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Automated Report

Technical Report for

Arcadis

National Grid, Philly Coke, Philadelphia PA

B0036790.0001.00002

SGS Job Number: JC66384

Sampling Date: 05/16/18

Report to:

Arcadis

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ATTN: Lawrence Healy

Total number of pages in report: **1505**

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Laboratory Director

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Sample Summary

Arcadis

Job No: JC66384

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC66384-1	05/16/18	09:00	CO	05/17/18	SO	Soil	MW-103(6-7)
JC66384-2	05/16/18	09:20	CO	05/17/18	SO	Soil	MW-103(15-16)
JC66384-3	05/16/18	12:15	CO	05/17/18	AQ	Trip Blank Soil	TRIP BLANK
JC66384-4	05/16/18	12:15	CO	05/17/18	SO	Soil	MW-102(12-13)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis **Job No** JC66384

Site: National Grid, Philly Coke, Philadelphia PA **Report Date** 6/5/2018 4:45:11 PM

On 05/17/2018, 3 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC66384 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:** V2D7409

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66383-5MS, JC66383-5MSD were used as the QC samples indicated.
- JC66384-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC66384-3 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

Matrix: SO **Batch ID:** V1C6921

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66413-1MS, JC66413-2DUP were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Methyl Acetate are outside control limits. Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** VC8227

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC66392-1DUP, JC66392-2MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Methyl Acetate are outside control limits. Outside control limits due to matrix interference.
- JC66384-1 for Acetone: Associated CCV outside of control limits low.
- JC66384-2 for Acetone: Associated CCV outside of control limits low.
- JC66384-2 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC66384-1 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO **Batch ID:** OP12196

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66405-1MS, JC66405-1MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Fluoranthene are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MS/MSD for 1,1'-Biphenyl, 1,2,4,5-Tetrachlorobenzene, 1,4-Dioxane, 2,2'-Oxybis(1-chloropropane), 2-Chloronaphthalene, 2-Methylnaphthalene, 2-Nitroaniline, Acetophenone, Anthracene, Atrazine, Benzaldehyde, Benzo(a)anthracene, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl)ether, Caprolactam, Carbazole, Dibenzofuran, Fluoranthene, Hexachlorobutadiene, Hexachloroethane, Isophorone, N-Nitroso-di-n-propylamine, Naphthalene, Nitrobenzene, Phenanthrene, Pyrene are outside control limits. Outside control limits due to matrix interference.
- JC66384-1 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC66384-2 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC66384-2 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- OP12196-BS1 for 4-Chloroaniline: Outside of program requirements.
- JC66384-4 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC66384-4 for 2,4,6-Tribromophenol: Outside control limits due to matrix interference. The results confirmed by re-extraction outside the holding time.
- JC66384-4 for 2-Fluorophenol: Outside control limits due to matrix interference. The results confirmed by re-extraction outside the holding time.
- JC66384-4 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC66384-1 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.

Matrix: SO **Batch ID:** OP12509

- The data for SW846 8270D meets quality control requirements.
- JC66384-4: Confirmation run for surrogate recoveries.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: SO **Batch ID:** OP12247

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66384-2MS, JC66384-2MSD were used as the QC samples indicated.
- OP12247-BSD for alpha-BHC: Analytical precision exceeds in-house control limits.
- OP12247-BSD for gamma-BHC (Lindane): Analytical precision exceeds in-house control limits.
- OP12247-BSD for Heptachlor: Analytical precision exceeds in-house control limits.
- OP12247-BSD for Aldrin: Analytical precision exceeds in-house control limits.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP12244

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66384-1MS, JC66384-1MSD were used as the QC samples indicated.

Metals Analysis By Method SW846 6010C

Matrix:	SO	Batch ID:	MP7257

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66366-4MS, JC66366-4MSD, JC66366-4SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Antimony, Manganese are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Aluminum, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Beryllium, Sodium, Thallium are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- JC66384-4 for Silver: Elevated detection limit due to dilution required for high interfering element.

Metals Analysis By Method SW846 7471B

Matrix:	SO	Batch ID:	MP7227

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66357-1MS, JC66357-1MSD were used as the QC samples for metals.

General Chemistry By Method SM2540 G-97

Matrix:	SO	Batch ID:	GN80296

- The data for SM2540 G-97 meets quality control requirements.

General Chemistry By Method SW846 9012B/LACHAT

Matrix:	SO	Batch ID:	GP13289

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66366-1DUP, JC66366-1MS were used as the QC samples for Cyanide.

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: JC66384
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 05/16/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC66384-1	**MW-103(6-7)**					
Acetone [a]		38.0	10	6.6	ug/kg	SW846 8260C
Methylene chloride		3.5 J	5.1	2.6	ug/kg	SW846 8260C
Acenaphthene		291	41	14	ug/kg	SW846 8270D
Acenaphthylene		94.5	41	21	ug/kg	SW846 8270D
Anthracene		708	41	25	ug/kg	SW846 8270D
Benzo(a)anthracene		1340	41	11	ug/kg	SW846 8270D
Benzo(a)pyrene		1210	41	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		1450	41	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		776	41	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene		482	41	19	ug/kg	SW846 8270D
1,1'-Biphenyl		22.3 J	81	5.6	ug/kg	SW846 8270D
Benzaldehyde		24.8 J	200	10	ug/kg	SW846 8270D
Carbazole		236	81	5.9	ug/kg	SW846 8270D
Chrysene		1380	41	13	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		191	41	18	ug/kg	SW846 8270D
Dibenzofuran		179	81	16	ug/kg	SW846 8270D
Fluoranthene		2930	41	18	ug/kg	SW846 8270D
Fluorene		342	41	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		836	41	19	ug/kg	SW846 8270D
2-Methylnaphthalene		60.4	41	9.2	ug/kg	SW846 8270D
Naphthalene		189	41	11	ug/kg	SW846 8270D
Phenanthrene		2330	41	14	ug/kg	SW846 8270D
Pyrene		2720	41	13	ug/kg	SW846 8270D
Aroclor 1254		200	41	10	ug/kg	SW846 8082A
Aluminum		9660	61		mg/kg	SW846 6010C
Arsenic		5.4	2.4		mg/kg	SW846 6010C
Barium		118	24		mg/kg	SW846 6010C
Beryllium		0.53	0.24		mg/kg	SW846 6010C
Calcium		16100	610		mg/kg	SW846 6010C
Chromium		22.9	1.2		mg/kg	SW846 6010C
Cobalt		6.2	6.1		mg/kg	SW846 6010C
Copper		36.2	3.1		mg/kg	SW846 6010C
Iron		17500	61		mg/kg	SW846 6010C
Lead		229	2.4		mg/kg	SW846 6010C
Magnesium		4000	610		mg/kg	SW846 6010C
Manganese		228	1.8		mg/kg	SW846 6010C
Mercury		0.30	0.037		mg/kg	SW846 7471B
Nickel		14.3	4.9		mg/kg	SW846 6010C
Potassium		1260	1200		mg/kg	SW846 6010C
Vanadium		23.3	6.1		mg/kg	SW846 6010C
Zinc		169	6.1		mg/kg	SW846 6010C
Cyanide		0.25	0.22		mg/kg	SW846 9012B/LACHAT

Summary of Hits

Job Number: JC66384
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 05/16/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC66384-2	**MW-103(15-16)**					
Acetone [a]		94.0	12	7.7	ug/kg	SW846 8260C
2-Butanone (MEK)		23.9	12	6.3	ug/kg	SW846 8260C
Methylene chloride		3.6 J	6.0	3.0	ug/kg	SW846 8260C
Benzo(a)anthracene		24.8 J	47	13	ug/kg	SW846 8270D
Benzo(b)fluoranthene		27.8 J	47	21	ug/kg	SW846 8270D
Chrysene		21.2 J	47	15	ug/kg	SW846 8270D
Fluoranthene		29.6 J	47	21	ug/kg	SW846 8270D
Naphthalene		16.7 J	47	13	ug/kg	SW846 8270D
Phenanthrene		17.4 J	47	16	ug/kg	SW846 8270D
Pyrene		39.8 J	47	15	ug/kg	SW846 8270D
Aluminum		21700	68		mg/kg	SW846 6010C
Arsenic		4.4	2.7		mg/kg	SW846 6010C
Barium		159	27		mg/kg	SW846 6010C
Beryllium		1.1	0.27		mg/kg	SW846 6010C
Calcium		2510	680		mg/kg	SW846 6010C
Chromium		43.9	1.4		mg/kg	SW846 6010C
Cobalt		12.4	6.8		mg/kg	SW846 6010C
Copper		9.3	3.4		mg/kg	SW846 6010C
Iron		24900	68		mg/kg	SW846 6010C
Lead		46.5	2.7		mg/kg	SW846 6010C
Magnesium		5320	680		mg/kg	SW846 6010C
Manganese		320	2.0		mg/kg	SW846 6010C
Mercury		0.17	0.040		mg/kg	SW846 7471B
Nickel		28.4	5.4		mg/kg	SW846 6010C
Potassium		1690	1400		mg/kg	SW846 6010C
Vanadium		44.3	6.8		mg/kg	SW846 6010C
Zinc		66.8	6.8		mg/kg	SW846 6010C
JC66384-3	**TRIP BLANK**					
No hits reported in this sample.						
JC66384-4	**MW-102(12-13)**					
Acetone		38.3	23	15	ug/kg	SW846 8260C
Benzene		1.2	1.2	0.25	ug/kg	SW846 8260C
Carbon disulfide		33.4	4.7	1.4	ug/kg	SW846 8260C
Toluene		2.0 J	2.3	1.3	ug/kg	SW846 8260C
Phenol		150	120	32	ug/kg	SW846 8270D
Acenaphthene		106	61	21	ug/kg	SW846 8270D
Anthracene		84.2	61	37	ug/kg	SW846 8270D
Benzo(a)anthracene		156	61	17	ug/kg	SW846 8270D
Benzo(a)pyrene		94.4	61	28	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC66384
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Collected: 05/16/18

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Benzo(b)fluoranthene	87.5	61	27	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	61.0	61	30	ug/kg	SW846 8270D
Benzo(k)fluoranthene	37.2 J	61	28	ug/kg	SW846 8270D
1,1'-Biphenyl	54.8 J	120	8.3	ug/kg	SW846 8270D
Carbazole	45.0 J	120	8.8	ug/kg	SW846 8270D
Chrysene	322	61	19	ug/kg	SW846 8270D
Dibenzofuran	181	120	25	ug/kg	SW846 8270D
Fluoranthene	150	61	27	ug/kg	SW846 8270D
Fluorene	175	61	28	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	48.8 J	61	29	ug/kg	SW846 8270D
2-Methylnaphthalene	244	61	14	ug/kg	SW846 8270D
Naphthalene	614	61	17	ug/kg	SW846 8270D
Phenanthrene	475	61	20	ug/kg	SW846 8270D
Pyrene	259	61	19	ug/kg	SW846 8270D
Aluminum	1440	92		mg/kg	SW846 6010C
Arsenic	9.4	3.7		mg/kg	SW846 6010C
Calcium	164000	4600		mg/kg	SW846 6010C
Chromium	6.6	1.8		mg/kg	SW846 6010C
Copper	6.0	4.6		mg/kg	SW846 6010C
Iron	3250	92		mg/kg	SW846 6010C
Lead	22.6	3.7		mg/kg	SW846 6010C
Magnesium	141000	4600		mg/kg	SW846 6010C
Manganese	216	2.8		mg/kg	SW846 6010C
Mercury	0.075	0.049		mg/kg	SW846 7471B
Nickel	9.4	7.4		mg/kg	SW846 6010C
Vanadium	10.3	9.2		mg/kg	SW846 6010C
Zinc	15.4	9.2		mg/kg	SW846 6010C
Cyanide	1.0	0.33		mg/kg	SW846 9012B/LACHAT

(a) Associated CCV outside of control limits low.

Sample Results

Report of Analysis

SGS LabLink@1003731 16:45 15-Jun-2018

Report of Analysis

Client Sample ID:	MW-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8260C	**Percent Solids:**	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C222006.D	1	05/19/18 15:24	RS	n/a	n/a	VC8227
Run #2							

	Initial Weight
Run #1	6.1 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	38.0	10	6.6	ug/kg	
71-43-2	Benzene	ND	0.51	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.1	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.25	ug/kg	
75-25-2	Bromoform	ND	5.1	0.32	ug/kg	
74-83-9	Bromomethane	ND	5.1	0.72	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.4	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.62	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.66	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.92	ug/kg	
67-66-3	Chloroform	ND	2.0	0.33	ug/kg	
74-87-3	Chloromethane	ND	5.1	1.0	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.35	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.39	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.49	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.1	0.62	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.72	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.60	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.41	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.39	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/kg	
76-13-1	Freon 113	ND	5.1	0.69	ug/kg	
591-78-6	2-Hexanone	ND	5.1	2.9	ug/kg	

ND = Not detected MDL = Method Detection Limit
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-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8260C	**Percent Solids:**	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
79-20-9	Methyl Acetate [b]	ND	5.1	2.6	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.56	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.44	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.1	1.8	ug/kg	
75-09-2	Methylene chloride	3.5	5.1	2.6	ug/kg	J
100-42-5	Styrene	ND	2.0	0.51	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.26	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.65	ug/kg	
108-88-3	Toluene	ND	1.0	0.56	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.1	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.1	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.59	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.43	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.56	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.1	0.49	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.78	ug/kg	
	m,p-Xylene	ND	1.0	0.56	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		75-127%
17060-07-0	1,2-Dichloroethane-D4	106%		75-130%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	104%		79-127%

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

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104472.D	1	05/27/18 02:45	GS	05/23/18 16:50	OP12196	E2M4641
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	81	20	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	200	25	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	200	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	200	72	ug/kg	
51-28-5	2,4-Dinitrophenol [a]	ND	200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	200	43	ug/kg	
95-48-7	2-Methylphenol	ND	81	26	ug/kg	
	3&4-Methylphenol	ND	81	33	ug/kg	
88-75-5	2-Nitrophenol	ND	200	27	ug/kg	
100-02-7	4-Nitrophenol [a]	ND	410	110	ug/kg	
87-86-5	Pentachlorophenol	ND	160	38	ug/kg	
108-95-2	Phenol	ND	81	21	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	200	27	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	200	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	200	24	ug/kg	
83-32-9	Acenaphthene	291	41	14	ug/kg	
208-96-8	Acenaphthylene	94.5	41	21	ug/kg	
98-86-2	Acetophenone	ND	200	8.7	ug/kg	
120-12-7	Anthracene	708	41	25	ug/kg	
1912-24-9	Atrazine	ND	81	17	ug/kg	
56-55-3	Benzo(a)anthracene	1340	41	11	ug/kg	
50-32-8	Benzo(a)pyrene	1210	41	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	1450	41	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	776	41	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	482	41	19	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	81	16	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	81	9.9	ug/kg	
92-52-4	1,1'-Biphenyl	22.3	81	5.6	ug/kg	J
100-52-7	Benzaldehyde	24.8	200	10	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	81	9.6	ug/kg	
106-47-8	4-Chloroaniline	ND	200	15	ug/kg	
86-74-8	Carbazole	236	81	5.9	ug/kg	

ND = Not detected MDL = Method Detection Limit
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-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	81	16	ug/kg	
218-01-9	Chrysene	1380	41	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	81	8.7	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	81	17	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	81	15	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	81	13	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	41	13	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	41	20	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	81	34	ug/kg	
123-91-1	1,4-Dioxane	ND	41	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	191	41	18	ug/kg	
132-64-9	Dibenzofuran	179	81	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	81	6.6	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	81	10	ug/kg	
84-66-2	Diethyl phthalate	ND	81	8.6	ug/kg	
131-11-3	Dimethyl phthalate	ND	81	7.2	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	81	9.5	ug/kg	
206-44-0	Fluoranthene	2930	41	18	ug/kg	
86-73-7	Fluorene	342	41	19	ug/kg	
118-74-1	Hexachlorobenzene	ND	81	10	ug/kg	
87-68-3	Hexachlorobutadiene	ND	41	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	410	16	ug/kg	
67-72-1	Hexachloroethane	ND	200	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	836	41	19	ug/kg	
78-59-1	Isophorone	ND	81	8.7	ug/kg	
91-57-6	2-Methylnaphthalene	60.4	41	9.2	ug/kg	
88-74-4	2-Nitroaniline	ND	200	9.6	ug/kg	
99-09-2	3-Nitroaniline	ND	200	10	ug/kg	
100-01-6	4-Nitroaniline	ND	200	10	ug/kg	
91-20-3	Naphthalene	189	41	11	ug/kg	
98-95-3	Nitrobenzene	ND	81	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	81	12	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	200	15	ug/kg	
85-01-8	Phenanthrene	2330	41	14	ug/kg	
129-00-0	Pyrene	2720	41	13	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	200	10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		23-115%

ND = Not detected MDL = Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	68%		27-114%
118-79-6	2,4,6-Tribromophenol	71%		19-152%
4165-60-0	Nitrobenzene-d5	73%		26-134%
321-60-8	2-Fluorobiphenyl	72%		39-124%
1718-51-0	Terphenyl-d14	81%		36-134%

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

ND = Not detected MDL = Method Detection Limit
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

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Report of Analysis

Client Sample ID:	MW-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8081B SW846 3546	**Percent Solids:**	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56749.D	1	05/30/18 12:39	CP	05/25/18 07:20	OP12247	G6G1694
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.82	0.68	ug/kg	
319-84-6	alpha-BHC	ND	0.82	0.67	ug/kg	
319-85-7	beta-BHC	ND	0.82	0.74	ug/kg	
319-86-8	delta-BHC	ND	0.82	0.79	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.82	0.61	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.82	0.66	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.82	0.37	ug/kg	
60-57-1	Dieldrin	ND	0.82	0.56	ug/kg	
72-54-8	4,4'-DDD	ND	0.82	0.75	ug/kg	
72-55-9	4,4'-DDE	ND	0.82	0.72	ug/kg	
50-29-3	4,4'-DDT	ND	0.82	0.73	ug/kg	
72-20-8	Endrin	ND	0.82	0.64	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.82	0.64	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.82	0.47	ug/kg	
959-98-8	Endosulfan-I	ND	0.82	0.47	ug/kg	
33213-65-9	Endosulfan-II	ND	0.82	0.51	ug/kg	
76-44-8	Heptachlor	ND	0.82	0.71	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.82	0.58	ug/kg	
72-43-5	Methoxychlor	ND	1.6	0.65	ug/kg	
53494-70-5	Endrin ketone	ND	0.82	0.59	ug/kg	
8001-35-2	Toxaphene	ND	21	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		25-135%
877-09-8	Tetrachloro-m-xylene	71%		25-135%
2051-24-3	Decachlorobiphenyl	28%		10-156%
2051-24-3	Decachlorobiphenyl	10%		10-156%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8082A SW846 3546	**Percent Solids:**	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G164445.D	1	05/28/18 05:48	TR	05/25/18 07:20	OP12244	G2G4347
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	41	17	ug/kg	
11104-28-2	Aroclor 1221	ND	41	17	ug/kg	
11141-16-5	Aroclor 1232	ND	41	11	ug/kg	
53469-21-9	Aroclor 1242	ND	41	6.5	ug/kg	
12672-29-6	Aroclor 1248	ND	41	24	ug/kg	
11097-69-1	Aroclor 1254	200	41	10	ug/kg	
11096-82-5	Aroclor 1260	ND	41	13	ug/kg	
11100-14-4	Aroclor 1268	ND	41	6.1	ug/kg	
37324-23-5	Aroclor 1262	ND	41	3.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		24-152%
877-09-8	Tetrachloro-m-xylene	91%		24-152%
2051-24-3	Decachlorobiphenyl	94%		10-166%
2051-24-3	Decachlorobiphenyl	101%		10-166%

ND = Not detected MDL = Method Detection Limit
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-103(6-7)
Lab Sample ID: JC66384-1
Matrix: SO - Soil
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 05/16/18
Date Received: 05/17/18
Percent Solids: 80.1

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	9660	61	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Antimony	< 2.4	2.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Arsenic	5.4	2.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Barium	118	24	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Beryllium	0.53	0.24	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Cadmium	< 0.61	0.61	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Calcium	16100	610	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Chromium	22.9	1.2	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Cobalt	6.2	6.1	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Copper	36.2	3.1	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Iron	17500	61	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Lead	229	2.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Magnesium	4000	610	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Manganese	228	1.8	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Mercury	0.30	0.037	mg/kg	1	05/18/18	05/18/18	JA	SW846 7471B [1]	SW846 7471B [3]
Nickel	14.3	4.9	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Potassium	1260	1200	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Selenium	< 2.4	2.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Silver	< 0.61	0.61	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Sodium	< 1200	1200	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Thallium	< 1.2	1.2	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Vanadium	23.3	6.1	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Zinc	169	6.1	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA44439
(2) Instrument QC Batch: MA44471
(3) Prep QC Batch: MP7227
(4) Prep QC Batch: MP7257

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-103(6-7)		
Lab Sample ID:	JC66384-1	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
		Percent Solids:	80.1
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.25	0.22	mg/kg	1	05/24/18 16:54	BM	SW846 9012B/LACHAT
Solids, Percent	80.1		%	1	05/21/18 22:50	JV	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID: MW-103(15-16)
Lab Sample ID: JC66384-2
Matrix: SO - Soil
Method: SW846 8260C
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 05/16/18
Date Received: 05/17/18
Percent Solids: 70.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C222007.D	1	05/19/18 15:53	RS	n/a	n/a	VC8227
Run #2							

	Initial Weight
Run #1	5.9 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	94.0	12	7.7	ug/kg	
71-43-2	Benzene	ND	0.60	0.13	ug/kg	
74-97-5	Bromochloromethane	ND	6.0	0.52	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.29	ug/kg	
75-25-2	Bromoform	ND	6.0	0.37	ug/kg	
74-83-9	Bromomethane	ND	6.0	0.84	ug/kg	
78-93-3	2-Butanone (MEK)	23.9	12	6.3	ug/kg	
75-15-0	Carbon disulfide	ND	2.4	0.73	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.78	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.35	ug/kg	
75-00-3	Chloroethane	ND	6.0	1.1	ug/kg	
67-66-3	Chloroform	ND	2.4	0.39	ug/kg	
74-87-3	Chloromethane	ND	6.0	1.2	ug/kg	
110-82-7	Cyclohexane	ND	2.4	0.41	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.4	0.81	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.46	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.29	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.62	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.57	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.0	0.73	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.85	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.70	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.46	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.35	ug/kg	
76-13-1	Freon 113	ND	6.0	0.81	ug/kg	
591-78-6	2-Hexanone	ND	6.0	3.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
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-103(15-16)		
Lab Sample ID:	JC66384-2	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8260C	**Percent Solids:**	70.7
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.4	0.30	ug/kg	
79-20-9	Methyl Acetate [b]	ND	6.0	3.0	ug/kg	
108-87-2	Methylcyclohexane	ND	2.4	0.65	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.51	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.0	2.2	ug/kg	
75-09-2	Methylene chloride	3.6	6.0	3.0	ug/kg	J
100-42-5	Styrene	ND	2.4	0.59	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.30	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.76	ug/kg	
108-88-3	Toluene	ND	1.2	0.66	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.0	1.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.0	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.70	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.50	ug/kg	
79-01-6	Trichloroethene	ND	1.2	0.66	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.0	0.58	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	0.92	ug/kg	
	m,p-Xylene	ND	1.2	0.66	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.30	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		75-127%
17060-07-0	1,2-Dichloroethane-D4	109%		75-130%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	103%		79-127%

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

ND = Not detected MDL = Method Detection Limit
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

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Report of Analysis

Client Sample ID:	MW-103(15-16)		
Lab Sample ID:	JC66384-2	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	70.7
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104467.D	1	05/27/18 00:35	GS	05/23/18 16:50	OP12196	E2M4641
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	93	23	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	230	29	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	230	40	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	230	83	ug/kg	
51-28-5	2,4-Dinitrophenol [a]	ND	230	170	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	230	50	ug/kg	
95-48-7	2-Methylphenol	ND	93	30	ug/kg	
	3&4-Methylphenol	ND	93	38	ug/kg	
88-75-5	2-Nitrophenol	ND	230	31	ug/kg	
100-02-7	4-Nitrophenol [a]	ND	470	120	ug/kg	
87-86-5	Pentachlorophenol	ND	190	44	ug/kg	
108-95-2	Phenol	ND	93	24	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	230	31	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	230	35	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	230	28	ug/kg	
83-32-9	Acenaphthene	ND	47	16	ug/kg	
208-96-8	Acenaphthylene	ND	47	24	ug/kg	
98-86-2	Acetophenone	ND	230	10	ug/kg	
120-12-7	Anthracene	ND	47	29	ug/kg	
1912-24-9	Atrazine	ND	93	20	ug/kg	
56-55-3	Benzo(a)anthracene	24.8	47	13	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	47	21	ug/kg	
205-99-2	Benzo(b)fluoranthene	27.8	47	21	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	47	23	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	47	22	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	93	18	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	93	11	ug/kg	
92-52-4	1,1'-Biphenyl	ND	93	6.4	ug/kg	
100-52-7	Benzaldehyde	ND	230	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	93	11	ug/kg	
106-47-8	4-Chloroaniline	ND	230	17	ug/kg	
86-74-8	Carbazole	ND	93	6.7	ug/kg	

ND = Not detected MDL = Method Detection Limit
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-103(15-16)
Lab Sample ID: JC66384-2
Matrix: SO - Soil
Method: SW846 8270D SW846 3546
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 05/16/18
Date Received: 05/17/18
Percent Solids: 70.7

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	93	18	ug/kg	
218-01-9	Chrysene	21.2	47	15	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	93	10	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	93	20	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	93	17	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	93	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	47	14	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	47	23	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	93	39	ug/kg	
123-91-1	1,4-Dioxane	ND	47	31	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	47	21	ug/kg	
132-64-9	Dibenzofuran	ND	93	19	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	93	7.6	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	93	12	ug/kg	
84-66-2	Diethyl phthalate	ND	93	9.9	ug/kg	
131-11-3	Dimethyl phthalate	ND	93	8.3	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	93	11	ug/kg	
206-44-0	Fluoranthene	29.6	47	21	ug/kg	J
86-73-7	Fluorene	ND	47	21	ug/kg	
118-74-1	Hexachlorobenzene	ND	93	12	ug/kg	
87-68-3	Hexachlorobutadiene	ND	47	19	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	470	19	ug/kg	
67-72-1	Hexachloroethane	ND	230	23	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	47	22	ug/kg	
78-59-1	Isophorone	ND	93	10	ug/kg	
91-57-6	2-Methylnaphthalene	ND	47	11	ug/kg	
88-74-4	2-Nitroaniline	ND	230	11	ug/kg	
99-09-2	3-Nitroaniline	ND	230	12	ug/kg	
100-01-6	4-Nitroaniline	ND	230	12	ug/kg	
91-20-3	Naphthalene	16.7	47	13	ug/kg	J
98-95-3	Nitrobenzene	ND	93	18	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	93	13	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	230	17	ug/kg	
85-01-8	Phenanthrene	17.4	47	16	ug/kg	J
129-00-0	Pyrene	39.8	47	15	ug/kg	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	230	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		23-115%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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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-103(15-16)		
Lab Sample ID:	JC66384-2	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	70.7
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	68%		27-114%
118-79-6	2,4,6-Tribromophenol	73%		19-152%
4165-60-0	Nitrobenzene-d5	72%		26-134%
321-60-8	2-Fluorobiphenyl	72%		39-124%
1718-51-0	Terphenyl-d14	83%		36-134%

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

ND = Not detected MDL = Method Detection Limit
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

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Report of Analysis

Client Sample ID:	MW-103(15-16)		
Lab Sample ID:	JC66384-2	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8081B SW846 3546	**Percent Solids:**	70.7
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56750.D	1	05/30/18 12:57	CP	05/25/18 07:20	OP12247	G6G1694
Run #2							

	Initial Weight	Final Volume
Run #1	16.3 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.87	0.72	ug/kg	
319-84-6	alpha-BHC	ND	0.87	0.71	ug/kg	
319-85-7	beta-BHC	ND	0.87	0.78	ug/kg	
319-86-8	delta-BHC	ND	0.87	0.83	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.87	0.64	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.87	0.70	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.87	0.39	ug/kg	
60-57-1	Dieldrin	ND	0.87	0.60	ug/kg	
72-54-8	4,4'-DDD	ND	0.87	0.80	ug/kg	
72-55-9	4,4'-DDE	ND	0.87	0.76	ug/kg	
50-29-3	4,4'-DDT	ND	0.87	0.77	ug/kg	
72-20-8	Endrin	ND	0.87	0.67	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.87	0.68	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.87	0.49	ug/kg	
959-98-8	Endosulfan-I	ND	0.87	0.50	ug/kg	
33213-65-9	Endosulfan-II	ND	0.87	0.54	ug/kg	
76-44-8	Heptachlor	ND	0.87	0.75	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.87	0.61	ug/kg	
72-43-5	Methoxychlor	ND	1.7	0.69	ug/kg	
53494-70-5	Endrin ketone	ND	0.87	0.63	ug/kg	
8001-35-2	Toxaphene	ND	22	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	64%		25-135%
877-09-8	Tetrachloro-m-xylene	60%		25-135%
2051-24-3	Decachlorobiphenyl	64%		10-156%
2051-24-3	Decachlorobiphenyl	69%		10-156%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-103(15-16)		
Lab Sample ID:	JC66384-2	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8082A SW846 3546	**Percent Solids:**	70.7
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G164523.D	1	05/29/18 11:06	TR	05/25/18 07:20	OP12244	G2G4348
Run #2							

	Initial Weight	Final Volume
Run #1	16.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	43	17	ug/kg	
11104-28-2	Aroclor 1221	ND	43	18	ug/kg	
11141-16-5	Aroclor 1232	ND	43	12	ug/kg	
53469-21-9	Aroclor 1242	ND	43	6.9	ug/kg	
12672-29-6	Aroclor 1248	ND	43	25	ug/kg	
11097-69-1	Aroclor 1254	ND	43	11	ug/kg	
11096-82-5	Aroclor 1260	ND	43	14	ug/kg	
11100-14-4	Aroclor 1268	ND	43	6.5	ug/kg	
37324-23-5	Aroclor 1262	ND	43	3.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		24-152%
877-09-8	Tetrachloro-m-xylene	86%		24-152%
2051-24-3	Decachlorobiphenyl	73%		10-166%
2051-24-3	Decachlorobiphenyl	76%		10-166%

ND = Not detected MDL = Method Detection Limit
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-103(15-16)
Lab Sample ID: JC66384-2
Matrix: SO - Soil
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 05/16/18
Date Received: 05/17/18
Percent Solids: 70.7

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	21700	68	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Antimony	< 2.7	2.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Arsenic	4.4	2.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Barium	159	27	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Beryllium	1.1	0.27	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Cadmium	< 0.68	0.68	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Calcium	2510	680	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Chromium	43.9	1.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Cobalt	12.4	6.8	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Copper	9.3	3.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Iron	24900	68	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Lead	46.5	2.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Magnesium	5320	680	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Manganese	320	2.0	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Mercury	0.17	0.040	mg/kg	1	05/18/18	05/18/18	JA	SW846 7471B [1]	SW846 7471B [3]
Nickel	28.4	5.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Potassium	1690	1400	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Selenium	< 2.7	2.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Silver	< 0.68	0.68	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Sodium	< 1400	1400	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Thallium	< 1.4	1.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Vanadium	44.3	6.8	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]
Zinc	66.8	6.8	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA44439
(2) Instrument QC Batch: MA44471
(3) Prep QC Batch: MP7227
(4) Prep QC Batch: MP7257

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-103(15-16)		
Lab Sample ID:	JC66384-2	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
		Percent Solids:	70.7
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.24	0.24	mg/kg	1	05/24/18 16:55	BM	SW846 9012B/LACHAT
Solids, Percent	70.7		%	1	05/21/18 22:50	JV	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JC66384-3	**Date Sampled:**	05/16/18
Matrix:	AQ - Trip Blank Soil	**Date Received:**	05/17/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D175680.D	1	05/19/18 17:04	OI	n/a	n/a	V2D7409
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	

ND = Not detected MDL = Method Detection Limit
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:	JC66384-3	**Date Sampled:**	05/16/18
Matrix:	AQ - Trip Blank Soil	**Date Received:**	05/17/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

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

ND = Not detected MDL = Method Detection Limit
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

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Report of Analysis

Client Sample ID:	MW-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8260C	**Percent Solids:**	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C156909.D	1	05/21/18 13:57	PS	n/a	n/a	V1C6921
Run #2							

	Initial Weight
Run #1	4.0 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	38.3	23	15	ug/kg	
71-43-2	Benzene	1.2	1.2	0.25	ug/kg	
74-97-5	Bromochloromethane	ND	12	1.0	ug/kg	
75-27-4	Bromodichloromethane	ND	4.7	0.57	ug/kg	
75-25-2	Bromoform	ND	12	0.73	ug/kg	
74-83-9	Bromomethane	ND	12	1.6	ug/kg	
78-93-3	2-Butanone (MEK)	ND	23	12	ug/kg	
75-15-0	Carbon disulfide	33.4	4.7	1.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.7	1.5	ug/kg	
108-90-7	Chlorobenzene	ND	4.7	0.68	ug/kg	
75-00-3	Chloroethane	ND	12	2.1	ug/kg	
67-66-3	Chloroform	ND	4.7	0.76	ug/kg	
74-87-3	Chloromethane	ND	12	2.3	ug/kg	
110-82-7	Cyclohexane	ND	4.7	0.80	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.7	1.6	ug/kg	
124-48-1	Dibromochloromethane	ND	4.7	0.89	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.3	0.57	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.3	1.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.3	0.67	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.3	1.1	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	12	1.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.61	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.42	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	1.7	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.94	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	1.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.7	0.93	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.7	0.90	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.7	0.56	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.68	ug/kg	
76-13-1	Freon 113	ND	12	1.6	ug/kg	
591-78-6	2-Hexanone	ND	12	6.5	ug/kg	

ND = Not detected MDL = Method Detection Limit
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-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8260C	**Percent Solids:**	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	4.7	0.58	ug/kg	
79-20-9	Methyl Acetate	ND	12	5.9	ug/kg	
108-87-2	Methylcyclohexane	ND	4.7	1.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	1.0	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	12	4.2	ug/kg	
75-09-2	Methylene chloride	ND	12	5.9	ug/kg	
100-42-5	Styrene	ND	4.7	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.7	0.60	ug/kg	
127-18-4	Tetrachloroethene	ND	4.7	1.5	ug/kg	
108-88-3	Toluene	2.0	2.3	1.3	ug/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	12	2.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	12	2.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.7	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.7	0.98	ug/kg	
79-01-6	Trichloroethene	ND	2.3	1.3	ug/kg	
75-69-4	Trichlorofluoromethane	ND	12	1.1	ug/kg	
75-01-4	Vinyl chloride	ND	4.7	1.8	ug/kg	
	m,p-Xylene	ND	2.3	1.3	ug/kg	
95-47-6	o-Xylene	ND	2.3	0.59	ug/kg	
1330-20-7	Xylene (total)	ND	2.3	0.59	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		75-127%
17060-07-0	1,2-Dichloroethane-D4	96%		75-130%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104480.D	1	05/27/18 06:12	GS	05/23/18 16:50	OP12196	E2M4641
Run #2 [a]	M146640.D	1	06/05/18 13:12	AR	06/04/18 15:00	OP12509	EM6233

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2	15.9 g	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	120	30	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	300	37	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	300	52	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	300	110	ug/kg	
51-28-5	2,4-Dinitrophenol [b]	ND	300	230	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	300	65	ug/kg	
95-48-7	2-Methylphenol	ND	120	39	ug/kg	
	3&4-Methylphenol	ND	120	50	ug/kg	
88-75-5	2-Nitrophenol	ND	300	40	ug/kg	
100-02-7	4-Nitrophenol [b]	ND	610	160	ug/kg	
87-86-5	Pentachlorophenol	ND	240	57	ug/kg	
108-95-2	Phenol	150	120	32	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	300	40	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	300	46	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	300	36	ug/kg	
83-32-9	Acenaphthene	106	61	21	ug/kg	
208-96-8	Acenaphthylene	ND	61	31	ug/kg	
98-86-2	Acetophenone	ND	300	13	ug/kg	
120-12-7	Anthracene	84.2	61	37	ug/kg	
1912-24-9	Atrazine	ND	120	26	ug/kg	
56-55-3	Benzo(a)anthracene	156	61	17	ug/kg	
50-32-8	Benzo(a)pyrene	94.4	61	28	ug/kg	
205-99-2	Benzo(b)fluoranthene	87.5	61	27	ug/kg	
191-24-2	Benzo(g,h,i)perylene	61.0	61	30	ug/kg	
207-08-9	Benzo(k)fluoranthene	37.2	61	28	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	120	24	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	120	15	ug/kg	
92-52-4	1,1'-Biphenyl	54.8	120	8.3	ug/kg	J
100-52-7	Benzaldehyde	ND	300	15	ug/kg	
91-58-7	2-Chloronaphthalene	ND	120	14	ug/kg	
106-47-8	4-Chloroaniline	ND	300	22	ug/kg	
86-74-8	Carbazole	45.0	120	8.8	ug/kg	J

ND = Not detected MDL = Method Detection Limit
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-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	120	24	ug/kg	
218-01-9	Chrysene	322	61	19	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	120	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	120	26	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	120	22	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	120	20	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	61	19	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	61	31	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	120	51	ug/kg	
123-91-1	1,4-Dioxane	ND	61	40	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	61	27	ug/kg	
132-64-9	Dibenzofuran	181	120	25	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	120	9.9	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	120	15	ug/kg	
84-66-2	Diethyl phthalate	ND	120	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	120	11	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	120	14	ug/kg	
206-44-0	Fluoranthene	150	61	27	ug/kg	
86-73-7	Fluorene	175	61	28	ug/kg	
118-74-1	Hexachlorobenzene	ND	120	15	ug/kg	
87-68-3	Hexachlorobutadiene	ND	61	24	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	610	24	ug/kg	
67-72-1	Hexachloroethane	ND	300	30	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	48.8	61	29	ug/kg	J
78-59-1	Isophorone	ND	120	13	ug/kg	
91-57-6	2-Methylnaphthalene	244	61	14	ug/kg	
88-74-4	2-Nitroaniline	ND	300	14	ug/kg	
99-09-2	3-Nitroaniline	ND	300	15	ug/kg	
100-01-6	4-Nitroaniline	ND	300	16	ug/kg	
91-20-3	Naphthalene	614	61	17	ug/kg	
98-95-3	Nitrobenzene	ND	120	24	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	120	18	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	22	ug/kg	
85-01-8	Phenanthrene	475	61	20	ug/kg	
129-00-0	Pyrene	259	61	19	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	300	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	10% [d]	8% [c]	23-115%

ND = Not detected MDL = Method Detection Limit
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-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8270D SW846 3546	**Percent Solids:**	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	42%	37%	27-114%
118-79-6	2,4,6-Tribromophenol	0% [d]	0% [c]	19-152%
4165-60-0	Nitrobenzene-d5	60%	62%	26-134%
321-60-8	2-Fluorobiphenyl	62%	62%	39-124%
1718-51-0	Terphenyl-d14	60%	70%	36-134%

(a) Confirmation run for surrogate recoveries.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Outside control limits due to matrix interference.
(d) Outside control limits due to matrix interference. The results confirmed by re-extraction outside the holding time.

ND = Not detected MDL = Method Detection Limit
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

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Report of Analysis

Client Sample ID:	MW-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8081B SW846 3546	**Percent Solids:**	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56628.D	1	05/26/18 11:49	DS	05/25/18 07:20	OP12247	G6G1691
Run #2							

	Initial Weight	Final Volume
Run #1	16.3 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.95	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.94	ug/kg	
319-85-7	beta-BHC	ND	1.2	1.0	ug/kg	
319-86-8	delta-BHC	ND	1.2	1.1	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.85	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.93	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.52	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.79	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	1.1	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	1.0	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	1.0	ug/kg	
72-20-8	Endrin	ND	1.2	0.89	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.90	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.65	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.66	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.72	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.99	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.81	ug/kg	
72-43-5	Methoxychlor	ND	2.3	0.92	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.83	ug/kg	
8001-35-2	Toxaphene	ND	29	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		25-135%
877-09-8	Tetrachloro-m-xylene	75%		25-135%
2051-24-3	Decachlorobiphenyl	54%		10-156%
2051-24-3	Decachlorobiphenyl	56%		10-156%

ND = Not detected MDL = Method Detection Limit
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

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Report of Analysis

Client Sample ID:	MW-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
Method:	SW846 8082A SW846 3546	**Percent Solids:**	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G164453.D	1	05/28/18 08:04	TR	05/25/18 07:20	OP12244	G2G4347
Run #2							

	Initial Weight	Final Volume
Run #1	16.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	58	23	ug/kg	
11104-28-2	Aroclor 1221	ND	58	23	ug/kg	
11141-16-5	Aroclor 1232	ND	58	15	ug/kg	
53469-21-9	Aroclor 1242	ND	58	9.2	ug/kg	
12672-29-6	Aroclor 1248	ND	58	34	ug/kg	
11097-69-1	Aroclor 1254	ND	58	14	ug/kg	
11096-82-5	Aroclor 1260	ND	58	18	ug/kg	
11100-14-4	Aroclor 1268	ND	58	8.6	ug/kg	
37324-23-5	Aroclor 1262	ND	58	4.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		24-152%
877-09-8	Tetrachloro-m-xylene	80%		24-152%
2051-24-3	Decachlorobiphenyl	52%		10-166%
2051-24-3	Decachlorobiphenyl	45%		10-166%

ND = Not detected MDL = Method Detection Limit
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-102(12-13)
Lab Sample ID: JC66384-4
Matrix: SO - Soil
Project: National Grid, Philly Coke, Philadelphia PA

Date Sampled: 05/16/18
Date Received: 05/17/18
Percent Solids: 53.3

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1440	92	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Antimony	< 3.7	3.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Arsenic	9.4	3.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Barium	< 37	37	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Beryllium	< 0.37	0.37	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Cadmium	< 0.92	0.92	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Calcium	164000	4600	mg/kg	5	05/21/18	05/22/18	ND	SW846 6010C [3]	SW846 3050B [5]
Chromium	6.6	1.8	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Cobalt	< 9.2	9.2	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Copper	6.0	4.6	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Iron	3250	92	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Lead	22.6	3.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Magnesium	141000	4600	mg/kg	5	05/21/18	05/22/18	ND	SW846 6010C [3]	SW846 3050B [5]
Manganese	216	2.8	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Mercury	0.075	0.049	mg/kg	1	05/18/18	05/18/18	JA	SW846 7471B [1]	SW846 7471B [4]
Nickel	9.4	7.4	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Potassium	< 1800	1800	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Selenium	< 3.7	3.7	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Silver [a]	< 4.6	4.6	mg/kg	5	05/21/18	05/22/18	ND	SW846 6010C [3]	SW846 3050B [5]
Sodium	< 1800	1800	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Thallium	< 1.8	1.8	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Vanadium	10.3	9.2	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]
Zinc	15.4	9.2	mg/kg	1	05/21/18	05/22/18	ND	SW846 6010C [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA44439
(2) Instrument QC Batch: MA44471
(3) Instrument QC Batch: MA44478
(4) Prep QC Batch: MP7227
(5) Prep QC Batch: MP7257

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-102(12-13)		
Lab Sample ID:	JC66384-4	**Date Sampled:**	05/16/18
Matrix:	SO - Soil	**Date Received:**	05/17/18
		Percent Solids:	53.3
Project:	National Grid, Philly Coke, Philadelphia PA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	1.0	0.33	mg/kg	1	05/24/18 16:57	BM	SW846 9012B/LACHAT
Solids, Percent	53.3		%	1	05/21/18 22:50	JV	SM2540 G-97

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

SGS

SLL
STB

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE ___ OF ___

FED-EX Tracking #	Bottle Order Control # DK05818-157
SGS Quote #	SGS Job # JC66384

Client / Reporting Information

Company Name: ARCADIS
Street Address: 824 N. MARKET St Ste 820
City: WILMINGTON State: DE Zip: 19801
Project Contact: CAREY HEALY E-mail:
Phone #: Fax #:
Sampler(s) Name(s): CHRIS ORTOLANO Phone #:

Project Information

Project Name: NATIONAL GRID - PHILLY COKE
Street: RICHMOND & LEFEVRE
City: PHILA State: PA
Project #:
Client Purchase Order #:
Project Manager: JOHN BRUSSELS

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOC	SVOC	METALS	CN	PESTICIDES	PCB	LAB USE ONLY
1	MW-103 (6-7)		5/16/18	0900	CO	SO	5					2	2	1		X	X	X	X	X	X	C22
2	MW-103 (15-16)		5/16/18	0920	CO	SO	5					2	2	1		X	X	X	X	X	X	P93
3	TRIP BLANK		–	–	–	H2O	2	2								X						1403
4	MW-102 (12-13)		5/16/18	1215	CO	SO	5					2	2	1		X	X	X	X	X	X	49119
																						V486

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved by (SGS Project Manager)/Date:

Emergency & Rush T/A data available via LabLink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT 7/17/18
LABEL VERIFICATION

Sample inventory is verified upon receipt in the Laboratory

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/17/18 0800	1 [signature]	2 [signature]	5/17/18 1300	2 [signature]
3 [signature]	5/17/18 1350	3 [signature]	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact Preserved where applicable ☐ On Ice ☐ Cooler Temp. 3.0 °C

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

5.1
5

JC66384: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC66384 **Client:** ARCADIS U.S. **Project:** NATIONAL GRID, PHILLY COKE, PHILADELPHI

Date / Time Received: 5/17/2018 6:50:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.0);

Cooler Temps (Corrected) °C: Cooler 1: (3.0);

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:	1		

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: 216017 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC66384: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Arcadis

Job No: JC66384

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66384-1 Collected: 16-MAY-18 09:00 By: CO Received: 17-MAY-18 By: AS MW-103(6-7)						
JC66384-1	SW846 7471B	18-MAY-18 10:51	JA	18-MAY-18	JA	HG
JC66384-1	SW846 8260C	19-MAY-18 15:24	RS			V8260TCL20
JC66384-1	SM2540 G-97	21-MAY-18 22:50	JV			SOL104
JC66384-1	SW846 6010C	22-MAY-18 01:55	ND	21-MAY-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC66384-1	SW846 9012B/LACHAT	24-MAY-18 16:54	BM	24-MAY-18	RP	CN
JC66384-1	SW846 8270D	27-MAY-18 02:45	GS	23-MAY-18	LL	AB8270TCL20
JC66384-1	SW846 8082A	28-MAY-18 05:48	TR	25-MAY-18	LL	P8082PCB11
JC66384-1	SW846 8081B	30-MAY-18 12:39	CP	25-MAY-18	RG	P8081PESTTCL
JC66384-2 Collected: 16-MAY-18 09:20 By: CO Received: 17-MAY-18 By: AS MW-103(15-16)						
JC66384-2	SW846 7471B	18-MAY-18 10:55	JA	18-MAY-18	JA	HG
JC66384-2	SW846 8260C	19-MAY-18 15:53	RS			V8260TCL20
JC66384-2	SM2540 G-97	21-MAY-18 22:50	JV			SOL104
JC66384-2	SW846 6010C	22-MAY-18 01:58	ND	21-MAY-18	RM	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC66384-2	SW846 9012B/LACHAT	24-MAY-18 16:55	BM	24-MAY-18	RP	CN
JC66384-2	SW846 8270D	27-MAY-18 00:35	GS	23-MAY-18	LL	AB8270TCL20
JC66384-2	SW846 8082A	29-MAY-18 11:06	TR	25-MAY-18	LL	P8082PCB11
JC66384-2	SW846 8081B	30-MAY-18 12:57	CP	25-MAY-18	RG	P8081PESTTCL
JC66384-3 Collected: 16-MAY-18 12:15 By: CO Received: 17-MAY-18 By: AS TRIP BLANK						
JC66384-3	SW846 8260C	19-MAY-18 17:04	OI			V8260TCL20
JC66384-4 Collected: 16-MAY-18 12:15 By: CO Received: 17-MAY-18 By: AS MW-102(12-13)						
JC66384-4	SW846 7471B	18-MAY-18 10:57	JA	18-MAY-18	JA	HG
JC66384-4	SW846 8260C	21-MAY-18 13:57	PS			V8260TCL20
JC66384-4	SM2540 G-97	21-MAY-18 22:50	JV			SOL104

Internal Sample Tracking Chronicle

Arcadis

Job No: JC66384

National Grid, Philly Coke, Philadelphia PA
Project No: B0036790.0001.00002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66384-4	SW846 6010C	22-MAY-18 02:01	ND	21-MAY-18	RM	AL,AS,BA,BE,CD,CO,CR,CU,FE,K,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC66384-4	SW846 6010C	22-MAY-18 14:25	ND	21-MAY-18	RM	AG,CA,MG
JC66384-4	SW846 9012B/LACHAT	24-MAY-18 16:57	BM	24-MAY-18	RP	CN
JC66384-4	SW846 8081B	26-MAY-18 11:49	DS	25-MAY-18	RG	P8081PESTTCL
JC66384-4	SW846 8270D	27-MAY-18 06:12	GS	23-MAY-18	LL	AB8270TCL20
JC66384-4	SW846 8082A	28-MAY-18 08:04	TR	25-MAY-18	LL	P8082PCB11
JC66384-4	SW846 8270D	05-JUN-18 13:12	AR	04-JUN-18	FN	AB8270TCL20

SGS Internal Chain of Custody

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66384-1.1	Secured Storage	Dwayne Johnson	05/18/18 09:05	Retrieve from Storage
JC66384-1.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:05	Return to Storage
JC66384-1.1	Secured Staging Area	Jessica Adametz	05/18/18 10:55	Retrieve from Storage
JC66384-1.1	Jessica Adametz	Secured Storage	05/18/18 10:55	Return to Storage
JC66384-1.1	Secured Storage	Todd Shoemaker	05/23/18 15:01	Retrieve from Storage
JC66384-1.1	Todd Shoemaker	Secured Storage	05/23/18 15:08	Return to Storage
JC66384-1.1	Secured Storage	Todd Shoemaker	05/23/18 15:14	Retrieve from Storage
JC66384-1.1	Todd Shoemaker	Secured Staging Area	05/23/18 15:14	Return to Storage
JC66384-1.1	Secured Staging Area	Lindsey Lee	05/23/18 15:17	Retrieve from Storage
JC66384-1.1	Lindsey Lee	Secured Storage	05/23/18 17:18	Return to Storage
JC66384-1.1	Secured Storage	Sahara Feliciano	05/24/18 19:36	Retrieve from Storage
JC66384-1.1	Sahara Feliciano	Secured Staging Area	05/24/18 19:36	Return to Storage
JC66384-1.1	Secured Staging Area	Sauvelson Auguste	05/25/18 04:30	Retrieve from Storage
JC66384-1.1	Sauvelson Auguste	Lindsey Lee	05/25/18 11:50	Custody Transfer
JC66384-1.1	Lindsey Lee	Secured Storage	05/25/18 16:09	Return to Storage
JC66384-1.1.1	Lindsey Lee	Organics Prep	05/23/18 15:22	Extract from JC66384-1.1
JC66384-1.1.1	Organics Prep	Lindsey Lee	05/23/18 21:37	Extract from JC66384-1.1
JC66384-1.1.1	Lindsey Lee	Extract Storage	05/23/18 21:37	Return to Storage
JC66384-1.1.1	Extract Storage	George Sleem	05/26/18 21:51	Retrieve from Storage
JC66384-1.1.1	George Sleem	GCMS2M	05/26/18 21:51	Load on Instrument
JC66384-1.1.1	GCMS2M	Christine Change	05/29/18 12:45	Unload from Instrument
JC66384-1.1.1	Christine Change	Extract Freezer	05/29/18 12:45	Return to Storage
JC66384-1.1.2	Sauvelson Auguste	Organics Prep	05/25/18 04:52	Extract from JC66384-1.1
JC66384-1.1.2	Lindsey Lee	Extract Storage	05/25/18 18:24	Return to Storage
JC66384-1.1.2	Organics Prep	Lindsey Lee	05/25/18 18:24	Extract from JC66384-1.1
JC66384-1.1.2	Extract Storage	Edouard Adrian Lee	05/27/18 20:10	Retrieve from Storage
JC66384-1.1.2	Edouard Adrian Lee	GC2G	05/27/18 20:10	Load on Instrument
JC66384-1.1.2	GC2G	Tianwei Ruan	06/07/18 08:23	Unload from Instrument
JC66384-1.1.2	Tianwei Ruan	Extract Freezer	06/07/18 08:23	Return to Storage
JC66384-1.1.3	Sauvelson Auguste	Organics Prep	05/25/18 05:08	Extract from JC66384-1.1
JC66384-1.1.3	Organics Prep	Rebecca Gluckman	05/25/18 19:45	Extract from JC66384-1.1
JC66384-1.1.3	Rebecca Gluckman	Extract Storage	05/25/18 19:45	Return to Storage
JC66384-1.1.3	Extract Storage	Dhara Saparia	05/26/18 09:51	Retrieve from Storage
JC66384-1.1.3	Dhara Saparia	GC6G	05/26/18 09:51	Load on Instrument
JC66384-1.2	Secured Storage	Sahara Feliciano	05/20/18 11:35	Retrieve from Storage
JC66384-1.2	Sahara Feliciano	Secured Staging Area	05/20/18 11:35	Return to Storage
JC66384-1.2	Secured Staging Area	Radhika Mistry	05/21/18 07:40	Retrieve from Storage
JC66384-1.2	Radhika Mistry	Secured Storage	05/21/18 10:49	Return to Storage
JC66384-1.2	Secured Storage	Todd Shoemaker	05/21/18 14:48	Retrieve from Storage
JC66384-1.2	Todd Shoemaker	Secured Staging Area	05/21/18 14:49	Return to Storage

SGS Internal Chain of Custody

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66384-1.2	Secured Staging Area	Jennifer Voitovitch	05/21/18 21:06	Retrieve from Storage
JC66384-1.2	Jennifer Voitovitch	Secured Storage	05/22/18 18:18	Return to Storage
JC66384-1.2	Secured Storage	Luis Villanueva	05/23/18 16:53	Retrieve from Storage
JC66384-1.2	Luis Villanueva	Secured Staging Area	05/23/18 16:53	Return to Storage
JC66384-1.2	Secured Staging Area	Rinku Patel	05/24/18 08:22	Retrieve from Storage
JC66384-1.2	Rinku Patel	Secured Storage	05/24/18 15:20	Return to Storage
JC66384-1.2.1	Radhika Mistry	Metals Digestion	05/21/18 09:49	Digestate from JC66384-1.2
JC66384-1.2.1	Metals Digestion	Radhika Mistry	05/21/18 09:50	Digestate from JC66384-1.2
JC66384-1.2.1	Radhika Mistry	Metals Digestate Storage	05/21/18 09:50	Return to Storage
JC66384-1.3	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-1.4	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-1.4	Secured Storage	Prashant Shukla	05/19/18 13:50	Retrieve from Storage
JC66384-1.4	Prashant Shukla	GCMSC	05/19/18 13:50	Load on Instrument
JC66384-1.4	GCMSC	Prashant Shukla	05/21/18 09:23	Unload from Instrument
JC66384-1.4	Prashant Shukla		05/21/18 09:23	Depleted
JC66384-1.5	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-2.1	Secured Storage	Dwayne Johnson	05/18/18 09:05	Retrieve from Storage
JC66384-2.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:05	Return to Storage
JC66384-2.1	Secured Staging Area	Jessica Adametz	05/18/18 10:55	Retrieve from Storage
JC66384-2.1	Jessica Adametz	Secured Storage	05/18/18 10:55	Return to Storage
JC66384-2.1	Secured Storage	Todd Shoemaker	05/23/18 15:01	Retrieve from Storage
JC66384-2.1	Todd Shoemaker	Secured Storage	05/23/18 15:08	Return to Storage
JC66384-2.1	Secured Storage	Todd Shoemaker	05/23/18 15:14	Retrieve from Storage
JC66384-2.1	Todd Shoemaker	Secured Staging Area	05/23/18 15:14	Return to Storage
JC66384-2.1	Secured Staging Area	Lindsey Lee	05/23/18 15:17	Retrieve from Storage
JC66384-2.1	Lindsey Lee	Secured Storage	05/23/18 17:18	Return to Storage
JC66384-2.1	Secured Storage	Sahara Feliciano	05/24/18 19:36	Retrieve from Storage
JC66384-2.1	Sahara Feliciano	Secured Staging Area	05/24/18 19:36	Return to Storage
JC66384-2.1	Secured Staging Area	Sauvelson Auguste	05/25/18 04:30	Retrieve from Storage
JC66384-2.1	Sauvelson Auguste	Lindsey Lee	05/25/18 11:50	Custody Transfer
JC66384-2.1	Lindsey Lee	Secured Storage	05/25/18 16:09	Return to Storage
JC66384-2.1.1	Lindsey Lee	Organics Prep	05/23/18 15:22	Extract from JC66384-2.1
JC66384-2.1.1	Organics Prep	Lindsey Lee	05/23/18 21:37	Extract from JC66384-2.1
JC66384-2.1.1	Lindsey Lee	Extract Storage	05/23/18 21:37	Return to Storage
JC66384-2.1.1	Extract Storage	George Sleem	05/26/18 21:51	Retrieve from Storage
JC66384-2.1.1	George Sleem	GCMS2M	05/26/18 21:51	Load on Instrument
JC66384-2.1.1	GCMS2M	Christine Change	05/29/18 12:45	Unload from Instrument
JC66384-2.1.1	Christine Change	Extract Freezer	05/29/18 12:45	Return to Storage

SGS Internal Chain of Custody

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66384-2.1.2	Sauvelson Auguste	Organics Prep	05/25/18 04:52	Extract from JC66384-2.1
JC66384-2.1.2	Lindsey Lee	Extract Storage	05/25/18 18:24	Return to Storage
JC66384-2.1.2	Organics Prep	Lindsey Lee	05/25/18 18:24	Extract from JC66384-2.1
JC66384-2.1.2	Extract Storage	Edouard Adrian Lee	05/27/18 20:10	Retrieve from Storage
JC66384-2.1.2	Edouard Adrian Lee	GC2G	05/27/18 20:10	Load on Instrument
JC66384-2.1.2	GC2G	Tianwei Ruan	06/07/18 08:23	Unload from Instrument
JC66384-2.1.2	Tianwei Ruan	Extract Freezer	06/07/18 08:23	Return to Storage
JC66384-2.1.3	Sauvelson Auguste	Organics Prep	05/25/18 05:08	Extract from JC66384-2.1
JC66384-2.1.3	Organics Prep	Rebecca Gluckman	05/25/18 19:45	Extract from JC66384-2.1
JC66384-2.1.3	Rebecca Gluckman	Extract Storage	05/25/18 19:45	Return to Storage
JC66384-2.1.3	Extract Storage	Dhara Saparia	05/26/18 09:51	Retrieve from Storage
JC66384-2.1.3	Dhara Saparia	GC6G	05/26/18 09:51	Load on Instrument
JC66384-2.2	Secured Storage	Sahara Feliciano	05/20/18 11:35	Retrieve from Storage
JC66384-2.2	Sahara Feliciano	Secured Staging Area	05/20/18 11:35	Return to Storage
JC66384-2.2	Secured Staging Area	Radhika Mistry	05/21/18 07:40	Retrieve from Storage
JC66384-2.2	Radhika Mistry	Secured Storage	05/21/18 10:49	Return to Storage
JC66384-2.2	Secured Storage	Todd Shoemaker	05/21/18 14:48	Retrieve from Storage
JC66384-2.2	Todd Shoemaker	Secured Staging Area	05/21/18 14:49	Return to Storage
JC66384-2.2	Secured Staging Area	Jennifer Voitovitch	05/21/18 21:06	Retrieve from Storage
JC66384-2.2	Jennifer Voitovitch	Secured Storage	05/22/18 18:18	Return to Storage
JC66384-2.2	Secured Storage	Luis Villanueva	05/23/18 16:53	Retrieve from Storage
JC66384-2.2	Luis Villanueva	Secured Staging Area	05/23/18 16:53	Return to Storage
JC66384-2.2	Secured Staging Area	Rinku Patel	05/24/18 08:22	Retrieve from Storage
JC66384-2.2	Rinku Patel	Secured Storage	05/24/18 15:20	Return to Storage
JC66384-2.2.1	Radhika Mistry	Metals Digestion	05/21/18 09:49	Digestate from JC66384-2.2
JC66384-2.2.1	Metals Digestion	Radhika Mistry	05/21/18 09:50	Digestate from JC66384-2.2
JC66384-2.2.1	Radhika Mistry	Metals Digestate Storage	05/21/18 09:50	Return to Storage
JC66384-2.3	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-2.4	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-2.4	Secured Storage	Prashant Shukla	05/19/18 13:50	Retrieve from Storage
JC66384-2.4	Prashant Shukla	GCMSC	05/19/18 13:50	Load on Instrument
JC66384-2.4	GCMSC	Prashant Shukla	05/21/18 09:23	Unload from Instrument
JC66384-2.4	Prashant Shukla		05/21/18 09:23	Depleted
JC66384-2.5	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-3.1	Secured Storage	Maricela Delgaolillo	05/19/18 11:56	Retrieve from Storage
JC66384-3.1	Maricela Delgaolillo	GCMS2D	05/19/18 11:57	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66384-3.1	GCMS2D	Jessica Potts	05/21/18 08:14	Unload from Instrument
JC66384-3.1	Jessica Potts	Secured Storage	05/21/18 08:14	Return to Storage
JC66384-4.1	Secured Storage	Dwayne Johnson	05/18/18 09:05	Retrieve from Storage
JC66384-4.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:05	Return to Storage
JC66384-4.1	Secured Staging Area	Jessica Adametz	05/18/18 10:55	Retrieve from Storage
JC66384-4.1	Jessica Adametz	Secured Storage	05/18/18 10:55	Return to Storage
JC66384-4.1	Secured Storage	Todd Shoemaker	05/23/18 15:01	Retrieve from Storage
JC66384-4.1	Todd Shoemaker	Secured Storage	05/23/18 15:08	Return to Storage
JC66384-4.1	Secured Storage	Todd Shoemaker	05/23/18 15:14	Retrieve from Storage
JC66384-4.1	Todd Shoemaker	Secured Staging Area	05/23/18 15:14	Return to Storage
JC66384-4.1	Secured Staging Area	Lindsey Lee	05/23/18 15:17	Retrieve from Storage
JC66384-4.1	Lindsey Lee	Secured Storage	05/23/18 17:18	Return to Storage
JC66384-4.1	Secured Storage	Sahara Feliciano	05/24/18 19:36	Retrieve from Storage
JC66384-4.1	Sahara Feliciano	Secured Staging Area	05/24/18 19:36	Return to Storage
JC66384-4.1	Secured Staging Area	Sauvelson Auguste	05/25/18 04:30	Retrieve from Storage
JC66384-4.1	Sauvelson Auguste	Lindsey Lee	05/25/18 11:50	Custody Transfer
JC66384-4.1	Lindsey Lee	Secured Storage	05/25/18 16:09	Return to Storage
JC66384-4.1	Secured Storage	Sahara Feliciano	05/27/18 09:46	Retrieve from Storage
JC66384-4.1	Sahara Feliciano	Secured Staging Area	05/27/18 09:46	Return to Storage
JC66384-4.1	Secured Staging Area	Sora Lynn Mathurin	05/29/18 03:04	Retrieve from Storage
JC66384-4.1	Sora Lynn Mathurin	Chatiyah Canaday	05/29/18 12:34	Custody Transfer
JC66384-4.1	Chatiyah Canaday	Secured Storage	05/29/18 20:03	Return to Storage
JC66384-4.1	Secured Storage	Todd Shoemaker	06/04/18 11:32	Retrieve from Storage
JC66384-4.1	Todd Shoemaker	Secured Staging Area	06/04/18 11:32	Return to Storage
JC66384-4.1	Secured Staging Area	Chatiyah Canaday	06/04/18 12:30	Retrieve from Storage
JC66384-4.1	Chatiyah Canaday	Lindsey Lee	06/04/18 15:10	Custody Transfer
JC66384-4.1	Lindsey Lee	Secured Storage	06/04/18 17:50	Return to Storage
JC66384-4.1.1	Lindsey Lee	Organics Prep	05/23/18 15:22	Extract from JC66384-4.1
JC66384-4.1.1	Organics Prep	Lindsey Lee	05/23/18 21:37	Extract from JC66384-4.1
JC66384-4.1.1	Lindsey Lee	Extract Storage	05/23/18 21:37	Return to Storage
JC66384-4.1.1	Extract Storage	George Sleem	05/26/18 21:51	Retrieve from Storage
JC66384-4.1.1	George Sleem	GCMS2M	05/26/18 21:51	Load on Instrument
JC66384-4.1.1	GCMS2M	Christine Change	05/29/18 12:45	Unload from Instrument
JC66384-4.1.1	Christine Change	Extract Freezer	05/29/18 12:45	Return to Storage
JC66384-4.1.2	Sauvelson Auguste	Organics Prep	05/25/18 04:52	Extract from JC66384-4.1
JC66384-4.1.2	Organics Prep	Lindsey Lee	05/25/18 18:24	Extract from JC66384-4.1
JC66384-4.1.2	Lindsey Lee	Extract Storage	05/25/18 18:24	Return to Storage
JC66384-4.1.2	Extract Storage	Edouard Adrian Lee	05/27/18 20:10	Retrieve from Storage
JC66384-4.1.2	Edouard Adrian Lee	GC2G	05/27/18 20:10	Load on Instrument
JC66384-4.1.2	GC2G	Tianwei Ruan	06/07/18 08:23	Unload from Instrument
JC66384-4.1.2	Tianwei Ruan	Extract Freezer	06/07/18 08:23	Return to Storage

SGS Internal Chain of Custody

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66384-4.1.3	Sauvelson Auguste	Organics Prep	05/25/18 05:08	Extract from JC66384-4.1
JC66384-4.1.3	Organics Prep	Rebecca Gluckman	05/25/18 19:45	Extract from JC66384-4.1
JC66384-4.1.3	Rebecca Gluckman	Extract Storage	05/25/18 19:45	Return to Storage
JC66384-4.1.3	Extract Storage	Dhara Saparia	05/26/18 09:51	Retrieve from Storage
JC66384-4.1.3	Dhara Saparia	GC6G	05/26/18 09:51	Load on Instrument
JC66384-4.1.4	Lindsey Lee	Organics Prep	06/04/18 17:49	Extract from JC66384-4.1
JC66384-4.1.4	Organics Prep	Natasha Torres	06/04/18 22:16	Extract from JC66384-4.1
JC66384-4.1.4	Natasha Torres	Extract Storage	06/04/18 22:16	Return to Storage
JC66384-4.1.4	Extract Storage	Angela Rastelli	06/05/18 09:52	Retrieve from Storage
JC66384-4.1.4	Angela Rastelli	GCMSM	06/05/18 09:52	Load on Instrument
JC66384-4.1.4	GCMSM	John Boudreau	06/06/18 11:52	Unload from Instrument
JC66384-4.1.4	John Boudreau	Extract Freezer	06/06/18 11:52	Return to Storage
JC66384-4.2	Secured Storage	Sahara Feliciano	05/20/18 11:35	Retrieve from Storage
JC66384-4.2	Sahara Feliciano	Secured Staging Area	05/20/18 11:35	Return to Storage
JC66384-4.2	Secured Staging Area	Radhika Mistry	05/21/18 07:40	Retrieve from Storage
JC66384-4.2	Radhika Mistry	Secured Storage	05/21/18 10:49	Return to Storage
JC66384-4.2	Secured Storage	Todd Shoemaker	05/21/18 14:48	Retrieve from Storage
JC66384-4.2	Todd Shoemaker	Secured Staging Area	05/21/18 14:49	Return to Storage
JC66384-4.2	Secured Staging Area	Jennifer Voitovitch	05/21/18 21:06	Retrieve from Storage
JC66384-4.2	Jennifer Voitovitch	Secured Storage	05/22/18 18:18	Return to Storage
JC66384-4.2	Secured Storage	Luis Villanueva	05/23/18 16:53	Retrieve from Storage
JC66384-4.2	Luis Villanueva	Secured Staging Area	05/23/18 16:53	Return to Storage
JC66384-4.2	Secured Staging Area	Rinku Patel	05/24/18 08:22	Retrieve from Storage
JC66384-4.2	Rinku Patel	Secured Storage	05/24/18 15:20	Return to Storage
JC66384-4.2.1	Radhika Mistry	Metals Digestion	05/21/18 09:49	Digestate from JC66384-4.2
JC66384-4.2.1	Metals Digestion	Radhika Mistry	05/21/18 09:50	Digestate from JC66384-4.2
JC66384-4.2.1	Radhika Mistry	Metals Digestate Storage	05/21/18 09:50	Return to Storage
JC66384-4.3	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-4.4	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-4.4	Secured Storage	Prashant Shukla	05/19/18 13:50	Retrieve from Storage
JC66384-4.4	Prashant Shukla	GCMSC	05/19/18 13:50	Load on Instrument
JC66384-4.4	GCMSC	Prashant Shukla	05/21/18 09:23	Unload from Instrument
JC66384-4.4	Prashant Shukla		05/21/18 09:23	Depleted
JC66384-4.5	Fauzia Rahman	Secured Storage	05/17/18 21:14	Return to Storage
JC66384-4.5	Secured Storage	Prashant Shukla	05/21/18 11:22	Retrieve from Storage
JC66384-4.5	Prashant Shukla	GCMS1C	05/21/18 11:22	Load on Instrument
JC66384-4.5	GCMS1C	Prashant Shukla	05/22/18 09:06	Unload from Instrument

SGS Internal Chain of Custody

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66384-4.5	Prashant Shukla		05/22/18 09:07	Depleted

MS Volatiles

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

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7409-MB	2D175670.D	1	05/19/18	OI	n/a	n/a	V2D7409

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

JC66384-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7409-MB	2D175670.D	1	05/19/18	OI	n/a	n/a	V2D7409

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

JC66384-3

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	108%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	99%	80-120%

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

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC8227-MB	C222003.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.4	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.24	ug/kg	
75-25-2	Bromoform	ND	5.0	0.31	ug/kg	
74-83-9	Bromomethane	ND	5.0	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.61	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.65	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.0	0.32	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.99	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.38	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.52	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.48	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.71	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/kg	
76-13-1	Freon 113	ND	5.0	0.67	ug/kg	
591-78-6	2-Hexanone	ND	5.0	2.8	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
79-20-9	Methyl Acetate	ND	5.0	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/kg	

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC8227-MB	C222003.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.8	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
100-42-5	Styrene	ND	2.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.64	ug/kg	
108-88-3	Toluene	ND	1.0	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.58	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.48	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.77	ug/kg	
	m,p-Xylene	ND	1.0	0.55	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.25	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	75-127%
17060-07-0	1,2-Dichloroethane-D4	103%	75-130%
2037-26-5	Toluene-D8	107%	80-120%
460-00-4	4-Bromofluorobenzene	100%	79-127%

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

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6921-MB	1C156900.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.4	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.24	ug/kg	
75-25-2	Bromoform	ND	5.0	0.31	ug/kg	
74-83-9	Bromomethane	ND	5.0	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.61	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.65	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.0	0.32	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.99	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.38	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.52	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.48	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.71	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/kg	
76-13-1	Freon 113	ND	5.0	0.67	ug/kg	
591-78-6	2-Hexanone	ND	5.0	2.8	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
79-20-9	Methyl Acetate	ND	5.0	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/kg	

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6921-MB	1C156900.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.8	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
100-42-5	Styrene	ND	2.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.64	ug/kg	
108-88-3	Toluene	ND	1.0	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.58	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.48	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.77	ug/kg	
	m,p-Xylene	ND	1.0	0.55	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.25	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	75-127%
17060-07-0	1,2-Dichloroethane-D4	95%	75-130%
2037-26-5	Toluene-D8	101%	80-120%
460-00-4	4-Bromofluorobenzene	98%	79-127%

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

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7409-BS	2D175668.D	1	05/19/18	OI	n/a	n/a	V2D7409

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

JC66384-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	191	96	42-150
71-43-2	Benzene	50	47.6	95	80-120
74-97-5	Bromochloromethane	50	48.3	97	84-121
75-27-4	Bromodichloromethane	50	51.5	103	83-120
75-25-2	Bromoform	50	55.7	111	76-129
74-83-9	Bromomethane	50	52.2	104	57-138
78-93-3	2-Butanone (MEK)	200	191	96	64-137
75-15-0	Carbon disulfide	50	46.9	94	64-137
56-23-5	Carbon tetrachloride	50	56.5	113	75-135
108-90-7	Chlorobenzene	50	47.3	95	84-117
75-00-3	Chloroethane	50	51.5	103	63-132
67-66-3	Chloroform	50	51.1	102	80-119
74-87-3	Chloromethane	50	55.1	110	46-136
110-82-7	Cyclohexane	50	54.0	108	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	49.4	99	72-127
124-48-1	Dibromochloromethane	50	51.7	103	80-123
106-93-4	1,2-Dibromoethane	50	47.4	95	84-117
95-50-1	1,2-Dichlorobenzene	50	48.9	98	84-119
541-73-1	1,3-Dichlorobenzene	50	47.4	95	81-117
106-46-7	1,4-Dichlorobenzene	50	47.9	96	82-117
75-71-8	Dichlorodifluoromethane	50	70.9	142	36-149
75-34-3	1,1-Dichloroethane	50	48.1	96	79-120
107-06-2	1,2-Dichloroethane	50	49.8	100	78-126
75-35-4	1,1-Dichloroethene	50	47.8	96	69-126
156-59-2	cis-1,2-Dichloroethene	50	48.5	97	80-120
156-60-5	trans-1,2-Dichloroethene	50	47.7	95	76-120
78-87-5	1,2-Dichloropropane	50	46.0	92	82-121
10061-01-5	cis-1,3-Dichloropropene	50	47.0	94	83-120
10061-02-6	trans-1,3-Dichloropropene	50	47.2	94	82-121
100-41-4	Ethylbenzene	50	48.2	96	80-120
76-13-1	Freon 113	50	53.9	108	62-182
591-78-6	2-Hexanone	200	175	88	65-132
98-82-8	Isopropylbenzene	50	49.5	99	83-120
79-20-9	Methyl Acetate	50	48.6	97	67-129
108-87-2	Methylcyclohexane	50	51.4	103	71-134
1634-04-4	Methyl Tert Butyl Ether	50	47.4	95	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7409-BS	2D175668.D	1	05/19/18	OI	n/a	n/a	V2D7409

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

JC66384-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	179	90	71-131
75-09-2	Methylene chloride	50	47.6	95	77-120
100-42-5	Styrene	50	49.1	98	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	43.2	86	76-119
127-18-4	Tetrachloroethene	50	48.5	97	70-131
108-88-3	Toluene	50	46.2	92	80-120
87-61-6	1,2,3-Trichlorobenzene	50	47.8	96	76-134
120-82-1	1,2,4-Trichlorobenzene	50	49.8	100	79-132
71-55-6	1,1,1-Trichloroethane	50	54.0	108	81-128
79-00-5	1,1,2-Trichloroethane	50	46.3	93	83-118
79-01-6	Trichloroethene	50	48.0	96	80-120
75-69-4	Trichlorofluoromethane	50	61.9	124	64-136
75-01-4	Vinyl chloride	50	56.0	112	51-135
	m,p-Xylene	100	96.6	97	80-120
95-47-6	o-Xylene	50	48.3	97	80-120
1330-20-7	Xylene (total)	150	145	97	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	80-120%
17060-07-0	1,2-Dichloroethane-D4	109%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC8227-BS	C222001.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	129	65	48-149
71-43-2	Benzene	50	53.2	106	74-117
74-97-5	Bromochloromethane	50	51.6	103	82-121
75-27-4	Bromodichloromethane	50	51.9	104	78-119
75-25-2	Bromoform	50	50.7	101	76-130
74-83-9	Bromomethane	50	49.2	98	58-137
78-93-3	2-Butanone (MEK)	200	196	98	65-143
75-15-0	Carbon disulfide	50	49.9	100	66-140
56-23-5	Carbon tetrachloride	50	53.2	106	69-136
108-90-7	Chlorobenzene	50	48.8	98	79-117
75-00-3	Chloroethane	50	56.3	113	62-139
67-66-3	Chloroform	50	50.9	102	76-119
74-87-3	Chloromethane	50	57.4	115	52-144
110-82-7	Cyclohexane	50	58.6	117	64-136
96-12-8	1,2-Dibromo-3-chloropropane	50	52.1	104	72-124
124-48-1	Dibromochloromethane	50	51.1	102	78-122
106-93-4	1,2-Dibromoethane	50	54.2	108	80-116
95-50-1	1,2-Dichlorobenzene	50	47.7	95	77-117
541-73-1	1,3-Dichlorobenzene	50	48.6	97	75-117
106-46-7	1,4-Dichlorobenzene	50	46.9	94	76-115
75-71-8	Dichlorodifluoromethane	50	60.9	122	43-156
75-34-3	1,1-Dichloroethane	50	54.1	108	75-124
107-06-2	1,2-Dichloroethane	50	46.4	93	74-124
75-35-4	1,1-Dichloroethene	50	57.1	114	64-129
156-59-2	cis-1,2-Dichloroethene	50	53.6	107	74-118
156-60-5	trans-1,2-Dichloroethene	50	56.2	112	71-125
78-87-5	1,2-Dichloropropane	50	52.9	106	80-119
10061-01-5	cis-1,3-Dichloropropene	50	54.2	108	80-119
10061-02-6	trans-1,3-Dichloropropene	50	50.1	100	78-119
100-41-4	Ethylbenzene	50	51.1	102	75-118
76-13-1	Freon 113	50	55.0	110	60-181
591-78-6	2-Hexanone	200	220	110	63-138
98-82-8	Isopropylbenzene	50	51.5	103	74-122
79-20-9	Methyl Acetate	50	62.3	125	61-140
108-87-2	Methylcyclohexane	50	55.2	110	67-136
1634-04-4	Methyl Tert Butyl Ether	50	56.6	113	75-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC8227-BS	C222001.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	241	121	73-136
75-09-2	Methylene chloride	50	54.7	109	73-120
100-42-5	Styrene	50	56.6	113	78-120
79-34-5	1,1,2,2-Tetrachloroethane	50	51.4	103	72-120
127-18-4	Tetrachloroethene	50	48.8	98	69-128
108-88-3	Toluene	50	50.8	102	74-117
87-61-6	1,2,3-Trichlorobenzene	50	49.1	98	72-133
120-82-1	1,2,4-Trichlorobenzene	50	48.8	98	73-132
71-55-6	1,1,1-Trichloroethane	50	53.9	108	73-131
79-00-5	1,1,2-Trichloroethane	50	53.1	106	79-117
79-01-6	Trichloroethene	50	52.2	104	80-120
75-69-4	Trichlorofluoromethane	50	53.8	108	63-141
75-01-4	Vinyl chloride	50	55.3	111	55-145
	m,p-Xylene	100	104	104	75-120
95-47-6	o-Xylene	50	52.1	104	75-119
1330-20-7	Xylene (total)	150	156	104	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	75-127%
17060-07-0	1,2-Dichloroethane-D4	102%	75-130%
2037-26-5	Toluene-D8	106%	80-120%
460-00-4	4-Bromofluorobenzene	101%	79-127%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6921-BS	1C156898.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	225	113	48-149
71-43-2	Benzene	50	48.8	98	74-117
74-97-5	Bromochloromethane	50	52.0	104	82-121
75-27-4	Bromodichloromethane	50	52.1	104	78-119
75-25-2	Bromoform	50	56.1	112	76-130
74-83-9	Bromomethane	50	54.8	110	58-137
78-93-3	2-Butanone (MEK)	200	231	116	65-143
75-15-0	Carbon disulfide	50	44.3	89	66-140
56-23-5	Carbon tetrachloride	50	51.2	102	69-136
108-90-7	Chlorobenzene	50	50.2	100	79-117
75-00-3	Chloroethane	50	54.1	108	62-139
67-66-3	Chloroform	50	50.7	101	76-119
74-87-3	Chloromethane	50	52.4	105	52-144
110-82-7	Cyclohexane	50	45.3	91	64-136
96-12-8	1,2-Dibromo-3-chloropropane	50	53.4	107	72-124
124-48-1	Dibromochloromethane	50	53.6	107	78-122
106-93-4	1,2-Dibromoethane	50	50.9	102	80-116
95-50-1	1,2-Dichlorobenzene	50	50.8	102	77-117
541-73-1	1,3-Dichlorobenzene	50	50.1	100	75-117
106-46-7	1,4-Dichlorobenzene	50	50.2	100	76-115
75-71-8	Dichlorodifluoromethane	50	48.8	98	43-156
75-34-3	1,1-Dichloroethane	50	51.6	103	75-124
107-06-2	1,2-Dichloroethane	50	49.3	99	74-124
75-35-4	1,1-Dichloroethene	50	46.4	93	64-129
156-59-2	cis-1,2-Dichloroethene	50	48.3	97	74-118
156-60-5	trans-1,2-Dichloroethene	50	47.9	96	71-125
78-87-5	1,2-Dichloropropane	50	50.7	101	80-119
10061-01-5	cis-1,3-Dichloropropene	50	52.6	105	80-119
10061-02-6	trans-1,3-Dichloropropene	50	52.7	105	78-119
100-41-4	Ethylbenzene	50	49.0	98	75-118
76-13-1	Freon 113	50	45.4	91	60-181
591-78-6	2-Hexanone	200	222	111	63-138
98-82-8	Isopropylbenzene	50	49.1	98	74-122
79-20-9	Methyl Acetate	50	50.9	102	61-140
108-87-2	Methylcyclohexane	50	47.6	95	67-136
1634-04-4	Methyl Tert Butyl Ether	50	50.9	102	75-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6921-BS	1C156898.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	210	105	73-136
75-09-2	Methylene chloride	50	49.9	100	73-120
100-42-5	Styrene	50	49.8	100	78-120
79-34-5	1,1,2,2-Tetrachloroethane	50	51.2	102	72-120
127-18-4	Tetrachloroethene	50	50.9	102	69-128
108-88-3	Toluene	50	48.9	98	74-117
87-61-6	1,2,3-Trichlorobenzene	50	53.7	107	72-133
120-82-1	1,2,4-Trichlorobenzene	50	54.2	108	73-132
71-55-6	1,1,1-Trichloroethane	50	51.1	102	73-131
79-00-5	1,1,2-Trichloroethane	50	51.1	102	79-117
79-01-6	Trichloroethene	50	45.6	91	80-120
75-69-4	Trichlorofluoromethane	50	52.5	105	63-141
75-01-4	Vinyl chloride	50	53.5	107	55-145
	m,p-Xylene	100	98.5	99	75-120
95-47-6	o-Xylene	50	50.2	100	75-119
1330-20-7	Xylene (total)	150	149	99	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	75-127%
17060-07-0	1,2-Dichloroethane-D4	97%	75-130%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	100%	79-127%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66392-2MS	C222010.D	1	05/19/18	RS	n/a	n/a	VC8227
JC66392-2	C222005.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	JC66392-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		184	122	66	10-157
71-43-2	Benzene	ND		46	46.7	102	58-125
74-97-5	Bromochloromethane	ND		46	46.9	102	60-127
75-27-4	Bromodichloromethane	ND		46	48.3	105	57-128
75-25-2	Bromoform	ND		46	48.1	105	48-133
74-83-9	Bromomethane	ND		46	46.3	101	31-141
78-93-3	2-Butanone (MEK)	ND		184	188	102	29-146
75-15-0	Carbon disulfide	ND		46	36.4	79	47-145
56-23-5	Carbon tetrachloride	ND		46	47.1	102	51-143
108-90-7	Chlorobenzene	ND		46	44.5	97	54-130
75-00-3	Chloroethane	ND		46	53.9	117	22-153
67-66-3	Chloroform	ND		46	46.4	101	61-125
74-87-3	Chloromethane	ND		46	54.4	118	43-142
110-82-7	Cyclohexane	ND		46	53.5	116	37-148
96-12-8	1,2-Dibromo-3-chloropropane	ND		46	49.7	108	41-127
124-48-1	Dibromochloromethane	ND		46	47.9	104	56-127
106-93-4	1,2-Dibromoethane	ND		46	50.9	111	54-121
95-50-1	1,2-Dichlorobenzene	ND		46	42.8	93	41-134
541-73-1	1,3-Dichlorobenzene	ND		46	43.1	94	41-135
106-46-7	1,4-Dichlorobenzene	ND		46	41.8	91	41-133
75-71-8	Dichlorodifluoromethane	ND		46	64.3	140	30-153
75-34-3	1,1-Dichloroethane	ND		46	47.1	102	61-131
107-06-2	1,2-Dichloroethane	ND		46	42.7	93	56-126
75-35-4	1,1-Dichloroethene	ND		46	43.7	95	53-132
156-59-2	cis-1,2-Dichloroethene	ND		46	47.1	102	57-125
156-60-5	trans-1,2-Dichloroethene	ND		46	46.3	101	56-130
78-87-5	1,2-Dichloropropane	ND		46	49.0	107	63-126
10061-01-5	cis-1,3-Dichloropropene	ND		46	49.5	108	55-126
10061-02-6	trans-1,3-Dichloropropene	ND		46	45.9	100	51-126
100-41-4	Ethylbenzene	ND		46	46.6	101	49-132
76-13-1	Freon 113	ND		46	42.2	92	42-179
591-78-6	2-Hexanone	ND		184	208	113	25-150
98-82-8	Isopropylbenzene	ND		46	47.3	103	43-141
79-20-9	Methyl Acetate	ND		46	96.5	210* [a]	32-158
108-87-2	Methylcyclohexane	ND		46	44.6	97	22-158
1634-04-4	Methyl Tert Butyl Ether	ND		46	51.4	112	58-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66392-2MS	C222010.D	1	05/19/18	RS	n/a	n/a	VC8227
JC66392-2	C222005.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	JC66392-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		184	233	127	40-140
75-09-2	Methylene chloride	ND		46	47.5	103	57-123
100-42-5	Styrene	ND		46	51.4	112	46-139
79-34-5	1,1,2,2-Tetrachloroethane	ND		46	48.9	106	44-127
127-18-4	Tetrachloroethene	ND		46	43.0	93	39-154
108-88-3	Toluene	ND		46	45.9	100	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		46	41.6	90	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		46	41.4	90	19-153
71-55-6	1,1,1-Trichloroethane	ND		46	47.9	104	57-138
79-00-5	1,1,2-Trichloroethane	ND		46	50.5	110	53-127
79-01-6	Trichloroethene	ND		46	46.5	101	52-140
75-69-4	Trichlorofluoromethane	ND		46	51.3	112	46-142
75-01-4	Vinyl chloride	ND		46	52.6	114	43-146
	m,p-Xylene	ND		92	94.9	103	45-137
95-47-6	o-Xylene	ND		46	48.2	105	48-135
1330-20-7	Xylene (total)	ND		138	143	104	46-137

CAS No.	Surrogate Recoveries	MS	JC66392-2	Limits
1868-53-7	Dibromofluoromethane	110%	109%	75-127%
17060-07-0	1,2-Dichloroethane-D4	104%	106%	75-130%
2037-26-5	Toluene-D8	106%	106%	80-120%
460-00-4	4-Bromofluorobenzene	100%	102%	79-127%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66413-1MS	1C156910.D	1	05/21/18	PS	n/a	n/a	V1C6921
JC66413-1	1C156901.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	JC66413-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		338	334	99	10-157
71-43-2	Benzene	ND		84.4	77.1	91	58-125
74-97-5	Bromochloromethane	ND		84.4	86.4	102	60-127
75-27-4	Bromodichloromethane	ND		84.4	75.2	89	57-128
75-25-2	Bromoform	ND		84.4	67.7	80	48-133
74-83-9	Bromomethane	ND		84.4	94.7	112	31-141
78-93-3	2-Butanone (MEK)	ND		338	313	93	29-146
75-15-0	Carbon disulfide	ND		84.4	68.6	81	47-145
56-23-5	Carbon tetrachloride	ND		84.4	79.1	94	51-143
108-90-7	Chlorobenzene	ND		84.4	69.5	82	54-130
75-00-3	Chloroethane	ND		84.4	93.2	110	22-153
67-66-3	Chloroform	ND		84.4	84.8	100	61-125
74-87-3	Chloromethane	ND		84.4	85.5	101	43-142
110-82-7	Cyclohexane	ND		84.4	63.7	75	37-148
96-12-8	1,2-Dibromo-3-chloropropane	ND		84.4	66.4	79	41-127
124-48-1	Dibromochloromethane	ND		84.4	73.9	88	56-127
106-93-4	1,2-Dibromoethane	ND		84.4	73.0	86	54-121
95-50-1	1,2-Dichlorobenzene	ND		84.4	57.9	69	41-134
541-73-1	1,3-Dichlorobenzene	ND		84.4	56.4	67	41-135
106-46-7	1,4-Dichlorobenzene	ND		84.4	56.3	67	41-133
75-71-8	Dichlorodifluoromethane	ND		84.4	82.1	97	30-153
75-34-3	1,1-Dichloroethane	ND		84.4	87.5	104	61-131
107-06-2	1,2-Dichloroethane	ND		84.4	76.7	91	56-126
75-35-4	1,1-Dichloroethene	ND		84.4	77.2	91	53-132
156-59-2	cis-1,2-Dichloroethene	ND		84.4	80.3	95	57-125
156-60-5	trans-1,2-Dichloroethene	ND		84.4	78.8	93	56-130
78-87-5	1,2-Dichloropropane	ND		84.4	81.5	97	63-126
10061-01-5	cis-1,3-Dichloropropene	ND		84.4	76.0	90	55-126
10061-02-6	trans-1,3-Dichloropropene	ND		84.4	76.1	90	51-126
100-41-4	Ethylbenzene	ND		84.4	67.2	80	49-132
76-13-1	Freon 113	ND		84.4	69.0	82	42-179
591-78-6	2-Hexanone	ND		338	304	90	25-150
98-82-8	Isopropylbenzene	ND		84.4	94.2	112	43-141
79-20-9	Methyl Acetate	ND		84.4	149	176* [a]	32-158
108-87-2	Methylcyclohexane	ND		84.4	52.1	62	22-158
1634-04-4	Methyl Tert Butyl Ether	ND		84.4	83.9	99	58-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66413-1MS	1C156910.D	1	05/21/18	PS	n/a	n/a	V1C6921
JC66413-1	1C156901.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	JC66413-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		338	298	88	40-140
75-09-2	Methylene chloride	ND		84.4	86.0	102	57-123
100-42-5	Styrene	ND		84.4	66.3	79	46-139
79-34-5	1,1,2,2-Tetrachloroethane	ND		84.4	67.0	79	44-127
127-18-4	Tetrachloroethene	ND		84.4	67.3	80	39-154
108-88-3	Toluene	ND		84.4	74.3	88	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		84.4	36.7	43	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		84.4	38.0	45	19-153
71-55-6	1,1,1-Trichloroethane	ND		84.4	83.9	99	57-138
79-00-5	1,1,2-Trichloroethane	ND		84.4	76.6	91	53-127
79-01-6	Trichloroethene	1.4		84.4	68.1	79	52-140
75-69-4	Trichlorofluoromethane	ND		84.4	87.0	103	46-142
75-01-4	Vinyl chloride	ND		84.4	89.6	106	43-146
	m,p-Xylene	ND		169	134	79	45-137
95-47-6	o-Xylene	ND		84.4	68.7	81	48-135
1330-20-7	Xylene (total)	ND		253	203	80	46-137

CAS No.	Surrogate Recoveries	MS	JC66413-1	Limits
1868-53-7	Dibromofluoromethane	109%	107%	75-127%
17060-07-0	1,2-Dichloroethane-D4	98%	103%	75-130%
2037-26-5	Toluene-D8	102%	101%	80-120%
460-00-4	4-Bromofluorobenzene	101%	101%	79-127%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66383-5MS	2D175674.D	10	05/19/18	OI	n/a	n/a	V2D7409
JC66383-5MSD	2D175675.D	10	05/19/18	OI	n/a	n/a	V2D7409
JC66383-5	2D175673.D	10	05/19/18	OI	n/a	n/a	V2D7409

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

JC66384-3

CAS No.	Compound	JC66383-5 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		2000	1920	96	2000	1930	97	1	34-149/17
71-43-2	Benzene	ND		500	469	94	500	468	94	0	54-136/10
74-97-5	Bromochloromethane	ND		500	476	95	500	479	96	1	79-124/11
75-27-4	Bromodichloromethane	ND		500	515	103	500	514	103	0	79-124/11
75-25-2	Bromoform	ND		500	537	107	500	528	106	2	71-130/11
74-83-9	Bromomethane	ND		500	439	88	500	455	91	4	53-142/14
78-93-3	2-Butanone (MEK)	ND		2000	1920	96	2000	1910	96	1	54-142/15
75-15-0	Carbon disulfide	ND		500	442	88	500	440	88	0	59-145/17
56-23-5	Carbon tetrachloride	ND		500	532	106	500	534	107	0	70-143/12
108-90-7	Chlorobenzene	ND		500	467	93	500	470	94	1	78-123/10
75-00-3	Chloroethane	ND		500	423	85	500	452	90	7	57-141/14
67-66-3	Chloroform	ND		500	508	102	500	506	101	0	76-123/11
74-87-3	Chloromethane	ND		500	414	83	500	460	92	11	43-141/16
110-82-7	Cyclohexane	ND		500	406	81	500	402	80	1	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		500	462	92	500	469	94	2	66-130/13
124-48-1	Dibromochloromethane	ND		500	497	99	500	503	101	1	76-125/11
106-93-4	1,2-Dibromoethane	ND		500	462	92	500	464	93	0	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		500	482	96	500	493	99	2	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		500	473	95	500	477	95	1	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		500	476	95	500	482	96	1	76-122/11
75-71-8	Dichlorodifluoromethane	ND		500	409	82	500	423	85	3	31-159/16
75-34-3	1,1-Dichloroethane	ND		500	478	96	500	475	95	1	73-126/11
107-06-2	1,2-Dichloroethane	ND		500	499	100	500	488	98	2	72-131/11
75-35-4	1,1-Dichloroethene	ND		500	464	93	500	460	92	1	63-136/14
156-59-2	cis-1,2-Dichloroethene	5.2	J	500	483	96	500	481	95	0	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		500	476	95	500	475	95	0	70-126/11
78-87-5	1,2-Dichloropropane	ND		500	460	92	500	456	91	1	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		500	465	93	500	464	93	0	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		500	464	93	500	464	93	0	77-123/11
100-41-4	Ethylbenzene	ND		500	473	95	500	479	96	1	51-140/20
76-13-1	Freon 113	ND		500	410	82	500	404	81	1	60-192/14
591-78-6	2-Hexanone	ND		2000	1770	89	2000	1790	90	1	56-139/14
98-82-8	Isopropylbenzene	ND		500	487	97	500	492	98	1	75-129/11
79-20-9	Methyl Acetate	ND		500	448	90	500	444	89	1	55-131/15
108-87-2	Methylcyclohexane	ND		500	423	85	500	420	84	1	57-155/13
1634-04-4	Methyl Tert Butyl Ether	ND		500	449	90	500	460	92	2	72-123/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66383-5MS	2D175674.D	10	05/19/18	OI	n/a	n/a	V2D7409
JC66383-5MSD	2D175675.D	10	05/19/18	OI	n/a	n/a	V2D7409
JC66383-5	2D175673.D	10	05/19/18	OI	n/a	n/a	V2D7409

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

JC66384-3

CAS No.	Compound	JC66383-5 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		2000	1810	91	2000	1840	92	2	66-136/13
75-09-2	Methylene chloride	ND		500	471	94	500	478	96	1	73-125/13
100-42-5	Styrene	ND		500	490	98	500	489	98	0	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	425	85	500	432	86	2	71-122/11
127-18-4	Tetrachloroethene	884		500	1300	83	500	1300	83	0	61-139/11
108-88-3	Toluene	ND		500	456	91	500	462	92	1	60-135/10
87-61-6	1,2,3-Trichlorobenzene	ND		500	465	93	500	474	95	2	70-138/13
120-82-1	1,2,4-Trichlorobenzene	ND		500	489	98	500	497	99	2	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		500	522	104	500	520	104	0	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		500	456	91	500	469	94	3	78-121/11
79-01-6	Trichloroethene	17.1		500	492	95	500	488	94	1	62-141/10
75-69-4	Trichlorofluoromethane	ND		500	491	98	500	480	96	2	57-149/14
75-01-4	Vinyl chloride	ND		500	422	84	500	463	93	9	43-146/15
	m,p-Xylene	ND		1000	960	96	1000	959	96	0	50-144/20
95-47-6	o-Xylene	ND		500	478	96	500	478	96	0	63-134/10
1330-20-7	Xylene (total)	ND		1500	1440	96	1500	1440	96	0	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC66383-5	Limits
1868-53-7	Dibromofluoromethane	106%	106%	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	107%	106%	108%	81-124%
2037-26-5	Toluene-D8	97%	99%	101%	80-120%
460-00-4	4-Bromofluorobenzene	93%	95%	101%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66392-1DUP	C222009.D	1	05/19/18	RS	n/a	n/a	VC8227
JC66392-1	C222004.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	JC66392-1 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	40
71-43-2	Benzene	ND		ND		nc	30
74-97-5	Bromochloromethane	ND		ND		nc	30
75-27-4	Bromodichloromethane	ND		ND		nc	30
75-25-2	Bromoform	ND		ND		nc	30
74-83-9	Bromomethane	ND		ND		nc	30
78-93-3	2-Butanone (MEK)	ND		ND		nc	30
75-15-0	Carbon disulfide	ND		ND		nc	30
56-23-5	Carbon tetrachloride	ND		ND		nc	30
108-90-7	Chlorobenzene	ND		ND		nc	30
75-00-3	Chloroethane	ND		ND		nc	30
67-66-3	Chloroform	ND		ND		nc	30
74-87-3	Chloromethane	ND		ND		nc	30
110-82-7	Cyclohexane	ND		ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	30
124-48-1	Dibromochloromethane	ND		ND		nc	30
106-93-4	1,2-Dibromoethane	ND		ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	30
75-71-8	Dichlorodifluoromethane	ND		ND		nc	30
75-34-3	1,1-Dichloroethane	ND		ND		nc	30
107-06-2	1,2-Dichloroethane	ND		ND		nc	30
75-35-4	1,1-Dichloroethene	ND		ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	30
78-87-5	1,2-Dichloropropane	ND		ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	30
100-41-4	Ethylbenzene	ND		ND		nc	30
76-13-1	Freon 113	ND		ND		nc	30
591-78-6	2-Hexanone	ND		ND		nc	30
98-82-8	Isopropylbenzene	ND		ND		nc	30
79-20-9	Methyl Acetate	ND		ND		nc	30
108-87-2	Methylcyclohexane	ND		ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66392-1DUP	C222009.D	1	05/19/18	RS	n/a	n/a	VC8227
JC66392-1	C222004.D	1	05/19/18	RS	n/a	n/a	VC8227

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

JC66384-1, JC66384-2

CAS No.	Compound	JC66392-1 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	36
100-42-5	Styrene	ND		ND		nc	30
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	30
127-18-4	Tetrachloroethene	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	24
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	30
79-01-6	Trichloroethene	ND		ND		nc	30
75-69-4	Trichlorofluoromethane	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	ND		ND		nc	32
95-47-6	o-Xylene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	JC66392-1	Limits
1868-53-7	Dibromofluoromethane	108%	109%	75-127%
17060-07-0	1,2-Dichloroethane-D4	104%	104%	75-130%
2037-26-5	Toluene-D8	106%	107%	80-120%
460-00-4	4-Bromofluorobenzene	102%	102%	79-127%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66413-2DUP	1C156911.D	1	05/21/18	PS	n/a	n/a	V1C6921
JC66413-2	1C156902.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	JC66413-2 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	7.1	J	7.3	J	3	40
71-43-2	Benzene	ND		ND		nc	30
74-97-5	Bromochloromethane	ND		ND		nc	30
75-27-4	Bromodichloromethane	ND		ND		nc	30
75-25-2	Bromoform	ND		ND		nc	30
74-83-9	Bromomethane	ND		ND		nc	30
78-93-3	2-Butanone (MEK)	ND		ND		nc	30
75-15-0	Carbon disulfide	ND		ND		nc	30
56-23-5	Carbon tetrachloride	ND		ND		nc	30
108-90-7	Chlorobenzene	ND		ND		nc	30
75-00-3	Chloroethane	ND		ND		nc	30
67-66-3	Chloroform	ND		ND		nc	30
74-87-3	Chloromethane	ND		ND		nc	30
110-82-7	Cyclohexane	ND		ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	30
124-48-1	Dibromochloromethane	ND		ND		nc	30
106-93-4	1,2-Dibromoethane	ND		ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	30
75-71-8	Dichlorodifluoromethane	ND		ND		nc	30
75-34-3	1,1-Dichloroethane	ND		ND		nc	30
107-06-2	1,2-Dichloroethane	ND		ND		nc	30
75-35-4	1,1-Dichloroethene	ND		ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	30
78-87-5	1,2-Dichloropropane	ND		ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	30
100-41-4	Ethylbenzene	ND		ND		nc	30
76-13-1	Freon 113	ND		ND		nc	30
591-78-6	2-Hexanone	ND		ND		nc	30
98-82-8	Isopropylbenzene	ND		ND		nc	30
79-20-9	Methyl Acetate	ND		ND		nc	30
108-87-2	Methylcyclohexane	ND		ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66413-2DUP	1C156911.D	1	05/21/18	PS	n/a	n/a	V1C6921
JC66413-2	1C156902.D	1	05/21/18	PS	n/a	n/a	V1C6921

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

JC66384-4

CAS No.	Compound	JC66413-2 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	36
100-42-5	Styrene	ND		ND		nc	30
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	30
127-18-4	Tetrachloroethene	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	24
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	30
79-01-6	Trichloroethene	ND		ND		nc	30
75-69-4	Trichlorofluoromethane	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	ND		ND		nc	32
95-47-6	o-Xylene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	JC66413-2	Limits
1868-53-7	Dibromofluoromethane	109%	106%	75-127%
17060-07-0	1,2-Dichloroethane-D4	99%	99%	75-130%
2037-26-5	Toluene-D8	100%	99%	80-120%
460-00-4	4-Bromofluorobenzene	98%	96%	79-127%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6917-BFB
Lab File ID: 1C156796.D
Instrument ID: GCMS1C
Injection Date: 05/16/18
Injection Time: 16:51

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11794	17.9		Pass
75	30.0 - 60.0% of mass 95	31282	47.4		Pass
95	Base peak, 100% relative abundance	66005	100.0		Pass
96	5.0 - 9.0% of mass 95	4459	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	51821	78.5		Pass
175	5.0 - 9.0% of mass 174	4064	6.16	(7.84) [a]	Pass
176	95.0 - 101.0% of mass 174	50346	76.3	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	3371	5.11	(6.70) [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
V1C6917-IC6917	1C156797.D	05/16/18	17:27	00:36	Initial cal 0.5
V1C6917-IC6917	1C156798.D	05/16/18	17:54	01:03	Initial cal 1
V1C6917-IC6917	1C156799.D	05/16/18	18:21	01:30	Initial cal 2
V1C6917-IC6917	1C156800.D	05/16/18	18:47	01:56	Initial cal 4
V1C6917-IC6917	1C156801.D	05/16/18	19:14	02:23	Initial cal 8
V1C6917-IC6917	1C156802.D	05/16/18	19:41	02:50	Initial cal 20
V1C6917-ICC6917	1C156803.D	05/16/18	20:07	03:16	Initial cal 50
V1C6917-IC6917	1C156804.D	05/16/18	20:34	03:43	Initial cal 100
V1C6917-IC6917	1C156805.D	05/16/18	21:00	04:09	Initial cal 200
V1C6917-ICV6917	1C156808.D	05/16/18	22:20	05:29	Initial cal verification 50
V1C6917-ICV6917	1C156809.D	05/16/18	22:47	05:56	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6921-BFB
Lab File ID: 1C156897.D
Instrument ID: GCMS1C
Injection Date: 05/21/18
Injection Time: 08:13

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11970	17.9		Pass
75	30.0 - 60.0% of mass 95	31976	47.9		Pass
95	Base peak, 100% relative abundance	66688	100.0		Pass
96	5.0 - 9.0% of mass 95	4382	6.57		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	54184	81.3		Pass
175	5.0 - 9.0% of mass 174	4138	6.21	(7.64) [a]	Pass
176	95.0 - 101.0% of mass 174	51920	77.9	(95.8) [a]	Pass
177	5.0 - 9.0% of mass 176	3559	5.34	(6.85) [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
V1C6921-CC6917	1C156897.D	05/21/18	08:13	00:00	Continuing cal 20
V1C6921-BS	1C156898.D	05/21/18	08:50	00:37	Blank Spike
V1C6921-MB	1C156900.D	05/21/18	09:57	01:44	Method Blank
ZZZZZZ	1C156900A.D	05/21/18	09:57	01:44	(unrelated sample)
JC66413-1	1C156901.D	05/21/18	10:24	02:11	(used for QC only; not part of job JC66384)
JC66413-2	1C156902.D	05/21/18	10:51	02:38	(used for QC only; not part of job JC66384)
ZZZZZZ	1C156903.D	05/21/18	11:17	03:04	(unrelated sample)
ZZZZZZ	1C156904.D	05/21/18	11:44	03:31	(unrelated sample)
ZZZZZZ	1C156905.D	05/21/18	12:11	03:58	(unrelated sample)
ZZZZZZ	1C156906.D	05/21/18	12:37	04:24	(unrelated sample)
ZZZZZZ	1C156907.D	05/21/18	13:04	04:51	(unrelated sample)
ZZZZZZ	1C156908.D	05/21/18	13:30	05:17	(unrelated sample)
JC66384-4	1C156909.D	05/21/18	13:57	05:44	MW-102(12-13)
JC66413-1MS	1C156910.D	05/21/18	14:23	06:10	Matrix Spike
JC66413-2DUP	1C156911.D	05/21/18	14:50	06:37	Duplicate
ZZZZZZ	1C156912.D	05/21/18	15:17	07:04	(unrelated sample)
ZZZZZZ	1C156913.D	05/21/18	15:43	07:30	(unrelated sample)
ZZZZZZ	1C156914.D	05/21/18	16:10	07:57	(unrelated sample)
ZZZZZZ	1C156915.D	05/21/18	16:37	08:24	(unrelated sample)
ZZZZZZ	1C156916.D	05/21/18	17:03	08:50	(unrelated sample)
ZZZZZZ	1C156917.D	05/21/18	17:30	09:17	(unrelated sample)
ZZZZZZ	1C156918.D	05/21/18	17:57	09:44	(unrelated sample)
ZZZZZZ	1C156919.D	05/21/18	18:23	10:10	(unrelated sample)
ZZZZZZ	1C156920.D	05/21/18	18:50	10:37	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	V1C6921-BFB	**Injection Date:**	05/21/18
Lab File ID:	1C156897.D	**Injection Time:**	08:13
Instrument ID:	GCMS1C		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	1C156921.D	05/21/18	19:17	11:04	(unrelated sample)
ZZZZZZ	1C156922.D	05/21/18	19:43	11:30	(unrelated sample)
ZZZZZZ	1C156922R.D	05/21/18	19:43	11:30	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-BFB
Lab File ID: 2D175264.D
Instrument ID: GCMS2D
Injection Date: 05/03/18
Injection Time: 15:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17674	16.8		Pass
75	30.0 - 60.0% of mass 95	48434	46.1		Pass
95	Base peak, 100% relative abundance	105000	100.0		Pass
96	5.0 - 9.0% of mass 95	6978	6.65		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	102509	97.6		Pass
175	5.0 - 9.0% of mass 174	7907	7.53	(7.71) [a]	Pass
176	95.0 - 101.0% of mass 174	99776	95.0	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6501	6.19	(6.52) [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
V2D7390-IC7390	2D175265.D	05/03/18	16:10	00:31	Initial cal 1
V2D7390-IC7390	2D175266.D	05/03/18	16:41	01:02	Initial cal 0.5
V2D7390-IC7390	2D175267.D	05/03/18	17:12	01:33	Initial cal 2
V2D7390-IC7390	2D175268.D	05/03/18	17:43	02:04	Initial cal 5
V2D7390-IC7390	2D175269.D	05/03/18	18:14	02:35	Initial cal 10
V2D7390-IC7390	2D175270.D	05/03/18	18:45	03:06	Initial cal 20
V2D7390-ICC7390	2D175271.D	05/03/18	19:16	03:37	Initial cal 50
V2D7390-IC7390	2D175272.D	05/03/18	19:46	04:07	Initial cal 100
V2D7390-IC7390	2D175273.D	05/03/18	20:17	04:38	Initial cal 200
V2D7390-ICV7390	2D175276.D	05/03/18	21:50	06:11	Initial cal verification 50
V2D7390-ICV7390	2D175277.D	05/03/18	22:21	06:42	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7409-BFB
Lab File ID: 2D175667.D
Instrument ID: GCMS2D
Injection Date: 05/19/18
Injection Time: 09:36

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17975	17.7		Pass
75	30.0 - 60.0% of mass 95	47411	46.8		Pass
95	Base peak, 100% relative abundance	101360	100.0		Pass
96	5.0 - 9.0% of mass 95	6587	6.50		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	99605	98.3		Pass
175	5.0 - 9.0% of mass 174	7586	7.48	(7.62) [a]	Pass
176	95.0 - 101.0% of mass 174	98475	97.2	(98.9) [a]	Pass
177	5.0 - 9.0% of mass 176	6349	6.26	(6.45) [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
V2D7409-CC7390	2D175667.D	05/19/18	09:36	00:00	Continuing cal 20
V2D7409-BS	2D175668.D	05/19/18	10:20	00:44	Blank Spike
V2D7409-MB	2D175670.D	05/19/18	11:21	01:45	Method Blank
ZZZZZZ	2D175671.D	05/19/18	12:29	02:53	(unrelated sample)
ZZZZZZ	2D175672.D	05/19/18	13:00	03:24	(unrelated sample)
JC66383-5	2D175673.D	05/19/18	13:30	03:54	(used for QC only; not part of job JC66384)
JC66383-5MS	2D175674.D	05/19/18	14:01	04:25	Matrix Spike
JC66383-5MSD	2D175675.D	05/19/18	14:32	04:56	Matrix Spike Duplicate
ZZZZZZ	2D175677.D	05/19/18	15:33	05:57	(unrelated sample)
ZZZZZZ	2D175678.D	05/19/18	16:03	06:27	(unrelated sample)
ZZZZZZ	2D175679.D	05/19/18	16:33	06:57	(unrelated sample)
JC66384-3	2D175680.D	05/19/18	17:04	07:28	TRIP BLANK
ZZZZZZ	2D175681.D	05/19/18	17:34	07:58	(unrelated sample)
ZZZZZZ	2D175682.D	05/19/18	18:05	08:29	(unrelated sample)
ZZZZZZ	2D175683.D	05/19/18	18:35	08:59	(unrelated sample)
ZZZZZZ	2D175684.D	05/19/18	19:06	09:30	(unrelated sample)
ZZZZZZ	2D175685.D	05/19/18	19:36	10:00	(unrelated sample)
ZZZZZZ	2D175686.D	05/19/18	20:07	10:31	(unrelated sample)
ZZZZZZ	2D175687.D	05/19/18	20:37	11:01	(unrelated sample)
ZZZZZZ	2D175688.D	05/19/18	21:08	11:32	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	VC8199-BFB	**Injection Date:**	03/19/18
Lab File ID:	C221526.D	**Injection Time:**	16:46
Instrument ID:	GCMSC		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	21578	21.6		Pass
75	30.0 - 60.0% of mass 95	51856	51.9		Pass
95	Base peak, 100% relative abundance	99856	100.0		Pass
96	5.0 - 9.0% of mass 95	6686	6.70		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	78984	79.1		Pass
175	5.0 - 9.0% of mass 174	7002	7.01	(8.87) [a]	Pass
176	95.0 - 101.0% of mass 174	77525	77.6	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	4914	4.92	(6.34) [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
VC8199-IC8199	C221527.D	03/19/18	17:24	00:38	Initial cal 0.2
VC8199-IC8199	C221528.D	03/19/18	17:53	01:07	Initial cal 0.5
VC8199-IC8199	C221529.D	03/19/18	18:23	01:37	Initial cal 1
VC8199-IC8199	C221530.D	03/19/18	18:52	02:06	Initial cal 2
VC8199-IC8199	C221531.D	03/19/18	19:21	02:35	Initial cal 4
VC8199-IC8199	C221532.D	03/19/18	19:50	03:04	Initial cal 8
VC8199-IC8199	C221533.D	03/19/18	20:19	03:33	Initial cal 20
VC8199-ICC8199	C221534.D	03/19/18	20:48	04:02	Initial cal 50
VC8199-IC8199	C221535.D	03/19/18	21:17	04:31	Initial cal 100
VC8199-IC8199	C221536.D	03/19/18	21:46	05:00	Initial cal 200
VC8199-ICV8199	C221539.D	03/19/18	23:13	06:27	Initial cal verification 50
VC8199-ICV8199	C221540.D	03/19/18	23:42	06:56	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	VC8227-BFB	**Injection Date:**	05/19/18
Lab File ID:	C221999.D	**Injection Time:**	11:29
Instrument ID:	GCMSC		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	20763	21.0		Pass
75	30.0 - 60.0% of mass 95	48944	49.6		Pass
95	Base peak, 100% relative abundance	98699	100.0		Pass
96	5.0 - 9.0% of mass 95	6609	6.70		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	68544	69.4		Pass
175	5.0 - 9.0% of mass 174	5806	5.88	(8.47) [a]	Pass
176	95.0 - 101.0% of mass 174	66136	67.0	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4370	4.43	(6.61) [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
VC8227-CC8199	C221999.D	05/19/18	11:29	00:00	Continuing cal 20
VC8227-BS	C222001.D	05/19/18	12:46	01:17	Blank Spike
VC8227-MB	C222003.D	05/19/18	13:58	02:29	Method Blank
JC66392-1	C222004.D	05/19/18	14:27	02:58	(used for QC only; not part of job JC66384)
JC66392-2	C222005.D	05/19/18	14:55	03:26	(used for QC only; not part of job JC66384)
JC66384-1	C222006.D	05/19/18	15:24	03:55	MW-103(6-7)
JC66384-2	C222007.D	05/19/18	15:53	04:24	MW-103(15-16)
JC66392-1DUP	C222009.D	05/19/18	16:50	05:21	Duplicate
JC66392-2MS	C222010.D	05/19/18	17:19	05:50	Matrix Spike
ZZZZZZ	C222012.D	05/19/18	18:17	06:48	(unrelated sample)
ZZZZZZ	C222013.D	05/19/18	18:46	07:17	(unrelated sample)
ZZZZZZ	C222014.D	05/19/18	19:15	07:46	(unrelated sample)
ZZZZZZ	C222015.D	05/19/18	19:43	08:14	(unrelated sample)
ZZZZZZ	C222016.D	05/19/18	20:12	08:43	(unrelated sample)
ZZZZZZ	C222017.D	05/19/18	20:40	09:11	(unrelated sample)
ZZZZZZ	C222018.D	05/19/18	21:09	09:40	(unrelated sample)
ZZZZZZ	C222019.D	05/19/18	21:38	10:09	(unrelated sample)
ZZZZZZ	C222020.D	05/19/18	22:06	10:37	(unrelated sample)
ZZZZZZ	C222021.D	05/19/18	22:35	11:06	(unrelated sample)

Internal Standard Area Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V1C6921-CC6917	**Injection Date:**	05/21/18
Lab File ID:	1C156897.D	**Injection Time:**	08:13
Instrument ID:	GCMS1C	**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	81395	7.38	213242	9.62	324663	10.54	246604	13.67	117134	15.99
Upper Limit [a]	162790	7.88	426484	10.12	649326	11.04	493208	14.17	234268	16.49
Lower Limit [b]	40698	6.88	106621	9.12	162332	10.04	123302	13.17	58567	15.49

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1C6921-BS	76468	7.38	210871	9.62	324797	10.54	244790	13.67	116218	15.99
V1C6921-MB	62421	7.38	215479	9.62	326973	10.54	248489	13.68	120458	15.99
ZZZZZZ	62421	7.38	215479	9.62	326973	10.54	248489	13.68	120458	15.99
JC66413-1	73712	7.38	203084	9.62	311803	10.54	237239	13.68	109543	15.99
JC66413-2	67677	7.38	206129	9.62	315884	10.54	242495	13.68	120476	15.99
ZZZZZZ	71090	7.38	183175	9.62	288490	10.54	208264	13.68	88317	15.99
ZZZZZZ	74799	7.38	200708	9.62	315889	10.54	246712	13.68	120218	15.99
ZZZZZZ	56956	7.38	186245	9.62	286337	10.54	209250	13.68	85599	15.99
ZZZZZZ	60404	7.38	197375	9.62	307034	10.54	239285	13.68	116024	15.99
ZZZZZZ	68304	7.39	187013	9.62	294584	10.54	217947	13.68	92368	15.99
ZZZZZZ	66487	7.38	191636	9.62	302705	10.54	230379	13.68	107464	15.99
JC66384-4	45864	7.38	174224	9.62	271967	10.54	209415	13.68	100537	15.99
JC66413-1MS	57921	7.39	178031	9.62	285237	10.54	211553	13.68	93710	15.99
JC66413-2DUP	68036	7.39	203071	9.62	318724	10.54	247979	13.68	120319	15.99
ZZZZZZ	72145	7.38	182302	9.62	290085	10.54	213736	13.68	91135	15.99
ZZZZZZ	72322	7.38	190415	9.62	300472	10.54	223577	13.68	100527	15.99
ZZZZZZ	71459	7.38	180848	9.62	286199	10.54	212445	13.68	94503	15.99
ZZZZZZ	73317	7.38	183343	9.62	287319	10.54	213951	13.68	93249	15.99
ZZZZZZ	69517	7.38	179314	9.62	282514	10.54	209417	13.68	90403	15.99
ZZZZZZ	55410	7.38	179045	9.62	283354	10.54	212715	13.68	95741	15.99
ZZZZZZ	69416	7.38	188903	9.62	296709	10.54	233944	13.68	113182	15.99
ZZZZZZ	77251	7.38	207840	9.62	325666	10.54	253346	13.68	123217	15.99
ZZZZZZ	79369	7.38	208716	9.62	324550	10.54	248672	13.68	117783	15.99
ZZZZZZ	79847	7.38	206272	9.62	323281	10.54	249990	13.68	117381	15.99
ZZZZZZ	68931	7.38	188681	9.62	305959	10.54	212460	13.68	95341	15.99
ZZZZZZ	68931	7.38	188681	9.62	305959	10.54	212460	13.68	95341	15.99

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: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	V2D7409-CC7390	**Injection Date:**	05/19/18
Lab File ID:	2D175667.D	**Injection Time:**	09:36
Instrument ID:	GCMS2D	**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	89172	7.35	248621	10.07	338053	11.22	351606	15.44	228051	18.24
Upper Limit [a]	178344	7.85	497242	10.57	676106	11.72	703212	15.94	456102	18.74
Lower Limit [b]	44586	6.85	124311	9.57	169027	10.72	175803	14.94	114026	17.74

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D7409-BS	89185	7.35	244544	10.07	333428	11.22	344754	15.44	221934	18.24
V2D7409-MB	90421	7.36	252696	10.07	339473	11.22	346684	15.44	207095	18.24
ZZZZZZ	96975	7.35	250034	10.07	342283	11.22	364387	15.44	213531	18.24
ZZZZZZ	91899	7.36	254808	10.07	345093	11.22	345613	15.44	209262	18.24
JC66383-5	89593	7.36	254617	10.07	346061	11.22	346452	15.45	206761	18.25
JC66383-5MS	87171	7.36	250063	10.07	339529	11.22	351251	15.45	230255	18.25
JC66383-5MSD	88348	7.37	252144	10.07	343212	11.23	352214	15.45	224894	18.25
ZZZZZZ	90249	7.36	255695	10.07	346714	11.22	351441	15.45	209580	18.25
ZZZZZZ	90646	7.36	256866	10.07	350007	11.22	351187	15.45	212627	18.25
ZZZZZZ	90637	7.37	253674	10.08	340307	11.23	345546	15.45	208586	18.25
JC66384-3	91257	7.37	256668	10.08	349763	11.23	355225	15.45	213957	18.25
ZZZZZZ	87281	7.36	242357	10.07	329186	11.23	333882	15.45	201849	18.25
ZZZZZZ	89664	7.37	253626	10.08	343003	11.23	351683	15.45	210323	18.25
ZZZZZZ	88556	7.37	250447	10.08	340845	11.23	346616	15.45	207662	18.25
ZZZZZZ	87400	7.36	243605	10.07	331192	11.23	335408	15.45	198335	18.25
ZZZZZZ	87164	7.36	244445	10.08	329791	11.23	337717	15.45	203368	18.25
ZZZZZZ	86041	7.37	245614	10.08	331010	11.23	335684	15.45	201933	18.25
ZZZZZZ	99164	7.36	240573	10.08	328036	11.23	332219	15.45	217597	18.25
ZZZZZZ	101389	7.36	346342	10.08	467993	11.23	468592	15.45	290068	18.25

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: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	VC8227-CC8199	**Injection Date:**	05/19/18
Lab File ID:	C221999.D	**Injection Time:**	11:29
Instrument ID:	GCMSC	**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	73722	8.42	202297	11.13	340289	12.09	316163	15.11	152586	17.15
Upper Limit [a]	147444	8.92	404594	11.63	680578	12.59	632326	15.61	305172	17.65
Lower Limit [b]	36861	7.92	101149	10.63	170145	11.59	158082	14.61	76293	16.65

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VC8227-BS	76165	8.42	207840	11.13	351966	12.09	325246	15.11	157743	17.15
VC8227-MB	75036	8.42	201964	11.13	342028	12.09	307165	15.11	148318	17.14
JC66392-1	78771	8.42	209544	11.13	360508	12.09	323685	15.11	153095	17.15
JC66392-2	79621	8.42	207999	11.13	357492	12.09	328462	15.11	154168	17.15
JC66384-1	80326	8.42	206744	11.13	358780	12.09	330809	15.11	153551	17.15
JC66384-2	73975	8.42	204149	11.13	352845	12.09	325368	15.11	149701	17.14
JC66392-1DUP	69722	8.42	202179	11.13	346900	12.09	321496	15.11	149818	17.15
JC66392-2MS	78979	8.42	208127	11.13	357855	12.09	331085	15.11	163825	17.14
ZZZZZZ	72817	8.42	203710	11.13	353324	12.09	325257	15.11	153778	17.15
ZZZZZZ	69854	8.43	211739	11.13	360412	12.09	354971	15.11	179023	17.15
ZZZZZZ	96767	8.41	253815	11.13	425286	12.09	397903	15.11	191362	17.14
ZZZZZZ	107424	8.42	251318	11.13	423285	12.09	393575	15.11	195390	17.15
ZZZZZZ	111884	8.42	262551	11.13	432278	12.09	403101	15.11	204199	17.15
ZZZZZZ	188213[c]	8.41	279124	11.13	463257	12.10	423537	15.11	204400	17.15
ZZZZZZ	128935	8.42	266611	11.13	436121	12.09	402511	15.11	202350	17.15
ZZZZZZ	176546[c]	8.42	267630	11.13	439064	12.09	398896	15.11	200430	17.15
ZZZZZZ	298570[c]	8.55	282338	11.14	460198	12.10	418841	15.11	198344	17.15
ZZZZZZ	96347	8.43	265279	11.13	428571	12.09	396321	15.11	197907	17.15

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.
(c) Outside control limits due to matrix interference.

