom In Zoom Out

Sample Name: zrconf Acquired: 3/17/2020 23:02:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**.0001**	**.0001**	**.0003**	**-.0058**	**.0002**	**-.0000**	**.0015**
Stddev	.0002	.0000	.0001	.0003	.0002	.0002	.0000	.0001	.0001
%RSD	100.1	38.21	115.4	405.7	67.19	3.265	13.94	433.6	5.458
#1	-.0003	.0000	.0000	.0003	.0005	-.0057	.0002	-.0001	.0014
#2	-.0004	.0001	.0000	-.0002	.0001	-.0060	.0002	-.0000	.0016
#3	.0000	.0001	.0002	.0001	.0003	-.0056	.0002	.0001	.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0012**	**.0001**	**-.0008**	**-.0010**	**.0009**	**.0006**	**-.0433**	**.0081**
Stddev	.0002	.0000	.0005	.0009	.0004	.0006	.0008	.0014	.0023
%RSD	16.42	4.083	407.6	109.7	37.83	68.36	122.6	3.339	28.49
#1	.0008	.0012	.0007	-.0000	-.0015	.0014	.0008	-.0419	.0055
#2	.0011	.0012	.0001	-.0007	-.0007	.0002	-.0002	-.0432	.0098
#3	.0012	.0011	-.0004	-.0018	-.0009	.0012	.0013	-.0448	.0089

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**.0029**	**.0459**	**.0335**	**.0011**	**-.0005**	**.0060**	**.0090**	**.0001**
Stddev	.0014	.0055	.0300	.0054	.0006	.0001	.0001	.0004	.0001
%RSD	52.45	191.1	65.37	16.12	54.82	23.57	2.468	4.705	40.64
#1	.0043	.0085	.0133	.0340	.0009	-.0006	.0059	.0088	.0001
#2	.0023	-.0024	.0724	.0387	.0018	-.0004	.0059	.0088	.0001
#3	.0016	.0025	.0521	.0279	.0007	-.0005	.0061	.0095	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0052**	F **10.15**	**.0035**	**-.0009**	**.0017**	**-.0010**	**-.0378**
Stddev	.0001	.0004	.11	.0021	.0014	.0008	.0004	.0007
%RSD	21.09	7.847	1.128	60.39	153.4	48.28	38.75	1.872
#1	.0005	-.0048	10.29	.0013	-.0011	.0020	-.0014	-.0380
#2	.0005	-.0055	10.09	.0037	.0006	.0023	-.0006	-.0370
#3	.0007	-.0055	10.08	.0056	-.0022	.0008	-.0011	-.0384

Zoom In Zoom Out

Sample Name: zrconf Acquired: 3/17/2020 23:02:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253910.**	**42711.**	**7919.2**	**14489.**
Stddev	445.	154.	17.2	38.
%RSD	.17530	.35971	.21718	.26423
#1	253520.	42537.	7936.7	14529.
#2	253830.	42828.	7918.6	14486.
#3	254390.	42769.	7902.3	14453.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 23:07:39 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**2.105**	**2.003**	**2.042**	**2.041**	**1.993**	**2.062**	**2.032**	**.2493**
Stddev	.005	.006	.017	.015	.005	.008	.017	.018	.0010
%RSD	.2375	.2873	.8571	.7313	.2459	.4105	.8103	.8993	.4097
#1	2.009	2.098	1.983	2.026	2.038	1.985	2.047	2.011	.2483
#2	2.017	2.110	2.016	2.054	2.038	1.993	2.059	2.046	.2493
#3	2.018	2.107	2.009	2.048	2.047	2.002	2.080	2.039	.2504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.072**	**2.059**	**1.976**	**2.098**	**2.027**	**1.982**	**1.975**	**39.86**	**40.23**
Stddev	.009	.016	.017	.019	.016	.017	.021	.06	.04
%RSD	.4356	.7910	.8609	.9194	.8107	.8674	1.042	.1449	.0950
#1	2.068	2.041	1.956	2.076	2.008	1.963	1.951	39.81	40.20
#2	2.066	2.073	1.987	2.109	2.039	1.989	1.988	39.92	40.27
#3	2.082	2.064	1.984	2.109	2.033	1.996	1.985	39.85	40.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.56**	**40.63**	**39.62**	**40.08**	**2.006**	**1.980**	**4.990**	**2.024**	**2.015**
Stddev	.03	.08	.06	.04	.018	.018	.044	.021	.056
%RSD	.0623	.1982	.1621	.1022	.9037	.9361	.8850	1.061	2.758
#1	40.57	40.62	39.54	40.03	1.985	1.959	4.940	2.000	1.956
#2	40.58	40.72	39.64	40.10	2.018	1.994	5.021	2.040	2.022
#3	40.53	40.56	39.67	40.10	2.014	1.987	5.009	2.033	2.067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/17/2020 23:07:39 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.045**	**1.944**	**2.024**	**1.836**	**1.971**	**2.026**	**1.968**	**1.994**
Stddev	.007	.019	.007	.021	.017	.003	.019	.005
%RSD	.3563	.9905	.3565	1.133	.8794	.1334	.9579	.2532
#1	2.041	1.923	2.018	1.812	1.951	2.024	1.947	1.989
#2	2.042	1.960	2.022	1.848	1.984	2.029	1.979	1.995
#3	2.054	1.949	2.032	1.848	1.978	2.027	1.980	1.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**243470.**	**41583.**	**7639.7**	**13386.**
Stddev	807.	68.	61.1	104.
%RSD	.33138	.16281	.79972	.77452
#1	243850.	41509.	7704.3	13499.
#2	244020.	41641.	7582.9	13296.
#3	242540.	41599.	7632.0	13362.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 23:12:39 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **.0002**	**.0001**	**.0000**	**.0003**	**.0011**	**.0001**	**-.0000**	**.0010**
Stddev	.0000	.0000	.0001	.0002	.0003	.0002	.0000	.0001	.0001
%RSD	31.59	15.18	116.7	2447.	85.02	19.22	23.12	165.3	7.433
#1	.0001	.0002	.0003	-.0001	.0001	.0009	.0001	-.0001	.0009
#2	.0001	.0003	.0000	-.0001	.0006	.0013	.0001	.0000	.0010
#3	.0001	.0002	.0001	.0002	.0002	.0012	.0001	-.0001	.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001							
Low Limit		-.0001							

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0004**	**.0008**	**.0004**	**.0001**	**-.0001**	**-.0001**	**.0080**	**.0007**
Stddev	.0002	.0001	.0011	.0003	.0004	.0010	.0006	.0044	.0014
%RSD	102.9	29.79	129.5	79.13	276.4	1738.	746.8	54.61	207.5
#1	.0001	-.0005	-.0001	.0007	-.0002	.0011	-.0008	.0122	.0017
#2	.0004	-.0003	.0006	.0001	.0005	-.0005	.0004	.0083	-.0009
#3	.0001	-.0003	.0020	.0004	.0001	-.0007	.0002	.0035	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**.0011**	**.0582**	**.0055**	**.0024**	**-.0001**	**.0016**	**.0001**	**.0002**
Stddev	.0011	.0043	.0063	.0050	.0002	.0002	.0012	.0005	.0000
%RSD	21.05	386.0	10.90	91.08	7.541	314.4	73.15	403.2	24.50
#1	.0062	-.0021	.0534	.0008	.0024	.0000	.0026	.0004	.0002
#2	.0040	-.0005	.0654	.0108	.0023	-.0003	.0020	.0005	.0003
#3	.0055	.0059	.0559	.0049	.0026	.0001	.0003	-.0005	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/17/2020 23:12:39 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0006**	**.0002**	**.0018**	**.0013**	**.0000**	**-.0023**	**.0002**
Stddev	.0003	.0010	.0000	.0021	.0003	.0016	.0007	.0005
%RSD	193.3	179.2	18.46	116.7	21.13	22660.	31.42	252.6
#1	.0003	.0009	.0002	-.0005	.0017	.0019	-.0017	-.0002
#2	-.0002	.0013	.0001	.0023	.0013	-.0012	-.0020	.0007
#3	.0003	-.0006	.0002	.0035	.0011	-.0006	-.0031	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253730.**	**41965.**	**7896.0**	**14481.**
Stddev	1658.	178.	25.9	49.
%RSD	.65330	.42339	.32850	.34069
#1	252350.	41760.	7912.0	14504.
#2	253270.	42055.	7866.0	14425.
#3	255570.	42079.	7909.9	14516.

Zoom In Zoom Out

Sample Name: jd4583-2 Acquired: 3/17/2020 23:17:38 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0271**	**.0017**	**.0018**	**.0016**	**.0024**	**.0067**	**.0120**	**.0025**	**.0013**
Stddev	.0001	.0000	.0000	.0001	.0001	.0002	.0000	.0001	.0002
%RSD	.3530	1.492	1.746	4.234	3.344	2.691	.3341	4.407	18.87
#1	.0270	.0017	.0018	.0016	.0023	.0067	.0121	.0026	.0010
#2	.0272	.0017	.0018	.0016	.0023	.0069	.0120	.0024	.0013
#3	.0271	.0017	.0018	.0015	.0025	.0066	.0120	.0026	.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0187**	**.0031**	**.0022**	**.0021**	**.0020**	**.0019**	**.1308**	**25.98**
Stddev	.0003	.0002	.0009	.0007	.0009	.0008	.0005	.0068	.07
%RSD	15.13	.8471	29.44	34.01	42.28	38.39	28.16	5.180	.2589
#1	.0017	.0187	.0020	.0030	.0013	.0015	.0018	.1386	26.05
#2	.0019	.0189	.0038	.0017	.0019	.0028	.0025	.1269	25.98
#3	.0014	.0186	.0033	.0018	.0030	.0015	.0015	.1268	25.92

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1206**	**2.391**	**1.545**	**12.62**	**.0212**	**.0049**	**2.155**	**.0014**	**.1249**
Stddev	.0014	.001	.016	.03	.0007	.0001	.007	.0003	.0004
%RSD	1.197	.0222	1.014	.2706	3.447	1.842	.3360	22.24	.3389
#1	.1223	2.392	1.562	12.64	.0216	.0049	2.150	.0011	.1253
#2	.1196	2.391	1.532	12.64	.0203	.0048	2.163	.0018	.1248
#3	.1200	2.392	1.540	12.58	.0215	.0049	2.152	.0013	.1245

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.0030**	**.0013**	**3.520**	**.0009**	**.0064**	**.0103**	**.0017**
Stddev	.0002	.0002	.0002	.013	.0007	.0009	.0002	.0020
%RSD	4.141	5.556	13.88	.3629	75.65	14.51	2.313	114.3
#1	.0051	.0029	.0014	3.517	.0008	.0073	.0102	.0035
#2	.0048	.0029	.0011	3.534	.0016	.0055	.0102	.0020
#3	.0047	.0032	.0015	3.509	.0003	.0065	.0106	-.0004

Zoom In Zoom Out

Sample Name: jd4583-2 Acquired: 3/17/2020 23:17:38 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251710.**	**42260.**	**7768.6**	**14079.**
Stddev	1193.	211.	40.2	60.
%RSD	.47385	.49870	.51717	.42464
#1	250470.	42028.	7805.9	14130.
#2	251810.	42315.	7726.1	14013.
#3	252850.	42439.	7774.0	14095.

Zoom In Zoom Out

Sample Name: jd4583-3 Acquired: 3/17/2020 23:22:33 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0251**	**.0000**	**.0003**	**.0004**	**.0021**	**.0040**	**.0184**	**.0015**	**.0008**
Stddev	.0003	.0000	.0002	.0001	.0000	.0003	.0000	.0000	.0002
%RSD	1.294	40.17	48.03	17.49	1.211	6.822	.2000	2.441	27.60
#1	.0249	.0000	.0004	.0004	.0021	.0041	.0184	.0014	.0006
#2	.0254	.0000	.0005	.0005	.0021	.0042	.0183	.0015	.0011
#3	.0249	.0001	.0002	.0004	.0021	.0037	.0184	.0015	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0053**	**.0069**	**.0018**	**-.0004**	**.0016**	**.0007**	**-.0001**	**.5702**	**50.08**
Stddev	.0002	.0002	.0006	.0011	.0007	.0017	.0006	.0046	.14
%RSD	3.122	3.324	31.89	289.8	42.21	255.0	513.6	.7992	.2822
#1	.0052	.0066	.0016	.0009	.0021	-.0013	.0002	.5753	50.20
#2	.0052	.0070	.0014	-.0011	.0019	.0014	.0002	.5686	50.13
#3	.0055	.0070	.0025	-.0010	.0008	.0018	-.0008	.5666	49.93

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.733**	**3.972**	**3.635**	**11.58**	**.0241**	**.0002**	**2.649**	**-.0002**	**.1938**
Stddev	.014	.017	.024	.05	.0009	.0001	.066	.0002	.0005
%RSD	.5041	.4375	.6573	.4240	3.548	44.68	2.492	82.46	.2790
#1	2.746	3.988	3.614	11.63	.0231	.0002	2.573	-.0001	.1941
#2	2.734	3.974	3.661	11.57	.0248	.0002	2.695	-.0004	.1941
#3	2.719	3.954	3.630	11.53	.0243	.0001	2.679	-.0002	.1932

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**.0006**	**.0010**	**6.460**	**-.0007**	**-.0000**	**.1511**	**.0188**
Stddev	.0002	.0002	.0001	.152	.0017	.0013	.0044	.0025
%RSD	4.584	32.99	9.898	2.353	255.5	24940.	2.926	13.14
#1	.0051	.0004	.0010	6.286	.0012	.0008	.1460	.0183
#2	.0050	.0006	.0011	6.564	-.0020	-.0015	.1539	.0215
#3	.0055	.0007	.0009	6.531	-.0012	.0006	.1534	.0167

Zoom In Zoom Out

Sample Name: jd4583-3 Acquired: 3/17/2020 23:22:33 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**250210.**	**42280.**	**7708.7**	**13883.**
Stddev	671.	320.	171.4	279.
%RSD	.26823	.75787	2.2242	2.0089
#1	250120.	41915.	7905.2	14203.
#2	250920.	42408.	7589.4	13696.
#3	249590.	42517.	7631.5	13750.

Zoom In Zoom Out

Sample Name: jd4583-4 Acquired: 3/17/2020 23:27:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0001**	**.0003**	**.0000**	**.0012**	**.0020**	**.0297**	**.0007**	**.0005**
Stddev	.0001	.0000	.0000	.0002	.0005	.0002	.0000	.0001	.0004
%RSD	3.063	34.32	7.857	705.6	39.09	8.055	.0347	11.39	89.68
#1	.0041	.0001	.0003	.0002	.0013	.0019	.0297	.0007	.0003
#2	.0041	.0001	.0003	-.0000	.0007	.0019	.0297	.0008	.0010
#3	.0039	.0001	.0003	-.0001	.0016	.0022	.0297	.0008	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0197**	**.0025**	**.0015**	**.0007**	**.0001**	**.0003**	**.0017**	**.0571**	**.6499**
Stddev	.0002	.0001	.0006	.0015	.0004	.0007	.0012	.0076	.0020
%RSD	1.086	4.238	41.70	201.6	677.1	199.8	69.17	13.27	.3027
#1	.0198	.0025	.0022	-.0008	.0003	-.0004	.0026	.0613	.6522
#2	.0199	.0026	.0010	.0021	.0003	.0005	.0004	.0484	.6485
#3	.0195	.0024	.0013	.0009	-.0004	.0009	.0022	.0616	.6491

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.381**	**.2469**	**.7929**	F **240.8**	**.0143**	**-.0000**	**.8678**	**-.0002**	**.0070**
Stddev	.004	.0105	.0177	1.5	.0004	.0002	.0106	.0001	.0000
%RSD	.1465	4.253	2.237	.6045	3.130	591.7	1.227	76.67	.4772
#1	2.385	.2375	.7724	239.2	.0148	-.0002	.8746	-.0002	.0069
#2	2.380	.2451	.8032	242.1	.0139	-.0001	.8734	-.0000	.0069
#3	2.379	.2582	.8031	240.9	.0143	.0002	.8556	-.0003	.0070

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0023**	**.0009**	**1.646**	**.0009**	**.0078**	**.0698**	**.0397**
Stddev	.0002	.0007	.0000	.024	.0009	.0010	.0010	.0013
%RSD	30.39	29.64	5.117	1.483	100.8	13.10	1.377	3.234
#1	.0008	.0016	.0009	1.663	.0019	.0071	.0709	.0408
#2	.0005	.0029	.0008	1.657	.0006	.0089	.0694	.0383
#3	.0010	.0026	.0009	1.618	.0002	.0073	.0691	.0400

Zoom In Zoom Out

Sample Name: jd4583-4 Acquired: 3/17/2020 23:27:27 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**238980.**	**41850.**	**7594.0**	**13201.**
Stddev	515.	154.	95.1	163.
%RSD	.21566	.36809	1.2529	1.2331
#1	238860.	41802.	7552.2	13126.
#2	239540.	42023.	7526.8	13089.
#3	238540.	41726.	7702.8	13388.

Zoom In Zoom Out

Sample Name: jd4583-5 Acquired: 3/17/2020 23:32:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0190**	**.0001**	**.0001**	**.0004**	**.0031**	**.0044**	**.0541**	**.0033**	**.0002**
Stddev	.0001	.0000	.0001	.0002	.0002	.0001	.0001	.0002	.0004
%RSD	.5470	10.24	53.87	50.51	7.182	2.136	.1044	7.555	170.4
#1	.0189	.0001	.0002	.0002	.0033	.0043	.0541	.0033	.0006
#2	.0191	.0001	.0001	.0006	.0032	.0045	.0540	.0035	-.0002
#3	.0190	.0001	.0001	.0003	.0029	.0043	.0541	.0030	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0121**	**.0067**	**.0081**	**-.0002**	**.0015**	**.0014**	**.0008**	**.4533**	**5.336**
Stddev	.0004	.0001	.0009	.0015	.0006	.0006	.0008	.0026	.009
%RSD	2.966	.9565	11.36	778.0	41.32	40.31	102.4	.5633	.1702
#1	.0122	.0066	.0088	.0009	.0016	.0008	.0015	.4507	5.334
#2	.0124	.0067	.0070	-.0018	.0020	.0020	-.0001	.4558	5.328
#3	.0117	.0066	.0084	.0004	.0008	.0014	.0009	.4535	5.346

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.245**	**.9840**	**1.212**	F **246.4**	**.0157**	**-.0000**	**2.767**	**-.0001**	**.0372**
Stddev	.002	.0015	.010	2.2	.0009	.0001	.002	.0001	.0001
%RSD	.0614	.1523	.8313	.8880	5.503	956.3	.0560	268.4	.2942
#1	3.244	.9825	1.218	245.3	.0147	.0001	2.765	.0001	.0371
#2	3.243	.9841	1.200	245.0	.0162	-.0000	2.768	-.0002	.0373
#3	3.247	.9855	1.217	249.0	.0162	-.0001	2.767	-.0000	.0372

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.0018**	**.0010**	**12.48**	**-.0005**	**.0112**	**.1839**	**.0567**
Stddev	.0001	.0007	.0000	.03	.0008	.0013	.0012	.0025
%RSD	2.000	38.87	2.597	.2459	168.8	11.77	.6307	4.339
#1	.0045	.0012	.0010	12.45	-.0006	.0097	.1826	.0550
#2	.0046	.0016	.0010	12.49	.0004	.0118	.1847	.0595
#3	.0046	.0025	.0010	12.51	-.0012	.0121	.1844	.0557

Zoom In Zoom Out

Sample Name: jd4583-5 Acquired: 3/17/2020 23:32:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**238210.**	**41710.**	**7541.9**	**13022.**
Stddev	1340.	167.	6.9	6.
%RSD	.56254	.40006	.09214	.04686
#1	237230.	41833.	7539.2	13022.
#2	239740.	41776.	7536.7	13015.
#3	237670.	41520.	7549.8	13027.

Zoom In Zoom Out

Sample Name: jd4583-6 Acquired: 3/17/2020 23:37:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0486**	**.0002**	**.0004**	**.0025**	**.0020**	**.0027**	**.0334**	**.0019**	**.0008**
Stddev	.0003	.0000	.0000	.0002	.0001	.0002	.0001	.0001	.0002
%RSD	.6601	18.12	4.162	6.252	6.214	7.931	.1789	3.655	22.19
#1	.0485	.0001	.0003	.0024	.0018	.0025	.0333	.0019	.0006
#2	.0490	.0002	.0004	.0027	.0020	.0027	.0333	.0018	.0010
#3	.0483	.0002	.0004	.0025	.0021	.0030	.0334	.0019	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0050**	**.2096**	**.0046**	**.0008**	**.0010**	**.0026**	**.0005**	**.6355**	**4.217**
Stddev	.0003	.0024	.0003	.0016	.0003	.0009	.0011	.0051	.009
%RSD	5.745	1.151	5.942	202.0	32.27	35.64	210.8	.8096	.2146
#1	.0049	.2090	.0048	.0021	.0009	.0032	.0011	.6374	4.211
#2	.0047	.2075	.0043	.0014	.0007	.0032	-.0007	.6395	4.228
#3	.0053	.2122	.0047	-.0010	.0013	.0016	.0012	.6297	4.214

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.414**	**1.078**	**1.027**	**16.50**	**.0171**	**.0001**	**2.270**	**-.0002**	**.0223**
Stddev	.020	.010	.021	.06	.0007	.0001	.025	.0001	.0001
%RSD	.3182	.9097	2.077	.3582	4.381	76.80	1.091	36.32	.2720
#1	6.410	1.070	1.006	16.51	.0164	.0000	2.256	-.0003	.0223
#2	6.436	1.089	1.048	16.55	.0169	.0001	2.255	-.0001	.0222
#3	6.396	1.075	1.028	16.43	.0179	.0002	2.299	-.0002	.0224

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**.0004**	**.0005**	**8.328**	**.0010**	**.0042**	**.0119**	**.0269**
Stddev	.0002	.0004	.0001	.070	.0009	.0012	.0005	.0020
%RSD	4.227	105.7	27.26	.8465	86.04	28.66	3.808	7.322
#1	.0039	.0005	.0007	8.286	.0016	.0038	.0118	.0269
#2	.0037	-.0001	.0005	8.288	.0013	.0056	.0115	.0250
#3	.0041	.0008	.0004	8.409	.0000	.0033	.0124	.0289

Zoom In Zoom Out

Sample Name: jd4583-6 Acquired: 3/17/2020 23:37:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**252890.**	**42721.**	**7873.5**	**14234.**
Stddev	349.	144.	76.5	136.
%RSD	.13812	.33591	.97214	.95887
#1	253150.	42662.	7890.3	14270.
#2	252500.	42617.	7940.2	14349.
#3	253040.	42885.	7789.9	14083.

Zoom In Zoom Out

Sample Name: jd4583-7 Acquired: 3/17/2020 23:42:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0125**	**.0001**	**.0003**	**.0005**	**.0017**	**.0029**	**.0014**	**.0003**	**.0009**
Stddev	.0001	.0000	.0001	.0002	.0003	.0005	.0000	.0002	.0003
%RSD	.9919	22.84	20.15	44.52	16.46	17.63	1.592	79.06	34.78
#1	.0126	.0001	.0003	.0004	.0014	.0032	.0014	.0005	.0007
#2	.0123	.0001	.0002	.0004	.0019	.0031	.0014	.0002	.0009
#3	.0125	.0001	.0004	.0008	.0017	.0023	.0014	.0001	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0018**	**.0009**	**.0005**	**.0006**	**-.0008**	**-.0002**	**.5886**	**14.47**
Stddev	.0001	.0000	.0009	.0012	.0005	.0014	.0014	.0056	.02
%RSD	7.269	1.731	98.95	245.4	84.56	174.6	668.6	.9533	.1552
#1	.0008	.0018	.0007	-.0003	.0010	-.0013	.0001	.5875	14.50
#2	.0008	.0018	.0001	.0019	.0000	-.0018	.0010	.5947	14.46
#3	.0007	.0018	.0018	-.0002	.0008	.0008	-.0018	.5836	14.46

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1407**	**2.197**	**1.066**	**6.367**	**.0176**	**.0006**	**1.949**	**-.0006**	**.0442**
Stddev	.0018	.022	.016	.018	.0001	.0000	.004	.0006	.0001
%RSD	1.300	.9910	1.494	.2879	.8474	4.230	.2188	94.23	.2632
#1	.1428	2.187	1.077	6.385	.0177	.0006	1.954	-.0001	.0443
#2	.1399	2.222	1.047	6.367	.0174	.0006	1.946	-.0006	.0441
#3	.1393	2.182	1.072	6.348	.0175	.0006	1.947	-.0012	.0441

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**.0013**	**.0006**	**3.533**	**.0005**	**.0024**	**.0034**	**.0034**
Stddev	.0004	.0007	.0001	.009	.0005	.0002	.0004	.0019
%RSD	9.687	55.92	13.95	.2440	110.0	10.15	12.99	55.87
#1	.0033	.0005	.0007	3.526	-.0001	.0022	.0036	.0025
#2	.0039	.0019	.0006	3.531	.0009	.0026	.0036	.0057
#3	.0039	.0015	.0005	3.543	.0007	.0022	.0029	.0022

Zoom In Zoom Out

Sample Name: jd4583-7 Acquired: 3/17/2020 23:42:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**253600.**	**42633.**	**7880.6**	**14311.**
Stddev	2185.	63.	8.7	13.
%RSD	.86142	.14700	.11063	.09165
#1	256120.	42689.	7890.5	14325.
#2	252430.	42565.	7874.1	14299.
#3	252250.	42643.	7877.2	14308.

Zoom In Zoom Out

Sample Name: jd4583-8 Acquired: 3/17/2020 23:47:30 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0176**	**.0001**	**.0003**	**.0001**	**.0035**	**.0035**	**.0502**	**.0014**	**.0011**
Stddev	.0000	.0000	.0001	.0001	.0001	.0001	.0001	.0002	.0001
%RSD	.2769	32.74	32.39	188.6	3.278	4.186	.1484	15.89	5.471
#1	.0177	.0001	.0003	-.0000	.0034	.0037	.0502	.0016	.0011
#2	.0176	.0001	.0005	.0002	.0034	.0035	.0501	.0013	.0011
#3	.0176	.0001	.0003	.0000	.0036	.0034	.0502	.0012	.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0112**	**.0062**	**.0064**	**.0002**	**.0017**	**.0015**	**.0003**	**.4259**	**5.085**
Stddev	.0002	.0002	.0005	.0011	.0002	.0027	.0002	.0024	.006
%RSD	1.794	2.609	7.773	522.9	12.57	172.5	70.67	.5621	.1283
#1	.0110	.0062	.0064	.0007	.0019	.0041	.0005	.4255	5.082
#2	.0111	.0060	.0059	.0011	.0015	-.0012	.0004	.4238	5.080
#3	.0114	.0063	.0069	-.0011	.0018	.0017	.0001	.4285	5.092

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.085**	**.9397**	**1.106**	F **238.6**	**.0148**	**.0002**	**2.592**	**-.0002**	**.0357**
Stddev	.006	.0048	.036	1.0	.0003	.0001	.005	.0009	.0001
%RSD	.2078	.5091	3.238	.4041	2.337	47.02	.1800	416.9	.2424
#1	3.078	.9351	1.105	237.5	.0151	.0003	2.587	.0003	.0356
#2	3.087	.9392	1.070	239.0	.0144	.0001	2.592	.0003	.0357
#3	3.090	.9447	1.142	239.2	.0149	.0002	2.596	-.0012	.0357

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**.0015**	**.0010**	**12.11**	**.0008**	**.0079**	**.1709**	**.0571**
Stddev	.0003	.0012	.0000	.03	.0018	.0008	.0012	.0016
%RSD	6.879	75.99	1.497	.2446	220.0	10.62	.7054	2.799
#1	.0038	.0009	.0010	12.08	.0011	.0078	.1699	.0553
#2	.0042	.0029	.0010	12.11	.0025	.0071	.1706	.0575
#3	.0037	.0008	.0010	12.14	-.0011	.0087	.1722	.0584

Zoom In Zoom Out

Sample Name: jd4583-8 Acquired: 3/17/2020 23:47:30 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**243900.**	**41802.**	**7642.6**	**13192.**
Stddev	255.	248.	12.4	18.
%RSD	.10465	.59393	.16248	.13606
#1	243650.	41589.	7655.5	13207.
#2	243900.	42075.	7641.4	13197.
#3	244160.	41741.	7630.8	13172.

Zoom In Zoom Out

Sample Name: jd4583-9 Acquired: 3/17/2020 23:52:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0001**	**.0001**	**.0002**	**.0019**	**.0015**	**.0001**	**-.0001**	**.0015**
Stddev	.0003	.0000	.0001	.0000	.0001	.0003	.0000	.0001	.0001
%RSD	949.7	15.69	55.40	12.26	7.451	19.98	12.80	224.7	3.730
#1	-.0003	.0001	.0001	.0003	.0021	.0014	.0001	.0001	.0014
#2	.0001	.0001	.0002	.0002	.0019	.0019	.0001	-.0002	.0016
#3	.0001	.0001	.0000	.0003	.0018	.0013	.0001	-.0000	.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0007**	**-.0001**	**-.0004**	**-.0001**	**.0010**	**.0003**	**.0046**	**.0049**
Stddev	.0004	.0001	.0006	.0012	.0002	.0018	.0009	.0027	.0013
%RSD	479.6	12.32	608.8	265.2	162.6	177.3	273.6	58.94	25.35
#1	-.0003	.0006	.0005	-.0012	-.0002	-.0001	.0004	.0075	.0056
#2	-.0003	.0008	-.0008	.0009	.0001	.0031	.0012	.0021	.0057
#3	.0004	.0007	-.0001	-.0011	-.0002	.0001	-.0006	.0043	.0035

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0114**	**-.0026**	**.0119**	**.0681**	**.0007**	**-.0003**	**.0165**	**.0000**	**.0000**
Stddev	.0002	.0080	.0140	.0075	.0006	.0002	.0009	.0002	.0001
%RSD	2.037	314.5	118.1	11.06	91.34	51.77	5.171	479.9	302.9
#1	.0115	.0063	.0064	.0768	.0013	-.0003	.0156	-.0001	-.0000
#2	.0112	-.0095	.0278	.0634	.0008	-.0002	.0173	.0003	.0001
#3	.0117	-.0044	.0014	.0641	.0000	-.0005	.0165	-.0000	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0002**	**.0001**	**.0124**	**-.0003**	**.0037**	**-.0020**	**.0014**
Stddev	.0002	.0006	.0000	.0019	.0014	.0008	.0010	.0011
%RSD	100.8	289.9	24.52	15.00	432.9	21.72	53.52	77.39
#1	.0001	-.0008	.0001	.0103	-.0014	.0044	-.0029	.0027
#2	.0001	-.0003	.0001	.0131	.0012	.0028	-.0008	.0009
#3	.0004	.0005	.0001	.0138	-.0008	.0038	-.0021	.0007

Zoom In Zoom Out

Sample Name: jd4583-9 Acquired: 3/17/2020 23:52:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**258820.**	**42383.**	**7974.5**	**14606.**
Stddev	3115.	96.	8.5	25.
%RSD	1.2035	.22708	.10707	.17036
#1	262410.	42304.	7969.7	14610.
#2	256890.	42490.	7969.4	14579.
#3	257150.	42355.	7984.3	14628.

Zoom In Zoom Out

Sample Name: mp20258-mb1 Acquired: 3/17/2020 23:57:29 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0000**	**-.0001**	**.0007**	**.0024**	**.0002**	**.0002**	**.0010**
Stddev	.0002	.0000	.0000	.0001	.0003	.0004	.0000	.0002	.0001
%RSD	224.2	40.78	94.53	220.8	40.04	16.39	14.85	120.6	12.76
#1	.0001	.0001	.0000	.0001	.0011	.0020	.0002	.0003	.0010
#2	-.0001	.0001	.0001	-.0001	.0006	.0026	.0002	.0002	.0011
#3	.0002	.0001	.0000	-.0001	.0005	.0027	.0002	-.0000	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0021**	**.0006**	**.0014**	**.0002**	**.0003**	**.0005**	**.0151**	**.0453**
Stddev	.0004	.0001	.0002	.0011	.0004	.0005	.0013	.0052	.0012
%RSD	521.3	2.825	27.75	82.42	191.9	175.5	229.8	34.36	2.651
#1	.0003	.0020	.0004	.0026	-.0002	-.0002	.0013	.0188	.0452
#2	-.0003	.0021	.0006	.0012	.0001	.0002	-.0009	.0174	.0465
#3	-.0002	.0021	.0007	.0003	.0007	.0009	.0012	.0092	.0441

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103**	**.0013**	**.0524**	**.0817**	**.0260**	**.0001**	**.0403**	**.0160**	**.0003**
Stddev	.0014	.0081	.0035	.0050	.0007	.0002	.0005	.0006	.0000
%RSD	13.12	618.8	6.592	6.147	2.511	269.9	1.339	4.050	11.40
#1	.0109	-.0080	.0491	.0817	.0259	.0001	.0397	.0154	.0003
#2	.0088	.0069	.0522	.0868	.0254	-.0001	.0408	.0167	.0003
#3	.0113	.0050	.0560	.0767	.0267	.0002	.0405	.0159	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0011**	**.0002**	**.0074**	**.0011**	**-.0012**	**.0158**	**.0016**
Stddev	.0002	.0003	.0001	.0024	.0014	.0012	.0004	.0013
%RSD	93.05	28.99	76.43	32.78	122.1	105.2	2.391	78.41
#1	.0003	.0013	.0000	.0094	.0002	-.0005	.0162	.0027
#2	.0005	.0007	.0002	.0080	.0005	-.0005	.0159	.0002
#3	.0000	.0012	.0003	.0047	.0027	-.0026	.0154	.0020

Zoom In Zoom Out

Sample Name: mp20258-mb1 Acquired: 3/17/2020 23:57:29 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**254890.**	**42529.**	**7871.6**	**14435.**
Stddev	1820.	184.	16.7	34.
%RSD	.71405	.43300	.21265	.23570
#1	255400.	42415.	7886.3	14461.
#2	252870.	42430.	7853.4	14397.
#3	256410.	42741.	7875.2	14447.

Zoom In Zoom Out

Sample Name: mp20258-b1 Acquired: 3/18/2020 0:02:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.909**	**2.014**	**1.892**	**1.934**	**1.935**	**1.882**	**1.957**	**1.923**
Stddev	.003	.002	.005	.005	.005	.003	.011	.004
%RSD	.1469	.1204	.2617	.2490	.2741	.1519	.5539	.2141
#1	1.911	2.016	1.893	1.936	1.940	1.884	1.969	1.926
#2	1.906	2.011	1.887	1.929	1.929	1.878	1.948	1.919
#3	1.911	2.014	1.896	1.938	1.935	1.882	1.955	1.926

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2413**	**1.963**	**1.958**	**1.928**	**2.000**	**1.924**	**1.862**	**1.926**
Stddev	.0013	.004	.005	.003	.003	.004	.006	.003
%RSD	.5570	.2255	.2457	.1710	.1493	.2095	.3287	.1601
#1	.2425	1.966	1.955	1.929	2.002	1.921	1.865	1.929
#2	.2399	1.964	1.956	1.925	1.996	1.922	1.855	1.923
#3	.2417	1.958	1.964	1.931	2.001	1.928	1.865	1.926

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.27**	**24.57**	**24.84**	**24.84**	**24.03**	**24.54**	**1.865**	**1.943**
Stddev	.04	.04	.03	.00	.09	.05	.002	.002
%RSD	.1503	.1461	.1093	.0193	.3554	.2065	.1254	.1093
#1	24.28	24.57	24.84	24.84	24.03	24.56	1.868	1.943
#2	24.24	24.54	24.82	24.84	23.94	24.48	1.863	1.941
#3	24.31	24.61	24.87	24.83	24.11	24.57	1.864	1.945

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1035**	**2.010**	**1.887**	**2.007**	**1.639**	**1.968**	F **-.0545**	**.0037**
Stddev	.0010	.006	.012	.003	.005	.004	.0020	.0016
%RSD	.9329	.2868	.6549	.1448	.3041	.1820	3.653	41.53
#1	.1046	2.007	1.901	2.009	1.635	1.970	-.0567	.0049
#2	.1027	2.006	1.878	2.007	1.637	1.964	-.0527	.0020
#3	.1034	2.016	1.881	2.004	1.645	1.970	-.0542	.0044

Zoom In Zoom Out

Sample Name: mp20258-b1 Acquired: 3/18/2020 0:02:32 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0013**	**1.865**	**-.0038**
Stddev	.0002	.002	.0016
%RSD	17.25	.1129	42.32
#1	.0016	1.867	-.0019
#2	.0012	1.863	-.0048
#3	.0011	1.864	-.0046

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**247120.**	**42190.**	**7707.0**	**13655.**
Stddev	1197.	119.	29.3	43.
%RSD	.48418	.28224	.38050	.31672
#1	245990.	42052.	7732.0	13690.
#2	248380.	42265.	7714.2	13668.
#3	246990.	42251.	7674.7	13606.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 0:07:32 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.030**	**2.128**	**2.000**	**2.036**	**2.027**	**1.979**	**2.063**	**2.025**	**.2470**
Stddev	.012	.011	.015	.014	.009	.006	.014	.012	.0010
%RSD	.5918	.5099	.7448	.7048	.4587	.3270	.6679	.6016	.4009
#1	2.034	2.131	2.000	2.038	2.032	1.984	2.064	2.025	.2476
#2	2.039	2.137	1.986	2.021	2.017	1.971	2.048	2.014	.2459
#3	2.016	2.116	2.015	2.050	2.033	1.981	2.076	2.038	.2475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.072**	**2.054**	**1.977**	**2.080**	**2.023**	**1.978**	**1.972**	**40.16**	**40.53**
Stddev	.006	.014	.014	.015	.013	.010	.016	.29	.27
%RSD	.3093	.6969	.7079	.7271	.6277	.5076	.7882	.7115	.6746
#1	2.076	2.053	1.976	2.080	2.020	1.982	1.968	40.22	40.63
#2	2.065	2.040	1.963	2.064	2.013	1.967	1.958	40.41	40.75
#3	2.075	2.068	1.991	2.094	2.037	1.986	1.989	39.85	40.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.84**	**40.98**	**39.82**	**40.32**	**2.004**	**1.979**	**4.990**	**2.017**	**2.047**
Stddev	.31	.32	.30	.30	.016	.013	.033	.014	.058
%RSD	.7647	.7804	.7541	.7559	.7878	.6389	.6689	.6831	2.850
#1	40.87	41.02	39.96	40.33	2.003	1.976	4.985	2.016	2.056
#2	41.13	41.28	40.02	40.62	1.988	1.968	4.960	2.004	2.100
#3	40.51	40.64	39.47	40.01	2.020	1.992	5.026	2.031	1.984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 0:07:32 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**1.952**	**2.004**	**1.831**	**1.974**	**2.047**	**1.960**	**1.989**
Stddev	.009	.013	.007	.016	.013	.013	.014	.003
%RSD	.4446	.6519	.3290	.8669	.6487	.6371	.7264	.1621
#1	2.042	1.949	2.007	1.828	1.972	2.051	1.956	1.993
#2	2.026	1.941	1.997	1.816	1.963	2.058	1.947	1.986
#3	2.042	1.966	2.009	1.848	1.988	2.033	1.975	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**243420.**	**41148.**	**7636.3**	**13389.**
Stddev	1274.	297.	46.5	74.
%RSD	.52323	.72077	.60867	.55430
#1	242700.	40982.	7641.6	13394.
#2	244900.	40971.	7679.9	13460.
#3	242680.	41490.	7587.4	13312.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 0:12:31 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	F **.0002**	**.0000**	**.0001**	**.0004**	F **.0018**	**.0001**	**-.0001**	**.0008**
Stddev	.0003	.0001	.0001	.0002	.0001	.0003	.0000	.0002	.0004
%RSD	183.4	29.14	282.7	126.5	13.15	16.46	39.61	289.8	50.08
#1	.0001	.0003	-.0000	.0001	.0005	.0014	.0000	-.0001	.0003
#2	-.0002	.0002	.0001	.0003	.0005	.0019	.0001	-.0002	.0010
#3	-.0004	.0002	.0000	-.0000	.0004	.0020	.0001	.0001	.0010
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001				.0013			
Low Limit		-.0001				-.0013			

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0003**	**.0003**	**.0013**	**-.0007**	**.0007**	**.0011**	**.0114**	**.0006**
Stddev	.0001	.0000	.0003	.0003	.0003	.0006	.0009	.0044	.0019
%RSD	65.82	4.154	107.2	20.73	43.75	90.19	84.84	38.96	322.5
#1	.0001	-.0003	.0004	.0011	-.0010	.0003	.0002	.0072	.0018
#2	.0003	-.0003	-.0001	.0013	-.0006	.0014	.0020	.0160	-.0016
#3	.0001	-.0003	.0005	.0016	-.0005	.0004	.0010	.0109	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0045**	**.0379**	**.0175**	**.0020**	**.0001**	**.0021**	**-.0000**	**.0002**
Stddev	.0007	.0057	.0114	.0074	.0002	.0001	.0005	.0002	.0001
%RSD	18.82	125.7	30.08	41.97	12.24	39.09	22.18	867.2	39.44
#1	.0041	-.0017	.0248	.0219	.0023	.0001	.0020	.0001	.0001
#2	.0036	.0057	.0452	.0216	.0018	.0002	.0025	.0001	.0001
#3	.0028	.0096	.0437	.0090	.0019	.0001	.0016	-.0002	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 0:12:31 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0036**	**.0003**	**.0013**	**-.0004**	**.0013**	**-.0025**	**-.0012**
Stddev	.0002	.0003	.0001	.0013	.0006	.0004	.0010	.0013
%RSD	106.1	9.040	21.18	104.9	162.4	29.93	39.21	111.1
#1	.0002	.0033	.0002	-.0000	-.0010	.0013	-.0016	-.0013
#2	.0003	.0039	.0002	.0012	.0003	.0010	-.0036	.0002
#3	-.0000	.0036	.0003	.0027	-.0004	.0018	-.0024	-.0024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**252660.**	**42315.**	**8002.5**	**14650.**
Stddev	2283.	137.	177.1	296.
%RSD	.90348	.32275	2.2133	2.0218
#1	254830.	42407.	8060.2	14749.
#2	250280.	42379.	7803.7	14317.
#3	252870.	42158.	8143.6	14884.

Zoom In Zoom Out

Sample Name: mp20258-s1 Acquired: 3/18/2020 0:17:37 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.416**	**1.947**	**1.906**	**1.935**	**2.092**	**2.087**	**3.957**	**1.991**	**.2538**
Stddev	.001	.003	.003	.001	.005	.005	.015	.003	.0008
%RSD	.0473	.1499	.1355	.0669	.2344	.2241	.3881	.1299	.3163
#1	2.417	1.946	1.903	1.934	2.097	2.085	3.975	1.989	.2547
#2	2.415	1.950	1.907	1.934	2.088	2.092	3.953	1.990	.2532
#3	2.417	1.944	1.908	1.936	2.091	2.084	3.945	1.994	.2536

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.073**	**3.458**	**1.962**	**1.892**	**2.131**	**1.855**	**1.132**	**131.0**	F **884.4**
Stddev	.006	.002	.002	.006	.003	.002	.002	.2	11.0
%RSD	.2859	.0650	.0957	.3207	.1500	.0808	.1461	.1754	1.241
#1	2.080	3.455	1.961	1.898	2.128	1.854	1.131	131.0	875.6
#2	2.072	3.460	1.962	1.886	2.134	1.854	1.131	130.8	880.9
#3	2.068	3.459	1.964	1.893	2.132	1.857	1.133	131.2	896.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**145.9**	**64.32**	**48.53**	**57.92**	**2.265**	**1.813**	**2.448**	**1.797**	F **8.107**
Stddev	2.2	.17	.14	.20	.008	.003	.003	.004	.084
%RSD	1.517	.2667	.2894	.3425	.3377	.1679	.1256	.2317	1.033
#1	147.9	64.17	48.49	57.87	2.262	1.810	2.446	1.792	8.037
#2	143.5	64.29	48.42	57.75	2.259	1.814	2.447	1.799	8.200
#3	146.2	64.51	48.69	58.14	2.274	1.816	2.452	1.800	8.083

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.693**	**1.217**	**2.075**	**25.50**	**.0718**	**.0820**	**6.171**	**.1744**
Stddev	.033	.003	.003	.03	.0012	.0005	.012	.0018
%RSD	.4890	.2064	.1364	.1059	1.657	.6126	.1882	1.014
#1	6.729	1.215	2.078	25.53	.0720	.0815	6.185	.1764
#2	6.684	1.220	2.075	25.50	.0729	.0825	6.166	.1737
#3	6.665	1.217	2.072	25.48	.0705	.0820	6.163	.1730

Zoom In Zoom Out

Sample Name: mp20258-s1 Acquired: 3/18/2020 0:17:37 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**230160.**	**41824.**	**7256.6**	**12052.**
Stddev	1198.	159.	8.6	13.
%RSD	.52069	.38050	.11808	.10522
#1	228770.	41815.	7265.7	12065.
#2	230910.	41987.	7255.6	12053.
#3	230780.	41669.	7248.6	12040.

Zoom In Zoom Out

Sample Name: mp20258-s2 Acquired: 3/18/2020 0:22:48 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.533**	**1.941**	**1.895**	**1.921**	**2.070**	**2.261**	**3.862**	**1.943**	**.2521**
Stddev	.002	.003	.005	.005	.005	.002	.014	.008	.0003
%RSD	.0594	.1583	.2654	.2862	.2305	.1008	.3556	.4132	.1270
#1	2.534	1.945	1.892	1.919	2.075	2.262	3.860	1.940	.2519
#2	2.531	1.940	1.901	1.927	2.066	2.259	3.877	1.953	.2520
#3	2.534	1.939	1.892	1.917	2.069	2.263	3.850	1.938	.2525

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.072**	**3.180**	**1.949**	**1.884**	**2.092**	**1.846**	**1.124**	**129.3**	F **882.6**
Stddev	.004	.011	.008	.004	.007	.007	.003	.1	9.1
%RSD	.1752	.3487	.3958	.2190	.3510	.3878	.2821	.1097	1.025
#1	2.075	3.171	1.948	1.879	2.090	1.848	1.120	129.4	877.7
#2	2.068	3.192	1.958	1.886	2.100	1.852	1.127	129.2	893.0
#3	2.072	3.177	1.942	1.886	2.086	1.838	1.124	129.5	877.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**137.3**	**63.55**	**47.69**	**57.88**	**2.189**	**1.806**	**2.511**	**1.795**	F **8.039**
Stddev	.1	.07	.10	.07	.007	.009	.020	.007	.052
%RSD	.0982	.1157	.2079	.1143	.3326	.4826	.7986	.3996	.6449
#1	137.3	63.58	47.72	57.91	2.187	1.802	2.507	1.791	8.091
#2	137.3	63.46	47.58	57.80	2.198	1.816	2.533	1.803	7.987
#3	137.5	63.60	47.77	57.92	2.184	1.801	2.494	1.789	8.038

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.012**	**1.246**	**2.078**	**24.79**	**.0630**	**.0781**	**6.020**	**.1662**
Stddev	.010	.004	.001	.12	.0008	.0002	.026	.0029
%RSD	.1674	.3088	.0535	.4736	1.332	.2217	.4262	1.765
#1	6.018	1.244	2.079	24.81	.0629	.0783	6.019	.1661
#2	6.001	1.251	2.079	24.89	.0622	.0780	6.046	.1692
#3	6.019	1.244	2.077	24.66	.0639	.0781	5.995	.1634

Zoom In Zoom Out

Sample Name: mp20258-s2 Acquired: 3/18/2020 0:22:48 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**231640.**	**41780.**	**7300.6**	**12113.**
Stddev	750.	89.	26.7	45.
%RSD	.32389	.21319	.36635	.36990
#1	230770.	41828.	7320.3	12136.
#2	232070.	41677.	7270.1	12062.
#3	232070.	41834.	7311.4	12142.

Zoom In Zoom Out

Sample Name: jd4270-26 Acquired: 3/18/2020 0:27:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5398**	**.0040**	**.0059**	**.0455**	**.2620**	**.1611**	**2.085**	**.0925**	**.0050**
Stddev	.0002	.0000	.0002	.0006	.0012	.0009	.004	.0002	.0006
%RSD	.0410	1.069	3.103	1.282	.4581	.5878	.1923	.2438	12.61
#1	.5396	.0040	.0058	.0448	.2627	.1617	2.082	.0927	.0057
#2	.5398	.0040	.0061	.0459	.2627	.1600	2.083	.0924	.0048
#3	.5400	.0041	.0059	.0458	.2606	.1616	2.090	.0923	.0045

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1845**	**1.480**	**.0372**	**.0006**	**.2044**	**.0096**	**.0031**	**100.2**	F **878.6**
Stddev	.0002	.003	.0002	.0023	.0013	.0007	.0007	.1	8.4
%RSD	.0988	.1961	.5306	392.0	.6392	7.186	21.93	.0805	.9555
#1	.1845	1.483	.0370	-.0017	.2056	.0094	.0030	100.1	887.6
#2	.1846	1.477	.0373	.0005	.2030	.0089	.0024	100.3	876.9
#3	.1843	1.480	.0374	.0029	.2045	.0103	.0038	100.3	871.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**115.7**	**41.46**	**22.45**	**33.18**	**.4213**	**.0049**	**1.094**	**.0268**	**6.418**
Stddev	.1	.04	.03	.01	.0017	.0002	.006	.0008	.026
%RSD	.0716	.0952	.1527	.0391	.4137	3.338	.5330	3.003	.4073
#1	115.6	41.46	22.49	33.17	.4232	.0048	1.100	.0259	6.408
#2	115.7	41.50	22.43	33.19	.4208	.0051	1.092	.0271	6.447
#3	115.8	41.43	22.43	33.20	.4198	.0050	1.089	.0275	6.398

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.209**	**.0383**	**.1384**	**24.22**	**.0521**	**.0791**	**4.229**	**.1681**
Stddev	.013	.0005	.0004	.06	.0013	.0003	.011	.0020
%RSD	.3181	1.379	.3197	.2311	2.480	.3716	.2507	1.212
#1	4.215	.0384	.1390	24.28	.0506	.0790	4.240	.1660
#2	4.218	.0387	.1383	24.21	.0527	.0789	4.227	.1682
#3	4.194	.0377	.1381	24.17	.0529	.0795	4.219	.1700

Zoom In Zoom Out

Sample Name: jd4270-26 Acquired: 3/18/2020 0:27:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**233080.**	**41475.**	**7355.3**	**12133.**
Stddev	821.	135.	13.9	20.
%RSD	.35234	.32627	.18961	.16715
#1	233730.	41632.	7350.8	12122.
#2	232160.	41396.	7370.9	12156.
#3	233350.	41398.	7344.1	12120.

Zoom In Zoom Out

Sample Name: mp20258-sd1 Acquired: 3/18/2020 0:33:04 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5759**	**.0047**	**.0066**	**.0496**	**.2880**	**.1778**	**2.315**	**.0989**	**.0108**
Stddev	.0007	.0002	.0011	.0011	.0017	.0015	.004	.0010	.0015
%RSD	.1281	4.486	16.26	2.243	.5945	.8153	.1792	.9689	13.93
#1	.5751	.0048	.0077	.0507	.2860	.1795	2.310	.1000	.0125
#2	.5765	.0044	.0055	.0485	.2890	.1770	2.318	.0982	.0104
#3	.5762	.0048	.0068	.0496	.2889	.1770	2.317	.0986	.0096

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2047**	**1.664**	**.0429**	**.0060**	**.2201**	**.0046**	**-.0002**	**105.0**	**994.4**
Stddev	.0012	.001	.0027	.0075	.0034	.0118	.0016	.1	14.6
%RSD	.5680	.0764	6.228	124.1	1.525	259.8	863.2	.0636	1.465
#1	.2045	1.665	.0412	.0104	.2196	.0156	-.0020	105.1	1006.
#2	.2037	1.664	.0460	.0103	.2237	.0060	.0008	104.9	999.4
#3	.2060	1.662	.0415	-.0026	.2170	-.0079	.0006	105.0	978.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**126.3**	**46.45**	**22.90**	**34.72**	**.4571**	**.0078**	**1.211**	**.0288**	**6.866**
Stddev	.1	.03	.35	.04	.0012	.0007	.005	.0021	.005
%RSD	.0554	.0661	1.533	.1233	.2714	9.311	.4254	7.172	.0765
#1	126.3	46.49	23.29	34.75	.4582	.0070	1.213	.0264	6.870
#2	126.2	46.44	22.62	34.67	.4574	.0079	1.215	.0299	6.868
#3	126.3	46.43	22.79	34.74	.4558	.0085	1.206	.0301	6.860

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.501**	**.0722**	**.1463**	**25.24**	**.0510**	**.0907**	**4.440**	**.1777**
Stddev	.009	.0014	.0010	.12	.0041	.0075	.030	.0150
%RSD	.1909	1.996	.6809	.4560	8.052	8.292	.6723	8.433
#1	4.491	.0734	.1468	25.34	.0480	.0950	4.465	.1949
#2	4.508	.0706	.1452	25.11	.0557	.0950	4.407	.1677
#3	4.503	.0725	.1470	25.27	.0492	.0820	4.449	.1704

Zoom In Zoom Out

Sample Name: mp20258-sd1 Acquired: 3/18/2020 0:33:04 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244540.**	**41927.**	**7675.8**	**13331.**
Stddev	946.	278.	11.8	18.
%RSD	.38697	.66398	.15321	.13286
#1	245500.	41617.	7673.7	13320.
#2	243610.	42156.	7665.3	13322.
#3	244510.	42009.	7688.5	13352.

Zoom In Zoom Out

Sample Name: jd4255-1 Acquired: 3/18/2020 0:38:03 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6323**	**.0034**	**.0029**	**.0861**	**.2115**	**.4288**	**2.336**	**.1740**	**.0009**
Stddev	.0089	.0000	.0001	.0003	.0005	.0013	.030	.0001	.0013
%RSD	1.405	.7156	3.542	.3151	.2597	.2934	1.293	.0487	145.2
#1	.6220	.0034	.0028	.0864	.2111	.4273	2.339	.1741	-.0001
#2	.6378	.0035	.0028	.0859	.2114	.4293	2.304	.1739	.0005
#3	.6370	.0034	.0030	.0860	.2121	.4296	2.364	.1740	.0024

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4804**	**.5227**	**.0206**	**.0013**	**.3380**	**.0087**	**.0021**	**80.36**	F **309.0**
Stddev	.0009	.0016	.0009	.0012	.0006	.0019	.0008	1.14	6.1
%RSD	.1870	.2967	4.446	95.53	.1632	22.06	35.91	1.422	1.988
#1	.4796	.5237	.0201	-.0001	.3384	.0065	.0024	79.05	301.9
#2	.4814	.5236	.0201	.0015	.3383	.0098	.0027	80.92	312.5
#3	.4802	.5209	.0217	.0023	.3374	.0097	.0013	81.12	312.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**142.8**	**59.45**	**8.698**	**5.047**	**.1425**	**.0082**	**2.264**	**.0941**	**1.053**
Stddev	3.8	.89	.141	.074	.0008	.0001	.005	.0003	.014
%RSD	2.675	1.502	1.616	1.467	.5582	1.213	.2337	.2970	1.327
#1	138.8	58.43	8.540	4.963	.1418	.0081	2.270	.0939	1.037
#2	143.3	59.82	8.742	5.077	.1422	.0082	2.260	.0939	1.061
#3	146.4	60.11	8.811	5.101	.1434	.0083	2.262	.0944	1.062

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **8.887**	**.0524**	**.1405**	**10.36**	**.1066**	**.0743**	**2.874**	**.1976**
Stddev	.110	.0015	.0005	.03	.0026	.0011	.013	.0011
%RSD	1.237	2.889	.3329	.2839	2.477	1.485	.4454	.5365
#1	8.777	.0531	.1399	10.37	.1037	.0732	2.881	.1964
#2	8.887	.0534	.1408	10.32	.1072	.0743	2.859	.1982
#3	8.997	.0506	.1407	10.38	.1089	.0754	2.882	.1983

Zoom In Zoom Out

Sample Name: jd4255-1 Acquired: 3/18/2020 0:38:03 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**239750.**	**42588.**	**7575.7**	**12857.**
Stddev	446.	713.	16.1	25.
%RSD	.18617	1.6741	.21300	.19705
#1	240250.	43388.	7566.9	12844.
#2	239640.	42358.	7565.9	12840.
#3	239380.	42019.	7594.4	12886.

Zoom In Zoom Out

Sample Name: jd4255-2 Acquired: 3/18/2020 0:43:22 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.195**	**.0056**	**.0175**	**.0601**	**.3295**	**1.023**	**2.021**	**.1614**	**.0037**
Stddev	.006	.0000	.0003	.0001	.0017	.004	.004	.0003	.0009
%RSD	.2658	.8036	1.759	.2495	.5150	.3921	.1713	.1891	25.28
#1	2.201	.0056	.0178	.0602	.3309	1.026	2.019	.1612	.0046
#2	2.194	.0055	.0175	.0600	.3276	1.019	2.018	.1612	.0039
#3	2.189	.0056	.0172	.0600	.3300	1.025	2.025	.1617	.0027

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2860**	**4.744**	**.1641**	**.0077**	**3.067**	**.0165**	**.0357**	**65.84**	**85.38**
Stddev	.0019	.006	.0012	.0008	.003	.0005	.0017	.13	.76
%RSD	.6490	.1312	.7437	10.84	.0996	2.948	4.788	.1958	.8953
#1	.2880	4.750	.1632	.0086	3.065	.0169	.0363	65.98	85.57
#2	.2844	4.738	.1654	.0073	3.071	.0160	.0370	65.79	84.53
#3	.2857	4.746	.1636	.0071	3.067	.0167	.0337	65.74	86.02

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **202.0**	**28.52**	**10.07**	**1.696**	**.1119**	**.0117**	**1.602**	**1.209**	**.4882**
Stddev	2.3	.01	.01	.006	.0004	.0001	.000	.001	.0012
%RSD	1.137	.0515	.1279	.3680	.3134	.5816	.0218	.0561	.2545
#1	204.3	28.51	10.08	1.690	.1121	.0118	1.602	1.210	.4893
#2	201.8	28.53	10.09	1.703	.1115	.0117	1.603	1.208	.4884
#3	199.8	28.50	10.06	1.695	.1120	.0116	1.602	1.209	.4869

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.925**	**.0010**	**.0366**	**2.157**	**.0557**	**.1206**	**6.118**	**.3976**
Stddev	.016	.0012	.0001	.004	.0018	.0010	.020	.0039
%RSD	.4116	117.4	.3648	.1982	3.201	.8067	.3327	.9853
#1	3.937	.0023	.0367	2.154	.0544	.1217	6.099	.3985
#2	3.906	-.0000	.0364	2.155	.0550	.1205	6.115	.4011
#3	3.931	.0007	.0367	2.162	.0577	.1197	6.139	.3934

Zoom In Zoom Out

Sample Name: jd4255-2 Acquired: 3/18/2020 0:43:22 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**250860.**	**43216.**	**7799.7**	**13626.**
Stddev	532.	102.	7.6	7.
%RSD	.21202	.23665	.09785	.05240
#1	250410.	43331.	7795.9	13623.
#2	251440.	43182.	7808.5	13634.
#3	250720.	43135.	7794.7	13620.

Zoom In Zoom Out

Sample Name: jd4255-3 Acquired: 3/18/2020 0:48:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6998**	**.0030**	**.0116**	**.0238**	**1.514**	**.1629**	**1.736**	**.0806**	**.0037**
Stddev	.0020	.0000	.0001	.0001	.002	.0003	.007	.0001	.0004
%RSD	.2858	.5629	1.222	.5612	.1293	.1875	.4048	.0929	9.542
#1	.6980	.0030	.0117	.0239	1.515	.1633	1.744	.0806	.0034
#2	.7020	.0030	.0115	.0240	1.516	.1628	1.731	.0805	.0041
#3	.6993	.0030	.0117	.0237	1.512	.1627	1.733	.0807	.0036

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2062**	**2.698**	**.0271**	**.0036**	**.7434**	**.0115**	**.0020**	**42.48**	F **486.2**
Stddev	.0008	.002	.0013	.0016	.0007	.0011	.0003	.11	2.5
%RSD	.3755	.0730	4.803	44.37	.1005	9.314	14.81	.2705	.5091
#1	.2071	2.700	.0277	.0044	.7441	.0125	.0016	42.38	488.3
#2	.2059	2.698	.0256	.0047	.7434	.0116	.0022	42.60	486.7
#3	.2056	2.696	.0279	.0018	.7426	.0103	.0022	42.44	483.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**118.6**	**47.15**	**8.395**	**2.959**	**.0904**	**.0119**	**3.732**	**.0722**	**2.141**
Stddev	.4	.12	.021	.004	.0005	.0002	.009	.0008	.013
%RSD	.3480	.2570	.2466	.1432	.5228	1.572	.2522	1.156	.6258
#1	118.3	47.04	8.382	2.955	.0907	.0118	3.738	.0724	2.147
#2	119.1	47.28	8.419	2.964	.0899	.0118	3.737	.0730	2.151
#3	118.5	47.13	8.385	2.959	.0907	.0121	3.721	.0714	2.126

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.644**	**-.0003**	**.0476**	**7.095**	**.0348**	**.0394**	**3.785**	**.1948**
Stddev	.010	.0012	.0001	.011	.0003	.0014	.001	.0025
%RSD	.3926	426.3	.1491	.1496	.9983	3.643	.0252	1.295
#1	2.653	.0001	.0476	7.095	.0345	.0388	3.785	.1955
#2	2.647	.0007	.0477	7.085	.0347	.0411	3.786	.1970
#3	2.633	-.0016	.0475	7.106	.0352	.0385	3.784	.1920

Zoom In Zoom Out

Sample Name: jd4255-3 Acquired: 3/18/2020 0:48:35 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**240890.**	**42484.**	**7571.4**	**12779.**
Stddev	145.	86.	5.6	5.
%RSD	.06017	.20260	.07391	.04005
#1	240730.	42583.	7565.2	12774.
#2	241010.	42437.	7573.0	12779.
#3	240930.	42431.	7576.0	12785.

Zoom In Zoom Out

Sample Name: jd4263-1 Acquired: 3/18/2020 0:53:47 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3861**	**.0032**	**.0013**	**.0414**	**.1912**	**.1744**	**1.021**	**.1041**	**.0040**
Stddev	.0007	.0000	.0001	.0005	.0010	.0001	.003	.0001	.0005
%RSD	.1691	1.327	10.18	1.320	.5215	.0800	.2658	.1273	12.16
#1	.3865	.0032	.0013	.0416	.1923	.1745	1.023	.1042	.0034
#2	.3853	.0033	.0014	.0417	.1906	.1742	1.021	.1039	.0041
#3	.3864	.0032	.0012	.0407	.1905	.1744	1.018	.1041	.0044

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2475**	**.2253**	**.0251**	**-.0006**	**.0412**	**.0080**	**.0014**	**60.81**	F **730.9**
Stddev	.0003	.0001	.0022	.0001	.0019	.0015	.0008	.14	11.1
%RSD	.1142	.0531	8.852	17.85	4.587	18.77	54.23	.2297	1.524
#1	.2478	.2254	.0277	-.0005	.0434	.0093	.0023	60.86	743.6
#2	.2475	.2253	.0242	-.0006	.0403	.0083	.0009	60.66	726.6
#3	.2472	.2252	.0236	-.0007	.0399	.0064	.0010	60.92	722.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**90.18**	**57.14**	**6.599**	**2.200**	**.1334**	**.0135**	**1.283**	**.0270**	**2.133**
Stddev	.31	.20	.030	.018	.0006	.0002	.003	.0004	.008
%RSD	.3459	.3519	.4481	.8192	.4406	1.143	.2134	1.526	.3604
#1	90.04	57.22	6.565	2.195	.1336	.0134	1.283	.0274	2.131
#2	89.96	56.91	6.612	2.185	.1328	.0135	1.286	.0266	2.127
#3	90.54	57.28	6.620	2.220	.1339	.0137	1.280	.0269	2.142

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.086**	**.0217**	**.1459**	**21.14**	**.0491**	**.0345**	**2.564**	**.1714**
Stddev	.011	.0002	.0003	.04	.0004	.0010	.003	.0032
%RSD	.2563	.7433	.1965	.1982	.8301	2.817	.1182	1.852
#1	4.097	.0215	.1462	21.10	.0491	.0345	2.562	.1713
#2	4.084	.0218	.1459	21.18	.0488	.0336	2.567	.1745
#3	4.076	.0218	.1457	21.13	.0496	.0355	2.562	.1682

Zoom In Zoom Out

Sample Name: jd4263-1 Acquired: 3/18/2020 0:53:47 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**235410.**	**41957.**	**7438.1**	**12311.**
Stddev	947.	157.	5.3	2.
%RSD	.40221	.37388	.07186	.01537
#1	234330.	41803.	7433.9	12309.
#2	235840.	42117.	7436.3	12310.
#3	236070.	41950.	7444.1	12313.

Zoom In Zoom Out

Sample Name: jd4270-1 Acquired: 3/18/2020 0:58:50 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5012**	**.0022**	**.0006**	**.0174**	**.1476**	**.0334**	**.5662**	**.0672**	**.0042**
Stddev	.0004	.0000	.0002	.0006	.0007	.0004	.0005	.0010	.0002
%RSD	.0867	.2524	29.01	3.337	.4814	1.124	.0894	1.506	4.416
#1	.5013	.0022	.0006	.0180	.1478	.0333	.5667	.0683	.0044
#2	.5016	.0022	.0008	.0169	.1468	.0330	.5661	.0669	.0041
#3	.5007	.0022	.0005	.0172	.1482	.0338	.5658	.0664	.0041

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1827**	**.3843**	**.0105**	**-.0016**	**.0575**	**.0044**	**.0018**	**62.70**	F **706.3**
Stddev	.0001	.0074	.0028	.0021	.0014	.0014	.0004	.05	2.3
%RSD	.0332	1.931	26.38	135.2	2.452	32.44	21.04	.0805	.3203
#1	.1827	.3920	.0137	-.0005	.0586	.0038	.0020	62.72	704.8
#2	.1827	.3835	.0089	-.0002	.0580	.0033	.0014	62.74	705.1
#3	.1826	.3772	.0089	-.0041	.0559	.0060	.0021	62.65	708.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**35.08**	**44.75**	**11.69**	**3.670**	**.2910**	**.0043**	**1.316**	**.0197**	**4.837**
Stddev	.06	.05	.02	.003	.0055	.0001	.032	.0004	.053
%RSD	.1775	.1100	.1951	.0831	1.899	3.185	2.464	1.807	1.105
#1	35.05	44.75	11.67	3.666	.2967	.0044	1.350	.0200	4.777
#2	35.15	44.80	11.71	3.672	.2904	.0042	1.311	.0193	4.851
#3	35.03	44.70	11.70	3.671	.2857	.0041	1.286	.0197	4.881

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.410**	**.0357**	**.1306**	**21.78**	**.0287**	**.0712**	**1.201**	**.1016**
Stddev	.003	.0019	.0001	.40	.0017	.0007	.023	.0006
%RSD	.1077	5.406	.0869	1.843	5.804	1.048	1.926	.6036
#1	2.408	.0373	.1307	22.19	.0285	.0705	1.225	.1020
#2	2.413	.0362	.1305	21.75	.0271	.0720	1.199	.1020
#3	2.409	.0335	.1306	21.39	.0305	.0711	1.179	.1009

Zoom In Zoom Out

Sample Name: jd4270-1 Acquired: 3/18/2020 0:58:50 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**233480.**	**41060.**	**7337.8**	**12276.**
Stddev	462.	106.	123.7	189.
%RSD	.19788	.25863	1.6859	1.5396
#1	233040.	41180.	7206.8	12073.
#2	233450.	41021.	7353.9	12306.
#3	233960.	40979.	7452.6	12448.