Surrogate Recovery Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

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
JC66384-3	2D175680.D	107	110	100	101
JC66383-5MS	2D175674.D	106	107	97	93
JC66383-5MSD	2D175675.D	106	106	99	95
V2D7409-BS	2D175668.D	107	109	98	95
V2D7409-MB	2D175670.D	105	108	100	99

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%

Surrogate Recovery Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8260C **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC66384-1	C222006.D	111	106	105	104
JC66384-2	C222007.D	112	109	105	103
JC66384-4	1C156909.D	76	96	101	97
JC66392-1DUP	C222009.D	108	104	106	102
JC66392-2MS	C222010.D	110	104	106	100
JC66413-1MS	1C156910.D	109	98	102	101
JC66413-2DUP	1C156911.D	109	99	100	98
V1C6921-BS	1C156898.D	102	97	99	100
V1C6921-MB	1C156900.D	102	95	101	98
VC8227-BS	C222001.D	108	102	106	101
VC8227-MB	C222003.D	107	103	107	100

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6917-ICC6917
Lab FileID: 1C156803.D

Response Factor Report GCMS1C

Method : C:\MSDCHEM\1\METHODS\M1CS6917.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Calibration Files
1 =1C156798.D 0.5 =1C156797.D 100 =1C156804.D 50 =1C156803.D
20 =1C156802.D 200 =1C156805.D 4 =1C156800.D 2 =1C156799.D
8 =1C156801.D =

Compound	1	0.5	100	50	20	200	4	2	8	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------										
2) tertiary butyl alcohol	1.311	1.308	1.335	1.312	1.267	1.279	1.527	1.271		1.326	6.36
3) ethanol	0.144	0.123	0.130	0.127	0.110	0.125	0.141	0.129		0.129	8.32
4) 1,4-dioxane		0.116	0.123	0.120	0.110	0.111	0.108	0.113		0.114	4.68
5) I pentafluorobenzene	----------ISTD----------										
6) chlorodifluoromethane	0.509	0.448	0.513	0.520	0.500	0.481	0.487	0.524	0.490	0.497	4.73
7) dichlorodifluoromethane	0.649	0.589	0.757	0.793	0.776	0.739	0.789	0.669	0.754	0.724	9.87
8) freon 114										0.000#	-1.00
9) freon 142b										0.000#	-1.00
10) chloromethane	0.653	0.643	0.672	0.700	0.700	0.681	0.732	0.627	0.693	0.678	4.83
11) vinyl chloride	0.554	0.474	0.647	0.682	0.664	0.635	0.672	0.555	0.633	0.613	11.40
12) 1,3-butadiene										0.000#	-1.00
13) bromomethane	0.278	0.307	0.329	0.311	0.254	0.299	0.259	0.299		0.292	8.94
14) chloroethane	0.307	0.355	0.378	0.367	0.350	0.373	0.309	0.360		0.350	7.80
15) trichlorofluoromethane	0.639	0.575	0.745	0.791	0.773	0.727	0.787	0.618	0.742	0.711	11.21
16) vinyl bromide	0.355	0.430	0.455	0.453	0.428	0.432	0.364	0.419		0.417	9.03
17) ethyl ether	0.235	0.175	0.250	0.252	0.239	0.241	0.226	0.249	0.242	0.234	10.13
18) acrolein		0.078	0.076	0.076	0.075	0.061		0.066		0.072	9.46
19) freon 113	0.314	0.351	0.358	0.352	0.326	0.346	0.346	0.351		0.343	4.38
20) 1,1-dichloroethene	0.532	0.429	0.453	0.454	0.404	0.459	0.504	0.446		0.460	8.79
21) acetone	0.024	0.032	0.032	0.030	0.030	0.027	0.030	0.031		0.029	9.05
22) acetonitrile	0.050	0.050	0.051	0.050	0.047	0.050	0.059	0.052		0.051	7.01
23) iodomethane											

Initial Calibration Summary

Job Number: JC66384 **Sample:** V1C6917-ICC6917
Account: BBLNYS Arcadis **Lab FileID:** 1C156803.D
Project: National Grid, Philly Coke, Philadelphia PA

```
                        0.509 0.504 0.438 0.493 0.342 0.374 0.376   0.434   16.11
24)  carbon disulfide
           1.705 1.822 1.351 1.395 1.397 1.270 1.373 1.603 1.393   1.479   12.57
25)  methylene chloride
                        0.478 0.498 0.542 0.450 0.915       0.715   0.600   30.21
            ----- Linear regression -----  Coefficient =  0.9994
              Response Ratio = 0.03968 + 0.44746 *A

26)  methyl acetate
                        0.309 0.314 0.305 0.292 0.285 0.299 0.297   0.300    3.35
27)  methyl tert butyl ether
           1.159 1.034 1.209 1.223 1.191 1.155 1.118 1.265 1.157   1.168    5.69
28)  trans-1,2-dichloroethene
           0.563       0.460 0.478 0.475 0.428 0.469 0.565 0.486   0.491    9.90
29)  di-isopropyl ether
           1.487 1.269 1.538 1.563 1.516 1.451 1.417 1.552 1.482   1.475    6.15
30)  2-butanone
           0.030       0.043 0.043 0.042 0.040 0.038 0.038 0.039   0.039   10.37
31)  1,1-dichloroethane
           0.873 0.734 0.845 0.884 0.874 0.784 0.865 0.954 0.878   0.855    7.38
32)  chloroprene
           0.659 0.574 0.698 0.721 0.725 0.659 0.680 0.726 0.696   0.682    7.03
33)  acrylonitrile
                        0.133 0.134 0.129 0.127 0.115 0.116 0.127   0.126    6.16
34)  hexane
                        0.753 0.783 0.795 0.701 0.943       0.855   0.805   10.50
35)  vinyl acetate
                        0.064 0.064 0.061 0.060 0.048       0.055   0.059   10.61
36)  ethyl tert-butyl ether
           1.310 1.028 1.389 1.399 1.351 1.323 1.264 1.399 1.314   1.309    8.79
37)  ethyl acetate
                        0.058 0.061 0.061 0.054 0.057 0.056 0.055   0.058    4.81
38)  2,2-dichloropropane
           0.715 0.590 0.696 0.719 0.708 0.654 0.678 0.770 0.701   0.692    7.18
39)  cis-1,2-dichloroethene
           0.586       0.498 0.514 0.522 0.464 0.537 0.595 0.519   0.529    8.21
40)  methyl acrylate
                        0.060 0.061 0.056 0.058 0.044       0.048   0.054   12.95
41)  propionitrile
           0.056       0.059 0.061 0.060 0.056 0.059 0.063 0.060   0.059    4.15
42)  bromochloromethane
           0.192       0.219 0.227 0.223 0.206 0.210 0.222 0.216   0.214    5.31
43)  tetrahydrofuran
                        0.052 0.053 0.050 0.049 0.049 0.043 0.047   0.049    6.94
44)  chloroform
           0.586 0.488 0.525 0.543 0.542 0.491 0.514 0.576 0.526   0.532    6.32
45)  t-butyl formate
           0.261       0.349 0.339 0.317 0.341 0.295 0.323 0.312   0.317    9.00
46)  dibromofluoromethane (s)
           0.459 0.447 0.460 0.463 0.457 0.460 0.460 0.457 0.459   0.458    0.99
47)  methacrylonitrile
                        0.162 0.160 0.154 0.153 0.145 0.154 0.154   0.154    3.64
48)  1,1,1-trichloroethane
           0.702 0.583 0.721 0.728 0.716 0.678 0.692 0.778 0.726   0.703    7.53
49)  cyclohexane
           0.533 0.606 0.669 0.682 0.685 0.626 0.690 0.652 0.700   0.649    8.24
50)  1,1-dichloropropene
           0.669 0.573 0.661 0.679 0.668 0.618 0.652 0.719 0.665   0.656    6.21
51)  iso-butyl alcohol
                        0.019 0.019 0.018 0.018 0.016       0.018   0.018    5.38
```

Initial Calibration Summary

Job Number: JC66384 **Sample:** V1C6917-ICC6917
Account: BBLNYS Arcadis **Lab FileID:** 1C156803.D
Project: National Grid, Philly Coke, Philadelphia PA

52)	carbon tetrachloride										
		0.596	0.501	0.634	0.647	0.632	0.595	0.626	0.648	0.628	0.612	7.45
53)	tert amyl alcohol										
			0.015	0.016	0.015	0.015	0.015	0.015	0.015	0.015	0.015	2.57
54)	I 1,4-difluorobenzene	----------ISTD----------										
55)	1,2-dichloroethane-d4 (s)											
		0.313	0.309	0.305	0.305	0.308	0.306	0.313	0.311	0.311	0.309	1.02
56)	n-butyl alcohol											
			0.008	0.008	0.008	0.008	0.007	0.007	0.007	0.007#	7.09	
57)	2,2,4-trimethylpentane											
		1.414	1.222	1.285	1.330	1.346	1.199	1.342	1.487	1.346	1.330	6.68
58)	benzene											
		1.288	1.191	1.173	1.213	1.240	1.078	1.242	1.377	1.256	1.229	6.68
59)	tert-amyl methyl ether											
		0.165		0.183	0.183	0.181	0.170	0.173	0.180	0.174	0.176	3.69
60)	heptane											
		0.301	0.252	0.280	0.290	0.294	0.261	0.286	0.324	0.291	0.287	7.32
61)	isopropyl acetate											
			0.052	0.050	0.050	0.050	0.045	0.048	0.046	0.049	5.04	
62)	1,2-dichloroethane											
		0.385	0.309	0.363	0.368	0.379	0.340	0.365	0.408	0.376	0.366	7.67
63)	trichloroethene											
		0.390	0.439	0.310	0.317	0.322	0.287	0.330	0.383	0.319	0.344	14.18
64)	ethyl acrylate											
			0.321	0.324	0.318	0.302	0.307	0.314	0.312	0.314	2.43	
65)	2-nitropropane											
			0.085	0.085	0.084	0.080	0.077		0.085	0.083	3.99	
66)	2-chloroethyl vinyl ether											
		0.156	0.125	0.163	0.165	0.165	0.150	0.156	0.173	0.159	0.157	8.58
67)	methyl methacrylate											
			0.062	0.062	0.060	0.058	0.053	0.058	0.060	0.059	5.22	
68)	1,2-dichloropropane											
		0.329	0.255	0.316	0.330	0.335	0.291	0.322	0.357	0.326	0.318	9.15
69)	dibromomethane											
		0.159	0.132	0.174	0.175	0.174	0.165	0.172	0.189	0.174	0.168	9.39
70)	methylcyclohexane											
		0.571	0.467	0.558	0.570	0.577	0.517	0.552	0.581	0.559	0.550	6.64
71)	bromodichloromethane											
		0.386	0.328	0.411	0.411	0.404	0.390	0.384	0.411	0.390	0.391	6.67
72)	epichlorohydrin											
			0.025	0.025	0.025	0.024	0.023	0.025	0.025	0.024	3.35	
73)	cis-1,3-dichloropropene											
		0.463	0.382	0.499	0.503	0.498	0.476	0.477	0.511	0.485	0.477	8.14
74)	4-methyl-2-pentanone											
		0.084		0.089	0.091	0.091	0.084	0.088	0.096	0.091	0.089	4.67
75)	3-methyl-1-butanol											
			0.012	0.012	0.011	0.011	0.010	0.011	0.011	0.011	3.75	
76)	I chlorobenzene-d5	----------ISTD----------										
77)	toluene-d8 (s)											
		1.423	1.441	1.416	1.398	1.430	1.407	1.426	1.429	1.434	1.423	0.94
78)	toluene											
		0.963	0.872	0.886	0.894	0.911	0.822	0.902	1.022	0.926	0.911	6.21
79)	trans-1,3-dichloropropene											
		0.494	0.439	0.540	0.541	0.537	0.505	0.504	0.572	0.527	0.518	7.37
80)	ethyl methacrylate											
		0.357		0.411	0.410	0.409	0.382	0.391	0.440	0.403	0.400	6.07
81)	1,1,2-trichloroethane											
		0.243		0.265	0.264	0.265	0.249	0.246	0.269	0.257	0.257	3.92

Initial Calibration Summary

Job Number: JC66384 **Sample:** V1C6917-ICC6917
Account: BBLNYS Arcadis **Lab FileID:** 1C156803.D
Project: National Grid, Philly Coke, Philadelphia PA

82) tetrachloroethene
0.286 0.268 0.293 0.296 0.299 0.270 0.295 0.315 0.297 0.291 5.10
83) 1,3-dichloropropane
0.489 0.418 0.485 0.491 0.493 0.448 0.484 0.531 0.496 0.482 6.60
84) 2-hexanone
0.100 0.087 0.111 0.113 0.112 0.099 0.109 0.122 0.113 0.107 9.40
85) butyl acetate
0.175 0.196 0.198 0.207 0.183 0.200 0.225 0.205 0.199 7.67
86) dibromochloromethane
0.288 0.364 0.354 0.341 0.350 0.308 0.343 0.327 0.334 7.65
87) 1,2-dibromoethane
0.289 0.326 0.324 0.319 0.308 0.302 0.342 0.312 0.315 5.12
88) n-butyl ether
1.583 1.416 1.578 1.598 1.618 1.453 1.549 1.716 1.584 1.566 5.66
89) chlorobenzene
0.946 0.820 0.910 0.919 0.933 0.850 0.911 1.021 0.927 0.915 6.23
90) 1,1,1,2-tetrachloroethane
0.314 0.256 0.335 0.328 0.329 0.313 0.315 0.347 0.327 0.318 8.12
91) ethylbenzene
1.708 1.571 1.565 1.585 1.632 1.410 1.624 1.839 1.660 1.622 7.18
92) m,p-xylene
0.628 0.556 0.575 0.587 0.611 0.513 0.605 0.671 0.609 0.595 7.52
93) o-xylene
0.574 0.502 0.556 0.578 0.585 0.507 0.570 0.651 0.597 0.569 7.93
94) styrene
0.969 0.852 0.925 0.960 0.967 0.837 0.957 1.049 0.985 0.944 6.96
95) bromoform
0.163 0.219 0.211 0.193 0.212 0.170 0.189 0.190 0.193 10.35
96) butyl acrylate
0.546 0.440 0.603 0.606 0.588 0.559 0.556 0.622 0.574 0.566 9.49
97) isopropylbenzene
1.511 1.470 1.496 1.525 1.558 1.366 1.527 1.702 1.546 1.522 5.78
98) cis-1,4-dichloro-2-butene
0.134 0.131 0.129 0.130 0.114 0.127 0.121 0.127 5.44

99) I 1,4-dichlorobenzene-d ----------ISTD----------
100) 4-bromofluorobenzene (s)
0.981 0.980 1.011 0.997 1.001 1.020 1.001 0.989 0.990 0.997 1.34
101) bromobenzene
0.811 0.651 0.772 0.783 0.789 0.711 0.752 0.830 0.777 0.764 7.10
102) 1,1,2,2-tetrachloroethane
0.743 0.619 0.763 0.761 0.732 0.723 0.710 0.804 0.728 0.731 6.91
103) trans-1,4-dichloro-2-butene
0.216 0.213 0.204 0.206 0.163 0.197 0.200 9.55
104) 1,2,3-trichloropropane
0.169 0.170 0.172 0.155 0.158 0.180 0.177 0.169 5.54
105) n-propylbenzene
3.908 3.690 3.722 3.823 3.939 3.373 3.835 4.210 3.855 3.817 5.87
106) 4-ethyltoluene
0.000# -1.00
107) 2-chlorotoluene
0.752 0.735 0.732 0.751 0.757 0.672 0.749 0.801 0.758 0.745 4.54
108) 4-chlorotoluene
2.392 2.173 2.189 2.216 2.283 2.078 2.231 2.488 2.296 2.261 5.42
109) 1,3,5-trimethylbenzene
2.738 2.348 2.585 2.639 2.705 2.352 2.591 2.931 2.681 2.619 7.01
110) tert-butylbenzene
0.449 0.425 0.466 0.482 0.486 0.434 0.468 0.497 0.474 0.465 5.19
111) 1,2,4-trimethylbenzene
2.725 2.400 2.562 2.610 2.694 2.381 2.624 2.971 2.675 2.627 6.75

Initial Calibration Summary

Job Number: JC66384 **Sample:** V1C6917-ICC6917
Account: BBLNYS Arcadis **Lab FileID:** 1C156803.D
Project: National Grid, Philly Coke, Philadelphia PA

112)	sec-butylbenzene											
	3.421	3.239	3.317	3.436	3.514	3.082	3.383	3.709	3.500	3.400	5.25
113)	1,3-dichlorobenzene											
	1.550	1.360	1.435	1.446	1.500	1.348	1.454	1.589	1.471	1.462	5.39
114)	p-isopropyltoluene											
	2.849	2.623	2.781	2.873	2.956	2.567	2.856	3.077	2.926	2.834	5.63
115)	1,4-dichlorobenzene											
	1.509	1.321	1.451	1.445	1.460	1.357	1.494	1.609	1.451	1.455	5.75
116)	benzyl chloride											
	1.200	1.022	1.361	1.347	1.290	1.305	1.181	1.326	1.216	1.250	8.60
117)	1,2-dichlorobenzene											
	1.406	1.191	1.377	1.397	1.429	1.311	1.358	1.539	1.383	1.377	6.77
118)	1,4-diethylbenzene											
										0.000#	-1.00	
119)	n-butylbenzene											
	1.611	1.465	1.498	1.568	1.606	1.397	1.563	1.721	1.569	1.555	6.01
120)	1,2-dibromo-3-chloropropane											
			0.137	0.137	0.133	0.132	0.118	0.125	0.128	0.130	5.33
121)	1,3,5-trichlorobenzene											
	1.101	1.066	1.148	1.152	1.153	1.076	1.102	1.197	1.131	1.125	3.75
122)	1,2,4,5-tetramethylbenzene											
										0.000#	-1.00	
123)	2-ethylhexyl acrylate											
			0.662	0.634	0.561	0.664			0.483	0.601	12.94	
124)	1,2,4-trichlorobenzene											
	0.901	0.842	0.959	0.951	0.955	0.897	0.887	0.971	0.910	0.919	4.65
125)	hexachlorobutadiene											
	0.577	0.604	0.591	0.614	0.623	0.552	0.614	0.628	0.588	0.599	4.07
126)	naphthalene											
	1.793	1.602	1.859	1.892	1.860	1.742	1.771	1.875	1.776	1.797	5.02
127)	1,2,3-trichlorobenzene											
	0.822	0.657	0.880	0.884	0.874	0.836	0.819	0.880	0.831	0.832	8.53
128)	hexachloroethane											
	0.399		0.523	0.517	0.488	0.513	0.440	0.442	0.445	0.471	9.68
129)	2-methylnaphthalene											
			1.202	1.149	1.072	1.160	0.885	0.958	0.954	1.054	11.62	
130)	bis(chloromethyl)ether											
										0.000#	-1.00	
131)	ethylenimine											
										0.000#	-1.00	

(#) = Out of Range ### Number of calibration levels exceeded format ###

M1CS6917.M Thu May 17 12:15:59 2018

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6917-ICV6917
Lab FileID: 1C156808.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C6917\1C156808.D Vial: 13
Acq On : 16 May 2018 10:20 pm Operator: prashans
Sample : ICV6917-50 Inst : GCMS1C
Misc : MS26284,V1C6917,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6917.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu May 17 12:11:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.005 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		tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	7.38
2	M	tertiary butyl alcohol	1.326	1.284	3.2	99	0.00	7.51
3		ethanol	0.129	0.134	-3.9	106	0.00	6.14
4	M	1,4-dioxane	0.114	0.123	-7.9	103	0.00	11.27
5	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	9.62
6	M	chlorodifluoromethane	0.497	0.588	-18.3	120	0.00	3.90
7	M	dichlorodifluoromethane	0.724	0.662	8.6	89	0.00	3.86
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane	0.678	0.746	-10.0	113	0.00	4.29
11	M	vinyl chloride	0.613	0.641	-4.6	100	0.00	4.52
12		1,3-butadiene		----------NA----------				
13	M	bromomethane	0.292	0.336	-15.1	108	0.00	5.20
14	M	chloroethane	0.350	0.352	-0.6	99	0.00	5.39
15	M	trichlorofluoromethane	0.711	0.727	-2.3	98	-0.01	5.82
16		vinyl bromide	0.417	0.438	-5.0	102	0.00	5.74
17	M	ethyl ether	0.234	0.234	0.0	99	0.00	6.27
18	M	acrolein	0.072	0.076	-5.6	106	-0.02	6.55
19		freon 113	0.343	0.332	3.2	98	0.00	6.63
20	M	1,1-dichloroethene	0.460	0.396	13.9	93	0.00	6.70
21	M	acetone	0.029	0.031	-6.9	103	0.00	6.78
22	M	acetonitrile		----------NA----------				
23	M	iodomethane	0.434	0.514	-18.4	108	0.00	6.99
24	M	carbon disulfide	1.479	1.456	1.6	111	0.00	7.10
		----------	True	Calc.	% Drift	----------		
25	M	methylene chloride	50.000	46.529	6.9	97	0.00	7.44
		----------	AvgRF	CCRF	% Dev	----------		
26	M	methyl acetate	0.300	0.263	12.3	89	-0.01	7.23
27	M	methyl tert butyl ether	1.168	1.127	3.5	98	0.00	7.73
28	M	trans-1,2-dichloroethene	0.491	0.431	12.2	96	0.00	7.80
29	M	di-isopropyl ether	1.475	1.503	-1.9	102	0.00	8.32
30	M	2-butanone	0.039	0.041	-5.1	103	-0.01	9.08
31	M	1,1-dichloroethane	0.855	0.827	3.3	99	0.00	8.38
32	M	chloroprene	0.682	0.715	-4.8	105	0.00	8.48
33	M	acrylonitrile	0.126	0.128	-1.6	101	-0.01	7.79
34		hexane	0.805	0.623	22.6	85	0.00	8.07
35	M	vinyl acetate	0.059	0.070	-18.6	116	0.00	8.36
36	M	ethyl tert-butyl ether	1.309	1.334	-1.9	101	0.00	8.79
37	M	ethyl acetate	0.058	0.057	1.7	99	0.00	9.09

Initial Calibration Verification

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Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6917-ICV6917
Lab FileID: 1C156808.D

38	M	2,2-dichloropropane	0.692	0.675	2.5	100	0.00	9.11
39	M	cis-1,2-dichloroethene	0.529	0.491	7.2	102	0.00	9.12
40		methyl acrylate	0.054	0.056	-3.7	98	-0.01	9.17
41	M	propionitrile	0.059	0.057	3.4	100	0.00	9.21
42	M	bromochloromethane	0.214	0.214	0.0	100	0.00	9.43
43	M	tetrahydrofuran	0.049	0.048	2.0	97	-0.01	9.47
44	M	chloroform	0.532	0.513	3.6	100	0.00	9.49
45	M	t-butyl formate	0.317	0.227	28.4	71	0.00	9.50
46	S	dibromofluoromethane (s)	0.458	0.460	-0.4	106	0.00	9.69
47	M	methacrylonitrile	0.154	0.154	0.0	102	0.00	9.38
48	M	1,1,1-trichloroethane	0.703	0.672	4.4	98	0.00	9.72
49		cyclohexane	0.649	0.655	-0.9	102	0.00	9.78
50		1,1-dichloropropene	0.656	0.642	2.1	100	0.00	9.90
51		iso-butyl alcohol	0.018	0.019	-5.6	105	0.00	9.93
52		carbon tetrachloride	0.612	0.602	1.6	99	0.00	9.92
53		tert amyl alcohol	0.015	0.015	0.0	105	0.00	10.04
54	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	10.54
55	S	1,2-dichloroethane-d4 (s)	0.309	0.305	1.3	105	0.00	10.11
56	M	n-butyl alcohol	0.007	0.008	-14.3	103	-0.01	10.67
57		2,2,4-trimethylpentane	1.330	1.267	4.7	100	0.00	10.13
58	M	benzene	1.229	1.157	5.9	101	0.00	10.17
59	M	tert-amyl methyl ether	0.176	0.174	1.1	100	0.00	10.18
60	M	heptane	0.287	0.311	-8.4	113	0.00	10.30
61	M	isopropyl acetate	0.049	0.048	2.0	102	0.00	10.08
62	M	1,2-dichloroethane	0.366	0.353	3.6	101	0.00	10.20
63	M	trichloroethene	0.344	0.305	11.3	101	0.00	10.88
64		ethyl acrylate	0.314	0.319	-1.6	104	-0.01	10.88
65	M	2-nitropropane	0.083	0.084	-1.2	105	0.00	11.67
66	M	2-chloroethyl vinyl ether	0.157	0.162	-3.2	104	0.00	11.67
67	M	methyl methacrylate	0.059	0.060	-1.7	103	-0.01	11.14
68	M	1,2-dichloropropane	0.318	0.309	2.8	99	0.00	11.16
69	M	dibromomethane	0.168	0.173	-3.0	104	0.00	11.32
70	M	methylcyclohexane	0.550	0.523	4.9	97	0.00	11.08
71	M	bromodichloromethane	0.391	0.389	0.5	100	0.00	11.44
72		epichlorohydrin	0.024	0.024	0.0	102	0.00	11.81
73	M	cis-1,3-dichloropropene	0.477	0.484	-1.5	102	0.00	11.89
74	M	4-methyl-2-pentanone	0.089	0.088	1.1	103	0.00	11.98
75	M	3-methyl-1-butanol	0.011	0.011	0.0	105	0.00	12.00
76	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	13.68
77	S	toluene-d8 (s)	1.423	1.400	1.6	105	0.00	12.16
78		toluene	0.911	0.867	4.8	102	0.00	12.24
79		trans-1,3-dichloropropene	0.518	0.495	4.4	96	0.00	12.45
80		ethyl methacrylate	0.400	0.384	4.0	99	0.00	12.42
81		1,1,2-trichloroethane	0.257	0.254	1.2	101	0.00	12.67
82	M	tetrachloroethene		----------NA----------				
83	M	1,3-dichloropropane	0.482	0.481	0.2	103	0.00	12.85
84		2-hexanone	0.107	0.109	-1.9	102	0.00	12.82
85	M	butyl acetate	0.199	0.201	-1.0	107	0.00	12.89
86	M	dibromochloromethane	0.334	0.350	-4.8	104	0.00	13.11
87	M	1,2-dibromoethane	0.315	0.313	0.6	102	0.00	13.26
88		n-butyl ether	1.566	1.541	1.6	101	0.00	13.59
89	M	chlorobenzene	0.915	0.885	3.3	101	0.00	13.71
90	M	1,1,1,2-tetrachloroethane	0.318	0.328	-3.1	105	0.00	13.77
91	M	ethylbenzene	1.622	1.539	5.1	102	0.00	13.75
92	M	m,p-xylene	0.595	0.570	4.2	102	0.00	13.85
93	M	o-xylene	0.569	0.560	1.6	102	0.00	14.27
94	M	styrene	0.944	0.923	2.2	101	0.00	14.29
95	M	bromoform	0.193	0.212	-9.8	106	0.00	14.57

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Sample: V1C6917-ICV6917
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96		butyl acrylate	0.566	0.600	-6.0	104	0.00	14.09
97		isopropylbenzene	1.522	1.467	3.6	101	0.00	14.61
98		cis-1,4-dichloro-2-butene	0.127	0.126	0.8	101	0.00	14.70
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	15.99
100	S	4-bromofluorobenzene (s)	0.997	1.011	-1.4	106	0.00	14.82
101	M	bromobenzene	0.764	0.766	-0.3	102	0.00	15.02
102	M	1,1,2,2-tetrachloroethane	0.731	0.730	0.1	100	0.00	14.94
103	M	trans-1,4-dichloro-2-bute	0.200	0.219	-9.5	107	0.00	14.97
104	M	1,2,3-trichloropropane	0.169	0.160	5.3	98	0.00	15.01
105	M	n-propylbenzene	3.817	3.713	2.7	101	0.00	15.01
106		4-ethyltoluene		----------NA----------				
107	M	2-chlorotoluene	0.745	0.721	3.2	100	0.00	15.17
108	M	4-chlorotoluene	2.261	2.210	2.3	104	0.00	15.27
109	M	1,3,5-trimethylbenzene	2.619	2.583	1.4	102	0.00	15.16
110	M	tert-butylbenzene	0.465	0.470	-1.1	102	0.00	15.51
111	M	1,2,4-trimethylbenzene	2.627	2.621	0.2	105	0.00	15.55
112	M	sec-butylbenzene	3.400	3.360	1.2	102	0.00	15.72
113	M	1,3-dichlorobenzene	1.462	1.407	3.8	101	0.00	15.93
114	M	p-isopropyltoluene	2.834	2.809	0.9	102	0.00	15.84
115	M	1,4-dichlorobenzene	1.455	1.402	3.6	101	0.00	16.01
116		benzyl chloride	1.250	1.068	14.6	83	0.00	16.13
117	M	1,2-dichlorobenzene	1.377	1.358	1.4	101	0.00	16.42
118		1,4-diethylbenzene		----------NA----------				
119	M	n-butylbenzene	1.555	1.509	3.0	100	0.00	16.27
120	M	1,2-dibromo-3-chloropropa	0.130	0.128	1.5	97	0.00	17.21
121		1,3,5-trichlorobenzene	1.125	1.095	2.7	99	0.00	17.36
122		1,2,4,5-tetramethylbenzen		----------NA----------				
123		2-ethylhexyl acrylate	0.601	0.641	-6.7	105	0.00	17.89
124	M	1,2,4-trichlorobenzene	0.919	0.907	1.3	99	0.00	17.93
125	M	hexachlorobutadiene	0.599	0.584	2.5	99	0.00	18.02
126	M	naphthalene	1.797	1.837	-2.2	101	0.00	18.18
127	M	1,2,3-trichlorobenzene	0.832	0.839	-0.8	99	0.00	18.39
128	m	hexachloroethane	0.471	0.511	-8.5	103	0.00	16.67
129		2-methylnaphthalene	1.054	1.024	2.8	93	0.00	19.14
130		bis(chloromethyl)ether		----------NA----------				
131		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C156803.D M1CS6917.M Thu May 17 12:16:09 2018

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6917-ICV6917
Lab FileID: 1C156809.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C6917\1C156809.D Vial: 14
Acq On : 16 May 2018 10:47 pm Operator: prashans
Sample : ICV6917-50 Inst : GCMS1C
Misc : MS26284,V1C6917,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6917.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu May 17 12:11:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 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		tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	7.38
2	M	tertiary butyl alcohol		----------	NA	----------		
3		ethanol		----------	NA	----------		
4	M	1,4-dioxane		----------	NA	----------		
5	I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	9.62
6	M	chlorodifluoromethane		----------	NA	----------		
7	M	dichlorodifluoromethane		----------	NA	----------		
8		freon 114		----------	NA	----------		
9		freon 142b		----------	NA	----------		
10	M	chloromethane		----------	NA	----------		
11	M	vinyl chloride		----------	NA	----------		
12		1,3-butadiene		----------	NA	----------		
13	M	bromomethane		----------	NA	----------		
14	M	chloroethane		----------	NA	----------		
15	M	trichlorofluoromethane		----------	NA	----------		
16		vinyl bromide		----------	NA	----------		
17	M	ethyl ether		----------	NA	----------		
18	M	acrolein		----------	NA	----------		
19		freon 113		----------	NA	----------		
20	M	1,1-dichloroethene		----------	NA	----------		
21	M	acetone		----------	NA	----------		
22	M	acetonitrile	0.051	0.050	2.0	108	-0.01	7.24
23	M	iodomethane		----------	NA	----------		
24	M	carbon disulfide		----------	NA	----------		
		----------	True	Calc.	% Drift	----------		
25	M	methylene chloride		----------	NA	----------		
		----------	AvgRF	CCRF	% Dev	----------		
26	M	methyl acetate		----------	NA	----------		
27	M	methyl tert butyl ether		----------	NA	----------		
28	M	trans-1,2-dichloroethene		----------	NA	----------		
29	M	di-isopropyl ether		----------	NA	----------		
30	M	2-butanone		----------	NA	----------		
31	M	1,1-dichloroethane		----------	NA	----------		
32	M	chloroprene		----------	NA	----------		
33	M	acrylonitrile		----------	NA	----------		
34		hexane		----------	NA	----------		
35	M	vinyl acetate		----------	NA	----------		
36	M	ethyl tert-butyl ether		----------	NA	----------		
37	M	ethyl acetate		----------	NA	----------		

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6917-ICV6917
Lab FileID: 1C156809.D

38	M	2,2-dichloropropane		----------NA----------					
39	M	cis-1,2-dichloroethene		----------NA----------					
40		methyl acrylate		----------NA----------					
41	M	propionitrile		----------NA----------					
42	M	bromochloromethane		----------NA----------					
43	M	tetrahydrofuran		----------NA----------					
44	M	chloroform		----------NA----------					
45	M	t-butyl formate		----------NA----------					
46	S	dibromofluoromethane (s)	0.458	0.461	-0.7	109	0.00	9.69	
47	M	methacrylonitrile		----------NA----------					
48	M	1,1,1-trichloroethane		----------NA----------					
49		cyclohexane		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		iso-butyl alcohol		----------NA----------					
52		carbon tetrachloride		----------NA----------					
53		tert amyl alcohol		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	107	0.00	10.54	
55	S	1,2-dichloroethane-d4 (s)	0.309	0.308	0.3	108	0.00	10.11	
56	M	n-butyl alcohol		----------NA----------					
57		2,2,4-trimethylpentane		----------NA----------					
58	M	benzene		----------NA----------					
59	M	tert-amyl methyl ether		----------NA----------					
60	M	heptane		----------NA----------					
61	M	isopropyl acetate		----------NA----------					
62	M	1,2-dichloroethane		----------NA----------					
63	M	trichloroethene		----------NA----------					
64		ethyl acrylate		----------NA----------					
65	M	2-nitropropane		----------NA----------					
66	M	2-chloroethyl vinyl ether		----------NA----------					
67	M	methyl methacrylate		----------NA----------					
68	M	1,2-dichloropropane		----------NA----------					
69	M	dibromomethane		----------NA----------					
70	M	methylcyclohexane		----------NA----------					
71	M	bromodichloromethane		----------NA----------					
72		epichlorohydrin		----------NA----------					
73	M	cis-1,3-dichloropropene		----------NA----------					
74	M	4-methyl-2-pentanone		----------NA----------					
75	M	3-methyl-1-butanol		----------NA----------					
76	I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	13.68	
77	S	toluene-d8 (s)	1.423	1.428	-0.4	109	0.00	12.17	
78		toluene		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		1,1,2-trichloroethane		----------NA----------					
82	M	tetrachloroethene	0.291	0.287	1.4	104	0.00	12.81	
83	M	1,3-dichloropropane		----------NA----------					
84		2-hexanone		----------NA----------					
85	M	butyl acetate		----------NA----------					
86	M	dibromochloromethane		----------NA----------					
87	M	1,2-dibromoethane		----------NA----------					
88		n-butyl ether		----------NA----------					
89	M	chlorobenzene		----------NA----------					
90	M	1,1,1,2-tetrachloroethane		----------NA----------					
91	M	ethylbenzene		----------NA----------					
92	M	m,p-xylene		----------NA----------					
93	M	o-xylene		----------NA----------					
94	M	styrene		----------NA----------					
95	M	bromoform		----------NA----------					

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6917-ICV6917
Lab FileID: 1C156809.D

96		butyl acrylate		----------NA----------				
97		isopropylbenzene		----------NA----------				
98		cis-1,4-dichloro-2-butene		----------NA----------				
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	111	0.00	15.99
100	S	4-bromofluorobenzene (s)	0.997	0.980	1.7	109	0.00	14.82
101	M	bromobenzene		----------NA----------				
102	M	1,1,2,2-tetrachloroethane		----------NA----------				
103	M	trans-1,4-dichloro-2-bute		----------NA----------				
104	M	1,2,3-trichloropropane		----------NA----------				
105	M	n-propylbenzene		----------NA----------				
106		4-ethyltoluene		----------NA----------				
107	M	2-chlorotoluene		----------NA----------				
108	M	4-chlorotoluene		----------NA----------				
109	M	1,3,5-trimethylbenzene		----------NA----------				
110	M	tert-butylbenzene		----------NA----------				
111	M	1,2,4-trimethylbenzene		----------NA----------				
112	M	sec-butylbenzene		----------NA----------				
113	M	1,3-dichlorobenzene		----------NA----------				
114	M	p-isopropyltoluene		----------NA----------				
115	M	1,4-dichlorobenzene		----------NA----------				
116		benzyl chloride		----------NA----------				
117	M	1,2-dichlorobenzene		----------NA----------				
118		1,4-diethylbenzene		----------NA----------				
119	M	n-butylbenzene		----------NA----------				
120	M	1,2-dibromo-3-chloropropa		----------NA----------				
121		1,3,5-trichlorobenzene		----------NA----------				
122		1,2,4,5-tetramethylbenzen		----------NA----------				
123		2-ethylhexyl acrylate		----------NA----------				
124	M	1,2,4-trichlorobenzene		----------NA----------				
125	M	hexachlorobutadiene		----------NA----------				
126	M	naphthalene		----------NA----------				
127	M	1,2,3-trichlorobenzene		----------NA----------				
128	m	hexachloroethane		----------NA----------				
129		2-methylnaphthalene		----------NA----------				
130		bis(chloromethyl)ether		----------NA----------				
131		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C156803.D M1CS6917.M Thu May 17 12:16:11 2018

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V1C6921-CC6917
Lab FileID: 1C156897.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\mi...lc\v1c6921\1c156897.d Vial: 2
Acq On : 21 May 2018 8:13 am Operator: prashans
Sample : cc6917-20 Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6917.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu May 17 12:11:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 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		tert butyl alcohol-d9	1.000	1.000	0.0	107	0.00	7.38
2	M	tertiary butyl alcohol	1.326	1.292	2.6	105	0.00	7.50
3		ethanol	0.129	0.126	2.3	105	0.00	6.13
4	M	1,4-dioxane	0.114	0.115	-0.9	103	0.00	11.27
5	I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	9.62
6	M	chlorodifluoromethane	0.497	0.552	-11.1	109	0.00	3.90
7	M	dichlorodifluoromethane	0.724	0.666	8.0	85	0.00	3.86
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane	0.678	0.677	0.1	95	0.00	4.29
11	M	vinyl chloride	0.613	0.611	0.3	91	0.00	4.52
12		1,3-butadiene		----------NA----------				
13	M	bromomethane	0.292	0.314	-7.5	99	0.00	5.21
14	M	chloroethane	0.350	0.357	-2.0	96	0.00	5.39
15	M	trichlorofluoromethane	0.711	0.709	0.3	90	-0.01	5.82
16		vinyl bromide	0.417	0.400	4.1	87	0.00	5.74
17	M	ethyl ether	0.234	0.229	2.1	94	0.00	6.27
18	M	acrolein	0.072	0.077	-6.9	99	-0.01	6.56
19		freon 113	0.343	0.294	14.3	82	0.00	6.63
20	M	1,1-dichloroethene	0.460	0.401	12.8	87	0.00	6.69
21	M	acetone	0.029	0.033	-13.8	106	0.00	6.78
22	M	acetonitrile	0.051	0.052	-2.0	102	-0.01	7.24
23	M	iodomethane	0.434	0.384	11.5	86	0.00	6.99
24	M	carbon disulfide	1.479	1.244	15.9	88	0.00	7.10
		----------	True	Calc.	% Drift	----------		
25	M	methylene chloride	20.000	16.993	15.0	87	0.00	7.44
		----------	AvgRF	CCRF	% Dev	----------		
26	M	methyl acetate	0.300	0.304	-1.3	98	0.00	7.23
27	M	methyl tert butyl ether	1.168	1.147	1.8	95	0.00	7.73
28	M	trans-1,2-dichloroethene	0.491	0.440	10.4	91	0.00	7.80
29	M	di-isopropyl ether	1.475	1.497	-1.5	97	0.00	8.32
30	M	2-butanone	0.039	0.044	-12.8	104	-0.01	9.08
31	M	1,1-dichloroethane	0.855	0.850	0.6	96	0.00	8.38
32	M	chloroprene	0.682	0.682	0.0	93	0.00	8.47
33	M	acrylonitrile	0.126	0.130	-3.2	99	-0.01	7.79
34		hexane	0.805	0.690	14.3	85	0.00	8.07
35	M	vinyl acetate	0.059	0.065	-10.2	105	0.00	8.36
36	M	ethyl tert-butyl ether	1.309	1.345	-2.8	98	0.00	8.79
37	M	ethyl acetate	0.058	0.060	-3.4	98	0.00	9.09

Continuing Calibration Summary

Job Number: JC66384 **Sample:** V1C6921-CC6917
Account: BBLNYS Arcadis **Lab FileID:** 1C156897.D
Project: National Grid, Philly Coke, Philadelphia PA

38	M	2,2-dichloropropane	0.692	0.692	0.0	96	-0.01	9.09
39	M	cis-1,2-dichloroethene	0.529	0.491	7.2	93	0.00	9.12
40		methyl acrylate	0.054	0.055	-1.9	97	0.00	9.18
41	M	propionitrile	0.059	0.063	-6.8	103	0.00	9.21
42	M	bromochloromethane	0.214	0.214	0.0	95	0.00	9.43
43	M	tetrahydrofuran	0.049	0.052	-6.1	102	0.00	9.47
44	M	chloroform	0.532	0.520	2.3	94	0.00	9.49
45	M	t-butyl formate	0.317	0.334	-5.4	104	0.00	9.50
46	S	dibromofluoromethane (s)	0.458	0.473	-3.3	102	0.00	9.69
47	M	methacrylonitrile	0.154	0.159	-3.2	102	0.00	9.38
48	M	1,1,1-trichloroethane	0.703	0.681	3.1	94	0.00	9.72
49		cyclohexane	0.649	0.600	7.6	86	0.00	9.77
50		1,1-dichloropropene	0.656	0.631	3.8	93	0.00	9.90
51		iso-butyl alcohol	0.018	0.018	0.0	103	0.00	9.92
52		carbon tetrachloride	0.612	0.599	2.1	93	0.00	9.92
53		tert amyl alcohol	0.015	0.016	-6.7	103	0.00	10.04
54	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	10.54
55	S	1,2-dichloroethane-d4 (s)	0.309	0.310	-0.3	102	0.00	10.11
56	M	n-butyl alcohol	0.007	0.008#	-14.3	103	-0.01	10.67
57		2,2,4-trimethylpentane	1.330	1.155	13.2	87	0.00	10.12
58	M	benzene	1.229	1.172	4.6	96	0.00	10.17
59	M	tert-amyl methyl ether	0.176	0.178	-1.1	100	-0.01	10.17
60	M	heptane	0.287	0.250	12.9	86	0.00	10.30
61	M	isopropyl acetate	0.049	0.047	4.1	96	0.00	10.08
62	M	1,2-dichloroethane	0.366	0.359	1.9	96	0.00	10.20
63	M	trichloroethene	0.344	0.301	12.5	95	0.00	10.88
64		ethyl acrylate	0.314	0.316	-0.6	101	-0.01	10.88
65	M	2-nitropropane	0.083	0.085	-2.4	102	0.00	11.67
66	M	2-chloroethyl vinyl ether	0.157	0.164	-4.5	101	0.00	11.67
67	M	methyl methacrylate	0.059	0.058	1.7	98	0.00	11.14
68	M	1,2-dichloropropane	0.318	0.313	1.6	94	0.00	11.16
69	M	dibromomethane	0.168	0.164	2.4	95	0.00	11.32
70	M	methylcyclohexane	0.550	0.495	10.0	87	0.00	11.07
71	M	bromodichloromethane	0.391	0.389	0.5	97	0.00	11.44
72		epichlorohydrin	0.024	0.025	-4.2	104	0.00	11.81
73	M	cis-1,3-dichloropropene	0.477	0.477	0.0	97	0.00	11.89
74	M	4-methyl-2-pentanone	0.089	0.093	-4.5	103	0.00	11.98
75	M	3-methyl-1-butanol	0.011	0.012	-9.1	106	-0.01	12.00
76	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	13.67
77	S	toluene-d8 (s)	1.423	1.413	0.7	100	0.00	12.16
78		toluene	0.911	0.854	6.3	95	0.00	12.24
79		trans-1,3-dichloropropene	0.518	0.532	-2.7	100	0.00	12.45
80		ethyl methacrylate	0.400	0.384	4.0	95	0.00	12.42
81		1,1,2-trichloroethane	0.257	0.249	3.1	95	0.00	12.67
82	M	tetrachloroethene	0.291	0.280	3.8	95	0.00	12.81
83	M	1,3-dichloropropane	0.482	0.472	2.1	97	0.00	12.85
84		2-hexanone	0.107	0.119	-11.2	107	0.00	12.82
85	M	butyl acetate	0.199	0.201	-1.0	99	0.00	12.89
86	M	dibromochloromethane	0.334	0.337	-0.9	100	0.00	13.11
87	M	1,2-dibromoethane	0.315	0.305	3.2	97	0.00	13.26
88		n-butyl ether	1.566	1.532	2.2	96	0.00	13.59
89	M	chlorobenzene	0.915	0.877	4.2	95	0.00	13.71
90	M	1,1,1,2-tetrachloroethane	0.318	0.321	-0.9	99	0.00	13.77
91	M	ethylbenzene	1.622	1.515	6.6	94	0.00	13.75
92	M	m,p-xylene	0.595	0.562	5.5	93	0.00	13.85
93	M	o-xylene	0.569	0.543	4.6	94	0.00	14.27
94	M	styrene	0.944	0.907	3.9	95	0.00	14.29
95	M	bromoform	0.193	0.203	-5.2	107	0.00	14.57

Continuing Calibration Summary

Job Number: JC66384 **Sample:** V1C6921-CC6917
Account: BBLNYS Arcadis **Lab FileID:** 1C156897.D
Project: National Grid, Philly Coke, Philadelphia PA

96		butyl acrylate	0.566	0.564	0.4	97	0.00	14.09
97		isopropylbenzene	1.522	1.424	6.4	93	0.00	14.61
98		cis-1,4-dichloro-2-butene	0.127	0.132	-3.9	103	0.00	14.70
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	15.99
100	S	4-bromofluorobenzene (s)	0.997	0.991	0.6	100	0.00	14.82
101	M	bromobenzene	0.764	0.735	3.8	94	0.00	15.02
102	M	1,1,2,2-tetrachloroethane	0.731	0.730	0.1	101	0.00	14.94
103	M	trans-1,4-dichloro-2-bute	0.200	0.203	-1.5	100	0.00	14.97
104	M	1,2,3-trichloropropane	0.169	0.170	-0.6	100	0.00	15.01
105	M	n-propylbenzene	3.817	3.652	4.3	94	0.00	15.01
106		4-ethyltoluene		----------NA----------				
107	M	2-chlorotoluene	0.745	0.716	3.9	96	0.00	15.17
108	M	4-chlorotoluene	2.261	2.099	7.2	93	0.00	15.27
109	M	1,3,5-trimethylbenzene	2.619	2.497	4.7	93	0.00	15.16
110	M	tert-butylbenzene	0.465	0.439	5.6	91	0.00	15.51
111	M	1,2,4-trimethylbenzene	2.627	2.503	4.7	94	0.00	15.55
112	M	sec-butylbenzene	3.400	3.161	7.0	91	0.00	15.72
113	M	1,3-dichlorobenzene	1.462	1.399	4.3	94	0.00	15.93
114	M	p-isopropyltoluene	2.834	2.681	5.4	92	0.00	15.84
115	M	1,4-dichlorobenzene	1.455	1.378	5.3	95	0.00	16.01
116		benzyl chloride	1.250	1.388	-11.0	109	0.00	16.13
117	M	1,2-dichlorobenzene	1.377	1.323	3.9	93	0.00	16.42
118		1,4-diethylbenzene		----------NA----------				
119	M	n-butylbenzene	1.555	1.476	5.1	93	0.00	16.27
120	M	1,2-dibromo-3-chloropropa	0.130	0.129	0.8	98	0.00	17.21
121		1,3,5-trichlorobenzene	1.125	1.096	2.6	96	0.00	17.36
122		1,2,4,5-tetramethylbenzen		----------NA----------				
123		2-ethylhexyl acrylate	0.601	0.553	8.0	99	0.00	17.89
124	M	1,2,4-trichlorobenzene	0.919	0.902	1.8	95	0.00	17.93
125	M	hexachlorobutadiene	0.599	0.566	5.5	92	0.00	18.02
126	M	naphthalene	1.797	1.773	1.3	96	0.00	18.18
127	M	1,2,3-trichlorobenzene	0.832	0.826	0.7	95	0.00	18.39
128	m	hexachloroethane	0.471	0.462	1.9	96	0.00	16.67
129		2-methylnaphthalene	1.054	1.051	0.3	99	0.00	19.14
130		bis(chloromethyl)ether		----------NA----------				
131		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C156802.D M1CS6917.M Tue May 22 11:25:44 2018

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICC7390
Lab FileID: 2D175271.D

Response Factor Report MS2D

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Calibration Files
1 =2D175265.D 2 =2D175267.D 100 =2D175272.D 50 =2D175271.D
20 =2D175270.D 200 =2D175273.D 5 =2D175268.D 0.5 =2D175266.D
10 =2D175269.D =

Compound	1	2	100	50	20	200	5	0.5	10	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD										
2) tertiary butyl alcohol	0.913	0.885	0.994	0.972	0.954	0.988	0.938		0.935	0.947	3.93
3) ethanol	0.154	0.127	0.087	0.085	0.090	0.084	0.102		0.092	0.103	24.44
---- Linear regression ---- Coefficient = 0.9997											
Response Ratio = 0.01545 + 0.08442 *A											
4) 1,4-dioxane			0.083	0.101	0.097	0.094	0.103	0.087		0.092	0.094	7.58
5) I pentafluorobenzene	ISTD										
6) chlorodifluoromethane	0.480	0.479	0.473	0.466	0.466	0.426	0.450	0.531	0.471	0.471	5.92
7) dichlorodifluoromethane	0.503	0.533	0.568	0.594	0.603	0.529	0.527		0.591	0.556	6.78
8) freon 142b										0.000	-1.00
9) freon 114										0.000	-1.00
10) chloromethane	0.731	0.633	0.614	0.578	0.609	0.590	0.616	0.690	0.591	0.628	8.05
11) vinyl chloride	0.596	0.556	0.580	0.561	0.562	0.562	0.533	0.474	0.546	0.552	6.24
12) bromomethane			0.449	0.384	0.377	0.384	0.350	0.387		0.387	0.388	7.66
13) chloroethane	0.360	0.279	0.277	0.276	0.279	0.260	0.285	0.312	0.281	0.290	10.18
14) trichlorofluoromethane	0.695	0.627	0.639	0.650	0.657	0.619	0.605	0.481	0.646	0.624	9.56
15) vinyl bromide	0.455	0.399	0.407	0.408	0.410	0.398	0.393	0.462	0.392	0.414	6.31
16) 1,3-butadiene										0.000	-1.00
17) ethyl ether	0.203	0.200	0.197	0.187	0.189	0.191	0.180	0.211	0.190	0.194	4.83
18) acrolein	0.092	0.078	0.079	0.075	0.076	0.078	0.084		0.075	0.080	7.31
19) 1,1-dichloroethene	0.375	0.377	0.374	0.368	0.366	0.370	0.360	0.429	0.372	0.377	5.37
20) freon 113	0.270	0.341	0.319	0.325	0.324	0.323	0.304		0.325	0.316	6.75
21) 2-chloropropane				0.624	0.612	0.619	0.606	0.685		0.652	0.633	4.79

Initial Calibration Summary

Job Number: JC66384 **Sample:** V2D7390-ICC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175271.D
Project: National Grid, Philly Coke, Philadelphia PA

22) acetone
0.023 0.027 0.029 0.027 0.027 0.027 0.026 0.028 0.027 6.25
23) acetonitrile
0.044 0.044 0.046 0.041 0.046 0.047 0.045 4.59
24) iodomethane
0.659 0.619 0.649 0.640 0.624 0.633 0.597 0.703 0.624 0.639 4.71
25) carbon disulfide
1.287 1.178 1.194 1.178 1.165 1.148 1.129 1.438 1.150 1.207 8.07
26) methylene chloride
0.437 0.429 0.422 0.408 0.406 0.416 0.404 0.413 0.417 2.81
27) methyl acetate
0.276 0.266 0.259 0.263 0.256 0.269 0.267 0.265 2.53
28) methyl tert butyl ether
1.107 1.094 1.093 1.065 1.071 1.038 1.048 1.286 1.060 1.096 6.82
29) trans-1,2-dichloroethene
0.382 0.397 0.383 0.368 0.362 0.371 0.361 0.441 0.373 0.382 6.57
30) hexane
0.498 0.537 0.511 0.509 0.501 0.511 0.481 0.440 0.508 0.499 5.32
31) di-isopropyl ether
1.331 1.351 1.295 1.255 1.270 1.232 1.253 1.552 1.278 1.313 7.43
32) 2-butanone
0.029 0.030 0.038 0.036 0.037 0.037 0.033 0.036 0.035 9.94
33) 1,1-dichloroethane
0.717 0.717 0.709 0.686 0.677 0.680 0.692 0.829 0.688 0.710 6.63
34) chloroprene
0.577 0.582 0.566 0.550 0.549 0.543 0.544 0.637 0.540 0.565 5.47
35) acrylonitrile
0.111 0.117 0.140 0.134 0.135 0.134 0.123 0.133 0.128 7.94
36) vinyl acetate
0.066 0.062 0.063 0.064 0.052 0.063 0.062 7.74
37) ethyl tert-butyl ether
1.246 1.203 1.206 1.197 1.201 1.147 1.168 1.509 1.194 1.230 8.78
38) ethyl acetate
0.047 0.047 0.048 0.044 0.045 0.049 0.047 3.88
39) 2,2-dichloropropane
0.638 0.575 0.529 0.532 0.542 0.500 0.553 0.663 0.558 0.565 9.37
40) cis-1,2-dichloroethene
0.414 0.432 0.428 0.412 0.410 0.418 0.404 0.526 0.408 0.428 8.87
41) propionitrile
0.053 0.051 0.057 0.054 0.055 0.055 0.053 0.059 0.055 0.055 4.10
42) tert-Butyl Formate
This compound does not meet initial calibration criteria
0.402 0.386 0.372 0.367 0.371 0.347 0.369 0.403 0.380 0.377 4.70
43) bromochloromethane
0.203 0.213 0.218 0.207 0.205 0.212 0.204 0.256 0.211 0.214 7.60
44) tetrahydrofuran
0.042 0.048 0.044 0.045 0.046 0.043 0.046 0.045 4.09
45) chloroform
0.721 0.725 0.690 0.671 0.667 0.662 0.663 0.683 0.685 3.71
46) dibromofluoromethane (s)
0.428 0.435 0.431 0.432 0.428 0.432 0.430 0.431 0.429 0.431 0.55
47) methacrylonitrile
0.140 0.132 0.150 0.143 0.145 0.146 0.136 0.130 0.142 0.140 4.75
48) 1,1,1-trichloroethane
0.629 0.652 0.633 0.622 0.611 0.612 0.618 0.702 0.618 0.633 4.55
49) cyclohexane
0.471 0.493 0.540 0.542 0.541 0.537 0.544 0.513 0.553 0.526 5.26
50) 1,1-dichloropropene
0.528 0.529 0.526 0.506 0.500 0.512 0.499 0.592 0.517 0.523 5.44
51) isobutyl alcohol

			0.016	0.015	0.017	0.015	0.017	0.018	0.016	6.58
52)	carbon tetrachloride										
		0.543	0.566	0.559	0.550	0.539	0.546	0.531	0.613	0.554	0.556	4.31
53)	tert-amyl alcohol										
			0.018	0.018	0.018	0.019	0.018	0.017	0.019	0.018	0.018	4.26
54)	I 1,4-difluorobenzene	----------ISTD----------										
55)	1,2-dichloroethane-d4 (s)											
		0.343	0.348	0.337	0.345	0.341	0.322	0.352	0.351	0.352	0.343	2.78
56)	benzene											
		1.148	1.103	1.097	1.071	1.064	1.061	1.077	1.335	1.072	1.114	7.81
57)	iso-octane											
		1.057	1.183	1.122	1.159	1.150	1.123	1.116	1.003	1.171	1.120	5.15
58)	tert-amyl methyl ether											
		0.876	0.841	0.829	0.833	0.826	0.780	0.848	0.846	0.835	3.23
59)	heptane											
		0.191	0.226	0.199	0.204	0.203	0.202	0.208	0.172	0.220	0.203	7.69
60)	isopropyl acetate											
			0.053	0.050	0.051	0.051	0.048	0.053	0.051	3.25
61)	1,2-dichloroethane											
		0.430	0.422	0.377	0.374	0.377	0.354	0.389	0.384	0.388	6.56
62)	n-butyl alcohol											
		0.006	0.007	0.007	0.007	0.007	0.007	0.006	0.007	0.007	0.007	8.05
63)	ethyl acrylate											
		0.321	0.317	0.331	0.322	0.325	0.319	0.309	0.369	0.328	0.327	5.24
64)	trichloroethene											
		0.308	0.302	0.298	0.292	0.288	0.293	0.278	0.351	0.294	0.300	6.92
65)	2-nitropropane											
		0.065	0.055	0.056	0.052	0.053	0.055	0.054	0.054	0.055	7.27
66)	2-chloroethyl vinyl ether											
		0.172	0.175	0.183	0.178	0.179	0.175	0.173	0.207	0.179	0.180	5.98
67)	methyl methacrylate											
		0.157	0.174	0.183	0.175	0.177	0.176	0.173	0.163	0.179	0.173	4.60
68)	1,2-dichloropropane											
		0.305	0.294	0.295	0.287	0.286	0.287	0.286	0.353	0.297	0.299	7.10
69)	dibromomethane											
		0.178	0.171	0.180	0.176	0.174	0.173	0.176	0.177	0.176	0.176	1.55
70)	methylcyclohexane											
		0.470	0.515	0.505	0.513	0.505	0.517	0.487	0.438	0.517	0.496	5.37
71)	bromodichloromethane											
		0.383	0.381	0.391	0.381	0.373	0.378	0.367	0.433	0.379	0.385	4.95
72)	epichlorohydrin											
		0.027	0.025	0.026	0.026	0.026	0.025	0.024	0.026	0.026	2.84
73)	cis-1,3-dichloropropene											
		0.473	0.487	0.489	0.474	0.468	0.475	0.472	0.604	0.467	0.490	8.86
74)	4-methyl-2-pentanone											
		0.101	0.104	0.105	0.102	0.101	0.101	0.099	0.101	0.102	1.86
75)	3-methyl-1-butanol											
		0.012	0.011	0.012	0.012	0.012	0.012	0.012	0.012	0.012	2.83
76)	I chlorobenzene-d5	----------ISTD----------										
77)	toluene-d8 (s)											
		1.176	1.176	1.148	1.159	1.166	1.134	1.167	1.172	1.167	1.163	1.20
78)	toluene											
		0.744	0.706	0.695	0.671	0.682	0.671	0.675	0.828	0.672	0.705	7.36
79)	trans-1,3-dichloropropene											
		0.422	0.409	0.441	0.426	0.424	0.421	0.414	0.512	0.426	0.433	7.11
80)	ethyl methacrylate											
		0.346	0.343	0.370	0.354	0.363	0.354	0.353	0.403	0.355	0.360	4.99
81)	1,1,2-trichloroethane											

		0.231	0.204	0.216	0.210	0.213	0.209	0.216	0.237	0.213	0.217	5.00
82)	tetrachloroethene											
		0.255	0.279	0.261	0.256	0.257	0.256	0.246	0.310	0.262	0.265	7.27
83)	1,3-dichloropropane											
		0.436	0.420	0.426	0.414	0.413	0.409	0.418	0.485	0.420	0.427	5.45
84)	2-hexanone											
		0.091	0.096	0.098	0.094	0.096	0.094	0.093	0.109	0.097	0.096	5.28
85)	butyl acetate											
		0.170	0.186	0.177	0.174	0.178	0.174	0.175	0.165	0.184	0.176	3.70
86)	dibromochloromethane											
		0.300	0.292	0.316	0.303	0.290	0.309	0.273	0.341	0.296	0.302	6.32
87)	1,2-dibromoethane											
		0.283	0.286	0.295	0.287	0.290	0.285	0.285	0.356	0.285	0.295	7.86
88)	n-butyl ether											
		1.395	1.339	1.309	1.280	1.280	1.267	1.267	1.553	1.284	1.330	7.00
89)	chlorobenzene											
		0.841	0.830	0.821	0.795	0.802	0.808	0.783	1.030	0.803	0.835	9.05
90)	1,1,1,2-tetrachloroethane											
		0.307	0.302	0.323	0.313	0.307	0.313	0.295	0.348	0.310	0.313	4.82
91)	ethylbenzene											
		1.438	1.412	1.373	1.350	1.355	1.326	1.327	1.647	1.354	1.398	7.19
92)	m,p-xylene											
		1.128	1.088	1.063	1.039	1.046	1.028	1.030	1.316	1.050	1.088	8.41
93)	o-xylene											
		0.542	0.555	0.544	0.531	0.524	0.535	0.540	0.634	0.535	0.549	6.00
94)	styrene											
		0.900	0.913	0.928	0.908	0.903	0.902	0.879	1.075	0.917	0.925	6.27
95)	butyl acrylate											
		0.576	0.571	0.588	0.581	0.582	0.578	0.563	0.679	0.571	0.588	5.96
96)	bromoform											
		0.195	0.196	0.231	0.214	0.206	0.229	0.191	0.217	0.201	0.209	7.06
97)	isopropylbenzene											
		1.522	1.462	1.442	1.430	1.426	1.422	1.404	1.684	1.424	1.468	5.98
98)	cis-1,4-dichloro-2-butene											
		0.101	0.113	0.126	0.124	0.123	0.122	0.109	0.131	0.116	0.118	8.01
99)	I 1,4-dichlorobenzene-d ----------ISTD----------											
100)	4-bromofluorobenzene (s)											
		0.811	0.802	0.799	0.792	0.796	0.798	0.812	0.812	0.798	0.802	0.94
101)	bromobenzene											
		0.742	0.714	0.701	0.669	0.661	0.686	0.666	0.828	0.682	0.706	7.50
102)	1,1,2,2-tetrachloroethane											
		0.639	0.620	0.630	0.600	0.614	0.611	0.613	0.773	0.616	0.635	8.34
103)	trans-1,4-dichloro-2-butene											
		0.149	0.142	0.153	0.144	0.148	0.146	0.142		0.144	0.146	2.59
104)	1,2,3-trichloropropane											
		0.161	0.163	0.166	0.159	0.162	0.158	0.160		0.164	0.162	1.64
105)	n-propylbenzene											
		3.007	2.938	2.893	2.819	2.805	2.831	2.757	3.491	2.821	2.929	7.65
106)	2-chlorotoluene											
		0.616	0.638	0.629	0.600	0.598	0.621	0.598	0.718	0.611	0.626	5.95
107)	4-chlorotoluene											
		1.846	1.783	1.727	1.671	1.679	1.700	1.689	2.078	1.685	1.762	7.48
108)	4-ethyltoluene											
											0.000	-1.00
109)	1,3,5-trimethylbenzene											
		2.157	2.185	2.141	2.085	2.059	2.121	2.039	2.553	2.077	2.157	7.22
110)	tert-butylbenzene											
		1.926	1.916	1.927	1.871	1.843	1.906	1.782	2.222	1.831	1.914	6.57
111)	1,2,4-trimethylbenzene											

Initial Calibration Summary

Job Number: JC66384 **Sample:** V2D7390-ICC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175271.D
Project: National Grid, Philly Coke, Philadelphia PA

```
            2.251 2.195 2.183 2.133 2.093 2.153 2.100 2.585 2.124   2.202    6.90
112)  sec-butylbenzene
            2.983 2.822 2.851 2.784 2.748 2.835 2.686 3.282 2.745   2.859    6.27
113)  1,3-dichlorobenzene
            1.328 1.364 1.324 1.271 1.264 1.295 1.269 1.642 1.268   1.336    8.97
114)  p-isopropyltoluene
            2.468 2.465 2.502 2.415 2.382 2.477 2.316 2.918 2.412   2.484    6.94
115)  1,4-dichlorobenzene
            1.391 1.370 1.351 1.302 1.289 1.328 1.288 1.571 1.278   1.352    6.74
116)  1,2-dichlorobenzene
            1.372 1.331 1.346 1.312 1.312 1.316 1.255 1.528 1.295   1.341    5.78
117)  benzyl chloride
            1.278 1.204 1.251 1.206 1.197 1.195 1.149       1.197   1.210    3.21
118)  1,4-diethylbenzene
                                                                    0.000   -1.00
119)  n-butylbenzene
            1.257 1.247 1.262 1.235 1.205 1.259 1.157 1.396 1.199   1.246    5.30
120)  1,2,4,5-tetramethylbenzene
                                                                    0.000   -1.00
121)  1,2-dibromo-3-chloropropane
            0.155 0.141 0.169 0.159 0.158 0.166 0.153 0.148 0.149   0.155    5.72
122)  nitrobenzene
                        0.022 0.019 0.019 0.024             0.015   0.020   15.59
123)  1,3,5-trichlorobenzene
            1.172 1.206 1.331 1.286 1.259 1.284 1.155 1.373 1.214   1.253    5.81
124)  hexachlorobutadiene
            0.594 0.596 0.634 0.619 0.615 0.602 0.578 0.683 0.599   0.613    5.02
125)  naphthalene
            1.928 1.962 2.423 2.347 2.282 2.296 1.985 2.214 2.130   2.174    8.35
126)  2-ethylhexyl acrylate
                        0.708 0.633 0.547 0.721             0.501   0.622   15.56
127)  1,2,4-trichlorobenzene
            0.989 0.981 1.181 1.127 1.082 1.134 0.979 1.099 1.013   1.065    7.13
128)  1,2,3-trichlorobenzene
            0.867 0.901 1.073 1.042 1.004 1.024 0.890 1.076 0.952   0.981    8.21
129)  hexachloroethane
            0.399 0.391 0.484 0.458 0.429 0.489 0.394       0.408   0.431    9.34
130)  2-methylnaphthalene
                        1.324 1.212 1.058 1.323             0.915   1.166   15.26
131)  bis(chloromethyl)ether
                                                                    0.000   -1.00
132)  ethylenimine
                                                                    0.000   -1.00
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2D7390.M         Fri May 04 11:26:05 2018   GCMS2D
```

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICV7390
Lab FileID: 2D175276.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7390\2D175276.D Vial: 13
Acq On : 3 May 2018 9:50 pm Operator: oyinadei
Sample : ICV7390-50 Inst : MS2D
Misc : MS25995,V2D7390,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
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	102	-0.01	7.38
2		tertiary butyl alcohol	0.947	0.954	-0.7	100	0.00	7.51
			True	Calc.	% Drift			
3		ethanol	5000.000	5120.548	-2.4	106	-0.01	5.99
			AvgRF	CCRF	% Dev			
4		1,4-dioxane	0.094	0.099	-5.3	104	0.00	12.18
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.09
6		chlorodifluoromethane	0.471	0.574	-21.9	130	0.00	3.89
7		dichlorodifluoromethane	0.556	0.541	2.7	96	0.00	3.86
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.668	-6.4	121	0.00	4.26
11		vinyl chloride	0.552	0.548	0.7	103	0.00	4.49
12		bromomethane	0.388	0.370	4.6	103	0.00	5.12
13		chloroethane	0.290	0.270	6.9	103	0.00	5.28
14		trichlorofluoromethane	0.624	0.599	4.0	97	0.00	5.77
15		vinyl bromide	0.414	0.375	9.4	97	0.00	5.65
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.184	5.2	104	0.00	6.19
18		acrolein	0.080	0.081	-1.3	113	0.00	6.43
19		1,1-dichloroethene	0.377	0.341	9.5	97	0.00	6.63
20		freon 113	0.316	0.312	1.3	101	0.00	6.62
21	m	2-chloropropane	0.633	0.634	-0.2	109	0.00	6.38
22		acetone	0.027	0.028	-3.7	109	0.00	6.68
23		acetonitrile		----------NA----------				
24		iodomethane	0.639	0.737	-15.3	121	-0.01	6.91
25		carbon disulfide	1.207	1.299	-7.6	116	0.00	7.05
26		methylene chloride	0.417	0.394	5.5	101	0.00	7.40
27		methyl acetate	0.265	0.250	5.7	102	0.00	7.19
28		methyl tert butyl ether	1.096	1.039	5.2	103	0.00	7.81
29		trans-1,2-dichloroethene	0.382	0.355	7.1	101	0.00	7.83
30		hexane	0.499	0.460	7.8	95	0.00	8.23
31		di-isopropyl ether	1.313	1.262	3.9	106	0.00	8.54
32		2-butanone	0.035	0.037	-5.7	107	0.00	9.36
33		1,1-dichloroethane	0.710	0.663	6.6	102	0.00	8.49
34		chloroprene	0.565	0.558	1.2	107	0.00	8.63
35		acrylonitrile	0.128	0.148	-15.6	116	0.00	7.77
36		vinyl acetate	0.062	0.066	-6.5	112	0.00	8.51
37		ethyl tert-butyl ether	1.230	1.170	4.9	103	0.00	9.10

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICV7390
Lab FileID: 2D175276.D

38		ethyl acetate	0.047	0.048	-2.1	108	0.00	9.42
39		2,2-dichloropropane	0.565	0.481	14.9	95	0.00	9.40
40		cis-1,2-dichloroethene	0.428	0.412	3.7	105	0.00	9.38
41		propionitrile	0.055	0.054	1.8	106	0.00	9.47
42		tert-Butyl Formate	0.377	0.256	32.1#	73	0.00	9.93
43		bromochloromethane	0.214	0.207	3.3	105	0.00	9.76
44		tetrahydrofuran	0.045	0.044	2.2	106	0.00	9.83
45		chloroform	0.685	0.651	5.0	102	0.00	9.84
46	S	dibromofluoromethane (s)	0.431	0.432	-0.2	105	0.00	10.09
47		methacrylonitrile	0.140	0.141	-0.7	103	0.00	9.71
48		1,1,1-trichloroethane	0.633	0.577	8.8	97	0.00	10.18
49		cyclohexane	0.526	0.547	-4.0	106	0.00	10.28
50		1,1-dichloropropene	0.523	0.489	6.5	102	0.00	10.40
51		isobutyl alcohol	0.016	0.016	0.0	107	0.00	10.43
52		carbon tetrachloride	0.556	0.523	5.9	100	0.00	10.43
53		tert-amyl alcohol	0.018	0.018	0.0	108	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.24
55	S	1,2-dichloroethane-d4 (s)	0.343	0.334	2.6	101	0.00	10.62
56		benzene	1.114	1.061	4.8	104	0.00	10.73
57		iso-octane	1.120	1.103	1.5	100	0.00	10.81
58		tert-amyl methyl ether	0.835	0.813	2.6	102	0.00	10.83
59		heptane	0.203	0.215	-5.9	110	0.00	11.03
60		isopropyl acetate	0.051	0.052	-2.0	109	0.00	10.71
61		1,2-dichloroethane	0.388	0.364	6.2	102	0.00	10.74
62		n-butyl alcohol	0.007	0.007	0.0	105	0.00	11.41
63		ethyl acrylate	0.327	0.334	-2.1	108	0.00	11.73
64		trichloroethene	0.300	0.284	5.3	102	0.00	11.67
65		2-nitropropane	0.055	0.052	5.5	104	0.00	12.71
66		2-chloroethyl vinyl ether	0.180	0.187	-3.9	110	0.00	12.77
67		methyl methacrylate	0.173	0.178	-2.9	106	0.00	12.08
68		1,2-dichloropropane	0.299	0.279	6.7	102	0.00	12.02
69		dibromomethane	0.176	0.176	0.0	105	0.00	12.20
70		methylcyclohexane	0.496	0.474	4.4	97	0.00	11.99
71		bromodichloromethane	0.385	0.366	4.9	100	0.00	12.39
72		epichlorohydrin	0.026	0.026	0.0	105	0.00	12.90
73		cis-1,3-dichloropropene	0.490	0.471	3.9	104	0.00	13.03
74		4-methyl-2-pentanone	0.102	0.102	0.0	106	0.00	13.21
75		3-methyl-1-butanol	0.012	0.012	0.0	108	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	15.46
77	S	toluene-d8 (s)	1.163	1.158	0.4	105	0.00	13.44
78		toluene	0.705	0.669	5.1	105	0.00	13.54
79		trans-1,3-dichloropropene	0.433	0.401	7.4	99	0.00	13.80
80		ethyl methacrylate	0.360	0.343	4.7	102	0.00	13.86
81		1,1,2-trichloroethane	0.217	0.209	3.7	104	0.00	14.08
82		tetrachloroethene		----------NA----------				
83		1,3-dichloropropane	0.427	0.420	1.6	107	0.00	14.32
84		2-hexanone	0.096	0.096	0.0	107	0.00	14.37
85		butyl acetate	0.176	0.180	-2.3	109	0.00	14.51
86		dibromochloromethane	0.302	0.307	-1.7	107	0.00	14.66
87		1,2-dibromoethane	0.295	0.288	2.4	106	0.00	14.85
88	m	n-butyl ether	1.330	1.258	5.4	103	0.00	15.50
89		chlorobenzene	0.835	0.800	4.2	106	0.00	15.50
90		1,1,1,2-tetrachloroethane	0.313	0.311	0.6	104	0.00	15.58
91		ethylbenzene	1.398	1.344	3.9	105	0.00	15.61
92		m,p-xylene	1.088	1.045	4.0	106	0.00	15.76
93		o-xylene	0.549	0.531	3.3	105	0.00	16.30
94		styrene	0.925	0.917	0.9	106	0.00	16.31
95		butyl acrylate	0.588	0.599	-1.9	108	0.00	16.13

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICV7390
Lab FileID: 2D175276.D

96		bromoform	0.209	0.226	-8.1	111	0.00	16.59
97		isopropylbenzene	1.468	1.405	4.3	103	0.00	16.75
98		cis-1,4-dichloro-2-butene	0.118	0.118	0.0	100	0.00	16.82
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.791	1.4	105	0.00	16.96
101		bromobenzene	0.706	0.678	4.0	106	0.00	17.17
102		1,1,2,2-tetrachloroethane	0.635	0.599	5.7	105	0.00	17.09
103		trans-1,4-dichloro-2-bute	0.146	0.153	-4.8	112	0.00	17.15
104		1,2,3-trichloropropane	0.162	0.156	3.7	103	0.00	17.17
105		n-propylbenzene	2.929	2.797	4.5	104	0.00	17.24
106		2-chlorotoluene	0.626	0.597	4.6	104	0.00	17.38
107		4-chlorotoluene	1.762	1.715	2.7	108	0.00	17.49
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.034	5.7	102	0.00	17.42
110		tert-butylbenzene	1.914	1.821	4.9	102	0.00	17.80
111		1,2,4-trimethylbenzene	2.202	2.149	2.4	106	0.00	17.85
112		sec-butylbenzene	2.859	2.739	4.2	103	0.00	18.03
113		1,3-dichlorobenzene	1.336	1.272	4.8	105	0.00	18.19
114		p-isopropyltoluene	2.484	2.383	4.1	104	0.00	18.17
115		1,4-dichlorobenzene	1.352	1.298	4.0	105	0.00	18.28
116		1,2-dichlorobenzene	1.341	1.292	3.7	103	0.00	18.67
117		benzyl chloride	1.210	0.943	22.1	82	0.00	18.40
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.203	3.5	102	0.00	18.58
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.154	0.6	102	0.00	19.39
122		nitrobenzene	0.020	0.017	15.0	92	0.00	19.59
123		1,3,5-trichlorobenzene	1.253	1.257	-0.3	103	0.00	19.58
124		hexachlorobutadiene	0.613	0.588	4.1	100	0.00	20.28
125		naphthalene	2.174	2.305	-6.0	103	0.00	20.41
126		2-ethylhexyl acrylate	0.622	0.661	-6.3	110	0.00	20.17
127		1,2,4-trichlorobenzene	1.065	1.106	-3.8	103	0.00	20.16
128	m	1,2,3-trichlorobenzene	0.981	1.005	-2.4	101	0.00	20.63
129		hexachloroethane	0.431	0.456	-5.8	104	0.00	18.92
130		2-methylnaphthalene	1.166	1.134	2.7	98	0.00	21.47
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

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

2D175271.D M2D7390.M Fri May 04 11:26:30 2018 GCMS2D

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICV7390
Lab FileID: 2D175277.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7390\2D175277.D Vial: 14
Acq On : 3 May 2018 10:21 pm Operator: oyinadei
Sample : ICV7390-50 Inst : MS2D
Misc : MS25995,V2D7390,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
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	105	-0.01	7.38
2		tertiary butyl alcohol		NA				
		---------- True		Calc.	% Drift	----------		
3		ethanol		NA				
		---------- AvgRF		CCRF	% Dev	----------		
4		1,4-dioxane		NA				
5	I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	10.09
6		chlorodifluoromethane		NA				
7		dichlorodifluoromethane		NA				
8		freon 142b		NA				
9		freon 114		NA				
10		chloromethane		NA				
11		vinyl chloride		NA				
12		bromomethane		NA				
13		chloroethane		NA				
14		trichlorofluoromethane		NA				
15		vinyl bromide		NA				
16		1,3-butadiene		NA				
17		ethyl ether		NA				
18		acrolein		NA				
19		1,1-dichloroethene		NA				
20		freon 113		NA				
21	m	2-chloropropane		NA				
22		acetone		NA				
23		acetonitrile	0.045	0.044	2.2	108	0.00	7.14
24		iodomethane		NA				
25		carbon disulfide		NA				
26		methylene chloride		NA				
27		methyl acetate		NA				
28		methyl tert butyl ether		NA				
29		trans-1,2-dichloroethene		NA				
30		hexane		NA				
31		di-isopropyl ether		NA				
32		2-butanone		NA				
33		1,1-dichloroethane		NA				
34		chloroprene		NA				
35		acrylonitrile		NA				
36		vinyl acetate		NA				
37		ethyl tert-butyl ether		NA				

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICV7390
Lab FileID: 2D175277.D

38		ethyl acetate		----------NA----------					
39		2,2-dichloropropane		----------NA----------					
40		cis-1,2-dichloroethene		----------NA----------					
41		propionitrile		----------NA----------					
42		tert-Butyl Formate		----------NA----------					
43		bromochloromethane		----------NA----------					
44		tetrahydrofuran		----------NA----------					
45		chloroform		----------NA----------					
46	S	dibromofluoromethane (s)	0.431	0.431	0.0	107	0.00	10.09	
47		methacrylonitrile		----------NA----------					
48		1,1,1-trichloroethane		----------NA----------					
49		cyclohexane		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		isobutyl alcohol		----------NA----------					
52		carbon tetrachloride		----------NA----------					
53		tert-amyl alcohol		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.24	
55	S	1,2-dichloroethane-d4 (s)	0.343	0.334	2.6	105	0.00	10.62	
56		benzene		----------NA----------					
57		iso-octane		----------NA----------					
58		tert-amyl methyl ether		----------NA----------					
59		heptane		----------NA----------					
60		isopropyl acetate		----------NA----------					
61		1,2-dichloroethane		----------NA----------					
62		n-butyl alcohol		----------NA----------					
63		ethyl acrylate		----------NA----------					
64		trichloroethene		----------NA----------					
65		2-nitropropane		----------NA----------					
66		2-chloroethyl vinyl ether		----------NA----------					
67		methyl methacrylate		----------NA----------					
68		1,2-dichloropropane		----------NA----------					
69		dibromomethane		----------NA----------					
70		methylcyclohexane		----------NA----------					
71		bromodichloromethane		----------NA----------					
72		epichlorohydrin		----------NA----------					
73		cis-1,3-dichloropropene		----------NA----------					
74		4-methyl-2-pentanone		----------NA----------					
75		3-methyl-1-butanol		----------NA----------					
76	I	chlorobenzene-d5	1.000	1.000	0.0	106	0.00	15.46	
77	S	toluene-d8 (s)	1.163	1.173	-0.9	108	0.00	13.44	
78		toluene		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		1,1,2-trichloroethane		----------NA----------					
82		tetrachloroethene	0.265	0.260	1.9	108	0.00	14.32	
83		1,3-dichloropropane		----------NA----------					
84		2-hexanone		----------NA----------					
85		butyl acetate		----------NA----------					
86		dibromochloromethane		----------NA----------					
87		1,2-dibromoethane		----------NA----------					
88	m	n-butyl ether		----------NA----------					
89		chlorobenzene		----------NA----------					
90		1,1,1,2-tetrachloroethane		----------NA----------					
91		ethylbenzene		----------NA----------					
92		m,p-xylene		----------NA----------					
93		o-xylene		----------NA----------					
94		styrene		----------NA----------					
95		butyl acrylate		----------NA----------					

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7390-ICV7390
Lab FileID: 2D175277.D

96		bromoform		----------NA----------				
97		isopropylbenzene		----------NA----------				
98		cis-1,4-dichloro-2-butene		----------NA----------				
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.812	-1.2	106	0.00	16.96
101		bromobenzene		----------NA----------				
102		1,1,2,2-tetrachloroethane		----------NA----------				
103		trans-1,4-dichloro-2-bute		----------NA----------				
104		1,2,3-trichloropropane		----------NA----------				
105		n-propylbenzene		----------NA----------				
106		2-chlorotoluene		----------NA----------				
107		4-chlorotoluene		----------NA----------				
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene		----------NA----------				
110		tert-butylbenzene		----------NA----------				
111		1,2,4-trimethylbenzene		----------NA----------				
112		sec-butylbenzene		----------NA----------				
113		1,3-dichlorobenzene		----------NA----------				
114		p-isopropyltoluene		----------NA----------				
115		1,4-dichlorobenzene		----------NA----------				
116		1,2-dichlorobenzene		----------NA----------				
117		benzyl chloride		----------NA----------				
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene		----------NA----------				
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa		----------NA----------				
122		nitrobenzene		----------NA----------				
123		1,3,5-trichlorobenzene		----------NA----------				
124		hexachlorobutadiene		----------NA----------				
125		naphthalene		----------NA----------				
126		2-ethylhexyl acrylate		----------NA----------				
127		1,2,4-trichlorobenzene		----------NA----------				
128	m	1,2,3-trichlorobenzene		----------NA----------				
129		hexachloroethane		----------NA----------				
130		2-methylnaphthalene		----------NA----------				
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

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

2D175271.D M2D7390.M Fri May 04 11:26:32 2018 GCMS2D

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: V2D7409-CC7390
Lab FileID: 2D175667.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...18\v2d7409\2d175667.d Vial: 25
Acq On : 19 May 2018 9:36 am Operator: oyinadei
Sample : cc7390-20 Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
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	77	-0.04	7.35
2		tertiary butyl alcohol	0.947	0.946	0.1	76	-0.03	7.49
			True	Calc.	% Drift			
3		ethanol	2000.000	2091.114	-4.6	79	-0.02	5.98
			AvgRF	CCRF	% Dev			
4		1,4-dioxane	0.094	0.092	2.1	76	-0.03	12.15
5	I	pentafluorobenzene	1.000	1.000	0.0	84	-0.02	10.07
6		chlorodifluoromethane	0.471	0.469	0.4	84	-0.01	3.88
7		dichlorodifluoromethane	0.556	0.717	-29.0#	99	-0.01	3.85
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.634	-1.0	87	0.00	4.26
11		vinyl chloride	0.552	0.547	0.9	81	-0.02	4.48
12		bromomethane	0.388	0.395	-1.8	86	0.00	5.11
13		chloroethane	0.290	0.281	3.1	84	0.00	5.27
14		trichlorofluoromethane	0.624	0.749	-20.0#	95	-0.01	5.76
15		vinyl bromide	0.414	0.366	11.6	75	-0.01	5.63
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.171	11.9	76	-0.02	6.18
18		acrolein	0.080	0.066	17.5	73	-0.01	6.42
19		1,1-dichloroethene	0.377	0.361	4.2	83	-0.02	6.61
20		freon 113	0.316	0.332	-5.1	86	0.00	6.61
21	m	2-chloropropane	0.633	0.641	-1.3	87	-0.02	6.37
22		acetone	0.027	0.025	7.4	76	-0.01	6.66
23		acetonitrile	0.045	0.044	2.2	79	-0.02	7.12
24		iodomethane	0.639	0.628	1.7	84	-0.03	6.89
25		carbon disulfide	1.207	1.125	6.8	81	-0.03	7.03
26		methylene chloride	0.417	0.402	3.6	83	-0.02	7.38
27		methyl acetate	0.265	0.262	1.1	83	-0.02	7.18
28		methyl tert butyl ether	1.096	1.034	5.7	81	-0.02	7.80
29		trans-1,2-dichloroethene	0.382	0.374	2.1	86	-0.02	7.81
30		hexane	0.499	0.475	4.8	79	-0.02	8.21
31		di-isopropyl ether	1.313	1.236	5.9	81	-0.03	8.52
32		2-butanone	0.035	0.033	5.7	74	-0.03	9.34
33		1,1-dichloroethane	0.710	0.693	2.4	86	-0.02	8.47
34		chloroprene	0.565	0.552	2.3	84	-0.02	8.62
35		acrylonitrile	0.128	0.119	7.0	74	-0.02	7.75
36		vinyl acetate	0.062	0.049	21.0#	65	-0.02	8.49
37		ethyl tert-butyl ether	1.230	1.186	3.6	83	-0.02	9.08

Continuing Calibration Summary

Job Number: JC66384 **Sample:** V2D7409-CC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175667.D
Project: National Grid, Philly Coke, Philadelphia PA

38		ethyl acetate	0.047	0.043	8.5	75	-0.02	9.40
39		2,2-dichloropropane	0.565	0.634	-12.2	98	-0.02	9.39
40		cis-1,2-dichloroethene	0.428	0.416	2.8	85	-0.02	9.36
41		propionitrile	0.055	0.049	10.9	74	-0.03	9.45
42		tert-Butyl Formate	0.377	0.356	5.6	80	-0.02	9.91
43		bromochloromethane	0.214	0.211	1.4	86	-0.02	9.74
44		tetrahydrofuran	0.045	0.039	13.3	73	-0.01	9.82
45		chloroform	0.685	0.702	-2.5	88	-0.02	9.82
46	S	dibromofluoromethane (s)	0.431	0.463	-7.4	90	-0.02	10.07
47		methacrylonitrile	0.140	0.124	11.4	72	-0.02	9.69
48		1,1,1-trichloroethane	0.633	0.680	-7.4	93	-0.02	10.16
49		cyclohexane	0.526	0.535	-1.7	83	-0.02	10.26
50		1,1-dichloropropene	0.523	0.496	5.2	83	-0.02	10.39
51		isobutyl alcohol	0.016	0.014	12.5	73	-0.02	10.41
52		carbon tetrachloride	0.556	0.612	-10.1	95	-0.02	10.41
53		tert-amyl alcohol	0.018	0.017	5.6	74	-0.02	10.59
54	I	1,4-difluorobenzene	1.000	1.000	0.0	83	-0.02	11.22
55	S	1,2-dichloroethane-d4 (s)	0.343	0.375	-9.3	91	-0.02	10.60
56		benzene	1.114	1.062	4.7	82	-0.02	10.72
57		iso-octane	1.120	1.108	1.1	80	-0.02	10.79
58		tert-amyl methyl ether	0.835	0.818	2.0	82	-0.03	10.81
59		heptane	0.203	0.193	4.9	79	-0.02	11.02
60		isopropyl acetate	0.051	0.045	11.8	73	-0.02	10.69
61		1,2-dichloroethane	0.388	0.393	-1.3	86	-0.02	10.72
62		n-butyl alcohol	0.007	0.006	14.3	69	-0.03	11.39
63		ethyl acrylate	0.327	0.273	16.5	69	-0.02	11.71
64		trichloroethene	0.300	0.290	3.3	83	-0.02	11.65
65		2-nitropropane	0.055	0.055	0.0	86	-0.02	12.69
66		2-chloroethyl vinyl ether	0.180	0.157	12.8	73	-0.03	12.75
67		methyl methacrylate	0.173	0.151	12.7	71	-0.02	12.07
68		1,2-dichloropropane	0.299	0.280	6.4	81	-0.02	12.00
69		dibromomethane	0.176	0.175	0.6	83	-0.02	12.18
70		methylcyclohexane	0.496	0.504	-1.6	82	-0.02	11.97
71		bromodichloromethane	0.385	0.393	-2.1	87	-0.02	12.37
72		epichlorohydrin	0.026	0.023	11.5	73	-0.02	12.88
73		cis-1,3-dichloropropene	0.490	0.450	8.2	79	-0.02	13.01
74		4-methyl-2-pentanone	0.102	0.089	12.7	73	-0.02	13.19
75		3-methyl-1-butanol	0.012	0.011	8.3	75	-0.02	13.21
76	I	chlorobenzene-d5	1.000	1.000	0.0	87	-0.02	15.44
77	S	toluene-d8 (s)	1.163	1.132	2.7	84	-0.02	13.42
78		toluene	0.705	0.636	9.8	81	-0.02	13.52
79		trans-1,3-dichloropropene	0.433	0.403	6.9	83	-0.02	13.78
80		ethyl methacrylate	0.360	0.304	15.6	73	-0.02	13.85
81		1,1,2-trichloroethane	0.217	0.197	9.2	80	-0.02	14.06
82		tetrachloroethene	0.265	0.256	3.4	87	-0.02	14.30
83		1,3-dichloropropane	0.427	0.386	9.6	81	-0.02	14.31
84		2-hexanone	0.096	0.082	14.6	74	-0.02	14.36
85		butyl acetate	0.176	0.150	14.8	73	-0.02	14.49
86		dibromochloromethane	0.302	0.302	0.0	90	-0.02	14.64
87		1,2-dibromoethane	0.295	0.273	7.5	82	-0.02	14.84
88	m	n-butyl ether	1.330	1.183	11.1	80	-0.02	15.49
89		chlorobenzene	0.835	0.784	6.1	85	-0.02	15.48
90		1,1,1,2-tetrachloroethane	0.313	0.317	-1.3	90	-0.02	15.57
91		ethylbenzene	1.398	1.342	4.0	86	-0.02	15.59
92		m,p-xylene	1.088	1.043	4.1	87	-0.02	15.74
93		o-xylene	0.549	0.524	4.6	87	-0.02	16.28
94		styrene	0.925	0.893	3.5	86	-0.02	16.29
95		butyl acrylate	0.588	0.505	14.1	75	-0.02	16.12

Continuing Calibration Summary

Job Number: JC66384 **Sample:** V2D7409-CC7390
Account: BBLNYS Arcadis **Lab FileID:** 2D175667.D
Project: National Grid, Philly Coke, Philadelphia PA

96		bromoform	0.209	0.227	-8.6	96	-0.02	16.58
97		isopropylbenzene	1.468	1.418	3.4	86	-0.02	16.73
98		cis-1,4-dichloro-2-butene	0.118	0.101	14.4	71	-0.02	16.80
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	94	-0.02	18.24
100	S	4-bromofluorobenzene (s)	0.802	0.768	4.2	91	-0.02	16.95
101		bromobenzene	0.706	0.641	9.2	91	-0.02	17.16
102		1,1,2,2-tetrachloroethane	0.635	0.543	14.5	83	-0.02	17.07
103		trans-1,4-dichloro-2-bute	0.146	0.114	21.9#	73	-0.02	17.14
104		1,2,3-trichloropropane	0.162	0.151	6.8	87	-0.02	17.16
105		n-propylbenzene	2.929	2.687	8.3	90	-0.02	17.22
106		2-chlorotoluene	0.626	0.571	8.8	90	-0.02	17.36
107		4-chlorotoluene	1.762	1.640	6.9	92	-0.02	17.48
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	1.929	10.6	88	-0.02	17.41
110		tert-butylbenzene	1.914	1.680	12.2	86	-0.02	17.79
111		1,2,4-trimethylbenzene	2.202	2.026	8.0	91	-0.01	17.84
112		sec-butylbenzene	2.859	2.573	10.0	88	-0.02	18.02
113		1,3-dichlorobenzene	1.336	1.257	5.9	93	-0.02	18.18
114		p-isopropyltoluene	2.484	2.235	10.0	88	-0.02	18.15
115		1,4-dichlorobenzene	1.352	1.287	4.8	94	-0.02	18.27
116		1,2-dichlorobenzene	1.341	1.281	4.5	92	-0.01	18.66
117		benzyl chloride	1.210	1.221	-0.9	96	-0.02	18.39
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.160	6.9	90	-0.01	18.57
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.139	10.3	82	-0.01	19.38
122		nitrobenzene	0.020	0.021	-5.0	106	-0.02	19.57
123		1,3,5-trichlorobenzene	1.253	1.197	4.5	89	-0.01	19.57
124		hexachlorobutadiene	0.613	0.564	8.0	86	-0.01	20.27
125		naphthalene	2.174	1.825	16.1	75	-0.02	20.40
126		2-ethylhexyl acrylate	0.622	0.415	33.3#	71	-0.01	20.16
127		1,2,4-trichlorobenzene	1.065	0.952	10.6	83	-0.01	20.14
128	m	1,2,3-trichlorobenzene	0.981	0.855	12.8	80	-0.02	20.61
129		hexachloroethane	0.431	0.443	-2.8	97	-0.02	18.91
130		2-methylnaphthalene	1.166	0.648	44.4#	58	-0.02	21.45
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175270.D M2D7390.M Tue May 22 02:51:50 2018

6.9.8

6

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: VC8199-ICC8199
Lab FileID: C221534.D

Response Factor Report MSC

Method : C:\MSDCHEM\1\METHODS\MC8199S.M (RTE Integrator)
Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Mar 22 09:37:40 2018
Response via : Initial Calibration

Calibration Files
4 =C221531.D 2 =C221530.D 20 =C221533.D 50 =C221534.D
100 =C221535.D 1 =C221529.D 200 =C221536.D 0.5 =C221528.D
8 =C221532.D 0.2 =C221527.D = =

Compound	4	2	20	50	100	1	200	0.5	8	0.2	Avg	%RSD
1) Tert Butyl Alcohol-d9	----------ISTD----------											
2) ethanol	0.131	0.137	0.132	0.130	0.142	0.151	0.128		0.135		0.136	5.60
3) tertiary butyl alcohol	1.295	1.335	1.279	1.284	1.339	1.446	1.248		1.397		1.328	5.00
4) 1,4-dioxane	0.097	0.087	0.103	0.105	0.112	0.094	0.101		0.100		0.100	7.56
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.659	0.610	0.612	0.658	0.651	0.671	0.588	0.599	0.675	0.599	0.632	5.30
7) dichlorodifluoromethane	0.729	0.642	0.688	0.681	0.660	0.631	0.636	0.577	0.736		0.665	7.55
8) chloromethane	0.983	0.973	0.916	0.935	0.879	1.019	0.859	1.039	1.007		0.957	6.60
9) vinyl chloride	0.967	0.920	0.894	0.922	0.878	0.866	0.855	0.896	0.957	0.756	0.891	6.69
10) 1,3-Butadiene											0.000#	-1.00
11) bromomethane	0.549	0.511	0.522	0.544	0.531	0.494	0.559	0.471	0.552		0.526	5.62
12) chloroethane	0.539	0.481	0.511	0.535	0.482	0.470	0.511	0.385	0.543		0.495	9.95
13) vinyl bromide	0.448	0.429	0.424	0.440	0.441	0.401	0.450	0.366	0.454		0.428	6.66
14) trichlorofluoromethane	0.817	0.741	0.744	0.767	0.754		0.763		0.817		0.772	4.14
15) ethyl ether	0.230	0.242	0.263	0.273	0.271	0.248	0.266		0.255		0.256	5.95
16) 2-chloropropane	1.008	0.999	0.975	0.993	1.015	1.151	0.933	1.092	1.033	1.056	1.026	6.03
17) acrolein	0.060	0.052	0.066	0.069	0.063		0.071		0.062		0.063	10.16
18) freon 113	0.329	0.324	0.324	0.321	0.330	0.358	0.312		0.341		0.330	4.24
19) 1,1-dichloroethene	0.878	0.843	0.822	0.853	0.874	0.962	0.812	0.861	0.904	0.844	0.865	5.03
20) acetone	0.168	0.168	0.156	0.162	0.148	0.201	0.149		0.169		0.165	10.17
21) acetonitrile	0.042	0.043	0.044	0.045	0.042		0.042		0.046		0.044	3.80
22) iodomethane	0.697	0.691	0.703	0.718	0.743	0.770	0.716	0.610	0.741		0.710	6.36
23) carbon disulfide												

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: VC8199-ICC8199
Lab FileID: C221534.D

	1.783	1.764	1.716	1.738	1.760	2.015	1.628	1.720	1.862	1.877	1.786	6.03
24)	methylene chloride											
	0.525	0.560	0.524	0.535	0.538	0.604	0.509		0.541		0.542	5.37
25)	methyl acetate											
	0.264	0.246	0.268	0.273	0.259	0.267	0.260		0.264		0.263	3.06
26)	methyl tert butyl ether											
	1.189	1.211	1.261	1.316	1.286	1.412	1.292	1.263	1.265	1.166	1.266	5.50
27)	trans-1,2-dichloroethene											
	0.799	0.794	0.791	0.813	0.825	0.916	0.767	0.831	0.842	0.785	0.816	5.12
28)	hexane											
	0.860	0.840	0.826	0.848	0.862	0.916	0.779	0.846	0.898	1.032	0.871	7.80
29)	di-isopropyl ether											
	1.805	1.796	1.892	1.989	2.011	2.020	1.922	1.831	1.891	1.694	1.885	5.59
30)	ethyl tert-butyl ether											
	1.574	1.545	1.678	1.765	1.764	1.793	1.724	1.533	1.684	1.653	1.671	5.65
31)	1,1-dichloroethane											
	1.010	0.974	1.013	1.044	1.073	1.143	1.004	0.976	1.048	1.021	1.031	4.87
32)	chloroprene											
	0.809	0.771	0.828	0.886	0.912	0.902	0.850	0.759	0.857	0.709	0.828	8.01
33)	acrylonitrile											
	0.119	0.090	0.134	0.143	0.133		0.133		0.123		0.125	13.82
34)	vinyl acetate											
	0.056		0.067	0.074	0.072		0.073		0.062		0.067	10.31
35)	2-butanone											
	0.041	0.036	0.043	0.047	0.044	0.040	0.045		0.043		0.042	7.69
36)	ethyl acetate											
	0.050		0.056	0.061	0.053		0.054		0.050		0.054	7.83
37)	2,2-dichloropropane											
	0.826	0.811	0.800	0.842	0.862	0.895	0.808	0.849	0.868	0.642	0.820	8.46
38)	cis-1,2-dichloroethene											
	0.569	0.570	0.562	0.581	0.591	0.663	0.558	0.561	0.584	0.486	0.573	7.50
39)	methyl acrylate											
	0.033		0.048	0.055	0.051		0.054		0.044		0.048	17.10
40)	propionitrile											
	0.070	0.067	0.078	0.080	0.076	0.081	0.076		0.077		0.075	6.45
41)	bromochloromethane											
	0.199	0.202	0.215	0.219	0.220	0.223	0.213	0.206	0.221		0.213	4.06
42)	tetrahydrofuran											
	0.110	0.110	0.111	0.115	0.105	0.147	0.106		0.112		0.115	11.90
43)	chloroform											
	0.891	0.887	0.886	0.920	0.924	1.056	0.867	0.974	0.922	1.096	0.942	8.17
44)	t-butyl formate											
											0.000#	-1.00
45)	dibromofluoromethane (s)											
	0.423	0.428	0.436	0.434	0.432	0.426	0.438	0.422	0.431	0.420	0.429	1.44
46)	methacrylonitrile											
	0.091	0.083	0.099	0.106	0.103		0.103		0.099		0.098	8.23
47)	cyclohexane											
	0.827	0.786	0.771	0.800	0.769	0.716	0.763	0.819	0.830	0.859	0.794	5.22
48)	1,1,1-trichloroethane											
	0.795	0.757	0.750	0.780	0.793	0.868	0.743	0.705	0.815	0.744	0.775	5.90
49)	1,1-dichloropropene											
	0.742	0.756	0.734	0.765	0.772	0.812	0.719	0.757	0.760	0.684	0.750	4.50
50)	carbon tetrachloride											
	0.614	0.588	0.604	0.622	0.646	0.689	0.615	0.571	0.647	0.554	0.615	6.40
51)	tert-amyl alcohol											
	0.018	0.021	0.020	0.021	0.019	0.021	0.021		0.019		0.020	6.53
52)	isobutyl alcohol											
	0.015		0.016	0.018	0.017		0.018		0.016		0.017	7.54

Initial Calibration Summary

Job Number: JC66384 **Sample:** VC8199-ICC8199
Account: BBLNYS Arcadis **Lab FileID:** C221534.D
Project: National Grid, Philly Coke, Philadelphia PA

53) I 1,4-difluorobenzene ----------ISTD----------
54) 1,2-dichloroethane-d4 (s)
0.292 0.297 0.298 0.297 0.287 0.295 0.291 0.293 0.296 0.295 0.294 1.11
55) isopropyl acetate
0.041 0.040 0.047 0.052 0.049 0.050 0.048 0.047 10.14
56) 2,2,4-trimethylpentane
1.556 1.495 1.528 1.564 1.601 1.705 1.484 1.479 1.604 1.692 1.571 5.15
57) tert-amyl methyl ether
0.814 0.798 0.875 0.922 0.924 0.940 0.928 0.864 0.864 0.936 0.886 5.81
58) benzene
1.321 1.281 1.293 1.322 1.345 1.459 1.252 1.369 1.357 1.459 1.346 5.16
59) heptane
0.311 0.294 0.302 0.307 0.307 0.346 0.281 0.325 0.311 0.358 0.314 7.36
60) 1,2-dichloroethane
0.387 0.393 0.382 0.394 0.391 0.456 0.372 0.476 0.389 0.404 8.83
61) n-butyl alcohol
0.005 0.005 0.007 0.007 0.007 0.006 0.007 0.006 0.006# 11.21
62) ethyl acrylate
0.235 0.212 0.272 0.297 0.287 0.239 0.294 0.261 0.262 11.89
63) trichloroethene
0.313 0.291 0.307 0.321 0.325 0.349 0.306 0.309 0.324 0.296 0.314 5.24
64) 2-chloroethyl vinyl ether
0.068 0.067 0.070 0.074 0.074 0.079 0.072 0.069 0.072 0.072 4.98
65) 2-nitropropane
0.073 0.058 0.063 0.076 0.067 0.067 0.071 0.068 9.15
66) methylcyclohexane
0.640 0.614 0.623 0.649 0.667 0.709 0.629 0.661 0.668 0.631 0.649 4.30
67) methyl methacrylate
0.042 0.053 0.057 0.056 0.059 0.048 0.053 12.08
68) 1,2-dichloropropane
0.341 0.335 0.349 0.368 0.372 0.393 0.358 0.346 0.359 0.307 0.353 6.56
69) dibromomethane
0.152 0.144 0.152 0.158 0.156 0.167 0.152 0.143 0.154 0.153 4.75
70) bromodichloromethane
0.371 0.370 0.391 0.413 0.416 0.436 0.403 0.366 0.391 0.407 0.397 5.79
71) epichlorohydrin
0.017 0.020 0.022 0.020 0.020 0.020 0.020 7.03
72) cis-1,3-dichloropropene
0.475 0.448 0.488 0.521 0.525 0.507 0.499 0.485 0.492 0.443 0.489 5.63
73) 4-methyl-2-pentanone
0.076 0.069 0.088 0.094 0.088 0.071 0.092 0.071 0.081 0.081 12.13
74) 3-methyl-1-butanol
0.009 0.011 0.012 0.011 0.012 0.010 0.010 10.98

75) I chlorobenzene-d5 ----------ISTD----------
76) toluene-d8 (s)
1.320 1.311 1.298 1.303 1.298 1.319 1.285 1.306 1.308 1.310 1.306 0.80
77) toluene
0.887 0.867 0.856 0.895 0.915 0.985 0.850 0.961 0.906 0.988 0.911 5.60
78) ethyl methacrylate
0.287 0.265 0.342 0.377 0.376 0.280 0.382 0.308 0.327 14.64
79) trans-1,3-dichloropropene
0.461 0.446 0.472 0.493 0.491 0.504 0.473 0.518 0.466 0.480 4.74
80) 1,1,2-trichloroethane
0.207 0.197 0.208 0.223 0.216 0.234 0.208 0.184 0.211 0.173 0.206 8.67
81) 2-hexanone
0.086 0.077 0.098 0.105 0.096 0.091 0.098 0.073 0.094 0.091 11.47
82) tetrachloroethene
0.336 0.320 0.312 0.327 0.333 0.377 0.309 0.331 0.330 0.339 0.331 5.71
83) 1,3-dichloropropane

	0.435	0.435	0.450	0.470	0.458	0.520	0.441	0.425	0.462	0.444	0.454	5.96
84)	butyl acetate											
	0.169	0.155	0.176	0.185	0.172	0.157	0.172		0.173		0.170	5.82
85)	dibromochloromethane											
	0.231	0.222	0.249	0.266	0.267	0.265	0.261	0.235	0.244		0.249	6.75
86)	1,2-dibromoethane											
	0.221	0.217	0.238	0.247	0.242	0.236	0.232	0.187	0.235	0.199	0.225	8.61
87)	n-butyl ether											
	1.589	1.561	1.674	1.788	1.818	1.782	1.671	1.560	1.674	1.769	1.689	5.77
88)	chlorobenzene											
	0.919	0.903	0.893	0.923	0.938	1.052	0.877	0.920	0.934	0.993	0.935	5.50
89)	1,1,1,2-tetrachloroethane											
	0.287	0.283	0.299	0.317	0.335	0.340	0.329	0.289	0.301	0.254	0.303	8.85
90)	ethylbenzene											
	1.745	1.627	1.686	1.765	1.827	1.979	1.713	1.753	1.750	1.908	1.775	5.88
91)	m,p-xylene											
	0.625	0.605	0.619	0.651	0.671	0.693	0.632	0.614	0.642	0.667	0.642	4.40
92)	o-xylene											
	1.348	1.281	1.341	1.427	1.478	1.488	1.436	1.313	1.361	1.315	1.379	5.29
93)	styrene											
	0.887	0.827	0.990	1.079	1.124	0.936	1.092	0.833	0.939	0.829	0.954	11.92
94)	butyl acrylate											
	0.437		0.524	0.589	0.582		0.584		0.467		0.531	12.48
95)	bromoform											
	0.128	0.121	0.143	0.155	0.155	0.140	0.155		0.136		0.142	9.16
96)	isopropylbenzene											
	1.643	1.572	1.607	1.700	1.760	1.862	1.636	1.653	1.678	1.846	1.696	5.77
97)	cis-1,4-dichloro-2-butene											
	0.091	0.087	0.105	0.116	0.112	0.097	0.112	0.086	0.100		0.101	11.14
98)	I 1,4-dichlorobenzene-d ----------ISTD----------											
99)	4-bromofluorobenzene (s)											
	0.717	0.707	0.717	0.696	0.712	0.712	0.702	0.716	0.718	0.722	0.712	1.13
100)	bromobenzene											
	0.750	0.718	0.747	0.753	0.801	0.841	0.756	0.725	0.773	0.752	0.762	4.75
101)	1,1,2,2-tetrachloroethane											
	0.637	0.640	0.658	0.671	0.660	0.724	0.638	0.639	0.659	0.731	0.666	5.20
102)	trans-1,4-dichloro-2-butene											
	0.156	0.155	0.162	0.165	0.167		0.162		0.153		0.160	3.43
103)	1,2,3-trichloropropane											
	0.160	0.160	0.171	0.171	0.171	0.147	0.167	0.160	0.178		0.165	5.51
104)	n-propylbenzene											
	4.387	4.145	4.223	4.322	4.571	4.861	4.135	4.397	4.463	4.666	4.417	5.27
105)	2-chlorotoluene											
	0.824	0.779	0.792	0.819	0.881	0.911	0.852	0.789	0.820	0.695	0.816	7.31
106)	4-chlorotoluene											
	2.434	2.366	2.421	2.453	2.589	2.845	2.356	2.485	2.483	2.684	2.511	6.11
107)	1,3,5-trimethylbenzene											
	2.839	2.650	2.836	2.999	3.233	3.159	3.092	2.855	2.944	3.042	2.965	5.91
108)	tert-butylbenzene											
	0.582	0.571	0.582	0.604	0.657	0.669	0.624	0.568	0.599	0.494	0.595	8.32
109)	1,2,4-trimethylbenzene											
	2.840	2.676	2.862	2.965	3.152	3.207	2.940	2.830	2.969	3.078	2.952	5.46
110)	sec-butylbenzene											
	3.882	3.616	3.756	3.881	4.163	4.305	3.811	3.822	3.938	4.334	3.951	6.04
111)	1,3-dichlorobenzene											
	1.507	1.502	1.466	1.511	1.584	1.734	1.479	1.575	1.530	1.497	1.539	5.09
112)	p-isopropyltoluene											
	3.037	2.941	3.007	3.158	3.363	3.396	3.111	3.088	3.158	3.385	3.164	5.18
113)	1,4-dichlorobenzene											

Initial Calibration Summary

Job Number: JC66384 **Sample:** VC8199-ICC8199
Account: BBLNYS Arcadis **Lab FileID:** C221534.D
Project: National Grid, Philly Coke, Philadelphia PA

```
       1.532 1.530 1.481 1.515 1.574 1.847 1.474 1.815 1.537        1.589    8.82
114)  benzyl chloride
       1.115 1.137 1.227 1.299 1.313 1.323 1.284 1.181 1.171        1.228    6.50
115)  1,2-dichlorobenzene
       1.347 1.356 1.376 1.406 1.470 1.636 1.389 1.462 1.416 1.710  1.457    8.37
116)  n-butylbenzene
       1.706 1.677 1.692 1.749 1.868 1.850 1.711 1.881 1.768 1.921  1.782    5.03
117)  hexachloroethane
       0.377 0.383 0.405 0.444 0.492 0.386 0.462       0.404        0.419   10.03
118)  1,2-dibromo-3-chloropropane
       0.092 0.093 0.112 0.118 0.117       0.117       0.110        0.108   10.27
119)  1,3,5-trichlorobenzene
       1.216 1.216 1.174 1.251 1.295 1.408 1.181 1.368 1.246 1.503  1.286    8.39
120)  nitrobenzene
       0.019       0.032 0.037 0.037       0.041       0.031        0.033   23.26
             ----- Linear regression -----  Coefficient =  0.9979
               Response Ratio = -0.00129 + 0.03987 *A

121)  2-ethylhexyl acrylate
                   0.449 0.678 0.746       0.838       0.384        0.619   31.45
             ----- Linear regression -----  Coefficient =  0.9940
               Response Ratio = -0.01991 + 0.82801 *A

122)  1,2,4-trichlorobenzene
       0.973 0.897 0.962 1.036 1.042 1.158 0.966 1.070 0.981 1.092  1.018    7.49
123)  hexachlorobutadiene
       0.579 0.588 0.560 0.572 0.603 0.648 0.547 0.567 0.583 0.448  0.569    8.95
124)  naphthalene
       1.713 1.709 1.903 2.082 2.023 2.075 1.928 2.024 1.911 2.179  1.955    7.89
125)  1,2,3-trichlorobenzene
       0.841 0.826 0.858 0.931 0.928 1.027 0.871 0.958 0.880 0.891  0.901    6.73
126)  2-methylnaphthalene
                   0.875 1.147 1.118       1.141       0.788        1.014   16.74
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MC8199S.M         Thu Mar 22 09:38:46 2018   C
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Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: VC8199-ICV8199
Lab FileID: C221539.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VC8199\C221539.D Vial: 14
Acq On : 19 Mar 2018 11:13 pm Operator: RobertS
Sample : ICV8199-50 Inst : MSC
Misc : MS23682,VC8199,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MC8199S.M (RTE Integrator)
Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Mar 22 09:37:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.005 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		Tert Butyl Alcohol-d9	1.000	1.000	0.0	108	0.00	8.42
2	M	ethanol	0.136	0.131	3.7	109	0.00	6.80
3	M	tertiary butyl alcohol	1.328	1.331	-0.2	112	0.00	8.57
4		1,4-dioxane	0.100	0.106	-6.0	109	0.00	12.73
5	I	pentafluorobenzene	1.000	1.000	0.0	114	0.00	11.13
6	M	chlorodifluoromethane	0.632	0.502	20.6	87	0.00	4.36
7	M	dichlorodifluoromethane	0.665	0.681	-2.4	114	0.00	4.32
8	M	chloromethane	0.957	0.833	13.0	102	0.00	4.72
9	M	vinyl chloride	0.891	0.786	11.8	97	0.00	5.01
10		1,3-Butadiene		----------NA----------				
11	M	bromomethane	0.526	0.508	3.4	107	0.00	5.77
12	M	chloroethane	0.495	0.474	4.2	101	0.00	6.00
13		vinyl bromide	0.428	0.438	-2.3	114	0.00	6.40
14	M	trichlorofluoromethane	0.772	0.722	6.5	107	0.00	6.53
15	M	ethyl ether	0.256	0.265	-3.5	111	0.00	7.06
16	m	2-chloropropane	1.026	1.003	2.2	115	0.00	7.32
17	M	acrolein	0.063	0.068	-7.9	112	0.00	7.34
18		freon 113	0.330	0.354	-7.3	126	0.00	7.58
19	M	1,1-dichloroethene	0.865	0.780	9.8	104	0.00	7.56
20	M	acetone	0.165	0.153	7.3	108	0.00	7.60
21	M	acetonitrile	0.044	0.041	6.8	103	0.00	8.13
22	M	iodomethane	0.710	0.721	-1.5	164	0.00	7.87
23	M	carbon disulfide	1.786	1.686	5.6	115	0.00	8.03
24	M	methylene chloride	0.542	0.518	4.4	110	0.00	8.48
25	M	methyl acetate	0.263	0.254	3.4	106	0.00	8.18
26	M	methyl tert butyl ether	1.266	1.321	-4.3	114	0.00	8.94
27	M	trans-1,2-dichloroethene	0.816	0.768	5.9	108	0.00	8.97
28		hexane	0.871	0.681	21.8	92	0.00	9.41
29	M	di-isopropyl ether	1.885	1.898	-0.7	109	0.00	9.68
30	M	ethyl tert-butyl ether	1.671	1.697	-1.6	110	0.00	10.22
31	M	1,1-dichloroethane	1.031	0.998	3.2	109	0.00	9.69
32	M	chloroprene	0.828	0.889	-7.4	115	0.00	9.80
33	M	acrylonitrile	0.125	0.151	-20.8	121	0.00	8.87
34	M	vinyl acetate	0.067	0.075	-11.9	117	0.00	9.63
35		2-butanone	0.042	0.044	-4.8	108	0.00	10.46
36	M	ethyl acetate	0.054	0.057	-5.6	106	0.00	10.48
37	M	2,2-dichloropropane	0.820	0.813	0.9	110	0.00	10.54
38	M	cis-1,2-dichloroethene	0.573	0.571	0.3	112	0.00	10.51
39	m	methyl acrylate	0.048	0.051	-6.3	105	0.00	10.57
40	M	propionitrile	0.075	0.075	0.0	108	0.00	10.55
41	M	bromochloromethane	0.213	0.219	-2.8	114	0.00	10.84

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: VC8199-ICV8199
Lab FileID: C221539.D

42	M	tetrahydrofuran	0.115	0.146	-27.0	145	0.00	10.85
43	M	chloroform	0.942	0.893	5.2	111	0.00	10.95
44	m	t-butyl formate		----------NA----------				
45	S	dibromofluoromethane (s)	0.429	0.425	0.9	112	0.00	11.16
46	M	methacrylonitrile	0.098	0.097	1.0	105	0.00	10.76
47		cyclohexane	0.794	0.820	-3.3	117	0.00	11.31
48	M	1,1,1-trichloroethane	0.775	0.742	4.3	109	0.00	11.21
49		1,1-dichloropropene	0.750	0.729	2.8	109	0.00	11.39
50		carbon tetrachloride	0.615	0.613	0.3	112	0.00	11.41
51		tert-amyl alcohol	0.020	0.020	0.0	110	0.00	11.55
52		isobutyl alcohol	0.017	0.017	0.0	111	0.00	11.38
53	I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	12.09
54	S	1,2-dichloroethane-d4 (s)	0.294	0.290	1.4	109	0.00	11.60
55		isopropyl acetate	0.047	0.052	-10.6	112	0.00	11.59
56		2,2,4-trimethylpentane	1.571	1.496	4.8	107	0.00	11.75
57		tert-amyl methyl ether	0.886	0.900	-1.6	109	0.00	11.75
58	M	benzene	1.346	1.302	3.3	110	0.00	11.65
59	M	heptane	0.314	0.327	-4.1	119	0.00	11.92
60	M	1,2-dichloroethane	0.404	0.384	5.0	109	0.00	11.69
61		n-butyl alcohol	0.006	0.007	-16.7	104	0.00	12.15
62		ethyl acrylate	0.262	0.282	-7.6	106	0.00	12.40
63	M	trichloroethene	0.314	0.312	0.6	109	0.00	12.39
64	M	2-chloroethyl vinyl ether	0.072	0.070	2.8	107	0.00	12.69
65		2-nitropropane	0.068	0.065	4.4	96	0.00	13.16
66	M	methylcyclohexane	0.649	0.611	5.9	105	0.00	12.68
67	M	methyl methacrylate	0.053	0.057	-7.5	113	0.00	12.66
68	M	1,2-dichloropropane	0.353	0.351	0.6	107	0.00	12.69
69	M	dibromomethane	0.153	0.157	-2.6	111	0.00	12.80
70	M	bromodichloromethane	0.397	0.397	0.0	107	0.00	12.95
71		epichlorohydrin	0.020	0.020	0.0	104	0.00	13.27
72	M	cis-1,3-dichloropropene	0.489	0.507	-3.7	109	0.00	13.40
73	M	4-methyl-2-pentanone	0.081	0.089	-9.9	106	0.00	13.50
74	M	3-methyl-1-butanol	0.010	0.011	-10.0	105	0.00	13.51
75	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	15.11
76	S	toluene-d8 (s)	1.306	1.309	-0.2	110	0.00	13.69
77		toluene	0.911	0.901	1.1	110	0.00	13.76
78		ethyl methacrylate	0.327	0.359	-9.8	104	0.00	13.94
79		trans-1,3-dichloropropene	0.480	0.468	2.5	104	0.00	13.95
80		1,1,2-trichloroethane	0.206	0.217	-5.3	106	0.00	14.16
81	M	2-hexanone	0.091	0.099	-8.8	103	0.00	14.31
82	M	tetrachloroethene	0.331	0.389	-17.5	130	0.00	14.28
83	M	1,3-dichloropropane	0.454	0.464	-2.2	108	0.00	14.33
84	M	butyl acetate	0.170	0.185	-8.8	109	0.00	14.39
85	M	dibromochloromethane	0.249	0.275	-10.4	113	0.00	14.56
86	M	1,2-dibromoethane	0.225	0.246	-9.3	109	0.00	14.71
87	M	n-butyl ether	1.689	1.685	0.2	103	0.00	15.09
88	M	chlorobenzene	0.935	0.921	1.5	109	0.00	15.14
89	M	1,1,1,2-tetrachloroethane	0.303	0.334	-10.2	115	0.00	15.20
90	M	ethylbenzene	1.775	1.766	0.5	109	0.00	15.19
91	M	m,p-xylene	0.642	0.653	-1.7	110	0.00	15.30
92	M	o-xylene	1.379	1.424	-3.3	109	0.00	15.66
93	M	styrene	0.954	1.084	-13.6	110	0.00	15.67
94		butyl acrylate	0.531	0.574	-8.1	106	0.00	15.50
95	M	bromoform	0.142	0.163	-14.8	115	0.00	15.89
96		isopropylbenzene	1.696	1.720	-1.4	110	0.00	15.97
97		cis-1,4-dichloro-2-butene	0.101	0.110	-8.9	104	0.00	16.00
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	17.15

Initial Calibration Verification

Job Number: JC66384 **Sample:** VC8199-ICV8199
Account: BBLNYS Arcadis **Lab FileID:** C221539.D
Project: National Grid, Philly Coke, Philadelphia PA

99	S	4-bromofluorobenzene (s)	0.712	0.722	-1.4	110	0.00	16.15
100	M	bromobenzene	0.762	0.785	-3.0	111	0.00	16.32
101	M	1,1,2,2-tetrachloroethane	0.666	0.661	0.8	105	0.00	16.22
102	M	trans-1,4-dichloro-2-bute	0.160	0.203	-26.9	131	0.00	16.24
103	M	1,2,3-trichloropropane	0.165	0.174	-5.5	108	0.00	16.29
104	M	n-propylbenzene	4.417	4.382	0.8	108	0.00	16.33
105	M	2-chlorotoluene	0.816	0.828	-1.5	108	0.00	16.45
106	M	4-chlorotoluene	2.511	2.564	-2.1	111	0.00	16.55
107	M	1,3,5-trimethylbenzene	2.965	3.032	-2.3	108	0.00	16.46
108	M	tert-butylbenzene	0.595	0.631	-6.1	111	0.00	16.75
109	M	1,2,4-trimethylbenzene	2.952	3.076	-4.2	110	0.00	16.79
110	M	sec-butylbenzene	3.951	4.001	-1.3	110	0.00	16.93
111	M	1,3-dichlorobenzene	1.539	1.541	-0.1	108	0.00	17.09
112	M	p-isopropyltoluene	3.164	3.213	-1.5	108	0.00	17.04
113	M	1,4-dichlorobenzene	1.589	1.523	4.2	107	0.00	17.17
114		benzyl chloride	1.228	1.026	16.4	84	0.00	17.24
115	M	1,2-dichlorobenzene	1.457	1.423	2.3	108	0.00	17.48
116	M	n-butylbenzene	1.782	1.752	1.7	107	0.00	17.38
117		hexachloroethane	0.419	0.482	-15.0	116	0.00	17.73
118	M	1,2-dibromo-3-chloropropa	0.108	0.118	-9.3	106	0.00	18.11
119	m	1,3,5-trichlorobenzene	1.286	1.237	3.8	105	0.00	18.26
			True	Calc.	% Drift			
120		nitrobenzene	50.000	46.058	7.9	101	0.00	18.28
121		2-ethylhexyl acrylate	10.000	9.739	2.6	111	0.00	18.75
			AvgRF	CCRF	% Dev			
122	M	1,2,4-trichlorobenzene	1.018	1.013	0.5	104	0.00	18.80
123	M	hexachlorobutadiene	0.569	0.579	-1.8	108	0.00	18.89
124	M	naphthalene	1.955	2.090	-6.9	107	0.00	19.08
125	M	1,2,3-trichlorobenzene	0.901	0.920	-2.1	105	0.00	19.26
126	M	2-methylnaphthalene	1.014	1.159	-14.3	107	0.00	20.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
C221534.D MC8199S.M Thu Mar 22 09:38:59 2018 C

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: VC8199-ICV8199
Lab FileID: C221540.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VC8199\C221540.D Vial: 15
Acq On : 19 Mar 2018 11:42 pm Operator: RobertS
Sample : ICV8199-50 Inst : MSC
Misc : MS23682,VC8199,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MC8199S.M (RTE Integrator)
Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Mar 22 09:37:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 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		Tert Butyl Alcohol-d9	1.000	1.000	0.0	115	0.00	8.42
2	M	ethanol		----------NA----------				
3	M	tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	115	0.00	11.13
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8	M	chloromethane		----------NA----------				
9	M	vinyl chloride		----------NA----------				
10		1,3-Butadiene		----------NA----------				
11	M	bromomethane		----------NA----------				
12	M	chloroethane		----------NA----------				
13		vinyl bromide		----------NA----------				
14	M	trichlorofluoromethane		----------NA----------				
15	M	ethyl ether		----------NA----------				
16	m	2-chloropropane		----------NA----------				
17	M	acrolein		----------NA----------				
18		freon 113		----------NA----------				
19	M	1,1-dichloroethene		----------NA----------				
20	M	acetone		----------NA----------				
21	M	acetonitrile	0.044	0.041	6.8	104	0.00	8.13
22	M	iodomethane		----------NA----------				
23	M	carbon disulfide		----------NA----------				
24	M	methylene chloride		----------NA----------				
25	M	methyl acetate		----------NA----------				
26	M	methyl tert butyl ether		----------NA----------				
27	M	trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29	M	di-isopropyl ether		----------NA----------				
30	M	ethyl tert-butyl ether		----------NA----------				
31	M	1,1-dichloroethane		----------NA----------				
32	M	chloroprene		----------NA----------				
33	M	acrylonitrile		----------NA----------				
34	M	vinyl acetate		----------NA----------				
35		2-butanone		----------NA----------				
36	M	ethyl acetate		----------NA----------				
37	M	2,2-dichloropropane		----------NA----------				
38	M	cis-1,2-dichloroethene		----------NA----------				
39	m	methyl acrylate		----------NA----------				
40	M	propionitrile		----------NA----------				
41	M	bromochloromethane		----------NA----------				

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: VC8199-ICV8199
Lab FileID: C221540.D

42	M	tetrahydrofuran		----------NA----------					
43	M	chloroform		----------NA----------					
44	m	t-butyl formate		----------NA----------					
45	S	dibromofluoromethane (s)	0.429	0.418	2.6	110	0.00	11.16	
46	M	methacrylonitrile		----------NA----------					
47		cyclohexane		----------NA----------					
48	M	1,1,1-trichloroethane		----------NA----------					
49		1,1-dichloropropene		----------NA----------					
50		carbon tetrachloride		----------NA----------					
51		tert-amyl alcohol		----------NA----------					
52		isobutyl alcohol		----------NA----------					
53	I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00	12.09	
54	S	1,2-dichloroethane-d4 (s)	0.294	0.295	-0.3	110	0.00	11.60	
55		isopropyl acetate		----------NA----------					
56		2,2,4-trimethylpentane		----------NA----------					
57		tert-amyl methyl ether		----------NA----------					
58	M	benzene		----------NA----------					
59	M	heptane		----------NA----------					
60	M	1,2-dichloroethane		----------NA----------					
61		n-butyl alcohol		----------NA----------					
62		ethyl acrylate		----------NA----------					
63	M	trichloroethene		----------NA----------					
64	M	2-chloroethyl vinyl ether		----------NA----------					
65		2-nitropropane		----------NA----------					
66	M	methylcyclohexane		----------NA----------					
67	M	methyl methacrylate		----------NA----------					
68	M	1,2-dichloropropane		----------NA----------					
69	M	dibromomethane		----------NA----------					
70	M	bromodichloromethane		----------NA----------					
71		epichlorohydrin		----------NA----------					
72	M	cis-1,3-dichloropropene		----------NA----------					
73	M	4-methyl-2-pentanone		----------NA----------					
74	M	3-methyl-1-butanol		----------NA----------					
75	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	15.11	
76	S	toluene-d8 (s)	1.306	1.306	0.0	110	0.00	13.69	
77		toluene		----------NA----------					
78		ethyl methacrylate		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		1,1,2-trichloroethane		----------NA----------					
81	M	2-hexanone		----------NA----------					
82	M	tetrachloroethene	0.331	0.301	9.1	101	0.00	14.28	
83	M	1,3-dichloropropane		----------NA----------					
84	M	butyl acetate		----------NA----------					
85	M	dibromochloromethane		----------NA----------					
86	M	1,2-dibromoethane		----------NA----------					
87	M	n-butyl ether		----------NA----------					
88	M	chlorobenzene		----------NA----------					
89	M	1,1,1,2-tetrachloroethane		----------NA----------					
90	M	ethylbenzene		----------NA----------					
91	M	m,p-xylene		----------NA----------					
92	M	o-xylene		----------NA----------					
93	M	styrene		----------NA----------					
94		butyl acrylate		----------NA----------					
95	M	bromoform		----------NA----------					
96		isopropylbenzene		----------NA----------					
97		cis-1,4-dichloro-2-butene		----------NA----------					
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	17.15	

Initial Calibration Verification

Job Number: JC66384 **Sample:** VC8199-ICV8199
Account: BBLNYS Arcadis **Lab FileID:** C221540.D
Project: National Grid, Philly Coke, Philadelphia PA

99	S	4-bromofluorobenzene (s)	0.712	0.729	-2.4	110	0.00	16.15
100	M	bromobenzene	----------NA----------					
101	M	1,1,2,2-tetrachloroethane	----------NA----------					
102	M	trans-1,4-dichloro-2-bute	----------NA----------					
103	M	1,2,3-trichloropropane	----------NA----------					
104	M	n-propylbenzene	----------NA----------					
105	M	2-chlorotoluene	----------NA----------					
106	M	4-chlorotoluene	----------NA----------					
107	M	1,3,5-trimethylbenzene	----------NA----------					
108	M	tert-butylbenzene	----------NA----------					
109	M	1,2,4-trimethylbenzene	----------NA----------					
110	M	sec-butylbenzene	----------NA----------					
111	M	1,3-dichlorobenzene	----------NA----------					
112	M	p-isopropyltoluene	----------NA----------					
113	M	1,4-dichlorobenzene	----------NA----------					
114		benzyl chloride	----------NA----------					
115	M	1,2-dichlorobenzene	----------NA----------					
116	M	n-butylbenzene	----------NA----------					
117		hexachloroethane	----------NA----------					
118	M	1,2-dibromo-3-chloropropa	----------NA----------					
119	m	1,3,5-trichlorobenzene	----------NA----------					
		----------	True	Calc.	% Drift	----------		
120		nitrobenzene	----------NA----------					
121		2-ethylhexyl acrylate	----------NA----------					
		----------	AvgRF	CCRF	% Dev	----------		
122	M	1,2,4-trichlorobenzene	----------NA----------					
123	M	hexachlorobutadiene	----------NA----------					
124	M	naphthalene	----------NA----------					
125	M	1,2,3-trichlorobenzene	----------NA----------					
126	M	2-methylnaphthalene	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
C221534.D MC8199S.M Thu Mar 22 09:39:01 2018 C

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: VC8227-CC8199
Lab FileID: C221999.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...2-18\vc8227\c221999.d Vial: 1
Acq On : 19 May 2018 11:29 am Operator: RobertS
Sample : cc8199-20 Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MC8199S.M (RTE Integrator)
Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Mar 22 09:37:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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		Tert Butyl Alcohol-d9	1.000	1.000	0.0	86	0.00	8.42
2	M	ethanol	0.136	0.146	-7.4	96	0.00	6.79
3	M	tertiary butyl alcohol	1.328	1.354	-2.0	92	0.00	8.57
4		1,4-dioxane	0.100	0.102	-2.0	86	0.00	12.74
5	I	pentafluorobenzene	1.000	1.000	0.0	83	0.00	11.13
6	M	chlorodifluoromethane	0.632	0.576	8.9	78	0.00	4.36
7	M	dichlorodifluoromethane	0.665	0.781	-17.4	94	0.00	4.33
8	M	chloromethane	0.957	1.071	-11.9	97	0.00	4.72
9	M	vinyl chloride	0.891	0.958	-7.5	89	0.00	5.01
10		1,3-Butadiene		----------NA----------				
11	M	bromomethane	0.526	0.496	5.7	79	0.00	5.76
12	M	chloroethane	0.495	0.535	-8.1	86	0.00	6.01
13		vinyl bromide	0.428	0.504	-17.8	98	0.00	6.40
14	M	trichlorofluoromethane	0.772	0.812	-5.2	90	-0.02	6.52
15	M	ethyl ether		----------NA----------				
16	m	2-chloropropane	1.026	1.114	-8.6	94	0.00	7.32
17	M	acrolein	0.063	0.073	-15.9	92	0.00	7.34
18		freon 113	0.330	0.359	-8.8	92	0.00	7.58
19	M	1,1-dichloroethene	0.865	0.949	-9.7	95	0.00	7.56
20	M	acetone	0.165	0.107	35.2#	57	0.00	7.60
21	M	acetonitrile	0.044	0.053	-20.5#	98	0.00	8.13
22	M	iodomethane		----------NA----------				
23	M	carbon disulfide	1.786	1.730	3.1	83	0.00	8.03
24	M	methylene chloride	0.542	0.587	-8.3	93	0.00	8.47
25	M	methyl acetate	0.263	0.322	-22.4#	99	0.00	8.18
26	M	methyl tert butyl ether	1.266	1.398	-10.4	92	0.00	8.94
27	M	trans-1,2-dichloroethene	0.816	0.882	-8.1	92	0.00	8.97
28		hexane	0.871	0.971	-11.5	97	0.00	9.41
29	M	di-isopropyl ether	1.885	2.079	-10.3	91	0.00	9.68
30	M	ethyl tert-butyl ether	1.671	1.784	-6.8	88	0.00	10.22
31	M	1,1-dichloroethane	1.031	1.092	-5.9	89	0.00	9.69
32	M	chloroprene	0.828	0.904	-9.2	90	0.00	9.80
33	M	acrylonitrile		----------NA----------				
34	M	vinyl acetate	0.067	0.064	4.5	79	0.00	9.63
35		2-butanone	0.042	0.041#	2.4	79	0.00	10.45
36	M	ethyl acetate	0.054	0.061	-13.0	89	0.00	10.48
37	M	2,2-dichloropropane	0.820	0.863	-5.2	89	0.00	10.54
38	M	cis-1,2-dichloroethene	0.573	0.597	-4.2	88	0.00	10.51
39	m	methyl acrylate		----------NA----------				
40	M	propionitrile		----------NA----------				
41	M	bromochloromethane	0.213	0.219	-2.8	84	0.00	10.84

Continuing Calibration Summary

Job Number: JC66384 **Sample:** VC8227-CC8199
Account: BBLNYS Arcadis **Lab FileID:** C221999.D
Project: National Grid, Philly Coke, Philadelphia PA

42	M	tetrahydrofuran		----------NA----------				
43	M	chloroform	0.942	0.941	0.1	88	0.00	10.94
44	m	t-butyl formate		----------NA----------				
45	S	dibromofluoromethane (s)	0.429	0.459	-7.0	87	0.00	11.15
46	M	methacrylonitrile		----------NA----------				
47		cyclohexane	0.794	0.913	-15.0	98	0.00	11.31
48	M	1,1,1-trichloroethane	0.775	0.814	-5.0	90	0.00	11.21
49		1,1-dichloropropene	0.750	0.788	-5.1	89	0.00	11.39
50		carbon tetrachloride	0.615	0.643	-4.6	88	0.00	11.41
51		tert-amyl alcohol	0.020	0.021#	-5.0	87	0.00	11.55
52		isobutyl alcohol	0.017	0.019#	-11.8	97	0.00	11.38
53	I	1,4-difluorobenzene	1.000	1.000	0.0	84	0.00	12.09
54	S	1,2-dichloroethane-d4 (s)	0.294	0.303	-3.1	85	0.00	11.60
55		isopropyl acetate	0.047	0.049#	-4.3	87	0.00	11.59
56		2,2,4-trimethylpentane	1.571	1.715	-9.2	94	0.00	11.75
57		tert-amyl methyl ether	0.886	0.917	-3.5	88	0.00	11.74
58	M	benzene	1.346	1.412	-4.9	92	0.00	11.65
59	M	heptane	0.314	0.336	-7.0	94	0.00	11.92
60	M	1,2-dichloroethane	0.404	0.379	6.2	83	0.00	11.69
61		n-butyl alcohol	0.006	0.007#	-16.7	92	0.00	12.16
62		ethyl acrylate	0.262	0.283	-8.0	88	0.00	12.40
63	M	trichloroethene	0.314	0.325	-3.5	89	0.00	12.39
64	M	2-chloroethyl vinyl ether	0.072	0.075	-4.2	90	0.00	12.69
65		2-nitropropane		----------NA----------				
66	M	methylcyclohexane	0.649	0.694	-6.9	94	0.00	12.68
67	M	methyl methacrylate		----------NA----------				
68	M	1,2-dichloropropane	0.353	0.373	-5.7	90	0.00	12.69
69	M	dibromomethane	0.153	0.152	0.7	85	0.00	12.79
70	M	bromodichloromethane	0.397	0.401	-1.0	86	0.00	12.95
71		epichlorohydrin	0.020	0.022#	-10.0	91	0.00	13.28
72	M	cis-1,3-dichloropropene	0.489	0.515	-5.3	89	0.00	13.40
73	M	4-methyl-2-pentanone	0.081	0.097	-19.8	93	0.00	13.50
74	M	3-methyl-1-butanol	0.010	0.012#	-20.0	93	0.00	13.51
75	I	chlorobenzene-d5	1.000	1.000	0.0	86	0.00	15.11
76	S	toluene-d8 (s)	1.306	1.384	-6.0	92	0.00	13.69
77		toluene	0.911	0.915	-0.4	92	0.00	13.76
78		ethyl methacrylate		----------NA----------				
79		trans-1,3-dichloropropene	0.480	0.471	1.9	86	0.00	13.95
80		1,1,2-trichloroethane	0.206	0.219	-6.3	91	0.00	14.16
81	M	2-hexanone	0.091	0.097	-6.6	85	0.00	14.31
82	M	tetrachloroethene	0.331	0.317	4.2	87	0.00	14.28
83	M	1,3-dichloropropane	0.454	0.461	-1.5	88	0.00	14.33
84	M	butyl acetate	0.170	0.193	-13.5	94	0.00	14.38
85	M	dibromochloromethane	0.249	0.246	1.2	85	0.00	14.56
86	M	1,2-dibromoethane	0.225	0.240	-6.7	87	0.00	14.70
87	M	n-butyl ether	1.689	1.789	-5.9	92	0.00	15.09
88	M	chlorobenzene	0.935	0.904	3.3	87	0.00	15.14
89	M	1,1,1,2-tetrachloroethane	0.303	0.289	4.6	83	0.00	15.20
90	M	ethylbenzene	1.775	1.770	0.3	90	0.00	15.19
91	M	m,p-xylene	0.642	0.652	-1.6	90	0.00	15.30
92	M	o-xylene	1.379	1.383	-0.3	89	0.00	15.66
93	M	styrene	0.954	1.015	-6.4	88	0.00	15.67
94		butyl acrylate	0.531	0.528	0.6	87	0.00	15.50
95	M	bromoform	0.142	0.138	2.8	83	0.00	15.89
96		isopropylbenzene	1.696	1.688	0.5	90	0.00	15.96
97		cis-1,4-dichloro-2-butene	0.101	0.103	-2.0	85	0.00	16.00
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	87	0.00	17.15

Continuing Calibration Summary

Job Number: JC66384 **Sample:** VC8227-CC8199
Account: BBLNYS Arcadis **Lab FileID:** C221999.D
Project: National Grid, Philly Coke, Philadelphia PA

99	S	4-bromofluorobenzene (s)	0.712	0.720	-1.1	87	0.00	16.15
100	M	bromobenzene	0.762	0.725	4.9	84	0.00	16.31
101	M	1,1,2,2-tetrachloroethane	0.666	0.686	-3.0	90	0.00	16.21
102	M	trans-1,4-dichloro-2-bute		----------NA----------				
103	M	1,2,3-trichloropropane	0.165	0.172	-4.2	88	0.00	16.29
104	M	n-propylbenzene	4.417	4.409	0.2	91	0.00	16.32
105	M	2-chlorotoluene	0.816	0.791	3.1	87	0.00	16.44
106	M	4-chlorotoluene	2.511	2.521	-0.4	90	0.00	16.54
107	M	1,3,5-trimethylbenzene	2.965	2.950	0.5	90	0.00	16.45
108	M	tert-butylbenzene	0.595	0.572	3.9	85	0.00	16.75
109	M	1,2,4-trimethylbenzene	2.952	2.974	-0.7	90	0.00	16.79
110	M	sec-butylbenzene	3.951	3.910	1.0	90	0.00	16.93
111	M	1,3-dichlorobenzene	1.539	1.460	5.1	87	0.00	17.09
112	M	p-isopropyltoluene	3.164	3.137	0.9	91	0.00	17.04
113	M	1,4-dichlorobenzene	1.589	1.471	7.4	86	0.00	17.17
114		benzyl chloride	1.228	1.293	-5.3	92	0.00	17.24
115	M	1,2-dichlorobenzene	1.457	1.352	7.2	85	0.00	17.48
116	M	n-butylbenzene	1.782	1.785	-0.2	92	0.00	17.38
117		hexachloroethane		----------NA----------				
118	M	1,2-dibromo-3-chloropropa	0.108	0.114	-5.6	88	0.00	18.11
119	m	1,3,5-trichlorobenzene	1.286	1.162	9.6	86	0.00	18.25
		----------	True	Calc.	% Drift	----------		
120		nitrobenzene		----------NA----------				
121		2-ethylhexyl acrylate	4.000	3.660	8.5	98	0.00	18.74
		----------	AvgRF	CCRF	% Dev	----------		
122	M	1,2,4-trichlorobenzene	1.018	0.939	7.8	85	0.00	18.80
123	M	hexachlorobutadiene	0.569	0.535	6.0	83	0.00	18.88
124	M	naphthalene	1.955	1.942	0.7	89	0.00	19.07
125	M	1,2,3-trichlorobenzene	0.901	0.847	6.0	86	0.00	19.26
126	M	2-methylnaphthalene	1.014	0.907	10.6	90	-0.01	20.13

(#) = Out of Range SPCC's out = 0 CCC's out = 0
C221533.D MC8199S.M Tue May 22 00:35:50 2018

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222006.d
Acq On : 19 May 2018 3:24 pm
Operator : RobertS
Sample : JC66384-1 Inst : MSC
Misc : MS26459,VC8227,6.1,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:52:52 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

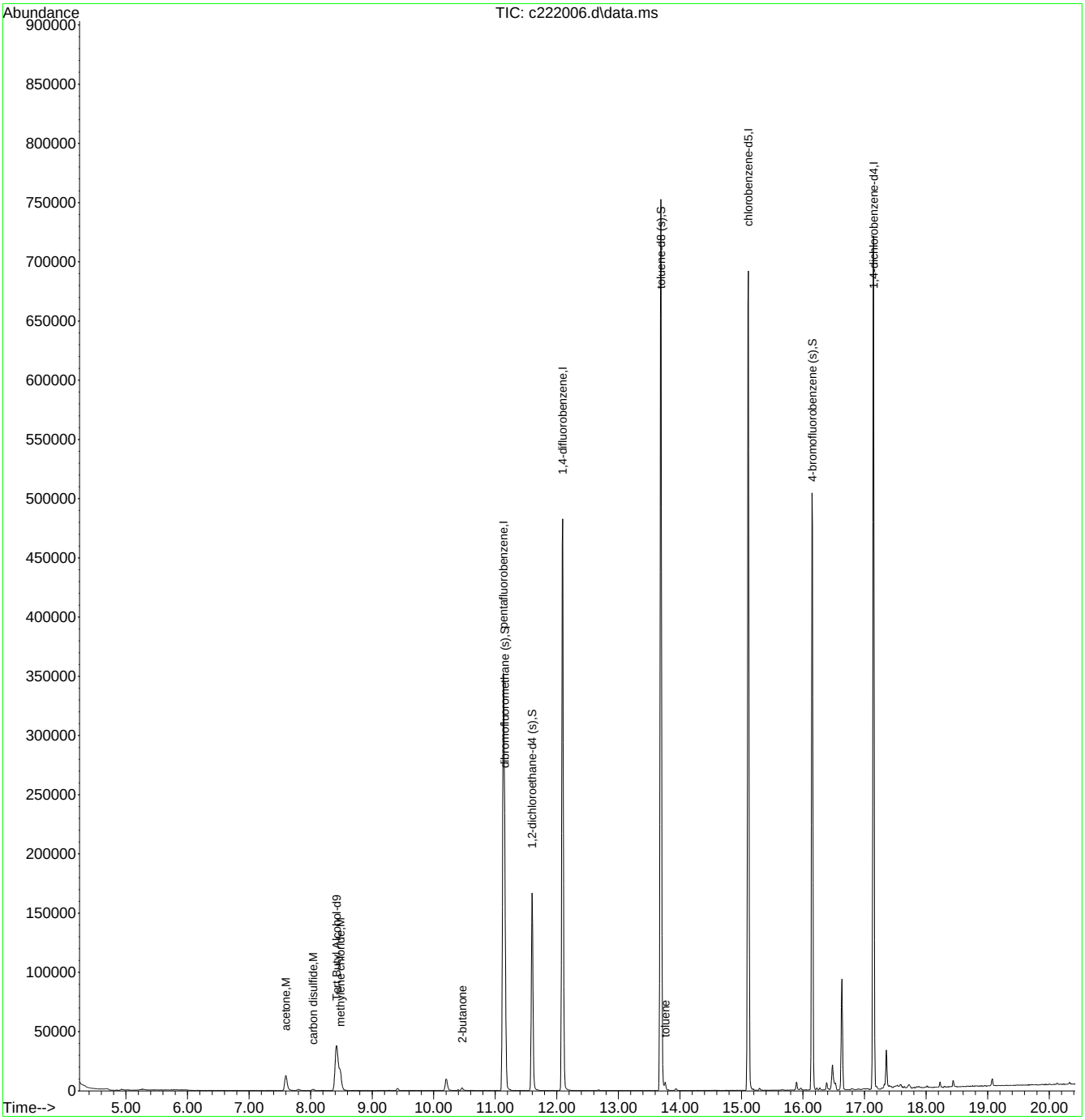
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.422	65	80326	500.00	ug/L	0.00
5) pentafluorobenzene	11.131	168	206744	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.094	114	358780	50.00	ug/L	0.00
75) chlorobenzene-d5	15.112	117	330809	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.146	152	153551	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.152	113	98013	55.25	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 110.50%			
54) 1,2-dichloroethane-d4 (s)	11.597	65	111902	53.04	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 106.08%			
76) toluene-d8 (s)	13.689	98	454093	52.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.12%			
99) 4-bromofluorobenzene (s)	16.152	174	113385	51.87	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 103.74%			
Target Compounds						Qvalue
20) acetone	7.596	43	25337	37.12	ug/L	97
23) carbon disulfide	8.040	76	2536	0.34	ug/L	89
24) methylene chloride	8.485	84	7768	3.47	ug/L	96
35) 2-butanone	10.462	72	656	3.74	ug/L #	33
77) toluene	13.762	92	2413	0.40	ug/L	95

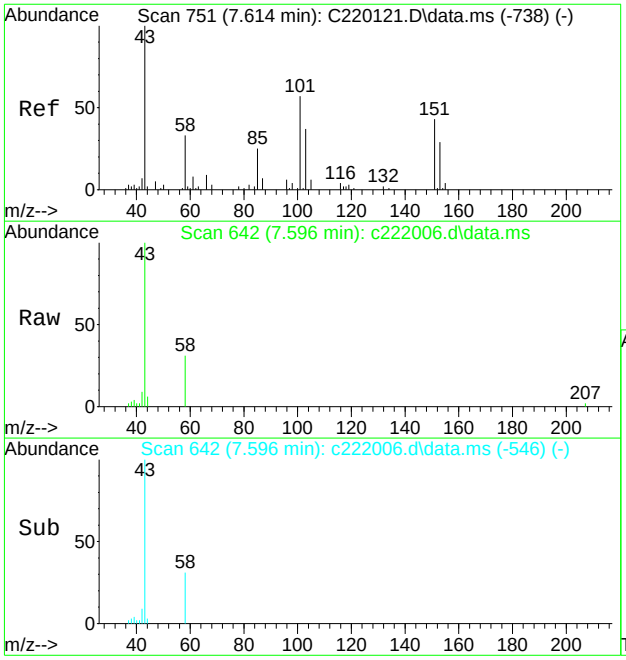
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222006.d
Acq On : 19 May 2018 3:24 pm
Operator : RobertS
Sample : JC66384-1 Inst : MSC
Misc : MS26459,VC8227,6.1,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:52:52 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

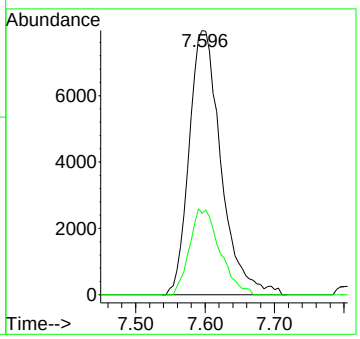


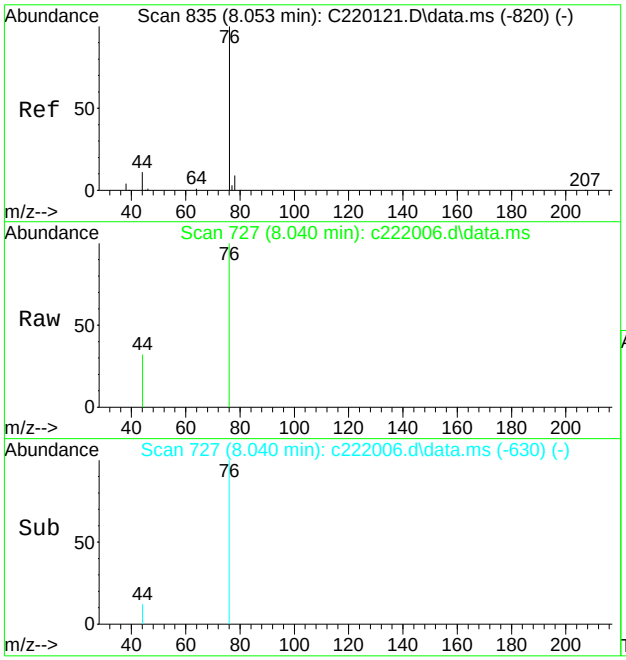


#20
acetone
Concen: 37.12 ug/L
RT: 7.596 min Scan# 642
Delta R.T. 0.001 min
Lab File: c222006.d
Acq: 19 May 2018 3:24 pm

Tgt Ion: 43 Resp: 25337

Ion	Ratio	Lower	Upper
43	100		
58	30.8	0.0	59.1

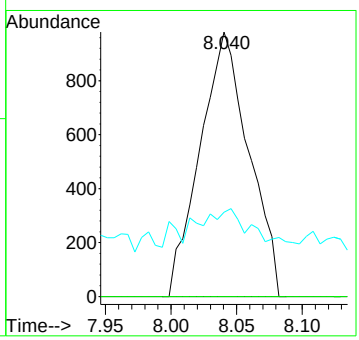


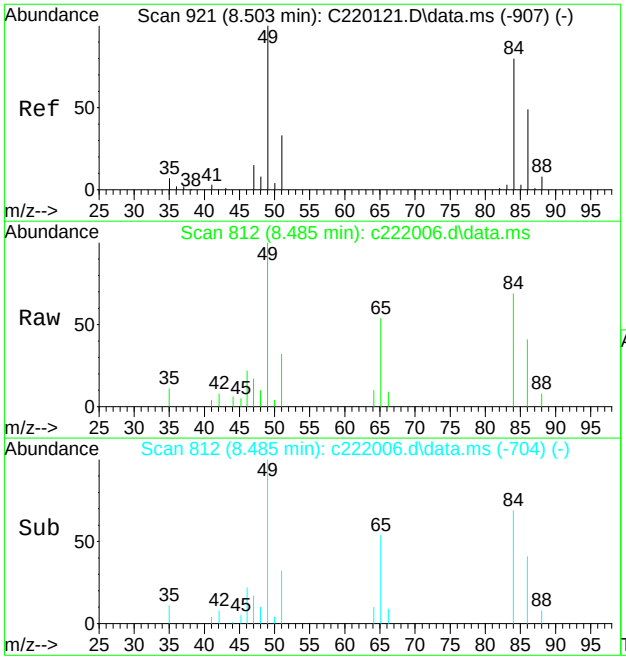


#23
carbon disulfide
Concen: 0.34 ug/L
RT: 8.040 min Scan# 727
Delta R.T. 0.006 min
Lab File: c222006.d
Acq: 19 May 2018 3:24 pm

Tgt Ion: 76 Resp: 2536

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.1
44	13.3	0.0	44.4

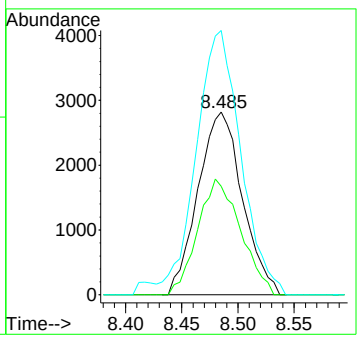


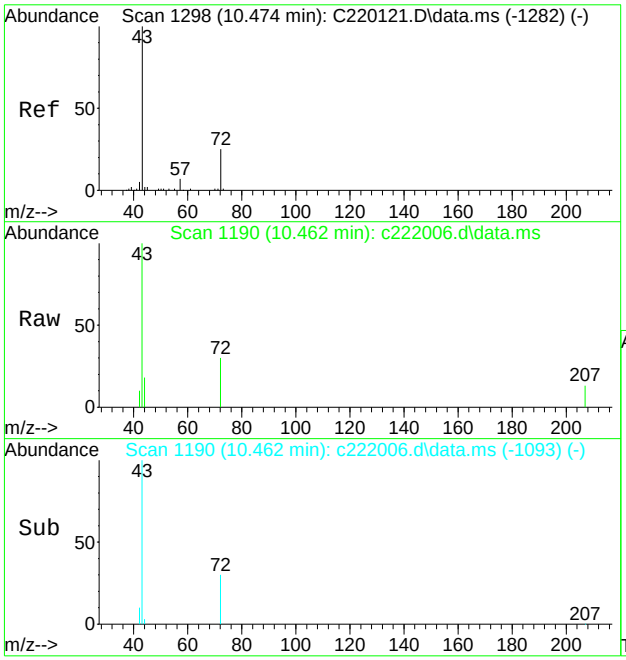


#24
methylene chloride
Concen: 3.47 ug/L
RT: 8.485 min Scan# 812
Delta R.T. 0.006 min
Lab File: c222006.d
Acq: 19 May 2018 3:24 pm

Tgt Ion: 84 Resp: 7768

Ion	Ratio	Lower	Upper
84	100		
86	59.3	44.6	82.8
49	144.6	98.6	183.0

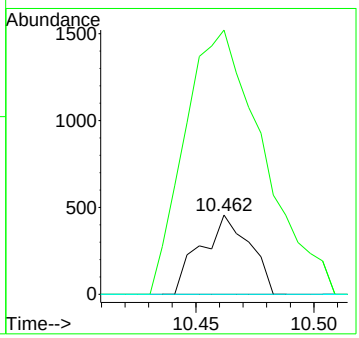


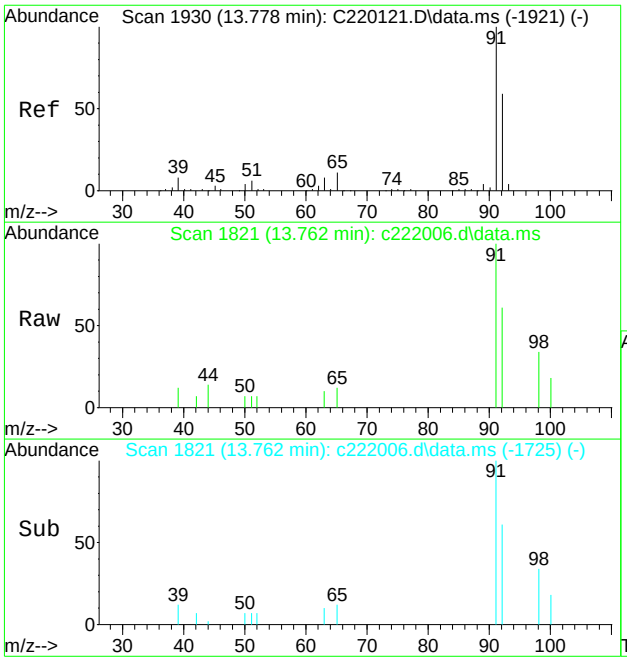


#35
2-butanone
Concen: 3.74 ug/L
RT: 10.462 min Scan# 1190
Delta R.T. 0.007 min
Lab File: c222006.d
Acq: 19 May 2018 3:24 pm

Tgt Ion: 72 Resp: 656

Ion	Ratio	Lower	Upper
72	100		
43	273.2	425.7	465.7#
57	0.0	13.0	53.0#

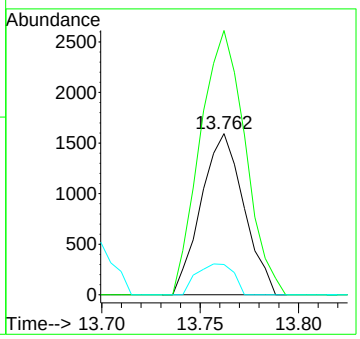




#77
toluene
Concen: 0.40 ug/L
RT: 13.762 min Scan# 1821
Delta R.T. 0.003 min
Lab File: c222006.d
Acq: 19 May 2018 3:24 pm

Tgt Ion: 92 Resp: 2413

Ion	Ratio	Lower	Upper
92	100		
91	164.0	150.3	190.3
65	18.9	1.2	41.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222007.d
Acq On : 19 May 2018 3:53 pm
Operator : RobertS
Sample : JC66384-2 Inst : MSC
Misc : MS26459,VC8227,5.9,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:53:35 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

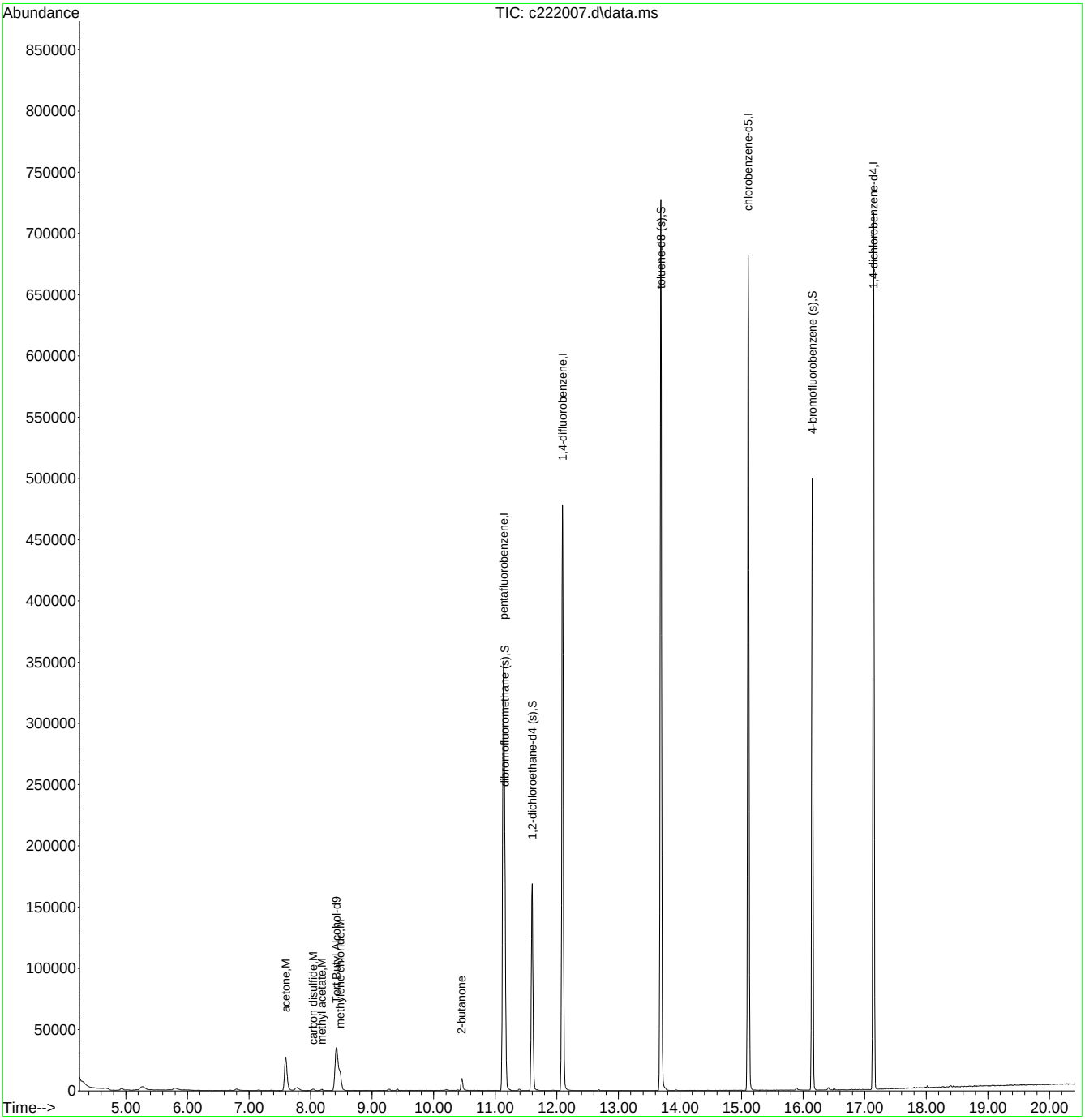
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.419	65	73975	500.00	ug/L	0.00
5) pentafluorobenzene	11.134	168	204149	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.091	114	352845	50.00	ug/L	0.00
75) chlorobenzene-d5	15.109	117	325368	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.143	152	149701	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.155	113	98436	56.20	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 112.40%			
54) 1,2-dichloroethane-d4 (s)	11.599	65	112824	54.38	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 108.76%			
76) toluene-d8 (s)	13.691	98	447507	52.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.32%			
99) 4-bromofluorobenzene (s)	16.150	174	110193	51.71	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 103.42%			
Target Compounds						Qvalue
20) acetone	7.598	43	52875	78.44	ug/L	96
23) carbon disulfide	8.043	76	2973	0.41	ug/L	87
24) methylene chloride	8.482	84	6678	3.02	ug/L	92
25) methyl acetate	8.184	43	2271	2.12	ug/L	94
35) 2-butanone	10.454	72	3445	19.91	ug/L #	86

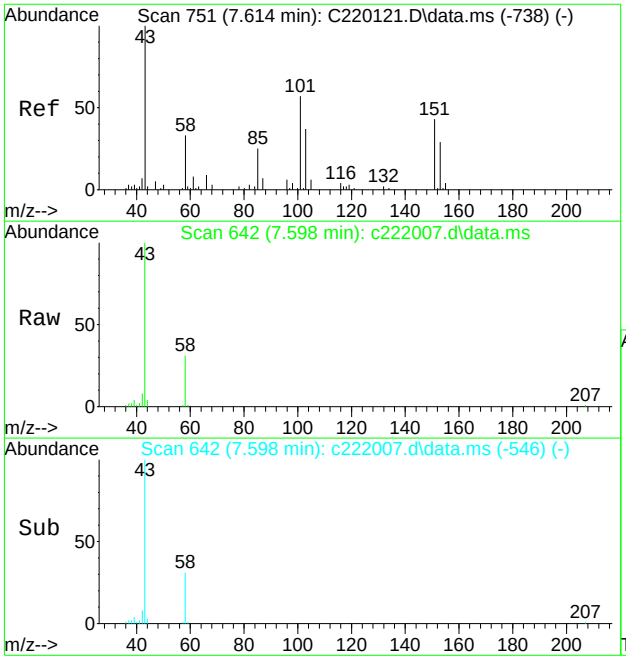
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222007.d
Acq On : 19 May 2018 3:53 pm
Operator : RobertS
Sample : JC66384-2 Inst : MSC
Misc : MS26459,VC8227,5.9,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:53:35 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

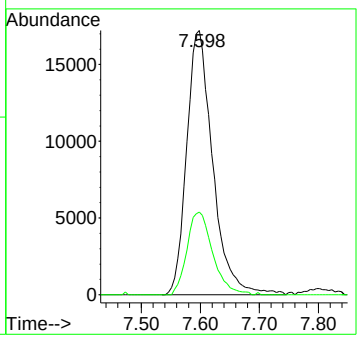


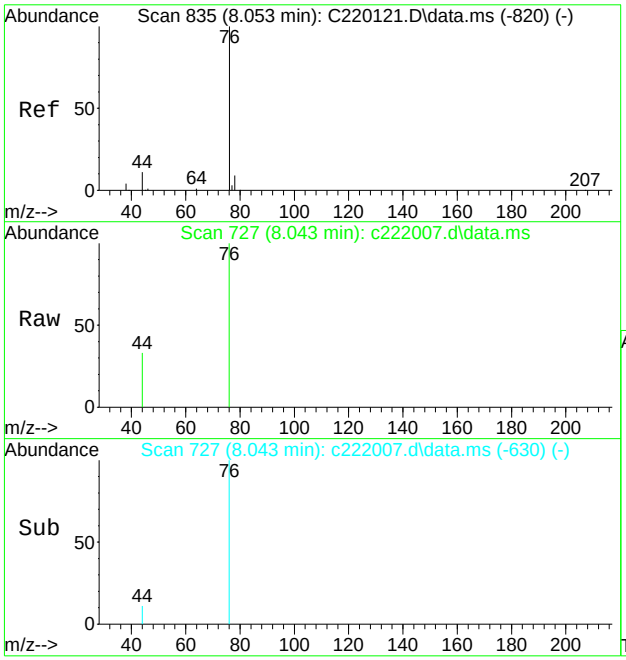


#20
acetone
Concen: 78.44 ug/L
RT: 7.598 min Scan# 642
Delta R.T. 0.003 min
Lab File: c222007.d
Acq: 19 May 2018 3:53 pm

Tgt Ion: 43 Resp: 52875

Ion	Ratio	Lower	Upper
43	100		
58	31.2	0.0	59.1

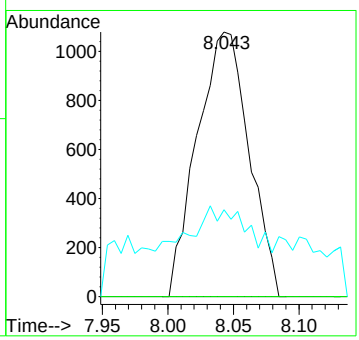


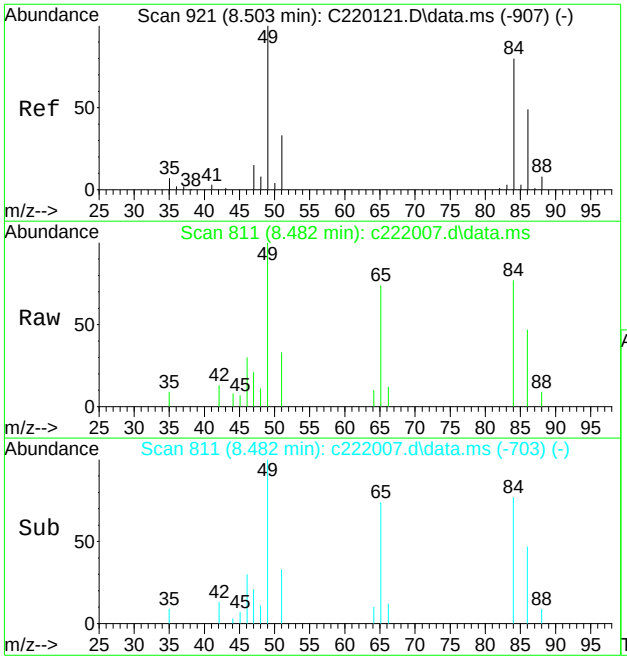


#23
carbon disulfide
Concen: 0.41 ug/L
RT: 8.043 min Scan# 727
Delta R.T. 0.009 min
Lab File: c222007.d
Acq: 19 May 2018 3:53 pm

Tgt Ion: 76 Resp: 2973

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.1
44	11.9	0.0	44.4

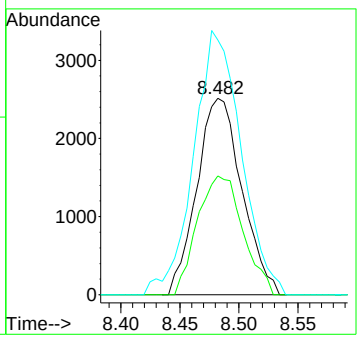


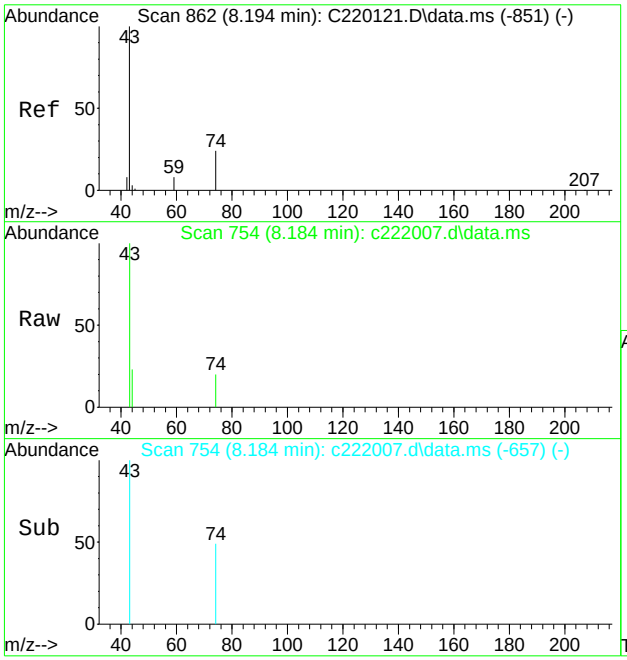


#24
methylene chloride
Concen: 3.02 ug/L
RT: 8.482 min Scan# 811
Delta R.T. 0.004 min
Lab File: c222007.d
Acq: 19 May 2018 3:53 pm

Tgt Ion: 84 Resp: 6678

Ion	Ratio	Lower	Upper
84	100		
86	60.4	44.6	82.8
49	129.6	98.6	183.0

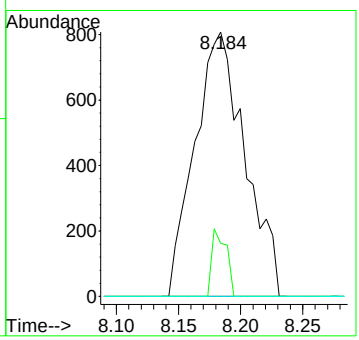


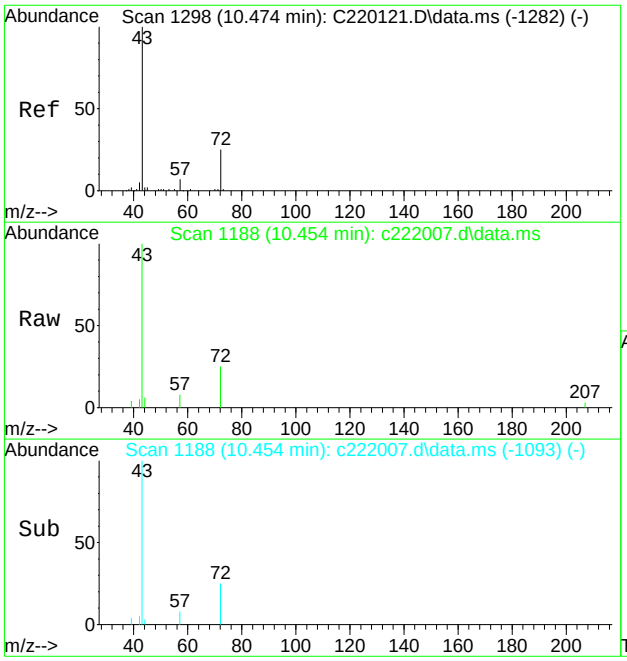


#25
methyl acetate
Concen: 2.12 ug/L
RT: 8.184 min Scan# 754
Delta R.T. 0.009 min
Lab File: c222007.d
Acq: 19 May 2018 3:53 pm

Tgt Ion: 43 Resp: 2271

Ion	Ratio	Lower	Upper
43	100		
74	20.0	0.0	50.1
59	0.0	0.0	37.5

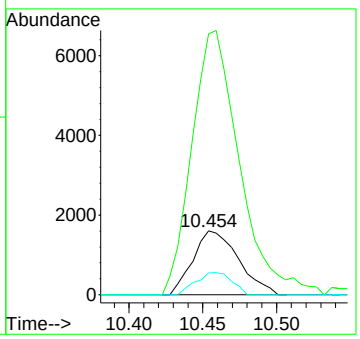




#35
2-butanone
Concen: 19.91 ug/L
RT: 10.454 min Scan# 1188
Delta R.T. -0.001 min
Lab File: c222007.d
Acq: 19 May 2018 3:53 pm

Tgt Ion: 72 Resp: 3445

Ion	Ratio	Lower	Upper
72	100		
43	408.0	425.7	465.7#
57	34.3	13.0	53.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175680.d
Acq On : 19 May 2018 5:04 pm
Operator : oyinadei
Sample : jc66384-3 Inst : MS2D
Misc : MS26472,V2D7409,5,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:12:05 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

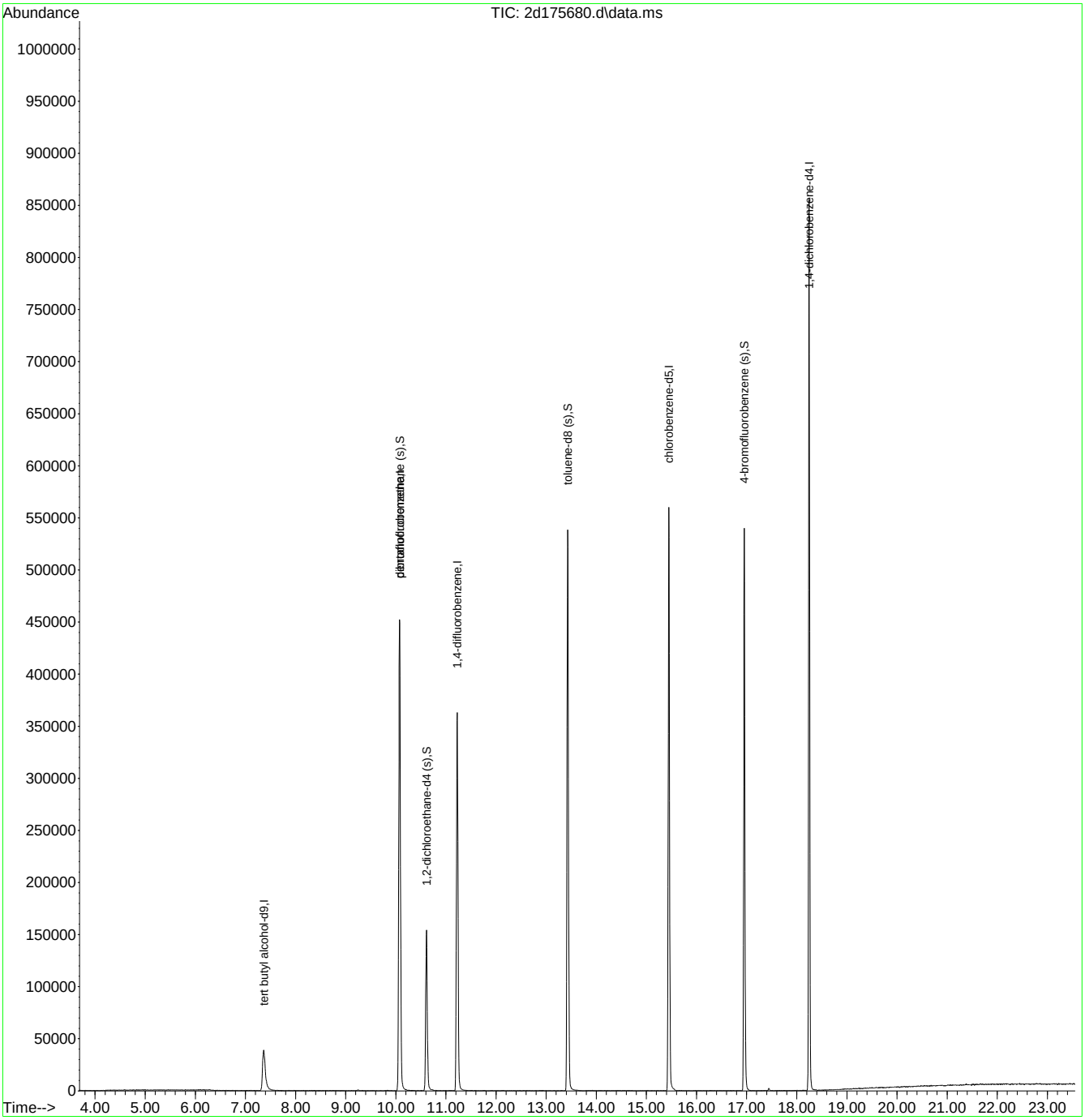
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.367	65	91257	500.00	ug/L	-0.02
5) pentafluorobenzene	10.078	168	256668	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	349763	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	355225	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	213957	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	118052	53.39	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.78%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	131840	54.88	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.76%			
77) toluene-d8 (s)	13.428	98	413504	50.06	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%			
100) 4-bromofluorobenzene (s)	16.952	95	173323	50.49	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.98%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175680.d
Acq On : 19 May 2018 5:04 pm
Operator : oyinadei
Sample : jc66384-3 Inst : MS2D
Misc : MS26472,V2D7409,5,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:12:05 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-22-18\michellc\v1c6921_h\
Data File : 1c156909.d
Acq On : 21 May 2018 1:57 pm
Operator : prashans
Sample : JC66384-4 Inst : GCMS1C
Misc : MS26459,V1C6921,4.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 30 16:03:49 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

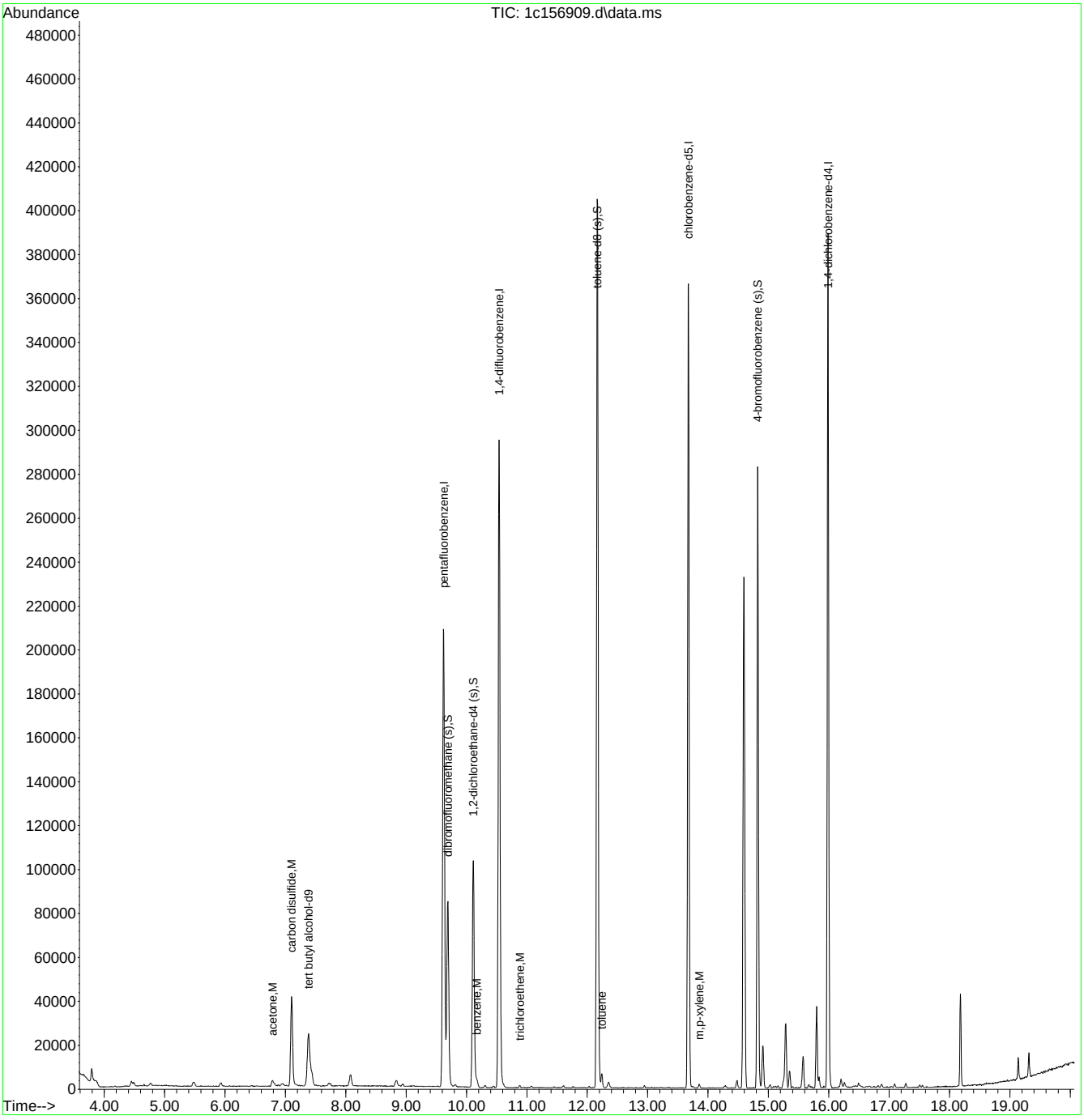
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	45864	500.00	ug/L	0.00
5) pentafluorobenzene	9.623	168	174224	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.538	114	271967	50.00	ug/L	0.00
76) chlorobenzene-d5	13.676	117	209415	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.988	152	100537	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.691	113	60383	37.83	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 75.66%			
55) 1,2-dichloroethane-d4 (s)	10.109	65	80920	48.13	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 96.26%			
77) toluene-d8 (s)	12.165	98	300353	50.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.82%			
100) 4-bromofluorobenzene (s)	14.822	95	97375	48.59	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 97.18%			
Target Compounds						Qvalue
21) acetone	6.788	58	1678	16.34	ug/L	95
24) carbon disulfide	7.102	76	73324	14.23	ug/L	98
58) benzene	10.172	78	3475	0.52	ug/L	99
63) trichloroethene	10.884	130	335	0.18	ug/L	97
78) toluene	12.238	92	3192	0.84	ug/L	88
92) m,p-xylene	13.854	106	607	0.24	ug/L	98

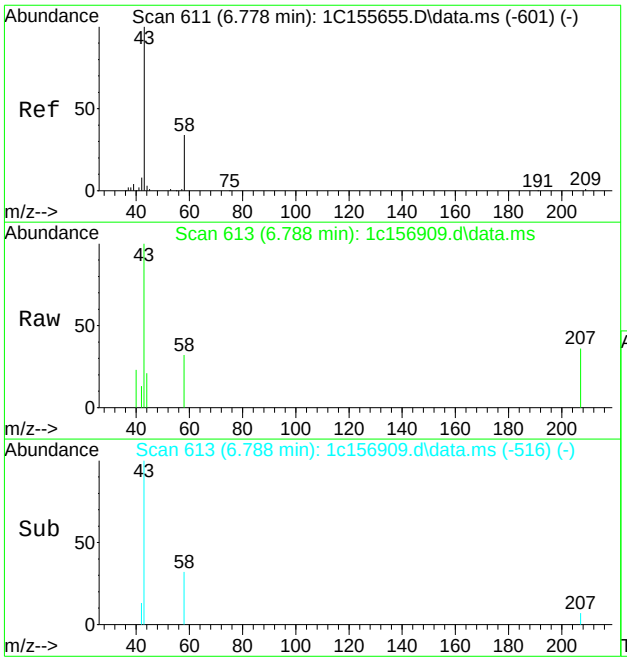
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-22-18\michellc\v1c6921_h\
Data File : 1c156909.d
Acq On : 21 May 2018 1:57 pm
Operator : prashans
Sample : JC66384-4 Inst : GCMS1C
Misc : MS26459,V1C6921,4.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 30 16:03:49 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

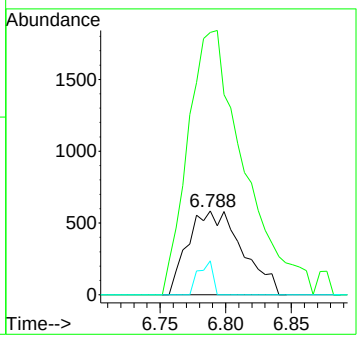


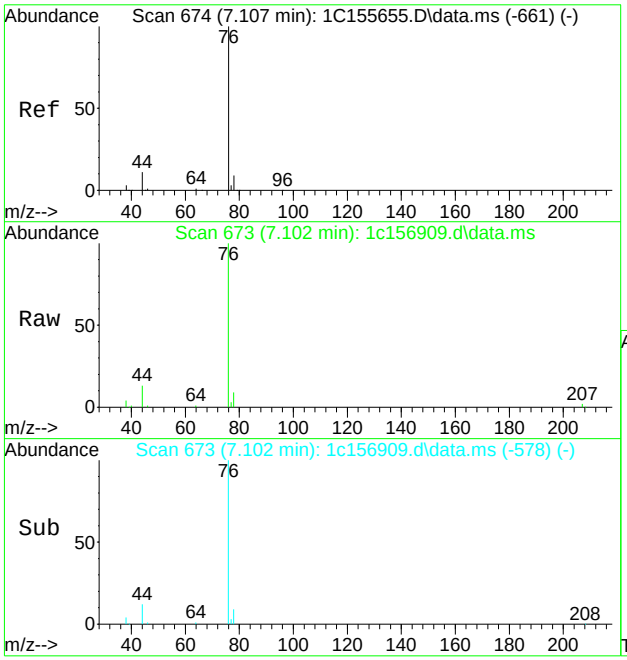


#21
acetone
Concen: 16.34 ug/L
RT: 6.788 min Scan# 613
Delta R.T. 0.005 min
Lab File: 1c156909.d
Acq: 21 May 2018 1:57 pm

Tgt Ion: 58 Resp: 1678

Ion	Ratio	Lower	Upper
58	100		
43	312.3	276.9	336.9
42	40.5	0.0	52.0

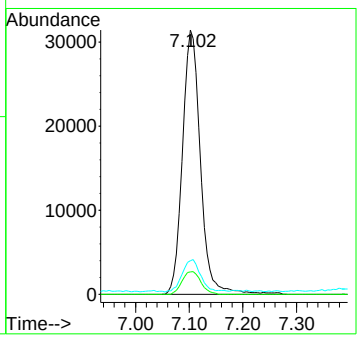


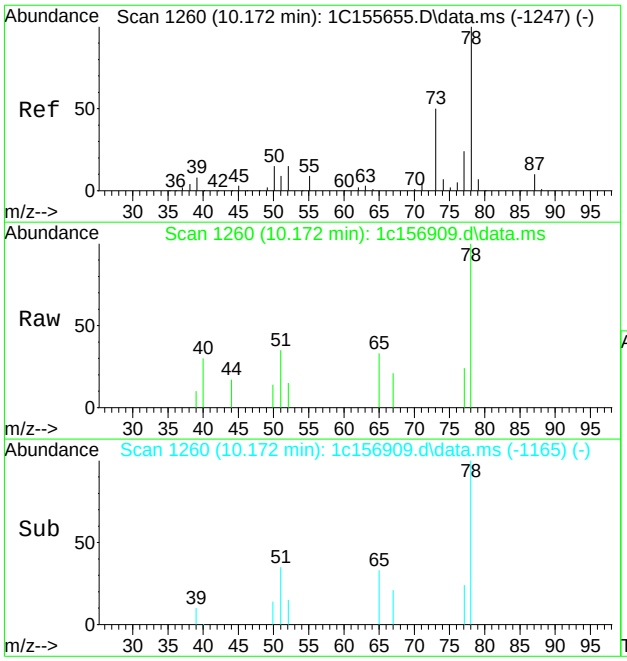


#24
carbon disulfide
Concen: 14.23 ug/L
RT: 7.102 min Scan# 673
Delta R.T. -0.005 min
Lab File: 1c156909.d
Acq: 21 May 2018 1:57 pm

Tgt Ion: 76 Resp: 73324

Ion	Ratio	Lower	Upper
76	100		
78	8.5	0.0	39.3
44	11.5	0.0	42.4

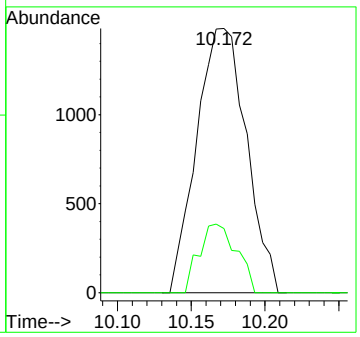


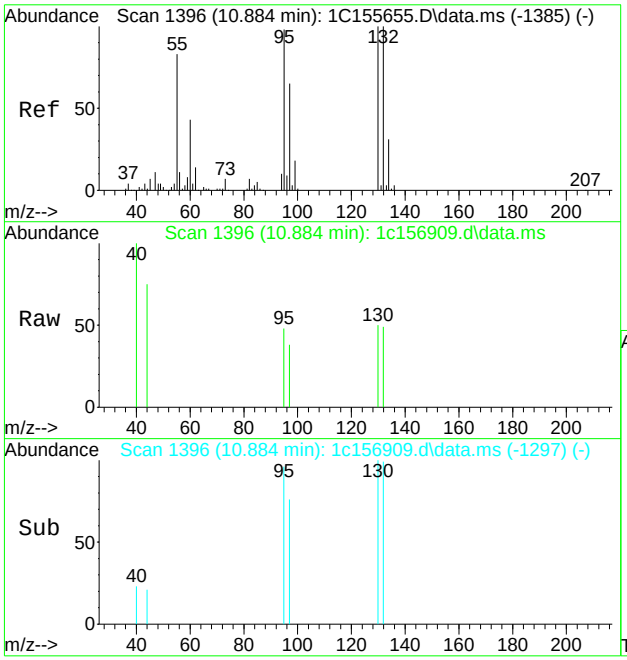


#58
benzene
Concen: 0.52 ug/L
RT: 10.172 min Scan# 1260
Delta R.T. 0.005 min
Lab File: 1c156909.d
Acq: 21 May 2018 1:57 pm

Tgt Ion: 78 Resp: 3475

Ion	Ratio	Lower	Upper
78	100		
77	24.3	0.0	53.8

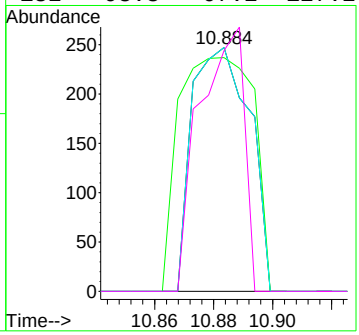


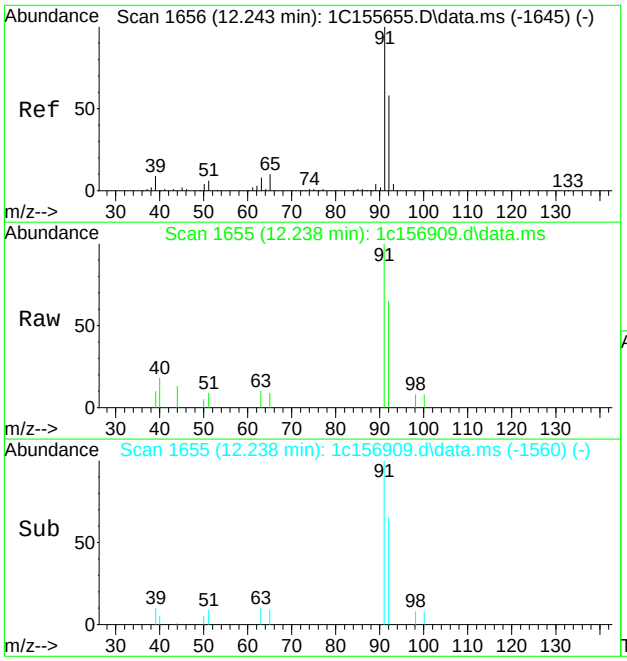


#63
trichloroethene
Concen: 0.18 ug/L
RT: 10.884 min Scan# 1396
Delta R.T. 0.000 min
Lab File: 1c156909.d
Acq: 21 May 2018 1:57 pm

Tgt Ion:130 Resp: 335

Ion	Ratio	Lower	Upper
130	100		
95	96.0	72.1	132.1
130	100.0	70.0	130.0
132	98.8	67.2	127.2

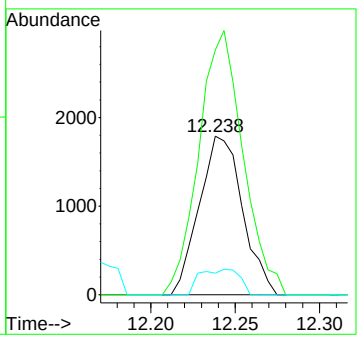


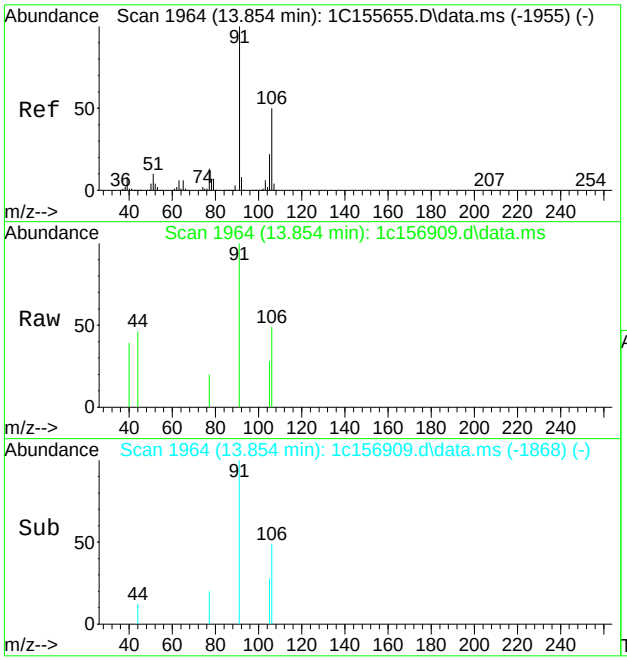


#78
toluene
Concen: 0.84 ug/L
RT: 12.238 min Scan# 1655
Delta R.T. -0.005 min
Lab File: 1c156909.d
Acq: 21 May 2018 1:57 pm

Tgt Ion: 92 Resp: 3192

Ion	Ratio	Lower	Upper
92	100		
91	154.1	150.0	190.0
65	13.6	0.3	40.3

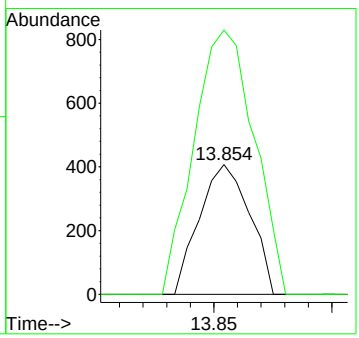




#92
m,p-xylene
Concen: 0.24 ug/L
RT: 13.854 min Scan# 1964
Delta R.T. 0.000 min
Lab File: 1c156909.d
Acq: 21 May 2018 1:57 pm

Tgt Ion:106 Resp: 607

Ion	Ratio	Lower	Upper
106	100		
91	203.9	176.3	236.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175670.d
Acq On : 19 May 2018 11:21 am
Operator : oyinadei
Sample : MB Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:59:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

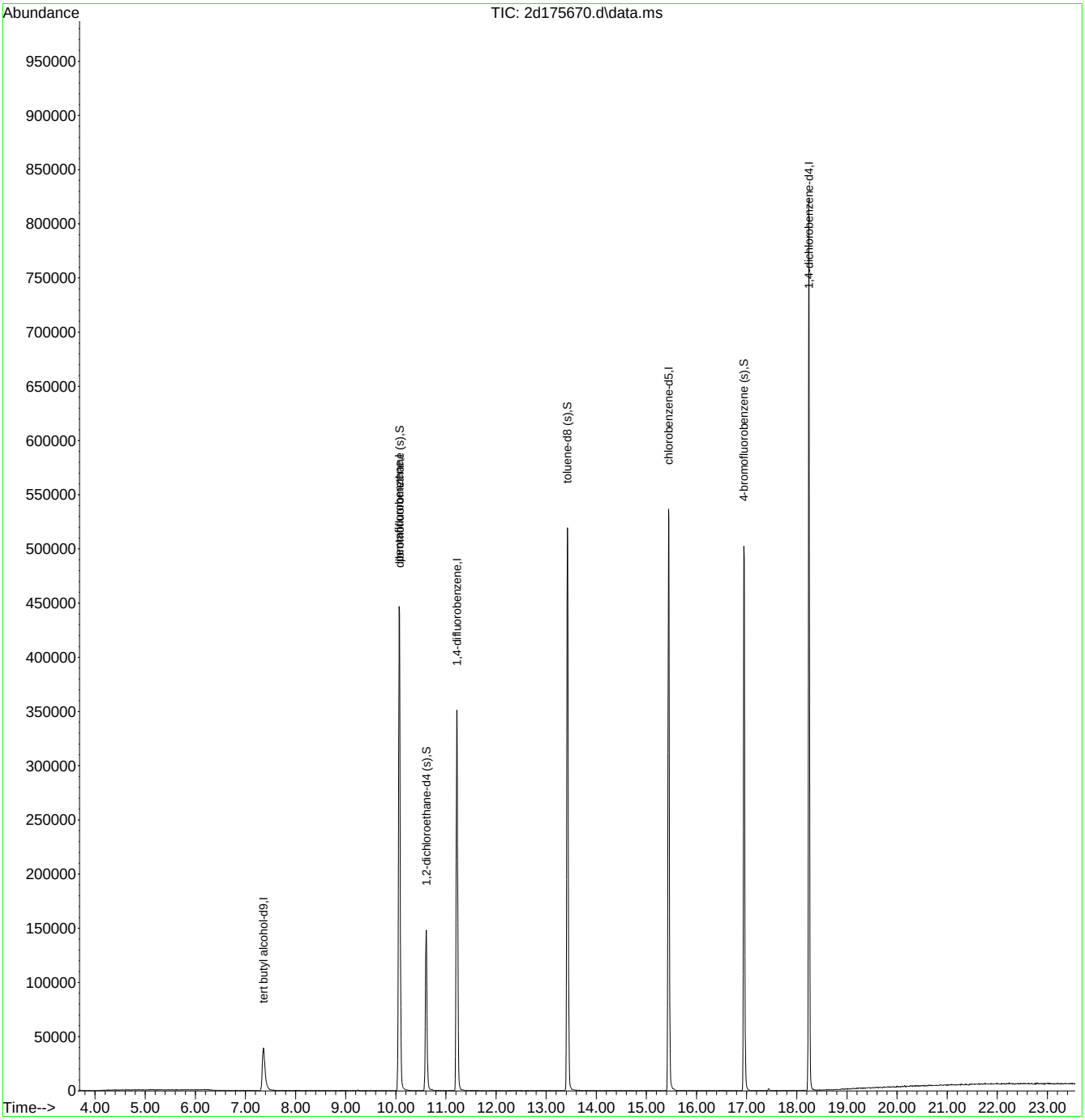
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.357	65	90421	500.00	ug/L	-0.03
5) pentafluorobenzene	10.067	168	252696	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	11.221	114	339473	50.00	ug/L	-0.02
76) chlorobenzene-d5	15.442	117	346684	50.00	ug/L	-0.02
99) 1,4-dichlorobenzene-d4	18.241	152	207095	50.00	ug/L	-0.02
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.073	113	114613	52.65	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.30%			
55) 1,2-dichloroethane-d4 (s)	10.608	65	126090	54.08	ug/L	-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.16%			
77) toluene-d8 (s)	13.423	98	403605	50.06	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%			
100) 4-bromofluorobenzene (s)	16.946	95	163884	49.32	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.64%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175670.d
Acq On : 19 May 2018 11:21 am
Operator : oyinadei
Sample : MB Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:59:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222003.d
Acq On : 19 May 2018 1:58 pm
Operator : RobertS
Sample : MB Inst : MSC
Misc : MS26459,VC8227,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:49:49 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

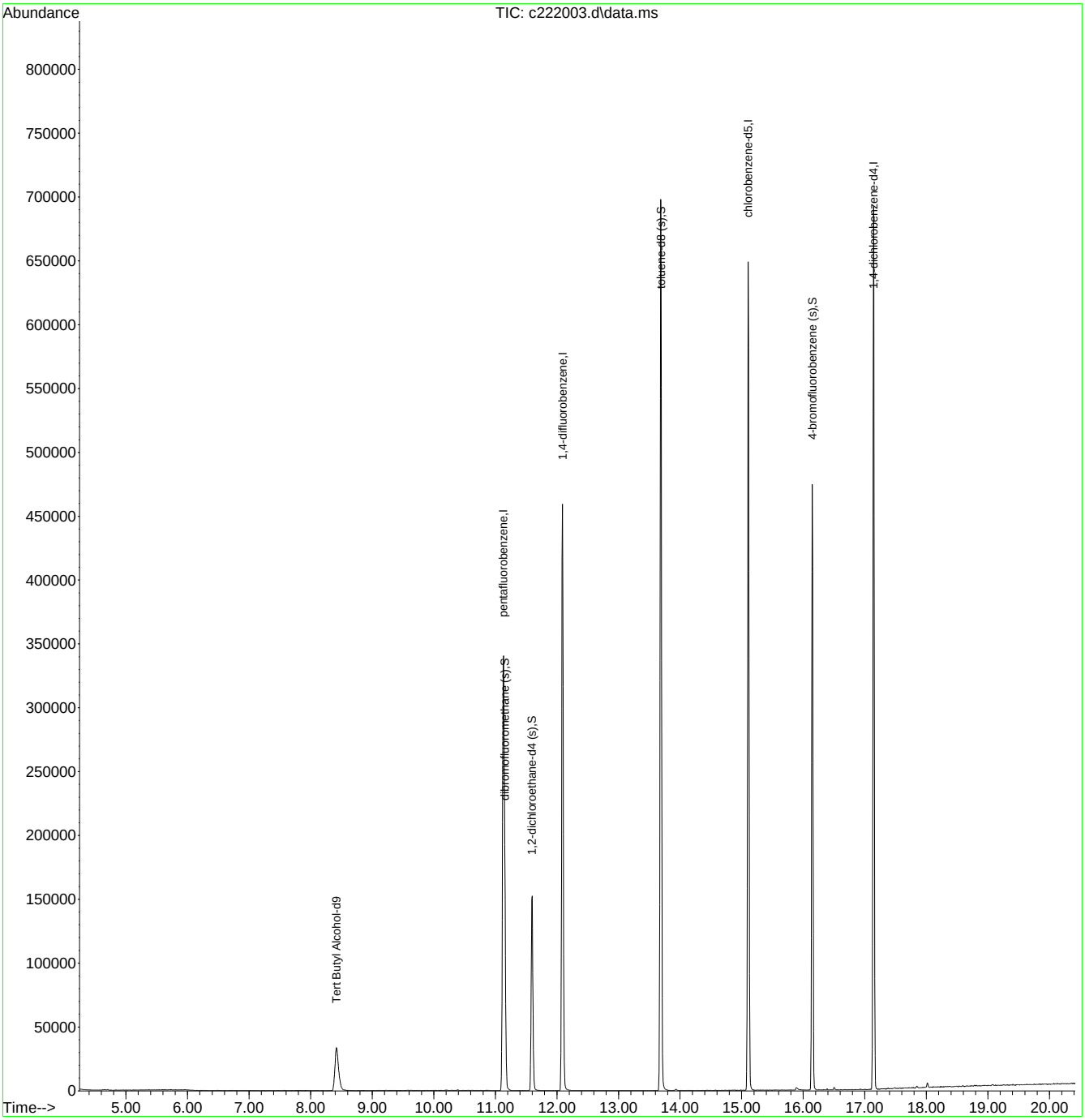
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.418	65	75036	500.00	ug/L	0.00
5) pentafluorobenzene	11.127	168	201964	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.089	114	342028	50.00	ug/L	0.00
75) chlorobenzene-d5	15.107	117	307165	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.141	152	148318	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.153	113	92643	53.46	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 106.92%			
54) 1,2-dichloroethane-d4 (s)	11.592	65	104074	51.75	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 103.50%			
76) toluene-d8 (s)	13.689	98	429638	53.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.12%			
99) 4-bromofluorobenzene (s)	16.148	174	105498	49.96	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.92%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222003.d
Acq On : 19 May 2018 1:58 pm
Operator : RobertS
Sample : MB Inst : MSC
Misc : MS26459,VC8227,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:49:49 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156900.d
Acq On : 21 May 2018 9:57 am
Operator : prashans
Sample : MB Inst : GCMS1C
Misc : MS26476,V1C6921,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:34:33 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

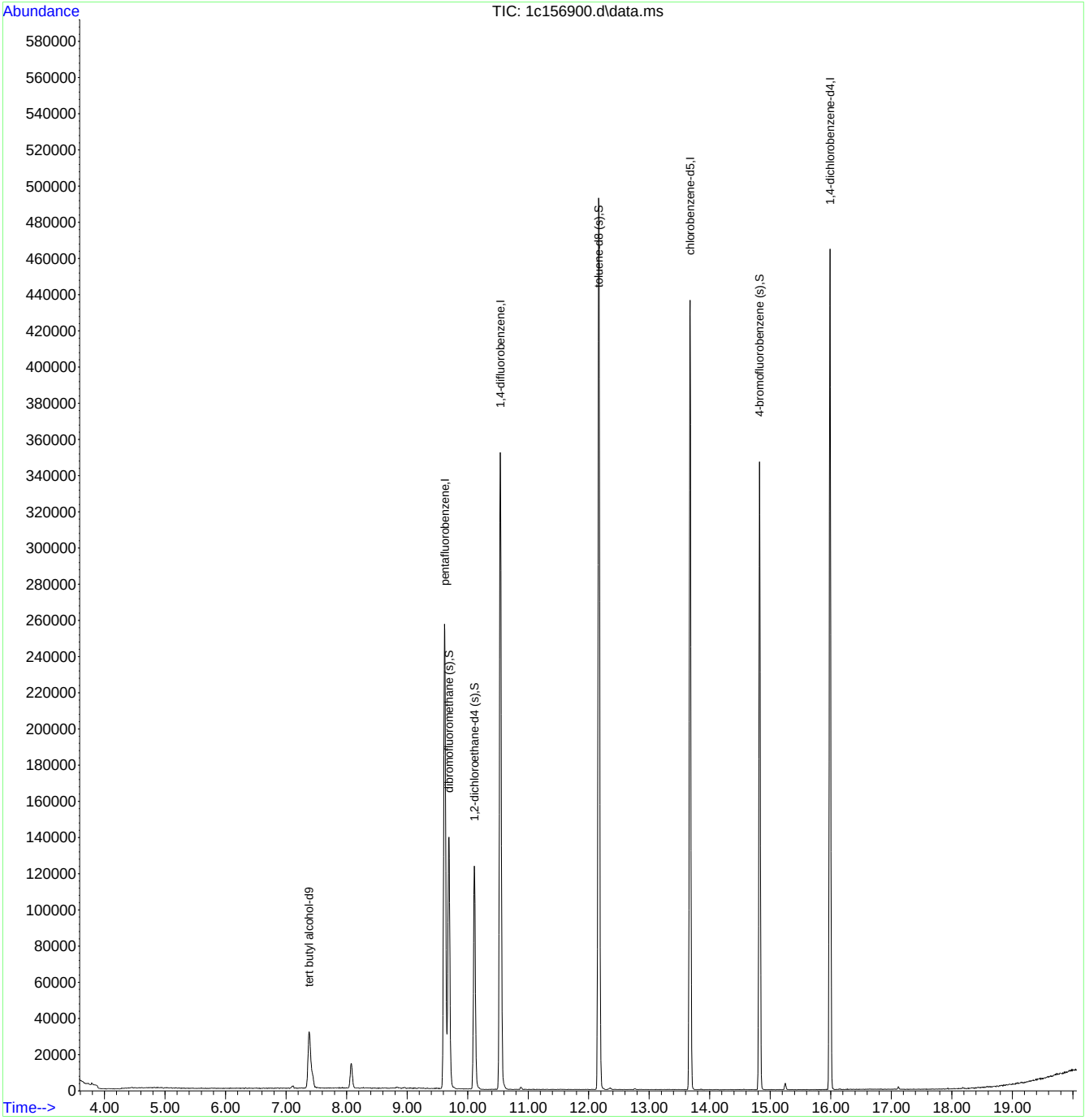
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.379	65	62421	500.00	ug/L	-0.01
5) pentafluorobenzene	9.623	168	215479	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.538	114	326973	50.00	ug/L	0.00
76) chlorobenzene-d5	13.677	117	248489	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.988	152	120458	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.691	113	100329	50.83	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 101.66%			
55) 1,2-dichloroethane-d4 (s)	10.109	65	95900	47.45	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 94.90%			
77) toluene-d8 (s)	12.165	98	356766	50.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.92%			
100) 4-bromofluorobenzene (s)	14.822	95	117749	49.04	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 98.08%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156900.d
Acq On : 21 May 2018 9:57 am
Operator : prashans
Sample : MB Inst : GCMS1C
Misc : MS26476,V1C6921,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:34:33 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175668.d
Acq On : 19 May 2018 10:20 am
Operator : oyinadei
Sample : BS Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:58:29 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.352	65	89185	500.00	ug/L		-0.04
5) pentafluorobenzene	10.068	168	244544	50.00	ug/L		-0.02
54) 1,4-difluorobenzene	11.216	114	333428	50.00	ug/L		-0.02
76) chlorobenzene-d5	15.442	117	344754	50.00	ug/L		-0.02
99) 1,4-dichlorobenzene-d4	18.241	152	221934	50.00	ug/L		-0.02
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.068	113	112730	53.51	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.02%				
55) 1,2-dichloroethane-d4 (s)	10.602	65	125109	54.63	ug/L		-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.26%				
77) toluene-d8 (s)	13.423	98	394468	49.20	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.40%				
100) 4-bromofluorobenzene (s)	16.946	95	168761	47.40	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.80%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.493	59	43544	257.68	ug/L		96
3) ethanol	5.983	45	86555	5656.84	ug/L		97
4) 1,4-dioxane	12.154	88	21039	1258.61	ug/L		97
6) chlorodifluoromethane	3.870	51	120959	52.48	ug/L		95
7) dichlorodifluoromethane	3.849	85	192810	70.92	ug/L		99
10) chloromethane	4.243	50	169279	55.10	ug/L		99
11) vinyl chloride	4.473	62	151253	55.99	ug/L		99
12) bromomethane	5.102	94	99142	52.24	ug/L		96
13) chloroethane	5.254	64	73015	51.53	ug/L		98
14) trichlorofluoromethane	5.753	101	189139	61.93	ug/L		96
15) vinyl bromide	5.627	106	94504	46.69	ug/L		98
17) ethyl ether	6.172	74	41995	44.22	ug/L		93
18) acrolein	6.408	56	15786	40.55	ug/L		99
19) 1,1-dichloroethene	6.597	96	88012	47.76	ug/L		98
20) freon 113	6.597	151	83368	53.88	ug/L		98
21) 2-chloropropane	6.361	43	144362	46.63	ug/L		93
22) acetone	6.654	58	24926	190.66	ug/L		92
23) acetonitrile	7.111	41	108537	495.53	ug/L		98
24) iodomethane	6.885	142	153658	49.20	ug/L		96
25) carbon disulfide	7.016	76	276962	46.90	ug/L		98
26) methylene chloride	7.373	84	97146	47.64	ug/L		98
27) methyl acetate	7.173	43	62987	48.57	ug/L		98
28) methyl tert butyl ether	7.797	73	253835	47.36	ug/L		98
29) trans-1,2-dichloroethene	7.808	96	89139	47.71	ug/L		96
30) hexane	8.206	57	112273	45.96	ug/L		97
31) di-isopropyl ether	8.516	45	303153	47.21	ug/L		94
32) 2-butanone	9.344	72	32325	191.17	ug/L		99
33) 1,1-dichloroethane	8.468	63	167048	48.08	ug/L		97
34) chloroprene	8.610	53	136817	49.49	ug/L		99
35) acrylonitrile	7.750	53	30050	47.86	ug/L		93
36) vinyl acetate	8.484	86	13056	43.24	ug/L		98
37) ethyl tert-butyl ether	9.082	59	289843	48.18	ug/L		98
38) ethyl acetate	9.391	45	10152	44.23	ug/L	#	29
39) 2,2-dichloropropane	9.386	77	144812	52.36	ug/L		95
40) cis-1,2-dichloroethene	9.360	96	101398	48.46	ug/L		99
41) propionitrile	9.449	54	121335	454.98	ug/L		97
42) tert-Butyl Formate	9.905	59	86460	46.84	ug/L		93
43) bromochloromethane	9.732	128	50644	48.28	ug/L		98
44) tetrahydrofuran	9.805	72	10441	47.71	ug/L		98

SGS JC66384

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175668.d
Acq On : 19 May 2018 10:20 am
Operator : oyinadei
Sample : BS Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:58:29 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.821	83	171415	51.15	ug/L		98
47) methacrylonitrile	9.685	67	31579	45.96	ug/L		94
48) 1,1,1-trichloroethane	10.157	97	167242	54.02	ug/L		97
49) cyclohexane	10.256	84	138874	53.98	ug/L		95
50) 1,1-dichloropropene	10.382	75	123256	48.17	ug/L		99
51) isobutyl alcohol	10.408	43	33381	417.90	ug/L		97
52) carbon tetrachloride	10.414	117	153492	56.49	ug/L		98
53) tert-amyl alcohol	10.581	73	20490	229.23	ug/L	#	84
56) benzene	10.712	78	353448	47.57	ug/L		98
57) iso-octane	10.786	57	364830	48.83	ug/L		99
58) tert-amyl methyl ether	10.812	73	274193	49.24	ug/L		99
59) heptane	11.017	57	58847	43.54	ug/L		94
60) isopropyl acetate	10.686	87	15465	45.43	ug/L	#	84
61) 1,2-dichloroethane	10.718	62	129017	49.80	ug/L		99
62) n-butyl alcohol	11.389	56	103204	2284.59	ug/L		98
63) ethyl acrylate	11.709	55	94017	43.13	ug/L		99
64) trichloroethene	11.646	130	96205	48.01	ug/L		99
65) 2-nitropropane	12.689	41	18816	50.95	ug/L		96
66) 2-chloroethyl vinyl ether	12.752	63	268259	223.50	ug/L		99
67) methyl methacrylate	12.060	69	53171	46.11	ug/L		98
68) 1,2-dichloropropane	11.992	63	91629	45.99	ug/L		97
69) dibromomethane	12.181	93	57956	49.47	ug/L		99
70) methylcyclohexane	11.966	83	170132	51.41	ug/L		99
71) bromodichloromethane	12.375	83	132336	51.53	ug/L		98
72) epichlorohydrin	12.878	57	37344	218.50	ug/L		97
73) cis-1,3-dichloropropene	13.014	75	153600	47.02	ug/L		97
74) 4-methyl-2-pentanone	13.192	58	121314	178.99	ug/L		93
75) 3-methyl-1-butanol	13.213	55	72558	924.61	ug/L		92
78) toluene	13.518	92	224575	46.21	ug/L		99
79) trans-1,3-dichloropropene	13.780	75	140981	47.23	ug/L		99
80) ethyl methacrylate	13.848	69	110994	44.69	ug/L		98
81) 1,1,2-trichloroethane	14.063	83	69278	46.35	ug/L		99
82) tetrachloroethene	14.304	164	88497	48.50	ug/L		100
83) 1,3-dichloropropane	14.309	76	135120	45.91	ug/L		99
84) 2-hexanone	14.356	58	116609	175.28	ug/L		99
85) butyl acetate	14.487	56	52970	43.63	ug/L		91
86) dibromochloromethane	14.640	129	107662	51.66	ug/L		99
87) 1,2-dibromoethane	14.839	107	96249	47.39	ug/L		100
88) n-butyl ether	15.489	57	414529	45.19	ug/L		98
89) chlorobenzene	15.484	112	272354	47.32	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.568	131	112181	51.98	ug/L		99
91) ethylbenzene	15.594	91	464936	48.23	ug/L		99
92) m,p-xylene	15.741	91	724161	96.57	ug/L		99
93) o-xylene	16.281	106	182876	48.32	ug/L		99
94) styrene	16.291	104	313052	49.08	ug/L		99
95) butyl acrylate	16.118	55	183194	45.20	ug/L		99
96) bromoform	16.574	173	80205	55.72	ug/L		98
97) isopropylbenzene	16.731	105	500692	49.45	ug/L		99
98) cis-1,4-dichloro-2-butene	16.800	88	40272	49.35	ug/L		95
101) bromobenzene	17.161	156	143538	45.83	ug/L		90
102) 1,1,2,2-tetrachloroethane	17.072	83	121788	43.20	ug/L		100
103) trans-1,4-dichloro-2-b...	17.135	53	28369	43.82	ug/L		90
104) 1,2,3-trichloropropane	17.151	110	32666	45.52	ug/L		94
105) n-propylbenzene	17.224	91	595601	45.81	ug/L		99
106) 2-chlorotoluene	17.361	126	128876	46.41	ug/L		98
107) 4-chlorotoluene	17.476	91	358410	45.83	ug/L		99
109) 1,3,5-trimethylbenzene	17.408	105	442432	46.20	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175668.d
Acq On : 19 May 2018 10:20 am
Operator : oyinadei
Sample : BS Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:58:29 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

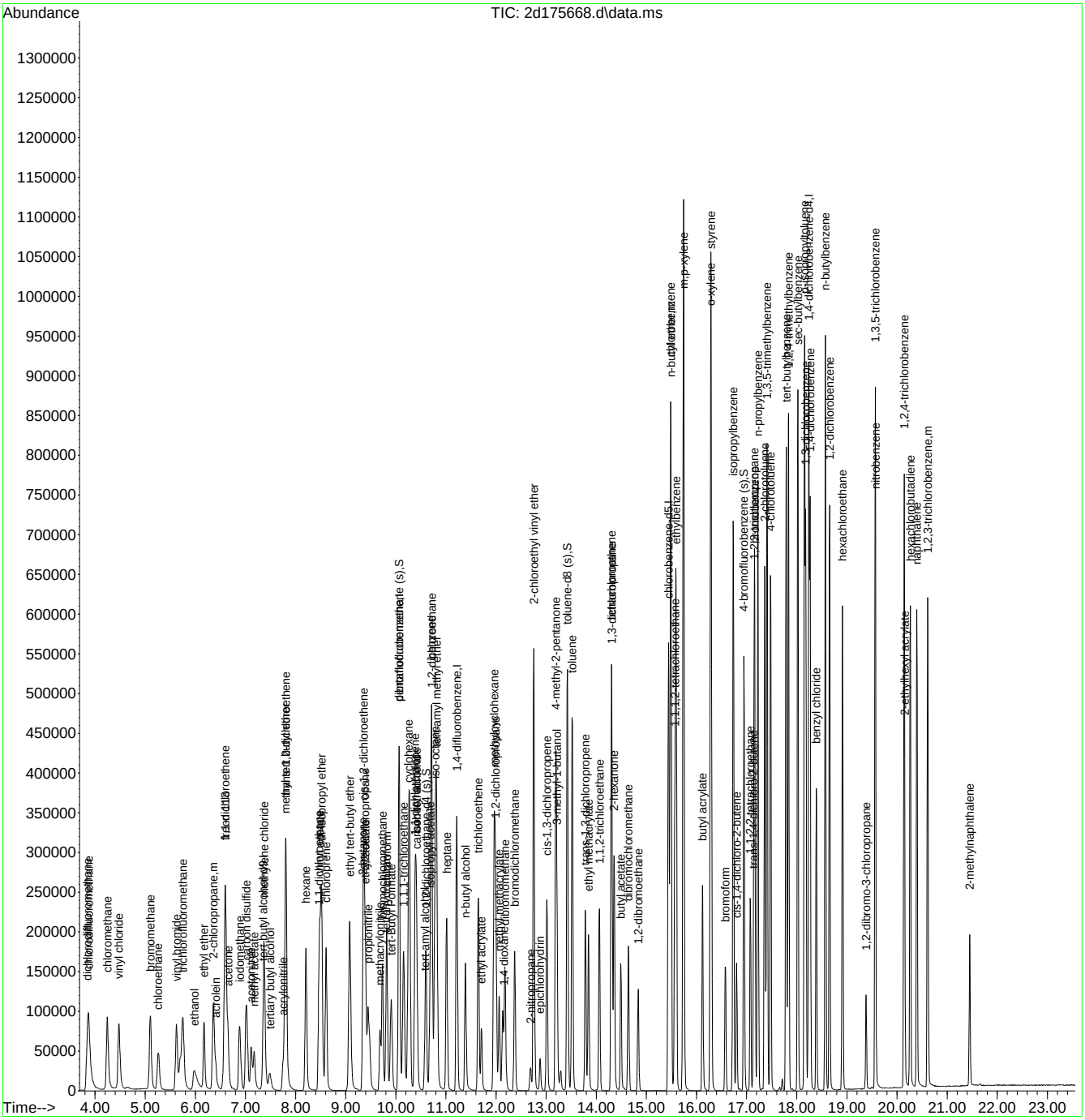
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.791	119	391905	46.13	ug/L	99
111) 1,2,4-trimethylbenzene	17.838	105	455382	46.59	ug/L	100
112) sec-butylbenzene	18.021	105	592482	46.68	ug/L	99
113) 1,3-dichlorobenzene	18.179	146	281175	47.41	ug/L	99
114) p-isopropyltoluene	18.152	119	512588	46.49	ug/L	98
115) 1,4-dichlorobenzene	18.268	146	287494	47.90	ug/L	97
116) 1,2-dichlorobenzene	18.656	146	291150	48.92	ug/L	98
117) benzyl chloride	18.388	91	254667	47.43	ug/L	98
119) n-butylbenzene	18.572	92	260126	47.03	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.384	157	34055	49.39	ug/L	97
122) nitrobenzene	19.573	77	6485	74.07	ug/L	89
123) 1,3,5-trichlorobenzene	19.568	180	279144	50.18	ug/L	100
124) hexachlorobutadiene	20.265	225	133016	48.87	ug/L	99
125) naphthalene	20.396	128	461611	47.83	ug/L	100
126) 2-ethylhexyl acrylate	20.155	70	23285	8.43	ug/L	100
127) 1,2,4-trichlorobenzene	20.145	180	235591	49.84	ug/L	99
128) 1,2,3-trichlorobenzene	20.611	180	208151	47.81	ug/L	99
129) hexachloroethane	18.913	201	106678	55.71	ug/L	99
130) 2-methylnaphthalene	21.450	142	94703	18.29	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175668.d
Acq On : 19 May 2018 10:20 am
Operator : oyinadei
Sample : BS Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:58:29 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222001.d
Acq On : 19 May 2018 12:46 pm
Operator : RobertS
Sample : BS Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:48:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.417	65	76165	500.00	ug/L		0.00
5) pentafluorobenzene	11.131	168	207840	50.00	ug/L		0.00
53) 1,4-difluorobenzene	12.088	114	351966	50.00	ug/L		0.00
75) chlorobenzene-d5	15.106	117	325246	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.146	152	157743	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	11.152	113	96161	53.92	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 107.84%				
54) 1,2-dichloroethane-d4 (s)	11.597	65	105345	50.90	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 101.80%				
76) toluene-d8 (s)	13.689	98	450683	53.06	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.12%				
99) 4-bromofluorobenzene (s)	16.147	174	113035	50.34	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 100.68%				
Target Compounds							Qvalue
2) ethanol	6.790	45	106284	5140.90	ug/L		95
3) tertiary butyl alcohol	8.569	59	50193	248.16	ug/L		97
4) 1,4-dioxane	12.732	88	19241	1265.63	ug/L		92
6) chlorodifluoromethane	4.353	51	121871	46.37	ug/L		97
7) dichlorodifluoromethane	4.322	85	168323	60.94	ug/L		98
8) chloromethane	4.719	50	228233	57.39	ug/L		99
9) vinyl chloride	5.012	62	204698	55.26	ug/L		99
11) bromomethane	5.765	94	107530	49.18	ug/L		99
12) chloroethane	6.001	64	115962	56.33	ug/L		98
13) vinyl bromide	6.398	106	108811	61.18	ug/L		98
14) trichlorofluoromethane	6.524	101	172516	53.76	ug/L		100
15) ethyl ether	7.052	74	63968	60.11	ug/L		87
16) 2-chloropropane	7.313	43	238876	56.04	ug/L	#	92
17) acrolein	7.345	56	16152	61.53	ug/L		91
18) freon 113	7.580	151	75434	55.00	ug/L		98
19) 1,1-dichloroethene	7.559	61	205246	57.07	ug/L		99
20) acetone	7.591	43	88444	128.88	ug/L		94
21) acetonitrile	8.124	41	106151	585.32	ug/L		98
22) iodomethane	7.873	142	132184	44.78	ug/L		97
23) carbon disulfide	8.035	76	370259	49.86	ug/L		97
24) methylene chloride	8.474	84	123174	54.67	ug/L		96
25) methyl acetate	8.171	43	68057	62.29	ug/L		98
26) methyl tert butyl ether	8.935	73	298076	56.63	ug/L		96
27) trans-1,2-dichloroethene	8.966	61	190847	56.25	ug/L		97
28) hexane	9.405	57	210476	58.15	ug/L		98
29) di-isopropyl ether	9.677	45	449000	57.30	ug/L		97
30) ethyl tert-butyl ether	10.221	59	385524	55.49	ug/L		98
31) 1,1-dichloroethane	9.683	63	231732	54.10	ug/L		99
32) chloroprene	9.798	53	199839	58.06	ug/L		98
33) acrylonitrile	8.867	53	30515	58.72	ug/L		95
34) vinyl acetate	9.630	86	13328	47.65	ug/L		89
35) 2-butanone	10.451	72	34565	196.25	ug/L		98
36) ethyl acetate	10.478	45	12489	55.68	ug/L		97
37) 2,2-dichloropropane	10.540	77	182611	53.55	ug/L		100
38) cis-1,2-dichloroethene	10.509	96	127460	53.55	ug/L		97
39) methyl acrylate	10.567	85	11038	55.85	ug/L		84
40) propionitrile	10.546	54	126253	402.53	ug/L		96
41) bromochloromethane	10.844	128	45689	51.63	ug/L		97
42) tetrahydrofuran	10.854	42	26052	54.68	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222001.d
Acq On : 19 May 2018 12:46 pm
Operator : RobertS
Sample : BS Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:48:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	chloroform	10.943	83	199193	50.85	ug/L		100
46)	methacrylonitrile	10.760	67	32475	79.92	ug/L		91
47)	cyclohexane	11.314	84	193589	58.65	ug/L	#	58
48)	1,1,1-trichloroethane	11.210	97	173802	53.94	ug/L		99
49)	1,1-dichloropropene	11.388	75	168831	54.15	ug/L		99
50)	carbon tetrachloride	11.409	117	136050	53.22	ug/L		100
51)	tert-amyl alcohol	11.550	73	22085	265.83	ug/L		93
52)	isobutyl alcohol	11.382	43	40531	589.91	ug/L		95
55)	isopropyl acetate	11.581	87	18205	55.46	ug/L	#	91
56)	2,2,4-trimethylpentane	11.749	57	629239	56.90	ug/L		95
57)	tert-amyl methyl ether	11.743	73	330470	52.96	ug/L		98
58)	benzene	11.649	78	504362	53.24	ug/L		99
59)	heptane	11.921	57	122448	55.37	ug/L		96
60)	1,2-dichloroethane	11.691	62	132201	46.44	ug/L		99
61)	n-butyl alcohol	12.156	56	128159	2913.21	ug/L		100
62)	ethyl acrylate	12.397	55	103953	56.34	ug/L		97
63)	trichloroethene	12.392	95	115511	52.23	ug/L		96
64)	2-chloroethyl vinyl ether	12.690	63	131329	260.61	ug/L		99
65)	2-nitropropane	13.155	41	21065	44.11	ug/L		95
66)	methylcyclohexane	12.679	83	252191	55.18	ug/L		96
67)	methyl methacrylate	12.659	100	20100	54.34	ug/L	#	76
68)	1,2-dichloropropane	12.690	63	131329	52.87	ug/L		99
69)	dibromomethane	12.795	93	54287	50.41	ug/L		96
70)	bromodichloromethane	12.951	83	144852	51.89	ug/L		98
71)	epichlorohydrin	13.270	57	38992	276.47	ug/L		99
72)	cis-1,3-dichloropropene	13.396	75	186250	54.16	ug/L		98
73)	4-methyl-2-pentanone	13.501	58	137227	240.52	ug/L		96
74)	3-methyl-1-butanol	13.506	55	84353	1143.61	ug/L		97
77)	toluene	13.757	92	300860	50.77	ug/L		98
78)	ethyl methacrylate	13.935	69	122952	57.78	ug/L		99
79)	trans-1,3-dichloropropene	13.945	75	156664	50.13	ug/L		99
80)	1,1,2-trichloroethane	14.160	83	71237	53.13	ug/L		99
81)	2-hexanone	14.311	58	129669	219.69	ug/L		97
82)	tetrachloroethene	14.280	166	105200	48.84	ug/L		97
83)	1,3-dichloropropane	14.327	76	150806	51.06	ug/L		99
84)	butyl acetate	14.384	56	63020	57.07	ug/L		94
85)	dibromochloromethane	14.557	129	82811	51.13	ug/L		97
86)	1,2-dibromoethane	14.698	107	79422	54.19	ug/L		98
87)	n-butyl ether	15.091	57	620456	56.48	ug/L		97
88)	chlorobenzene	15.138	112	296981	48.82	ug/L		99
89)	1,1,1,2-tetrachloroethane	15.200	131	98710	50.00	ug/L		96
90)	ethylbenzene	15.190	91	589538	51.05	ug/L		100
91)	m,p-xylene	15.300	106	433139	103.74	ug/L		99
92)	o-xylene	15.655	91	467664	52.14	ug/L		100
93)	styrene	15.671	104	351167	56.62	ug/L		99
94)	butyl acrylate	15.499	55	186958	54.16	ug/L		99
95)	bromoform	15.886	173	46691	50.68	ug/L		97
96)	isopropylbenzene	15.964	105	567770	51.47	ug/L		99
97)	cis-1,4-dichloro-2-butene	16.001	88	34890	53.29	ug/L		92
100)	bromobenzene	16.309	156	115052	47.89	ug/L		88
101)	1,1,2,2-tetrachloroethane	16.215	83	107993	51.43	ug/L		100
102)	trans-1,4-dichloro-2-b...	16.236	53	30648	60.69	ug/L		98
103)	1,2,3-trichloropropane	16.293	110	27052	51.97	ug/L	#	89
104)	n-propylbenzene	16.325	91	715455	51.34	ug/L		99
105)	2-chlorotoluene	16.445	126	128993	50.10	ug/L		92
106)	4-chlorotoluene	16.545	91	407408	51.42	ug/L		98
107)	1,3,5-trimethylbenzene	16.450	105	484292	51.78	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222001.d
Acq On : 19 May 2018 12:46 pm
Operator : RobertS
Sample : BS Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:48:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

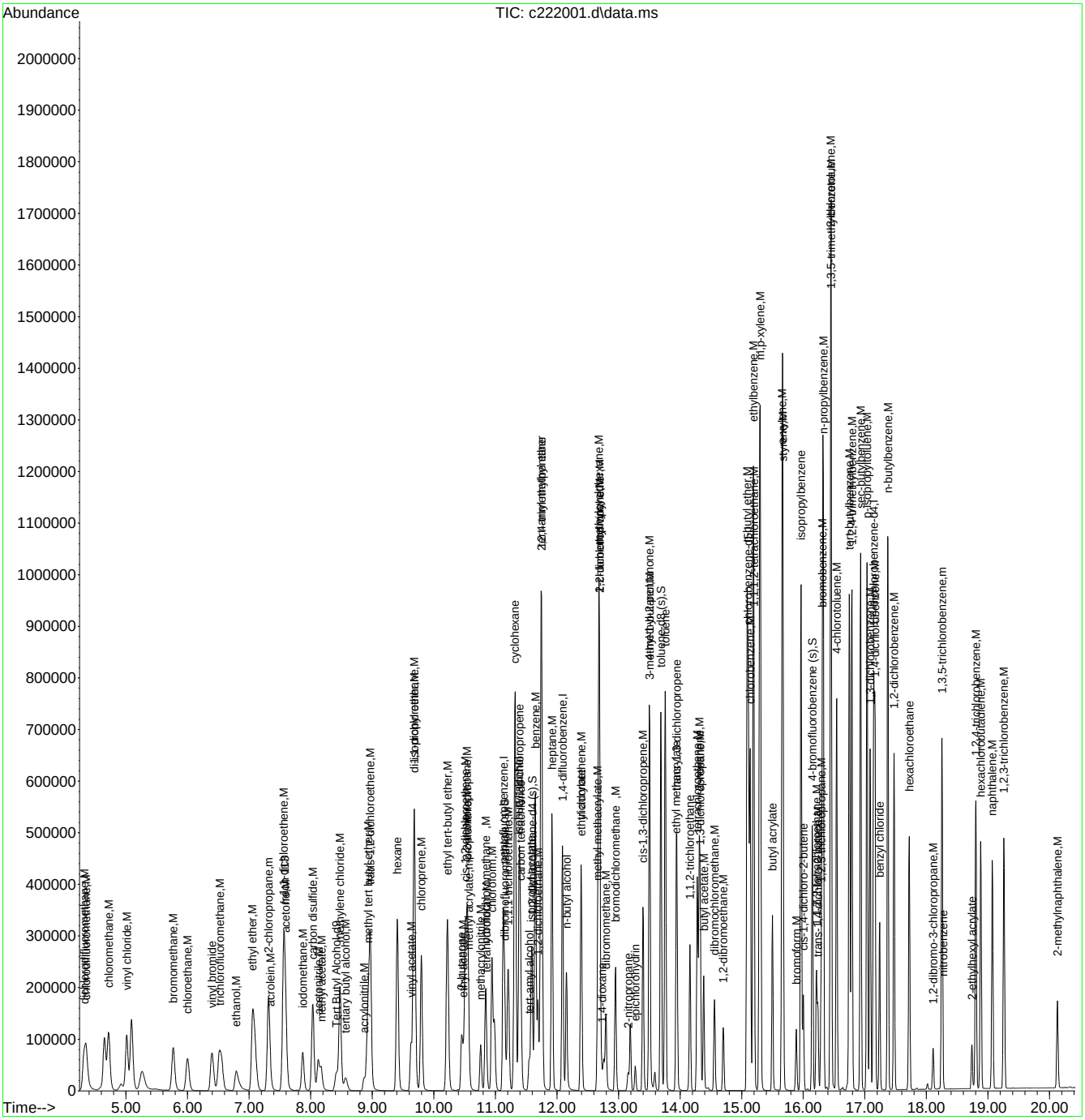
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) tert-butylbenzene	16.749	134	95822	51.03	ug/L		99
109) 1,2,4-trimethylbenzene	16.790	105	481896	51.75	ug/L		99
110) sec-butylbenzene	16.932	105	640827	51.41	ug/L		99
111) 1,3-dichlorobenzene	17.088	146	236000	48.62	ug/L		98
112) p-isopropyltoluene	17.036	119	512992	51.38	ug/L		99
113) 1,4-dichlorobenzene	17.167	146	235328	46.93	ug/L		99
114) benzyl chloride	17.240	91	202949	52.39	ug/L		100
115) 1,2-dichlorobenzene	17.476	146	219018	47.66	ug/L		98
116) n-butylbenzene	17.376	92	294888	52.45	ug/L		97
117) hexachloroethane	17.721	201	69780	52.77	ug/L		97
118) 1,2-dibromo-3-chloropr...	18.108	157	17840	52.14	ug/L		97
119) 1,3,5-trichlorobenzene	18.255	180	190396	46.94	ug/L		98
120) nitrobenzene	18.270	77	6460	52.97	ug/L		87
121) 2-ethylhexyl acrylate	18.741	70	21350	9.38	ug/L		97
122) 1,2,4-trichlorobenzene	18.804	180	156851	48.85	ug/L		99
123) hexachlorobutadiene	18.882	225	87852	48.90	ug/L	#	96
124) naphthalene	19.071	128	321033	52.06	ug/L		99
125) 1,2,3-trichlorobenzene	19.259	180	139677	49.13	ug/L		99
126) 2-methylnaphthalene	20.127	142	83055	25.97	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222001.d
Acq On : 19 May 2018 12:46 pm
Operator : RobertS
Sample : BS Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:48:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156898.d
Acq On : 21 May 2018 8:50 am
Operator : prashans
Sample : BS Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:28:47 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	76468	500.00	ug/L	0.00
5) pentafluorobenzene	9.618	168	210871	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.538	114	324797	50.00	ug/L	0.00
76) chlorobenzene-d5	13.671	117	244790	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.988	152	116218	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.686	113	98633	51.06	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 102.12%			
55) 1,2-dichloroethane-d4 (s)	10.109	65	97766	48.70	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 97.40%			
77) toluene-d8 (s)	12.165	98	346399	49.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.46%			
100) 4-bromofluorobenzene (s)	14.822	95	115276	49.76	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.52%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.505	59	51793	255.35	ug/L	98
3) ethanol	6.140	45	104345	5304.35	ug/L	99
4) 1,4-dioxane	11.270	88	23416	1338.69	ug/L	94
6) chlorodifluoromethane	3.896	51	122567	58.49	ug/L	98
7) dichlorodifluoromethane	3.864	85	149085	48.83	ug/L	99
10) chloromethane	4.283	50	149907	52.43	ug/L	100
11) vinyl chloride	4.518	62	138339	53.52	ug/L	99
13) bromomethane	5.203	94	67537	54.84	ug/L	97
14) chloroethane	5.381	64	79849	54.09	ug/L	99
15) trichlorofluoromethane	5.815	101	157292	52.47	ug/L	98
16) vinyl bromide	5.732	106	89469	50.89	ug/L	96
17) ethyl ether	6.265	74	52218	52.85	ug/L	98
18) acrolein	6.553	56	15563	51.22	ug/L	97
19) freon 113	6.626	151	65687	45.42	ug/L	98
20) 1,1-dichloroethene	6.694	96	90031	46.38	ug/L	99
21) acetone	6.778	58	27951	224.87	ug/L	99
22) acetonitrile	7.233	41	111440	517.40	ug/L	99
23) iodomethane	6.982	142	100759	55.09	ug/L	98
24) carbon disulfide	7.097	76	275961	44.25	ug/L	100
25) methylene chloride	7.437	84	102609	49.94	ug/L	99
26) methyl acetate	7.227	43	64480	50.94	ug/L	99
27) methyl tert butyl ether	7.730	73	250620	50.89	ug/L	99
28) trans-1,2-dichloroethene	7.798	96	99019	47.86	ug/L	98
29) di-isopropyl ether	8.315	45	332379	53.43	ug/L	100
30) 2-butanone	9.079	72	38233	231.47	ug/L	92
31) 1,1-dichloroethane	8.378	63	185989	51.61	ug/L	99
32) chloroprene	8.472	53	150635	52.36	ug/L	99
33) acrylonitrile	7.787	53	27989	52.75	ug/L	98
34) hexane	8.075	57	148197	43.66	ug/L	99
35) vinyl acetate	8.357	86	14910	60.34	ug/L	99
36) ethyl tert-butyl ether	8.781	59	299038	54.19	ug/L	100
37) ethyl acetate	9.089	45	12936	53.29	ug/L #	63
38) 2,2-dichloropropane	9.100	77	155531	53.27	ug/L	99
39) cis-1,2-dichloroethene	9.116	96	107806	48.29	ug/L	99
40) methyl acrylate	9.173	85	12449	54.35	ug/L	97
41) propionitrile	9.204	54	130836	524.31	ug/L	98
42) bromochloromethane	9.435	128	46992	51.98	ug/L	97
43) tetrahydrofuran	9.461	72	11308	54.74	ug/L	90
44) chloroform	9.487	85	113709	50.66	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156898.d
Acq On : 21 May 2018 8:50 am
Operator : prashans
Sample : BS Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:28:47 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) t-butyl formate	9.497	59	73156	54.73	ug/L		99
47) methacrylonitrile	9.382	67	33615	51.61	ug/L		95
48) 1,1,1-trichloroethane	9.717	97	151308	51.07	ug/L		99
49) cyclohexane	9.775	84	124180	45.34	ug/L		96
50) 1,1-dichloropropene	9.900	75	140331	50.70	ug/L		99
51) iso-butyl alcohol	9.921	43	39483	527.50	ug/L		97
52) carbon tetrachloride	9.916	117	132237	51.25	ug/L		97
53) tert amyl alcohol	10.036	55	16537	259.75	ug/L		98
56) n-butyl alcohol	10.674	56	132268	2726.98	ug/L		99
57) 2,2,4-trimethylpentane	10.125	57	390191	45.17	ug/L		100
58) benzene	10.167	78	389913	48.85	ug/L		100
59) tert-amyl methyl ether	10.172	87	58810	51.41	ug/L		91
60) heptane	10.303	71	84568	45.43	ug/L		98
61) isopropyl acetate	10.078	87	16387	51.82	ug/L	#	89
62) 1,2-dichloroethane	10.198	62	117234	49.30	ug/L		99
63) trichloroethene	10.878	130	101920	45.58	ug/L		99
64) ethyl acrylate	10.873	55	106258	52.09	ug/L		99
65) 2-nitropropane	11.673	41	28200	52.61	ug/L	#	86
66) 2-chloroethyl vinyl ether	11.668	63	267002	262.18	ug/L		99
67) methyl methacrylate	11.140	100	19747	51.58	ug/L		95
68) 1,2-dichloropropane	11.150	63	104578	50.66	ug/L		99
69) dibromomethane	11.318	93	55829	51.09	ug/L		96
70) methylcyclohexane	11.072	83	169925	47.55	ug/L		99
71) bromodichloromethane	11.443	83	132231	52.12	ug/L		99
72) epichlorohydrin	11.809	57	41581	262.38	ug/L		97
73) cis-1,3-dichloropropene	11.888	75	163187	52.64	ug/L		99
74) 4-methyl-2-pentanone	11.977	58	122088	210.36	ug/L		99
75) 3-methyl-1-butanol	11.997	55	77185	1073.62	ug/L		97
78) toluene	12.238	92	217881	48.85	ug/L		99
79) trans-1,3-dichloropropene	12.447	75	133507	52.67	ug/L		97
80) ethyl methacrylate	12.421	69	98571	50.29	ug/L		96
81) 1,1,2-trichloroethane	12.667	83	64310	51.07	ug/L		95
82) tetrachloroethene	12.813	164	72429	50.85	ug/L		99
83) 1,3-dichloropropane	12.845	76	118197	50.12	ug/L		100
84) 2-hexanone	12.824	58	116378	221.56	ug/L		98
85) butyl acetate	12.881	56	49546	50.96	ug/L		98
86) dibromochloromethane	13.111	129	87718	53.58	ug/L		98
87) 1,2-dibromoethane	13.263	107	78521	50.87	ug/L		98
88) n-butyl ether	13.587	57	390057	50.88	ug/L		99
89) chlorobenzene	13.702	112	225057	50.23	ug/L		99
90) 1,1,1,2-tetrachloroethane	13.765	131	82496	52.94	ug/L		98
91) ethylbenzene	13.750	91	388758	48.97	ug/L		100
92) m,p-xylene	13.854	106	286928	98.49	ug/L		99
93) o-xylene	14.273	106	139820	50.20	ug/L		99
94) styrene	14.283	104	230114	49.77	ug/L		96
95) bromoform	14.571	173	53115	56.10	ug/L		100
96) butyl acrylate	14.090	55	145965	52.67	ug/L		100
97) isopropylbenzene	14.602	105	366069	49.11	ug/L		99
98) cis-1,4-dichloro-2-butene	14.701	88	34182	55.12	ug/L		99
101) bromobenzene	15.021	156	89715	50.52	ug/L		97
102) 1,1,2,2-tetrachloroethane	14.937	83	87007	51.17	ug/L		98
103) trans-1,4-dichloro-2-b...	14.973	53	24949	53.73	ug/L		95
104) 1,2,3-trichloropropane	15.010	110	20269	51.64	ug/L		95
105) n-propylbenzene	15.010	91	441975	49.81	ug/L		100
107) 2-chlorotoluene	15.167	126	86166	49.75	ug/L		96
108) 4-chlorotoluene	15.266	91	258305	49.15	ug/L		99
109) 1,3,5-trimethylbenzene	15.156	105	305648	50.21	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156898.d
Acq On : 21 May 2018 8:50 am
Operator : prashans
Sample : BS Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:28:47 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

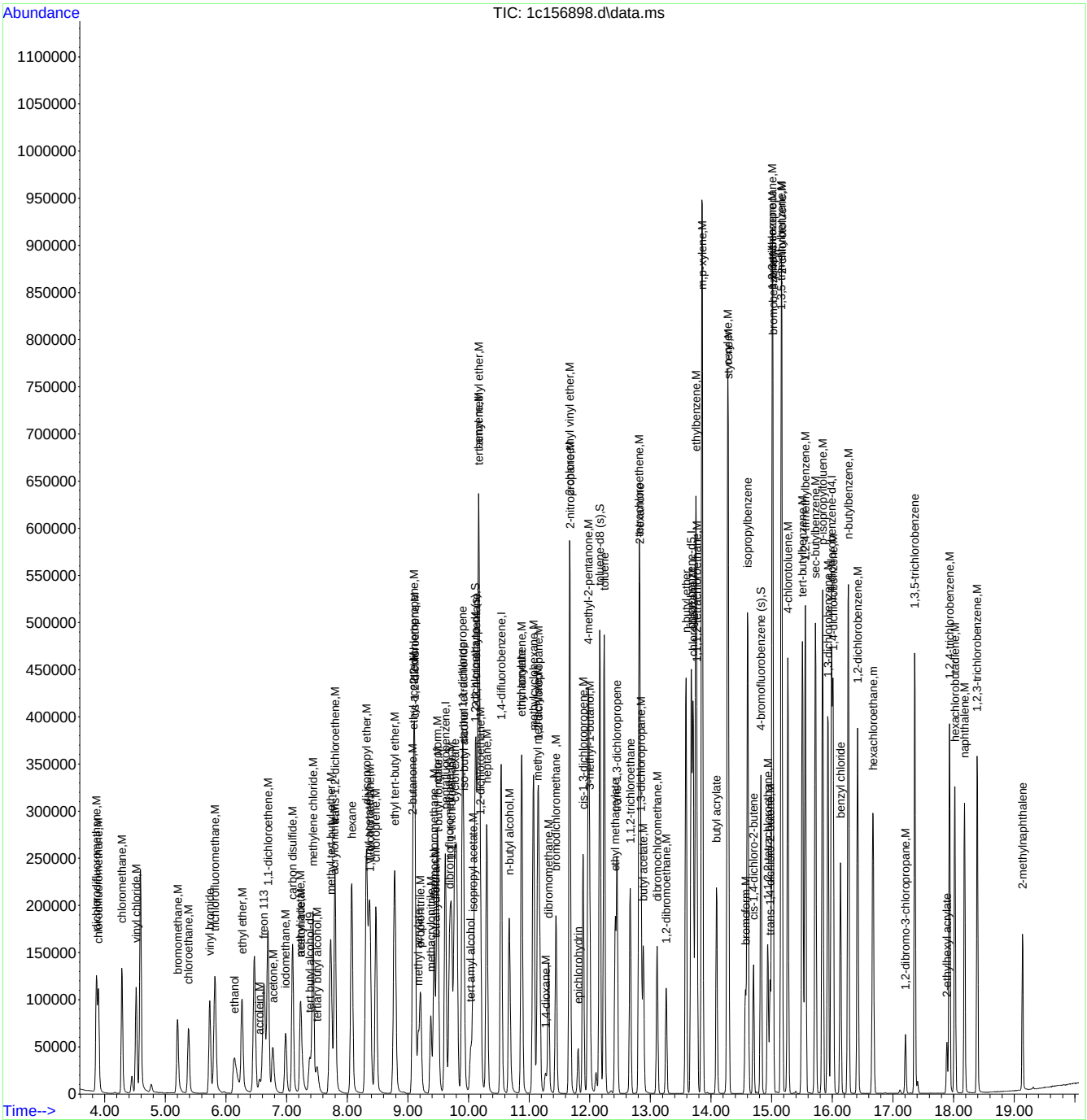
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	15.507	134	53750	49.77	ug/L	93
111) 1,2,4-trimethylbenzene	15.554	105	301554	49.39	ug/L	99
112) sec-butylbenzene	15.721	105	388101	49.11	ug/L	99
113) 1,3-dichlorobenzene	15.931	146	170317	50.14	ug/L	99
114) p-isopropyltoluene	15.842	119	329519	50.02	ug/L	100
115) 1,4-dichlorobenzene	16.014	146	169678	50.16	ug/L	96
116) benzyl chloride	16.135	91	177565	61.13	ug/L	99
117) 1,2-dichlorobenzene	16.417	146	162623	50.81	ug/L	98
119) n-butylbenzene	16.265	92	180095	49.82	ug/L	98
120) 1,2-dibromo-3-chloropr...	17.207	75	16136	53.40	ug/L	98
121) 1,3,5-trichlorobenzene	17.358	180	141553	54.13	ug/L	99
123) 2-ethylhexyl acrylate	17.892	70	14483	10.37	ug/L	98
124) 1,2,4-trichlorobenzene	17.934	180	115915	54.24	ug/L	98
125) hexachlorobutadiene	18.023	225	70818	50.86	ug/L	99
126) naphthalene	18.180	128	217158	52.00	ug/L	99
127) 1,2,3-trichlorobenzene	18.389	180	103744	53.67	ug/L	97
128) hexachloroethane	16.673	201	60578	55.35	ug/L	97
129) 2-methylnaphthalene	19.137	142	69755	28.47	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156898.d
Acq On : 21 May 2018 8:50 am
Operator : prashans
Sample : BS Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:28:47 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175674.d
Acq On : 19 May 2018 2:01 pm
Operator : oyinadei
Sample : jc66383-5ms Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:50 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.362	65	87171	500.00	ug/L		-0.03
5) pentafluorobenzene	10.073	168	250063	50.00	ug/L		-0.02
54) 1,4-difluorobenzene	11.221	114	339529	50.00	ug/L		-0.02
76) chlorobenzene-d5	15.447	117	351251	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	230255	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.073	113	114330	53.07	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.14%				
55) 1,2-dichloroethane-d4 (s)	10.607	65	125140	53.66	ug/L		-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 107.32%				
77) toluene-d8 (s)	13.428	98	397659	48.69	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.38%				
100) 4-bromofluorobenzene (s)	16.946	95	172361	46.66	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.32%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.488	59	42658	258.27	ug/L		95
3) ethanol	5.988	45	78223	5223.52	ug/L		97
4) 1,4-dioxane	12.159	88	18902	1156.90	ug/L		96
6) chlorodifluoromethane	3.886	51	139084	59.01	ug/L		97
7) dichlorodifluoromethane	3.865	85	113734	40.91	ug/L		97
10) chloromethane	4.263	50	130004	41.38	ug/L		98
11) vinyl chloride	4.494	62	116482	42.17	ug/L		98
12) bromomethane	5.118	94	85254	43.93	ug/L		95
13) chloroethane	5.270	64	61282	42.29	ug/L		94
14) trichlorofluoromethane	5.763	101	153265	49.07	ug/L		98
15) vinyl bromide	5.637	106	87856	42.45	ug/L		97
17) ethyl ether	6.188	74	41724	42.96	ug/L		94
18) acrolein	6.423	56	15824	39.75	ug/L		97
19) 1,1-dichloroethene	6.612	96	87500	46.44	ug/L		96
20) freon 113	6.612	151	64865	40.99	ug/L		98
21) 2-chloropropane	6.371	43	156185	49.33	ug/L		96
22) acetone	6.665	58	25672	192.03	ug/L		97
23) acetonitrile	7.126	41	104458	466.39	ug/L		97
24) iodomethane	6.895	142	149120	46.69	ug/L		95
25) carbon disulfide	7.037	76	267142	44.24	ug/L		98
26) methylene chloride	7.383	84	98274	47.13	ug/L		97
27) methyl acetate	7.184	43	59453	44.83	ug/L		99
28) methyl tert butyl ether	7.802	73	246145	44.91	ug/L		99
29) trans-1,2-dichloroethene	7.818	96	90946	47.60	ug/L		98
30) hexane	8.217	57	92796	37.15	ug/L		97
31) di-isopropyl ether	8.526	45	309301	47.10	ug/L		93
32) 2-butanone	9.349	72	33212	192.08	ug/L		95
33) 1,1-dichloroethane	8.479	63	169816	47.80	ug/L		100
34) chloroprene	8.620	53	136547	48.30	ug/L		99
35) acrylonitrile	7.755	53	29145	45.40	ug/L		94
36) vinyl acetate	8.495	86	14105	45.68	ug/L	#	91
37) ethyl tert-butyl ether	9.092	59	291170	47.33	ug/L		99
38) ethyl acetate	9.407	45	10642	45.34	ug/L		87
39) 2,2-dichloropropane	9.391	77	148627	52.55	ug/L		95
40) cis-1,2-dichloroethene	9.370	96	103413	48.33	ug/L		99
41) propionitrile	9.454	54	120419	441.58	ug/L		98
42) tert-Butyl Formate	9.915	59	77832	41.23	ug/L		98
43) bromochloromethane	9.742	128	51079	47.62	ug/L		100
44) tetrahydrofuran	9.821	72	9880	44.15	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175674.d
Acq On : 19 May 2018 2:01 pm
Operator : oyinadei
Sample : jc66383-5ms Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:50 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	chloroform	9.826	83	174203	50.83	ug/L		99
47)	methacrylonitrile	9.695	67	30308	43.13	ug/L		93
48)	1,1,1-trichloroethane	10.162	97	165156	52.17	ug/L		98
49)	cyclohexane	10.267	84	106799	40.60	ug/L	#	71
50)	1,1-dichloropropene	10.392	75	123102	47.05	ug/L		99
51)	isobutyl alcohol	10.419	43	34332	420.32	ug/L		96
52)	carbon tetrachloride	10.419	117	147879	53.22	ug/L		98
53)	tert-amyl alcohol	10.586	73	20090	219.79	ug/L		90
56)	benzene	10.718	78	355041	46.92	ug/L		97
57)	iso-octane	10.796	57	298068	39.18	ug/L		98
58)	tert-amyl methyl ether	10.817	73	278189	49.06	ug/L		100
59)	heptane	11.022	57	51818	37.65	ug/L		96
60)	isopropyl acetate	10.691	87	15775	45.51	ug/L	#	84
61)	1,2-dichloroethane	10.723	62	131520	49.86	ug/L		98
62)	n-butyl alcohol	11.394	56	99922	2172.19	ug/L		98
63)	ethyl acrylate	11.714	55	96081	43.28	ug/L		98
64)	trichloroethene	11.656	130	100365	49.19	ug/L		98
65)	2-nitropropane	12.694	41	18355	48.81	ug/L		97
67)	methyl methacrylate	12.065	69	51806	44.12	ug/L		98
68)	1,2-dichloropropane	12.002	63	93366	46.02	ug/L		98
69)	dibromomethane	12.186	93	59003	49.46	ug/L		98
70)	methylcyclohexane	11.971	83	142421	42.27	ug/L		98
71)	bromodichloromethane	12.380	83	134549	51.45	ug/L		99
72)	epichlorohydrin	12.883	57	38124	219.05	ug/L		96
73)	cis-1,3-dichloropropene	13.019	75	154754	46.52	ug/L		98
74)	4-methyl-2-pentanone	13.198	58	125228	181.44	ug/L		94
75)	3-methyl-1-butanol	13.218	55	70493	882.15	ug/L		98
78)	toluene	13.528	92	225968	45.64	ug/L		98
79)	trans-1,3-dichloropropene	13.790	75	141225	46.44	ug/L		99
80)	ethyl methacrylate	13.848	69	109633	43.33	ug/L		99
81)	1,1,2-trichloroethane	14.068	83	69512	45.65	ug/L		99
82)	tetrachloroethene	14.309	164	241251	129.76	ug/L		99
83)	1,3-dichloropropane	14.314	76	138355	46.14	ug/L		99
84)	2-hexanone	14.361	58	119861	176.84	ug/L		99
85)	butyl acetate	14.493	56	53078	42.91	ug/L		92
86)	dibromochloromethane	14.645	129	105451	49.66	ug/L		97
87)	1,2-dibromoethane	14.839	107	95576	46.19	ug/L		99
88)	n-butyl ether	15.494	57	424461	45.42	ug/L		99
89)	chlorobenzene	15.489	112	273616	46.66	ug/L		99
90)	1,1,1,2-tetrachloroethane	15.573	131	113551	51.64	ug/L		98
91)	ethylbenzene	15.594	91	464132	47.25	ug/L		99
92)	m,p-xylene	15.746	91	733125	95.95	ug/L		99
93)	o-xylene	16.286	106	184381	47.82	ug/L		98
94)	styrene	16.296	104	318659	49.04	ug/L		98
95)	butyl acrylate	16.123	55	187904	45.51	ug/L		98
96)	bromoform	16.579	173	78809	53.74	ug/L		100
97)	isopropylbenzene	16.737	105	502583	48.72	ug/L		100
98)	cis-1,4-dichloro-2-butene	16.805	88	38356	46.13	ug/L		94
101)	bromobenzene	17.161	156	146967	45.23	ug/L		98
102)	1,1,2,2-tetrachloroethane	17.077	83	124404	42.53	ug/L		96
103)	trans-1,4-dichloro-2-b...	17.140	53	27326	40.68	ug/L		91
104)	1,2,3-trichloropropane	17.156	110	32825	44.09	ug/L		96
105)	n-propylbenzene	17.229	91	609363	45.17	ug/L		99
106)	2-chlorotoluene	17.366	126	131595	45.68	ug/L		97
107)	4-chlorotoluene	17.481	91	371507	45.78	ug/L		99
109)	1,3,5-trimethylbenzene	17.413	105	451276	45.42	ug/L		99
110)	tert-butylbenzene	17.790	119	393617	44.66	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175674.d
Acq On : 19 May 2018 2:01 pm
Operator : oyinadei
Sample : jc66383-5ms Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:50 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

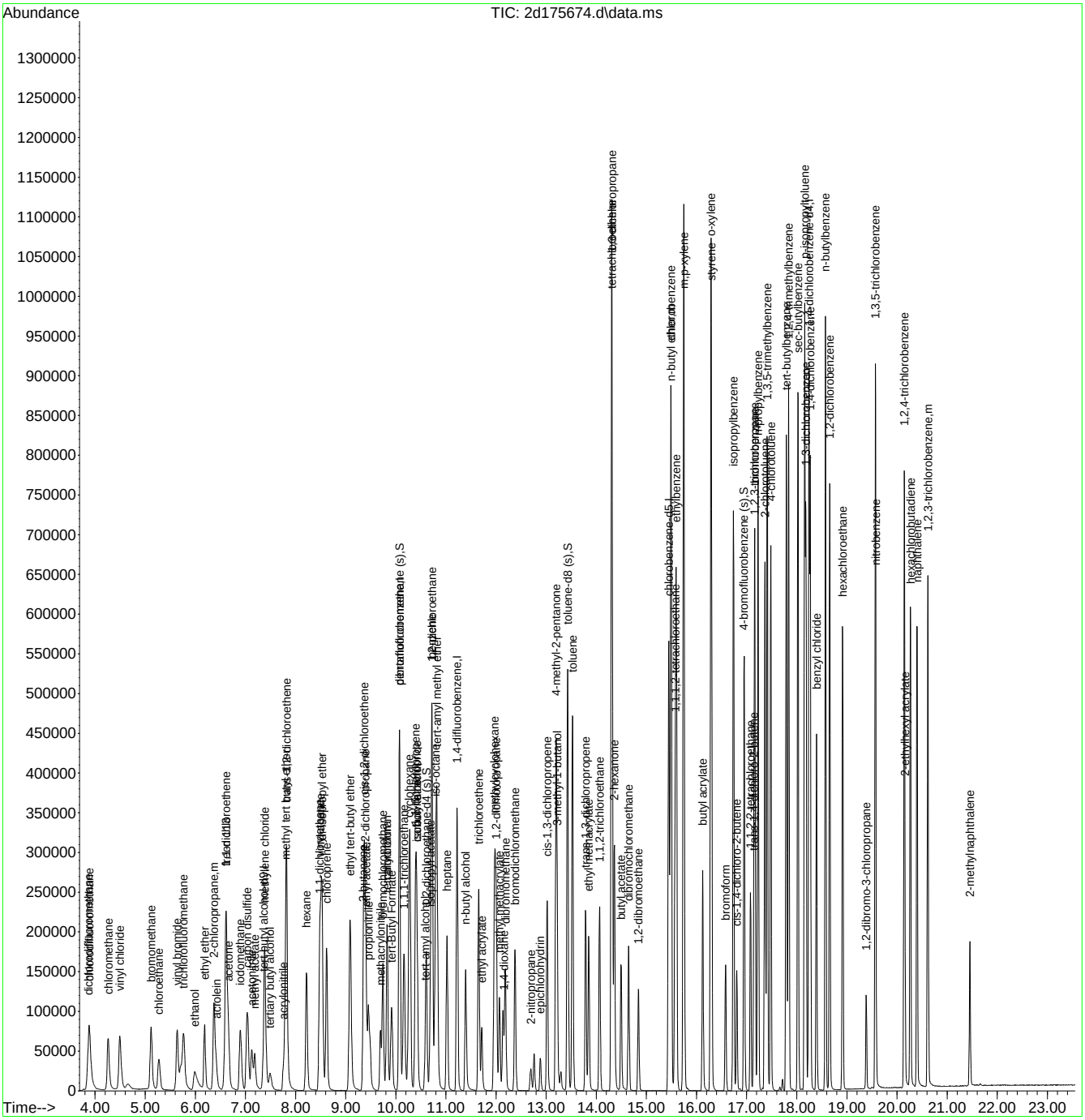
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,2,4-trimethylbenzene	17.838	105	466246	45.98	ug/L	100
112) sec-butylbenzene	18.026	105	597808	45.40	ug/L	99
113) 1,3-dichlorobenzene	18.184	146	290832	47.27	ug/L	99
114) p-isopropyltoluene	18.157	119	518550	45.33	ug/L	100
115) 1,4-dichlorobenzene	18.268	146	296311	47.59	ug/L	99
116) 1,2-dichlorobenzene	18.656	146	297318	48.16	ug/L	99
117) benzyl chloride	18.393	91	292436	52.50	ug/L	99
119) n-butylbenzene	18.572	92	270471	47.13	ug/L	98
121) 1,2-dibromo-3-chloropr...	19.384	157	33068	46.22	ug/L	99
122) nitrobenzene	19.578	77	4589	50.52	ug/L	89
123) 1,3,5-trichlorobenzene	19.568	180	289840	50.22	ug/L	100
124) hexachlorobutadiene	20.270	225	133788	47.38	ug/L	98
125) naphthalene	20.401	128	459148	45.86	ug/L	100
126) 2-ethylhexyl acrylate	20.160	70	22606	7.89	ug/L	96
127) 1,2,4-trichlorobenzene	20.145	180	239989	48.93	ug/L	98
128) 1,2,3-trichlorobenzene	20.616	180	209878	46.46	ug/L	100
129) hexachloroethane	18.918	201	104709	52.71	ug/L	98
130) 2-methylnaphthalene	21.455	142	91583	17.05	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175674.d
Acq On : 19 May 2018 2:01 pm
Operator : oyinadei
Sample : jc66383-5ms Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:50 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175675.d
Acq On : 19 May 2018 2:32 pm
Operator : oyinadei
Sample : jc66383-5msd Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.367	65	88348	500.00	ug/L		-0.02
5) pentafluorobenzene	10.073	168	252144	50.00	ug/L		-0.02
54) 1,4-difluorobenzene	11.226	114	343212	50.00	ug/L		-0.01
76) chlorobenzene-d5	15.447	117	352214	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	224894	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.073	113	115022	52.95	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.90%				
55) 1,2-dichloroethane-d4 (s)	10.608	65	124775	52.93	ug/L		-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.86%				
77) toluene-d8 (s)	13.428	98	405149	49.47	ug/L		-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.94%				
100) 4-bromofluorobenzene (s)	16.952	95	172141	47.71	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.42%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.493	59	43087	257.39	ug/L		95
3) ethanol	5.983	45	81674	5384.07	ug/L		97
4) 1,4-dioxane	12.159	88	20005	1208.10	ug/L		98
6) chlorodifluoromethane	3.881	51	145647	61.29	ug/L		97
7) dichlorodifluoromethane	3.854	85	118557	42.29	ug/L		97
10) chloromethane	4.258	50	145754	46.01	ug/L		100
11) vinyl chloride	4.489	62	129015	46.32	ug/L		99
12) bromomethane	5.113	94	89027	45.49	ug/L		98
13) chloroethane	5.270	64	66005	45.18	ug/L		97
14) trichlorofluoromethane	5.758	101	151286	48.04	ug/L		99
15) vinyl bromide	5.632	106	91931	44.05	ug/L		97
17) ethyl ether	6.182	74	42302	43.20	ug/L		95
18) acrolein	6.418	56	16350	40.73	ug/L		94
19) 1,1-dichloroethene	6.612	96	87493	46.05	ug/L		92
20) freon 113	6.607	151	64383	40.35	ug/L		99
21) 2-chloropropane	6.371	43	155927	48.85	ug/L		98
22) acetone	6.660	58	25999	192.87	ug/L		99
23) acetonitrile	7.121	41	105230	465.95	ug/L		98
24) iodomethane	6.895	142	152723	47.43	ug/L		95
25) carbon disulfide	7.032	76	268139	44.04	ug/L		99
26) methylene chloride	7.383	84	100539	47.82	ug/L		99
27) methyl acetate	7.184	43	59349	44.38	ug/L		99
28) methyl tert butyl ether	7.808	73	254294	46.02	ug/L		99
29) trans-1,2-dichloroethene	7.818	96	91497	47.49	ug/L		98
30) hexane	8.217	57	93454	37.11	ug/L		98
31) di-isopropyl ether	8.526	45	313051	47.28	ug/L		94
32) 2-butanone	9.349	72	33331	191.17	ug/L		99
33) 1,1-dichloroethane	8.479	63	170067	47.48	ug/L		99
34) chloroprene	8.620	53	133741	46.92	ug/L		99
35) acrylonitrile	7.755	53	29366	45.37	ug/L		95
36) vinyl acetate	8.495	86	14182	45.55	ug/L		100
37) ethyl tert-butyl ether	9.087	59	298821	48.17	ug/L		99
38) ethyl acetate	9.407	45	10484	44.30	ug/L	#	70
39) 2,2-dichloropropane	9.391	77	147627	51.77	ug/L		96
40) cis-1,2-dichloroethene	9.370	96	103713	48.07	ug/L		99
41) propionitrile	9.454	54	122460	445.36	ug/L		98
42) tert-Butyl Formate	9.915	59	74052	38.90	ug/L		97
43) bromochloromethane	9.742	128	51842	47.93	ug/L		96
44) tetrahydrofuran	9.821	72	9730	43.12	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175675.d
Acq On : 19 May 2018 2:32 pm
Operator : oyinadei
Sample : jc66383-5msd Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.826	83	174898	50.61	ug/L		98
47) methacrylonitrile	9.695	67	30884	43.59	ug/L		94
48) 1,1,1-trichloroethane	10.162	97	166080	52.03	ug/L		99
49) cyclohexane	10.267	84	106539	40.16	ug/L	#	74
50) 1,1-dichloropropene	10.393	75	120881	45.82	ug/L		99
51) isobutyl alcohol	10.419	43	33584	407.77	ug/L		93
52) carbon tetrachloride	10.419	117	149612	53.40	ug/L		99
53) tert-amyl alcohol	10.592	73	20495	222.37	ug/L		98
56) benzene	10.718	78	358271	46.84	ug/L		97
57) iso-octane	10.796	57	299577	38.95	ug/L		99
58) tert-amyl methyl ether	10.817	73	286180	49.93	ug/L		99
59) heptane	11.022	57	52126	37.47	ug/L		98
60) isopropyl acetate	10.691	87	15519	44.29	ug/L	#	81
61) 1,2-dichloroethane	10.723	62	130223	48.83	ug/L		98
62) n-butyl alcohol	11.394	56	102425	2202.71	ug/L		96
63) ethyl acrylate	11.719	55	96315	42.92	ug/L		99
64) trichloroethene	11.656	130	100754	48.85	ug/L		93
65) 2-nitropropane	12.699	41	17705	46.57	ug/L		94
67) methyl methacrylate	12.070	69	52159	43.94	ug/L		98
68) 1,2-dichloropropane	12.002	63	93428	45.56	ug/L		100
69) dibromomethane	12.186	93	58838	48.79	ug/L		99
70) methylcyclohexane	11.971	83	143115	42.02	ug/L		98
71) bromodichloromethane	12.380	83	135957	51.43	ug/L		96
72) epichlorohydrin	12.888	57	37946	215.69	ug/L		97
73) cis-1,3-dichloropropene	13.025	75	155944	46.37	ug/L		98
74) 4-methyl-2-pentanone	13.198	58	128182	183.73	ug/L		96
75) 3-methyl-1-butanol	13.219	55	72373	895.96	ug/L		97
78) toluene	13.528	92	229554	46.24	ug/L		99
79) trans-1,3-dichloropropene	13.790	75	141437	46.38	ug/L		98
80) ethyl methacrylate	13.853	69	109965	43.34	ug/L		97
81) 1,1,2-trichloroethane	14.068	83	71549	46.85	ug/L		99
82) tetrachloroethene	14.309	164	241761	129.68	ug/L		99
83) 1,3-dichloropropane	14.314	76	138797	46.16	ug/L		99
84) 2-hexanone	14.362	58	121748	179.13	ug/L		97
85) butyl acetate	14.493	56	53219	42.90	ug/L		93
86) dibromochloromethane	14.645	129	107085	50.30	ug/L		99
87) 1,2-dibromoethane	14.844	107	96310	46.41	ug/L		98
88) n-butyl ether	15.494	57	432029	46.10	ug/L		98
89) chlorobenzene	15.489	112	276361	47.00	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.578	131	115725	52.48	ug/L		99
91) ethylbenzene	15.599	91	471802	47.90	ug/L		100
92) m,p-xylene	15.746	91	734979	95.93	ug/L		99
93) o-xylene	16.286	106	184840	47.81	ug/L		98
94) styrene	16.296	104	318374	48.86	ug/L		99
95) butyl acrylate	16.123	55	186271	44.99	ug/L		98
96) bromoform	16.585	173	77662	52.81	ug/L		99
97) isopropylbenzene	16.737	105	509000	49.21	ug/L		100
98) cis-1,4-dichloro-2-butene	16.805	88	37191	44.61	ug/L		96
101) bromobenzene	17.167	156	149148	47.00	ug/L		86
102) 1,1,2,2-tetrachloroethane	17.077	83	123330	43.17	ug/L		99
103) trans-1,4-dichloro-2-b...	17.140	53	26342	40.15	ug/L		95
104) 1,2,3-trichloropropane	17.156	110	33059	45.46	ug/L		92
105) n-propylbenzene	17.229	91	606007	46.00	ug/L		99
106) 2-chlorotoluene	17.366	126	132352	47.04	ug/L		100
107) 4-chlorotoluene	17.481	91	366617	46.26	ug/L		99
109) 1,3,5-trimethylbenzene	17.413	105	452077	46.59	ug/L		100
110) tert-butylbenzene	17.796	119	398380	46.28	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175675.d
Acq On : 19 May 2018 2:32 pm
Operator : oyinadei
Sample : jc66383-5msd Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

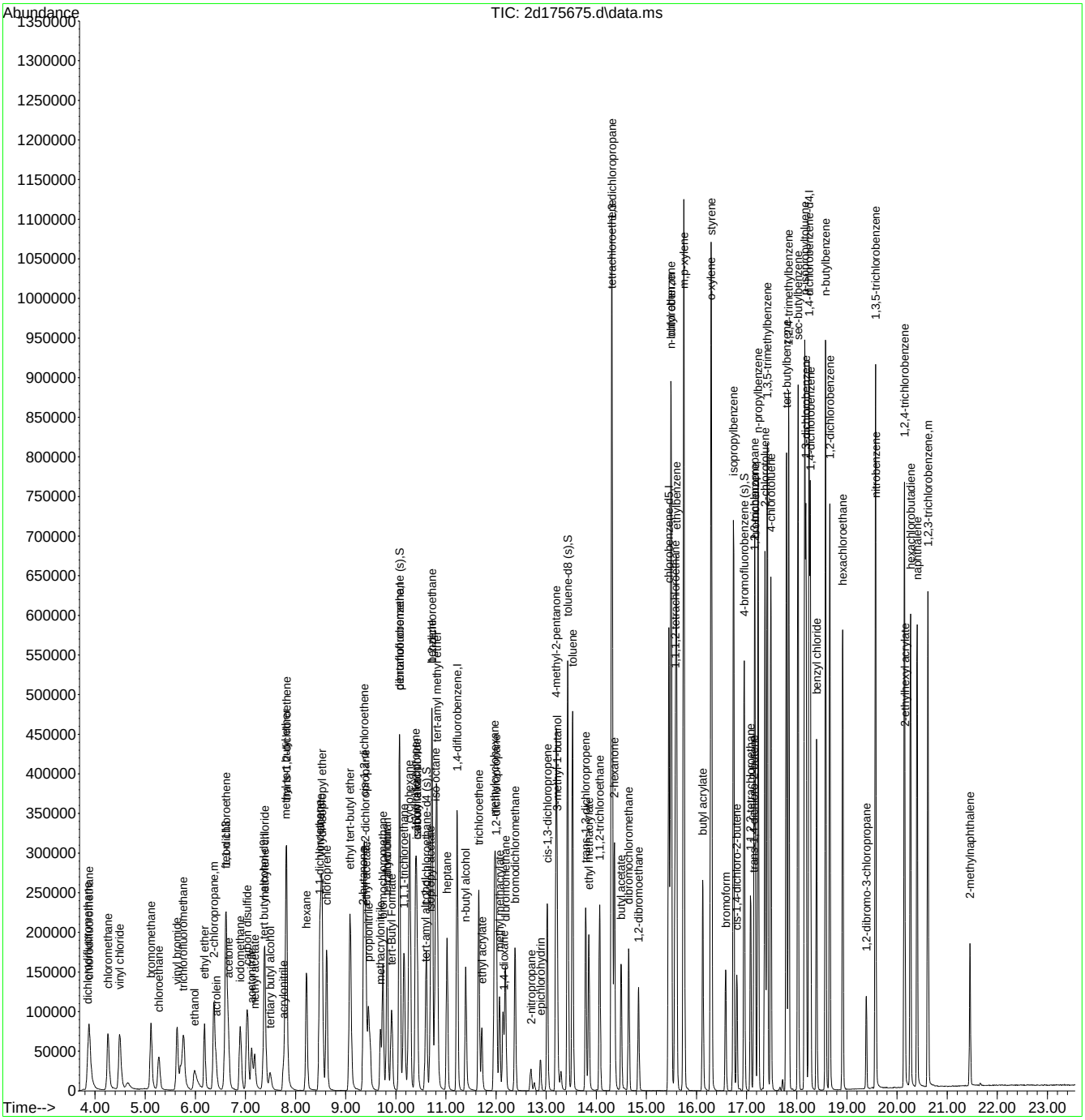
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,2,4-trimethylbenzene	17.838	105	466033	47.06	ug/L	99
112) sec-butylbenzene	18.026	105	594605	46.23	ug/L	99
113) 1,3-dichlorobenzene	18.184	146	286423	47.66	ug/L	100
114) p-isopropyltoluene	18.157	119	521942	46.71	ug/L	100
115) 1,4-dichlorobenzene	18.273	146	293422	48.25	ug/L	99
116) 1,2-dichlorobenzene	18.661	146	297317	49.30	ug/L	98
117) benzyl chloride	18.393	91	286358	52.63	ug/L	98
119) n-butylbenzene	18.577	92	264436	47.18	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.390	157	32792	46.93	ug/L	95
122) nitrobenzene	19.578	77	4870	54.89	ug/L	93
123) 1,3,5-trichlorobenzene	19.573	180	286855	50.89	ug/L	99
124) hexachlorobutadiene	20.270	225	132039	47.87	ug/L	97
125) naphthalene	20.401	128	452470	46.27	ug/L	100
126) 2-ethylhexyl acrylate	20.160	70	22108	7.90	ug/L	96
127) 1,2,4-trichlorobenzene	20.150	180	237944	49.67	ug/L	97
128) 1,2,3-trichlorobenzene	20.616	180	209243	47.43	ug/L	98
129) hexachloroethane	18.918	201	103927	53.56	ug/L	98
130) 2-methylnaphthalene	21.455	142	92769	17.68	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175675.d
Acq On : 19 May 2018 2:32 pm
Operator : oyinadei
Sample : jc66383-5msd Inst : MS2D
Misc : MS26472,V2D7409,5,,,,10
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 03:08:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222010.d
Acq On : 19 May 2018 5:19 pm
Operator : RobertS
Sample : JC66392-2MS Inst : MSC
Misc : MS26459,VC8227,5.9,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:55:40 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.421	65	78979	500.00	ug/L	0.00
5) pentafluorobenzene	11.130	168	208127	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.092	114	357855	50.00	ug/L	0.00
75) chlorobenzene-d5	15.110	117	331085	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.144	152	163825	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.156	113	97953	54.85	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 109.70%			
54) 1,2-dichloroethane-d4 (s)	11.595	65	109926	52.24	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 104.48%			
76) toluene-d8 (s)	13.687	98	459314	53.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.24%			
99) 4-bromofluorobenzene (s)	16.151	174	116418	49.92	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.84%			
Target Compounds						Qvalue
2) ethanol	6.799	45	121537	5669.22	ug/L	95
3) tertiary butyl alcohol	8.572	59	54759	261.09	ug/L	97
4) 1,4-dioxane	12.735	88	22071	1400.06	ug/L	94
6) chlorodifluoromethane	4.362	51	85950	32.66	ug/L	96
7) dichlorodifluoromethane	4.325	85	193182	69.84	ug/L	99
8) chloromethane	4.723	50	235355	59.10	ug/L	99
9) vinyl chloride	5.016	62	212037	57.17	ug/L	99
11) bromomethane	5.774	94	110103	50.29	ug/L	99
12) chloroethane	6.004	64	120657	58.53	ug/L	99
13) vinyl bromide	6.402	106	109397	61.42	ug/L	96
14) trichlorofluoromethane	6.532	101	179011	55.71	ug/L	100
15) ethyl ether	7.056	74	58440	54.84	ug/L	97
16) 2-chloropropane	7.322	43	206235	48.31	ug/L	94
17) acrolein	7.348	56	15043	57.22	ug/L	95
18) freon 113	7.589	151	62928	45.81	ug/L	94
19) 1,1-dichloroethene	7.568	61	171043	47.49	ug/L	100
20) acetone	7.594	43	90754	132.06	ug/L	94
21) acetonitrile	8.128	41	110580	608.90	ug/L	98
22) iodomethane	7.877	142	112974	38.22	ug/L	98
23) carbon disulfide	8.039	76	294195	39.57	ug/L	97
24) methylene chloride	8.483	84	116446	51.61	ug/L	99
25) methyl acetate	8.175	43	114757	104.89	ug/L	100
26) methyl tert butyl ether	8.938	73	294574	55.89	ug/L	95
27) trans-1,2-dichloroethene	8.975	61	170970	50.32	ug/L	99
28) hexane	9.409	57	152976	42.21	ug/L	99
29) di-isopropyl ether	9.681	45	444725	56.67	ug/L	97
30) ethyl tert-butyl ether	10.225	59	385815	55.46	ug/L	98
31) 1,1-dichloroethane	9.686	63	219668	51.21	ug/L	100
32) chloroprene	9.801	53	184770	53.60	ug/L	98
33) acrylonitrile	8.865	53	31075	59.71	ug/L	96
34) vinyl acetate	9.629	86	7681	27.42	ug/L	86
35) 2-butanone	10.455	72	36125	204.83	ug/L	99
36) ethyl acetate	10.481	45	10707	47.67	ug/L	94
37) 2,2-dichloropropane	10.544	77	172072	50.39	ug/L	100
38) cis-1,2-dichloroethene	10.513	96	122079	51.22	ug/L	99
39) methyl acrylate	10.570	85	13940	70.43	ug/L	93
40) propionitrile	10.549	54	132669	422.40	ug/L	89
41) bromochloromethane	10.847	128	45172	50.97	ug/L	96
42) tetrahydrofuran	10.858	42	26861	56.30	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222010.d
Acq On : 19 May 2018 5:19 pm
Operator : RobertS
Sample : JC66392-2MS Inst : MSC
Misc : MS26459,VC8227,5.9,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:55:40 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	chloroform	10.947	83	197838	50.44	ug/L		99
46)	methacrylonitrile	10.764	67	32844	80.72	ug/L		89
47)	cyclohexane	11.318	84	192096	58.11	ug/L	#	59
48)	1,1,1-trichloroethane	11.213	97	168048	52.09	ug/L		100
49)	1,1-dichloropropene	11.391	75	159883	51.21	ug/L		99
50)	carbon tetrachloride	11.412	117	131062	51.20	ug/L		99
51)	tert-amyl alcohol	11.553	73	24083	289.48	ug/L		95
52)	isobutyl alcohol	11.386	43	44846	651.81	ug/L		96
55)	isopropyl acetate	11.585	87	16393	49.12	ug/L	#	89
56)	2,2,4-trimethylpentane	11.752	57	480284	42.72	ug/L		97
57)	tert-amyl methyl ether	11.747	73	336140	52.98	ug/L		99
58)	benzene	11.648	78	489165	50.79	ug/L		99
59)	heptane	11.920	57	88640	39.42	ug/L		95
60)	1,2-dichloroethane	11.695	62	134218	46.37	ug/L		100
61)	n-butyl alcohol	12.155	56	144229	3224.55	ug/L		100
62)	ethyl acrylate	12.401	55	90244	48.11	ug/L		96
63)	trichloroethene	12.395	95	113637	50.54	ug/L		96
64)	2-chloroethyl vinyl ether	12.688	63	134505	262.52	ug/L		99
65)	2-nitropropane	13.159	41	23801	49.02	ug/L		93
66)	methylcyclohexane	12.683	83	225279	48.48	ug/L		95
67)	methyl methacrylate	12.662	100	21410	56.92	ug/L	#	81
68)	1,2-dichloropropane	12.688	63	134505	53.26	ug/L		99
69)	dibromomethane	12.793	93	56052	51.19	ug/L		91
70)	bromodichloromethane	12.950	83	148894	52.46	ug/L		99
71)	epichlorohydrin	13.274	57	40949	285.57	ug/L		98
72)	cis-1,3-dichloropropene	13.400	75	188029	53.78	ug/L		98
73)	4-methyl-2-pentanone	13.504	58	146690	252.88	ug/L		97
74)	3-methyl-1-butanol	13.509	55	90496	1206.71	ug/L		95
77)	toluene	13.761	92	300833	49.87	ug/L		99
78)	ethyl methacrylate	13.938	69	120232	55.51	ug/L		98
79)	trans-1,3-dichloropropene	13.949	75	158625	49.87	ug/L		99
80)	1,1,2-trichloroethane	14.163	83	74908	54.89	ug/L		98
81)	2-hexanone	14.310	58	135506	225.53	ug/L		97
82)	tetrachloroethene	14.278	166	102425	46.71	ug/L		96
83)	1,3-dichloropropane	14.331	76	157135	52.27	ug/L		99
84)	butyl acetate	14.383	56	47454	42.21	ug/L		93
85)	dibromochloromethane	14.561	129	85784	52.03	ug/L		100
86)	1,2-dibromoethane	14.702	107	82592	55.36	ug/L		99
87)	n-butyl ether	15.089	57	638100	57.07	ug/L		97
88)	chlorobenzene	15.136	112	299576	48.37	ug/L		98
89)	1,1,1,2-tetrachloroethane	15.199	131	101424	50.47	ug/L		98
90)	ethylbenzene	15.188	91	595818	50.68	ug/L		99
91)	m,p-xylene	15.298	106	438131	103.08	ug/L		98
92)	o-xylene	15.659	91	478724	52.43	ug/L		100
93)	styrene	15.670	104	352710	55.86	ug/L		99
94)	butyl acrylate	15.502	55	163364	46.49	ug/L		99
95)	bromoform	15.889	173	48981	52.23	ug/L		100
96)	isopropylbenzene	15.968	105	576607	51.35	ug/L		99
97)	cis-1,4-dichloro-2-butene	16.004	88	36070	54.12	ug/L		87
100)	bromobenzene	16.313	156	118168	47.36	ug/L		93
101)	1,1,2,2-tetrachloroethane	16.213	83	115809	53.10	ug/L		98
102)	trans-1,4-dichloro-2-b...	16.240	53	32314	61.61	ug/L		98
103)	1,2,3-trichloropropane	16.292	110	28358	52.45	ug/L	#	87
104)	n-propylbenzene	16.323	91	718899	49.68	ug/L		100
105)	2-chlorotoluene	16.449	126	129299	48.35	ug/L		91
106)	4-chlorotoluene	16.543	91	411381	49.99	ug/L		97
107)	1,3,5-trimethylbenzene	16.454	105	490854	50.53	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222010.d
Acq On : 19 May 2018 5:19 pm
Operator : RobertS
Sample : JC66392-2MS Inst : MSC
Misc : MS26459,VC8227,5.9,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:55:40 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

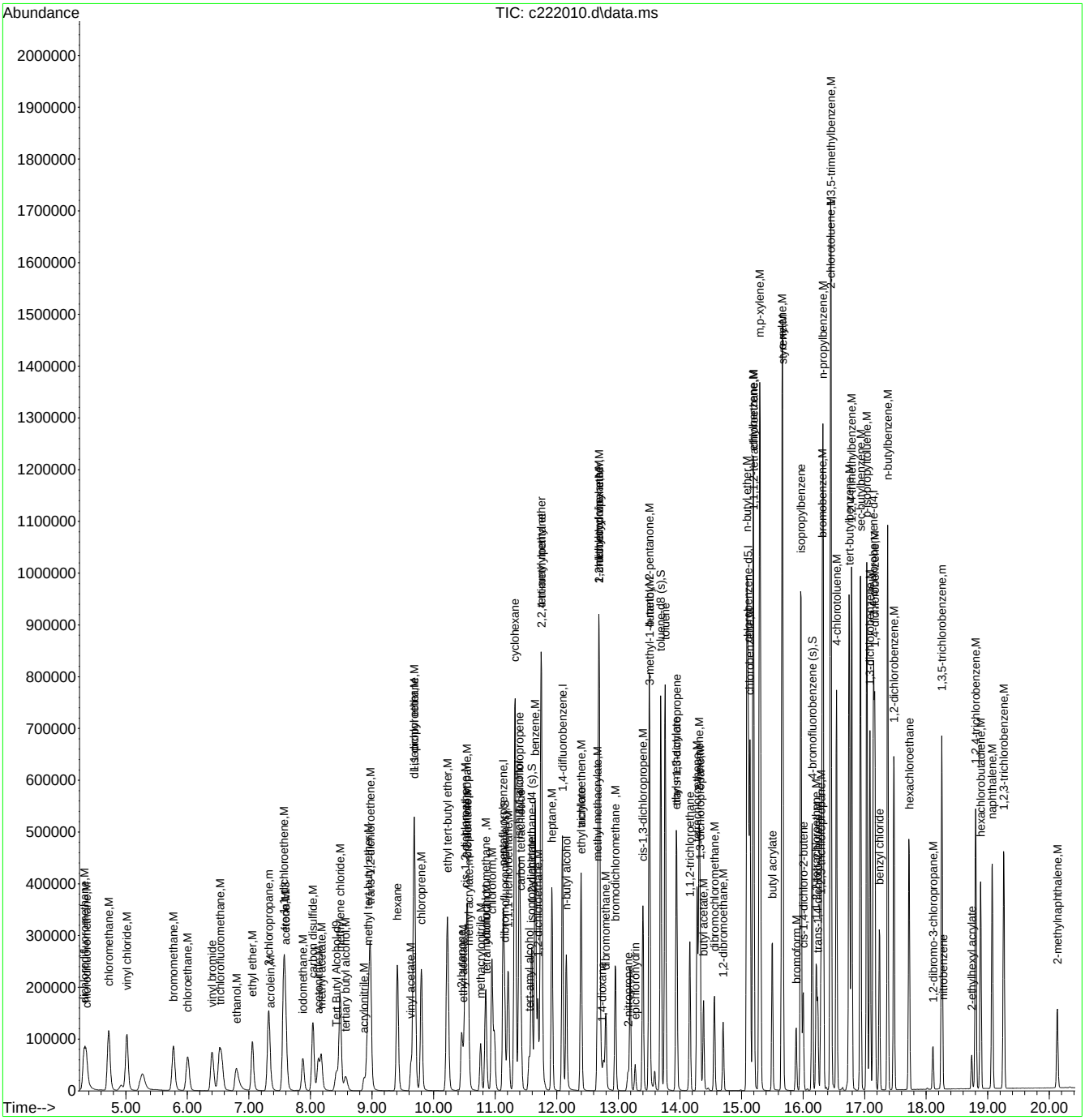
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) tert-butylbenzene	16.752	134	96711	49.59	ug/L		97
109) 1,2,4-trimethylbenzene	16.789	105	487753	50.43	ug/L		100
110) sec-butylbenzene	16.935	105	637022	49.21	ug/L		99
111) 1,3-dichlorobenzene	17.087	146	235966	46.81	ug/L		98
112) p-isopropyltoluene	17.035	119	510498	49.24	ug/L		99
113) 1,4-dichlorobenzene	17.165	146	236722	45.45	ug/L		99
114) benzyl chloride	17.239	91	200546	49.85	ug/L		98
115) 1,2-dichlorobenzene	17.479	146	221856	46.48	ug/L		98
116) n-butylbenzene	17.375	92	284397	48.70	ug/L		97
117) hexachloroethane	17.725	201	69284	50.45	ug/L		97
118) 1,2-dibromo-3-chloropr...	18.112	157	19210	54.06	ug/L		100
119) 1,3,5-trichlorobenzene	18.253	180	185824	44.11	ug/L		99
120) nitrobenzene	18.274	77	6452	51.00	ug/L		90
121) 2-ethylhexyl acrylate	18.740	70	15832	7.04	ug/L		92
122) 1,2,4-trichlorobenzene	18.802	180	150122	45.02	ug/L		99
123) hexachlorobutadiene	18.886	225	75754	40.60	ug/L	#	96
124) naphthalene	19.074	128	323157	50.45	ug/L		99
125) 1,2,3-trichlorobenzene	19.263	180	133639	45.26	ug/L		100
126) 2-methylnaphthalene	20.131	142	78029	23.49	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222010.d
Acq On : 19 May 2018 5:19 pm
Operator : RobertS
Sample : JC66392-2MS Inst : MSC
Misc : MS26459,VC8227,5.9,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:55:40 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156910.d
Acq On : 21 May 2018 2:23 pm
Operator : prashans
Sample : JC66413-1MS Inst : GCMS1C
Misc : MS26476,V1C6921,3.4,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:42:12 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.390	65	57921	500.00	ug/L	0.00
5) pentafluorobenzene	9.623	168	178031	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.538	114	285237	50.00	ug/L	0.00
76) chlorobenzene-d5	13.676	117	211553	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.988	152	93710	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.691	113	88992	54.57	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 109.14%			
55) 1,2-dichloroethane-d4 (s)	10.109	65	86381	48.99	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 97.98%			
77) toluene-d8 (s)	12.170	98	307525	51.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.18%			
100) 4-bromofluorobenzene (s)	14.822	95	94050	50.35	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 100.70%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.505	59	38054	247.69	ug/L	100
3) ethanol	6.140	45	106244	7130.31	ug/L	100
4) 1,4-dioxane	11.271	88	17495	1320.46	ug/L	98
6) chlorodifluoromethane	3.901	51	105617	59.70	ug/L	98
7) dichlorodifluoromethane	3.865	85	125404	48.65	ug/L	100
10) chloromethane	4.288	50	122222	50.63	ug/L	99
11) vinyl chloride	4.524	62	115844	53.08	ug/L	99
13) bromomethane	5.203	94	58325	56.10	ug/L	98
14) chloroethane	5.387	64	68776	55.18	ug/L	98
15) trichlorofluoromethane	5.826	101	130393	51.52	ug/L	99
16) vinyl bromide	5.737	106	75636	50.96	ug/L	99
17) ethyl ether	6.270	74	42789	51.29	ug/L	98
19) freon 113	6.631	151	49899	40.87	ug/L	99
20) 1,1-dichloroethene	6.694	96	74946	45.74	ug/L	98
21) acetone	6.773	58	20745	197.68	ug/L	96
22) acetonitrile	7.238	41	75031	412.62	ug/L	99
23) iodomethane	6.987	142	81190	52.58	ug/L	97
24) carbon disulfide	7.102	76	214024	40.65	ug/L	99
25) methylene chloride	7.437	84	88214	50.93	ug/L	99
26) methyl acetate	7.228	43	94243	88.19	ug/L	98
27) methyl tert butyl ether	7.730	73	206612	49.69	ug/L	99
28) trans-1,2-dichloroethene	7.803	96	81498	46.66	ug/L	99
29) di-isopropyl ether	8.321	45	280917	53.49	ug/L	98
30) 2-butanone	9.084	72	25885	185.62	ug/L #	64
31) 1,1-dichloroethane	8.378	63	157625	51.80	ug/L	100
32) chloroprene	8.478	53	118299	48.71	ug/L	99
33) acrylonitrile	7.792	53	18823	42.02	ug/L	98
34) hexane	8.075	57	77754	27.13	ug/L	98
36) ethyl tert-butyl ether	8.781	59	254268	54.57	ug/L	98
37) ethyl acetate	9.095	45	4670	22.79	ug/L #	1
38) 2,2-dichloropropane	9.105	77	118735	48.17	ug/L	96
39) cis-1,2-dichloroethene	9.116	96	89645	47.56	ug/L	99
40) methyl acrylate	9.173	85	13902	71.89	ug/L	94
41) propionitrile	9.210	54	88159	418.45	ug/L	95
42) bromochloromethane	9.435	128	39075	51.20	ug/L	97
43) tetrahydrofuran	9.466	72	8402	48.17	ug/L	95
44) chloroform	9.487	85	95183	50.22	ug/L	96
45) t-butyl formate	9.503	59	30022	26.61	ug/L	98
47) methacrylonitrile	9.382	67	21951	39.92	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156910.d
Acq On : 21 May 2018 2:23 pm
Operator : prashans
Sample : JC66413-1MS Inst : GCMS1C
Misc : MS26476,V1C6921,3.4,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:42:12 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48) 1,1,1-trichloroethane	9.722	97	124282	49.68	ug/L		98
49) cyclohexane	9.775	84	87262	37.74	ug/L		96
50) 1,1-dichloropropene	9.900	75	108005	46.22	ug/L		99
51) iso-butyl alcohol	9.921	43	28201	446.27	ug/L		97
52) carbon tetrachloride	9.921	117	102033	46.83	ug/L		96
53) tert amyl alcohol	10.036	55	12146	225.97	ug/L		93
56) n-butyl alcohol	10.674	56	56884	1335.44	ug/L		99
57) 2,2,4-trimethylpentane	10.125	57	150949	19.90	ug/L		99
58) benzene	10.167	78	320006	45.65	ug/L		100
59) tert-amyl methyl ether	10.177	87	49635	49.40	ug/L		95
60) heptane	10.303	71	32445	19.85	ug/L		99
61) isopropyl acetate	10.078	87	8616	31.02	ug/L		97
62) 1,2-dichloroethane	10.204	62	94857	45.42	ug/L		100
63) trichloroethene	10.878	130	79224	40.35	ug/L		99
64) ethyl acrylate	10.878	55	32979	18.41	ug/L		74
65) 2-nitropropane	11.673	41	20714	44.01	ug/L	#	93
66) 2-chloroethyl vinyl ether	11.673	63	206832	231.26	ug/L		100
67) methyl methacrylate	11.140	100	18523	55.10	ug/L		97
68) 1,2-dichloropropane	11.155	63	87497	48.26	ug/L		100
69) dibromomethane	11.323	93	43985	45.84	ug/L		95
70) methylcyclohexane	11.072	83	96836	30.86	ug/L		97
71) bromodichloromethane	11.443	83	99296	44.56	ug/L		99
72) epichlorohydrin	11.809	57	28574	205.31	ug/L		99
73) cis-1,3-dichloropropene	11.893	75	122466	44.98	ug/L		99
74) 4-methyl-2-pentanone	11.977	58	89988	176.55	ug/L		98
75) 3-methyl-1-butanol	12.003	55	53747	851.29	ug/L		98
78) toluene	12.238	92	169712	44.03	ug/L		98
79) trans-1,3-dichloropropene	12.453	75	98699	45.06	ug/L		97
80) ethyl methacrylate	12.421	69	46409	27.40	ug/L		97
81) 1,1,2-trichloroethane	12.667	83	49405	45.39	ug/L		96
82) tetrachloroethene	12.813	164	49059	39.86	ug/L		97
83) 1,3-dichloropropane	12.850	76	92639	45.46	ug/L		97
84) 2-hexanone	12.824	58	81839	180.28	ug/L		100
85) butyl acetate	12.887	56	13891	16.53	ug/L		94
86) dibromochloromethane	13.112	129	61925	43.77	ug/L		99
87) 1,2-dibromoethane	13.263	107	57687	43.25	ug/L		98
88) n-butyl ether	13.588	57	294717	44.48	ug/L		100
89) chlorobenzene	13.708	112	159300	41.14	ug/L		97
90) 1,1,1,2-tetrachloroethane	13.765	131	61195	45.44	ug/L		99
91) ethylbenzene	13.750	91	273072	39.80	ug/L		99
92) m,p-xylene	13.854	106	200283	79.55	ug/L		98
93) o-xylene	14.273	106	97882	40.67	ug/L		97
94) styrene	14.283	104	156994	39.29	ug/L		96
95) bromoform	14.571	173	32816	40.10	ug/L		99
96) butyl acrylate	14.095	55	46701	19.50	ug/L		99
97) isopropylbenzene	14.602	105	359212	55.76	ug/L	#	1
98) cis-1,4-dichloro-2-butene	14.702	88	19799	36.95	ug/L		98
101) bromobenzene	15.021	156	56683	39.58	ug/L		98
102) 1,1,2,2-tetrachloroethane	14.937	83	54425	39.70	ug/L		100
103) trans-1,4-dichloro-2-b...	14.974	53	15079	40.27	ug/L		91
104) 1,2,3-trichloropropane	15.010	110	13711	43.32	ug/L		93
105) n-propylbenzene	15.010	91	286745	40.08	ug/L		100
107) 2-chlorotoluene	15.167	126	52546	37.62	ug/L		97
108) 4-chlorotoluene	15.266	91	168514	39.77	ug/L		98
109) 1,3,5-trimethylbenzene	15.162	105	180446	36.76	ug/L		99
110) tert-butylbenzene	15.507	134	31670	36.37	ug/L		91
111) 1,2,4-trimethylbenzene	15.554	105	181536	36.87	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156910.d
Acq On : 21 May 2018 2:23 pm
Operator : prashans
Sample : JC66413-1MS Inst : GCMS1C
Misc : MS26476,V1C6921,3.4,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:42:12 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

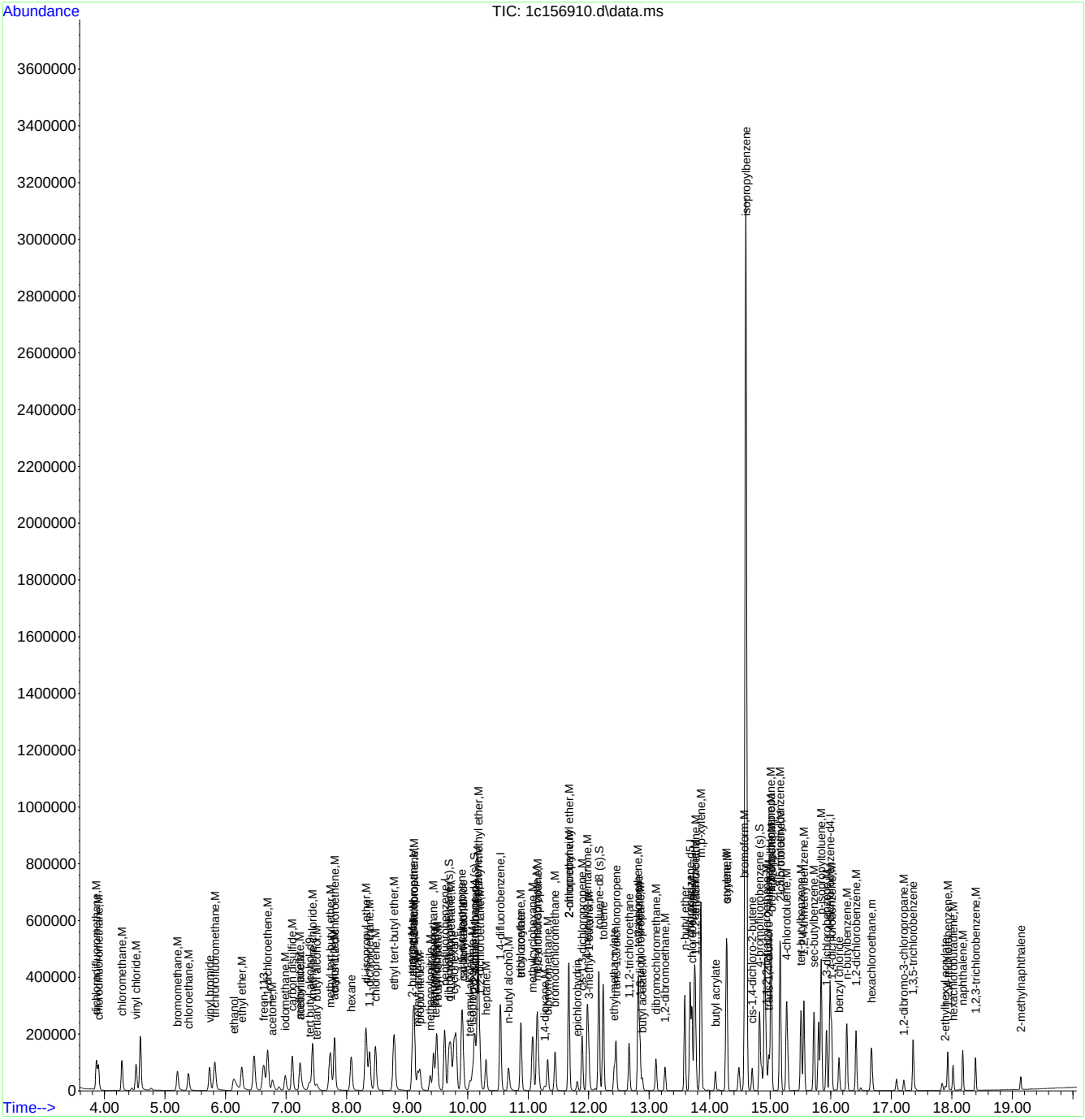
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) sec-butylbenzene	15.721	105	203634	31.96	ug/L	99
113) 1,3-dichlorobenzene	15.931	146	91526	33.41	ug/L	99
114) p-isopropyltoluene	15.842	119	285921	53.83	ug/L	100
115) 1,4-dichlorobenzene	16.014	146	90879	33.32	ug/L	97
116) benzyl chloride	16.135	91	86752	37.04	ug/L	100
117) 1,2-dichlorobenzene	16.417	146	88493	34.29	ug/L	100
119) n-butylbenzene	16.265	92	79224	27.18	ug/L	96
120) 1,2-dibromo-3-chloropr...	17.207	75	9590	39.36	ug/L	99
121) 1,3,5-trichlorobenzene	17.359	180	52598	24.94	ug/L	99
123) 2-ethylhexyl acrylate	17.892	70	3539	3.14	ug/L	95
124) 1,2,4-trichlorobenzene	17.934	180	38745	22.49	ug/L	97
125) hexachlorobutadiene	18.023	225	19683	17.53	ug/L	95
126) naphthalene	18.180	128	97953	29.09	ug/L	99
127) 1,2,3-trichlorobenzene	18.394	180	33866	21.73	ug/L	99
128) hexachloroethane	16.673	201	30082	34.09	ug/L	98
129) 2-methylnaphthalene	19.142	142	19265	9.75	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156910.d
Acq On : 21 May 2018 2:23 pm
Operator : prashans
Sample : JC66413-1MS Inst : GCMS1C
Misc : MS26476,V1C6921,3.4,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:42:12 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222009.d
Acq On : 19 May 2018 4:50 pm
Operator : RobertS
Sample : JC66392-1DUP Inst : MSC
Misc : MS26459,VC8227,5.1,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:55:21 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

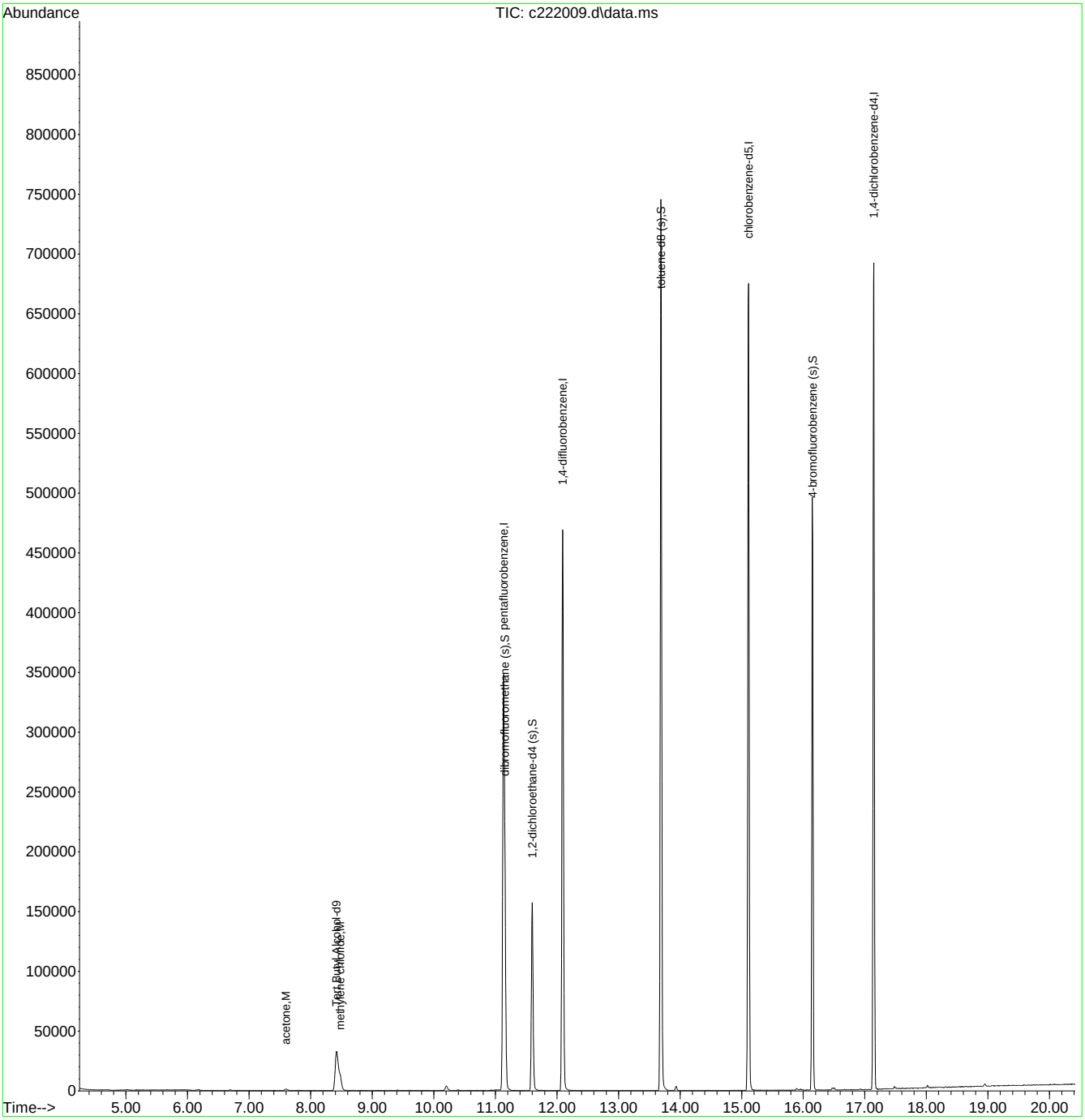
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.417	65	69722	500.00	ug/L	0.00
5) pentafluorobenzene	11.132	168	202179	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.094	114	346900	50.00	ug/L	0.00
75) chlorobenzene-d5	15.112	117	321496	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.146	152	149818	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.152	113	94060	54.22	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 108.44%			
54) 1,2-dichloroethane-d4 (s)	11.597	65	105950	51.94	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 103.88%			
76) toluene-d8 (s)	13.689	98	445466	53.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.12%			
99) 4-bromofluorobenzene (s)	16.152	174	108244	50.75	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 101.50%			
Target Compounds						Qvalue
20) acetone	7.596	43	2862	4.29	ug/L	93
24) methylene chloride	8.480	84	5481	2.50	ug/L	92

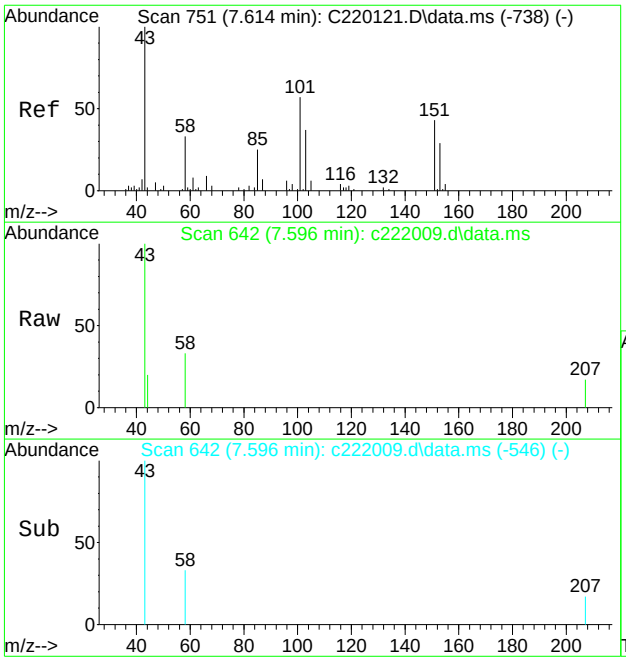
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c222009.d
Acq On : 19 May 2018 4:50 pm
Operator : RobertS
Sample : JC66392-1DUP Inst : MSC
Misc : MS26459,VC8227,5.1,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:55:21 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

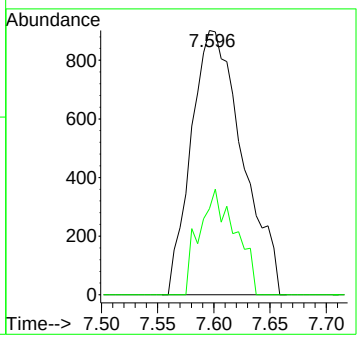


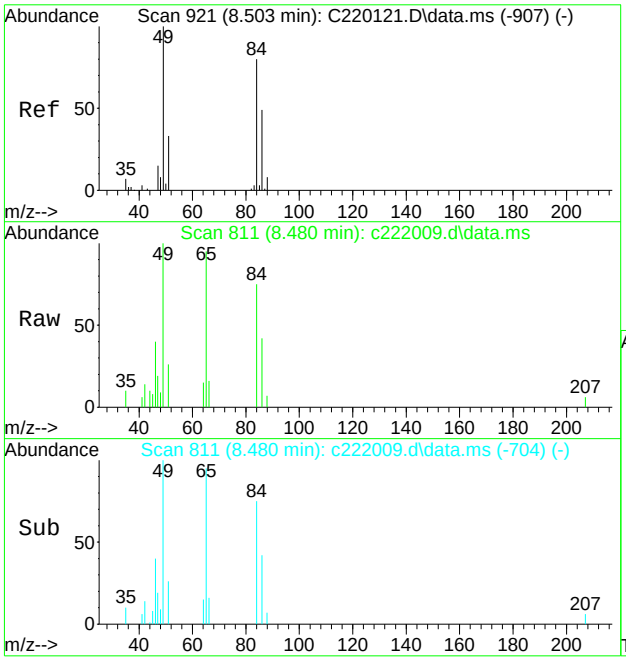


#20
acetone
Concen: 4.29 ug/L
RT: 7.596 min Scan# 642
Delta R.T. 0.001 min
Lab File: c222009.d
Acq: 19 May 2018 4:50 pm

Tgt Ion: 43 Resp: 2862

Ion	Ratio	Lower	Upper
43	100		
58	32.6	0.0	59.1

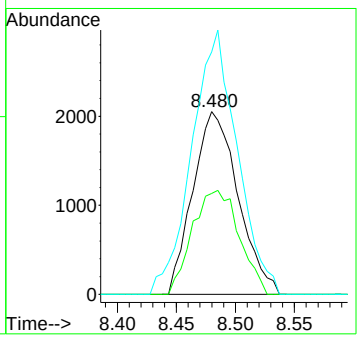




#24
methylene chloride
Concen: 2.50 ug/L
RT: 8.480 min Scan# 811
Delta R.T. 0.001 min
Lab File: c222009.d
Acq: 19 May 2018 4:50 pm

Tgt Ion: 84 Resp: 5481

Ion	Ratio	Lower	Upper
84	100		
86	55.2	44.6	82.8
49	132.5	98.6	183.0



7.5.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156911.d
Acq On : 21 May 2018 2:50 pm
Operator : prashans
Sample : JC66413-2DUP Inst : GCMS1C
Misc : MS26476,V1C6921,6.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:43:41 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

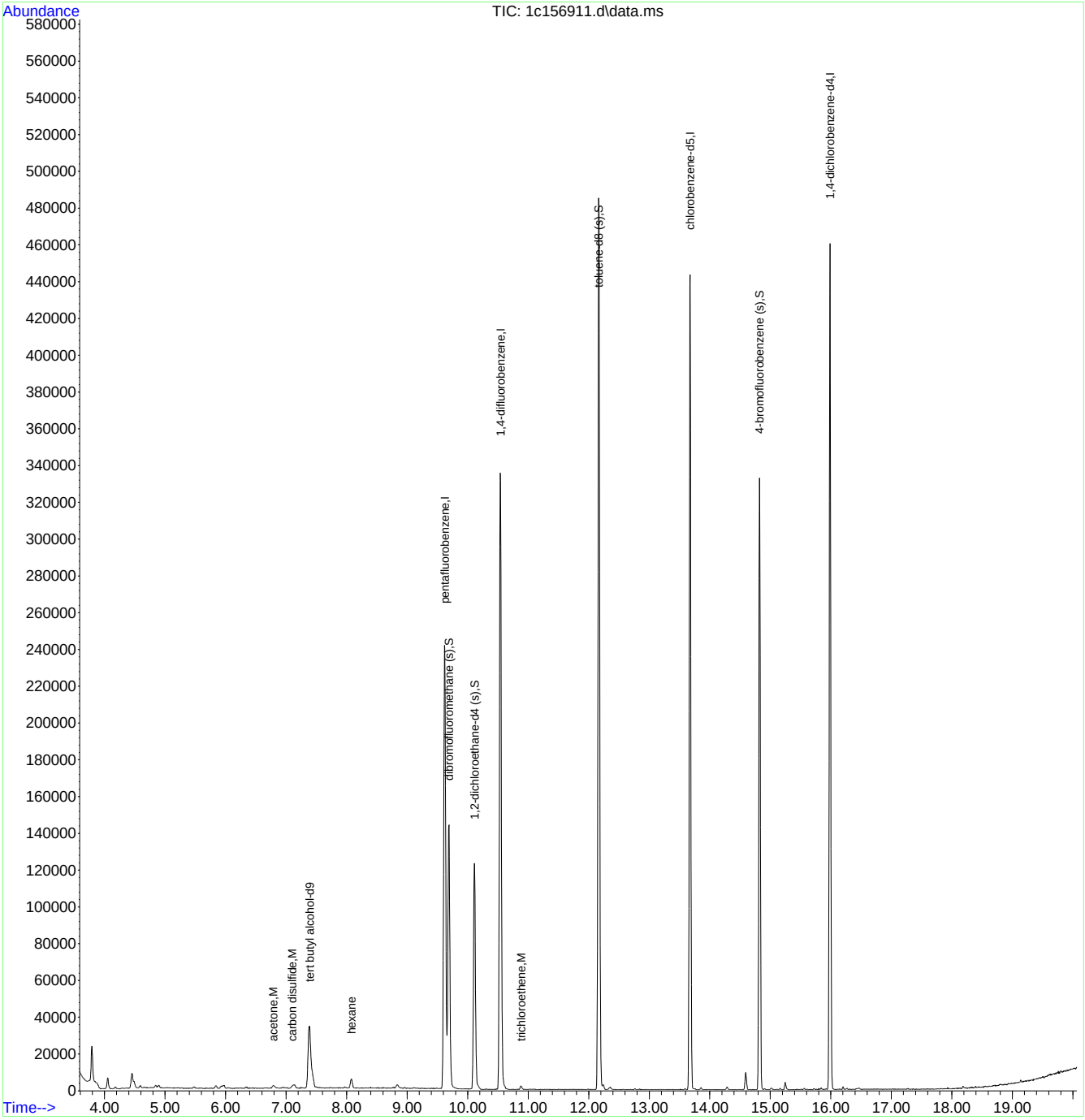
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.390	65	68036	500.00	ug/L	0.00
5) pentafluorobenzene	9.623	168	203071	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.543	114	318724	50.00	ug/L	0.00
76) chlorobenzene-d5	13.676	117	247979	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.988	152	120319	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.691	113	100952	54.27	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 108.54%			
55) 1,2-dichloroethane-d4 (s)	10.115	65	97939	49.71	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 99.42%			
77) toluene-d8 (s)	12.165	98	353770	50.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%			
100) 4-bromofluorobenzene (s)	14.822	95	116971	48.78	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 97.56%			
Target Compounds						Qvalue
21) acetone	6.788	58	872	7.28	ug/L #	62
24) carbon disulfide	7.102	76	2101	0.35	ug/L	88
34) hexane	8.080	57	3131	0.96	ug/L	92
63) trichloroethene	10.883	130	781	0.36	ug/L	93

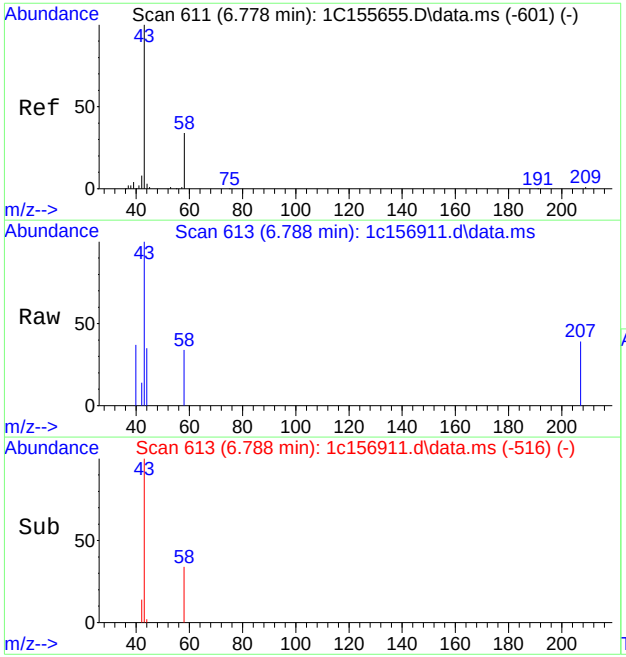
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156911.d
Acq On : 21 May 2018 2:50 pm
Operator : prashans
Sample : JC66413-2DUP Inst : GCMS1C
Misc : MS26476,V1C6921,6.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:43:41 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

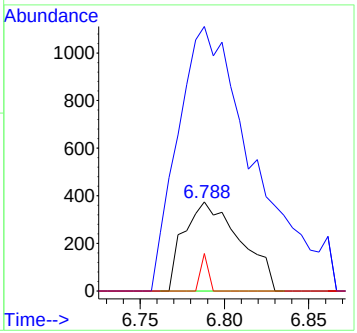


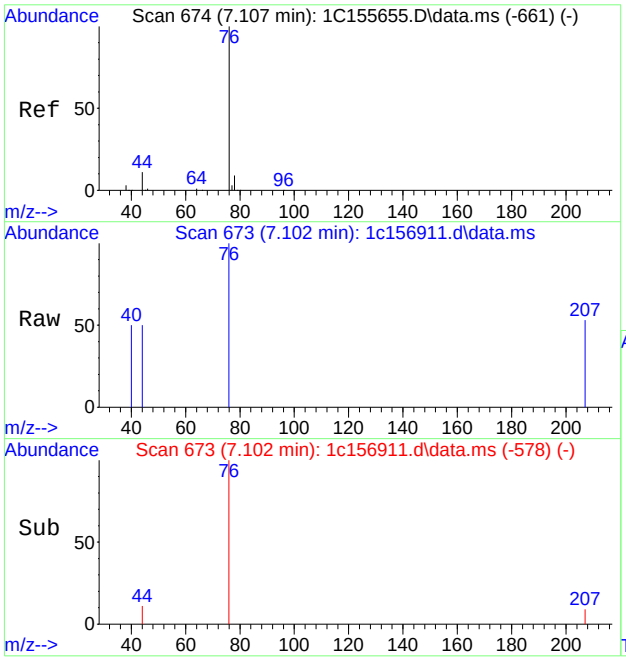


#21
acetone
Concen: 7.28 ug/L
RT: 6.788 min Scan# 613
Delta R.T. 0.005 min
Lab File: 1c156911.d
Acq: 21 May 2018 2:50 pm

Tgt Ion: 58 Resp: 872

Ion	Ratio	Lower	Upper
58	100		
43	231.8	276.9	336.9#
42	42.0	0.0	52.0

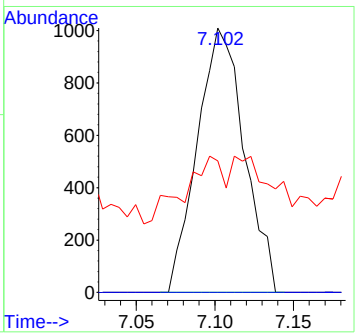


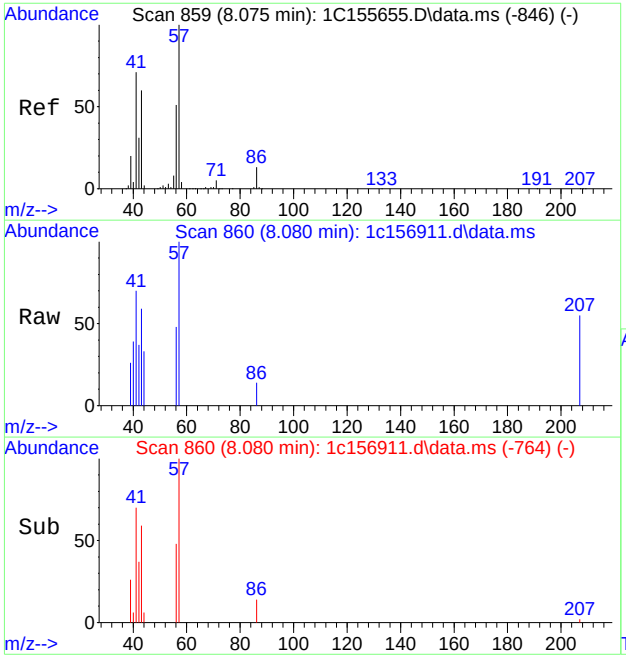


#24
carbon disulfide
Concen: 0.35 ug/L
RT: 7.102 min Scan# 673
Delta R.T. -0.005 min
Lab File: 1c156911.d
Acq: 21 May 2018 2:50 pm

Tgt Ion: 76 Resp: 2101

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3
44	13.0	0.0	42.4

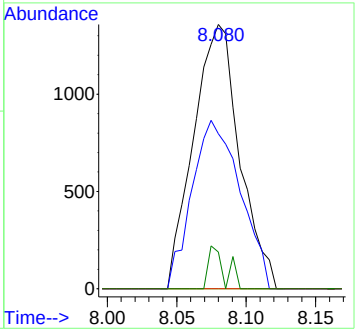


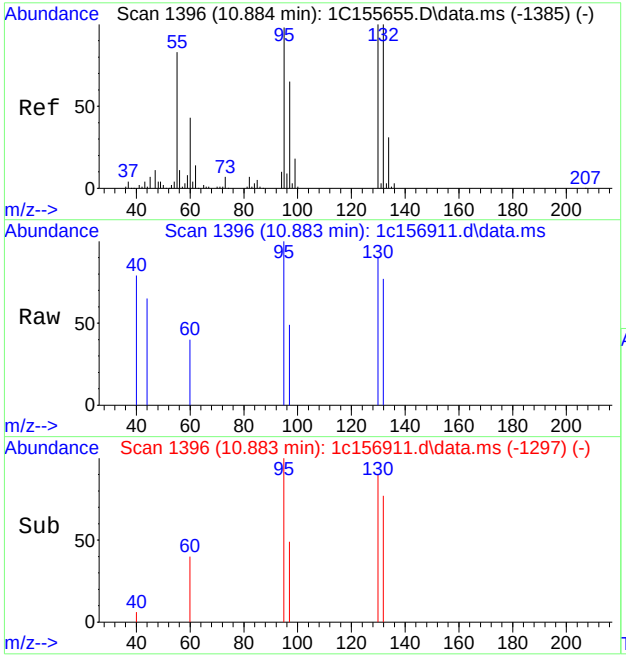


#34
hexane
Concen: 0.96 ug/L
RT: 8.080 min Scan# 860
Delta R.T. -0.000 min
Lab File: 1c156911.d
Acq: 21 May 2018 2:50 pm

Tgt Ion: 57 Resp: 3131

Ion	Ratio	Lower	Upper
57	100		
43	58.6	46.0	86.0
71	0.0	0.0	25.7
86	13.9	0.0	34.0

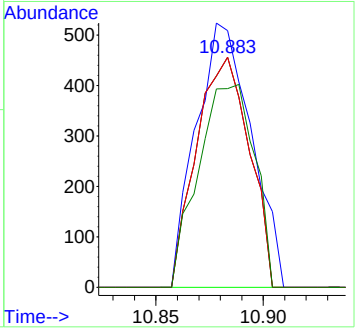




#63
trichloroethene
Concen: 0.36 ug/L
RT: 10.883 min Scan# 1396
Delta R.T. -0.000 min
Lab File: 1c156911.d
Acq: 21 May 2018 2:50 pm

Tgt Ion:130 Resp: 781

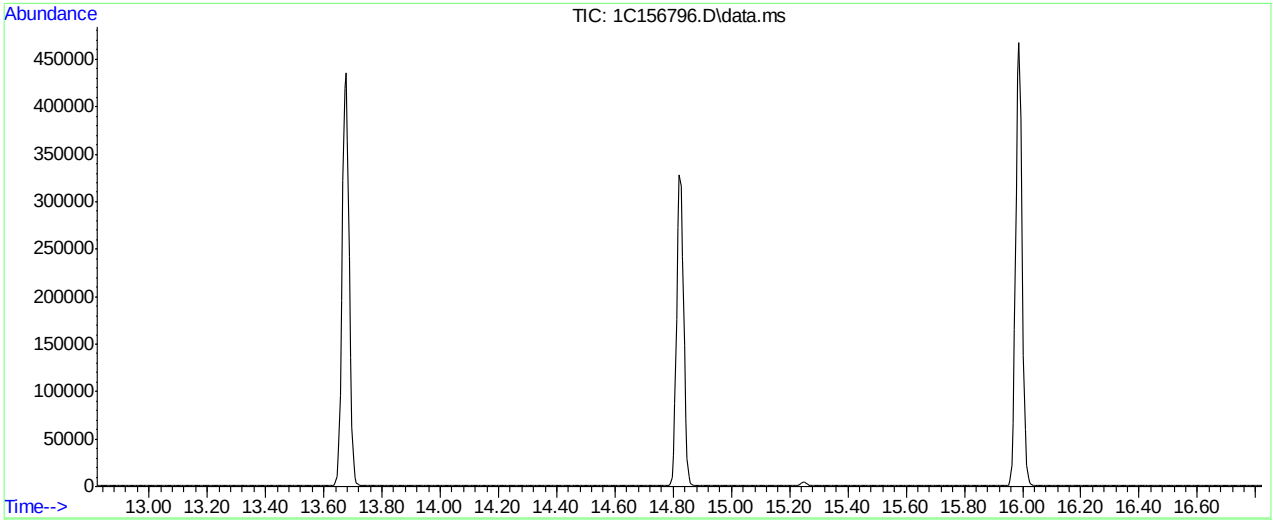
Ion	Ratio	Lower	Upper
130	100		
95	111.6	72.1	132.1
130	100.0	70.0	130.0
132	86.4	67.2	127.2



SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V1C6917\1C156796.D Vial: 1
Acq On : 16 May 2018 4:51 pm Operator: prashans
Sample : BFB Inst : GCMS1C
Misc : MS26284,V1C6917,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6917.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um



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	17.9	11794	PASS
75	95	30	60	47.4	31282	PASS
95	95	100	100	100.0	66005	PASS
96	95	5	9	6.8	4459	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	78.5	51821	PASS
175	174	5	9	7.8	4064	PASS
176	174	95	101	97.2	50346	PASS
177	176	5	9	6.7	3371	PASS

1C156796.D M1CS6917.M Thu May 17 11:55:54 2018