Zoom In Zoom Out

Sample Name: jd4270-3 Acquired: 3/18/2020 1:03:56 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4866**	**.0064**	**.0027**	**.0280**	**.1139**	**.0570**	**2.290**	**.0568**
Stddev	.0004	.0001	.0003	.0002	.0006	.0004	.002	.0005
%RSD	.0882	.9198	10.25	.6666	.4892	.7332	.0930	.9646
#1	.4871	.0064	.0030	.0281	.1136	.0571	2.289	.0572
#2	.4865	.0065	.0025	.0281	.1145	.0573	2.292	.0562
#3	.4862	.0064	.0026	.0278	.1135	.0565	2.288	.0571

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**.1293**	**2.138**	**.0320**	F **-.0025**	**.0390**	**.0063**	**-.0003**
Stddev	.0006	.0007	.010	.0007	.0021	.0004	.0006	.0018
%RSD	12.30	.5387	.4507	2.047	85.41	1.095	9.074	635.5
#1	.0053	.1285	2.150	.0314	-.0050	.0386	.0069	-.0013
#2	.0049	.1296	2.132	.0327	-.0014	.0388	.0058	-.0013
#3	.0042	.1298	2.134	.0318	-.0012	.0394	.0062	.0018

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**68.97**	F **1069.**	**62.12**	F **344.2**	**13.11**	**2.328**	**.0930**	**.0099**
Stddev	.16	10.	.14	1.0	.05	.002	.0013	.0003
%RSD	.2385	.9337	.2294	.2940	.3528	.0827	1.381	2.979
#1	69.10	1058.	62.22	344.9	13.16	2.326	.0933	.0097
#2	69.01	1078.	62.20	344.7	13.12	2.328	.0916	.0102
#3	68.79	1069.	61.96	343.1	13.06	2.330	.0942	.0097

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.176**	**.0211**	**1.773**	**2.630**	**.0174**	**.1599**	**20.97**	**.0330**
Stddev	.002	.0007	.032	.006	.0005	.0002	.06	.0006
%RSD	.1874	3.493	1.789	.2163	2.845	.1316	.2670	1.765
#1	1.175	.0212	1.773	2.635	.0175	.1601	21.02	.0323
#2	1.174	.0217	1.805	2.631	.0168	.1597	20.91	.0332
#3	1.178	.0203	1.742	2.624	.0177	.1597	20.99	.0334

Zoom In Zoom Out

Sample Name: jd4270-3 Acquired: 3/18/2020 1:03:56 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.1067**	**1.073**	**.1572**
Stddev	.0011	.001	.0025
%RSD	1.002	.0804	1.564
#1	.1061	1.074	.1566
#2	.1079	1.073	.1550
#3	.1060	1.073	.1598

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**227760.**	**41185.**	**7040.5**	**11520.**
Stddev	1019.	180.	36.0	45.
%RSD	.44720	.43650	.51139	.38798
#1	227870.	41031.	7001.8	11471.
#2	226690.	41142.	7073.1	11559.
#3	228720.	41382.	7046.4	11530.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 1:09:09 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.020**	**2.113**	**2.017**	**2.058**	**2.040**	**1.984**	**2.069**	**2.040**	**.2487**
Stddev	.003	.003	.003	.003	.004	.003	.017	.004	.0007
%RSD	.1394	.1545	.1231	.1537	.1725	.1573	.8222	.1804	.2634
#1	2.021	2.117	2.015	2.055	2.044	1.986	2.079	2.037	.2486
#2	2.017	2.111	2.016	2.058	2.039	1.986	2.049	2.040	.2494
#3	2.022	2.112	2.019	2.061	2.037	1.981	2.078	2.044	.2481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.088**	**2.076**	**1.987**	**2.113**	**2.039**	**1.984**	**1.981**	**39.97**	**40.22**
Stddev	.002	.004	.002	.005	.003	.004	.003	.08	.13
%RSD	.0947	.1678	.0773	.2319	.1226	.2278	.1522	.1978	.3142
#1	2.088	2.072	1.988	2.117	2.036	1.980	1.978	40.05	40.36
#2	2.090	2.077	1.988	2.108	2.040	1.989	1.982	39.89	40.11
#3	2.087	2.078	1.985	2.116	2.041	1.985	1.984	39.97	40.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.87**	**40.70**	**39.60**	**40.35**	**2.013**	**1.984**	**5.021**	**2.030**	**2.034**
Stddev	.07	.16	.09	.08	.004	.003	.007	.005	.026
%RSD	.1639	.3835	.2232	.1912	.1945	.1336	.1413	.2358	1.297
#1	40.94	40.88	39.64	40.39	2.010	1.982	5.016	2.031	2.013
#2	40.81	40.59	39.50	40.26	2.012	1.983	5.017	2.025	2.064
#3	40.87	40.62	39.67	40.40	2.018	1.987	5.029	2.034	2.025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 1:09:09 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.050**	**1.951**	**2.010**	**1.830**	**1.977**	**2.037**	**1.968**	**1.999**
Stddev	.002	.004	.003	.001	.004	.003	.002	.006
%RSD	.0948	.1824	.1519	.0594	.1826	.1638	.0887	.3037
#1	2.050	1.947	2.014	1.830	1.973	2.038	1.968	1.998
#2	2.051	1.952	2.010	1.831	1.978	2.033	1.966	2.005
#3	2.048	1.954	2.008	1.829	1.980	2.040	1.970	1.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**242640.**	**41351.**	**7610.4**	**13336.**
Stddev	485.	459.	9.2	22.
%RSD	.19977	1.1111	.12049	.16464
#1	242150.	40845.	7619.1	13353.
#2	243120.	41465.	7611.2	13344.
#3	242650.	41742.	7600.8	13311.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 1:14:09 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0002**	**.0001**	**.0002**	**.0002**	F **.0015**	**.0001**	**-.0000**	**.0006**
Stddev	.0002	.0001	.0001	.0001	.0001	.0002	.0000	.0001	.0002
%RSD	67.18	34.27	78.30	37.99	54.58	14.54	18.58	18250.	29.12
#1	.0002	.0003	.0002	.0001	.0001	.0017	.0001	.0000	.0004
#2	.0005	.0002	.0000	.0003	.0001	.0014	.0001	-.0001	.0008
#3	.0002	.0001	.0001	.0002	.0003	.0013	.0001	.0001	.0007
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001				.0013			
Low Limit		-.0001				-.0013			

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0002**	**-.0000**	**.0000**	**-.0007**	**-.0001**	**.0009**	**.0058**	**.0047**
Stddev	.0001	.0001	.0008	.0015	.0004	.0009	.0004	.0034	.0007
%RSD	62.30	48.86	2330.	3934.	53.54	698.2	47.90	57.81	14.71
#1	.0003	-.0004	.0001	.0017	-.0010	.0002	.0013	.0085	.0052
#2	.0003	-.0002	.0007	-.0003	-.0003	.0005	.0004	.0069	.0049
#3	.0001	-.0002	-.0009	-.0012	-.0010	-.0011	.0009	.0021	.0039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0055**	**.0485**	**.0162**	**.0017**	**.0000**	**.0010**	**-.0001**	**.0002**
Stddev	.0005	.0087	.0247	.0074	.0002	.0002	.0006	.0002	.0000
%RSD	13.70	158.7	50.81	45.81	14.21	812000.	58.05	443.1	22.11
#1	.0038	.0073	.0751	.0077	.0014	.0001	.0005	-.0002	.0002
#2	.0038	.0131	.0440	.0197	.0018	.0001	.0017	-.0002	.0002
#3	.0030	-.0040	.0264	.0213	.0019	-.0002	.0009	.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 1:14:09 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0009**	**-.0000**	**.0052**	**-.0008**	**.0007**	**-.0022**	**-.0022**
Stddev	.0002	.0007	.0001	.0017	.0010	.0013	.0003	.0022
%RSD	145.2	70.61	1404.	32.88	129.0	176.6	15.60	101.7
#1	.0003	.0011	-.0001	.0058	-.0020	.0011	-.0025	-.0014
#2	-.0001	.0015	.0000	.0032	-.0004	-.0007	-.0018	-.0005
#3	.0002	.0002	.0000	.0064	-.0000	.0017	-.0023	-.0047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**252000.**	**41675.**	**7883.1**	**14445.**
Stddev	919.	266.	10.1	21.
%RSD	.36477	.63792	.12834	.14326
#1	252320.	41858.	7881.6	14445.
#2	250960.	41370.	7873.9	14425.
#3	252710.	41796.	7894.0	14466.

Zoom In Zoom Out

Sample Name: jd4270-6 Acquired: 3/18/2020 1:19:12 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4179**	**.0034**	**.0108**	**.0495**	**.1520**	**.1457**	**2.224**	**.3156**
Stddev	.0007	.0001	.0001	.0004	.0038	.0028	.045	.0022
%RSD	.1654	2.140	1.218	.8853	2.476	1.892	2.030	.7042
#1	.4183	.0033	.0109	.0496	.1534	.1471	2.252	.3181
#2	.4182	.0035	.0106	.0499	.1550	.1475	2.248	.3145
#3	.4171	.0034	.0109	.0490	.1478	.1426	2.172	.3141

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051**	**.1686**	**.7038**	**.0313**	F **-.0045**	**.0989**	**.0075**	**.0022**
Stddev	.0004	.0044	.0062	.0020	.0007	.0006	.0013	.0024
%RSD	8.199	2.601	.8830	6.443	16.59	.5618	17.49	109.7
#1	.0052	.1688	.7109	.0336	-.0045	.0994	.0066	.0000
#2	.0046	.1729	.7007	.0298	-.0052	.0989	.0070	.0018
#3	.0054	.1641	.6997	.0305	-.0037	.0983	.0090	.0049

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**77.78**	F **646.4**	**103.5**	**33.30**	**18.00**	**18.13**	**.2997**	**.0043**
Stddev	.04	5.3	.1	.03	.06	.03	.0030	.0001
%RSD	.0471	.8233	.1189	.0856	.3325	.1710	1.011	3.062
#1	77.76	643.5	103.4	33.33	17.95	18.10	.3032	.0042
#2	77.82	652.6	103.4	33.30	18.07	18.16	.2981	.0044
#3	77.75	643.2	103.6	33.27	18.00	18.14	.2978	.0042

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.620**	**.0297**	**2.932**	**2.626**	**.0414**	**.0960**	**31.07**	**.0324**
Stddev	.015	.0004	.041	.059	.0009	.0021	.26	.0029
%RSD	.8963	1.465	1.411	2.264	2.269	2.200	.8419	8.808
#1	1.636	.0296	2.932	2.642	.0422	.0968	31.38	.0292
#2	1.618	.0302	2.891	2.677	.0415	.0975	30.94	.0347
#3	1.607	.0294	2.974	2.561	.0404	.0936	30.91	.0332

Zoom In Zoom Out

Sample Name: jd4270-6 Acquired: 3/18/2020 1:19:12 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0887**	**2.599**	**.1729**
Stddev	.0008	.023	.0041
%RSD	.9449	.8880	2.400
#1	.0897	2.626	.1728
#2	.0882	2.587	.1770
#3	.0883	2.585	.1687

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**236040.**	**41671.**	**7402.2**	**12348.**
Stddev	3952.	121.	55.5	82.
%RSD	1.6743	.29018	.74993	.66217
#1	235600.	41546.	7338.3	12255.
#2	232340.	41787.	7430.8	12384.
#3	240200.	41679.	7437.6	12406.

Zoom In Zoom Out

Sample Name: jd4270-8 Acquired: 3/18/2020 1:24:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.039**	**.0218**	**.0013**	**.0665**	**.1514**	**.2839**	F **16.49**	**.0648**	**.0069**
Stddev	.011	.0001	.0000	.0004	.0007	.0002	.12	.0002	.0003
%RSD	.3663	.3725	2.485	.5608	.4926	.0877	.6996	.3122	4.251
#1	3.027	.0218	.0013	.0663	.1508	.2842	16.37	.0650	.0069
#2	3.049	.0218	.0013	.0663	.1522	.2838	16.60	.0648	.0066
#3	3.042	.0219	.0013	.0669	.1513	.2838	16.51	.0646	.0072

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1297**	**1.359**	**.0683**	**-.0003**	**.0402**	**.0154**	**.0028**	**189.6**	F **992.2**
Stddev	.0016	.001	.0011	.0013	.0010	.0012	.0020	3.1	12.5
%RSD	1.220	.0443	1.616	392.7	2.594	7.548	70.31	1.653	1.259
#1	.1283	1.360	.0691	-.0009	.0402	.0141	.0040	188.6	1004.
#2	.1314	1.360	.0670	.0012	.0392	.0160	.0040	187.1	979.0
#3	.1294	1.359	.0687	-.0013	.0413	.0161	.0005	193.1	993.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**117.7**	**199.9**	**31.57**	**16.41**	**.3404**	**.0030**	**1.218**	**.0267**	**3.726**
Stddev	.1	.2	.02	.01	.0018	.0003	.002	.0002	.052
%RSD	.0983	.1203	.0755	.0646	.5272	11.37	.1744	.6008	1.395
#1	117.7	199.7	31.58	16.40	.3422	.0033	1.220	.0266	3.669
#2	117.8	200.1	31.59	16.41	.3405	.0027	1.216	.0269	3.738
#3	117.6	200.0	31.54	16.42	.3386	.0032	1.219	.0266	3.770

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.250**	**.0145**	**.3732**	**47.77**	**.0753**	**.1968**	**2.058**	**.3592**
Stddev	.008	.0012	.0002	.16	.0011	.0014	.007	.0010
%RSD	.1221	8.070	.0663	.3314	1.499	.6881	.3644	.2856
#1	6.250	.0147	.3735	47.94	.0756	.1954	2.065	.3603
#2	6.258	.0132	.3731	47.74	.0763	.1980	2.058	.3590
#3	6.242	.0155	.3731	47.62	.0741	.1971	2.050	.3583

Zoom In Zoom Out

Sample Name: jd4270-8 Acquired: 3/18/2020 1:24:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**236190.**	**42938.**	**7487.6**	**11775.**
Stddev	88.	62.	4.0	15.
%RSD	.03734	.14406	.05312	.12731
#1	236240.	43007.	7486.4	11759.
#2	236090.	42921.	7492.0	11788.
#3	236250.	42887.	7484.3	11779.

Zoom In Zoom Out

Sample Name: jd4270-11 Acquired: 3/18/2020 1:29:50 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3756**	**.0025**	**.0067**	**.0480**	**.1820**	**.1941**	**1.447**	**.4907**
Stddev	.0006	.0001	.0002	.0003	.0036	.0029	.025	.0004
%RSD	.1603	2.220	2.566	.6652	1.955	1.512	1.763	.0864
#1	.3762	.0025	.0068	.0476	.1842	.1952	1.461	.4904
#2	.3755	.0026	.0067	.0482	.1838	.1964	1.463	.4912
#3	.3751	.0025	.0065	.0480	.1779	.1908	1.417	.4905

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0067**	**.1387**	**1.352**	**.0249**	F **-.0054**	**.1314**	**.0094**	**.0040**
Stddev	.0002	.0026	.002	.0009	.0015	.0006	.0015	.0016
%RSD	3.218	1.898	.1524	3.619	27.00	.4813	16.07	39.48
#1	.0066	.1404	1.353	.0241	-.0061	.1309	.0111	.0028
#2	.0066	.1401	1.350	.0259	-.0064	.1321	.0087	.0058
#3	.0069	.1357	1.353	.0248	-.0037	.1313	.0083	.0034

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**59.48**	F **428.2**	**97.66**	**30.19**	**17.64**	**15.41**	**.4993**	**.0084**
Stddev	.13	2.5	.35	.07	.12	.06	.0011	.0002
%RSD	.2220	.5723	.3591	.2305	.6666	.3606	.2179	1.996
#1	59.63	425.9	98.06	30.27	17.78	15.48	.4989	.0086
#2	59.39	430.7	97.40	30.16	17.60	15.38	.4985	.0083
#3	59.42	427.8	97.52	30.14	17.55	15.39	.5005	.0084

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.707**	**.0244**	**2.735**	**3.612**	**.0753**	**.0994**	**14.34**	**.0429**
Stddev	.006	.0003	.058	.072	.0010	.0016	.02	.0014
%RSD	.3751	1.407	2.128	2.006	1.340	1.652	.1193	3.321
#1	1.701	.0247	2.763	3.651	.0744	.1005	14.32	.0435
#2	1.706	.0245	2.668	3.657	.0753	.1002	14.34	.0440
#3	1.714	.0240	2.773	3.528	.0764	.0975	14.36	.0413

Zoom In Zoom Out

Sample Name: jd4270-11 Acquired: 3/18/2020 1:29:50 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0433**	**3.040**	**.1750**
Stddev	.0014	.003	.0051
%RSD	3.188	.0941	2.906
#1	.0449	3.041	.1794
#2	.0424	3.037	.1763
#3	.0427	3.043	.1694

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244520.**	**42351.**	**7652.5**	**12735.**
Stddev	4147.	82.	11.0	16.
%RSD	1.6960	.19320	.14400	.12445
#1	242610.	42445.	7640.8	12717.
#2	241670.	42311.	7662.7	12748.
#3	249280.	42297.	7654.0	12740.

Zoom In Zoom Out

Sample Name: jd4270-14 Acquired: 3/18/2020 1:34:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5392**	**.0026**	**.0011**	**.0255**	**.1937**	**.1018**	**2.160**	**.0760**
Stddev	.0011	.0002	.0002	.0001	.0005	.0003	.013	.0002
%RSD	.2055	9.272	14.19	.5110	.2644	.3190	.6147	.2737
#1	.5403	.0029	.0013	.0253	.1933	.1019	2.146	.0760
#2	.5381	.0024	.0010	.0255	.1943	.1015	2.173	.0758
#3	.5393	.0025	.0010	.0255	.1934	.1022	2.162	.0762

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0082**	**.0919**	**.4228**	**.0221**	F **-.0067**	**.0331**	**.0046**	**.0025**
Stddev	.0003	.0004	.0005	.0006	.0007	.0007	.0016	.0017
%RSD	3.785	.4503	.1143	2.745	10.56	2.235	34.10	67.17
#1	.0086	.0914	.4226	.0214	-.0063	.0322	.0028	.0023
#2	.0080	.0921	.4224	.0225	-.0076	.0336	.0054	.0009
#3	.0081	.0922	.4233	.0223	-.0063	.0335	.0057	.0042

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**70.75**	F **1362.**	**51.52**	F **381.4**	**27.14**	**27.39**	**.1628**	**.0081**
Stddev	.10	4.	.14	.5	.08	.08	.0011	.0001
%RSD	.1409	.2578	.2636	.1401	.2956	.2998	.6584	1.075
#1	70.80	1358.	51.53	381.6	27.12	27.41	.1621	.0082
#2	70.63	1365.	51.38	380.8	27.08	27.30	.1624	.0080
#3	70.81	1364.	51.65	381.9	27.23	27.46	.1641	.0081

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.425**	**.0261**	**4.441**	**3.382**	**.0141**	**.1904**	**29.80**	**.0464**
Stddev	.007	.0006	.096	.004	.0010	.0007	.08	.0015
%RSD	.5148	2.321	2.166	.1108	6.977	.3477	.2629	3.149
#1	1.430	.0261	4.376	3.380	.0130	.1910	29.73	.0448
#2	1.416	.0268	4.396	3.380	.0149	.1897	29.79	.0472
#3	1.428	.0256	4.552	3.386	.0145	.1904	29.88	.0474

Zoom In Zoom Out

Sample Name: jd4270-14 Acquired: 3/18/2020 1:34:54 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0687**	**3.214**	**.1196**
Stddev	.0005	.011	.0023
%RSD	.7997	.3383	1.908
#1	.0682	3.207	.1220
#2	.0693	3.208	.1175
#3	.0688	3.226	.1192

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**221040.**	**39828.**	**6870.2**	**11308.**
Stddev	618.	204.	.8	6.
%RSD	.27944	.51194	.01191	.05492
#1	221730.	40020.	6870.7	11315.
#2	220850.	39850.	6869.2	11305.
#3	220530.	39614.	6870.6	11304.

Zoom In Zoom Out

Sample Name: jd4270-17 Acquired: 3/18/2020 1:40:06 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.084**	**.0055**	**.0029**	**.0411**	**.1444**	**.1618**	**4.006**	**.0832**
Stddev	.001	.0001	.0002	.0001	.0003	.0008	.034	.0001
%RSD	.1319	1.523	5.223	.3461	.2326	.4669	.8362	.1577
#1	1.083	.0054	.0031	.0411	.1442	.1609	3.979	.0832
#2	1.084	.0056	.0028	.0409	.1442	.1623	3.996	.0833
#3	1.086	.0055	.0029	.0412	.1448	.1622	4.043	.0830

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.1281**	**.7084**	**.0353**	F **-.0048**	**.0692**	**.0072**	**.0037**
Stddev	.0003	.0012	.0020	.0010	.0011	.0004	.0011	.0010
%RSD	6.094	.9566	.2808	2.866	23.35	.6103	15.83	27.51
#1	.0048	.1272	.7070	.0363	-.0039	.0688	.0084	.0043
#2	.0047	.1276	.7075	.0343	-.0060	.0692	.0061	.0025
#3	.0043	.1295	.7107	.0353	-.0044	.0696	.0072	.0042

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**77.65**	F **590.8**	**88.89**	**43.63**	**16.74**	**7.549**	**.2343**	**.0042**
Stddev	.04	11.3	.26	.13	.01	.008	.0017	.0002
%RSD	.0459	1.919	.2910	.2919	.0586	.1011	.7347	4.905
#1	77.69	600.5	89.13	43.78	16.74	7.543	.2324	.0042
#2	77.62	578.3	88.62	43.57	16.73	7.545	.2357	.0044
#3	77.63	593.6	88.92	43.54	16.75	7.557	.2348	.0040

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.503**	**.0294**	**2.338**	**3.755**	**.0188**	**.1500**	**20.22**	**.0414**
Stddev	.004	.0004	.012	.017	.0007	.0003	.01	.0004
%RSD	.2462	1.301	.5237	.4507	3.782	.2300	.0735	.8679
#1	1.508	.0295	2.352	3.736	.0180	.1496	20.21	.0416
#2	1.502	.0297	2.329	3.762	.0193	.1502	20.24	.0410
#3	1.501	.0290	2.334	3.768	.0190	.1502	20.22	.0417

Zoom In Zoom Out

Sample Name: jd4270-17 Acquired: 3/18/2020 1:40:06 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.1091**	**1.354**	**.7154**
Stddev	.0006	.005	.0026
%RSD	.5499	.3932	.3690
#1	.1090	1.352	.7128
#2	.1097	1.351	.7153
#3	.1085	1.361	.7181

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**256280.**	**45637.**	**8210.9**	**12407.**
Stddev	1399.	260.	21.8	27.
%RSD	.54602	.56899	.26500	.21923
#1	257430.	45338.	8235.5	12436.
#2	256700.	45779.	8202.8	12403.
#3	254720.	45795.	8194.3	12382.

Zoom In Zoom Out

Sample Name: jd4270-20 Acquired: 3/18/2020 1:45:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2510**	**.0016**	**.0007**	**.0153**	**.1478**	**.0380**	**.5996**	**.0676**
Stddev	.0039	.0000	.0000	.0001	.0004	.0001	.0010	.0006
%RSD	1.557	2.767	4.723	.7150	.2555	.3325	.1642	.9341
#1	.2465	.0016	.0007	.0154	.1475	.0379	.5986	.0674
#2	.2534	.0015	.0007	.0153	.1477	.0382	.5996	.0671
#3	.2531	.0016	.0008	.0152	.1482	.0380	.6006	.0683

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0499**	**.0963**	**.0128**	F **-.0032**	**.0332**	**.0031**	**.0013**
Stddev	.0003	.0003	.0004	.0008	.0023	.0002	.0013	.0014
%RSD	7.281	.5161	.3968	6.195	71.39	.4734	40.98	105.3
#1	.0037	.0497	.0960	.0125	-.0009	.0334	.0039	-.0003
#2	.0040	.0502	.0967	.0122	-.0033	.0331	.0016	.0023
#3	.0043	.0498	.0961	.0137	-.0055	.0331	.0038	.0020

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.78**	F **581.1**	**23.05**	**29.46**	**11.47**	**3.889**	**.1074**	**.0043**
Stddev	.78	7.0	.39	.53	.15	.045	.0004	.0003
%RSD	1.631	1.207	1.693	1.798	1.291	1.152	.3540	6.886
#1	46.89	574.7	22.61	28.86	11.30	3.840	.1078	.0043
#2	48.33	588.6	23.35	29.84	11.53	3.927	.1071	.0040
#3	48.12	580.2	23.20	29.70	11.58	3.901	.1073	.0046

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.181**	**.0199**	**3.273**	**1.890**	**.0338**	**.0959**	**21.67**	**.0218**
Stddev	.004	.0002	.074	.004	.0002	.0003	.05	.0004
%RSD	.3713	.8682	2.249	.2161	.5021	.3539	.2251	1.974
#1	1.177	.0197	3.195	1.887	.0338	.0956	21.62	.0218
#2	1.185	.0200	3.283	1.889	.0337	.0960	21.72	.0222
#3	1.180	.0200	3.341	1.895	.0340	.0963	21.68	.0213

Zoom In Zoom Out

Sample Name: jd4270-20 Acquired: 3/18/2020 1:45:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0309**	**1.146**	**.0819**
Stddev	.0019	.004	.0010
%RSD	6.002	.3258	1.193
#1	.0288	1.142	.0821
#2	.0320	1.149	.0827
#3	.0320	1.146	.0808

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**237230.**	**41968.**	**7455.6**	**12580.**
Stddev	1192.	673.	11.2	19.
%RSD	.50266	1.6033	.15008	.15154
#1	238560.	42728.	7457.0	12590.
#2	236840.	41448.	7443.8	12558.
#3	236280.	41728.	7466.1	12592.

Zoom In Zoom Out

Sample Name: jd4270-23 Acquired: 3/18/2020 1:50:31 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.715**	**.0020**	**.0011**	**.0180**	**.0791**	**.0399**	**.6146**	**.0340**
Stddev	.012	.0000	.0002	.0000	.0002	.0001	.0012	.0002
%RSD	.6713	.9074	15.68	.1673	.2111	.1782	.1888	.5849
#1	1.707	.0020	.0012	.0180	.0791	.0399	.6134	.0341
#2	1.710	.0020	.0009	.0180	.0793	.0398	.6157	.0341
#3	1.728	.0020	.0012	.0180	.0790	.0400	.6149	.0338

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0729**	**.9812**	**.0682**	F **-.0047**	**.1050**	**.0063**	**.0009**
Stddev	.0002	.0001	.0020	.0010	.0019	.0007	.0003	.0004
%RSD	5.056	.1079	.1992	1.401	40.95	.6196	5.056	44.17
#1	.0042	.0729	.9835	.0693	-.0067	.1047	.0060	.0006
#2	.0046	.0730	.9800	.0678	-.0045	.1045	.0063	.0013
#3	.0047	.0729	.9801	.0675	-.0029	.1057	.0067	.0007

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**51.64**	F **702.5**	**31.61**	**68.51**	**12.18**	**4.504**	**.1266**	**.0033**
Stddev	.36	3.3	.21	.45	.09	.036	.0008	.0000
%RSD	.7008	.4708	.6536	.6616	.7666	.7956	.6028	.9900
#1	51.42	702.0	31.44	68.20	12.12	4.481	.1273	.0033
#2	51.44	706.0	31.55	68.31	12.13	4.487	.1258	.0034
#3	52.06	699.5	31.84	69.03	12.29	4.546	.1267	.0033

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.346**	**.0213**	**2.431**	**2.266**	**.0288**	**.1045**	**22.18**	**.0278**
Stddev	.001	.0003	.017	.001	.0008	.0001	.08	.0023
%RSD	.0575	1.513	.7084	.0399	2.771	.1047	.3778	8.194
#1	1.347	.0216	2.416	2.265	.0296	.1044	22.28	.0285
#2	1.346	.0210	2.427	2.267	.0287	.1045	22.13	.0297
#3	1.346	.0211	2.450	2.266	.0281	.1047	22.13	.0253

Zoom In Zoom Out

Sample Name: jd4270-23 Acquired: 3/18/2020 1:50:31 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0338**	**1.182**	**.0890**
Stddev	.0010	.004	.0006
%RSD	2.827	.3458	.7139
#1	.0330	1.187	.0883
#2	.0337	1.182	.0895
#3	.0349	1.178	.0892

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**231430.**	**41351.**	**7305.6**	**12180.**
Stddev	790.	242.	10.7	10.
%RSD	.34129	.58579	.14706	.08355
#1	232220.	41540.	7308.9	12188.
#2	230640.	41435.	7314.4	12183.
#3	231430.	41078.	7293.6	12168.

Zoom In Zoom Out

Sample Name: jd4270-28 Acquired: 3/18/2020 1:55:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.241**	**.0011**	**.0030**	**.0204**	**.0545**	**.0719**	**.9131**	**.0321**	**.0036**
Stddev	.001	.0001	.0002	.0001	.0005	.0008	.0079	.0005	.0001
%RSD	.1124	5.616	6.087	.6659	.9657	1.080	.8682	1.482	3.703
#1	1.240	.0011	.0031	.0205	.0542	.0718	.9167	.0326	.0036
#2	1.241	.0012	.0028	.0204	.0551	.0727	.9186	.0320	.0035
#3	1.243	.0011	.0032	.0202	.0543	.0711	.9040	.0316	.0037

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0793**	**2.133**	**.0360**	**-.0018**	**.0787**	**.0037**	**.0007**	**25.08**	**194.5**
Stddev	.0006	.014	.0004	.0016	.0011	.0005	.0013	.09	3.0
%RSD	.7701	.6740	1.174	85.84	1.433	13.42	178.7	.3557	1.528
#1	.0797	2.145	.0364	-.0036	.0792	.0031	.0017	24.98	192.3
#2	.0796	2.136	.0360	-.0015	.0774	.0039	.0011	25.11	197.9
#3	.0786	2.117	.0356	-.0005	.0795	.0040	-.0007	25.16	193.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**56.20**	**13.52**	**11.54**	**7.217**	**.0958**	**.0038**	**3.052**	**.0192**	**1.755**
Stddev	.33	.02	.04	.043	.0009	.0000	.015	.0008	.027
%RSD	.5813	.1582	.3766	.5940	.8931	1.083	.4971	3.975	1.550
#1	55.84	13.50	11.50	7.168	.0968	.0038	3.067	.0200	1.731
#2	56.27	13.51	11.53	7.233	.0951	.0038	3.052	.0192	1.750
#3	56.48	13.54	11.58	7.249	.0957	.0037	3.036	.0185	1.785

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.604**	**.0262**	**.0391**	**10.21**	**.0180**	**.0724**	**1.065**	**.1818**
Stddev	.013	.0009	.0003	.07	.0003	.0009	.007	.0012
%RSD	.8170	3.432	.8887	.7092	1.848	1.253	.6536	.6694
#1	1.611	.0273	.0392	10.27	.0184	.0720	1.071	.1819
#2	1.613	.0256	.0394	10.22	.0179	.0734	1.066	.1829
#3	1.589	.0258	.0387	10.13	.0178	.0718	1.057	.1805

Zoom In Zoom Out

Sample Name: jd4270-28 Acquired: 3/18/2020 1:55:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**245080.**	**42030.**	**7734.8**	**13376.**
Stddev	1268.	266.	52.1	87.
%RSD	.51744	.63208	.67347	.65138
#1	244390.	42334.	7685.2	13294.
#2	244310.	41912.	7729.9	13366.
#3	246540.	41844.	7789.1	13467.

Zoom In Zoom Out

Sample Name: jd4270-31 Acquired: 3/18/2020 2:00:42 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.428**	**.0036**	**.0054**	**.0692**	**.0789**	**.0712**	**2.432**	**.0387**
Stddev	.037	.0000	.0001	.0001	.0003	.0005	.009	.0005
%RSD	1.510	.8591	2.280	.1622	.4132	.6803	.3664	1.202
#1	2.449	.0036	.0054	.0691	.0790	.0715	2.432	.0392
#2	2.449	.0036	.0055	.0693	.0785	.0706	2.423	.0387
#3	2.385	.0036	.0053	.0691	.0792	.0714	2.441	.0383

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.0615**	**.3869**	**.0130**	F **-.0032**	**.1852**	**.0037**	**.0014**
Stddev	.0004	.0003	.0011	.0013	.0006	.0005	.0024	.0003
%RSD	7.934	.5629	.2796	9.927	17.17	.2779	63.99	25.19
#1	.0051	.0612	.3881	.0143	-.0031	.1847	.0043	.0018
#2	.0052	.0616	.3861	.0132	-.0027	.1857	.0011	.0011
#3	.0045	.0619	.3865	.0117	-.0038	.1852	.0057	.0013

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**35.42**	F **578.9**	**44.98**	**227.6**	**13.63**	**3.617**	**.1158**	**.0048**
Stddev	.51	6.7	.60	3.4	.19	.057	.0012	.0001
%RSD	1.449	1.157	1.340	1.514	1.429	1.588	1.030	2.477
#1	35.72	583.1	45.33	229.8	13.73	3.647	.1144	.0047
#2	35.71	582.5	45.33	229.3	13.75	3.654	.1165	.0050
#3	34.83	571.2	44.29	223.6	13.40	3.551	.1165	.0048

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.045**	**.0221**	**1.521**	**2.490**	**.0160**	**.1041**	**11.97**	**.0302**
Stddev	.002	.0001	.021	.003	.0006	.0001	.01	.0022
%RSD	.1081	.3084	1.412	.1239	3.969	.1306	.0624	7.324
#1	2.047	.0221	1.532	2.492	.0154	.1040	11.97	.0294
#2	2.044	.0222	1.535	2.486	.0167	.1041	11.97	.0327
#3	2.043	.0220	1.496	2.490	.0160	.1043	11.96	.0285

Zoom In Zoom Out

Sample Name: jd4270-31 Acquired: 3/18/2020 2:00:42 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0488**	**1.056**	**.1544**
Stddev	.0017	.001	.0026
%RSD	3.403	.0902	1.681
#1	.0497	1.057	.1573
#2	.0499	1.056	.1526
#3	.0469	1.055	.1531

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**232460.**	**41117.**	**7227.7**	**12096.**
Stddev	1051.	565.	14.2	14.
%RSD	.45211	1.3746	.19649	.11497
#1	231490.	40687.	7211.7	12080.
#2	233570.	40906.	7239.0	12105.
#3	232310.	41757.	7232.2	12103.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 2:05:48 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.032**	**2.122**	**2.031**	**2.083**	**2.051**	**1.985**	**2.053**	**2.049**	**.2498**
Stddev	.004	.003	.002	.003	.008	.009	.021	.002	.0009
%RSD	.1769	.1534	.1086	.1568	.3710	.4375	1.014	.0987	.3414
#1	2.036	2.125	2.029	2.082	2.046	1.979	2.039	2.050	.2490
#2	2.029	2.119	2.030	2.080	2.049	1.982	2.043	2.047	.2496
#3	2.030	2.122	2.033	2.086	2.060	1.995	2.077	2.051	.2507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.095**	**2.092**	**1.982**	**2.156**	**2.041**	**1.988**	**1.986**	**40.28**	**40.36**
Stddev	.009	.002	.005	.010	.002	.011	.005	.06	.06
%RSD	.4213	.0742	.2516	.4629	.1069	.5356	.2431	.1600	.1459
#1	2.093	2.093	1.977	2.155	2.039	1.976	1.988	40.31	40.36
#2	2.088	2.090	1.987	2.146	2.042	1.991	1.981	40.33	40.42
#3	2.105	2.092	1.981	2.166	2.043	1.996	1.990	40.21	40.30
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.43**	**40.97**	**39.82**	**40.84**	**2.022**	**1.972**	**5.041**	**2.034**	**2.040**
Stddev	.09	.13	.04	.09	.003	.003	.006	.004	.049
%RSD	.2142	.3253	.0973	.2272	.1598	.1500	.1155	.2087	2.414
#1	41.38	40.88	39.82	40.80	2.018	1.968	5.034	2.029	2.021
#2	41.53	41.13	39.86	40.95	2.022	1.974	5.044	2.037	2.096
#3	41.37	40.91	39.78	40.78	2.025	1.973	5.044	2.035	2.002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 2:05:48 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**1.938**	**2.010**	**1.826**	**1.966**	**2.049**	**1.977**	**1.983**
Stddev	.006	.003	.009	.013	.002	.001	.011	.008
%RSD	.2876	.1637	.4311	.7313	.0860	.0249	.5457	.3822
#1	2.051	1.936	2.002	1.811	1.964	2.049	1.965	1.977
#2	2.050	1.941	2.008	1.829	1.967	2.049	1.980	1.982
#3	2.061	1.936	2.019	1.837	1.967	2.048	1.987	1.992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**243440.**	**41226.**	**7656.7**	**13401.**
Stddev	1096.	396.	11.1	19.
%RSD	.45023	.96009	.14528	.14421
#1	242990.	41503.	7644.7	13379.
#2	244700.	40773.	7658.7	13413.
#3	242650.	41403.	7666.7	13411.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 2:10:47 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **.0004**	**.0001**	**.0001**	**.0001**	F **.0019**	**.0001**	**-.0001**	**.0012**
Stddev	.0002	.0001	.0001	.0002	.0001	.0005	.0001	.0001	.0002
%RSD	204.0	29.96	113.2	160.7	74.15	26.05	86.66	119.3	16.89
#1	-.0001	.0004	.0002	.0000	.0002	.0014	.0001	-.0002	.0011
#2	.0002	.0002	.0001	.0004	.0002	.0024	.0001	-.0001	.0011
#3	.0002	.0004	-.0000	-.0000	.0000	.0018	.0000	.0000	.0015
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001				.0013			
Low Limit		-.0001				-.0013			

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0005**	**.0004**	**.0002**	**.0000**	**-.0000**	**.0108**	**.0228**
Stddev	.0001	.0001	.0008	.0012	.0001	.0010	.0008	.0062	.0286
%RSD	334.6	38.13	163.9	290.7	37.66	4956.	67000.	57.62	125.6
#1	-.0000	-.0001	.0011	-.0009	.0002	.0009	-.0004	.0118	.0072
#2	-.0001	-.0003	.0008	.0007	.0001	-.0010	.0010	.0041	.0054
#3	.0002	-.0003	-.0004	.0015	.0002	.0002	-.0006	.0164	.0558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0065**	**.0056**	**.0497**	**.0154**	**.0023**	**-.0001**	**.0022**	**.0004**	**.0003**
Stddev	.0007	.0036	.0090	.0025	.0002	.0002	.0003	.0003	.0001
%RSD	10.24	64.02	18.08	16.55	9.666	166.4	12.23	79.56	47.96
#1	.0069	.0016	.0535	.0175	.0022	-.0003	.0020	.0005	.0002
#2	.0057	.0067	.0395	.0125	.0022	.0001	.0025	.0006	.0002
#3	.0068	.0086	.0562	.0162	.0026	-.0002	.0021	.0000	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 2:10:47 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0006**	**-.0000**	**.0034**	**-.0013**	**-.0001**	**-.0047**	**.0007**
Stddev	.0002	.0008	.0000	.0002	.0015	.0004	.0011	.0008
%RSD	523.2	119.0	2129.	5.930	121.3	339.5	23.22	103.0
#1	-.0001	.0011	.0000	.0037	-.0021	-.0000	-.0035	.0005
#2	.0002	.0011	-.0000	.0033	-.0022	.0002	-.0053	.0001
#3	.0000	-.0002	-.0000	.0033	.0005	-.0006	-.0055	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251830.**	**41660.**	**7924.8**	**14506.**
Stddev	3548.	105.	30.3	47.
%RSD	1.4090	.25175	.38193	.32495
#1	255880.	41774.	7951.1	14539.
#2	249270.	41567.	7891.7	14452.
#3	250340.	41641.	7931.6	14527.

Zoom In Zoom Out

Sample Name: jd4388-3r Acquired: 3/18/2020 2:15:52 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.427**	**.0062**	**.0033**	**.0961**	**.2909**	**.3249**	**3.467**	**.3663**	**.0052**
Stddev	.004	.0001	.0001	.0016	.0021	.0009	.019	.0052	.0012
%RSD	.2551	1.314	2.573	1.667	.7270	.2703	.5501	1.406	22.82
#1	1.423	.0061	.0033	.0959	.2894	.3251	3.454	.3661	.0060
#2	1.429	.0062	.0032	.0946	.2933	.3256	3.489	.3612	.0038
#3	1.429	.0063	.0034	.0978	.2900	.3239	3.458	.3715	.0057

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2758**	**.9172**	**.0420**	**-.0013**	**.3258**	**.0116**	**.0032**	**137.2**	F **217.0**
Stddev	.0029	.0121	.0011	.0011	.0049	.0021	.0020	.3	.7
%RSD	1.063	1.317	2.544	84.27	1.511	18.31	61.63	.2371	.3379
#1	.2756	.9157	.0424	-.0008	.3247	.0140	.0030	136.8	216.6
#2	.2788	.9059	.0428	-.0025	.3215	.0099	.0013	137.4	216.6
#3	.2730	.9299	.0408	-.0005	.3311	.0110	.0052	137.4	217.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **220.5**	**49.73**	**21.51**	**3.537**	**.1660**	**.0310**	**2.630**	**.0393**	**.8350**
Stddev	3.3	.12	.08	.010	.0023	.0004	.033	.0005	.0033
%RSD	1.519	.2321	.3811	.2846	1.394	1.134	1.272	1.388	.3932
#1	223.0	49.65	21.42	3.529	.1659	.0309	2.629	.0390	.8312
#2	216.7	49.68	21.54	3.535	.1637	.0307	2.596	.0390	.8372
#3	221.7	49.86	21.57	3.548	.1683	.0314	2.663	.0400	.8365

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.667**	**.0688**	**.0755**	**8.365**	**.0369**	**.2515**	**2.593**	**.3580**
Stddev	.019	.0016	.0004	.099	.0009	.0011	.032	.0008
%RSD	.7048	2.389	.5421	1.179	2.326	.4417	1.214	.2291
#1	2.659	.0695	.0755	8.362	.0371	.2507	2.592	.3571
#2	2.689	.0669	.0759	8.268	.0376	.2510	2.563	.3587
#3	2.654	.0699	.0751	8.465	.0359	.2528	2.626	.3583

Zoom In Zoom Out

Sample Name: jd4388-3r Acquired: 3/18/2020 2:15:52 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**246360.**	**42910.**	**7756.5**	**13266.**
Stddev	2179.	175.	85.2	147.
%RSD	.88428	.40732	1.0985	1.1101
#1	246590.	42842.	7756.9	13266.
#2	244070.	43109.	7841.5	13414.
#3	248410.	42780.	7671.1	13119.

Zoom In Zoom Out

Sample Name: jd4541-24 Acquired: 3/18/2020 2:21:04 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.581**	**.0018**	**.0790**	**.0773**	**.4452**	F **27.48**	**3.221**	**.5365**
Stddev	.122	.0001	.0001	.0003	.0100	.46	.059	.0004
%RSD	2.664	6.726	.1029	.3665	2.240	1.665	1.848	.0815
#1	4.686	.0017	.0790	.0770	.4395	27.45	3.191	.5367
#2	4.447	.0017	.0791	.0772	.4395	27.04	3.182	.5360
#3	4.609	.0019	.0789	.0776	.4567	27.95	3.289	.5369

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	*****	**.1470**	F **24.43**	**.2075**	F **-.0313**	F **27.26**	F **-.0755**	**1.368**
Stddev	-----	.0033	.02	.0004	.0005	.02	.0014	.001
%RSD	-----	2.249	.0970	.2023	1.483	.0625	1.917	.1017
#1	-----	.1447	24.45	.2076	-.0312	27.26	-.0761	1.368
#2	-----	.1455	24.40	.2071	-.0309	27.25	-.0766	1.366
#3	-----	.1508	24.43	.2079	-.0318	27.28	-.0739	1.369

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.18**	**35.31**	F **543.2**	**8.239**	**3.184**	**1.626**	**.0889**	**.0466**
Stddev	.90	.75	7.4	.169	.071	.041	.0006	.0001
%RSD	2.182	2.126	1.359	2.054	2.218	2.517	.6342	.2190
#1	40.79	35.00	544.3	8.195	3.152	1.614	.0893	.0466
#2	40.55	34.76	535.4	8.096	3.135	1.593	.0882	.0464
#3	42.21	36.16	550.0	8.426	3.265	1.672	.0890	.0466

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.104**	**6.085**	**.2386**	**.9331**	**.2932**	*****	**20.30**	**.0781**
Stddev	.012	.007	.0050	.0208	.0007	-----	.04	.0020
%RSD	.3880	.1185	2.082	2.226	.2381	-----	.1753	2.563
#1	3.091	6.087	.2362	.9189	.2924	-----	20.28	.0788
#2	3.104	6.077	.2352	.9234	.2936	-----	20.28	.0796
#3	3.115	6.092	.2443	.9570	.2937	-----	20.34	.0758

Zoom In Zoom Out

Sample Name: jd4541-24 Acquired: 3/18/2020 2:21:04 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0478**	F **8.963**	**.3033**
Stddev	.0012	.026	.0065
%RSD	2.406	.2858	2.156
#1	.0479	8.951	.2991
#2	.0466	8.946	.3000
#3	.0489	8.992	.3109

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244640.**	**41761.**	**7679.7**	**14484.**
Stddev	5071.	677.	10.3	15.
%RSD	2.0729	1.6222	.13468	.10136
#1	247970.	41787.	7674.7	14474.
#2	247140.	42425.	7691.6	14501.
#3	238800.	41070.	7672.9	14477.

Zoom In Zoom Out

Sample Name: jd4564-1 Acquired: 3/18/2020 2:26:20 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3878**	**.0010**	**.0011**	**.2325**	**.7246**	**.8770**	**1.311**	**.3423**
Stddev	.0015	.0001	.0002	.0007	.0008	.0020	.003	.0008
%RSD	.3944	7.574	16.26	.2924	.1108	.2307	.2490	.2403
#1	.3861	.0011	.0012	.2317	.7249	.8791	1.313	.3414
#2	.3884	.0009	.0011	.2331	.7237	.8769	1.307	.3425
#3	.3890	.0010	.0009	.2326	.7252	.8750	1.313	.3429

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**.7619**	**.2241**	**.0105**	F **-.0024**	**.0185**	**.0097**	**.0013**
Stddev	.0002	.0017	.0005	.0009	.0007	.0008	.0015	.0005
%RSD	5.026	.2251	.2303	8.153	28.52	4.195	15.83	36.83
#1	.0031	.7635	.2235	.0099	-.0016	.0178	.0099	.0009
#2	.0034	.7601	.2245	.0101	-.0028	.0193	.0112	.0011
#3	.0033	.7621	.2243	.0114	-.0027	.0185	.0081	.0018

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**257.9**	**165.7**	**139.1**	**63.69**	**13.60**	**37.67**	**.0739**	**.0020**
Stddev	4.5	1.1	.6	.32	.04	.08	.0005	.0004
%RSD	1.755	.6675	.4407	.5005	.3281	.2189	.6120	17.99
#1	252.7	165.7	138.5	63.33	13.56	37.58	.0740	.0023
#2	260.9	164.6	139.3	63.80	13.64	37.69	.0743	.0016
#3	260.2	166.8	139.7	63.95	13.60	37.74	.0734	.0020

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.354**	**.0228**	**.5619**	**5.422**	**.2684**	**.0272**	**2.004**	**.0636**
Stddev	.006	.0002	.0021	.006	.0015	.0002	.003	.0011
%RSD	.4186	.8372	.3761	.1204	.5495	.7824	.1583	1.754
#1	1.353	.0229	.5595	5.427	.2668	.0270	2.007	.0644
#2	1.360	.0229	.5626	5.414	.2696	.0273	2.001	.0639
#3	1.348	.0226	.5635	5.424	.2689	.0273	2.005	.0623

Zoom In Zoom Out

Sample Name: jd4564-1 Acquired: 3/18/2020 2:26:20 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0726**	**4.397**	**.1919**
Stddev	.0010	.009	.0024
%RSD	1.365	.1992	1.228
#1	.0715	4.389	.1944
#2	.0730	4.406	.1897
#3	.0734	4.397	.1916

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**241880.**	**42541.**	**7783.0**	**13046.**
Stddev	551.	150.	15.8	20.
%RSD	.22769	.35314	.20307	.15596
#1	241780.	42714.	7801.0	13070.
#2	242480.	42456.	7771.5	13036.
#3	241390.	42452.	7776.6	13033.

Zoom In Zoom Out

Sample Name: jd4564-2 Acquired: 3/18/2020 2:31:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7902**	**.0009**	**.0014**	**.1604**	**.8778**	**.8718**	**1.436**	**.3945**
Stddev	.0014	.0001	.0001	.0007	.0101	.0091	.015	.0009
%RSD	.1779	12.67	7.273	.4108	1.150	1.044	1.071	.2326
#1	.7912	.0008	.0015	.1609	.8663	.8613	1.419	.3952
#2	.7909	.0009	.0014	.1607	.8850	.8782	1.448	.3948
#3	.7886	.0010	.0013	.1597	.8821	.8757	1.442	.3935

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0061**	**.7370**	**.2434**	**.0107**	F **-.0088**	**.0294**	**.0092**	**.0021**
Stddev	.0004	.0092	.0003	.0010	.0024	.0014	.0007	.0009
%RSD	7.010	1.248	.1183	9.788	26.85	4.618	8.114	43.05
#1	.0065	.7267	.2437	.0095	-.0112	.0281	.0089	.0031
#2	.0061	.7442	.2434	.0114	-.0087	.0294	.0087	.0015
#3	.0057	.7403	.2431	.0112	-.0065	.0308	.0100	.0016

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**173.9**	**119.2**	**146.8**	**86.54**	**15.20**	**29.87**	**.0848**	**.0023**
Stddev	.4	2.2	2.4	.23	.05	.10	.0009	.0001
%RSD	.2220	1.845	1.651	.2636	.3573	.3512	1.043	3.205
#1	173.8	118.8	147.8	86.34	15.20	29.82	.0855	.0024
#2	174.3	121.6	148.6	86.79	15.25	29.99	.0852	.0023
#3	173.6	117.3	144.1	86.48	15.14	29.80	.0838	.0022

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.616**	**.0234**	**.4082**	**6.132**	**.1008**	**.0387**	**1.411**	**.0733**
Stddev	.007	.0004	.0010	.070	.0005	.0007	.003	.0025
%RSD	.4169	1.750	.2442	1.147	.5385	1.693	.2436	3.423
#1	1.624	.0236	.4083	6.052	.1008	.0382	1.415	.0704
#2	1.612	.0237	.4091	6.184	.1013	.0394	1.410	.0746
#3	1.612	.0230	.4071	6.161	.1002	.0385	1.408	.0749

Zoom In Zoom Out

Sample Name: jd4564-2 Acquired: 3/18/2020 2:31:24 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0748**	**4.298**	**.1877**
Stddev	.0010	.026	.0011
%RSD	1.339	.6123	.5604
#1	.0738	4.329	.1876
#2	.0758	4.286	.1866
#3	.0747	4.281	.1887

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244490.**	**42270.**	**7739.1**	**13156.**
Stddev	2075.	258.	8.9	14.
%RSD	.84864	.60988	.11547	.10828
#1	246730.	42405.	7732.8	13139.
#2	242640.	41972.	7749.3	13165.
#3	244110.	42432.	7735.2	13163.

Zoom In Zoom Out

Sample Name: mp20259-mb1 Acquired: 3/18/2020 2:36:20 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**.0000**	**.0004**	**.0020**	**.0001**	**-.0002**	**.0016**
Stddev	.0003	.0000	.0001	.0002	.0003	.0004	.0000	.0001	.0002
%RSD	188.9	49.68	124.7	443.0	68.40	19.26	2.914	91.00	14.59
#1	-.0002	.0001	.0002	-.0001	.0005	.0022	.0001	-.0002	.0016
#2	.0003	.0001	.0001	.0002	.0001	.0015	.0001	.0000	.0014
#3	.0002	.0000	-.0000	.0001	.0006	.0022	.0001	-.0003	.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0014**	**.0004**	**.0001**	**.0001**	**.0003**	**.0006**	**.0460**	**.1948**
Stddev	.0002	.0001	.0005	.0004	.0006	.0010	.0016	.0098	.0040
%RSD	53.35	5.359	108.1	264.1	533.1	329.2	287.5	21.28	2.063
#1	-.0007	.0014	.0002	.0001	-.0001	-.0003	-.0013	.0489	.1943
#2	-.0003	.0015	.0001	.0005	-.0003	.0014	.0017	.0351	.1991
#3	-.0003	.0013	.0010	-.0002	.0008	-.0002	.0012	.0540	.1911

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**-.0039**	**.0047**	**.0224**	**.0012**	**-.0003**	**.0128**	**-.0004**	**.0003**
Stddev	.0009	.0039	.0256	.0028	.0006	.0001	.0008	.0001	.0000
%RSD	37.03	98.18	541.3	12.43	51.92	15.78	6.270	31.34	13.81
#1	.0035	.0004	-.0023	.0228	.0019	-.0004	.0126	-.0005	.0002
#2	.0019	-.0052	.0331	.0249	.0008	-.0003	.0121	-.0003	.0003
#3	.0020	-.0070	-.0167	.0194	.0009	-.0003	.0136	-.0005	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0020**	**.0008**	**.0233**	**.0004**	**-.0010**	**-.0033**	**.0017**
Stddev	.0003	.0006	.0001	.0009	.0011	.0011	.0009	.0015
%RSD	68.37	29.37	13.35	3.691	272.6	114.1	27.86	90.43
#1	.0003	.0018	.0009	.0229	.0016	-.0004	-.0022	.0019
#2	.0001	.0015	.0008	.0243	.0000	-.0003	-.0038	.0000
#3	.0007	.0027	.0007	.0228	-.0004	-.0023	-.0039	.0030

Zoom In Zoom Out

Sample Name: mp20259-mb1 Acquired: 3/18/2020 2:36:20 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**257290.**	**42501.**	**8010.7**	**14651.**
Stddev	963.	312.	26.2	38.
%RSD	.37413	.73483	.32763	.25841
#1	256910.	42625.	8040.8	14693.
#2	258380.	42146.	7998.8	14621.
#3	256570.	42733.	7992.5	14637.

Zoom In Zoom Out

Sample Name: mp20259-b1 Acquired: 3/18/2020 2:41:26 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.937**	**2.023**	**1.941**	**2.000**	**1.964**	**1.908**	**1.941**	**1.970**
Stddev	.026	.029	.003	.003	.003	.003	.012	.003
%RSD	1.365	1.427	.1533	.1626	.1363	.1291	.6239	.1367
#1	1.954	2.044	1.944	2.001	1.963	1.908	1.932	1.972
#2	1.950	2.036	1.938	1.996	1.962	1.906	1.937	1.967
#3	1.906	1.990	1.942	2.002	1.967	1.911	1.955	1.971

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2483**	**1.995**	**2.008**	**1.945**	**2.093**	**1.956**	**1.892**	**1.963**
Stddev	.0003	.004	.003	.004	.002	.003	.005	.001
%RSD	.1132	.2083	.1261	.1873	.0988	.1444	.2840	.0427
#1	.2480	1.991	2.011	1.948	2.095	1.959	1.898	1.962
#2	.2486	1.995	2.007	1.944	2.091	1.953	1.892	1.963
#3	.2484	1.999	2.007	1.941	2.093	1.955	1.887	1.964

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.71**	**24.83**	**25.61**	**25.25**	**24.54**	**25.28**	**1.915**	**1.963**
Stddev	.36	.35	.32	.36	.35	.33	.005	.002
%RSD	1.446	1.418	1.263	1.417	1.414	1.287	.2708	.0919
#1	24.91	25.03	25.80	25.44	24.69	25.45	1.920	1.965
#2	24.92	25.05	25.79	25.47	24.78	25.49	1.910	1.964
#3	24.29	24.43	25.23	24.83	24.14	24.91	1.914	1.961

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2444**	**2.027**	**1.948**	**2.026**	**1.915**	**1.986**	F **-.0574**	**-.0013**
Stddev	.0018	.003	.054	.002	.004	.004	.0017	.0011
%RSD	.7380	.1549	2.783	.0798	.2007	.1930	2.885	82.25
#1	.2442	2.030	1.944	2.025	1.916	1.984	-.0556	-.0018
#2	.2462	2.026	2.005	2.025	1.918	1.983	-.0589	-.0021
#3	.2426	2.024	1.897	2.028	1.910	1.990	-.0575	-.0001

Zoom In Zoom Out

Sample Name: mp20259-b1 Acquired: 3/18/2020 2:41:26 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0002**	**1.882**	**-.0049**
Stddev	.0008	.004	.0011
%RSD	399.6	.2089	21.80
#1	.0002	1.879	-.0041
#2	.0009	1.887	-.0044
#3	-.0006	1.882	-.0061

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251440.**	**42455.**	**7820.5**	**13812.**
Stddev	970.	811.	2.9	15.
%RSD	.38558	1.9107	.03683	.10837
#1	252420.	42253.	7817.6	13800.
#2	251430.	41764.	7820.6	13829.
#3	250480.	43348.	7823.4	13807.

Zoom In Zoom Out

Sample Name: mp20259-s1 Acquired: 3/18/2020 2:46:23 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.965**	**2.048**	**1.960**	**2.013**	**1.969**	**1.920**	**1.962**	**1.981**	**.2517**
Stddev	.002	.001	.018	.014	.008	.008	.006	.015	.0011
%RSD	.0807	.0359	.9265	.6986	.3943	.4369	.3015	.7519	.4251
#1	1.963	2.047	1.981	2.029	1.969	1.920	1.964	1.998	.2515
#2	1.966	2.047	1.948	2.003	1.976	1.928	1.967	1.970	.2529
#3	1.966	2.049	1.950	2.007	1.960	1.912	1.955	1.974	.2508

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**2.004**	**1.981**	**2.095**	**1.965**	**1.915**	**1.990**	**25.09**	**76.29**
Stddev	.006	.018	.016	.014	.015	.016	.018	.05	.16
%RSD	.3085	.9182	.8080	.6431	.7396	.8408	.9044	.1954	.2042
#1	2.005	2.025	1.999	2.111	1.981	1.933	2.010	25.03	76.16
#2	2.010	1.993	1.975	2.090	1.953	1.904	1.977	25.10	76.26
#3	1.998	1.994	1.969	2.086	1.961	1.908	1.983	25.13	76.47

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.93**	**33.87**	**28.64**	**56.56**	**1.989**	**1.970**	**6.703**	**2.021**	**2.178**
Stddev	.12	.11	.10	.19	.019	.018	.061	.015	.025
%RSD	.4586	.3293	.3357	.3280	.9329	.8997	.9121	.7519	1.132
#1	25.80	33.74	28.55	56.35	2.010	1.990	6.774	2.038	2.161
#2	25.96	33.91	28.63	56.63	1.975	1.959	6.664	2.010	2.167
#3	26.04	33.96	28.74	56.71	1.982	1.961	6.673	2.014	2.206

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.039**	**1.929**	**2.005**	**7.450**	**.0003**	**.0062**	**2.934**	**-.0049**
Stddev	.007	.017	.008	.069	.0023	.0004	.027	.0027
%RSD	.3467	.8948	.4068	.9193	696.3	7.015	.9207	55.09
#1	2.038	1.949	2.006	7.529	-.0020	.0057	2.965	-.0077
#2	2.047	1.918	2.013	7.414	.0027	.0062	2.924	-.0047
#3	2.033	1.921	1.996	7.406	.0003	.0066	2.913	-.0023

Zoom In Zoom Out

Sample Name: mp20259-s1 Acquired: 3/18/2020 2:46:23 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**248220.**	**42039.**	**7716.0**	**13450.**
Stddev	650.	191.	62.1	92.
%RSD	.26199	.45337	.80424	.68180
#1	247800.	42042.	7644.4	13344.
#2	247880.	42227.	7748.9	13502.
#3	248970.	41846.	7754.7	13504.

Zoom In Zoom Out

Sample Name: mp20259-s2 Acquired: 3/18/2020 2:51:22 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.953**	**2.045**	**1.940**	**1.994**	**1.971**	**1.923**	**1.978**	**1.959**	**.2510**
Stddev	.004	.001	.001	.002	.051	.051	.049	.003	.0064
%RSD	.1791	.0223	.0440	.1125	2.579	2.650	2.490	.1680	2.567
#1	1.952	2.045	1.939	1.994	1.931	1.883	1.935	1.960	.2459
#2	1.950	2.045	1.940	1.996	2.028	1.981	2.032	1.962	.2583
#3	1.957	2.046	1.939	1.992	1.953	1.907	1.968	1.955	.2489

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.030**	**1.985**	**1.957**	**2.064**	**1.945**	**1.888**	**1.962**	**24.85**	**76.34**
Stddev	.051	.003	.004	.010	.001	.005	.005	.08	.20
%RSD	2.491	.1726	.2291	.5050	.0575	.2808	.2494	.3179	.2658
#1	1.995	1.988	1.962	2.075	1.944	1.894	1.965	24.85	76.37
#2	2.088	1.984	1.954	2.063	1.946	1.883	1.956	24.77	76.12
#3	2.006	1.981	1.955	2.054	1.945	1.887	1.964	24.93	76.52

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.68**	**33.72**	**28.36**	**56.48**	**1.969**	**1.945**	**6.612**	**1.994**	**2.176**
Stddev	.08	.09	.13	.21	.001	.002	.004	.004	.052
%RSD	.3142	.2719	.4606	.3803	.0368	.0839	.0642	.2038	2.385
#1	25.70	33.72	28.41	56.48	1.969	1.947	6.617	1.999	2.131
#2	25.59	33.63	28.21	56.26	1.968	1.944	6.608	1.993	2.164
#3	25.75	33.82	28.45	56.69	1.969	1.945	6.611	1.991	2.232

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.050**	**1.904**	**2.001**	**7.406**	**.0018**	**.0078**	**2.894**	**-.0028**
Stddev	.054	.001	.054	.031	.0018	.0015	.017	.0026
%RSD	2.638	.0285	2.713	.4212	100.6	19.33	.5766	91.23
#1	2.011	1.904	1.959	7.436	-.0001	.0069	2.912	-.0018
#2	2.112	1.903	2.062	7.408	.0035	.0096	2.889	-.0057
#3	2.027	1.904	1.983	7.374	.0019	.0070	2.880	-.0009

Zoom In Zoom Out

Sample Name: mp20259-s2 Acquired: 3/18/2020 2:51:22 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**246860.**	**42012.**	**7765.7**	**13525.**
Stddev	5439.	304.	17.6	27.
%RSD	2.2032	.72243	.22658	.19739
#1	250630.	41843.	7745.5	13497.
#2	240630.	42362.	7773.3	13528.
#3	249330.	41831.	7778.1	13550.

Zoom In Zoom Out

Sample Name: jd4572-3 Acquired: 3/18/2020 2:56:21 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0065**	**.0001**	**.0002**	**.0001**	**.0008**	**.0048**	**.0087**	**.0006**	**.0018**
Stddev	.0001	.0001	.0002	.0002	.0001	.0005	.0001	.0000	.0003
%RSD	2.089	80.45	111.6	369.2	13.99	10.15	.6385	5.703	17.66
#1	.0064	.0002	.0001	.0002	.0007	.0048	.0087	.0007	.0021
#2	.0066	.0001	.0000	.0001	.0009	.0043	.0087	.0007	.0015
#3	.0066	.0000	.0003	-.0002	.0008	.0053	.0088	.0006	.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**.0027**	**.0084**	**.0014**	**.0000**	**.0025**	**.0005**	**.0204**	**51.93**
Stddev	.0002	.0001	.0004	.0011	.0003	.0012	.0011	.0051	.10
%RSD	6.428	4.907	4.504	82.19	590.8	47.16	225.9	24.89	.1832
#1	.0041	.0027	.0084	.0013	.0003	.0015	-.0007	.0170	52.03
#2	.0036	.0026	.0087	.0003	.0001	.0038	.0015	.0180	51.91
#3	.0038	.0028	.0079	.0025	-.0003	.0022	.0006	.0263	51.84

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0398**	**8.772**	**3.673**	**31.14**	**.0593**	**.0010**	**6.457**	**-.0008**	**.2342**
Stddev	.0012	.031	.034	.13	.0005	.0002	.004	.0001	.0008
%RSD	2.974	.3490	.9374	.4235	.8167	20.63	.0631	9.395	.3407
#1	.0411	8.806	3.668	31.27	.0594	.0013	6.462	-.0008	.2349
#2	.0396	8.764	3.709	31.14	.0597	.0009	6.455	-.0009	.2342
#3	.0387	8.747	3.641	31.01	.0588	.0009	6.455	-.0007	.2333

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0042**	**.0006**	**7.440**	**-.0001**	**.0068**	**1.021**	**.0014**
Stddev	.0002	.0011	.0000	.038	.0008	.0009	.004	.0005
%RSD	147.3	25.26	7.569	.5068	616.6	12.62	.4312	32.16
#1	.0001	.0051	.0005	7.479	-.0009	.0058	1.025	.0010
#2	-.0002	.0043	.0006	7.437	-.0002	.0070	1.022	.0019
#3	-.0002	.0030	.0006	7.403	.0007	.0074	1.016	.0013

Zoom In Zoom Out

Sample Name: jd4572-3 Acquired: 3/18/2020 2:56:21 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**249810.**	**41898.**	**7829.8**	**13981.**
Stddev	1369.	246.	10.9	9.
%RSD	.54787	.58766	.13920	.06391
#1	250060.	41617.	7823.4	13982.
#2	251030.	41999.	7823.6	13972.
#3	248330.	42077.	7842.4	13990.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 3:01:22 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.028**	**2.133**	**2.026**	**2.077**	**2.041**	**1.975**	**2.078**	**2.045**	**.2487**
Stddev	.004	.002	.004	.004	.006	.003	.019	.003	.0009
%RSD	.2006	.0985	.1886	.1866	.2808	.1281	.9202	.1236	.3603
#1	2.033	2.135	2.026	2.075	2.037	1.973	2.076	2.044	.2477
#2	2.027	2.131	2.030	2.081	2.039	1.974	2.060	2.048	.2494
#3	2.025	2.134	2.022	2.074	2.048	1.978	2.098	2.043	.2490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.105**	**2.084**	**1.986**	**2.136**	**2.044**	**1.988**	**1.980**	**40.14**	**40.26**
Stddev	.007	.003	.001	.004	.000	.003	.006	.14	.11
%RSD	.3397	.1430	.0408	.1745	.0154	.1475	.2809	.3593	.2782
#1	2.098	2.085	1.985	2.138	2.044	1.989	1.981	40.28	40.36
#2	2.105	2.087	1.987	2.138	2.045	1.985	1.986	40.14	40.26
#3	2.112	2.081	1.986	2.132	2.044	1.991	1.975	39.99	40.14
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.95**	**40.86**	**39.64**	**40.43**	**2.018**	**1.978**	**5.043**	**2.028**	**2.026**
Stddev	.15	.15	.09	.14	.004	.002	.005	.003	.004
%RSD	.3617	.3784	.2307	.3499	.1910	.0950	.0941	.1590	.2156
#1	41.08	41.01	39.74	40.59	2.019	1.978	5.047	2.029	2.028
#2	40.99	40.87	39.56	40.37	2.021	1.980	5.045	2.030	2.021
#3	40.79	40.70	39.62	40.32	2.014	1.976	5.038	2.024	2.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 3:01:22 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.055**	**1.942**	**2.000**	**1.817**	**1.967**	**2.055**	**1.969**	**1.990**
Stddev	.005	.003	.004	.005	.002	.004	.002	.006
%RSD	.2669	.1327	.1826	.2830	.0919	.1903	.1017	.3094
#1	2.050	1.942	1.997	1.811	1.969	2.060	1.969	1.984
#2	2.055	1.945	1.999	1.821	1.965	2.053	1.971	1.992
#3	2.061	1.940	2.004	1.819	1.968	2.053	1.967	1.995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244090.**	**41249.**	**7676.1**	**13429.**
Stddev	1126.	79.	12.0	17.
%RSD	.46114	.19095	.15673	.12815
#1	244990.	41329.	7664.3	13412.
#2	244440.	41172.	7675.6	13429.
#3	242820.	41247.	7688.3	13446.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 3:06:21 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **.0002**	**.0002**	**.0000**	**.0001**	F **.0024**	**.0001**	**-.0000**	**.0012**
Stddev	.0002	.0001	.0001	.0001	.0002	.0000	.0000	.0001	.0004
%RSD	442.6	27.87	38.70	962.6	184.3	1.924	29.26	2133.	37.04
#1	.0003	.0003	.0001	-.0001	.0003	.0023	.0001	.0001	.0012
#2	.0001	.0002	.0001	.0001	.0000	.0024	.0000	-.0002	.0007
#3	-.0002	.0002	.0002	.0001	-.0001	.0024	.0001	.0000	.0016
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001				.0013			
Low Limit		-.0001				-.0013			

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0002**	**.0003**	**.0009**	**-.0008**	**.0010**	**.0010**	**.0138**	**-.0003**
Stddev	.0002	.0000	.0005	.0008	.0003	.0002	.0005	.0073	.0018
%RSD	319.6	12.00	163.9	87.91	41.30	16.07	49.56	52.99	639.9
#1	-.0002	-.0003	-.0002	.0004	-.0008	.0008	.0014	.0076	.0017
#2	.0002	-.0003	.0003	.0018	-.0011	.0011	.0004	.0218	-.0015
#3	.0002	-.0002	.0009	.0005	-.0004	.0011	.0013	.0119	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**.0082**	**.0454**	**-.0102**	**.0024**	**-.0001**	**.0025**	**-.0004**	**.0002**
Stddev	.0010	.0038	.0046	.0045	.0002	.0002	.0002	.0001	.0001
%RSD	27.15	45.95	10.19	44.72	6.524	273.7	8.382	15.97	58.15
#1	.0043	.0039	.0443	-.0097	.0022	.0001	.0028	-.0004	.0002
#2	.0027	.0098	.0505	-.0149	.0024	-.0002	.0024	-.0003	.0002
#3	.0046	.0110	.0414	-.0059	.0025	-.0001	.0024	-.0004	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 3:06:21 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0005**	**.0001**	**.0026**	**.0009**	**.0005**	**-.0034**	**-.0002**
Stddev	.0001	.0003	.0002	.0014	.0017	.0011	.0012	.0021
%RSD	366.7	58.99	131.2	52.18	180.0	213.8	35.38	1215.
#1	-.0001	.0007	.0001	.0027	-.0010	.0004	-.0044	.0015
#2	.0002	.0002	.0003	.0012	.0015	-.0005	-.0021	-.0025
#3	.0000	.0006	.0000	.0039	.0022	.0017	-.0039	.0004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**254800.**	**42261.**	**8003.1**	**14620.**
Stddev	1735.	155.	19.5	24.
%RSD	.68108	.36725	.24404	.16188
#1	256080.	42353.	7989.1	14601.
#2	252830.	42348.	7994.7	14613.
#3	255500.	42082.	8025.4	14646.