Average of 14.817 to 14.827 min.: 1C156796.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	539	52.00	97	69.00	6385	80.90	1750
37.00	2838	55.00	166	70.00	457	81.95	399
38.00	2566	56.00	824	72.00	383	87.00	2984
39.05	1012	57.00	1641	73.00	2737	87.95	2889
44.00	278	60.00	567	74.00	10076	90.95	212
45.05	556	61.00	2722	75.00	31282	92.00	1740
47.00	955	62.00	2763	76.00	2654	93.00	2508
48.00	436	63.00	2045	77.00	398	94.00	7210
49.05	2522	64.05	226	77.95	301	95.00	66005
50.00	11794	67.00	48	78.90	1715	96.00	4459
51.05	3522	68.00	6415	79.95	424	96.90	50

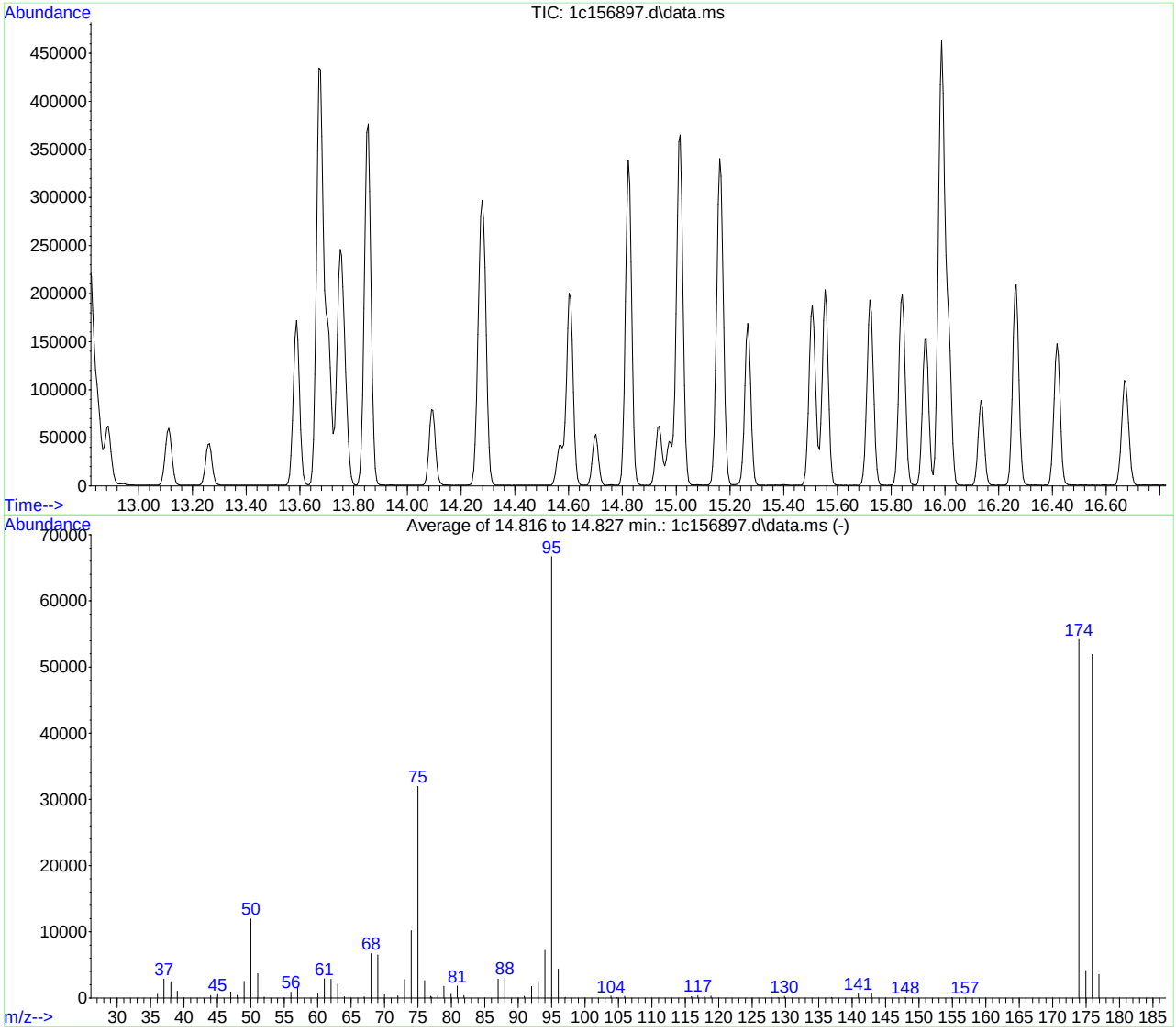
Average of 14.817 to 14.827 min.: 1C156796.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.90	223	147.90	107				
105.90	318	154.90	154				
115.95	217	156.85	99				
116.90	362	173.90	51821				
117.85	234	174.95	4064				
118.90	318	175.90	50346				
127.95	240	176.90	3371				
129.85	255						
136.90	49						
140.90	638						
142.90	641						

SW-846 Method 8260

Data File : C:\msdchem\1\data\mi...lc\v1c6921\1c156897.d Vial: 2
Acq On : 21 May 2018 8:13 am Operator: prashans
Sample : bfb Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6917.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2148, 2149, 2150; 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	17.9	11970	PASS
75	95	30	60	47.9	31976	PASS
95	95	100	100	100.0	66688	PASS
96	95	5	9	6.6	4382	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	81.3	54184	PASS
175	174	5	9	7.6	4138	PASS
176	174	95	101	95.8	51920	PASS
177	176	5	9	6.9	3559	PASS

1c156897.d M1CS6917.M Tue May 22 11:22:44 2018

Average of 14.816 to 14.827 min.: 1c156897.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	559	51.05	3672	68.00	6717	78.90	1765
37.00	2868	52.00	159	69.00	6504	79.95	583
38.05	2479	55.00	35	70.00	501	80.90	1825
39.00	1035	56.00	866	72.00	329	81.90	376
40.00	25	57.00	1627	73.00	2767	87.00	2842
44.00	354	60.05	621	74.00	10183	88.00	2960
45.05	543	61.00	2910	75.00	31976	90.95	249
47.00	929	62.00	2802	76.00	2634	92.00	1738
47.95	396	63.00	2076	76.90	254	93.00	2527
49.00	2506	64.00	192	77.10	128	94.00	7203
50.00	11970	66.95	177	77.95	315	95.00	66688

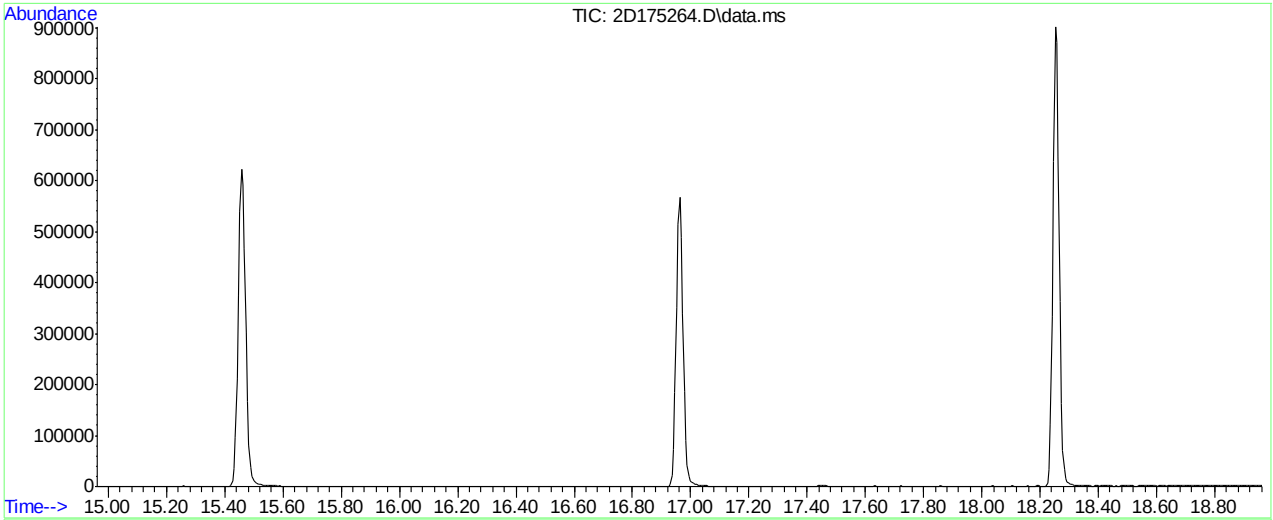
Average of 14.816 to 14.827 min.: 1c156897.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	4382	129.85	275				
97.05	99	136.90	59				
103.90	298	140.90	663				
104.80	47	142.90	647				
105.95	264	147.95	119				
115.95	223	154.90	48				
116.90	373	156.90	49				
117.85	246	173.90	54184				
118.85	294	174.95	4138				
127.85	207	175.90	51920				
128.90	47	176.90	3559				

BFB

Data File : C:\msdchem\1\DATA\V2D7390\2D175264.D Vial: 1
Acq On : 3 May 2018 3:39 pm Operator: oyinadei
Sample : BFB Inst : MS2D
Misc : MS25995,V2D7390,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2532, 2533, 2534; Background Corrected with Scan 2523

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	17674	PASS
75	95	30	60	46.1	48434	PASS
95	95	100	100	100.0	105000	PASS
96	95	5	9	6.6	6978	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.6	102509	PASS
175	174	5	9	7.7	7907	PASS
176	174	95	101	97.3	99776	PASS
177	176	5	9	6.5	6501	PASS

2D175264.D M2D7390.M Fri May 04 11:10:17 2018 GCMS2D

Average of 16.957 to 16.967 min.: 2D175264.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	871	52.00	275	68.00	9272	79.90	668
37.00	4655	54.95	366	69.00	9877	80.90	2319
38.00	4075	56.00	1293	70.00	797	81.90	422
39.00	1567	57.00	2521	71.95	528	85.90	47
44.00	549	58.10	40	73.00	4268	86.20	45
45.00	776	60.00	868	74.00	15953	87.00	4574
47.05	1435	61.00	4153	75.00	48434	87.95	4571
47.95	568	62.00	4190	76.00	4013	90.90	350
49.00	3840	63.05	3109	77.00	609	92.00	2754
50.00	17674	64.00	323	77.90	442	93.00	3896
51.00	5620	66.95	283	78.90	2141	94.00	11553

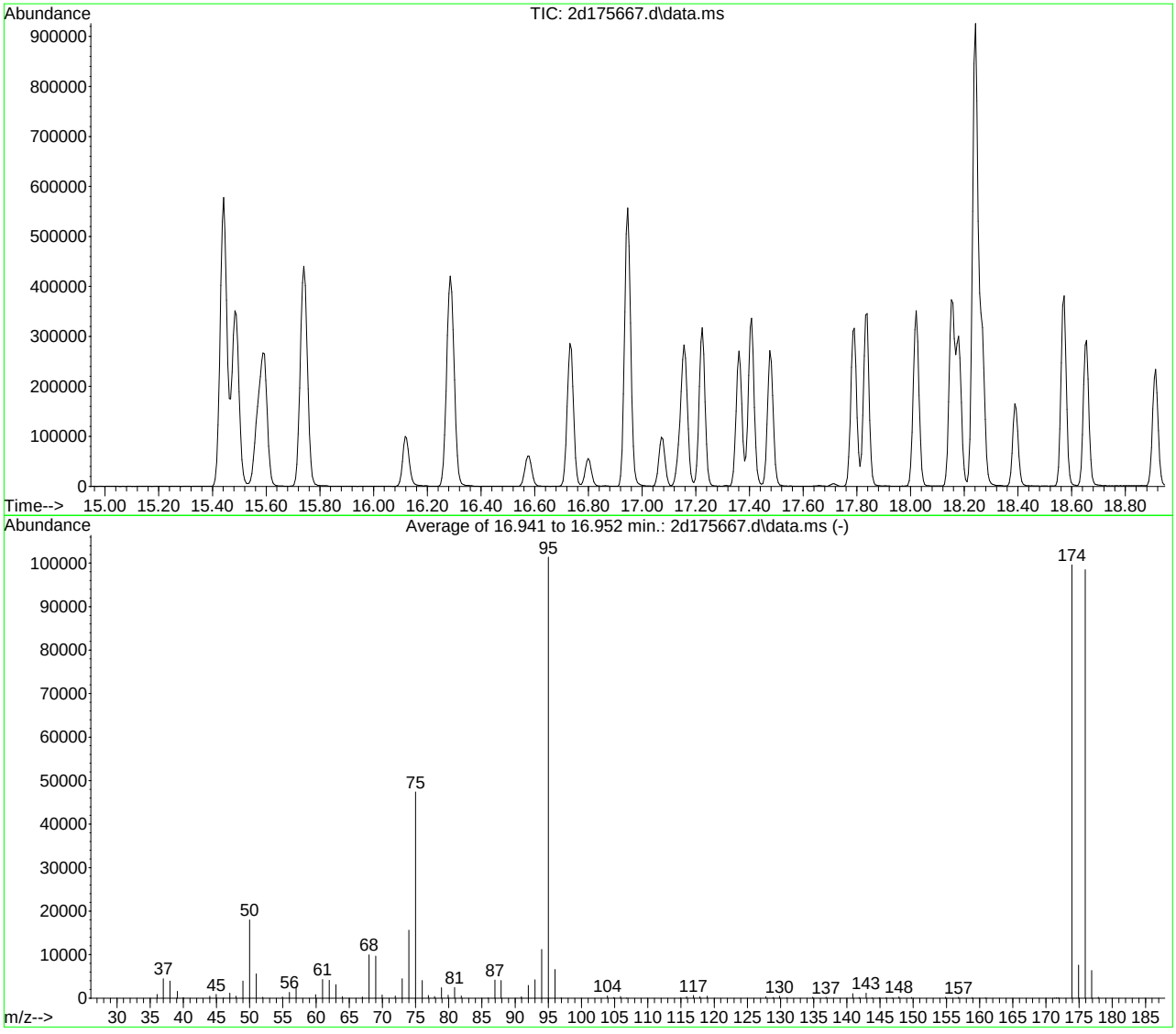
Average of 16.957 to 16.967 min.: 2D175264.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	105000	127.90	399	145.85	171	175.90	99776
96.00	6978	128.85	118	147.85	217	176.90	6501
97.00	219	129.85	397	149.90	136	177.85	202
103.95	365	130.95	153	154.90	229	206.90	40
104.90	76	132.90	42	156.85	218		
105.90	314	134.85	151	158.80	118		
106.90	45	136.80	140	160.85	112		
115.85	323	140.90	979	171.60	51		
116.85	524	141.80	62	171.90	113		
117.85	339	142.90	1057	173.90	102509		
118.90	476	144.85	80	174.90	7907		

BFB

Data File : C:\msdchem\1\data\ni...18\v2d7409\2d175667.d Vial: 25
Acq On : 19 May 2018 9:36 am Operator: oyinadei
Sample : bfb Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2529, 2530, 2531; Background Corrected with Scan 2520

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	17975	PASS
75	95	30	60	46.8	47411	PASS
95	95	100	100	100.0	101360	PASS
96	95	5	9	6.5	6587	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	98.3	99605	PASS
175	174	5	9	7.6	7586	PASS
176	174	95	101	98.9	98475	PASS
177	176	5	9	6.4	6349	PASS

2d175667.d M2D7390.M Tue May 22 02:48:54 2018

Average of 16.941 to 16.952 min.: 2d175667.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	844	50.00	17975	67.00	252	78.90	2407
37.00	4477	51.00	5577	68.00	9959	79.90	702
38.00	3952	51.95	236	69.00	9663	80.90	2438
39.10	1566	54.95	244	69.95	762	81.90	483
40.00	173	56.00	1343	71.95	534	85.90	42
44.00	441	57.00	2514	73.00	4438	86.95	4166
44.95	869	59.95	829	74.00	15642	87.90	4061
46.10	42	61.00	4294	75.00	47411	90.95	332
47.00	1136	62.00	4119	76.00	4048	92.00	2913
47.95	463	63.00	3122	76.95	646	93.00	4199
49.00	3901	63.95	323	77.85	406	94.00	11219

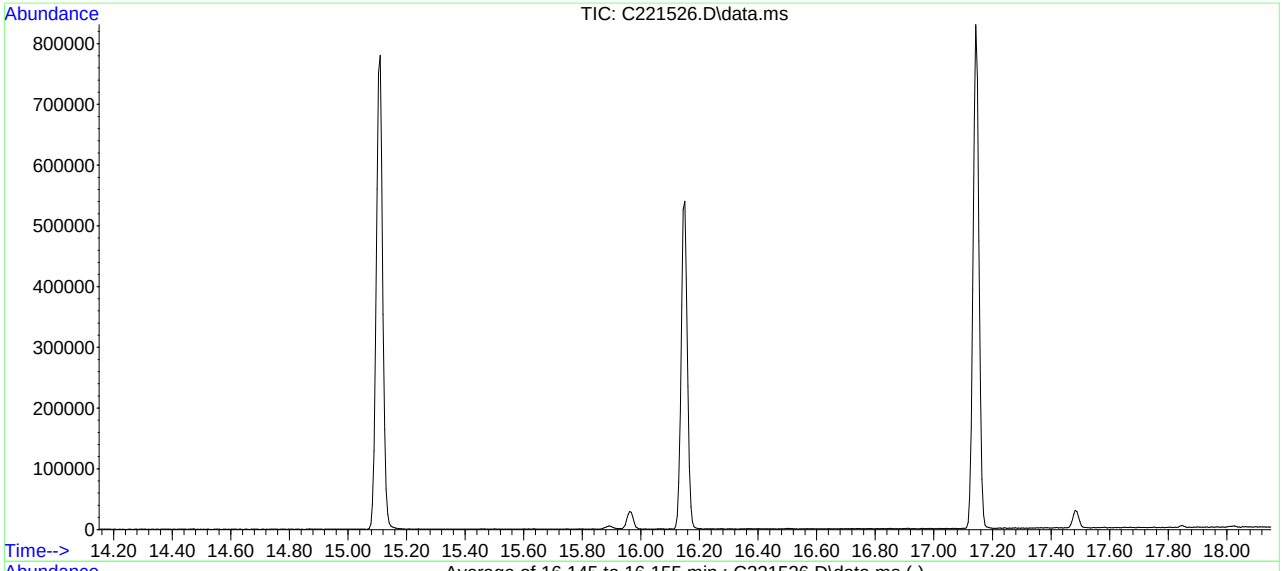
Average of 16.941 to 16.952 min.: 2d175667.d\data.ms
bfb
Modified:subtracted

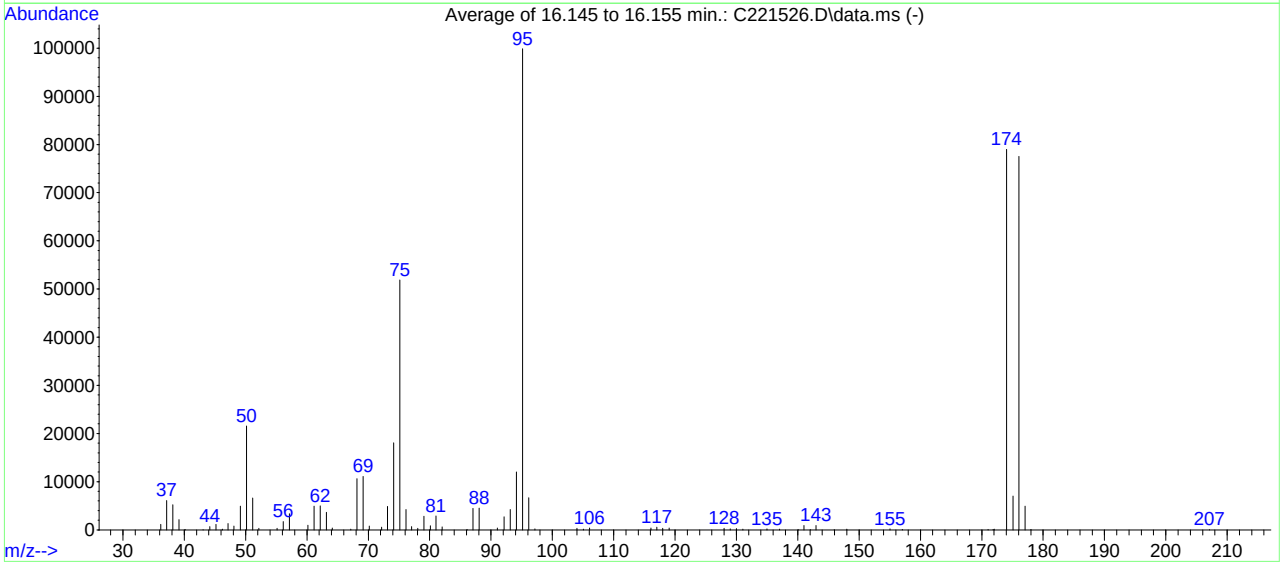
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	101360	118.95	453	144.90	101	171.90	89
96.00	6587	127.80	345	145.90	167	173.90	99605
96.95	117	128.90	154	146.80	59	174.90	7586
103.90	480	129.85	428	147.85	324	175.90	98475
104.90	177	130.95	96	149.75	173	176.90	6349
105.90	393	134.85	185	154.85	221	177.90	202
106.80	49	136.85	212	156.85	231		
114.90	58	140.90	1066	158.90	94		
115.85	319	141.85	159	160.90	94		
116.90	609	142.90	1133	171.30	51		
117.85	358	143.80	42	171.60	75		

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\VC8199\C221526.D Vial: 1
Acq On : 19 Mar 2018 4:46 pm Operator: RobertS
Sample : BFB Inst : MSC
Misc : MS23682,VC8199,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MC8199S.M (RTE Integrator)
Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um





AutoFind: Scans 2277, 2278, 2279; Background Corrected with Scan 2269

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	21578	PASS
75	95	30	60	51.9	51856	PASS
95	95	100	100	100.0	99856	PASS
96	95	5	9	6.7	6686	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	79.1	78984	PASS
175	174	5	9	8.9	7002	PASS
176	174	95	101	98.2	77525	PASS
177	176	5	9	6.3	4914	PASS

C221526.D MC8199S.M Thu Mar 22 10:01:51 2018 C

Average of 16.145 to 16.155 min.: C221526.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.15	1164	49.15	4915	64.15	383	78.05	335
37.15	6094	50.15	21578	67.15	166	79.05	2801
38.15	5217	51.15	6606	68.15	10627	80.10	850
39.15	2144	52.15	306	69.15	11077	81.05	2859
40.15	77	55.15	309	70.15	760	82.05	617
43.05	54	56.15	1726	72.15	575	86.10	112
44.15	703	57.15	3321	73.15	4846	87.05	4448
45.15	1131	60.15	973	74.15	18058	88.05	4535
46.20	123	61.15	4899	75.15	51856	91.05	386
47.15	1311	62.15	4995	76.15	4223	92.15	2707
48.10	777	63.15	3643	77.05	655	93.15	4204

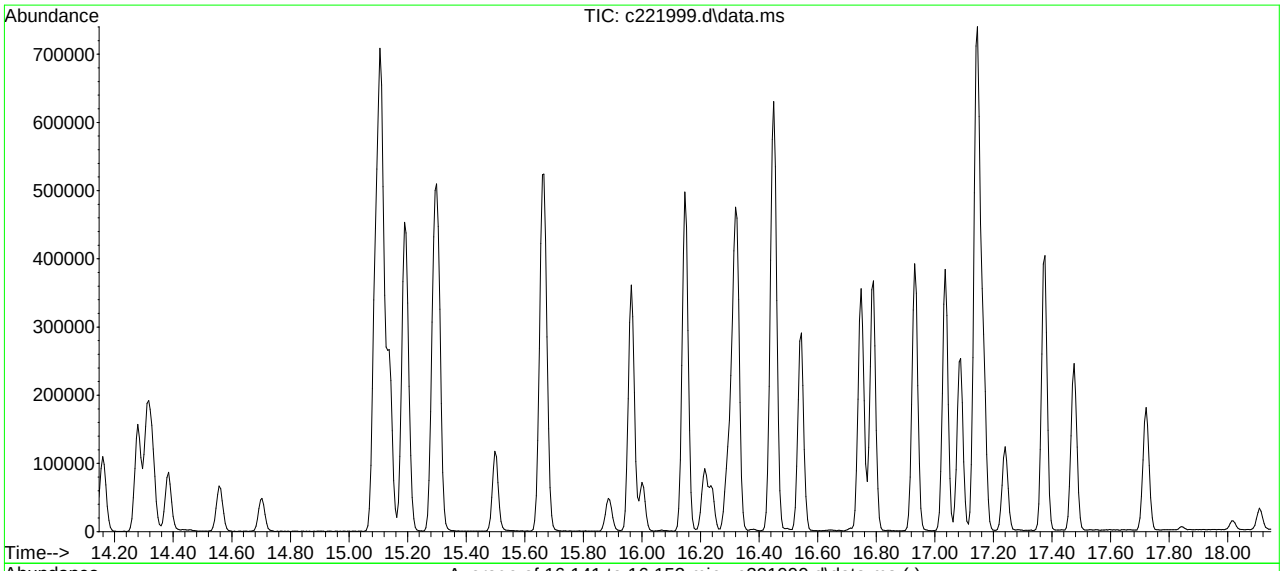
Average of 16.145 to 16.155 min.: C221526.D\data.ms
BFB
Modified:subtracted

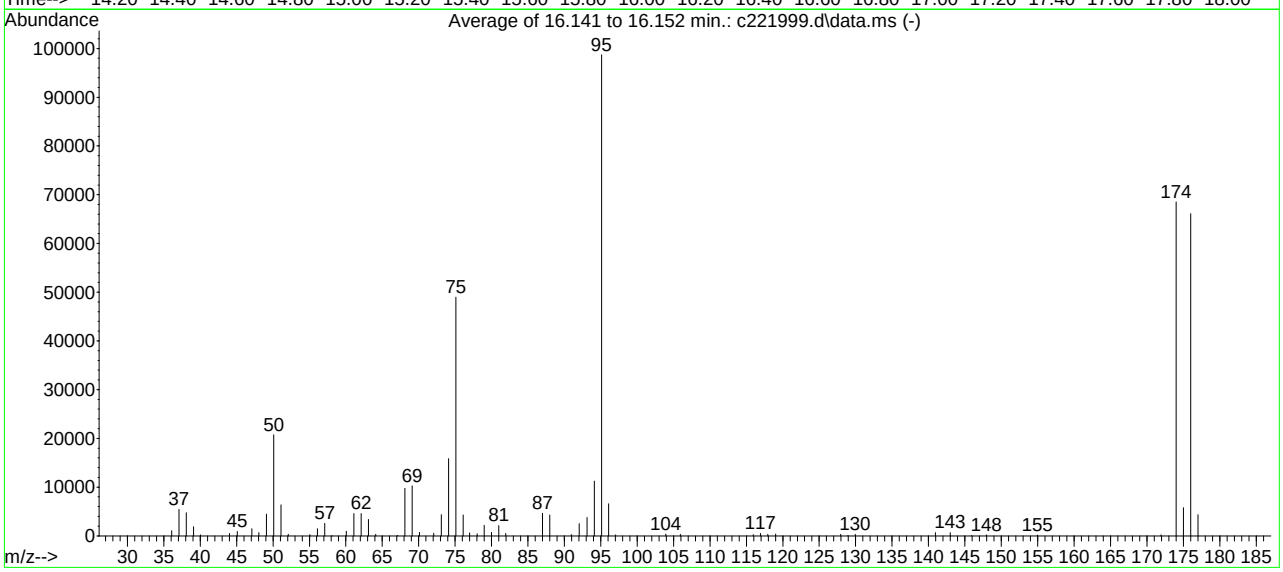
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.15	11988	128.00	303	148.00	146	207.10	7
95.15	99856	129.00	195	155.05	224		
96.15	6686	130.00	293	157.05	117		
97.15	201	131.05	127	171.05	115		
104.00	336	135.00	199	171.85	90		
105.05	151	137.05	143	172.05	125		
106.05	406	140.15	50	174.05	78984		
116.05	357	141.00	900	175.10	7002		
117.05	582	142.05	56	176.05	77525		
118.00	305	143.00	908	177.05	4914		
119.05	401	145.95	55	178.00	106		

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...2-18\vc8227\c221999.d Vial: 1
Acq On : 19 May 2018 11:29 am Operator: RobertS
Sample : bfb Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MC8199S.M (RTE Integrator)
Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um





AutoFind: Scans 2276, 2277, 2278; Background Corrected with Scan 2268

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.0	20763	PASS
75	95	30	60	49.6	48944	PASS
95	95	100	100	100.0	98699	PASS
96	95	5	9	6.7	6609	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	69.4	68544	PASS
175	174	5	9	8.5	5806	PASS
176	174	95	101	96.5	66136	PASS
177	176	5	9	6.6	4370	PASS

c221999.d MC8199S.M Tue May 22 01:31:32 2018

Average of 16.141 to 16.152 min.: c221999.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1075	51.10	6358	67.10	95	79.00	2141
37.10	5423	52.10	311	68.10	9733	80.00	713
38.10	4751	55.05	261	69.10	10289	81.00	2091
39.10	1871	56.10	1493	70.10	748	81.95	478
40.05	177	57.10	2567	72.05	522	87.00	4630
44.00	476	58.10	51	73.10	4367	88.00	4312
45.10	906	60.05	976	74.10	15867	90.95	291
47.10	1443	61.10	4558	75.10	48944	92.05	2487
48.05	654	62.10	4572	76.10	4269	93.10	3798
49.10	4437	63.10	3386	77.00	606	94.10	11238
50.10	20763	64.10	318	78.05	429	95.10	98699

Average of 16.141 to 16.152 min.: c221999.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.10	6609	140.95	650				
97.05	185	143.00	664				
103.95	389	145.90	50				
105.95	330	147.95	204				
115.95	237	154.95	170				
116.95	473	171.95	184				
117.95	303	174.00	68544				
119.00	378	175.00	5806				
127.95	292	176.00	66136				
128.95	111	177.00	4370				
129.95	299						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156797.D
Acq On : 16 May 2018 5:27 pm
Operator : prashans
Sample : IC6917-0.5
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 17 12:03:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 15 11:57:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.379	65	76972	500.00	ug/L		-0.02
5) pentafluorobenzene	9.618	168	224774	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.538	114	326890	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	246658	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	120473	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	100465	49.02	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 98.04%				
55) 1,2-dichloroethane-d4 (s)	10.109	65	100879	50.81	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 101.62%				
77) toluene-d8 (s)	12.165	98	355393	57.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 114.36%				
100) 4-bromofluorobenzene (s)	14.822	95	118021	58.80	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 117.60%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.901	51	1008	0.37	ug/L		65
7) dichlorodifluoromethane	3.859	85	1324	0.38	ug/L		82
10) chloromethane	4.283	50	1446	0.36	ug/L		92
11) vinyl chloride	4.518	62	1065	0.28	ug/L		93
15) trichlorofluoromethane	5.820	101	1293	0.35	ug/L		91
17) ethyl ether	6.270	74	393	0.40	ug/L		92
24) carbon disulfide	7.102	76	4095	0.56	ug/L		93
27) methyl tert butyl ether	7.735	73	2325	0.48	ug/L		82
29) di-isopropyl ether	8.320	45	2852	0.51	ug/L		97
31) 1,1-dichloroethane	8.373	63	1649	0.44	ug/L		79
32) chloroprene	8.483	53	1291	0.43	ug/L		85
36) ethyl tert-butyl ether	8.791	59	2310	0.42	ug/L		91
38) 2,2-dichloropropane	9.100	77	1326	0.40	ug/L		97
44) chloroform	9.487	85	1096	0.44	ug/L		94
48) 1,1,1-trichloroethane	9.717	97	1311	0.38	ug/L	#	68
49) cyclohexane	9.769	84	1362	0.45	ug/L		93
50) 1,1-dichloropropene	9.895	75	1288	0.45	ug/L		84
52) carbon tetrachloride	9.916	117	1127	0.38	ug/L		84
57) 2,2,4-trimethylpentane	10.130	57	3994	0.54	ug/L		87
58) benzene	10.172	78	3892	0.48	ug/L		97
60) heptane	10.303	71	825	0.50	ug/L		88
62) 1,2-dichloroethane	10.198	62	1011	0.39	ug/L		92
63) trichloroethene	10.883	130	1434	0.66	ug/L		97
66) 2-chloroethyl vinyl ether	11.678	63	2051	2.36	ug/L		95
68) 1,2-dichloropropane	11.150	63	835	0.44	ug/L	#	46
69) dibromomethane	11.317	93	431	0.37	ug/L		94
70) methylcyclohexane	11.072	83	1526	0.43	ug/L		86
71) bromodichloromethane	11.448	83	1072	0.38	ug/L		95
73) cis-1,3-dichloropropene	11.888	75	1249	0.41	ug/L		95
78) toluene	12.243	92	2151	0.50	ug/L		91
79) trans-1,3-dichloropropene	12.452	75	1083	0.46	ug/L		95
82) tetrachloroethene	12.819	164	660	0.41	ug/L		82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156797.D
Acq On : 16 May 2018 5:27 pm
Operator : prashans
Sample : IC6917-0.5
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 17 12:03:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 15 11:57:59 2018
Response via : Initial Calibration

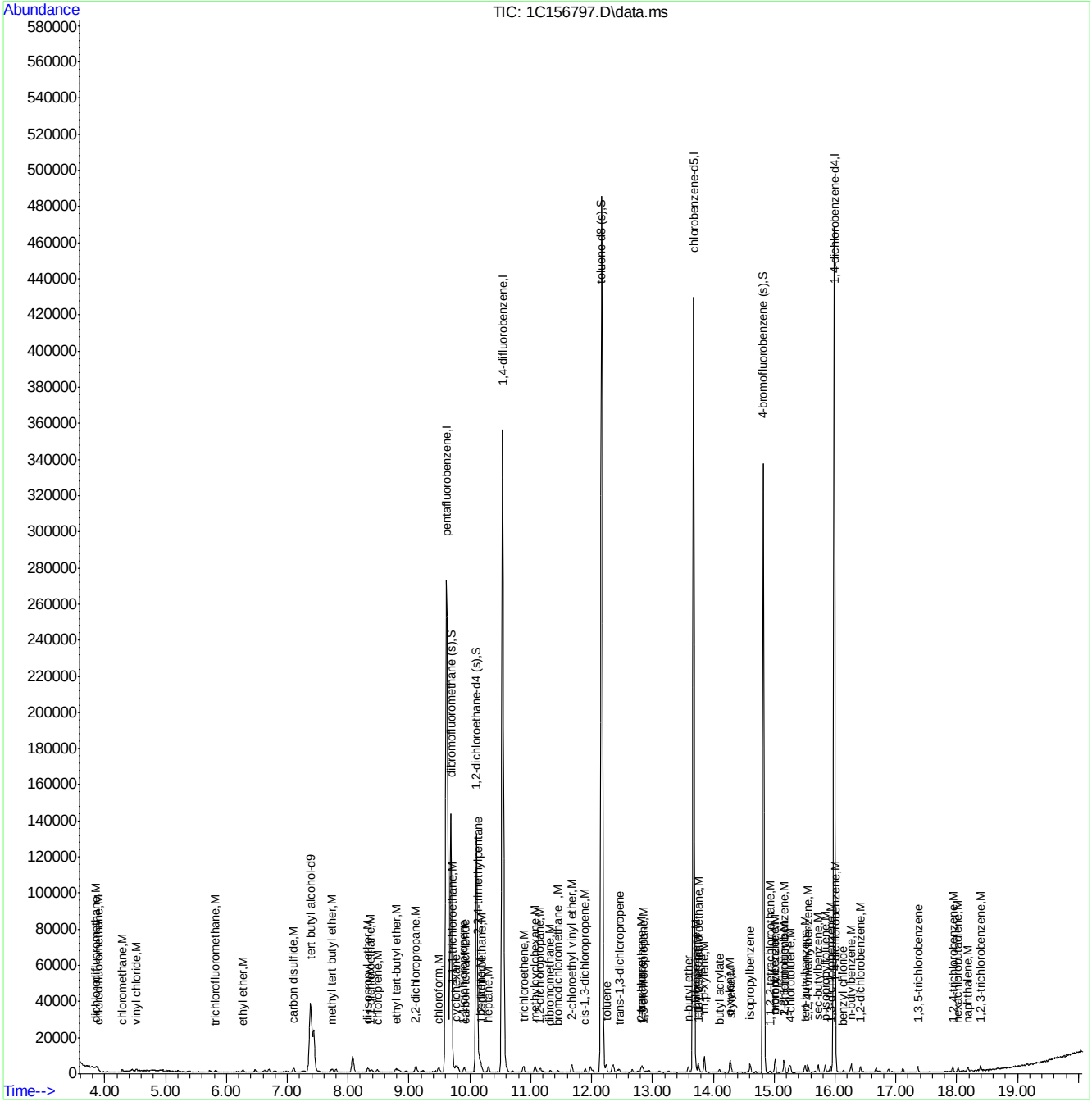
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) 1,3-dichloropropane	12.850	76	1031	0.49	ug/L		92
84) 2-hexanone	12.829	58	862	1.85	ug/L		90
88) n-butyl ether	13.593	57	3492	0.52	ug/L		89
89) chlorobenzene	13.708	112	2022	0.44	ug/L		86
90) 1,1,1,2-tetrachloroethane	13.765	131	631	0.38	ug/L		84
91) ethylbenzene	13.749	91	3874	0.47	ug/L		96
92) m,p-xylene	13.849	106	2743	0.89	ug/L		86
93) o-xylene	14.278	106	1239	0.42	ug/L		95
94) styrene	14.288	104	2102	0.42	ug/L		88
96) butyl acrylate	14.100	55	1086	0.44	ug/L		89
97) isopropylbenzene	14.607	105	3626	0.45	ug/L		93
101) bromobenzene	15.015	156	784	0.38	ug/L	#	85
102) 1,1,2,2-tetrachloroethane	14.937	83	746	0.49	ug/L		81
105) n-propylbenzene	15.010	91	4446	0.48	ug/L		98
107) 2-chlorotoluene	15.167	126	886	0.48	ug/L		87
108) 4-chlorotoluene	15.272	91	2618	0.50	ug/L		97
109) 1,3,5-trimethylbenzene	15.162	105	2829	0.46	ug/L		98
110) tert-butylbenzene	15.512	134	512	0.44	ug/L	#	76
111) 1,2,4-trimethylbenzene	15.554	105	2891	0.48	ug/L		92
112) sec-butylbenzene	15.721	105	3902	0.47	ug/L		91
113) 1,3-dichlorobenzene	15.931	146	1639	0.44	ug/L		95
114) p-isopropyltoluene	15.842	119	3160	0.45	ug/L		95
115) 1,4-dichlorobenzene	16.014	146	1591	0.43	ug/L		77
116) benzyl chloride	16.134	91	1231	0.38	ug/L		92
117) 1,2-dichlorobenzene	16.417	146	1435	0.41	ug/L		97
119) n-butylbenzene	16.265	92	1765	0.49	ug/L		95
121) 1,3,5-trichlorobenzene	17.364	180	1284	0.41	ug/L		94
124) 1,2,4-trichlorobenzene	17.934	180	1014	0.39	ug/L		78
125) hexachlorobutadiene	18.023	225	728	0.44	ug/L		93
126) naphthalene	18.185	128	1930	0.37	ug/L		97
127) 1,2,3-trichlorobenzene	18.394	180	791	0.32	ug/L		87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156797.D
Acq On : 16 May 2018 5:27 pm
Operator : prashans
Sample : IC6917-0.5
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 17 12:03:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 15 11:57:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156798.D
Acq On : 16 May 2018 5:54 pm
Operator : prashans
Sample : IC6917-1
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 17 12:06:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.384	65	76071	500.00	ug/L		-0.02
5) pentafluorobenzene	9.623	168	218257	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.538	114	321165	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	247708	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	118543	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	100233	50.36	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.72%				
55) 1,2-dichloroethane-d4 (s)	10.109	65	100376	51.46	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 102.92%				
77) toluene-d8 (s)	12.165	98	352396	56.46	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 112.92%				
100) 4-bromofluorobenzene (s)	14.822	95	116315	58.90	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 117.80%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.505	59	997	5.10	ug/L		62
3) ethanol	6.150	45	2189	118.10	ug/L	#	39
6) chlorodifluoromethane	3.901	51	2221	0.85	ug/L		91
7) dichlorodifluoromethane	3.864	85	2833	0.84	ug/L		89
10) chloromethane	4.288	50	2852	0.73	ug/L		92
11) vinyl chloride	4.518	62	2419	0.65	ug/L		86
13) bromomethane	5.214	94	1214	0.59	ug/L		83
14) chloroethane	5.392	64	1342	0.93	ug/L		93
15) trichlorofluoromethane	5.826	101	2788	0.77	ug/L		86
16) vinyl bromide	5.737	106	1550	0.63	ug/L		90
17) ethyl ether	6.265	74	1024	1.07	ug/L	#	81
19) freon 113	6.647	151	1369	0.91	ug/L	#	75
20) 1,1-dichloroethene	6.699	96	2322	1.14	ug/L		98
21) acetone	6.793	58	420	2.86	ug/L		90
22) acetonitrile	7.254	41	2191	11.08	ug/L		74
24) carbon disulfide	7.102	76	7442	1.04	ug/L		96
27) methyl tert butyl ether	7.730	73	5059	1.09	ug/L		90
28) trans-1,2-dichloroethene	7.808	96	2459	1.08	ug/L	#	70
29) di-isopropyl ether	8.321	45	6491	1.19	ug/L		92
30) 2-butanone	9.105	72	530	2.89	ug/L	#	73
31) 1,1-dichloroethane	8.383	63	3812	1.06	ug/L		94
32) chloroprene	8.472	53	2878	1.00	ug/L		90
36) ethyl tert-butyl ether	8.797	59	5718	1.06	ug/L		96
38) 2,2-dichloropropane	9.105	77	3122	0.96	ug/L		97
39) cis-1,2-dichloroethene	9.121	96	2557	1.03	ug/L		92
41) propionitrile	9.220	54	2431	9.78	ug/L		69
42) bromochloromethane	9.440	128	838	0.82	ug/L		88
44) chloroform	9.492	85	2557	1.05	ug/L		84
45) t-butyl formate	9.497	59	1141	0.86	ug/L		83
48) 1,1,1-trichloroethane	9.717	97	3063	0.91	ug/L	#	70
49) cyclohexane	9.780	84	2328	0.80	ug/L	#	78
50) 1,1-dichloropropene	9.911	75	2920	1.05	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156798.D
Acq On : 16 May 2018 5:54 pm
Operator : prashans
Sample : IC6917-1
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 17 12:06:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52)	carbon tetrachloride	9.921	117	2602	0.90	ug/L		86
57)	2,2,4-trimethylpentane	10.130	57	9080	1.26	ug/L		95
58)	benzene	10.172	78	8274	1.03	ug/L		96
59)	tert-amyl methyl ether	10.177	87	1062	0.91	ug/L	#	45
60)	heptane	10.308	71	1931	1.19	ug/L		94
62)	1,2-dichloroethane	10.209	62	2473	0.97	ug/L		91
63)	trichloroethene	10.883	130	2508	1.17	ug/L		98
66)	2-chloroethyl vinyl ether	11.673	63	5000	5.85	ug/L		96
68)	1,2-dichloropropane	11.161	63	2114	1.13	ug/L		89
69)	dibromomethane	11.328	93	1023	0.89	ug/L		87
70)	methylcyclohexane	11.077	83	3670	1.06	ug/L		93
71)	bromodichloromethane	11.443	83	2479	0.90	ug/L		96
73)	cis-1,3-dichloropropene	11.893	75	2973	0.99	ug/L		91
74)	4-methyl-2-pentanone	11.982	58	2152	4.42	ug/L		96
78)	toluene	12.243	92	4770	1.10	ug/L		95
79)	trans-1,3-dichloropropene	12.453	75	2445	1.03	ug/L		93
80)	ethyl methacrylate	12.426	69	1768	1.02	ug/L		95
81)	1,1,2-trichloroethane	12.667	83	1204	1.02	ug/L		90
82)	tetrachloroethene	12.819	164	1416	0.89	ug/L		91
83)	1,3-dichloropropane	12.850	76	2422	1.16	ug/L		93
84)	2-hexanone	12.829	58	1978	4.23	ug/L		91
85)	butyl acetate	12.892	56	865	1.12	ug/L	#	60
86)	dibromochloromethane	13.112	129	1425	0.81	ug/L		90
87)	1,2-dibromoethane	13.263	107	1433	0.96	ug/L		99
88)	n-butyl ether	13.593	57	7842	1.16	ug/L		97
89)	chlorobenzene	13.708	112	4688	1.01	ug/L		86
90)	1,1,1,2-tetrachloroethane	13.765	131	1558	0.94	ug/L		98
91)	ethylbenzene	13.750	91	8462	1.03	ug/L		97
92)	m,p-xylene	13.854	106	6219	2.01	ug/L		92
93)	o-xylene	14.273	106	2842	0.96	ug/L		96
94)	styrene	14.288	104	4800	0.96	ug/L		95
95)	bromoform	14.571	173	807	0.69	ug/L		95
96)	butyl acrylate	14.095	55	2705	1.10	ug/L		98
97)	isopropylbenzene	14.607	105	7488	0.92	ug/L		96
101)	bromobenzene	15.015	156	1923	0.95	ug/L		88
102)	1,1,2,2-tetrachloroethane	14.937	83	1761	1.18	ug/L		85
105)	n-propylbenzene	15.015	91	9265	1.01	ug/L		98
107)	2-chlorotoluene	15.172	126	1782	0.98	ug/L	#	80
108)	4-chlorotoluene	15.272	91	5672	1.09	ug/L		97
109)	1,3,5-trimethylbenzene	15.162	105	6491	1.07	ug/L		99
110)	tert-butylbenzene	15.507	134	1065	0.93	ug/L	#	85
111)	1,2,4-trimethylbenzene	15.559	105	6461	1.09	ug/L		96
112)	sec-butylbenzene	15.721	105	8111	0.98	ug/L		99
113)	1,3-dichlorobenzene	15.931	146	3674	1.01	ug/L		93
114)	p-isopropyltoluene	15.842	119	6754	0.99	ug/L		96
115)	1,4-dichlorobenzene	16.014	146	3577	0.99	ug/L		94
116)	benzyl chloride	16.135	91	2844	0.88	ug/L		96
117)	1,2-dichlorobenzene	16.422	146	3333	0.96	ug/L		94
119)	n-butylbenzene	16.271	92	3819	1.08	ug/L		94
121)	1,3,5-trichlorobenzene	17.358	180	2610	0.86	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156798.D
Acq On : 16 May 2018 5:54 pm
Operator : prashans
Sample : IC6917-1
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 17 12:06:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

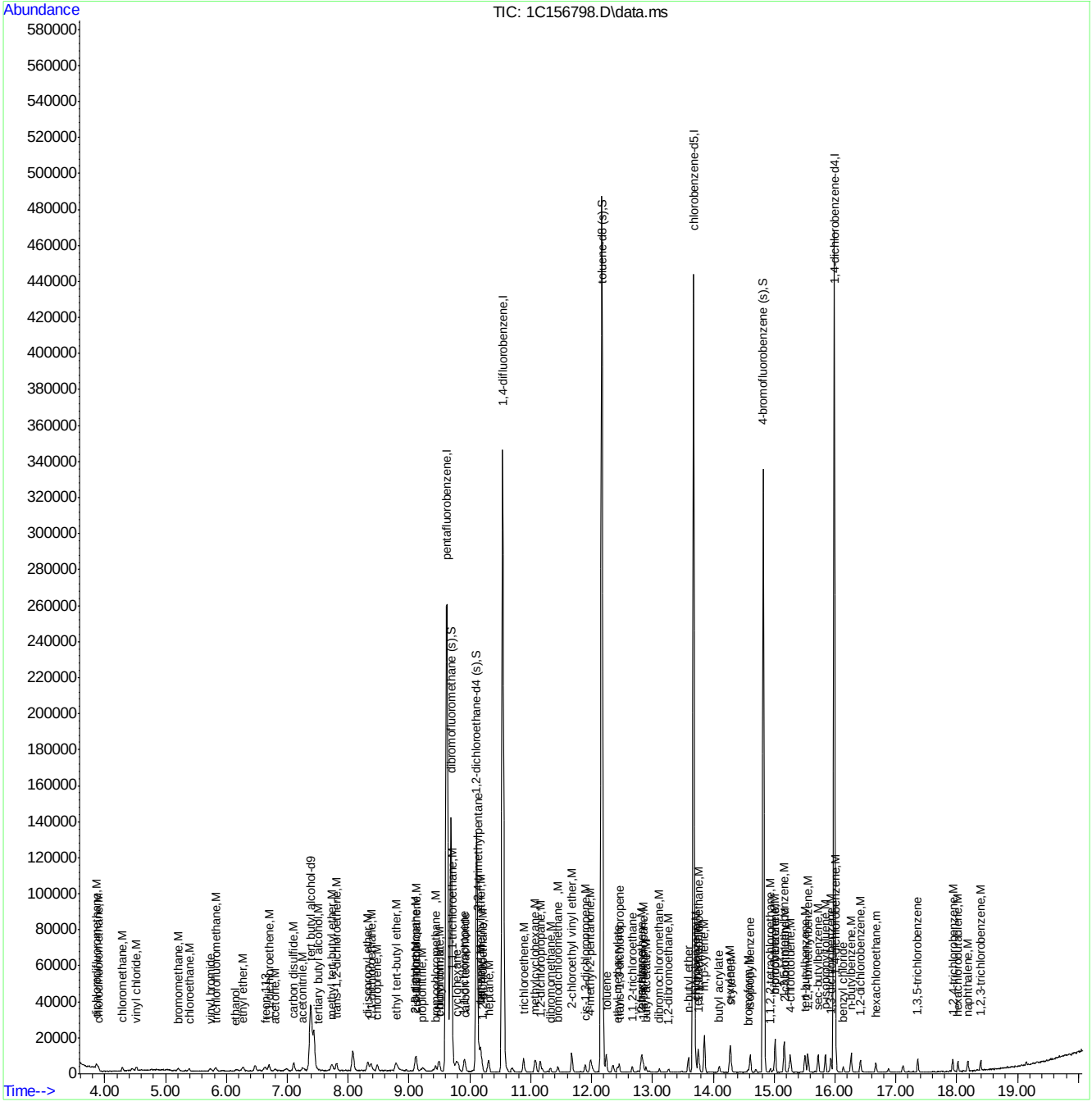
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
124) 1,2,4-trichlorobenzene	17.934	180	2137	0.83	ug/L	88
125) hexachlorobutadiene	18.023	225	1367	0.85	ug/L	84
126) naphthalene	18.180	128	4252	0.83	ug/L	97
127) 1,2,3-trichlorobenzene	18.394	180	1950	0.80	ug/L	96
128) hexachloroethane	16.673	201	946	0.73	ug/L #	85

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156798.D
Acq On : 16 May 2018 5:54 pm
Operator : prashans
Sample : IC6917-1
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 17 12:06:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156799.D
Acq On : 16 May 2018 6:21 pm
Operator : prashans
Sample : IC6917-2
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 17 12:08:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.384	65	78371	500.00	ug/L		-0.02
5) pentafluorobenzene	9.623	168	221152	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.538	114	327323	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	247313	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	120107	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	101081	50.12	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.24%				
55) 1,2-dichloroethane-d4 (s)	10.109	65	101871	51.24	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 102.48%				
77) toluene-d8 (s)	12.165	98	353512	56.73	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 113.46%				
100) 4-bromofluorobenzene (s)	14.822	95	118753	59.35	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 118.70%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.515	59	2393	11.89	ug/L		81
3) ethanol	6.155	45	4432	232.10	ug/L		87
4) 1,4-dioxane	11.286	88	850	39.52	ug/L		93
6) chlorodifluoromethane	3.901	51	4632	1.74	ug/L		96
7) dichlorodifluoromethane	3.864	85	5917	1.73	ug/L		94
10) chloromethane	4.288	50	5547	1.40	ug/L		97
11) vinyl chloride	4.523	62	4912	1.31	ug/L		96
13) bromomethane	5.203	94	2293	1.10	ug/L		94
14) chloroethane	5.386	64	2736	1.87	ug/L		94
15) trichlorofluoromethane	5.826	101	5466	1.49	ug/L		93
16) vinyl bromide	5.737	106	3216	1.30	ug/L		95
17) ethyl ether	6.270	74	2201	2.27	ug/L		95
19) freon 113	6.636	151	3059	2.01	ug/L		95
20) 1,1-dichloroethene	6.694	96	4461	2.16	ug/L		90
21) acetone	6.788	58	1068	7.18	ug/L	#	66
22) acetonitrile	7.243	41	5231	26.11	ug/L		95
23) iodomethane	6.987	142	3309	2.65	ug/L		88
24) carbon disulfide	7.102	76	14177	1.96	ug/L		97
26) methyl acetate	7.243	43	2646	2.51	ug/L		90
27) methyl tert butyl ether	7.735	73	11186	2.37	ug/L		94
28) trans-1,2-dichloroethene	7.803	96	4996	2.17	ug/L		95
29) di-isopropyl ether	8.320	45	13730	2.48	ug/L		96
30) 2-butanone	9.095	72	1335	7.17	ug/L		95
31) 1,1-dichloroethane	8.383	63	8437	2.31	ug/L		96
32) chloroprene	8.477	53	6420	2.20	ug/L		96
33) acrylonitrile	7.803	53	1023	1.82	ug/L		75
36) ethyl tert-butyl ether	8.786	59	12377	2.27	ug/L		94
37) ethyl acetate	9.100	45	497	2.22	ug/L	#	1
38) 2,2-dichloropropane	9.105	77	6811	2.07	ug/L		94
39) cis-1,2-dichloroethene	9.121	96	5265	2.09	ug/L		96
41) propionitrile	9.220	54	5597	22.22	ug/L		93
42) bromochloromethane	9.435	128	1960	1.88	ug/L	#	73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156799.D
Acq On : 16 May 2018 6:21 pm
Operator : prashans
Sample : IC6917-2
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 17 12:08:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tetrahydrofuran	9.471	72	379	1.59	ug/L	#	51
44) chloroform	9.492	85	5092	2.05	ug/L		92
45) t-butyl formate	9.503	59	2857	2.13	ug/L		89
47) methacrylonitrile	9.393	67	1358	2.02	ug/L		88
48) 1,1,1-trichloroethane	9.722	97	6885	2.02	ug/L		91
49) cyclohexane	9.780	84	5769	1.95	ug/L		87
50) 1,1-dichloropropene	9.905	75	6364	2.26	ug/L		96
52) carbon tetrachloride	9.921	117	5732	1.97	ug/L		93
53) tert amyl alcohol	10.046	55	666	10.95	ug/L	#	59
56) n-butyl alcohol	10.690	56	4528	99.96	ug/L		99
57) 2,2,4-trimethylpentane	10.125	57	19467	2.65	ug/L		93
58) benzene	10.167	78	18026	2.21	ug/L		99
59) tert-amyl methyl ether	10.177	87	2353	1.99	ug/L	#	79
60) heptane	10.303	71	4240	2.56	ug/L		92
61) isopropyl acetate	10.088	87	632	2.02	ug/L	#	87
62) 1,2-dichloroethane	10.203	62	5346	2.05	ug/L		92
63) trichloroethene	10.878	130	5012	2.29	ug/L		97
64) ethyl acrylate	10.889	55	4117	2.31	ug/L		94
66) 2-chloroethyl vinyl ether	11.673	63	11304	12.99	ug/L		94
67) methyl methacrylate	11.150	100	764	1.98	ug/L		98
68) 1,2-dichloropropane	11.155	63	4669	2.45	ug/L		88
69) dibromomethane	11.323	93	2471	2.12	ug/L		100
70) methylcyclohexane	11.072	83	7601	2.16	ug/L		95
71) bromodichloromethane	11.448	83	5381	1.91	ug/L		93
72) epichlorohydrin	11.814	57	1619	10.47	ug/L		88
73) cis-1,3-dichloropropene	11.893	75	6696	2.20	ug/L		96
74) 4-methyl-2-pentanone	11.982	58	5043	10.17	ug/L		98
75) 3-methyl-1-butanol	12.008	55	2874	45.17	ug/L		95
78) toluene	12.243	92	10110	2.33	ug/L		93
79) trans-1,3-dichloropropene	12.452	75	5663	2.40	ug/L		96
80) ethyl methacrylate	12.426	69	4348	2.51	ug/L		95
81) 1,1,2-trichloroethane	12.667	83	2665	2.25	ug/L		96
82) tetrachloroethene	12.813	164	3117	1.95	ug/L		89
83) 1,3-dichloropropane	12.850	76	5248	2.51	ug/L		86
84) 2-hexanone	12.829	58	4810	10.31	ug/L		97
85) butyl acetate	12.892	56	2225	2.87	ug/L	#	69
86) dibromochloromethane	13.117	129	3395	1.93	ug/L		98
87) 1,2-dibromoethane	13.263	107	3384	2.28	ug/L		99
88) n-butyl ether	13.587	57	16980	2.52	ug/L		97
89) chlorobenzene	13.708	112	10098	2.17	ug/L		92
90) 1,1,1,2-tetrachloroethane	13.765	131	3433	2.08	ug/L		87
91) ethylbenzene	13.749	91	18196	2.21	ug/L		98
92) m,p-xylene	13.854	106	13274	4.29	ug/L		96
93) o-xylene	14.272	106	6437	2.19	ug/L		97
94) styrene	14.288	104	10377	2.09	ug/L		89
95) bromoform	14.571	173	1872	1.60	ug/L		79
96) butyl acrylate	14.095	55	6157	2.50	ug/L		99
97) isopropylbenzene	14.607	105	16833	2.08	ug/L		96
98) cis-1,4-dichloro-2-butene	14.707	88	1252	2.03	ug/L		96
101) bromobenzene	15.020	156	3986	1.94	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156799.D
Acq On : 16 May 2018 6:21 pm
Operator : prashans
Sample : IC6917-2
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 17 12:08:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

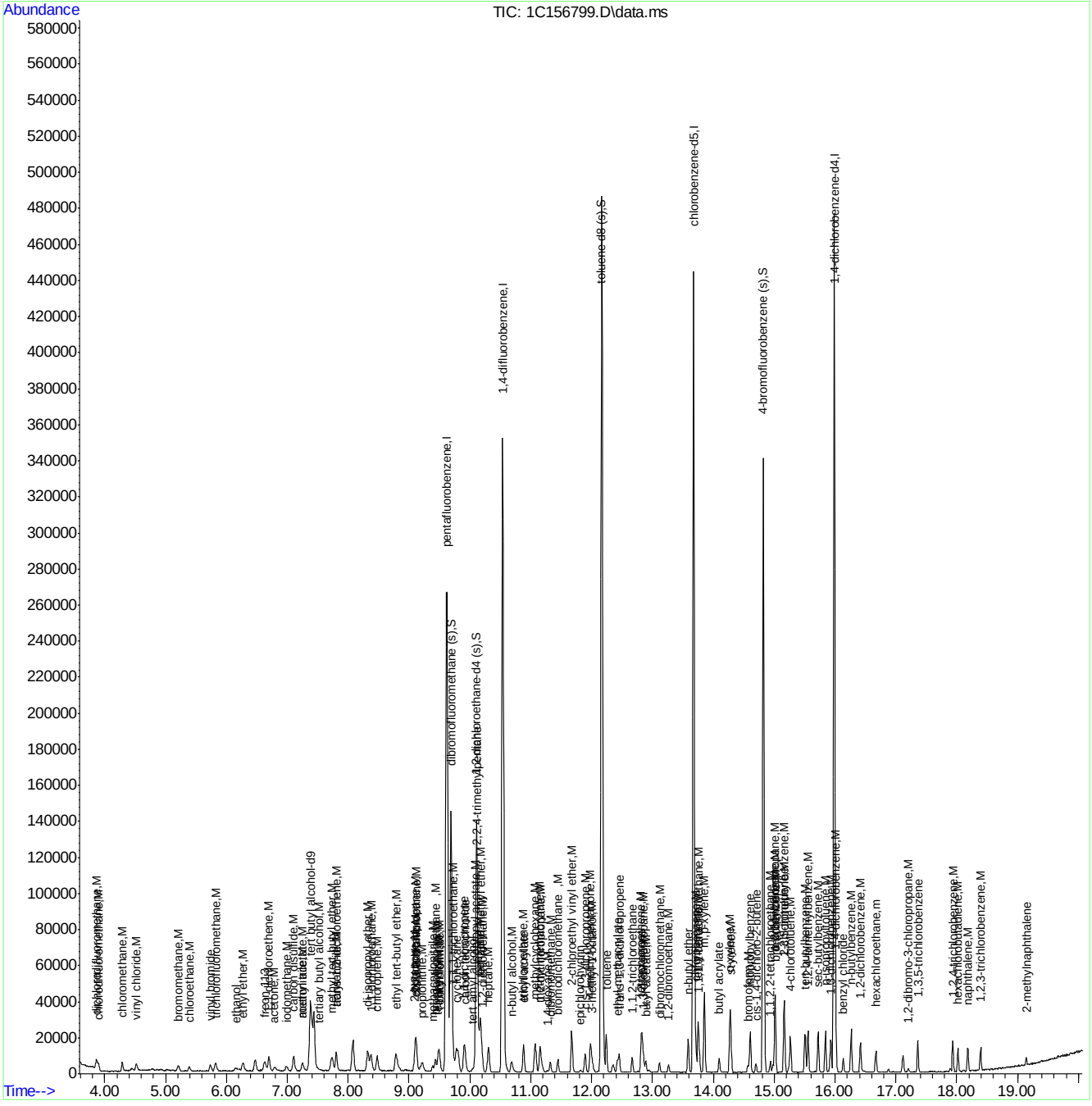
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) 1,1,2,2-tetrachloroethane	14.937	83	3864	2.55	ug/L		100
104) 1,2,3-trichloropropane	15.015	110	865	2.26	ug/L		93
105) n-propylbenzene	15.015	91	20225	2.18	ug/L		98
107) 2-chlorotoluene	15.167	126	3846	2.08	ug/L		85
108) 4-chlorotoluene	15.266	91	11955	2.28	ug/L		96
109) 1,3,5-trimethylbenzene	15.162	105	14081	2.30	ug/L		100
110) tert-butylbenzene	15.507	134	2388	2.06	ug/L	#	90
111) 1,2,4-trimethylbenzene	15.554	105	14275	2.37	ug/L		93
112) sec-butylbenzene	15.721	105	17819	2.13	ug/L		97
113) 1,3-dichlorobenzene	15.930	146	7632	2.07	ug/L		94
114) p-isopropyltoluene	15.842	119	14784	2.13	ug/L		95
115) 1,4-dichlorobenzene	16.014	146	7731	2.11	ug/L		89
116) benzyl chloride	16.134	91	6369	1.95	ug/L		94
117) 1,2-dichlorobenzene	16.417	146	7395	2.10	ug/L		95
119) n-butylbenzene	16.265	92	8268	2.31	ug/L		97
120) 1,2-dibromo-3-chloropr...	17.207	75	601	1.89	ug/L		82
121) 1,3,5-trichlorobenzene	17.364	180	5750	1.86	ug/L		100
124) 1,2,4-trichlorobenzene	17.934	180	4666	1.78	ug/L		91
125) hexachlorobutadiene	18.023	225	3018	1.84	ug/L		94
126) naphthalene	18.185	128	9007	1.73	ug/L		98
127) 1,2,3-trichlorobenzene	18.394	180	4230	1.71	ug/L		97
128) hexachloroethane	16.673	201	2124	1.61	ug/L		87
129) 2-methylnaphthalene	19.142	142	2302	0.59	ug/L		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156799.D
Acq On : 16 May 2018 6:21 pm
Operator : prashans
Sample : IC6917-2
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 17 12:08:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156800.D
Acq On : 16 May 2018 6:47 pm
Operator : prashans
Sample : IC6917-4
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 17 12:10:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:09:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.390	65	77994	500.00	ug/L		0.00
5) pentafluorobenzene	9.623	168	220233	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.543	114	325916	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	249071	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	119806	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	101232	50.18	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.36%				
55) 1,2-dichloroethane-d4 (s)	10.109	65	102123	50.69	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 101.38%				
77) toluene-d8 (s)	12.170	98	355149	50.11	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.22%				
100) 4-bromofluorobenzene (s)	14.822	95	119872	50.20	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 100.40%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.505	59	3991	19.29	ug/L		89
3) ethanol	6.140	45	7777	387.61	ug/L		96
4) 1,4-dioxane	11.276	88	1734	97.19	ug/L		94
6) chlorodifluoromethane	3.901	51	8581	3.92	ug/L		99
7) dichlorodifluoromethane	3.864	85	13900	4.36	ug/L		98
10) chloromethane	4.288	50	12896	4.32	ug/L		98
11) vinyl chloride	4.523	62	11846	4.39	ug/L		95
13) bromomethane	5.209	94	5268	4.10	ug/L		98
14) chloroethane	5.386	64	6580	4.27	ug/L		98
15) trichlorofluoromethane	5.831	101	13864	4.43	ug/L		99
16) vinyl bromide	5.737	106	7604	4.14	ug/L		99
17) ethyl ether	6.270	74	3985	3.86	ug/L		97
18) acrolein	6.568	56	1073	3.38	ug/L		86
19) freon 113	6.636	151	6090	4.03	ug/L		96
20) 1,1-dichloroethene	6.699	96	8079	3.99	ug/L		94
21) acetone	6.783	58	1895	14.60	ug/L		95
22) acetonitrile	7.248	41	8848	39.33	ug/L		97
23) iodomethane	6.987	142	6027	3.16	ug/L		91
24) carbon disulfide	7.107	76	24196	3.72	ug/L		99
25) methylene chloride	7.442	84	16125	3.75	ug/L		98
26) methyl acetate	7.238	43	5015	3.79	ug/L		97
27) methyl tert butyl ether	7.735	73	19689	3.83	ug/L		99
28) trans-1,2-dichloroethene	7.803	96	8265	3.83	ug/L		98
29) di-isopropyl ether	8.321	45	24965	3.84	ug/L		97
30) 2-butanone	9.095	72	2690	15.59	ug/L	#	84
31) 1,1-dichloroethane	8.383	63	15233	4.05	ug/L		98
32) chloroprene	8.477	53	11979	3.99	ug/L		97
33) acrylonitrile	7.803	53	2020	3.65	ug/L		91
34) hexane	8.080	57	16615	4.69	ug/L		99
35) vinyl acetate	8.368	86	843	3.27	ug/L	#	29
36) ethyl tert-butyl ether	8.786	59	22263	3.86	ug/L		99
37) ethyl acetate	9.095	45	1002	3.95	ug/L	#	59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156800.D
Acq On : 16 May 2018 6:47 pm
Operator : prashans
Sample : IC6917-4
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 17 12:10:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:09:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) 2,2-dichloropropane	9.105	77	11947	3.92	ug/L		95
39) cis-1,2-dichloroethene	9.121	96	9455	4.06	ug/L		98
40) methyl acrylate	9.184	85	767	3.21	ug/L	#	60
41) propionitrile	9.215	54	10440	40.06	ug/L		96
42) bromochloromethane	9.440	128	3707	3.93	ug/L		96
43) tetrahydrofuran	9.476	72	858	3.98	ug/L		92
44) chloroform	9.492	85	9061	3.86	ug/L		95
45) t-butyl formate	9.503	59	5194	3.72	ug/L		88
47) methacrylonitrile	9.388	67	2554	3.75	ug/L		97
48) 1,1,1-trichloroethane	9.717	97	12199	3.94	ug/L		99
49) cyclohexane	9.780	84	12162	4.25	ug/L		97
50) 1,1-dichloropropene	9.905	75	11495	3.98	ug/L		98
51) iso-butyl alcohol	9.926	43	2842	36.36	ug/L		95
52) carbon tetrachloride	9.921	117	11021	4.09	ug/L		99
53) tert amyl alcohol	10.036	55	1286	19.34	ug/L	#	66
56) n-butyl alcohol	10.685	56	8774	180.27	ug/L		96
57) 2,2,4-trimethylpentane	10.130	57	34985	4.04	ug/L		97
58) benzene	10.167	78	32395	4.04	ug/L		93
59) tert-amyl methyl ether	10.183	87	4506	3.93	ug/L		97
60) heptane	10.303	71	7466	4.00	ug/L		92
61) isopropyl acetate	10.083	87	1163	3.67	ug/L		93
62) 1,2-dichloroethane	10.203	62	9522	3.99	ug/L		96
63) trichloroethene	10.883	130	8613	3.84	ug/L		97
64) ethyl acrylate	10.889	55	8005	3.91	ug/L		97
65) 2-nitropropane	11.678	41	2008	3.73	ug/L	#	76
66) 2-chloroethyl vinyl ether	11.673	63	20333	19.90	ug/L		98
67) methyl methacrylate	11.150	100	1377	3.58	ug/L	#	82
68) 1,2-dichloropropane	11.155	63	8388	4.05	ug/L		98
69) dibromomethane	11.323	93	4481	4.09	ug/L		98
70) methylcyclohexane	11.077	83	14392	4.01	ug/L		94
71) bromodichloromethane	11.448	83	10010	3.93	ug/L		95
72) epichlorohydrin	11.814	57	2993	18.82	ug/L		95
73) cis-1,3-dichloropropene	11.893	75	12437	4.00	ug/L		97
74) 4-methyl-2-pentanone	11.982	58	9227	15.84	ug/L		91
75) 3-methyl-1-butanol	12.008	55	5409	74.98	ug/L		97
78) toluene	12.243	92	17979	3.96	ug/L		94
79) trans-1,3-dichloropropene	12.452	75	10042	3.89	ug/L		97
80) ethyl methacrylate	12.426	69	7791	3.91	ug/L		98
81) 1,1,2-trichloroethane	12.672	83	4892	3.82	ug/L		96
82) tetrachloroethene	12.819	164	5884	4.06	ug/L		95
83) 1,3-dichloropropane	12.850	76	9643	4.02	ug/L		97
84) 2-hexanone	12.824	58	8692	16.26	ug/L		96
85) butyl acetate	12.892	56	3984	4.03	ug/L		88
86) dibromochloromethane	13.111	129	6146	3.69	ug/L		94
87) 1,2-dibromoethane	13.263	107	6018	3.83	ug/L		97
88) n-butyl ether	13.587	57	30859	3.96	ug/L		99
89) chlorobenzene	13.708	112	18151	3.98	ug/L		95
90) 1,1,1,2-tetrachloroethane	13.765	131	6286	3.96	ug/L		95
91) ethylbenzene	13.750	91	32367	4.01	ug/L		98
92) m,p-xylene	13.854	106	24123	8.14	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156800.D
Acq On : 16 May 2018 6:47 pm
Operator : prashans
Sample : IC6917-4
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 17 12:10:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:09:31 2018
Response via : Initial Calibration

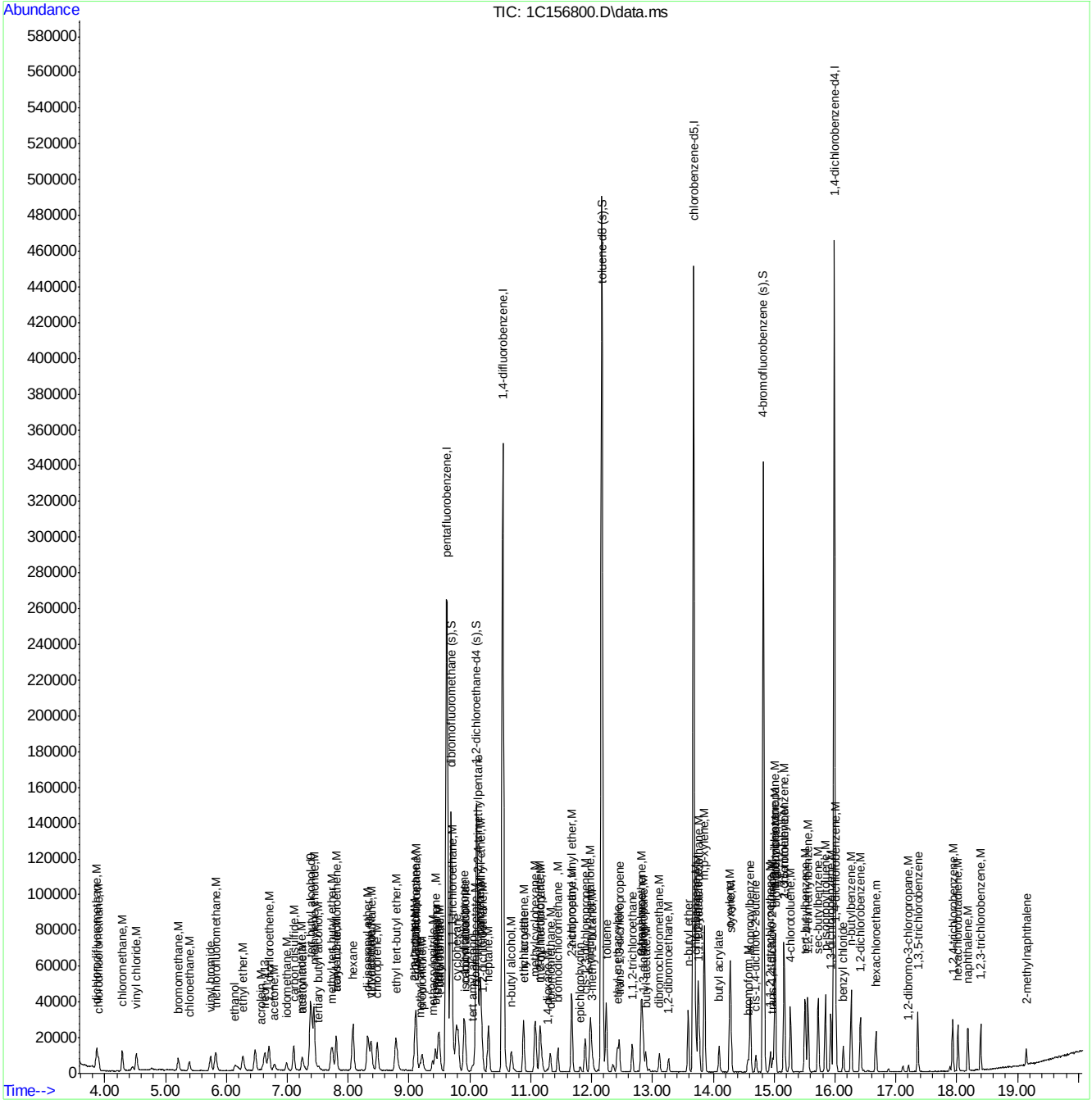
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	14.273	106	11350	4.01	ug/L	93
94) styrene	14.288	104	19066	4.05	ug/L	97
95) bromoform	14.571	173	3388	3.52	ug/L	97
96) butyl acrylate	14.095	55	11078	3.93	ug/L	98
97) isopropylbenzene	14.607	105	30435	4.01	ug/L	96
98) cis-1,4-dichloro-2-butene	14.701	88	2277	3.61	ug/L	97
101) bromobenzene	15.021	156	7210	3.94	ug/L	88
102) 1,1,2,2-tetrachloroethane	14.937	83	6809	3.88	ug/L	90
103) trans-1,4-dichloro-2-b...	14.973	53	1565	3.27	ug/L	92
104) 1,2,3-trichloropropane	15.015	110	1514	3.74	ug/L	94
105) n-propylbenzene	15.015	91	36755	4.02	ug/L	99
107) 2-chlorotoluene	15.167	126	7179	4.02	ug/L	95
108) 4-chlorotoluene	15.266	91	21383	3.95	ug/L	96
109) 1,3,5-trimethylbenzene	15.162	105	24829	3.96	ug/L	99
110) tert-butylbenzene	15.507	134	4482	4.03	ug/L	94
111) 1,2,4-trimethylbenzene	15.559	105	25146	4.00	ug/L	99
112) sec-butylbenzene	15.721	105	32429	3.98	ug/L	98
113) 1,3-dichlorobenzene	15.931	146	13939	3.98	ug/L	97
114) p-isopropyltoluene	15.842	119	27378	4.03	ug/L	99
115) 1,4-dichlorobenzene	16.014	146	14321	4.11	ug/L	98
116) benzyl chloride	16.135	91	11324	3.78	ug/L	98
117) 1,2-dichlorobenzene	16.417	146	13018	3.95	ug/L	99
119) n-butylbenzene	16.265	92	14980	4.02	ug/L	96
120) 1,2-dibromo-3-chloropr...	17.207	75	1131	3.63	ug/L	83
121) 1,3,5-trichlorobenzene	17.364	180	10561	3.92	ug/L	98
124) 1,2,4-trichlorobenzene	17.934	180	8500	3.86	ug/L	98
125) hexachlorobutadiene	18.023	225	5883	4.10	ug/L	94
126) naphthalene	18.185	128	16972	3.94	ug/L	98
127) 1,2,3-trichlorobenzene	18.394	180	7845	3.94	ug/L	97
128) hexachloroethane	16.673	201	4216	3.74	ug/L	91
129) 2-methylnaphthalene	19.142	142	4241	1.68	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156800.D
Acq On : 16 May 2018 6:47 pm
Operator : prashans
Sample : IC6917-4
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 17 12:10:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:09:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156801.D
Acq On : 16 May 2018 7:14 pm
Operator : prashans
Sample : IC6917-8
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 17 12:11:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.384	65	78238	500.00	ug/L		-0.02
5) pentafluorobenzene	9.623	168	218886	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.543	114	324381	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	245895	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	118410	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	100377	50.29	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.58%				
55) 1,2-dichloroethane-d4 (s)	10.115	65	100993	51.26	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 102.52%				
77) toluene-d8 (s)	12.165	98	352671	56.92	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 113.84%				
100) 4-bromofluorobenzene (s)	14.822	95	117203	59.41	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 118.82%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.505	59	7958	39.62	ug/L		90
3) ethanol	6.145	45	16181	848.83	ug/L		92
4) 1,4-dioxane	11.270	88	3528	164.31	ug/L		98
6) chlorodifluoromethane	3.901	51	17153	6.52	ug/L		96
7) dichlorodifluoromethane	3.864	85	26415	7.82	ug/L		99
10) chloromethane	4.288	50	24263	6.19	ug/L		100
11) vinyl chloride	4.518	62	22175	5.98	ug/L		97
13) bromomethane	5.209	94	10469	5.06	ug/L		92
14) chloroethane	5.386	64	12613	8.73	ug/L		98
15) trichlorofluoromethane	5.821	101	25986	7.16	ug/L		98
16) vinyl bromide	5.737	106	14685	5.98	ug/L		92
17) ethyl ether	6.270	74	8466	8.83	ug/L		95
18) acrolein	6.563	56	2322	7.41	ug/L		97
19) freon 113	6.636	151	12293	8.16	ug/L		96
20) 1,1-dichloroethene	6.699	96	15627	7.63	ug/L		89
21) acetone	6.778	58	4304	29.24	ug/L		87
22) acetonitrile	7.238	41	18184	91.72	ug/L		93
23) iodomethane	6.987	142	13168	7.14	ug/L		98
24) carbon disulfide	7.102	76	48782	6.82	ug/L		96
25) methylene chloride	7.437	84	25049	11.59	ug/L		89
26) methyl acetate	7.233	43	10405	9.97	ug/L		97
27) methyl tert butyl ether	7.735	73	40511	8.67	ug/L		96
28) trans-1,2-dichloroethene	7.803	96	17030	7.48	ug/L		92
29) di-isopropyl ether	8.321	45	51898	9.46	ug/L		97
30) 2-butanone	9.095	72	5511	29.92	ug/L	#	56
31) 1,1-dichloroethane	8.378	63	30746	8.51	ug/L		97
32) chloroprene	8.477	53	24366	8.43	ug/L		99
33) acrylonitrile	7.798	53	4464	8.05	ug/L		96
34) hexane	8.080	57	29927	21.69	ug/L	#	58
35) vinyl acetate	8.368	86	1924	6.66	ug/L	#	86
36) ethyl tert-butyl ether	8.786	59	46011	8.54	ug/L		98
37) ethyl acetate	9.100	45	1917	8.66	ug/L	#	33

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156801.D
Acq On : 16 May 2018 7:14 pm
Operator : prashans
Sample : IC6917-8
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 17 12:11:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) 2,2-dichloropropane	9.105	77	24543	7.55	ug/L		97
39) cis-1,2-dichloroethene	9.121	96	18172	7.29	ug/L		90
40) methyl acrylate	9.184	85	1672	7.15	ug/L	#	83
41) propionitrile	9.215	54	20839	83.59	ug/L		97
42) bromochloromethane	9.435	128	7569	7.34	ug/L	#	84
43) tetrahydrofuran	9.471	72	1641	6.96	ug/L		88
44) chloroform	9.492	85	18406	7.50	ug/L		97
45) t-butyl formate	9.503	59	10912	8.24	ug/L		81
47) methacrylonitrile	9.388	67	5385	8.08	ug/L		95
48) 1,1,1-trichloroethane	9.717	97	25421	7.55	ug/L		95
49) cyclohexane	9.775	84	24508	8.37	ug/L		93
50) 1,1-dichloropropene	9.900	75	23298	8.36	ug/L		94
51) iso-butyl alcohol	9.926	43	6170	95.88	ug/L		98
52) carbon tetrachloride	9.921	117	21989	7.62	ug/L		94
53) tert amyl alcohol	10.036	55	2709	44.99	ug/L	#	70
56) n-butyl alcohol	10.679	56	18639	415.19	ug/L		95
57) 2,2,4-trimethylpentane	10.130	57	69840	9.59	ug/L		98
58) benzene	10.167	78	65213	8.05	ug/L		97
59) tert-amyl methyl ether	10.177	87	9022	7.69	ug/L	#	89
60) heptane	10.303	71	15127	9.22	ug/L		96
61) isopropyl acetate	10.088	87	2411	7.79	ug/L	#	76
62) 1,2-dichloroethane	10.203	62	19494	7.54	ug/L		99
63) trichloroethene	10.878	130	16571	7.63	ug/L		99
64) ethyl acrylate	10.883	55	16188	9.17	ug/L		98
65) 2-nitropropane	11.673	41	4393	7.82	ug/L	#	56
66) 2-chloroethyl vinyl ether	11.673	63	41138	47.69	ug/L		99
67) methyl methacrylate	11.150	100	3107	8.13	ug/L	#	85
68) 1,2-dichloropropane	11.155	63	16918	8.95	ug/L		94
69) dibromomethane	11.318	93	9028	7.82	ug/L		90
70) methylcyclohexane	11.077	83	28987	8.32	ug/L		96
71) bromodichloromethane	11.448	83	20224	7.26	ug/L		99
72) epichlorohydrin	11.814	57	6512	42.50	ug/L		94
73) cis-1,3-dichloropropene	11.893	75	25167	8.34	ug/L		99
74) 4-methyl-2-pentanone	11.982	58	18891	38.45	ug/L		96
75) 3-methyl-1-butanol	12.008	55	11332	179.74	ug/L		96
78) toluene	12.238	92	36448	8.46	ug/L		93
79) trans-1,3-dichloropropene	12.452	75	20719	8.82	ug/L		97
80) ethyl methacrylate	12.426	69	15861	9.21	ug/L		98
81) 1,1,2-trichloroethane	12.672	83	10107	8.60	ug/L		97
82) tetrachloroethene	12.819	164	11680	7.36	ug/L		96
83) 1,3-dichloropropane	12.850	76	19518	9.40	ug/L		97
84) 2-hexanone	12.824	58	17718	38.18	ug/L		94
85) butyl acetate	12.887	56	8077	10.50	ug/L		94
86) dibromochloromethane	13.111	129	12847	7.35	ug/L		96
87) 1,2-dibromoethane	13.263	107	12275	8.31	ug/L		98
88) n-butyl ether	13.587	57	62303	9.29	ug/L		97
89) chlorobenzene	13.708	112	36483	7.89	ug/L		99
90) 1,1,1,2-tetrachloroethane	13.765	131	12848	7.84	ug/L		96
91) ethylbenzene	13.750	91	65311	7.97	ug/L		99
92) m,p-xylene	13.854	106	47909	15.59	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156801.D
Acq On : 16 May 2018 7:14 pm
Operator : prashans
Sample : IC6917-8
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 17 12:11:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

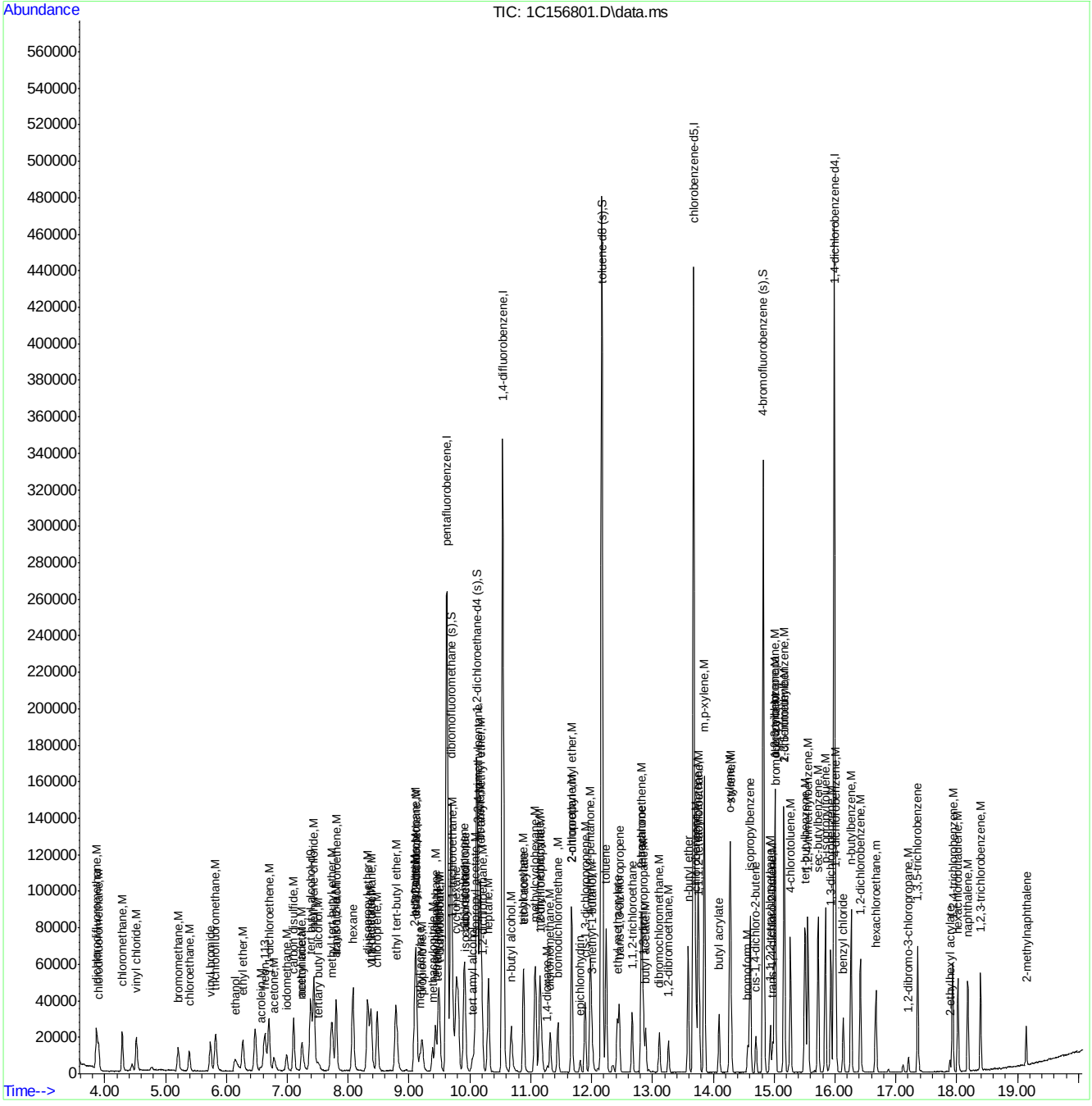
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) o-xylene	14.273	106	23494	8.02	ug/L		99
94) styrene	14.283	104	38741	7.83	ug/L		88
95) bromoform	14.565	173	7489	6.44	ug/L		96
96) butyl acrylate	14.095	55	22580	9.23	ug/L		97
97) isopropylbenzene	14.607	105	60826	7.55	ug/L		99
98) cis-1,4-dichloro-2-butene	14.701	88	4759	7.75	ug/L		92
101) bromobenzene	15.021	156	14728	7.28	ug/L		90
102) 1,1,2,2-tetrachloroethane	14.937	83	13783	9.23	ug/L		98
103) trans-1,4-dichloro-2-b...	14.973	53	3732	9.71	ug/L		88
104) 1,2,3-trichloropropane	15.010	110	3357	8.91	ug/L		90
105) n-propylbenzene	15.010	91	73043	7.97	ug/L		99
107) 2-chlorotoluene	15.167	126	14369	7.89	ug/L		89
108) 4-chlorotoluene	15.266	91	43506	8.40	ug/L		97
109) 1,3,5-trimethylbenzene	15.162	105	50792	8.40	ug/L		99
110) tert-butylbenzene	15.507	134	8972	7.86	ug/L		95
111) 1,2,4-trimethylbenzene	15.554	105	50676	8.54	ug/L		97
112) sec-butylbenzene	15.721	105	66304	8.06	ug/L		100
113) 1,3-dichlorobenzene	15.931	146	27873	7.67	ug/L		96
114) p-isopropyltoluene	15.842	119	55434	8.10	ug/L		98
115) 1,4-dichlorobenzene	16.014	146	27490	7.60	ug/L		95
116) benzyl chloride	16.135	91	23043	7.15	ug/L		98
117) 1,2-dichlorobenzene	16.417	146	26207	7.55	ug/L		95
119) n-butylbenzene	16.265	92	29729	8.44	ug/L		98
120) 1,2-dibromo-3-chloropr...	17.207	75	2416	7.69	ug/L	#	67
121) 1,3,5-trichlorobenzene	17.358	180	21434	7.03	ug/L		95
123) 2-ethylhexyl acrylate	17.892	70	1832	0.99	ug/L		93
124) 1,2,4-trichlorobenzene	17.934	180	17248	6.68	ug/L		98
125) hexachlorobutadiene	18.023	225	11142	6.90	ug/L		97
126) naphthalene	18.180	128	33653	6.56	ug/L		99
127) 1,2,3-trichlorobenzene	18.394	180	15753	6.47	ug/L		95
128) hexachloroethane	16.668	201	8430	6.47	ug/L		89
129) 2-methylnaphthalene	19.142	142	9038	2.35	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156801.D
Acq On : 16 May 2018 7:14 pm
Operator : prashans
Sample : IC6917-8
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 17 12:11:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156802.D
Acq On : 16 May 2018 7:41 pm
Operator : prashans
Sample : IC6917-20
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 17 12:12:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.384	65	76392	500.00	ug/L		-0.02
5) pentafluorobenzene	9.623	168	216507	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.543	114	321047	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	243327	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	116031	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	98940	50.11	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.22%				
55) 1,2-dichloroethane-d4 (s)	10.115	65	98905	50.72	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 101.44%				
77) toluene-d8 (s)	12.170	98	347878	56.74	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 113.48%				
100) 4-bromofluorobenzene (s)	14.822	95	116156	60.09	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 120.18%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.510	59	20050	102.22	ug/L		98
3) ethanol	6.145	45	38916	2090.79	ug/L		95
4) 1,4-dioxane	11.276	88	9143	436.10	ug/L		91
6) chlorodifluoromethane	3.901	51	43329	16.66	ug/L		95
7) dichlorodifluoromethane	3.864	85	67163	20.11	ug/L		99
10) chloromethane	4.288	50	60636	15.64	ug/L		99
11) vinyl chloride	4.518	62	57519	15.68	ug/L		99
13) bromomethane	5.209	94	26933	13.17	ug/L		96
14) chloroethane	5.386	64	31754	22.21	ug/L		97
15) trichlorofluoromethane	5.826	101	66978	18.66	ug/L		98
16) vinyl bromide	5.737	106	39240	16.15	ug/L		99
17) ethyl ether	6.270	74	20708	21.85	ug/L		90
18) acrolein	6.558	56	6596	21.28	ug/L		99
19) freon 113	6.626	151	30446	20.44	ug/L		97
20) 1,1-dichloroethene	6.694	96	39337	19.43	ug/L		88
21) acetone	6.783	58	10519	72.24	ug/L		95
22) acetonitrile	7.238	41	43590	222.27	ug/L		98
23) iodomethane	6.987	142	37971	18.59	ug/L		96
24) carbon disulfide	7.102	76	120977	17.10	ug/L		98
25) methylene chloride	7.442	84	46906	21.95	ug/L		91
26) methyl acetate	7.233	43	26407	25.58	ug/L		97
27) methyl tert butyl ether	7.730	73	103126	22.32	ug/L		97
28) trans-1,2-dichloroethene	7.803	96	41126	18.25	ug/L		90
29) di-isopropyl ether	8.321	45	131263	24.19	ug/L		96
30) 2-butanone	9.084	72	14495	79.56	ug/L	#	72
31) 1,1-dichloroethane	8.383	63	75728	21.19	ug/L		98
32) chloroprene	8.477	53	62781	21.96	ug/L		95
33) acrylonitrile	7.792	53	11142	20.30	ug/L		96
34) hexane	8.075	57	68885	50.48	ug/L	#	59
35) vinyl acetate	8.362	86	5307	18.58	ug/L	#	81
36) ethyl tert-butyl ether	8.786	59	117031	21.96	ug/L		98
37) ethyl acetate	9.089	45	5269	24.08	ug/L	#	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156802.D
Acq On : 16 May 2018 7:41 pm
Operator : prashans
Sample : IC6917-20
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 17 12:12:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) 2,2-dichloropropane	9.105	77	61346	19.08	ug/L		99
39) cis-1,2-dichloroethene	9.121	96	45230	18.35	ug/L		96
40) methyl acrylate	9.173	85	4842	20.94	ug/L	#	75
41) propionitrile	9.210	54	51894	210.45	ug/L		95
42) bromochloromethane	9.435	128	19307	18.93	ug/L	#	83
43) tetrahydrofuran	9.471	72	4371	18.73	ug/L		92
44) chloroform	9.487	85	46974	19.36	ug/L		99
45) t-butyl formate	9.497	59	27411	20.92	ug/L		90
47) methacrylonitrile	9.382	67	13303	20.17	ug/L		90
48) 1,1,1-trichloroethane	9.717	97	61990	18.60	ug/L		96
49) cyclohexane	9.780	84	59365	20.49	ug/L		87
50) 1,1-dichloropropene	9.900	75	57874	20.99	ug/L		96
51) iso-butyl alcohol	9.926	43	15248	239.55	ug/L		97
52) carbon tetrachloride	9.921	117	54734	19.17	ug/L		99
53) tert amyl alcohol	10.041	55	6453	108.35	ug/L		89
56) n-butyl alcohol	10.674	56	49475	1113.53	ug/L		97
57) 2,2,4-trimethylpentane	10.125	57	172813	23.98	ug/L		98
58) benzene	10.167	78	159184	19.86	ug/L		99
59) tert-amyl methyl ether	10.172	87	23228	20.00	ug/L		94
60) heptane	10.303	71	37713	23.21	ug/L		93
61) isopropyl acetate	10.078	87	6412	20.94	ug/L		97
62) 1,2-dichloroethane	10.203	62	48694	19.02	ug/L		97
63) trichloroethene	10.878	130	41362	19.24	ug/L		98
64) ethyl acrylate	10.878	55	40824	23.38	ug/L		98
65) 2-nitropropane	11.673	41	10806	19.42	ug/L	#	54
66) 2-chloroethyl vinyl ether	11.673	63	105807	123.93	ug/L		98
67) methyl methacrylate	11.140	100	7714	20.40	ug/L		94
68) 1,2-dichloropropane	11.155	63	42962	22.96	ug/L		98
69) dibromomethane	11.323	93	22370	19.57	ug/L		95
70) methylcyclohexane	11.072	83	74100	21.49	ug/L		97
71) bromodichloromethane	11.448	83	51912	18.82	ug/L		100
72) epichlorohydrin	11.809	57	15848	104.51	ug/L		96
73) cis-1,3-dichloropropene	11.893	75	63937	21.41	ug/L		99
74) 4-methyl-2-pentanone	11.977	58	46927	96.51	ug/L		97
75) 3-methyl-1-butanol	12.003	55	29069	465.85	ug/L		99
78) toluene	12.238	92	88698	20.81	ug/L		99
79) trans-1,3-dichloropropene	12.452	75	52288	22.49	ug/L		98
80) ethyl methacrylate	12.421	69	39831	23.38	ug/L		94
81) 1,1,2-trichloroethane	12.667	83	25761	22.14	ug/L		96
82) tetrachloroethene	12.819	164	29093	18.53	ug/L		92
83) 1,3-dichloropropane	12.850	76	47980	23.35	ug/L		96
84) 2-hexanone	12.824	58	43568	94.87	ug/L		98
85) butyl acetate	12.887	56	20116	26.42	ug/L		95
86) dibromochloromethane	13.111	129	33144	19.16	ug/L		100
87) 1,2-dibromoethane	13.263	107	31009	21.23	ug/L		96
88) n-butyl ether	13.587	57	157496	23.73	ug/L		99
89) chlorobenzene	13.708	112	90819	19.86	ug/L		99
90) 1,1,1,2-tetrachloroethane	13.765	131	32059	19.76	ug/L		99
91) ethylbenzene	13.750	91	158847	19.59	ug/L		100
92) m,p-xylene	13.854	106	118906	39.09	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156802.D
Acq On : 16 May 2018 7:41 pm
Operator : prashans
Sample : IC6917-20
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 17 12:12:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

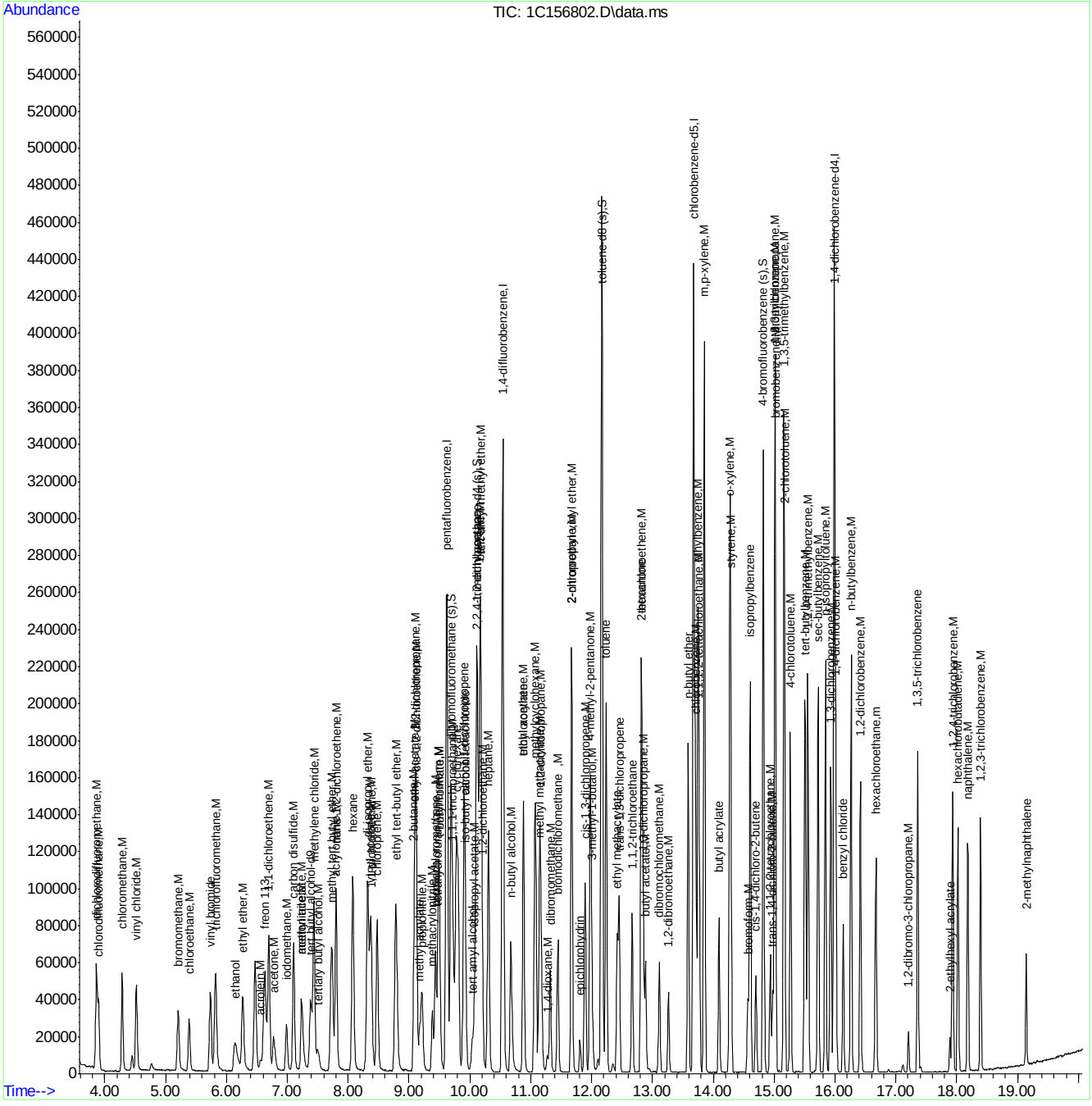
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	14.273	106	56985	19.67	ug/L	99
94) styrene	14.288	104	94074	19.22	ug/L	96
95) bromoform	14.571	173	18772	16.30	ug/L	96
96) butyl acrylate	14.095	55	57279	23.65	ug/L	99
97) isopropylbenzene	14.607	105	151682	19.03	ug/L	99
98) cis-1,4-dichloro-2-butene	14.701	88	12579	20.70	ug/L	96
101) bromobenzene	15.021	156	36631	18.48	ug/L	94
102) 1,1,2,2-tetrachloroethane	14.937	83	33986	23.22	ug/L	97
103) trans-1,4-dichloro-2-b...	14.973	53	9457	25.11	ug/L	93
104) 1,2,3-trichloropropane	15.010	110	7998	21.67	ug/L	95
105) n-propylbenzene	15.010	91	182805	20.35	ug/L	99
107) 2-chlorotoluene	15.172	126	35138	19.68	ug/L	96
108) 4-chlorotoluene	15.266	91	105959	20.88	ug/L	98
109) 1,3,5-trimethylbenzene	15.162	105	125542	21.19	ug/L	100
110) tert-butylbenzene	15.507	134	22574	20.18	ug/L	96
111) 1,2,4-trimethylbenzene	15.554	105	125032	21.51	ug/L	99
112) sec-butylbenzene	15.721	105	163080	20.22	ug/L	99
113) 1,3-dichlorobenzene	15.931	146	69640	19.55	ug/L	98
114) p-isopropyltoluene	15.842	119	137198	20.45	ug/L	98
115) 1,4-dichlorobenzene	16.014	146	67778	19.12	ug/L	97
116) benzyl chloride	16.135	91	59867	18.97	ug/L	100
117) 1,2-dichlorobenzene	16.417	146	66306	19.49	ug/L	97
119) n-butylbenzene	16.265	92	74542	21.59	ug/L	98
120) 1,2-dibromo-3-chloropr...	17.207	75	6180	20.08	ug/L	76
121) 1,3,5-trichlorobenzene	17.358	180	53515	17.92	ug/L	97
123) 2-ethylhexyl acrylate	17.892	70	5211	2.87	ug/L	92
124) 1,2,4-trichlorobenzene	17.934	180	44339	17.52	ug/L	97
125) hexachlorobutadiene	18.023	225	28898	18.26	ug/L	98
126) naphthalene	18.180	128	86319	17.18	ug/L	99
127) 1,2,3-trichlorobenzene	18.394	180	40560	17.00	ug/L	99
128) hexachloroethane	16.673	201	22638	17.73	ug/L	92
129) 2-methylnaphthalene	19.142	142	24873	6.59	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156802.D
Acq On : 16 May 2018 7:41 pm
Operator : prashans
Sample : IC6917-20
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 17 12:12:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156803.D
Acq On : 16 May 2018 8:07 pm
Operator : prashans
Sample : ICC6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 17 12:12:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.384	65	76060	500.00	ug/L		-0.02
5) pentafluorobenzene	9.623	168	210251	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.538	114	319914	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	243255	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	115282	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	97376	50.79	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 101.58%				
55) 1,2-dichloroethane-d4 (s)	10.109	65	97626	50.24	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 100.48%				
77) toluene-d8 (s)	12.170	98	340156	55.50	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.00%				
100) 4-bromofluorobenzene (s)	14.822	95	114926	59.84	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 119.68%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.505	59	50780	260.02	ug/L		96
3) ethanol	6.140	45	98692	5325.45	ug/L		98
4) 1,4-dioxane	11.270	88	23359	1119.03	ug/L		98
6) chlorodifluoromethane	3.896	51	109358	43.30	ug/L		96
7) dichlorodifluoromethane	3.864	85	166806	51.42	ug/L		100
10) chloromethane	4.288	50	147240	39.11	ug/L		98
11) vinyl chloride	4.518	62	143314	40.22	ug/L		99
13) bromomethane	5.203	94	69197	34.85	ug/L		99
14) chloroethane	5.386	64	79495	57.26	ug/L		99
15) trichlorofluoromethane	5.821	101	166413	47.75	ug/L		99
16) vinyl bromide	5.737	106	95617	40.53	ug/L		95
17) ethyl ether	6.270	74	53048	57.63	ug/L		87
18) acrolein	6.558	56	16070	53.39	ug/L		98
19) freon 113	6.626	151	75246	52.02	ug/L		96
20) 1,1-dichloroethene	6.694	96	95271	48.46	ug/L		89
21) acetone	6.772	58	26869	190.02	ug/L		95
22) acetonitrile	7.238	41	106343	558.40	ug/L		98
23) iodomethane	6.987	142	105911	51.21	ug/L		98
24) carbon disulfide	7.102	76	293297	42.69	ug/L		98
25) methylene chloride	7.437	84	104616	50.41	ug/L		87
26) methyl acetate	7.227	43	65971	65.81	ug/L		98
27) methyl tert butyl ether	7.730	73	257208	57.32	ug/L		99
28) trans-1,2-dichloroethene	7.803	96	100400	45.88	ug/L		90
29) di-isopropyl ether	8.321	45	328621	62.36	ug/L		96
30) 2-butanone	9.084	72	36003	203.50	ug/L	#	69
31) 1,1-dichloroethane	8.378	63	185882	53.55	ug/L		98
32) chloroprene	8.477	53	151674	54.63	ug/L		98
33) acrylonitrile	7.787	53	28219	52.95	ug/L		95
34) hexane	8.075	57	164572	124.19	ug/L	#	59
35) vinyl acetate	8.357	86	13417	48.37	ug/L	#	57
36) ethyl tert-butyl ether	8.786	59	294179	56.85	ug/L		98
37) ethyl acetate	9.095	45	12897	60.69	ug/L	#	59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156803.D
Acq On : 16 May 2018 8:07 pm
Operator : prashans
Sample : ICC6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 17 12:12:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) 2,2-dichloropropane	9.100	77	151153	48.40	ug/L		98
39) cis-1,2-dichloroethene	9.121	96	108109	45.16	ug/L		94
40) methyl acrylate	9.173	85	12721	56.64	ug/L	#	86
41) propionitrile	9.210	54	127554	532.66	ug/L		97
42) bromochloromethane	9.435	128	47752	48.22	ug/L	#	81
43) tetrahydrofuran	9.466	72	11059	48.80	ug/L	#	73
44) chloroform	9.487	85	114137	48.45	ug/L		99
45) t-butyl formate	9.503	59	71211	55.97	ug/L		93
47) methacrylonitrile	9.382	67	33667	52.56	ug/L		94
48) 1,1,1-trichloroethane	9.717	97	152967	47.27	ug/L		96
49) cyclohexane	9.775	84	143488	51.01	ug/L		94
50) 1,1-dichloropropene	9.900	75	142840	53.34	ug/L		97
51) iso-butyl alcohol	9.921	43	39433	637.93	ug/L		98
52) carbon tetrachloride	9.916	117	136032	49.07	ug/L		98
53) tert amyl alcohol	10.041	55	16344	282.60	ug/L		97
56) n-butyl alcohol	10.674	56	128493	2902.22	ug/L		98
57) 2,2,4-trimethylpentane	10.130	57	425641	59.26	ug/L		98
58) benzene	10.167	78	388102	48.60	ug/L		100
59) tert-amyl methyl ether	10.177	87	58590	50.62	ug/L		93
60) heptane	10.303	71	92630	57.22	ug/L		95
61) isopropyl acetate	10.083	87	16051	52.60	ug/L		96
62) 1,2-dichloroethane	10.203	62	117806	46.18	ug/L		97
63) trichloroethene	10.878	130	101550	47.40	ug/L		98
64) ethyl acrylate	10.878	55	103697	59.59	ug/L		99
65) 2-nitropropane	11.673	41	27127	48.93	ug/L	#	66
66) 2-chloroethyl vinyl ether	11.673	63	263284	309.48	ug/L		98
67) methyl methacrylate	11.140	100	19816	52.58	ug/L		95
68) 1,2-dichloropropane	11.155	63	105602	56.63	ug/L		97
69) dibromomethane	11.317	93	55989	49.15	ug/L		94
70) methylcyclohexane	11.072	83	182402	53.09	ug/L		94
71) bromodichloromethane	11.443	83	131459	47.84	ug/L		99
72) epichlorohydrin	11.809	57	39979	264.57	ug/L		95
73) cis-1,3-dichloropropene	11.893	75	160963	54.08	ug/L		99
74) 4-methyl-2-pentanone	11.976	58	116180	239.79	ug/L		92
75) 3-methyl-1-butanol	12.003	55	73677	1184.90	ug/L		97
78) toluene	12.238	92	217470	51.03	ug/L		99
79) trans-1,3-dichloropropene	12.452	75	131677	56.65	ug/L		99
80) ethyl methacrylate	12.421	69	99646	58.51	ug/L		95
81) 1,1,2-trichloroethane	12.667	83	64284	55.27	ug/L		97
82) tetrachloroethene	12.819	164	71950	45.84	ug/L		94
83) 1,3-dichloropropane	12.850	76	119528	58.19	ug/L		99
84) 2-hexanone	12.824	58	109538	238.60	ug/L		98
85) butyl acetate	12.881	56	48159	63.27	ug/L		94
86) dibromochloromethane	13.111	129	86196	49.83	ug/L		99
87) 1,2-dibromoethane	13.263	107	78769	53.93	ug/L		95
88) n-butyl ether	13.587	57	388757	58.59	ug/L		98
89) chlorobenzene	13.708	112	223636	48.91	ug/L		97
90) 1,1,1,2-tetrachloroethane	13.765	131	79905	49.27	ug/L		98
91) ethylbenzene	13.750	91	385673	47.58	ug/L		99
92) m,p-xylene	13.854	106	285666	93.95	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156803.D
Acq On : 16 May 2018 8:07 pm
Operator : prashans
Sample : ICC6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 17 12:12:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

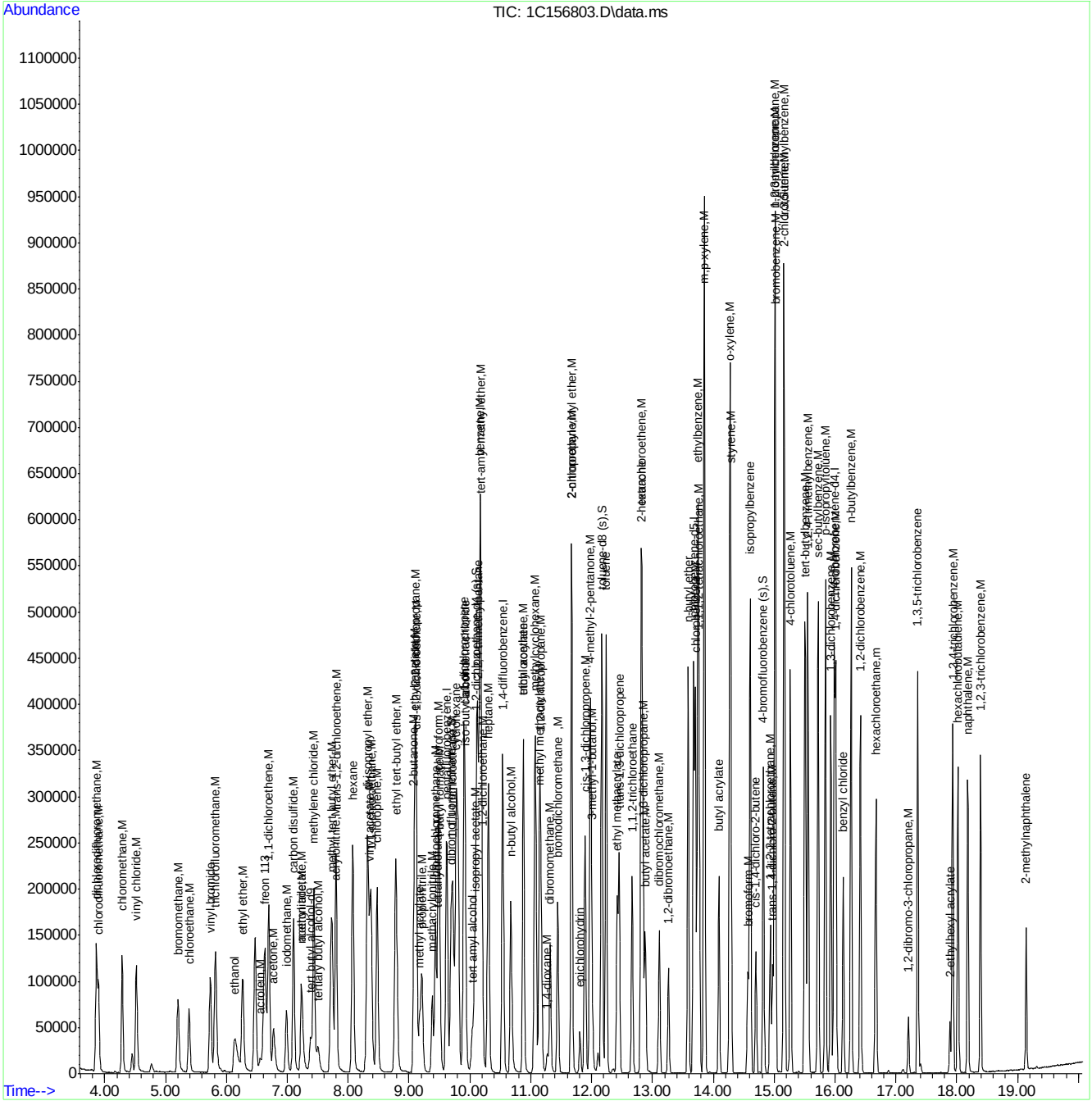
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	14.273	106	140493	48.50	ug/L	98
94) styrene	14.288	104	233635	47.74	ug/L	96
95) bromoform	14.571	173	51317	44.58	ug/L	98
96) butyl acrylate	14.095	55	147327	60.84	ug/L	98
97) isopropylbenzene	14.607	105	371002	46.55	ug/L	100
98) cis-1,4-dichloro-2-butene	14.701	88	31896	52.50	ug/L	93
101) bromobenzene	15.020	156	90276	45.84	ug/L	96
102) 1,1,2,2-tetrachloroethane	14.937	83	87724	60.33	ug/L	99
103) trans-1,4-dichloro-2-b...	14.973	53	24513	65.51	ug/L	95
104) 1,2,3-trichloropropane	15.010	110	19644	53.57	ug/L	96
105) n-propylbenzene	15.010	91	440676	49.38	ug/L	99
107) 2-chlorotoluene	15.167	126	86564	48.80	ug/L	88
108) 4-chlorotoluene	15.266	91	255467	50.66	ug/L	99
109) 1,3,5-trimethylbenzene	15.162	105	304191	51.67	ug/L	100
110) tert-butylbenzene	15.507	134	55579	50.00	ug/L	94
111) 1,2,4-trimethylbenzene	15.554	105	300865	52.11	ug/L	99
112) sec-butylbenzene	15.721	105	396074	49.43	ug/L	99
113) 1,3-dichlorobenzene	15.931	146	166686	47.10	ug/L	98
114) p-isopropyltoluene	15.842	119	331226	49.69	ug/L	98
115) 1,4-dichlorobenzene	16.014	146	166575	47.30	ug/L	97
116) benzyl chloride	16.135	91	155241	49.50	ug/L	99
117) 1,2-dichlorobenzene	16.417	146	161072	47.66	ug/L	96
119) n-butylbenzene	16.265	92	180752	52.70	ug/L	98
120) 1,2-dibromo-3-chloropr...	17.207	75	15783	51.60	ug/L	77
121) 1,3,5-trichlorobenzene	17.358	180	132763	44.74	ug/L	96
123) 2-ethylhexyl acrylate	17.892	70	14626	8.11	ug/L	99
124) 1,2,4-trichlorobenzene	17.934	180	109658	43.61	ug/L	98
125) hexachlorobutadiene	18.023	225	70839	45.05	ug/L	98
126) naphthalene	18.180	128	218166	43.70	ug/L	99
127) 1,2,3-trichlorobenzene	18.389	180	101919	43.00	ug/L	98
128) hexachloroethane	16.673	201	59619	47.00	ug/L	94
129) 2-methylnaphthalene	19.137	142	66251	17.68	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156803.D
Acq On : 16 May 2018 8:07 pm
Operator : prashans
Sample : ICC6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 17 12:12:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156804.D
Acq On : 16 May 2018 8:34 pm
Operator : prashans
Sample : IC6917-100
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 17 12:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.389	65	78487	500.00	ug/L		-0.01
5) pentafluorobenzene	9.623	168	214861	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.538	114	327239	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	247738	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	117227	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	98907	50.48	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.96%				
55) 1,2-dichloroethane-d4 (s)	10.109	65	99971	50.30	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 100.60%				
77) toluene-d8 (s)	12.170	98	350842	56.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 112.40%				
100) 4-bromofluorobenzene (s)	14.822	95	118539	60.70	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 121.40%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.504	59	102623	509.24	ug/L		92
3) ethanol	6.145	45	193019	10093.31	ug/L		97
4) 1,4-dioxane	11.270	88	45519	2113.20	ug/L		93
6) chlorodifluoromethane	3.896	51	220377	85.38	ug/L		97
7) dichlorodifluoromethane	3.864	85	325415	98.16	ug/L		98
10) chloromethane	4.288	50	288728	75.05	ug/L		98
11) vinyl chloride	4.518	62	277829	76.30	ug/L		100
13) bromomethane	5.198	94	131784	64.95	ug/L		100
14) chloroethane	5.381	64	152587	107.55	ug/L		99
15) trichlorofluoromethane	5.820	101	319933	89.83	ug/L		98
16) vinyl bromide	5.737	106	184569	76.55	ug/L		95
17) ethyl ether	6.265	74	107511	114.28	ug/L		79
18) acrolein	6.558	56	33352	108.42	ug/L		97
19) freon 113	6.631	151	150847	102.05	ug/L		95
20) 1,1-dichloroethene	6.694	96	184385	91.77	ug/L		88
21) acetone	6.777	58	54316	375.88	ug/L		96
22) acetonitrile	7.232	41	212750	1093.16	ug/L		97
23) iodomethane	6.987	142	218617	102.24	ug/L		99
24) carbon disulfide	7.102	76	580423	82.68	ug/L		98
25) methylene chloride	7.436	84	205415	96.86	ug/L		89
26) methyl acetate	7.227	43	132875	129.71	ug/L		96
27) methyl tert butyl ether	7.729	73	519497	113.30	ug/L		97
28) trans-1,2-dichloroethene	7.803	96	197664	88.40	ug/L		91
29) di-isopropyl ether	8.320	45	660912	122.73	ug/L		97
30) 2-butanone	9.084	72	73503	406.55	ug/L	#	68
31) 1,1-dichloroethane	8.378	63	363270	102.41	ug/L		98
32) chloroprene	8.477	53	300135	105.79	ug/L		97
33) acrylonitrile	7.787	53	57080	104.80	ug/L		96
34) hexane	8.075	57	323598	238.95	ug/L	#	59
35) vinyl acetate	8.357	86	27485	96.95	ug/L	#	60
36) ethyl tert-butyl ether	8.786	59	596973	112.89	ug/L		98
37) ethyl acetate	9.089	45	25129	115.71	ug/L	#	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156804.D
Acq On : 16 May 2018 8:34 pm
Operator : prashans
Sample : IC6917-100
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 17 12:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) 2,2-dichloropropane	9.100	77	299046	93.70	ug/L		99
39) cis-1,2-dichloroethene	9.121	96	213850	87.42	ug/L		95
40) methyl acrylate	9.173	85	25758	112.23	ug/L	#	80
41) propionitrile	9.209	54	253979	1037.86	ug/L		98
42) bromochloromethane	9.434	128	94128	93.00	ug/L	#	81
43) tetrahydrofuran	9.466	72	22520	97.25	ug/L	#	83
44) chloroform	9.487	85	225504	93.67	ug/L		97
45) t-butyl formate	9.497	59	149926	115.30	ug/L		93
47) methacrylonitrile	9.382	67	69759	106.57	ug/L		97
48) 1,1,1-trichloroethane	9.722	97	309625	93.62	ug/L		98
49) cyclohexane	9.774	84	287683	100.08	ug/L		94
50) 1,1-dichloropropene	9.900	75	284015	103.78	ug/L		97
51) iso-butyl alcohol	9.926	43	80319	1271.49	ug/L		98
52) carbon tetrachloride	9.916	117	272422	96.16	ug/L		99
53) tert amyl alcohol	10.036	55	33120	560.38	ug/L		94
56) n-butyl alcohol	10.674	56	263618	5820.96	ug/L		98
57) 2,2,4-trimethylpentane	10.125	57	840813	114.45	ug/L		98
58) benzene	10.167	78	767938	94.01	ug/L		99
59) tert-amyl methyl ether	10.177	87	119676	101.09	ug/L		97
60) heptane	10.303	71	183391	110.75	ug/L		96
61) isopropyl acetate	10.078	87	33923	108.67	ug/L	#	89
62) 1,2-dichloroethane	10.203	62	237824	91.14	ug/L		97
63) trichloroethene	10.878	130	202870	92.58	ug/L		97
64) ethyl acrylate	10.878	55	209804	117.86	ug/L		98
65) 2-nitropropane	11.673	41	55373	97.65	ug/L	#	68
66) 2-chloroethyl vinyl ether	11.673	63	533852	613.47	ug/L		99
67) methyl methacrylate	11.139	100	40273	104.47	ug/L		94
68) 1,2-dichloropropane	11.155	63	206863	108.45	ug/L		97
69) dibromomethane	11.323	93	113961	97.80	ug/L		96
70) methylcyclohexane	11.077	83	364885	103.82	ug/L		95
71) bromodichloromethane	11.443	83	269141	95.75	ug/L		99
72) epichlorohydrin	11.809	57	81097	524.65	ug/L		96
73) cis-1,3-dichloropropene	11.893	75	326879	107.37	ug/L		98
74) 4-methyl-2-pentanone	11.976	58	234271	472.69	ug/L		97
75) 3-methyl-1-butanol	12.002	55	150868	2372.00	ug/L		97
78) toluene	12.238	92	438968	101.14	ug/L		98
79) trans-1,3-dichloropropene	12.452	75	267736	113.11	ug/L		98
80) ethyl methacrylate	12.421	69	203812	117.50	ug/L		97
81) 1,1,2-trichloroethane	12.667	83	131167	110.74	ug/L		97
82) tetrachloroethene	12.813	164	145387	90.94	ug/L		93
83) 1,3-dichloropropane	12.850	76	240492	114.96	ug/L		99
84) 2-hexanone	12.824	58	220546	471.72	ug/L		98
85) butyl acetate	12.886	56	97141	125.30	ug/L		92
86) dibromochloromethane	13.111	129	180419	102.41	ug/L		99
87) 1,2-dibromoethane	13.263	107	161484	108.57	ug/L		97
88) n-butyl ether	13.587	57	781698	115.67	ug/L		98
89) chlorobenzene	13.707	112	450953	96.84	ug/L		97
90) 1,1,1,2-tetrachloroethane	13.765	131	165889	100.43	ug/L		99
91) ethylbenzene	13.749	91	775469	93.93	ug/L		98
92) m,p-xylene	13.854	106	569945	184.05	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156804.D
Acq On : 16 May 2018 8:34 pm
Operator : prashans
Sample : IC6917-100
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 17 12:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

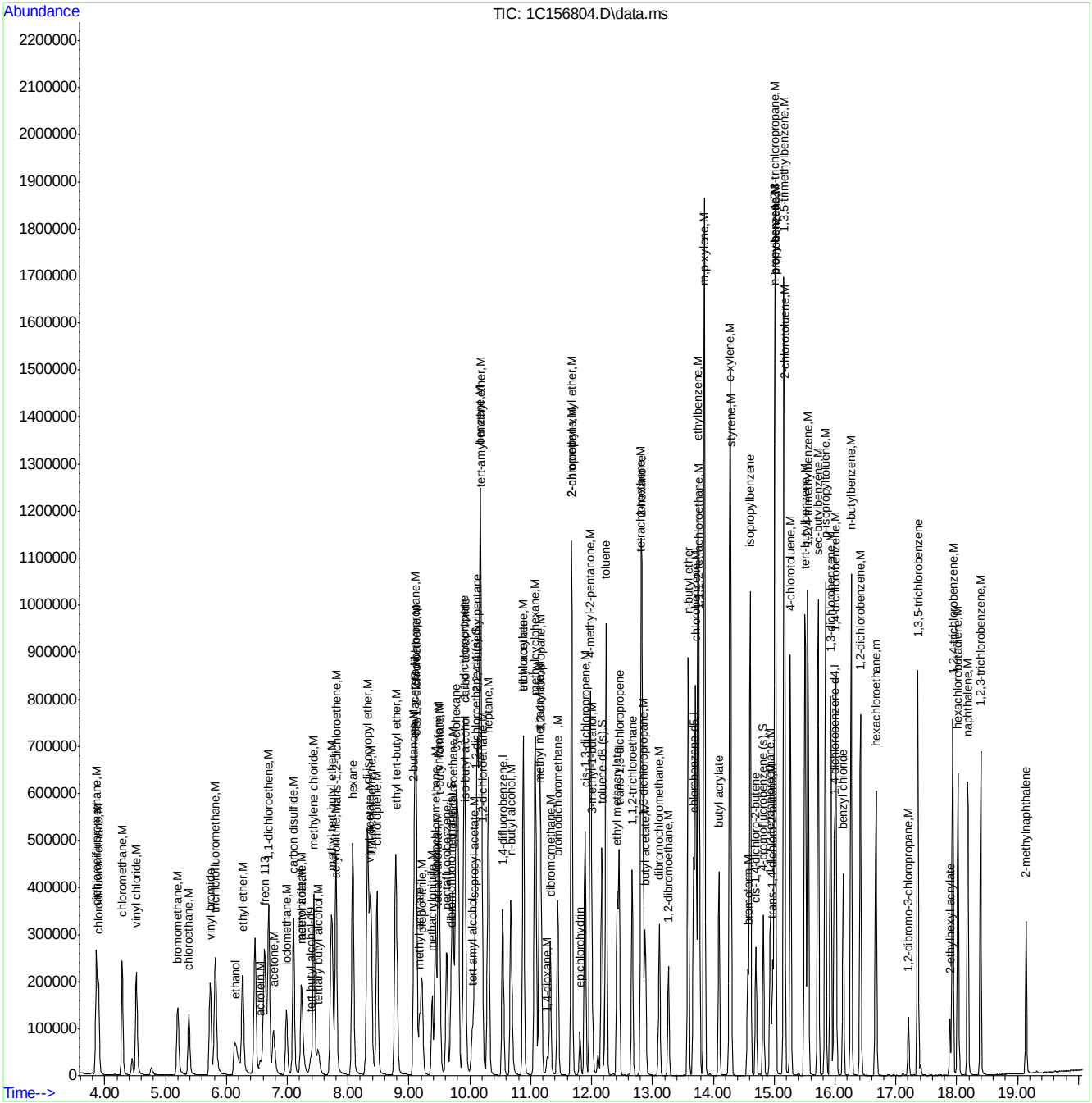
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) o-xylene	14.272	106	275597	93.42	ug/L		98
94) styrene	14.288	104	458279	91.95	ug/L		96
95) bromoform	14.570	173	108422	92.49	ug/L		97
96) butyl acrylate	14.095	55	298900	121.21	ug/L		98
97) isopropylbenzene	14.607	105	741221	91.33	ug/L		99
98) cis-1,4-dichloro-2-butene	14.701	88	66629	107.69	ug/L		94
101) bromobenzene	15.020	156	180967	90.36	ug/L		96
102) 1,1,2,2-tetrachloroethane	14.937	83	178934	121.02	ug/L		99
103) trans-1,4-dichloro-2-b...	14.973	53	50605	133.00	ug/L		95
104) 1,2,3-trichloropropane	15.010	110	39694	106.45	ug/L		98
105) n-propylbenzene	15.015	91	872649	96.16	ug/L		98
107) 2-chlorotoluene	15.172	126	171661	95.18	ug/L		96
108) 4-chlorotoluene	15.266	91	513156	100.07	ug/L		99
109) 1,3,5-trimethylbenzene	15.162	105	606029	101.23	ug/L		100
110) tert-butylbenzene	15.507	134	109320	96.71	ug/L	#	88
111) 1,2,4-trimethylbenzene	15.554	105	600725	102.31	ug/L		98
112) sec-butylbenzene	15.721	105	777596	95.44	ug/L		99
113) 1,3-dichlorobenzene	15.930	146	336470	93.50	ug/L		96
114) p-isopropyltoluene	15.841	119	652082	96.20	ug/L		98
115) 1,4-dichlorobenzene	16.014	146	340104	94.98	ug/L		97
116) benzyl chloride	16.134	91	319108	100.07	ug/L		99
117) 1,2-dichlorobenzene	16.417	146	322958	93.97	ug/L		97
119) n-butylbenzene	16.265	92	351129	100.68	ug/L		99
120) 1,2-dibromo-3-chloropr...	17.207	75	32153	103.38	ug/L		79
121) 1,3,5-trichlorobenzene	17.363	180	269233	89.22	ug/L		98
123) 2-ethylhexyl acrylate	17.892	70	31021	16.92	ug/L		99
124) 1,2,4-trichlorobenzene	17.934	180	224921	87.97	ug/L		97
125) hexachlorobutadiene	18.022	225	138572	86.66	ug/L		99
126) naphthalene	18.179	128	435928	85.87	ug/L		99
127) 1,2,3-trichlorobenzene	18.394	180	206372	85.63	ug/L		99
128) hexachloroethane	16.673	201	122700	95.13	ug/L		94
129) 2-methylnaphthalene	19.136	142	140877	36.97	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156804.D
Acq On : 16 May 2018 8:34 pm
Operator : prashans
Sample : IC6917-100
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 17 12:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156805.D
Acq On : 16 May 2018 9:00 pm
Operator : prashans
Sample : IC6917-200
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 17 12:14:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.395	65	78424	500.00	ug/L		0.00
5) pentafluorobenzene	9.623	168	216603	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.543	114	332284	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	253731	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	118192	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	99718	50.49	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.98%				
55) 1,2-dichloroethane-d4 (s)	10.115	65	101628	50.36	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 100.72%				
77) toluene-d8 (s)	12.170	98	357013	55.84	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.68%				
100) 4-bromofluorobenzene (s)	14.822	95	120571	61.23	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 122.46%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.510	59	198726	986.92	ug/L		88
3) ethanol	6.155	45	344367	18022.03	ug/L		99
4) 1,4-dioxane	11.270	88	86057	3998.36	ug/L		93
6) chlorodifluoromethane	3.896	51	416581	160.09	ug/L		97
7) dichlorodifluoromethane	3.864	85	639956	191.49	ug/L		100
10) chloromethane	4.283	50	590010	152.13	ug/L		99
11) vinyl chloride	4.518	62	550339	149.93	ug/L		99
13) bromomethane	5.193	94	219946	107.52	ug/L		100
14) chloroethane	5.376	64	303228	212.02	ug/L		99
15) trichlorofluoromethane	5.815	101	630067	175.48	ug/L		99
16) vinyl bromide	5.732	106	370632	152.49	ug/L		96
17) ethyl ether	6.265	74	208715	220.08	ug/L		81
18) acrolein	6.553	56	64872	209.19	ug/L		99
19) freon 113	6.626	151	282838	189.80	ug/L		95
20) 1,1-dichloroethene	6.694	96	350342	172.97	ug/L		90
21) acetone	6.778	58	104026	714.10	ug/L		95
22) acetonitrile	7.238	41	404356	2060.98	ug/L		99
23) iodomethane	6.987	142	426721	196.87	ug/L		99
24) carbon disulfide	7.102	76	1099943	155.42	ug/L		98
25) methylene chloride	7.437	84	389620	182.25	ug/L		89
26) methyl acetate	7.228	43	253063	245.04	ug/L		95
27) methyl tert butyl ether	7.730	73	1000821	216.51	ug/L		96
28) trans-1,2-dichloroethene	7.803	96	371065	164.61	ug/L		92
29) di-isopropyl ether	8.321	45	1257564	231.65	ug/L		97
30) 2-butanone	9.084	72	139688	766.41	ug/L	#	66
31) 1,1-dichloroethane	8.378	63	679086	189.90	ug/L		98
32) chloroprene	8.478	53	571328	199.75	ug/L		97
33) acrylonitrile	7.787	53	110188	200.69	ug/L		97
34) hexane	8.075	57	606943	444.57	ug/L	#	59
35) vinyl acetate	8.357	86	51734	181.02	ug/L	#	53
36) ethyl tert-butyl ether	8.786	59	1146469	215.05	ug/L		98
37) ethyl acetate	9.089	45	47155	215.39	ug/L	#	81

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156805.D
Acq On : 16 May 2018 9:00 pm
Operator : prashans
Sample : IC6917-200
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 17 12:14:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) 2,2-dichloropropane	9.100	77	566240	176.00	ug/L		98
39) cis-1,2-dichloroethene	9.116	96	402173	163.09	ug/L		92
40) methyl acrylate	9.173	85	50460	218.09	ug/L	#	83
41) propionitrile	9.215	54	484681	1964.66	ug/L		98
42) bromochloromethane	9.435	128	178166	174.62	ug/L	#	83
43) tetrahydrofuran	9.461	72	42467	181.91	ug/L	#	78
44) chloroform	9.487	85	425785	175.43	ug/L		96
45) t-butyl formate	9.497	59	295035	225.07	ug/L		93
47) methacrylonitrile	9.382	67	132282	200.47	ug/L		95
48) 1,1,1-trichloroethane	9.722	97	587107	176.10	ug/L		98
49) cyclohexane	9.775	84	542397	187.16	ug/L		92
50) 1,1-dichloropropene	9.900	75	535834	194.22	ug/L		95
51) iso-butyl alcohol	9.926	43	153215	2405.97	ug/L		98
52) carbon tetrachloride	9.916	117	515379	180.46	ug/L		99
53) tert amyl alcohol	10.041	55	63599	1067.43	ug/L		96
56) n-butyl alcohol	10.679	56	507969	11046.18	ug/L		98
57) 2,2,4-trimethylpentane	10.125	57	1593401	213.60	ug/L		99
58) benzene	10.167	78	1433270	172.80	ug/L		99
59) tert-amyl methyl ether	10.177	87	226384	188.32	ug/L		98
60) heptane	10.303	71	347156	206.46	ug/L		96
61) isopropyl acetate	10.083	87	65801	207.59	ug/L	#	87
62) 1,2-dichloroethane	10.204	62	452526	170.78	ug/L		98
63) trichloroethene	10.878	130	381042	171.24	ug/L		97
64) ethyl acrylate	10.878	55	401921	222.36	ug/L		99
65) 2-nitropropane	11.673	41	106142	184.34	ug/L	#	69
66) 2-chloroethyl vinyl ether	11.673	63	997741	1129.14	ug/L		99
67) methyl methacrylate	11.140	100	77020	196.76	ug/L		96
68) 1,2-dichloropropane	11.155	63	386471	199.53	ug/L		98
69) dibromomethane	11.323	93	219234	185.28	ug/L		98
70) methylcyclohexane	11.072	83	687293	192.59	ug/L		94
71) bromodichloromethane	11.443	83	519009	181.84	ug/L		99
72) epichlorohydrin	11.809	57	156382	996.35	ug/L		95
73) cis-1,3-dichloropropene	11.893	75	632947	204.74	ug/L		99
74) 4-methyl-2-pentanone	11.977	58	444526	883.31	ug/L		96
75) 3-methyl-1-butanol	12.003	55	288337	4464.51	ug/L		98
78) toluene	12.243	92	834525	187.74	ug/L		98
79) trans-1,3-dichloropropene	12.453	75	512656	211.46	ug/L		98
80) ethyl methacrylate	12.421	69	388037	218.43	ug/L		97
81) 1,1,2-trichloroethane	12.667	83	253099	208.63	ug/L		97
82) tetrachloroethene	12.819	164	273581	167.09	ug/L		94
83) 1,3-dichloropropane	12.850	76	454469	212.11	ug/L		99
84) 2-hexanone	12.824	58	403789	843.25	ug/L		98
85) butyl acetate	12.887	56	185940	234.18	ug/L		94
86) dibromochloromethane	13.112	129	355651	197.11	ug/L		98
87) 1,2-dibromoethane	13.263	107	312962	205.44	ug/L		98
88) n-butyl ether	13.587	57	1474323	213.01	ug/L		98
89) chlorobenzene	13.708	112	862391	180.83	ug/L		97
90) 1,1,1,2-tetrachloroethane	13.765	131	317471	187.66	ug/L		99
91) ethylbenzene	13.750	91	1431049	169.25	ug/L		99
92) m,p-xylene	13.854	106	1042102	328.57	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156805.D
Acq On : 16 May 2018 9:00 pm
Operator : prashans
Sample : IC6917-200
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 17 12:14:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration

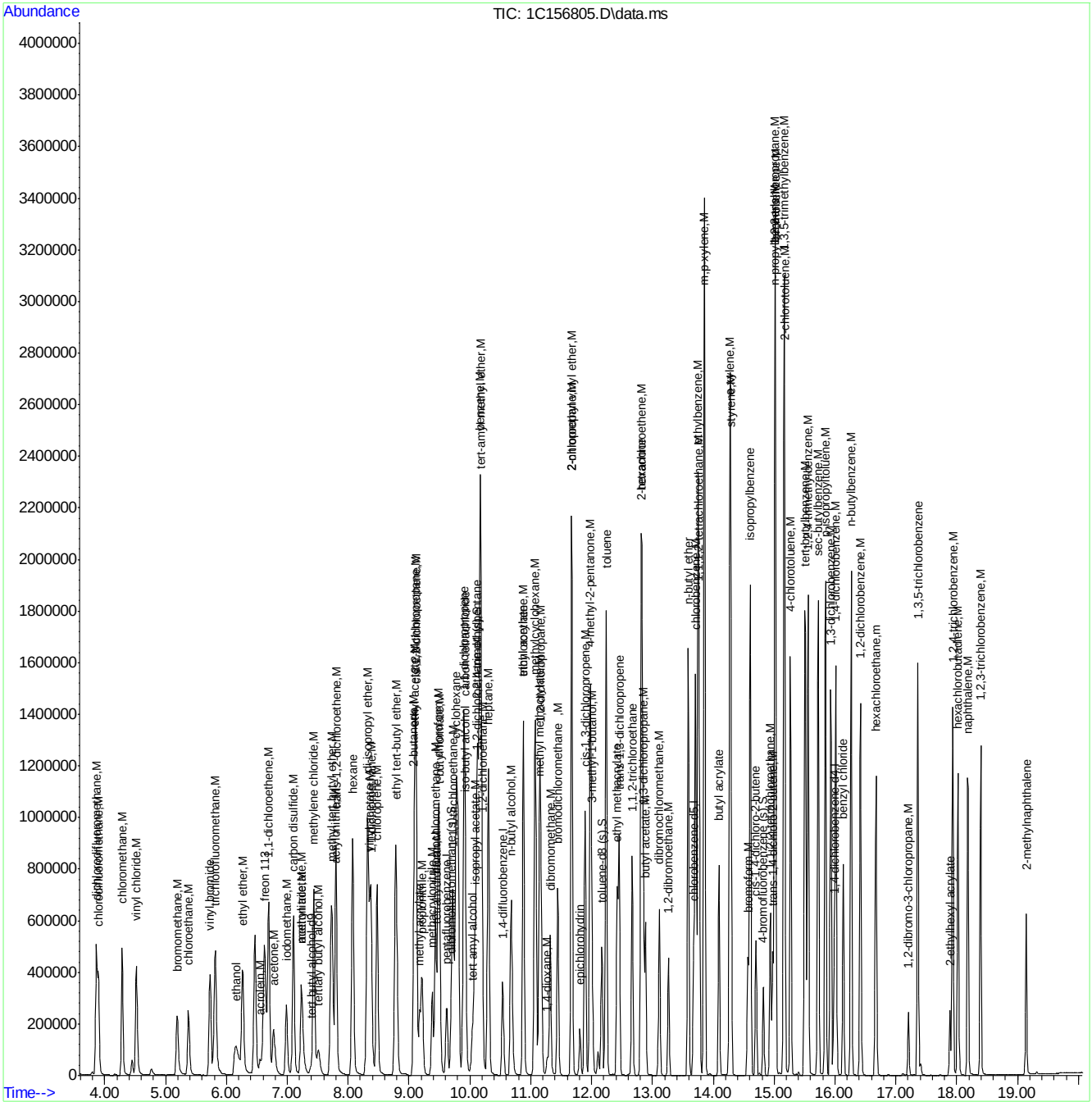
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) o-xylene	14.273	106	514539	170.29	ug/L		100
94) styrene	14.288	104	849225	166.36	ug/L		94
95) bromoform	14.571	173	215187	179.23	ug/L		97
96) butyl acrylate	14.095	55	567018	224.50	ug/L		98
97) isopropylbenzene	14.607	105	1386409	166.78	ug/L		99
98) cis-1,4-dichloro-2-butene	14.701	88	131925	208.20	ug/L		93
101) bromobenzene	15.021	156	336243	166.52	ug/L		95
102) 1,1,2,2-tetrachloroethane	14.937	83	341713	229.23	ug/L		100
103) trans-1,4-dichloro-2-b...	14.979	53	97435	254.00	ug/L		97
104) 1,2,3-trichloropropane	15.010	110	73185	194.66	ug/L		98
105) n-propylbenzene	15.015	91	1594636	174.27	ug/L		97
107) 2-chlorotoluene	15.172	126	317512	174.61	ug/L		97
108) 4-chlorotoluene	15.266	91	982515	190.04	ug/L		98
109) 1,3,5-trimethylbenzene	15.162	105	1112126	184.25	ug/L		99
110) tert-butylbenzene	15.507	134	205251	180.10	ug/L	#	90
111) 1,2,4-trimethylbenzene	15.559	105	1125582	190.14	ug/L		98
112) sec-butylbenzene	15.721	105	1456874	177.36	ug/L		99
113) 1,3-dichlorobenzene	15.931	146	637234	175.63	ug/L		97
114) p-isopropyltoluene	15.842	119	1213419	177.54	ug/L		97
115) 1,4-dichlorobenzene	16.014	146	641692	177.74	ug/L		96
116) benzyl chloride	16.135	91	617034	191.92	ug/L		99
117) 1,2-dichlorobenzene	16.417	146	619892	178.89	ug/L		96
119) n-butylbenzene	16.265	92	660637	187.87	ug/L		98
120) 1,2-dibromo-3-chloropr...	17.207	75	62529	199.41	ug/L		77
121) 1,3,5-trichlorobenzene	17.364	180	508703	167.21	ug/L		97
123) 2-ethylhexyl acrylate	17.892	70	62821	33.99	ug/L		97
124) 1,2,4-trichlorobenzene	17.934	180	424063	164.51	ug/L		98
125) hexachlorobutadiene	18.023	225	261178	162.00	ug/L		98
126) naphthalene	18.180	128	823444	160.87	ug/L		99
127) 1,2,3-trichlorobenzene	18.394	180	395425	162.74	ug/L		99
128) hexachloroethane	16.673	201	242297	186.33	ug/L		98
129) 2-methylnaphthalene	19.142	142	274102	71.34	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156805.D
Acq On : 16 May 2018 9:00 pm
Operator : prashans
Sample : IC6917-200
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 17 12:14:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 09:40:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156808.D
Acq On : 16 May 2018 10:20 pm
Operator : prashans
Sample : ICV6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 17 12:15:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.384	65	78122	500.00	ug/L		0.00
5) pentafluorobenzene	9.623	168	223285	50.00	ug/L		0.00
54) 1,4-difluorobenzene	10.538	114	337496	50.00	ug/L		0.00
76) chlorobenzene-d5	13.676	117	256012	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	15.988	152	120016	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	9.691	113	102789	50.25	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.50%				
55) 1,2-dichloroethane-d4 (s)	10.115	65	102901	49.32	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 98.64%				
77) toluene-d8 (s)	12.165	98	358363	49.19	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.38%				
100) 4-bromofluorobenzene (s)	14.822	95	121338	50.72	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 101.44%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.510	59	50151	242.02	ug/L		98
3) ethanol	6.140	45	104507	5200.10	ug/L		97
4) 1,4-dioxane	11.270	88	24022	1344.26	ug/L		100
6) chlorodifluoromethane	3.901	51	131250	59.15	ug/L		98
7) dichlorodifluoromethane	3.864	85	147837	45.73	ug/L		99
10) chloromethane	4.288	50	166550	55.01	ug/L		99
11) vinyl chloride	4.523	62	143057	52.27	ug/L		100
13) bromomethane	5.203	94	74948	57.48	ug/L		98
14) chloroethane	5.386	64	78498	50.22	ug/L		99
15) trichlorofluoromethane	5.821	101	162311	51.13	ug/L		100
16) vinyl bromide	5.737	106	97883	52.58	ug/L		99
17) ethyl ether	6.270	74	52343	50.03	ug/L		97
18) acrolein	6.553	56	16963	52.72	ug/L		96
19) freon 113	6.631	151	74070	48.37	ug/L		97
20) 1,1-dichloroethene	6.699	96	88455	43.04	ug/L		99
21) acetone	6.778	58	27794	211.18	ug/L		99
23) iodomethane	6.987	142	114833	59.30	ug/L		99
24) carbon disulfide	7.102	76	325211	49.25	ug/L		100
25) methylene chloride	7.437	84	101836	46.53	ug/L		98
26) methyl acetate	7.227	43	58799	43.87	ug/L		100
27) methyl tert butyl ether	7.730	73	503353	96.52	ug/L		85
28) trans-1,2-dichloroethene	7.803	96	96268	43.95	ug/L		99
29) di-isopropyl ether	8.321	45	335685	50.96	ug/L		99
30) 2-butanone	9.084	72	37018	211.66	ug/L		98
31) 1,1-dichloroethane	8.383	63	184658	48.39	ug/L		98
32) chloroprene	8.478	53	159698	52.42	ug/L		98
33) acrylonitrile	7.792	53	28477	50.69	ug/L		99
34) hexane	8.075	57	139167	38.72	ug/L		99
35) vinyl acetate	8.362	86	15599	59.62	ug/L	#	85
36) ethyl tert-butyl ether	8.786	59	297847	50.97	ug/L		99
37) ethyl acetate	9.095	45	12708	49.44	ug/L		96
38) 2,2-dichloropropane	9.105	77	150759	48.76	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156808.D
Acq On : 16 May 2018 10:20 pm
Operator : prashans
Sample : ICV6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 17 12:15:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	cis-1,2-dichloroethene	9.121	96	109734	46.42	ug/L	99
40)	methyl acrylate	9.173	85	12425	51.23	ug/L	96
41)	propionitrile	9.210	54	127757	483.50	ug/L	99
42)	bromochloromethane	9.435	128	47770	49.90	ug/L	99
43)	tetrahydrofuran	9.466	72	10688	48.86	ug/L	91
44)	chloroform	9.487	85	114557	48.20	ug/L	99
45)	t-butyl formate	9.503	59	50686	35.81	ug/L	97
47)	methacrylonitrile	9.382	67	34314	49.76	ug/L	98
48)	1,1,1-trichloroethane	9.722	97	149955	47.80	ug/L	98
49)	cyclohexane	9.780	84	146354	50.46	ug/L	94
50)	1,1-dichloropropene	9.900	75	143433	48.94	ug/L	99
51)	iso-butyl alcohol	9.926	43	41417	522.58	ug/L	98
52)	carbon tetrachloride	9.916	117	134348	49.17	ug/L	98
53)	tert amyl alcohol	10.036	55	17169	254.68	ug/L	96
56)	n-butyl alcohol	10.674	56	132407	2627.13	ug/L	99
57)	2,2,4-trimethylpentane	10.125	57	427453	47.62	ug/L	100
58)	benzene	10.167	78	390401	47.07	ug/L	99
59)	tert-amyl methyl ether	10.177	87	58707	49.39	ug/L	93
60)	heptane	10.303	71	105007	54.28	ug/L	99
61)	isopropyl acetate	10.078	87	16295	49.59	ug/L	95
62)	1,2-dichloroethane	10.203	62	119023	48.17	ug/L	99
63)	trichloroethene	10.878	130	103071	44.36	ug/L	99
64)	ethyl acrylate	10.878	55	107749	50.83	ug/L	99
65)	2-nitropropane	11.673	41	28482	51.14	ug/L	97
66)	2-chloroethyl vinyl ether	11.673	63	273678	258.62	ug/L	98
67)	methyl methacrylate	11.140	100	20367	51.20	ug/L	96
68)	1,2-dichloropropane	11.155	63	104162	48.56	ug/L	100
69)	dibromomethane	11.323	93	58480	51.50	ug/L	95
70)	methylcyclohexane	11.077	83	176636	47.57	ug/L	99
71)	bromodichloromethane	11.443	83	131291	49.80	ug/L	100
72)	epichlorohydrin	11.809	57	40850	248.07	ug/L	99
73)	cis-1,3-dichloropropene	11.893	75	163447	50.74	ug/L	100
74)	4-methyl-2-pentanone	11.977	58	119400	197.99	ug/L	99
75)	3-methyl-1-butanol	12.003	55	77283	1034.54	ug/L	98
78)	toluene	12.238	92	222007	47.59	ug/L	97
79)	trans-1,3-dichloropropene	12.452	75	126793	47.83	ug/L	98
80)	ethyl methacrylate	12.421	69	98228	47.91	ug/L	99
81)	1,1,2-trichloroethane	12.667	83	65131	49.45	ug/L	97
83)	1,3-dichloropropane	12.850	76	123168	49.94	ug/L	99
84)	2-hexanone	12.824	58	111398	202.78	ug/L	98
85)	butyl acetate	12.887	56	51363	50.51	ug/L	100
86)	dibromochloromethane	13.111	129	89683	52.38	ug/L	100
87)	1,2-dibromoethane	13.263	107	80228	49.70	ug/L	97
88)	n-butyl ether	13.587	57	394581	49.21	ug/L	99
89)	chlorobenzene	13.708	112	226445	48.32	ug/L	99
90)	1,1,1,2-tetrachloroethane	13.765	131	84018	51.55	ug/L	97
91)	ethylbenzene	13.750	91	393948	47.44	ug/L	99
92)	m,p-xylene	13.854	106	291878	95.80	ug/L	98
93)	o-xylene	14.273	106	143424	49.24	ug/L	100
94)	styrene	14.288	104	236225	48.85	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156808.D
Acq On : 16 May 2018 10:20 pm
Operator : prashans
Sample : ICV6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 17 12:15:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

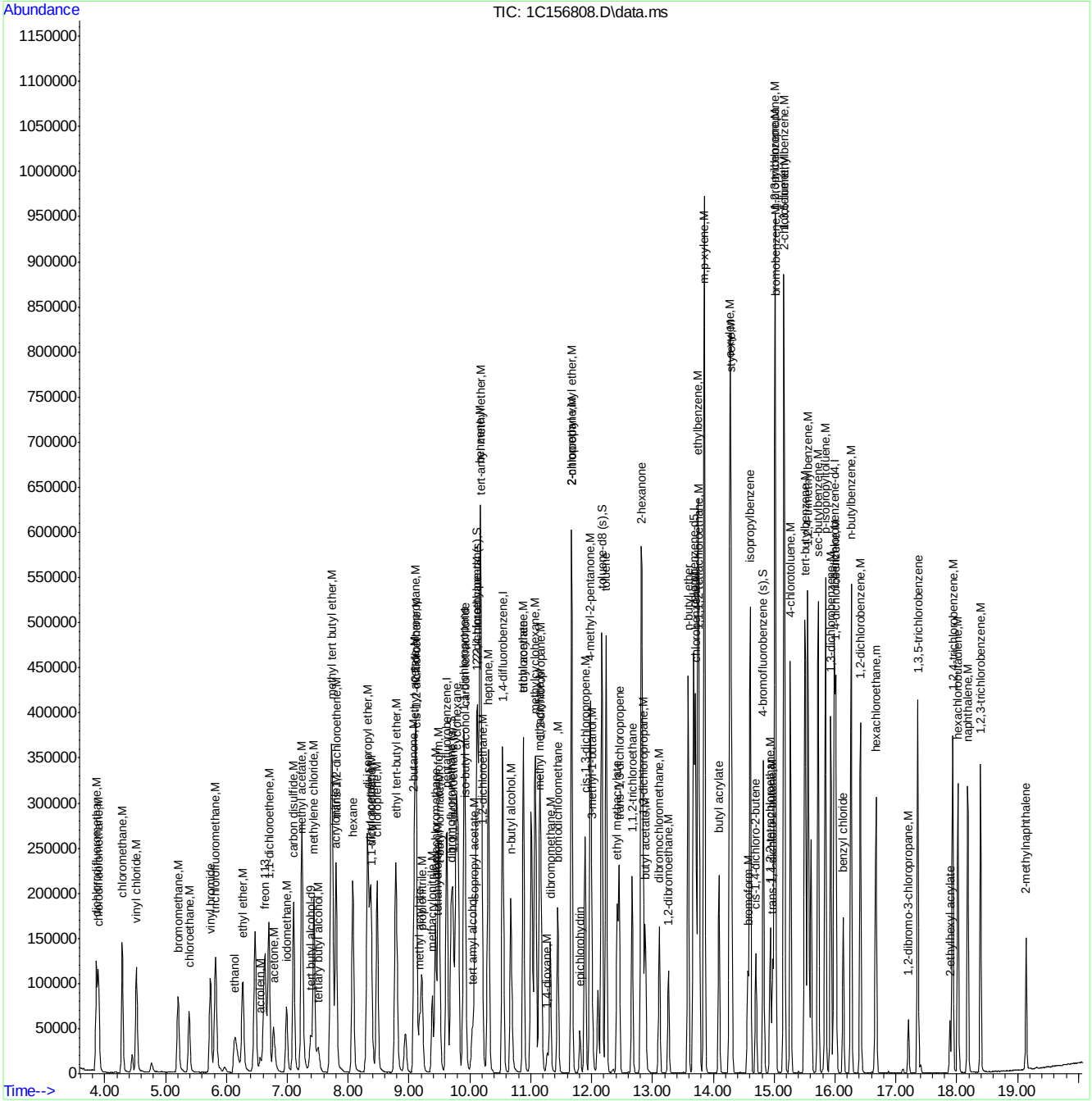
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) bromoform	14.571	173	54327	54.86	ug/L	98
96) butyl acrylate	14.090	55	153579	52.99	ug/L	99
97) isopropylbenzene	14.607	105	375605	48.18	ug/L	99
98) cis-1,4-dichloro-2-butene	14.701	88	32171	49.61	ug/L	99
101) bromobenzene	15.021	156	91903	50.11	ug/L	98
102) 1,1,2,2-tetrachloroethane	14.937	83	87612	49.90	ug/L	100
103) trans-1,4-dichloro-2-b...	14.973	53	26336	54.92	ug/L	97
104) 1,2,3-trichloropropane	15.010	110	19254	47.50	ug/L	99
105) n-propylbenzene	15.010	91	445593	48.63	ug/L	100
107) 2-chlorotoluene	15.167	126	86483	48.35	ug/L	96
108) 4-chlorotoluene	15.266	91	265184	48.87	ug/L	100
109) 1,3,5-trimethylbenzene	15.162	105	309981	49.31	ug/L	99
110) tert-butylbenzene	15.507	134	56467	50.63	ug/L	93
111) 1,2,4-trimethylbenzene	15.554	105	314555	49.89	ug/L	99
112) sec-butylbenzene	15.721	105	403253	49.41	ug/L	100
113) 1,3-dichlorobenzene	15.931	146	168835	48.13	ug/L	99
114) p-isopropyltoluene	15.842	119	337177	49.56	ug/L	99
115) 1,4-dichlorobenzene	16.014	146	168235	48.16	ug/L	96
116) benzyl chloride	16.135	91	128127	42.71	ug/L	99
117) 1,2-dichlorobenzene	16.417	146	162950	49.30	ug/L	100
119) n-butylbenzene	16.265	92	181137	48.52	ug/L	99
120) 1,2-dibromo-3-chloropr...	17.207	75	15380	49.28	ug/L	98
121) 1,3,5-trichlorobenzene	17.364	180	131403	48.66	ug/L	99
123) 2-ethylhexyl acrylate	17.892	70	15392	10.67	ug/L	95
124) 1,2,4-trichlorobenzene	17.934	180	108853	49.33	ug/L	99
125) hexachlorobutadiene	18.023	225	70037	48.71	ug/L	97
126) naphthalene	18.180	128	220435	51.11	ug/L	99
127) 1,2,3-trichlorobenzene	18.394	180	100675	50.44	ug/L	99
128) hexachloroethane	16.673	201	61327	54.26	ug/L	99
129) 2-methylnaphthalene	19.137	142	61448	24.28	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156808.D
Acq On : 16 May 2018 10:20 pm
Operator : prashans
Sample : ICV6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 17 12:15:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156809.D
Acq On : 16 May 2018 10:47 pm
Operator : prashans
Sample : ICV6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 17 12:14:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

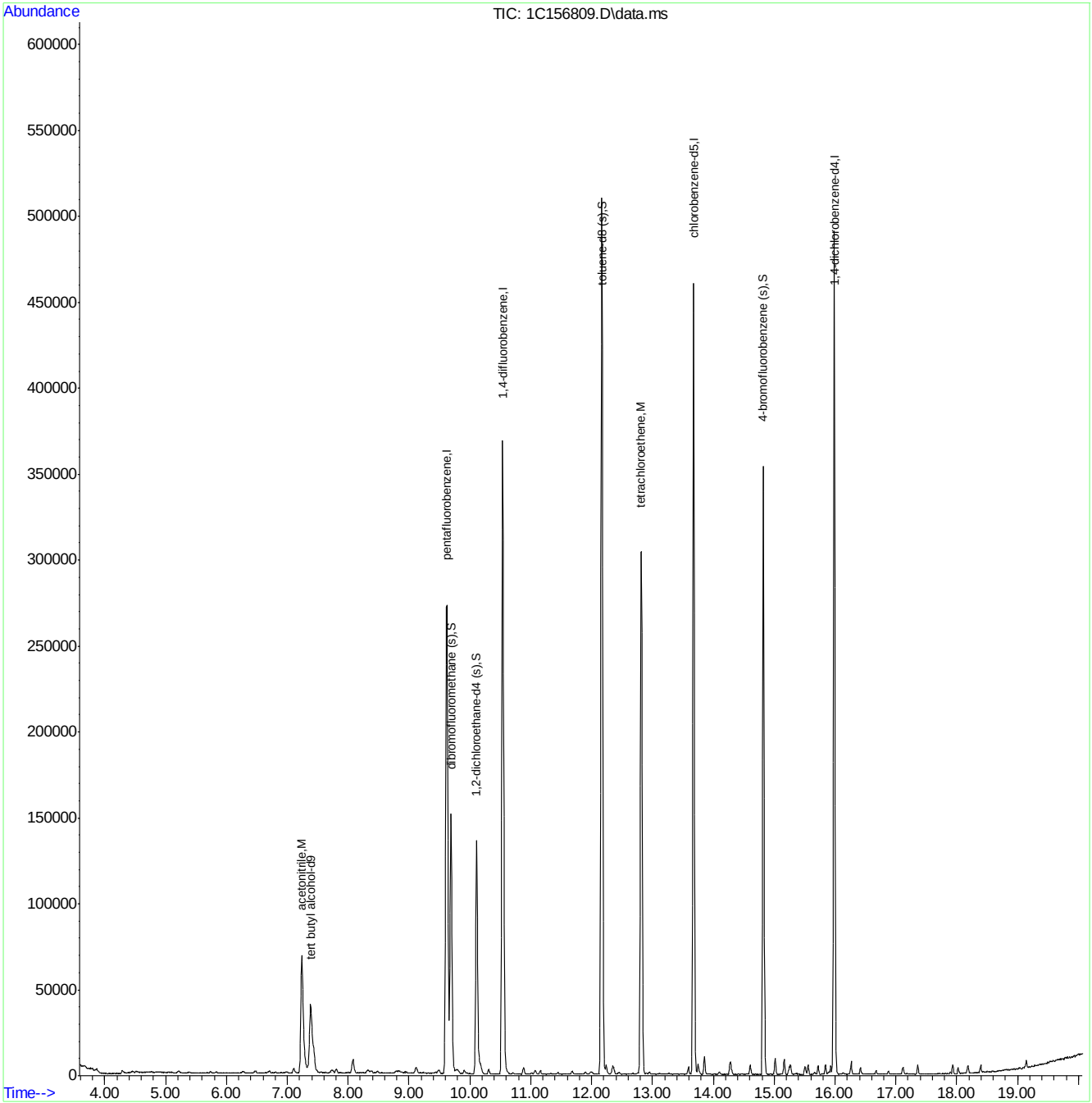
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	78439	500.00	ug/L	0.00
5) pentafluorobenzene	9.623	168	229612	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.543	114	342945	50.00	ug/L	0.00
76) chlorobenzene-d5	13.676	117	260729	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.988	152	127778	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.691	113	105857	50.33	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.66%			
55) 1,2-dichloroethane-d4 (s)	10.109	65	105781	49.90	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 99.80%			
77) toluene-d8 (s)	12.170	98	372252	50.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.36%			
100) 4-bromofluorobenzene (s)	14.822	95	125230	49.17	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 98.34%			
Target Compounds						Qvalue
22) acetonitrile	7.238	41	115310	491.67	ug/L	99
82) tetrachloroethene	12.813	164	74843	49.33	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C6917\
Data File : 1C156809.D
Acq On : 16 May 2018 10:47 pm
Operator : prashans
Sample : ICV6917-50
Misc : MS26284,V1C6917,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 17 12:14:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration



M1CS6917.M Tue May 22 08:16:08 2018 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156897.d
Acq On : 21 May 2018 8:13 am
Operator : prashans
Sample : cc6917-20 Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:25:21 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	81395	500.00	ug/L	0.00
5) pentafluorobenzene	9.618	168	213242	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.538	114	324663	50.00	ug/L	0.00
76) chlorobenzene-d5	13.671	117	246604	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.988	152	117134	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.686	113	100942	51.67	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 103.34%			
55) 1,2-dichloroethane-d4 (s)	10.109	65	100557	50.11	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 100.22%			
77) toluene-d8 (s)	12.165	98	348496	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%			
100) 4-bromofluorobenzene (s)	14.822	95	116029	49.70	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.40%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.499	59	21031	97.41	ug/L	96
3) ethanol	6.134	45	40923	1954.38	ug/L	100
4) 1,4-dioxane	11.270	88	9374	503.47	ug/L	96
6) chlorodifluoromethane	3.901	51	47089	22.22	ug/L	98
7) dichlorodifluoromethane	3.864	85	56782	18.39	ug/L	96
10) chloromethane	4.288	50	57753	19.97	ug/L	100
11) vinyl chloride	4.518	62	52111	19.94	ug/L	99
13) bromomethane	5.209	94	26749	21.48	ug/L	98
14) chloroethane	5.386	64	30443	20.39	ug/L	98
15) trichlorofluoromethane	5.820	101	60511	19.96	ug/L	99
16) vinyl bromide	5.737	106	34131	19.20	ug/L	97
17) ethyl ether	6.265	74	19562	19.58	ug/L	98
18) acrolein	6.558	56	6560	21.35	ug/L	93
19) freon 113	6.631	151	25076	17.15	ug/L	98
20) 1,1-dichloroethene	6.694	96	34162	17.40	ug/L	98
21) acetone	6.778	58	11176	88.91	ug/L	97
22) acetonitrile	7.238	41	44554	204.56	ug/L	97
23) iodomethane	6.987	142	32738	17.70	ug/L	99
24) carbon disulfide	7.102	76	106132	16.83	ug/L	99
25) methylene chloride	7.437	84	40890	16.99	ug/L	100
26) methyl acetate	7.233	43	25945	20.27	ug/L	97
27) methyl tert butyl ether	7.729	73	97795	19.64	ug/L	100
28) trans-1,2-dichloroethene	7.803	96	37524	17.94	ug/L	96
29) di-isopropyl ether	8.320	45	127726	20.30	ug/L	100
30) 2-butanone	9.084	72	15075	90.25	ug/L #	88
31) 1,1-dichloroethane	8.378	63	72531	19.90	ug/L	98
32) chloroprene	8.472	53	58133	19.98	ug/L	99
33) acrylonitrile	7.792	53	11082	20.65	ug/L	98
34) hexane	8.075	57	58878	17.15	ug/L	97
35) vinyl acetate	8.362	86	5569	22.29	ug/L #	74
36) ethyl tert-butyl ether	8.786	59	114756	20.56	ug/L	98
37) ethyl acetate	9.095	45	5141	20.94	ug/L #	95
38) 2,2-dichloropropane	9.095	77	59049	20.00	ug/L	99
39) cis-1,2-dichloroethene	9.116	96	41844	18.53	ug/L	99
40) methyl acrylate	9.178	85	4673	20.17	ug/L #	90
41) propionitrile	9.210	54	53463	211.86	ug/L	99
42) bromochloromethane	9.435	128	18268	19.98	ug/L	97
43) tetrahydrofuran	9.471	72	4452	21.31	ug/L	96
44) chloroform	9.487	85	44362	19.54	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156897.d
Acq On : 21 May 2018 8:13 am
Operator : prashans
Sample : cc6917-20 Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:25:21 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) t-butyl formate	9.497	59	28460	21.06	ug/L		98
47) methacrylonitrile	9.382	67	13520	20.53	ug/L		96
48) 1,1,1-trichloroethane	9.717	97	58092	19.39	ug/L		97
49) cyclohexane	9.775	84	51214	18.49	ug/L		95
50) 1,1-dichloropropene	9.900	75	53823	19.23	ug/L		99
51) iso-butyl alcohol	9.921	43	15726	207.77	ug/L		98
52) carbon tetrachloride	9.916	117	51075	19.57	ug/L		100
53) tert amyl alcohol	10.036	55	6676	103.69	ug/L		98
56) n-butyl alcohol	10.674	56	51124	1054.46	ug/L		98
57) 2,2,4-trimethylpentane	10.125	57	150029	17.37	ug/L		98
58) benzene	10.167	78	152177	19.07	ug/L		99
59) tert-amyl methyl ether	10.172	87	23119	20.22	ug/L		94
60) heptane	10.303	71	32519	17.48	ug/L		96
61) isopropyl acetate	10.083	87	6160	19.49	ug/L		94
62) 1,2-dichloroethane	10.198	62	46628	19.62	ug/L		98
63) trichloroethene	10.878	130	39094	17.49	ug/L		100
64) ethyl acrylate	10.878	55	41078	20.14	ug/L		99
65) 2-nitropropane	11.673	41	11041	20.61	ug/L	#	90
66) 2-chloroethyl vinyl ether	11.668	63	106455	104.57	ug/L		98
67) methyl methacrylate	11.145	100	7546	19.72	ug/L	#	87
68) 1,2-dichloropropane	11.155	63	40591	19.67	ug/L		99
69) dibromomethane	11.323	93	21269	19.47	ug/L		95
70) methylcyclohexane	11.072	83	64348	18.01	ug/L		99
71) bromodichloromethane	11.443	83	50511	19.92	ug/L		100
72) epichlorohydrin	11.809	57	16477	104.02	ug/L		99
73) cis-1,3-dichloropropene	11.888	75	61994	20.01	ug/L		100
74) 4-methyl-2-pentanone	11.976	58	48398	83.42	ug/L		98
75) 3-methyl-1-butanol	11.997	55	30771	428.19	ug/L		97
78) toluene	12.238	92	84238	18.75	ug/L		98
79) trans-1,3-dichloropropene	12.452	75	52447	20.54	ug/L		97
80) ethyl methacrylate	12.421	69	37861	19.17	ug/L		97
81) 1,1,2-trichloroethane	12.667	83	24570	19.37	ug/L		97
82) tetrachloroethene	12.813	164	27588	19.23	ug/L		98
83) 1,3-dichloropropane	12.850	76	46596	19.61	ug/L		94
84) 2-hexanone	12.824	58	46804	88.45	ug/L		99
85) butyl acetate	12.887	56	19827	20.24	ug/L		95
86) dibromochloromethane	13.111	129	33271	20.17	ug/L		98
87) 1,2-dibromoethane	13.263	107	30040	19.32	ug/L		99
88) n-butyl ether	13.587	57	151120	19.57	ug/L		99
89) chlorobenzene	13.708	112	86505	19.16	ug/L		97
90) 1,1,1,2-tetrachloroethane	13.765	131	31640	20.15	ug/L		98
91) ethylbenzene	13.749	91	149444	18.68	ug/L		100
92) m,p-xylene	13.854	106	110779	37.75	ug/L		98
93) o-xylene	14.273	106	53541	19.08	ug/L		100
94) styrene	14.288	104	89460	19.20	ug/L		97
95) bromoform	14.571	173	20029	21.00	ug/L		98
96) butyl acrylate	14.089	55	55631	19.93	ug/L		98
97) isopropylbenzene	14.607	105	140475	18.71	ug/L		100
98) cis-1,4-dichloro-2-butene	14.701	88	13007	20.82	ug/L		97
101) bromobenzene	15.020	156	34442	19.24	ug/L		99
102) 1,1,2,2-tetrachloroethane	14.937	83	34189	19.95	ug/L		99
103) trans-1,4-dichloro-2-b...	14.973	53	9499	20.30	ug/L		98
104) 1,2,3-trichloropropane	15.010	110	7971	20.15	ug/L		96
105) n-propylbenzene	15.010	91	171106	19.13	ug/L		99
107) 2-chlorotoluene	15.167	126	33563	19.23	ug/L		94
108) 4-chlorotoluene	15.266	91	98341	18.57	ug/L		100
109) 1,3,5-trimethylbenzene	15.162	105	117015	19.07	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156897.d
Acq On : 21 May 2018 8:13 am
Operator : prashans
Sample : cc6917-20 Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:25:21 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration

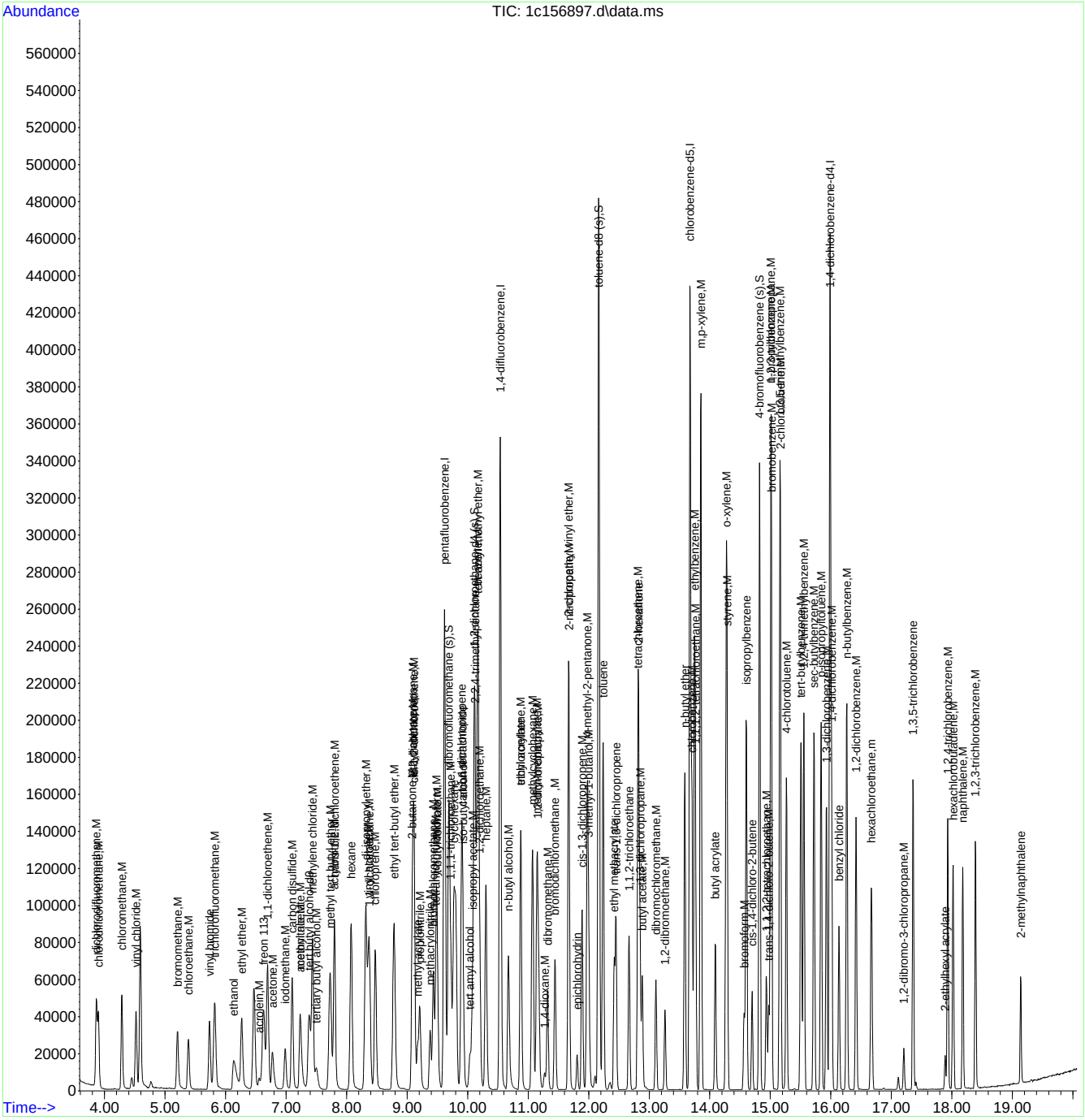
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) tert-butylbenzene	15.507	134	20562	18.89	ug/L		92
111) 1,2,4-trimethylbenzene	15.554	105	117268	19.06	ug/L		99
112) sec-butylbenzene	15.721	105	148105	18.59	ug/L		99
113) 1,3-dichlorobenzene	15.931	146	65525	19.14	ug/L		100
114) p-isopropyltoluene	15.842	119	125617	18.92	ug/L		99
115) 1,4-dichlorobenzene	16.014	146	64555	18.94	ug/L		98
116) benzyl chloride	16.134	91	65054	22.22	ug/L		99
117) 1,2-dichlorobenzene	16.417	146	61971	19.21	ug/L		98
119) n-butylbenzene	16.265	92	69140	18.98	ug/L		98
120) 1,2-dibromo-3-chloropr...	17.207	75	6050	19.86	ug/L		100
121) 1,3,5-trichlorobenzene	17.358	180	51370	19.49	ug/L		98
123) 2-ethylhexyl acrylate	17.892	70	5179	3.68	ug/L	#	86
124) 1,2,4-trichlorobenzene	17.934	180	42275	19.63	ug/L		97
125) hexachlorobutadiene	18.023	225	26507	18.89	ug/L		96
126) naphthalene	18.180	128	83079	19.74	ug/L		99
127) 1,2,3-trichlorobenzene	18.389	180	38684	19.86	ug/L		100
128) hexachloroethane	16.668	201	21665	19.64	ug/L		94
129) 2-methylnaphthalene	19.142	142	24622	9.97	ug/L		93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6921\
Data File : 1c156897.d
Acq On : 21 May 2018 8:13 am
Operator : prashans
Sample : cc6917-20 Inst : GCMS1C
Misc : MS26434,V1C6921,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6917.M
Quant Results File: M1CS6917.RES
Quant Time: May 22 11:25:21 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu May 17 12:11:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	112373	500.00	ug/L		-0.01
5) pentafluorobenzene	10.089	168	292006	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.242	114	400871	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	395637	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	234951	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.094	113	125037	49.70	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.40%				
55) 1,2-dichloroethane-d4 (s)	10.629	65	137500	49.94	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.88%				
77) toluene-d8 (s)	13.444	98	465100	50.55	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%				
100) 4-bromofluorobenzene (s)	16.962	95	190452	50.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	1026	4.85	ug/L	#	32
3) ethanol	5.999	45	3456	159.34	ug/L		98
6) chlorodifluoromethane	3.897	51	2802	1.02	ug/L		94
7) dichlorodifluoromethane	3.876	85	2935	0.96	ug/L		87
10) chloromethane	4.274	50	4268	1.16	ug/L		93
11) vinyl chloride	4.499	62	3481	1.08	ug/L		93
13) chloroethane	5.296	64	2100	1.24	ug/L		92
14) trichlorofluoromethane	5.779	101	4060	1.18	ug/L		87
15) vinyl bromide	5.653	106	2657	1.10	ug/L		89
17) ethyl ether	6.198	74	1184	1.04	ug/L	#	79
18) acrolein	6.439	56	537	1.16	ug/L	#	36
19) 1,1-dichloroethene	6.639	96	2188	0.99	ug/L	#	80
20) freon 113	6.628	151	1575	0.89	ug/L	#	79
22) acetone	6.686	58	536	3.59	ug/L	#	52
24) iodomethane	6.911	142	3847	1.03	ug/L		96
25) carbon disulfide	7.063	76	7517	1.07	ug/L		96
26) methylene chloride	7.404	84	2553	1.01	ug/L		87
28) methyl tert butyl ether	7.818	73	6463	1.01	ug/L		98
29) trans-1,2-dichloroethene	7.834	96	2233	1.00	ug/L		90
30) hexane	8.238	57	2907	1.00	ug/L		94
31) di-isopropyl ether	8.547	45	7774	1.01	ug/L		80
32) 2-butanone	9.396	72	680	3.44	ug/L	#	15
33) 1,1-dichloroethane	8.500	63	4185	1.01	ug/L		92
34) chloroprene	8.647	53	3368	1.02	ug/L		85
35) acrylonitrile	7.787	53	648	0.86	ug/L		96
37) ethyl tert-butyl ether	9.113	59	7278	1.01	ug/L		91
39) 2,2-dichloropropane	9.412	77	3727	1.13	ug/L		88
40) cis-1,2-dichloroethene	9.391	96	2416	0.97	ug/L		91
41) propionitrile	9.486	54	3076	9.66	ug/L		95
42) tert-Butyl Formate	9.931	59	2348	1.07	ug/L		91
43) bromochloromethane	9.758	128	1187	0.95	ug/L		99
45) chloroform	9.847	83	4212	1.02	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) methacrylonitrile	9.727	67	817	1.00	ug/L	#	66
48) 1,1,1-trichloroethane	10.178	97	3673	0.99	ug/L		98
49) cyclohexane	10.283	84	2748	0.89	ug/L		90
50) 1,1-dichloropropene	10.419	75	3085	1.01	ug/L		95
52) carbon tetrachloride	10.435	117	3169	0.98	ug/L		98
56) benzene	10.739	78	9204	1.03	ug/L		94
57) iso-octane	10.807	57	8475	0.94	ug/L		94
58) tert-amyl methyl ether	10.838	73	7020	1.01	ug/L		94
59) heptane	11.038	57	1531	0.94	ug/L		92
61) 1,2-dichloroethane	10.744	62	3450	1.05	ug/L		93
62) n-butyl alcohol	11.426	56	2219	40.86	ug/L		86
63) ethyl acrylate	11.751	55	2575	0.98	ug/L		79
64) trichloroethene	11.672	130	2471	1.03	ug/L		91
65) 2-nitropropane	12.710	41	521	1.18	ug/L	#	74
66) 2-chloroethyl vinyl ether	12.773	63	6895	4.78	ug/L		94
67) methyl methacrylate	12.086	69	1260	0.91	ug/L	#	63
68) 1,2-dichloropropane	12.023	63	2444	1.02	ug/L		95
69) dibromomethane	12.196	93	1424	1.01	ug/L	#	80
70) methylcyclohexane	11.987	83	3772	0.95	ug/L		88
71) bromodichloromethane	12.401	83	3072	1.00	ug/L		96
72) epichlorohydrin	12.904	57	1069	5.17	ug/L	#	58
73) cis-1,3-dichloropropene	13.035	75	3789	0.96	ug/L		96
74) 4-methyl-2-pentanone	13.224	58	3238	3.84	ug/L		92
75) 3-methyl-1-butanol	13.250	55	1975	20.40	ug/L		88
78) toluene	13.544	92	5889	1.06	ug/L	#	83
79) trans-1,3-dichloropropene	13.811	75	3340	0.98	ug/L		88
80) ethyl methacrylate	13.874	69	2734	0.96	ug/L		96
81) 1,1,2-trichloroethane	14.089	83	1831	1.07	ug/L		90
82) tetrachloroethene	14.325	164	2020	0.96	ug/L		83
83) 1,3-dichloropropane	14.330	76	3448	1.02	ug/L		96
84) 2-hexanone	14.383	58	2877	3.77	ug/L	#	87
85) butyl acetate	14.524	56	1347	0.97	ug/L	#	78
86) dibromochloromethane	14.660	129	2376	0.99	ug/L		96
87) 1,2-dibromoethane	14.865	107	2236	0.96	ug/L		85
88) n-butyl ether	15.510	57	11040	1.05	ug/L		98
89) chlorobenzene	15.499	112	6656	1.01	ug/L		93
90) 1,1,1,2-tetrachloroethane	15.588	131	2429	0.98	ug/L		85
91) ethylbenzene	15.615	91	11378	1.03	ug/L		98
92) m,p-xylene	15.762	91	17850	2.07	ug/L		95
93) o-xylene	16.302	106	4287	0.99	ug/L		89
94) styrene	16.317	104	7121	0.97	ug/L		98
95) butyl acrylate	16.149	55	4556	0.98	ug/L		95
96) bromoform	16.595	173	1542	0.93	ug/L		93
97) isopropylbenzene	16.752	105	12040	1.04	ug/L		94
98) cis-1,4-dichloro-2-butene	16.821	88	803	0.86	ug/L	#	76
101) bromobenzene	17.177	156	3487	1.05	ug/L	#	80
102) 1,1,2,2-tetrachloroethane	17.088	83	3004	1.01	ug/L		86
103) trans-1,4-dichloro-2-b...	17.156	53	702	1.04	ug/L		95
104) 1,2,3-trichloropropane	17.172	110	758	1.00	ug/L	#	72
105) n-propylbenzene	17.240	91	14132	1.03	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

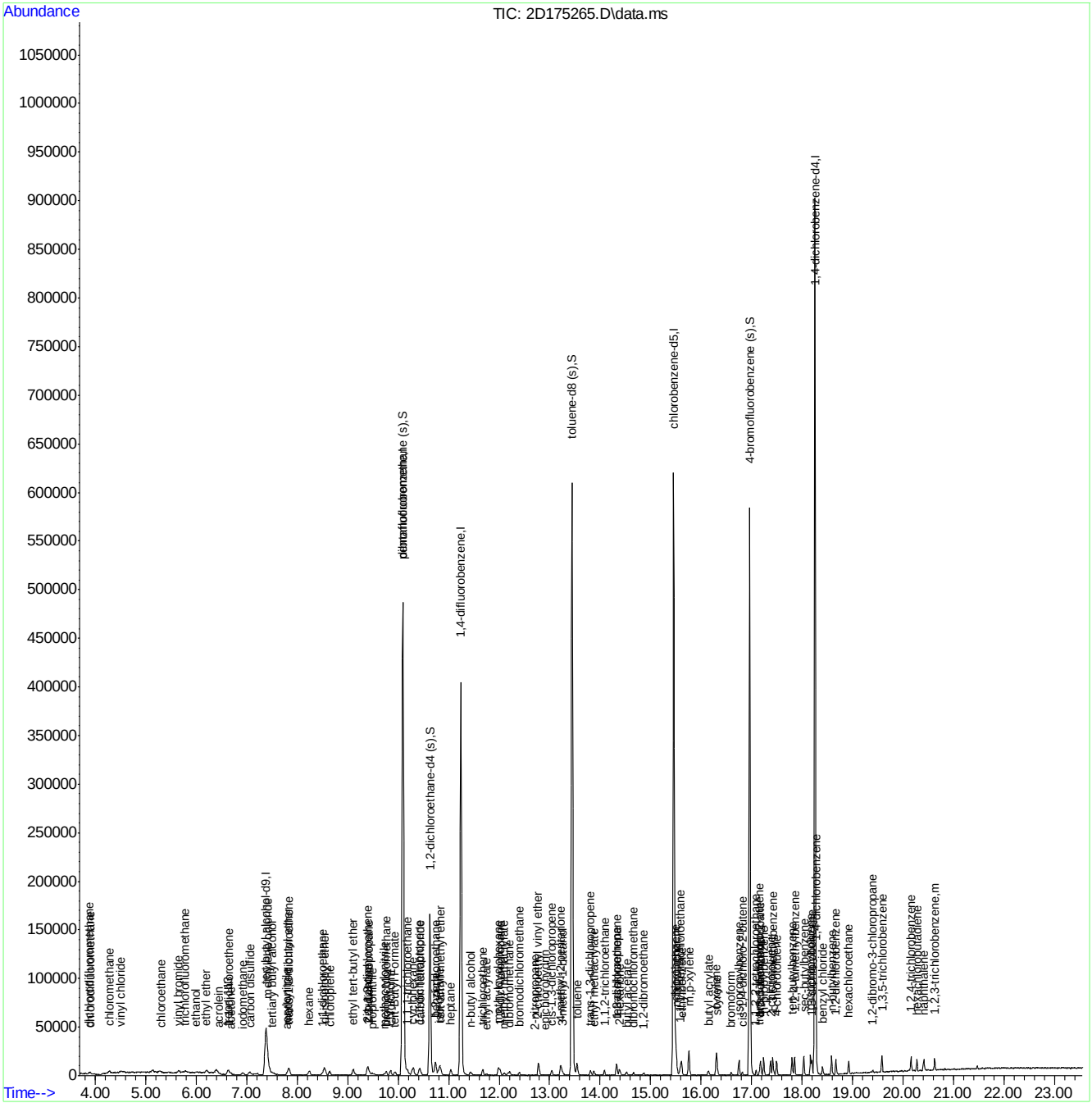
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 2-chlorotoluene	17.382	126	2895	0.98	ug/L	90
107) 4-chlorotoluene	17.497	91	8676	1.05	ug/L	97
109) 1,3,5-trimethylbenzene	17.424	105	10138	1.00	ug/L	91
110) tert-butylbenzene	17.806	119	9050	1.01	ug/L	99
111) 1,2,4-trimethylbenzene	17.853	105	10577	1.02	ug/L	97
112) sec-butylbenzene	18.037	105	14018	1.04	ug/L	94
113) 1,3-dichlorobenzene	18.194	146	6239	0.99	ug/L	99
114) p-isopropyltoluene	18.168	119	11598	0.99	ug/L	100
115) 1,4-dichlorobenzene	18.278	146	6538	1.03	ug/L	96
116) 1,2-dichlorobenzene	18.671	146	6448	1.02	ug/L	94
117) benzyl chloride	18.409	91	6005	1.02	ug/L	97
119) n-butylbenzene	18.582	92	5906	1.01	ug/L	86
121) 1,2-dibromo-3-chloropr...	19.400	157	728	1.00	ug/L	81
123) 1,3,5-trichlorobenzene	19.584	180	5506	0.93	ug/L	96
124) hexachlorobutadiene	20.281	225	2789	0.97	ug/L	93
125) naphthalene	20.412	128	9059	0.89	ug/L	98
127) 1,2,4-trichlorobenzene	20.160	180	4647	0.93	ug/L	99
128) 1,2,3-trichlorobenzene	20.627	180	4076	0.88	ug/L	93
129) hexachloroethane	18.928	201	1877	0.91	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.373	65	112244	500.00	ug/L		-0.02
5) pentafluorobenzene	10.088	168	286766	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.242	114	393444	50.00	ug/L		0.00
76) chlorobenzene-d5	15.463	117	390400	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	229345	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.088	113	123505	49.99	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%				
55) 1,2-dichloroethane-d4 (s)	10.629	65	138006	51.07	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.14%				
77) toluene-d8 (s)	13.444	98	457394	50.38	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%				
100) 4-bromofluorobenzene (s)	16.962	95	186201	50.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.20%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.886	51	1522	0.56	ug/L		69
10) chloromethane	4.258	50	1980	0.55	ug/L		89
11) vinyl chloride	4.494	62	1359	0.43	ug/L		91
13) chloroethane	5.291	64	894	0.54	ug/L		75
14) trichlorofluoromethane	5.800	101	1378	0.41	ug/L		85
15) vinyl bromide	5.663	106	1325	0.56	ug/L	#	71
17) ethyl ether	6.203	74	605	0.54	ug/L	#	79
19) 1,1-dichloroethene	6.639	96	1230	0.57	ug/L	#	69
24) iodomethane	6.911	142	2016	0.55	ug/L		86
25) carbon disulfide	7.068	76	4123	0.60	ug/L		90
28) methyl tert butyl ether	7.818	73	3688	0.59	ug/L		88
29) trans-1,2-dichloroethene	7.834	96	1266	0.58	ug/L		93
30) hexane	8.243	57	1262	0.44	ug/L		85
31) di-isopropyl ether	8.547	45	4452	0.59	ug/L		86
33) 1,1-dichloroethane	8.495	63	2378	0.58	ug/L		95
34) chloroprene	8.641	53	1827	0.56	ug/L		86
37) ethyl tert-butyl ether	9.113	59	4327	0.61	ug/L		85
39) 2,2-dichloropropane	9.407	77	1901	0.59	ug/L		92
40) cis-1,2-dichloroethene	9.386	96	1508	0.61	ug/L		80
41) propionitrile	9.496	54	1683	5.38	ug/L		91
42) tert-Butyl Formate	9.936	59	1155	0.53	ug/L		87
43) bromochloromethane	9.769	128	734	0.60	ug/L	#	53
47) methacrylonitrile	9.727	67	372	0.46	ug/L	#	73
48) 1,1,1-trichloroethane	10.172	97	2013	0.55	ug/L		95
49) cyclohexane	10.277	84	1472	0.49	ug/L	#	74
50) 1,1-dichloropropene	10.408	75	1699	0.57	ug/L		91
52) carbon tetrachloride	10.435	117	1757	0.55	ug/L		88
56) benzene	10.744	78	5252	0.60	ug/L		99
57) iso-octane	10.807	57	3947	0.45	ug/L		93
59) heptane	11.043	57	677	0.42	ug/L		81
62) n-butyl alcohol	11.436	56	1310	24.58	ug/L		90
63) ethyl acrylate	11.751	55	1453	0.56	ug/L		79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
64) trichloroethene	11.677	130	1381	0.58	ug/L		90
66) 2-chloroethyl vinyl ether	12.778	63	4075	2.88	ug/L		97
67) methyl methacrylate	12.102	69	641	0.47	ug/L	#	78
68) 1,2-dichloropropane	12.023	63	1388	0.59	ug/L		96
69) dibromomethane	12.201	93	698	0.50	ug/L		77
70) methylcyclohexane	11.986	83	1725	0.44	ug/L		87
71) bromodichloromethane	12.395	83	1702	0.56	ug/L		86
73) cis-1,3-dichloropropene	13.040	75	2376	0.62	ug/L		97
78) toluene	13.549	92	3231	0.59	ug/L		91
79) trans-1,3-dichloropropene	13.811	75	1997	0.59	ug/L		93
80) ethyl methacrylate	13.879	69	1573	0.56	ug/L		83
81) 1,1,2-trichloroethane	14.084	83	927	0.55	ug/L	#	81
82) tetrachloroethene	14.320	164	1211	0.59	ug/L		98
83) 1,3-dichloropropane	14.335	76	1894	0.57	ug/L		90
84) 2-hexanone	14.388	58	1698	2.25	ug/L		99
85) butyl acetate	14.519	56	644	0.47	ug/L	#	36
86) dibromochloromethane	14.660	129	1333	0.56	ug/L		86
87) 1,2-dibromoethane	14.849	107	1388	0.60	ug/L	#	68
88) n-butyl ether	15.505	57	6061	0.58	ug/L		97
89) chlorobenzene	15.505	112	4023	0.62	ug/L		92
90) 1,1,1,2-tetrachloroethane	15.588	131	1357	0.56	ug/L		96
91) ethylbenzene	15.615	91	6431	0.59	ug/L		94
92) m,p-xylene	15.767	91	10279	1.21	ug/L		98
93) o-xylene	16.301	106	2474	0.58	ug/L		93
94) styrene	16.312	104	4198	0.58	ug/L		91
95) butyl acrylate	16.155	55	2651	0.58	ug/L		87
96) bromoform	16.595	173	849	0.52	ug/L		79
97) isopropylbenzene	16.752	105	6575	0.57	ug/L		94
98) cis-1,4-dichloro-2-butene	16.821	88	513	0.56	ug/L		91
101) bromobenzene	17.182	156	1900	0.59	ug/L		89
102) 1,1,2,2-tetrachloroethane	17.093	83	1773	0.61	ug/L		88
105) n-propylbenzene	17.240	91	8007	0.60	ug/L		98
106) 2-chlorotoluene	17.382	126	1646	0.57	ug/L		90
107) 4-chlorotoluene	17.497	91	4766	0.59	ug/L		95
109) 1,3,5-trimethylbenzene	17.423	105	5855	0.59	ug/L		98
110) tert-butylbenzene	17.806	119	5097	0.58	ug/L		90
111) 1,2,4-trimethylbenzene	17.853	105	5928	0.59	ug/L		97
112) sec-butylbenzene	18.037	105	7526	0.57	ug/L		98
113) 1,3-dichlorobenzene	18.199	146	3766	0.61	ug/L		93
114) p-isopropyltoluene	18.173	119	6692	0.59	ug/L		97
115) 1,4-dichlorobenzene	18.278	146	3603	0.58	ug/L		96
116) 1,2-dichlorobenzene	18.671	146	3505	0.57	ug/L		94
119) n-butylbenzene	18.587	92	3201	0.56	ug/L		99
121) 1,2-dibromo-3-chloropr...	19.400	157	340	0.48	ug/L	#	69
123) 1,3,5-trichlorobenzene	19.584	180	3148	0.55	ug/L		95
124) hexachlorobutadiene	20.281	225	1566	0.56	ug/L		95
125) naphthalene	20.417	128	5077	0.51	ug/L		96
127) 1,2,4-trichlorobenzene	20.166	180	2521	0.52	ug/L		96
128) 1,2,3-trichlorobenzene	20.632	180	2467	0.55	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

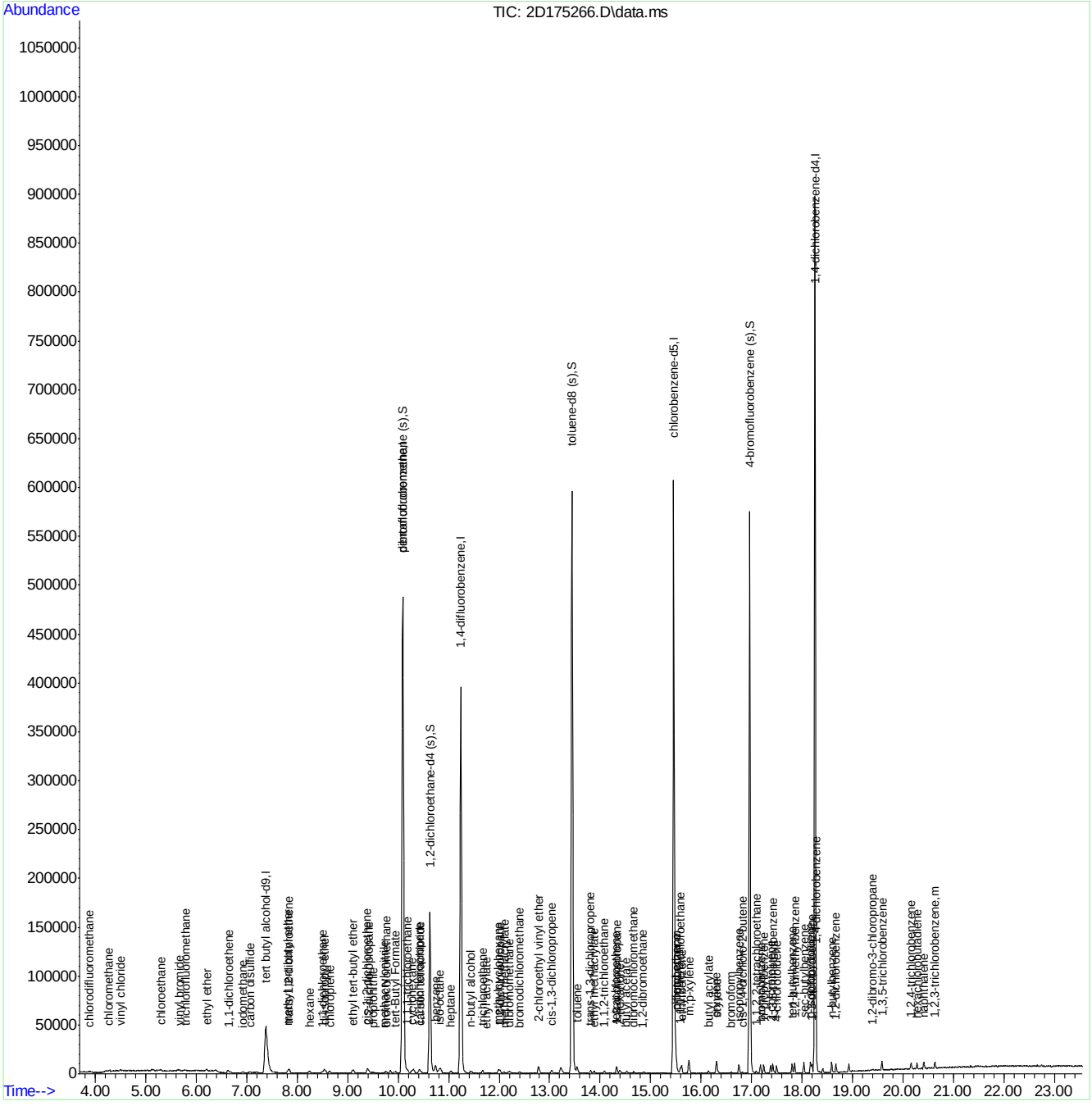
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	113895	500.00	ug/L		0.00
5) pentafluorobenzene	10.094	168	299087	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.242	114	413677	50.00	ug/L		0.00
76) chlorobenzene-d5	15.458	117	406046	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	239304	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.094	113	130215	50.54	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.08%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	144166	50.74	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.48%				
77) toluene-d8 (s)	13.444	98	477481	50.57	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.14%				
100) 4-bromofluorobenzene (s)	16.962	95	191877	49.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.96%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	2017	9.40	ug/L		74
3) ethanol	5.994	45	5802	258.73	ug/L		96
4) 1,4-dioxane	12.191	88	947	44.36	ug/L		83
6) chlorodifluoromethane	3.891	51	5733	2.03	ug/L		97
7) dichlorodifluoromethane	3.886	85	6374	1.92	ug/L		82
10) chloromethane	4.274	50	7570	2.01	ug/L		97
11) vinyl chloride	4.500	62	6656	2.01	ug/L		99
12) bromomethane	5.134	94	5367	2.31	ug/L		87
13) chloroethane	5.291	64	3336	1.92	ug/L		94
14) trichlorofluoromethane	5.774	101	7499	2.01	ug/L		89
15) vinyl bromide	5.653	106	4779	1.93	ug/L		95
17) ethyl ether	6.204	74	2388	2.06	ug/L		89
18) acrolein	6.434	56	934	1.96	ug/L		81
19) 1,1-dichloroethene	6.639	96	4508	2.00	ug/L		83
20) freon 113	6.628	151	4078	2.15	ug/L		86
22) acetone	6.681	58	1297	8.11	ug/L	#	52
24) iodomethane	6.917	142	7407	1.94	ug/L		90
25) carbon disulfide	7.063	76	14098	1.95	ug/L		97
26) methylene chloride	7.404	84	5135	2.06	ug/L		97
27) methyl acetate	7.205	43	3298	2.08	ug/L		83
28) methyl tert butyl ether	7.824	73	13087	2.00	ug/L		96
29) trans-1,2-dichloroethene	7.839	96	4755	2.08	ug/L		98
30) hexane	8.233	57	6420	2.15	ug/L		100
31) di-isopropyl ether	8.537	45	16161	2.06	ug/L		76
32) 2-butanone	9.386	72	1434	6.93	ug/L		98
33) 1,1-dichloroethane	8.495	63	8573	2.02	ug/L		96
34) chloroprene	8.636	53	6957	2.06	ug/L		96
35) acrylonitrile	7.782	53	1399	1.82	ug/L		90
37) ethyl tert-butyl ether	9.103	59	14395	1.96	ug/L		93
39) 2,2-dichloropropane	9.407	77	6877	2.03	ug/L		94
40) cis-1,2-dichloroethene	9.386	96	5169	2.02	ug/L		88
41) propionitrile	9.486	54	6146	18.84	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) tert-Butyl Formate	9.942	59	4621	2.05	ug/L		95
43) bromochloromethane	9.764	128	2543	1.98	ug/L		94
44) tetrahydrofuran	9.837	72	505	1.89	ug/L		97
45) chloroform	9.847	83	8676	2.12	ug/L		95
47) methacrylonitrile	9.727	67	1581	1.88	ug/L		86
48) 1,1,1-trichloroethane	10.183	97	7801	2.06	ug/L		99
49) cyclohexane	10.283	84	5903	1.88	ug/L		94
50) 1,1-dichloropropene	10.408	75	6330	2.02	ug/L		97
52) carbon tetrachloride	10.435	117	6777	2.04	ug/L		95
53) tert-amyl alcohol	10.618	73	1101	10.07	ug/L	#	69
56) benzene	10.744	78	18254	1.98	ug/L		97
57) iso-octane	10.812	57	19572	2.11	ug/L		98
58) tert-amyl methyl ether	10.838	73	13921	2.02	ug/L		98
59) heptane	11.043	57	3735	2.23	ug/L		90
61) 1,2-dichloroethane	10.749	62	6983	2.17	ug/L		97
62) n-butyl alcohol	11.415	56	5452	97.28	ug/L		91
63) ethyl acrylate	11.745	55	5251	1.94	ug/L		99
64) trichloroethene	11.672	130	5005	2.01	ug/L		91
65) 2-nitropropane	12.715	41	910	2.00	ug/L		92
66) 2-chloroethyl vinyl ether	12.773	63	14443	9.70	ug/L		96
67) methyl methacrylate	12.092	69	2882	2.01	ug/L		81
68) 1,2-dichloropropane	12.023	63	4857	1.96	ug/L		98
69) dibromomethane	12.207	93	2825	1.94	ug/L		97
70) methylcyclohexane	11.992	83	8516	2.07	ug/L		96
71) bromodichloromethane	12.396	83	6311	1.98	ug/L		93
72) epichlorohydrin	12.909	57	2104	9.86	ug/L		96
73) cis-1,3-dichloropropene	13.041	75	8066	1.99	ug/L		98
74) 4-methyl-2-pentanone	13.214	58	6891	8.19	ug/L		92
75) 3-methyl-1-butanol	13.245	55	3748	38.50	ug/L		79
78) toluene	13.539	92	11463	2.00	ug/L		99
79) trans-1,3-dichloropropene	13.811	75	6648	1.89	ug/L		96
80) ethyl methacrylate	13.869	69	5573	1.91	ug/L		95
81) 1,1,2-trichloroethane	14.089	83	3311	1.88	ug/L		95
82) tetrachloroethene	14.325	164	4532	2.11	ug/L		85
83) 1,3-dichloropropane	14.330	76	6827	1.97	ug/L		96
84) 2-hexanone	14.383	58	6242	7.97	ug/L		91
85) butyl acetate	14.514	56	3022	2.11	ug/L	#	82
86) dibromochloromethane	14.666	129	4741	1.93	ug/L		86
87) 1,2-dibromoethane	14.865	107	4642	1.94	ug/L		99
88) n-butyl ether	15.510	57	21744	2.01	ug/L		96
89) chlorobenzene	15.499	112	13473	1.99	ug/L		94
90) 1,1,1,2-tetrachloroethane	15.594	131	4911	1.93	ug/L		93
91) ethylbenzene	15.615	91	22941	2.02	ug/L		99
92) m,p-xylene	15.762	91	35331	4.00	ug/L		99
93) o-xylene	16.302	106	9009	2.02	ug/L		99
94) styrene	16.312	104	14821	1.97	ug/L		93
95) butyl acrylate	16.139	55	9281	1.94	ug/L		97
96) bromoform	16.595	173	3176	1.87	ug/L		94
97) isopropylbenzene	16.753	105	23748	1.99	ug/L		100
98) cis-1,4-dichloro-2-butene	16.821	88	1829	1.90	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

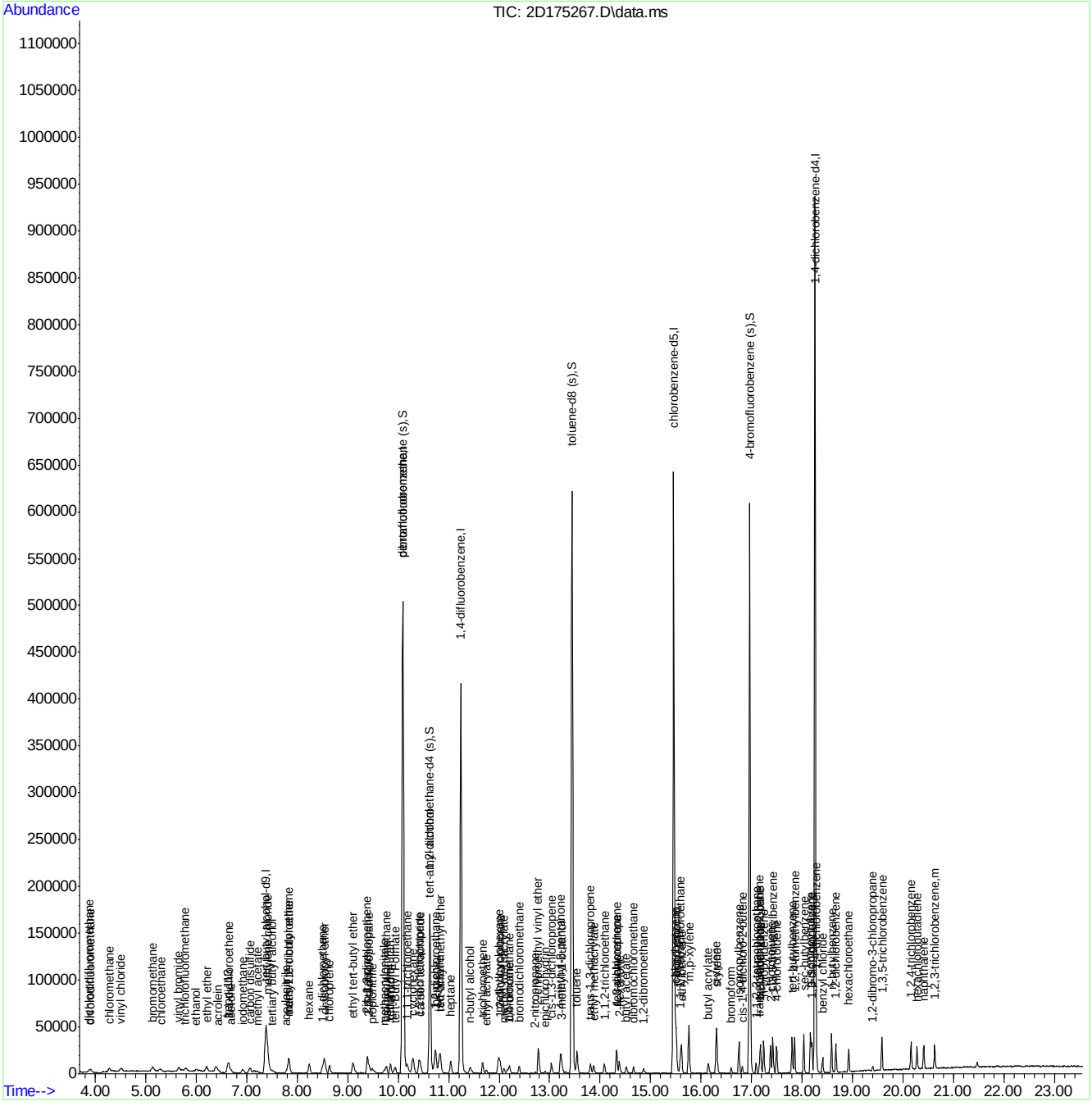
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
101) bromobenzene	17.177	156	6837	2.02	ug/L		93
102) 1,1,2,2-tetrachloroethane	17.093	83	5937	1.95	ug/L		93
103) trans-1,4-dichloro-2-b...	17.156	53	1362	1.98	ug/L		97
104) 1,2,3-trichloropropane	17.172	110	1559	2.01	ug/L	#	91
105) n-propylbenzene	17.240	91	28124	2.01	ug/L		99
106) 2-chlorotoluene	17.382	126	6104	2.04	ug/L		91
107) 4-chlorotoluene	17.497	91	17070	2.02	ug/L		99
109) 1,3,5-trimethylbenzene	17.424	105	20914	2.03	ug/L		97
110) tert-butylbenzene	17.806	119	18340	2.00	ug/L		99
111) 1,2,4-trimethylbenzene	17.854	105	21014	1.99	ug/L		98
112) sec-butylbenzene	18.037	105	27011	1.97	ug/L		98
113) 1,3-dichlorobenzene	18.194	146	13057	2.04	ug/L		97
114) p-isopropyltoluene	18.168	119	23595	1.98	ug/L		96
115) 1,4-dichlorobenzene	18.284	146	13116	2.03	ug/L		98
116) 1,2-dichlorobenzene	18.672	146	12737	1.98	ug/L		98
117) benzyl chloride	18.409	91	11526	2.01	ug/L		95
119) n-butylbenzene	18.588	92	11935	2.00	ug/L		100
121) 1,2-dibromo-3-chloropr...	19.400	157	1347	1.81	ug/L		92
123) 1,3,5-trichlorobenzene	19.584	180	11542	1.92	ug/L		91
124) hexachlorobutadiene	20.281	225	5704	1.94	ug/L		89
125) naphthalene	20.412	128	18785	1.81	ug/L		97
127) 1,2,4-trichlorobenzene	20.161	180	9393	1.84	ug/L		95
128) 1,2,3-trichlorobenzene	20.627	180	8621	1.84	ug/L		98
129) hexachloroethane	18.928	201	3739	1.79	ug/L		93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	112814	500.00	ug/L		0.00
5) pentafluorobenzene	10.089	168	297138	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	408475	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	407059	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	242356	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.089	113	127738	49.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.80%				
55) 1,2-dichloroethane-d4 (s)	10.629	65	143955	51.31	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.62%				
77) toluene-d8 (s)	13.444	98	475194	50.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%				
100) 4-bromofluorobenzene (s)	16.962	95	196906	50.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	5293	24.91	ug/L		82
3) ethanol	5.999	45	11501	511.63	ug/L		93
4) 1,4-dioxane	12.181	88	2458	116.25	ug/L		97
6) chlorodifluoromethane	3.891	51	13378	4.78	ug/L		97
7) dichlorodifluoromethane	3.865	85	15674	4.75	ug/L		98
10) chloromethane	4.264	50	18300	4.90	ug/L		98
11) vinyl chloride	4.500	62	15847	4.83	ug/L		96
12) bromomethane	5.129	94	11487	4.98	ug/L		98
13) chloroethane	5.281	64	8481	4.93	ug/L		98
14) trichlorofluoromethane	5.795	101	17991	4.85	ug/L		90
15) vinyl bromide	5.653	106	11682	4.75	ug/L		97
17) ethyl ether	6.198	74	5346	4.63	ug/L		98
18) acrolein	6.439	56	2501	5.29	ug/L	#	54
19) 1,1-dichloroethene	6.639	96	10690	4.77	ug/L		94
20) freon 113	6.612	151	9034	4.80	ug/L		91
21) 2-chloropropane	6.382	43	20365	5.16	ug/L		95
22) acetone	6.681	58	3108	19.56	ug/L		97
23) acetonitrile	7.142	41	13690	50.25	ug/L		88
24) iodomethane	6.911	142	17740	4.67	ug/L		96
25) carbon disulfide	7.058	76	33559	4.68	ug/L		97
26) methylene chloride	7.404	84	11999	4.84	ug/L		94
27) methyl acetate	7.205	43	8003	5.08	ug/L		97
28) methyl tert butyl ether	7.818	73	31147	4.78	ug/L		99
29) trans-1,2-dichloroethene	7.829	96	10715	4.72	ug/L		96
30) hexane	8.238	57	14307	4.82	ug/L		97
31) di-isopropyl ether	8.542	45	37224	4.77	ug/L		95
32) 2-butanone	9.376	72	3937	19.16	ug/L	#	75
33) 1,1-dichloroethane	8.495	63	20554	4.87	ug/L		96
34) chloroprene	8.631	53	16166	4.81	ug/L		97
35) acrylonitrile	7.776	53	3656	4.79	ug/L		87
36) vinyl acetate	8.516	86	1557	4.43	ug/L	#	91
37) ethyl tert-butyl ether	9.098	59	34693	4.75	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	1351	4.85	ug/L		91
39) 2,2-dichloropropane	9.407	77	16429	4.89	ug/L		97
40) cis-1,2-dichloroethene	9.381	96	11999	4.72	ug/L		91
41) propionitrile	9.475	54	15655	48.31	ug/L		95
42) tert-Butyl Formate	9.937	59	10976	4.89	ug/L		96
43) bromochloromethane	9.764	128	6069	4.76	ug/L		85
44) tetrahydrofuran	9.837	72	1287	4.84	ug/L	#	60
45) chloroform	9.847	83	19687	4.83	ug/L		98
47) methacrylonitrile	9.716	67	4052	4.85	ug/L		89
48) 1,1,1-trichloroethane	10.172	97	18376	4.89	ug/L		99
49) cyclohexane	10.277	84	16165	5.17	ug/L		89
50) 1,1-dichloropropene	10.408	75	14820	4.77	ug/L		97
51) isobutyl alcohol	10.435	43	5053	51.52	ug/L		92
52) carbon tetrachloride	10.435	117	15766	4.77	ug/L		95
53) tert-amyl alcohol	10.602	73	2510	23.11	ug/L		85
56) benzene	10.739	78	43983	4.83	ug/L		97
57) iso-octane	10.812	57	45567	4.98	ug/L		98
58) tert-amyl methyl ether	10.838	73	34659	5.08	ug/L		98
59) heptane	11.043	57	8476	5.12	ug/L		90
60) isopropyl acetate	10.713	87	1977	4.91	ug/L	#	76
61) 1,2-dichloroethane	10.739	62	15909	5.01	ug/L		99
62) n-butyl alcohol	11.420	56	13223	238.93	ug/L		96
63) ethyl acrylate	11.740	55	12623	4.73	ug/L		97
64) trichloroethene	11.667	130	11356	4.63	ug/L		96
65) 2-nitropropane	12.721	41	2197	4.89	ug/L		86
66) 2-chloroethyl vinyl ether	12.778	63	35271	23.99	ug/L		97
67) methyl methacrylate	12.091	69	7051	4.99	ug/L		87
68) 1,2-dichloropropane	12.023	63	11683	4.79	ug/L		98
69) dibromomethane	12.202	93	7209	5.02	ug/L		94
70) methylcyclohexane	11.987	83	19879	4.90	ug/L		99
71) bromodichloromethane	12.396	83	14979	4.76	ug/L		94
72) epichlorohydrin	12.904	57	4949	23.48	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	19294	4.82	ug/L		97
74) 4-methyl-2-pentanone	13.213	58	16149	19.45	ug/L		97
75) 3-methyl-1-butanol	13.240	55	9407	97.85	ug/L		96
78) toluene	13.544	92	27459	4.79	ug/L		93
79) trans-1,3-dichloropropene	13.806	75	16857	4.78	ug/L		98
80) ethyl methacrylate	13.869	69	14386	4.91	ug/L		97
81) 1,1,2-trichloroethane	14.084	83	8812	4.99	ug/L		91
82) tetrachloroethene	14.325	164	10002	4.64	ug/L		98
83) 1,3-dichloropropane	14.330	76	17014	4.90	ug/L		98
84) 2-hexanone	14.377	58	15159	19.30	ug/L		93
85) butyl acetate	14.514	56	7137	4.98	ug/L		91
86) dibromochloromethane	14.661	129	11115	4.52	ug/L		94
87) 1,2-dibromoethane	14.855	107	11608	4.84	ug/L		100
88) n-butyl ether	15.510	57	51582	4.76	ug/L		97
89) chlorobenzene	15.499	112	31868	4.69	ug/L		96
90) 1,1,1,2-tetrachloroethane	15.589	131	12000	4.71	ug/L		94
91) ethylbenzene	15.615	91	54016	4.75	ug/L		98
92) m,p-xylene	15.762	91	83840	9.47	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

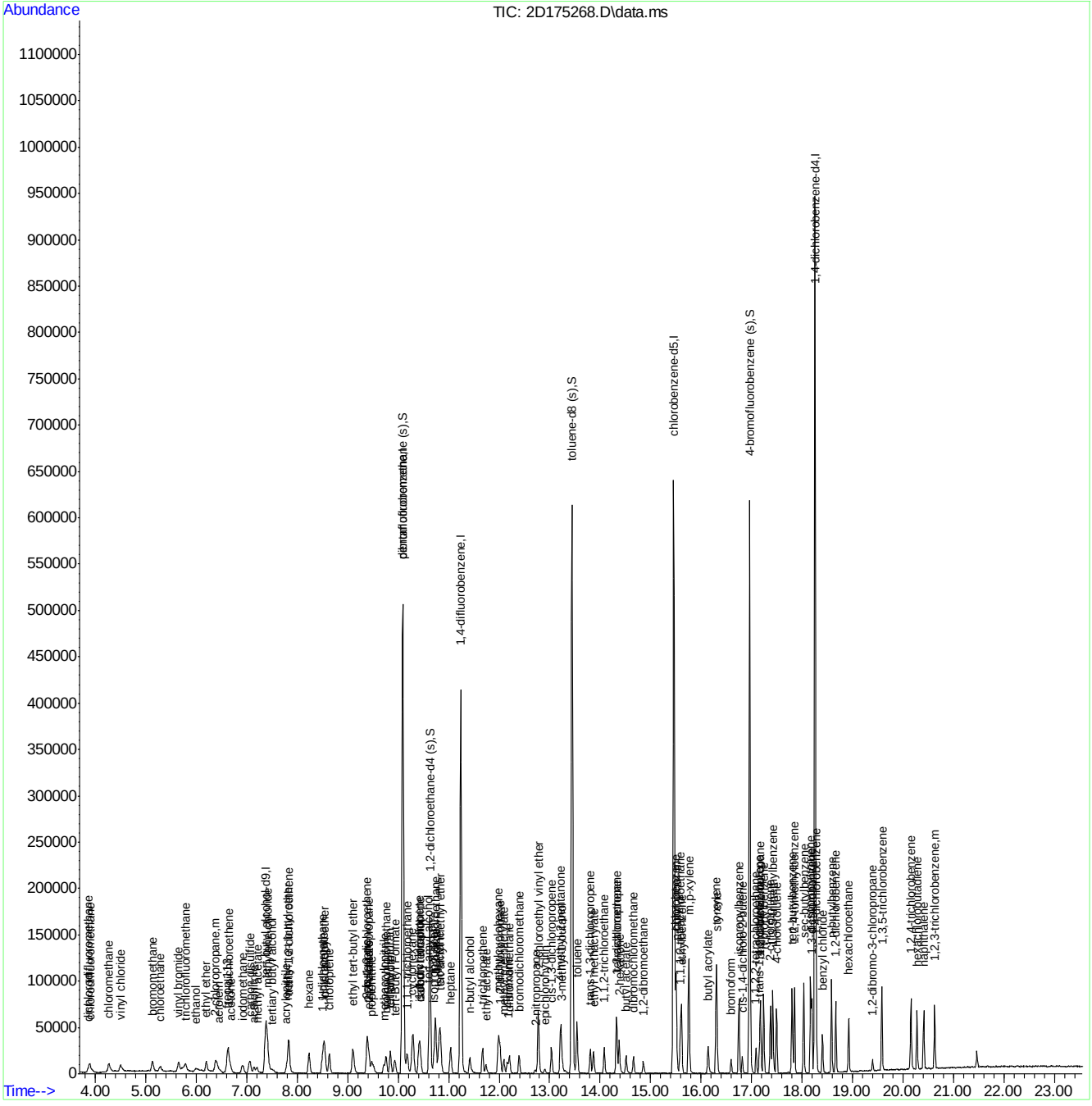
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.302	106	21994	4.92	ug/L		94
94)	styrene	16.312	104	35777	4.75	ug/L		100
95)	butyl acrylate	16.139	55	22902	4.79	ug/L		99
96)	bromoform	16.595	173	7778	4.58	ug/L		98
97)	isopropylbenzene	16.753	105	57168	4.78	ug/L		98
98)	cis-1,4-dichloro-2-butene	16.821	88	4420	4.59	ug/L		90
101)	bromobenzene	17.177	156	16133	4.72	ug/L		90
102)	1,1,2,2-tetrachloroethane	17.088	83	14868	4.83	ug/L		97
103)	trans-1,4-dichloro-2-b...	17.156	53	3433	4.92	ug/L		88
104)	1,2,3-trichloropropane	17.172	110	3872	4.93	ug/L	#	84
105)	n-propylbenzene	17.240	91	66827	4.71	ug/L		99
106)	2-chlorotoluene	17.376	126	14496	4.78	ug/L		98
107)	4-chlorotoluene	17.497	91	40936	4.79	ug/L		95
109)	1,3,5-trimethylbenzene	17.424	105	49425	4.73	ug/L		100
110)	tert-butylbenzene	17.801	119	43187	4.66	ug/L		98
111)	1,2,4-trimethylbenzene	17.848	105	50894	4.77	ug/L		98
112)	sec-butylbenzene	18.037	105	65095	4.70	ug/L		99
113)	1,3-dichlorobenzene	18.194	146	30766	4.75	ug/L		98
114)	p-isopropyltoluene	18.168	119	56137	4.66	ug/L		100
115)	1,4-dichlorobenzene	18.283	146	31226	4.76	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	30404	4.68	ug/L		99
117)	benzyl chloride	18.404	91	27852	4.79	ug/L		95
119)	n-butylbenzene	18.588	92	28039	4.64	ug/L		100
121)	1,2-dibromo-3-chloropr...	19.400	157	3699	4.91	ug/L		90
123)	1,3,5-trichlorobenzene	19.584	180	27998	4.61	ug/L		98
124)	hexachlorobutadiene	20.276	225	13997	4.71	ug/L		94
125)	naphthalene	20.412	128	48102	4.56	ug/L		100
127)	1,2,4-trichlorobenzene	20.160	180	23737	4.60	ug/L		94
128)	1,2,3-trichlorobenzene	20.627	180	21577	4.54	ug/L		99
129)	hexachloroethane	18.928	201	9540	4.50	ug/L		90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	115185	500.00	ug/L		0.00
5) pentafluorobenzene	10.089	168	297365	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	406404	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	404696	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	241845	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.089	113	127581	49.80	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.60%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	142867	51.18	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.36%				
77) toluene-d8 (s)	13.444	98	472374	50.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%				
100) 4-bromofluorobenzene (s)	16.962	95	192976	49.73	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.46%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	10765	49.61	ug/L		96
3) ethanol	5.999	45	21151	915.20	ug/L		96
4) 1,4-dioxane	12.191	88	5283	244.71	ug/L		98
6) chlorodifluoromethane	3.891	51	28016	10.00	ug/L		96
7) dichlorodifluoromethane	3.876	85	35122	10.63	ug/L		97
10) chloromethane	4.269	50	35178	9.42	ug/L		98
11) vinyl chloride	4.494	62	32490	9.89	ug/L		94
12) bromomethane	5.129	94	23018	9.97	ug/L		97
13) chloroethane	5.281	64	16708	9.70	ug/L		98
14) trichlorofluoromethane	5.774	101	38431	10.06	ug/L		99
15) vinyl bromide	5.648	106	23341	9.48	ug/L		96
17) ethyl ether	6.193	74	11318	9.80	ug/L		94
18) acrolein	6.439	56	4432	9.36	ug/L		99
19) 1,1-dichloroethene	6.633	96	22098	9.86	ug/L		93
20) freon 113	6.623	151	19307	10.26	ug/L		98
21) 2-chloropropane	6.382	43	38799	9.83	ug/L		98
22) acetone	6.681	58	6586	41.43	ug/L	#	80
23) acetonitrile	7.137	41	28048	102.87	ug/L		97
24) iodomethane	6.917	142	37119	9.77	ug/L		98
25) carbon disulfide	7.058	76	68383	9.52	ug/L		98
26) methylene chloride	7.404	84	24589	9.92	ug/L		90
27) methyl acetate	7.200	43	15905	10.09	ug/L		97
28) methyl tert butyl ether	7.813	73	63062	9.68	ug/L		92
29) trans-1,2-dichloroethene	7.834	96	22180	9.76	ug/L		99
30) hexane	8.233	57	30218	10.17	ug/L		98
31) di-isopropyl ether	8.537	45	75995	9.73	ug/L		92
32) 2-butanone	9.376	72	8522	41.45	ug/L		93
33) 1,1-dichloroethane	8.495	63	40908	9.68	ug/L		97
34) chloroprene	8.636	53	32087	9.54	ug/L		99
35) acrylonitrile	7.771	53	7925	10.38	ug/L		98
36) vinyl acetate	8.510	86	3745	10.65	ug/L	#	86
37) ethyl tert-butyl ether	9.103	59	71027	9.71	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.428	45	2924	10.49	ug/L		90
39) 2,2-dichloropropane	9.402	77	33203	9.87	ug/L		98
40) cis-1,2-dichloroethene	9.386	96	24254	9.53	ug/L		96
41) propionitrile	9.470	54	32695	100.82	ug/L		98
42) tert-Butyl Formate	9.926	59	22589	10.06	ug/L		97
43) bromochloromethane	9.758	128	12558	9.84	ug/L		98
44) tetrahydrofuran	9.832	72	2712	10.19	ug/L		87
45) chloroform	9.842	83	40599	9.96	ug/L		99
47) methacrylonitrile	9.711	67	8454	10.12	ug/L		90
48) 1,1,1-trichloroethane	10.178	97	36725	9.76	ug/L		93
49) cyclohexane	10.277	84	32862	10.50	ug/L		89
50) 1,1-dichloropropene	10.408	75	30754	9.88	ug/L		98
51) isobutyl alcohol	10.435	43	10698	108.98	ug/L		97
52) carbon tetrachloride	10.429	117	32967	9.98	ug/L		98
53) tert-amyl alcohol	10.608	73	5779	53.17	ug/L		90
56) benzene	10.739	78	87167	9.62	ug/L		97
57) iso-octane	10.812	57	95207	10.45	ug/L		99
58) tert-amyl methyl ether	10.833	73	68770	10.13	ug/L		97
59) heptane	11.038	57	17892	10.86	ug/L		97
60) isopropyl acetate	10.713	87	4270	10.65	ug/L	#	69
61) 1,2-dichloroethane	10.739	62	31176	9.87	ug/L		98
62) n-butyl alcohol	11.415	56	29103	528.56	ug/L		98
63) ethyl acrylate	11.735	55	26655	10.03	ug/L		97
64) trichloroethene	11.672	130	23918	9.79	ug/L		96
65) 2-nitropropane	12.715	41	4349	9.69	ug/L		94
66) 2-chloroethyl vinyl ether	12.773	63	72593	49.62	ug/L		96
67) methyl methacrylate	12.086	69	14512	10.32	ug/L		92
68) 1,2-dichloropropane	12.018	63	24113	9.93	ug/L		97
69) dibromomethane	12.202	93	14274	10.00	ug/L		97
70) methylcyclohexane	11.987	83	41983	10.41	ug/L		95
71) bromodichloromethane	12.396	83	30799	9.84	ug/L		93
72) epichlorohydrin	12.904	57	10390	49.55	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	37987	9.54	ug/L		99
74) 4-methyl-2-pentanone	13.213	58	32940	39.87	ug/L		88
75) 3-methyl-1-butanol	13.240	55	19697	205.93	ug/L		95
78) toluene	13.539	92	54416	9.54	ug/L		100
79) trans-1,3-dichloropropene	13.806	75	34488	9.84	ug/L		97
80) ethyl methacrylate	13.869	69	28762	9.87	ug/L		99
81) 1,1,2-trichloroethane	14.079	83	17252	9.83	ug/L		98
82) tetrachloroethene	14.320	164	21207	9.90	ug/L		98
83) 1,3-dichloropropane	14.330	76	34014	9.85	ug/L		96
84) 2-hexanone	14.377	58	31506	40.34	ug/L		95
85) butyl acetate	14.508	56	14915	10.47	ug/L		96
86) dibromochloromethane	14.661	129	23920	9.78	ug/L		99
87) 1,2-dibromoethane	14.855	107	23076	9.68	ug/L		99
88) n-butyl ether	15.505	57	103890	9.65	ug/L		100
89) chlorobenzene	15.499	112	64977	9.62	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.589	131	25084	9.90	ug/L		97
91) ethylbenzene	15.610	91	109578	9.68	ug/L		96
92) m,p-xylene	15.756	91	169919	19.30	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

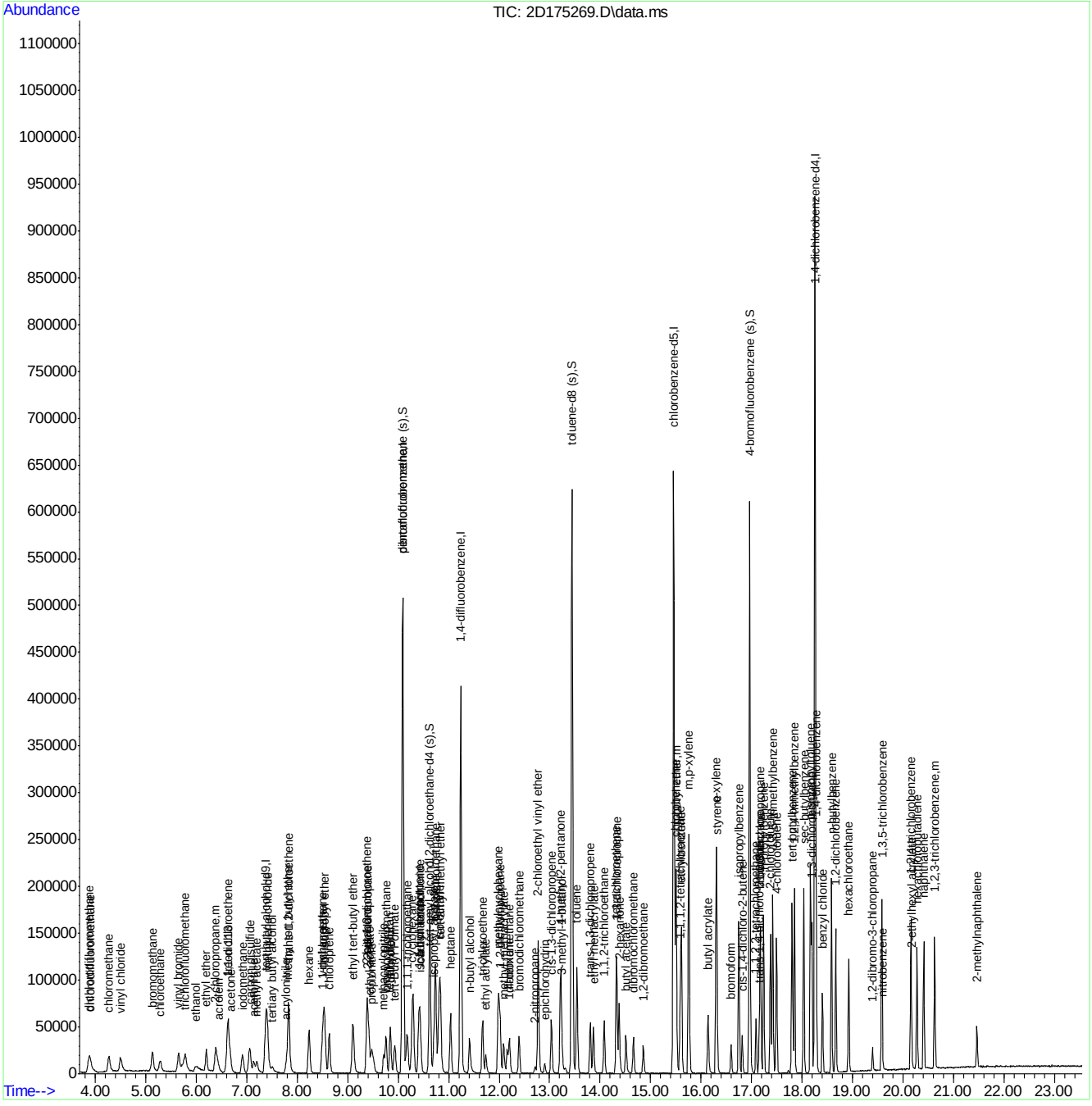
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.302	106	43335	9.75	ug/L		99
94)	styrene	16.312	104	74247	9.92	ug/L		98
95)	butyl acrylate	16.139	55	46217	9.72	ug/L		97
96)	bromoform	16.595	173	16265	9.63	ug/L		98
97)	isopropylbenzene	16.752	105	115246	9.70	ug/L		98
98)	cis-1,4-dichloro-2-butene	16.815	88	9376	9.79	ug/L		87
101)	bromobenzene	17.177	156	32966	9.66	ug/L		92
102)	1,1,2,2-tetrachloroethane	17.088	83	29779	9.69	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.151	53	6968	10.00	ug/L		86
104)	1,2,3-trichloropropane	17.172	110	7921	10.11	ug/L	#	82
105)	n-propylbenzene	17.240	91	136459	9.63	ug/L		99
106)	2-chlorotoluene	17.376	126	29574	9.77	ug/L		93
107)	4-chlorotoluene	17.492	91	81522	9.57	ug/L		99
109)	1,3,5-trimethylbenzene	17.424	105	100477	9.63	ug/L		98
110)	tert-butylbenzene	17.806	119	88577	9.57	ug/L		98
111)	1,2,4-trimethylbenzene	17.848	105	102746	9.65	ug/L		97
112)	sec-butylbenzene	18.037	105	132776	9.60	ug/L		98
113)	1,3-dichlorobenzene	18.194	146	61331	9.49	ug/L		98
114)	p-isopropyltoluene	18.168	119	116683	9.71	ug/L		98
115)	1,4-dichlorobenzene	18.278	146	61807	9.45	ug/L		100
116)	1,2-dichlorobenzene	18.671	146	62658	9.66	ug/L		98
117)	benzyl chloride	18.404	91	57894	9.97	ug/L		99
119)	n-butylbenzene	18.582	92	57991	9.62	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.400	157	7228	9.62	ug/L		92
122)	nitrobenzene	19.599	77	747	5.77	ug/L		95
123)	1,3,5-trichlorobenzene	19.584	180	58732	9.69	ug/L		99
124)	hexachlorobutadiene	20.281	225	28967	9.77	ug/L		96
125)	naphthalene	20.412	128	103018	9.80	ug/L		99
126)	2-ethylhexyl acrylate	20.171	70	4849	1.69	ug/L		96
127)	1,2,4-trichlorobenzene	20.160	180	49009	9.51	ug/L		100
128)	1,2,3-trichlorobenzene	20.627	180	46038	9.70	ug/L		99
129)	hexachloroethane	18.928	201	19749	9.34	ug/L		90
130)	2-methylnaphthalene	21.466	142	22118	4.15	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	115841	500.00	ug/L	0.00
5) pentafluorobenzene	10.088	168	297419	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	409439	50.00	ug/L	0.00
76) chlorobenzene-d5	15.463	117	404704	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	242919	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	127280	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	139719	49.68	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.36%			
77) toluene-d8 (s)	13.444	98	471990	50.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%			
100) 4-bromofluorobenzene (s)	16.962	95	193277	49.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.504	59	22111	101.32	ug/L	90
3) ethanol	5.999	45	41743	1787.48	ug/L	99
4) 1,4-dioxane	12.186	88	10837	499.12	ug/L	98
6) chlorodifluoromethane	3.886	51	55384	19.76	ug/L	96
7) dichlorodifluoromethane	3.870	85	71761	21.71	ug/L	95
10) chloromethane	4.263	50	72484	19.40	ug/L	97
11) vinyl chloride	4.499	62	66918	20.37	ug/L	99
12) bromomethane	5.123	94	45640	19.77	ug/L	95
13) chloroethane	5.281	64	33179	19.25	ug/L	99
14) trichlorofluoromethane	5.779	101	78176	20.46	ug/L	97
15) vinyl bromide	5.653	106	48753	19.80	ug/L	97
17) ethyl ether	6.198	74	22467	19.45	ug/L	91
18) acrolein	6.434	56	9049	19.11	ug/L	88
19) 1,1-dichloroethene	6.633	96	43550	19.43	ug/L	95
20) freon 113	6.618	151	38551	20.48	ug/L	97
21) 2-chloropropane	6.387	43	73599	18.64	ug/L	97
22) acetone	6.681	58	12992	81.71	ug/L	90
23) acetonitrile	7.137	41	54703	200.59	ug/L	98
24) iodomethane	6.911	142	74194	19.53	ug/L	98
25) carbon disulfide	7.058	76	138643	19.30	ug/L	100
26) methylene chloride	7.404	84	48357	19.50	ug/L	98
27) methyl acetate	7.200	43	31293	19.84	ug/L	95
28) methyl tert butyl ether	7.818	73	127442	19.55	ug/L	99
29) trans-1,2-dichloroethene	7.834	96	43014	18.93	ug/L	98
30) hexane	8.232	57	59565	20.05	ug/L	100
31) di-isopropyl ether	8.537	45	151089	19.35	ug/L	95
32) 2-butanone	9.370	72	17529	85.23	ug/L #	85
33) 1,1-dichloroethane	8.495	63	80585	19.07	ug/L	99
34) chloroprene	8.636	53	65342	19.43	ug/L	99
35) acrylonitrile	7.771	53	16054	21.03	ug/L	96
36) vinyl acetate	8.516	86	7493	21.31	ug/L	100
37) ethyl tert-butyl ether	9.103	59	142907	19.53	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	5739	20.58	ug/L		92
39) 2,2-dichloropropane	9.402	77	64468	19.17	ug/L		94
40) cis-1,2-dichloroethene	9.386	96	48718	19.14	ug/L		97
41) propionitrile	9.475	54	65519	202.00	ug/L		98
42) tert-Butyl Formate	9.926	59	44127	19.65	ug/L		94
43) bromochloromethane	9.763	128	24401	19.13	ug/L		96
44) tetrahydrofuran	9.832	72	5373	20.19	ug/L		94
45) chloroform	9.842	83	79341	19.46	ug/L		96
47) methacrylonitrile	9.711	67	17213	20.60	ug/L		98
48) 1,1,1-trichloroethane	10.178	97	72647	19.29	ug/L		96
49) cyclohexane	10.282	84	64392	20.58	ug/L		92
50) 1,1-dichloropropene	10.408	75	59442	19.10	ug/L		98
51) isobutyl alcohol	10.435	43	19828	201.96	ug/L		97
52) carbon tetrachloride	10.435	117	64122	19.40	ug/L		94
53) tert-amyl alcohol	10.608	73	11186	102.89	ug/L		98
56) benzene	10.739	78	174271	19.10	ug/L		99
57) iso-octane	10.807	57	188387	20.53	ug/L		97
58) tert-amyl methyl ether	10.838	73	135269	19.78	ug/L		99
59) heptane	11.037	57	33259	20.04	ug/L		99
60) isopropyl acetate	10.712	87	8332	20.62	ug/L	#	81
61) 1,2-dichloroethane	10.739	62	61805	19.43	ug/L		99
62) n-butyl alcohol	11.415	56	58020	1045.93	ug/L		99
63) ethyl acrylate	11.735	55	53149	19.85	ug/L		98
64) trichloroethene	11.672	130	47097	19.14	ug/L		98
65) 2-nitropropane	12.710	41	8702	19.25	ug/L		95
66) 2-chloroethyl vinyl ether	12.773	63	146444	99.36	ug/L		98
67) methyl methacrylate	12.086	69	28944	20.44	ug/L		91
68) 1,2-dichloropropane	12.018	63	46868	19.16	ug/L		97
69) dibromomethane	12.201	93	28502	19.81	ug/L		97
70) methylcyclohexane	11.986	83	82698	20.35	ug/L		96
71) bromodichloromethane	12.395	83	61007	19.35	ug/L		100
72) epichlorohydrin	12.899	57	21450	101.54	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	76591	19.09	ug/L		99
74) 4-methyl-2-pentanone	13.213	58	66264	79.62	ug/L		95
75) 3-methyl-1-butanol	13.240	55	38055	394.91	ug/L		93
78) toluene	13.538	92	110452	19.36	ug/L		96
79) trans-1,3-dichloropropene	13.806	75	68705	19.61	ug/L		95
80) ethyl methacrylate	13.869	69	58747	20.15	ug/L		97
81) 1,1,2-trichloroethane	14.084	83	34555	19.69	ug/L		97
82) tetrachloroethene	14.320	164	41630	19.43	ug/L		97
83) 1,3-dichloropropane	14.330	76	66850	19.35	ug/L		99
84) 2-hexanone	14.377	58	62292	79.76	ug/L		99
85) butyl acetate	14.508	56	28856	20.25	ug/L		96
86) dibromochloromethane	14.660	129	47018	19.22	ug/L		98
87) 1,2-dibromoethane	14.854	107	46876	19.66	ug/L		96
88) n-butyl ether	15.505	57	207286	19.25	ug/L		100
89) chlorobenzene	15.499	112	129877	19.22	ug/L		97
90) 1,1,1,2-tetrachloroethane	15.588	131	49623	19.59	ug/L		99
91) ethylbenzene	15.609	91	219387	19.39	ug/L		100
92) m,p-xylene	15.756	91	338708	38.48	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.301	106	84831	19.09	ug/L		100
94)	styrene	16.307	104	146206	19.53	ug/L		98
95)	butyl acrylate	16.139	55	94263	19.81	ug/L		98
96)	bromoform	16.595	173	33284	19.70	ug/L		97
97)	isopropylbenzene	16.747	105	230841	19.42	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.815	88	19881	20.75	ug/L		97
101)	bromobenzene	17.177	156	64246	18.74	ug/L		94
102)	1,1,2,2-tetrachloroethane	17.088	83	59642	19.33	ug/L		97
103)	trans-1,4-dichloro-2-b...	17.151	53	14340	20.50	ug/L		89
104)	1,2,3-trichloropropane	17.167	110	15767	20.04	ug/L	#	90
105)	n-propylbenzene	17.240	91	272568	19.15	ug/L		100
106)	2-chlorotoluene	17.376	126	58133	19.13	ug/L		98
107)	4-chlorotoluene	17.492	91	163158	19.06	ug/L		98
109)	1,3,5-trimethylbenzene	17.423	105	200107	19.09	ug/L		98
110)	tert-butylbenzene	17.806	119	179084	19.26	ug/L		97
111)	1,2,4-trimethylbenzene	17.848	105	203414	19.01	ug/L		98
112)	sec-butylbenzene	18.037	105	267007	19.22	ug/L		99
113)	1,3-dichlorobenzene	18.194	146	122797	18.92	ug/L		100
114)	p-isopropyltoluene	18.168	119	231481	19.18	ug/L		99
115)	1,4-dichlorobenzene	18.283	146	125253	19.07	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	127449	19.57	ug/L		98
117)	benzyl chloride	18.404	91	116329	19.95	ug/L		99
119)	n-butylbenzene	18.582	92	117066	19.34	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.400	157	15384	20.38	ug/L		97
122)	nitrobenzene	19.584	77	1835	14.12	ug/L		82
123)	1,3,5-trichlorobenzene	19.578	180	122317	20.09	ug/L		98
124)	hexachlorobutadiene	20.281	225	59793	20.07	ug/L		98
125)	naphthalene	20.412	128	221758	20.99	ug/L		99
126)	2-ethylhexyl acrylate	20.171	70	10639	3.69	ug/L		95
127)	1,2,4-trichlorobenzene	20.155	180	105095	20.31	ug/L		96
128)	1,2,3-trichlorobenzene	20.627	180	97558	20.47	ug/L		99
129)	hexachloroethane	18.928	201	41666	19.62	ug/L		97
130)	2-methylnaphthalene	21.466	142	51389	9.59	ug/L		97

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

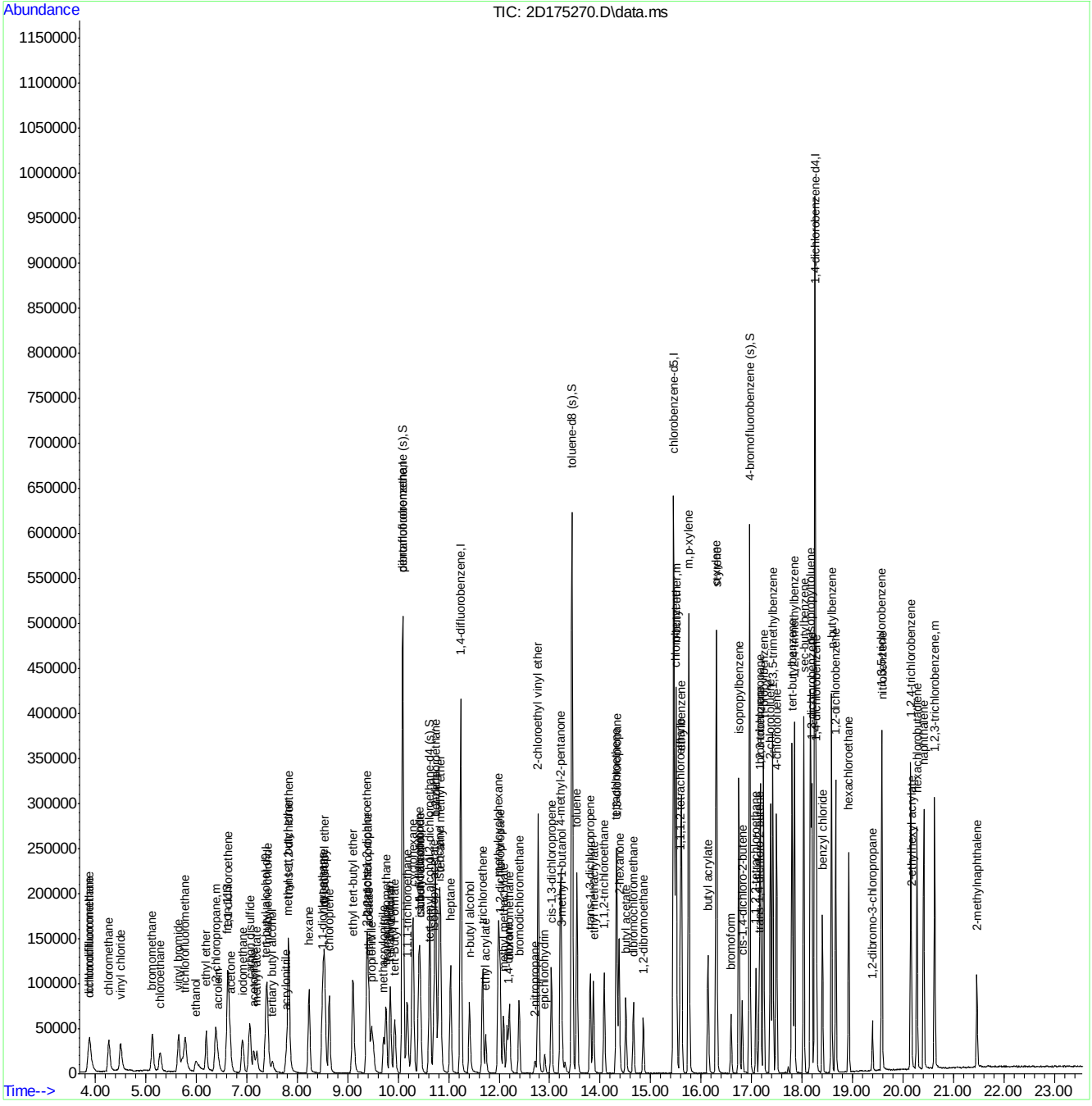
7.7.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	113069	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	294649	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	404014	50.00	ug/L	0.00
76) chlorobenzene-d5	15.458	117	407064	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	242441	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	127364	50.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.34%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	139234	50.17	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.34%			
77) toluene-d8 (s)	13.439	98	471613	49.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.64%			
100) 4-bromofluorobenzene (s)	16.962	95	192106	49.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.78%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	54924	257.86	ug/L	100
3) ethanol	5.994	45	96061	4195.31	ug/L	100
4) 1,4-dioxane	12.181	88	27365	1291.25	ug/L	100
6) chlorodifluoromethane	3.886	51	137252	49.42	ug/L	100
7) dichlorodifluoromethane	3.860	85	175033	53.44	ug/L	100
10) chloromethane	4.258	50	170400	46.03	ug/L	100
11) vinyl chloride	4.494	62	165157	50.74	ug/L	100
12) bromomethane	5.123	94	111170	48.61	ug/L	100
13) chloroethane	5.276	64	81235	47.58	ug/L	100
14) trichlorofluoromethane	5.774	101	191651	50.62	ug/L	100
15) vinyl bromide	5.648	106	120328	49.34	ug/L	100
17) ethyl ether	6.193	74	55040	48.10	ug/L	100
18) acrolein	6.429	56	22188	47.30	ug/L	100
19) 1,1-dichloroethene	6.633	96	108544	48.89	ug/L	100
20) freon 113	6.612	151	95747	51.35	ug/L	100
21) 2-chloropropane	6.382	43	180334	46.09	ug/L	100
22) acetone	6.675	58	31779	201.74	ug/L	100
23) acetonitrile	7.137	41	130158	481.76	ug/L	100
24) iodomethane	6.911	142	188481	50.09	ug/L	100
25) carbon disulfide	7.058	76	347014	48.77	ug/L	100
26) methylene chloride	7.399	84	120148	48.90	ug/L	100
27) methyl acetate	7.194	43	76292	48.82	ug/L	100
28) methyl tert butyl ether	7.813	73	313822	48.59	ug/L	100
29) trans-1,2-dichloroethene	7.829	96	108405	48.15	ug/L	100
30) hexane	8.233	57	149894	50.93	ug/L	100
31) di-isopropyl ether	8.537	45	369768	47.79	ug/L	100
32) 2-butanone	9.365	72	42784	209.99	ug/L	100
33) 1,1-dichloroethane	8.490	63	201989	48.25	ug/L	100
34) chloroprene	8.631	53	162091	48.66	ug/L	100
35) acrylonitrile	7.766	53	39518	52.24	ug/L	100
36) vinyl acetate	8.510	86	18288	52.51	ug/L	100
37) ethyl tert-butyl ether	9.098	59	352622	48.64	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) ethyl acetate	9.423	45	13850	50.12	ug/L	100
39) 2,2-dichloropropane	9.402	77	156646	47.01	ug/L	100
40) cis-1,2-dichloroethene	9.381	96	121266	48.10	ug/L	100
41) propionitrile	9.470	54	158693	493.87	ug/L	100
42) tert-Butyl Formate	9.926	59	108131	48.61	ug/L	100
43) bromochloromethane	9.758	128	61106	48.34	ug/L	100
44) tetrahydrofuran	9.832	72	12853	48.74	ug/L	100
45) chloroform	9.842	83	197767	48.97	ug/L	100
47) methacrylonitrile	9.711	67	42239	51.02	ug/L	100
48) 1,1,1-trichloroethane	10.178	97	183345	49.15	ug/L	100
49) cyclohexane	10.277	84	159684	51.51	ug/L	100
50) 1,1-dichloropropene	10.408	75	149026	48.34	ug/L	100
51) isobutyl alcohol	10.429	43	45008	462.73	ug/L	100
52) carbon tetrachloride	10.435	117	161989	49.48	ug/L	100
53) tert-amyl alcohol	10.602	73	26583	246.82	ug/L	100
56) benzene	10.734	78	432670	48.05	ug/L	100
57) iso-octane	10.812	57	468163	51.71	ug/L	100
58) tert-amyl methyl ether	10.833	73	336727	49.91	ug/L	100
59) heptane	11.038	57	82250	50.22	ug/L	100
60) isopropyl acetate	10.707	87	20287	50.89	ug/L	100
61) 1,2-dichloroethane	10.739	62	150969	48.09	ug/L	100
62) n-butyl alcohol	11.410	56	141973	2593.72	ug/L	100
63) ethyl acrylate	11.730	55	130176	49.28	ug/L	100
64) trichloroethene	11.667	130	118026	48.61	ug/L	100
65) 2-nitropropane	12.710	41	21131	47.22	ug/L	100
66) 2-chloroethyl vinyl ether	12.773	63	360088	247.60	ug/L	100
67) methyl methacrylate	12.086	69	70881	50.73	ug/L	100
68) 1,2-dichloropropane	12.018	63	116117	48.10	ug/L	100
69) dibromomethane	12.202	93	71153	50.12	ug/L	100
70) methylcyclohexane	11.987	83	207165	51.67	ug/L	100
71) bromodichloromethane	12.396	83	154072	49.52	ug/L	100
72) epichlorohydrin	12.899	57	52227	250.54	ug/L	100
73) cis-1,3-dichloropropene	13.035	75	191408	48.35	ug/L	100
74) 4-methyl-2-pentanone	13.213	58	164160	199.89	ug/L	100
75) 3-methyl-1-butanol	13.229	55	93801	986.47	ug/L	100
78) toluene	13.539	92	272940	47.57	ug/L	100
79) trans-1,3-dichloropropene	13.801	75	173509	49.23	ug/L	100
80) ethyl methacrylate	13.864	69	144021	49.12	ug/L	100
81) 1,1,2-trichloroethane	14.079	83	85656	48.53	ug/L	100
82) tetrachloroethene	14.320	164	104145	48.34	ug/L	100
83) 1,3-dichloropropane	14.325	76	168662	48.53	ug/L	100
84) 2-hexanone	14.372	58	153352	195.23	ug/L	100
85) butyl acetate	14.509	56	70808	49.39	ug/L	100
86) dibromochloromethane	14.661	129	123172	50.06	ug/L	100
87) 1,2-dibromoethane	14.855	107	116801	48.70	ug/L	100
88) n-butyl ether	15.505	57	520949	48.10	ug/L	100
89) chlorobenzene	15.499	112	323683	47.63	ug/L	100
90) 1,1,1,2-tetrachloroethane	15.589	131	127372	49.98	ug/L	100
91) ethylbenzene	15.610	91	549634	48.29	ug/L	100
92) m,p-xylene	15.756	91	846126	95.56	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

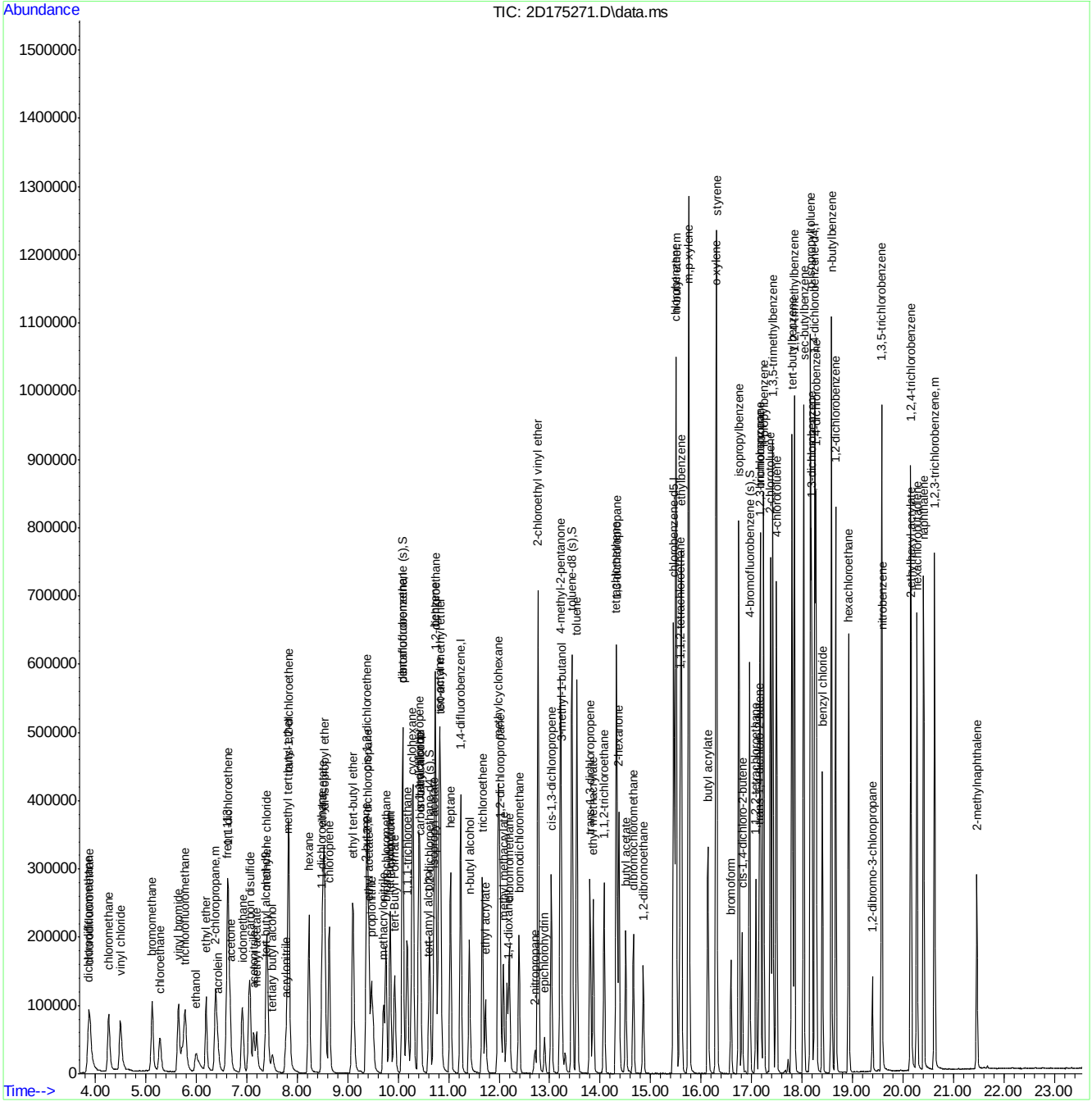
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	16.296	106	216162	48.37	ug/L	100
94) styrene	16.307	104	369733	49.10	ug/L	100
95) butyl acrylate	16.134	55	236704	49.47	ug/L	100
96) bromoform	16.590	173	87029	51.21	ug/L	100
97) isopropylbenzene	16.747	105	581942	48.68	ug/L	100
98) cis-1,4-dichloro-2-butene	16.815	88	50399	52.31	ug/L	100
101) bromobenzene	17.172	156	162157	47.40	ug/L	100
102) 1,1,2,2-tetrachloroethane	17.088	83	145479	47.24	ug/L	100
103) trans-1,4-dichloro-2-b...	17.151	53	34827	49.88	ug/L	100
104) 1,2,3-trichloropropane	17.167	110	38504	49.03	ug/L	100
105) n-propylbenzene	17.240	91	683453	48.12	ug/L	100
106) 2-chlorotoluene	17.376	126	145491	47.97	ug/L	100
107) 4-chlorotoluene	17.492	91	405135	47.42	ug/L	100
109) 1,3,5-trimethylbenzene	17.418	105	505424	48.31	ug/L	100
110) tert-butylbenzene	17.801	119	453671	48.89	ug/L	100
111) 1,2,4-trimethylbenzene	17.848	105	517115	48.43	ug/L	100
112) sec-butylbenzene	18.037	105	674998	48.68	ug/L	100
113) 1,3-dichlorobenzene	18.194	146	308141	47.56	ug/L	100
114) p-isopropyltoluene	18.168	119	585562	48.62	ug/L	100
115) 1,4-dichlorobenzene	18.278	146	315722	48.16	ug/L	100
116) 1,2-dichlorobenzene	18.666	146	317990	48.92	ug/L	100
117) benzyl chloride	18.404	91	292465	50.27	ug/L	100
119) n-butylbenzene	18.582	92	299444	49.56	ug/L	100
121) 1,2-dibromo-3-chloropr...	19.395	157	38529	51.15	ug/L	100
122) nitrobenzene	19.589	77	4636	35.73	ug/L	100
123) 1,3,5-trichlorobenzene	19.579	180	311738	51.30	ug/L	100
124) hexachlorobutadiene	20.281	225	149998	50.45	ug/L	100
125) naphthalene	20.412	128	569038	53.98	ug/L	100
126) 2-ethylhexyl acrylate	20.166	70	30681	10.67	ug/L	100
127) 1,2,4-trichlorobenzene	20.155	180	273154	52.90	ug/L	100
128) 1,2,3-trichlorobenzene	20.627	180	252633	53.12	ug/L	100
129) hexachloroethane	18.928	201	111037	52.40	ug/L	100
130) 2-methylnaphthalene	21.466	142	146957	27.49	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	111938	500.00	ug/L		0.00
5) pentafluorobenzene	10.088	168	296992	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	412396	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	417264	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.252	152	244548	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.088	113	128001	50.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	138792	49.00	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.00%				
77) toluene-d8 (s)	13.439	98	478960	49.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.72%				
100) 4-bromofluorobenzene (s)	16.962	95	195285	49.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	111211	527.39	ug/L		93
3) ethanol	5.999	45	195335	8581.46	ug/L		99
4) 1,4-dioxane	12.180	88	56259	2681.48	ug/L		98
6) chlorodifluoromethane	3.891	51	280805	100.32	ug/L		99
7) dichlorodifluoromethane	3.870	85	337189	102.13	ug/L		98
10) chloromethane	4.269	50	364874	97.80	ug/L		100
11) vinyl chloride	4.499	62	344524	105.02	ug/L		98
12) bromomethane	5.128	94	227867	98.86	ug/L		96
13) chloroethane	5.281	64	164270	95.45	ug/L		99
14) trichlorofluoromethane	5.779	101	379587	99.47	ug/L		96
15) vinyl bromide	5.648	106	241591	98.28	ug/L		97
17) ethyl ether	6.193	74	117173	101.58	ug/L		95
18) acrolein	6.434	56	47047	99.50	ug/L		99
19) 1,1-dichloroethene	6.633	96	222390	99.37	ug/L		97
20) freon 113	6.618	151	189776	100.98	ug/L		97
21) 2-chloropropane	6.387	43	370673	94.00	ug/L		99
22) acetone	6.675	58	67793	426.97	ug/L		96
23) acetonitrile	7.137	41	260573	956.86	ug/L		100
24) iodomethane	6.916	142	385421	101.61	ug/L		100
25) carbon disulfide	7.058	76	709134	98.87	ug/L		99
26) methylene chloride	7.399	84	250410	101.11	ug/L		99
27) methyl acetate	7.199	43	158122	100.39	ug/L		99
28) methyl tert butyl ether	7.818	73	649109	99.72	ug/L		99
29) trans-1,2-dichloroethene	7.834	96	227333	100.18	ug/L		98
30) hexane	8.232	57	303468	102.30	ug/L		99
31) di-isopropyl ether	8.536	45	769033	98.61	ug/L		96
32) 2-butanone	9.370	72	90245	439.45	ug/L		98
33) 1,1-dichloroethane	8.495	63	420915	99.75	ug/L		99
34) chloroprene	8.636	53	336125	100.11	ug/L		98
35) acrylonitrile	7.766	53	83210	109.13	ug/L		94
36) vinyl acetate	8.510	86	39285	111.90	ug/L	#	94
37) ethyl tert-butyl ether	9.103	59	716301	98.03	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	28213	101.30	ug/L		96
39) 2,2-dichloropropane	9.407	77	314067	93.51	ug/L		96
40) cis-1,2-dichloroethene	9.386	96	254420	100.12	ug/L		97
41) propionitrile	9.470	54	337081	1040.76	ug/L		99
42) tert-Butyl Formate	9.931	59	221024	98.58	ug/L		98
43) bromochloromethane	9.758	128	129719	101.82	ug/L		97
44) tetrahydrofuran	9.837	72	28330	106.59	ug/L		92
45) chloroform	9.842	83	410046	100.74	ug/L		99
47) methacrylonitrile	9.711	67	89268	106.97	ug/L		95
48) 1,1,1-trichloroethane	10.178	97	375773	99.95	ug/L		96
49) cyclohexane	10.282	84	320569	102.60	ug/L		82
50) 1,1-dichloropropene	10.408	75	312361	100.51	ug/L		99
51) isobutyl alcohol	10.429	43	93298	951.64	ug/L		98
52) carbon tetrachloride	10.434	117	331920	100.58	ug/L		100
53) tert-amyl alcohol	10.602	73	54300	500.19	ug/L		96
56) benzene	10.733	78	904939	98.46	ug/L		98
57) iso-octane	10.812	57	925031	100.10	ug/L		99
58) tert-amyl methyl ether	10.833	73	683363	99.23	ug/L		100
59) heptane	11.037	57	164521	98.42	ug/L		98
60) isopropyl acetate	10.707	87	43710	107.42	ug/L	#	89
61) 1,2-dichloroethane	10.739	62	311169	97.11	ug/L		97
62) n-butyl alcohol	11.410	56	299722	5364.37	ug/L		98
63) ethyl acrylate	11.729	55	273310	101.36	ug/L		99
64) trichloroethene	11.667	130	245675	99.13	ug/L		98
65) 2-nitropropane	12.710	41	45945	100.58	ug/L		93
66) 2-chloroethyl vinyl ether	12.773	63	754556	508.29	ug/L		100
67) methyl methacrylate	12.086	69	150598	105.59	ug/L		97
68) 1,2-dichloropropane	12.018	63	243027	98.62	ug/L		100
69) dibromomethane	12.201	93	148414	102.43	ug/L		98
70) methylcyclohexane	11.986	83	416362	101.73	ug/L		100
71) bromodichloromethane	12.395	83	322515	101.54	ug/L		98
72) epichlorohydrin	12.899	57	106810	501.97	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	403085	99.76	ug/L		98
74) 4-methyl-2-pentanone	13.213	58	345144	411.72	ug/L		96
75) 3-methyl-1-butanol	13.234	55	197390	2033.69	ug/L		94
78) toluene	13.538	92	579684	98.55	ug/L		97
79) trans-1,3-dichloropropene	13.800	75	367885	101.84	ug/L		99
80) ethyl methacrylate	13.863	69	308845	102.75	ug/L		99
81) 1,1,2-trichloroethane	14.078	83	180361	99.70	ug/L		98
82) tetrachloroethene	14.320	164	217688	98.56	ug/L		98
83) 1,3-dichloropropane	14.325	76	355700	99.85	ug/L		99
84) 2-hexanone	14.372	58	326804	405.87	ug/L		99
85) butyl acetate	14.508	56	147958	100.69	ug/L		96
86) dibromochloromethane	14.660	129	263753	104.57	ug/L		98
87) 1,2-dibromoethane	14.854	107	246460	100.26	ug/L		100
88) n-butyl ether	15.504	57	1092757	98.42	ug/L		98
89) chlorobenzene	15.499	112	684899	98.31	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.588	131	269309	103.10	ug/L		98
91) ethylbenzene	15.609	91	1145980	98.21	ug/L		100
92) m,p-xylene	15.756	91	1774790	195.54	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

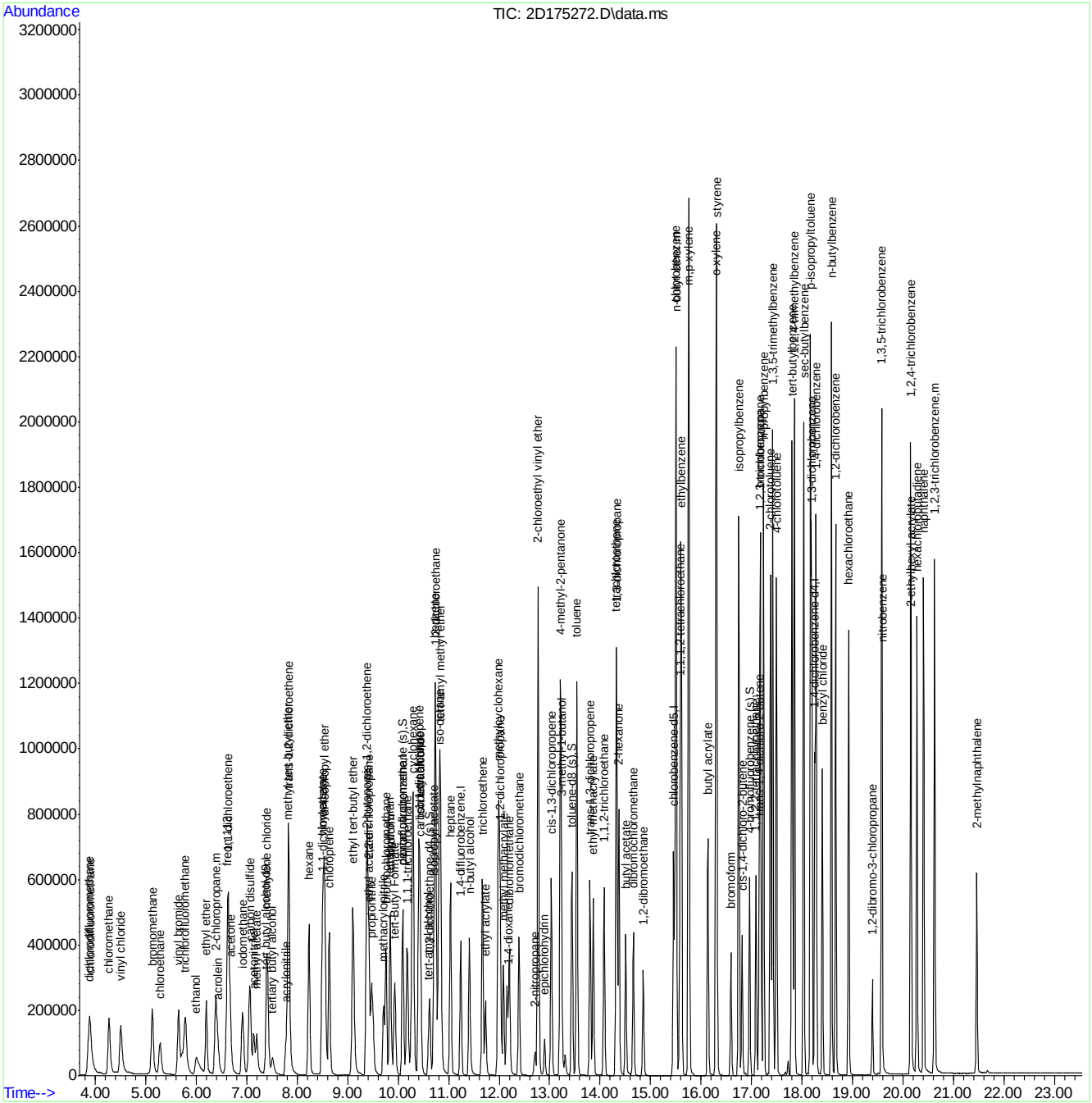
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	o-xylene	16.296	106	453895	99.09	ug/L	97
94)	styrene	16.307	104	774520	100.33	ug/L	99
95)	butyl acrylate	16.134	55	490947	100.09	ug/L	100
96)	bromoform	16.590	173	192667	110.59	ug/L	99
97)	isopropylbenzene	16.747	105	1203712	98.23	ug/L	99
98)	cis-1,4-dichloro-2-butene	16.815	88	105451	106.77	ug/L	98
101)	bromobenzene	17.172	156	343092	99.43	ug/L	99
102)	1,1,2,2-tetrachloroethane	17.088	83	308034	99.16	ug/L	99
103)	trans-1,4-dichloro-2-b...	17.151	53	74651	106.00	ug/L	93
104)	1,2,3-trichloropropane	17.167	110	81267	102.59	ug/L	97
105)	n-propylbenzene	17.240	91	1414766	98.75	ug/L	100
106)	2-chlorotoluene	17.376	126	307671	100.56	ug/L	99
107)	4-chlorotoluene	17.492	91	844463	97.99	ug/L	99
109)	1,3,5-trimethylbenzene	17.418	105	1047029	99.22	ug/L	99
110)	tert-butylbenzene	17.801	119	942700	100.71	ug/L	98
111)	1,2,4-trimethylbenzene	17.848	105	1067640	99.14	ug/L	99
112)	sec-butylbenzene	18.037	105	1394188	99.69	ug/L	99
113)	1,3-dichlorobenzene	18.194	146	647378	99.06	ug/L	99
114)	p-isopropyltoluene	18.168	119	1223836	100.73	ug/L	100
115)	1,4-dichlorobenzene	18.278	146	660900	99.94	ug/L	99
116)	1,2-dichlorobenzene	18.666	146	658404	100.41	ug/L	99
117)	benzyl chloride	18.404	91	611687	104.23	ug/L	100
119)	n-butylbenzene	18.582	92	617243	101.27	ug/L	100
121)	1,2-dibromo-3-chloropr...	19.395	157	82874	109.07	ug/L	98
122)	nitrobenzene	19.589	77	10557	80.67	ug/L	91
123)	1,3,5-trichlorobenzene	19.578	180	651067	106.22	ug/L	100
124)	hexachlorobutadiene	20.276	225	310036	103.37	ug/L	99
125)	naphthalene	20.407	128	1185283	111.46	ug/L	99
126)	2-ethylhexyl acrylate	20.166	70	69210	23.86	ug/L	98
127)	1,2,4-trichlorobenzene	20.155	180	577398	110.85	ug/L	99
128)	1,2,3-trichlorobenzene	20.627	180	524566	109.34	ug/L	100
129)	hexachloroethane	18.923	201	236522	110.65	ug/L	98
130)	2-methylnaphthalene	21.466	142	323834	60.05	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	112206	500.00	ug/L	0.01
5) pentafluorobenzene	10.089	168	307798	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	429846	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	437957	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	256677	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	133113	50.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	138524	46.92	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.84%			
77) toluene-d8 (s)	13.444	98	496549	48.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.52%			
100) 4-bromofluorobenzene (s)	16.962	95	204942	49.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.514	59	221775	1049.21	ug/L	92
3) ethanol	6.004	45	376125	16413.37	ug/L	96
4) 1,4-dioxane	12.181	88	115685	5500.73	ug/L	97
6) chlorodifluoromethane	3.891	51	524602	180.84	ug/L	100
7) dichlorodifluoromethane	3.865	85	651173	190.30	ug/L	99
10) chloromethane	4.264	50	726252	187.83	ug/L	99
11) vinyl chloride	4.500	62	691687	203.44	ug/L	97
12) bromomethane	5.118	94	430503	180.21	ug/L	99
13) chloroethane	5.276	64	320003	179.42	ug/L	99
14) trichlorofluoromethane	5.774	101	762657	192.83	ug/L	97
15) vinyl bromide	5.643	106	489744	192.23	ug/L	99
17) ethyl ether	6.198	74	235492	196.99	ug/L	98
18) acrolein	6.434	56	95452	194.79	ug/L	99
19) 1,1-dichloroethene	6.633	96	455904	196.57	ug/L	100
20) freon 113	6.618	151	398129	204.41	ug/L	99
21) 2-chloropropane	6.387	43	745561	182.41	ug/L	100
22) acetone	6.675	58	133791	813.05	ug/L	98
23) acetonitrile	7.137	41	510238	1807.88	ug/L	100
24) iodomethane	6.917	142	779325	198.25	ug/L	99
25) carbon disulfide	7.058	76	1413259	190.13	ug/L	99
26) methylene chloride	7.399	84	512237	199.57	ug/L	100
27) methyl acetate	7.200	43	314584	192.72	ug/L	99
28) methyl tert butyl ether	7.818	73	1277942	189.44	ug/L	98
29) trans-1,2-dichloroethene	7.834	96	457194	194.40	ug/L	96
30) hexane	8.227	57	628565	204.44	ug/L	98
31) di-isopropyl ether	8.542	45	1516265	187.59	ug/L	94
32) 2-butanone	9.370	72	184407	866.44	ug/L	93
33) 1,1-dichloroethane	8.495	63	836622	191.32	ug/L	100
34) chloroprene	8.631	53	668955	192.24	ug/L	96
35) acrylonitrile	7.766	53	164447	208.11	ug/L	99
36) vinyl acetate	8.510	86	78622	216.10	ug/L #	83
37) ethyl tert-butyl ether	9.103	59	1412301	186.50	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	54437	188.59	ug/L		94
39) 2,2-dichloropropane	9.407	77	615341	176.77	ug/L		97
40) cis-1,2-dichloroethene	9.381	96	514354	195.30	ug/L		98
41) propionitrile	9.475	54	673026	2005.07	ug/L		94
42) tert-Butyl Formate	9.931	59	426889	183.72	ug/L		98
43) bromochloromethane	9.758	128	261441	198.00	ug/L		98
44) tetrahydrofuran	9.832	72	56162	203.89	ug/L		95
45) chloroform	9.842	83	814964	193.19	ug/L		99
47) methacrylonitrile	9.711	67	179595	207.65	ug/L		99
48) 1,1,1-trichloroethane	10.178	97	753835	193.46	ug/L		98
49) cyclohexane	10.283	84	661664	204.33	ug/L		86
50) 1,1-dichloropropene	10.408	75	630078	195.63	ug/L		98
51) isobutyl alcohol	10.435	43	188982	1859.95	ug/L		98
52) carbon tetrachloride	10.435	117	672406	196.60	ug/L		98
53) tert-amyl alcohol	10.608	73	111227	988.61	ug/L		96
56) benzene	10.733	78	1824591	190.47	ug/L		99
57) iso-octane	10.812	57	1931190	200.50	ug/L		98
58) tert-amyl methyl ether	10.838	73	1341833	186.93	ug/L		99
59) heptane	11.038	57	346664	198.95	ug/L		100
60) isopropyl acetate	10.707	87	88165	207.88	ug/L	#	81
61) 1,2-dichloroethane	10.739	62	608992	182.35	ug/L		97
62) n-butyl alcohol	11.415	56	616099	10579.18	ug/L		98
63) ethyl acrylate	11.730	55	548973	195.34	ug/L		99
64) trichloroethene	11.667	130	503406	194.88	ug/L		96
65) 2-nitropropane	12.710	41	93950	197.33	ug/L		94
66) 2-chloroethyl vinyl ether	12.778	63	1502584	971.09	ug/L		99
67) methyl methacrylate	12.086	69	302852	203.72	ug/L		100
68) 1,2-dichloropropane	12.018	63	493234	192.03	ug/L		99
69) dibromomethane	12.202	93	297749	197.15	ug/L		98
70) methylcyclohexane	11.987	83	888324	208.24	ug/L		99
71) bromodichloromethane	12.396	83	650096	196.37	ug/L		99
72) epichlorohydrin	12.899	57	216592	976.59	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	817164	194.03	ug/L		98
74) 4-methyl-2-pentanone	13.213	58	691287	791.16	ug/L		99
75) 3-methyl-1-butanol	13.234	55	401520	3968.88	ug/L		96
78) toluene	13.539	92	1176214	190.52	ug/L		98
79) trans-1,3-dichloropropene	13.801	75	737892	194.61	ug/L		98
80) ethyl methacrylate	13.864	69	620890	196.81	ug/L		99
81) 1,1,2-trichloroethane	14.079	83	365560	192.52	ug/L		98
82) tetrachloroethene	14.320	164	448152	193.32	ug/L		95
83) 1,3-dichloropropane	14.330	76	715965	191.49	ug/L		97
84) 2-hexanone	14.377	58	658346	779.00	ug/L		96
85) butyl acetate	14.508	56	305541	198.10	ug/L		99
86) dibromochloromethane	14.661	129	541159	204.41	ug/L		99
87) 1,2-dibromoethane	14.855	107	499467	193.58	ug/L		99
88) n-butyl ether	15.505	57	2219378	190.45	ug/L		97
89) chlorobenzene	15.499	112	1415706	193.61	ug/L		100
90) 1,1,1,2-tetrachloroethane	15.589	131	548867	200.19	ug/L		98
91) ethylbenzene	15.610	91	2323561	189.73	ug/L		99
92) m,p-xylene	15.762	91	3601568	378.06	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

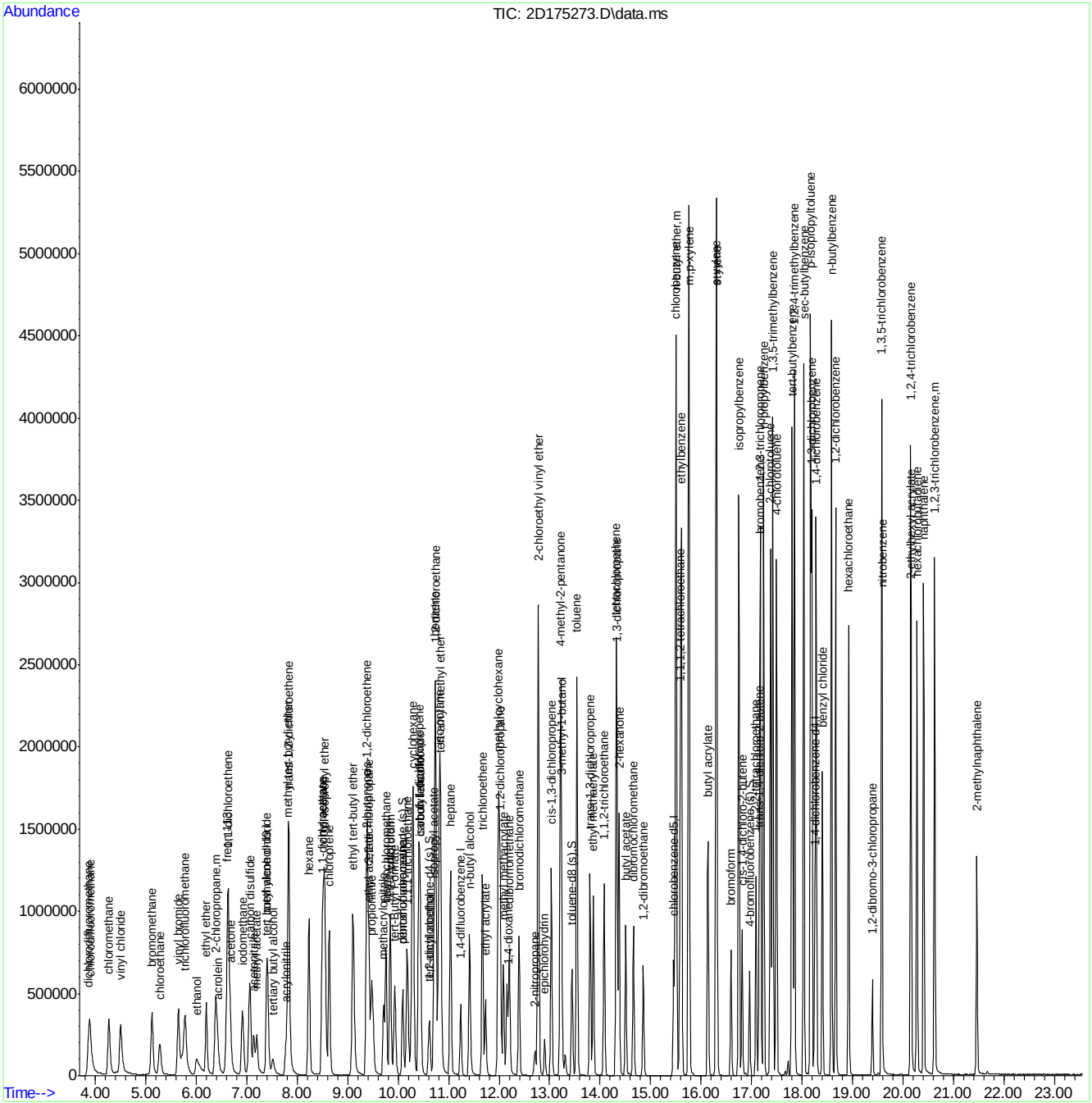
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.302	106	937256	194.95	ug/L		94
94)	styrene	16.307	104	1579342	194.93	ug/L		98
95)	butyl acrylate	16.134	55	1012235	196.62	ug/L		99
96)	bromoform	16.595	173	400634	219.09	ug/L		99
97)	isopropylbenzene	16.747	105	2490487	193.63	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.815	88	214104	206.54	ug/L		97
101)	bromobenzene	17.177	156	704630	194.55	ug/L		92
102)	1,1,2,2-tetrachloroethane	17.088	83	626964	192.30	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.151	53	149476	202.22	ug/L		99
104)	1,2,3-trichloropropane	17.172	110	162618	195.58	ug/L	#	74
105)	n-propylbenzene	17.240	91	2906190	193.27	ug/L		99
106)	2-chlorotoluene	17.376	126	638064	198.69	ug/L		97
107)	4-chlorotoluene	17.492	91	1744984	192.91	ug/L		100
109)	1,3,5-trimethylbenzene	17.424	105	2177264	196.58	ug/L		98
110)	tert-butylbenzene	17.806	119	1956767	199.16	ug/L		97
111)	1,2,4-trimethylbenzene	17.848	105	2210405	195.55	ug/L		100
112)	sec-butylbenzene	18.037	105	2910311	198.26	ug/L		99
113)	1,3-dichlorobenzene	18.194	146	1330045	193.91	ug/L		99
114)	p-isopropyltoluene	18.168	119	2543068	199.43	ug/L		100
115)	1,4-dichlorobenzene	18.283	146	1363157	196.39	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	1351028	196.30	ug/L		99
117)	benzyl chloride	18.404	91	1227027	199.20	ug/L		99
119)	n-butylbenzene	18.582	92	1292142	201.98	ug/L		97
121)	1,2-dibromo-3-chloropr...	19.395	157	169979	213.13	ug/L		97
122)	nitrobenzene	19.589	77	24225	176.37	ug/L		98
123)	1,3,5-trichlorobenzene	19.578	180	1318195	204.89	ug/L		99
124)	hexachlorobutadiene	20.276	225	618382	196.44	ug/L		98
125)	naphthalene	20.412	128	2357512	211.22	ug/L		100
126)	2-ethylhexyl acrylate	20.166	70	148149	48.66	ug/L		99
127)	1,2,4-trichlorobenzene	20.155	180	1164028	212.92	ug/L		98
128)	1,2,3-trichlorobenzene	20.627	180	1051170	208.75	ug/L		98
129)	hexachloroethane	18.928	201	501717	223.63	ug/L		96
130)	2-methylnaphthalene	21.466	142	679124	119.98	ug/L		100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	115668	500.00	ug/L	-0.01
5) pentafluorobenzene	10.088	168	309596	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	423114	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	428295	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	254524	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	133738	50.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	141232	48.60	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.20%			
77) toluene-d8 (s)	13.439	98	496054	49.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.62%			
100) 4-bromofluorobenzene (s)	16.962	95	201263	49.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	55162	251.69	ug/L	96
3) ethanol	5.994	45	101784	5120.55	ug/L	96
4) 1,4-dioxane	12.180	88	28531	1316.02	ug/L	94
6) chlorodifluoromethane	3.891	51	177755	60.92	ug/L	97
7) dichlorodifluoromethane	3.865	85	167643	48.70	ug/L	99
10) chloromethane	4.263	50	206781	53.17	ug/L	100
11) vinyl chloride	4.494	62	169678	49.62	ug/L	99
12) bromomethane	5.123	94	114590	47.69	ug/L	95
13) chloroethane	5.281	64	83509	46.55	ug/L	99
14) trichlorofluoromethane	5.773	101	185302	47.92	ug/L	98
15) vinyl bromide	5.648	106	116194	45.34	ug/L	98
17) ethyl ether	6.193	74	57109	47.50	ug/L	96
18) acrolein	6.429	56	24985	50.69	ug/L	98
19) 1,1-dichloroethene	6.633	96	105580	45.26	ug/L	97
20) freon 113	6.623	151	96727	49.37	ug/L	99
21) 2-chloropropane	6.382	43	196225	50.06	ug/L	99
22) acetone	6.675	58	34531	208.63	ug/L	98
24) iodomethane	6.906	142	228087	57.68	ug/L	99
25) carbon disulfide	7.053	76	402134	53.79	ug/L	98
26) methylene chloride	7.399	84	121940	47.23	ug/L	98
27) methyl acetate	7.194	43	77533	47.22	ug/L	97
28) methyl tert butyl ether	7.813	73	643205	94.80	ug/L	86
29) trans-1,2-dichloroethene	7.829	96	110027	46.51	ug/L	99
30) hexane	8.227	57	142361	46.03	ug/L	99
31) di-isopropyl ether	8.536	45	390715	48.06	ug/L	99
32) 2-butanone	9.365	72	45661	213.29	ug/L	96
33) 1,1-dichloroethane	8.489	63	205243	46.66	ug/L	99
34) chloroprene	8.631	53	172723	49.35	ug/L	98
35) acrylonitrile	7.771	53	45862	57.70	ug/L	95
36) vinyl acetate	8.510	86	20569	53.81	ug/L	99
37) ethyl tert-butyl ether	9.097	59	362320	47.57	ug/L	100
38) ethyl acetate	9.417	45	14984	51.56	ug/L #	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) 2,2-dichloropropane	9.402	77	148866	42.52	ug/L		98
40) cis-1,2-dichloroethene	9.381	96	127497	48.13	ug/L		96
41) propionitrile	9.470	54	168092	497.87	ug/L		99
42) tert-Butyl Formate	9.926	59	79183	33.88	ug/L		98
43) bromochloromethane	9.758	128	64098	48.26	ug/L		93
44) tetrahydrofuran	9.826	72	13636	49.22	ug/L		89
45) chloroform	9.842	83	201667	47.53	ug/L		98
47) methacrylonitrile	9.711	67	43567	50.08	ug/L		99
48) 1,1,1-trichloroethane	10.178	97	178577	45.56	ug/L		95
49) cyclohexane	10.277	84	169347	51.99	ug/L		99
50) 1,1-dichloropropene	10.403	75	151516	46.77	ug/L		98
51) isobutyl alcohol	10.429	43	48293	477.55	ug/L		98
52) carbon tetrachloride	10.429	117	161930	47.07	ug/L		98
53) tert-amyl alcohol	10.602	73	28623	252.93	ug/L		93
56) benzene	10.733	78	449117	47.63	ug/L		99
57) iso-octane	10.807	57	466663	49.22	ug/L		97
58) tert-amyl methyl ether	10.833	73	343933	48.68	ug/L		99
59) heptane	11.032	57	90770	52.92	ug/L		97
60) isopropyl acetate	10.707	87	22093	51.14	ug/L	#	87
61) 1,2-dichloroethane	10.739	62	154170	46.90	ug/L		99
62) n-butyl alcohol	11.410	56	148625	2592.68	ug/L		98
63) ethyl acrylate	11.729	55	141133	51.02	ug/L		99
64) trichloroethene	11.667	130	120103	47.23	ug/L		96
65) 2-nitropropane	12.710	41	21957	46.85	ug/L		90
66) 2-chloroethyl vinyl ether	12.773	63	395324	259.55	ug/L		99
67) methyl methacrylate	12.081	69	75235	51.41	ug/L		97
68) 1,2-dichloropropane	12.018	63	118156	46.73	ug/L		99
69) dibromomethane	12.201	93	74599	50.18	ug/L		97
70) methylcyclohexane	11.986	83	200519	47.75	ug/L		92
71) bromodichloromethane	12.390	83	154828	47.51	ug/L		97
72) epichlorohydrin	12.899	57	54703	252.22	ug/L		98
73) cis-1,3-dichloropropene	13.035	75	199142	48.04	ug/L		97
74) 4-methyl-2-pentanone	13.208	58	173311	201.51	ug/L		98
75) 3-methyl-1-butanol	13.234	55	101138	1015.62	ug/L		95
78) toluene	13.538	92	286393	47.44	ug/L		99
79) trans-1,3-dichloropropene	13.800	75	171812	46.34	ug/L		99
80) ethyl methacrylate	13.863	69	146982	47.64	ug/L		100
81) 1,1,2-trichloroethane	14.078	83	89462	48.18	ug/L		99
83) 1,3-dichloropropane	14.325	76	179988	49.23	ug/L		98
84) 2-hexanone	14.372	58	164232	198.71	ug/L		100
85) butyl acetate	14.508	56	77169	51.16	ug/L		97
86) dibromochloromethane	14.660	129	131305	50.72	ug/L		100
87) 1,2-dibromoethane	14.854	107	123439	48.92	ug/L		99
88) n-butyl ether	15.504	57	538744	47.27	ug/L		98
89) chlorobenzene	15.499	112	342555	47.90	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.583	131	133053	49.62	ug/L		98
91) ethylbenzene	15.609	91	575567	48.06	ug/L		99
92) m,p-xylene	15.756	91	894777	96.05	ug/L		100
93) o-xylene	16.296	106	227326	48.35	ug/L		96
94) styrene	16.307	104	392569	49.54	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

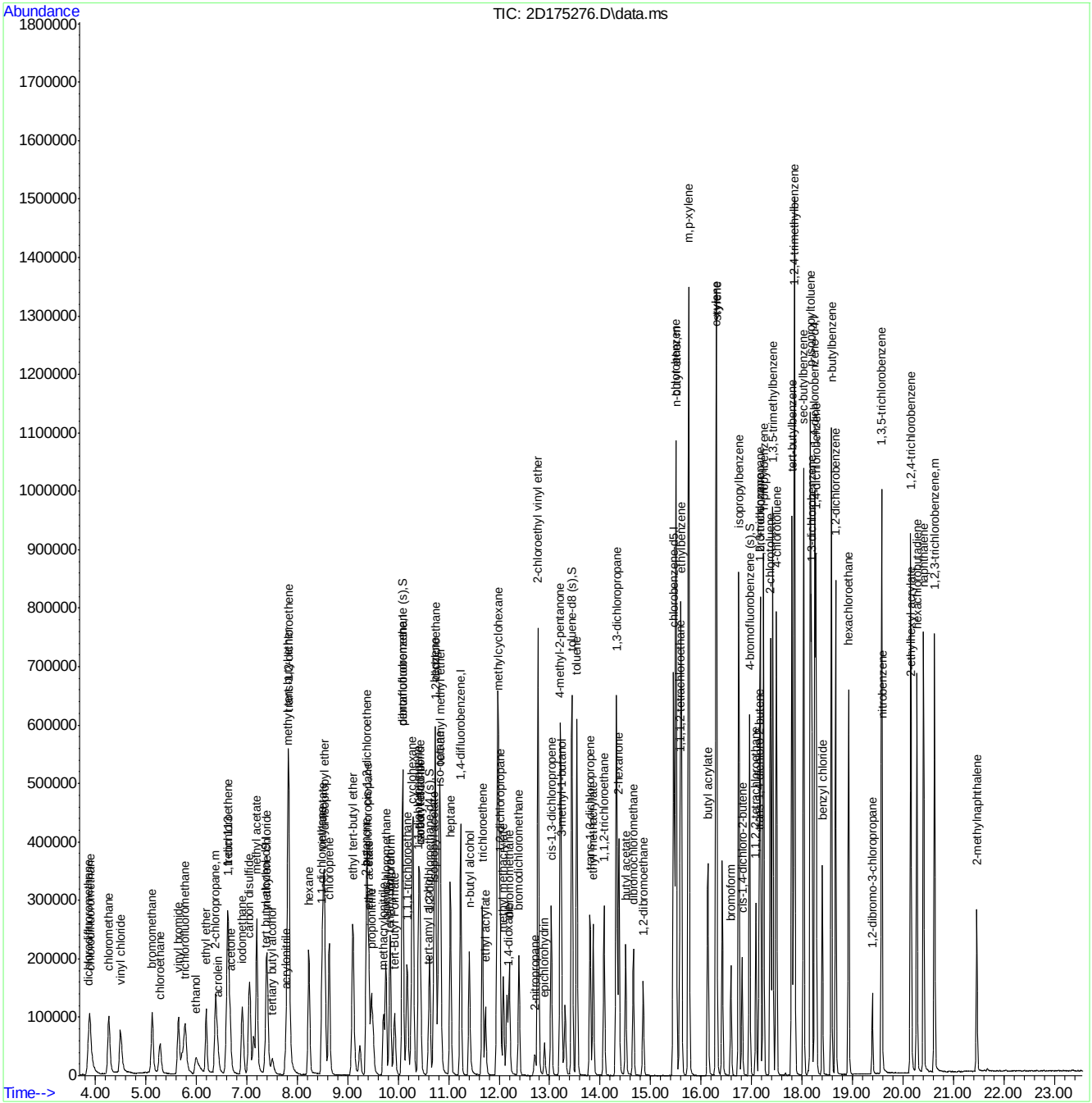
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	butyl acrylate	16.134	55	256414	50.93	ug/L		99
96)	bromoform	16.590	173	96728	54.09	ug/L		99
97)	isopropylbenzene	16.747	105	601627	47.83	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.815	88	50626	49.94	ug/L		99
101)	bromobenzene	17.172	156	172652	48.07	ug/L		96
102)	1,1,2,2-tetrachloroethane	17.088	83	152461	47.16	ug/L		98
103)	trans-1,4-dichloro-2-b...	17.151	53	39052	52.60	ug/L		90
104)	1,2,3-trichloropropane	17.166	110	39780	48.34	ug/L	#	90
105)	n-propylbenzene	17.240	91	711863	47.74	ug/L		99
106)	2-chlorotoluene	17.376	126	151888	47.70	ug/L		93
107)	4-chlorotoluene	17.492	91	436607	48.68	ug/L		100
109)	1,3,5-trimethylbenzene	17.418	105	517600	47.13	ug/L		99
110)	tert-butylbenzene	17.801	119	463590	47.58	ug/L		98
111)	1,2,4-trimethylbenzene	17.848	105	546879	48.79	ug/L		99
112)	sec-butylbenzene	18.032	105	697227	47.90	ug/L		98
113)	1,3-dichlorobenzene	18.194	146	323647	47.58	ug/L		99
114)	p-isopropyltoluene	18.168	119	606423	47.96	ug/L		100
115)	1,4-dichlorobenzene	18.278	146	330399	48.00	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	328779	48.17	ug/L		99
117)	benzyl chloride	18.404	91	240025	38.98	ug/L		99
119)	n-butylbenzene	18.582	92	306308	48.29	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.395	157	39131	49.48	ug/L		97
122)	nitrobenzene	19.589	77	4243	42.25	ug/L		93
123)	1,3,5-trichlorobenzene	19.578	180	320005	50.16	ug/L		99
124)	hexachlorobutadiene	20.276	225	149618	47.93	ug/L		98
125)	naphthalene	20.407	128	586737	53.01	ug/L		99
126)	2-ethylhexyl acrylate	20.166	70	33641	10.62	ug/L		98
127)	1,2,4-trichlorobenzene	20.155	180	281461	51.92	ug/L		98
128)	1,2,3-trichlorobenzene	20.627	180	255694	51.21	ug/L		99
129)	hexachloroethane	18.923	201	116002	52.83	ug/L		100
130)	2-methylnaphthalene	21.466	142	144276	24.30	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175277.D
Acq On : 3 May 2018 10:21 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 04 11:25:07 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

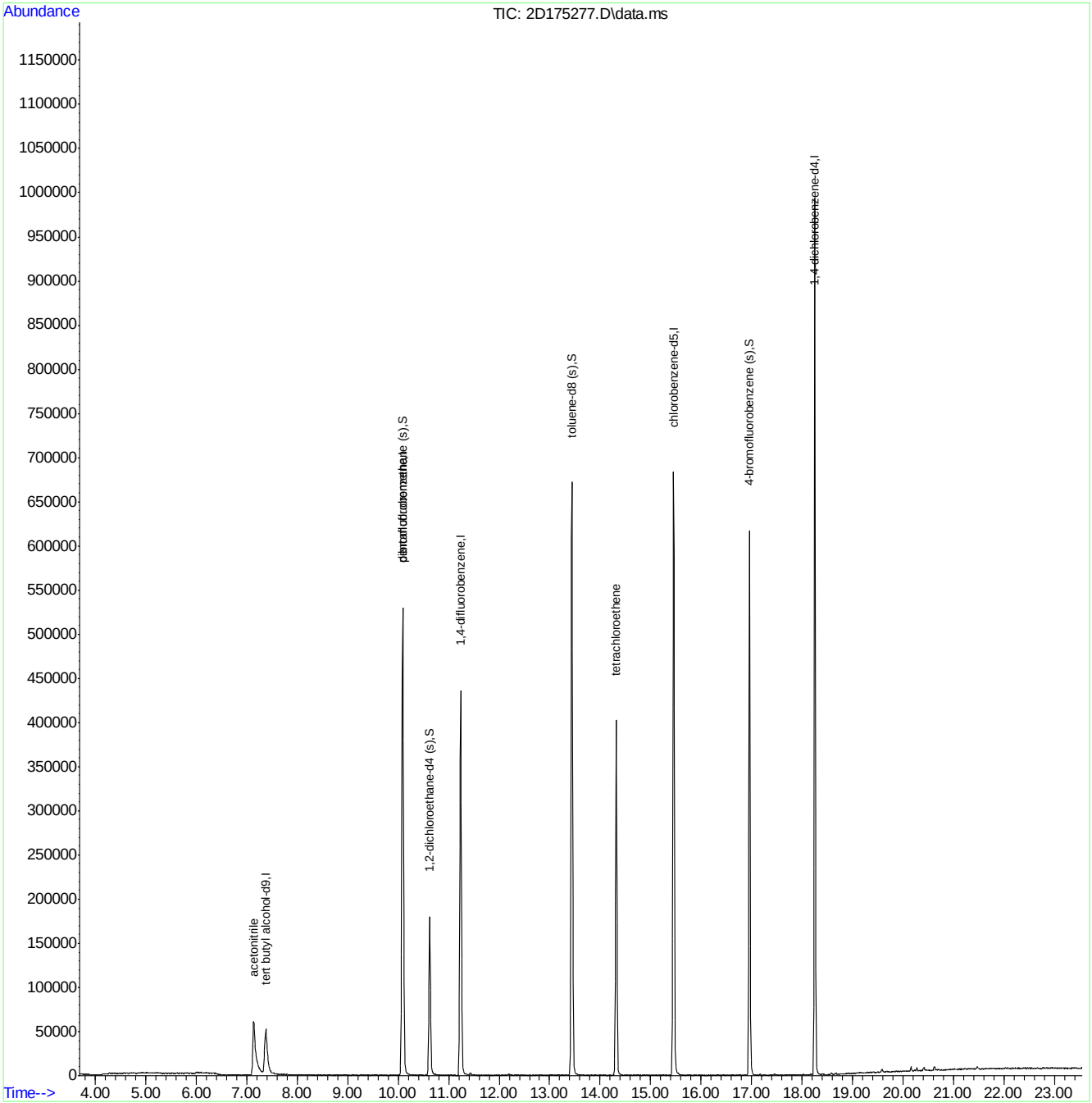
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	118596	500.00	ug/L	-0.01
5) pentafluorobenzene	10.089	168	317037	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	437486	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	433295	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	251974	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	136542	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	146204	48.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.30%			
77) toluene-d8 (s)	13.439	98	508279	50.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.90%			
100) 4-bromofluorobenzene (s)	16.957	95	204587	50.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.22%			
Target Compounds						Qvalue
23) acetonitrile	7.137	41	140953	496.38	ug/L	96
82) tetrachloroethene	14.320	164	112612	49.10	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175277.D
Acq On : 3 May 2018 10:21 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 04 11:25:07 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175667.d
Acq On : 19 May 2018 9:36 am
Operator : oyinadei
Sample : cc7390-20 Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:50:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.352	65	89172	500.00	ug/L	-0.04
5) pentafluorobenzene	10.068	168	248621	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	11.216	114	338053	50.00	ug/L	-0.02
76) chlorobenzene-d5	15.442	117	351606	50.00	ug/L	-0.02
99) 1,4-dichlorobenzene-d4	18.241	152	228051	50.00	ug/L	-0.02
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.068	113	115162	53.77	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.54%			
55) 1,2-dichloroethane-d4 (s)	10.602	65	126902	54.65	ug/L	-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.30%			
77) toluene-d8 (s)	13.423	98	398131	48.69	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.38%			
100) 4-bromofluorobenzene (s)	16.946	95	175092	47.85	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.70%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.488	59	16877	99.89	ug/L	96
3) ethanol	5.983	45	32860	2091.11	ug/L	91
4) 1,4-dioxane	12.154	88	8215	491.52	ug/L	93
6) chlorodifluoromethane	3.881	51	46685	19.92	ug/L	94
7) dichlorodifluoromethane	3.855	85	71337	25.81	ug/L	99
10) chloromethane	4.258	50	63070	20.19	ug/L	99
11) vinyl chloride	4.484	62	54380	19.80	ug/L	99
12) bromomethane	5.113	94	39277	20.35	ug/L	98
13) chloroethane	5.270	64	27977	19.42	ug/L	98
14) trichlorofluoromethane	5.763	101	74490	23.99	ug/L	94
15) vinyl bromide	5.632	106	36368	17.67	ug/L	92
17) ethyl ether	6.182	74	17032	17.64	ug/L	98
18) acrolein	6.424	56	6590	16.65	ug/L	96
19) 1,1-dichloroethene	6.612	96	35934	19.18	ug/L	94
20) freon 113	6.612	151	32986	20.97	ug/L	96
21) 2-chloropropane	6.366	43	63785	20.26	ug/L	99
22) acetone	6.665	58	9913	74.58	ug/L	95
23) acetonitrile	7.116	41	43392	194.86	ug/L	95
24) iodomethane	6.890	142	62460	19.67	ug/L	90
25) carbon disulfide	7.027	76	111915	18.64	ug/L	100
26) methylene chloride	7.378	84	39942	19.27	ug/L	99
27) methyl acetate	7.179	43	26052	19.76	ug/L	97
28) methyl tert butyl ether	7.797	73	102820	18.87	ug/L	100
29) trans-1,2-dichloroethene	7.813	96	37201	19.58	ug/L	98
30) hexane	8.206	57	47255	19.03	ug/L	96
31) di-isopropyl ether	8.516	45	122944	18.83	ug/L	96
32) 2-butanone	9.344	72	13048	75.90	ug/L	97
33) 1,1-dichloroethane	8.474	63	68910	19.51	ug/L	98
34) chloroprene	8.615	53	54921	19.54	ug/L	96
35) acrylonitrile	7.750	53	11821	18.52	ug/L	93
36) vinyl acetate	8.489	86	4870	15.86	ug/L #	81
37) ethyl tert-butyl ether	9.082	59	117912	19.28	ug/L	99
38) ethyl acetate	9.402	45	4304	18.44	ug/L	91
39) 2,2-dichloropropane	9.391	77	63004	22.41	ug/L	97
40) cis-1,2-dichloroethene	9.365	96	41345	19.44	ug/L	97
41) propionitrile	9.449	54	48417	178.58	ug/L	98
42) tert-Butyl Formate	9.910	59	35387	18.85	ug/L	99
43) bromochloromethane	9.737	128	20977	19.67	ug/L	91
44) tetrahydrofuran	9.821	72	3900	17.53	ug/L #	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175667.d
Acq On : 19 May 2018 9:36 am
Operator : oyinadei
Sample : cc7390-20 Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:50:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.821	83	69812	20.49	ug/L		97
47) methacrylonitrile	9.690	67	12376	17.72	ug/L		90
48) 1,1,1-trichloroethane	10.157	97	67651	21.49	ug/L		99
49) cyclohexane	10.262	84	53225	20.35	ug/L		86
50) 1,1-dichloropropene	10.387	75	49372	18.98	ug/L		98
51) isobutyl alcohol	10.414	43	14402	177.34	ug/L		91
52) carbon tetrachloride	10.414	117	60872	22.03	ug/L		96
53) tert-amyl alcohol	10.587	73	8316	91.51	ug/L		96
56) benzene	10.718	78	143628	19.06	ug/L		99
57) iso-octane	10.791	57	149824	19.78	ug/L		98
58) tert-amyl methyl ether	10.812	73	110555	19.58	ug/L		98
59) heptane	11.017	57	26136	19.07	ug/L		97
60) isopropyl acetate	10.686	87	6063	17.57	ug/L	#	83
61) 1,2-dichloroethane	10.718	62	53095	20.21	ug/L		99
62) n-butyl alcohol	11.389	56	40264	879.12	ug/L		99
63) ethyl acrylate	11.709	55	36928	16.71	ug/L		98
64) trichloroethene	11.651	130	39218	19.30	ug/L		99
65) 2-nitropropane	12.689	41	7449	19.89	ug/L		94
66) 2-chloroethyl vinyl ether	12.752	63	106307	87.36	ug/L		97
67) methyl methacrylate	12.065	69	20467	17.51	ug/L		91
68) 1,2-dichloropropane	11.997	63	37882	18.75	ug/L		98
69) dibromomethane	12.180	93	23636	19.90	ug/L		96
70) methylcyclohexane	11.966	83	68208	20.33	ug/L		97
71) bromodichloromethane	12.374	83	53164	20.42	ug/L		98
72) epichlorohydrin	12.878	57	15573	89.87	ug/L		97
73) cis-1,3-dichloropropene	13.014	75	60821	18.36	ug/L		98
74) 4-methyl-2-pentanone	13.192	58	48175	70.11	ug/L		92
75) 3-methyl-1-butanol	13.213	55	28592	359.36	ug/L		91
78) toluene	13.517	92	89405	18.04	ug/L		96
79) trans-1,3-dichloropropene	13.785	75	56688	18.62	ug/L		99
80) ethyl methacrylate	13.848	69	42717	16.87	ug/L		96
81) 1,1,2-trichloroethane	14.063	83	27719	18.18	ug/L		97
82) tetrachloroethene	14.304	164	36016	19.35	ug/L		98
83) 1,3-dichloropropane	14.309	76	54243	18.07	ug/L		99
84) 2-hexanone	14.356	58	46385	68.37	ug/L		94
85) butyl acetate	14.493	56	21097	17.04	ug/L		99
86) dibromochloromethane	14.639	129	42442	19.97	ug/L		97
87) 1,2-dibromoethane	14.839	107	38387	18.53	ug/L		97
88) n-butyl ether	15.489	57	166403	17.79	ug/L		99
89) chlorobenzene	15.484	112	110256	18.78	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.567	131	44541	20.24	ug/L		96
91) ethylbenzene	15.594	91	188744	19.20	ug/L		99
92) m,p-xylene	15.741	91	293312	38.35	ug/L		100
93) o-xylene	16.281	106	73711	19.10	ug/L		95
94) styrene	16.291	104	125528	19.30	ug/L		98
95) butyl acrylate	16.118	55	71064	17.19	ug/L		99
96) bromoform	16.579	173	31961	21.77	ug/L		97
97) isopropylbenzene	16.731	105	199423	19.31	ug/L		100
98) cis-1,4-dichloro-2-butene	16.800	88	14145	17.00	ug/L		97
101) bromobenzene	17.161	156	58442	18.16	ug/L		93
102) 1,1,2,2-tetrachloroethane	17.072	83	49572	17.11	ug/L		99
103) trans-1,4-dichloro-2-b...	17.135	53	10428	15.68	ug/L		94
104) 1,2,3-trichloropropane	17.156	110	13764	18.67	ug/L	#	82
105) n-propylbenzene	17.224	91	245082	18.34	ug/L		97
106) 2-chlorotoluene	17.361	126	52108	18.26	ug/L		95
107) 4-chlorotoluene	17.476	91	149605	18.61	ug/L		98
109) 1,3,5-trimethylbenzene	17.408	105	175983	17.88	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175667.d
Acq On : 19 May 2018 9:36 am
Operator : oyinadei
Sample : cc7390-20 Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:50:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

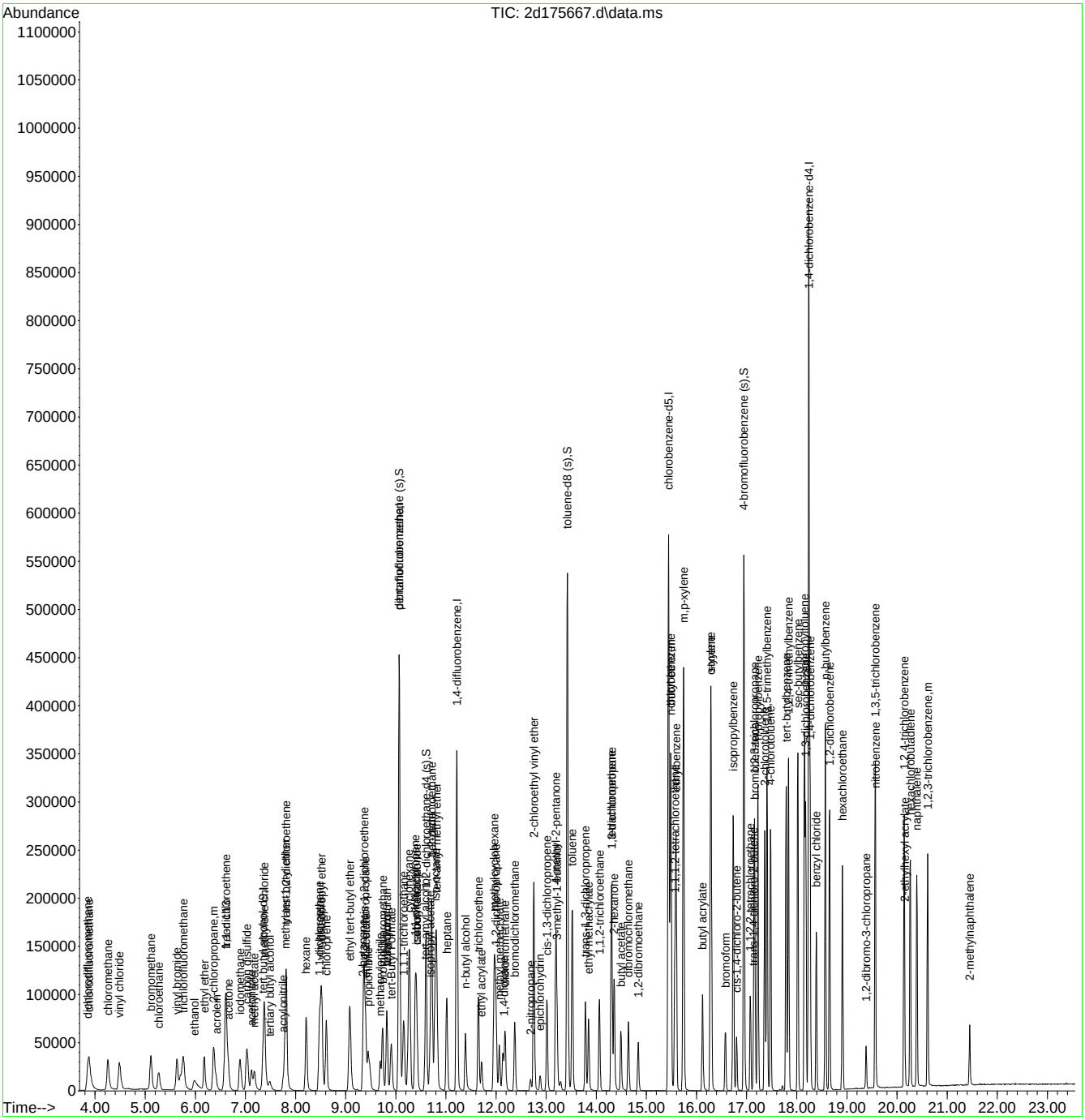
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.791	119	153285	17.56	ug/L	99
111) 1,2,4-trimethylbenzene	17.838	105	184800	18.40	ug/L	98
112) sec-butylbenzene	18.021	105	234730	18.00	ug/L	99
113) 1,3-dichlorobenzene	18.179	146	114658	18.81	ug/L	99
114) p-isopropyltoluene	18.152	119	203888	18.00	ug/L	99
115) 1,4-dichlorobenzene	18.268	146	117426	19.04	ug/L	97
116) 1,2-dichlorobenzene	18.656	146	116852	19.11	ug/L	98
117) benzyl chloride	18.388	91	111386	20.19	ug/L	97
119) n-butylbenzene	18.572	92	105843	18.62	ug/L	98
121) 1,2-dibromo-3-chloropr...	19.384	157	12644	17.84	ug/L	95
122) nitrobenzene	19.573	77	1951	21.68	ug/L	82
123) 1,3,5-trichlorobenzene	19.568	180	109217	19.11	ug/L	98
124) hexachlorobutadiene	20.265	225	51456	18.40	ug/L	98
125) naphthalene	20.396	128	166446	16.78	ug/L	99
126) 2-ethylhexyl acrylate	20.155	70	7577	2.67	ug/L	92
127) 1,2,4-trichlorobenzene	20.145	180	86840	17.88	ug/L	100
128) 1,2,3-trichlorobenzene	20.611	180	77988	17.43	ug/L	100
129) hexachloroethane	18.913	201	40424	20.55	ug/L	97
130) 2-methylnaphthalene	21.450	142	29556	5.56	ug/L	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-22-18\v2d7409\
Data File : 2d175667.d
Acq On : 19 May 2018 9:36 am
Operator : oyinadei
Sample : cc7390-20 Inst : MS2D
Misc : MS26424,V2D7409,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: May 22 02:50:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221527.D
Acq On : 19 Mar 2018 5:24 pm
Operator : RobertS
Sample : IC8199-0.2
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 22 09:21:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.415	65	80885	500.00	ug/L		0.00
5) pentafluorobenzene	11.128	168	238608	50.00	ug/L		0.00
53) 1,4-difluorobenzene	12.090	114	387030	50.00	ug/L		0.00
75) chlorobenzene-d5	15.107	117	347054	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.146	152	161874	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	11.149	113	100305	48.45	ug/L		0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 96.90%				
54) 1,2-dichloroethane-d4 (s)	11.594	65	114022	49.55	ug/L		0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 99.10%				
76) toluene-d8 (s)	13.685	98	454516	50.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.50%				
99) 4-bromofluorobenzene (s)	16.147	174	116856	51.87	ug/L		0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 103.74%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.348	51	572	0.18	ug/L		66
9) vinyl chloride	5.001	62	722	0.16	ug/L	#	49
16) 2-chloropropane	7.312	43	1008	0.21	ug/L	#	73
19) 1,1-dichloroethene	7.558	61	806	0.20	ug/L		87
23) carbon disulfide	8.039	76	1254	0.15	ug/L		78
26) methyl tert butyl ether	8.933	73	779	0.12	ug/L		51
27) trans-1,2-dichloroethene	8.969	61	749	0.19	ug/L	#	62
28) hexane	9.408	57	985	0.24	ug/L		80
29) di-isopropyl ether	9.675	45	1617	0.17	ug/L		90
30) ethyl tert-butyl ether	10.214	59	1578	0.19	ug/L		90
31) 1,1-dichloroethane	9.680	63	974	0.20	ug/L		89
32) chloroprene	9.795	53	677	0.16	ug/L		56
37) 2,2-dichloropropane	10.543	77	613	0.15	ug/L	#	42
38) cis-1,2-dichloroethene	10.501	96	464	0.17	ug/L	#	70
43) chloroform	10.940	83	1046	0.24	ug/L		80
47) cyclohexane	11.311	84	820	0.21	ug/L	#	52
48) 1,1,1-trichloroethane	11.202	97	710	0.19	ug/L	#	18
49) 1,1-dichloropropene	11.395	75	653	0.18	ug/L	#	63
50) carbon tetrachloride	11.405	117	529	0.18	ug/L	#	77
56) 2,2,4-trimethylpentane	11.745	57	2620	0.22	ug/L		97
57) tert-amyl methyl ether	11.740	73	1449	0.20	ug/L		85
58) benzene	11.646	78	2259	0.22	ug/L		89
59) heptane	11.923	57	554	0.23	ug/L	#	78
63) trichloroethene	12.399	95	459	0.18	ug/L		84
66) methylcyclohexane	12.676	83	977	0.19	ug/L		95
68) 1,2-dichloropropane	12.692	63	476	0.17	ug/L		79
70) bromodichloromethane	12.943	83	630	0.20	ug/L		84
72) cis-1,3-dichloropropene	13.403	75	686	0.17	ug/L	#	65
77) toluene	13.758	92	1372	0.22	ug/L		96
80) 1,1,2-trichloroethane	14.161	83	240	0.15	ug/L		93
82) tetrachloroethene	14.276	166	470	0.21	ug/L	#	71
83) 1,3-dichloropropane	14.328	76	616	0.19	ug/L		84
86) 1,2-dibromoethane	14.694	107	276	0.16	ug/L		81
87) n-butyl ether	15.091	57	2456	0.20	ug/L	#	37
88) chlorobenzene	15.138	112	1378	0.22	ug/L		93
89) 1,1,1,2-tetrachloroethane	15.196	131	353	0.16	ug/L	#	78
90) ethylbenzene	15.191	91	2649	0.22	ug/L		88
91) m,p-xylene	15.295	106	1853	0.41	ug/L		82
92) o-xylene	15.656	91	1826	0.18	ug/L		92
93) styrene	15.666	104	1151	0.15	ug/L		92
96) isopropylbenzene	15.970	105	2563	0.22	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221527.D
Acq On : 19 Mar 2018 5:24 pm
Operator : RobertS
Sample : IC8199-0.2
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 22 09:21:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

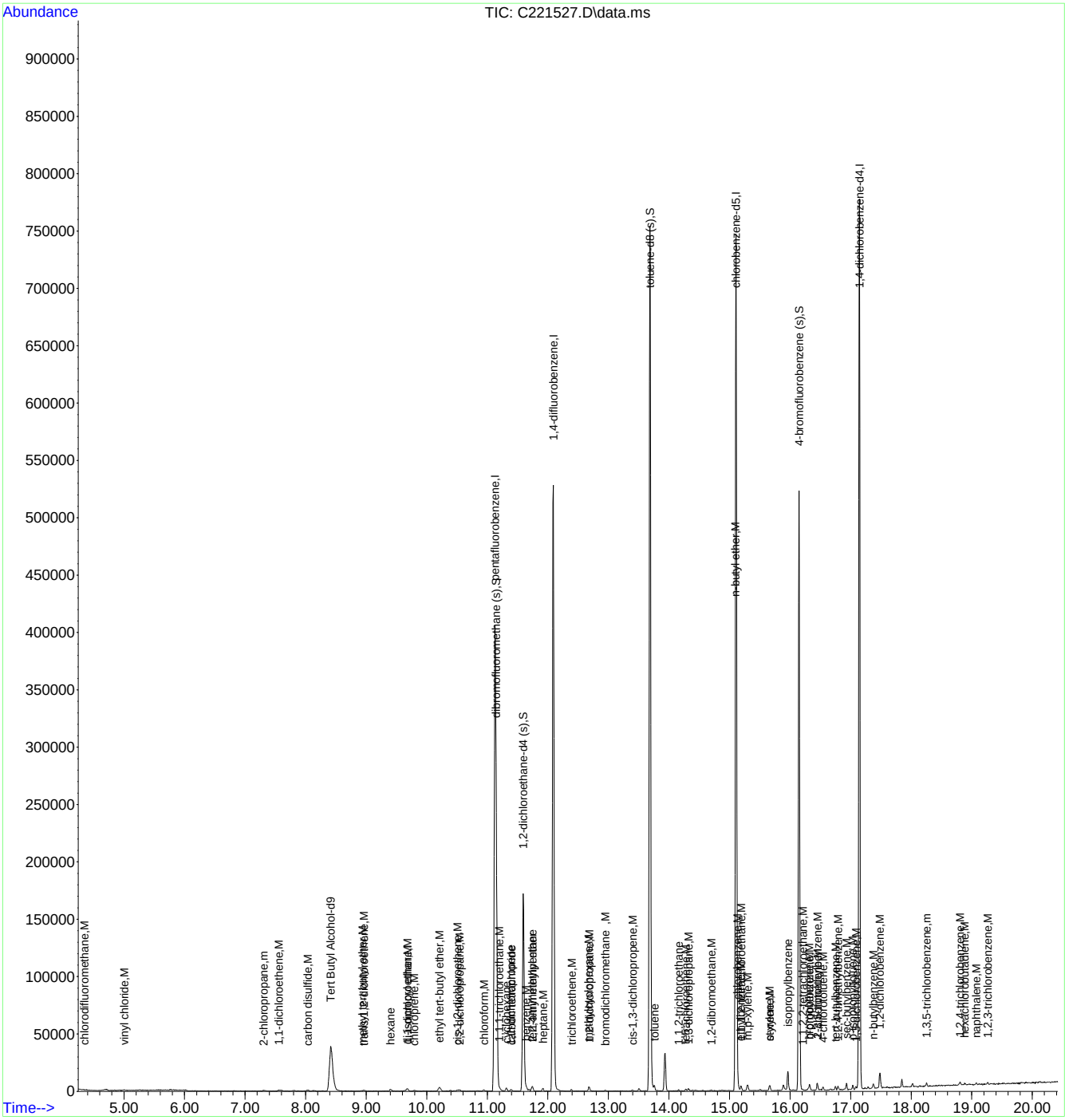
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) bromobenzene	16.315	156	487	0.20 ug/L #	80
101) 1,1,2,2-tetrachloroethane	16.215	83	473	0.22 ug/L	68
104) n-propylbenzene	16.325	91	3021	0.22 ug/L	91
105) 2-chlorotoluene	16.451	126	450	0.17 ug/L	90
106) 4-chlorotoluene	16.550	91	1738	0.22 ug/L	97
107) 1,3,5-trimethylbenzene	16.451	105	1970	0.20 ug/L	89
108) tert-butylbenzene	16.749	134	320	0.16 ug/L #	68
109) 1,2,4-trimethylbenzene	16.790	105	1993	0.21 ug/L	88
110) sec-butylbenzene	16.931	105	2806	0.22 ug/L	97
111) 1,3-dichlorobenzene	17.088	146	969	0.20 ug/L	94
112) p-isopropyltoluene	17.036	119	2192	0.21 ug/L	94
115) 1,2-dichlorobenzene	17.475	146	1107	0.24 ug/L	93
116) n-butylbenzene	17.381	92	1244	0.22 ug/L	88
119) 1,3,5-trichlorobenzene	18.259	180	973	0.24 ug/L	96
122) 1,2,4-trichlorobenzene	18.803	180	707	0.21 ug/L	80
123) hexachlorobutadiene	18.882	225	290	0.16 ug/L	71
124) naphthalene	19.075	128	1411	0.21 ug/L	68
125) 1,2,3-trichlorobenzene	19.263	180	577	0.19 ug/L	82

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221527.D
Acq On : 19 Mar 2018 5:24 pm
Operator : RobertS
Sample : IC8199-0.2
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 22 09:21:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221528.D
Acq On : 19 Mar 2018 5:53 pm
Operator : RobertS
Sample : IC8199-0.5
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 22 09:23:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.415	65	78918	500.00	ug/L		0.00
5) pentafluorobenzene	11.128	168	244235	50.00	ug/L		0.00
53) 1,4-difluorobenzene	12.090	114	397375	50.00	ug/L		0.00
75) chlorobenzene-d5	15.107	117	359217	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.146	152	168014	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	11.149	113	103055	48.63	ug/L		0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 97.26%				
54) 1,2-dichloroethane-d4 (s)	11.593	65	116260	49.20	ug/L		0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 98.40%				
76) toluene-d8 (s)	13.690	98	468982	50.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%				
99) 4-bromofluorobenzene (s)	16.152	174	120336	51.47	ug/L		0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 102.94%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.353	51	1463	0.45	ug/L		66
7) dichlorodifluoromethane	4.332	85	1410	0.42	ug/L	#	49
8) chloromethane	4.708	50	2537	0.56	ug/L		92
9) vinyl chloride	5.001	62	2189	0.49	ug/L		84
11) bromomethane	5.764	94	1150	0.43	ug/L		91
12) chloroethane	5.984	64	940	0.36	ug/L	#	46
13) vinyl bromide	6.407	106	893	0.42	ug/L	#	82
16) 2-chloropropane	7.317	43	2667	0.55	ug/L		95
19) 1,1-dichloroethene	7.552	61	2102	0.50	ug/L		93
22) iodomethane	7.866	142	1043	0.30	ug/L		84
23) carbon disulfide	8.028	76	2940	0.35	ug/L		71
26) methyl tert butyl ether	8.932	73	2160	0.34	ug/L		96
27) trans-1,2-dichloroethene	8.964	61	2029	0.51	ug/L		83
28) hexane	9.408	57	2067	0.50	ug/L		97
29) di-isopropyl ether	9.680	45	4472	0.46	ug/L		95
30) ethyl tert-butyl ether	10.208	59	3743	0.43	ug/L		94
31) 1,1-dichloroethane	9.685	63	2383	0.47	ug/L		85
32) chloroprene	9.790	53	1853	0.43	ug/L		92
37) 2,2-dichloropropane	10.532	77	2074	0.50	ug/L		86
38) cis-1,2-dichloroethene	10.511	96	1371	0.48	ug/L		93
41) bromochloromethane	10.846	128	504	0.47	ug/L	#	68
43) chloroform	10.945	83	2379	0.53	ug/L		87
47) cyclohexane	11.316	84	2001	0.51	ug/L		92
48) 1,1,1-trichloroethane	11.212	97	1723	0.45	ug/L		83
49) 1,1-dichloropropene	11.390	75	1848	0.49	ug/L		94
50) carbon tetrachloride	11.405	117	1394	0.46	ug/L		94
56) 2,2,4-trimethylpentane	11.745	57	5876	0.47	ug/L		97
57) tert-amyl methyl ether	11.740	73	3433	0.47	ug/L		93
58) benzene	11.651	78	5441	0.52	ug/L		94
59) heptane	11.918	57	1290	0.53	ug/L		90
60) 1,2-dichloroethane	11.693	62	1890	0.60	ug/L		85
63) trichloroethene	12.388	95	1229	0.48	ug/L		95
64) 2-chloroethyl vinyl ether	12.686	63	1374	2.35	ug/L		100
66) methylcyclohexane	12.676	83	2625	0.51	ug/L		90
68) 1,2-dichloropropane	12.686	63	1374	0.47	ug/L		94
69) dibromomethane	12.796	93	568	0.45	ug/L		85
70) bromodichloromethane	12.947	83	1456	0.44	ug/L		91
72) cis-1,3-dichloropropene	13.397	75	1928	0.47	ug/L		96
73) 4-methyl-2-pentanone	13.502	58	1130	1.51	ug/L	#	72
77) toluene	13.758	92	3451	0.54	ug/L		94
79) trans-1,3-dichloropropene	13.951	75	1862	0.53	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221528.D
Acq On : 19 Mar 2018 5:53 pm
Operator : RobertS
Sample : IC8199-0.5
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 22 09:23:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

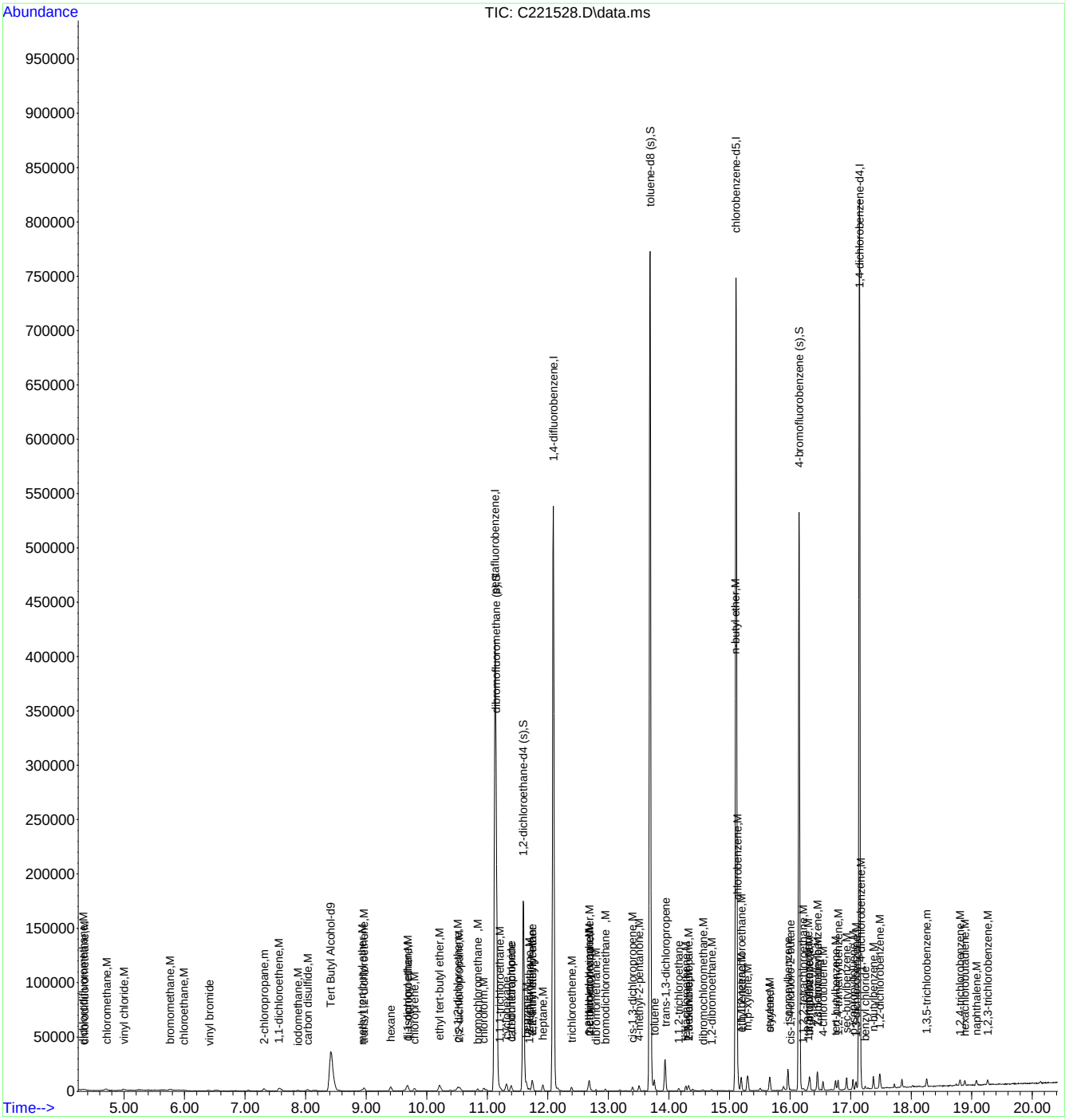
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) 1,1,2-trichloroethane	14.160	83	662	0.41 ug/L	91
81) 2-hexanone	14.317	58	1046	1.39 ug/L	82
82) tetrachloroethene	14.286	166	1190	0.51 ug/L	87
83) 1,3-dichloropropane	14.328	76	1527	0.45 ug/L	95
85) dibromochloromethane	14.563	129	845	0.44 ug/L	74
86) 1,2-dibromoethane	14.704	107	673	0.38 ug/L	93
87) n-butyl ether	15.091	57	5603	0.44 ug/L #	66
88) chlorobenzene	15.133	112	3306	0.50 ug/L	97
89) 1,1,1,2-tetrachloroethane	15.201	131	1037	0.46 ug/L	95
90) ethylbenzene	15.190	91	6298	0.50 ug/L	98
91) m,p-xylene	15.300	106	4413	0.94 ug/L	83
92) o-xylene	15.661	91	4718	0.46 ug/L	81
93) styrene	15.671	104	2991	0.39 ug/L	94
96) isopropylbenzene	15.964	105	5939	0.49 ug/L	97
97) cis-1,4-dichloro-2-butene	16.006	88	308	0.37 ug/L #	70
100) bromobenzene	16.309	156	1218	0.48 ug/L	98
101) 1,1,2,2-tetrachloroethane	16.215	83	1074	0.48 ug/L	86
103) 1,2,3-trichloropropane	16.293	110	268	0.47 ug/L #	76
104) n-propylbenzene	16.325	91	7387	0.51 ug/L	99
105) 2-chlorotoluene	16.445	126	1325	0.48 ug/L	95
106) 4-chlorotoluene	16.544	91	4175	0.51 ug/L	97
107) 1,3,5-trimethylbenzene	16.455	105	4796	0.48 ug/L	91
108) tert-butylbenzene	16.753	134	955	0.47 ug/L #	58
109) 1,2,4-trimethylbenzene	16.790	105	4754	0.48 ug/L	99
110) sec-butylbenzene	16.936	105	6422	0.49 ug/L	98
111) 1,3-dichlorobenzene	17.088	146	2647	0.52 ug/L	93
112) p-isopropyltoluene	17.041	119	5189	0.49 ug/L	95
113) 1,4-dichlorobenzene	17.172	146	3049	0.60 ug/L	94
114) benzyl chloride	17.240	91	1985	0.45 ug/L	94
115) 1,2-dichlorobenzene	17.475	146	2456	0.52 ug/L	83
116) n-butylbenzene	17.376	92	3160	0.54 ug/L	92
119) 1,3,5-trichlorobenzene	18.259	180	2299	0.55 ug/L	97
122) 1,2,4-trichlorobenzene	18.803	180	1798	0.52 ug/L	86
123) hexachlorobutadiene	18.881	225	952	0.50 ug/L	87
124) naphthalene	19.075	128	3401	0.49 ug/L	83
125) 1,2,3-trichlorobenzene	19.258	180	1609	0.51 ug/L	86

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221528.D
Acq On : 19 Mar 2018 5:53 pm
Operator : RobertS
Sample : IC8199-0.5
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 22 09:23:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221529.D
Acq On : 19 Mar 2018 6:23 pm
Operator : RobertS
Sample : IC8199-1
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 22 09:25:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.425	65	78476	500.00	ug/L		0.00
5) pentafluorobenzene	11.128	168	237490	50.00	ug/L		0.00
53) 1,4-difluorobenzene	12.090	114	388543	50.00	ug/L		0.00
75) chlorobenzene-d5	15.112	117	347265	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.146	152	165008	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	11.154	113	101195	49.11	ug/L		0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 98.22%				
54) 1,2-dichloroethane-d4 (s)	11.599	65	114481	49.55	ug/L		0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 99.10%				
76) toluene-d8 (s)	13.690	98	458144	50.62	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.24%				
99) 4-bromofluorobenzene (s)	16.152	174	117423	51.14	ug/L		0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 102.28%				
Target Compounds							Qvalue
2) ethanol	6.805	45	2371	116.16	ug/L		94
3) tertiary butyl alcohol	8.566	59	1135	5.63	ug/L	#	10
4) 1,4-dioxane	12.738	88	370	22.41	ug/L		89
6) chlorodifluoromethane	4.353	51	3186	1.02	ug/L		85
7) dichlorodifluoromethane	4.316	85	2996	0.93	ug/L		80
8) chloromethane	4.703	50	4840	1.09	ug/L		95
9) vinyl chloride	5.006	62	4115	0.94	ug/L		94
11) bromomethane	5.780	94	2346	0.91	ug/L		82
12) chloroethane	6.015	64	2231	0.88	ug/L		95
13) vinyl bromide	6.397	106	1903	0.91	ug/L	#	85
15) ethyl ether	7.061	74	826	0.64	ug/L		95
16) 2-chloropropane	7.312	43	5467	1.16	ug/L		96
18) freon 113	7.599	151	1701	1.11	ug/L	#	77
19) 1,1-dichloroethene	7.563	61	4571	1.13	ug/L		92
20) acetone	7.599	43	3818	4.96	ug/L		86
22) iodomethane	7.871	142	2560	0.75	ug/L		88
23) carbon disulfide	8.038	76	6701	0.81	ug/L		96
24) methylene chloride	8.483	84	2869	1.13	ug/L		88
25) methyl acetate	8.174	43	1270	0.98	ug/L		62
26) methyl tert butyl ether	8.943	73	4694	0.75	ug/L		96
27) trans-1,2-dichloroethene	8.969	61	4350	1.13	ug/L		94
28) hexane	9.413	57	4350	1.08	ug/L		90
29) di-isopropyl ether	9.680	45	9596	1.02	ug/L		95
30) ethyl tert-butyl ether	10.218	59	8518	1.02	ug/L		96
31) 1,1-dichloroethane	9.690	63	5429	1.09	ug/L		91
32) chloroprene	9.805	53	4284	1.02	ug/L		94
35) 2-butanone	10.448	72	763	3.41	ug/L	#	3
37) 2,2-dichloropropane	10.548	77	4253	1.06	ug/L		92
38) cis-1,2-dichloroethene	10.522	96	3148	1.14	ug/L	#	78
40) propionitrile	10.548	54	2691	7.10	ug/L		79
41) bromochloromethane	10.841	128	1057	1.02	ug/L		92
42) tetrahydrofuran	10.861	42	490	0.89	ug/L	#	37
43) chloroform	10.945	83	5017	1.15	ug/L		94
47) cyclohexane	11.306	84	3403	0.90	ug/L		69
48) 1,1,1-trichloroethane	11.207	97	4124	1.11	ug/L		92
49) 1,1-dichloropropene	11.390	75	3855	1.06	ug/L		96
50) carbon tetrachloride	11.405	117	3271	1.11	ug/L		96
51) tert-amyl alcohol	11.552	73	504	5.03	ug/L	#	57
56) 2,2,4-trimethylpentane	11.750	57	13252	1.09	ug/L		98
57) tert-amyl methyl ether	11.745	73	7303	1.02	ug/L		96
58) benzene	11.646	78	11337	1.10	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221529.D
Acq On : 19 Mar 2018 6:23 pm
Operator : RobertS
Sample : IC8199-1
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 22 09:25:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

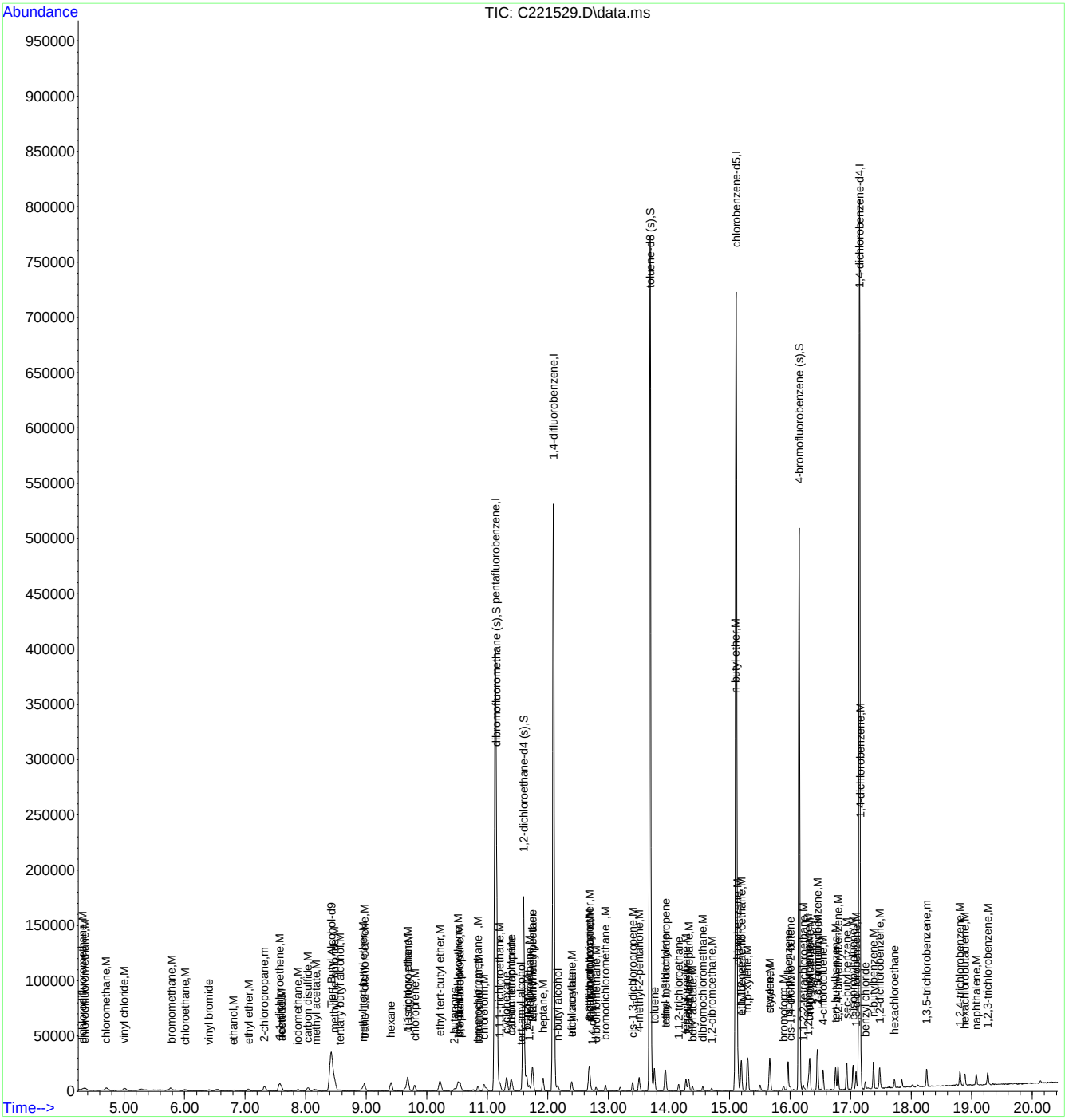
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
59) heptane	11.928	57	2690	1.13	ug/L		81
60) 1,2-dichloroethane	11.693	62	3541	1.16	ug/L		96
61) n-butyl alcohol	12.163	56	2342	42.54	ug/L		86
62) ethyl acrylate	12.404	55	1855	0.80	ug/L	#	78
63) trichloroethene	12.388	95	2711	1.09	ug/L		91
64) 2-chloroethyl vinyl ether	12.691	63	3051	5.34	ug/L		94
66) methylcyclohexane	12.686	83	5507	1.09	ug/L		91
68) 1,2-dichloropropane	12.691	63	3051	1.07	ug/L		97
69) dibromomethane	12.791	93	1300	1.06	ug/L		93
70) bromodichloromethane	12.953	83	3389	1.06	ug/L		92
72) cis-1,3-dichloropropene	13.397	75	3943	0.97	ug/L		94
73) 4-methyl-2-pentanone	13.507	58	2210	3.02	ug/L		99
77) toluene	13.758	92	6839	1.10	ug/L		90
78) ethyl methacrylate	13.941	69	1363	0.52	ug/L		88
79) trans-1,3-dichloropropene	13.951	75	3497	1.02	ug/L		91
80) 1,1,2-trichloroethane	14.160	83	1626	1.05	ug/L		96
81) 2-hexanone	14.317	58	2516	3.46	ug/L		84
82) tetrachloroethene	14.281	166	2619	1.15	ug/L		97
83) 1,3-dichloropropane	14.328	76	3615	1.11	ug/L		98
84) butyl acetate	14.385	56	1090	0.85	ug/L	#	49
85) dibromochloromethane	14.558	129	1841	1.00	ug/L		90
86) 1,2-dibromoethane	14.704	107	1641	0.96	ug/L		99
87) n-butyl ether	15.091	57	12377	1.00	ug/L	#	90
88) chlorobenzene	15.138	112	7307	1.14	ug/L		97
89) 1,1,1,2-tetrachloroethane	15.201	131	2363	1.07	ug/L		81
90) ethylbenzene	15.190	91	13745	1.12	ug/L		95
91) m,p-xylene	15.300	106	9624	2.13	ug/L		92
92) o-xylene	15.661	91	10332	1.04	ug/L		96
93) styrene	15.671	104	6501	0.87	ug/L		86
95) bromoform	15.886	173	969	0.90	ug/L		92
96) isopropylbenzene	15.969	105	12935	1.10	ug/L		96
97) cis-1,4-dichloro-2-butene	16.001	88	671	0.83	ug/L	#	89
100) bromobenzene	16.309	156	2775	1.12	ug/L		90
101) 1,1,2,2-tetrachloroethane	16.215	83	2390	1.08	ug/L		90
103) 1,2,3-trichloropropane	16.293	110	486	0.86	ug/L	#	71
104) n-propylbenzene	16.325	91	16042	1.12	ug/L		98
105) 2-chlorotoluene	16.445	126	3008	1.11	ug/L		88
106) 4-chlorotoluene	16.544	91	9390	1.16	ug/L		95
107) 1,3,5-trimethylbenzene	16.455	105	10425	1.05	ug/L		94
108) tert-butylbenzene	16.753	134	2208	1.11	ug/L	#	87
109) 1,2,4-trimethylbenzene	16.790	105	10584	1.08	ug/L		88
110) sec-butylbenzene	16.936	105	14207	1.11	ug/L		98
111) 1,3-dichlorobenzene	17.088	146	5722	1.15	ug/L		90
112) p-isopropyltoluene	17.041	119	11206	1.08	ug/L		99
113) 1,4-dichlorobenzene	17.166	146	6094	1.22	ug/L		96
114) benzyl chloride	17.245	91	4367	1.02	ug/L		96
115) 1,2-dichlorobenzene	17.480	146	5399	1.16	ug/L		98
116) n-butylbenzene	17.376	92	6104	1.06	ug/L		95
117) hexachloroethane	17.721	201	891	0.61	ug/L		87
119) 1,3,5-trichlorobenzene	18.259	180	4646	1.12	ug/L		92
122) 1,2,4-trichlorobenzene	18.808	180	3820	1.12	ug/L		90
123) hexachlorobutadiene	18.886	225	2140	1.13	ug/L		94
124) naphthalene	19.075	128	6847	1.00	ug/L		95
125) 1,2,3-trichlorobenzene	19.263	180	3388	1.10	ug/L		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221529.D
Acq On : 19 Mar 2018 6:23 pm
Operator : RobertS
Sample : IC8199-1
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 22 09:25:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221530.D
Acq On : 19 Mar 2018 6:52 pm
Operator : RobertS
Sample : IC8199-2
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 22 09:27:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.423	65	78129	500.00	ug/L		0.00
5) pentafluorobenzene	11.131	168	238787	50.00	ug/L		0.00
53) 1,4-difluorobenzene	12.093	114	393471	50.00	ug/L		0.00
75) chlorobenzene-d5	15.110	117	352763	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.144	152	167474	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	11.152	113	102082	49.27	ug/L		0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 98.54%				
54) 1,2-dichloroethane-d4 (s)	11.597	65	116678	49.87	ug/L		0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 99.74%				
76) toluene-d8 (s)	13.688	98	462527	50.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.62%				
99) 4-bromofluorobenzene (s)	16.150	174	118465	50.83	ug/L		0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 101.66%				
Target Compounds							Qvalue
2) ethanol	6.813	45	4273	210.27	ug/L		91
3) tertiary butyl alcohol	8.580	59	2086	10.40	ug/L		70
4) 1,4-dioxane	12.731	88	678	41.24	ug/L		95
6) chlorodifluoromethane	4.372	51	5829	1.85	ug/L		96
7) dichlorodifluoromethane	4.330	85	6131	1.88	ug/L		87
8) chloromethane	4.717	50	9298	2.08	ug/L		97
9) vinyl chloride	5.009	62	8783	1.99	ug/L		95
11) bromomethane	5.762	94	4884	1.88	ug/L		91
12) chloroethane	6.013	64	4598	1.80	ug/L		94
13) vinyl bromide	6.410	106	4094	1.95	ug/L	#	94
14) trichlorofluoromethane	6.525	101	7082	1.93	ug/L		93
15) ethyl ether	7.059	74	1617	1.24	ug/L	#	66
16) 2-chloropropane	7.315	43	9543	2.01	ug/L		92
17) acrolein	7.357	56	492	1.49	ug/L		86
18) freon 113	7.587	151	3095	2.02	ug/L		96
19) 1,1-dichloroethene	7.566	61	8048	1.98	ug/L		94
20) acetone	7.597	43	6428	8.31	ug/L		93
21) acetonitrile	8.141	41	4148	19.15	ug/L	#	88
22) iodomethane	7.874	142	4623	1.35	ug/L		96
23) carbon disulfide	8.036	76	11797	1.42	ug/L		96
24) methylene chloride	8.481	84	5347	2.09	ug/L		85
25) methyl acetate	8.172	43	2354	1.80	ug/L		62
26) methyl tert butyl ether	8.941	73	8098	1.29	ug/L		93
27) trans-1,2-dichloroethene	8.972	61	7588	1.96	ug/L		93
28) hexane	9.411	57	8022	1.98	ug/L		97
29) di-isopropyl ether	9.683	45	17158	1.81	ug/L		93
30) ethyl tert-butyl ether	10.222	59	14758	1.75	ug/L		98
31) 1,1-dichloroethane	9.688	63	9300	1.86	ug/L		98
32) chloroprene	9.798	53	7360	1.74	ug/L		95
33) acrylonitrile	8.873	53	602	0.88	ug/L	#	71
35) 2-butanone	10.457	72	1384	6.16	ug/L	#	59
37) 2,2-dichloropropane	10.546	77	7747	1.93	ug/L		90
38) cis-1,2-dichloroethene	10.514	96	5447	1.96	ug/L		93
40) propionitrile	10.551	54	4452	11.68	ug/L		83
41) bromochloromethane	10.849	128	1930	1.85	ug/L		96
42) tetrahydrofuran	10.865	42	738	1.34	ug/L	#	37
43) chloroform	10.948	83	8476	1.93	ug/L		97
46) methacrylonitrile	10.771	67	792	1.57	ug/L	#	89
47) cyclohexane	11.314	84	7512	1.97	ug/L		95
48) 1,1,1-trichloroethane	11.210	97	7234	1.94	ug/L		93
49) 1,1-dichloropropene	11.393	75	7222	1.98	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221530.D
Acq On : 19 Mar 2018 6:52 pm
Operator : RobertS
Sample : IC8199-2
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 22 09:27:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) carbon tetrachloride	11.408	117	5621	1.89 ug/L	93
51) tert-amyl alcohol	11.550	73	994	9.87 ug/L #	81
55) isopropyl acetate	11.591	87	625	1.54 ug/L #	19
56) 2,2,4-trimethylpentane	11.748	57	23527	1.91 ug/L	99
57) tert-amyl methyl ether	11.743	73	12566	1.73 ug/L	93
58) benzene	11.649	78	20160	1.94 ug/L	97
59) heptane	11.921	57	4623	1.91 ug/L	92
60) 1,2-dichloroethane	11.691	62	6187	1.99 ug/L	95
61) n-butyl alcohol	12.161	56	4075	73.10 ug/L	95
62) ethyl acrylate	12.407	55	3335	1.43 ug/L #	94
63) trichloroethene	12.391	95	4583	1.82 ug/L	95
64) 2-chloroethyl vinyl ether	12.689	63	5270	9.10 ug/L	98
65) 2-nitropropane	13.160	41	636	1.07 ug/L	80
66) methylcyclohexane	12.684	83	9670	1.89 ug/L	96
68) 1,2-dichloropropane	12.689	63	5270	1.82 ug/L	98
69) dibromomethane	12.799	93	2268	1.83 ug/L	98
70) bromodichloromethane	12.951	83	5818	1.79 ug/L	89
72) cis-1,3-dichloropropene	13.400	75	7051	1.72 ug/L	96
73) 4-methyl-2-pentanone	13.505	58	4322	5.83 ug/L	88
77) toluene	13.761	92	12231	1.94 ug/L	94
78) ethyl methacrylate	13.939	69	2619	0.98 ug/L	92
79) trans-1,3-dichloropropene	13.949	75	6290	1.81 ug/L	98
80) 1,1,2-trichloroethane	14.164	83	2778	1.76 ug/L	96
81) 2-hexanone	14.315	58	4350	5.89 ug/L	90
82) tetrachloroethene	14.284	166	4509	1.96 ug/L	96
83) 1,3-dichloropropane	14.326	76	6137	1.85 ug/L	93
84) butyl acetate	14.388	56	2185	1.67 ug/L #	77
85) dibromochloromethane	14.561	129	3134	1.67 ug/L	93
86) 1,2-dibromoethane	14.702	107	3057	1.75 ug/L	95
87) n-butyl ether	15.089	57	22033	1.75 ug/L #	98
88) chlorobenzene	15.141	112	12738	1.96 ug/L	90
89) 1,1,1,2-tetrachloroethane	15.199	131	3999	1.79 ug/L	94
90) ethylbenzene	15.188	91	22953	1.84 ug/L	99
91) m,p-xylene	15.298	106	17068	3.72 ug/L	92
92) o-xylene	15.659	91	18073	1.80 ug/L	97
93) styrene	15.674	104	11670	1.53 ug/L	98
95) bromoform	15.889	173	1706	1.56 ug/L	87
96) isopropylbenzene	15.967	105	22180	1.85 ug/L	97
97) cis-1,4-dichloro-2-butene	16.009	88	1232	1.51 ug/L #	79
100) bromobenzene	16.317	156	4809	1.91 ug/L	87
101) 1,1,2,2-tetrachloroethane	16.213	83	4288	1.91 ug/L	98
102) trans-1,4-dichloro-2-b...	16.239	53	727	1.31 ug/L	84
103) 1,2,3-trichloropropane	16.297	110	1075	1.87 ug/L #	75
104) n-propylbenzene	16.328	91	27764	1.92 ug/L	98
105) 2-chlorotoluene	16.448	126	5220	1.90 ug/L	93
106) 4-chlorotoluene	16.542	91	15847	1.93 ug/L	96
107) 1,3,5-trimethylbenzene	16.453	105	17754	1.77 ug/L	98
108) tert-butylbenzene	16.751	134	3826	1.89 ug/L #	86
109) 1,2,4-trimethylbenzene	16.793	105	17926	1.81 ug/L	93
110) sec-butylbenzene	16.934	105	24222	1.86 ug/L	97
111) 1,3-dichlorobenzene	17.086	146	10061	1.99 ug/L	96
112) p-isopropyltoluene	17.039	119	19703	1.86 ug/L	96
113) 1,4-dichlorobenzene	17.170	146	10247	2.02 ug/L	98
114) benzyl chloride	17.243	91	7619	1.75 ug/L	97
115) 1,2-dichlorobenzene	17.478	146	9082	1.93 ug/L	97
116) n-butylbenzene	17.379	92	11235	1.92 ug/L	93
117) hexachloroethane	17.729	201	1796	1.21 ug/L	83
118) 1,2-dibromo-3-chloropr...	18.111	157	623	1.58 ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221530.D
Acq On : 19 Mar 2018 6:52 pm
Operator : RobertS
Sample : IC8199-2
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 22 09:27:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

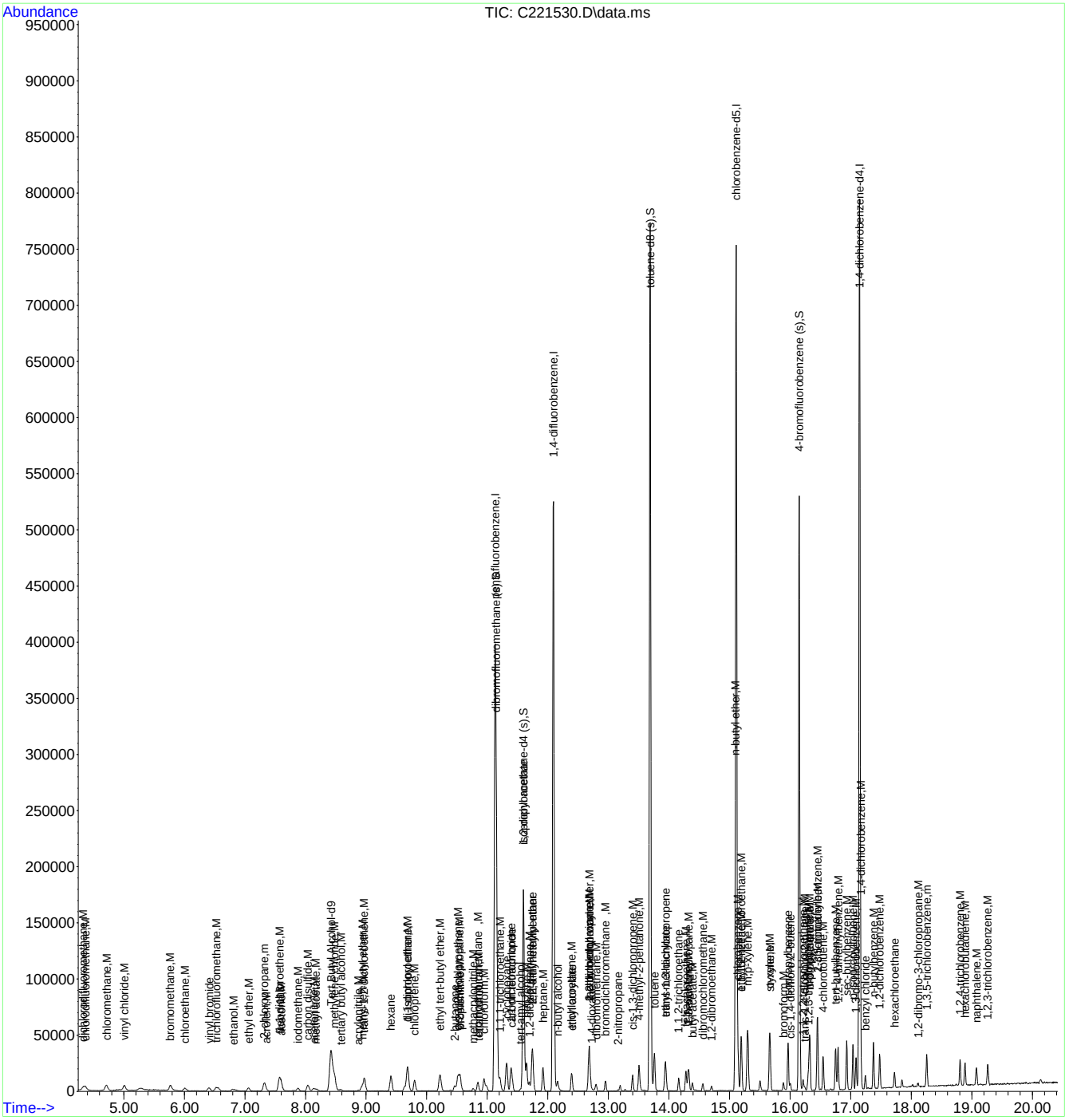
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,3,5-trichlorobenzene	18.257	180	8145	1.94	ug/L	96
122) 1,2,4-trichlorobenzene	18.806	180	6012	1.73	ug/L	90
123) hexachlorobutadiene	18.884	225	3941	2.06	ug/L	75
124) naphthalene	19.078	128	11451	1.64	ug/L	96
125) 1,2,3-trichlorobenzene	19.261	180	5534	1.77	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221530.D
Acq On : 19 Mar 2018 6:52 pm
Operator : RobertS
Sample : IC8199-2
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 22 09:27:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221531.D
Acq On : 19 Mar 2018 7:21 pm
Operator : RobertS
Sample : IC8199-4
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 09:28:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Tert Butyl Alcohol-d9	8.420	65	79006	500.00	ug/L		0.00
5) pentafluorobenzene	11.128	168	237265	50.00	ug/L		0.00
53) 1,4-difluorobenzene	12.090	114	391111	50.00	ug/L		0.00
75) chlorobenzene-d5	15.112	117	349904	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.145	152	165217	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	11.154	113	100344	48.74	ug/L		0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 97.48%				
54) 1,2-dichloroethane-d4 (s)	11.599	65	114142	49.08	ug/L		0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 98.16%				
76) toluene-d8 (s)	13.690	98	461723	50.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.26%				
99) 4-bromofluorobenzene (s)	16.152	174	118442	51.51	ug/L		0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 103.02%				
Target Compounds							Qvalue
2) ethanol	6.789	45	8306	404.19	ug/L		100
3) tertiary butyl alcohol	8.577	59	4091	20.17	ug/L		90
4) 1,4-dioxane	12.733	88	1534	92.27	ug/L		96
6) chlorodifluoromethane	4.363	51	12506	4.00	ug/L		97
7) dichlorodifluoromethane	4.316	85	13832	4.28	ug/L		94
8) chloromethane	4.708	50	18666	4.21	ug/L		94
9) vinyl chloride	5.001	62	18352	4.19	ug/L		98
11) bromomethane	5.759	94	10428	4.04	ug/L		95
12) chloroethane	5.999	64	10228	4.03	ug/L		95
13) vinyl bromide	6.402	106	8495	4.07	ug/L		95
14) trichlorofluoromethane	6.527	101	15506	4.26	ug/L		97
15) ethyl ether	7.061	74	3052	2.35	ug/L		80
16) 2-chloropropane	7.312	43	19142	4.06	ug/L		98
17) acrolein	7.348	56	1137	3.46	ug/L		72
18) freon 113	7.594	151	6251	4.10	ug/L		89
19) 1,1-dichloroethene	7.557	61	16669	4.12	ug/L		97
20) acetone	7.594	43	12766	16.61	ug/L		98
21) acetonitrile	8.127	41	8032	37.31	ug/L		92
22) iodomethane	7.876	142	9266	2.72	ug/L		96
23) carbon disulfide	8.033	76	23687	2.87	ug/L		98
24) methylene chloride	8.477	84	9972	3.93	ug/L		91
25) methyl acetate	8.174	43	5008	3.86	ug/L		89
26) methyl tert butyl ether	8.937	73	15803	2.53	ug/L		94
27) trans-1,2-dichloroethene	8.969	61	15169	3.93	ug/L		99
28) hexane	9.408	57	16329	4.06	ug/L		99
29) di-isopropyl ether	9.680	45	34268	3.63	ug/L		97
30) ethyl tert-butyl ether	10.213	59	29882	3.57	ug/L		98
31) 1,1-dichloroethane	9.690	63	19175	3.87	ug/L		96
32) chloroprene	9.795	53	15353	3.65	ug/L		97
33) acrylonitrile	8.870	53	1583	2.34	ug/L		93
34) vinyl acetate	9.638	86	1069	3.06	ug/L	#	30
35) 2-butanone	10.454	72	3133	14.03	ug/L	#	90
36) ethyl acetate	10.480	45	940	3.26	ug/L		72
37) 2,2-dichloropropane	10.542	77	15687	3.93	ug/L		97
38) cis-1,2-dichloroethene	10.511	96	10802	3.92	ug/L		89
39) methyl acrylate	10.569	85	441	1.69	ug/L	#	34
40) propionitrile	10.553	54	9290	24.53	ug/L		98
41) bromochloromethane	10.840	128	3770	3.63	ug/L		97
42) tetrahydrofuran	10.856	42	1467	2.68	ug/L		89
43) chloroform	10.945	83	16911	3.87	ug/L		98
46) methacrylonitrile	10.767	67	1729	3.44	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221531.D
Acq On : 19 Mar 2018 7:21 pm
Operator : RobertS
Sample : IC8199-4
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 09:28:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) cyclohexane	11.316	84	15696	4.14	ug/L		83
48) 1,1,1-trichloroethane	11.206	97	15095	4.08	ug/L		93
49) 1,1-dichloropropene	11.389	75	14087	3.88	ug/L		99
50) carbon tetrachloride	11.410	117	11647	3.94	ug/L		97
51) tert-amyl alcohol	11.551	73	1663	16.62	ug/L		85
52) isobutyl alcohol	11.389	43	2759	33.19	ug/L		90
55) isopropyl acetate	11.588	87	1268	3.13	ug/L	#	88
56) 2,2,4-trimethylpentane	11.745	57	48698	3.98	ug/L		98
57) tert-amyl methyl ether	11.745	73	25461	3.53	ug/L		94
58) benzene	11.651	78	41318	4.00	ug/L		99
59) heptane	11.917	57	9746	4.05	ug/L		94
60) 1,2-dichloroethane	11.693	62	12103	3.92	ug/L		96
61) n-butyl alcohol	12.158	56	8580	154.83	ug/L		99
62) ethyl acrylate	12.404	55	7338	3.16	ug/L	#	91
63) trichloroethene	12.393	95	9809	3.91	ug/L		96
64) 2-chloroethyl vinyl ether	12.691	63	10683	18.56	ug/L		98
65) 2-nitropropane	13.156	41	1606	2.71	ug/L		95
66) methylcyclohexane	12.681	83	20028	3.94	ug/L		97
67) methyl methacrylate	12.660	100	922	2.06	ug/L	#	92
68) 1,2-dichloropropane	12.691	63	10683	3.71	ug/L		95
69) dibromomethane	12.796	93	4746	3.84	ug/L		87
70) bromodichloromethane	12.953	83	11611	3.59	ug/L		99
71) epichlorohydrin	13.277	57	2730	16.06	ug/L		92
72) cis-1,3-dichloropropene	13.402	75	14861	3.64	ug/L		99
73) 4-methyl-2-pentanone	13.507	58	9462	12.83	ug/L		89
74) 3-methyl-1-butanol	13.512	55	5386	59.75	ug/L		94
77) toluene	13.763	92	24843	3.96	ug/L		96
78) ethyl methacrylate	13.941	69	5623	2.13	ug/L		96
79) trans-1,3-dichloropropene	13.951	75	12905	3.74	ug/L		96
80) 1,1,2-trichloroethane	14.160	83	5787	3.70	ug/L		93
81) 2-hexanone	14.317	58	9621	13.14	ug/L		98
82) tetrachloroethene	14.280	166	9395	4.11	ug/L		96
83) 1,3-dichloropropane	14.328	76	12178	3.70	ug/L		97
84) butyl acetate	14.385	56	4734	3.65	ug/L		100
85) dibromochloromethane	14.558	129	6474	3.48	ug/L		96
86) 1,2-dibromoethane	14.699	107	6182	3.57	ug/L		93
87) n-butyl ether	15.091	57	44470	3.55	ug/L		95
88) chlorobenzene	15.138	112	25733	3.98	ug/L		91
89) 1,1,1,2-tetrachloroethane	15.201	131	8036	3.62	ug/L		96
90) ethylbenzene	15.190	91	48845	3.95	ug/L		98
91) m,p-xylene	15.300	106	35000	7.69	ug/L		99
92) o-xylene	15.661	91	37734	3.78	ug/L		99
93) styrene	15.671	104	24818	3.29	ug/L		99
94) butyl acrylate	15.504	55	12227	2.96	ug/L		98
95) bromoform	15.885	173	3593	3.30	ug/L		97
96) isopropylbenzene	15.964	105	45984	3.87	ug/L		99
97) cis-1,4-dichloro-2-butene	16.006	88	2560	3.16	ug/L		88
100) bromobenzene	16.314	156	9907	3.98	ug/L		92
101) 1,1,2,2-tetrachloroethane	16.215	83	8416	3.79	ug/L		90
102) trans-1,4-dichloro-2-b...	16.241	53	1444	2.64	ug/L		93
103) 1,2,3-trichloropropane	16.293	110	2116	3.74	ug/L		95
104) n-propylbenzene	16.325	91	57984	4.06	ug/L		98
105) 2-chlorotoluene	16.450	126	10889	4.03	ug/L		99
106) 4-chlorotoluene	16.544	91	32177	3.97	ug/L		99
107) 1,3,5-trimethylbenzene	16.455	105	37525	3.79	ug/L		98
108) tert-butylbenzene	16.753	134	7699	3.86	ug/L		95
109) 1,2,4-trimethylbenzene	16.790	105	37534	3.83	ug/L		99
110) sec-butylbenzene	16.936	105	51305	4.00	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221531.D
Acq On : 19 Mar 2018 7:21 pm
Operator : RobertS
Sample : IC8199-4
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 09:28:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

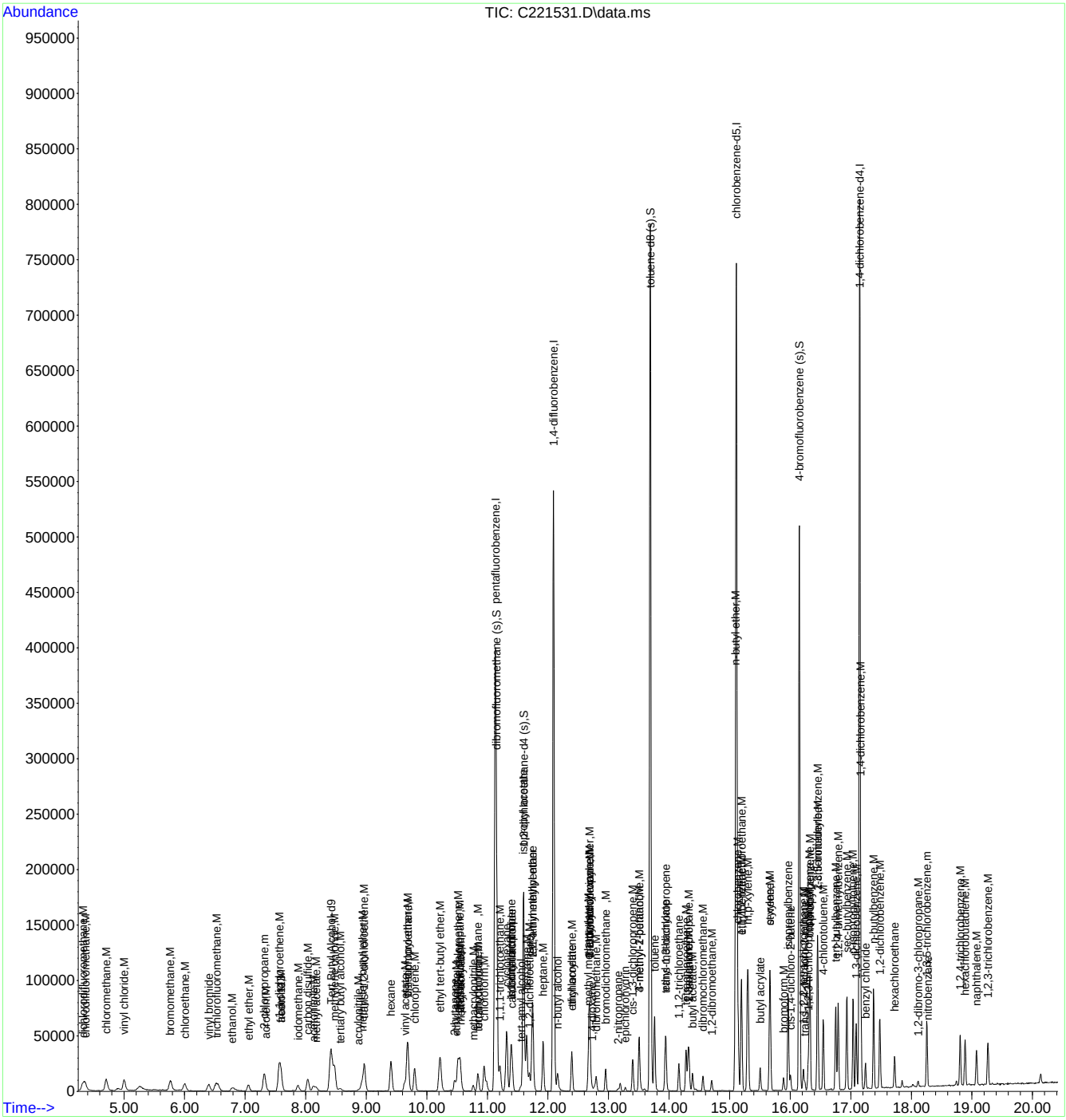
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,3-dichlorobenzene	17.088	146	19921	3.99	ug/L	95
112) p-isopropyltoluene	17.041	119	40139	3.85	ug/L	98
113) 1,4-dichlorobenzene	17.166	146	20252	4.05	ug/L	95
114) benzyl chloride	17.245	91	14735	3.43	ug/L	94
115) 1,2-dichlorobenzene	17.480	146	17806	3.83	ug/L	96
116) n-butylbenzene	17.375	92	22547	3.90	ug/L	99
117) hexachloroethane	17.726	201	3492	2.38	ug/L	88
118) 1,2-dibromo-3-chloropr...	18.113	157	1222	3.14	ug/L	88
119) 1,3,5-trichlorobenzene	18.254	180	16069	3.89	ug/L	99
120) nitrobenzene	18.275	77	178	1.44	ug/L #	24
122) 1,2,4-trichlorobenzene	18.808	180	12866	3.76	ug/L	98
123) hexachlorobutadiene	18.886	225	7649	4.05	ug/L	94
124) naphthalene	19.075	128	22641	3.29	ug/L	99
125) 1,2,3-trichlorobenzene	19.263	180	11110	3.61	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221531.D
Acq On : 19 Mar 2018 7:21 pm
Operator : RobertS
Sample : IC8199-4
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 09:28:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221532.D
Acq On : 19 Mar 2018 7:50 pm
Operator : RobertS
Sample : IC8199-8
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 22 09:29:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.426	65	82704	500.00	ug/L	0.00
5) pentafluorobenzene	11.129	168	240141	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.090	114	396586	50.00	ug/L	0.00
75) chlorobenzene-d5	15.107	117	359981	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.146	152	169949	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.155	113	103447	49.65	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 99.30%			
54) 1,2-dichloroethane-d4 (s)	11.599	65	117461	49.81	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 99.62%			
76) toluene-d8 (s)	13.690	98	470939	50.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%			
99) 4-bromofluorobenzene (s)	16.153	174	121947	51.56	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 103.12%			
Target Compounds						Qvalue
2) ethanol	6.795	45	17889	831.60	ug/L	95
3) tertiary butyl alcohol	8.572	59	9245	43.55	ug/L	98
4) 1,4-dioxane	12.739	88	3294	189.28	ug/L	100
6) chlorodifluoromethane	4.364	51	25930	8.20	ug/L	96
7) dichlorodifluoromethane	4.332	85	28271	8.64	ug/L	93
8) chloromethane	4.719	50	38702	8.62	ug/L	98
9) vinyl chloride	5.012	62	36755	8.30	ug/L	96
11) bromomethane	5.770	94	21226	8.12	ug/L	91
12) chloroethane	6.010	64	20857	8.12	ug/L	99
13) vinyl bromide	6.408	106	17435	8.25	ug/L	98
14) trichlorofluoromethane	6.549	101	31373	8.51	ug/L	91
15) ethyl ether	7.056	74	6852	5.22	ug/L	92
16) 2-chloropropane	7.323	43	39682	8.32	ug/L	98
17) acrolein	7.349	56	2378	7.14	ug/L	94
18) freon 113	7.584	151	13089	8.48	ug/L	97
19) 1,1-dichloroethene	7.563	61	34734	8.48	ug/L	99
20) acetone	7.600	43	25970	33.39	ug/L	90
21) acetonitrile	8.133	41	17651	81.02	ug/L	96
22) iodomethane	7.877	142	19934	5.78	ug/L	95
23) carbon disulfide	8.039	76	50079	6.00	ug/L	96
24) methylene chloride	8.483	84	20782	8.08	ug/L	94
25) methyl acetate	8.175	43	10148	7.73	ug/L	93
26) methyl tert butyl ether	8.938	73	34021	5.38	ug/L	96
27) trans-1,2-dichloroethene	8.975	61	32352	8.29	ug/L	98
28) hexane	9.409	57	34515	8.47	ug/L	96
29) di-isopropyl ether	9.680	45	72641	7.61	ug/L	99
30) ethyl tert-butyl ether	10.224	59	64687	7.63	ug/L	99
31) 1,1-dichloroethane	9.691	63	40264	8.03	ug/L	97
32) chloroprene	9.801	53	32919	7.74	ug/L	98
33) acrylonitrile	8.880	53	3304	4.82	ug/L	95
34) vinyl acetate	9.639	86	2385	6.74	ug/L	75
35) 2-butanone	10.454	72	6575	29.10	ug/L	98
36) ethyl acetate	10.485	45	1915	6.56	ug/L #	90
37) 2,2-dichloropropane	10.548	77	33351	8.25	ug/L	100
38) cis-1,2-dichloroethene	10.517	96	22436	8.04	ug/L	89
39) methyl acrylate	10.574	85	1185	4.48	ug/L #	54
40) propionitrile	10.553	54	20737	54.10	ug/L	96
41) bromochloromethane	10.841	128	8478	8.07	ug/L	98
42) tetrahydrofuran	10.857	42	2999	5.41	ug/L	95