Zoom In Zoom Out

Sample Name: mp20259-sd1 Acquired: 3/18/2020 3:11:26 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066**	**.0004**	**.0005**	**-.0002**	**.0020**	**.0135**	**.0091**	**.0006**	**.0050**
Stddev	.0010	.0002	.0003	.0015	.0010	.0023	.0002	.0009	.0008
%RSD	14.98	63.94	58.57	931.5	47.72	16.69	1.803	145.5	15.12
#1	.0075	.0005	.0008	.0008	.0015	.0160	.0092	.0006	.0042
#2	.0056	.0005	.0002	-.0019	.0014	.0117	.0089	-.0003	.0057
#3	.0068	.0001	.0005	.0007	.0032	.0127	.0092	.0014	.0052

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**.0020**	**.0138**	**.0078**	**-.0034**	**.0045**	**-.0017**	**.0745**	**52.74**
Stddev	.0027	.0006	.0043	.0070	.0044	.0059	.0052	.0218	.13
%RSD	130.3	29.74	31.43	89.60	129.5	130.6	311.3	29.23	.2461
#1	.0013	.0019	.0180	.0002	-.0084	-.0020	.0042	.0546	52.63
#2	-.0001	.0026	.0140	.0141	-.0012	.0093	-.0058	.0977	52.88
#3	.0051	.0014	.0093	.0093	-.0005	.0062	-.0034	.0711	52.69

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0506**	**9.028**	**3.819**	**31.55**	**.0639**	**.0010**	**6.657**	**-.0026**	**.2378**
Stddev	.0027	.027	.038	.09	.0014	.0011	.069	.0030	.0008
%RSD	5.383	.2951	1.007	.2801	2.143	105.0	1.039	113.4	.3452
#1	.0500	9.043	3.776	31.46	.0654	-.0001	6.619	.0008	.2373
#2	.0483	9.044	3.850	31.64	.0637	.0012	6.737	-.0044	.2387
#3	.0536	8.997	3.832	31.55	.0627	.0020	6.616	-.0043	.2373

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0025**	**.0005**	**7.651**	**.0038**	**-.0010**	**1.024**	**-.0034**
Stddev	.0004	.0012	.0008	.081	.0061	.0061	.017	.0125
%RSD	84.79	48.36	156.9	1.056	160.2	612.5	1.632	362.4
#1	-.0007	.0014	.0007	7.597	-.0023	-.0071	1.010	.0022
#2	-.0000	.0024	-.0004	7.744	.0038	-.0010	1.042	-.0178
#3	-.0008	.0038	.0011	7.613	.0098	.0051	1.021	.0052

Zoom In Zoom Out

Sample Name: mp20259-sd1 Acquired: 3/18/2020 3:11:26 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**251060.**	**41956.**	**7857.8**	**14306.**
Stddev	2729.	335.	57.8	98.
%RSD	1.0870	.79853	.73516	.68839
#1	252280.	42048.	7907.0	14384.
#2	252970.	41585.	7794.2	14195.
#3	247940.	42236.	7872.3	14338.

Zoom In Zoom Out

Sample Name: jd1182-16 Acquired: 3/18/2020 3:16:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0002**	**.0002**	**.0021**	**.0006**	**.0154**	**.0006**	**.0011**	**.0013**
Stddev	.0002	.0000	.0002	.0001	.0001	.0005	.0000	.0001	.0002
%RSD	5.705	5.608	76.69	4.913	16.37	3.178	5.622	12.07	11.57
#1	.0034	.0002	.0001	.0021	.0005	.0155	.0005	.0012	.0013
#2	.0038	.0002	.0001	.0021	.0005	.0158	.0006	.0012	.0012
#3	.0034	.0002	.0004	.0020	.0007	.0149	.0006	.0010	.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0123**	**.0002**	**-.0004**	**-.0008**	**.0008**	**-.0005**	**.0397**	**.4791**
Stddev	.0004	.0000	.0008	.0007	.0009	.0003	.0009	.0052	.0022
%RSD	229.6	.4017	374.7	169.9	104.0	39.07	200.4	13.10	.4590
#1	-.0003	.0123	.0010	-.0004	-.0018	.0008	-.0014	.0435	.4801
#2	.0004	.0122	-.0007	.0003	-.0002	.0012	-.0005	.0419	.4806
#3	.0003	.0122	.0004	-.0012	-.0005	.0005	.0005	.0338	.4766

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072**	**.0199**	**.0493**	**.3451**	**.0035**	**-.0001**	**.4529**	**.0003**	**.0048**
Stddev	.0009	.0025	.0092	.0025	.0004	.0001	.0007	.0003	.0001
%RSD	12.73	12.46	18.56	.7337	12.62	48.15	.1498	101.1	1.289
#1	.0063	.0209	.0392	.3458	.0040	-.0001	.4525	.0004	.0049
#2	.0081	.0171	.0519	.3423	.0032	-.0001	.4525	-.0000	.0048
#3	.0070	.0218	.0570	.3472	.0034	-.0002	.4537	.0005	.0047

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0042**	**.0003**	**.0387**	**.0007**	**-.0004**	**-.0025**	**.0005**
Stddev	.0001	.0006	.0001	.0021	.0008	.0009	.0007	.0004
%RSD	21.00	13.54	22.77	5.501	113.9	241.6	26.42	89.65
#1	.0004	.0047	.0003	.0412	.0014	.0003	-.0030	.0009
#2	.0007	.0043	.0003	.0376	.0008	-.0015	-.0029	.0004
#3	.0006	.0036	.0002	.0373	-.0002	-.0001	-.0018	.0001

Zoom In Zoom Out

Sample Name: jd1182-16 Acquired: 3/18/2020 3:16:25 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**258210.**	**42336.**	**8010.0**	**14656.**
Stddev	3326.	277.	6.9	5.
%RSD	1.2882	.65350	.08602	.03250
#1	258740.	42073.	8009.6	14658.
#2	254640.	42311.	8003.3	14650.
#3	261230.	42625.	8017.0	14659.

Zoom In Zoom Out

Sample Name: jd1182-17 Acquired: 3/18/2020 3:21:30 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056**	**.0002**	**.0001**	**.0007**	**.0005**	**.0145**	**.0007**	**.0025**	**.0018**
Stddev	.0002	.0001	.0001	.0000	.0002	.0014	.0001	.0001	.0005
%RSD	4.309	25.23	260.4	6.672	31.56	9.857	7.856	4.058	28.94
#1	.0059	.0002	.0002	.0007	.0007	.0156	.0008	.0025	.0020
#2	.0056	.0002	.0000	.0008	.0004	.0151	.0007	.0024	.0012
#3	.0054	.0003	-.0001	.0007	.0005	.0129	.0007	.0026	.0023

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0139**	**-.0002**	**.0004**	**.0002**	**-.0004**	**.0001**	**.0311**	**.1829**
Stddev	.0001	.0001	.0012	.0007	.0004	.0016	.0005	.0061	.0005
%RSD	313.3	.8435	643.9	195.6	162.4	377.8	427.0	19.49	.2705
#1	.0001	.0139	-.0015	.0005	-.0002	.0001	-.0002	.0316	.1824
#2	-.0001	.0139	.0003	.0011	.0004	.0009	-.0002	.0368	.1834
#3	-.0001	.0137	.0007	-.0004	.0005	-.0022	.0007	.0247	.1830

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**.0328**	**.0202**	**.7336**	**.0048**	**-.0001**	**.6130**	**-.0004**	**.0063**
Stddev	.0006	.0038	.0245	.0014	.0005	.0002	.0019	.0003	.0001
%RSD	10.38	11.57	120.9	.1933	9.363	353.4	.3141	77.38	1.569
#1	.0049	.0345	-.0072	.7336	.0044	-.0003	.6146	-.0000	.0062
#2	.0060	.0355	.0398	.7350	.0053	.0001	.6134	-.0006	.0063
#3	.0056	.0285	.0280	.7322	.0048	.0000	.6109	-.0007	.0064

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0027**	**-.0000**	**.0192**	**-.0003**	**.0009**	**-.0020**	**.0017**
Stddev	.0000	.0008	.0001	.0004	.0005	.0016	.0009	.0015
%RSD	45.31	31.11	2748.	2.174	151.6	175.9	43.49	86.42
#1	.0001	.0017	-.0000	.0193	-.0006	.0023	-.0018	.0028
#2	.0001	.0033	.0001	.0195	.0002	.0012	-.0030	.0000
#3	.0001	.0031	-.0001	.0187	-.0005	-.0008	-.0013	.0023

Zoom In Zoom Out

Sample Name: jd1182-17 Acquired: 3/18/2020 3:21:30 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**264680.**	**42499.**	**8072.2**	**14748.**
Stddev	9714.	211.	37.6	53.
%RSD	3.6700	.49705	.46607	.36035
#1	258500.	42697.	8053.8	14716.
#2	259660.	42277.	8047.2	14718.
#3	275880.	42523.	8115.5	14809.

Zoom In Zoom Out

Sample Name: jd4318-52 Acquired: 3/18/2020 3:26:37 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0001**	**.0001**	**.0002**	**.0004**	**.0018**	**.0005**	**-.0001**	**.0018**
Stddev	.0004	.0000	.0001	.0002	.0002	.0005	.0000	.0001	.0000
%RSD	77.74	71.29	99.33	126.0	52.05	27.05	7.720	84.94	1.984
#1	.0001	.0000	.0003	.0001	.0007	.0022	.0005	-.0002	.0018
#2	.0008	.0001	.0001	-.0000	.0002	.0020	.0005	-.0002	.0018
#3	.0005	.0001	.0000	.0004	.0004	.0013	.0005	-.0000	.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0022**	**-.0006**	**.0003**	**.0003**	**.0018**	**.0003**	**.0224**	**.0569**
Stddev	.0002	.0000	.0000	.0011	.0003	.0012	.0012	.0044	.0012
%RSD	59.51	1.345	7.019	406.1	134.0	67.43	472.7	19.44	2.075
#1	-.0003	.0021	-.0007	.0016	-.0001	.0023	.0010	.0194	.0579
#2	-.0004	.0022	-.0006	-.0002	.0003	.0004	-.0012	.0205	.0556
#3	-.0001	.0022	-.0006	-.0005	.0005	.0027	.0009	.0274	.0571

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0214**	**.0066**	**.0341**	**-.0216**	**.0017**	**-.0002**	**.0358**	**-.0004**	**.0002**
Stddev	.0017	.0066	.0206	.0049	.0007	.0002	.0006	.0001	.0001
%RSD	7.756	99.79	60.38	22.85	40.85	79.42	1.678	31.32	38.51
#1	.0203	.0039	.0103	-.0209	.0011	-.0005	.0362	-.0005	.0001
#2	.0205	.0141	.0467	-.0170	.0025	-.0002	.0351	-.0003	.0001
#3	.0233	.0018	.0452	-.0268	.0015	-.0001	.0360	-.0005	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0008**	**.0003**	**.0405**	**.0000**	**-.0015**	**-.0035**	**.0018**
Stddev	.0001	.0009	.0001	.0026	.0009	.0003	.0004	.0022
%RSD	25.98	111.4	40.73	6.507	1922.	21.77	11.47	125.7
#1	.0004	.0018	.0002	.0397	.0006	-.0013	-.0034	.0007
#2	.0005	.0003	.0003	.0384	-.0010	-.0019	-.0031	.0003
#3	.0006	.0003	.0005	.0435	.0006	-.0013	-.0039	.0043

Zoom In Zoom Out

Sample Name: jd4318-52 Acquired: 3/18/2020 3:26:37 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**261590.**	**42253.**	**7974.5**	**14580.**
Stddev	5797.	303.	19.0	42.
%RSD	2.2160	.71664	.23819	.29137
#1	257310.	41908.	7980.8	14601.
#2	259270.	42476.	7953.2	14531.
#3	268190.	42374.	7989.6	14608.

Zoom In Zoom Out

Sample Name: jd4440-5 Acquired: 3/18/2020 3:31:42 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1334**	**.0014**	**.0092**	**.0129**	**.0417**	**.4890**	**.2683**	**.0251**	**.0035**
Stddev	.0017	.0000	.0001	.0003	.0004	.0032	.0012	.0001	.0002
%RSD	1.240	1.827	.9688	2.411	.9496	.6573	.4338	.5302	5.375
#1	.1347	.0014	.0091	.0132	.0422	.4923	.2697	.0250	.0034
#2	.1316	.0014	.0093	.0127	.0414	.4859	.2678	.0251	.0035
#3	.1340	.0014	.0093	.0127	.0416	.4889	.2676	.0252	.0037

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0515**	**.2712**	**.0036**	**.0014**	**.0271**	**.0109**	**.0009**	**23.34**	**11.40**
Stddev	.0003	.0006	.0005	.0015	.0005	.0013	.0010	.34	.15
%RSD	.5091	.2256	12.79	106.0	1.882	11.96	105.5	1.474	1.352
#1	.0518	.2716	.0033	.0020	.0277	.0098	.0003	23.55	11.48
#2	.0514	.2705	.0033	.0025	.0267	.0105	.0004	22.94	11.22
#3	.0513	.2715	.0041	-.0003	.0270	.0124	.0021	23.52	11.49

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.28**	**8.269**	**4.944**	**27.05**	**.0495**	**.0024**	F **31.14**	**.0030**	**.0444**
Stddev	.38	.136	.029	.35	.0006	.0001	.06	.0005	.0007
%RSD	1.449	1.648	.5830	1.291	1.199	4.211	.2059	17.15	1.477
#1	26.45	8.335	4.961	27.22	.0491	.0025	31.22	.0025	.0448
#2	25.85	8.112	4.911	26.64	.0502	.0023	31.12	.0029	.0436
#3	26.56	8.360	4.960	27.27	.0492	.0024	31.10	.0035	.0447

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6799**	**.0017**	**-.0012**	**1.962**	**.0080**	**.0147**	**1.252**	**.1160**
Stddev	.0041	.0002	.0001	.004	.0009	.0016	.001	.0015
%RSD	.6047	12.65	6.537	.1829	11.06	10.97	.1074	1.293
#1	.6846	.0014	-.0012	1.966	.0071	.0144	1.254	.1169
#2	.6769	.0017	-.0013	1.960	.0080	.0133	1.252	.1169
#3	.6782	.0019	-.0011	1.961	.0088	.0165	1.251	.1143

Zoom In Zoom Out

Sample Name: jd4440-5 Acquired: 3/18/2020 3:31:42 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**257570.**	**42675.**	**8045.0**	**14066.**
Stddev	1600.	629.	15.1	22.
%RSD	.62116	1.4747	.18775	.15896
#1	255750.	42245.	8038.4	14059.
#2	258210.	43397.	8062.3	14091.
#3	258750.	42382.	8034.3	14048.

Zoom In Zoom Out

Sample Name: jd4590-1 Acquired: 3/18/2020 3:36:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2262**	**.0006**	**.0013**	**.0044**	**.0011**	**.0073**	**.0784**	**.0050**	**.0007**
Stddev	.0002	.0000	.0001	.0001	.0003	.0002	.0004	.0003	.0003
%RSD	.0794	5.559	8.396	2.243	28.83	2.149	.5169	5.485	37.60
#1	.2264	.0006	.0012	.0045	.0014	.0075	.0788	.0047	.0008
#2	.2260	.0005	.0013	.0043	.0008	.0072	.0785	.0053	.0004
#3	.2261	.0005	.0014	.0043	.0012	.0072	.0780	.0050	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0669**	**.0074**	**-.0004**	**.0019**	**.0002**	**.0000**	**2.010**	**27.26**
Stddev	.0001	.0003	.0008	.0017	.0007	.0015	.0012	.003	.05
%RSD	17.68	.3927	10.73	468.4	37.44	611.4	3651.	.1688	.1747
#1	.0007	.0670	.0072	.0011	.0011	.0019	.0007	2.006	27.29
#2	.0006	.0666	.0067	-.0000	.0025	-.0002	.0007	2.012	27.29
#3	.0009	.0671	.0082	-.0022	.0021	-.0010	-.0013	2.013	27.21

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0862**	**6.796**	**3.880**	F **216.6**	**.0310**	**.0001**	**2.165**	**.0000**	**.1778**
Stddev	.0024	.025	.010	2.8	.0004	.0003	.005	.0003	.0003
%RSD	2.777	.3640	.2513	1.300	1.309	319.7	.2537	1355.	.1435
#1	.0837	6.804	3.870	216.3	.0306	.0003	2.166	.0002	.1781
#2	.0865	6.817	3.879	219.6	.0310	.0002	2.160	.0002	.1776
#3	.0885	6.769	3.890	214.0	.0314	-.0003	2.171	-.0003	.1777

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0012**	**.0022**	**8.364**	**-.0013**	**.0075**	**.0057**	**.3082**
Stddev	.0002	.0014	.0002	.017	.0006	.0009	.0007	.0015
%RSD	32.38	115.4	8.782	.1991	42.53	12.04	11.57	.4901
#1	.0009	.0028	.0020	8.376	-.0013	.0069	.0057	.3078
#2	.0008	.0009	.0024	8.345	-.0008	.0085	.0050	.3098
#3	.0005	.0000	.0023	8.371	-.0019	.0070	.0063	.3069

Zoom In Zoom Out

Sample Name: jd4590-1 Acquired: 3/18/2020 3:36:36 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**255770.**	**44348.**	**8156.3**	**13244.**
Stddev	1546.	225.	8.5	19.
%RSD	.60438	.50666	.10382	.14432
#1	254060.	44267.	8151.3	13225.
#2	256160.	44174.	8166.0	13264.
#3	257080.	44602.	8151.5	13243.

Zoom In Zoom Out

Sample Name: jd4590-2 Acquired: 3/18/2020 3:41:45 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0646**	**.0003**	**.0004**	**.0007**	**.0076**	**.0104**	**.0093**	**.0016**	**.0016**
Stddev	.0002	.0001	.0001	.0001	.0000	.0002	.0000	.0003	.0001
%RSD	.2479	16.77	25.20	18.78	.4989	2.251	.1300	16.01	6.250
#1	.0647	.0003	.0004	.0006	.0076	.0102	.0093	.0015	.0015
#2	.0645	.0004	.0005	.0008	.0075	.0105	.0093	.0013	.0017
#3	.0645	.0004	.0003	.0008	.0076	.0106	.0093	.0018	.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102**	**.0275**	**.0029**	**.0006**	**.0030**	**.0029**	**.0011**	**4.158**	**17.48**
Stddev	.0001	.0001	.0005	.0011	.0002	.0022	.0017	.004	.03
%RSD	.8877	.2831	18.16	182.5	7.145	74.06	155.1	.1014	.1933
#1	.0101	.0274	.0035	.0001	.0031	.0016	.0020	4.153	17.51
#2	.0102	.0274	.0029	.0019	.0028	.0054	.0022	4.158	17.44
#3	.0102	.0276	.0024	-.0002	.0032	.0017	-.0009	4.162	17.47

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.43**	**3.740**	**1.472**	**66.88**	**.0433**	**.0008**	**4.651**	**.0004**	**.0563**
Stddev	.03	.013	.026	.11	.0006	.0001	.005	.0005	.0001
%RSD	.2799	.3559	1.773	.1641	1.432	11.88	.1117	144.2	.2109
#1	10.46	3.725	1.454	67.00	.0431	.0007	4.656	.0003	.0565
#2	10.40	3.743	1.461	66.78	.0428	.0009	4.651	-.0001	.0563
#3	10.42	3.751	1.502	66.86	.0440	.0009	4.646	.0009	.0563

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0437**	**.0018**	**.0033**	**3.550**	**.0005**	**.0054**	**.0299**	**.0829**
Stddev	.0005	.0003	.0001	.012	.0006	.0005	.0014	.0014
%RSD	1.054	14.81	1.625	.3507	127.8	9.226	4.823	1.649
#1	.0443	.0018	.0034	3.564	.0007	.0052	.0290	.0815
#2	.0434	.0015	.0033	3.540	-.0002	.0051	.0316	.0829
#3	.0435	.0020	.0033	3.545	.0009	.0060	.0292	.0843

Zoom In Zoom Out

Sample Name: jd4590-2 Acquired: 3/18/2020 3:41:45 Type: Unk
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**248700.**	**41665.**	**7830.6**	**13763.**
Stddev	711.	95.	15.2	15.
%RSD	.28593	.22781	.19390	.10841
#1	249510.	41718.	7816.8	13750.
#2	248360.	41722.	7846.9	13780.
#3	248210.	41556.	7828.1	13760.

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 3:46:38 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.030**	**2.132**	**2.010**	**2.061**	**2.049**	**1.986**	**2.082**	**2.033**	**.2486**
Stddev	.003	.004	.011	.011	.005	.003	.009	.009	.0008
%RSD	.1326	.1682	.5551	.5330	.2281	.1433	.4466	.4527	.3288
#1	2.027	2.136	2.023	2.073	2.051	1.988	2.083	2.043	.2487
#2	2.032	2.132	2.006	2.058	2.044	1.983	2.072	2.031	.2477
#3	2.031	2.129	2.002	2.052	2.053	1.988	2.091	2.025	.2493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.101**	**2.073**	**1.966**	**2.122**	**2.031**	**1.969**	**1.959**	**40.31**	**40.51**
Stddev	.003	.013	.007	.015	.009	.009	.009	.12	.11
%RSD	.1436	.6195	.3791	.6861	.4691	.4558	.4704	.3076	.2696
#1	2.098	2.088	1.975	2.138	2.042	1.977	1.970	40.18	40.38
#2	2.103	2.067	1.964	2.111	2.027	1.970	1.954	40.41	40.59
#3	2.103	2.064	1.960	2.117	2.025	1.959	1.953	40.35	40.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.12**	**41.13**	**39.93**	**40.65**	**1.996**	**1.962**	**4.973**	**2.014**	**2.043**
Stddev	.20	.08	.19	.17	.007	.009	.022	.014	.010
%RSD	.4881	.1959	.4876	.4270	.3763	.4326	.4504	.6820	.4812
#1	40.90	41.05	39.71	40.45	2.004	1.972	4.998	2.030	2.032
#2	41.28	41.13	40.09	40.78	1.993	1.959	4.963	2.005	2.049
#3	41.20	41.21	40.00	40.71	1.990	1.955	4.957	2.006	2.048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2020 3:46:38 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.056**	**1.926**	**2.010**	F **1.784**	**1.950**	**2.060**	**1.951**	**1.994**
Stddev	.003	.008	.003	.009	.008	.004	.008	.003
%RSD	.1432	.4382	.1583	.4888	.3957	.1727	.4011	.1714
#1	2.054	1.934	2.011	1.794	1.958	2.057	1.960	1.991
#2	2.055	1.928	2.007	1.780	1.947	2.064	1.947	1.993
#3	2.060	1.917	2.013	1.778	1.944	2.061	1.947	1.998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				2.000				
Range				-10.00%				

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**244090.**	**41372.**	**7746.7**	**13537.**
Stddev	791.	138.	34.5	54.
%RSD	.32412	.33304	.44551	.40075
#1	243570.	41475.	7707.3	13475.
#2	245000.	41215.	7761.2	13558.
#3	243690.	41426.	7771.7	13578.

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 3:51:37 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	F **.0002**	**.0002**	**.0001**	**.0004**	F **.0022**	**.0001**	**.0001**	**.0015**
Stddev	.0000	.0000	.0001	.0001	.0001	.0004	.0000	.0001	.0006
%RSD	38.14	12.07	57.47	50.54	26.35	15.74	47.19	92.13	37.62
#1	-.0001	.0002	.0002	.0002	.0005	.0018	.0001	.0001	.0020
#2	-.0001	.0003	.0001	.0001	.0003	.0025	.0000	.0002	.0015
#3	-.0001	.0003	.0003	.0001	.0003	.0024	.0001	.0000	.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.0001				.0013			
Low Limit		-.0001				-.0013			

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0000**	**.0001**	**.0004**	**-.0001**	**.0009**	**.0006**	**.0096**	**.0030**
Stddev	.0001	.0001	.0003	.0009	.0006	.0011	.0003	.0048	.0008
%RSD	446.2	443.6	248.4	208.0	1109.	122.1	52.98	49.85	27.45
#1	-.0001	.0001	-.0002	-.0005	-.0007	-.0004	.0007	.0123	.0021
#2	.0002	-.0001	.0002	.0013	-.0001	.0017	.0002	.0126	.0034
#3	-.0000	-.0000	.0004	.0006	.0006	.0013	.0008	.0041	.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**-.0015**	**.0644**	**.0018**	**.0008**	**-.0000**	**.0013**	**.0001**	**.0002**
Stddev	.0004	.0050	.0066	.0016	.0004	.0001	.0007	.0005	.0000
%RSD	10.74	329.4	10.19	89.60	44.79	234800.	54.24	377.1	16.54
#1	.0033	-.0068	.0709	-.0000	.0005	-.0002	.0007	.0007	.0002
#2	.0041	.0031	.0646	.0024	.0007	.0000	.0010	-.0002	.0002
#3	.0039	-.0008	.0578	.0030	.0013	.0001	.0021	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2020 3:51:37 Type: QC
Method: SGS No Vlave3(v173) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0001**	**.0002**	**.0024**	**-.0002**	**.0020**	**-.0039**	**-.0002**
Stddev	.0001	.0002	.0001	.0006	.0005	.0010	.0015	.0018
%RSD	233.5	281.5	59.81	23.37	237.8	50.37	38.82	1178.
#1	.0000	-.0003	.0001	.0029	.0004	.0014	-.0051	.0016
#2	-.0001	.0001	.0003	.0018	-.0005	.0032	-.0044	-.0000
#3	-.0001	-.0000	.0001	.0025	-.0004	.0015	-.0022	-.0021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**256250.**	**42149.**	**8015.7**	**14648.**
Stddev	1027.	120.	2.1	5.
%RSD	.40094	.28391	.02682	.03384
#1	255190.	42285.	8018.2	14649.
#2	257240.	42099.	8014.1	14643.
#3	256330.	42062.	8014.9	14653.

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.001200	0.000000	No
Be 313.042 {108}	☒	12	V	0.000320	0.000000	No
			Mo	-0.000067	0.000000	No
			Ti	-0.000660	0.000000	No
			Mn	-0.000015	0.000000	No
			Cu	-0.000008	0.000000	No
			Zn	-0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Ni	-0.000050	0.000000	No
			Cr	0.000003	0.000000	No
			Fe	0.000001	0.000000	No
			Mg	0.000000	0.000000	No
			K	0.000000	0.000000	No
Cd 228.802 {448}	☒	11	As	0.005000	0.000000	No
			Ni	-0.000730	0.000000	No
			Fe	-0.000016	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000021	0.000000	No
			Co	-0.000715	0.000000	No
			Mn	0.000013	0.000000	No
			Cr	-0.000010	0.000000	No
			Cu	-0.000009	0.000000	No
			Ti	0.000000	0.000000	No
			Mo	0.000030	0.000000	No
Co 228.616 {448}	☒	8	Cr	0.000051	0.000000	No
			Mo	-0.001558	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.001910	0.000000	No
			W	0.000160	0.000000	No
			Cd	0.000012	0.000000	No
			Be	0.000100	0.000000	No
			Fe	-0.000008	0.000000	No
Cr 267.716 {126}	☒	7	Mn	0.000400	0.000000	No
			Mo	-0.000099	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000020	0.000000	No
			Sr	0.000003	0.000000	No
			Fe	-0.000012	0.000000	No
			W	0.000000	0.000000	No
Cu 324.754 {104}2	☒	16	Cr	0.000056	0.000000	No
			V	-0.000411	0.000000	No
			Mo	0.000624	0.000000	No
			Ti	-0.000290	0.000000	No
			Fe	-0.000155	0.000000	No
			Sn	0.000103	0.000000	No
			Co	-0.000570	0.000000	No
			Zr	0.000699	0.000000	No
			Si	-0.000007	0.000000	No
			Ag	-0.000077	0.000000	No
			Sb	0.000010	0.000000	No
			B	0.000000	0.000000	No
			Mg	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			W	-0.021000	0.000000	No
			Mn	0.000004	0.000000	No
Mn 257.610 {131}	☒	8	Fe	-0.000058	0.000000	No
			Si	0.000011	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000110	0.000000	No
			Mg	0.000000	0.000000	No
			Al	0.000000	0.000000	No
Ni 231.604 {446}	☒	10	Fe	0.000032	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000075	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000081	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000006	0.000000	No
			Se	0.000286	0.000000	No
			Sn	-0.000026	0.000000	No
Ag 328.068 {103}	☒	17	Mn	0.000162	0.000000	No
			Mo	0.000019	0.000000	No
			Ti	-0.000797	0.000000	No
			Fe	-0.000291	0.000000	No
			V	-0.001000	0.000000	No
			Zn	-0.000090	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000004	0.000000	No
			Ba	0.000105	0.000000	No
			Cr	0.000016	0.000000	No
			Si	-0.000000	0.000000	No
			Zr	0.005200	0.000000	No
			W	0.000000	0.000000	No
			Sn	0.000008	0.000000	No
			Ni	0.000020	0.000000	No
			Ce	-0.001200	0.000000	No
			Mg	0.000000	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000704	0.000000	No
			Mo	-0.000100	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.005660	0.000000	No
			Mn	-0.009100	0.000000	No
			Fe	0.000005	0.000000	No
Zn 206.200 {464}	☒	13	Cr	-0.001272	0.000000	No
			Mo	-0.000125	0.000000	No
			Fe	0.000009	0.000000	No
			Ba	0.000108	0.000000	No
			Sr	-0.000023	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.000156	0.000000	No
			As	0.000449	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.002000	0.000000	No
			Mn	0.000055	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000010	0.000000	No
As 189.042 {478}	☒	23	Al	0.000001	0.000000	No
			Fe	-0.000040	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	-0.000224	0.000000	No
			Mo	0.002060	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Cr	0.001000	0.000000	No
				V	0.000178	0.000000	No
				Co	-0.000200	0.000000	No
				Sn	-0.000085	0.000000	No
				Cd	0.000092	0.000000	No
				Tl	0.000150	0.000000	No
				Si	0.000050	0.000000	No
				Zn	-0.000052	0.000000	No
				Sr	-0.000090	0.000000	No
				Zr	0.000123	0.000000	No
				Ti	0.000034	0.000000	No
				Cu	0.000100	0.000000	No
				Ag	0.000300	0.000000	No
				Mg	-0.000001	0.000000	No
				W	0.000000	0.000000	No
				S	-0.000009	0.000000	No
				B	-0.000013	0.000000	No
				Ce	-0.000600	0.000000	No
	Tl 190.856 {477}	☒	24	Cr	0.000227	0.000000	No
				Mo	-0.012100	0.000000	No
				Al	0.000006	0.000000	No
				Fe	-0.000069	0.000000	No
				V	-0.020400	0.000000	No
				Mn	0.002200	0.000000	No
				Si	-0.000062	0.000000	No
				Ca	0.000004	0.000000	No
				Ti	-0.005730	0.000000	No
				Mg	0.000003	0.000000	No
				Co	0.008000	0.000000	No
				Sr	-0.000060	0.000000	No
				B	0.000056	0.000000	No
				Ba	-0.000122	0.000000	No
				Zn	0.000087	0.000000	No
				As	0.000005	0.000000	No
				Ni	-0.000030	0.000000	No
				Pb	0.000035	0.000000	No
				S	0.000006	0.000000	No
				W	-0.020000	0.000000	No
				K	0.000000	0.000000	No
				Sn	-0.000054	0.000000	No
				Ag	0.000700	0.000000	No
				Cu	-0.000078	0.000000	No
	Pb 220.353 {453}	☒	22	Al	-0.000157	0.000000	No
				Fe	0.000036	0.000000	No
				Ca	-0.000002	0.000000	No
				Mn	0.000125	0.000000	No
				Zn	-0.000036	0.000000	No
				Mo	-0.000700	0.000000	No
				Cu	0.000000	0.000000	No
				V	-0.000093	0.000000	No
				Co	0.000239	0.000000	No
				Ti	-0.000010	0.000000	No
				Si	0.000125	0.000000	No
				Ba	-0.000012	0.000000	No
				Sb	-0.000190	0.000000	No
				Sr	0.000070	0.000000	No
				W	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cd	0.000193	0.000000	No
			Cr	-0.000124	0.000000	No
			Zr	-0.000135	0.000000	No
			Ni	0.000291	0.000000	No
			S	0.000001	0.000000	No
			B	0.000000	0.000000	No
			Mg	0.000014	0.000000	No
Se 196.090 {472}	☒	21	Al	0.000014	0.000000	No
			Ca	-0.000002	0.000000	No
			Mn	0.000879	0.000000	No
			Mo	0.000428	0.000000	No
			Fe	-0.000215	0.000000	No
			Co	0.000019	0.000000	No
			V	0.000021	0.000000	No
			Sr	0.000042	0.000000	No
			Si	-0.000237	0.000000	No
			Tl	-0.000520	0.000000	No
			Be	-0.000543	0.000000	No
			Zn	-0.000038	0.000000	No
			B	-0.000140	0.000000	No
			Ti	-0.000192	0.000000	No
			Cd	-0.000160	0.000000	No
			Zr	-0.000152	0.000000	No
			Ba	0.000087	0.000000	No
			Mg	0.000006	0.000000	No
			Cr	0.000053	0.000000	No
			S	0.000008	0.000000	No
			W	0.000000	0.000000	No
Sb 206.833 {463}	☒	15	Fe	-0.000016	0.000000	No
			Al	0.000009	0.000000	No
			Ca	-0.000002	0.000000	No
			Ni	-0.000300	0.000000	No
			Cr	0.016970	0.000000	No
			V	-0.003500	0.000000	No
			Zn	-0.000084	0.000000	No
			Mo	0.001030	0.000000	No
			Ti	0.000300	0.000000	No
			Sn	-0.010000	0.000000	No
			Mg	0.000010	0.000000	No
			Zr	-0.000291	0.000000	No
			Sr	-0.000049	0.000000	No
			W	0.000000	0.000000	No
			Ce	-0.001800	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000378	0.000000	No
			Ca	0.000191	0.000000	No
			Mo	0.041162	0.000000	No
			Zr	0.013506	0.000000	No
			Ti	-0.000017	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004948	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
			As	0.002488	0.000000	No
Fe 259.940 {130}	☒	8	Cr	-0.000566	0.000000	No
			Mn	-0.000025	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.001043	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	-0.000020	0.000000	No
			Ba	-0.009000	0.000000	No
Mg 279.079 {121}	☒	2	Mo	-0.017699	0.000000	No
			Ti	-0.014200	0.000000	No
K 766.490 { 44}	☒	10	Al	-0.000023	0.000000	No
			Ca	0.000179	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.002700	0.000000	No
			Mo	0.007150	0.000000	No
			Cu	-0.010000	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	5	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.028218	0.000000	No
Mo 202.030 {467}	☒	1	Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	14	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.028291	0.000000	No
			V	0.008723	0.000000	No
			Ti	0.006772	0.000000	No
			Al	0.000024	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Sn	0.001790	0.000000	No
			Zn	0.000385	0.000000	No
			As	0.000140	0.000000	No
			Pb	0.000471	0.000000	No
			Ca	0.000011	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	5	Ti	-0.002359	0.000000	No
			Mo	0.000011	0.000000	No
			Si	-0.000009	0.000000	No
			Fe	0.000000	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	1	Ca	0.000011	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000069	0.000000	No
			Mo	0.001092	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	18	As	-0.000459	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Sr	0.000050	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012900	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000763	0.000000	No
			Sb	-0.000200	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.000415	0.000000	No
			Fe	-0.000033	0.000000	No
			Si	0.000083	0.000000	No
			Ti	0.000049	0.000000	No
			V	0.000120	0.000000	No
			W	0.000100	0.000000	No
S 182.034 {485}	☒	9	Ca	-0.000105	0.000000	No
			Mo	-0.001096	0.000000	No
			Al	-0.000007	0.000000	No
			Fe	-0.000075	0.000000	No
			Mn	0.004790	0.000000	No
			Zn	-0.001538	0.000000	No
			Cd	-0.001300	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000038	0.000000	No
Bi 223.061 {451}	☒	9	V	-0.000380	0.000000	No
			Co	-0.008710	0.000000	No
			Mg	-0.000002	0.000000	No
			W	0.020000	0.000000	No
			Cu	-0.001404	0.000000	No
			Fe	0.000100	0.000000	No
			Cr	0.001500	0.000000	No
			Ti	-0.015470	0.000000	No
			Mo	-0.000200	0.000000	No
Li 670.784 { 50}	☒	1	Ca	0.000036	0.000000	No
P 177.495 {490}	☒	None				
Ce 404.076 { 83}	☒	None				

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000641	1.340495	0.000000	1.000000
Be 313.042 {108}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000358	1.969899	0.000000	1.000000
Cd 228.802 {448}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000720	0.931143	0.000000	1.000000
Co 228.616 {448}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000267	0.541131	0.000000	1.000000
Cr 267.716 {126}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000066	0.097208	0.000000	1.000000
Cu 324.754 {104}2	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.004025	0.190795	0.000000	1.000000
Mn 257.610 {131}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000016	0.594196	0.000000	1.000000
Ni 231.604 {446}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000073	0.454456	0.000000	1.000000
Ag 328.068 {103}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000847	0.113114	0.000000	1.000000
V 292.402 {115}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000356	0.114180	0.000000	1.000000
Zn 206.200 {464}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000510	1.106103	0.000000	1.000000
As 189.042 {478}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000327	0.086721	0.000000	1.000000
Tl 190.856 {477}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000099	0.042920	0.000000	1.000000
Pb 220.353 {453}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000010	0.183187	0.000000	1.000000
Se 196.090 {472}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000340	0.070601	0.000000	1.000000
Sb 206.833 {463}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000236	0.129518	0.000000	1.000000
Al 396.152 { 85}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.001554	0.031270	0.000000	1.000000
Ca 317.933 {106}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.005862	0.062610	0.000000	1.000000
Fe 259.940 {130}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000185	0.035507	0.000000	1.000000
Mg 279.079 {121}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000020	0.006848	0.000000	1.000000
K 766.490 { 44}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.002940	0.016625	0.000000	1.000000
Na 589.592 { 57}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000878	0.055828	0.000000	1.000000
B 208.959 {462}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000438	0.179314	0.000000	1.000000
Mo 202.030 {467}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000317	0.671763	0.000000	1.000000
Si 212.412 {459}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.002587	0.178337	0.000000	1.000000
Sn 189.989 {478}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.000207	0.176217	0.000000	1.000000
Sr 407.771 { 83}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000897	2.698632	0.000000	1.000000
Ti 334.904 {101}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000052	0.143026	0.000000	1.000000
Y 360.073 { 94}*	3/18/2020 10:21:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	3/18/2020 10:21:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	3/18/2020 10:21:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	3/18/2020 10:21:08	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.001079	0.330435	0.000000	1.000000
Zr 339.198 { 99}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000428	0.267078	0.000000	1.000000
S 182.034 {485}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000276	0.045473	0.000000	1.000000
Bi 223.061 {451}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.000841	0.165374	0.000000	1.000000
Li 670.784 { 50}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	0.005634	0.387444	0.000000	1.000000
P 177.495 {490}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	None	-0.007084	0.113823	0.000000	1.000000
Ce 404.076 { 83}	3/18/2020 10:21:08	3/17/2020 15:33:45	Linear	1/Conc	-0.001063	0.027005	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ba 455.403 { 74}	1.000000	0.000000	0.000180	0.000600	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000055	0.000184	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000180	0.000599	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000265	0.000882	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000266	0.000886	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000311	0.001037	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000040	0.000133	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000279	0.000932	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000365	0.001217	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000334	0.001115	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000125	0.000416	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001181	0.003937	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001539	0.005131	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.000966	0.003219	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.001989	0.006631	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.001403	0.004675	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.007640	0.025466	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.002003	0.006677	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.001785	0.005951	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.012096	0.040319	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.027769	0.092563	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.007793	0.025978	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.000687	0.002290	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000231	0.000771	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001032	0.003439	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000584	0.001948	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000074	0.000245	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000266	0.000886	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.000933	0.003110	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000162	0.000540	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.002443	0.008143	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.001528	0.005093	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.001149	0.003829	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001067	0.003556	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	1.000000	0.000000	0.002423	0.008078	OK.	1.000000	0.000000	1	0

SGS North America Inc.

Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP20209	3/12/2020	18:10	3/12/2020	23:40	JD4404-5	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	6433196	95	0	95
1	End	8	6433196	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1909231	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP20209-MB1	N/A	N	50	50	AB		
MP20209-B1	N/A	N	50	50	AB	ABCD	
MP20209-S1	3	Y	50	50	AB	ABCD	
MP20209-S2	3	Y	50	50	AB	ABCD	
MP20209-SD1	3	Y	50	50	AB		
JD4396-13	1	Y	50	50	AB		
JD4396-16	1	Y	50	50	AB		
JD4396-17	1	Y	50	50	AB		
JD4396-18	1	Y	50	50	AB		
JD4396-2	1	Y	50	50	AB		
JD4396-4	1	Y	50	50	AB		
JD4396-5	1	Y	50	50	AB		
JD4396-6	1	Y	50	50	AB		
JD4396-7	1	Y	50	50	AB		
JD4396-8	1	Y	50	50	AB		
JD4396-9	1	Y	50	50	AB		
JD4404-2	3	Y	50	50	AB		
JD4404-3	3	Y	50	50	AB		
JD4404-4	3	Y	50	50	AB		
JD4404-5	3	Y	50	50	AB		
JD4440-1	1	Y	50	50	AB		
JD4440-2	1	Y	50	50	AB		
JD4440-3	1	Y	50	50	AB		
JD4440-4	1	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000 PPM	0.25
D	AG 20 PPM	0.625
E		
F		
G		
H		
I		

Comments:

Analyst AGATAC **Approved by** GULCAGT **Approved on** 3/13/2020

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 20209 **Date:** 3/12/2020

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	9/2/2020	MP-015-1290
Spiking Solution - (ACCUTEST-14A REV1)	9/2/2020	MP-015-1291
Spiking Solution - 5000 mg/l Minerals	1/8/2021	P2-MEB687401 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. STANDARDS
Spiking Solution - Si 1000ppm	1/15/2021	P2-SI676242 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	11/17/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	6/5/2020	MP-015-1288
Spiking Solution - Li 1000ppm	11/4/2020	P2-LI675235 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	9/2/2020	MP-015-1286
Spiking Solution - (ACCUTEST-13B REV1)	4/30/2020	MP-015-1276
Spiking Solution - (ACCUTEST-14B REV1)	7/29/2020	MP-015-1277
Spiking Solution - 1000ppm Minerals	5/27/2020	MP-015-1254
Spiking Solution- P		
Nitric Acid	3/12/2022	LOT: 244828 MFG: J.T. BAKER
Nitric Acid (1:1)	9/6/2020	MP-018-42-397 1:1 HNO3
Hydrochloric Acid	3/13/2022	LOT: 4119020 MFG: FISHER
Hydrochloric Acid (1:1)	9/10/2020	MP-018-42-399 1:1 HCL
Hydrogen Peroxide	3/12/2022	LOT: 192235 MFG: FISHER
Soil Lab Control/Soil LC	10/22/2022	LOT: D105-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1909231 MFG: ENV. EXPRESS
pH Paper	11/1/2021	LOT: 231018 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16939084 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F9HA99962E MFG: FISHER

Spike witnessed By: EM

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

SGS North America Inc.

Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP20259	3/16/2020	6:50	3/16/2020	12:20	JD4572-3	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	1	3124598	95	-1	94
1	End	1	3124598	95	-1	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1909231	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP20259-MB1	N/A	N	50	50	AB		
MP20259-B1	N/A	N	50	50	AB	ABCD	
MP20259-S1	10	Y	50	50	AB	ABCD	
MP20259-S2	10	Y	50	50	AB	ABCD	
MP20259-SD1	10	Y	50	50	AB		
JD1182-16	1	Y	50	50	AB		
JD1182-17	1	Y	50	50	AB		
JD4318-52	3	Y	50	50	AB		FB HAD PARTICLES
JD4440-5	1	Y	1	50	AB		THICK SEDIMENT
JD4572-3	10	Y	50	50	AB		
JD4590-1	1	Y	50	50	AB		
JD4590-10	1	Y	50	50	AB		
JD4590-11	1	Y	50	50	AB		
JD4590-12	1	Y	50	50	AB		
JD4590-13	1	Y	50	50	AB		
JD4590-14	1	Y	50	50	AB		
JD4590-2	1	Y	50	50	AB		
JD4590-3	1	Y	50	50	AB		
JD4590-4	1	Y	50	50	AB		
JD4590-5	1	Y	50	50	AB		
JD4590-6	1	Y	50	50	AB		
JD4590-7	1	Y	50	50	AB		
JD4590-8	1	Y	50	50	AB		
JD4590-9	1	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E		
F		
G		
H		
I		

Comments:

Analyst TAYLORG **Approved by** RAKESHP **Approved on** 3/16/2020

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 20259 **Date:** 3/16/20

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	9/2/2020	MP-015-1290
Spiking Solution - (ACCUTEST-14A REV1)	9/2/2020	MP-015-1291
Spiking Solution - 5000 mg/l Minerals	1/8/2021	P2-MEB687401 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. STANDARDS
Spiking Solution - Si 1000ppm	1/15/2021	P2-SI676242 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	11/17/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	6/5/2020	MP-015-1288
Spiking Solution - Li 1000ppm	11/4/2020	P2-LI675235 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	9/2/2020	MP-015-1286
Spiking Solution - (ACCUTEST-13B REV1)	9/2/2020	MP-015-1289
Spiking Solution - (ACCUTEST-14B REV1)	7/29/2020	MP-015-1277
Spiking Solution - 1000ppm Minerals	5/27/2020	MP-015-1254
Spiking Solution- P		
Nitric Acid	3/16/2022	LOT: 221802 MFG: J.T. BAKER
Nitric Acid (1:1)	9/6/2020	MP-018-42-397 1:1 HNO3
Hydrochloric Acid	5/17/2022	LOT: 4119040 MFG: FISHER
Hydrochloric Acid (1:1)	9/10/2020	MP-018-42-399 1:1 HCL
Hydrogen Peroxide	3/12/2022	LOT: 192235 MFG: FISHER
Soil Lab Control/Soil LC	10/22/2022	LOT: D105-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1909231 MFG: ENV. EXPRESS
pH Paper	11/1/2021	LOT: 231018 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16939084 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F9HA99962E MFG: FISHER

Spike witnessed By: _____ Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP27253/GN6529	2.0	0.0	mg/l	80	81.3	101.6	90-110%
Iron, Ferrous	GN6591	0.20	0.0	mg/l	3.0	3.1	103.3	85-115%
Nitrogen, Nitrate + Nitrite	GP27339/GN6686	0.10	0.0	mg/l	2	2.13	106.5	90-110%
Nitrogen, Nitrite	GN6168	0.010	0.0	mg/l	0.04	0.036	90.0	90-110%
Sulfate	GP27253/GN6529	2.0	0.0	mg/l	80	80.7	100.9	90-110%
Total Organic Carbon	GP27315/GN6620	1.0	0.0	mg/l	10	9.88	98.8	90-110%

Associated Samples:
Batch GN6168: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GN6591: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27253: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27315: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27339: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP27253/GN6529	JD4404-2	mg/l	19.0	20.3	6.6	0-20%
Nitrogen, Nitrate + Nitrite	GP27339/GN6686	JD4422-5	mg/l	0.28	0.34	19.4	0-33%
Sulfate	GP27253/GN6529	JD4404-2	mg/l	19.4	20.2	4.0	0-20%

Associated Samples:
Batch GP27253: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27339: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP27253/GN6529	JD4404-2	mg/l	19.0	80	98.5	99.4	80-120%
Iron, Ferrous	GN6591	JD4342-1	mg/l	0.0	3.0	3.1	103.3	92-113%
Nitrogen, Nitrate + Nitrite	GP27339/GN6686	JD4422-5	mg/l	0.28	1	1.4	112.0N(a)	90-110%
Nitrogen, Nitrite	GN6168	JD4478-2	mg/l	0.0	0.04	0.037	92.5	22-140%
Sulfate	GP27253/GN6529	JD4404-2	mg/l	19.4	80	99.6	100.3	80-120%
Total Organic Carbon	GP27315/GN6620	JD4956-1	mg/l	1.7	10	12.5	108.0	71-132%

Associated Samples:
Batch GN6168: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GN6591: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27253: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27315: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27339: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Iron, Ferrous	GN6591	JD4342-1	mg/l	0.0	3.0	3.1	0.0	20%
Nitrogen, Nitrite	GN6168	JD4478-2	mg/l	0.0	0.04	0.037	0.0	
Total Organic Carbon	GP27315/GN6620	JD4956-1	mg/l	1.7	10	12.3	1.6	10%

Associated Samples:
Batch GN6168: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GN6591: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
Batch GP27315: JD4440-1, JD4440-2, JD4440-3, JD4440-4, JD4440-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: 320032201.TXT Date Analyzed: 03/22/20 Methods: EPA 300/SW846 9056A
Analyst: JW Run ID: GN6529
Parameters: Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:23	GN6529-STD1	1		Manually integrated chrom. peaks reviewed and verified to comply with criteria of Accutest SOP EQA044.
16:47	GN6529-STD2	1		RT: CHL=4.541min SO4=6.860min
17:11	GN6529-STD3	1		STDC
17:34	GN6529-STD4	1		STDD
17:58	GN6529-STD5	1		STDE
18:22	GN6529-STD6	1		STDF
18:46	GN6529-STD7	1		STDG
06:26	GN6529-ICV1	1		
06:50	GN6529-CCV1	1		
07:14	GN6529-CCB1	1		
07:37	GP27215-MB3	1		
07:37	GP27253-MB1	1		
08:01	GP27215-B3	1		
08:01	GP27253-B1	1		
08:25	JD4679-6	1		(sample used for QC only; not part of login JD4440)
08:49	JD4679-6	20		(sample used for QC only; not part of login JD4440)
09:13	GP27215-S2	40		
09:56	GP27215-D2	1		Confirmation only. Over calibration. See rerun.
10:19	GP27215-D2	20		
10:43	GP27253-S1	1		
11:07	GN6529-CCV2	1		
11:31	GN6529-CCB2	1		
11:55	GP27253-D1	1		
12:19	JD4404-2	1		(sample used for QC only; not part of login JD4440)
12:43	GP27253-S2	1		
13:07	JD4404-3	1		(sample used for QC only; not part of login JD4440)
13:31	ZZZZZZ	1		
13:54	ZZZZZZ	1		
14:18	ZZZZZZ	1		
14:42	ZZZZZZ	1		
15:06	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:54	GN6529-CCV3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: 320032201.TXT Date Analyzed: 03/22/20 Methods: EPA 300/SW846 9056A
Analyst: JW Run ID: GN6529
Parameters: Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:18	GN6529-CCB3	1		
16:42	ZZZZZZ	1		
17:06	ZZZZZZ	1		
17:30	ZZZZZZ	1		
17:54	ZZZZZZ	1		
18:18	ZZZZZZ	1		
18:42	JD4440-1	1		
19:06	JD4440-2	1		
19:29	JD4440-3	1		
19:53	JD4440-4	1		
20:17	JD4440-5	1		
20:41	GN6529-CCV4	1		
21:05	GN6529-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: 320032201.TXT Date Analyzed: 03/22/20 Methods: EPA 300/SW846 9056A
Run ID: GN6529 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN6529-ICV1	Sulfate	97.8	2.0	0.89	100	97.8	90-110
GN6529-CCV1	Sulfate	201	2.0	0.89	200	100.5	90-110
GN6529-CCB1	Sulfate	0.89 U	2.0	0.89			
GN6529-CCV2	Sulfate	205	2.0	0.89	200	102.5	90-110
GN6529-CCB2	Sulfate	0.89 U	2.0	0.89			
GN6529-CCV3	Sulfate	208	2.0	0.89	200	104.0	90-110
GN6529-CCB3	Sulfate	0.89 U	2.0	0.89			
GN6529-CCV4	Sulfate	208	2.0	0.89	200	104.0	90-110
GN6529-CCB4	Sulfate	0.89 U	2.0	0.89			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E00325W1.TXT Date Analyzed: 03/25/20 Methods: SM5310 B-11
Analyst: CD Run ID: GN6620
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:33	GN6620-STD1	1		STDA
08:45	GN6620-STD2	1		STDB
08:56	GN6620-STD3	1		STDC
09:08	GN6620-STD4	1		STDD
09:21	GN6620-STD5	1		STDE
09:34	GN6620-STD6	1		STDF
09:47	GN6620-STD7	1		STDG
10:01	GN6620-STD8	1		STDH
08:59	ZZZZZZ	1		
09:08	GN6620-CRI1	1		
09:20	GN6620-HSTD1	1		
09:31	GN6620-ICV1	1		
09:42	GN6620-ICB1	1		
09:54	GN6620-CCV1	1		
10:06	GN6620-CCB1	1		
10:15	ZZZZZZ	1		
10:26	GP27307-MB1	1		
10:38	GP27307-B1	1		
11:08	JD4879-1	1		(sample used for QC only; not part of login JD4440)
11:19	GP27307-S1	1		
11:31	GP27307-MSD1	1		
11:42	ZZZZZZ	1		
11:53	ZZZZZZ	1		
12:06	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:27	GN6620-CCVA1	1		
12:39	GN6620-CCB2	1		
12:48	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:11	ZZZZZZ	20		
13:22	ZZZZZZ	1		
13:35	ZZZZZZ	1		
14:44	GP27314-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E00325W1.TXT Date Analyzed: 03/25/20 Methods: SM5310 B-11
Analyst: CD Run ID: GN6620
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:54	GP27314-B1	1		
15:05	JD4879-1F	1		(sample used for QC only; not part of login JD4440)
16:14	GP27314-S1	1		
16:25	GP27314-MSD1	1		
16:36	GN6620-CCV2	1		
16:57	GN6620-CCB3	1		
17:06	ZZZZZZ	1		
17:17	ZZZZZZ	1		
17:31	ZZZZZZ	1		
17:40	ZZZZZZ	1		
17:51	ZZZZZZ	1		
18:02	ZZZZZZ	1		
18:13	ZZZZZZ	1		
18:24	ZZZZZZ	1		
18:36	ZZZZZZ	1		
18:47	GN6620-CCVA2	1		
19:00	GN6620-CCB4	1		
19:09	GP27315-MB1	1		
19:09	GP27262-MB2	1		
19:21	GP27315-B1	1		
19:21	GP27262-B2	1		
19:31	JD4956-1	1		(sample used for QC only; not part of login JD4440)
19:43	GP27315-S1	1		
19:54	GP27315-MSD1	1		
20:05	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:27	ZZZZZZ	1		
20:39	JD4440-1	1		
20:50	JD4440-2	1		
21:02	GN6620-CCV3	1		
21:12	GN6620-CCB5	1		
21:31	JD4440-3	1		
21:42	JD4440-4	1		average of 3 injections

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E00325W1.TXT Date Analyzed: 03/25/20 Methods: SM5310 B-11
Analyst: CD Run ID: GN6620
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:53	JD4440-5	1		
22:04	ZZZZZZ	10		
22:15	GP27316-MB1	1		
22:27	GP27316-B1	1		
22:38	ZZZZZZ	1		
22:49	ZZZZZZ	1		
23:00	ZZZZZZ	10		
23:12	GN6620-CCVA3	1		
23:22	GN6620-CCB6	1		
23:33	ZZZZZZ	1		
23:44	JD4478-3	1		(sample used for QC only; not part of login JD4440)
23:56	GP27316-S1	1		
00:07	GP27316-MSD1	1		
00:18	ZZZZZZ	1		
00:29	ZZZZZZ	1		
00:40	ZZZZZZ	1		
00:59	ZZZZZZ	1		
01:12	GP27317-MB1	1		
01:22	GP27317-B1	1		
01:33	GN6620-CCV4	1		
01:44	GN6620-CCB7	1		
01:56	ZZZZZZ	1		
02:06	ZZZZZZ	1		
02:17	ZZZZZZ	1		
02:29	ZZZZZZ	1		
02:40	ZZZZZZ	1		
02:51	ZZZZZZ	1		
03:03	JD4552-2	1		(sample used for QC only; not part of login JD4440)
03:14	GP27317-S1	1		
03:25	GP27317-MSD1	1		
03:36	ZZZZZZ	1		
03:47	GN6620-CCVA4	1		
04:00	GN6620-CCB8	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E00325W1.TXT Date Analyzed: 03/25/20 Methods: SM5310 B-11
Analyst: CD Run ID: GN6620
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:09	ZZZZZZ	1		
04:21	GN6620-CCV5	1		
04:31	GN6620-CCB9	1		
04:44	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E00325W1.TXT Date Analyzed: 03/25/20 Methods: SM5310 B-11
Run ID: GN6620 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN6620-CRI1	Total Organic Carbon	1.25	1.0	0.72	1	125.0	70-130
GN6620-HSTD1	Total Organic Carbon	49.3	1.0	0.72	50	98.6	90-110
GN6620-ICV1	Total Organic Carbon	19.9	1.0	0.72	20	99.5	90-110
GN6620-ICB1	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCV1	Total Organic Carbon	24.3	1.0	0.72	25	97.2	90-110
GN6620-CCB1	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCVA1	Total Organic Carbon	49.8	1.0	0.72	50	99.6	
GN6620-CCB2	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCV2	Total Organic Carbon	24.8	1.0	0.72	25	99.2	90-110
GN6620-CCB3	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCVA2	Total Organic Carbon	49.6	1.0	0.72	50	99.2	
GN6620-CCB4	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCV3	Total Organic Carbon	25.0	1.0	0.72	25	100.0	90-110
GN6620-CCB5	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCVA3	Total Organic Carbon	50.7	1.0	0.72	50	101.4	
GN6620-CCB6	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCV4	Total Organic Carbon	24.9	1.0	0.72	25	99.6	90-110
GN6620-CCB7	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCVA4	Total Organic Carbon	51.0	1.0	0.72	50	102.0	
GN6620-CCB8	Total Organic Carbon	0.72 U	1.0	0.72			
GN6620-CCV5	Total Organic Carbon	25.1	1.0	0.72	25	100.4	90-110
GN6620-CCB9	Total Organic Carbon	0.72 U	1.0	0.72			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E032620W1.NO32 Date Analyzed: 03/26/20 Methods: EPA 353.2/LACHAT
Analyst: BM Run ID: GN6686
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:15	GN6686-STD1	1		STDA
15:16	GN6686-STD2	1		STDB
15:17	GN6686-STD3	1		STDC
15:18	GN6686-STD4	1		STDD
15:19	GN6686-STD5	1		STDE
15:21	GN6686-STD6	1		STDF
15:22	GN6686-STD7	1		STDG
15:24	GN6686-ICV1	1		
15:25	GN6686-ICB1	1		
15:26	GN6686-CCV1	1		
15:27	GN6686-CCB1	1		
15:28	GP27338-MB1	1		
15:30	GP27338-B1	1		
15:31	GP27338-S1	1		
15:32	GP27338-S2	1		
15:33	GP27338-D1	1		
15:34	JD4404-3	1		(sample used for QC only; not part of login JD4440)
15:35	ZZZZZZ	1		
15:36	ZZZZZZ	1		
15:37	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:40	GN6686-CCV2	1		
15:41	GN6686-CCB2	1		
15:42	ZZZZZZ	1		
15:43	ZZZZZZ	1		
15:44	ZZZZZZ	1		
15:45	ZZZZZZ	1		
15:46	ZZZZZZ	1		
15:48	ZZZZZZ	1		
15:49	ZZZZZZ	1		
15:50	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:52	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E032620W1.NO32 Date Analyzed: 03/26/20 Methods: EPA 353.2/LACHAT
Analyst: BM Run ID: GN6686
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:53	GN6686-CCV3	1		
15:54	GN6686-CCB3	1		
15:55	JD4411-1	1		(sample used for QC only; not part of login JD4440)
15:57	ZZZZZZ	1		
15:58	ZZZZZZ	1		
15:59	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:01	GP27339-MB1	1		see rerun.
16:02	GP27339-B1	1		see rerun.
16:03	GP27339-S1	1		see rerun.
16:04	GP27339-S2	1		see rerun.
16:06	GP27339-D1	1		see rerun.
16:07	GN6686-CCV4	1		
16:08	GN6686-CCB4	1		
16:09	GP27339-MB1	1		
16:10	GP27339-B1	1		
16:11	GP27339-S1	1		
16:12	GP27339-S2	1		
16:13	GP27339-D1	1		
16:15	JD4422-5	1		(sample used for QC only; not part of login JD4440)
16:16	JD4440-1	1		
16:17	JD4440-2	1		
16:18	JD4440-3	1		
16:19	JD4440-4	1		
16:20	GN6686-CCV5	1		
16:21	GN6686-CCB5	1		
16:22	JD4440-5	1		Over calibration curve. See rerun at dilution.
16:24	ZZZZZZ	1		
16:25	ZZZZZZ	1		
16:26	ZZZZZZ	1		
16:27	JD4478-2	1		(sample used for QC only; not part of login JD4440)
16:28	ZZZZZZ	1		
16:29	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E032620W1.NO32 Date Analyzed: 03/26/20 Methods: EPA 353.2/LACHAT
Analyst: BM Run ID: GN6686
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:30	ZZZZZZ	1		
16:31	ZZZZZZ	1		
16:32	ZZZZZZ	1		
16:34	GN6686-CCV6	1		
16:35	GN6686-CCB6	1		
16:36	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:38	ZZZZZZ	1		
16:39	ZZZZZZ	50		
16:40	ZZZZZZ	100		
16:41	JD4440-5	50		1:50 dilution.
16:43	JD4440-5	100		1:100 dilution.
16:44	ZZZZZZ	5		
16:45	ZZZZZZ	1		
16:48	GN6686-CCV7	1		
16:49	GN6686-CCB7	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD4440
Account: GESNYP - Groundwater & Environmental Services
Project: Orangetown Shopping Center, Orangeburg, NY

File ID: E032620W1.NO32 Date Analyzed: 03/26/20 Methods: EPA 353.2/LACHAT
Run ID: GN6686 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN6686-ICV1	Nitrogen, Nitrate + Nitrite	2.11	0.10	0.090	2	105.5	90-110
GN6686-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN6686-CCV1	Nitrogen, Nitrate + Nitrite	2.49	0.10	0.090	2.5	99.6	90-110
GN6686-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN6686-CCV2	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN6686-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN6686-CCV3	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN6686-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN6686-CCV4	Nitrogen, Nitrate + Nitrite	2.57	0.10	0.090	2.5	102.8	90-110
GN6686-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN6686-CCV5	Nitrogen, Nitrate + Nitrite	2.58	0.10	0.090	2.5	103.2	90-110
GN6686-CCB5	Nitrogen, Nitrate + Nitrite	-0.0968	0.10	0.090			
GN6686-CCV6	Nitrogen, Nitrate + Nitrite	2.57	0.10	0.090	2.5	102.8	90-110
GN6686-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN6686-CCV7	Nitrogen, Nitrate + Nitrite	2.57	0.10	0.090	2.5	102.8	90-110
GN6686-CCB7	Nitrogen, Nitrate + Nitrite	-0.0909	0.10	0.090			

(!) Outside of QC limits

General Chemistry

Raw Data

SGS

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: EB
GN Batch ID: GN6168
GP Batch ID:
Date: 3/11/2020
Instrument ID: M

Original Calibration Information — Calibration Date: 1/25/2020

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.000	0.035	0.083	0.177	0.269	0.340	0.681	
Actual Value:	-0.001	0.010	0.024	0.051	0.078	0.099	0.199	
% RE:	#DIV/0!	4.53	5.48	-2.42	-4.27	0.96	0.46	

Continuing Calibration Check Standards Data: 3/11/2020

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0.000	0.034	0.671
Recovery:	0.0%	92.5%	98.1%
Actual Value:		0.009	0.196

Correlation Coeff. = 0.99972
Slope = 0.29341
Intercept = -0.00072

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	22:10	50	50	1	0.316	NA	0.092	0.092	NA	mg/l	NA	
	CCV		50	50	1	0.320	NA	0.093	0.093	NA	mg/l	NA	
	CCB		50	50	1	0.000	NA	-0.001	-0.001	NA	mg/l	NA	
	GN6168-MB1		50	50	1	0.000	0.000	-0.001	-0.001	0.010	mg/l	1	
	GN6168-B1		50	50	1	0.126	0.000	0.036	0.036	0.010	mg/l	1	
	GN6168-S1		50	50	1	0.131	0.002	0.037	0.037	0.010	mg/l	1	
	GN6168-MSD1		50	50	1	0.130	0.002	0.037	0.037	0.010	mg/l	1	
4	JD4478-2		50	50	1	0.003	0.002	0.000	0.000	0.010	mg/l	1	
4	JD4478-3		50	50	1	0.008	0.006	0.000	0.000	0.010	mg/l	1	
4	JD4478-4		50	50	1	0.009	0.006	0.000	0.000	0.010	mg/l	1	
4	JD4478-5		50	50	1	0.005	0.003	0.000	0.000	0.010	mg/l	1	
6*	JD4433-8		50	50	1	0.016	0.009	0.001	0.001	0.010	mg/l	1	
6*	JD4433-9		50	50	1	0.021	0.006	0.004	0.004	0.010	mg/l	1	
	CCVA	22:19	50	50	1	0.673	NA	0.197	0.197	NA	mg/l	NA	
	CCB		50	50	1	0.000	NA	-0.001	-0.001	NA	mg/l	NA	
6*	JD4433-10		50	50	1	0.026	0.000	0.007	0.007	0.010	mg/l	1	
6*	JD4433-11		50	50	1	0.054	0.000	0.015	0.015	0.010	mg/l	1	
6*	JD4433-13		50	50	1	0.016	0.003	0.003	0.003	0.010	mg/l	1	
5*	JD4440-1		50	50	1	0.011	0.002	0.002	0.002	0.010	mg/l	1	
5*	JD4440-2		50	50	1	0.007	0.004	0.000	0.000	0.010	mg/l	1	
5*	JD4440-3		50	50	1	0.011	0.008	0.000	0.000	0.010	mg/l	1	
5*	JD4440-4		50	50	1	0.005	0.003	0.000	0.000	0.010	mg/l	1	
5*	JD4440-5		50	50	1	0.019	0.004	0.004	0.004	0.010	mg/l	1	
7*	JD4463-1		50	50	1	0.013	0.006	0.001	0.001	0.010	mg/l	1	
7*	JD4463-2		50	50	1	0.014	0.009	0.001	0.001	0.010	mg/l	1	
	CCV	22:32	50	50	1	0.325	NA	0.095	0.095	NA	mg/l	NA	
	CCB		50	50	1	0.000	NA	-0.001	-0.001	NA	mg/l	NA	
7*	JD4463-3		50	50	1	0.136	0.133	0.000	0.000	0.010	mg/l	1	
3*	JD4484-1		50	50	1	0.013	0.007	0.001	0.001	0.010	mg/l		
3*	JD4484-2		50	50	1	0.003	0.001	0.000	0.000	0.010	mg/l		
3*	JD4484-3		50	50	1	0.018	0.002	0.004	0.004	0.010	mg/l		
	GN6168-MB2		50	50	1	0.000	0.000	-0.001	-0.001	0.010	mg/l	1	
	GN6168-B2		50	50	1	0.133	0.000	0.038	0.038	0.010	mg/l	1	
	GN6168-S2		50	50	1	0.185	0.000	0.054	0.054	0.010	mg/l	1	
	GN6168-MSD2		50	50	1	0.181	0.000	0.052	0.052	0.010	mg/l	1	
3	JD4484-4		50	50	1	0.053	0.000	0.015	0.015	0.010	mg/l	1	
3*	JD4484-5		50	50	1	0.010	0.006	0.000	0.000	0.010	mg/l	1	
	CCVA		50	50	1	0.670		0.196	0.196	NA	mg/l	NA	
	CCB	22:40	50	50	1	0.000		-0.001	-0.001	NA	mg/l	NA	

~~BIS~~ BS/MS = 2ml of 1ppm + 50ml DI / sample
S1/MSD1 = JD4478-2
S2/MSD2 = JD4484-4
* = filtered

Analyst: EB Date: 3/11/2020 QC Reviewer: [signature] Date: 3/12/20

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: mg/l
mg/kg

Analyst: EB
GNBatch ID: GN6168
GPBatch ID:
Date: 3/11/2020

Preparation Batch QC Summary Units = ____

Method Blank ID:	MB1	Date:	3/11/2020	Result:	<0.010	DL:	0.010	<DL:	yes
Spike Blank ID:	B1	Date:	↓	Result:	0.036	Spike:	0.04	%Rec.:	90%
MS ID:	S1	Samp. Result:	<DL	MS Result:	0.037	Spike:	↓	%Rec:	92.5%
MSDUP ID:	MSD1	Samp. Result:	↓	MS Result:	↓	Spike:	↓	%Rec:	↓
MSDUP ID:	↓	MSDUP Result:	0.037	MS Result:	↓	%RPD:	0%		
Method Blank ID:	MB2	Date:	3/11/2020	Result:	<0.010	DL:	0.010	<DL:	yes
Spike Blank ID:	B2	Date:	↓	Result:	0.038	Spike:	0.04	%Rec.:	95%
MS ID:	S2	Samp. Result:	0.015	MS Result:	0.038	Spike:	↓	%Rec	97.5% MS = 0.054
MSDUP ID:	MSD2	Samp. Result:	↓	MS Result:	0.052	Spike:		%Rec:	92.5%
MSDUP ID:		MSDUP Result:	0.052	MS Result:	0.054	%RPD:	3.77%		

Analysis Batch QC Summary Units = ____

ICV (Ext): 3/11/2020 Result: 0.092 TV: 0.1 %Rec: 92%

CCV:		Result:	0.093	TV:	0.1	%Rec.:	93%
CCVA:		Result:	0.197	TV:	0.2	%Rec.:	98.5%
CCV:		Result:	0.095	TV:	0.1	%Rec.:	95%
CCVA:		Result:	0.196	TV:	0.2	%Rec.:	98%
CCV:		Result:		TV:		%Rec.:	
CCVA:		Result:		TV:		%Rec.:	

CCB:	3/11/2020	Result:	<0.010	DL:	0.010	<DL:	yes
CCB:	↓	Result:	↓	DL:	↓	<DL:	↓
CCB:	↓	Result:	↓	DL:	↓	<DL:	↓
CCB:	↓	Result:	↓	DL:	↓	<DL:	↓
CCB:		Result:		DL:		<DL:	
CCB:		Result:		DL:		<DL:	

Reagent Reference Numbers:

Analyst: EB Date: 3/11/2020

Comments: S1/MSD1 = JD4478-2 S2/MSD2 = JD4484-4

Form: GN032-01
Rev. Date:9/4/09]

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO2

GN or GP Number: GN6168

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume or weight used with units	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
(Std.) NO2 10 mg/L	ERA LOT#511118M XP:03/11/2021	1000 mg/L	1.0 ml	A	DI water	100 ml	10 mg/L	3/12/2020	EB	3/11/2020
	NO2 10 mg/L	10 mg/L	10.0 ml	A	DI water	100 ml	1 mg/L	3/12/2020	EB	3/11/2020
(External)NO2 10 mg/L	ERA Lot 020518 Exp MAY-2020	100 mg/L	1.0 ml	A	DI water	100 ml	1 mg/L	3/12/2020	EB	3/11/2020
	NO2 10 mg/L									