43) chloroform	10.946	83	35409	8.01	ug/L	100
46) methacrylonitrile	10.763	67	3823	7.52	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221532.D
Acq On : 19 Mar 2018 7:50 pm
Operator : RobertS
Sample : IC8199-8
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 22 09:29:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) cyclohexane	11.317	84	31881	8.30	ug/L		93
48) 1,1,1-trichloroethane	11.207	97	31303	8.36	ug/L		98
49) 1,1-dichloropropene	11.390	75	29203	7.95	ug/L		95
50) carbon tetrachloride	11.411	117	24859	8.32	ug/L		98
51) tert-amyl alcohol	11.552	73	3713	36.67	ug/L		95
52) isobutyl alcohol	11.385	43	6121	72.75	ug/L		95
55) isopropyl acetate	11.589	87	3022	7.37	ug/L	#	87
56) 2,2,4-trimethylpentane	11.745	57	101773	8.20	ug/L		99
57) tert-amyl methyl ether	11.745	73	54837	7.50	ug/L		96
58) benzene	11.646	78	86077	8.21	ug/L		98
59) heptane	11.918	57	19711	8.09	ug/L		97
60) 1,2-dichloroethane	11.693	62	24668	7.89	ug/L		99
61) n-butyl alcohol	12.158	56	19071	339.40	ug/L		95
62) ethyl acrylate	12.404	55	16587	7.04	ug/L		98
63) trichloroethene	12.394	95	20553	8.08	ug/L		97
64) 2-chloroethyl vinyl ether	12.692	63	22797	39.06	ug/L		96
65) 2-nitropropane	13.157	41	3147	5.24	ug/L		85
66) methylcyclohexane	12.681	83	42418	8.24	ug/L		97
67) methyl methacrylate	12.666	100	2148	4.74	ug/L	#	70
68) 1,2-dichloropropane	12.692	63	22797	7.81	ug/L		94
69) dibromomethane	12.796	93	9776	7.81	ug/L		98
70) bromodichloromethane	12.953	83	24807	7.57	ug/L		97
71) epichlorohydrin	13.277	57	6463	37.49	ug/L		97
72) cis-1,3-dichloropropene	13.397	75	31250	7.56	ug/L		97
73) 4-methyl-2-pentanone	13.502	58	20502	27.42	ug/L		98
74) 3-methyl-1-butanol	13.507	55	12425	135.93	ug/L		92
77) toluene	13.758	92	52157	8.09	ug/L		95
78) ethyl methacrylate	13.941	69	12416	4.57	ug/L		94
79) trans-1,3-dichloropropene	13.946	75	26832	7.56	ug/L		99
80) 1,1,2-trichloroethane	14.161	83	12150	7.56	ug/L		93
81) 2-hexanone	14.312	58	21612	28.68	ug/L		98
82) tetrachloroethene	14.281	166	18982	8.07	ug/L		99
83) 1,3-dichloropropane	14.328	76	26611	7.87	ug/L		99
84) butyl acetate	14.386	56	9938	7.45	ug/L		93
85) dibromochloromethane	14.558	129	14072	7.36	ug/L		97
86) 1,2-dibromoethane	14.704	107	13509	7.59	ug/L		94
87) n-butyl ether	15.091	57	96444	7.49	ug/L		100
88) chlorobenzene	15.138	112	53790	8.10	ug/L		90
89) 1,1,1,2-tetrachloroethane	15.201	131	17361	7.60	ug/L		89
90) ethylbenzene	15.191	91	100808	7.93	ug/L		100
91) m,p-xylene	15.295	106	73936	15.79	ug/L		94
92) o-xylene	15.661	91	78400	7.63	ug/L		100
93) styrene	15.672	104	54091	6.96	ug/L		98
94) butyl acrylate	15.504	55	26899	6.34	ug/L		99
95) bromoform	15.891	173	7850	7.02	ug/L		96
96) isopropylbenzene	15.964	105	96664	7.90	ug/L		98
97) cis-1,4-dichloro-2-butene	16.001	88	5772	6.92	ug/L		94
100) bromobenzene	16.315	156	21028	8.21	ug/L		98
101) 1,1,2,2-tetrachloroethane	16.215	83	17908	7.85	ug/L		98
102) trans-1,4-dichloro-2-b...	16.242	53	2911	5.18	ug/L		92
103) 1,2,3-trichloropropane	16.294	110	4833	8.31	ug/L		91
104) n-propylbenzene	16.325	91	121367	8.26	ug/L		99
105) 2-chlorotoluene	16.451	126	22310	8.02	ug/L		93
106) 4-chlorotoluene	16.545	91	67506	8.10	ug/L		98
107) 1,3,5-trimethylbenzene	16.456	105	80043	7.85	ug/L		100
108) tert-butylbenzene	16.749	134	16289	7.93	ug/L		93
109) 1,2,4-trimethylbenzene	16.790	105	80727	8.01	ug/L		98
110) sec-butylbenzene	16.932	105	107080	8.12	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221532.D
Acq On : 19 Mar 2018 7:50 pm
Operator : RobertS
Sample : IC8199-8
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 22 09:29:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
111) 1,3-dichlorobenzene	17.088	146	41601	8.10	ug/L		99
112) p-isopropyltoluene	17.036	119	85869	8.00	ug/L		99
113) 1,4-dichlorobenzene	17.167	146	41805	8.12	ug/L		98
114) benzyl chloride	17.240	91	31831	7.21	ug/L		98
115) 1,2-dichlorobenzene	17.481	146	38494	8.06	ug/L		98
116) n-butylbenzene	17.376	92	48077	8.09	ug/L		99
117) hexachloroethane	17.726	201	7685	5.09	ug/L		93
118) 1,2-dibromo-3-chloropr...	18.113	157	2985	7.46	ug/L		92
119) 1,3,5-trichlorobenzene	18.254	180	33888	7.97	ug/L		97
120) nitrobenzene	18.275	77	585	4.60	ug/L	#	87
121) 2-ethylhexyl acrylate	18.741	70	2089	0.91	ug/L	#	83
122) 1,2,4-trichlorobenzene	18.808	180	26663	7.57	ug/L		98
123) hexachlorobutadiene	18.887	225	15866	8.17	ug/L	#	99
124) naphthalene	19.075	128	51973	7.34	ug/L		99
125) 1,2,3-trichlorobenzene	19.263	180	23926	7.56	ug/L		98
126) 2-methylnaphthalene	20.131	142	10712	2.75	ug/L		99

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

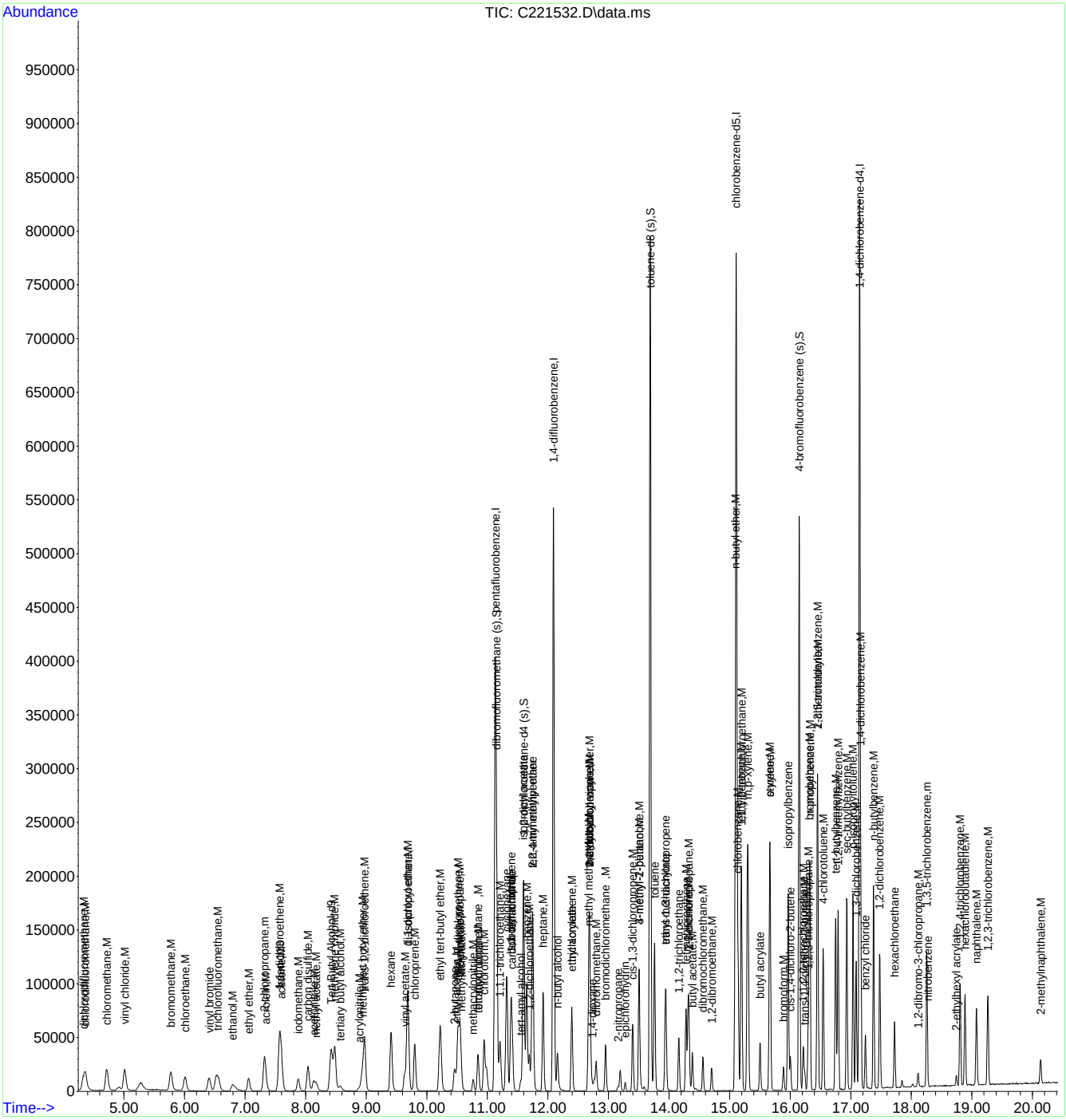
7.7.30

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221532.D
Acq On : 19 Mar 2018 7:50 pm
Operator : RobertS
Sample : IC8199-8
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 22 09:29:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221533.D
Acq On : 19 Mar 2018 8:19 pm
Operator : RobertS
Sample : IC8199-20
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 09:29:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.415	65	85274	500.00	ug/L	0.00
5) pentafluorobenzene	11.129	168	244725	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.091	114	404481	50.00	ug/L	0.00
75) chlorobenzene-d5	15.107	117	367975	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.146	152	175631	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.155	113	106728	50.27	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 100.54%			
54) 1,2-dichloroethane-d4 (s)	11.599	65	120446	50.08	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 100.16%			
76) toluene-d8 (s)	13.690	98	477708	49.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.62%			
99) 4-bromofluorobenzene (s)	16.153	174	125961	51.54	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 103.08%			
Target Compounds						Qvalue
2) ethanol	6.789	45	44986	2028.23	ug/L	97
3) tertiary butyl alcohol	8.572	59	21807	99.62	ug/L	95
4) 1,4-dioxane	12.734	88	8742	487.18	ug/L	99
6) chlorodifluoromethane	4.358	51	59926	18.59	ug/L	96
7) dichlorodifluoromethane	4.322	85	67391	20.21	ug/L	97
8) chloromethane	4.719	50	89705	19.61	ug/L	99
9) vinyl chloride	5.007	62	87482	19.39	ug/L	99
11) bromomethane	5.770	94	51079	19.18	ug/L	94
12) chloroethane	6.000	64	50042	19.13	ug/L	99
13) vinyl bromide	6.397	106	41472	19.25	ug/L	95
14) trichlorofluoromethane	6.528	101	72874	19.40	ug/L	98
15) ethyl ether	7.056	74	18011	13.46	ug/L	90
16) 2-chloropropane	7.317	43	95430	19.63	ug/L	99
17) acrolein	7.343	56	6413	18.89	ug/L	98
18) freon 113	7.584	151	31706	20.15	ug/L	95
19) 1,1-dichloroethene	7.563	61	80435	19.28	ug/L	98
20) acetone	7.594	43	60888	76.82	ug/L	99
21) acetonitrile	8.128	41	43537	196.10	ug/L	98
22) iodomethane	7.877	142	48201	13.71	ug/L	97
23) carbon disulfide	8.039	76	117570	13.82	ug/L	99
24) methylene chloride	8.478	84	51263	19.56	ug/L	97
25) methyl acetate	8.170	43	26254	19.62	ug/L	98
26) methyl tert butyl ether	8.933	73	86425	13.42	ug/L	96
27) trans-1,2-dichloroethene	8.969	61	77448	19.47	ug/L	98
28) hexane	9.409	57	80890	19.49	ug/L	98
29) di-isopropyl ether	9.675	45	185193	19.03	ug/L	99
30) ethyl tert-butyl ether	10.224	59	164269	19.01	ug/L	100
31) 1,1-dichloroethane	9.686	63	99177	19.40	ug/L	98
32) chloroprene	9.801	53	81006	18.69	ug/L	99
33) acrylonitrile	8.865	53	9202	13.18	ug/L	86
34) vinyl acetate	9.633	86	6547	18.14	ug/L	93
35) 2-butanone	10.454	72	16722	72.62	ug/L	99
36) ethyl acetate	10.480	45	5506	18.50	ug/L	97
37) 2,2-dichloropropane	10.543	77	78266	19.00	ug/L	98
38) cis-1,2-dichloroethene	10.512	96	55057	19.37	ug/L	94
39) methyl acrylate	10.564	85	3268	12.13	ug/L	99
40) propionitrile	10.548	54	53118	135.97	ug/L	95
41) bromochloromethane	10.846	128	21012	19.62	ug/L	92
42) tetrahydrofuran	10.852	42	7617	13.48	ug/L	96
43) chloroform	10.946	83	86760	19.26	ug/L	99
46) methacrylonitrile	10.763	67	9692	18.72	ug/L	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221533.D
Acq On : 19 Mar 2018 8:19 pm
Operator : RobertS
Sample : IC8199-20
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 09:29:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) cyclohexane	11.317	84	75516	19.29	ug/L		86
48) 1,1,1-trichloroethane	11.207	97	73371	19.22	ug/L		98
49) 1,1-dichloropropene	11.390	75	71877	19.20	ug/L		99
50) carbon tetrachloride	11.411	117	59135	19.41	ug/L		99
51) tert-amyl alcohol	11.552	73	9838	95.33	ug/L		97
52) isobutyl alcohol	11.385	43	16097	187.73	ug/L		98
55) isopropyl acetate	11.583	87	7615	18.20	ug/L		96
56) 2,2,4-trimethylpentane	11.745	57	247280	19.54	ug/L		99
57) tert-amyl methyl ether	11.745	73	141542	18.99	ug/L		99
58) benzene	11.646	78	209145	19.56	ug/L		99
59) heptane	11.923	57	48794	19.63	ug/L		96
60) 1,2-dichloroethane	11.693	62	61848	19.39	ug/L		98
61) n-butyl alcohol	12.153	56	52916	923.35	ug/L		95
62) ethyl acrylate	12.399	55	43999	18.31	ug/L		97
63) trichloroethene	12.394	95	49696	19.16	ug/L		99
64) 2-chloroethyl vinyl ether	12.687	63	56506	94.93	ug/L		100
65) 2-nitropropane	13.157	41	7107	11.59	ug/L		95
66) methylcyclohexane	12.681	83	100872	19.21	ug/L		97
67) methyl methacrylate	12.666	100	5954	12.89	ug/L	#	55
68) 1,2-dichloropropane	12.687	63	56506	18.99	ug/L		95
69) dibromomethane	12.796	93	24527	19.20	ug/L		99
70) bromodichloromethane	12.953	83	63278	18.92	ug/L		98
71) epichlorohydrin	13.277	57	16500	93.85	ug/L		100
72) cis-1,3-dichloropropene	13.398	75	79027	18.73	ug/L		98
73) 4-methyl-2-pentanone	13.502	58	56685	74.33	ug/L		97
74) 3-methyl-1-butanol	13.507	55	34131	366.11	ug/L		97
77) toluene	13.763	92	125992	19.12	ug/L		99
78) ethyl methacrylate	13.936	69	35263	12.70	ug/L		95
79) trans-1,3-dichloropropene	13.952	75	69480	19.15	ug/L		97
80) 1,1,2-trichloroethane	14.161	83	30600	18.62	ug/L		94
81) 2-hexanone	14.312	58	57487	74.64	ug/L		95
82) tetrachloroethene	14.281	166	45891	19.10	ug/L		99
83) 1,3-dichloropropane	14.328	76	66231	19.16	ug/L		98
84) butyl acetate	14.386	56	25881	18.97	ug/L		99
85) dibromochloromethane	14.558	129	36658	18.76	ug/L		99
86) 1,2-dibromoethane	14.705	107	34972	19.22	ug/L		100
87) n-butyl ether	15.091	57	246432	18.73	ug/L		100
88) chlorobenzene	15.138	112	131374	19.34	ug/L		97
89) 1,1,1,2-tetrachloroethane	15.201	131	44040	18.87	ug/L		98
90) ethylbenzene	15.191	91	248159	19.10	ug/L		99
91) m,p-xylene	15.301	106	182368	38.09	ug/L		98
92) o-xylene	15.661	91	197428	18.80	ug/L		99
93) styrene	15.672	104	145695	18.34	ug/L		98
94) butyl acrylate	15.499	55	77110	17.78	ug/L		99
95) bromoform	15.886	173	21048	18.41	ug/L		97
96) isopropylbenzene	15.964	105	236559	18.91	ug/L		100
97) cis-1,4-dichloro-2-butene	16.006	88	15403	18.08	ug/L		97
100) bromobenzene	16.315	156	52454	19.82	ug/L		96
101) 1,1,2,2-tetrachloroethane	16.215	83	46254	19.62	ug/L		99
102) trans-1,4-dichloro-2-b...	16.242	53	7977	13.74	ug/L		98
103) 1,2,3-trichloropropane	16.294	110	12016	19.98	ug/L		92
104) n-propylbenzene	16.325	91	296656	19.54	ug/L		100
105) 2-chlorotoluene	16.451	126	55625	19.34	ug/L		98
106) 4-chlorotoluene	16.545	91	170077	19.74	ug/L		100
107) 1,3,5-trimethylbenzene	16.456	105	199234	18.91	ug/L		97
108) tert-butylbenzene	16.749	134	40898	19.27	ug/L		96
109) 1,2,4-trimethylbenzene	16.791	105	201058	19.31	ug/L		99
110) sec-butylbenzene	16.932	105	263890	19.36	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221533.D
Acq On : 19 Mar 2018 8:19 pm
Operator : RobertS
Sample : IC8199-20
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 09:29:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

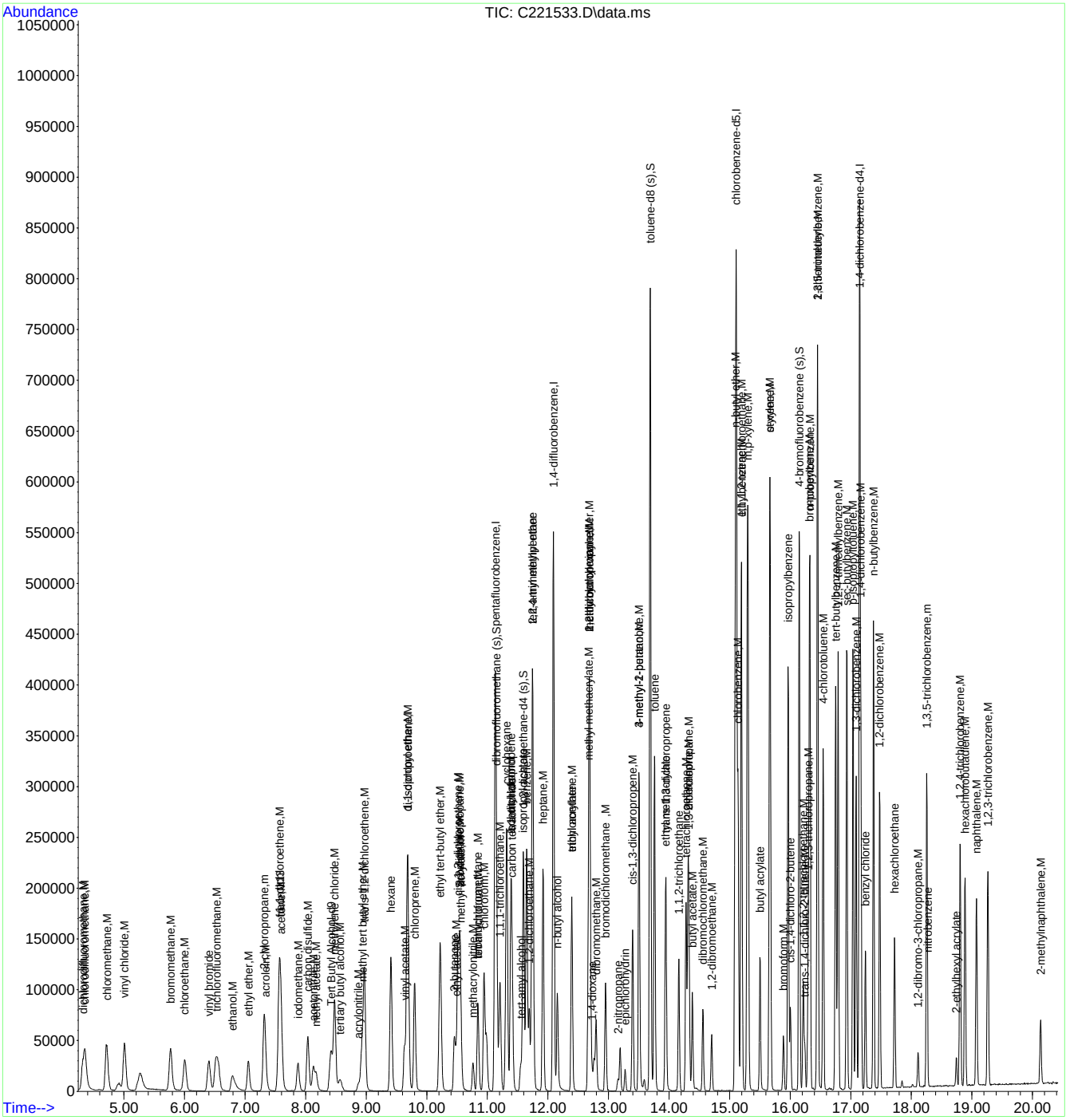
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
111) 1,3-dichlorobenzene	17.089	146	102968	19.39	ug/L		99
112) p-isopropyltoluene	17.036	119	211221	19.04	ug/L		99
113) 1,4-dichlorobenzene	17.167	146	104075	19.56	ug/L		99
114) benzyl chloride	17.245	91	86202	18.89	ug/L		99
115) 1,2-dichlorobenzene	17.475	146	96661	19.58	ug/L		99
116) n-butylbenzene	17.376	92	118873	19.35	ug/L		98
117) hexachloroethane	17.726	201	19927	12.78	ug/L		93
118) 1,2-dibromo-3-chloropr...	18.113	157	7865	19.02	ug/L		94
119) 1,3,5-trichlorobenzene	18.254	180	82456	18.76	ug/L		99
120) nitrobenzene	18.275	77	1561	11.88	ug/L	#	77
121) 2-ethylhexyl acrylate	18.746	70	6306	2.65	ug/L		91
122) 1,2,4-trichlorobenzene	18.808	180	67613	18.58	ug/L		95
123) hexachlorobutadiene	18.887	225	39331	19.59	ug/L		95
124) naphthalene	19.075	128	133722	18.28	ug/L		99
125) 1,2,3-trichlorobenzene	19.263	180	60311	18.44	ug/L		98
126) 2-methylnaphthalene	20.136	142	30723	7.62	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221533.D
Acq On : 19 Mar 2018 8:19 pm
Operator : RobertS
Sample : IC8199-20
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 09:29:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221534.D
Acq On : 19 Mar 2018 8:48 pm
Operator : RobertS
Sample : ICC8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 22 09:30:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.421	65	86354	500.00	ug/L	0.00
5) pentafluorobenzene	11.129	168	248356	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.091	114	413356	50.00	ug/L	0.00
75) chlorobenzene-d5	15.108	117	371501	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.147	152	182183	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.150	113	107740	50.00	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 100.00%			
54) 1,2-dichloroethane-d4 (s)	11.594	65	122895	50.00	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 100.00%			
76) toluene-d8 (s)	13.691	98	484138	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	16.153	174	126764	50.00	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 100.00%			
Target Compounds						Qvalue
2) ethanol	6.790	45	112304	5000.00	ug/L	100
3) tertiary butyl alcohol	8.573	59	55419	250.00	ug/L	100
4) 1,4-dioxane	12.734	88	22714	1250.00	ug/L	100
6) chlorodifluoromethane	4.359	51	163530	50.00	ug/L	100
7) dichlorodifluoromethane	4.317	85	169230	50.00	ug/L	100
8) chloromethane	4.714	50	232108	50.00	ug/L	100
9) vinyl chloride	5.012	62	228967	50.00	ug/L	100
11) bromomethane	5.770	94	135099	50.00	ug/L	100
12) chloroethane	6.000	64	132748	50.00	ug/L	100
13) vinyl bromide	6.403	106	109327	50.00	ug/L	100
14) trichlorofluoromethane	6.539	101	190564	50.00	ug/L	100
15) ethyl ether	7.051	74	47534	35.00	ug/L	100
16) 2-chloropropane	7.318	43	246667	50.00	ug/L	100
17) acrolein	7.344	56	17222	50.00	ug/L	100
18) freon 113	7.585	151	79835	50.00	ug/L	100
19) 1,1-dichloroethene	7.558	61	211728	50.00	ug/L	100
20) acetone	7.595	43	160874	200.00	ug/L	100
21) acetonitrile	8.128	41	112656	500.00	ug/L	100
22) iodomethane	7.872	142	124860	35.00	ug/L	100
23) carbon disulfide	8.034	76	302138	35.00	ug/L	100
24) methylene chloride	8.479	84	132969	50.00	ug/L	100
25) methyl acetate	8.175	43	67888	50.00	ug/L	100
26) methyl tert butyl ether	8.939	73	228709	35.00	ug/L	100
27) trans-1,2-dichloroethene	8.970	61	201808	50.00	ug/L	100
28) hexane	9.409	57	210609	50.00	ug/L	100
29) di-isopropyl ether	9.681	45	493907	50.00	ug/L	100
30) ethyl tert-butyl ether	10.219	59	438357	50.00	ug/L	100
31) 1,1-dichloroethane	9.686	63	259349	50.00	ug/L	100
32) chloroprene	9.801	53	219942	50.00	ug/L	100
33) acrylonitrile	8.871	53	24805	35.00	ug/L	100
34) vinyl acetate	9.629	86	18309	50.00	ug/L	100
35) 2-butanone	10.455	72	46739	200.00	ug/L	100
36) ethyl acetate	10.481	45	15105	50.00	ug/L	100
37) 2,2-dichloropropane	10.544	77	209025	50.00	ug/L	100
38) cis-1,2-dichloroethene	10.512	96	144246	50.00	ug/L	100
39) methyl acrylate	10.570	85	9569	35.00	ug/L	100
40) propionitrile	10.549	54	138760	350.00	ug/L	100
41) bromochloromethane	10.842	128	54341	50.00	ug/L	100
42) tetrahydrofuran	10.857	42	20064	35.00	ug/L	100
43) chloroform	10.946	83	228517	50.00	ug/L	100
46) methacrylonitrile	10.763	67	26271	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221534.D
Acq On : 19 Mar 2018 8:48 pm
Operator : RobertS
Sample : ICC8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 22 09:30:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) cyclohexane	11.312	84	198599	50.00	ug/L	100
48) 1,1,1-trichloroethane	11.208	97	193733	50.00	ug/L	100
49) 1,1-dichloropropene	11.391	75	189960	50.00	ug/L	100
50) carbon tetrachloride	11.411	117	154554	50.00	ug/L	100
51) tert-amyl alcohol	11.553	73	26183	250.00	ug/L	100
52) isobutyl alcohol	11.385	43	43510	500.00	ug/L	100
55) isopropyl acetate	11.589	87	21382	50.00	ug/L	100
56) 2,2,4-trimethylpentane	11.746	57	646533	50.00	ug/L	100
57) tert-amyl methyl ether	11.746	73	380924	50.00	ug/L	100
58) benzene	11.647	78	546419	50.00	ug/L	100
59) heptane	11.919	57	127020	50.00	ug/L	100
60) 1,2-dichloroethane	11.694	62	162987	50.00	ug/L	100
61) n-butyl alcohol	12.154	56	146415	2500.00	ug/L	100
62) ethyl acrylate	12.400	55	122806	50.00	ug/L	100
63) trichloroethene	12.394	95	132507	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	12.687	63	152071	250.00	ug/L	100
65) 2-nitropropane	13.158	41	21927	35.00	ug/L	100
66) methylcyclohexane	12.682	83	268352	50.00	ug/L	100
67) methyl methacrylate	12.661	100	16527	35.00	ug/L	100
68) 1,2-dichloropropane	12.687	63	152071	50.00	ug/L	100
69) dibromomethane	12.797	93	65272	50.00	ug/L	100
70) bromodichloromethane	12.954	83	170870	50.00	ug/L	100
71) epichlorohydrin	13.273	57	44919	250.00	ug/L	100
72) cis-1,3-dichloropropene	13.398	75	215544	50.00	ug/L	100
73) 4-methyl-2-pentanone	13.503	58	155861	200.00	ug/L	100
74) 3-methyl-1-butanol	13.508	55	95271	1000.00	ug/L	100
77) toluene	13.759	92	332627	50.00	ug/L	100
78) ethyl methacrylate	13.937	69	98089	35.00	ug/L	100
79) trans-1,3-dichloropropene	13.947	75	183122	50.00	ug/L	100
80) 1,1,2-trichloroethane	14.161	83	82978	50.00	ug/L	100
81) 2-hexanone	14.313	58	155512	200.00	ug/L	100
82) tetrachloroethene	14.282	166	121301	50.00	ug/L	100
83) 1,3-dichloropropane	14.329	76	174508	50.00	ug/L	100
84) butyl acetate	14.381	56	68877	50.00	ug/L	100
85) dibromochloromethane	14.559	129	98644	50.00	ug/L	100
86) 1,2-dibromoethane	14.705	107	91857	50.00	ug/L	100
87) n-butyl ether	15.092	57	664309	50.00	ug/L	100
88) chlorobenzene	15.139	112	342850	50.00	ug/L	100
89) 1,1,1,2-tetrachloroethane	15.202	131	117841	50.00	ug/L	100
90) ethylbenzene	15.191	91	655788	50.00	ug/L	100
91) m,p-xylene	15.301	106	483373	100.00	ug/L	100
92) o-xylene	15.662	91	530080	50.00	ug/L	100
93) styrene	15.672	104	400934	50.00	ug/L	100
94) butyl acrylate	15.500	55	218975	50.00	ug/L	100
95) bromoform	15.887	173	57727	50.00	ug/L	100
96) isopropylbenzene	15.965	105	631375	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	16.007	88	43011	50.00	ug/L	100
100) bromobenzene	16.315	156	137233	50.00	ug/L	100
101) 1,1,2,2-tetrachloroethane	16.216	83	122277	50.00	ug/L	100
102) trans-1,4-dichloro-2-b...	16.242	53	21073	35.00	ug/L	100
103) 1,2,3-trichloropropane	16.294	110	31187	50.00	ug/L	100
104) n-propylbenzene	16.326	91	787408	50.00	ug/L	100
105) 2-chlorotoluene	16.446	126	149141	50.00	ug/L	100
106) 4-chlorotoluene	16.545	91	446809	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	16.456	105	546305	50.00	ug/L	100
108) tert-butylbenzene	16.749	134	110060	50.00	ug/L	100
109) 1,2,4-trimethylbenzene	16.791	105	540108	50.00	ug/L	100
110) sec-butylbenzene	16.932	105	707017	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221534.D
Acq On : 19 Mar 2018 8:48 pm
Operator : RobertS
Sample : ICC8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 22 09:30:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

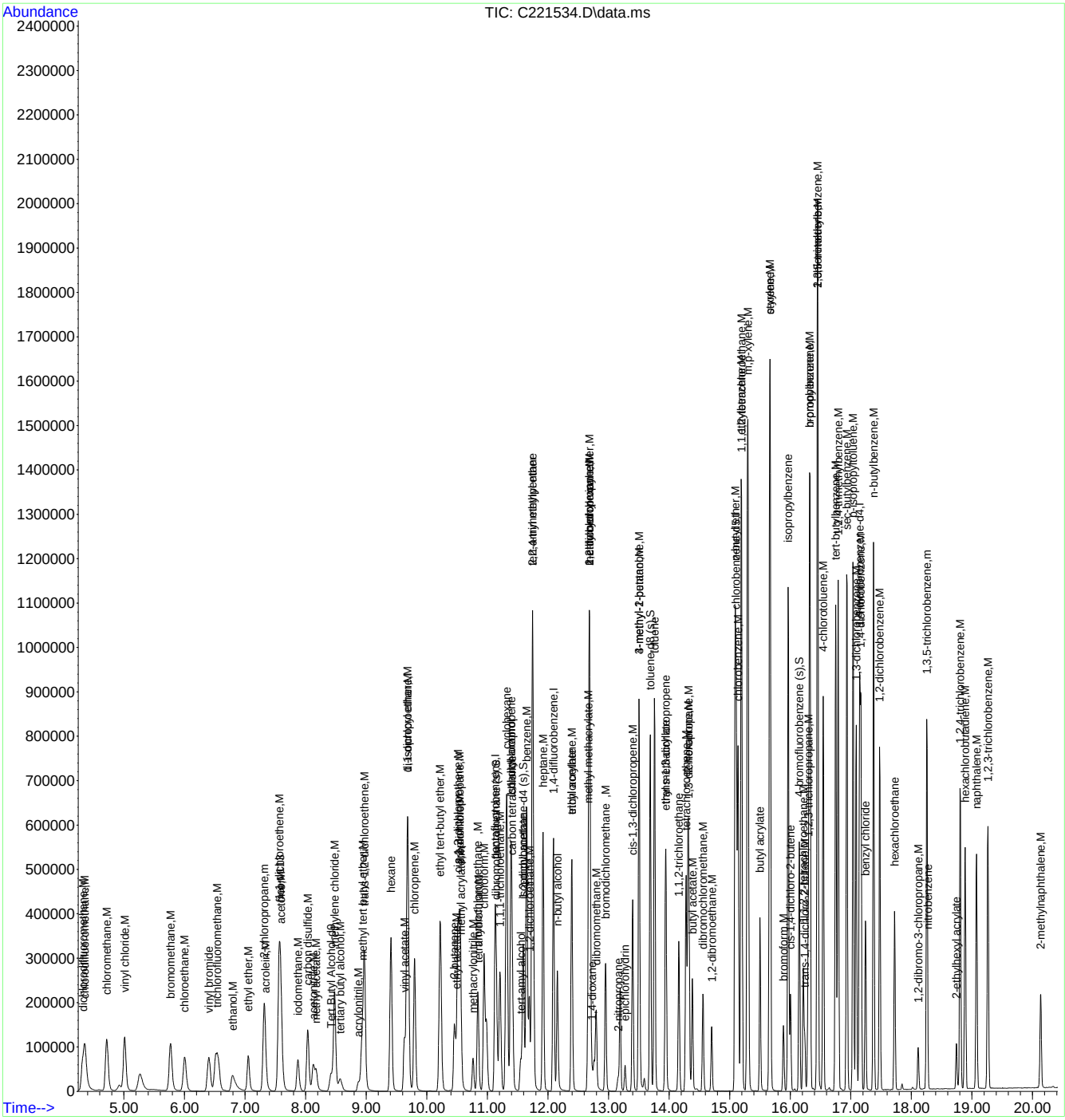
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,3-dichlorobenzene	17.089	146	275362	50.00	ug/L	100
112) p-isopropyltoluene	17.037	119	575382	50.00	ug/L	100
113) 1,4-dichlorobenzene	17.168	146	275975	50.00	ug/L	100
114) benzyl chloride	17.241	91	236634	50.00	ug/L	100
115) 1,2-dichlorobenzene	17.476	146	256108	50.00	ug/L	100
116) n-butylbenzene	17.377	92	318587	50.00	ug/L	100
117) hexachloroethane	17.727	201	56626	35.00	ug/L	100
118) 1,2-dibromo-3-chloropr...	18.114	157	21443	50.00	ug/L	100
119) 1,3,5-trichlorobenzene	18.255	180	227999	50.00	ug/L	100
120) nitrobenzene	18.276	77	4769	35.00	ug/L	100
121) 2-ethylhexyl acrylate	18.746	70	24719	10.00	ug/L	100
122) 1,2,4-trichlorobenzene	18.804	180	188774	50.00	ug/L	100
123) hexachlorobutadiene	18.888	225	104130	50.00	ug/L	100
124) naphthalene	19.076	128	379321	50.00	ug/L	100
125) 1,2,3-trichlorobenzene	19.264	180	169670	50.00	ug/L	100
126) 2-methylnaphthalene	20.137	142	104524	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221534.D
Acq On : 19 Mar 2018 8:48 pm
Operator : RobertS
Sample : ICC8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 22 09:30:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221535.D
Acq On : 19 Mar 2018 9:17 pm
Operator : RobertS
Sample : IC8199-100
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 22 09:30:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.420	65	79959	500.00	ug/L	0.00
5) pentafluorobenzene	11.129	168	262697	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.091	114	434768	50.00	ug/L	0.00
75) chlorobenzene-d5	15.112	117	391148	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.146	152	185466	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.155	113	113576	49.83	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 99.66%			
54) 1,2-dichloroethane-d4 (s)	11.599	65	124978	48.34	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 96.68%			
76) toluene-d8 (s)	13.690	98	507863	49.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.64%			
99) 4-bromofluorobenzene (s)	16.153	174	131978	51.14	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 102.28%			
Target Compounds						Qvalue
2) ethanol	6.789	45	226751	10902.83	ug/L	97
3) tertiary butyl alcohol	8.572	59	107058	521.57	ug/L	94
4) 1,4-dioxane	12.734	88	44851	2665.65	ug/L	100
6) chlorodifluoromethane	4.353	51	341955	98.85	ug/L	98
7) dichlorodifluoromethane	4.322	85	346805	96.87	ug/L	98
8) chloromethane	4.719	50	461822	94.05	ug/L	99
9) vinyl chloride	5.012	62	461155	95.21	ug/L	97
11) bromomethane	5.770	94	278947	97.60	ug/L	98
12) chloroethane	6.000	64	253236	90.18	ug/L	99
13) vinyl bromide	6.397	106	231573	100.13	ug/L	98
14) trichlorofluoromethane	6.523	101	395967	98.22	ug/L	98
15) ethyl ether	7.051	74	99497	69.26	ug/L	98
16) 2-chloropropane	7.317	43	533155	102.17	ug/L	98
17) acrolein	7.338	56	33276	91.33	ug/L	94
18) freon 113	7.579	151	173468	102.71	ug/L	98
19) 1,1-dichloroethene	7.558	61	459259	102.53	ug/L	99
20) acetone	7.589	43	311699	366.35	ug/L	99
21) acetonitrile	8.128	41	220130	923.66	ug/L	98
22) iodomethane	7.872	142	273422	72.46	ug/L	99
23) carbon disulfide	8.034	76	647328	70.89	ug/L	99
24) methylene chloride	8.478	84	282648	100.48	ug/L	99
25) methyl acetate	8.175	43	136038	94.72	ug/L	99
26) methyl tert butyl ether	8.938	73	472816	68.41	ug/L	99
27) trans-1,2-dichloroethene	8.969	61	433596	101.56	ug/L	99
28) hexane	9.409	57	452786	101.63	ug/L	100
29) di-isopropyl ether	9.680	45	1056382	101.10	ug/L	98
30) ethyl tert-butyl ether	10.219	59	926971	99.96	ug/L	99
31) 1,1-dichloroethane	9.686	63	563606	102.73	ug/L	99
32) chloroprene	9.795	53	478933	102.93	ug/L	98
33) acrylonitrile	8.870	53	49066	65.45	ug/L	98
34) vinyl acetate	9.628	86	37942	97.96	ug/L	97
35) 2-butanone	10.454	72	92914	375.88	ug/L	98
36) ethyl acetate	10.475	45	28106	87.96	ug/L #	73
37) 2,2-dichloropropane	10.543	77	452831	102.41	ug/L	99
38) cis-1,2-dichloroethene	10.512	96	310690	101.82	ug/L	98
39) methyl acrylate	10.564	85	18842	65.16	ug/L	66
40) propionitrile	10.548	54	278042	663.03	ug/L	99
41) bromochloromethane	10.841	128	115338	100.33	ug/L	98
42) tetrahydrofuran	10.857	42	38626	63.70	ug/L	93
43) chloroform	10.946	83	485339	100.40	ug/L	99
46) methacrylonitrile	10.763	67	54011	97.18	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221535.D
Acq On : 19 Mar 2018 9:17 pm
Operator : RobertS
Sample : IC8199-100
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 22 09:30:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) cyclohexane	11.317	84	404117	96.19	ug/L	82
48) 1,1,1-trichloroethane	11.207	97	416833	101.71	ug/L	98
49) 1,1-dichloropropene	11.390	75	405432	100.89	ug/L	99
50) carbon tetrachloride	11.411	117	339359	103.79	ug/L	99
51) tert-amyl alcohol	11.547	73	49700	448.64	ug/L	98
52) isobutyl alcohol	11.385	43	87497	950.59	ug/L	98
55) isopropyl acetate	11.589	87	42862	95.29	ug/L	99
56) 2,2,4-trimethylpentane	11.751	57	1392291	102.37	ug/L	99
57) tert-amyl methyl ether	11.745	73	803777	100.31	ug/L	100
58) benzene	11.646	78	1169932	101.78	ug/L	100
59) heptane	11.918	57	266916	99.89	ug/L	98
60) 1,2-dichloroethane	11.688	62	339700	99.08	ug/L	98
61) n-butyl alcohol	12.153	56	286195	4646.04	ug/L	99
62) ethyl acrylate	12.399	55	249480	96.57	ug/L	98
63) trichloroethene	12.389	95	282526	101.36	ug/L	97
64) 2-chloroethyl vinyl ether	12.687	63	323652	505.87	ug/L	98
65) 2-nitropropane	13.162	41	40769	61.87	ug/L	95
66) methylcyclohexane	12.681	83	579869	102.72	ug/L	97
67) methyl methacrylate	12.660	100	34296	69.05	ug/L	98
68) 1,2-dichloropropane	12.687	63	323652	101.17	ug/L	95
69) dibromomethane	12.796	93	135347	98.57	ug/L	97
70) bromodichloromethane	12.953	83	362148	100.75	ug/L	99
71) epichlorohydrin	13.272	57	86616	458.33	ug/L	99
72) cis-1,3-dichloropropene	13.398	75	456399	100.66	ug/L	97
73) 4-methyl-2-pentanone	13.502	58	307333	374.95	ug/L	96
74) 3-methyl-1-butanol	13.507	55	186041	1856.58	ug/L	98
77) toluene	13.758	92	715552	102.16	ug/L	98
78) ethyl methacrylate	13.936	69	205627	69.69	ug/L	98
79) trans-1,3-dichloropropene	13.946	75	384018	99.59	ug/L	99
80) 1,1,2-trichloroethane	14.161	83	169057	96.75	ug/L	98
81) 2-hexanone	14.312	58	299744	366.13	ug/L	99
82) tetrachloroethene	14.281	166	260161	101.85	ug/L	98
83) 1,3-dichloropropane	14.328	76	358299	97.50	ug/L	99
84) butyl acetate	14.386	56	134431	92.69	ug/L	99
85) dibromochloromethane	14.558	129	208936	100.58	ug/L	99
86) 1,2-dibromoethane	14.705	107	188979	97.70	ug/L	99
87) n-butyl ether	15.091	57	1422032	101.65	ug/L	100
88) chlorobenzene	15.138	112	734179	101.69	ug/L	97
89) 1,1,1,2-tetrachloroethane	15.201	131	261908	105.55	ug/L	98
90) ethylbenzene	15.191	91	1429043	103.48	ug/L	100
91) m,p-xylene	15.301	106	1049567	206.23	ug/L	99
92) o-xylene	15.661	91	1156439	103.60	ug/L	99
93) styrene	15.672	104	878932	104.10	ug/L	99
94) butyl acrylate	15.499	55	455551	98.79	ug/L	99
95) bromoform	15.886	173	121138	99.65	ug/L	99
96) isopropylbenzene	15.964	105	1376737	103.55	ug/L	99
97) cis-1,4-dichloro-2-butene	16.006	88	87838	96.98	ug/L	99
100) bromobenzene	16.315	156	297059	106.32	ug/L	98
101) 1,1,2,2-tetrachloroethane	16.215	83	244763	98.31	ug/L	100
102) trans-1,4-dichloro-2-b...	16.242	53	43491	70.96	ug/L	98
103) 1,2,3-trichloropropane	16.294	110	63269	99.64	ug/L	95
104) n-propylbenzene	16.325	91	1695435	105.75	ug/L	99
105) 2-chlorotoluene	16.451	126	326708	107.59	ug/L	98
106) 4-chlorotoluene	16.545	91	960183	105.55	ug/L	99
107) 1,3,5-trimethylbenzene	16.456	105	1199076	107.80	ug/L	98
108) tert-butylbenzene	16.749	134	243808	108.80	ug/L	99
109) 1,2,4-trimethylbenzene	16.791	105	1169354	106.34	ug/L	100
110) sec-butylbenzene	16.937	105	1544358	107.28	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221535.D
Acq On : 19 Mar 2018 9:17 pm
Operator : RobertS
Sample : IC8199-100
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 22 09:30:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

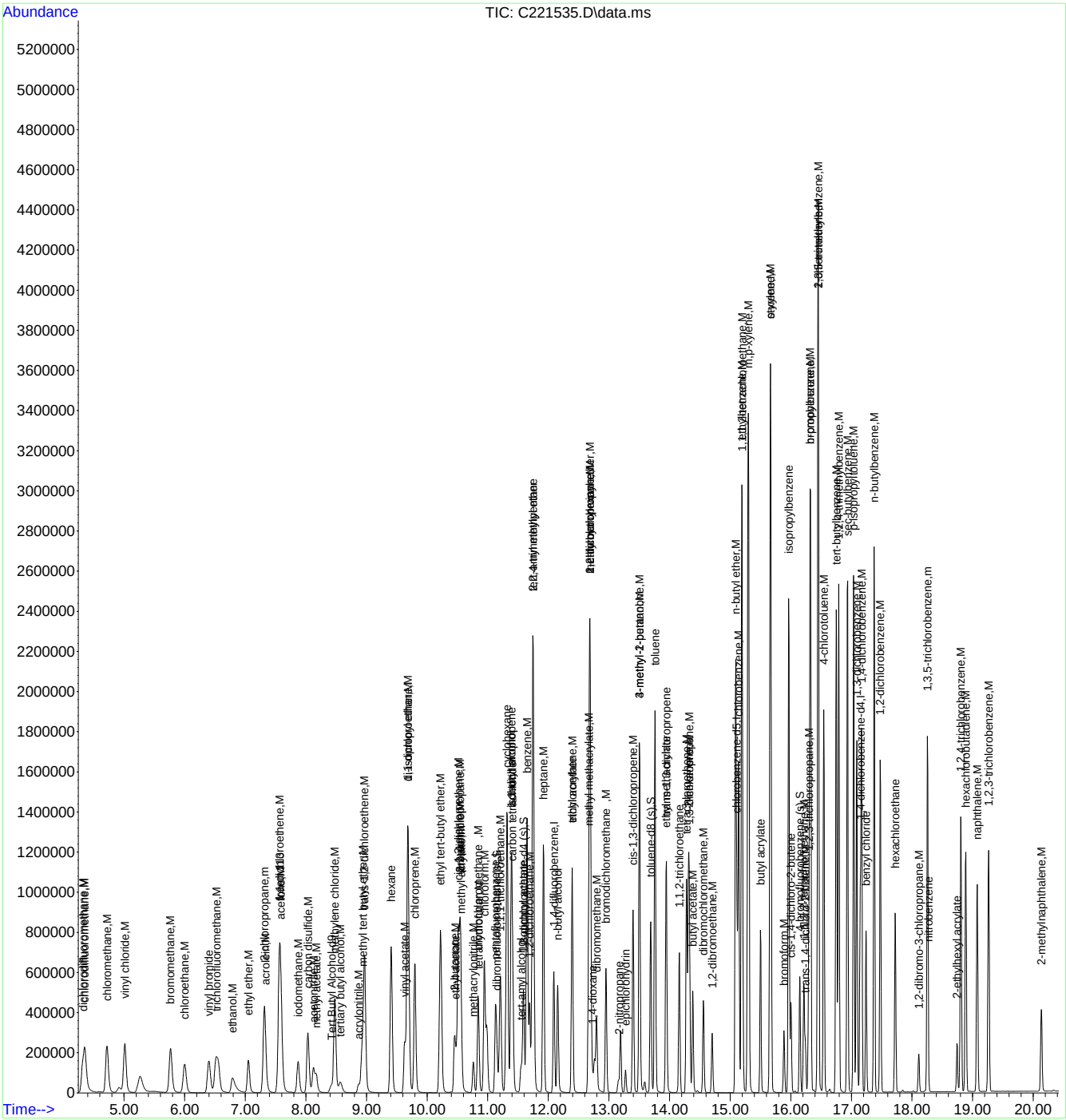
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,3-dichlorobenzene	17.089	146	587691	104.82	ug/L	99
112) p-isopropyltoluene	17.036	119	1247598	106.50	ug/L	99
113) 1,4-dichlorobenzene	17.167	146	584002	103.93	ug/L	100
114) benzyl chloride	17.240	91	487068	101.09	ug/L	99
115) 1,2-dichlorobenzene	17.475	146	545151	104.55	ug/L	99
116) n-butylbenzene	17.376	92	692879	106.82	ug/L	98
117) hexachloroethane	17.726	201	127701	77.53	ug/L	98
118) 1,2-dibromo-3-chloropr...	18.113	157	43433	99.48	ug/L	97
119) 1,3,5-trichlorobenzene	18.254	180	480199	103.44	ug/L	100
120) nitrobenzene	18.275	77	9638	69.48	ug/L	83
121) 2-ethylhexyl acrylate	18.741	70	55311	21.98	ug/L	94
122) 1,2,4-trichlorobenzene	18.808	180	386590	100.58	ug/L	98
123) hexachlorobutadiene	18.887	225	223529	105.43	ug/L	96
124) naphthalene	19.075	128	750222	97.14	ug/L	99
125) 1,2,3-trichlorobenzene	19.263	180	344233	99.65	ug/L	99
126) 2-methylnaphthalene	20.136	142	207380	48.72	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221535.D
Acq On : 19 Mar 2018 9:17 pm
Operator : RobertS
Sample : IC8199-100
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 22 09:30:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221536.D
Acq On : 19 Mar 2018 9:46 pm
Operator : RobertS
Sample : IC8199-200
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.426	65	99624	500.00	ug/L	0.00
5) pentafluorobenzene	11.129	168	281472	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.091	114	466326	50.00	ug/L	0.00
75) chlorobenzene-d5	15.112	117	424174	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.146	152	205004	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.155	113	123321	50.50	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 101.00%			
54) 1,2-dichloroethane-d4 (s)	11.599	65	135724	48.95	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 97.90%			
76) toluene-d8 (s)	13.690	98	544925	49.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%			
99) 4-bromofluorobenzene (s)	16.153	174	143895	50.44	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 100.88%			
Target Compounds						Qvalue
2) ethanol	6.800	45	508614	19628.25	ug/L	96
3) tertiary butyl alcohol	8.577	59	248700	972.47	ug/L	93
4) 1,4-dioxane	12.734	88	100385	4788.55	ug/L	99
6) chlorodifluoromethane	4.358	51	661765	178.53	ug/L	99
7) dichlorodifluoromethane	4.322	85	716278	186.73	ug/L	99
8) chloromethane	4.724	50	966874	183.78	ug/L	99
9) vinyl chloride	5.017	62	962813	185.51	ug/L	99
11) bromomethane	5.765	94	629363	205.52	ug/L	98
12) chloroethane	6.000	64	575808	191.36	ug/L	98
13) vinyl bromide	6.397	106	506704	204.47	ug/L	99
14) trichlorofluoromethane	6.528	101	859323	198.94	ug/L	97
15) ethyl ether	7.056	74	210033	136.46	ug/L	95
16) 2-chloropropane	7.317	43	1050229	187.84	ug/L	99
17) acrolein	7.344	56	79474	203.59	ug/L	93
18) freon 113	7.584	151	351433	194.20	ug/L	97
19) 1,1-dichloroethene	7.563	61	913943	190.44	ug/L	98
20) acetone	7.594	43	669553	734.46	ug/L	98
21) acetonitrile	8.128	41	472680	1851.07	ug/L	99
22) iodomethane	7.872	142	564552	139.63	ug/L	99
23) carbon disulfide	8.034	76	1282963	131.13	ug/L	99
24) methylene chloride	8.478	84	572985	190.11	ug/L	99
25) methyl acetate	8.175	43	293109	190.48	ug/L	98
26) methyl tert butyl ether	8.943	73	1018625	137.54	ug/L	98
27) trans-1,2-dichloroethene	8.969	61	863102	188.68	ug/L	99
28) hexane	9.409	57	876669	183.64	ug/L	99
29) di-isopropyl ether	9.680	45	2164406	193.33	ug/L	99
30) ethyl tert-butyl ether	10.224	59	1940868	195.33	ug/L	99
31) 1,1-dichloroethane	9.686	63	1130543	192.31	ug/L	99
32) chloroprene	9.801	53	957119	191.98	ug/L	98
33) acrylonitrile	8.865	53	104594	130.22	ug/L	98
34) vinyl acetate	9.628	86	81662	196.77	ug/L	94
35) 2-butanone	10.454	72	200693	757.74	ug/L	97
36) ethyl acetate	10.480	45	60622	177.06	ug/L	77
37) 2,2-dichloropropane	10.548	77	909171	191.89	ug/L	99
38) cis-1,2-dichloroethene	10.512	96	628118	192.11	ug/L	98
39) methyl acrylate	10.569	85	42616	137.54	ug/L	77
40) propionitrile	10.554	54	600259	1335.92	ug/L	91
41) bromochloromethane	10.846	128	239643	194.56	ug/L	93
42) tetrahydrofuran	10.857	42	83327	128.26	ug/L	99
43) chloroform	10.946	83	975685	188.37	ug/L	99
46) methacrylonitrile	10.763	67	116165	195.08	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221536.D
Acq On : 19 Mar 2018 9:46 pm
Operator : RobertS
Sample : IC8199-200
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) cyclohexane	11.317	84	858751	190.77	ug/L		91
48) 1,1,1-trichloroethane	11.212	97	836549	190.50	ug/L		99
49) 1,1-dichloropropene	11.390	75	809811	188.07	ug/L		99
50) carbon tetrachloride	11.411	117	692413	197.65	ug/L		99
51) tert-amyl alcohol	11.552	73	117670	991.35	ug/L		96
52) isobutyl alcohol	11.385	43	203683	2065.26	ug/L		94
55) isopropyl acetate	11.589	87	94148	195.15	ug/L		97
56) 2,2,4-trimethylpentane	11.751	57	2767214	189.70	ug/L		99
57) tert-amyl methyl ether	11.746	73	1730896	201.39	ug/L		98
58) benzene	11.651	78	2335306	189.42	ug/L		100
59) heptane	11.918	57	524943	183.17	ug/L		98
60) 1,2-dichloroethane	11.693	62	694483	188.85	ug/L		99
61) n-butyl alcohol	12.159	56	660939	10003.46	ug/L		99
62) ethyl acrylate	12.399	55	548926	198.11	ug/L		98
63) trichloroethene	12.394	95	570026	190.66	ug/L		99
64) 2-chloroethyl vinyl ether	12.692	63	667981	973.40	ug/L		99
65) 2-nitropropane	13.162	41	88089	124.64	ug/L		92
66) methylcyclohexane	12.681	83	1173991	193.89	ug/L		99
67) methyl methacrylate	12.660	100	76800	144.17	ug/L	#	83
68) 1,2-dichloropropane	12.692	63	667981	194.68	ug/L		95
69) dibromomethane	12.796	93	283056	192.20	ug/L		97
70) bromodichloromethane	12.953	83	752029	195.06	ug/L		98
71) epichlorohydrin	13.277	57	189687	935.80	ug/L		99
72) cis-1,3-dichloropropene	13.398	75	931684	191.57	ug/L		98
73) 4-methyl-2-pentanone	13.502	58	686527	780.88	ug/L		94
74) 3-methyl-1-butanol	13.507	55	436582	4062.00	ug/L		98
77) toluene	13.758	92	1441936	189.83	ug/L		99
78) ethyl methacrylate	13.941	69	453168	141.62	ug/L		96
79) trans-1,3-dichloropropene	13.952	75	802839	191.99	ug/L		98
80) 1,1,2-trichloroethane	14.161	83	352648	186.11	ug/L		99
81) 2-hexanone	14.312	58	667782	752.17	ug/L		97
82) tetrachloroethene	14.281	166	523887	189.13	ug/L		98
83) 1,3-dichloropropane	14.328	76	748480	187.82	ug/L		100
84) butyl acetate	14.386	56	291117	185.09	ug/L		99
85) dibromochloromethane	14.558	129	443366	196.82	ug/L		98
86) 1,2-dibromoethane	14.705	107	393653	187.67	ug/L		95
87) n-butyl ether	15.091	57	2834676	186.86	ug/L		99
88) chlorobenzene	15.138	112	1488675	190.14	ug/L		99
89) 1,1,1,2-tetrachloroethane	15.201	131	557589	207.21	ug/L		96
90) ethylbenzene	15.191	91	2906135	194.06	ug/L		98
91) m,p-xylene	15.301	106	2143145	388.32	ug/L		96
92) o-xylene	15.661	91	2436323	201.27	ug/L		99
93) styrene	15.672	104	1852742	202.36	ug/L		98
94) butyl acrylate	15.499	55	991491	198.28	ug/L		98
95) bromoform	15.891	173	262635	199.23	ug/L		100
96) isopropylbenzene	15.965	105	2776058	192.54	ug/L		98
97) cis-1,4-dichloro-2-butene	16.006	88	189758	193.20	ug/L		98
100) bromobenzene	16.315	156	619892	200.71	ug/L		99
101) 1,1,2,2-tetrachloroethane	16.215	83	522862	190.00	ug/L		99
102) trans-1,4-dichloro-2-b...	16.242	53	92709	136.84	ug/L		96
103) 1,2,3-trichloropropane	16.294	110	137088	195.32	ug/L		94
104) n-propylbenzene	16.325	91	3390387	191.32	ug/L		98
105) 2-chlorotoluene	16.451	126	698284	208.04	ug/L		100
106) 4-chlorotoluene	16.545	91	1931634	192.10	ug/L		100
107) 1,3,5-trimethylbenzene	16.456	105	2535259	206.21	ug/L		98
108) tert-butylbenzene	16.754	134	511955	206.69	ug/L		91
109) 1,2,4-trimethylbenzene	16.791	105	2410980	198.35	ug/L		100
110) sec-butylbenzene	16.937	105	3124837	196.39	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221536.D
Acq On : 19 Mar 2018 9:46 pm
Operator : RobertS
Sample : IC8199-200
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration

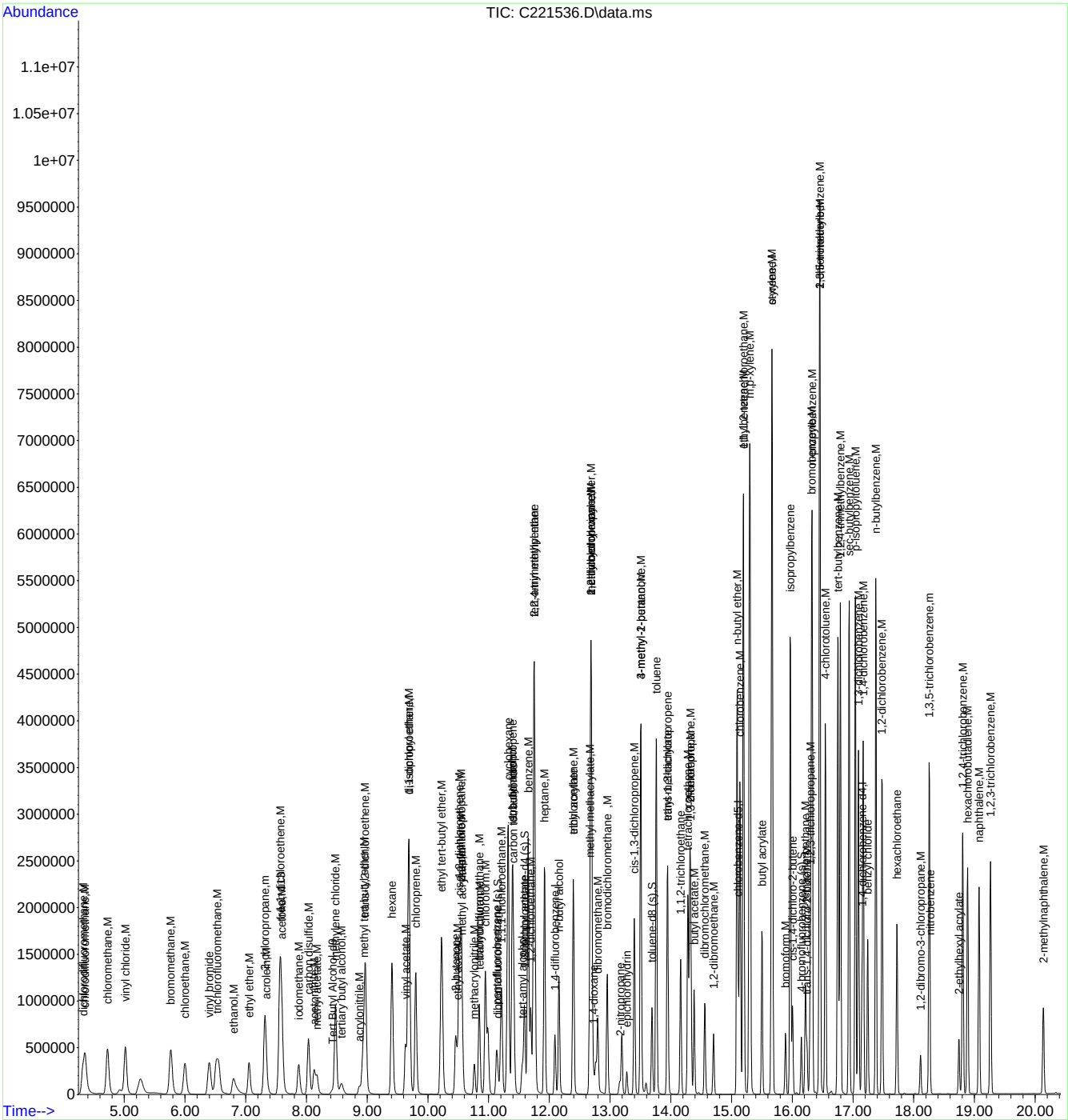
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,3-dichlorobenzene	17.089	146	1213209	195.77	ug/L	99
112) p-isopropyltoluene	17.041	119	2550891	196.99	ug/L	98
113) 1,4-dichlorobenzene	17.167	146	1208769	194.62	ug/L	99
114) benzyl chloride	17.240	91	1052929	197.71	ug/L	98
115) 1,2-dichlorobenzene	17.481	146	1139035	197.62	ug/L	98
116) n-butylbenzene	17.376	92	1402855	195.66	ug/L	97
117) hexachloroethane	17.726	201	265476	145.82	ug/L	96
118) 1,2-dibromo-3-chloropr...	18.113	157	96050	199.03	ug/L	98
119) 1,3,5-trichlorobenzene	18.254	180	968801	188.81	ug/L	100
120) nitrobenzene	18.275	77	23364	152.38	ug/L	89
121) 2-ethylhexyl acrylate	18.746	70	137414	49.40	ug/L	94
122) 1,2,4-trichlorobenzene	18.809	180	792329	186.50	ug/L	100
123) hexachlorobutadiene	18.887	225	448638	191.44	ug/L	96
124) naphthalene	19.075	128	1581011	185.20	ug/L	99
125) 1,2,3-trichlorobenzene	19.263	180	714437	187.10	ug/L	99
126) 2-methylnaphthalene	20.136	142	467680	99.41	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221536.D
Acq On : 19 Mar 2018 9:46 pm
Operator : RobertS
Sample : IC8199-200
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:18:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221539.D
Acq On : 19 Mar 2018 11:13 pm
Operator : RobertS
Sample : ICV8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 22 09:38:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:37:40 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.421	65	93573	500.00	ug/L	0.00
5) pentafluorobenzene	11.129	168	283514	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.091	114	461824	50.00	ug/L	0.00
75) chlorobenzene-d5	15.108	117	405509	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.147	152	193720	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.156	113	120535	49.55	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 99.10%			
54) 1,2-dichloroethane-d4 (s)	11.600	65	133748	49.25	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 98.50%			
76) toluene-d8 (s)	13.691	98	530854	50.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.26%			
99) 4-bromofluorobenzene (s)	16.154	174	139814	50.70	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 101.40%			
Target Compounds						Qvalue
2) ethanol	6.795	45	122510	4823.33	ug/L	100
3) tertiary butyl alcohol	8.568	59	62267	250.58	ug/L	96
4) 1,4-dioxane	12.734	88	24798	1327.70	ug/L	93
6) chlorodifluoromethane	4.359	51	142379	39.72	ug/L	96
7) dichlorodifluoromethane	4.323	85	193021	51.23	ug/L	98
8) chloromethane	4.720	50	236066	43.51	ug/L	99
9) vinyl chloride	5.013	62	222932	44.12	ug/L	98
11) bromomethane	5.771	94	144064	48.31	ug/L	98
12) chloroethane	6.001	64	134290	47.83	ug/L	100
13) vinyl bromide	6.403	106	124269	51.22	ug/L	99
14) trichlorofluoromethane	6.534	101	204771	46.78	ug/L	99
15) ethyl ether	7.057	74	75269	51.85	ug/L	98
16) 2-chloropropane	7.318	43	284397	48.91	ug/L	99
17) acrolein	7.344	56	19249	53.75	ug/L	99
18) freon 113	7.580	151	100455	53.69	ug/L	100
19) 1,1-dichloroethene	7.564	61	221233	45.09	ug/L	99
20) acetone	7.595	43	173019	184.82	ug/L	97
21) acetonitrile	8.129	41	115653	467.50	ug/L	99
22) iodomethane	7.872	142	204317	50.74	ug/L	99
23) carbon disulfide	8.034	76	478166	47.21	ug/L	99
24) methylene chloride	8.479	84	146861	47.79	ug/L	96
25) methyl acetate	8.176	43	72136	48.40	ug/L	96
26) methyl tert butyl ether	8.944	73	748756	104.29	ug/L	98
27) trans-1,2-dichloroethene	8.970	61	217610	47.02	ug/L	98
28) hexane	9.409	57	193162	39.12	ug/L	99
29) di-isopropyl ether	9.681	45	538050	50.34	ug/L	99
30) ethyl tert-butyl ether	10.225	59	481148	50.77	ug/L	99
31) 1,1-dichloroethane	9.687	63	282828	48.40	ug/L	99
32) chloroprene	9.802	53	252117	53.69	ug/L	98
33) acrylonitrile	8.871	53	42922	60.55	ug/L	95
34) vinyl acetate	9.629	86	21362	55.99	ug/L	85
35) 2-butanone	10.455	72	50416	209.85	ug/L	94
36) ethyl acetate	10.481	45	16053	52.46	ug/L	98
37) 2,2-dichloropropane	10.544	77	230470	49.55	ug/L	100
38) cis-1,2-dichloroethene	10.513	96	161916	49.87	ug/L	99
39) methyl acrylate	10.570	85	14396	53.40	ug/L	91
40) propionitrile	10.549	54	149752	350.01	ug/L	94
41) bromochloromethane	10.842	128	62130	51.47	ug/L	95
42) tetrahydrofuran	10.852	42	29001	44.62	ug/L	97
43) chloroform	10.946	83	253276	47.40	ug/L	98
46) methacrylonitrile	10.763	67	39523	71.30	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221539.D
Acq On : 19 Mar 2018 11:13 pm
Operator : RobertS
Sample : ICV8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 22 09:38:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:37:40 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) cyclohexane	11.312	84	232381	51.61	ug/L		88
48) 1,1,1-trichloroethane	11.208	97	210408	47.87	ug/L		99
49) 1,1-dichloropropene	11.391	75	206720	48.60	ug/L		98
50) carbon tetrachloride	11.412	117	173686	49.81	ug/L		98
51) tert-amyl alcohol	11.553	73	28838	254.46	ug/L		99
52) isobutyl alcohol	11.380	43	48146	513.70	ug/L		96
55) isopropyl acetate	11.589	87	23959	55.63	ug/L	#	91
56) 2,2,4-trimethylpentane	11.752	57	690693	47.60	ug/L		98
57) tert-amyl methyl ether	11.746	73	415830	50.79	ug/L		99
58) benzene	11.647	78	601455	48.39	ug/L		99
59) heptane	11.919	57	150880	51.99	ug/L		98
60) 1,2-dichloroethane	11.694	62	177120	47.42	ug/L		99
61) n-butyl alcohol	12.154	56	152224	2637.12	ug/L		99
62) ethyl acrylate	12.400	55	130347	53.84	ug/L		97
63) trichloroethene	12.395	95	143880	49.59	ug/L		97
64) 2-chloroethyl vinyl ether	12.693	63	162038	245.06	ug/L		98
65) 2-nitropropane	13.163	41	30143	48.11	ug/L		99
66) methylcyclohexane	12.682	83	282208	47.06	ug/L		99
67) methyl methacrylate	12.661	100	26537	54.67	ug/L	#	63
68) 1,2-dichloropropane	12.693	63	162038	49.71	ug/L		96
69) dibromomethane	12.797	93	72706	51.45	ug/L		98
70) bromodichloromethane	12.954	83	183320	50.05	ug/L		98
71) epichlorohydrin	13.273	57	46919	253.54	ug/L		98
72) cis-1,3-dichloropropene	13.398	75	234023	51.86	ug/L		97
73) 4-methyl-2-pentanone	13.503	58	165037	220.46	ug/L		96
74) 3-methyl-1-butanol	13.508	55	99956	1032.79	ug/L		97
77) toluene	13.759	92	365284	49.44	ug/L		98
78) ethyl methacrylate	13.937	69	145652	54.90	ug/L		95
79) trans-1,3-dichloropropene	13.947	75	189601	48.66	ug/L		99
80) 1,1,2-trichloroethane	14.162	83	88163	52.74	ug/L		97
81) 2-hexanone	14.313	58	160495	218.09	ug/L		96
82) tetrachloroethene	14.282	166	157544	58.66	ug/L		99
83) 1,3-dichloropropane	14.329	76	188182	51.11	ug/L		100
84) butyl acetate	14.386	56	75137	54.57	ug/L		98
85) dibromochloromethane	14.559	129	111662	55.29	ug/L		99
86) 1,2-dibromoethane	14.705	107	99957	54.71	ug/L		100
87) n-butyl ether	15.092	57	683388	49.90	ug/L		99
88) chlorobenzene	15.139	112	373499	49.24	ug/L		97
89) 1,1,1,2-tetrachloroethane	15.202	131	135460	55.03	ug/L		97
90) ethylbenzene	15.192	91	716292	49.75	ug/L		100
91) m,p-xylene	15.301	106	529522	101.72	ug/L		97
92) o-xylene	15.662	91	577411	51.63	ug/L		100
93) styrene	15.673	104	439556	56.84	ug/L		99
94) butyl acrylate	15.500	55	232706	54.07	ug/L		98
95) bromoform	15.887	173	66271	57.69	ug/L		99
96) isopropylbenzene	15.965	105	697564	50.72	ug/L		100
97) cis-1,4-dichloro-2-butene	16.002	88	44655	54.70	ug/L		98
100) bromobenzene	16.316	156	152019	51.52	ug/L		95
101) 1,1,2,2-tetrachloroethane	16.216	83	128131	49.68	ug/L		99
102) trans-1,4-dichloro-2-b...	16.242	53	39375	63.49	ug/L		97
103) 1,2,3-trichloropropane	16.295	110	33636	52.61	ug/L		99
104) n-propylbenzene	16.326	91	848803	49.60	ug/L		100
105) 2-chlorotoluene	16.446	126	160366	50.72	ug/L		98
106) 4-chlorotoluene	16.546	91	496721	51.05	ug/L		100
107) 1,3,5-trimethylbenzene	16.457	105	587405	51.14	ug/L		99
108) tert-butylbenzene	16.750	134	122319	53.04	ug/L		96
109) 1,2,4-trimethylbenzene	16.791	105	595879	52.10	ug/L		100
110) sec-butylbenzene	16.933	105	775143	50.64	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221539.D
Acq On : 19 Mar 2018 11:13 pm
Operator : RobertS
Sample : ICV8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 22 09:38:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:37:40 2018
Response via : Initial Calibration

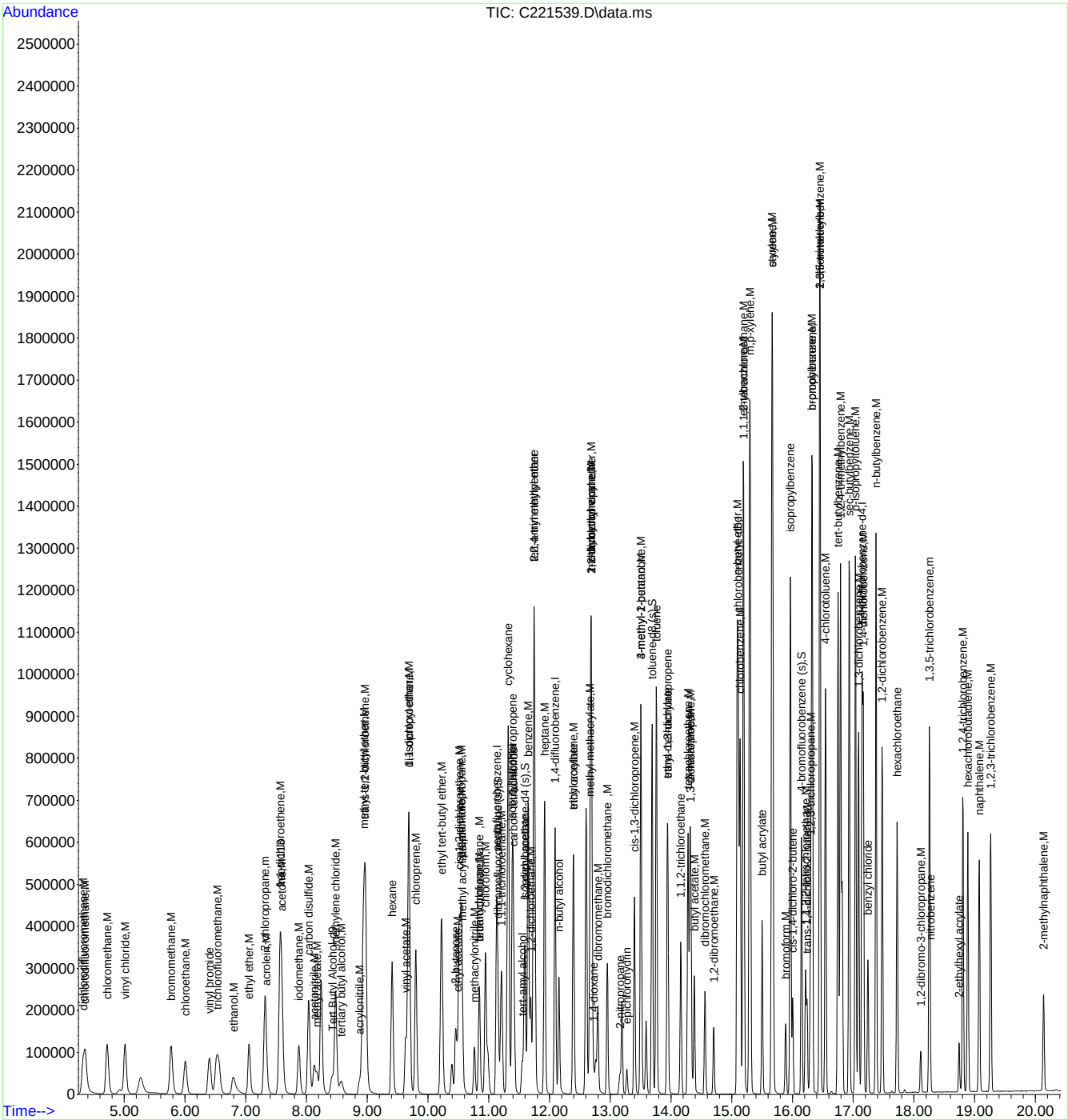
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
111) 1,3-dichlorobenzene	17.089	146	298444	50.07	ug/L		100
112) p-isopropyltoluene	17.037	119	622429	50.77	ug/L		99
113) 1,4-dichlorobenzene	17.168	146	294946	47.89	ug/L		99
114) benzyl chloride	17.241	91	198793	41.79	ug/L		99
115) 1,2-dichlorobenzene	17.476	146	275659	48.84	ug/L		99
116) n-butylbenzene	17.377	92	339424	49.16	ug/L		99
117) hexachloroethane	17.727	201	93425	57.53	ug/L		99
118) 1,2-dibromo-3-chloropr...	18.114	157	22796	54.26	ug/L		96
119) 1,3,5-trichlorobenzene	18.255	180	239608	48.10	ug/L		99
120) nitrobenzene	18.276	77	6866	46.06	ug/L		92
121) 2-ethylhexyl acrylate	18.747	70	27387	9.74	ug/L		96
122) 1,2,4-trichlorobenzene	18.804	180	196171	49.75	ug/L		95
123) hexachlorobutadiene	18.888	225	112107	50.81	ug/L	#	96
124) naphthalene	19.076	128	404901	53.46	ug/L		99
125) 1,2,3-trichlorobenzene	19.264	180	178154	51.03	ug/L		99
126) 2-methylnaphthalene	20.137	142	112248	28.58	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221539.D
Acq On : 19 Mar 2018 11:13 pm
Operator : RobertS
Sample : ICV8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 22 09:38:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:37:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221540.D
Acq On : 19 Mar 2018 11:42 pm
Operator : RobertS
Sample : ICV8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 22 09:32:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:31:04 2018
Response via : Initial Calibration

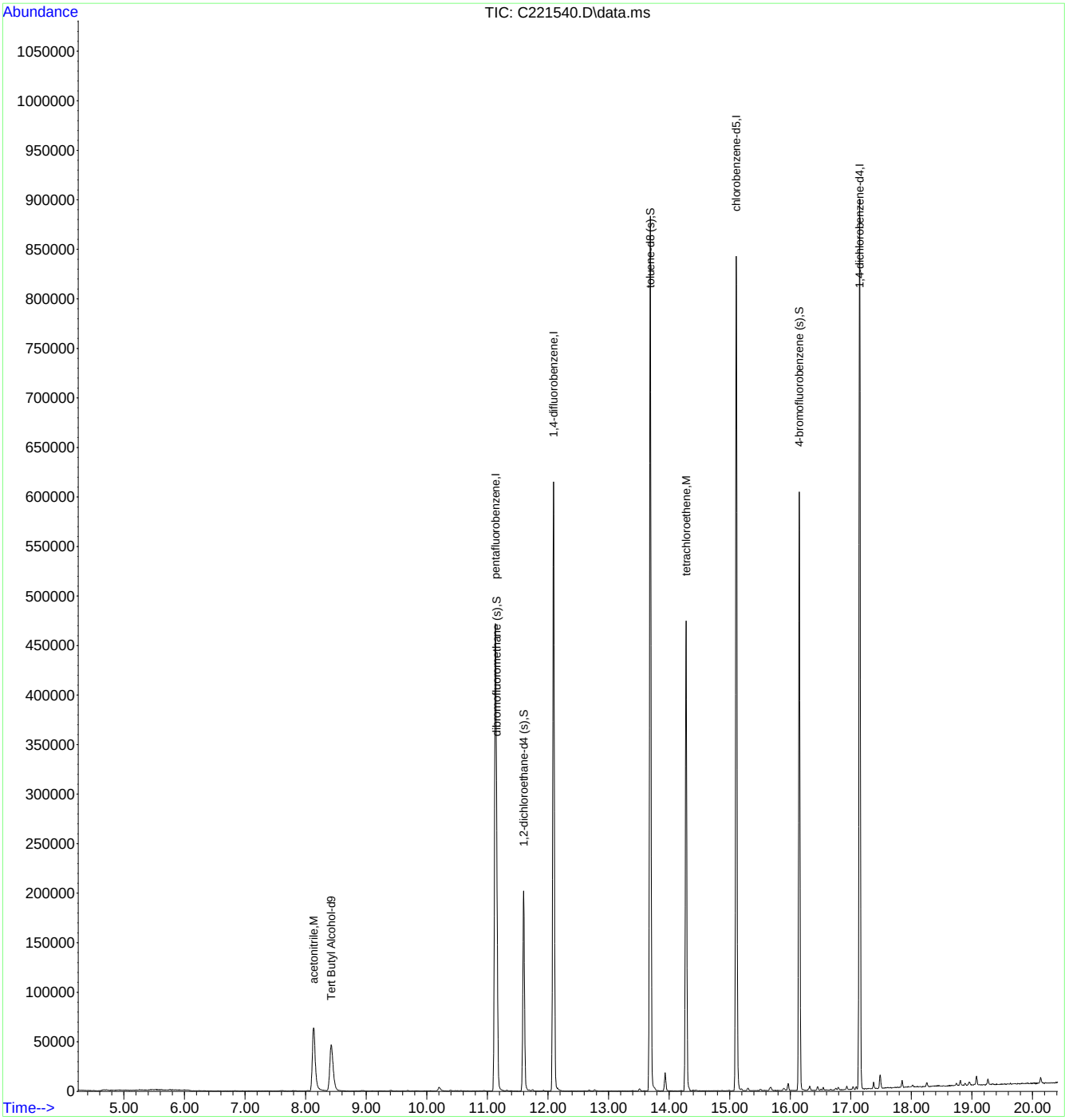
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.421	65	98993	500.00	ug/L	0.00
5) pentafluorobenzene	11.130	168	284490	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.091	114	458664	50.00	ug/L	0.00
75) chlorobenzene-d5	15.108	117	406768	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.147	152	190397	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.156	113	118869	48.70	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery = 97.40%			
54) 1,2-dichloroethane-d4 (s)	11.600	65	135371	50.19	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery = 100.38%			
76) toluene-d8 (s)	13.691	98	531078	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
99) 4-bromofluorobenzene (s)	16.154	174	138821	51.22	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery = 102.44%			
Target Compounds						Qvalue
21) acetonitrile	8.134	41	117248	472.32	ug/L	99
82) tetrachloroethene	14.282	166	122514	45.48	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VC8199\
Data File : C221540.D
Acq On : 19 Mar 2018 11:42 pm
Operator : RobertS
Sample : ICV8199-50
Misc : MS23682,VC8199,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 22 09:32:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Mar 22 09:31:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c221999.d
Acq On : 19 May 2018 11:29 am
Operator : RobertS
Sample : cc8199-20 Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:45:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.422	65	73722	500.00	ug/L	0.00
5) pentafluorobenzene	11.131	168	202297	50.00	ug/L	0.00
53) 1,4-difluorobenzene	12.093	114	340289	50.00	ug/L	0.00
75) chlorobenzene-d5	15.106	117	316163	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.146	152	152586	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	11.152	113	92894	53.52	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 107.04%			
54) 1,2-dichloroethane-d4 (s)	11.596	65	102957	51.46	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 102.92%			
76) toluene-d8 (s)	13.689	98	437657	53.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.02%			
99) 4-bromofluorobenzene (s)	16.147	174	109900	50.59	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 101.18%			
Target Compounds						Qvalue
2) ethanol	6.790	45	43011	2149.36	ug/L	96
3) tertiary butyl alcohol	8.568	59	19957	101.94	ug/L	98
4) 1,4-dioxane	12.737	88	7555	513.42	ug/L	97
6) chlorodifluoromethane	4.358	51	46576	18.21	ug/L	97
7) dichlorodifluoromethane	4.327	85	63238	23.52	ug/L	97
8) chloromethane	4.719	50	86658	22.39	ug/L	100
9) vinyl chloride	5.012	62	77544	21.51	ug/L	97
11) bromomethane	5.765	94	40098	18.84	ug/L	98
12) chloroethane	6.005	64	43258	21.59	ug/L	98
13) vinyl bromide	6.398	106	40816	23.58	ug/L	95
14) trichlorofluoromethane	6.523	101	65708	21.04	ug/L	99
16) 2-chloropropane	7.318	43	90179	21.73	ug/L	95
17) acrolein	7.344	56	5891	23.05	ug/L	94
18) freon 113	7.580	151	29044	21.75	ug/L	96
19) 1,1-dichloroethene	7.564	61	76778	21.93	ug/L	98
20) acetone	7.595	43	34725	51.99	ug/L	96
21) acetonitrile	8.129	41	42497	240.75	ug/L	98
23) carbon disulfide	8.035	76	140007	19.37	ug/L	98
24) methylene chloride	8.474	84	47529	21.67	ug/L	99
25) methyl acetate	8.176	43	26089	24.53	ug/L	97
26) methyl tert butyl ether	8.940	73	113119	22.08	ug/L	94
27) trans-1,2-dichloroethene	8.971	61	71371	21.61	ug/L	98
28) hexane	9.405	57	78539	22.29	ug/L	98
29) di-isopropyl ether	9.682	45	168270	22.06	ug/L	96
30) ethyl tert-butyl ether	10.221	59	144324	21.34	ug/L	98
31) 1,1-dichloroethane	9.687	63	88350	21.19	ug/L	98
32) chloroprene	9.797	53	73157	21.84	ug/L	98
34) vinyl acetate	9.630	86	5147	18.91	ug/L	90
35) 2-butanone	10.451	72	13178	76.87	ug/L	98
36) ethyl acetate	10.477	45	4918	22.53	ug/L	91
37) 2,2-dichloropropane	10.540	77	69814	21.04	ug/L	100
38) cis-1,2-dichloroethene	10.514	96	48272	20.84	ug/L	99
41) bromochloromethane	10.843	128	17726	20.58	ug/L	95
43) chloroform	10.943	83	76137	19.97	ug/L	99
47) cyclohexane	11.314	84	73848	22.98	ug/L	70
48) 1,1,1-trichloroethane	11.209	97	65908	21.02	ug/L	96
49) 1,1-dichloropropene	11.387	75	63741	21.00	ug/L	99
50) carbon tetrachloride	11.413	117	52015	20.90	ug/L	99
51) tert-amyl alcohol	11.549	73	8597	106.31	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c221999.d
Acq On : 19 May 2018 11:29 am
Operator : RobertS
Sample : cc8199-20 Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:45:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) isobutyl alcohol	11.382	43	15678	234.44	ug/L		91
55) isopropyl acetate	11.591	87	6640	20.92	ug/L	#	90
56) 2,2,4-trimethylpentane	11.748	57	233432	21.83	ug/L		96
57) tert-amyl methyl ether	11.743	73	124872	20.70	ug/L		98
58) benzene	11.649	78	192210	20.99	ug/L		99
59) heptane	11.921	57	45677	21.36	ug/L		96
60) 1,2-dichloroethane	11.691	62	51547	18.73	ug/L		98
61) n-butyl alcohol	12.156	56	48903	1149.77	ug/L		97
62) ethyl acrylate	12.402	55	38519	21.59	ug/L		98
63) trichloroethene	12.391	95	44193	20.67	ug/L		95
64) 2-chloroethyl vinyl ether	12.690	63	50785	104.24	ug/L		97
66) methylcyclohexane	12.679	83	94429	21.37	ug/L		97
68) 1,2-dichloropropane	12.690	63	50785	21.15	ug/L		100
69) dibromomethane	12.794	93	20741	19.92	ug/L		95
70) bromodichloromethane	12.951	83	54607	20.23	ug/L		99
71) epichlorohydrin	13.275	57	15092	110.68	ug/L		97
72) cis-1,3-dichloropropene	13.396	75	70138	21.09	ug/L		98
73) 4-methyl-2-pentanone	13.500	58	52964	96.02	ug/L		95
74) 3-methyl-1-butanol	13.505	55	31740	445.08	ug/L		97
77) toluene	13.762	92	115756	20.10	ug/L		98
79) trans-1,3-dichloropropene	13.950	75	59544	19.60	ug/L		99
80) 1,1,2-trichloroethane	14.159	83	27694	21.25	ug/L		97
81) 2-hexanone	14.311	58	48976	85.36	ug/L		98
82) tetrachloroethene	14.280	166	40137	19.17	ug/L		98
83) 1,3-dichloropropane	14.327	76	58302	20.31	ug/L		98
84) butyl acetate	14.384	56	24430	22.76	ug/L		93
85) dibromochloromethane	14.557	129	31170	19.80	ug/L		98
86) 1,2-dibromoethane	14.703	107	30407	21.34	ug/L		99
87) n-butyl ether	15.090	57	226245	21.19	ug/L		98
88) chlorobenzene	15.137	112	114272	19.32	ug/L		99
89) 1,1,1,2-tetrachloroethane	15.200	131	36558	19.05	ug/L		98
90) ethylbenzene	15.190	91	223805	19.94	ug/L		99
91) m,p-xylene	15.299	106	165009	40.66	ug/L		99
92) o-xylene	15.660	91	174875	20.06	ug/L		99
93) styrene	15.671	104	128425	21.30	ug/L		98
94) butyl acrylate	15.498	55	66762	19.90	ug/L		98
95) bromoform	15.885	173	17411	19.44	ug/L		99
96) isopropylbenzene	15.964	105	213480	19.91	ug/L		99
97) cis-1,4-dichloro-2-butene	16.000	88	13048	20.50	ug/L		84
100) bromobenzene	16.314	156	44234	19.03	ug/L		98
101) 1,1,2,2-tetrachloroethane	16.215	83	41854	20.60	ug/L		99
103) 1,2,3-trichloropropane	16.293	110	10523	20.90	ug/L	#	89
104) n-propylbenzene	16.325	91	269096	19.96	ug/L		100
105) 2-chlorotoluene	16.445	126	48308	19.40	ug/L		92
106) 4-chlorotoluene	16.544	91	153840	20.07	ug/L		97
107) 1,3,5-trimethylbenzene	16.450	105	180070	19.90	ug/L		100
108) tert-butylbenzene	16.748	134	34927	19.23	ug/L		95
109) 1,2,4-trimethylbenzene	16.790	105	181499	20.15	ug/L		99
110) sec-butylbenzene	16.931	105	238661	19.80	ug/L		99
111) 1,3-dichlorobenzene	17.088	146	89112	18.98	ug/L		96
112) p-isopropyltoluene	17.036	119	191492	19.83	ug/L		99
113) 1,4-dichlorobenzene	17.167	146	89809	18.51	ug/L		99
114) benzyl chloride	17.240	91	78912	21.06	ug/L		99
115) 1,2-dichlorobenzene	17.475	146	82540	18.57	ug/L		97
116) n-butylbenzene	17.376	92	108943	20.03	ug/L		99
118) 1,2-dibromo-3-chloropr...	18.108	157	6945	20.99	ug/L		97
119) 1,3,5-trichlorobenzene	18.254	180	70937	18.08	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c221999.d
Acq On : 19 May 2018 11:29 am
Operator : RobertS
Sample : cc8199-20 Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:45:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration

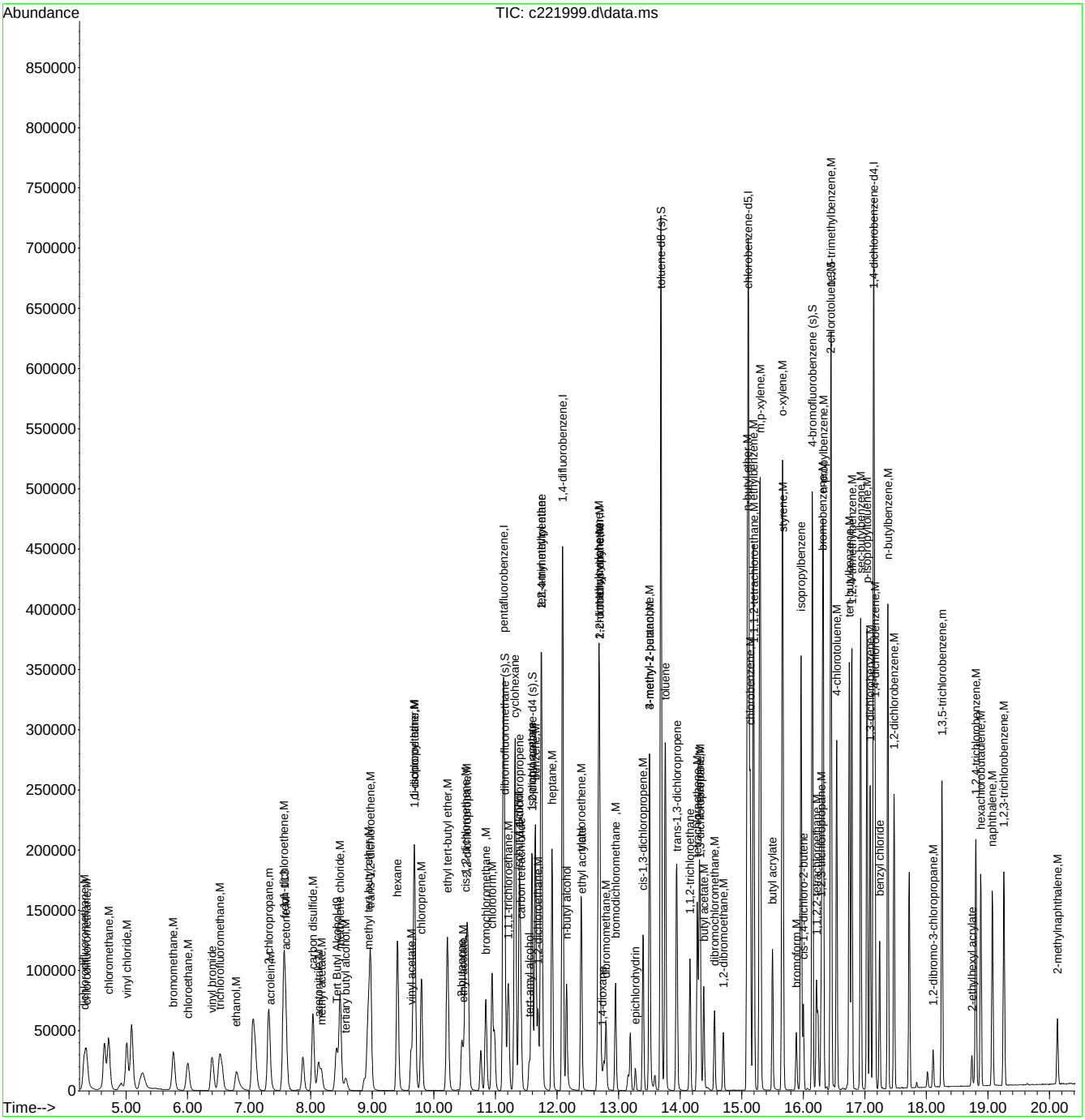
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
121) 2-ethylhexyl acrylate	18.741	70	6211	3.66	ug/L	97
122) 1,2,4-trichlorobenzene	18.804	180	57314	18.45	ug/L	95
123) hexachlorobutadiene	18.882	225	32645	18.78	ug/L #	94
124) naphthalene	19.070	128	118532	19.87	ug/L	99
125) 1,2,3-trichlorobenzene	19.259	180	51689	18.80	ug/L	99
126) 2-methylnaphthalene	20.127	142	27668	8.94	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-22-18\vc8227\
Data File : c221999.d
Acq On : 19 May 2018 11:29 am
Operator : RobertS
Sample : cc8199-20 Inst : MSC
Misc : MS26233,VC8227,5.0,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MC8199S.M
Quant Results File: MC8199S.RES
Quant Time: May 21 22:45:50 2018
Quant Title : Method 8260C, Rxi-624 60 m x 0.25 mm x 1.4 um
QLast Update : Tue May 01 13:48:20 2018
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #			
ICC Standard	ABK: V018-2623-05.36	C: V018-2623-16.16	E: V018-2623-03.39	
Concentration	100-10000 PPM	100 PPM	100 PPM	
ICV Standard	Ext. ABK: V018-2615-137.7	Ext.C: V018-2623-21.7	Ext.E: V018-2615-133.8	Ext.PA: V018-2623-19.3
Concentration	100-10000 PPM	100 PPM	100 PPM	100-1000 PPM
Internal Standard/Surrogate	V018-2623-18			
Concentration	50/500 PPM			
Rough reviewed by				

Standard / Reagents			
GCMS1C	Instrument ID:	Sequence loaded by	Prashant B. Shukla
Analysis Date	5/16/2018	Data processed by	Roberts
Column	Rxi-624 (60mx0.25mmx1.4um)	Batch ID	V1C6917
Method	V8260C	Matrix	SO
Init Calib Date	3/23/18	Approved By:	JESSICA
Init Calib Quant Method	M1CS6917	Approved Date:	5/25/2018 3:39:03 PM
DI Purge Volume	5		

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	156796	BFB		NA		Tune	5.0	5		1	ok	4:51 PM
1C	156797	IC6917-0.5		NA		ICC8260	5.0	5		2	ok	1uL Std.A/B/K,C,E in 200mL DI H2O
1C	156798	IC6917-1		NA		ICC8260	5.0	5		3	ok	1uL Std.A/B/K,C,E in 100mL DI H2O
1C	156799	IC6917-2		NA		ICC8260	5.0	5		4	ok	2uL Std.A/B/K,C,E in 100mL DI H2O
1C	156800	IC6917-4		NA		ICC8260	5.0	5		5	ok	2uL Std.A/B/K,C,E in 50mL DI H2O

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	156801	IC6917-8		NA		ICC8260	5.0	5		6	ok	4uL Std.A/B/K,C,E in 50mL DI H2O
1C	156802	IC6917-20		NA		ICC8260	5.0	5		7	ok	10uL Std.A/B/K,C,E in 50mL DI H2O
1C	156803	ICC6917-50		NA		ICC8260	5.0	5		8	ok	25uL Std.A/B/K,C,E in 50mL DI H2O
1C	156804	IC6917-100		NA		ICC8260	5.0	5		9	ok	50uL Std.A/B/K,C,E in 50mL DI H2O
1C	156805	IC6917-200		NA		ICC8260	5.0	5		10	ok	100uL Std.A/B/K,C,E in 50mL DI H2O
1C	156806	IB		NA			5.0	5		11	ok	
1C	156807	IB		NA			5.0	5		12	ok	
1C	156808	ICV6917-50		NA		ICV8260	5.0	5		13	ok	25uL Ext.A/B/K,C,E in 50mL DI H2O
1C	156809	ICC6917-50		NA		ICV8260	5.0	5		14	ok	25uL Ext. PA in 50mL DI H2O
1C	156810	IB		NA			5.0	5		15	ok	
1C	156811	IB		NA			5.0	5		16	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #			
ICC Standard	ABK: V018-2623-05.25	C: V018-2623-16.18	E: V018-2623-03.23	
Concentration	100-10000 PPM	100 PPM	100 PPM	
Internal Standard/Surrogate	V018-2623-18			
Concentration	50/500 PPM			
Rough reviewed by	Prashant B. Shukla			

Standard / Reagents			
GCMS1C	Instrument ID:	Sequence loaded by	Prashant B. Shukla
Analysis Date	5/21/2018	Data processed by	michellc
Column	Rxi-624 (60mx0.25mmx1.4um)	Batch ID	V1C6921
Method	V8260C	Matrix	SO
Init Calib Date	5/16/2018	Approved By:	ROBERTS
Init Calib Quant Method	M1CS6917	Approved Date:	5/30/2018 8:12:46 AM
DI Purge Volume	5		

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	156897	BFB/CC6917-20		NA			5.0	5		1	OKOK	10uL Std.A/B/K,C,E in 50mL DI H2O, 8:13 AM
1C	156898	BS		NA			5.0	5		2	OK	25uL Std.A/B/K,C,E in 50mL DI H2O
1C	156899	IB		NA			5.0	5		3	OK	
1C	156900	MB/JC58164E-21A		NA	MS24670	V8260SL	5.0	5		4	OKOK	
1C	156901	JC66413-1	5	NA	MS26476	V8260TCL20+	4.73	5		5	OK	
1C	156902	JC66413-2	4	NA	MS26476	V8260TCL20+	5.95	5		6	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	156903	JC66413-3	4	NA	MS26476	V8260TCL20+	4.94	5		7	OK	
1C	156904	JC66413-4	4	NA	MS26476	V8260TCL20+	5.85	5		8	OK	
1C	156905	JC66413-5	4	NA	MS26476	V8260TCL20+	3.91	5		9	OK	
1C	156906	JC66413-6	4	NA	MS26476	V8260TCL20+	5.62	5		10	OK	
1C	156907	JC66413-7	4	NA	MS26476	V8260TCL20+	3.79	5		11	OK	
1C	156908	JC66312-1CFS	5	NA	MS26441	V8260RCP	6.34	5		12	OK	(+1C156876)
1C	156909	JC66384-4	5	NA	MS26459	V8260TCL20	3.97	5		13	OK	
1C	156910	JC66413-1MS	4	NA	MS26476	V8260TCL20+	3.37	5		14	OK	2.5uL Std.A/B/K,C,E in sample
1C	156911	JC66413-2DUP	5	NA	MS26476	V8260TCL20+	5.96	5		15	OK	
1C	156912	JC66413-8	4	NA	MS26476	V8260TCL20+	4.51	5		16	OK	
1C	156913	JC66413-9	4	NA	MS26476	V8260TCL20+	4.25	5		17	OK	
1C	156914	JC66413-10	4	NA	MS26476	V8260TCL20+	4.2	5		18	OK	
1C	156915	JC66413-11	4	NA	MS26476	V8260TCL20+	4.55	5		19	OK	
1C	156916	JC66413-12	4	NA	MS26476	V8260TCL20+	4.87	5		20	OK	
1C	156917	JC66413-13	4	NA	MS26476	V8260TCL20+	5.28	5		21	OK	
1C	156918	JC66413-14	5	NA	MS26476	V8260TCL20+	6.67	5		22	OK	
1C	156919	JC66405-1	5	NA	MS26484	V8260RCP	4.7	5		23	OK	
1C	156920	JC66405-2	5	NA	MS26484	V8260RCP	3.8	5		24	OK	
1C	156921	JC66405-3	5	NA	MS26484	V8260RCP	6.0	5		25	OK	
1C	156922	JC66526-3	4	NA	MS26533	V8260TCL20	3.65	5		26	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	156923	IB		NA			5.0	5		27	OK	
1C	156924	IB		NA			5.0	5		28	OK	5/22/18
1C	156925	CC6917-50		NA			5.0	5		29	NG	25uL Std.A/B/K,C,E in 50mL DI H2O

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standards	ABK V018-2623-05.2	C V018-2623-04.12	E V018-2623-03.2		Method	V8260C
Standard Concentration	100-10000 ppm	100ppm	100ppm		Init Calib Date	5/3/2018
Internal Surrogate	V018-2615-130					
Internal Surrogate Concentration	50/500ppm					
Standards	Ext ABK V018-2615-137.7	Ext C V018-2623-01.5	Ext E V018-2615-133.7	Ext PA V018-2615-128.2	Analysis Date	5/3/2018
Standard Concentration	100-10000 ppm	100 ppm	100 ppm	100/1000 ppm	Sequence loaded by	Robert Szot
					Data processed by	Robert Szot
					Batch ID	V2D7390
					Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	BRIDGETK
pH Paper Lot#	216315				Approved Date:	5/14/2018 3:06:48 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175264	BFB		NA			5			1	ok	
2D	175265	IC7390-1		NA		8260 initial cal.	5			2	ok	5 uL ABK, C, E / 500 mL DI H2O
2D	175266	IC7390-0.5		NA		8260 initial cal.	5			3	ok	2.5 uL ABK, C, E / 500 mL DI H2O
2D	175267	IC7390-2		NA		8260 initial cal.	5			4	ok	10 uL ABK, C, E / 500 mL DI H2O
2D	175268	IC7390-5		NA		8260 initial cal.	5			5	ok	5 uL ABK, C, E / 100 mL DI H2O
2D	175269	IC7390-10		NA		8260 initial cal.	5			6	ok	10 uL ABK, C, E / 100 mL DI H2O
2D	175270	IC7390-20		NA		8260 initial cal.	5			7	ok	20 uL ABK, C, E / 100 mL DI H2O
2D	175271	ICC7390-50		NA		8260 initial cal.	5			8	ok	50 uL ABK, C, E / 100 mL DI H2O
2D	175272	IC7390-100		NA		8260 initial cal.	5			9	ok	100 uL ABK, C, E / 100 mL DI H2O
2D	175273	IC7390-200		NA		8260 initial cal.	5			10	ok	200 uL ABK, C, E / 100 mL DI H2O
2D	175274	IB		NA			5			11	ok	
2D	175275	IB		NA			5			12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175276	ICV7390-50		NA		8260 initial cal.	5			13	ok	50 uLExt ABK, Ext C, Ext E / 100 mL DI H2O
2D	175277	ICV7390-50		NA		8260 initial cal.	5			14	ok	50 uLExt PA / 100 mL DI H2O

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standards	ABK V018-2623-20.12	C V018-2623-03.27	E V018-2623-16.17		Method	
Standard Concentration	100-10000 ppm	100ppm	100ppm		Init Calib Date	5/3/2018
Internal Surrogate	V018-2615-147					
Internal Surrogate Concentration	250/2500ppm					
					Analysis Date	5/19/2018
					Sequence loaded by	Maricela Delgadillo
					Data processed by	nizele
					Batch ID	V2D7409
Rough Review Completed	Jessica Potts 5/21/18.				Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	MEI
pH Paper Lot#	216315				Approved Date:	5/23/2018 9:58:53 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2d	175666	IB		NA			5			1	ok	
2d	175667	BFB/CC7390-20		NA			5			2	ok/ok	20ul ABK, C, E/100ml 9:36AM high #7, #14 5/19/18.
2d	175668	BS		NA			5			3	ok	50ul ABK, C, E/100ml
2d	175669	IB		NA			5			4	ok	
2d	175670	MB		NA			5			5	ok	
2d	175671	JC66383-4	2	NA	MS26472	V8260TCL20+	5		1	6	ok	
2d	175672	JC66383-6	4	NA	MS26472	V8260TCL20+	5		1	7	ok	
2d	175673	JC66383-5	2	10x	MS26472	V8260TCL20+	5/50		1	8	ok/RR	RR 2X to combine
2d	175674	JC66383-5MS	2	10x	MS26472	V8260TCL20+	5/50		1	9	ok	50ul ABK, C, E/100ml
2d	175675	JC66383-5MSD	2	10x	MS26472	V8260TCL20+	5/50		1	10	ok	50ul ABK, C, E/100ml
2d	175676	IB		NA			5			11	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2d	175677	JC66380-3	4	NA	MS26472	V8260TCL20+	5		1	12	ok	
2d	175678	JC66380-4	1	NA	MS26472	V8260TCL20+	5		1	13	ok	
2d	175679	JC66383-1	4	NA	MS26472	V8260NJTCL20+	5		1	14	ok	
2d	175680	JC66384-3	1	NA	MS26472	V8260TCL20	5		1	15	ok	
2d	175681	JC66389-8	1	NA	MS26472	V8260TCL20+	5		1	16	ok	
2d	175682	JC66396-4	2	NA	MS26472	V8260TCL20+	5		1	17	ok	
2d	175683	JC66383-2	10	NA	MS26472	V8260NJTCL20+	5		1	18	ok	
2d	175684	JC66383-3	9	NA	MS26472	V8260NJTCL20+	5		1	19	ok	
2d	175685	JC66389-1	2	NA	MS26472	V8260TCL20+	5		1	20	ok	
2d	175686	JC66389-2	2	NA	MS26472	V8260TCL20+	5		1	21	ok	
2d	175687	JC66389-5	2	NA	MS26472	V8260TCL20+	5		1	22	ok	
2d	175688	JC66389-6	4	25x	MS26472	V8260TCL20+	2/50		3	23	ok/RR	RR 5X to combine (9: 08 pm) 5/21/18.

GCMS Volatile Run Log

Standard / Reagents	Lot #			
ICC Std.	ABK: V018-2615-89.6	C: V018-2615-90.5	EK: V018-2615-92.4	
Concentration	100/10000 PPM	100 PPM	100 PPM	
ICV Std.	Ext.ABK: V018-2615-74.7	Ext.C: V018-2615-83.10	Ext.E: V018-2615-75.3	Ext.PA: V018-2615-85.2
Concentration	100/10000 PPM	100 PPM	100 PPM	100 PPM
I/S	V017-2615-87			
Concentration	250/2500ppm			
Rough Reviewed By				

Standard / Reagents			
GCMSC	Instrument ID:	Sequence loaded by	Prashant B. Shukla
Analysis Date	3/19/2018	Data processed by	Roberts
Column	RXI624 (60m x 0.25mm x 1.4 um)	Batch ID	VC8199
Method	V8260C	Matrix	SO
Init Calib Date	3/19/2018	Approved By:	JESSICA
Init Calib Quant Method	MC8199S	Approved Date:	3/28/2018 8:37:30 AM
DI Purge Volume	5		

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
C	221526	BFB		NA		TUNE	5.0	5		1	ok	4:46 PM
C	221527	IC8199-0.2		NA		IC8260	5.0	5		2	ok	1uL Std.A/B/K,C,EK in 500mL DI H2O
C	221528	IC8199-0.5		NA		IC8260	5.0	5		3	ok	1uL Std.A/B/K,C,EK in 200mL DI H2O
C	221529	IC8199-1		NA		IC8260	5.0	5		4	ok	1uL Std.A/B/K,C,EK in 100mL DI H2O
C	221530	IC8199-2		NA		IC8260	5.0	5		5	ok	1uL Std.A/B/K,C,EK in 50mL DI H2O
C	221531	IC8199-4		NA		IC8260	5.0	5		6	ok	2uL Std.A/B/K,C,EK in 50mL DI H2O

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
C	221532	IC8199-8		NA		IC8260	5.0	5		7	ok	4uL Std.A/B/K,C,EK in 50mL DI H2O
C	221533	IC8199-20		NA		IC8260	5.0	5		8	ok	10uL Std.A/B/K,C,EK in 50mL DI H2O
C	221534	ICC8199-50		NA		IC8260	5.0	5		9	ok	25uL Std.A/B/K,C,EK in 50mL DI H2O
C	221535	IC8199-100		NA		IC8260	5.0	5		10	ok	50uL Std.A/B/K,C,EK in 50mL DI H2O
C	221536	IC8199-200		NA		IC8260	5.0	5		11	ok	100uL Std.A/B/K,C,EK in 50mL DI H2O
C	221537	IB		NA			5.0	5		12	ok	
C	221538	IB		NA			5.0	5		13	ok	
C	221539	ICV8199-50		NA		ICV8260	5.0	5		14	ok	25uL Ext.A/B/K,C,E in 50mL DI H2O
C	221540	ICV8199-50		NA		ICV8260	5.0	5		15	ok	25uL Ext.PA in 50mL DI H2O
C	221541	IB		NA			5.0	5		16	ok	
C	221542	IB		NA			5.0	5		17	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #			
ICC Standard	ABK: V018-2623-05.36	C: V018-2623-16.16	E: V018-2623-03.39	
Concentration	100-10000 PPM	100 PPM	100 PPM	
Internal Standard/Surrogate	V018-2623-18			
Concentration	50/500 PPM			
Rough reviewed by	Prashant B. Shukla			

Standard / Reagents			
GCMSC	Instrument ID:	Sequence loaded by	Prashant B. Shukla
Analysis Date	5/19/2018	Data processed by	janellec
Column	Rxi-624 (60mx0.25mmx1.4um)	Batch ID	VC8227
Method	V8260C	Matrix	SO
Init Calib Date	3/23/18	Approved By:	JESSICA
Init Calib Quant Method	MC8199S	Approved Date:	5/30/2018 3:28:56 PM
DI Purge Volume	5		

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
C	221999	BFB/CC8199-20		NA			5.0	5		1	ok/ok	10uL Std.A/B/K,C,E in 50mL DI H2O, # 25 high, 11:29 AM
C	222000	CC8199-2		NA			5.0	5		2	ok	1uL Std.A/B/K,C,E in 50mL DI H2O, for # 20
C	222001	BS		NA			5.0	5		3	ok	25uL Std.A/B/K,C,E in 50mL DI H2O
C	222002	IB		NA			5.0	5		4	OK	
C	222003	MB		NA			5.0	5		5	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
C	222004	JC66392-1	5	NA	MS26459	V8260TCL20+	5.5	5		6	ok	
C	222005	JC66392-2	5	NA	MS26459	V8260TCL20+	5.0	5		7	ok	
C	222006	JC66384-1	4	NA	MS26459	V8260TCL20	6.09	5		8	ok	
C	222007	JC66384-2	4	NA	MS26459	V8260TCL20	5.94	5		9	ok	
C	222008	JC66384-4	4	NA	MS26459	V8260TCL20	4.19	5		10	RR	one Surr. Out, rr II for CFS
C	222009	JC66392-1DUP	6	NA	MS26459	V8260TCL20+	5.1	5		11	ok	
C	222010	JC66392-2MS	6	NA	MS26459	V8260TCL20+	5.9	5		12	ok	2.5uL Std.A/B/K,C,E in sample
C	222011	IB		NA			5.0	5		13	OK	
C	222012	JC66368-8	5	NA	MS26454	V8260BTXMTN	6.1	5		14	ok	
C	222013	JC66368-10	5	NA	MS26454	V8260BTXMTN	6.5	5		15	ok	
C	222014	JC66368-17	5	NA	MS26454	V8260BTXMTN	6.5	5		16	ok	
C	222015	JC66368-1	5	NA	MS26454	V8260BTXMTN	6.4	5		17	ok/DL	SME
C	222016	JC66368-2	5	NA	MS26454	V8260BTXMTN	6.8	5		18	ok/DL	SME
C	222017	JC66368-5	5	NA	MS26454	V8260TCL20+	6.8	5		19	RR	One Int. Out, RR SME
C	222018	JC66368-9	5	NA	MS26454	V8260BTXMTN	7.1	5		20	ok/DL	SME
C	222019	JC66368-12	5	NA	MS26454	V8260BTXMTN	7.2	5		21	RR	One Int. Out, RR SME
C	222020	JC66368-15	5	NA	MS26454	V8260TCL20+	7.1	5		22	RR	One Int./Surr. Out, RR SME
C	222021	JC66368-16	5	NA	MS26454	V8260TCL20+	6.3	5		23	ok	10:35 PM
C	222022	IB		NA			5.0	5		24	OK	

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-MB1	2M104457.D	1	05/26/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-MB1	2M104457.D	1	05/26/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-MB1	2M104457.D	1	05/26/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	87%	23-115%
4165-62-2	Phenol-d5	88%	27-114%
118-79-6	2,4,6-Tribromophenol	84%	19-152%
4165-60-0	Nitrobenzene-d5	87%	26-134%
321-60-8	2-Fluorobiphenyl	85%	39-124%
1718-51-0	Terphenyl-d14	92%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	1.91	150	ug/kg	J
	system artifact/aldol-condensation	3.27	320	ug/kg	J
	alkane	16.35	140	ug/kg	J
	alkane	16.79	130	ug/kg	J
	Total TIC, Semi-Volatile		270	ug/kg	J

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-BS1	2M104458.D	1	05/26/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1370	82	44-122
59-50-7	4-Chloro-3-methyl phenol	1670	1450	87	50-123
120-83-2	2,4-Dichlorophenol	1670	1340	80	48-122
105-67-9	2,4-Dimethylphenol	1670	1490	89	48-124
51-28-5	2,4-Dinitrophenol	3330	3260	98	34-146
534-52-1	4,6-Dinitro-o-cresol	1670	1550	93	49-140
95-48-7	2-Methylphenol	1670	1360	82	40-126
	3&4-Methylphenol	1670	1350	81	40-127
88-75-5	2-Nitrophenol	1670	1430	86	44-133
100-02-7	4-Nitrophenol	1670	1980	119	35-153
87-86-5	Pentachlorophenol	1670	1360	82	15-149
108-95-2	Phenol	1670	1300	78	50-109
58-90-2	2,3,4,6-Tetrachlorophenol	1670	1360	82	44-132
95-95-4	2,4,5-Trichlorophenol	1670	1440	86	45-124
88-06-2	2,4,6-Trichlorophenol	1670	1450	87	57-122
83-32-9	Acenaphthene	1670	1480	89	53-119
208-96-8	Acenaphthylene	1670	1450	87	41-125
98-86-2	Acetophenone	1670	1390	83	52-112
120-12-7	Anthracene	1670	1360	82	51-120
1912-24-9	Atrazine	1670	1460	88	49-139
56-55-3	Benzo(a)anthracene	1670	1340	80	54-118
50-32-8	Benzo(a)pyrene	1670	1340	80	55-121
205-99-2	Benzo(b)fluoranthene	1670	1370	82	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1290	77	40-124
207-08-9	Benzo(k)fluoranthene	1670	1310	79	59-116
101-55-3	4-Bromophenyl phenyl ether	1670	1330	80	60-122
85-68-7	Butyl benzyl phthalate	1670	1570	94	51-134
92-52-4	1,1'-Biphenyl	1670	1430	86	46-122
100-52-7	Benzaldehyde	1670	1070	64	14-139
91-58-7	2-Chloronaphthalene	1670	1430	86	49-120
106-47-8	4-Chloroaniline	1670	519	31 [a]	10-115
86-74-8	Carbazole	1670	1370	82	52-124
105-60-2	Caprolactam	1670	1350	81	16-139
218-01-9	Chrysene	1670	1320	79	51-115
111-91-1	bis(2-Chloroethoxy)methane	1670	1440	86	36-131
111-44-4	bis(2-Chloroethyl)ether	1670	1430	86	41-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-BS1	2M104458.D	1	05/26/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1460	88	22-134
7005-72-3	4-Chlorophenyl phenyl ether	1670	1420	85	56-118
121-14-2	2,4-Dinitrotoluene	1670	1570	94	57-131
606-20-2	2,6-Dinitrotoluene	1670	1610	97	57-132
91-94-1	3,3'-Dichlorobenzidine	3330	1610	48	10-129
123-91-1	1,4-Dioxane	1670	811	49	10-110
53-70-3	Dibenzo(a,h)anthracene	1670	1220	73	48-121
132-64-9	Dibenzofuran	1670	1440	86	51-119
84-74-2	Di-n-butyl phthalate	1670	1490	89	59-125
117-84-0	Di-n-octyl phthalate	1670	1650	99	47-147
84-66-2	Diethyl phthalate	1670	1600	96	57-116
131-11-3	Dimethyl phthalate	1670	1520	91	56-116
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1560	94	53-133
206-44-0	Fluoranthene	1670	1360	82	58-117
86-73-7	Fluorene	1670	1470	88	56-114
118-74-1	Hexachlorobenzene	1670	1300	78	50-128
87-68-3	Hexachlorobutadiene	1670	1520	91	43-129
77-47-4	Hexachlorocyclopentadiene	3330	3070	92	15-140
67-72-1	Hexachloroethane	1670	1390	83	43-123
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1260	76	49-124
78-59-1	Isophorone	1670	1400	84	38-128
91-57-6	2-Methylnaphthalene	1670	1320	79	37-124
88-74-4	2-Nitroaniline	1670	1630	98	45-144
99-09-2	3-Nitroaniline	1670	999	60	10-134
100-01-6	4-Nitroaniline	1670	1460	88	41-130
91-20-3	Naphthalene	1670	1330	80	44-116
98-95-3	Nitrobenzene	1670	1430	86	36-132
621-64-7	N-Nitroso-di-n-propylamine	1670	1380	83	38-125
86-30-6	N-Nitrosodiphenylamine	1670	1300	78	51-122
85-01-8	Phenanthrene	1670	1370	82	53-119
129-00-0	Pyrene	1670	1440	86	54-124
95-94-3	1,2,4,5-Tetrachlorobenzene	1670	1430	86	45-128

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-BS1	2M104458.D	1	05/26/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	87%	23-115%
4165-62-2	Phenol-d5	87%	27-114%
118-79-6	2,4,6-Tribromophenol	82%	19-152%
4165-60-0	Nitrobenzene-d5	87%	26-134%
321-60-8	2-Fluorobiphenyl	84%	39-124%
1718-51-0	Terphenyl-d14	92%	36-134%

(a) Outside of program requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-MS	2M104473.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641
OP12196-MSD	2M104474.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641
JC66405-1	2M104475.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	JC66405-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		1790	976	55	1840	1190	65	20	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND		1790	1160	65	1840	1270	69	9	11-147/35
120-83-2	2,4-Dichlorophenol	ND		1790	1050	59	1840	1220	66	15	15-140/34
105-67-9	2,4-Dimethylphenol	ND		1790	1130	63	1840	1340	73	17	10-151/34
51-28-5	2,4-Dinitrophenol	ND		3580	1350	38	3680	1300	35	4	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND		1790	945	53	1840	977	53	3	10-150/48
95-48-7	2-Methylphenol	ND		1790	981	55	1840	1190	65	19	10-138/33
	3&4-Methylphenol	ND		1790	1000	56	1840	1200	65	18	10-143/33
88-75-5	2-Nitrophenol	ND		1790	1020	57	1840	1280	70	23	10-150/39
100-02-7	4-Nitrophenol	ND		1790	1560	87	1840	1760	96	12	10-163/38
87-86-5	Pentachlorophenol	ND		1790	1050	59	1840	1150	62	9	10-148/39
108-95-2	Phenol	ND		1790	910	51	1840	1130	61	22	24-114/32
58-90-2	2,3,4,6-Tetrachlorophenol	ND		1790	1120	63	1840	1170	64	4	14-140/38
95-95-4	2,4,5-Trichlorophenol	ND		1790	1190	67	1840	1270	69	7	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND		1790	1200	67	1840	1290	70	7	16-148/36
83-32-9	Acenaphthene	23.7	J	1790	970	53	1840	1340	72	32	21-136/34
208-96-8	Acenaphthylene	233		1790	1110	49	1840	1600	74	36	10-143/36
98-86-2	Acetophenone	ND		1790	627	35	1840	1080	59	53* [a]	24-127/31
120-12-7	Anthracene	205		1790	1060	48	1840	1640	78	43* [a]	10-147/39
1912-24-9	Atrazine	ND		1790	805	45	1840	1200	65	39* [a]	10-161/38
56-55-3	Benzo(a)anthracene	1740		1790	2230	27	1840	3410	91	42* [a]	10-151/41
50-32-8	Benzo(a)pyrene	2180		1790	2530	20	1840	3760	86	39	10-149/40
205-99-2	Benzo(b)fluoranthene	2330		1790	2590	15	1840	3900	85	40	10-147/42
191-24-2	Benzo(g,h,i)perylene	1710		1790	2220	29	1840	3180	80	36	10-150/41
207-08-9	Benzo(k)fluoranthene	879		1790	1530	36	1840	2140	69	33	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND		1790	927	52	1840	1200	65	26	26-138/37
85-68-7	Butyl benzyl phthalate	ND		1790	1140	64	1840	1450	79	24	24-143/36
92-52-4	1,1'-Biphenyl	ND		1790	726	41	1840	1170	64	47* [a]	18-138/32
100-52-7	Benzaldehyde	ND		1790	610	34	1840	997	54	48* [a]	10-149/37
91-58-7	2-Chloronaphthalene	ND		1790	923	52	1840	1270	69	32* [a]	24-130/31
106-47-8	4-Chloroaniline	ND		1790	320	18	1840	426	23	28	10-111/52
86-74-8	Carbazole	65.0	J	1790	729	37	1840	1180	61	47* [a]	12-146/39
105-60-2	Caprolactam	ND		1790	708	40	1840	1070	58	41* [a]	10-147/40
218-01-9	Chrysene	1650		1790	2130	27	1840	3200	84	40	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND		1790	846	47	1840	1260	68	39* [a]	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND		1790	821	46	1840	1230	67	40* [a]	12-142/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-MS	2M104473.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641
OP12196-MSD	2M104474.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641
JC66405-1	2M104475.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	JC66405-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		1790	832	47	1840	1220	66	38* a	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND		1790	952	53	1840	1250	68	27	21-136/35
121-14-2	2,4-Dinitrotoluene	ND		1790	1070	60	1840	1360	74	24	14-148/41
606-20-2	2,6-Dinitrotoluene	ND		1790	1030	58	1840	1370	74	28	14-152/40
91-94-1	3,3'-Dichlorobenzidine	ND		3580	1520	42	3680	1740	47	13	10-137/47
123-91-1	1,4-Dioxane	ND		1790	376	21	1840	674	37	57* a	10-110/40
53-70-3	Dibenzo(a,h)anthracene	318		1790	1120	45	1840	1490	64	28	10-152/38
132-64-9	Dibenzofuran	30.1	J	1790	722	39	1840	1230	65	52* a	17-141/36
84-74-2	Di-n-butyl phthalate	ND		1790	1010	56	1840	1310	71	26	26-137/35
117-84-0	Di-n-octyl phthalate	ND		1790	1070	60	1840	1370	74	25	23-145/36
84-66-2	Diethyl phthalate	ND		1790	1090	61	1840	1380	75	23	25-133/35
131-11-3	Dimethyl phthalate	ND		1790	1010	56	1840	1340	73	28	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	ND		1790	1140	64	1840	1450	79	24	26-144/39
206-44-0	Fluoranthene	2880		1790	3030	8* a	1840	5420	138	57* a	10-151/44
86-73-7	Fluorene	33.4	J	1790	981	53	1840	1360	72	32	19-133/36
118-74-1	Hexachlorobenzene	ND		1790	863	48	1840	1170	64	30	18-142/37
87-68-3	Hexachlorobutadiene	ND		1790	871	49	1840	1330	72	42* a	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND		3580	1090	30	3680	1740	47	46	10-150/50
67-72-1	Hexachloroethane	ND		1790	777	43	1840	1150	62	39* a	10-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	1670		1790	2220	31	1840	3170	81	35	10-148/41
78-59-1	Isophorone	ND		1790	831	46	1840	1230	67	39* a	11-142/33
91-57-6	2-Methylnaphthalene	21.4	J	1790	603	33	1840	1040	55	53* a	10-141/35
88-74-4	2-Nitroaniline	ND		1790	807	45	1840	1270	69	45* a	14-156/38
99-09-2	3-Nitroaniline	ND		1790	603	34	1840	924	50	42	10-144/45
100-01-6	4-Nitroaniline	ND		1790	645	36	1840	966	52	40	10-156/44
91-20-3	Naphthalene	55.3		1790	822	43	1840	1230	64	40* a	10-136/36
98-95-3	Nitrobenzene	ND		1790	830	46	1840	1250	68	40* a	10-142/34
621-64-7	N-Nitroso-di-n-propylamine	ND		1790	792	44	1840	1200	65	41* a	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND		1790	910	51	1840	1190	65	27	10-156/37
85-01-8	Phenanthrene	730		1790	1440	40	1840	3260	137	77* a	11-145/45
129-00-0	Pyrene	3130		1790	3420	16	1840	5710	140	50* a	11-155/44
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		1790	899	50	1840	1280	70	35* a	23-136/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12196-MS	2M104473.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641
OP12196-MSD	2M104474.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641
JC66405-1	2M104475.D	1	05/27/18	GS	05/23/18	OP12196	E2M4641

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC66384-1, JC66384-2, JC66384-4

CAS No.	Surrogate Recoveries	MS	MSD	JC66405-1	Limits
367-12-4	2-Fluorophenol	58%	69%	73%	23-115%
4165-62-2	Phenol-d5	59%	68%	73%	27-114%
118-79-6	2,4,6-Tribromophenol	65%	67%	78%	19-152%
4165-60-0	Nitrobenzene-d5	60%	71%	77%	26-134%
321-60-8	2-Fluorobiphenyl	62%	71%	80%	39-124%
1718-51-0	Terphenyl-d14	77%	78%	91%	36-134%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4618-DFTPP
Lab File ID: 2M103893.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 10:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	176008	35.4		Pass
68	Less than 2.0% of mass 69	2989	0.60	(1.53) [a]	Pass
69	Mass 69 relative abundance	194999	39.2		Pass
70	Less than 2.0% of mass 69	895	0.18	(0.46) [a]	Pass
127	40.0 - 60.0% of mass 198	246965	49.6		Pass
197	Less than 1.0% of mass 198	4345	0.87		Pass
198	Base peak, 100% relative abundance	497856	100.0		Pass
199	5.0 - 9.0% of mass 198	32775	6.58		Pass
275	10.0 - 30.0% of mass 198	122106	24.5		Pass
365	1.0 - 100.0% of mass 198	14865	2.99		Pass
441	Present, but less than mass 443	46565	9.35	(78.6) [b]	Pass
442	40.0 - 100.0% of mass 198	323541	65.0		Pass
443	17.0 - 23.0% of mass 442	59280	11.9	(18.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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
E2M4618-IC4618	2M103895.D	05/09/18	11:56	01:34	Initial cal 100
E2M4618-IC4618	2M103896.D	05/09/18	12:22	02:00	Initial cal 80
E2M4618-ICC4618	2M103897.D	05/09/18	12:47	02:25	Initial cal 50
E2M4618-IC4618	2M103898.D	05/09/18	13:13	02:51	Initial cal 25
E2M4618-IC4618	2M103899.D	05/09/18	13:38	03:16	Initial cal 10
E2M4618-IC4618	2M103900.D	05/09/18	14:04	03:42	Initial cal 5
E2M4618-IC4618	2M103901.D	05/09/18	14:29	04:07	Initial cal 2
E2M4618-IC4618	2M103902.D	05/09/18	14:55	04:33	Initial cal 1

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-DFTPP
Lab File ID: 2M103903.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 18:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	205172	37.4		Pass
68	Less than 2.0% of mass 69	3087	0.56	(1.34) [a]	Pass
69	Mass 69 relative abundance	230153	42.0		Pass
70	Less than 2.0% of mass 69	1679	0.31	(0.73) [a]	Pass
127	40.0 - 60.0% of mass 198	288469	52.6		Pass
197	Less than 1.0% of mass 198	4778	0.87		Pass
198	Base peak, 100% relative abundance	548117	100.0		Pass
199	5.0 - 9.0% of mass 198	37624	6.86		Pass
275	10.0 - 30.0% of mass 198	131669	24.0		Pass
365	1.0 - 100.0% of mass 198	14986	2.73		Pass
441	Present, but less than mass 443	45789	8.35	(75.2) [b]	Pass
442	40.0 - 100.0% of mass 198	314570	57.4		Pass
443	17.0 - 23.0% of mass 442	60857	11.1	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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
E2M4619-IC4619	2M103904.D	05/09/18	18:59	00:29	Initial cal 100
E2M4619-IC4619	2M103905.D	05/09/18	19:25	00:55	Initial cal 80
E2M4619-ICC4619	2M103906.D	05/09/18	19:50	01:20	Initial cal 50
E2M4619-IC4619	2M103907.D	05/09/18	20:16	01:46	Initial cal 25
E2M4619-IC4619	2M103908.D	05/09/18	20:41	02:11	Initial cal 10
E2M4619-IC4619	2M103909.D	05/09/18	21:06	02:36	Initial cal 5
E2M4619-IC4619	2M103910.D	05/09/18	21:32	03:02	Initial cal 2
E2M4619-IC4619	2M103911.D	05/09/18	21:57	03:27	Initial cal 1
E2M4619-ICV4618	2M103912.D	05/09/18	22:23	03:53	Initial cal verification 50
E2M4619-ICV4618	2M103913.D	05/09/18	22:48	04:18	Initial cal verification 50
E2M4619-ICV4619	2M103915A.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103915.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103916.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4619	2M103916A.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4618	2M103917.D	05/10/18	00:29	05:59	Initial cal verification 50
E2M4619-ICV4619	2M103918.D	05/10/18	02:14	07:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4620-DFTPP
Lab File ID: 2M103920.D
Instrument ID: GCMS2M
Injection Date: 05/11/18
Injection Time: 13:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	130877	34.6		Pass
68	Less than 2.0% of mass 69	2584	0.68	(1.71) [a]	Pass
69	Mass 69 relative abundance	151216	40.0		Pass
70	Less than 2.0% of mass 69	823	0.22	(0.54) [a]	Pass
127	40.0 - 60.0% of mass 198	189864	50.2		Pass
197	Less than 1.0% of mass 198	3129	0.83		Pass
198	Base peak, 100% relative abundance	378218	100.0		Pass
199	5.0 - 9.0% of mass 198	24697	6.53		Pass
275	10.0 - 30.0% of mass 198	90376	23.9		Pass
365	1.0 - 100.0% of mass 198	11279	2.98		Pass
441	Present, but less than mass 443	34077	9.01	(76.5) [b]	Pass
442	40.0 - 100.0% of mass 198	230490	60.9		Pass
443	17.0 - 23.0% of mass 442	44552	11.8	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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
E2M4620-ICV4619	2M103921A.D	05/11/18	13:55	00:12	Initial cal verification 50
E2M4620-ICV4618	2M103921.D	05/11/18	13:55	00:12	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4641-DFTPP
Lab File ID: 2M104454.D
Instrument ID: GCMS2M
Injection Date: 05/26/18
Injection Time: 19:03

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	150605	40.3		Pass
68	Less than 2.0% of mass 69	2759	0.74	(1.58) [a]	Pass
69	Mass 69 relative abundance	175107	46.8		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	209335	56.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	373781	100.0		Pass
199	5.0 - 9.0% of mass 198	27544	7.37		Pass
275	10.0 - 30.0% of mass 198	91773	24.6		Pass
365	1.0 - 100.0% of mass 198	14197	3.80		Pass
441	Present, but less than mass 443	27397	7.33	(84.5) [b]	Pass
442	40.0 - 100.0% of mass 198	183093	49.0		Pass
443	17.0 - 23.0% of mass 442	32425	8.67	(17.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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
E2M4641-CC4618	2M104455.D	05/26/18	19:19	00:16	Continuing cal 25
E2M4641-CC4619	2M104456.D	05/26/18	19:45	00:42	Continuing cal 25
OP12196-MB1	2M104457.D	05/26/18	20:15	01:12	Method Blank
OP12196-BS1	2M104458.D	05/26/18	20:41	01:38	Blank Spike
ZZZZZZ	2M104459.D	05/26/18	21:07	02:04	(unrelated sample)
ZZZZZZ	2M104460.D	05/26/18	21:33	02:30	(unrelated sample)
ZZZZZZ	2M104461.D	05/26/18	21:59	02:56	(unrelated sample)
ZZZZZZ	2M104462.D	05/26/18	22:25	03:22	(unrelated sample)
ZZZZZZ	2M104463.D	05/26/18	22:52	03:49	(unrelated sample)
ZZZZZZ	2M104464.D	05/26/18	23:18	04:15	(unrelated sample)
ZZZZZZ	2M104465.D	05/26/18	23:43	04:40	(unrelated sample)
ZZZZZZ	2M104466.D	05/27/18	00:10	05:07	(unrelated sample)
JC66384-2	2M104467.D	05/27/18	00:35	05:32	MW-103(15-16)
ZZZZZZ	2M104468.D	05/27/18	01:01	05:58	(unrelated sample)
ZZZZZZ	2M104469.D	05/27/18	01:27	06:24	(unrelated sample)
ZZZZZZ	2M104470.D	05/27/18	01:53	06:50	(unrelated sample)
JC66384-1	2M104472.D	05/27/18	02:45	07:42	MW-103(6-7)
OP12196-MS	2M104473.D	05/27/18	03:11	08:08	Matrix Spike
OP12196-MSD	2M104474.D	05/27/18	03:37	08:34	Matrix Spike Duplicate

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	E2M4641-DFTPP	**Injection Date:**	05/26/18
Lab File ID:	2M104454.D	**Injection Time:**	19:03
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC66405-1	2M104475.D	05/27/18	04:03	09:00	(used for QC only; not part of job JC66384)
ZZZZZZ	2M104476.D	05/27/18	04:29	09:26	(unrelated sample)
ZZZZZZ	2M104477.D	05/27/18	04:55	09:52	(unrelated sample)
ZZZZZZ	2M104478.D	05/27/18	05:21	10:18	(unrelated sample)
ZZZZZZ	2M104479.D	05/27/18	05:47	10:44	(unrelated sample)
JC66384-4	2M104480.D	05/27/18	06:12	11:09	MW-102(12-13)

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6169-DFTPP
Lab File ID: M145288.D
Instrument ID: GCMSM
Injection Date: 04/17/18
Injection Time: 10:55

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	54344	32.2		Pass
68	Less than 2.0% of mass 69	349	0.21	(0.51) [a]	Pass
69	Mass 69 relative abundance	68186	40.4		Pass
70	Less than 2.0% of mass 69	378	0.22	(0.55) [a]	Pass
127	40.0 - 60.0% of mass 198	89104	52.9		Pass
197	Less than 1.0% of mass 198	462	0.27		Pass
198	Base peak, 100% relative abundance	168576	100.0		Pass
199	5.0 - 9.0% of mass 198	11591	6.88		Pass
275	10.0 - 30.0% of mass 198	39557	23.5		Pass
365	1.0 - 100.0% of mass 198	4960	2.94		Pass
441	Present, but less than mass 443	18883	11.2	(73.4) [b]	Pass
442	40.0 - 100.0% of mass 198	132344	78.5		Pass
443	17.0 - 23.0% of mass 442	25736	15.3	(19.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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
EM6169-IC6169	M145289.D	04/17/18	11:39	00:44	Initial cal 100
EM6169-IC6169	M145290.D	04/17/18	12:08	01:13	Initial cal 80
EM6169-ICC6169	M145291.D	04/17/18	12:37	01:42	Initial cal 50
EM6169-IC6169	M145292.D	04/17/18	13:07	02:12	Initial cal 25
EM6169-IC6169	M145293.D	04/17/18	13:36	02:41	Initial cal 10
EM6169-IC6169	M145294.D	04/17/18	14:06	03:11	Initial cal 5
EM6169-IC6169	M145295.D	04/17/18	14:35	03:40	Initial cal 2
EM6169-IC6169	M145296.D	04/17/18	15:04	04:09	Initial cal 1
EM6169-ICV6169	M145297.D	04/17/18	15:34	04:39	Initial cal verification 50
EM6169-ICV6169	M145298.D	04/17/18	16:03	05:08	Initial cal verification 50
EM6169-ICV6169	M145299.D	04/17/18	16:32	05:37	Initial cal verification 50
EM6169-ICV6169	M145300.D	04/17/18	17:02	06:07	Initial cal verification 50
EM6169-ICV6169	M145301.D	04/17/18	17:31	06:36	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-DFTPP
Lab File ID: M146343.D
Instrument ID: GCMSM
Injection Date: 05/24/18
Injection Time: 12:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	39329	47.8		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	53674	65.3		Pass
70	Less than 2.0% of mass 69	438	0.53	(0.82) [a]	Pass
127	40.0 - 60.0% of mass 198	42219	51.4		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	82203	100.0		Pass
199	5.0 - 9.0% of mass 198	5335	6.49		Pass
275	10.0 - 30.0% of mass 198	22367	27.2		Pass
365	1.0 - 100.0% of mass 198	3804	4.63		Pass
441	Present, but less than mass 443	10238	12.5	(71.9) [b]	Pass
442	40.0 - 100.0% of mass 198	76720	93.3		Pass
443	17.0 - 23.0% of mass 442	14231	17.3	(18.5) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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
EM6221-IC6221	M146345.D	05/24/18	12:57	00:41	Initial cal 2
EM6221-IC6221	M146346.D	05/24/18	13:27	01:11	Initial cal 1
EM6221-IC6221	M146347.D	05/24/18	13:57	01:41	Initial cal 100
EM6221-IC6221	M146348.D	05/24/18	14:26	02:10	Initial cal 80
EM6221-ICC6221	M146349.D	05/24/18	14:56	02:40	Initial cal 50
EM6221-IC6221	M146350.D	05/24/18	15:26	03:10	Initial cal 25
EM6221-IC6221	M146351.D	05/24/18	15:56	03:40	Initial cal 10
EM6221-IC6221	M146352.D	05/24/18	16:26	04:10	Initial cal 5
EM6221-ICV6221	M146353.D	05/24/18	16:56	04:40	Initial cal verification 50
EM6221-ICV6221	M146354.D	05/24/18	17:26	05:10	Initial cal verification 50
EM6221-ICV6221	M146355.D	05/24/18	17:56	05:40	Initial cal verification 50
EM6221-ICV6221	M146356.D	05/24/18	18:26	06:10	Initial cal verification 50
EM6221-ICV6221	M146357.D	05/24/18	18:56	06:40	Initial cal verification 50
EM6221-ICV6221	M146358.D	05/24/18	19:26	07:10	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6233-DFTPP
Lab File ID: M146631.D
Instrument ID: GCMSM
Injection Date: 06/05/18
Injection Time: 08:42

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	35861	33.6		Pass
68	Less than 2.0% of mass 69	131	0.12	(0.21) [a]	Pass
69	Mass 69 relative abundance	61213	57.4		Pass
70	Less than 2.0% of mass 69	636	0.60	(1.04) [a]	Pass
127	40.0 - 60.0% of mass 198	54494	51.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	106637	100.0		Pass
199	5.0 - 9.0% of mass 198	7294	6.84		Pass
275	10.0 - 30.0% of mass 198	28886	27.1		Pass
365	1.0 - 100.0% of mass 198	6250	5.86		Pass
441	Present, but less than mass 443	11778	11.0	(83.8) [b]	Pass
442	40.0 - 100.0% of mass 198	73488	68.9		Pass
443	17.0 - 23.0% of mass 442	14058	13.2	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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
EM6233-CC6221	M146632.D	06/05/18	08:56	00:14	Continuing cal 50
EM6233-CC6169	M146633.D	06/05/18	09:28	00:46	Continuing cal 50
OP12509-MB	M146637.D	06/05/18	11:41	02:59	Method Blank
OP12509-BS	M146638.D	06/05/18	12:11	03:29	Blank Spike
OP12509-BSD	M146639.D	06/05/18	12:42	04:00	Blank Spike Duplicate
JC66384-4	M146640.D	06/05/18	13:12	04:30	MW-102(12-13)
OP12509-MS	M146642.D	06/05/18	14:11	05:29	Matrix Spike
OP12509-MSD	M146643.D	06/05/18	14:41	05:59	Matrix Spike Duplicate
JC67120-5	M146644.D	06/05/18	15:11	06:29	(used for QC only; not part of job JC66384)

Internal Standard Area Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	E2M4641-CC4618	**Injection Date:**	05/26/18
Lab File ID:	2M104455.D	**Injection Time:**	19:19
Instrument ID:	GCMS2M	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	547643	4.53	2101991	5.60	1148859	7.62	1990777	9.77	1781133	13.94	1820102	16.05
Upper Limit [a]	1095286	5.03	4203982	6.10	2297718	8.12	3981554	10.27	3562266	14.44	3640204	16.55
Lower Limit [b]	273822	4.03	1050996	5.10	574430	7.12	995389	9.27	890567	13.44	910051	15.55

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP12196-MB1	573453	4.53	2260163	5.60	1111996	7.62	2020910	9.77	1729888	13.94	1673376	16.05
OP12196-BS1	567846	4.53	2234805	5.60	1097038	7.62	1971571	9.78	1653228	13.94	1560518	16.05
ZZZZZZ	575265	4.53	2196379	5.60	1067351	7.62	1942207	9.77	1614627	13.94	1545201	16.05
ZZZZZZ	582580	4.53	2257965	5.59	1098920	7.62	1994163	9.77	1677646	13.94	1572774	16.05
ZZZZZZ	620111	4.53	2428913	5.60	1164620	7.62	2123294	9.77	1799811	13.93	1693948	16.05
ZZZZZZ	568186	4.53	2213057	5.60	1064287	7.62	1936668	9.77	1541058	13.94	1490100	16.05
ZZZZZZ	581461	4.53	2223087	5.59	1084067	7.62	1986991	9.77	1649229	13.93	1580948	16.05
ZZZZZZ	573779	4.53	2185919	5.60	1048683	7.62	1901491	9.77	1558973	13.93	1480976	16.05
ZZZZZZ	630173	4.53	2446011	5.60	1143788	7.62	2061327	9.77	1645201	13.93	1539066	16.05
ZZZZZZ	540263	4.53	2070190	5.60	973203	7.62	1723247	9.77	1411048	13.93	1311782	16.05
JC66384-2	547701	4.53	2100126	5.59	985164	7.62	1736511	9.77	1453054	13.93	1343314	16.05
ZZZZZZ	553537	4.53	2142893	5.60	945226	7.62	1647431	9.77	1323506	13.94	1274762	16.05
ZZZZZZ	617296	4.53	2359719	5.60	1093752	7.62	1918705	9.77	1469151	13.94	1354382	16.05
ZZZZZZ	532014	4.53	2051653	5.60	954504	7.62	1650745	9.77	1270878	13.94	1276998	16.05
JC66384-1	521998	4.53	1969383	5.60	923137	7.62	1596777	9.78	1247788	13.94	1276986	16.05
OP12196-MS	583353	4.53	2221853	5.59	1027982	7.63	1774051	9.78	1367987	13.95	1424840	16.06
OP12196-MSD	563155	4.53	2114055	5.60	995358	7.63	1684036	9.78	1328223	13.95	1376905	16.06
JC66405-1	525972	4.53	1986521	5.60	914780	7.63	1570255	9.78	1242100	13.95	1337286	16.06
ZZZZZZ	513907	4.53	1967315	5.60	952196	7.63	1743439	9.78	1532242	13.95	1537467	16.07
ZZZZZZ	544051	4.53	2037829	5.59	937796	7.63	1642478	9.78	1254506	13.95	1296106	16.06
ZZZZZZ	451446	4.53	1706790	5.59	809665	7.63	1453809	9.78	1333863	13.95	1360816	16.07
ZZZZZZ	488909	4.54	1847227	5.61	823278	7.64	1442465	9.79	1296094	13.97	1350921	16.09
JC66384-4	496631	4.54	1809490	5.61	834942	7.64	1473453	9.80	1383046	14.00	1511242	16.14

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(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: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	EM6233-CC6221	**Injection Date:**	06/05/18
Lab File ID:	M146632.D	**Injection Time:**	08:56
Instrument ID:	GCMSM	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	93129	4.41	358340	5.48	213735	7.70	500068	10.27	498755	15.42	363825	18.04
Upper Limit [a]	186258	4.91	716680	5.98	427470	8.20	1000136	10.77	997510	15.92	727650	18.54
Lower Limit [b]	46565	3.91	179170	4.98	106868	7.20	250034	9.77	249378	14.92	181913	17.54

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP12509-MB	100858	4.41	376735	5.48	208510	7.70	444407	10.27	429744	15.41	410033	18.03
OP12509-BS	93047	4.41	336649	5.48	194136	7.70	429728	10.27	424807	15.42	412271	18.03
OP12509-BSD	85006	4.41	325080	5.48	193700	7.70	407086	10.27	398975	15.41	390818	18.03
JC66384-4 [c]	96434	4.41	383296	5.48	205469	7.70	408944	10.27	223394*	15.41	202350	18.04
OP12509-MS	80936	4.41	296176	5.48	172170	7.71	363293	10.27	249143*	15.42	182016	18.04
OP12509-MSD	84674	4.41	304874	5.48	175835	7.71	382679	10.27	315941	15.42	199240	18.04
JC67120-5	97285	4.41	364039	5.48	210570	7.70	435219	10.27	383730	15.42	244215	18.04

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(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.
(c) Confirmation run for surrogate recoveries.

Surrogate Recovery Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8270D **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC66384-1	2M104472.D	67	68	71	73	72	81
JC66384-2	2M104467.D	69	68	73	72	72	83
JC66384-4	M146640.D	8* [a]	37	0* [a]	62	62	70
JC66384-4	2M104480.D	10* [b]	42	0* [b]	60	62	60
OP12196-BS1	2M104458.D	87	87	82	87	84	92
OP12196-MB1	2M104457.D	87	88	84	87	85	92
OP12196-MS	2M104473.D	58	59	65	60	62	77
OP12196-MSD	2M104474.D	69	68	67	71	71	78

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

(a) Outside control limits due to matrix interference.
(b) Outside control limits due to matrix interference. The results confirmed by re-extraction outside the holding time.

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files
2 =2m103901.D 5 =2m103900.D 25 =2m103898.D 80 =2m103896.D
100 =2m103895.D 50 =2m103897.D 1 =2m103902.D 10 =2m103899.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.629	0.598	0.596	0.576	0.591	0.598	0.637	0.615	0.605	3.36
3) Pyridine	1.526	1.559	1.597	1.500	1.499	1.488	1.575	1.674	1.552	4.06
4) N-Nitrosodim	0.914	0.887	0.926	0.908	0.919	0.926	0.933	0.953	0.921	2.09
5) 2-Fluorophen	1.326	1.258	1.311	1.293	1.319	1.322	1.241	1.356	1.303	2.90
6) Indene	2.170	2.166	2.226	2.234	2.233	2.285	2.221	2.299	2.229	2.12
7) Cumene	3.250	3.242	3.325	3.249	3.272	3.374	3.448	3.387	3.318	2.34
8) Phenol-d5	1.620	1.595	1.625	1.627	1.667	1.663	1.622	1.662	1.635	1.57
9) Phenol	1.883	1.787	1.854	1.867	1.899	1.894	1.877	1.959	1.877	2.56
10) Aniline	2.130	2.106	2.037	1.920	1.913	1.981	2.225	2.172	2.061	5.66
11) bis(2-Chloro	1.278	1.274	1.290	1.271	1.281	1.299	1.342	1.346	1.298	2.32
12) 2-Chlorophen	1.403	1.415	1.401	1.397	1.408	1.417	1.356	1.473	1.409	2.30
13) Decane	1.512	1.436	1.429	1.366	1.348	1.426	1.587	1.500	1.450	5.45
14) 1,3-Dichloro	1.585	1.573	1.574	1.545	1.547	1.589	1.621	1.666	1.588	2.51
15) 1,4-Dichloro	1.577	1.595	1.609	1.567	1.567	1.616	1.654	1.677	1.608	2.52
16) Benzyl alcoh	0.854	0.828	0.856	0.885	0.890	0.885	0.927	0.875	0.875	3.37
17) 1,2-Dichloro	1.482	1.435	1.491	1.464	1.456	1.508	1.624	1.553	1.502	4.07
18) Acetophenone	1.832	1.819	1.885	1.847	1.819	1.898	1.873	1.932	1.863	2.19
19) 2-Methylphen	1.240	1.193	1.215	1.239	1.227	1.253	1.221	1.264	1.231	1.83
20) 2,2'-oxybis(	1.624	1.552	1.558	1.504	1.488	1.552	1.685	1.624	1.573	4.22
21) 3&4-Methylph	1.268	1.252	1.293	1.334	1.322	1.328	1.233	1.315	1.293	2.93
22) n-Nitroso-di	0.963	0.956	0.999	0.994	0.980	1.024	1.032	1.034	0.998	3.05
23) Hexachloroet	0.505	0.502	0.510	0.506	0.503	0.516	0.535	0.554	0.516	3.60
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.369	0.357	0.366	0.366	0.360	0.367	0.357	0.382	0.366	2.19
26) Nitrobenzene	0.367	0.366	0.363	0.360	0.355	0.364	0.364	0.379	0.365	1.87
27) Quinoline	0.672	0.671	0.677	0.684	0.676	0.675	0.681	0.699	0.679	1.35
28) Isophorone	0.641	0.636	0.636	0.640	0.631	0.639	0.659	0.664	0.643	1.84
29) 2-Nitropheno	0.188	0.189	0.196	0.199	0.197	0.197	0.188	0.202	0.195	2.86
30) 2,4-Dimethyl	0.309	0.303	0.309	0.319	0.316	0.311	0.303	0.323	0.312	2.35
31) Benzoic acid	0.182	0.204	0.242	0.266	0.268	0.258		0.234	0.236	13.79
32) bis(2-Chloro	0.370	0.369	0.372	0.366	0.360	0.366	0.381	0.390	0.372	2.50
33) 2,4-Dichloro	0.297	0.290	0.289	0.291	0.290	0.290	0.293	0.294	0.292	0.90
34) 2,6-Dichloro	0.277	0.277	0.287	0.286	0.283	0.286	0.294	0.294	0.286	2.27
35) 1,3,5-Trichl	0.361	0.345	0.342	0.333	0.330	0.338	0.361	0.359	0.346	3.64
36) 1,2,4-Trichl	0.320	0.324	0.314	0.312	0.307	0.317	0.342	0.331	0.321	3.54
37) 1,2,3-Trichl	0.318	0.319	0.318	0.307	0.299	0.310	0.350	0.328	0.319	4.78
38) Naphthalene	1.046	1.023	1.024	1.016	1.003	1.021	1.081	1.070	1.036	2.66
39) 4-Chloroanil	0.438	0.445	0.439	0.440	0.427	0.435	0.445	0.456	0.441	1.96
40) 2,3-Dichloro	0.359	0.362	0.360	0.370	0.366	0.365	0.359	0.378	0.365	1.77
41) Caprolactam	0.140	0.148	0.150	0.155	0.152	0.152	0.145	0.157	0.150	3.58
42) Hexachlorobu	0.175	0.164	0.167	0.164	0.161	0.165	0.171	0.174	0.168	3.00
43) 4-Chloro-3-m	0.279	0.273	0.280	0.286	0.287	0.282	0.268	0.289	0.281	2.58
44) 2-Methylnaph	0.597	0.595	0.596	0.600	0.599	0.601	0.622	0.616	0.603	1.69
45) 1-Methylnaph	0.625	0.625	0.623	0.627	0.625	0.626	0.630	0.651	0.629	1.43

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

46) Dimethylnaph 0.626 0.636 0.638 0.647 0.645 0.641 0.655 0.666 0.644 1.89

47) I Acenaphthene-d10 ----------ISTD----------
48) Hexachlorocy 0.301 0.323 0.357 0.369 0.369 0.370 0.273 0.358 0.340 10.84
49) 2,4,6-Trichl 0.394 0.365 0.395 0.393 0.389 0.395 0.388 0.407 0.391 3.01
50) 2,4,5-Trichl 0.392 0.405 0.417 0.411 0.406 0.417 0.406 0.432 0.411 2.82
51) 2-Fluorobiph 1.434 1.477 1.454 1.421 1.415 1.462 1.477 1.549 1.461 2.93
52) 2-Chloronaph 1.255 1.234 1.209 1.182 1.168 1.213 1.265 1.275 1.225 3.18
53) Biphenyl 1.673 1.612 1.627 1.628 1.617 1.652 1.639 1.718 1.646 2.14
54) 2-Nitroanili 0.323 0.319 0.344 0.345 0.348 0.349 0.328 0.350 0.338 3.77
55) Dimethylphth 1.338 1.307 1.309 1.306 1.295 1.311 1.384 1.382 1.329 2.68
56) Acenaphthyle 1.936 1.916 1.954 1.922 1.919 1.973 1.978 2.042 1.955 2.17
57) 2,6-Dinitrot 0.273 0.290 0.310 0.311 0.309 0.307 0.266 0.311 0.297 6.24
58) 3-Nitroanili 0.309 0.327 0.356 0.364 0.358 0.367 0.318 0.361 0.345 6.66
59) Acenaphthene 1.268 1.268 1.277 1.267 1.261 1.283 1.306 1.334 1.283 1.95
60) 2,4-Dinitrop 0.076 0.110 0.156 0.187 0.190 0.178 0.069 0.134 0.137 35.30
---- Quadratic regression ---- Coefficient = 0.9997
Response Ratio = -0.01252 + 0.16728 *A + 0.00532 *A^2

61) 4-Nitropheno 0.125 0.142 0.161 0.160 0.164 0.162 0.123 0.155 0.149 11.15
62) Dibenzofuran 1.712 1.715 1.724 1.715 1.695 1.733 1.727 1.783 1.725 1.50
63) 2,4-Dinitrot 0.367 0.362 0.416 0.431 0.430 0.428 0.331 0.407 0.396 9.61
64) 2,3,4,6-Tetr 0.327 0.333 0.344 0.348 0.349 0.347 0.317 0.350 0.339 3.56
65) Diethylphtha 1.280 1.279 1.319 1.325 1.322 1.331 1.301 1.364 1.315 2.14
66) Fluorene 1.405 1.379 1.394 1.398 1.399 1.411 1.367 1.432 1.398 1.41
67) 4-Chlorophen 0.643 0.628 0.641 0.619 0.608 0.625 0.658 0.661 0.635 2.93
68) 4-Nitroanili 0.317 0.345 0.345 0.353 0.350 0.358 0.306 0.369 0.343 6.15

69) I Phenanthrene-d10 ----------ISTD----------
70) 4,6-Dinitro- 0.093 0.099 0.135 0.149 0.148 0.145 0.083 0.123 0.122 21.91
---- Quadratic regression ---- Coefficient = 0.9990
Response Ratio = -0.00195 + 0.13467 *A + 0.00646 *A^2

71) n-Nitrosodip 0.576 0.580 0.599 0.581 0.582 0.585 0.572 0.597 0.584 1.63
72) 1,2-Diphenyl 0.747 0.768 0.786 0.768 0.768 0.774 0.782 0.797 0.774 1.95
73) 2,4,6-Tribro 0.117 0.116 0.127 0.123 0.123 0.122 0.122 0.119 0.121 3.07
74) 4-Bromopheny 0.217 0.219 0.221 0.216 0.215 0.219 0.226 0.229 0.220 2.18
75) Hexachlorobe 0.247 0.248 0.252 0.243 0.239 0.247 0.275 0.262 0.252 4.55
76) Pentachlorop 0.136 0.147 0.162 0.167 0.169 0.166 0.122 0.157 0.153 11.07
77) Phenanthrene 1.168 1.124 1.141 1.120 1.104 1.125 1.185 1.165 1.141 2.49
78) Anthracene 1.136 1.145 1.158 1.133 1.127 1.151 1.139 1.184 1.147 1.57
79) Carbazole 1.042 1.037 1.091 1.081 1.077 1.076 1.060 1.102 1.071 2.13
80) Di-n-butylph 1.233 1.257 1.331 1.351 1.346 1.344 1.264 1.344 1.309 3.72
81) Fluoranthene 1.150 1.117 1.184 1.191 1.182 1.189 1.166 1.190 1.171 2.22
82) Octadecane 0.505 0.499 0.531 0.527 0.524 0.522 0.510 0.537 0.519 2.56

83) I Chrysene-d12 ----------ISTD----------
84) Pyrene 1.338 1.361 1.344 1.313 1.258 1.342 1.318 1.413 1.336 3.30
85) Terphenyl-d1 0.862 0.876 0.880 0.875 0.844 0.883 0.861 0.936 0.877 3.08
86) Butylbenzylp 0.622 0.595 0.615 0.624 0.606 0.628 0.611 0.635 0.617 2.09
87) Benzo[a]anth 1.221 1.194 1.176 1.181 1.156 1.184 1.337 1.233 1.210 4.68
88) 3,3'-Dichlor 0.416 0.432 0.454 0.452 0.436 0.454 0.402 0.466 0.439 4.99
89) Chrysene 1.170 1.145 1.148 1.130 1.093 1.136 1.188 1.190 1.150 2.81
90) bis(2-Ethylh 0.816 0.833 0.850 0.876 0.848 0.876 0.828 0.879 0.851 2.87

91) I Perylene-d12 ----------ISTD----------
92) Di-n-octylph 1.353 1.387 1.463 1.495 1.469 1.495 1.396 1.499 1.445 3.96
93) Benzo[b]fluo 1.181 1.196 1.248 1.232 1.213 1.266 1.170 1.288 1.224 3.39
94) Benzo[k]fluo 1.120 1.165 1.124 1.119 1.079 1.123 1.166 1.198 1.137 3.26
95) Benzo[a]pyre 1.028 1.053 1.070 1.069 1.041 1.089 1.014 1.126 1.061 3.36

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

```
 96) Indeno[1,2,3 1.020 1.014 1.080 1.067 1.073 1.064 1.057 1.077 1.056   2.42
 97) Dibenz(a,h)a 0.927 0.941 0.966 0.961 0.944 0.977 0.929 0.999 0.956   2.60
 98) Dibenz[a,h]a 1.050 1.081 1.107 1.086 1.060 1.106 1.062 1.132 1.086   2.59
 99) 7,12-Dimethy 0.505 0.517 0.538 0.549 0.532 0.553 0.517 0.554 0.533   3.51
100) Benzo[g,h,i] 0.991 1.023 1.039 1.008 0.998 1.027 0.993 1.064 1.018   2.51
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2M4618.M         Fri May 11 15:20:21 2018
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Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICC4619
Lab FileID: 2M103906.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4619.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files
2 =2m103910.D 5 =2m103909.D 25 =2m103907.D 80 =2m103905.D
100 =2m103904.D 50 =2m103906.D 1 =2m103911.D 10 =2m103908.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.101	1.014	0.930	0.874	0.860	0.882	1.137	1.003	0.975	10.87
103) Acenaphthene-d10a	ISTD									
104) 1,2,4,5-Tetr	0.599	0.577	0.580	0.583	0.578	0.579	0.607	0.596	0.587	1.99
105) Chrysene-d12a	ISTD									
106) Benzidine	0.349	0.441	0.364	0.366	0.372	0.385		0.450	0.389	10.24
107) 1-chloroocta	0.315	0.310	0.318	0.328	0.340	0.319	0.319	0.313	0.320	2.99
108) Phenanthrene-d10a	ISTD									
109) Atrazine	0.106	0.108	0.112	0.111	0.112	0.113	0.104	0.108	0.109	3.06
110) o-terphenyl	0.556	0.534	0.552	0.554	0.554	0.550	0.553	0.551	0.550	1.28
111) Pentachloron	0.038	0.040	0.043	0.044	0.045	0.043	0.044	0.042	0.042#	5.75
112) Naphthalene-d8a	ISTD									
113) Hydroquinone	0.208	0.235	0.305	0.314	0.322	0.333		0.258	0.282	17.13