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Standard (mg/l)		Analyst	Date
0.2 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	20.0 ml	A	DI water	100 ml	0.2 mg/L	3/12/2020	EB	3/11/2020
0.1 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	10.0 ml		DI water	100 ml	0.1 mg/L			
0.075 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	7.5 ml		DI water	100 ml	0.075 mg/L			
0.05 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	5.0 ml		DI water	100 ml	0.05 mg/L			
0.025 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	2.5 ml		DI water	100 ml	0.025 mg/L			
0.01 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	1.0 ml	A	DI water	100 ml	0.01 mg/L	3/12/2020	EB	3/11/2020
0 mg/L	NA	NA	NA		NA	100 ml	NA	3/12/2020	EB	3/11/2020
CCV	1.0 mg/L(ERA #190917)	1.0 mg/L	10.0 ml		DI water	100 ml	0.1 mg/L	3/12/2020	EB	3/11/2020
CCVA	1.0 mg/L(ERA #190917)	1.0 mg/L	20.0 ml		DI water	100 ml	0.2 mg/L	3/12/2020	EB	3/11/2020
ICV	1.0 mg/L(ERA #02518)	1.0 mg/L	10.0 ml		DI water	100 ml	0.1 mg/L	3/12/2020	EB	3/11/2020

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

GN6168

SGS

Reagent Information Log - Nitrite as Nitrogen

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock (STD)	ERA LOT#511118M XP:03/11/2021
External Check (ICV)	ERA LOT #020518 XP: 5/30/2020
Spiking Solution Source (1 PPM)	ERA LOT#511118M XP:03/11/2021
Color Reagent	GNE2-60392-NO2 XP 3/27/2020
NH4OH	FISHER 153331 XP:7/15/21

All standards and stocks were made as described in the SOP for this method (circle one): (Y) or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:3/12/2020

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: 320032201.TXT
Analyst: JW

Date Analyzed: 03/22/20
Run ID: GN6529

Methods: EPA 300/SW846 9056A

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: JKW Date 3/23/20

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date _____

Sequence: 320032201
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2020\MARCH
Timebase: ACCUTEST_SYS#3
#Samples: 45

Created: 3/22/2020 6:02:32 AM by chemistry
Last Update: 3/22/2020 9:57:23 AM by chemistry

No.	Name	Pos.	Inj. Vol.	Type	Comment	Dil. Factor	ISTD Amount	Method	Status
1	BLANKCONF	1	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
2	STDA	39	20.0	Standard		1.0000	1.0000	System3Anions	Finished
3	STDB	40	20.0	Standard		1.0000	1.0000	System3Anions	Finished
4	STDC	41	20.0	Standard		1.0000	1.0000	System3Anions	Finished
5	STDD	42	20.0	Standard		1.0000	1.0000	System3Anions	Finished
6	STDE	43	20.0	Standard		1.0000	1.0000	System3Anions	Finished
7	STDF	44	20.0	Standard		1.0000	1.0000	System3Anions	Finished
8	STDG	45	20.0	Standard		1.0000	1.0000	System3Anions	Finished
9	ICV	2	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
10	CCV	3	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
11	CCB	4	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
12	MB	5	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
13	BSP	6	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
14	JD4679-6	7	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
15	JD4679-6	8	20.0	Unknown		20.0000	1.0000	System3Anions	Finished
16	GP27215-S2	9	20.0	Unknown		40.0000	1.0000	System3Anions	Finished
17	GP27215-D2	10	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
18	GP27215-D2	11	20.0	Unknown		20.0000	1.0000	System3Anions	Finished
19	GP27253-S1	12	20.0	Unknown	JD4404-2	1.0000	1.0000	System3Anions	Finished
20	CCV	13	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
21	CCB	14	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
22	GP27253-D1	15	20.0	Unknown	JD4404-2	1.0000	1.0000	System3Anions	Finished
23	JD4404-2	16	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
24	GP27253-S2	17	20.0	Unknown	JD4404-3	1.0000	1.0000	System3Anions	Finished
25	JD4404-3	18	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
26	JD4404-4	19	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
27	JD4404-5	20	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
28	JD4411-1	21	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
29	JD4825-1	22	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
30	JD4825-2	23	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
31	JD4825-3	24	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
32	CCV	25	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
33	CCB	26	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
34	JD4825-6	27	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
35	JD4825-7	28	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
36	JD4825-8	29	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
37	JD4825-9	30	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
38	JD4825-10	31	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
39	JD4440-1	32	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
40	JD4440-2	33	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
41	JD4440-3	34	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
42	JD4440-4	35	20.0	Unknown		1.0000	1.0000	System3Anions	Finished

Sequence: 320032201
Operator: chemistry

Printed: 3/23/2020 9:28:33 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2020\MARCH
Timebase: ACCUTEST_SYS#3
#Samples: 45

Created: 3/22/2020 6:02:32 AM by chemistry
Last Update: 3/22/2020 9:57:23 AM by chemistry

No.	Name	Pos.	Inj. Vol.	Type	Comment	Dil. Factor	ISTD Amount	Method	Status
43	JD4440-5	36	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
44	CCV	37	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
45	CCB	38	20.0	Unknown		1.0000	1.0000	System3Anions	Finished

Sequence: 320032201
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2020\MARCH
Timebase: ACCUTEST_SYS#3
#Samples: 58

GN27253 6529 SKW 3/22/20

Created: 3/22/2020 6:02:32 AM by chemistry
Last Update: 3/22/2020 7:44:01 AM by chemistry

No.	Name	Pos.	Inj. Vol.	Type	Comment	Dil. Factor	ISTD Amount	Method	Status
1	BLANKCONF	1	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
2	STDA	39	20.0	Standard		1.0000	1.0000	System3Anions	Finished
3	STDB	40	20.0	Standard		1.0000	1.0000	System3Anions	Finished
4	STDC	41	20.0	Standard		1.0000	1.0000	System3Anions	Finished
5	STDD	42	20.0	Standard		1.0000	1.0000	System3Anions	Finished
6	STDE	43	20.0	Standard		1.0000	1.0000	System3Anions	Finished
7	STDF	44	20.0	Standard		1.0000	1.0000	System3Anions	Finished
8	STDG	45	20.0	Standard		1.0000	1.0000	System3Anions	Finished
9	ICV	2	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
10	CCV	3	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
11	CCB	4	20.0	Unknown		1.0000	1.0000	System3Anions	Finished
▶	MB	5	20.0	Unknown		1.0000	1.0000	System3Anions	Running
13	BSP	6	20.0	Unknown		1.0000	1.0000	System3Anions	Single
14	JD4679-6	7	20.0	Unknown		1.0000	1.0000	System3Anions	Single
15	JD4679-6	8	20.0	Unknown		20.0000	1.0000	System3Anions	Single
16	GP27215-S2	9	20.0	Unknown		40.0000	1.0000	System3Anions	Single
17	GP27215-D2	10	20.0	Unknown		1.0000	1.0000	System3Anions	Single
18	GP27215-D2	11	20.0	Unknown		20.0000	1.0000	System3Anions	Single
19	GP27253-S1	12	20.0	Unknown	JD4404-2	1.0000	1.0000	System3Anions	Single
20	CCV	13	20.0	Unknown		1.0000	1.0000	System3Anions	Single
21	CCB	14	20.0	Unknown		1.0000	1.0000	System3Anions	Single
22	GP27253-D1	15	20.0	Unknown	JD4404-2	1.0000	1.0000	System3Anions	Single
23	JD4404-2	16	20.0	Unknown		1.0000	1.0000	System3Anions	Single
24	GP27253-S2	17	20.0	Unknown	JD4404-3	1.0000	1.0000	System3Anions	Single
25	JD4404-3	18	20.0	Unknown		1.0000	1.0000	System3Anions	Single
26	JD4404-4	19	20.0	Unknown		1.0000	1.0000	System3Anions	Single
27	JD4404-5	20	20.0	Unknown		1.0000	1.0000	System3Anions	Single
28	JD4411-1	21	20.0	Unknown		1.0000	1.0000	System3Anions	Single
29	JD4825-1	22	20.0	Unknown		1.0000	1.0000	System3Anions	Single
30	JD4825-2	23	20.0	Unknown		1.0000	1.0000	System3Anions	Single
31	JD4825-3	24	20.0	Unknown		1.0000	1.0000	System3Anions	Single
32	CCV	25	20.0	Unknown		1.0000	1.0000	System3Anions	Single
33	CCB	26	20.0	Unknown		1.0000	1.0000	System3Anions	Single
34	JD4825-6	27	20.0	Unknown		1.0000	1.0000	System3Anions	Single
35	JD4825-7	28	20.0	Unknown		1.0000	1.0000	System3Anions	Single
36	JD4825-8	29	20.0	Unknown		1.0000	1.0000	System3Anions	Single
37	JD4825-9	30	20.0	Unknown		1.0000	1.0000	System3Anions	Single
38	JD4825-10	31	20.0	Unknown		1.0000	1.0000	System3Anions	Single
39	JD4440-1	32	20.0	Unknown		1.0000	1.0000	System3Anions	Single
40	JD4440-2	33	20.0	Unknown		1.0000	1.0000	System3Anions	Single
41	JD4440-3	34	20.0	Unknown		1.0000	1.0000	System3Anions	Single
42	JD4440-4	35	20.0	Unknown		1.0000	1.0000	System3Anions	Single

GP27215 ⑤

GP27253 ⑤

Sequence: 320032201
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2020\MARCH
Timebase: ACCUTEST_SYS#3
#Samples: 58

Created: 3/22/2020 6:02:32 AM by chemistry
Last Update: 3/22/2020 7:44:01 AM by chemistry

No.	Name	Pos.	Inj. Vol.	Type	Comment	Dil. Factor	ISTD Amount	Method	Status
43	JD4440-5	36	20.0	Unknown		1.0000	1.0000	System3Anions	Single
44	CCV	37	20.0	Unknown		1.0000	1.0000	System3Anions	Single
45	CCB	38	20.0	Unknown		1.0000	1.0000	System3Anions	Single
46	BLANKCONF	39	20.0	Unknown		1.0000	1.0000	System3Anions	Single
47	BLANKCONF	40	20.0	Unknown		1.0000	1.0000	System3Anions	Single
48	STDA	41	20.0	Unknown		1.0000	1.0000	System3Anions	Single
49	STDB	42	20.0	Unknown		1.0000	1.0000	System3Anions	Single
50	STDC	43	20.0	Unknown		1.0000	1.0000	System3Anions	Single
51	STDD	44	20.0	Unknown		1.0000	1.0000	System3Anions	Single
52	STDE	45	20.0	Unknown		1.0000	1.0000	System3Anions	Single
53	STDF	46	20.0	Unknown		1.0000	1.0000	System3Anions	Single
54	STDG	47	20.0	Unknown		1.0000	1.0000	System3Anions	Single
55	BCONF	48	20.0	Unknown		1.0000	1.0000	System3Anions	Single
56	CCONF	49	20.0	Unknown		1.0000	1.0000	System3Anions	Single
57	DCONF	50	20.0	Unknown		1.0000	1.0000	System3Anions	Single
58	STANDBY	1	20.0	Unknown		1.0000	1.0000	System3Anions	Single

SGS

Analyst JKW

Product CHL

Pipette ID 42

Prep Date 3/21/20

Balance ID NA

Batch ID GN0529

Sample Prep Log

Sample ID	Initial Sample Amount	(ml) Final Volume
BSP	0.5ml of spiking solution	50
GP27053-S1	0.5ml of spiking solution	50 JD4404-2
GP27053-S2	0.5ml of spiking solution	50 JD4404-3

3/20/20

Form: GN166-02
Rev. Date: 8/5/05

QC Review

13.2
13

Analyst JKH Product CHL Autopipette #

Date 3/22/20 Batch ID GN6529 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JD4679-6	1			Confirmation, CHL
JD4679-6	1:20	1	20	CHL
~~GP97315~~ JKH 3/22/20 GP97315-S2	1:40	1	40	CHL + 0.4mL of spiking solution
GP97315-D2	1:20	1	20	CHL

QC Reviewer: [signature] Date: 3/23/20

Form: GN165-01
Rev. Date: 2/25/03

SGS

Reagent Information Log - IONC IC3 - Water /Soil

GN Batch ID#: GN6529

Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Standard Intermediate (for Calibration Curve)	GN19-528-113	3/27/2020
Standard Intermediate (for Calibration Curve)	GN19-528-114	3/27/2020
Standard Intermediate (for Calibration Curve)	GN19-528-116	3/27/2020
ICV	GN19-522-38	3/27/2020
Eluent	190712225319	7/22/2021
Standard Intermediate (for Working std)	GN19-528-113	3/27/2020
Standard Intermediate (for Working std)	GN19-528-114	3/27/2020
Standard Intermediate (for Working std)	GN19-528-116	3/27/2020
CCV	GN19-527-49	3/27/2020
Spiking Solution Intermediate (CHL/SO4)	GN19-524-33	4/4/2020
Spiking Solution Intermediate (F/BRO)	GN19-524-34	4/4/2020
Spiking Solution (SOUP)	GN19-524-37	3/27/2020
Filter lot numbers	GREENWOOD #180111044	NA

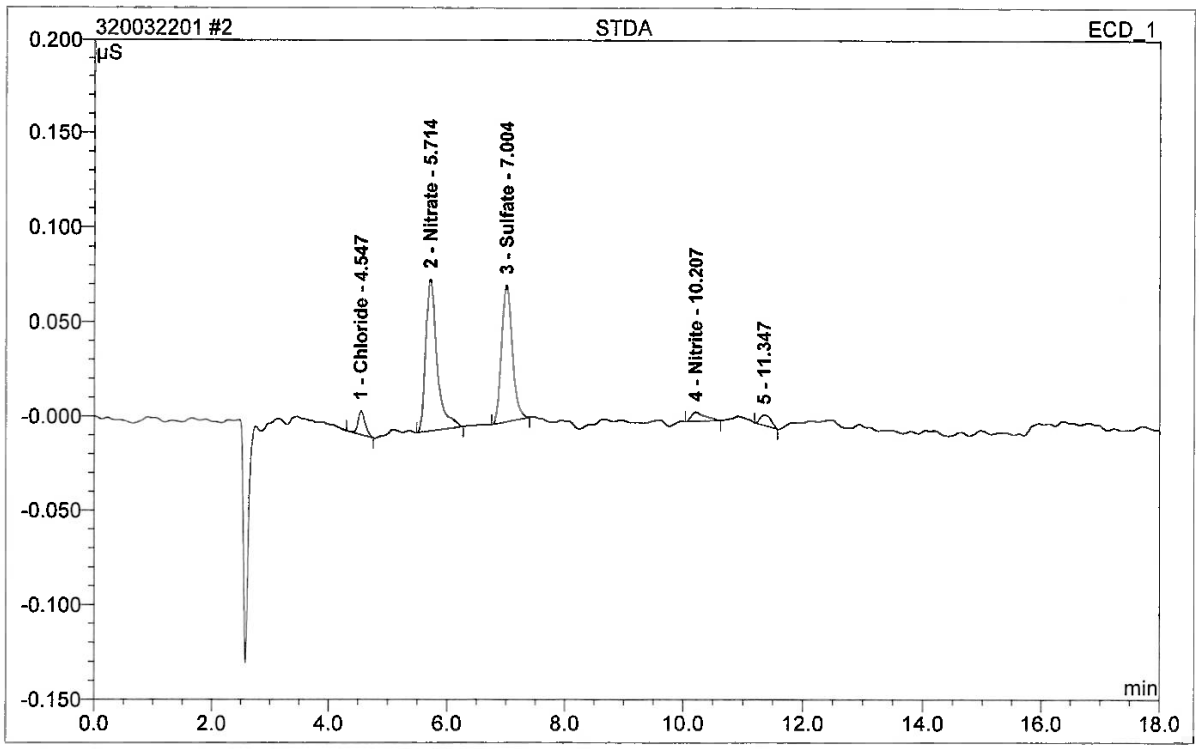
correction: 2-transcription error; 3-computer error; 4-analyst error

Form : GN087A-76
Rev. Date: 4/7/09

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032201

2 STDA

Sample Name:	**STDA**	*Injection Volume:*	**20.0**
Vial Number:	**39**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/28/2020 16:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.55	Chloride	0.013	0.002	4.60	0.083	BMB
2	5.71	Nitrate	0.080	0.018	46.15	0.059	BMB
3	7.00	Sulfate	0.072	0.015	39.80	0.137	BMB
4	10.21	Nitrite	0.005	0.001	3.41	0.062	BMB
5	11.35	n.a.	0.006	0.001	3.14	n.a.	BMB
6	18.78	n.a.	0.005	0.001	2.88	n.a.	BMB
Total:			0.181	0.039	100.00	0.341	

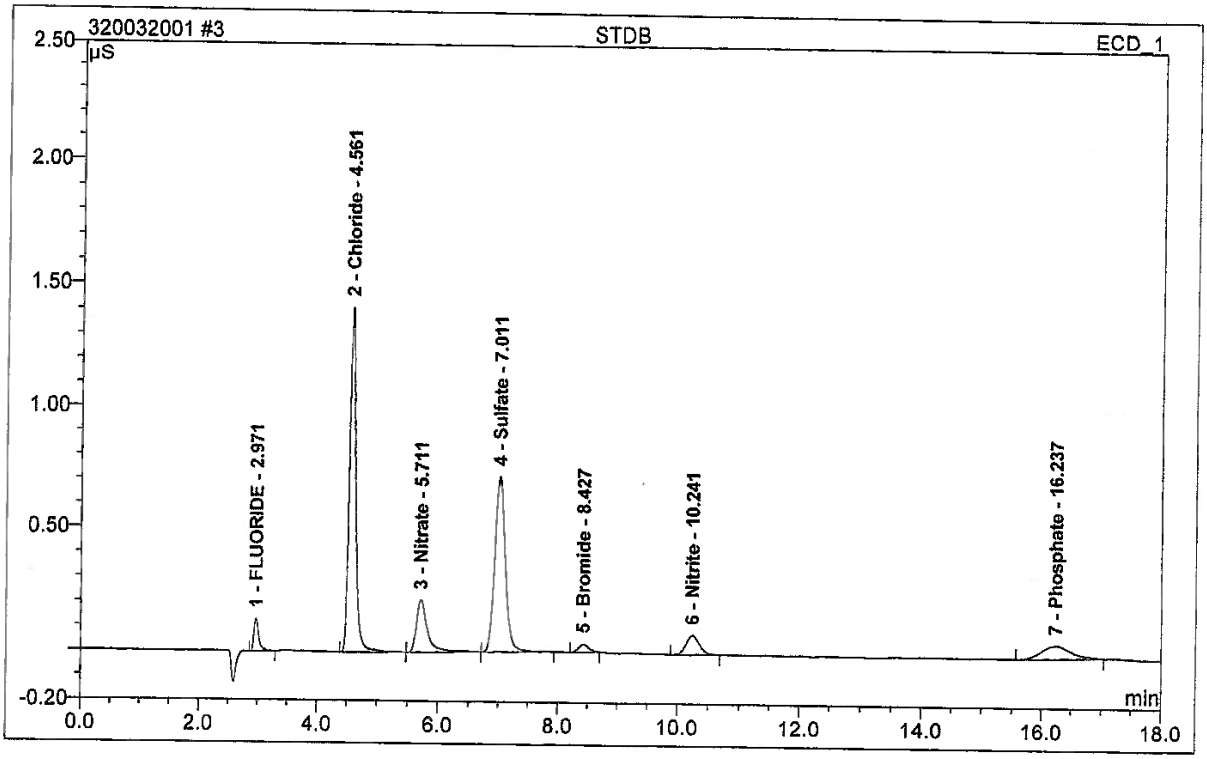
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032001

3 STDB

Sample Name:	**STDB**	*Injection Volume:*	**20.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/28/2020 16:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.97	FLUORIDE	0.132	0.013	2.88	0.081	BMB
2	4.56	Chloride	1.414	0.175	39.68	0.984	BMB
3	5.71	Nitrate	0.212	0.046	10.36	0.119	BMB
4	7.01	Sulfate	0.720	0.149	33.68	1.066	BMB
5	8.43	Bromide	0.033	0.007	1.52	0.282	BMB
6	10.24	Nitrite	0.078	0.020	4.60	0.103	BMB
7	16.24	Phosphate	0.055	0.032	7.28	0.038	BMB
Total:			2.644	0.442	100.00	2.672	

$F = \%\,RE = \frac{0.05 - 0.081}{0.05} = 62\%$. $SO_4 = \%\,RE\ \frac{1.0 - 1.066}{1.0} = 6.6\%$

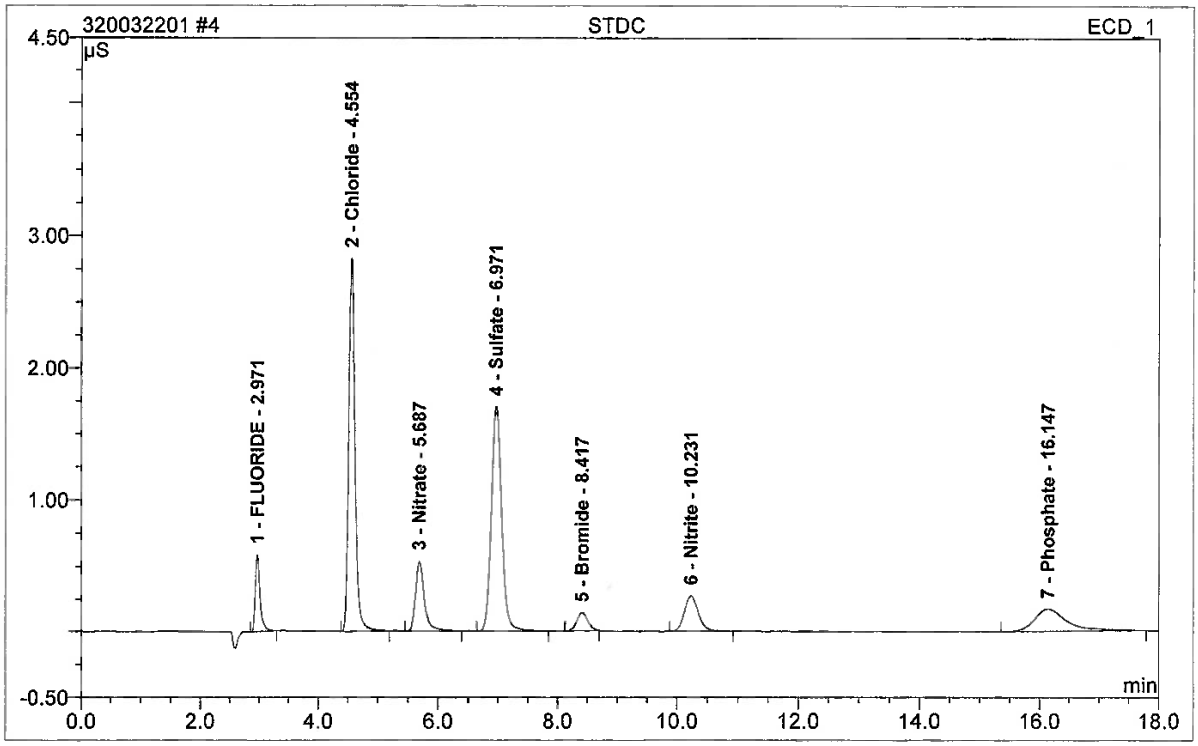
$CHL = \%\,RE = \frac{1.0 - 0.984}{1.0} = 1.6\%$. $BRO = \%\,RE\ \frac{0.125 - 0.282}{0.125} = 125.6\%$

anionssystem3/Integration

13.2
13

4 STDC

Sample Name:	**STDC**	*Injection Volume:*	**20.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/28/2020 17:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



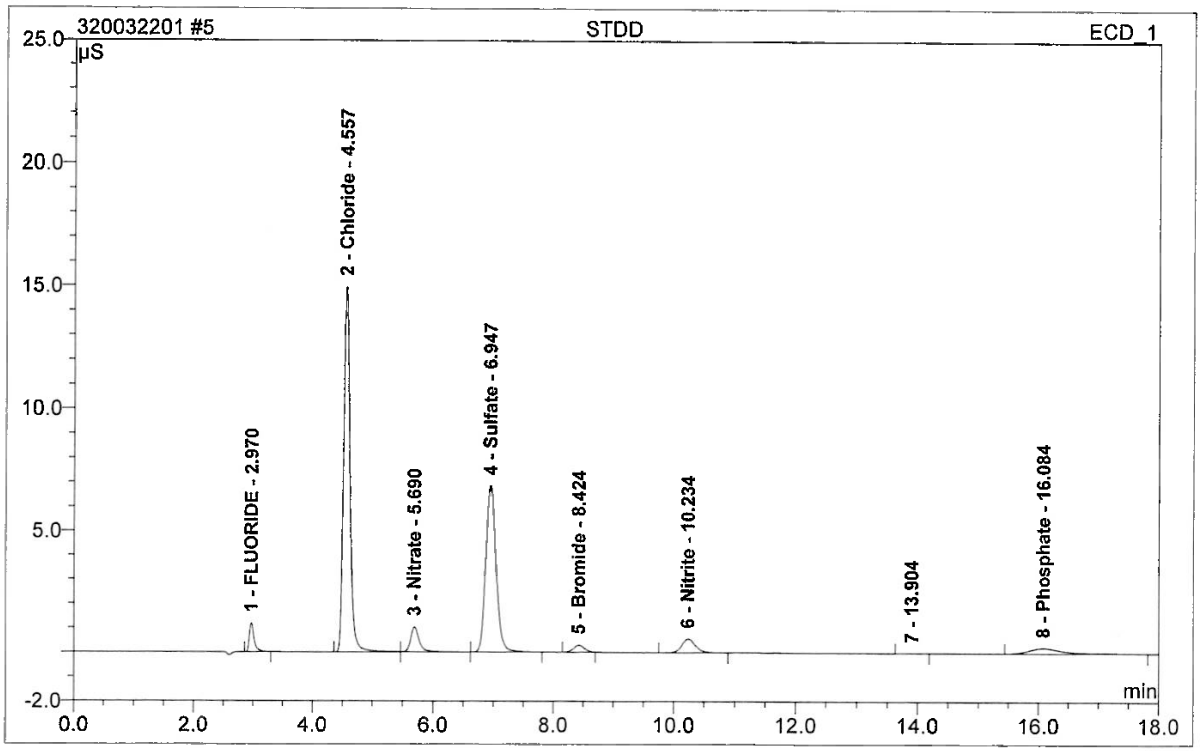
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.97	FLUORIDE	0.589	0.056	5.32	0.219	BMB
2	4.55	Chloride	2.829	0.342	32.68	1.851	BMB
3	5.69	Nitrate	0.536	0.091	8.72	0.215	BMB
4	6.97	Sulfate	1.705	0.343	32.79	2.421	BMB
5	8.42	Bromide	0.141	0.030	2.84	0.574	BMB
6	10.23	Nitrite	0.275	0.074	7.04	0.219	BMB
7	16.15	Phosphate	0.172	0.111	10.61	0.305	BMB
Total:			6.247	1.047	100.00	5.805	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

5 STDD

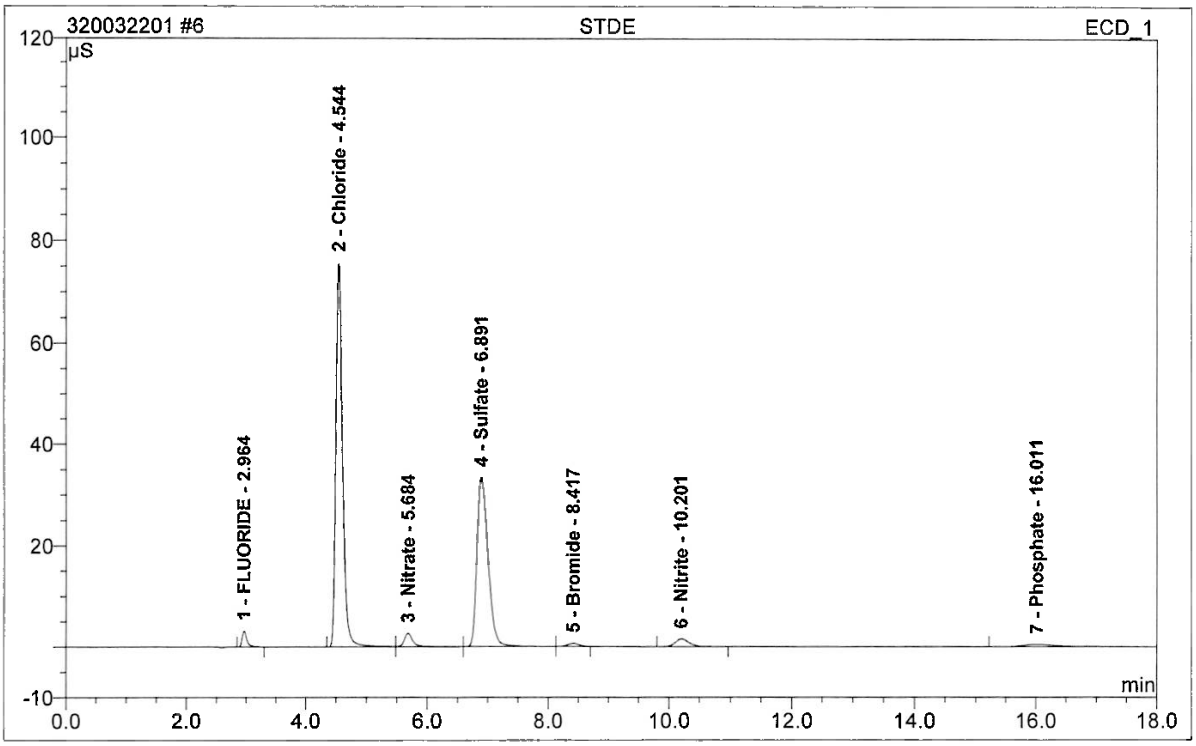
Sample Name:	**STDD**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/28/2020 17:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.97	FLUORIDE	1.180	0.109	2.82	0.392	BMB
2	4.56	Chloride	14.961	1.853	48.00	9.691	BM
3	5.69	Nitrate	1.022	0.170	4.40	0.381	MB
4	6.95	Sulfate	6.855	1.372	35.54	9.582	BMB
5	8.42	Bromide	0.287	0.059	1.54	0.946	BMB
6	10.23	Nitrite	0.563	0.150	3.89	0.384	BMB
7	13.90	n.a.	0.004	0.001	0.03	n.a.	BMB
8	16.08	Phosphate	0.231	0.146	3.79	0.425	BMB
Total:			25.103	3.860	100.00	21.801	

6 STDE

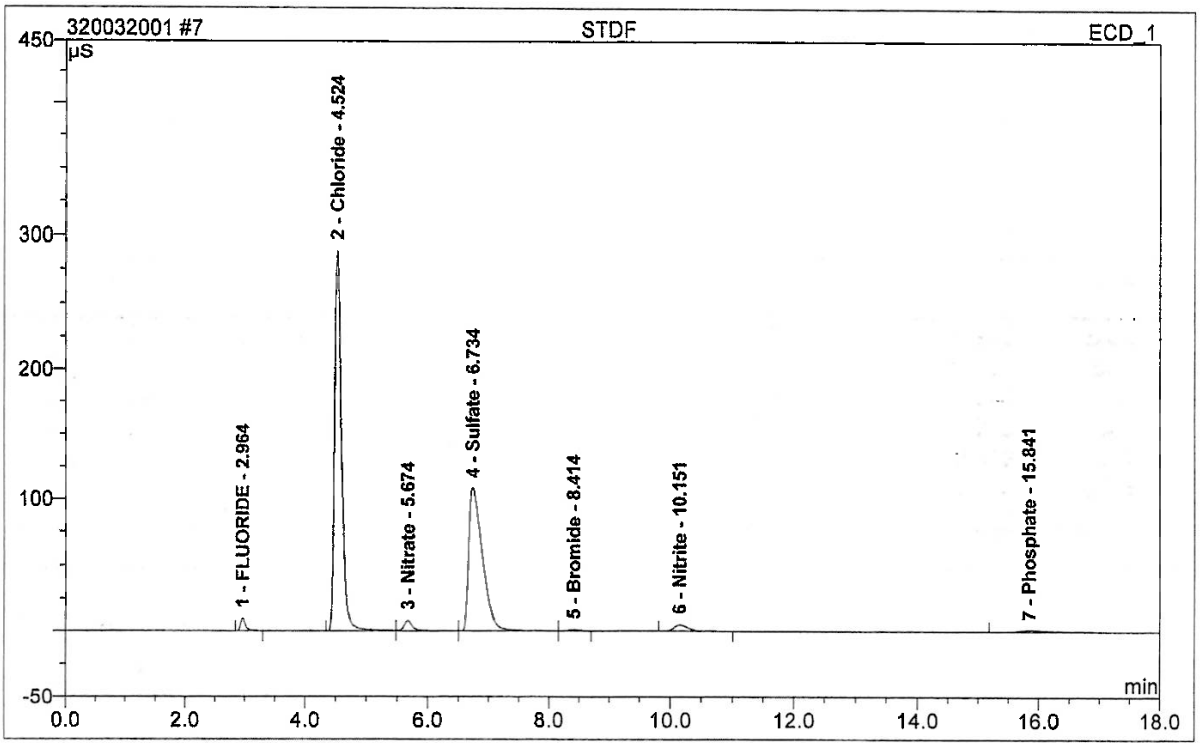
Sample Name:	**STDE**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/28/2020 17:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	3.138	0.289	1.57	0.975	BMB
2	4.54	Chloride	75.607	9.688	52.63	50.369	BM
3	5.68	Nitrate	2.630	0.435	2.37	0.944	M
4	6.89	Sulfate	33.460	7.160	38.90	49.881	M
5	8.42	Bromide	0.607	0.126	0.68	1.790	MB
6	10.20	Nitrite	1.503	0.392	2.13	0.909	BMB
7	16.01	Phosphate	0.473	0.315	1.71	0.998	BMB
Total:			117.417	18.406	100.00	105.865	

7 STDF

Sample Name:	**STDF**	*Injection Volume:*	**20.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/28/2020 18:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	9.430	0.902	1.26	2.959	BMB
2	4.52	Chloride	288.059	38.533	53.65	200.121	BM
3	5.67	Nitrate	7.782	1.333	1.86	2.844	M
4	6.73	Sulfate	108.479	28.689	39.94	199.779	M
5	8.41	Bromide	0.985	0.212	0.29	2.873	MB
6	10.15	Nitrite	4.929	1.318	1.84	2.918	BMB
7	15.84	Phosphate	1.250	0.841	1.17	2.777	BMB
Total:			420.914	71.827	100.00	414.271	

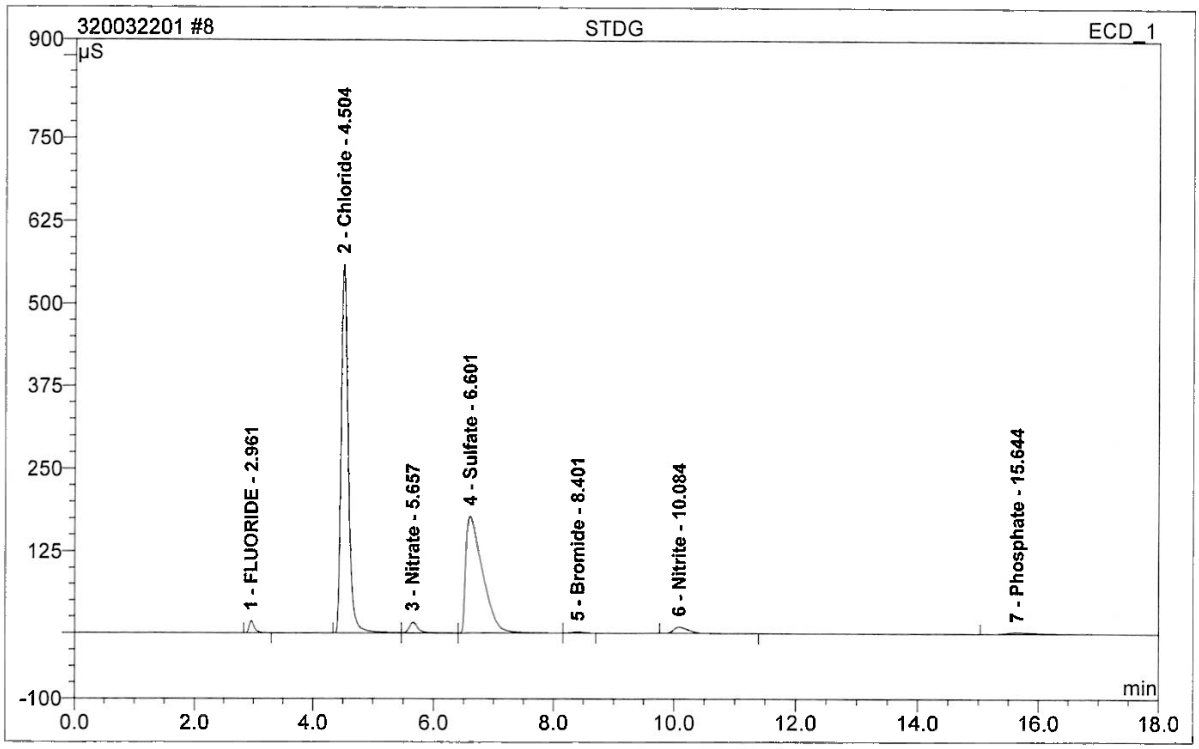
$F = \%\ RE = \frac{3.0 - 2.959}{3.0} = 4.1\%$ $SO_4 = \%\ RE = \frac{200 - 199.779}{200} = 0.2\%$

$CHL = \%\ = \frac{200 - 200.121}{200} = 0.01\%$ $BRO = \%\ RE = \frac{3 - 2.873}{3} = 4.3\%$

anionssystem3/Integration

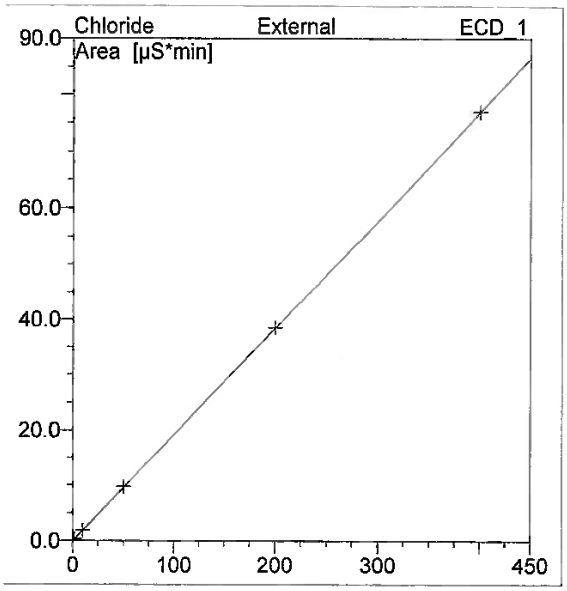
8 STDG

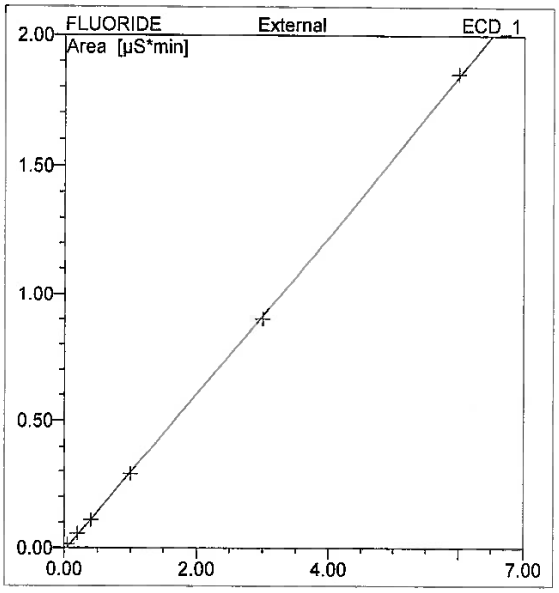
Sample Name:	**STDG**	*Injection Volume:*	**20.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/28/2020 18:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

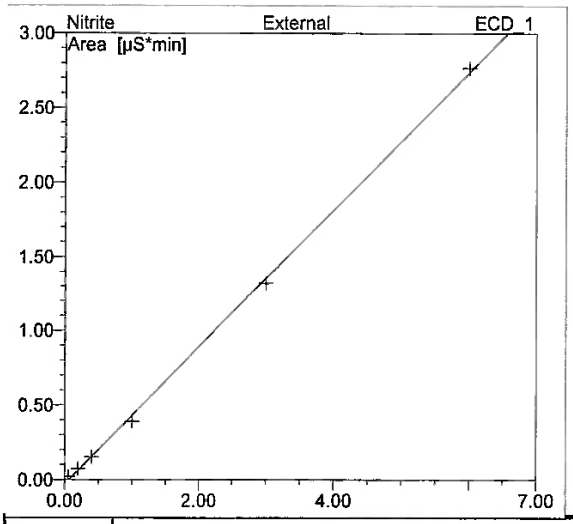


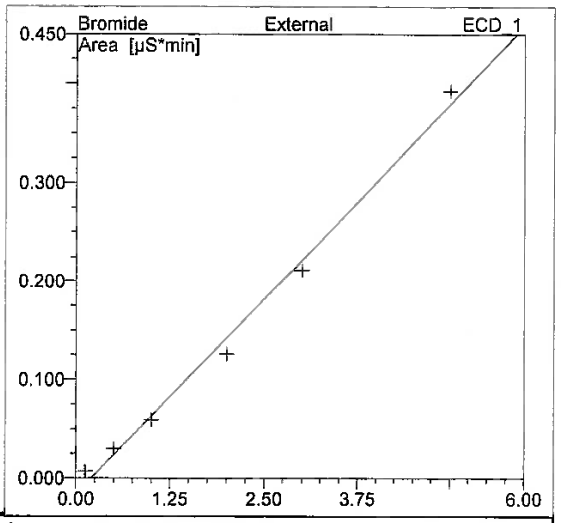
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	18.167	1.850	1.28	6.024	BMB
2	4.50	Chloride	559.239	77.015	53.42	399.902	BM
3	5.66	Nitrate	16.375	2.864	1.99	6.087	M
4	6.60	Sulfate	178.323	57.465	39.86	400.133	M
5	8.40	Bromide	1.798	0.392	0.27	5.159	MB
6	10.08	Nitrite	9.767	2.765	1.92	6.056	BMB
7	15.64	Phosphate	2.492	1.824	1.26	6.107	BM
8	19.35	n.a.	0.000	0.001	0.00	n.a.	MB
Total:			786.162	144.176	100.00	829.470	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032201







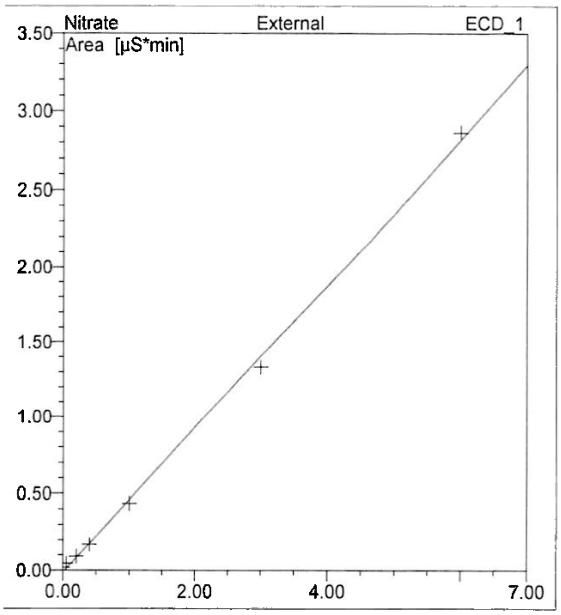


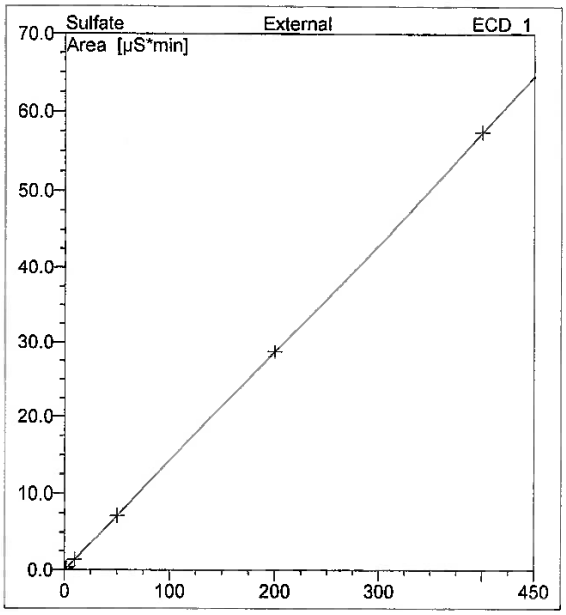
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.96	FLUORIDE	LOff	6	99.9921	-0.0122	0.3091	0.0000
2	4.50	Chloride	LOff	7	99.9999	-0.0142	0.1926	0.0000
3	5.66	Nitrate	LOff	7	99.9269	-0.0103	0.4722	0.0000
4	6.60	Sulfate	LOff	7	99.9998	-0.0043	0.1436	0.0000
5	8.40	Bromide	LOff	6	99.6473	-0.0156	0.0791	0.0000
6	10.08	Nitrite	LOff	7	99.9577	-0.0270	0.4611	0.0000
7	15.64	Phosphate	LOff	6	99.8665	0.0209	0.2952	0.0000
8	19.35	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Average:					99.9129	-0.0090	0.2790	0.0000

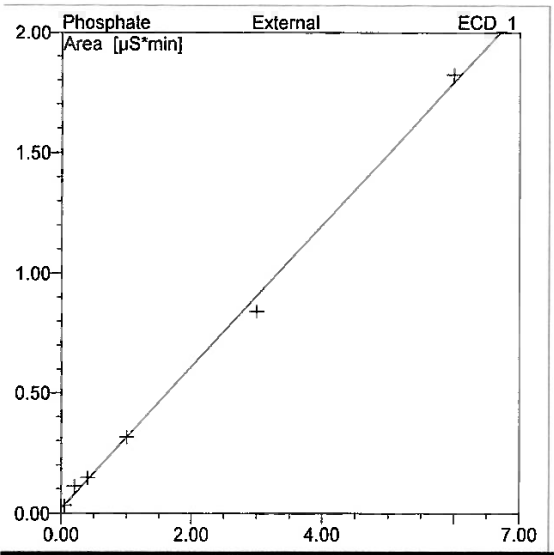
anionssystem3/Calibration(Curr.Peak)

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032201







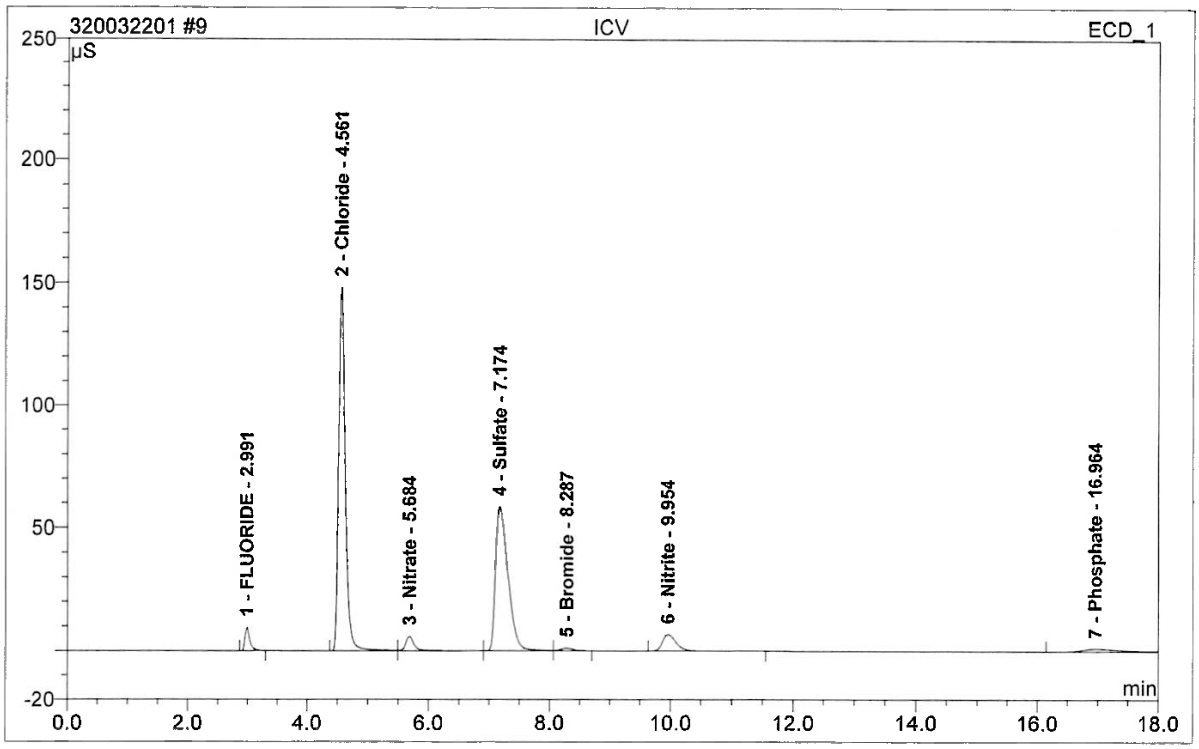
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.96	FLUORIDE	LOff	6	99.9921	-0.0122	0.3091	0.0000
2	4.50	Chloride	LOff	7	99.9999	-0.0142	0.1926	0.0000
3	5.66	Nitrate	LOff	7	99.9269	-0.0103	0.4722	0.0000
4	6.60	Sulfate	LOff	7	99.9998	-0.0043	0.1436	0.0000
5	8.40	Bromide	LOff	6	99.6473	-0.0156	0.0791	0.0000
6	10.08	Nitrite	LOff	7	99.9577	-0.0270	0.4611	0.0000
7	15.64	Phosphate	LOff	6	99.8665	0.0209	0.2952	0.0000
8	19.35	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Average:					99.9129	-0.0090	0.2790	0.0000

anionssystem3/Calibration(Curr.Peak)

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9 ICV

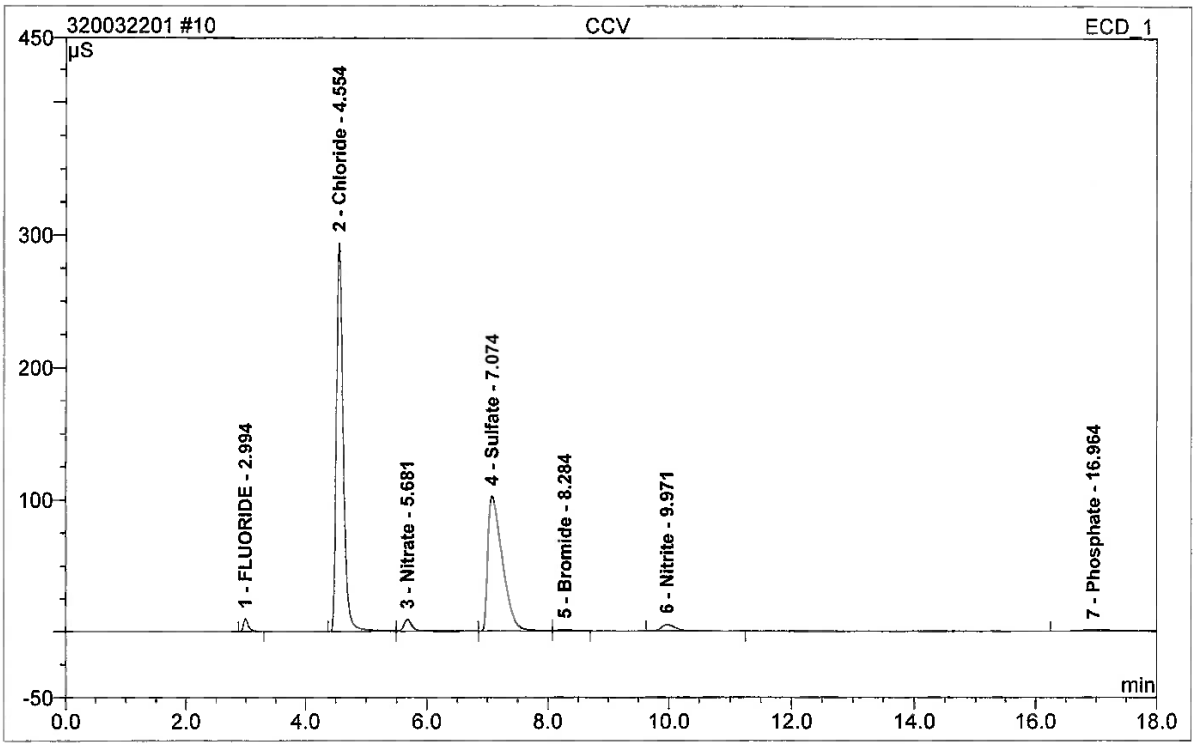
Sample Name:	**ICV**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 6:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	9.404	0.888	2.36	2.913	BMB
2	4.56	Chloride	148.060	18.854	50.09	97.957	BM
3	5.68	Nitrate	5.824	0.960	2.55	2.055	M
4	7.17	Sulfate	58.366	14.040	37.30	97.782	M
5	8.29	Bromide	1.071	0.236	0.63	3.183	MB
6	9.95	Nitrite	6.696	1.743	4.63	3.839	BMB
7	16.96	Phosphate	1.155	0.923	2.45	3.054	BMB
Total:			230.577	37.644	100.00	210.784	

10 CCV

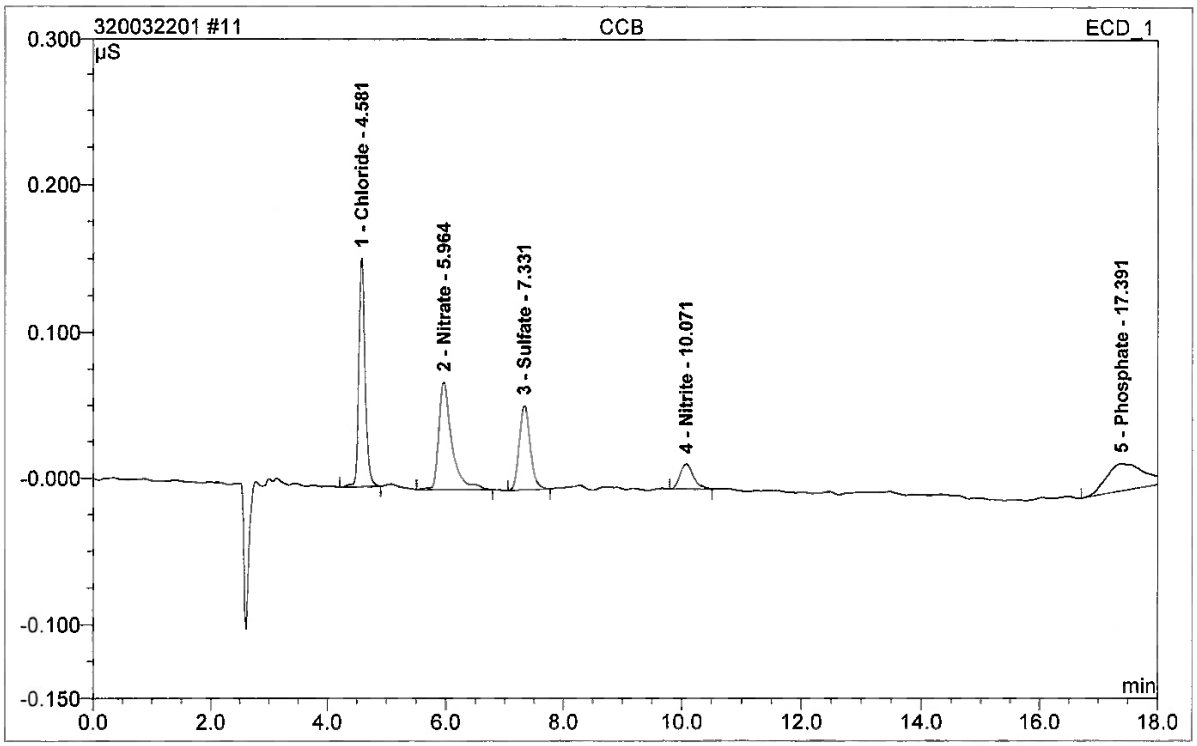
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 6:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	9.543	0.910	1.25	2.985	BMB
2	4.55	Chloride	294.163	38.749	53.37	201.243	BM
3	5.68	Nitrate	8.903	1.531	2.11	3.264	M
4	7.07	Sulfate	102.601	28.933	39.85	201.477	M
5	8.28	Bromide	1.174	0.277	0.38	3.699	MB
6	9.97	Nitrite	5.030	1.288	1.77	2.853	BMB
7	16.96	Phosphate	1.146	0.910	1.25	3.011	BMB
Total:			422.561	72.598	100.00	418.532	

11 CCB

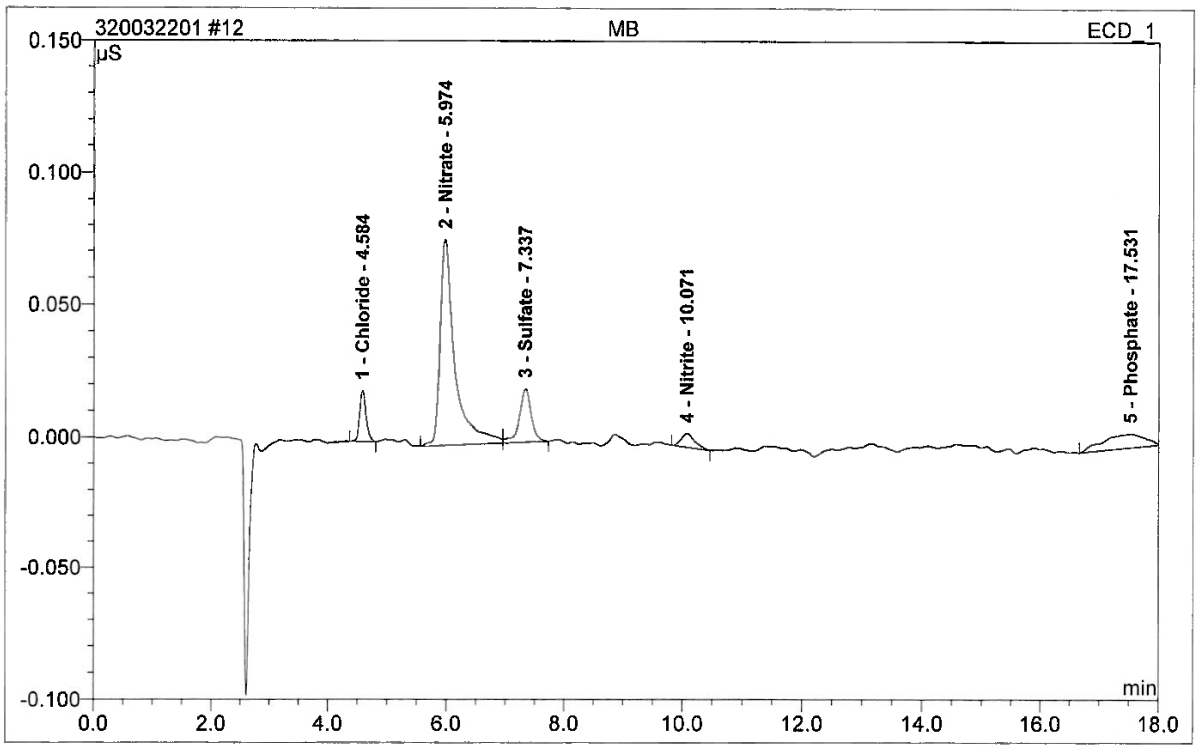
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 7:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.58	Chloride	0.156	0.019	27.76	0.174	BMB
2	5.96	Nitrate	0.074	0.019	27.20	0.062	BMB
3	7.33	Sulfate	0.058	0.013	17.98	0.117	BMB
4	10.07	Nitrite	0.017	0.005	6.51	0.068	BMB
5	17.39	Phosphate	0.019	0.014	20.56	-0.022	BMB
Total:			0.324	0.070	100.00	0.399	

12 MB

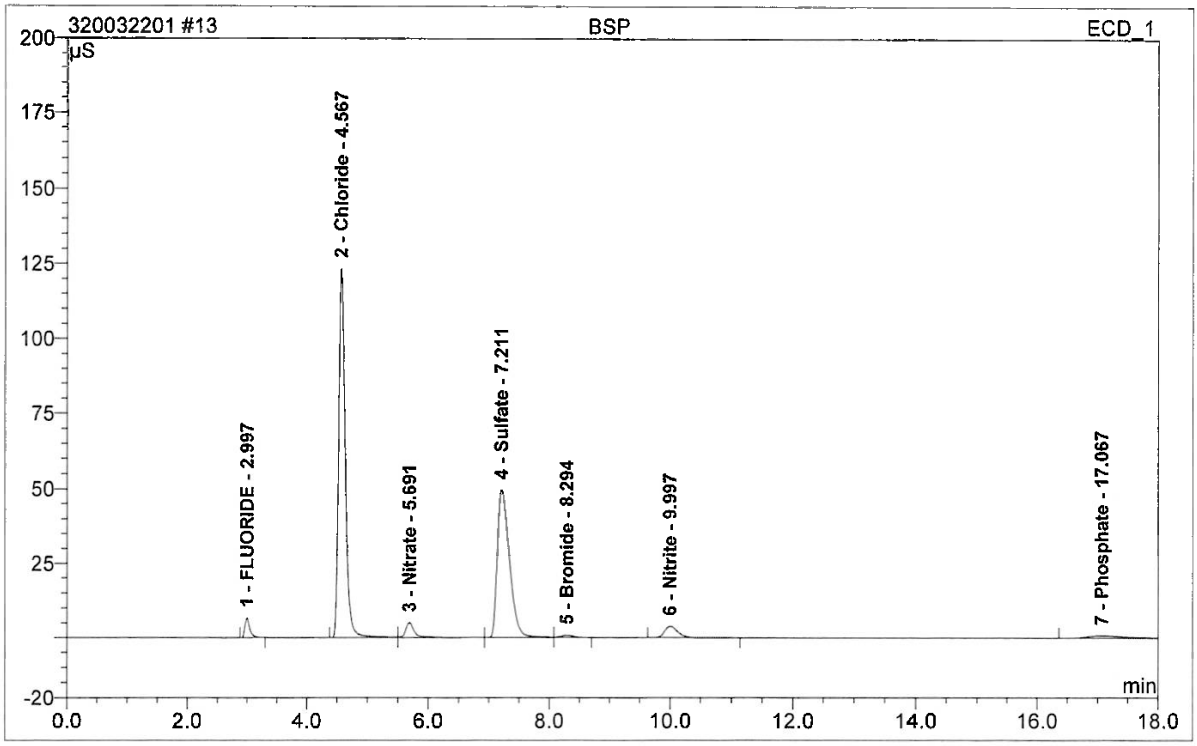
Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 7:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.58	Chloride	0.019	0.002	6.83	0.086	BMB
2	5.97	Nitrate	0.078	0.022	63.22	0.069	BM
3	7.34	Sulfate	0.020	0.005	13.50	0.064	MB
4	10.07	Nitrite	0.005	0.001	3.83	0.062	BMB
5	17.53	Phosphate	0.005	0.004	12.62	-0.056	BMB
Total:			0.128	0.036	100.00	0.225	

13 BSP

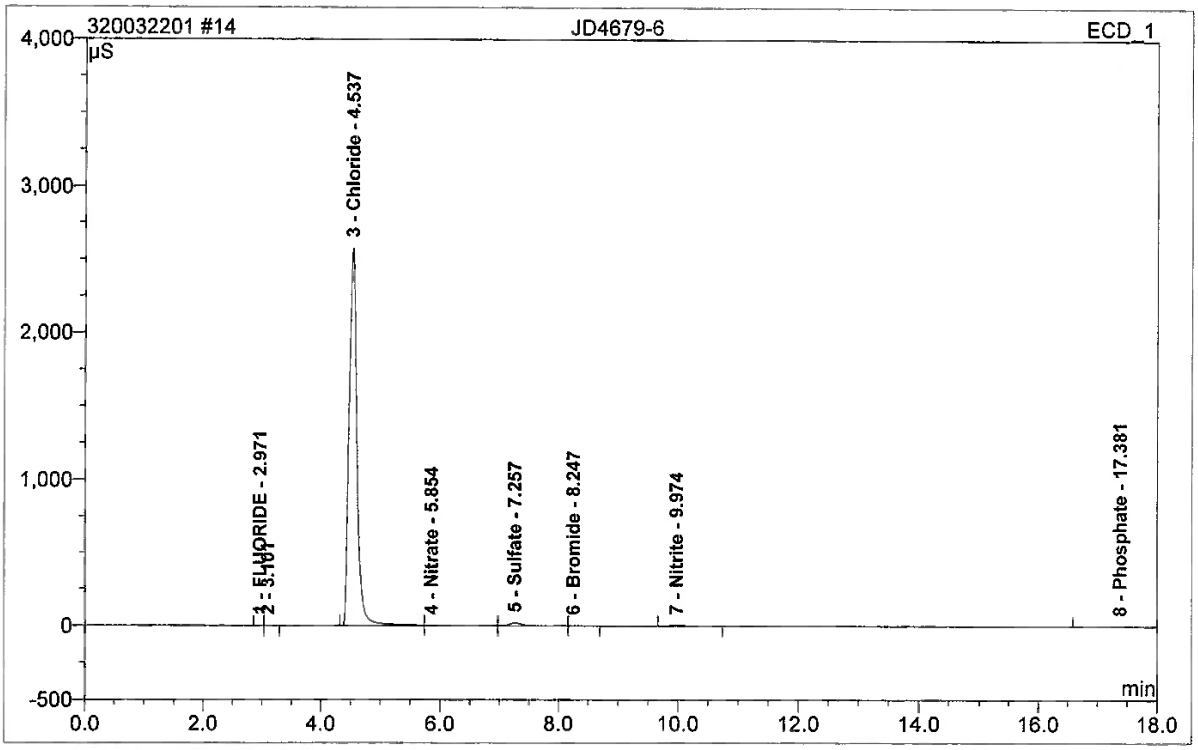
Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 8:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	6.603	0.610	2.01	2.014	BMB
2	4.57	Chloride	123.212	15.639	51.47	81.264	BM
3	5.69	Nitrate	4.978	0.839	2.76	1.798	M
4	7.21	Sulfate	49.617	11.593	38.15	80.748	M
5	8.29	Bromide	0.708	0.159	0.52	2.212	MB
6	10.00	Nitrite	3.770	0.950	3.13	2.118	BMB
7	17.07	Phosphate	0.791	0.594	1.96	1.942	BMB
Total:			189.681	30.384	100.00	172.096	

14 JD4679-6

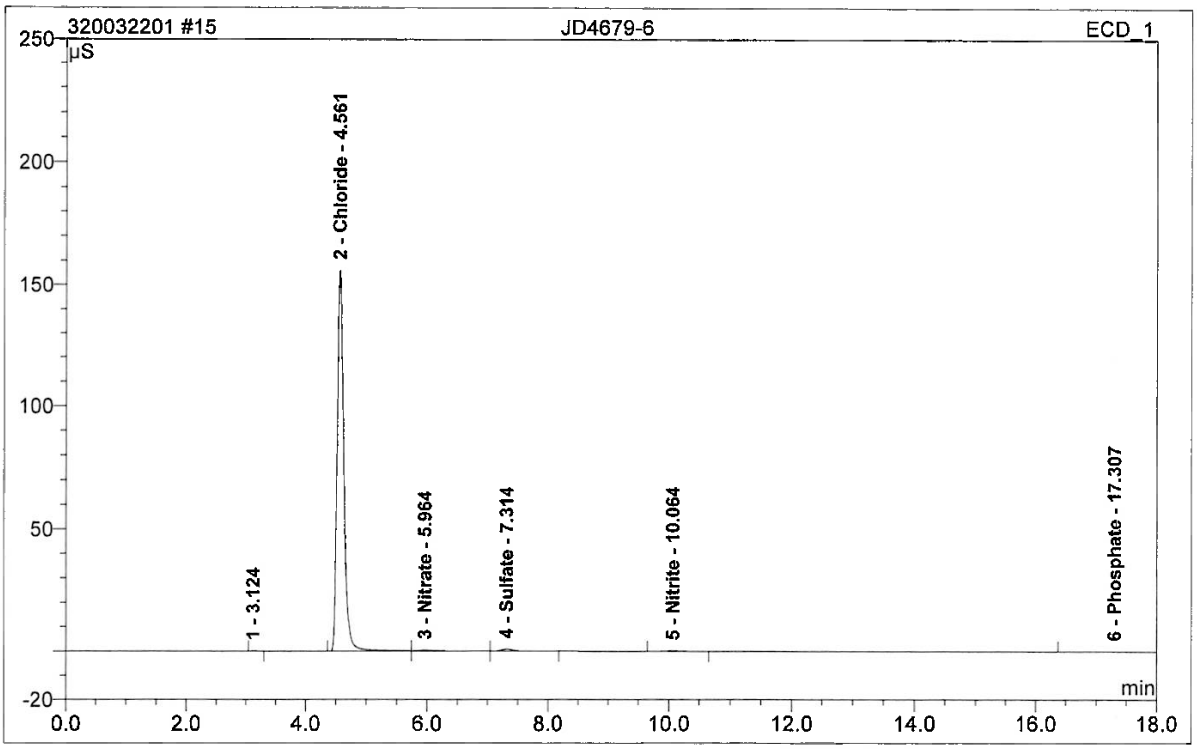
Sample Name:	**JD4679-6**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 8:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.97	FLUORIDE	0.137	0.013	0.00	0.083	BM
2	3.10	n.a.	0.132	0.016	0.00	n.a.	MB
3	4.54	Chloride	2572.848	394.128	97.73	2046.223	BM
4	5.85	Nitrate	3.750	2.723	0.68	5.788	M
5	7.26	Sulfate	19.441	5.123	1.27	35.697	M
6	8.25	Bromide	0.453	0.132	0.03	1.868	MB
7	9.97	Nitrite	4.357	1.104	0.27	2.454	BMB
8	17.38	Phosphate	0.042	0.039	0.01	0.060	BMB
Total:			2601.161	403.278	100.00	2092.173	

15 JD4679-6

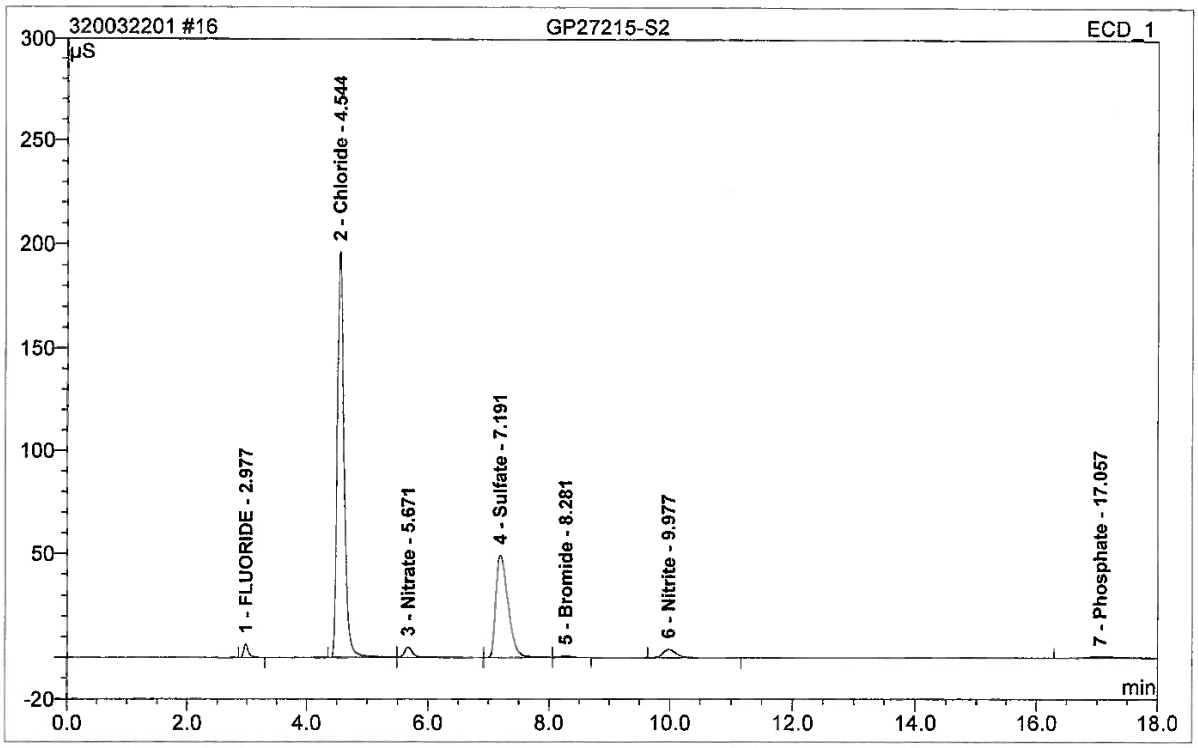
Sample Name:	**JD4679-6**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**20.0000**
Recording Time:	**3/22/2020 8:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.12	n.a.	0.060	0.006	0.03	n.a.	BMB
2	4.56	Chloride	155.805	20.014	97.76	2079.603	BM
3	5.96	Nitrate	0.399	0.192	0.94	8.574	M
4	7.31	Sulfate	0.860	0.196	0.96	27.951	MB
5	10.06	Nitrite	0.178	0.046	0.22	3.152	BMB
6	17.31	Phosphate	0.026	0.019	0.09	-0.140	BMB
Total:			157.328	20.473	100.00	2119.140	

16 GP27215-S2

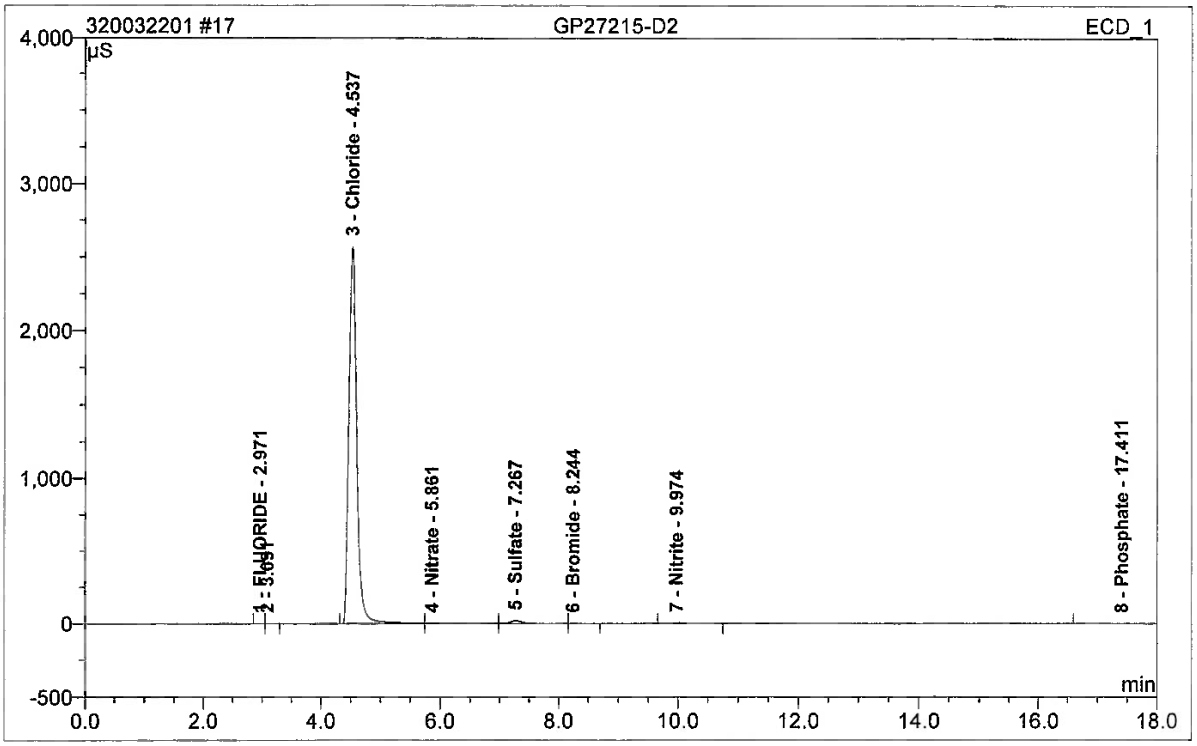
Sample Name:	**GP27215-S2**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**40.0000**
Recording Time:	**3/22/2020 9:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.98	FLUORIDE	6.415	0.603	1.49	79.595	BMB
2	4.54	Chloride	196.193	25.509	63.18	5300.331	BM
3	5.67	Nitrate	4.959	0.914	2.26	78.330	M
4	7.19	Sulfate	49.379	11.605	28.74	3233.114	M
5	8.28	Bromide	0.708	0.163	0.40	90.129	MB
6	9.98	Nitrite	3.935	0.994	2.46	88.615	BMB
7	17.06	Phosphate	0.735	0.587	1.45	76.671	BMB
Total:			262.324	40.375	100.00	8946.785	

17 GP27215-D2

Sample Name:	**GP27215-D2**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 9:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.97	FLUORIDE	0.139	0.015	0.00	0.087	BM
2	3.09	n.a.	0.069	0.008	0.00	n.a.	MB
3	4.54	Chloride	2566.348	393.917	97.73	2045.131	BM
4	5.86	Nitrate	3.711	2.717	0.67	5.776	M
5	7.27	Sulfate	19.392	5.136	1.27	35.789	M
6	8.24	Bromide	0.462	0.134	0.03	1.893	MB
7	9.97	Nitrite	4.334	1.098	0.27	2.439	BMB
8	17.41	Phosphate	0.045	0.039	0.01	0.062	BM
9	18.82	n.a.	0.008	0.003	0.00	n.a.	MB
Total:			2594.507	403.066	100.00	2091.177	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
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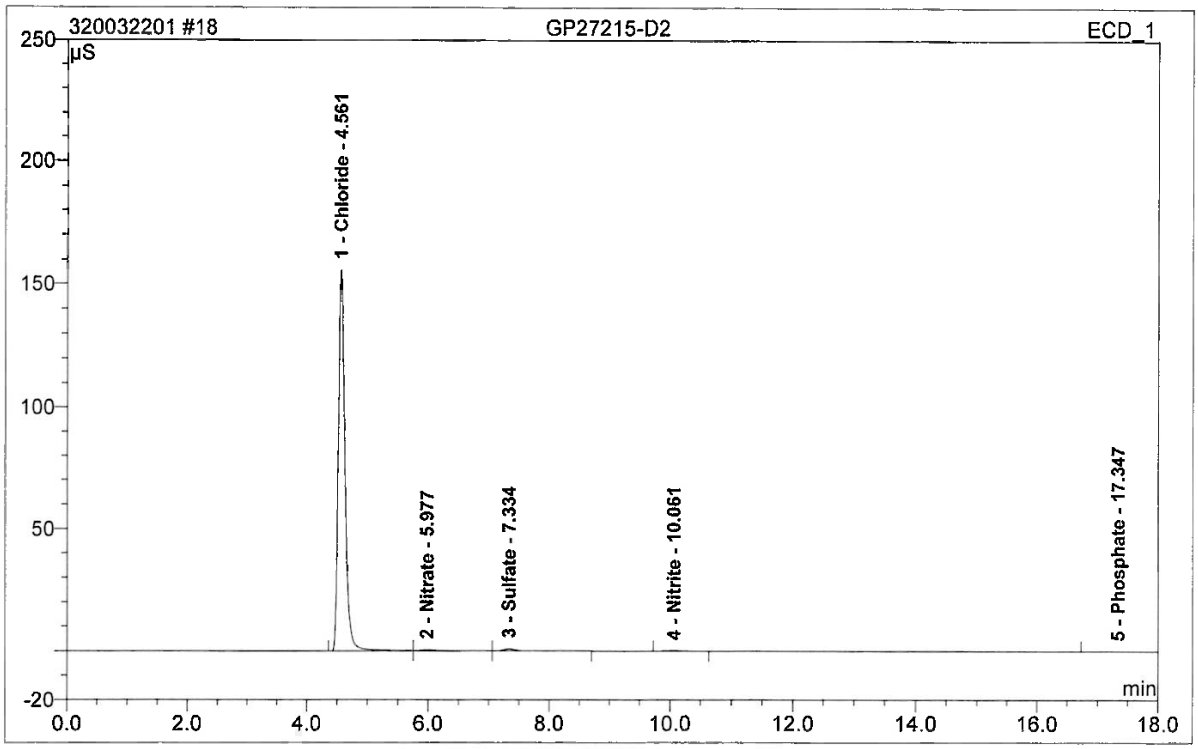
18 GP27215-D2

Sample Name:	**GP27215-D2**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**20.0000**
Recording Time:	**3/22/2020 10:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

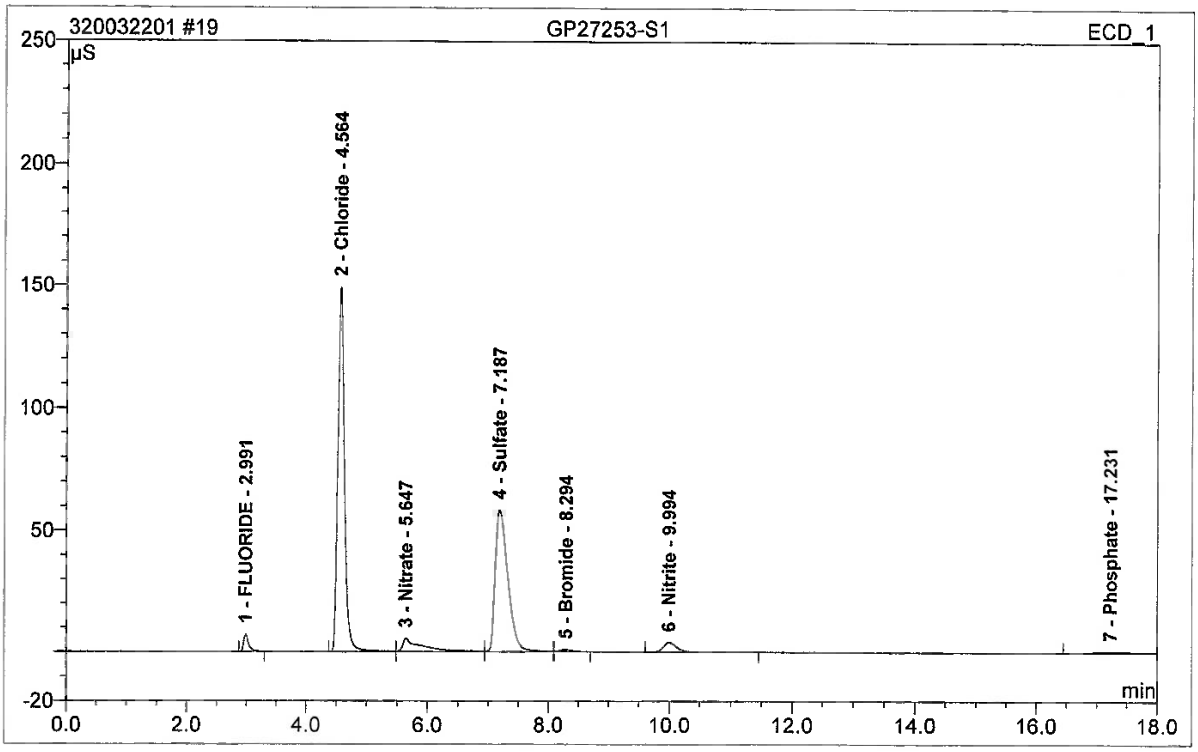


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.56	Chloride	155.691	20.035	97.60	2081.731	BM
2	5.98	Nitrate	0.421	0.212	1.04	9.435	M
3	7.33	Sulfate	0.869	0.219	1.07	31.079	MB
4	10.06	Nitrite	0.171	0.044	0.21	3.063	BMB
5	17.35	Phosphate	0.020	0.017	0.08	-0.254	BMB
Total:			157.172	20.527	100.00	2125.053	

19 GP27253-S1

JD4404-2

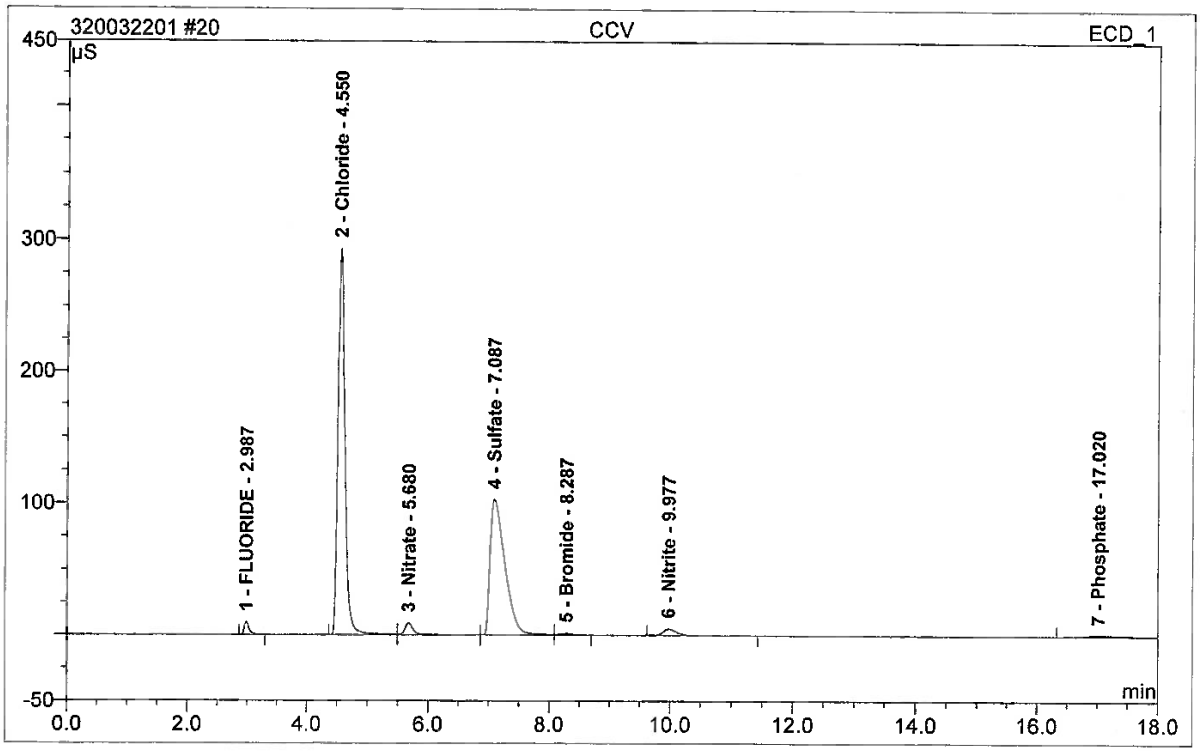
Sample Name:	**GP27253-S1**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 10:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	7.127	0.695	1.84	2.289	BMB
2	4.56	Chloride	149.110	18.963	50.22	98.520	BM
3	5.65	Nitrate	5.367	2.016	5.34	4.292	M
4	7.19	Sulfate	58.545	14.305	37.88	99.629	M
5	8.29	Bromide	0.820	0.204	0.54	2.773	MB
6	9.99	Nitrite	3.928	0.997	2.64	2.221	BMB
7	17.23	Phosphate	0.582	0.580	1.54	1.893	BMB
Total:			225.479	37.759	100.00	211.617	

20 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 11:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

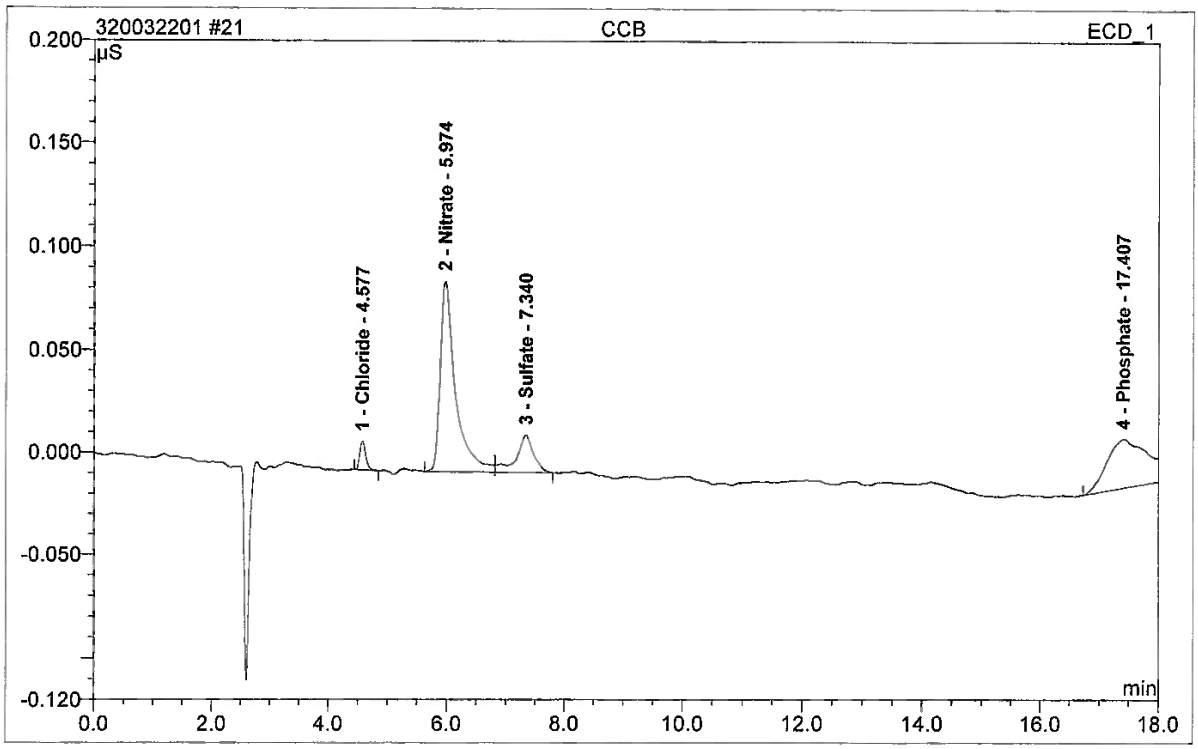


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	9.526	0.919	1.26	3.014	BMB
2	4.55	Chloride	293.236	38.744	52.99	201.218	BM
3	5.68	Nitrate	8.818	1.542	2.11	3.288	M
4	7.09	Sulfate	103.183	29.460	40.29	205.149	M
5	8.29	Bromide	1.214	0.294	0.40	3.921	MB
6	9.98	Nitrite	5.007	1.285	1.76	2.846	BMB
7	17.02	Phosphate	1.053	0.869	1.19	2.873	BMB
Total:			422.037	73.114	100.00	422.308	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032201

21 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 11:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



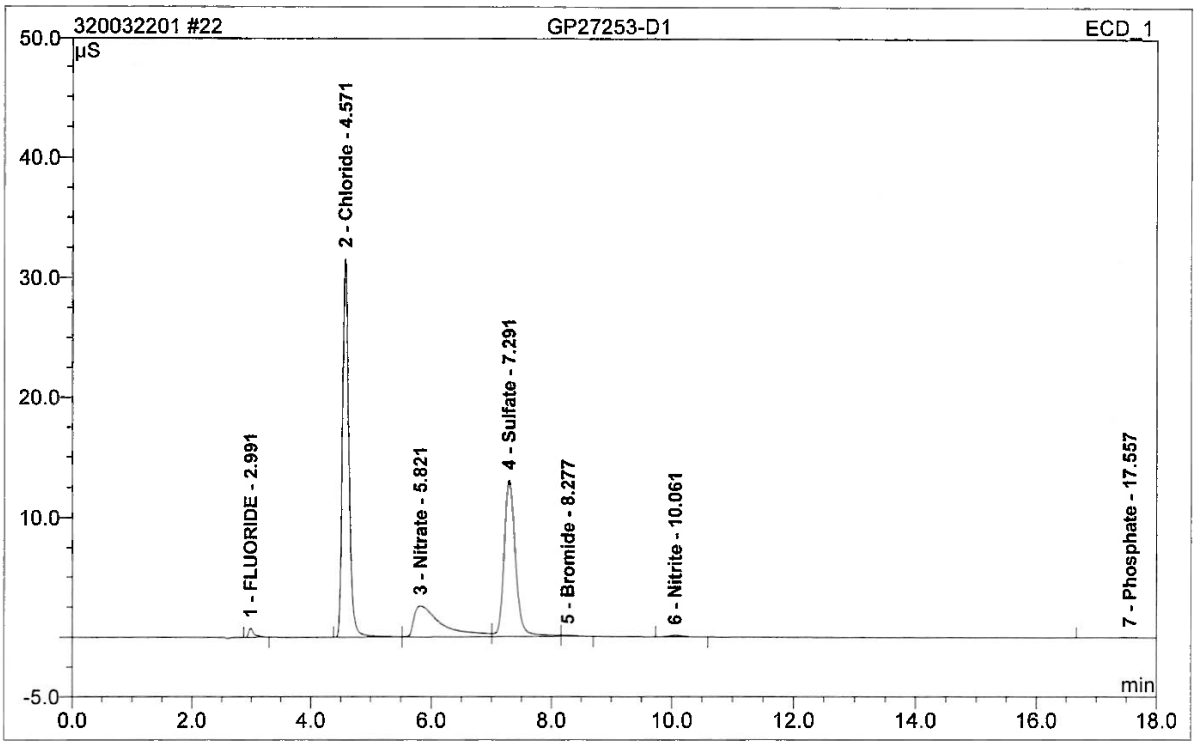
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.58	Chloride	0.014	0.002	2.74	0.082	BMB
2	5.97	Nitrate	0.092	0.028	46.58	0.080	BM
3	7.34	Sulfate	0.018	0.006	10.55	0.074	MB
4	17.41	Phosphate	0.024	0.024	40.13	0.010	BMB
Total:			0.148	0.059	100.00	0.246	

anionssystem3/Integration

22 GP27253-D1

JD4404-2

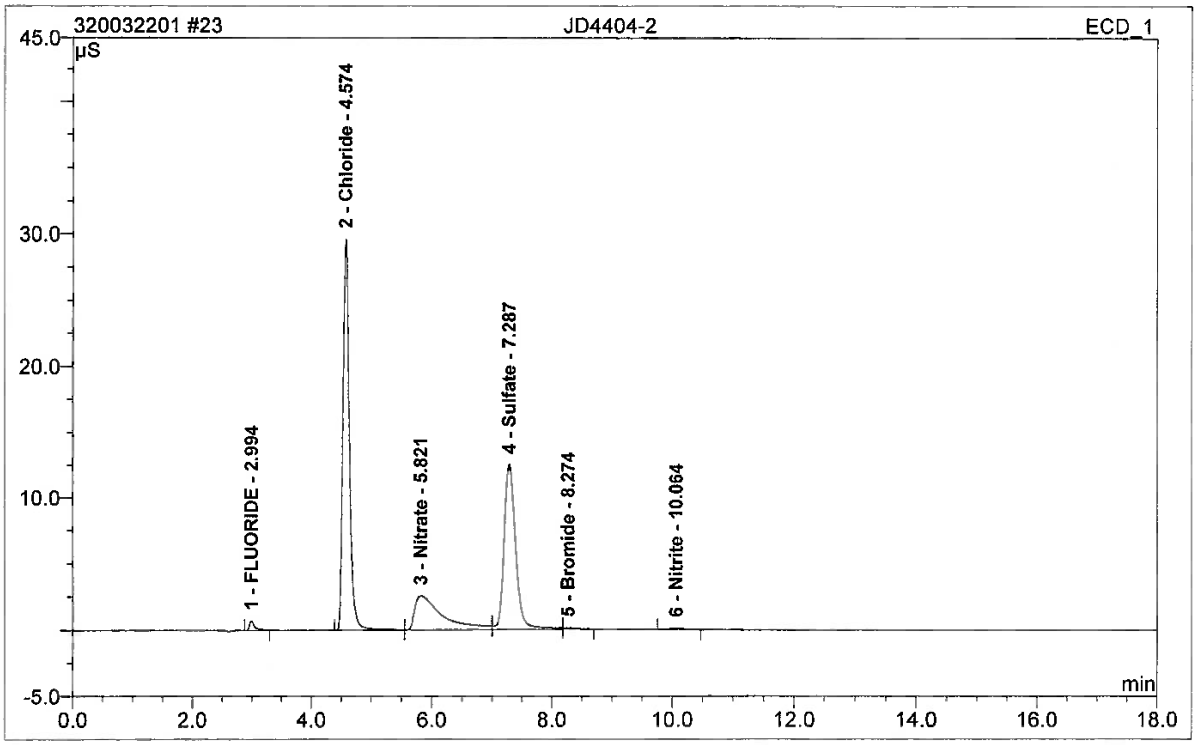
Sample Name:	**GP27253-D1**	*Injection Volume:*	**20.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 11:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.734	0.077	0.93	0.288	BMB
2	4.57	Chloride	31.567	3.888	46.85	20.260	BM
3	5.82	Nitrate	2.574	1.365	16.45	2.914	M
4	7.29	Sulfate	13.043	2.899	34.94	20.216	M
5	8.28	Bromide	0.091	0.026	0.31	0.525	MB
6	10.06	Nitrite	0.114	0.029	0.35	0.121	BMB
7	17.56	Phosphate	0.016	0.014	0.17	-0.023	BMB
Total:			48.139	8.299	100.00	44.301	

23 JD4404-2

Sample Name:	**JD4404-2**	*Injection Volume:*	**20.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 12:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

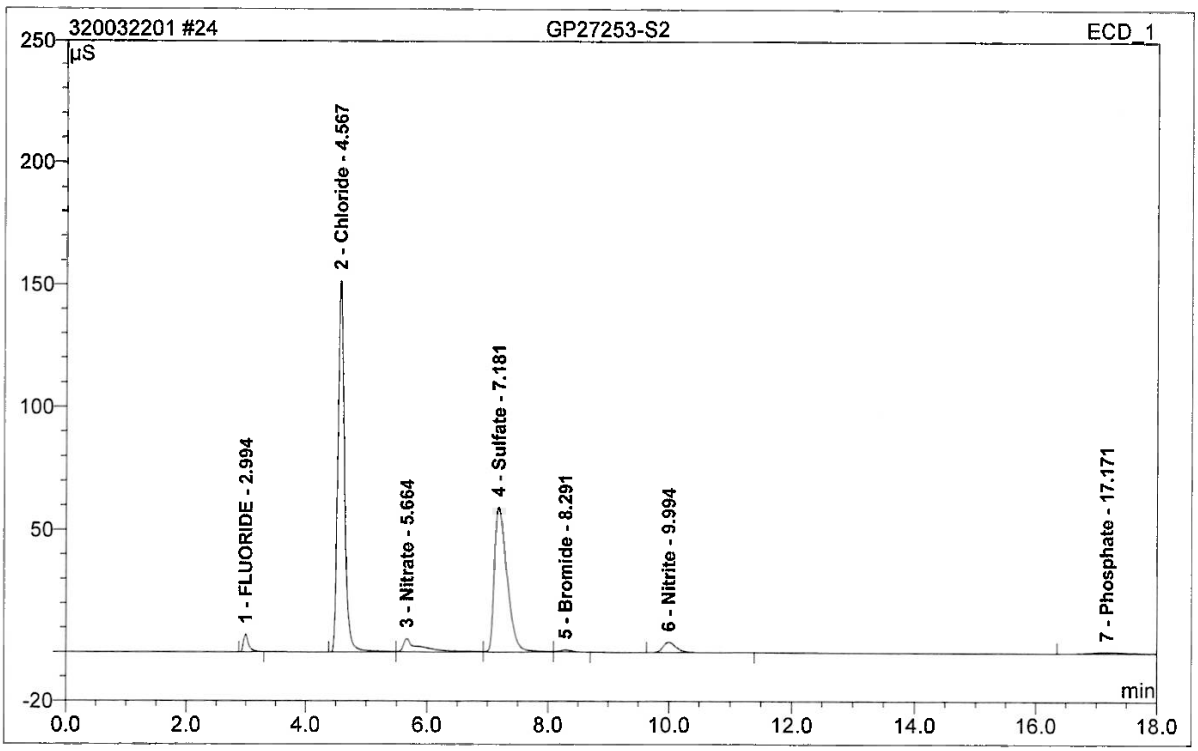


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.673	0.071	0.90	0.269	BMB
2	4.57	Chloride	29.574	3.639	46.27	18.964	BM
3	5.82	Nitrate	2.525	1.332	16.93	2.842	M
4	7.29	Sulfate	12.514	2.780	35.35	19.384	M
5	8.27	Bromide	0.083	0.022	0.28	0.477	MB
6	10.06	Nitrite	0.085	0.021	0.27	0.104	BMB
Total:			45.453	7.864	100.00	42.040	

24 GP27253-S2

JD4404-3

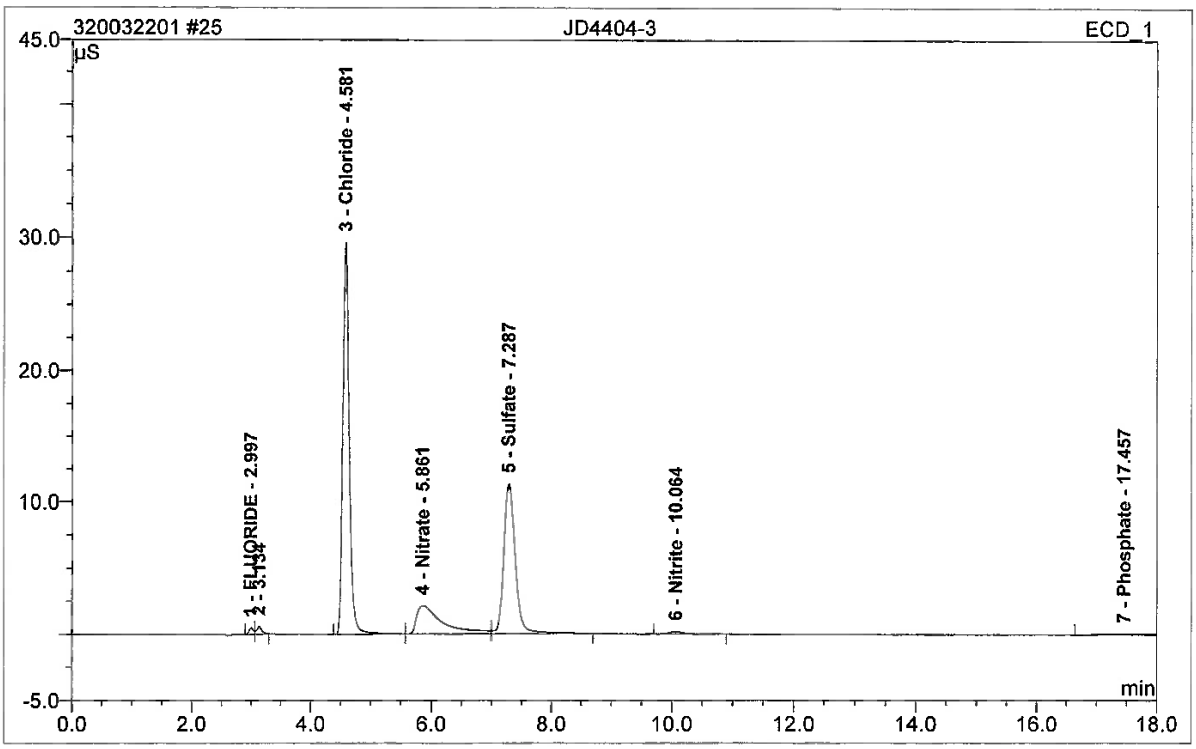
Sample Name:	**GP27253-S2**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 12:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	7.166	0.708	1.85	2.329	BMB
2	4.57	Chloride	151.669	19.418	50.77	100.885	BM
3	5.66	Nitrate	5.408	1.768	4.62	3.766	M
4	7.18	Sulfate	59.186	14.512	37.94	101.070	M
5	8.29	Bromide	0.821	0.202	0.53	2.757	MB
6	9.99	Nitrite	4.161	1.060	2.77	2.359	BMB
7	17.17	Phosphate	0.605	0.577	1.51	1.884	BMB
Total:			229.015	38.246	100.00	215.051	

25 JD4404-3

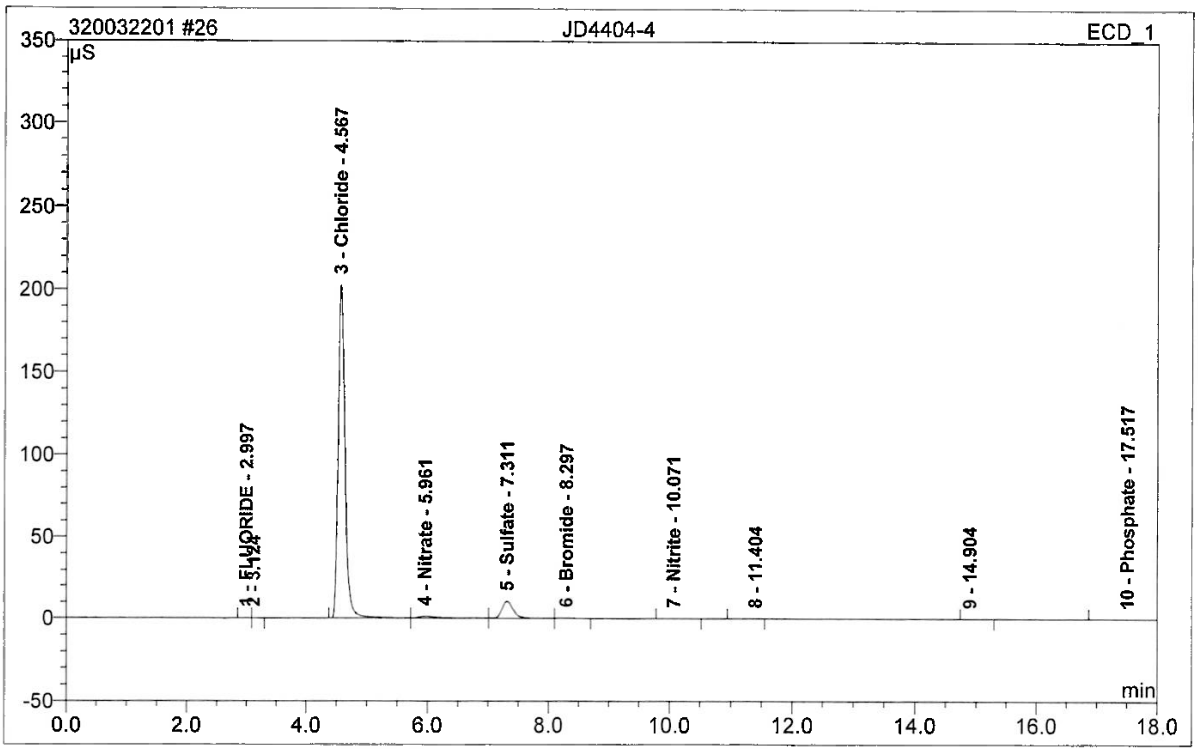
Sample Name:	**JD4404-3**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 13:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.473	0.039	0.53	0.167	BM
2	3.13	n.a.	0.544	0.056	0.75	n.a.	MB
3	4.58	Chloride	29.608	3.655	49.13	19.050	BM
4	5.86	Nitrate	2.136	1.048	14.09	2.242	M
5	7.29	Sulfate	11.334	2.536	34.09	17.689	MB
6	10.06	Nitrite	0.175	0.046	0.62	0.159	BMB
7	17.46	Phosphate	0.056	0.058	0.78	0.125	BMB
Total:			44.325	7.439	100.00	39.432	

26 JD4404-4

Sample Name:	**JD4404-4**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 13:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



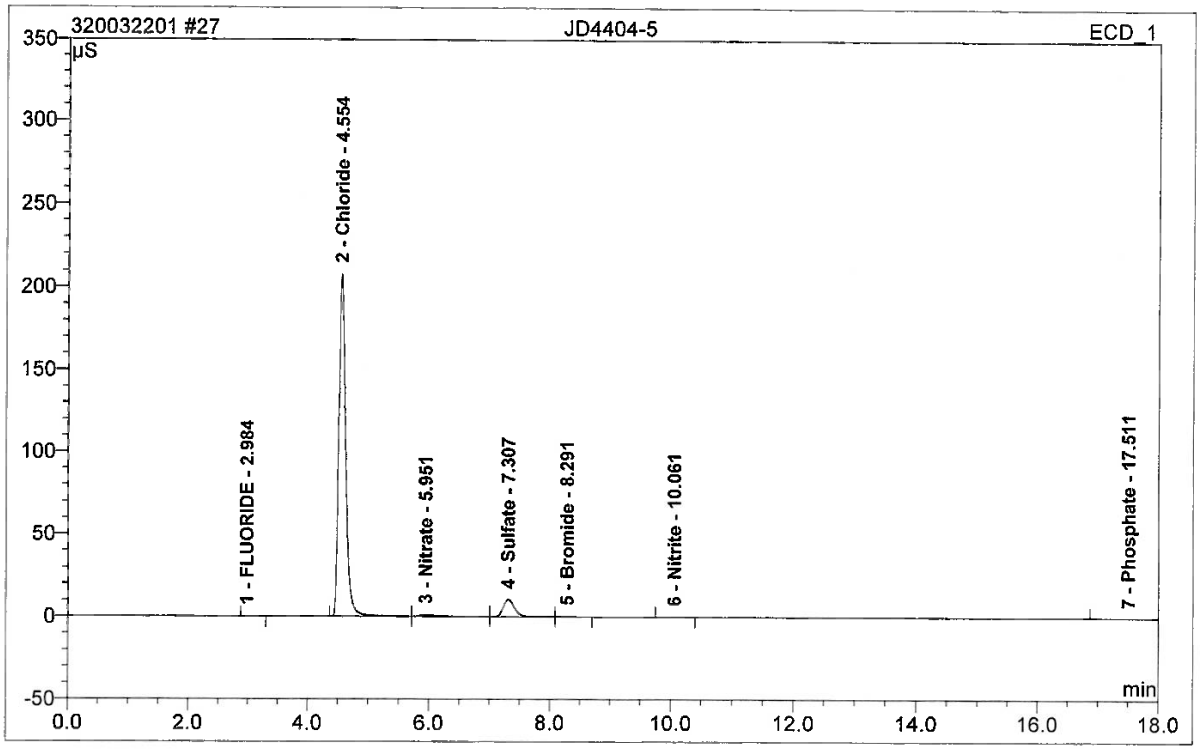
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.248	0.023	0.08	0.113	BM
2	3.12	n.a.	0.086	0.009	0.03	n.a.	MB
3	4.57	Chloride	202.588	26.699	90.05	138.685	BM
4	5.96	Nitrate	1.104	0.525	1.77	1.133	M
5	7.31	Sulfate	10.360	2.311	7.79	16.119	M
6	8.30	Bromide	0.190	0.055	0.18	0.887	MB
7	10.07	Nitrite	0.059	0.015	0.05	0.091	BMB
8	11.40	n.a.	0.011	0.002	0.01	n.a.	BMB
9	14.90	n.a.	0.004	0.001	0.00	n.a.	BMB
10	17.52	Phosphate	0.014	0.010	0.03	-0.036	BMB
Total:			214.663	29.649	100.00	156.992	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

27 JD4404-5

Sample Name:	**JD4404-5**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 13:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



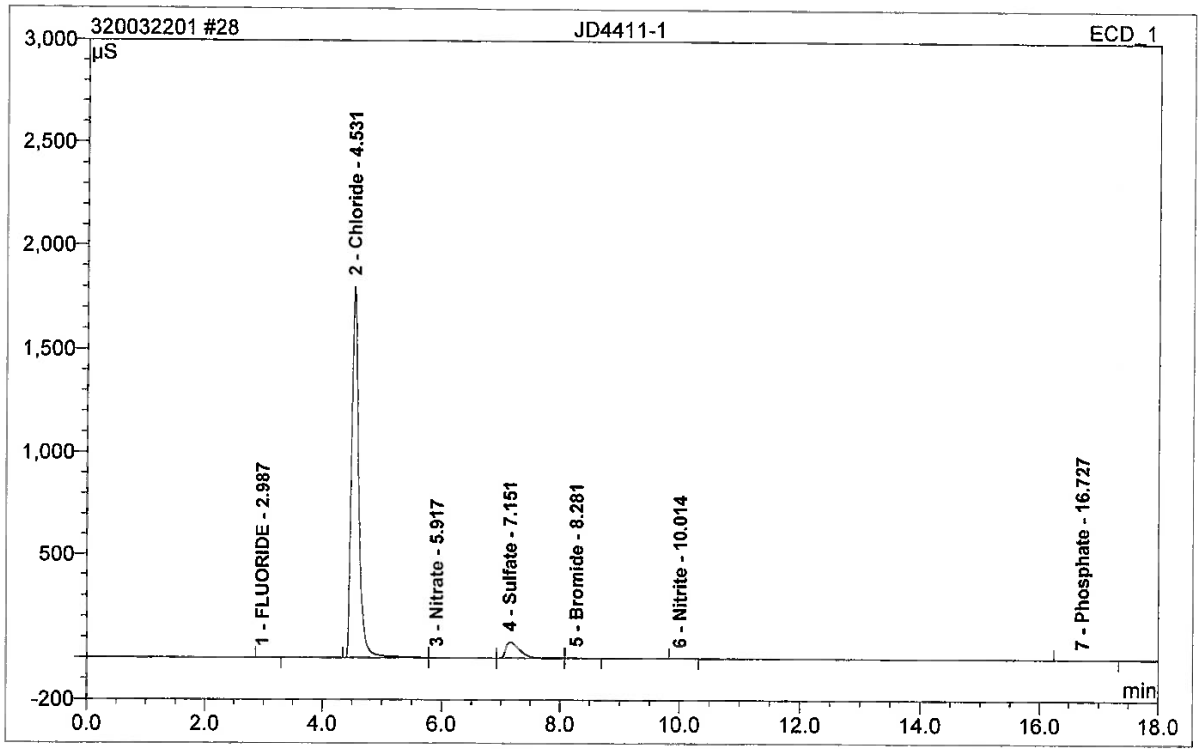
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.98	FLUORIDE	0.247	0.030	0.10	0.136	BMB
2	4.55	Chloride	207.820	27.507	90.22	142.879	BM
3	5.95	Nitrate	1.123	0.533	1.75	1.151	M
4	7.31	Sulfate	10.426	2.347	7.70	16.371	M
5	8.29	Bromide	0.198	0.058	0.19	0.936	MB
6	10.06	Nitrite	0.032	0.008	0.03	0.075	BMB
7	17.51	Phosphate	0.010	0.007	0.02	-0.046	BMB
Total:			219.856	30.490	100.00	161.502	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

28 JD4411-1

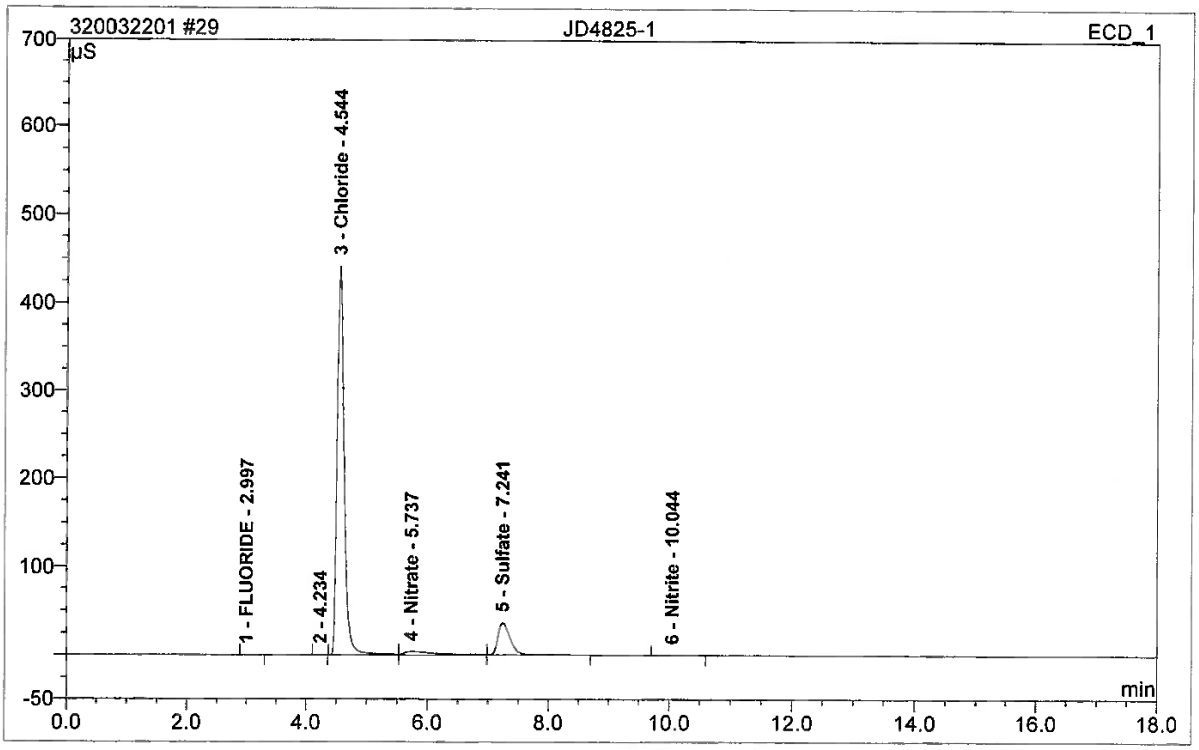
Sample Name:	**JD4411-1**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 14:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	1.773	0.202	0.07	0.694	BMB
2	4.53	Chloride	1799.939	252.922	91.51	1313.138	BM
3	5.92	Nitrate	2.479	1.647	0.60	3.510	M
4	7.15	Sulfate	77.783	21.146	7.65	147.261	M
5	8.28	Bromide	1.541	0.449	0.16	5.870	MB
6	10.01	Nitrite	0.027	0.007	0.00	0.073	BMB
7	16.73	Phosphate	0.014	0.007	0.00	-0.048	BMB
Total:			1883.555	276.379	100.00	1470.498	

29 JD4825-1

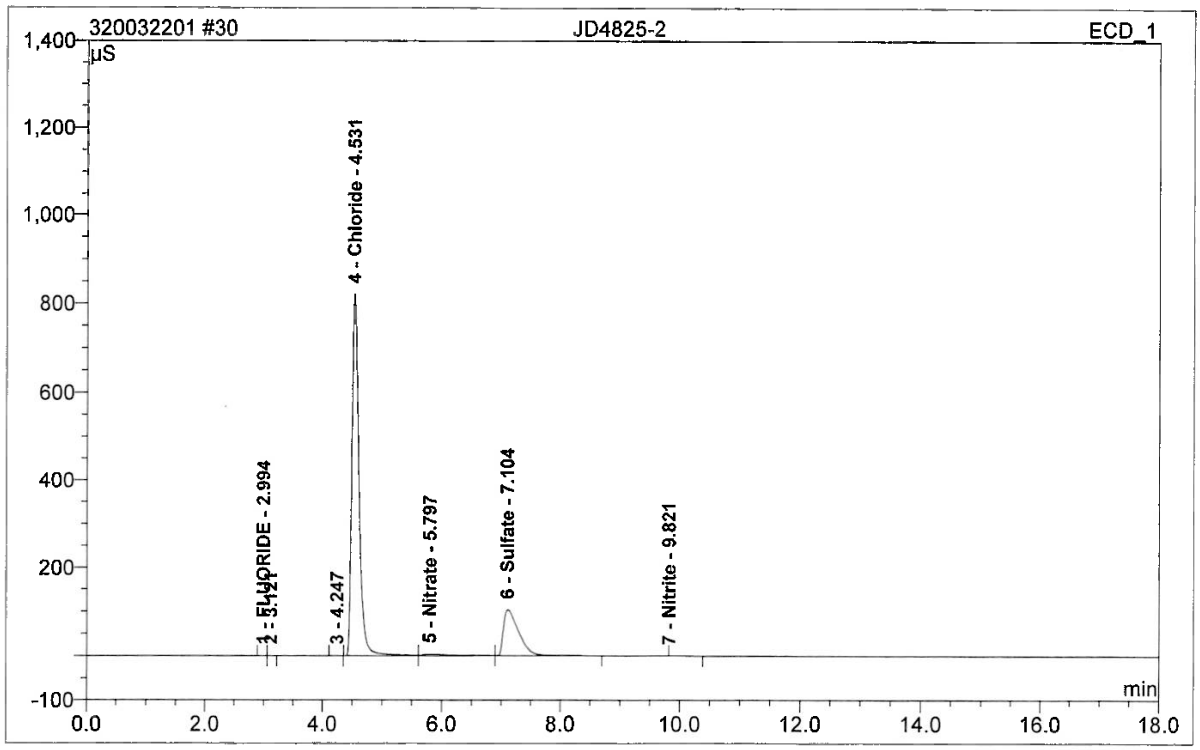
Sample Name:	**JD4825-1**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 14:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.201	0.028	0.04	0.129	BMB
2	4.23	n.a.	0.010	0.001	0.00	n.a.	BMB
3	4.54	Chloride	441.589	59.290	84.10	307.881	BM
4	5.74	Nitrate	3.684	2.394	3.40	5.092	M
5	7.24	Sulfate	36.238	8.718	12.37	60.729	MB
6	10.04	Nitrite	0.260	0.065	0.09	0.199	BMB
7	19.35	n.a.	0.004	0.002	0.00	n.a.	BMB
Total:			481.985	70.497	100.00	374.029	

30 JD4825-2

Sample Name:	**JD4825-2**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 15:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.067	0.006	0.00	0.059	BM
2	3.12	n.a.	0.040	0.004	0.00	n.a.	MB
3	4.25	n.a.	0.011	0.001	0.00	n.a.	BMB
4	4.53	Chloride	820.955	113.432	77.52	588.964	BM
5	5.80	Nitrate	3.287	1.996	1.36	4.249	M
6	7.10	Sulfate	103.929	30.877	21.10	215.017	MB
7	9.82	Nitrite	0.000	0.004	0.00	0.068	BMB
Total:			928.289	146.321	100.00	808.357	

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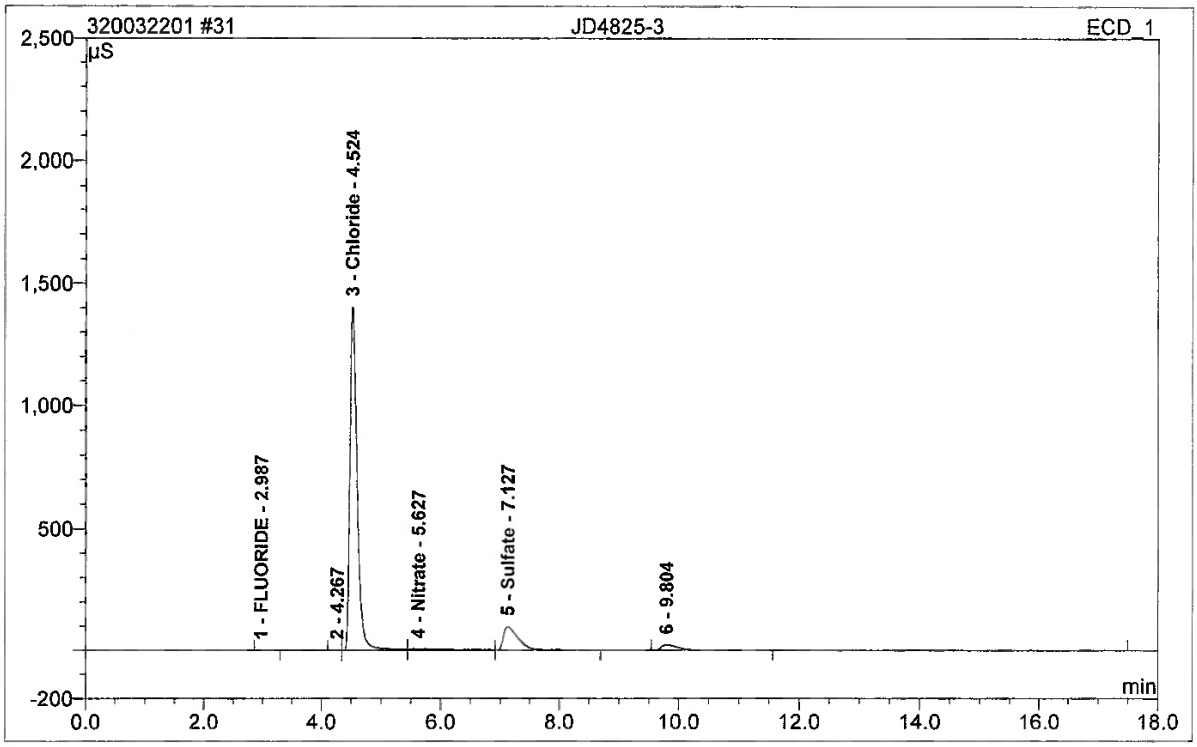
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

31 JD4825-3

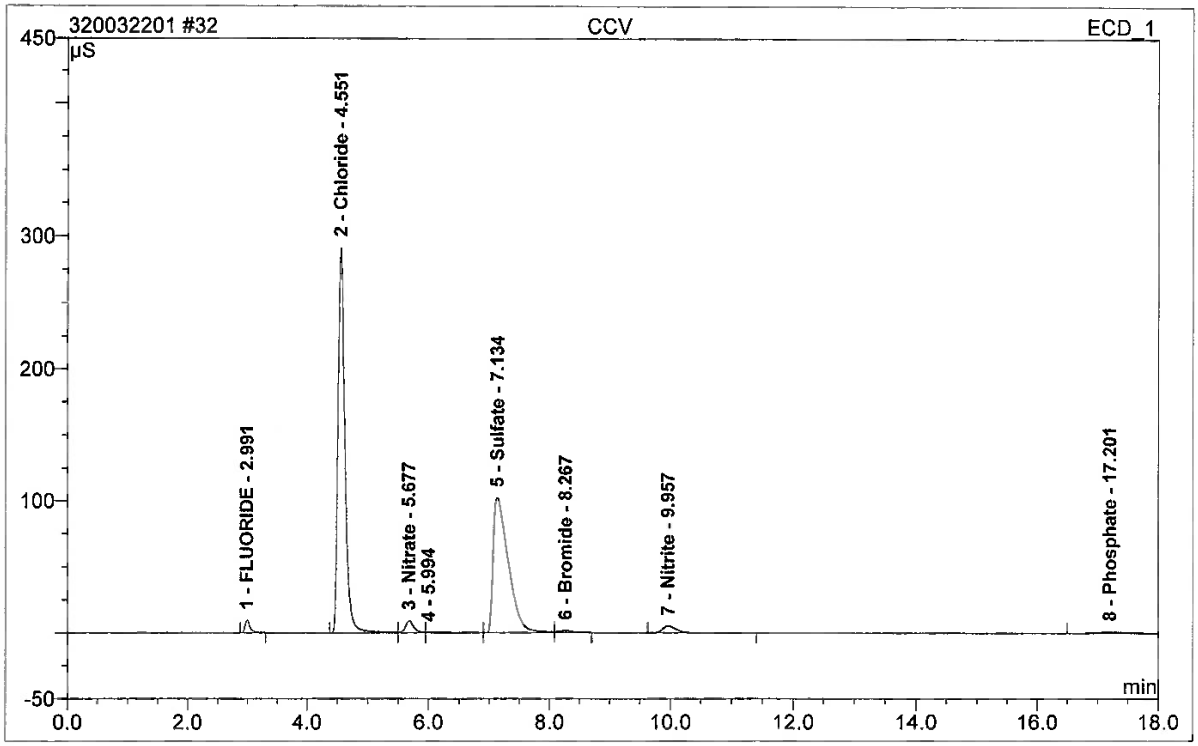
Sample Name:	**JD4825-3**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 15:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.219	0.029	0.01	0.133	BMB
2	4.27	n.a.	0.012	0.001	0.00	n.a.	BMB
3	4.52	Chloride	1402.266	195.584	83.40	1015.463	BM
4	5.63	Nitrate	5.603	4.201	1.79	8.919	M
5	7.13	Sulfate	96.939	28.065	11.97	195.438	MB
6	9.80	n.a.	21.887	6.627	2.83	n.a.	BMB
7	18.34	Phosphate	0.008	0.007	0.00	-0.047	BMB
Total:			1526.933	234.515	100.00	1219.907	

32 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 15:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

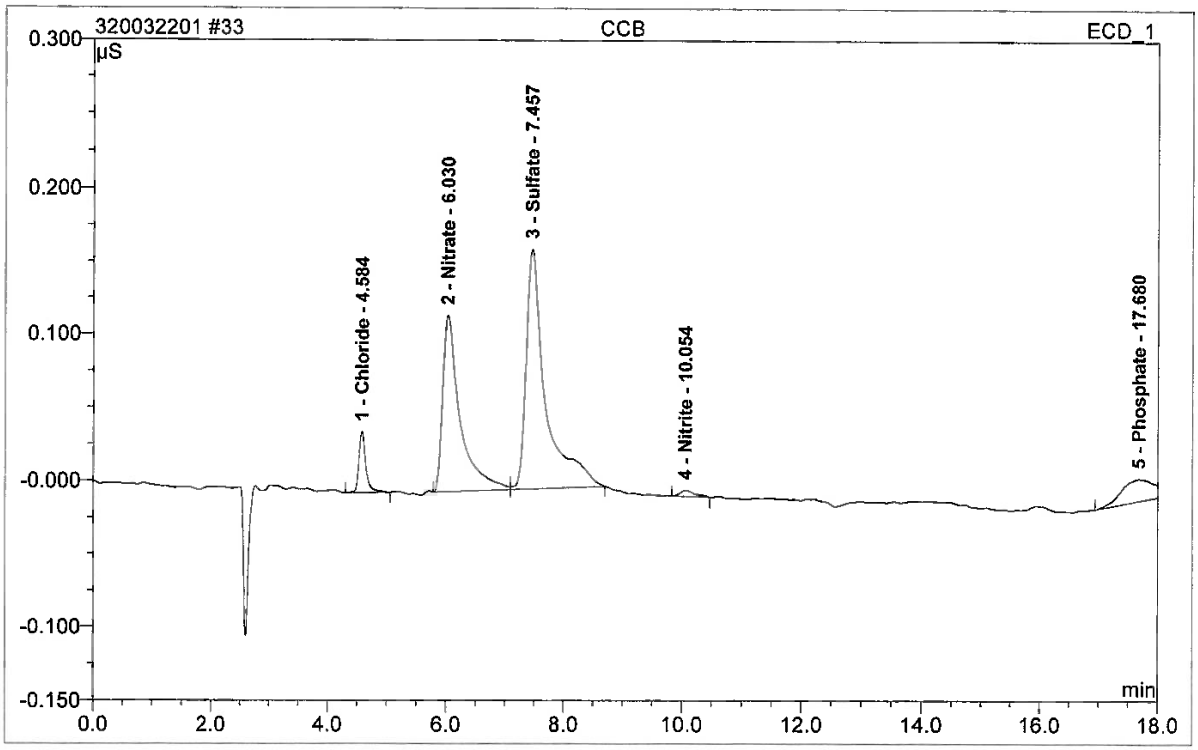


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	9.444	0.925	1.26	3.033	BMB
2	4.55	Chloride	291.172	38.714	52.69	201.061	BM
3	5.68	Nitrate	8.798	1.396	1.90	2.977	M
4	5.99	n.a.	0.468	0.183	0.25	n.a.	M
5	7.13	Sulfate	102.233	29.810	40.57	207.583	M
6	8.27	Bromide	1.435	0.382	0.52	5.021	MB
7	9.96	Nitrite	5.005	1.286	1.75	2.847	BMB
8	17.20	Phosphate	0.967	0.776	1.06	2.556	BMB
Total:			419.523	73.470	100.00	425.079	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032201

33 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 16:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



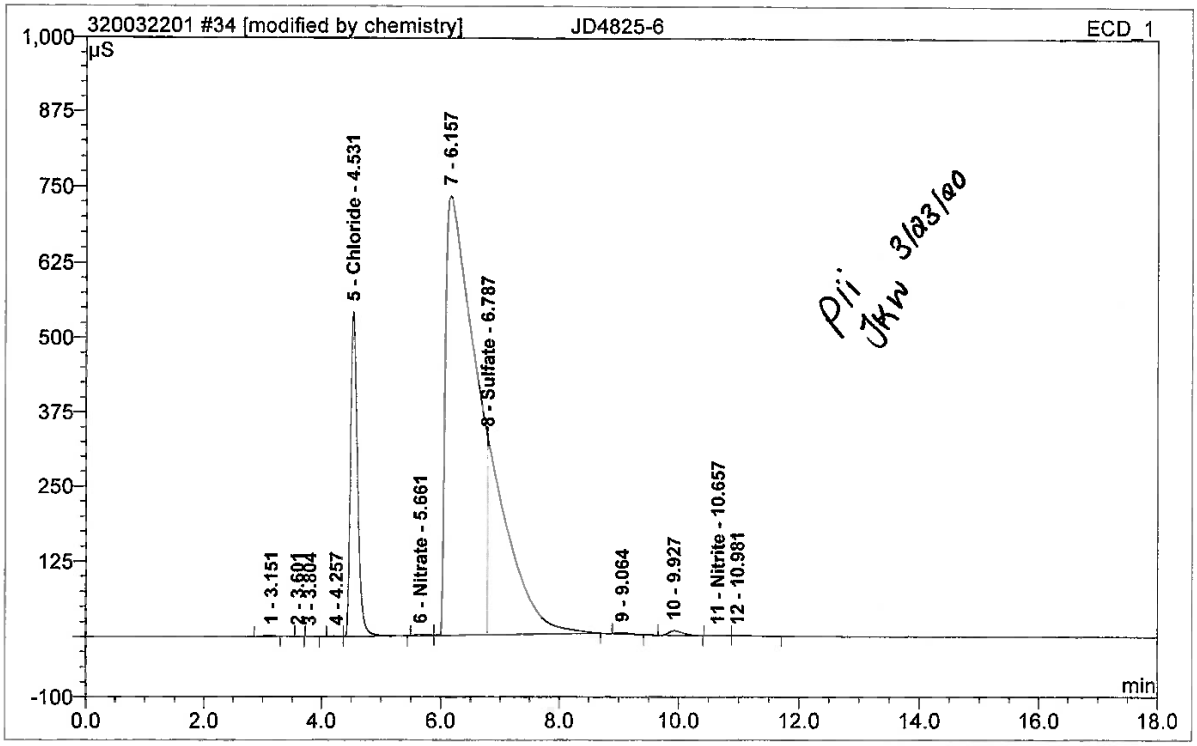
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.58	Chloride	0.041	0.006	4.61	0.102	BMB
2	6.03	Nitrate	0.120	0.041	33.82	0.108	BM
3	7.46	Sulfate	0.164	0.062	51.64	0.465	MB
4	10.05	Nitrite	0.004	0.001	1.01	0.061	BMB
5	17.68	Phosphate	0.015	0.011	8.92	-0.034	BMB
Total:			0.344	0.121	100.00	0.703	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

34 JD4825-6

Sample Name:	**JD4825-6**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 16:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	1.527	0.318	0.05	n.a.	BMB
2	3.60	n.a.	0.187	0.016	0.00	n.a.	BMB
3	3.80	n.a.	0.047	0.006	0.00	n.a.	BMB
4	4.26	n.a.	0.682	0.094	0.02	n.a.	BM
5	4.53	Chloride	542.271	73.717	11.79	382.783	MB
6	5.66	Nitrate	2.440	0.646	0.10	1.389	BM
7	6.16	n.a.	732.793	405.693	64.88	n.a.	M *
8	6.79	Sulfate	329.843	142.023	22.71	988.878	MB*
9	9.06	n.a.	1.813	0.454	0.07	n.a.	BMB
10	9.93	n.a.	7.676	2.008	0.32	n.a.	BMB
11	10.66	Nitrite	0.474	0.150	0.02	0.384	BM

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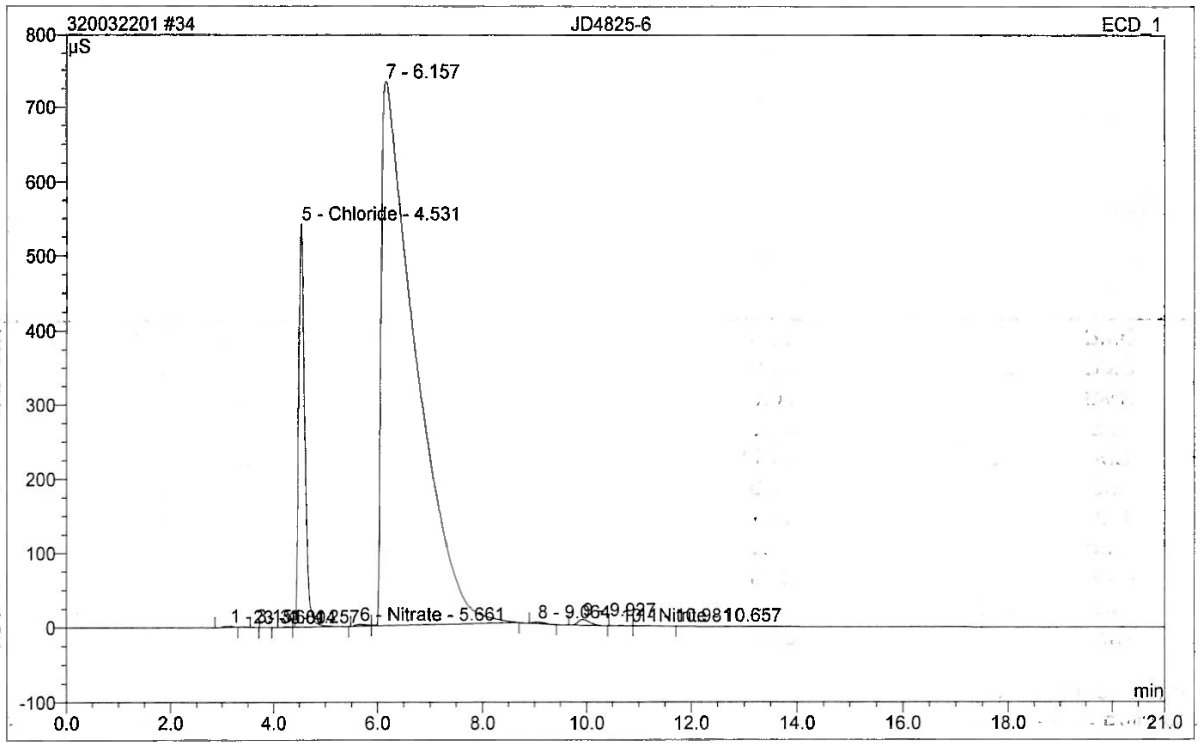
12	10.98	n.a.	0.493	0.211	0.03	n.a.	MB
Total:			1620.248	625.336	100.00	1373.434	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032201

3/23/2020 9:24 AM

34 JD4825-6

Sample Name:	**JD4825-6**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 16:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	1.527	0.318	0.05	n.a.	BMB
2	3.60	n.a.	0.187	0.016	0.00	n.a.	BMB
3	3.80	n.a.	0.047	0.006	0.00	n.a.	BMB
4	4.26	n.a.	0.682	0.094	0.02	n.a.	BM
5	4.53	Chloride	542.271	73.717	11.79	382.783	MB
6	5.66	Nitrate	2.440	0.646	0.10	1.389	BM
7	6.16	n.a.	732.793	547.716	87.59	n.a.	MB
8	9.06	n.a.	1.813	0.454	0.07	n.a.	BMB
9	9.93	n.a.	7.676	2.008	0.32	n.a.	BMB
10	10.66	Nitrite	0.474	0.150	0.02	0.384	BM
11	10.98	n.a.	0.493	0.211	0.03	n.a.	MB

anions/Integration

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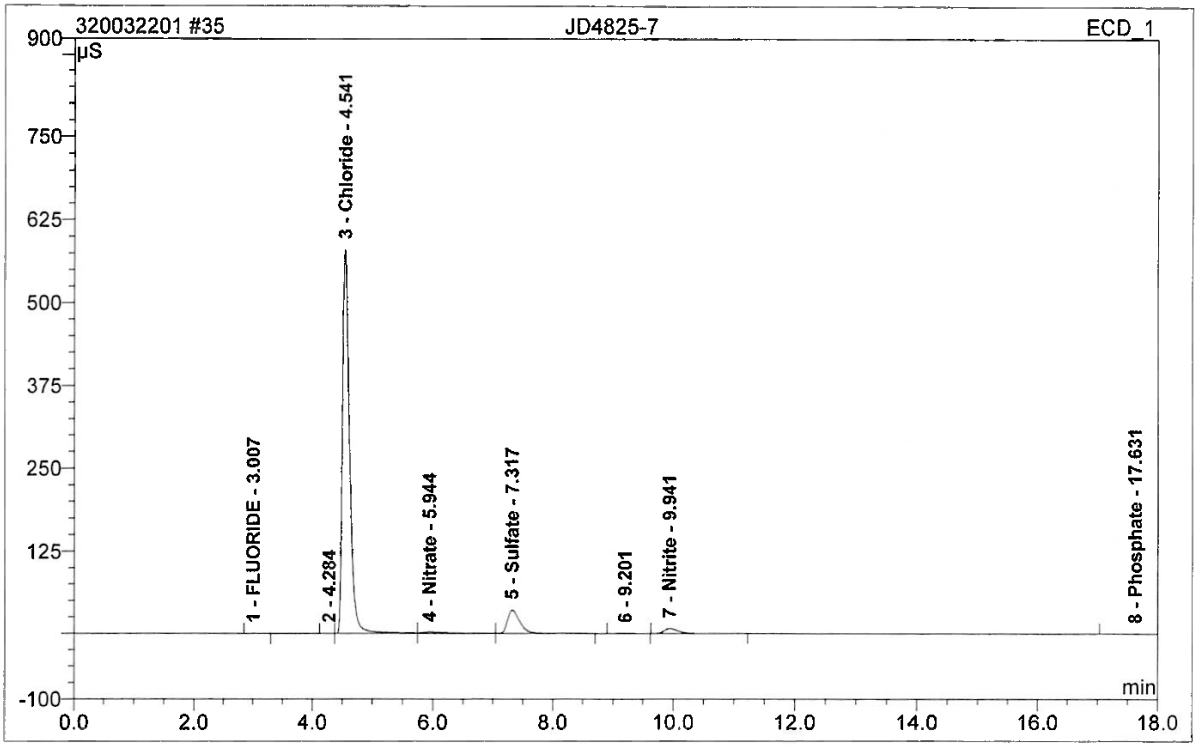
Total:		1290.405	625.336	100.00	384.556

35 JD4825-7

Sample Name:	**JD4825-7**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 17:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.01	FLUORIDE	0.333	0.051	0.06	0.206	BMB
2	4.28	n.a.	0.032	0.005	0.01	n.a.	BM
3	4.54	Chloride	579.797	79.800	87.28	414.362	M
4	5.94	Nitrate	2.051	1.143	1.25	2.443	M
5	7.32	Sulfate	35.313	8.439	9.23	58.787	MB
6	9.20	n.a.	0.241	0.064	0.07	n.a.	BMB
7	9.94	Nitrite	7.345	1.911	2.09	4.203	BMB
8	17.63	Phosphate	0.023	0.019	0.02	-0.007	BMB
Total:			625.134	91.431	100.00	479.993	

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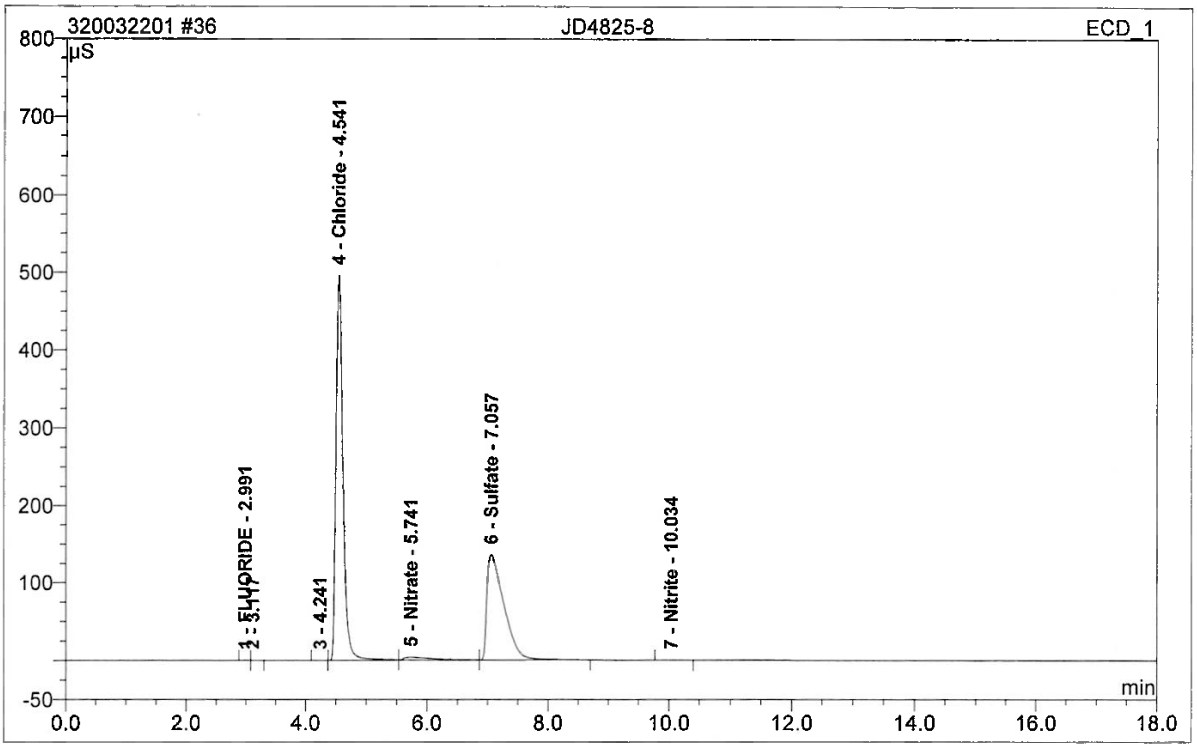
36 JD4825-8

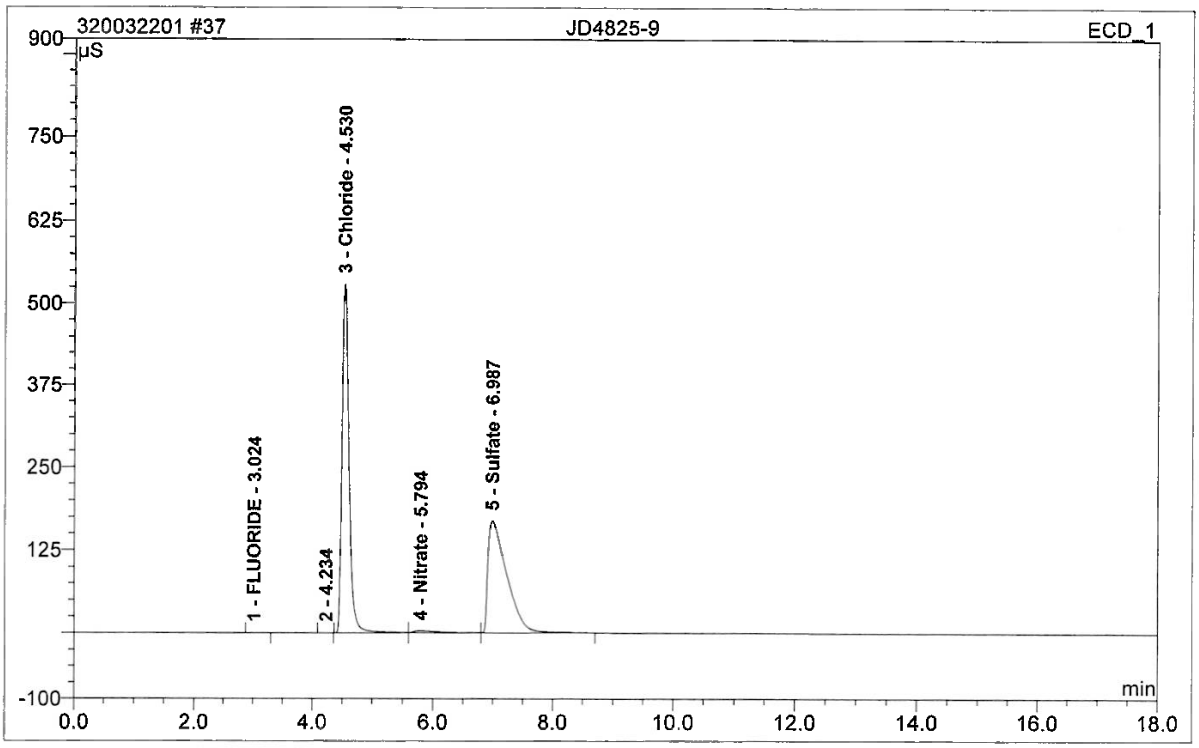
Sample Name:	**JD4825-8**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 17:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.253	0.025	0.02	0.119	BM
2	3.12	n.a.	0.110	0.011	0.01	n.a.	MB
3	4.24	n.a.	0.033	0.004	0.00	n.a.	BMB
4	4.54	Chloride	495.609	66.846	58.76	347.108	BM
5	5.74	Nitrate	3.771	2.276	2.00	4.841	M
6	7.06	Sulfate	135.974	44.582	39.19	310.437	MB
7	10.03	Nitrite	0.100	0.024	0.02	0.111	BMB
Total:			635.849	113.767	100.00	662.616	

37 JD4825-9

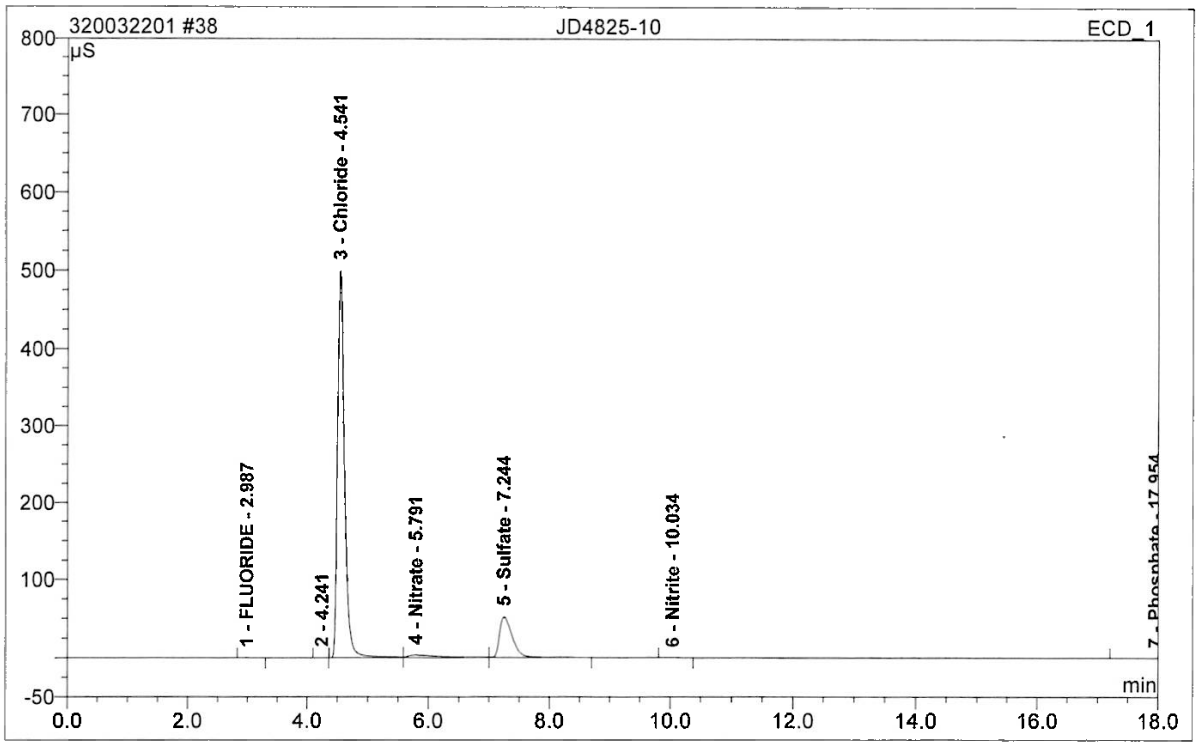
Sample Name:	**JD4825-9**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 17:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.02	FLUORIDE	0.115	0.025	0.02	0.119	BMB
2	4.23	n.a.	0.045	0.006	0.00	n.a.	BMB
3	4.53	Chloride	529.245	71.672	53.19	372.165	BM
4	5.79	Nitrate	3.063	1.595	1.18	3.399	M
5	6.99	Sulfate	168.242	61.443	45.60	427.830	MB
Total:			700.710	134.739	100.00	803.513	

38 JD4825-10

Sample Name:	**JD4825-10**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 18:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.248	0.031	0.04	0.139	BMB
2	4.24	n.a.	0.010	0.001	0.00	n.a.	BMB
3	4.54	Chloride	499.348	67.770	81.74	351.908	BM
4	5.79	Nitrate	3.392	2.099	2.53	4.468	M
5	7.24	Sulfate	51.936	12.998	15.68	90.527	MB
6	10.03	Nitrite	0.030	0.007	0.01	0.074	BMB
7	17.95	Phosphate	0.009	0.006	0.01	-0.049	BMB
Total:			554.974	82.913	100.00	447.067	

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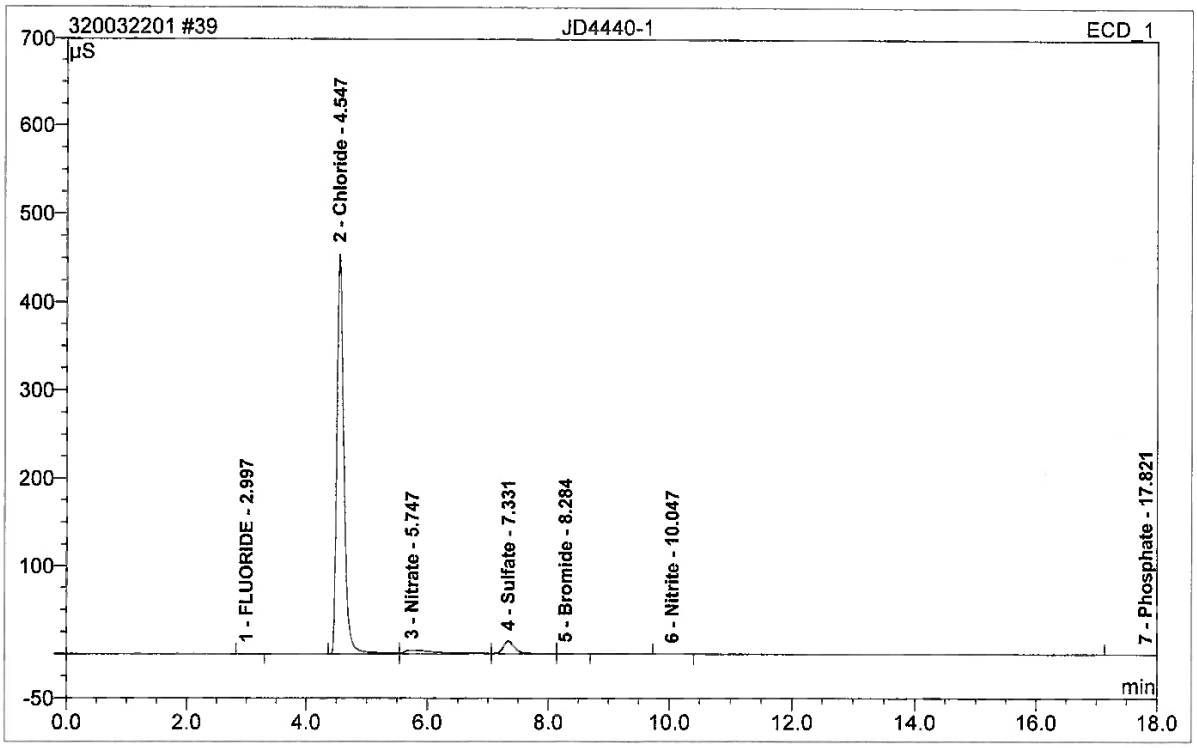
Version 6.80 SR9a Build 2680 (163077)

39 JD4440-1

Sample Name:	**JD4440-1**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 18:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



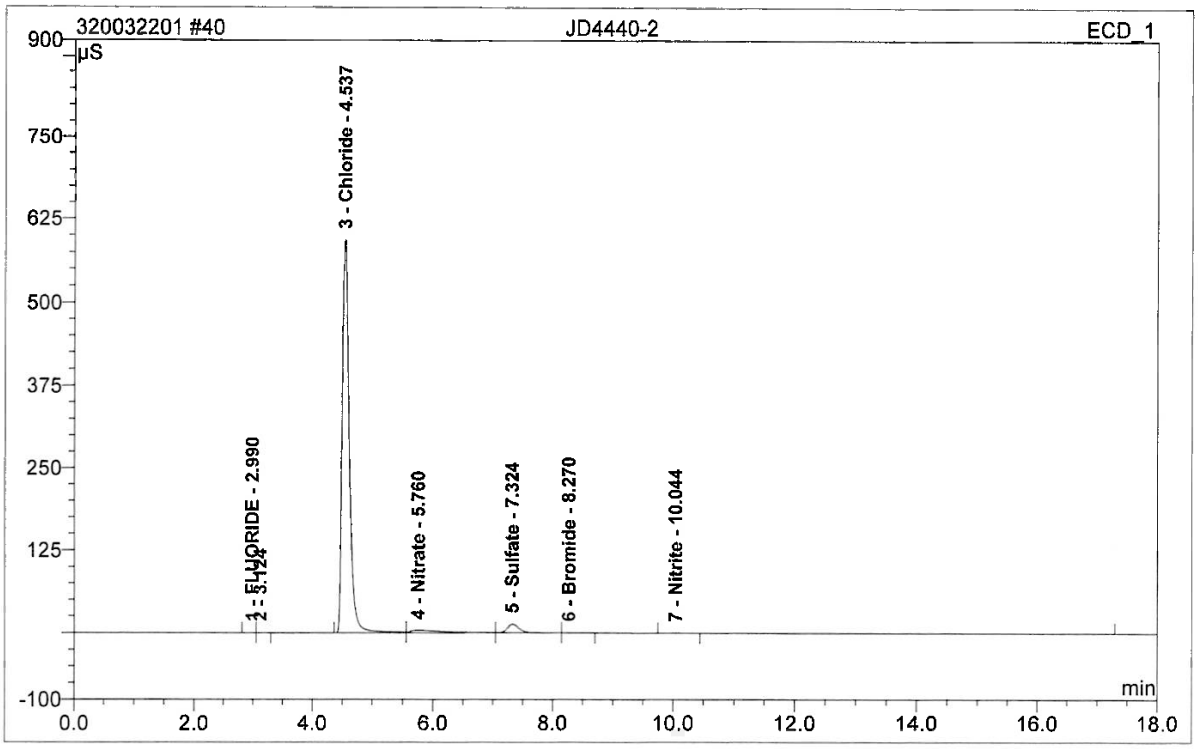
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.182	0.030	0.04	0.137	BMB
2	4.55	Chloride	454.839	61.191	90.93	317.754	BM
3	5.75	Nitrate	3.867	2.619	3.89	5.568	M
4	7.33	Sulfate	14.061	3.353	4.98	23.374	M
5	8.28	Bromide	0.242	0.074	0.11	1.127	MB
6	10.05	Nitrite	0.064	0.016	0.02	0.093	BMB
7	17.82	Phosphate	0.017	0.015	0.02	-0.019	BMB
Total:			473.271	67.298	100.00	348.034	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

40 JD4440-2

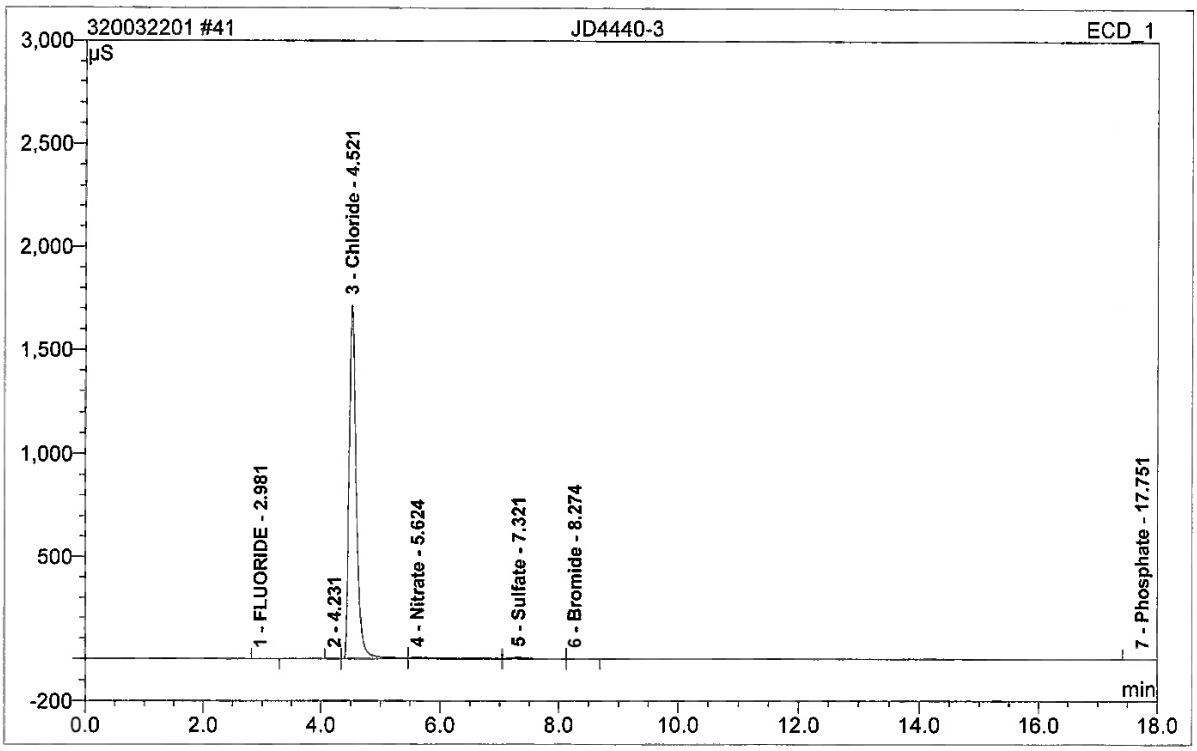
Sample Name:	**JD4440-2**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 19:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.096	0.009	0.01	0.067	BM
2	3.12	n.a.	0.100	0.011	0.01	n.a.	MB
3	4.54	Chloride	592.765	80.968	93.31	420.427	BM
4	5.76	Nitrate	3.791	2.567	2.96	5.458	M
5	7.32	Sulfate	12.814	3.102	3.57	21.629	M
6	8.27	Bromide	0.227	0.071	0.08	1.090	MB
7	10.04	Nitrite	0.093	0.023	0.03	0.108	BMB
8	18.05	Phosphate	0.024	0.027	0.03	0.019	BMB
Total:			609.909	86.777	100.00	448.798	

41 JD4440-3

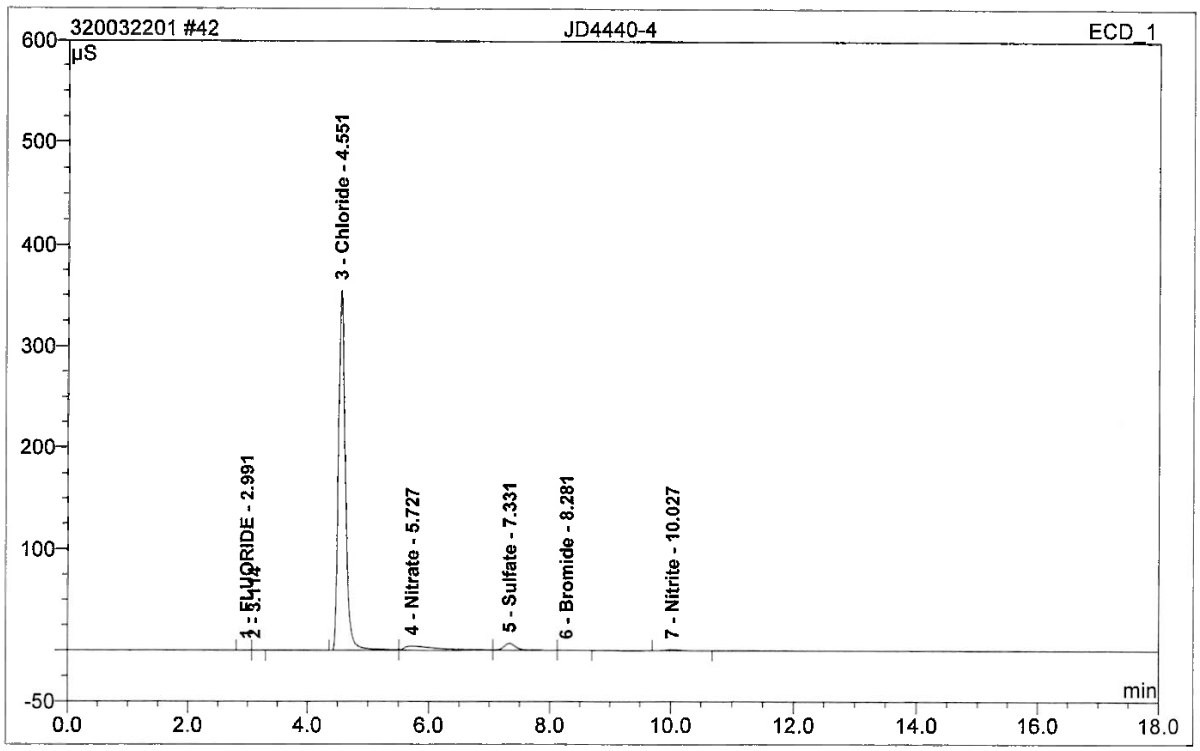
Sample Name:	**JD4440-3**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 19:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.98	FLUORIDE	0.315	0.047	0.02	0.190	BMB
2	4.23	n.a.	0.077	0.011	0.00	n.a.	BM
3	4.52	Chloride	1712.350	239.864	97.27	1245.346	M
4	5.62	Nitrate	5.952	4.558	1.85	9.675	M
5	7.32	Sulfate	6.778	2.008	0.81	14.011	M
6	8.27	Bromide	0.367	0.116	0.05	1.669	MB
7	17.75	Phosphate	0.004	0.002	0.00	-0.065	BMB
Total:			1725.844	246.605	100.00	1270.827	

42 JD4440-4

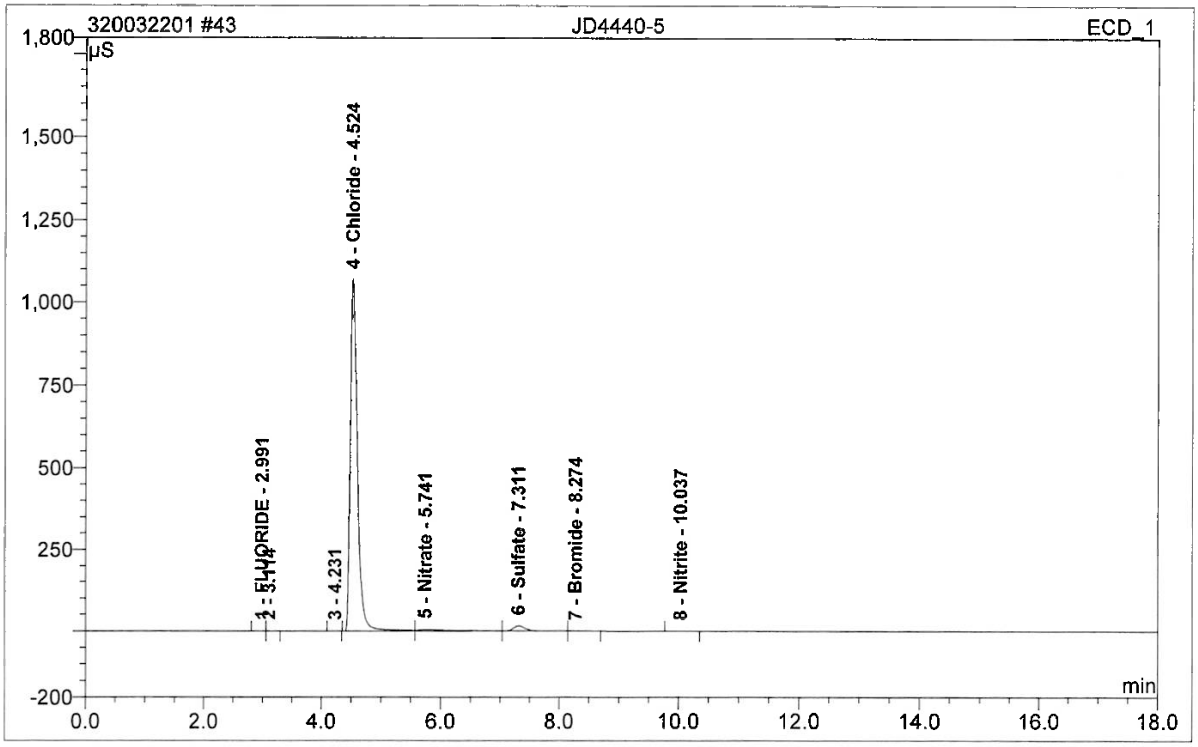
Sample Name:	**JD4440-4**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 19:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.105	0.011	0.02	0.074	BM
2	3.11	n.a.	0.063	0.007	0.01	n.a.	MB
3	4.55	Chloride	354.565	47.276	90.82	245.511	BM
4	5.73	Nitrate	3.969	2.751	5.29	5.848	M
5	7.33	Sulfate	6.842	1.730	3.32	12.075	M
6	8.28	Bromide	0.209	0.064	0.12	1.013	MB
7	10.03	Nitrite	0.882	0.217	0.42	0.530	BMB
Total:			366.635	52.056	100.00	265.050	

43 JD4440-5

Sample Name:	**JD4440-5**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 20:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

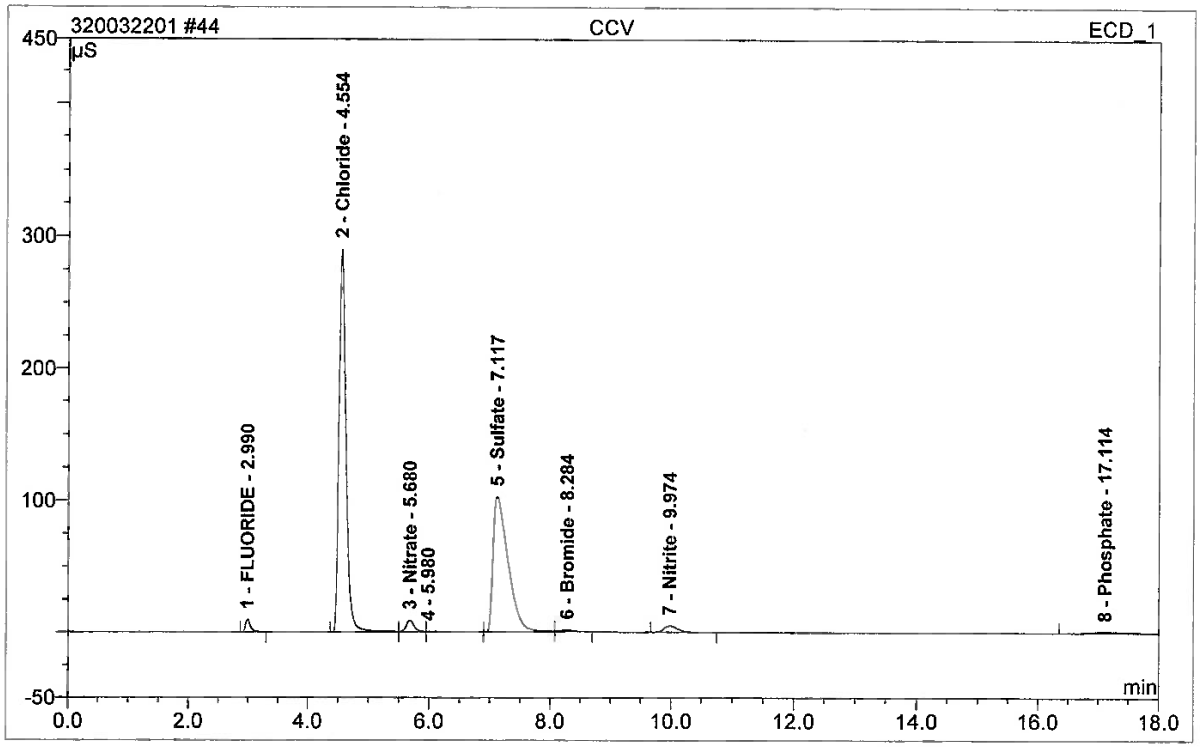


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	0.312	0.031	0.02	0.140	BM
2	3.11	n.a.	0.223	0.025	0.02	n.a.	MB
3	4.23	n.a.	0.010	0.001	0.00	n.a.	BMB
4	4.52	Chloride	1068.621	148.360	95.41	770.298	BM
5	5.74	Nitrate	4.295	3.023	1.94	6.425	M
6	7.31	Sulfate	16.033	3.947	2.54	27.514	M
7	8.27	Bromide	0.303	0.095	0.06	1.403	MB
8	10.04	Nitrite	0.048	0.012	0.01	0.084	BMB
Total:			1089.844	155.496	100.00	805.864	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:320032201

44 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 20:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	FLUORIDE	9.433	0.930	1.26	3.050	BMB
2	4.55	Chloride	290.300	38.717	52.58	201.077	BM
3	5.68	Nitrate	8.808	1.414	1.92	3.017	M
4	5.98	n.a.	0.538	0.195	0.26	n.a.	MB
5	7.12	Sulfate	102.769	29.903	40.61	208.233	BM
6	8.28	Bromide	1.367	0.360	0.49	4.751	MB
7	9.97	Nitrite	4.991	1.273	1.73	2.819	BMB
8	17.11	Phosphate	1.023	0.846	1.15	2.794	BMB
Total:			419.230	73.639	100.00	425.740	

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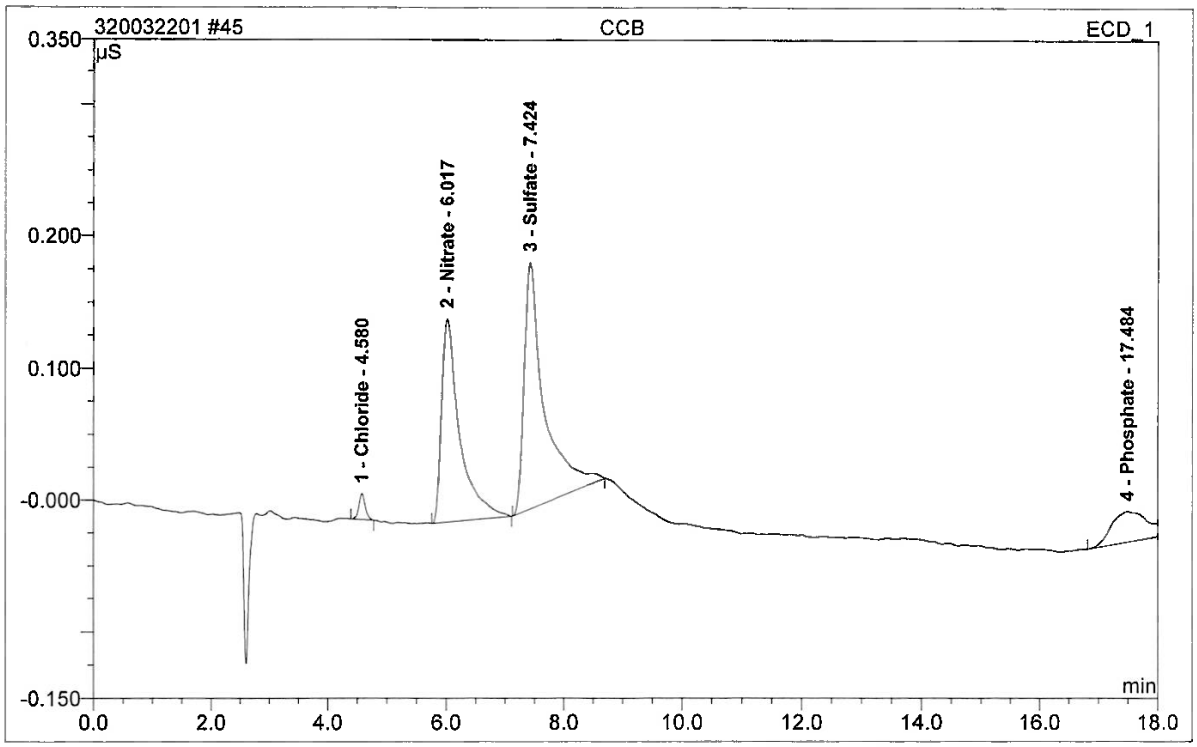
Version 6.80 SR9a Build 2680 (163077)

45 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/22/2020 21:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.58	Chloride	0.019	0.002	1.66	0.086	BMB
2	6.02	Nitrate	0.154	0.055	36.68	0.138	BMB
3	7.42	Sulfate	0.186	0.074	49.69	0.548	BMB
4	17.48	Phosphate	0.023	0.018	11.97	-0.010	BMB
Total:			0.383	0.150	100.00	0.762	

SGS

Test: Iron, Ferrous
Product: FE2
Method: SM3500FE D-11 ◉ **Units:** mg/l

Analyst: JAREDO
GN Batch ID: GN6591
GP Batch ID: N/A
Date: 3/24/2020
Instrument ID: M

Original Calibration Information **Calibration Date:** 3/3/2020

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.100	0.200	0.500	1.000	2.000	4.000	6.000
Absorbance:	0.000	0.017	0.025	0.059	0.116	0.225	0.438	0.656
Actual Value:	-0.041	0.115	0.189	0.501	1.026	2.029	3.988	5.994

Continuing Calibration Check Standards Data: 3/24/2020

	Blank	Std 1	Std 6
Known:	0.000	0.100	6.000
Absorbance:	0.000	0.016	0.661
		3/24/2020	
Recovery:	0.0%	105.9%	100.7%
Actual Value:	-0.041	0.106	6.040

Correlation Coeff. = 0.99994
Slope = 9.19938
Intercept = -0.04128

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	RL (Normal RL = 0.200 mg/l)	Units	Factor	pH Adjust
	ICV	12:23	50	50	1	0.115	NA	1.017	1.017	NA	mg/l	NA	NA
	CCV		50	50	1	0.114	NA	1.007	1.007	NA	mg/l	NA	NA
	GN6591-MB1		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA
	GN6591-B1		50	50	1	0.341	0.000	3.096	3.096	0.200	mg/l	1	NA
2	GN6591-MSD1		50	50	1	0.340	0.002	3.068	3.068	0.200	mg/l	1	NA
2	GN6591-S1		50	50	1	0.340	0.002	3.068	3.068	0.200	mg/l	1	NA
2	JD4342-1		50	50	1	0.003	0.002	-0.032	-0.032	0.200	mg/l	1	NA
2	JD4342-2		50	50	1	0.008	0.013	-0.041	-0.041	0.200	mg/l	1	NA
2	JD4342-3		50	50	1	0.037	0.040	-0.041	-0.041	0.200	mg/l	1	NA
2	JD4342-7		50	50	1	0.016	0.013	-0.014	-0.014	0.200	mg/l	1	NA
2	JD4440-1		50	50	1	0.025	0.031	-0.041	-0.041	0.200	mg/l	1	NA
	JD4440-2		50	50	1	0.004	0.008	-0.041	-0.041	0.200	mg/l	1	NA
	CCV		50	50	1	0.661	NA	6.040	6.040	NA	mg/l	NA	NA
2	JD4440-3CONF		50	50	1	0.902	0.028	7.999	7.999	0.200	mg/l	1	NA
2	JD4440-4		50	50	1	0.018	0.018	-0.041	-0.041	0.200	mg/l	1	NA
2	JD4440-5		50	50	1	0.046	0.073	-0.041	-0.041	0.200	mg/l	1	NA
4	JD4478-2		50	50	1	0.005	0.005	-0.041	-0.041	0.200	mg/l	1	NA
4	JD4478-3		50	50	1	0.017	0.009	0.032	0.032	0.200	mg/l	1	NA
4	JD4478-4		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA
4	JD4478-5		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA
4	JD4565-2		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA
4	JD4565-3		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA
4	JD4565-4		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA

QC JD4342-1
BS/MS → 1.5ml of 200ppm → 100ml DI/ sample

JD4440-3 (1:4) 25ml → 100ml

Analyst: Jared Date: 3/24/20 QC Reviewer: [illegible] Date: 3/24/20

SGS

Test: Iron, Ferrous
Product: FE2
Method: SM3500FE D-11 ◉ **Units:** mg/l

Analyst: JAREDO
GN Batch ID: GN6591
GP Batch ID: N/A
Date: 3/24/2020
Instrument ID: M

	CCV		50	50	1	0.114	NA	1.007	1.007 ✓	NA	mg/l	NA	NA
4	JD4565-5		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA
4	JD4565-6		50	50	1	0.114	0.101	0.078	0.078	0.200	mg/l	1	NA
4	JD4565-7		50	50	1	0.000	0.000	-0.041	-0.041	0.200	mg/l	1	NA
	JD4440-3		50	50	4	0.241	0.005	2.130	8.519	0.800	mg/l	1	NA
													NA
													NA
													NA
													NA
													NA
													NA
	CCV	13:50	50	50	1	0.661	0.000	6.040	6.040 ✓	NA	mg/l	NA	NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
	CCV						NA			NA		NA	NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
	CCV						NA			NA		NA	NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA
													NA

Analyst: JO Date: 3/24/20 QC Reviewer: _____ Date: _____

SGS

Test: **IRON, FERROUS**
Product: **FE2**
Method: **SM18 3500FE B-2011 (aqueous)** Units: mg/l

Analyst: JO
GNBatch ID: GN6591
GPBatch ID: NA
Date: 3/24/20

Preparation Batch QC Summary Units = _____

Method Blank ID: MB1 Date: 3/24/20 Result: <0.2 DL: 0.2 <DL: Yes
Spike Blank ID: B1 Date: " Result: 3.096 Spike: 3.0 %Rec.: 103.2
MS Blank ID: S1 Date: 3/24/20 Results: 3.07 Samp. Result: <0.2 Spike: 3.0 %Rec.: 102.3
MS Duplicate ID: MSD1 Date: " Results: 3.07 Samp. Result: <0.2 Spike: 3.0 %Rec.: 102.3
Duplicate ID: _____ Date: " Dup. Result: _____ Samp. Result: _____ %RPD.: _____
Matrix spike Duplicate Result: 3.07 Matrix spike Result: 3.07 %RPD: 0

Analysis Batch QC Summary Units = _____

ICV (Ext): 3/24/20 Result: 1.02 TV: 1.0 %Rec: 102

CCV: _____ Result: 1.01 TV: 1.0 %Rec.: 101
CCVA: _____ Result: 6.04 TV: 6.0 %Rec.: 100.7
CCV: _____ Result: 1.01 TV: 1.0 %Rec.: 101
CCVA: _____ Result: 6.04 TV: 6.0 %Rec.: 100.7
CCV: _____ Result: _____ TV: _____ %Rec.: _____
CCVA: _____ Result: _____ TV: _____ %Rec.: _____

CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____

Reagent Reference Numbers:

See attached

Analyst: [signature] Date: 3/24/20

Comments: _____

Form: GN032-01
Rev. Date:9/4/09

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13

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: Fe2

GN or GP Number: GN6591

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume or weight used with units	Balance or Autopipet ID (*)	Additional Reagents	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
10.00 mg/l STD	GNE3-60518-FE2	200 mg/L	5.00 mL	A		DI water	100mls	10	03/25/20	JO	03/24/20
		200 mg/L	5.00 Ml	A		DI water	100mls	10	03/25/20	JO	03/24/20
10.00 mg/l ICV	GNE3-60517-FE2										

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Balance or Autopipet ID (*)	Additional Reagents	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date		Date
BLANK		0 mg/l	0.00	A	2.00 ml of concentrated HCL and 1.00 ml of hydroxylamine hydrochloride added to each standard.	DI water	100 ml	0.00	03/25/20	JO	03/24/20
0.10 mg/l	GNE3-60518-FE2	10 mg/l	1.00	A		DI water	100 ml	0.10	03/25/20	JO	03/24/20
0.20 mg/l	GNE3-60518-FE2	10 mg/l	2.00	A		DI water	100 ml	0.20			
0.50 mg/l		10 mg/l	5.00	A		DI water	100 ml	0.50			
1.00 mg/l		10 mg/l	10.00	A		DI water	100 ml	1.00			
2.00 mg/l		200 mg/l	1.00	A		DI water	100 ml	2.00			
4.00 mg/l		200 mg/l	2.00	A		DI water	100 ml	4.00			
6.00 mg/l	GNE3-60518-FE2	200 mg/l	3.00	A		DI water	100 ml	6.00	03/25/20	JO	03/24/20
		10 mg/l	10.00	A		DI water	100 ml	1.00	03/25/20	JO	03/24/20
ICV	GNE3-60517-FE2										
CCV	GNE3-60518-FE2	10 mg/l	10.00	A		DI water	100 ml	1.00	03/25/20	JO	03/24/20
CCVA	GNE3-60518-FE2	200 mg/l	3			DI water	100 ml	6.00	03/25/20	JO	03/24/20

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

SGS

GN6591

Reagent Information Log
Test Name: FERROUS IRON (FE2)

Reagent	Reagent # or Manufacturer/Lot
PHENANTHROLINE REAGENT	GNE1-60006-FE2 XP 7/4/2020
AMMONIUM ACETATE BUFFER	GNE1-60005-FE2 XP 7/4/2020
FE2 STOCK(200mg/L)	GNE3-60518-FE2 XP 5/18/2020
ICV(200mg/L)	GNE3-60517-FERROUS IRON XP 5/18/2020

All standards and stocks were made as described in the SOP for this method (circle one): (Y) or N
If no (N), see attached page for standards prep.

Form: GN087-01
Rev. Date:3/24/2020

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E00325W1.TXT
Analyst: CD

Date Analyzed: 03/25/20
Run ID: GN6620

Methods: SM5310 B-11

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: CZO Date 3/26/20

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 3/26/20

C:\TOC-L\Data\e00325w1.toc.tlx

	Type	Sample Nam	Sample ID	Origin	Manual Diluti	Result	Comment	Status
1	Unknown	WASHCONF		TOCAQ.met	1.000	NPOC:0.4045mg/		Completed
2	Unknown	CRI		TOCAQ.met	1.000	NPOC:1.251mg/L		Completed
3	Unknown	HSTD		TOCAQ.met	1.000	NPOC:49.25mg/L		Completed
4	Unknown	ICV		TOCAQ.met	1.000	NPOC:19.86mg/L		Completed
5	Unknown	ICB		TOCAQ.met	1.000	NPOC:0.3945mg/		Completed
6	Unknown	CCV		TOCAQ.met	1.000	NPOC:24.32mg/L		Completed
7	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.4106mg/		Completed
8	Unknown	SPARGERC		TOCAQ.met	1.000	NPOC:0.3933mg/		Completed
9	Unknown	GP27307-M	TOC	TOCAQ.met	1.000	NPOC:0.2548mg/		Completed
10	Unknown	GP27307-B1		TOCAQ.met	1.000	NPOC:9.841mg/L		Completed
11	Unknown	JD4879-1	(A)	TOCAQ.met	1.000	NPOC:1.778mg/L		Completed
12	Unknown	GP27307-S1	JD4879-1	TOCAQ.met	1.000	NPOC:12.55mg/L		Completed
13	Unknown	GP27307-M	JD4879-1	TOCAQ.met	1.000	NPOC:12.48mg/L		Completed
14	Unknown	JD4879-2		TOCAQ.met	1.000	NPOC:3.233mg/L		Completed
15	Unknown	JD4879-3		TOCAQ.met	1.000	NPOC:1.894mg/L		Completed
16	Unknown	JD4879-4		TOCAQ.met	1.000	NPOC:0.2501mg/		Completed
17	Unknown	JD4879-5		TOCAQ.met	1.000	NPOC:3.866mg/L		Completed
18	Unknown	CCVA		TOCAQ.met	1.000	NPOC:49.77mg/L		Completed
19	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.4764mg/		Completed
20	Unknown	JD4879-6	(A)	TOCAQ.met	1.000	NPOC:1.450mg/L		Completed
21	Unknown	JD4522-1		TOCAQ.met	1.000	NPOC:1.064mg/L	average 3	Completed
22	Unknown	JD4549-1		TOCAQ.met	20.00	NPOC:389.1mg/L		Completed
23	Unknown	JD4549-2		TOCAQ.met	1.000	NPOC:6.704mg/L		Completed
24	Unknown	JD4549-3		TOCAQ.met	1.000	NPOC:0.2053mg/		Completed
25	Unknown	GP27314-M	DOC	TOCAQ.met	1.000	NPOC:0.3372mg/		Completed
26	Unknown	GP27314-B1		TOCAQ.met	1.000	NPOC:9.858mg/L		Completed
27	Unknown	JD4879-1F	(A)	TOCAQ.met	1.000	NPOC:2.233mg/L		Completed
28	Unknown	GP27314-S1	JD4879-1F	TOCAQ.met	1.000	NPOC:12.30mg/L		Completed
29	Unknown	GP27314-M	JD4879-1F	TOCAQ.met	1.000	NPOC:12.26mg/L		Completed
30	Unknown	CCV		TOCAQ.met	1.000	NPOC:24.75mg/L		Completed
31	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.2803mg/		Completed
32	Unknown	JD4879-2F	(A)	TOCAQ.met	1.000	NPOC:3.396mg/L		Completed
33	Unknown	JD4879-3F		TOCAQ.met	1.000	NPOC:1.939mg/L		Completed
34	Unknown	JD4879-4F		TOCAQ.met	1.000	NPOC:0.3746mg/		Completed
35	Unknown	JD4879-5F		TOCAQ.met	1.000	NPOC:5.373mg/L		Completed
36	Unknown	JD4879-6F		TOCAQ.met	1.000	NPOC:1.468mg/L		Completed
37	Unknown	JD4956-1F		TOCAQ.met	1.000	NPOC:2.417mg/L		Completed
38	Unknown	JD4956-2F		TOCAQ.met	1.000	NPOC:1.383mg/L		Completed
39	Unknown	JD4956-3F		TOCAQ.met	1.000	NPOC:1.687mg/L		Completed
40	Unknown	JD4956-4F		TOCAQ.met	1.000	NPOC:1.972mg/L		Completed
41	Unknown	CCVA		TOCAQ.met	1.000	NPOC:49.64mg/L		Completed
42	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.3251mg/		Completed
43	Unknown	GP27315-M	GP27262-M	TOCAQ.met	1.000	NPOC:0.2957mg/		Completed
44	Unknown	GP27315-B1	GP27262-B2	TOCAQ.met	1.000	NPOC:9.875mg/L		Completed
45	Unknown	JD4956-1	(A)	TOCAQ.met	1.000	NPOC:1.680mg/L		Completed
46	Unknown	GP27315-S1	JD4956-1	TOCAQ.met	1.000	NPOC:12.48mg/L		Completed
47	Unknown	GP27315-M	JD4956-1	TOCAQ.met	1.000	NPOC:12.28mg/L		Completed
48	Unknown	JD4956-2		TOCAQ.met	1.000	NPOC:1.258mg/L		Completed
49	Unknown	JD4956-3		TOCAQ.met	1.000	NPOC:1.242mg/L		Completed
50	Unknown	JD4956-4		TOCAQ.met	1.000	NPOC:1.797mg/L		Completed
51	Unknown	JD4440-1		TOCAQ.met	1.000	NPOC:14.03mg/L		Completed

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cZD 3/26/20

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C:\TOC-L\Data\e00325w1.toc.tlx

	Type	Sample Nam	Sample ID	Origin	Manual Diluti	Result	Comment	Status
52	Unknown	JD4440-2		TOCAQ.met	1.000	NPOC:4.891mg/L		Completed
53	Unknown	CCV		TOCAQ.met	1.000	NPOC:25.02mg/L		Completed
54	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.4661mg/		Completed
55	Unknown	JD4440-3		TOCAQ.met	1.000	NPOC:44.55mg/L		Completed
56	Unknown	JD4440-4		TOCAQ.met	1.000	NPOC:2.139mg/L	average	Completed
57	Unknown	JD4440-5		TOCAQ.met	1.000	NPOC:7.119mg/L		Completed
58	Unknown	JD4385-3		TOCAQ.met	10.00	NPOC:158.8mg/L		Completed
59	Unknown	GP27316-M	TOC	TOCAQ.met	1.000	NPOC:0.4836mg/		Completed
60	Unknown	GP27316-B1		TOCAQ.met	1.000	NPOC:9.957mg/L		Completed
61	Unknown	JD4463-1		TOCAQ.met	1.000	NPOC:16.53mg/L		Completed
62	Unknown	JD4463-2		TOCAQ.met	1.000	NPOC:9.184mg/L		Completed
63	Unknown	JD4463-3		TOCAQ.met	10.00	NPOC:205.9mg/L		Completed
64	Unknown	CCVA		TOCAQ.met	1.000	NPOC:50.71mg/L		Completed
65	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.4866mg/		Completed
66	Unknown	JD4478-2		TOCAQ.met	1.000	NPOC:1.525mg/L		Completed
67	Unknown	JD4478-3		TOCAQ.met	1.000	NPOC:1.049mg/L		Completed
68	Unknown	GP27316-S1	JD4478-3	TOCAQ.met	1.000	NPOC:12.35mg/L		Completed
69	Unknown	GP27316-M	JD4478-3	TOCAQ.met	1.000	NPOC:12.49mg/L		Completed
70	Unknown	JD4478-4		TOCAQ.met	1.000	NPOC:1.213mg/L		Completed
71	Unknown	JD4478-5		TOCAQ.met	1.000	NPOC:2.082mg/L		Completed
72	Unknown	JD4482-1		TOCAQ.met	1.000	NPOC:2.100mg/L		Completed
73	Unknown	JD4493-1		TOCAQ.met	1.000	NPOC:1.384mg/L		Completed
74	Unknown	GP27317-M	TOC	TOCAQ.met	1.000	NPOC:0.4318mg/		Completed
75	Unknown	GP27317-B1		TOCAQ.met	1.000	NPOC:9.935mg/L		Completed
76	Unknown	CCV		TOCAQ.met	1.000	NPOC:24.85mg/L		Completed
77	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.4792mg/		Completed
78	Unknown	JD4484-1		TOCAQ.met	1.000	NPOC:62.31mg/L	rerun	Completed
79	Unknown	JD4484-2		TOCAQ.met	1.000	NPOC:3.452mg/L		Completed
80	Unknown	JD4484-3		TOCAQ.met	1.000	NPOC:0.8384mg/		Completed
81	Unknown	JD4484-4		TOCAQ.met	1.000	NPOC:3.564mg/L		Completed
82	Unknown	JD4484-5		TOCAQ.met	1.000	NPOC:23.40mg/L		Completed
83	Unknown	JD4552-1		TOCAQ.met	1.000	NPOC:48.09mg/L		Completed
84	Unknown	JD4552-2		TOCAQ.met	1.000	NPOC:25.18mg/L		Completed
85	Unknown	GP27317-S1	JD4552-2	TOCAQ.met	1.000	NPOC:34.91mg/L		Completed
86	Unknown	GP27317-M	JD4552-2	TOCAQ.met	1.000	NPOC:34.82mg/L		Completed
87	Unknown	JD4552-3		TOCAQ.met	1.000	NPOC:47.42mg/L		Completed
88	Unknown	CCVA		TOCAQ.met	1.000	NPOC:51.00mg/L		Completed
89	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.6709mg/		Completed
90	Unknown	JD4552-4		TOCAQ.met	1.000	NPOC:0.5618mg/		Completed
91	Unknown	CCV		TOCAQ.met	1.000	NPOC:25.11mg/L		Completed
92	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.4153mg/		Completed
93	Unknown	SPARGERC		TOCAQ.met	1.000	NPOC:0.2924mg/		Completed

GN6620 e00325w1.toc
CLD 3/26/20

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SGS

GN Batch ID: GN6620
Date: 3/25/20

Test: **Total Organic Carbon**
Product: **TOC or DOC**
Method: **SM5310 B, C, or D-11, SW846 9060M**

e00325w1.toc

Note: Refer to raw data and LIMS for information not shown below.

Autosampler Position #	Sample ID	pH	Diluton Factor	Bottle #	Comments
1	WASHCONF	<2			
2	CRI				
3	HSTD				
4	ICV				
5	ICB				
6	CCV				
7	CCB				
8	SPARGERCHK				
9	GP27307-MB1	TOC			
10	GP27307-B1				
11	JD04879-1			8	clear
12	GP27307-S1			8	JD04879-1
13	GP27307 MSD1			8	JD04879-1
14	JD04879-2			8	
15	JD04879-3			8	
16	JD04879-4			8	
17	JD04879-5			8	
18	CCVA				
19	CCB				
20	JD04879-6			8	
21	JD04522-1			1	
22	JD04549-1		1:20	14	brown, floating particles Strong odor
23	JD04549-2			14	
24	JD04549-3			14	
25	GP27314 MB1	DOC			
26	GP27314 B1				
27	JD04879-1F	↓		9	clear

Analyst: CED Date: 3/25/20 QCReviewer: _____ Date: _____

Comments: BSP: 500ul of 1000ppm KHP up to 50ml with DI H2O TV= 10 mg/L
MS/MSD: 200ul of 1000ppm KHP up to 20ml with sample TV= 10 mg/L
ICV: 5ml of 100ppm Sucrose up to 25ml with DI H2O TV=20 mg/L

Form: GN054-04

SGS

GN Batch ID: GN6620
Date: 3/25/20

Test: **Total Organic Carbon**

Product: **TOC or DOC**

Method: **SM5310 B, C, or D-11, SW846 9060M**

Note: Refer to raw data and LIMS for information not shown below.

Autosampler Position #	Sample ID	pH	Diluton Factor	Bottle #	Comments
28	GP27314 S1	<2		9	JD4879-1F
29	GP27314 MSD1			9	JD4879-1F
30	CCV				
31	CCB				
32	JD4879-2F			9	
33	JD4879-3F			9	
34	JD4879-4F			9	
35	JD4879-5F			9	
36	JD4879-6F			9	
37	JD4956-1F			9	
38	JD4956-2F			9	
39	JD4956-3F			9	
40	JD4956-4F			9	
41	CCVA				
42	CCB				
43	GP27315 MB1	TOC			GP27262-MB2
44	GP27315 B1				GP27262-B2
45	JD4956-1			8	clear
46	GP27315 S1			8	JD4956-1
47	GP27315 MSD1			8	JD4956-1
48	JD4956-2			8	
49	JD4956-3			8	
50	JD4956-4			8	
51	JD4440-1			6	
52	JD4440-2			6	
53	CCV				
54	CCB				

Analyst: CLO Date: 3/25/20 QCReviewer: _____ Date: _____

Comments:

Form: GN054-04
Rev. Date: 2/27/18

SGS

GN Batch ID: GN6620
Date: 3/25/20

Test: **Total Organic Carbon**

Product: **TOC or DOC**

Method: **SM5310 B, C, or D-11, SW846 9060M**

Note: Refer to raw data and LIMS for information not shown below.

Autosampler Position #	Sample ID	pH	Diluton Factor	Bottle #	Comments
55	JD4440-3	<2		6	
56	JD4440-4			6	
57	JD4440-5			6	
58	JD4385-3		1:10	15	light brown floating particles
59	GP27316 MB1	TOC			
60	GP27316 B1				
61	JD4463-1			14	
62	JD4463-2			14	
63	JD4463-3		1:10	14	light brown floating particles
64	CCVA				
65	CCB				
66	JD4478-2			9	
67	JD4478-3			9	clear
68	GP27316 S1			9	JD4478-3
69	GP27316 MS01			9	JD4478-3
70	JD4478-4			9	
71	JD4478-5			9	
72	JD4482-1			8	
1	JD4493-1			5	
2	GP27317 MB1	TOC			
3	GP27317 B1				
4	CCV				
5	CCB				
6	JD4484-1			7	
7	JD4484-2			7	
8	JD4484-3			7	
9	JD4484-4			7	

Analyst: CXO Date: 3/25/20 QCReviewer: _____ Date: _____

Comments:

Form: GN054-04
Rev. Date: 2/27/18

SGS

GN Batch ID: GN6620
Date: 3/25/20

Test: **Total Organic Carbon**

Product: **TOC or DOC**

Method: **SM5310 B, C, or D-11, SW846 9060M**

Note: Refer to raw data and LIMS for information not shown below.

Autosampler Position #	Sample ID	pH	Diluton Factor	Bottle #	Comments
10	JD4484-5	<2		7	
11	JD4552-1			15	
12	JD4552-2			44	clear
13	GP27317 S1			44	JD4552-2
14	GP27317 MS01			44	JD4552-2
15	JD4552-3			15	
16	CCVA				
17	CCB				
18	JD4552-4			15	
19	CCV				
20	CCB				
21	SPARGERCHK				

Analyst: CZD Date: 3/25/20 QCReviewer: _____ Date: _____

Comments:

Form: GN054-04
Rev. Date: 2/27/18

Analyst CZD Product TOC Autopipette #

Date 3/25/20 Batch ID GN6620 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JD4385-3	1:10	5	50	
JD4549-1	1:20	1	20	
JD4463-3	1:10	5	50	

QC Reviewer: Date:

Form: GN165-01
Rev. Date: 2/25/03

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

PRODUCT: Toc

(GN) or GP NUMBER: GN6620

Intermediate Standard Description	Stock used to prepare standard	Stock concentration (mg/L)	Stock volume or weight used with units	Balance/ Autopipet ID (*)	Diluent	Final Volume (ml)	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
GNE2-60376- Toc	Fisher 178879	KHP	2.125g	B-39	DI H_2O	1000mL	1000 ppm	5/27/20	CZO	2/27/20
GNE2-60377- Toc	GNE2-60376- Toc	1000ppm	20mL	class A pipet	↓	200mL	100 ppm	3/26/20	↓	↓
GNE2-60372- Toc	Fisher 186139	sucrose	0.0474g	B-39	↓	200mL	100 ppm	↓	↓	↓
Standard Description	**Intermediate or Stock used to prepare standard**	**Intermediate or Stock concentration (mg/L)**	**Intermediate or Stock volume used in ml**	**Balance/ Autopipet ID (*)**	**Diluent**	**Final Volume (ml)**	**Final Conc. of Standard (mg/l)**	**Expiration Date**	**Analyst**	**Date**
KHP STDs										
GNE2-60378 - Toc	GNE2-60377- Toc	100ppm	1.0	class A pipet	DI H_2O	100mL	1.0	3/26/20	CZO	2/27/20
GNE2-60379- Toc	↓	↓	2.0	↓	↓	↓	2.0	↓	↓	↓
GNE2-60380- Toc			5.0				5.0			
GNE2-60381- Toc			10.0				10.0			
GNE2-60382- Toc			20.0				20.0			
GNE2-60383- Toc			30.0				30.0			
GNE2-60384- Toc	↓	↓	50.0	↓	↓	↓	50.0	↓	↓	↓
KHP STDs										
GNE2-60373- Toc	acros A0383564	KHP	0.2125g	B-39 class A pipet	DI H_2O	100mL	100ppm	3/26/20	CZO	2/27/20
GNE2-60374- Toc	GNE2-60373- Toc	100ppm	50mL	↓	↓	↓	25 ppm	↓	↓	↓
GNE2-60375- Toc	↓	↓	100mL	↓	↓	↓	50 ppm	↓	↓	↓

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

DAYT-WET-0166-05-FORM-STD PREP
REV: 9/17/18

SGS

GN6620

Reagent Information Log - TOC/DOC - Water

Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Potassium Hydrogen Phthlate (KHP), Stock Solution 1000 mg/L	GNE2-60376-TOC	5/27/20
Carbonate/Bicarbonate Stock Solution	GNE2-60370-TOC	5/27/20
Sparger Check Solution	GNE2-60371-TOC	3/26/20
CCV Solution	GNE2-60374-TOC	3/26/20
CCVA Solution (50 ppm)	GNE2-60375-TOC	3/26/20
Spiking Solution	GNE2-60376-TOC	5/27/20
CRI Check	GNE2-60378-TOC	3/26/20
HCl	fisher lot# 194001	2/26/22
pH Hydron paper	fisher lot #231018	11/1/21
Sucrose solution	GNE2-60372-TOC	3/26/20
DOC Filter	IC Millex R9DA07245	n/a

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A67-04
Rev. Date: 4/6/18

13.4 13

TOC-Control L Report

e00228w1.toc tlx

Instr.Information

Instrument Options	TOC/ASI/Sparge Kit/
Catalyst	Regular Sensitivity

Cal. Curve

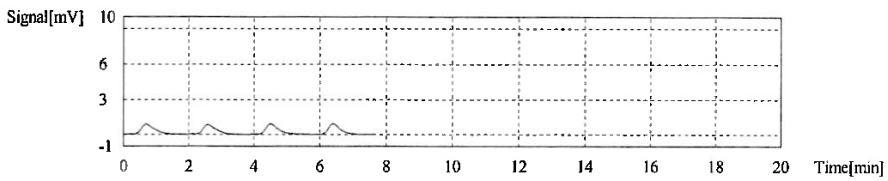
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	e00228w1.2020_02_28_08_27_01.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.279	100uL	1.000	*******		2/28/2020 8:33:49 AM
2	2.243	100uL	1.000	*******		2/28/2020 8:36:04 AM
3	2.191	100uL	1.000	*******		2/28/2020 8:38:19 AM
4	2.302	100uL	1.000	*******		2/28/2020 8:40:34 AM

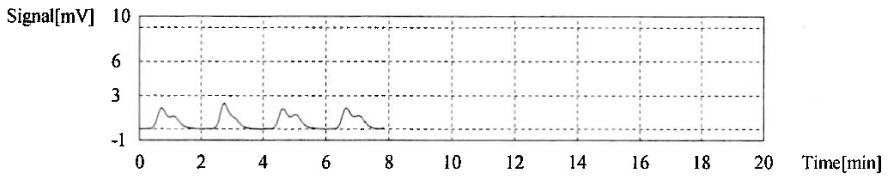
Acid Add.	0.000%
Sp. Time	600.0sec
Mean Area	2.254



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.213	100uL	1.000	*******		2/28/2020 8:45:18 AM
2	6.178	100uL	1.000	*******		2/28/2020 8:47:33 AM
3	6.465	100uL	1.000	*******		2/28/2020 8:49:55 AM
4	6.294	100uL	1.000	*******		2/28/2020 8:52:10 AM

Acid Add.	0.000%
Sp. Time	600.0sec
Mean Area	6.288



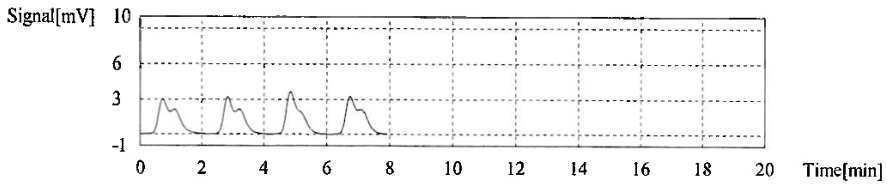
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	11.08	100uL	1.000	*******		2/28/2020 8:56:59 AM
2	11.17	100uL	1.000	*******		2/28/2020 8:59:20 AM
3	10.87	100uL	1.000	*******		2/28/2020 9:01:35 AM
4	11.21	100uL	1.000	*******		2/28/2020 9:03:50 AM

TOC-Control L Report

e00228wl.toc.tlx

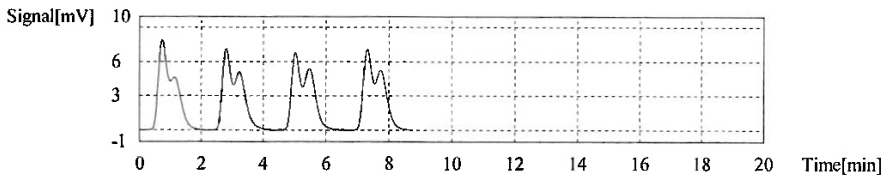
Acid Add. 0.000%
Sp. Time 600.0sec
Mean Area 11.08



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	26.89	100uL	1.000	*******		2/28/2020 9:08:38 AM
2	26.69	100uL	1.000	*******		2/28/2020 9:11:12 AM
3	26.82	100uL	1.000	*******		2/28/2020 9:13:50 AM
4	26.92	100uL	1.000	*******		2/28/2020 9:16:19 AM

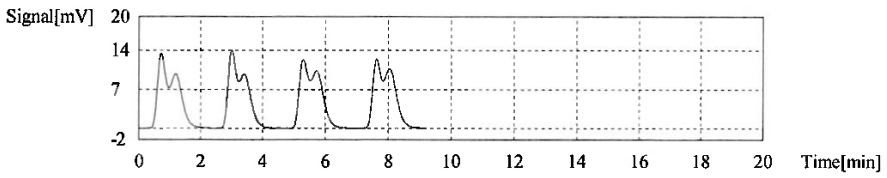
Acid Add. 0.000%
Sp. Time 600.0sec
Mean Area 26.83



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	52.64	100uL	1.000	*******		2/28/2020 9:21:19 AM
2	51.15	100uL	1.000	*******		2/28/2020 9:23:57 AM
3	52.85	100uL	1.000	*******		2/28/2020 9:26:38 AM
4	52.73	100uL	1.000	*******		2/28/2020 9:29:17 AM

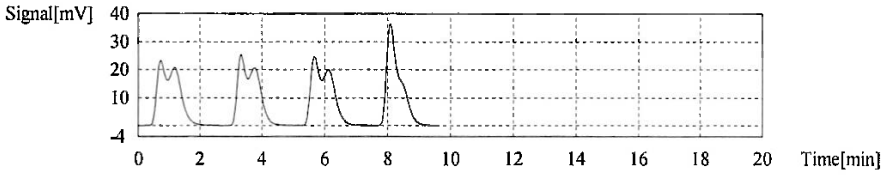
Acid Add. 0.000%
Sp. Time 600.0sec
Mean Area 52.34



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	105.8	100uL	1.000	*******		2/28/2020 9:34:36 AM
2	105.7	100uL	1.000	*******		2/28/2020 9:37:18 AM
3	106.0	100uL	1.000	*******		2/28/2020 9:40:02 AM
4	105.9	100uL	1.000	*******		2/28/2020 9:42:36 AM

Acid Add. 0.000%
Sp. Time 600.0sec
Mean Area 105.8



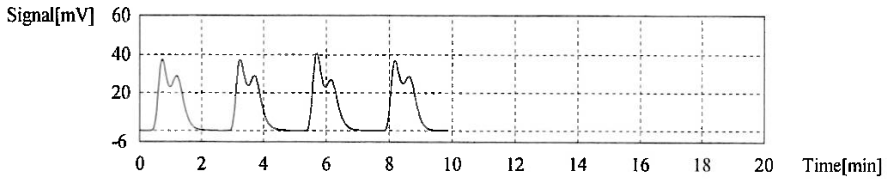
Conc: 30.00mg/L

TOC-Control L Report

e00228w1.toc.tlx

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	157.8	100uL	1.000	*******		2/28/2020 9:47:50 AM
2	158.0	100uL	1.000	*******		2/28/2020 9:50:38 AM
3	157.7	100uL	1.000	*******		2/28/2020 9:53:28 AM
4	155.7	100uL	1.000	*******		2/28/2020 9:56:14 AM

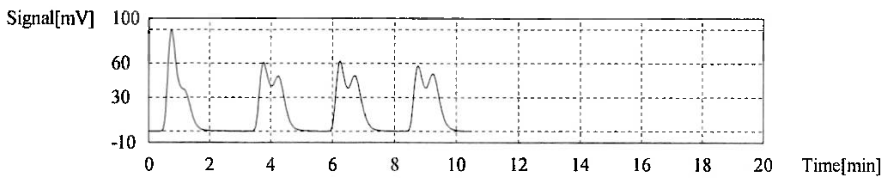
Acid Add. 0.000%
Sp. Time 600.0sec
Mean Area 157.3



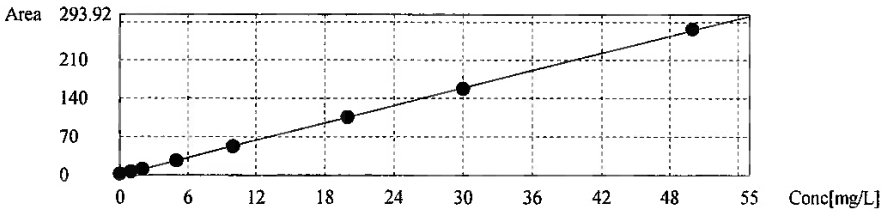
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	271.2	100uL	1.000	*******		2/28/2020 10:01:59 AM
2	265.3	100uL	1.000	*******		2/28/2020 10:04:49 AM
3	266.3	100uL	1.000	*******		2/28/2020 10:07:41 AM
4	266.0	100uL	1.000	*******		2/28/2020 10:10:30 AM

Acid Add. 0.000%
Sp. Time 600.0sec
Mean Area 267.2



Slope: 5.299
Intercept 0.000
r^2 0.9998
r 0.9999
Zero Shift Yes



TOC-Control L Report

e00325w1.toc.tlx

Instr.Information

Instrument Options: TOC/ASI/Sparge Kit/
Catalyst: Regular Sensitivity

Sample

Sample Name: WASHCONF
Sample ID:
Origin: TOCAQ.met
Status: Completed
Chk. Result

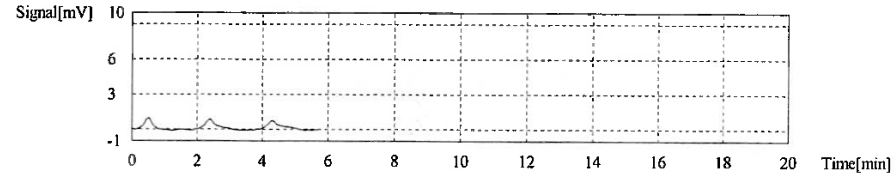
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4045mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.759	0.3320mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01.cal	3/25/2020 8:57:31 AM
2	2.173	0.4101mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 8:59:41 AM
3	2.114	0.3989mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 9:01:50 AM

Mean Conc. 0.4045mg/L
CV Conc 1.95%



Sample

Sample Name: CRI
Sample ID:
Origin: TOCAQ.met
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.251mg/L

1. Det

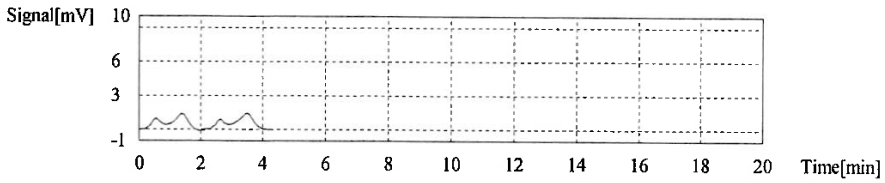
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.742	1.272mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 9:08:53 AM
2	6.514	1.229mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 9:11:22 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 1.251mg/L
CV Conc 2.43%



Sample

Sample Name: HSTD
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

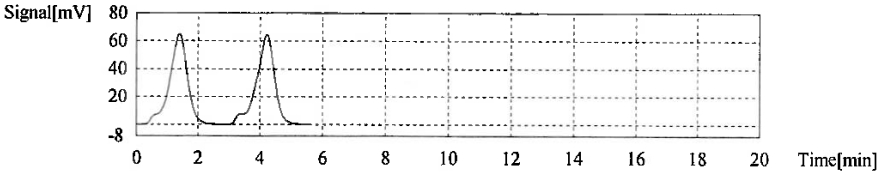
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 49.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	260.9	49.24mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 9:20:42 AM
2	261.0	49.25mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 9:23:49 AM

Mean Conc. 49.25mg/L
CV Conc 0.03%



Sample

Sample Name: ICV
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 19.86mg/L

1. Det

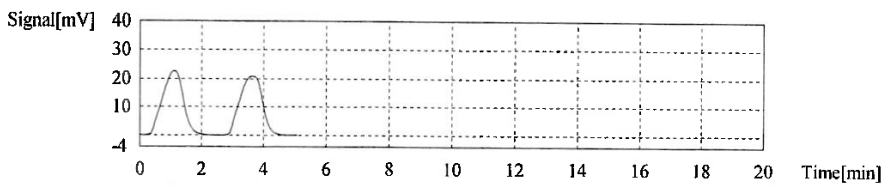
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	105.8	19.97mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 9:31:37 AM
2	104.7	19.76mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 9:34:20 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 19.86mg/L
CV Conc 0.74%



Sample

Sample Name: ICB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

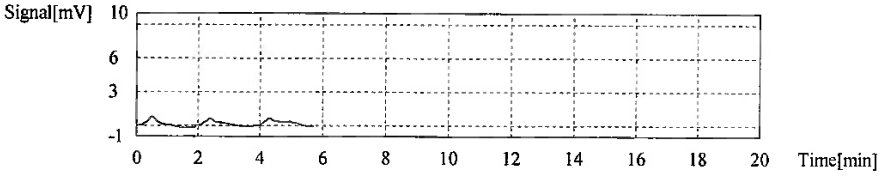
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.3945mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.229	0.4206mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:42:09 AM
2	1.952	0.3684mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:44:18 AM
3	2.779	0.5244mg/L	100uL	1.000	E	e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:46:23 AM

Mean Conc. 0.3945mg/L
CV Conc 9.37%



Sample

Sample Name: CCV
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 24.32mg/L

1. Det

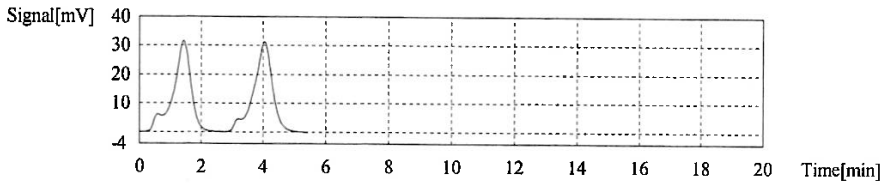
Anal.. NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	126.6	23.89mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:54:00 AM
2	131.1	24.74mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:57:05 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 24.32mg/L
CV Conc 2.47%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

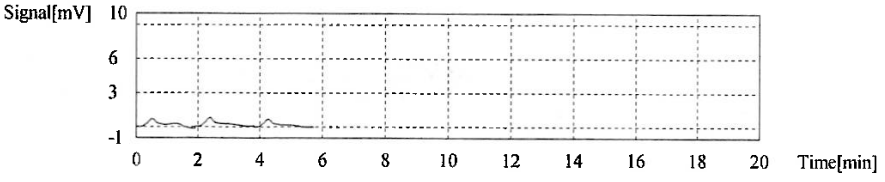
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4106mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.949	0.5565mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:04:28 AM
2	2.237	0.4222mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:06:37 AM
3	2.114	0.3989mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:08:47 AM

Mean Conc. 0.4106mg/L
CV Conc 4.00%



Sample

Sample Name: SPARGERCHK
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.3933mg/L

1. Det

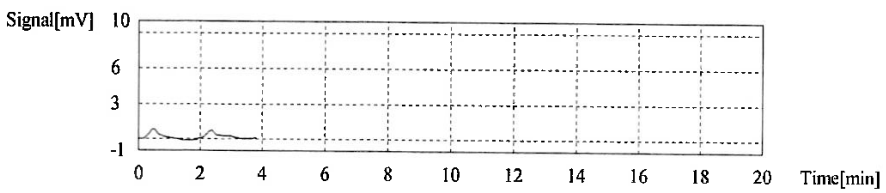
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.142	0.4042mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:15:37 AM
2	2.026	0.3823mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:17:48 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 0.3933mg/L
CV Conc 3.94%



Sample

Sample Name: GP27307-MB1
Sample ID: TOC
Origin: TOCAQ.met
Status Completed
Chk. Result

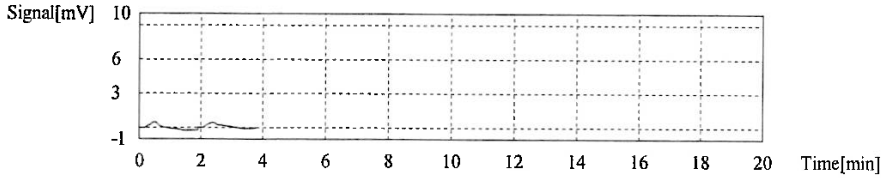
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.2548mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.280	0.2416mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 10:26:46 AM
2	1.420	0.2680mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 10:28:55 AM

Mean Conc. 0.2548mg/L
CV Conc 7.33%



Sample

Sample Name: GP27307-B1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 9.841mg/L

1. Det

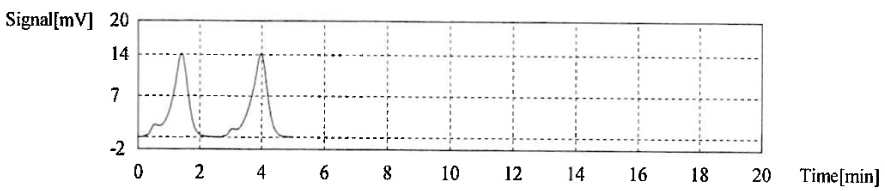
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.32	9.874mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 10:38:33 AM
2	51.97	9.808mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 10:41:13 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 9.841mg/L
CV Conc 0.47%



Sample

Sample Name: JD4879-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

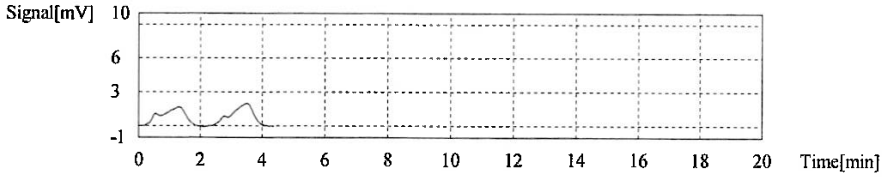
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.778mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.211	1.738mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 11:08:28 AM
2	9.631	1.818mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:10:50 AM

Mean Conc. 1.778mg/L
CV Conc 3.15%



Sample

Sample Name: GP27307-S1
Sample ID: JD4879-1
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.55mg/L

1. Det

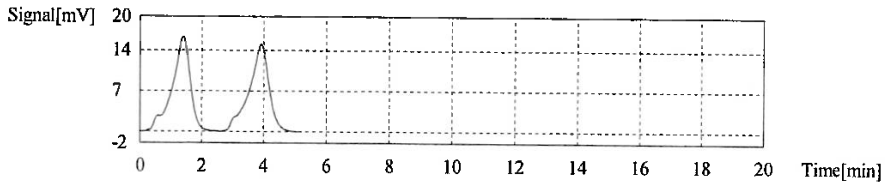
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.20	12.49mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:19:52 AM
2	66.78	12.60mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:22:45 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 12.55mg/L
CV Conc 0.62%



Sample

Sample Name: GP27307-MSD1
Sample ID: JD4879-1
Origin: TOCAQ.met
Status Completed
Chk. Result

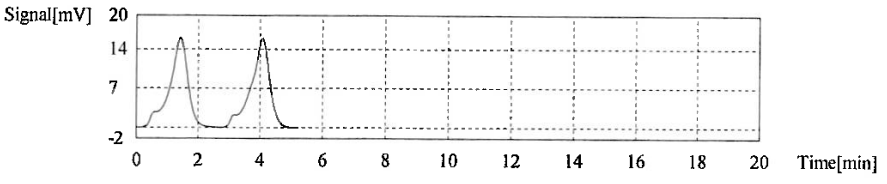
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 12.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.80	12.42mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:31:08 AM
2	66.43	12.54mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:34:00 AM

Mean Conc. 12.48mg/L
CV Conc 0.67%



Sample

Sample Name: JD4879-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 3.233mg/L

1. Det

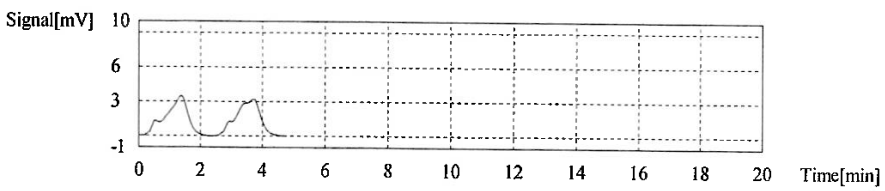
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.03	3.214mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:42:04 AM
2	17.23	3.252mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:44:37 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 3.233mg/L
CV Conc 0.83%



Sample

Sample Name: JD4879-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

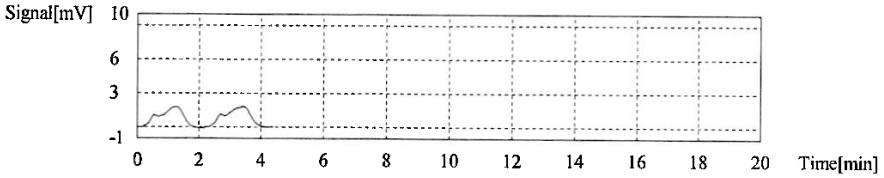
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.894mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.908	1.870mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:53:00 AM
2	10.16	1.917mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:55:29 AM

Mean Conc. 1.894mg/L
CV Conc 1.78%



Sample

Sample Name: JD4879-4
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.2501mg/L

1. Det

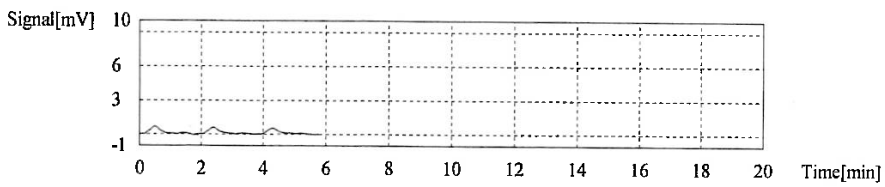
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.094	0.3952mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01 cal	3/25/2020 12:03:54 PM
2	1.199	0.2263mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 12:06:03 PM
3	1.452	0.2740mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 12:08:13 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 0.2501mg/L
CV Conc 13.50%



Sample

Sample Name: JD4879-5
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

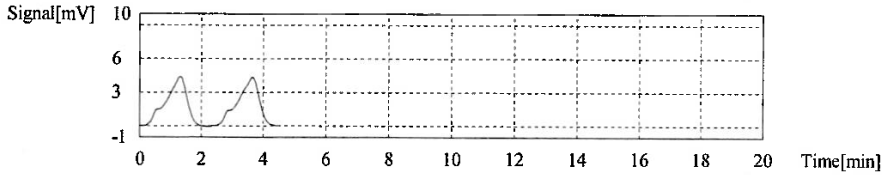
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 3.866mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.58	3.884mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 12:15:29 PM
2	20.39	3.848mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 12:17:57 PM

Mean Conc. 3.866mg/L
CV Conc 0.66%



Sample

Sample Name: CCVA
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 49.77mg/L

1. Det

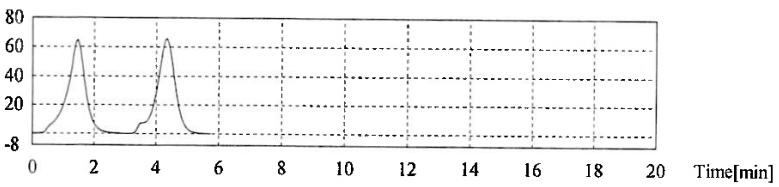
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	262.0	49.44mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 12:27:15 PM
2	265.5	50.10mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 12:30:17 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 49.77mg/L
CV Conc 0.94%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

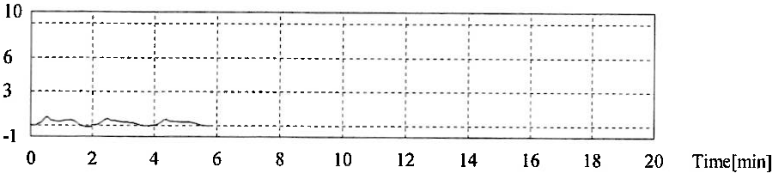
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4764mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.726	0.7032mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01.cal	3/25/2020 12:37:26 PM
2	2.584	0.4876mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 12:39:35 PM
3	2.465	0.4652mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 12:41:40 PM

Mean Conc. 0.4764mg/L
CV Conc 3.33%



Sample

Sample Name: JD4879-6
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.450mg/L

1. Det

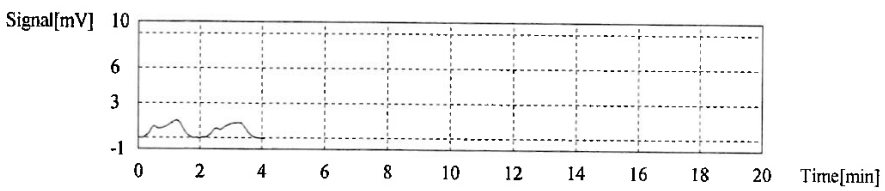
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.854	1.482mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 12:48:38 PM
2	7.508	1.417mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 12:50:52 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 1.450mg/L
CV Conc 3.19%



Sample

Sample Name: JD4522-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

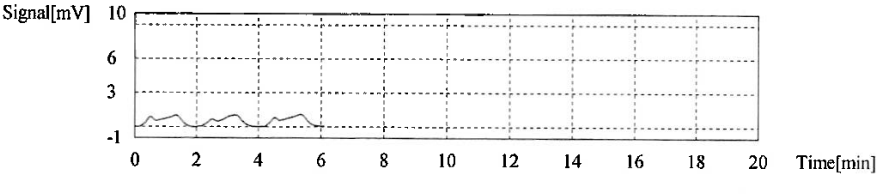
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.064mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.889	1.111mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 12:59:46 PM
2	5.330	1.006mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:02:03 PM
3	5.697	1.075mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:04:18 PM

Mean Conc. 1.064mg/L
CV Conc 5.04%



Sample

Sample Name: JD4549-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:389.1mg/L

1. Det

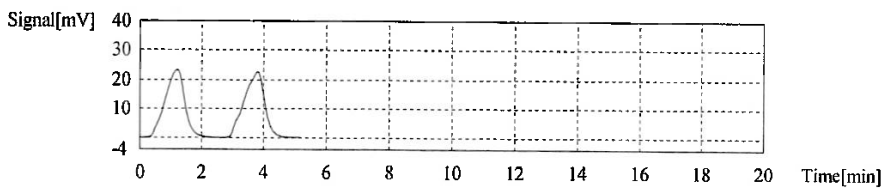
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	102.9	388.4mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:11:31 PM
2	103.3	389.9mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:14:16 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 389.1mg/L
CV Conc 0.27%



Sample

Sample Name: JD4549-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

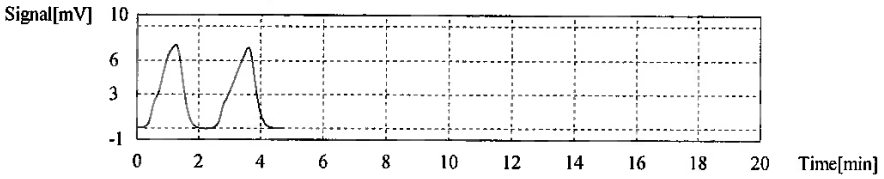
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 6.704mg/L

1. Det

Anal.: **NPOC**

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.69	6.735mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:22:21 PM
2	35.36	6.673mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:24:59 PM

Mean Conc. 6.704mg/L
CV Conc 0.66%



Sample

Sample Name: JD4549-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.2053mg/L

1. Det

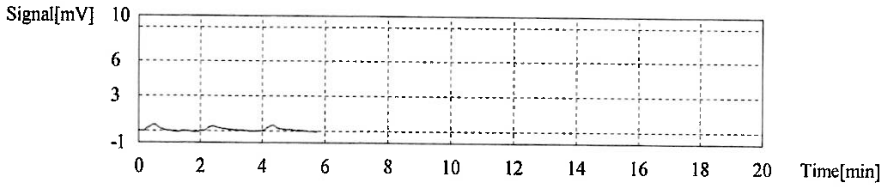
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.253	0.2365mg/L	100uL	1.000	E	e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:33:12 PM
2	1.059	0.1998mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:35:21 PM
3	1.117	0.2108mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 1:37:26 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 0.2053mg/L
CV Conc 3.77%



Sample

Sample Name: GP27314-MB1
Sample ID: DOC
Origin: TOCAQ.met
Status Completed
Chk. Result

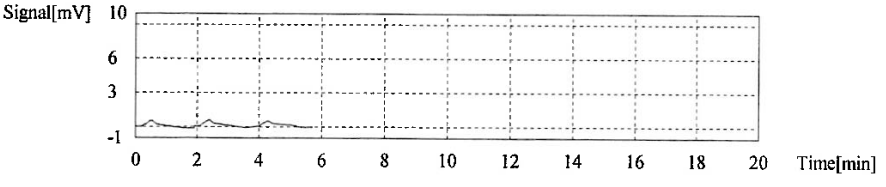
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.3372mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.533	0.2893mg/L	100uL	1.000	E	e00228w1.2020_02_28_08_27_01.cal	3/25/2020 2:42:48 PM
2	1.769	0.3338mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 2:44:59 PM
3	1.805	0.3406mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 2:47:04 PM

Mean Conc. 0.3372mg/L
CV Conc 1.42%



Sample

Sample Name: GP27314-B1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 9.858mg/L

1. Det

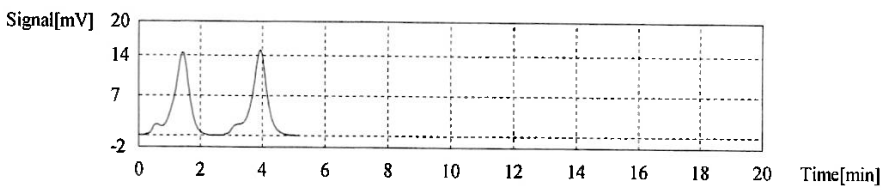
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.33	9.875mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 2:54:36 PM
2	52.14	9.840mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 2:57:25 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 9.858mg/L
CV Conc 0.26%



Sample

Sample Name: JD4879-1F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

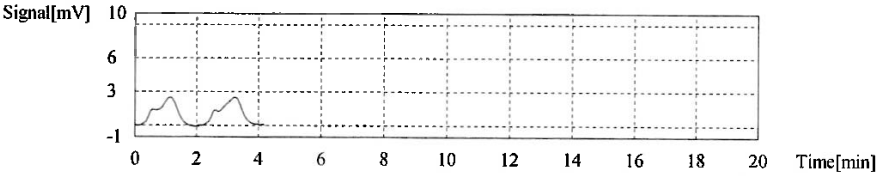
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 2.233mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.75	2.217mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 3:05:17 PM
2	11.92	2.249mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 3:07:39 PM

Mean Conc. 2.233mg/L
CV Conc 1.02%



Sample

Sample Name: GP27314-S1
Sample ID: JD4879-1F
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 12.30mg/L

1. Det

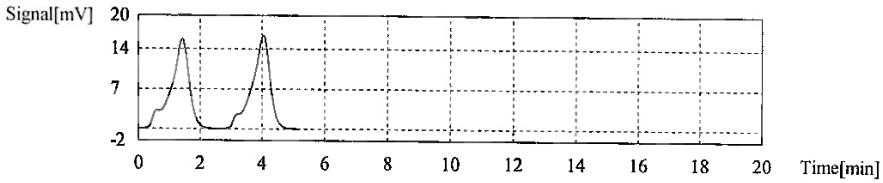
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	64.93	12.25mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 4:14:01 PM
2	65.43	12.35mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 4:16:46 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 12.30mg/L
CV Conc 0.54%



Sample

Sample Name: GP27314-MSD1
Sample ID: JD4879-1F
Origin: TOCAQ.met
Status Completed
Chk. Result

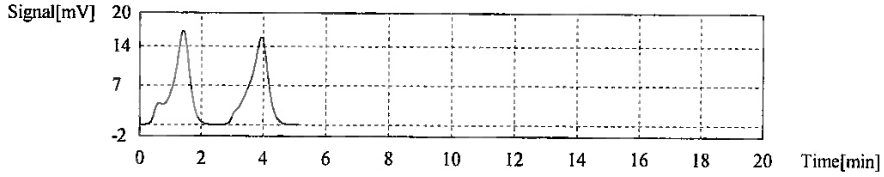
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.30	12.32mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 4:25:05 PM
2	64.65	12.20mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 4:27:50 PM

Mean Conc. 12.26mg/L
CV Conc 0.71%



Sample

Sample Name: CCV
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.75mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	131.9	24.89mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 4:36:21 PM
2	130.4	24.61mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 4:39:13 PM

TOC-Control L Report

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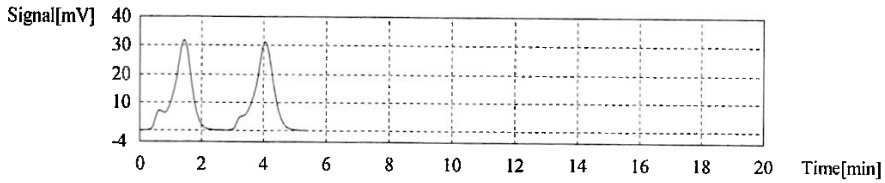
Mean Conc. 24.75mg/L
CV Conc 0.81%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

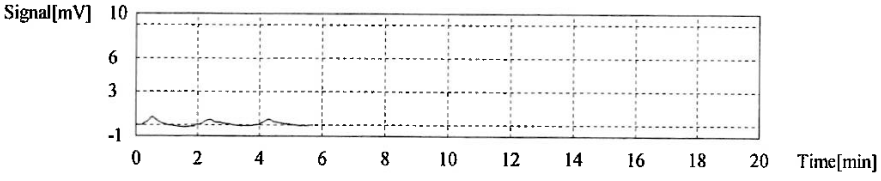
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.2803mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.940	0.3661mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01.cal	3/25/2020 4:55:25 PM
2	1.447	0.2731mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 4:57:34 PM
3	1.524	0.2876mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 4:59:39 PM

Mean Conc. 0.2803mg/L
CV Conc 3.67%



Sample

Sample Name: JD4879-2F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 3.396mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.97	3.391mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 5:06:51 PM
2	18.02	3.401mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 5:09:09 PM

TOC-Control L Report

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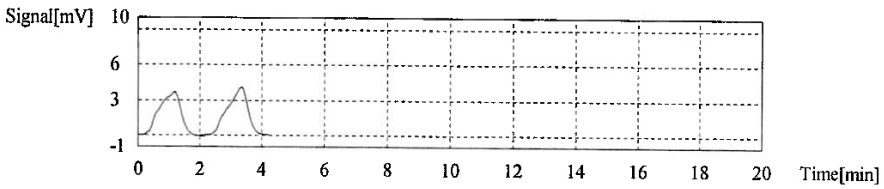
Mean Conc. 3.396mg/L
CV Conc 0.20%



Sample

Sample Name: JD4879-3F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

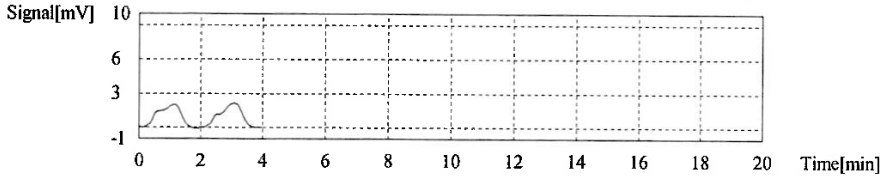
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.939mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.35	1.953mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 5:17:49 PM
2	10.20	1.925mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 5:20:05 PM

Mean Conc. 1.939mg/L
CV Conc 1.03%



Sample

Sample Name: JD4879-4F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.3746mg/L

1. Det

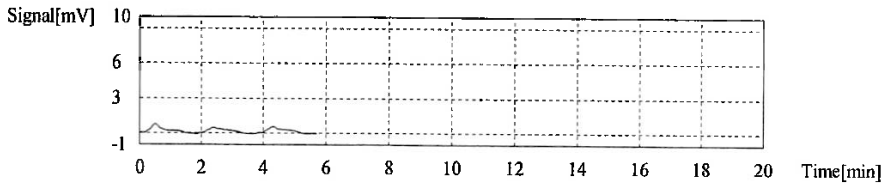
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.391	0.4512mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01 cal	3/25/2020 5:28:56 PM
2	1.958	0.3695mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 5:31:05 PM
3	2.012	0.3797mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 5:33:10 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 0.3746mg/L
CV Conc 1.92%



Sample

Sample Name: JD4879-5F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

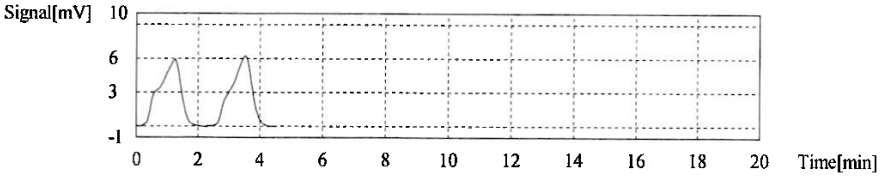
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 5.373mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.79	5.433mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 5:40:30 PM
2	28.15	5.312mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 5:42:57 PM

Mean Conc. 5.373mg/L
CV Conc 1.59%



Sample

Sample Name: JD4879-6F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.468mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.857	1.483mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 5:51:20 PM
2	7.705	1.454mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 5:53:33 PM

TOC-Control L Report

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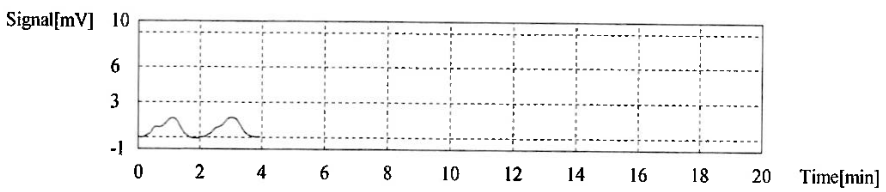
Mean Conc. 1.468mg/L
CV Conc 1.38%



Sample

Sample Name: JD4956-1F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

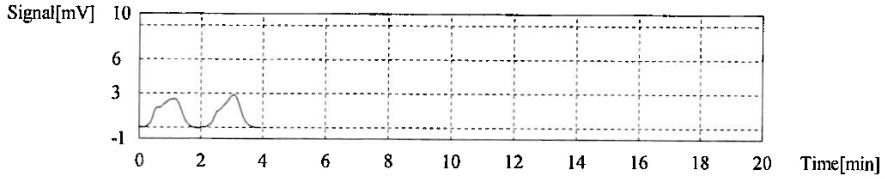
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 2.417mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.23	2.497mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 6:02:31 PM
2	12.38	2.336mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 6:04:43 PM

Mean Conc. 2.417mg/L
CV Conc 4.69%



Sample

Sample Name: JD4956-2F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.383mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.417	1.400mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 6:13:38 PM
2	7.245	1.367mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 6:15:52 PM

TOC-Control L Report

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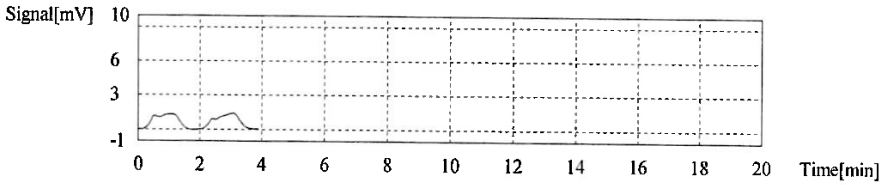
Mean Conc. 1.383mg/L
CV Conc 1.66%



Sample

Sample Name: JD4956-3F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

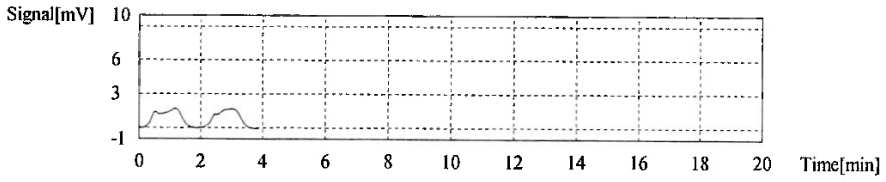
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.687mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.166	1.730mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 6:24:49 PM
2	8.718	1.645mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 6:26:55 PM

Mean Conc. 1.687mg/L
CV Conc 3.54%



Sample

Sample Name: JD4956-4F
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.972mg/L

1. Det

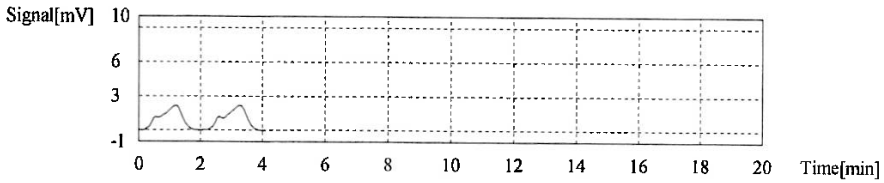
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.34	1.951mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 6:36:08 PM
2	10.56	1.993mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 6:38:19 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 1.972mg/L
CV Conc 1.49%



Sample

Sample Name: CCVA
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

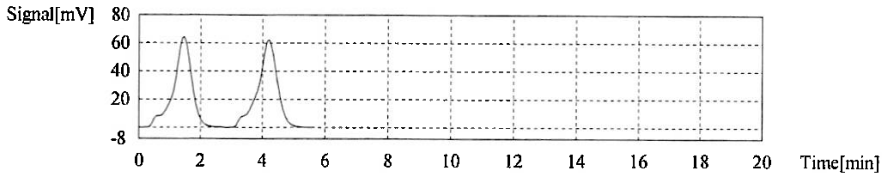
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 49.64mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	260.6	49.18mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 6:47:59 PM
2	265.5	50.10mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 6:51:08 PM

Mean Conc. 49.64mg/L
CV Conc 1.32%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.3251mg/L

1. Det

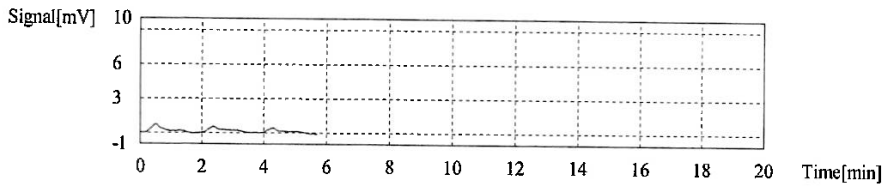
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.299	0.4339mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01 cal	3/25/2020 6:58:17 PM
2	1.839	0.3470mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:00:22 PM
3	1.606	0.3031mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:02:27 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 0.3251mg/L
CV Conc 9.56%



Sample

Sample Name: GP27315-MB1
Sample ID: GP27262-MB2
Origin: TOCAQ.met
Status Completed
Chk. Result

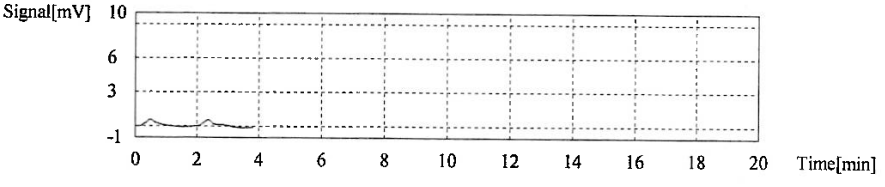
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.2957mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.606	0.3031mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 7:09:28 PM
2	1.528	0.2884mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 7:11:33 PM

Mean Conc. 0.2957mg/L
CV Conc 3.52%



Sample

Sample Name: GP27315-B1
Sample ID: GP27262-B2
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 9.875mg/L

1. Det

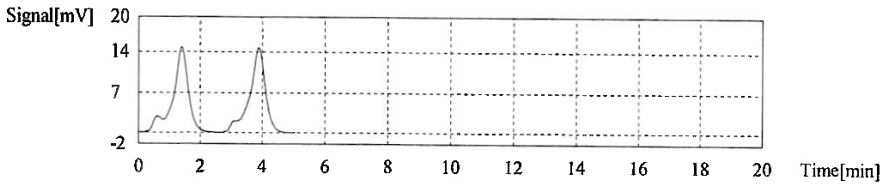
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.29	9.868mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 7:21:15 PM
2	52.37	9.883mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 7:23:58 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 9.875mg/L
CV Conc 0.11%



Sample

Sample Name: JD4956-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

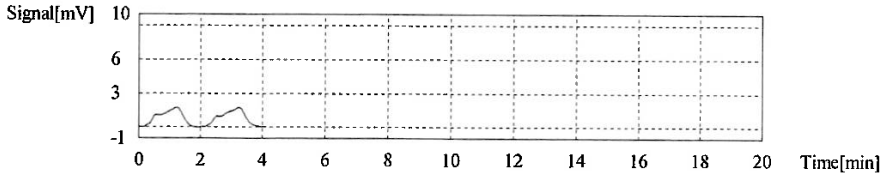
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.680mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.044	1.707mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:31:54 PM
2	8.764	1.654mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:34:16 PM

Mean Conc. 1.680mg/L
CV Conc 2.22%



Sample

Sample Name: GP27315-S1
Sample ID: JD4956-1
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 12.48mg/L

1. Det

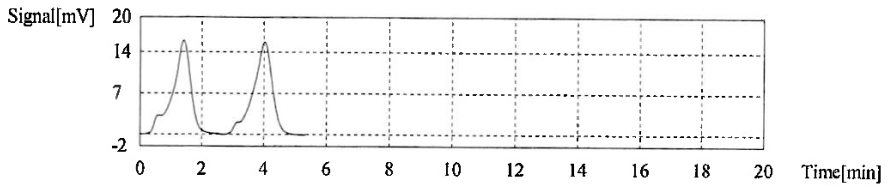
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.19	12.30mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:43:39 PM
2	67.04	12.65mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:46:38 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 12.48mg/L
CV Conc 1.98%



Sample

Sample Name: GP27315-MSD1
Sample ID: JD4956-1
Origin: TOCAQ.met
Status Completed
Chk. Result

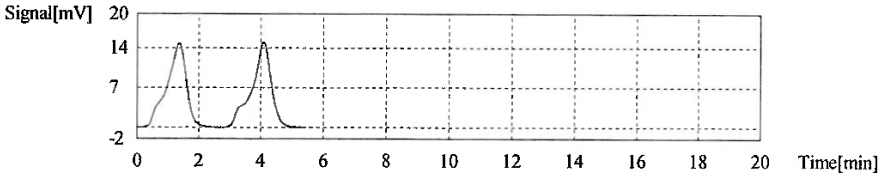
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 12.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.22	12.31mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:54:55 PM
2	64.88	12.24mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 7:57:48 PM

Mean Conc. 12.28mg/L
CV Conc 0.37%



Sample

Sample Name: JD4956-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.258mg/L

1. Det

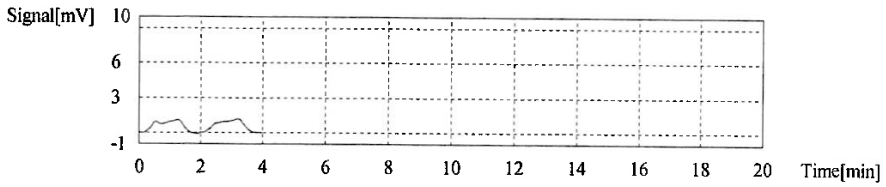
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.628	1.251mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 8:05:22 PM
2	6.699	1.264mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 8:07:38 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 1.258mg/L
CV Conc 0.75%



Sample

Sample Name: JD4956-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

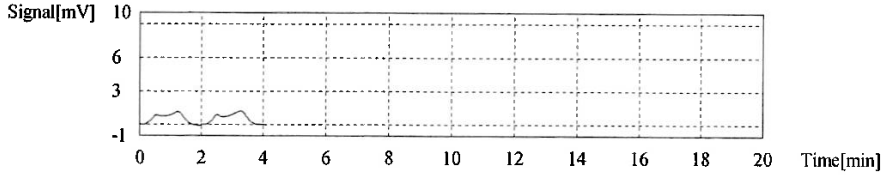
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.242mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.447	1.217mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 8:16:35 PM
2	6.718	1.268mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 8:18:57 PM

Mean Conc. 1.242mg/L
CV Conc 2.91%



Sample

Sample Name: JD4956-4
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.797mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.470	1.787mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 8:27:55 PM
2	9.571	1.806mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 8:30:16 PM

TOC-Control L Report

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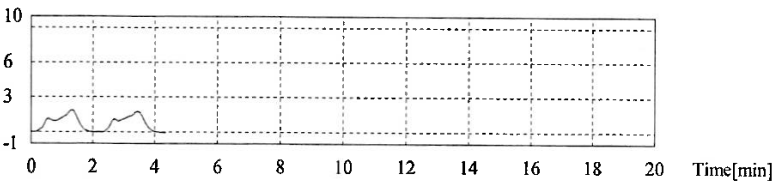
Mean Conc. 1.797mg/L
CV Conc 0.75%



Sample

Sample Name: JD4440-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

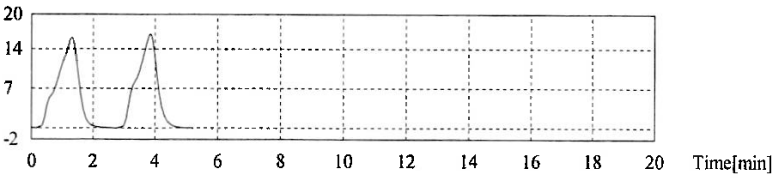
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 14.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.88	14.13mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 8:39:32 PM
2	73.77	13.92mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 8:42:19 PM

Mean Conc. 14.03mg/L
CV Conc 1.06%



Sample

Sample Name: JD4440-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 4.891mg/L

1. Det

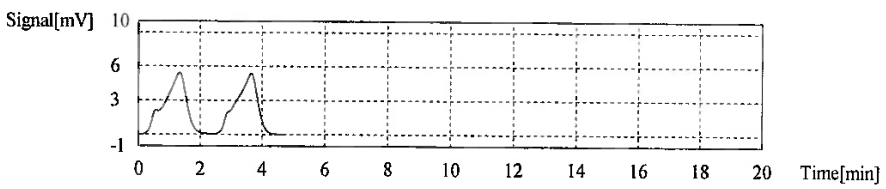
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.45	4.992mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 8:50:26 PM
2	25.38	4.790mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 8:52:54 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 4.891mg/L
CV Conc 2.92%



Sample

Sample Name: CCV
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

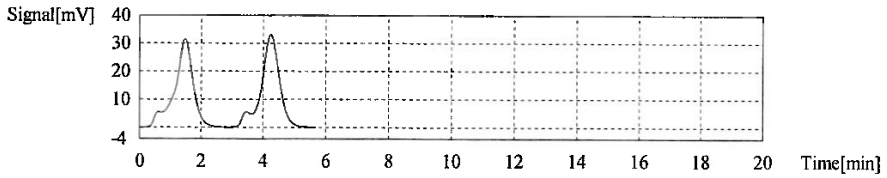
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 25.02mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	131.4	24.80mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:02:04 PM
2	133.8	25.25mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:05:06 PM

Mean Conc. 25.02mg/L
CV Conc 1.28%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4661mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.540	0.4793mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:12:20 PM
2	2.400	0.4529mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:14:28 PM

TOC-Control L Report

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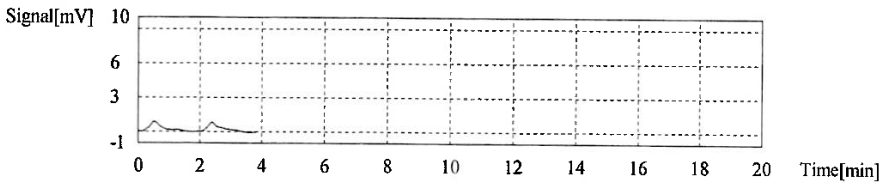
Mean Conc. 0.4661mg/L
CV Conc 4.01%



Sample

Sample Name: JD4440-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

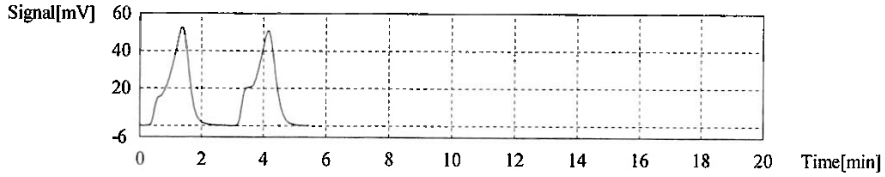
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 44.55mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	237.4	44.80mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:31:36 PM
2	234.7	44.29mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:34:30 PM

Mean Conc. 44.55mg/L
CV Conc 0.81%



Sample

Sample Name: JD4440-4
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 2.139mg/L

1. Det

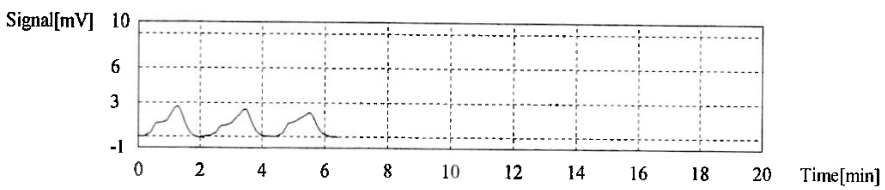
Anal.: NPOC

No.	Area	Conc	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.45	2.350mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:42:06 PM
2	10.93	2.063mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:44:30 PM
3	10.62	2.004mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 9:46:49 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 2.139mg/L
CV Conc 8.64%



Sample

Sample Name: JD4440-5
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

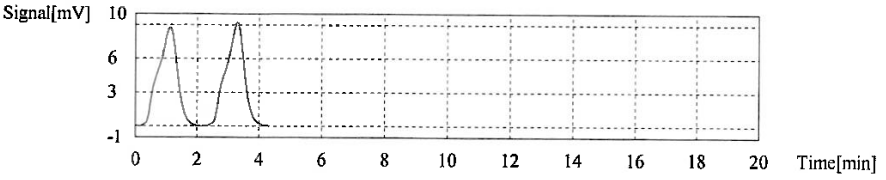
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 7.119mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.82	7.137mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 9:53:20 PM
2	37.63	7.101mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 9:55:43 PM

Mean Conc. 7.119mg/L
CV Conc 0.36%



Sample

Sample Name: JD4385-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC 158.8mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.41	159.3mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:04:49 PM
2	83.88	158.3mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:07:22 PM

TOC-Control L Report

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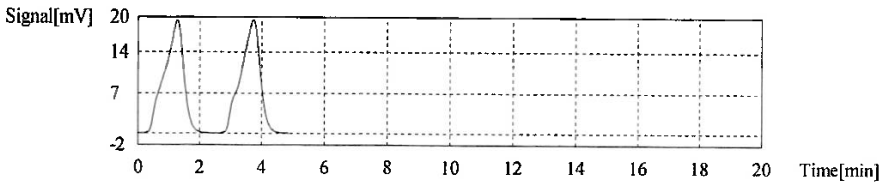
Mean Conc. 158.8mg/L
CV Conc 0.45%



Sample

Sample Name: GP27316-MB1
Sample ID: TOC
Origin: TOCAQ.met
Status Completed
Chk. Result

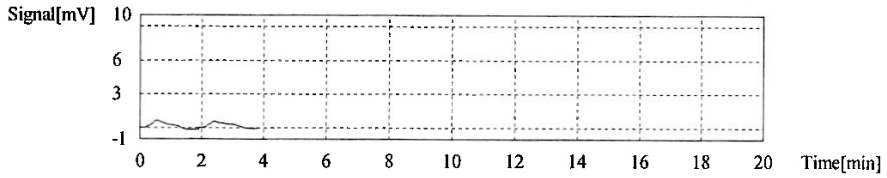
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4836mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.595	0.4897mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:15:25 PM
2	2.530	0.4775mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:17:34 PM

Mean Conc. 0.4836mg/L
CV Conc 1.79%



Sample

Sample Name: GP27316-B1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 9.957mg/L

1. Det

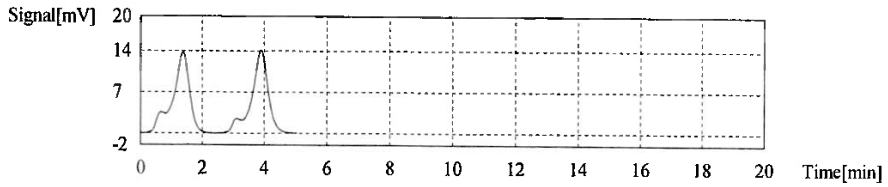
Anal.. NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.93	9.989mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:27:11 PM
2	52.59	9.925mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 10:29:55 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 9.957mg/L
CV Conc 0.46%



Sample

Sample Name: JD4463-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

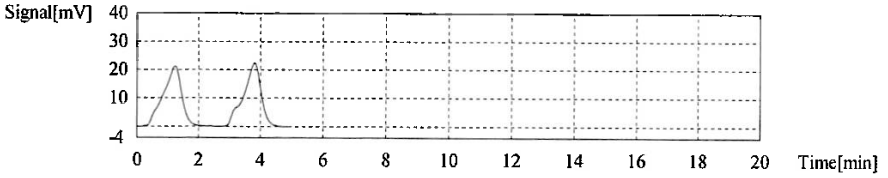
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.20	16.46mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 10:38:27 PM
2	88.02	16.61mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 10:41:05 PM

Mean Conc. 16.53mg/L
CV Conc 0.66%



Sample

Sample Name: JD4463-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.184mg/L

1. Det

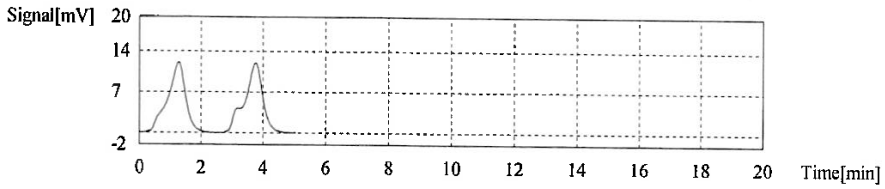
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.84	9.217mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 10:49:35 PM
2	48.49	9.151mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 10:52:21 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 9.184mg/L
CV Conc 0.51%



Sample

Sample Name: JD4463-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

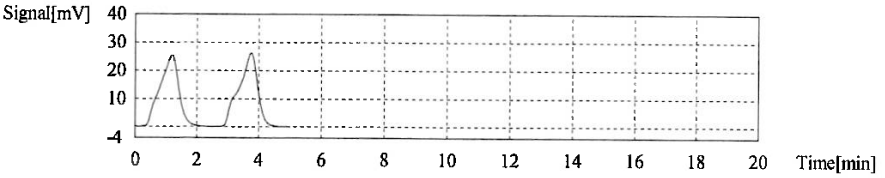
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:205.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	108.0	203.8mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 11:00:46 PM
2	110.2	208.0mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 11:03:26 PM

Mean Conc. 205.9mg/L
CV Conc 1.43%



Sample

Sample Name: CCVA
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:50.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	270.1	50.97mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 11:12:14 PM
2	267.3	50.44mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/25/2020 11:15:19 PM

TOC-Control L Report

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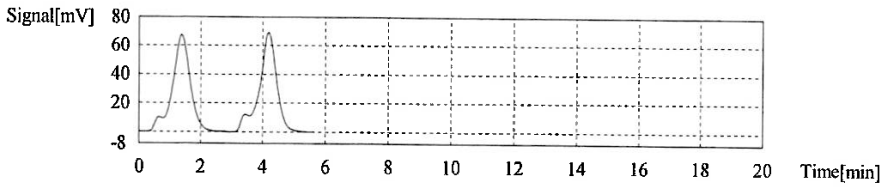
Mean Conc. 50.71mg/L
CV Conc 0.74%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

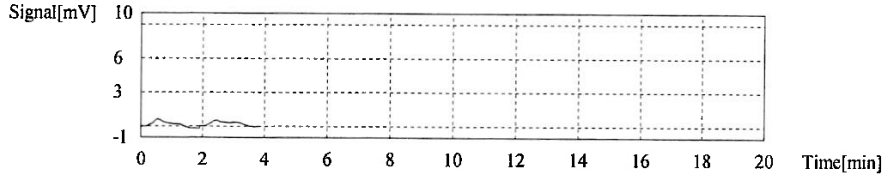
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4866mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.647	0.4995mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:22:32 PM
2	2.510	0.4737mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:24:41 PM

Mean Conc. 0.4866mg/L
CV Conc 3.76%



Sample

Sample Name: JD4478-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.525mg/L

1. Det

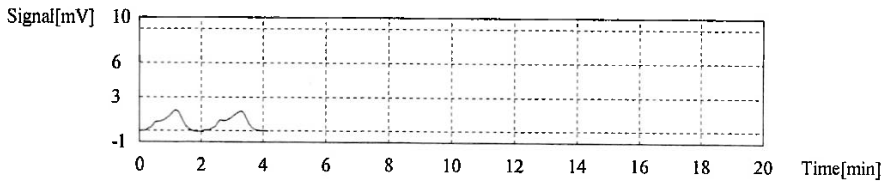
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.151	1.538mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:33:53 PM
2	8.006	1.511mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/25/2020 11:36:13 PM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 1.525mg/L
CV Conc 1.27%



Sample

Sample Name: JD4478-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

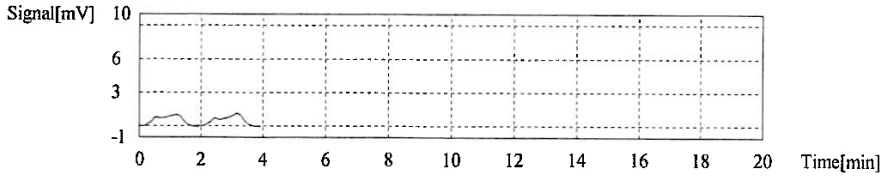
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.049mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.617	1.060mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 11:44:55 PM
2	5.499	1.038mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 11:47:10 PM

Mean Conc. 1.049mg/L
CV Conc 1.50%



Sample

Sample Name: GP27316-S1
Sample ID: JD4478-3
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 12.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.54	12.37mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 11:56:45 PM
2	65.33	12.33mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/25/2020 11:59:27 PM

TOC-Control L Report

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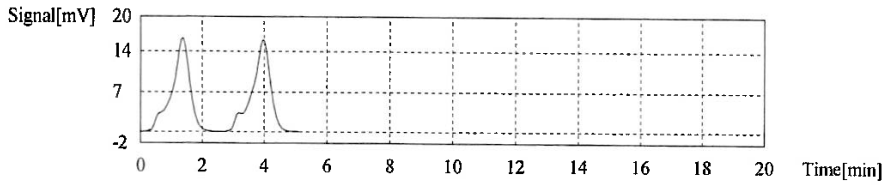
Mean Conc. 12.35mg/L
CV Conc 0.23%



Sample

Sample Name: GP27316-MSD1
Sample ID: JD4478-3
Origin: TOCAQ.met
Status Completed
Chk. Result

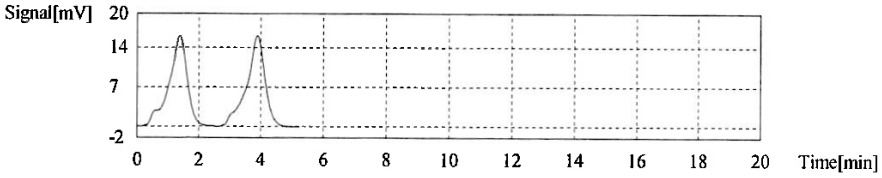
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 12.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.92	12.44mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 12:07:52 AM
2	66.45	12.54mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 12:10:47 AM

Mean Conc. 12.49mg/L
CV Conc 0.57%



Sample

Sample Name: JD4478-4
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.213mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.216	1.173mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 12:18:46 AM
2	6.642	1.253mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 12:21:01 AM

TOC-Control L Report

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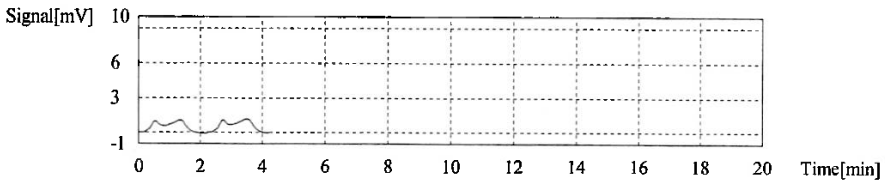
Mean Conc. 1.213mg/L
CV Conc 4.69%



Sample

Sample Name: JD4478-5
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

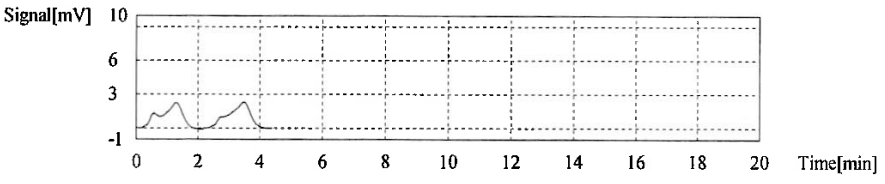
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 2.082mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.03	2.082mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 12:29:55 AM
2	11.03	2.082mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 12:32:23 AM

Mean Conc. 2.082mg/L
CV Conc 0.00%



Sample

Sample Name: JD4482-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 2.100mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.21	2.116mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 12:40:59 AM
2	11.05	2.085mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 12:43:33 AM

TOC-Control L Report

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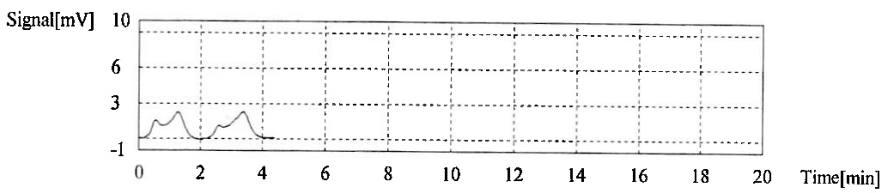
Mean Conc. 2.100mg/L
CV Conc 1.02%



Sample

Sample Name: JD4493-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

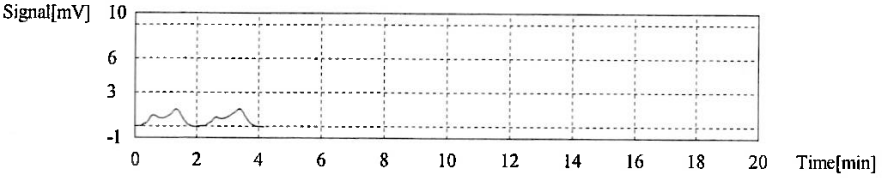
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 1.384mg/L

1. Det

Anal.: NPOC

No.	Area	Conc	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.388	1.394mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 12:59:39 AM
2	7.283	1.374mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 1:01:59 AM

Mean Conc. 1.384mg/L
CV Conc 1.01%



Sample

Sample Name: GP27317-MB1
Sample ID: TOC
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4318mg/L

1. Det

Anal.: NPOC

No.	Area	Conc	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.078	0.3922mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01.cal	3/26/2020 1:10:38 AM
2	2.270	0.4284mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 1:12:48 AM
3	2.306	0.4352mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01.cal	3/26/2020 1:14:58 AM

TOC-Control L Report

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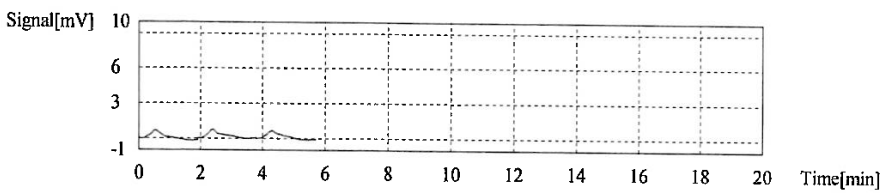
Mean Conc. 0.4318mg/L
CV Conc 1.11%



Sample

Sample Name: GP27317-B1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

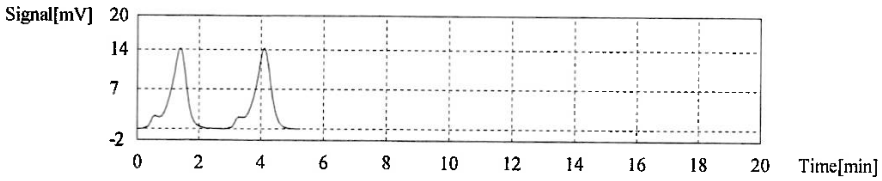
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 9.935mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.67	9.940mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 1:22:34 AM
2	52.62	9.930mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 1:25:19 AM

Mean Conc. 9.935mg/L
CV Conc 0.07%



Sample

Sample Name: CCV
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 24.85mg/L

1. Det

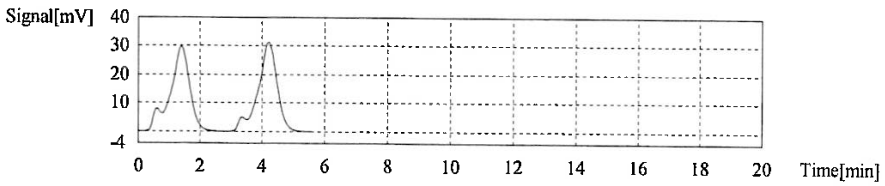
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	131.4	24.80mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 1:33:48 AM
2	132.0	24.91mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 1:36:48 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 24.85mg/L
CV Conc 0.32%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

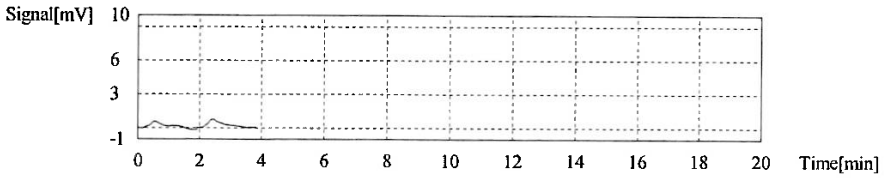
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4792mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.535	0.4784mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 1:44:07 AM
2	2.544	0.4801mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 1:46:16 AM

Mean Conc. 0.4792mg/L
CV Conc 0.25%



Sample

Sample Name: JD4484-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 62.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	325.7	61.46mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 1:56:21 AM
2	334.7	63.16mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 1:59:12 AM

TOC-Control L Report

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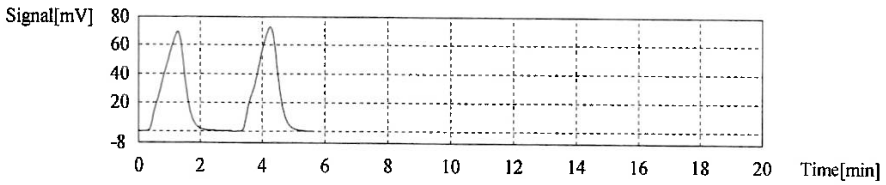
Mean Conc. 62.31mg/L
CV Conc 1.93%



Sample

Sample Name: JD4484-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

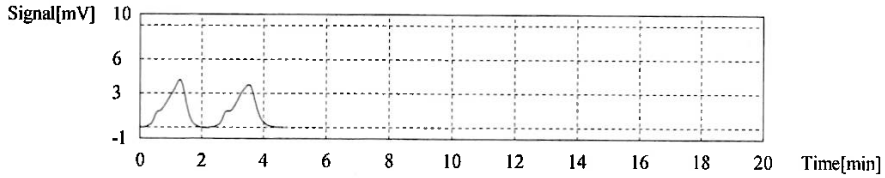
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 3.452mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.50	3.491mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:06:45 AM
2	18.08	3.412mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:09:24 AM

Mean Conc. 3.452mg/L
CV Conc 1.62%



Sample

Sample Name: JD4484-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.8384mg/L

1. Det

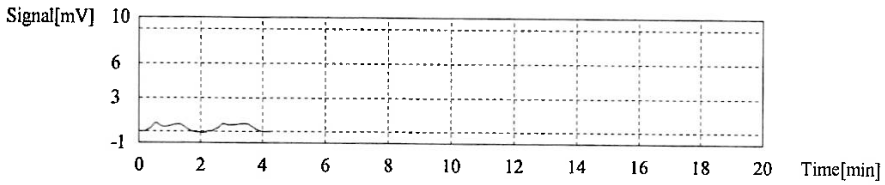
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.383	0.8271mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:17:51 AM
2	4.502	0.8496mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:20:09 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 0.8384mg/L
CV Conc 1.89%



Sample

Sample Name: JD4484-4
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

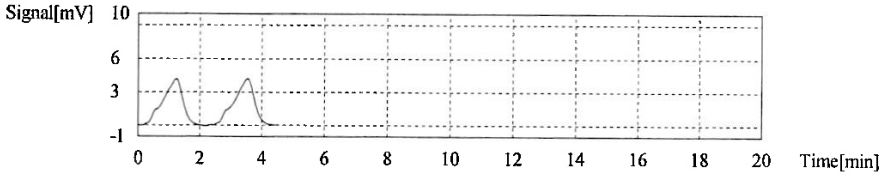
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 3.564mg/L

1. Det

Anal.: NPOC

No.	Area	Conc	Inj. Vol	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.93	3.572mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:29:07 AM
2	18.84	3.555mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:31:38 AM

Mean Conc. 3.564mg/L
CV Conc 0.34%



Sample

Sample Name: JD4484-5
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 23.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	125.6	23.70mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:40:35 AM
2	122.4	23.10mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 2:43:13 AM

TOC-Control L Report

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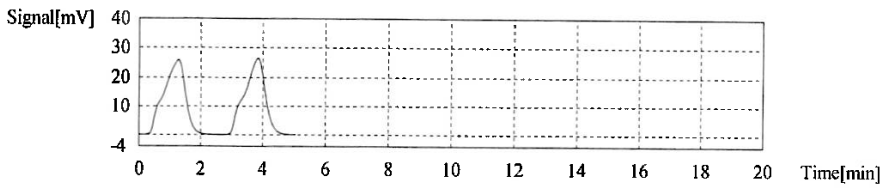
Mean Conc. 23.40mg/L
CV Conc 1.82%



Sample

Sample Name: JD4552-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

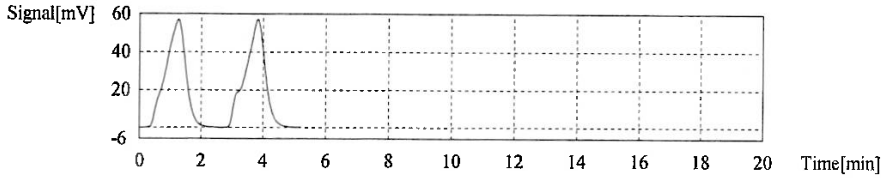
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 48.09mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	255.7	48.25mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 2:51:41 AM
2	254.0	47.93mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 2:54:35 AM

Mean Conc. 48.09mg/L
CV Conc 0.47%



Sample

Sample Name: JD4552-2
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 25.18mg/L

1. Det

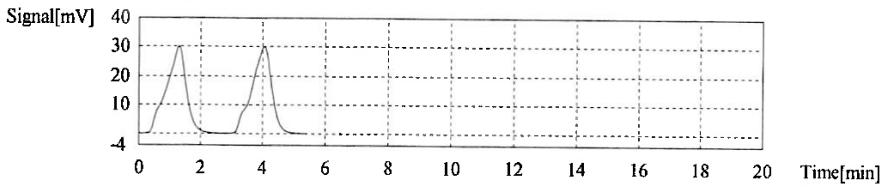
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	133.9	25.27mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:03:03 AM
2	133.0	25.10mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:05:53 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 25.18mg/L
CV Conc 0.48%



Sample

Sample Name: GP27317-S1
Sample ID: JD4552-2
Origin: TOCAQ.met
Status Completed
Chk. Result

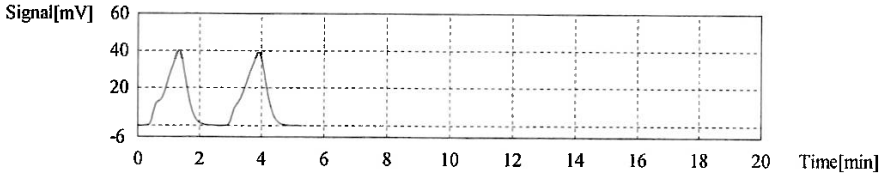
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 34.91mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	185.4	34.99mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:14:01 AM
2	184.6	34.84mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:17:00 AM

Mean Conc. 34.91mg/L
CV Conc 0.31%



Sample

Sample Name: GP27317-MSD1
Sample ID: JD4552-2
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 34.82mg/L

1. Det

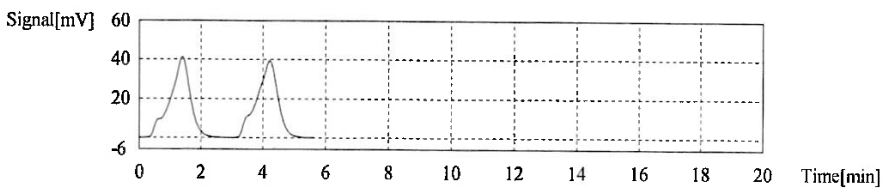
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	185.5	35.01mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:25:28 AM
2	183.5	34.63mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:28:24 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 34.82mg/L
CV Conc 0.77%



Sample

Sample Name: JD4552-3
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

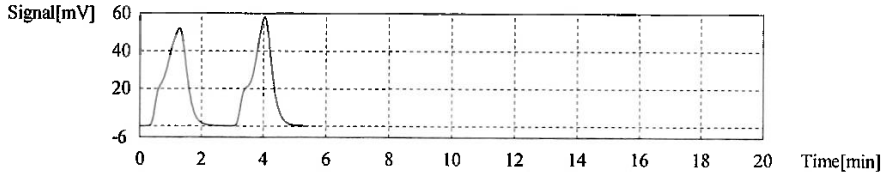
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 47.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	251.9	47.54mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:36:31 AM
2	250.7	47.31mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:39:28 AM

Mean Conc. 47.42mg/L
CV Conc 0.34%



Sample

Sample Name: CCVA
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 51.00mg/L

1. Det

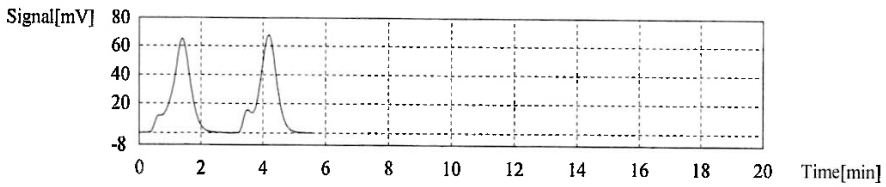
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	270.7	51.09mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:47:47 AM
2	269.8	50.92mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 3:50:44 AM

TOC-Control L Report

e00325w1.toc.tlx

Mean Conc. 51.00mg/L
CV Conc 0.24%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

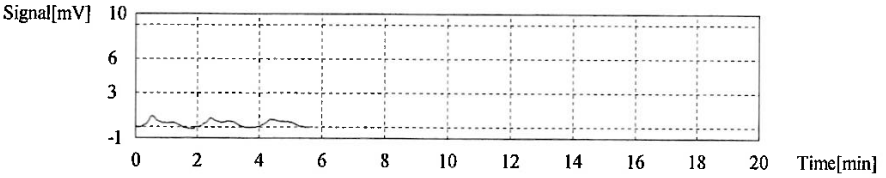
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6709mg/L

1. Det

Anal.: NPOC

No.	Area	Conc	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.960	0.7473mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01 cal	3/26/2020 3:58:00 AM
2	3.663	0.6913mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:00:11 AM
3	3.447	0.6505mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:02:18 AM

Mean Conc. 0.6709mg/L
CV Conc 4.30%



Sample

Sample Name: JD4552-4
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5618mg/L

1. Det

Anal.: NPOC

TOC-Control L Report

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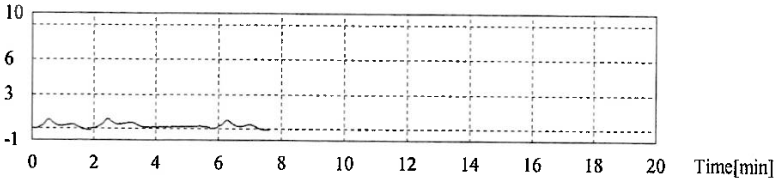
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.252	0.6137mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 4:09:09 AM
2	3.839	0.7245mg/L	100uL	1.000	E	e00228w1.2020_02_28_08_27_01.cal	3/26/2020 4:13:12 AM
3	2.702	0.5099mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 4:15:21 AM

Mean Conc. 0.5618mg/L
CV Conc 13.06%



Sample

Sample Name: CCV
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

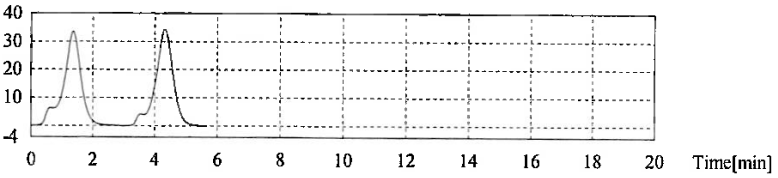
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	132.4	24.99mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 4:21:19 AM
2	133.7	25.23mg/L	100uL	1.000		e00228w1.2020_02_28_08_27_01.cal	3/26/2020 4:24:14 AM

Mean Conc. 25.11mg/L
CV Conc 0.69%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4153mg/L

1. Det

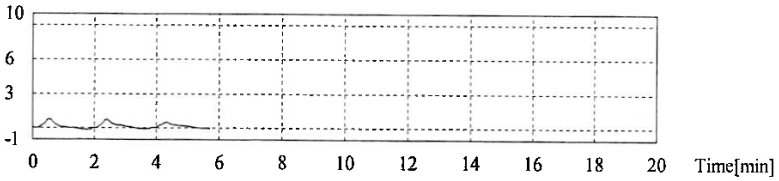
Anal.: NPOC

TOC-Control L Report

e00325w1.toc.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.115	0.3991mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:31:27 AM
2	2.286	0.4314mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:33:36 AM
3	1.620	0.3057mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:35:41 AM

Mean Conc. 0.4153mg/L
CV Conc 5.49%



Sample

Sample Name: SPARGERCHK
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

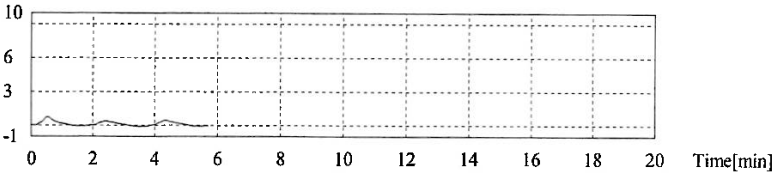
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2924mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.114	0.3989mg/L	100uL	1.000	E	e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:42:36 AM
2	1.501	0.2833mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:44:45 AM
3	1.598	0.3016mg/L	100uL	1.000		e00228w1 2020_02_28_08_27_01 cal	3/26/2020 4:46:54 AM

Mean Conc. 0.2924mg/L
CV Conc 4.43%



LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E032620W1.NO32 Date Analyzed: 03/26/20 Methods: EPA 353.2/LACHAT
Analyst: BM Run ID: GN6686

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: BM Date 3/26/20

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 3/27/20

13.5
13

Author: Chemistry

GN6686

E032620 W1. NO32

Date : 3/26/2020

Original Run Filename: OM_3-26-2020_03-14-38PM.OMN Created: 3/26/2020 3:14:38 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_3-26-2020_03-14-38PM.OMN Last Modified: 3/26/2020 4:55:02 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF	
STDA	1	S1	5.00	3/26/2020@3:15:29 PM		% REC
STDB	1	S2	2.50	3/26/2020@3:16:36 PM		
STDC	1	S3	1.00	3/26/2020@3:17:44 PM		
STDD	1	S4	0.500	3/26/2020@3:18:51 PM		
STDE	1	S5	0.200	3/26/2020@3:19:59 PM		
STDF	1	S6	0.100	3/26/2020@3:21:06 PM		
STDG	1	S7	0.00	3/26/2020@3:22:12 PM		
EFFCHK	1	1	2.13	3/26/2020@3:23:20 PM		106.5%
	Known Conc:		2.00			
ICV	1	2	2.11	3/26/2020@3:24:29 PM		
	Known Conc:		2.00			
ICB	1	3	-0.0895	3/26/2020@3:25:36 PM		
	Known Conc:		0.00			
CCV	1	S9	2.49	3/26/2020@3:26:44 PM		99.6%
	Known Conc:		2.50			
CCB	1	S10	-0.0581	3/26/2020@3:27:51 PM		
	Known Conc:		0.00			
GP27338-MB1	1	4	-0.0464	3/26/2020@3:28:59 PM		
GP27338-B1	1	5	2.15	3/26/2020@3:30:07 PM		107.5%
GP27338-S1	1	6	1.11	3/26/2020@3:31:15 PM		
GP27338-S2	1	7	1.16	3/26/2020@3:32:22 PM		
GP27338-D1	1	8	0.172	3/26/2020@3:33:29 PM		
JD4404-3	1	21	0.117	3/26/2020@3:34:37 PM		
JD4396-2	1	9	0.0155	3/26/2020@3:35:44 PM		
JD4396-4	1	10	0.0949	3/26/2020@3:36:51 PM		
JD4396-5	1	11	0.496	3/26/2020@3:37:58 PM		
JD4396-6	1	12	0.361	3/26/2020@3:39:05 PM		
CCV	1	S9	2.53	3/26/2020@3:40:13 PM		101.2%
	Known Conc:		2.50			
CCB	1	S10	-0.0577	3/26/2020@3:41:20 PM		
	Known Conc:		0.00			
JD4396-7	1	13	0.434	3/26/2020@3:42:27 PM		
JD4396-8	1	14	0.0815	3/26/2020@3:43:34 PM		
JD4396-9	1	15	0.0864	3/26/2020@3:44:41 PM		
JD4396-13	1	16	-0.0486	3/26/2020@3:45:48 PM		
JD4396-16	1	17	0.424	3/26/2020@3:46:56 PM		
JD4396-17	1	18	0.0279	3/26/2020@3:48:04 PM		
JD4396-18	1	19	0.276	3/26/2020@3:49:12 PM		
JD4404-2	1	20	0.0514	3/26/2020@3:50:20 PM		
JD4404-4 (2)	1	22	22.0	3/26/2020@3:51:27 PM		Over range, See nerun.
JD4404-5	1	23	-3.41	3/26/2020@3:52:34 PM		See nerun
CCV	1	S9	2.53	3/26/2020@3:53:42 PM		101.2%
	Known Conc:		2.50			
CCB	1	S10	-0.0457	3/26/2020@3:54:50 PM		
	Known Conc:		0.00			
JD4411-1	1	24	0.0551	3/26/2020@3:55:57 PM		
JD4422-1	1	25	-0.0500	3/26/2020@3:57:04 PM		
JD4422-2	1	26	0.0513	3/26/2020@3:58:11 PM		
JD2242-3	1	27	0.174	3/26/2020@3:59:18 PM		
JD2242-4	1	28	0.487	3/26/2020@4:00:25 PM		
GP27339-MB1 (2)	1	29	0.162	3/26/2020@4:01:32 PM		
GP27339-B1	1	30	2.12	3/26/2020@4:02:38 PM		See nerun.
GP27339-S1	1	31	1.42	3/26/2020@4:03:46 PM		
GP27339-S2	1	32	1.01	3/26/2020@4:04:54 PM		
GP27339-D1	1	33	0.328	3/26/2020@4:06:02 PM		
CCV	1	S9	2.57	3/26/2020@4:07:09 PM		102.8%
	Known Conc:		2.50			
CCB	1	S10	-0.0616	3/26/2020@4:08:17 PM		
	Known Conc:		0.00			
GP27339-MB1	1	29	-0.0467	3/26/2020@4:09:24 PM		

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Author: Chemistry

Date : 3/26/2020

GP27339-B1	1	30	2.13	3/26/2020@4:10:30 PM	
GP27339-S1	1	31	1.43	3/26/2020@4:11:38 PM	
GP27339-S2	1	32	1.01	3/26/2020@4:12:46 PM	
GP27339-D1	1	33	0.339	3/26/2020@4:13:54 PM	
JD4422-5	1	34	0.276	3/26/2020@4:15:02 PM	
JD4440-1	1	35	0.187	3/26/2020@4:16:09 PM	
JD4440-2	1	36	0.0198	3/26/2020@4:17:17 PM	
JD4440-3	1	37	-2.21e-3	3/26/2020@4:18:25 PM	
JD4440-4	1	38	0.587	3/26/2020@4:19:32 PM	
CCV	1	S9	2.58	3/26/2020@4:20:39 PM	
	Known Conc:		2.50		
CCB	1	S10	-0.0968	3/26/2020@4:21:47 PM	
	Known Conc:		0.00		
JD4440-5	1	39	23.7	3/26/2020@4:22:54 PM	
JD4463-1	1	40	-6.03	3/26/2020@4:24:01 PM	
JD4463-2	1	41	-0.0888	3/26/2020@4:25:08 PM	
JD4463-3	1	42	0.121	3/26/2020@4:26:15 PM	
JD4478-2	1	43	-0.0374	3/26/2020@4:27:22 PM	
JD4478-3	1	44	-0.0169	3/26/2020@4:28:29 PM	
JD4478-4	1	45	-0.0489	3/26/2020@4:29:35 PM	
JD4478-5	1	46	0.0743	3/26/2020@4:30:43 PM	
JD4880-1	1	47	6.80	3/26/2020@4:31:51 PM	
JD4603-1	1	48	0.603	3/26/2020@4:32:59 PM	
CCV	1	S9	2.57	3/26/2020@4:34:06 PM	
	Known Conc:		2.50		
	Calibration:		Table/Fig. : 1		
CCB	1	S10	-0.0675	3/26/2020@4:35:14 PM	
	Known Conc:		0.00		
JD4558-2	1	49	0.816	3/26/2020@4:36:22 PM	
JD4404-5	1	23	0.0864	3/26/2020@4:37:29 PM	
JD4463-1	1	40	0.342	3/26/2020@4:38:36 PM	
JD4404-4	1	50	2.41	3/26/2020@4:39:44 PM	50.00
JD4404-4	1	51	1.10	3/26/2020@4:40:52 PM	100.00
JD4440-5	1	52	3.58	3/26/2020@4:41:59 PM	50.00
JD4440-5	1	53	1.76	3/26/2020@4:43:06 PM	100.00
JD4880-1	1	54	1.46	3/26/2020@4:44:13 PM	5.00
JD4558-2	1	55	0.844	3/26/2020@4:45:21 PM	
CCV	1	S9	2.57	3/26/2020@4:48:31 PM	
	Known Conc:		2.50		
CCB	1	S10	-0.0909	3/26/2020@4:49:39 PM	
	Known Conc:		0.00		

106.5%.

103.2%.

(2) ↓ over range, see rerun. see rerun.

102.8%.

102.8%.

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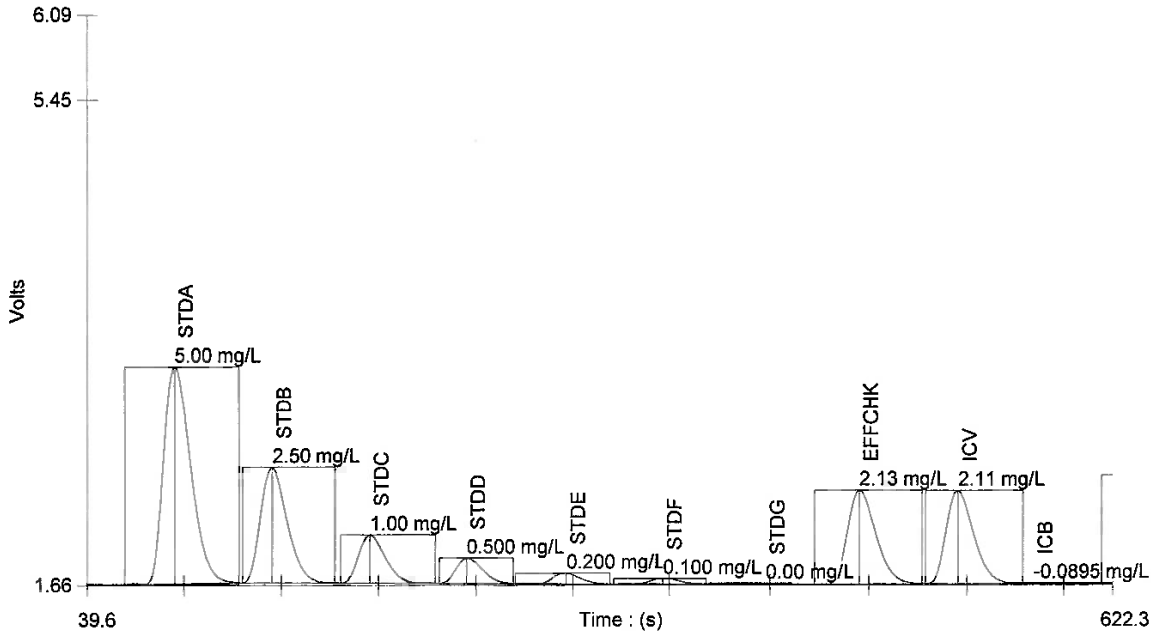
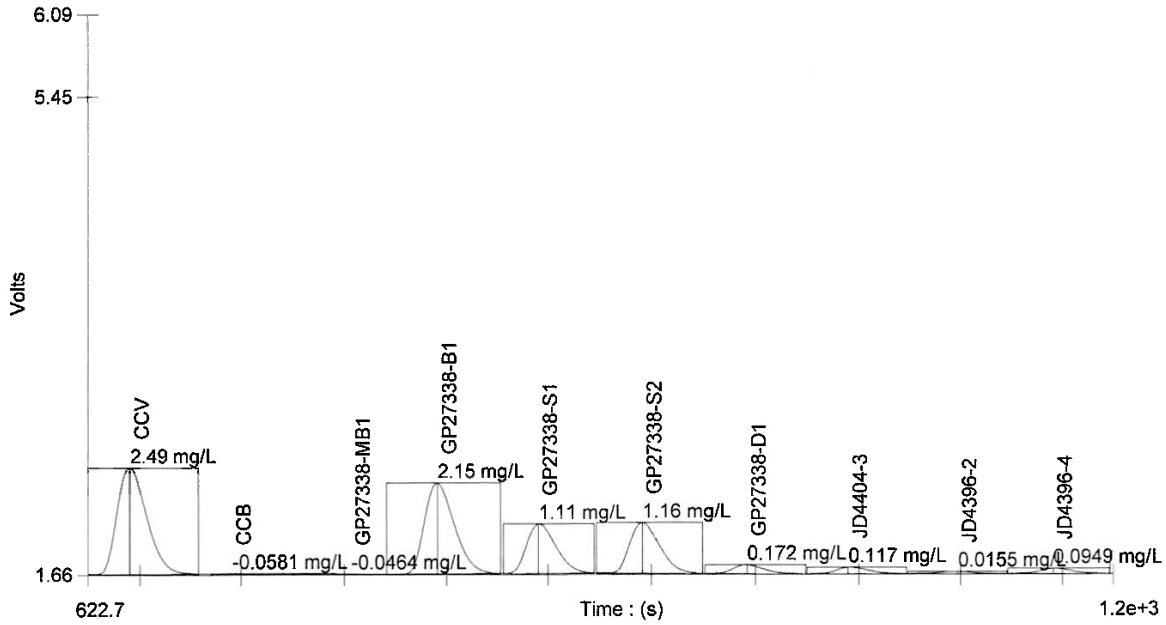
Author: Chemistry Date : 3/26/2020

Channel 1 - Set: 1 / 9

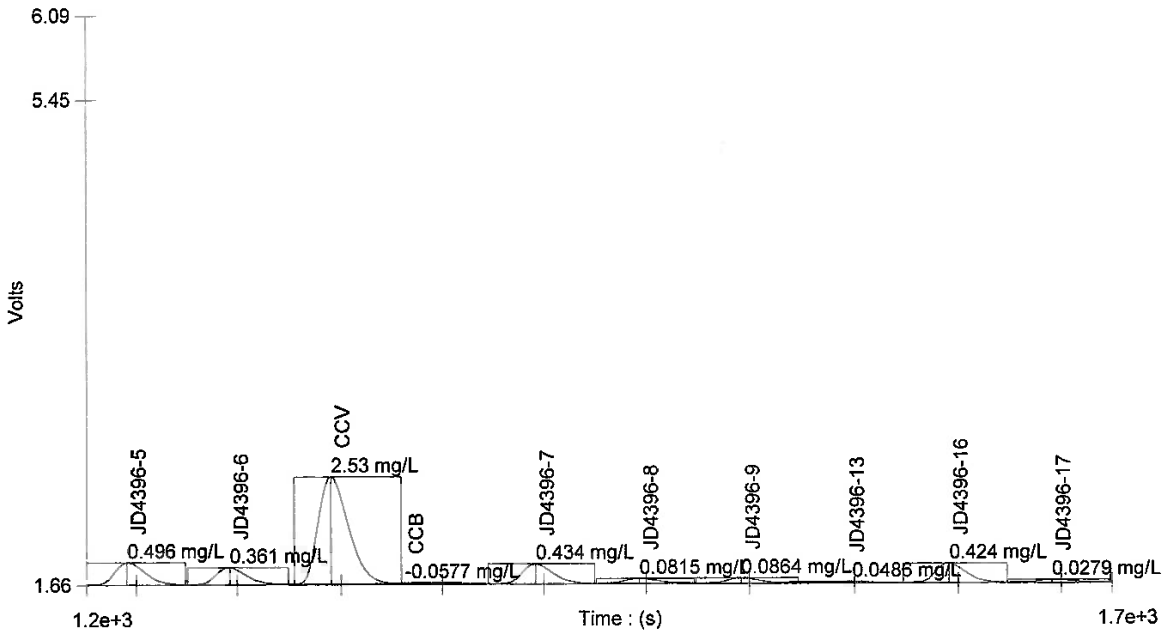


Channel 1 - Set: 2 / 9

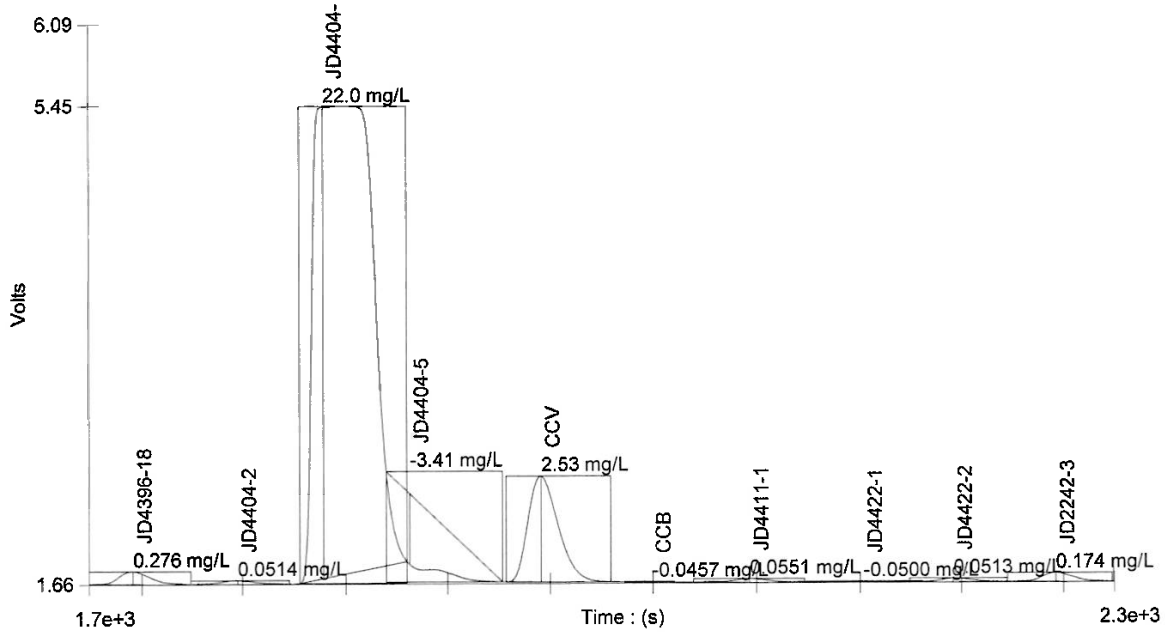


Author: Chemistry Date : 3/26/2020

Channel 1 - Set: 3 / 9

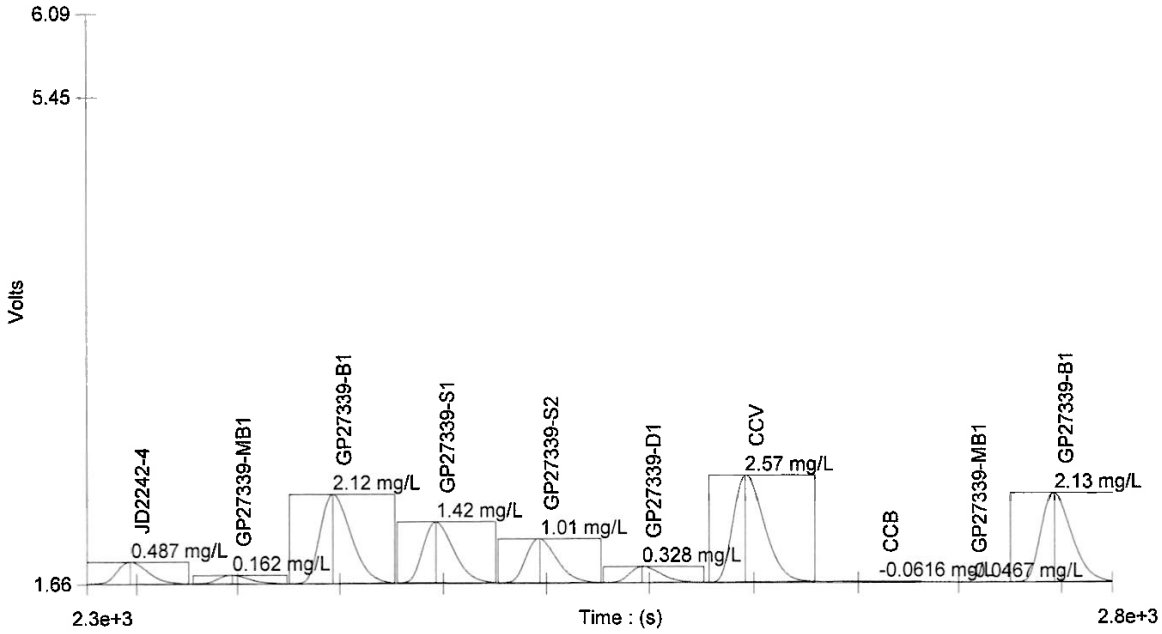


Channel 1 - Set: 4 / 9

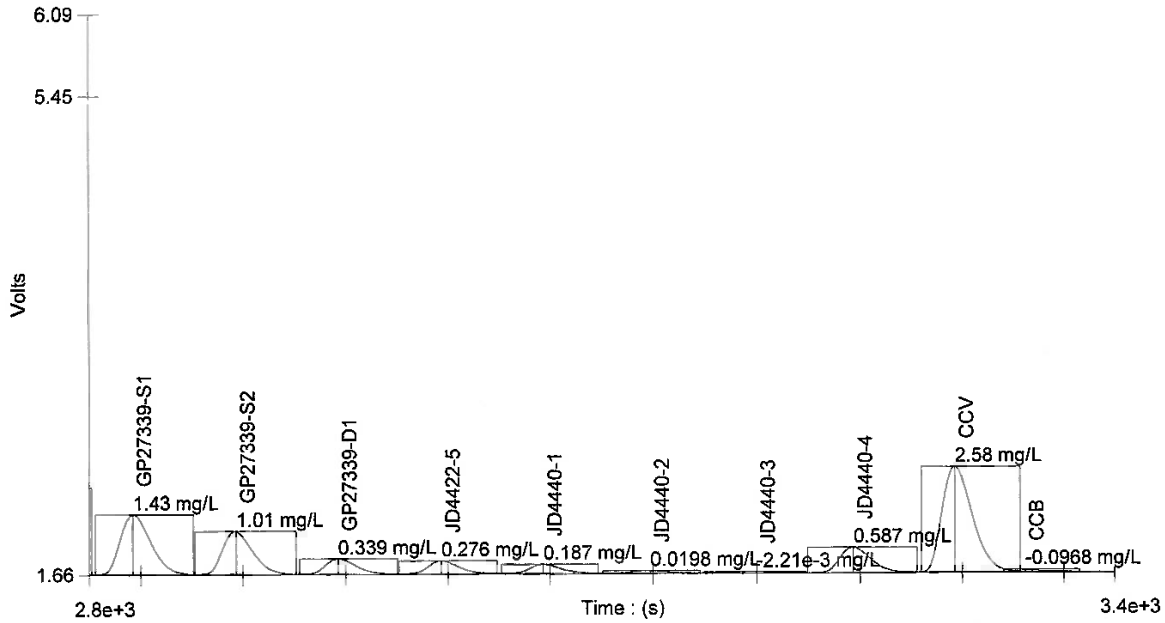


Author: Chemistry Date : 3/26/2020

Channel 1 - Set: 5 / 9

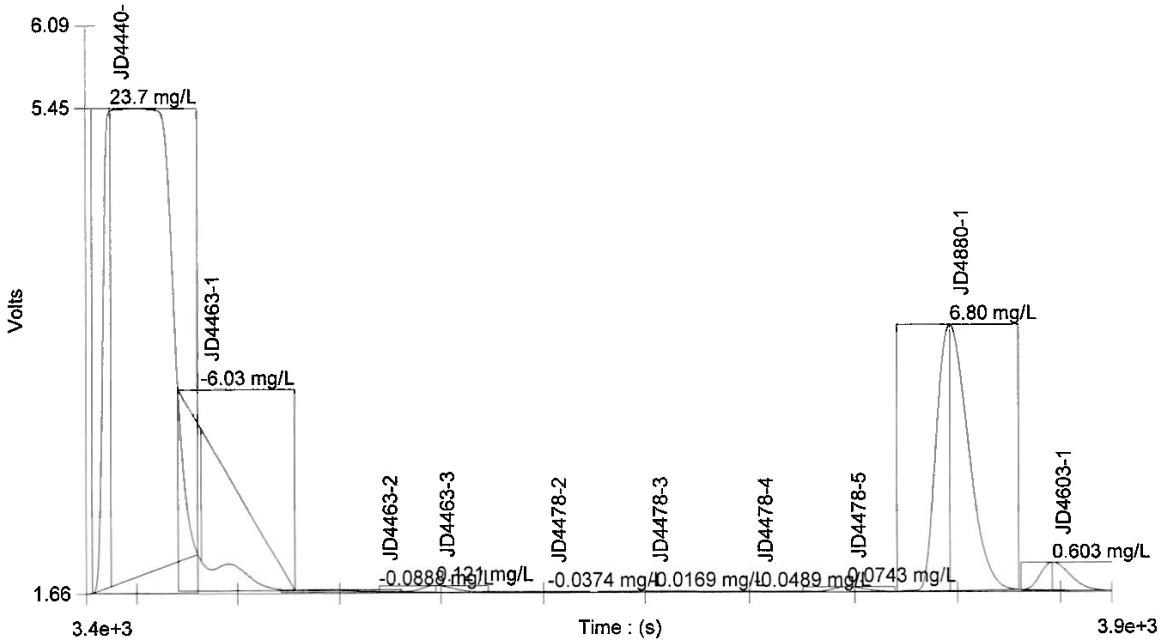


Channel 1 - Set: 6 / 9

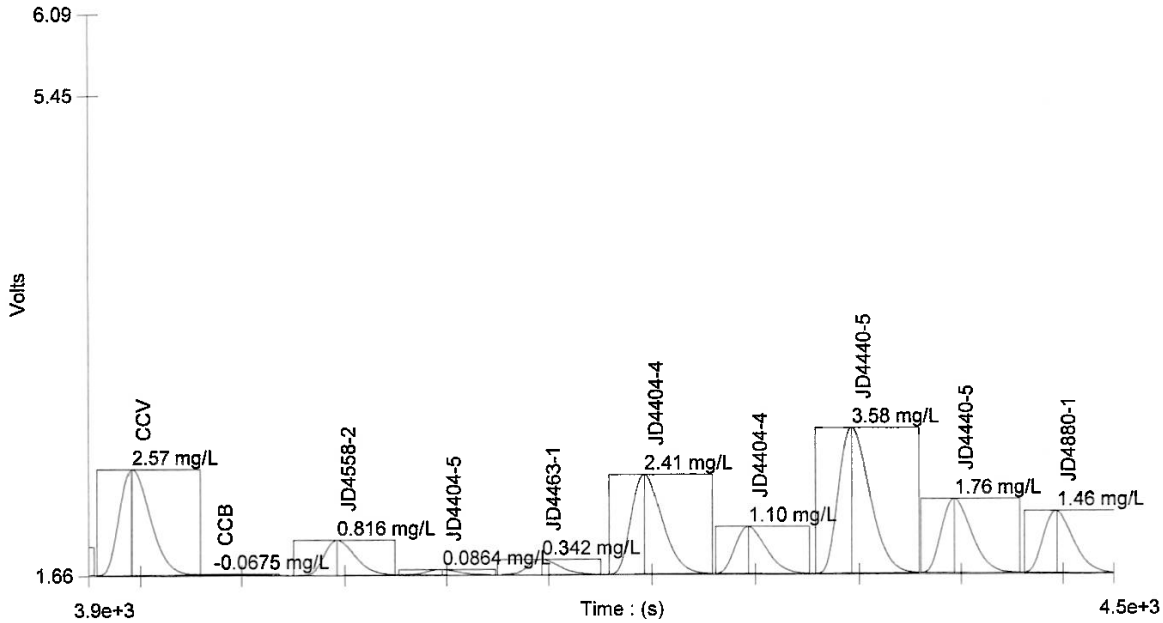


Author: Chemistry Date : 3/26/2020

Channel 1 - Set: 7 / 9



Channel 1 - Set: 8 / 9



Author: Chemistry Date : 3/26/2020

Channel 1 - Set: 9 / 9

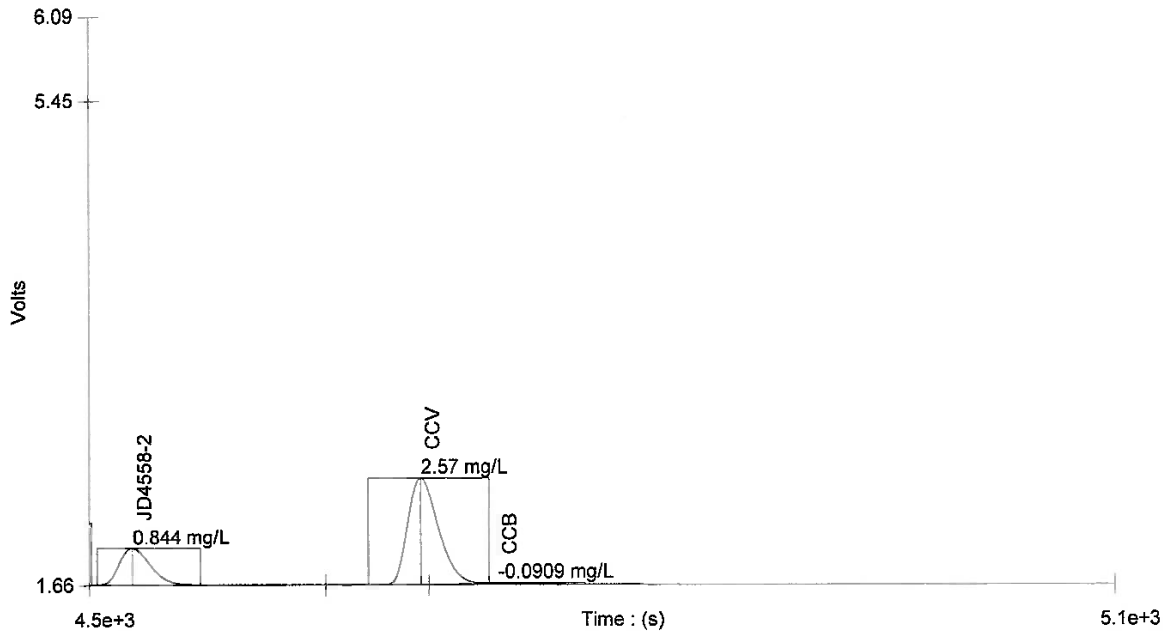
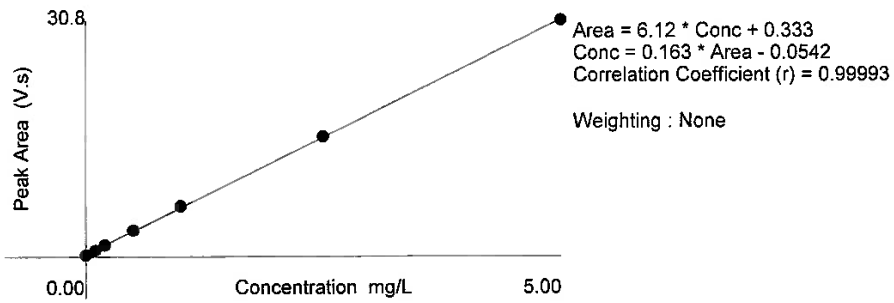


Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	30.8	1.70	0.0	0.3	4.98	3/26/2020	3:15:29 PM
2	2.50	1	15.7	0.902	0.0	-0.7	2.52	3/26/2020	3:16:36 PM
3	1.00	1	6.65	0.380	0.0	-3.1	1.03	3/26/2020	3:17:44 PM
4	0.500	1	3.49	0.200	0.0	-3.0	0.517	3/26/2020	3:18:51 PM
5	0.200	1	1.50	0.0848	0.0	3.4	0.191	3/26/2020	3:19:59 PM
6	0.100	1	0.806	0.0449	0.0	14.7	0.0775	3/26/2020	3:21:06 PM
7	0.00	1	0.214	9.25e-3			-0.0193	3/26/2020	3:22:12 PM

Figure : 1 (NO32)



SGS

Analyst: BM ~~NO32~~ #4BM

Product: NO32

Prep Date: 3/26/20

Batch ID: GN6686

Pipette ID: 45

Balance ID: N/A

Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume
GP27338-B1	2 ml of 100ppm NO32 STD	100 ml Carrier
↓ -S1	0.2 ml of 100ppm NO32 STD	20 ml of JD4404-3
↓ -~~MSD~~S2 of 4BM	↓	↓ JD4411-1
GP27339-B1	2ml of 100ppm NO32 STD	100 ml Carrier
↓ -S1	0.2 ml of 100ppm NO32 STD	20 ml of JD4422-5
↓ -S2	↓	↓ JD4478-2

Reviewer: _____

Date: _____

Form: GN166-04
Revised: 10/27/16

SGS

Analyst BM Product N032 Autopipette # 48

Date 3/26/20 Batch ID GN6686 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JD4404-4	1:50	1	50	
↓ -4	1:100	1	100	
JD4440-5	1:50	1	50	
↓ -5	1:100	1	100	
JD4880-1	1:5	1	5	

QC Reviewer:_____ Date:_____

Form: GN165-01
Rev. Date: 2/25/03

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SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR NITRATE

GN or GP Number: GN6686

Intermediate Standard Description	Stock used to prepare standard	Stock concentration in mg/l	Stock volume used in ml	Diluent (a)	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
100 ppm NO3 intermediate	gne2-60264-no32	1000	10	Carrier	100 ml	100	4/11/2020	ki	3/11/2020
100 ppm NO2 Intermediate	gne2-60263-no32	1000	10	Carrier	100 ml	100	4/11/2020	ki	3/11/2020
100 ppm NO3 External	gne2-60262-no32	1000	10	Carrier	100 ml	100	4/11/2020	ki	3/11/2020

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
5.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	5.0	3/26/2020	KI	3/19/2020
2.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.5	Carrier	100 ml	2.5	3/26/2020	KI	3/19/2020
1.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	1.0	Carrier	100 ml	1.0	3/26/2020	KI	3/19/2020
0.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	0.5	3/26/2020	KI	3/19/2020
0.2 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.0	Carrier	100 ml	0.2	3/26/2020	KI	3/19/2020
0.1 mg/l NO3	100 ppm NO3 intermediate		1.0	Carrier	100 ml	0.1	3/26/2020	KI	3/19/2020
Effcheck 2.0	100 ppm NO2 Intermediate	100 mg/l	2.0	Carrier	100 ml	2.0	3/26/2020	KI	3/19/2020
ICV	100 ppm NO3 External	100 mg/l	2.0	Carrier	100 ml	2.0	3/26/2020	KI	3/19/2020

(a) Diluent reagent reference number_____Expiration Date_____

**Volume will change with standardization concentration.

Form: GN199-02
Rev. Date: 3/2/18

GN6686

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Nitrate Stock Solution	gne2-60264-no32	8/11/2020
Ammonium Chloride Buffer Solution	GNE11-59729-NO3	5/26/2020
Sulfanilamide Color Reagent	GNE3-60535-NO3	4/23/2020
1:1 NH4OH	GNE11-59688-NO3	5/19/2020
Carrier Solution	GNE11-59728-NO3	5/26/2020
1000 ppm Nitrite Solution	gne2-60263-no32	8/11/2020
Nitrate External Stock Solution	gne2-60262-no32	8/11/2020

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

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Appendix H – DUSR

RemVēr

Quality Assessment
Data Usability Summary Report

		RemVēr Project #2019GE01 Client Project # 1102707-02-210	
Site:	Orangetown Shopping Center	**Site #:**	C344066
Client:	GES, Inc.	**Site Owner:**	UB Orangeburg, LLC (UBO)
Sample Delivery Group (SDG)	JD234		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☐ Soil ☐ Sediment ☒ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVēr performed a data quality assessment (DQA) on analytical data reported in Sample Delivery Group (SDG) #JD234 for air samples. The DQA evaluated the performance of the analytical procedures and the quality of the resulting data. RemVēr followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Table 1 describes qualification flags applied to the data either by SGS or during the DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☐ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☐ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☐ Method 8081B Pesticides
- ☐ Method 8082 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☐ Method 8260C VOCs GC/MS
- ☐ Method 8270D Semi-VOCs (sVOCs) GC/MS
- ☐ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☒ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ EPH-total
- ☐ Other Methods:
  - Method 9060A Total Organic Carbon
  - Method MCAWW 300.0 Anions (IC)
  - Method RSK-175 Dissolved Gases
  - Method SM4500 Nitrite
  - Method 353 Nitrite & Nitrate

Quality Control Requirements Summary

- ☒ Duplicate (internal)
- ☐ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blank(s)
- ☐ Equipment, Method, &/or Rinsate Blank
- ☒ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____

Intended Use of Data under Review

The client collected air samples during a two-consecutive day collection event beginning December 10, 2019 at the referenced New York State Brownfields site. The site is under a Site Management Plan (SMP) that requires several kinds of monitoring. The sampling event provided ambient and sub-slab/soil vapor monitoring (see §3.3 of Kleinfelder, 2011).

Significant Data Usability Issues Identified for SDG: #JD234

Of the five samples (two soil gas, two indoor ambient air, and one outdoor ambient) discussed herein, RemVēr rejected no results, but flagged certain analytes as estimated due to the quality of the analysis and the results are acceptable for use. Some analytes had quality issues associated with results falling beyond the calibrated range requiring qualifier flagging. Please refer to the Lab Results and Data Usability Narrative section for further detail.

Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	Field Notes & COC sheets
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☒	☐	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☒	☐	☐	See Attachment #4
Sampling Report (by Field Team Leader)	☒	☐	☐	

Lab Report Contents (SGS SDG Report: #JD234)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported on the following samples:

Sample ID	SDG #JD234–Sample #	Matrix	Sampled	Received
VP–6-A	#-1	IA	12/11/19	12/12/19
VP–6-SV	#-2	SV	12/11/19	12/12/19
VP–5-A	#-3	IA	12/11/19	12/12/19
VP–5-SV	#-4	SV	12/11/19	12/12/19
Outdoor Ambient	#-5	OA	12/11/19	12/12/19

NOTES: SV = Soil Gas (Vapor) IA = Indoor Ambient Air OA = Outdoor Ambient Air

All samples associated with SDG #JD234 were analyzed using USEPA Method TO-15.

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
JD234	Y	Yes

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
JD234	Y	Y	None

Do all QC data fall within the protocol required limits and specifications? *(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, and (9) sample data*									
SDG	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
JD234	☐	☐	☐	☐	☒	☐	☒	☐	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 2 as well.									

Were the data generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
JD234	Y	None

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
JD234	Y	None

Were correct data qualifiers used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
JD234	Y	The laboratory generally applied appropriate qualifiers. To prepare the DUSR, it was necessary to apply additional qualifications or adjust qualifications to certain results as shown in Attachments 3 and 4.

Were quality control (QC) exceedances specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
JD234	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The air samples came from a collection event over two-consecutive days, beginning December 10, 2019. GES provided air sampling field notes related to the effort with the COC.

Laboratory Report Inspection

The laboratory produced SDG report #JD234. The original report was issued on 27Dec2019 and a full ASP Category B report issued 13Jan2020. The final report contained the required data and information.

Chain of Custody (COC) Evaluation

GES produced one COC for the referenced fieldwork (#JD234, single, one-page COC). The laboratory noted no quality issues.

Sample Preservation & Holding Time Evaluation

Laboratory received the canister samples on 12/12/2019 @ 10:40 (designated as SDG-JD234) in proper condition. Holding times and preservation requirements were met. There were no issues noted with either the canisters or flow controllers.

Analytical

The laboratory ran the samples in two batches:

Sample	V5W1621	V5W1622
#-1 SV	X	
#-2 IA	X	X
#-3 IA	X	
#-4 SV	X	X
#-5 OA	X	

The second batch was to make another analytical run due to certain analytes being out of calibration in the first run. Each batch included the required method blank, lab duplicate, and associated QA/QC samples and calibration checks.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standard (external or internal) were acceptable in both batches for all analytes, with the following exceptions:

- The laboratory flagged Batch V5W1621 Samples #-01 and #-02 Ethanol results as "E," indicating it is estimated and exceeding calibration range. Therefore, they re-ran the samples in a second batch (V5W1622) and achieved the same result. Thus, RemVēr flagged these results with E J+.

CCV were acceptable in both batches for all analytes.

Blank Evaluation

There were no associated blanks, other than the ambient indoor and outdoor air samples. All laboratory method blanks performed within acceptable parameters.

Laboratory Control Samples (LCS)

The various LCS' were within the acceptable range for their particular analyses in SDG JD234.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for all analytes. The surrogate 4-Bromofluorobenzene performed within acceptable parameters across all Method TO-15 batches and sample runs in SDG JD234, with one exception. Sample #-2 (Batch V5W1621) was greater than the upper control limit (>UCL) due to matrix interference. RemVēr flagged all results in that sample as estimated or J-flagged (either UJ or J).

Site-Specific Matrix Spikes and Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) runs were required for the analyses per TO-15 Method.

Duplicates

The laboratory used internal duplicates for these VOC analytes; most laboratory duplicate analytes met the RPD performance criteria of <25% with exceptions. These analytical exceptions, therefore, required a J-flag in their particular batch as estimated results due to the lack of analytical precision. The resultant high RPD was due to low analyte concentrations.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Sample Result and Usability Evaluation

All samples were run as two batches, where the second batch provided a check on Acetone and Ethanol due to high concentrations. Due to certain sample issues or laboratory performance (result beyond calibration range for Ethanol in Samples #-02 and #-04, some results were qualified; however, the data are usable. No data received an R (rejected) flag. If an analyte was above the MDL but below the RL, then it was flagged as “UJ”.

RemVēr modified SGS’s laboratory electronic data reports by adding quality flags, highlighted in yellow (see Attachment #4 [separate file]: Orangetown_2019Q4air_DUSR.xlsx [EXCEL file]).

References

Kleinfelder, 2011, *Site Management Plan, Orangetown Shopping Center, 1-45 Orangetown Shopping Center, Orangeburg, NY, NYSDEC Site #C344066*, Final, 21-November, 250p

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

USEPA, 2008, *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, OSWER 9240.1-48, USEPA-540-R-08-01, Office of Superfund Remediation and Technology Innovation: Washington, DC, June, 225p

USEPA, 2010, *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, OSWER 9240.1-51, USEPA-540-R-10-011, Office of Superfund Remediation and Technology Innovation: Washington, DC, January, 110p

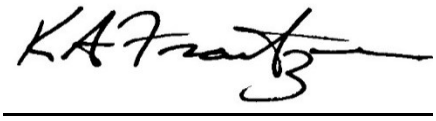
USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Tables

1. Qualifier Flags

Attachments

1. Data Usability Reviewer Qualifications
2. DQA Detail Worksheet
3. DQA Non-Conformance Summary Workheet
4. Separate EXCEL File: Orangetown_2019Q4air_DUSR.xls [NOTE: RemVēr modified the SGS work products by adding quality flags, which are in yellow highlight.]



Prepared by: Kurt A. Frantzen, PhD, CHMM
January 14, 2020

GES PO# 1107983

Table 1
Qualifier Flags

Qualifier	Quality Implication
U	Analyte analyzed for, but not detected above the sample's reported quantitation limit
J	Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J +	Sample likely to have a high bias
J –	Sample likely to have a low bias
UJ	Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R	Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (*i.e.*, dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B | EB **TB | BB**	An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P	Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (*see below*).
PM	A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Attachment 1
Data Usability Reviewer: Kurt A. Frantzen, PhD, CHMM

Experience

2013-Present	d/b/a RemVēr	Owner
2014-2019	AECC	Senior EHS Consultant
2011-2012	RemVēr, Inc.	President
2006-2011	Kleinfelder	Senior Principal Scientist
2005	Kleinfelder	Principal Scientist, Part-Time/On Call
2004-2006	d/b/a Environmental Risk Group	Owner
2004-2006	RemVēr, Inc., Larchmont, NY	Founder, President
1999-2004	VHB, Inc.	ERM Director & Associate
1997-1998	GEI Consultants, Inc.	Senior Project Manager
1992-1997	Ecology and Environment, Inc.	Technical Chief
1991-1992	EA Engineering, Science, & Technology, Inc.	Project Manager III
1990-1991	Ecology and Environment, Inc.	Technical Group Manager
1986-1990	Ecology and Environment, Inc.	Senior Environmental Scientist

Education

Am Cancer Soc. Post-Doctoral Fellow, U Washington 1985-1986
PhD—Life Sci. / Biochem, NU—Lincoln 1985
MS—Plant Pathology, Kansas State Univ. 1980
BS—Biology, NU—Omaha 1978

Professional Affiliations

Society Risk Analysis ('09 & '11 Chair, Eco-Risk Assessment)
Am. Chemistry Society
Am. Assoc. Advance Science
NY Academy of Science
Am. Institute of Biological Sciences
LSP Association

Other

- CERCLA & RCRA experience, as well as DOD (Air Force & Army) & DOE (INEL)
- NE Regional Experience—NY BCP; Mass MCP; & various sites in CT, RI & NH
- National Experience: NE, SE, Gulf & West Coast, Mid-west, Inter-mountain, California, Alaska
- International: Germany, Israel, Kuwait, Australia
- Selected Publications
    - *Using Risk Appraisals to Manage Environmentally Impaired Properties*, 2000, VHB Site Works, Report 108
    - *Risk-Based Analysis for Environmental Managers*, 2001, CRC/Lewis
    - Chapter 7 Risk Assessment, *Managing Hazardous Materials*, 2002 & 2009, IHMM
    - Chapter 22 Cleanup Goals, *Brownfields Law & Practice*, 2004-Present, Lexis/Nexis
    - *Use of Risk Assessment in Risk Management of Contaminated Sites*, 2008, ITRC
- 61 Conference Papers & Invited Professional Presentations
    - 1999-2014, Visiting Lecturer, Brownfields Program, Harvard Graduate School of Design
    - 2010-2013, Invited Lecturer, Pace University Law School

Attachment 2
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
Method Blank: VOCs	No	—	No Comment
—	—	—	—

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—	VOCs	No Comment
—	—	—	—	—	—

SURROGATES	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—	4-Bromofluorobenzene	Sample #-2 Flag All UJ or J
—	—	—	—	—	—

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOCs	—	—	—	—	—	No Comment, none required
—	—	—	—	—	—	—

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 25%	Compounds	Notes
N/A	N/A	N/A	N/A	N/A	N/A
N/A		N/A	N/A	N/A	N/A
LAB DUPLICATES					
Batch V5W1621	Lab Sample	N/A	X	Chloroform & Tetrachloroethylene	Flag Analytes UJ / J
Batch V5W1622	Lab Sample	N/A	X	Acetone & Ethanol	Flag Analytes UJ / J

Reasonable Confidence Achieved ☐ Not Applicable
Requested Reporting Limits Achieved ☒ Y ☐ N
Holding Time Requirements Met ☒ Y ☐ N
Significant QC Variances Noted ☒ Y ☐ N
Preservation Requirements Met ☒ Y ☐ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

Attachment 3
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

Sample Number(s)	Compound(s)	QC Non-Conformance	% Recovery	% RPD †	High or Low Bias ‡	Comments
All	All Other VOCs	—	—	—	—	No Flag
#-2 & #-4	Ethanol	Beyond calibration range	—	>UCL	Hi	Flag E J+
All	Chloroform & Tetrachloroethylene	Duplicate	—	>UCL	—	Flag UJ or J
All	Acetone & Ethanol		—	>UCL	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference
‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

RemVēr

Quality Assessment
Data Usability Summary Report

			RemVēr Project #2020GE01 Client Project # 1102707-06-206
Site:	Orangetown Shopping Center	**Site #:**	C344066
Client:	GES, Inc.	**Site Owner:**	UB Orangeburg, LLC (UBO)
Sample Delivery Group (SDG)	JD4440		
Sample Matrix:	☐ Drinking water ☒ Groundwater ☐ Surface water ☐ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVēr performed a data quality assessment (DQA) on the analytical data reported in Sample Delivery Groups (SDGs) #JD4440 for groundwater samples. The DQA evaluated the performance of the analytical procedures and the quality of the resulting data. RemVēr followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Table 1 describes qualification flags applied to the data either by SGS Accutest or during the DQA process.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☐ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☐ Method 8081B Pesticides
☐ Method 8082 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☐ Method 8270D Semi-VOCs (sVOCs) GC/MS
☐ Method 9010/9012/9014 Cyanides (_____)

☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Extractable Petroleum Hydrocarbons (EPH)
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ EPH-total
☒ Other Methods:
Method 9060A/SM5310 Total Organic Carbon
Method 300.0/9056A Anions (IC)
Method RSK-175 Dissolved Gases
Method SM4500 Nitrite
Method 353.2 Nitrite & Nitrate
Method SM3500 Fe^{+2} / Fe^{+3}

Quality Control Requirements Summary

☒ Duplicate
☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
☒ Trip Blank(s)
☒ Equipment, Method, &/or Rinsate Blank

☒ Other Field QC: Field notes regarding sampling
☐ Special QAPP Requirements: _____
_____

Intended Use of Data under Review

The client collected groundwater samples during a one-day collection event: March 10, 2020 at the referenced New York State Brownfields site. The site is under a Site Management Plan (SMP) requiring several kinds of monitoring. This event provided gauging/biostimulant and quarterly groundwater monitoring (see §3.3 of Kleinfelder, 2011).

Significant Data Usability Issues Identified for SDG: # JD4440

Of the five (5) samples (plus one duplicate and three blanks) discussed herein, the results are acceptable for use even though the results of some analytes are flagged due to sample handling, laboratory accuracy or precision issues.

All the Ferrous results were qualified (UJ or J) due to a holding violation, causing similar flagging of calculated Ferric results.

Please refer to the Lab Results and Data Usability Narrative section for further detail.

Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☒	☐	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☒	☐	☐	See Attachment #4
Sampling Report (by Field Team Leader)	☒	☐	☐	

Lab Report Contents (SGS Accutest SDG Report: #JD4440)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #JD4440–Sample #	Matrix	Sampled	Received
MW-3	#-1	Water	03/10/20	03/11/20
MW-4	#-2	Water	03/10/20	03/11/20
MW-5	#-3	Water	03/10/20	03/11/20
MW-6				
MW-7				
MW-8A	#-4	Water	03/10/20	03/11/20
MW-8B				
MW-10				
MW-15A				
MW-C				
MW-D				
MW-E	#-5	Water	03/10/20	03/11/20
MW-F				
MW-4 (MS/MSD)	#-2 MS/MSD	Water	03/10/20	03/11/20
Field Duplicate (FD) (MW-4)	#-6	Water	03/10/20	03/11/20
Field Blank (FB)	#-7	Water	03/10/20	03/11/20
Equipment Blank (EB)	#-8	Water	03/10/20	03/11/20
Trip Blank (TB #1)	#-9	Water	03/10/20	03/11/20

The SDG included the following samples with their analyses:

JD4440:	Well	VOCs	Ethene	TOC	Iron	Fe^{+2}	Fe^{+3}	NO_3	SO_4	Pest/PCB	SVOCs	RCRA13
#-1	MW-3	X	X	X	—	X	—	X	X	—	—	—
#-2	MW-4	X	X	X	—	X	—	X	X	—	—	—
#-2MS	MW-4	X	—	X	—	X	—	X	X	—	—	—
#-2MSD	MW-4	X	—	X	—	X	—	X	X	—	—	—
#-3	MW-5	X	X	X	—	X	—	X	X	—	—	—
#-4	MW-8A	X	X	X	—	X	—	X	X	—	—	—
#-5	MW-E	X	X	X	—	X	—	X	X	—	—	—
#-6	FD (MW-5)	X	—	—	—	—	—	—	—	—	—	—
#-7	FB	X	—	—	—	—	—	—	—	—	—	—
#-8	EB	X	—	—	—	—	—	—	—	—	—	—
#-9	TB	X	—	—	—	—	—	—	—	—	—	—

TOC: Total Organic Carbon | Iron: Total Iron | Fe^{+2}: Ferrous Iron | Fe^{+3}: Ferric Iron | NO_3: Nitrate | SO_4: Sulfate

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
JD4440	Y	Yes

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
JD4440	Y	Y	Hold time for all Ferrous analysis missed, effects derivatives as well, flag UJ/J

Do all QC data fall within the protocol required limits and specifications?

(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
JD4440	☐	☐	☐	☒	☐	☒	☐	☐	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 2 as well.

Have all of the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
JD4440	Y	None

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
JD4440	Y	None

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
JD4440	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
JD4440	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The groundwater samples came from a one-day collection event: March 10, 2020. A review of the field notes provided the following information pertaining to data usability.

Groundwater MWs	March-2020 Comments SDG #JD4440
MW-3	#-1, Bailer purge (2.8-gal), sampled
MW-4	#-2, Bailer purge (4.5-gal), sampled; duplicate and MS/MSD samples came from this well
MW-5	#-3, Bailer purge (3.5-gal), sampled
MW-8A	#-4, Bailer purge (0.5-gal), sampled
MW-E	#-5, Bailer purge (1.1-gal), sampled

Laboratory Report Inspection

The laboratory produced SDG report #JD4440 (dated 31-Mar-20), which contained the required data and information.

Chain of Custody (COC) Evaluation

GES produced one COC for the referenced fieldwork (#JD4440, single, one-page COC). The laboratory noted no issues at the time of receipt; however, they note in the case narrative that the Ferrous Iron samples received outside of Holding Time, see discussion below.

Sample Preservation & Holding Time Evaluation

Laboratory received one cooler with samples on 3/11/2020 @ 10:50 (designated as SDG-JD4440) in proper condition and, where required, on ice. The temperature of the cooler at receipt was measured as 2.3/2.1 ºC and corrected to 2.0/1.8ºC. Holding times and preservation requirements were met with the following exceptions (note: the SGS Accutest Sample Receipt Summary said nothing about this holding time deviation):

- Ferrous—samples #-1 (MW-3), -2 (MW-4), -3 (MW-5) -4 (MW-8A), and -5 (MW-E) received outside of holding for this analysis, all results flagged as UJ/J-HT.
- Ferric—because this analyte is derived by calculation all results were similarly qualified as Ferrous (see Attachment 2 and 3).

Detection Limits

Analytical detection limits were acceptable for all analytes. If an analyte was below the MDL, then it was flagged as “U.” If an analyte was above the MDL but below the RL, then it was flagged as “UJ.”

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) and CCVs were acceptable for all analytes with the following exceptions:

- Method 8260 (VOCs)—Batch V2A8717: The CCV for Dichlorodifluoromethane in Samples #-4, #-5, & #-6 was beyond the upper control limit (>UCL, with high bias), but the results were non-detect. RemVēr flagged the results as “UJ+.”

- Method RSK-175 (Ethene)—Batch GAA1969: The CCV recovery for Ethene in Samples #-4 & #-5 was beyond the upper control limit (>UCL, with high bias), but the results were non-detect. RemVēr flagged the results as "UJ+."

Blank Evaluation

The Method Blanks run for each analysis had no detections or qualifications. The Trip Blank (TB) had no detectable VOC analytes (above their respective the reporting limits). Both the Equipment Blank (EB) and Field Blank (FB) had no detectable VOC analytes (above their respective the RLs). Therefore, no results were flagged for blank contamination.

Laboratory Control Samples (LCS)

The various LCS' were within the acceptable range for their particular analyses in SDG JD4440.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses for JD4440 met the QA criteria, with the following exceptions:

- Method 353.2 (Nitrogen, Nitrate + Nitrite)—Batch GP27339
  - The MS recovery of Nitrogen was greater than the upper control limit (UCL) indicative of high bias, and most likely due to matrix interference. Therefore, RemVēr flagged the Samples #-1, #-2, #-3, #-4, and #-5 results as either UJ+ / J+. NOTE: Because Nitrogen, Nitrate is a derivative via calculation ([Nitrogen, Nitrate + Nitrite] – [Nitrogen, Nitrite]) all results were similarly qualified as Nitrogen, Nitrate + Nitrite.

Duplicates

The analytical Method Duplicates met their respective RPD performance criteria.

GES collected a field replicate of MW-4 (compare samples #-2 and #-6). The VOC analytes met the RPD performance criteria of <20%.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag. Using the analytically estimated Total and Ferrous Iron concentrations or Nitrate + Nitrite and Nitrite, SGS calculated the concentration of Ferric Iron or Nitrate (respectively) by difference. Therefore, qualifier flags associated with analytic results automatically attach to the calculated results.

RemVēr modified SGS's laboratory electronic data reports by adding quality flags, highlighted in yellow (see Attachment #4 [separate file]: Orangetown_2020Q1_DUSR.xls [EXCEL file]).

References

Kleinfelder, 2011, *Site Management Plan, Orangetown Shopping Center, 1-45 Orangetown Shopping Center, Orangeburg, NY, NYSDEC Site #C344066*, Final, 21-November, 250p

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

USEPA, 2008, *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, OSWER 9240.1-48, USEPA-540-R-08-01, Office of Superfund Remediation and Technology Innovation: Washington, DC, June, 225p

USEPA, 2010, *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, OSWER 9240.1-51, USEPA-540-R-10-011, Office of Superfund Remediation and Technology Innovation: Washington, DC, January, 110p

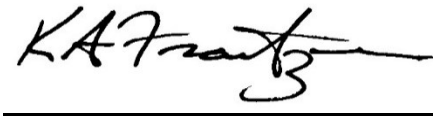
USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Tables

1. Qualifier Flags

Attachments

1. Data Usability Reviewer Qualifications
2. DQA Detail Worksheet
3. DQA Non-Conformance Summary Workheet
4. Separate EXCEL File: Orangetown_2020Q1_DUSR.xls [NOTE: RemVēr modified the SGS work products by adding quality flags, which are in yellow highlight.]



Prepared by: Kurt A. Frantzen, PhD, CHMM
April 14, 2020

GES PO #1109852

Table 1
Qualifier Flags

Qualifier	Quality Implication
0–9	Use with Coeluting Congeners
A	Tentatively Identified Compound (TIC) suspected to be an aldol condensation product
B | EB TB | BB RB BH/BL	An analyte identified in method blank (B), aqueous equipment (EB), rinsate (RB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results. Analyte detected in Blank at level >10X/5-10X that of the Sample
D	Sample analysis from dilution of original sample
E	Analyte concentration exceeds calibration range
U	Analyte analyzed for, but not detected above the sample's reported quantitation limit
J	Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J +	Sample likely to have a high bias
J –	Sample likely to have a low bias
UJ	Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R	Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (*i.e.*, dilutions or re-analyses), the most technically acceptable result is considered acceptable.
P	Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (*see below*).
PM	A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Attachment 1
Data Usability Reviewer: Kurt A. Frantzen, PhD

Experience

2013-Present	d/b/a RemVēr	Owner
2014-2019	AECC	Senior EHS Consultant
2011-2012	RemVēr, Inc.	President
2006-2011	Kleinfelder	Senior Principal Scientist
2005	Kleinfelder	Principal Scientist, Part-Time/On Call
2004-2006	d/b/a Environmental Risk Group	Owner
2004-2006	RemVēr, Inc., Larchmont, NY	Founder, President
1999-2004	VHB, Inc.	ERM Director & Associate
1997-1998	GEI Consultants, Inc.	Senior Project Manager
1992-1997	Ecology and Environment, Inc.	Technical Chief
1991-1992	EA Engineering, Science, & Technology, Inc.	Project Manager III
1990-1991	Ecology and Environment, Inc.	Technical Group Manager
1986-1990	Ecology and Environment, Inc.	Senior Environmental Scientist

Education

Am Cancer Soc. Post-Doctoral Fellow, U Washington 1985-1986

PhD—Life Sci. / Biochem, NU—Lincoln	1985
MS—Plant Pathology, Kansas State Univ.	1980
BS—Biology, NU—Omaha	1978

Other

- CERCLA & RCRA experience, as well as DOD (Air Force & Army) & DOE (INEL)
- NE Regional Experience—NY BCP; Mass MCP; & various sites in CT, RI & NH
- National Experience: NE, SE, Gulf & West Coast, Mid-west, Inter-mountain, California, Alaska
- International: Germany, Israel, Kuwait, Australia
- Selected Publications
    - *Using Risk Appraisals to Manage Environmentally Impaired Properties*, 2000, VHB Site Works, Report 108
    - *Risk-Based Analysis for Environmental Managers*, 2001, CRC/Lewis
    - Chapter 7 Risk Assessment, *Managing Hazardous Materials*, 2002 & 2009, IHMM
    - Chapter 22 Cleanup Goals, *Brownfields Law & Practice*, 2004-Present, Lexis/Nexis
    - *Use of Risk Assessment in Risk Management of Contaminated Sites*, 2008, ITRC
- 61 Conference Papers & Invited Professional Presentations
    - 1999-2018, Visiting Lecturer, Brownfields Program, Harvard Graduate School of Design
    - 2010-2013, Invited Lecturer, Pace University Law School
    - 2014-2015, Adjunct Professor, Pace University Law School

Attachment 2
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
Method Blank: VOCs	No	—	No Comment
Method Blank: Ethene	No	—	No Comment
Method Blank: TOC	No	—	No Comment
Method Blanks: Nitrate & Sulfate	No	—	No Comment
Method Blank: Iron	No	—	No Comment
Method Blank: Ferrous	No	—	No Comment
Field Blank (FB)	No	—	No Comment
Equipment Blank (FB)	No	—	No Comment
Trip Blank (TB)	No	—	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—	VOCs	No Comment
Ethene	—	—	—	Ethene	No Comment
Metals	—	—	—	Iron	No Comment
TOC	—	—	—	TOC	No Comment
NO_3 / NO_2 SO_4	—	—	—	Nitrite (NO_2), Nitrate (NO_3), Sulfate	No Comment
Ferrous/Ferric	— —	— —	— —	Iron +2 Iron +3	No Comment

SURROGATES	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—	—	No Comment
Dis. Gases	—	—	—	—	No Comment
TOC	—	—	—	—	No Comment
NO_3 / SO_4	—	—	—	—	No Comment
Ferrous/Ferric	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
All Other VOCs	—	—	—	SDG Batch	—	No Comment
Dis. Gases	—	—	—	SDG Batch	—	No Comment
TOC	—	—	—	SDG Batch	—	No Comment
Ferrous Iron	—	—	—	SDG Batch	—	No Comment
Sulfate	—	X	—	SDG Batch	—	No Comment
Nitrate + Nitrite #-1, -2, -3, -4, &-5	—	—	X Hi Bias	GP27339	—	Flag UJ+/J+
Nitrite	—	—	—	SDG Batch	—	No Comment

Attachment 2 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
VOCs	MW-4 (#-2 & #-6)	N/A	—	VOCs	None
Dissolved Gases		N/A	N/C	—	Not Collected
Total Iron		N/A	N/C	—	
Nitrate & Sulfate		N/A	N/C	—	
Total Metals (Iron)		N/A	N/C	—	
Iron, Ferrous & Ferric		N/A	N/C	—	
TOC		N/A	N/C	—	
LAB DUPLICATES					
JD4440	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—N/A	Significant QC Variances	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N	Preservation Require. Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N—Ferrous Iron samples, results qualified, as are ferric			

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

Attachment 3
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

Sample Number(s)	Compound(s)	QC Non-Conformance	% Recovery	% RPD †	High or Low Bias ‡	Comments
ALL	Any	Non-Detect				Flag U
	Any	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
#-4, -5 & -6	Dichlorodifluoro-methane	CCV	>UCL	—	Hi	Flag UJ+ or J+
#-4 & -5	Ethene	CCV	>UCL	—	Hi	Flag UJ+ or J+
#-1, 2, 3, 4, & 5	Nitrogen, Nitrate + Nitrite	MS	>UCL	—	Hi	Flag UJ+ or J+
#-1, 2, 3, 4, & 5	Nitrogen, Nitrate	Derivative of Nitrate + Nitrite	—	—	—	Flag UJ or J
#-1, 2, 3, 4, & 5	Ferrous Ferric Iron	Holding Time Derivative of Fe^{2+}	—	—	—	Flag UJ/J-HT

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.