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2M4618.M Fri May 11 15:21:52 2018

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4618
Lab FileID: 2M103912.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103912.D Vial: 10
Acq On : 9 May 2018 10:23 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.66
5	S	2-Fluorophenol	1.303	1.284	1.5	133	0.00	3.67
8	S	Phenol-d5	1.635	1.564	4.3	129	0.00	4.39
24	I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.76
25	S	Nitrobenzene-d5	0.366	0.370	-1.1	130	0.00	5.10
47	I	Acenaphthene-d10	1.000	1.000	0.0	131	0.00	7.82
51	S	2-Fluorobiphenyl	1.461	1.365	6.6	123	0.00	6.95
69	I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	9.98
73	S	2,4,6-Tribromophenol	0.121	0.118	2.5	115	0.00	8.94
83	I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	14.15
85	S	Terphenyl-d14	0.877	0.971	-10.7	119	0.00	12.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:36 2018

8.7.3

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4618
Lab FileID: 2M103913.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103913.D Vial: 11
Acq On : 9 May 2018 10:48 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	135	0.00	4.66
9	t	Phenol	1.877	1.676	10.7	119	0.00	4.40
12	t	2-Chlorophenol	1.409	1.407	0.1	134	0.00	4.51
19	t	2-Methylphenol	1.231	1.174	4.6	126	0.00	4.86
21	t	3&4-Methylphenol	1.293	1.256	2.9	128	0.00	4.98
24	I	Naphthalene-d8	1.000	1.000	0.0	128	0.00	5.76
29	t	2-Nitrophenol	0.195	0.195	0.0	126	0.00	5.40
30	t	2,4-Dimethylphenol	0.312	0.299	4.2	123	0.00	5.43
31	t	Benzoic acid	0.236	0.229	3.0	113	0.00	5.55
33	t	2,4-Dichlorophenol	0.292	0.290	0.7	128	0.00	5.62
34	t	2,6-Dichlorophenol	0.286	0.288	-0.7	128	0.00	5.84
43	t	4-Chloro-3-methylphenol	0.281	0.276	1.8	125	-0.01	6.33
47	I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.82
49	t	2,4,6-Trichlorophenol	0.391	0.419	-7.2	124	0.00	6.85
50	t	2,4,5-Trichlorophenol	0.411	0.437	-6.3	122	-0.01	6.88
		----------	True	Calc.	% Drift		----------	
60	t	2,4-Dinitrophenol	50.000	45.968	8.1	111	-0.01	7.91
		----------	AvgRF	CCRF	% Dev		----------	
61	t	4-Nitrophenol	0.149	0.149	0.0	107	0.00	8.02
64		2,3,4,6-Tetrachlorophenol	0.339	0.346	-2.1	116	0.00	8.29
69	I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	9.98
		----------	True	Calc.	% Drift		----------	
70	t	4,6-Dinitro-2-methylpheno	50.000	48.080	3.8	108	0.00	8.68
		----------	AvgRF	CCRF	% Dev		----------	
76	t	Pentachlorophenol	0.153	0.179	-17.0	131	-0.01	9.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:38 2018

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4619
Lab FileID: 2M103915A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915a.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
103	Acenaphthene-d10a	1.000	1.000	0.0	146	0.00	7.82
104	1,2,4,5-Tetrachlorobenzen	0.587	0.655	-11.6	166	0.00	6.71
105	Chrysene-d12a	1.000	1.000	0.0	110	0.00	14.16
106	Benzidine	0.389	0.291	25.2	95	0.00	12.13

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:42 2018

8.7.5

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	138	0.00	4.66
4	t	N-Nitrosodimethylamine	0.921	0.735	20.2	109	0.02	2.50
11	t	bis(2-Chloroethyl)ether	1.298	1.311	-1.0	139	0.00	4.46
14	t	1,3-Dichlorobenzene	1.588	1.518	4.4	132	0.00	4.63
15	t	1,4-Dichlorobenzene	1.608	1.533	4.7	131	0.00	4.68
17	t	1,2-Dichlorobenzene	1.502	1.446	3.7	132	0.00	4.80
20	t	2,2'-oxybis(1-Chloropropa	1.573	1.647	-4.7	146	0.00	4.88
22	t	n-Nitroso-di-n-propylamin	0.998	0.915	8.3	123	0.00	4.98
23	t	Hexachloroethane	0.516	0.493	4.5	132	0.00	5.08
24	I	Naphthalene-d8	1.000	1.000	0.0	131	0.00	5.76
26	t	Nitrobenzene	0.365	0.337	7.7	122	0.00	5.12
28	t	Isophorone	0.643	0.623	3.1	128	-0.01	5.32
32	t	bis(2-Chloroethoxy)methan	0.372	0.379	-1.9	136	0.00	5.52
36	t	1,2,4-Trichlorobenzene	0.321	0.311	3.1	129	0.00	5.70
38	t	Naphthalene	1.036	1.004	3.1	129	0.00	5.78
42	t	Hexachlorobutadiene	0.168	0.169	-0.6	134	0.00	5.91
47	I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.82
48	t	Hexachlorocyclopentadiene	0.340	0.320	5.9	115	0.00	6.71
52	t	2-Chloronaphthalene	1.225	1.166	4.8	124	0.00	7.09
55	t	Dimethylphthalate	1.329	1.259	5.3	124	0.00	7.48
56	t	Acenaphthylene	1.955	1.831	6.3	120	0.00	7.62
57	t	2,6-Dinitrotoluene	0.297	0.275	7.4	116	0.00	7.55
59	t	Acenaphthene	1.283	1.229	4.2	124	0.00	7.86
63	t	2,4-Dinitrotoluene	0.396	0.338	14.6	102	0.00	8.10
65	t	Diethylphthalate	1.315	1.243	5.5	120	-0.01	8.47
66	t	Fluorene	1.398	1.320	5.6	121	0.00	8.59
67	t	4-Chlorophenyl-phenylethe	0.635	0.594	6.5	123	0.00	8.61
69	I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00	9.98
71	t	n-Nitrosodiphenylamine	0.584	0.544	6.8	113	0.00	8.79
72	t	1,2-Diphenylhydrazine	0.774	0.775	-0.1	122	0.00	8.84
74	t	4-Bromophenyl-phenylether	0.220	0.215	2.3	120	0.00	9.33
75	t	Hexachlorobenzene	0.252	0.241	4.4	119	0.00	9.41
77	t	Phenanthrene	1.141	1.104	3.2	120	0.00	10.02
78	t	Anthracene	1.147	1.097	4.4	116	0.00	10.10
80	t	Di-n-butylphthalate	1.309	1.269	3.1	115	0.00	11.00
81	t	Fluoranthene	1.171	1.091	6.8	112	0.00	11.87
83	I	Chrysene-d12	1.000	1.000	0.0	109	0.00	14.16
84	t	Pyrene	1.336	1.336	0.0	108	0.00	12.22

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

86	t	Butylbenzylphthalate	0.617	0.615	0.3	107	0.00	13.38
87	t	Benzo[a]anthracene	1.210	1.122	7.3	103	0.00	14.14
89	t	Chrysene	1.150	1.068	7.1	102	0.00	14.20
90	t	bis(2-Ethylhexyl)phthalat	0.851	0.843	0.9	105	0.00	14.35
91	I	Perylene-d12	1.000	1.000	0.0	102	0.00	16.27
92	t	Di-n-octylphthalate	1.445	1.507	-4.3	103	0.00	15.33
93	t	Benzo[b]fluoranthene	1.224	1.103	9.9	89	0.00	15.75
94	t	Benzo[k]fluoranthene	1.137	1.114	2.0	101	-0.01	15.78
95	t	Benzo[a]pyrene	1.061	1.024	3.5	96	0.00	16.19
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.006	4.7	96	-0.01	17.78
98	t	Dibenz[a,h]anthracene	1.086	1.010	7.0	93	-0.01	17.82
100	t	Benzo[g,h,i]perylene	1.018	1.026	-0.8	102	-0.01	18.21

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:40 2018

8.7.6

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4619
Lab FileID: 2M103916A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916a.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	131	0.00	4.66
102	Benzaldehyde	0.975	0.943	3.3	140	0.00	4.33
108	Phenanthrene-d10a	1.000	1.000	0.0	120	0.00	9.98
109	Atrazine	0.109	0.120	-10.1	127	0.00	9.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:46 2018

8.7.7

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4618
Lab FileID: 2M103916.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.66
2	t	1,4-Dioxane	0.605	0.545	9.9	114	0.02	2.21
6	t	Indene	2.229	2.368	-6.2	130	0.00	4.87
7	t	Cumene	3.318	3.144	5.2	117	0.00	4.07
13	t	Decane	1.450	1.334	8.0	117	0.00	4.55
18	t	Acetophenone	1.863	1.748	6.2	115	0.00	4.98
24	I	Naphthalene-d8	1.000	1.000	0.0	121	0.00	5.76
27	t	Quinoline	0.679	0.660	2.8	119	-0.02	6.11
40	t	2,3-Dichloroaniline	0.365	0.303	17.0	101	0.00	6.84
41	t	Caprolactam	0.150	0.130	13.3	104	-0.03	6.16
45	t	1-Methylnaphthalene	0.629	0.558	11.3	108	0.00	6.62
46	t	Dimethylnaphthalene	0.644	0.603	6.4	114	0.00	7.27
47	I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	7.82
53	t	Biphenyl	1.646	1.721	-4.6	114	0.00	7.07
69	I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	9.98
82	t	Octadecane	0.519	0.524	-1.0	111	0.00	9.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:44 2018

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4618
Lab FileID: 2M103917.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103917.D Vial: 15
Acq On : 10 May 2018 12:29 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
83 I	Chrysene-d12	1.000	1.000	0.0	106	-0.01	14.15
88 t	3,3'-Dichlorobenzidine	0.439	0.447	-1.8	105	0.00	14.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:48 2018

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4619-ICV4619
Lab FileID: 2M103918.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103918.D Vial: 16
Acq On : 10 May 2018 2:14 am Operator: chriss2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
112	Naphthalene-d8a	1.000	1.000	0.0	143	0.00	5.76
113	Hydroquinone	0.282	0.320	-13.5	138	0.00	6.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:50 2018

8.7.10

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4620-ICV4618
Lab FileID: 2M103921.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.67
3	t	Pyridine	1.552	1.520	2.1	112	0.10	2.61
10		Aniline	2.061	2.201	-6.8	122	0.00	4.42
16	t	Benzyl alcohol	0.875	0.939	-7.3	117	0.00	4.78
24	I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	5.76
39	t	4-Chloroaniline	0.441	0.407	7.7	105	0.00	5.83
44	t	2-Methylnaphthalene	0.603	0.585	3.0	109	0.00	6.52
47	I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	7.82
54	t	2-Nitroaniline	0.338	0.323	4.4	105	0.00	7.22
58	t	3-Nitroaniline	0.345	0.342	0.9	106	0.00	7.77
62	t	Dibenzofuran	1.725	1.699	1.5	112	0.00	8.10
68	t	4-Nitroaniline	0.343	0.311	9.3	99	-0.01	8.63
69	I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	9.99
79	t	Carbazole	1.071	1.031	3.7	107	0.00	10.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:19:12 2018

8.7.11

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4620-ICV4619
Lab FileID: 2M103921A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921a.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
108	Phenanthrene-d10a	1.000	1.000	0.0	122	0.00	9.99
111	Pentachloronitrobenzene	0.042	0.041#	2.4	114	0.00	9.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 16:40:21 2018

8.7.12

8

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4641-CC4618
Lab FileID: 2M104455.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\e2m4641\2m104455.d Vial: 2
Acq On : 26 May 2018 7:19 pm Operator: georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Mon May 28 01:36:03 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	87	0.00	4.53
2	t	1,4-Dioxane	0.605	0.578	4.5	84	-0.11	2.02
3	t	Pyridine	1.552	1.493	3.8	81	-0.08	2.36
4	t	N-Nitrosodimethylamine	0.921	0.838	9.0	79	-0.08	2.32
5	S	2-Fluorophenol	1.303	1.276	2.1	84	-0.01	3.55
6	t	Indene	2.229	2.169	2.7	84	0.00	4.73
7	t	Cumene	3.318	3.349	-0.9	87	-0.02	3.93
8	S	Phenol-d5	1.635	1.621	0.9	86	0.01	4.28
9	t	Phenol	1.877	1.844	1.8	86	0.02	4.30
10		Aniline	2.061	1.942	5.8	83	0.00	4.28
11	t	bis(2-Chloroethyl)ether	1.298	1.263	2.7	85	0.00	4.33
12	t	2-Chlorophenol	1.409	1.396	0.9	86	0.00	4.38
13	t	Decane	1.450	1.428	1.5	87	0.00	4.41
14	t	1,3-Dichlorobenzene	1.588	1.560	1.8	86	0.00	4.49
15	t	1,4-Dichlorobenzene	1.608	1.576	2.0	85	0.00	4.54
16	t	Benzyl alcohol	0.875	0.749	14.4	76	0.00	4.64
17	t	1,2-Dichlorobenzene	1.502	1.488	0.9	87	0.00	4.66
18	t	Acetophenone	1.863	1.934	-3.8	89	0.00	4.84
19	t	2-Methylphenol	1.231	1.288	-4.6	92	0.01	4.74
20	t	2,2'-oxybis(1-Chloropropa	1.573	1.505	4.3	84	0.00	4.74
21	t	3&4-Methylphenol	1.293	1.286	0.5	86	0.01	4.86
22	t	n-Nitroso-di-n-propylamin	0.998	1.043	-4.5	91	0.00	4.85
23	t	Hexachloroethane	0.516	0.534	-3.5	91	0.00	4.93
24	I	Naphthalene-d8	1.000	1.000	0.0	87	-0.01	5.60
25	S	Nitrobenzene-d5	0.366	0.403	-10.1	96	0.00	4.96
26	t	Nitrobenzene	0.365	0.396	-8.5	95	0.00	4.98
27	t	Quinoline	0.679	0.687	-1.2	88	-0.01	5.95
28	t	Isophorone	0.643	0.675	-5.0	92	-0.01	5.18
29	t	2-Nitrophenol	0.195	0.209	-7.2	93	0.00	5.25
30	t	2,4-Dimethylphenol	0.312	0.328	-5.1	92	0.00	5.30
31	t	Benzoic acid	0.236	0.290	-22.9#	104	0.00	5.40
32	t	bis(2-Chloroethoxy)methan	0.372	0.368	1.1	86	0.00	5.37
33	t	2,4-Dichlorophenol	0.292	0.295	-1.0	89	0.00	5.48
34	t	2,6-Dichlorophenol	0.286	0.287	-0.3	87	0.00	5.68
35		1,3,5-Trichlorobenzene	0.346	0.343	0.9	87	0.00	5.26
36	t	1,2,4-Trichlorobenzene	0.321	0.319	0.6	88	0.00	5.55
37		1,2,3-Trichlorobenzene	0.319	0.318	0.3	87	0.00	5.76
38	t	Naphthalene	1.036	1.021	1.4	87	0.00	5.62
39	t	4-Chloroaniline	0.441	0.437	0.9	87	0.00	5.67
40	t	2,3-Dichloroaniline	0.365	0.374	-2.5	91	0.00	6.66
41	t	Caprolactam	0.150	0.159	-6.0	93	0.00	6.02

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4641-CC4618
Lab FileID: 2M104455.D

42	t	Hexachlorobutadiene	0.168	0.177	-5.4	93	-0.01	5.74
43	t	4-Chloro-3-methylphenol	0.281	0.306	-8.9	95	0.02	6.19
44	t	2-Methylnaphthalene	0.603	0.609	-1.0	89	0.00	6.33
45	t	1-Methylnaphthalene	0.629	0.645	-2.5	90	0.00	6.45
46	t	Dimethylnaphthalene	0.644	0.661	-2.6	90	0.00	7.08
47	I	Acenaphthene-d10	1.000	1.000	0.0	90	-0.02	7.62
48	t	Hexachlorocyclopentadiene	0.340	0.343	-0.9	87	-0.03	6.52
49	t	2,4,6-Trichlorophenol	0.391	0.392	-0.3	89	-0.02	6.68
50	t	2,4,5-Trichlorophenol	0.411	0.420	-2.2	91	-0.01	6.72
51	S	2-Fluorobiphenyl	1.461	1.456	0.3	90	-0.03	6.77
52	t	2-Chloronaphthalene	1.225	1.207	1.5	90	-0.02	6.91
53	t	Biphenyl	1.646	1.646	0.0	91	-0.03	6.88
54	t	2-Nitroaniline	0.338	0.388	-14.8	102	-0.01	7.04
55	t	Dimethylphthalate	1.329	1.367	-2.9	94	-0.02	7.29
56	t	Acenaphthylene	1.955	1.969	-0.7	91	-0.02	7.43
57	t	2,6-Dinitrotoluene	0.297	0.339	-14.1	99	0.00	7.37
58	t	3-Nitroaniline	0.345	0.373	-8.1	94	0.00	7.58
59	t	Acenaphthene	1.283	1.291	-0.6	91	-0.02	7.66
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	50.000	60.355	-20.7#	117	0.00	7.74
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.149	0.209	-40.3#	117	0.04	7.88
62	t	Dibenzofuran	1.725	1.745	-1.2	91	-0.01	7.91
63	t	2,4-Dinitrotoluene	0.396	0.461	-16.4	100	0.00	7.92
64		2,3,4,6-Tetrachlorophenol	0.339	0.338	0.3	89	0.00	8.10
65	t	Diethylphthalate	1.315	1.440	-9.5	98	0.00	8.28
66	t	Fluorene	1.398	1.423	-1.8	92	0.00	8.39
67	t	4-Chlorophenyl-phenylethe	0.635	0.638	-0.5	90	0.00	8.41
68	t	4-Nitroaniline	0.343	0.374	-9.0	98	0.00	8.44
69	I	Phenanthrene-d10	1.000	1.000	0.0	93	-0.02	9.77
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	25.000	28.426	-13.7	107	-0.01	8.51
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.584	0.589	-0.9	91	-0.03	8.58
72	t	1,2-Diphenylhydrazine	0.774	0.834	-7.8	98	-0.04	8.64
73	S	2,4,6-Tribromophenol	0.121	0.119	1.7	87	-0.03	8.75
74	t	4-Bromophenyl-phenylether	0.220	0.215	2.3	90	-0.03	9.13
75	t	Hexachlorobenzene	0.252	0.235	6.7	86	-0.03	9.21
76	t	Pentachlorophenol	0.153	0.144	5.9	83	-0.01	9.53
77	t	Phenanthrene	1.141	1.135	0.5	92	-0.02	9.81
78	t	Anthracene	1.147	1.162	-1.3	93	-0.02	9.88
79	t	Carbazole	1.071	1.099	-2.6	93	0.00	10.16
80	t	Di-n-butylphthalate	1.309	1.433	-9.5	100	0.00	10.79
81	t	Fluoranthene	1.171	1.194	-2.0	94	0.00	11.66
82	t	Octadecane	0.519	0.544	-4.8	95	-0.02	9.75
83	I	Chrysene-d12	1.000	1.000	0.0	89	-0.02	13.94
84	t	Pyrene	1.336	1.376	-3.0	91	-0.04	12.01
85	S	Terphenyl-d14	0.877	0.881	-0.5	89	-0.04	12.32
86	t	Butylbenzylphthalate	0.617	0.699	-13.3	101	-0.03	13.16
87	t	Benzo[a]anthracene	1.210	1.212	-0.2	92	-0.02	13.93
88	t	3,3'-Dichlorobenzidine	0.439	0.464	-5.7	91	-0.02	13.93
89	t	Chrysene	1.150	1.154	-0.3	89	-0.02	13.98
90	t	bis(2-Ethylhexyl)phthalat	0.851	0.983	-15.5	103	-0.01	14.13

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4641-CC4618
Lab FileID: 2M104455.D

91	I	Perylene-d12	1.000	1.000	0.0	90	-0.02	16.05
92	t	Di-n-octylphthalate	1.445	1.656	-14.6	102	-0.03	15.11
93	t	Benzo[b]fluoranthene	1.224	1.205	1.6	87	-0.02	15.53
94	t	Benzo[k]fluoranthene	1.137	1.115	1.9	89	-0.03	15.57
95	t	Benzo[a]pyrene	1.061	1.086	-2.4	92	-0.02	15.97
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.082	-2.5	90	-0.07	17.50
97	t	Dibenz(a,h)acridine	0.956	0.943	1.4	88	-0.05	17.17
98	t	Dibenz[a,h]anthracene	1.086	1.093	-0.6	89	-0.08	17.53
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.525	1.5	88	-0.03	15.53
100	t	Benzo[g,h,i]perylene	1.018	1.007	1.1	87	-0.09	17.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103907a.D M2M4618.M Mon May 28 05:09:18 2018

8.7.13

8

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: E2M4641-CC4619
Lab FileID: 2M104456.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\e2m4641\2m104456.d Vial: 3
Acq On : 26 May 2018 7:45 pm Operator: georges
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
Last Update : Mon May 28 01:36:03 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
101		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	110	0.00	4.53
102		Benzaldehyde	0.975	0.894	8.3	106	0.00	4.20
103		Acenaphthene-d10a	1.000	1.000	0.0	113	-0.02	7.62
104		1,2,4,5-Tetrachlorobenzen	0.587	0.564	3.9	109	-0.03	6.53
105		Chrysene-d12a	1.000	1.000	0.0	109	-0.02	13.94
106		Benzidine	0.389	0.520	-33.7#	156	-0.04	11.93
107	s	1-chlorooctadecane	0.320	0.352	-10.0	121	-0.05	11.63
108		Phenanthrene-d10a	1.000	1.000	0.0	113	-0.02	9.77
109		Atrazine	0.109	0.112	-2.8	112	-0.01	9.43
110	s	o-terphenyl	0.550	0.528	4.0	108	-0.01	10.41
111		Pentachloronitrobenzene	0.042	0.043#	-2.4	115	-0.02	9.54
112		Naphthalene-d8a	1.000	1.000	0.0	111	-0.01	5.59
113		Hydroquinone	0.282	0.340	-20.6#	124	0.03	6.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103907a.D M2M4618.M Mon May 28 05:09:22 2018

8.7.14

8

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6169-ICC6169
Lab FileID: M145291.D

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6169.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

Calibration Files
2 =M145295.D 5 =M145294.D 100 =M145289.D 50 =M145291.D
1 =M145296.D 10 =M145293.D 80 =M145290.D 25 =M145292.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
101) I 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.324	1.294	0.907	1.038	1.291	1.171	0.983	1.156	1.145	13.63
103) I Acenaphthene-d10a	ISTD									
104) 1,2,4,5-Tetr	0.715	0.765	0.581	0.607	0.682	0.685	0.614	0.672	0.665	9.24
105) Atrazine	0.134	0.180	0.207	0.213	0.120	0.183	0.212	0.215	0.183	20.31
---- Linear regression ---- Coefficient = 0.9995										
Response Ratio = -0.00230 + 0.21095 *A										
106) I Chrysene-d12a	ISTD									
107) Benzidine	0.266	0.505	0.585	0.160	0.590	0.545	0.698	0.478	40.36	
---- Quadratic regression ---- Coefficient = 0.9982										
Response Ratio = -0.01964 + 0.73236 *A + -0.09033 *A^2										
108) 1-chloroocta	0.196	0.231	0.244	0.253	0.237	0.252	0.271	0.241	9.70	
109) I Phenanthrene-d10a	ISTD									
110) o-terphenyl	0.548	0.624	0.515	0.552	0.506	0.582	0.529	0.573	0.554	7.03
111) Pentachloron	0.023	0.041	0.040	0.030	0.041	0.039	0.036#			20.56
---- Linear regression ---- Coefficient = 0.9999										
Response Ratio = -0.00254 + 0.04234 *A										
112) I Naphthalene-d8a	ISTD									
113) Hydroquinone	0.230	0.372	0.374	0.299	0.358	0.354	0.331			17.09

(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6168.M Wed Apr 18 15:32:44 2018 MSM

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6169-ICV6169
Lab FileID: M145297.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145297.D Vial: 24
Acq On : 17 Apr 2018 3:34 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
112 I	Naphthalene-d8a	1.000	1.000	0.0	97	0.00	5.79
113	Hydroquinone	0.331	0.350	-5.7	91	0.00	6.23

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M145291a.D MM6168.M Wed Apr 18 02:32:32 2018 MSM

8.7.16

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6169-ICV6169
Lab FileID: M145298.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145298.D Vial: 12
Acq On : 17 Apr 2018 4:03 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
109 I	Phenanthrene-d10a	1.000	1.000	0.0	105	0.00	10.70
		True	Calc.	% Drift			
111	Pentachloronitrobenzene	50.000	51.100	-2.2	107	0.00	10.42

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M145291a.D MM6168.M Wed Apr 18 02:32:34 2018 MSM

8.7.17
8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6169-ICV6169
Lab FileID: M145299.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145299.D Vial: 13
Acq On : 17 Apr 2018 4:32 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
103 I	Acenaphthene-d10a	1.000	1.000	0.0	96	0.00	8.11
104 I	1,2,4,5-Tetrachlorobenzen	0.665	0.655	1.5	104	0.00	6.83

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M145291a.D MM6168.M Wed Apr 18 02:32:36 2018 MSM

8.7.18

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6169-ICV6169
Lab FileID: M145300.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145300.D Vial: 14
Acq On : 17 Apr 2018 5:02 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	94	0.00	4.65
102 t	Benzaldehyde	1.145	0.949	17.1	86	0.00	4.32
103 I	Acenaphthene-d10a	1.000	1.000	0.0	93	0.00	8.11
		True	Calc.	% Drift			
105 t	Atrazine	50.000	50.874	-1.7	93	0.00	10.31

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M145291a.D MM6168.M Wed Apr 18 02:32:38 2018 MSM

8.7.19
8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6169-ICV6169
Lab FileID: M145301.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145301.D Vial: 15
Acq On : 17 Apr 2018 5:31 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
106 I	Chrysene-d12a	1.000	1.000	0.0	117	0.00	15.85
		True	Calc.	% Drift			
107 t	Benzidine	50.000	61.819	-23.6	144	0.00	13.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M145291a.D MM6168.M Wed Apr 18 02:15:55 2018 MSM

8.7.20
8

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICC6221
Lab FileID: M146349.D

Response Factor Report Instrument #1

Method : D:\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Fri May 25 18:08:20 2018
Response via : Initial Calibration

Calibration Files
2 =M146345.D 5 =M146352.D 100 =M146347.D 50 =M146349.D
1 =M146346.D 10 =M146351.D 80 =M146348.D 25 =M146350.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.409	0.673	0.689	0.772	0.738	0.708	0.728	0.733	0.681	16.78
3) Pyridine	1.711	1.535	1.845	1.961	1.330	1.566	1.851	1.893	1.711	12.69
4) N-Nitrosodim	0.899	0.916	1.131	1.110	0.784	0.990	1.090	1.013	0.992	12.10
5) 2-Fluorophen	1.056	1.260	1.651	1.614		1.441	1.619	1.534	1.453	15.23
6) Indene	2.260	2.316	2.381	2.401	2.478	2.368	2.342	2.364	2.364	2.69
7) Cumene	3.897	4.379	4.294	4.323	4.308	4.247	4.156	4.259	4.233	3.55
8) Phenol-d5	1.756	1.846	2.106	2.087	1.358	2.034	2.060	2.019	1.908	13.32
9) Phenol	1.971	2.221	2.242	2.268	2.419	2.367	2.181	2.317	2.248	6.07
10) Aniline	2.358	2.388	2.320	2.281	2.309	2.545	2.252	2.373	2.353	3.82
11) bis(2-Chloro	1.311	1.482	1.312	1.352	1.171	1.465	1.332	1.400	1.353	7.31
12) 2-Chlorophen	1.483	1.359	1.438	1.454	1.151	1.518	1.408	1.435	1.406	8.05
13) Decane	1.575	1.398	1.260	1.240	1.524	1.345	1.201	1.276	1.352	10.12
14) 1,3-Dichloro	1.573	1.548	1.560	1.533	1.531	1.677	1.523	1.568	1.564	3.13
15) 1,4-Dichloro	1.549	1.482	1.527	1.523	1.612	1.611	1.480	1.500	1.536	3.42
16) Benzyl alcoh	0.869	0.867	0.986	0.963		0.906	0.958	0.943	0.927	5.10
17) 1,2-Dichloro	1.529	1.516	1.479	1.454	1.449	1.558	1.401	1.477	1.483	3.37
18) Acetophenone	2.171	2.088	2.264	2.203	2.120	2.314	2.226	2.188	2.197	3.34
19) 2-Methylphen	1.227	1.269	1.298	1.242	1.105	1.444	1.256	1.294	1.267	7.40
20) 2,2'-oxybis(	0.407	0.437	0.379	0.381	0.406	0.421	0.367	0.405	0.400	5.84
21) 3&4-Methylph	1.346	1.328	1.368	1.343	1.197	1.361	1.353	1.336	1.329	4.14
22) n-Nitroso-di	1.311	1.292	1.281	1.276	0.975	1.449	1.258	1.282	1.265	10.43
23) Hexachloroet	0.584	0.603	0.591	0.597	0.587	0.630	0.570	0.583	0.593	2.98
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.472	0.534	0.505	0.520	0.475	0.564	0.497	0.532	0.512	6.13
26) Nitrobenzene	0.569	0.524	0.485	0.502	0.529	0.549	0.478	0.515	0.519	5.93
27) Quinoline	0.694	0.740	0.768	0.782	0.617	0.778	0.768	0.780	0.741	7.84
28) Isophorone	0.794	0.892	0.865	0.877	0.721	0.963	0.850	0.888	0.856	8.42
29) 2-Nitropheno	0.185	0.203	0.212	0.219	0.143	0.218	0.216	0.211	0.201	12.79
30) 2,4-Dimethyl	0.369	0.351	0.423	0.410	0.301	0.425	0.405	0.417	0.388	11.33
31) Benzoic acid		0.237	0.347	0.345		0.318	0.349	0.332	0.321	13.36
32) bis(2-Chloro	0.387	0.444	0.405	0.406	0.432	0.433	0.393	0.421	0.415	4.91
33) 2,4-Dichloro	0.275	0.281	0.289	0.295	0.279	0.317	0.289	0.292	0.290	4.53
34) 2,6-Dichloro	0.274	0.266	0.282	0.281	0.223	0.288	0.275	0.281	0.271	7.62
35) 1,3,5-Trichl	0.384	0.392	0.354	0.358	0.375	0.389	0.346	0.368	0.371	4.60
36) 1,2,4-Trichl	0.356	0.350	0.345	0.345	0.395	0.362	0.332	0.354	0.355	5.19
37) 1,2,3-Trichl	0.363	0.353	0.323	0.328	0.383	0.362	0.310	0.334	0.345	7.15
38) Naphthalene	1.001	1.054	1.034	1.046	1.124	1.101	1.019	1.042	1.052	3.89
39) 4-Chloroanil	0.432	0.426	0.439	0.448	0.413	0.492	0.436	0.443	0.441	5.26
40) 2,3-Dichloro	0.379	0.382	0.398	0.399	0.417	0.401	0.381	0.382	0.392	3.45
41) Caprolactam	0.117	0.162	0.167	0.160	0.156	0.164	0.160	0.164	0.156	10.29
42) Hexachlorobu	0.214	0.235	0.215	0.218	0.218	0.225	0.211	0.223	0.220	3.40
43) 4-Chloro-3-m	0.341	0.375	0.418	0.428	0.286	0.417	0.406	0.423	0.387	13.01
44) 2-Methylnaph	0.616	0.650	0.651	0.666	0.638	0.698	0.635	0.672	0.653	3.90
45) 1-Methylnaph	0.787	0.795	0.768	0.772	0.702	0.830	0.755	0.768	0.772	4.73

Initial Calibration Summary

Job Number: JC66384 **Sample:** EM6221-ICC6221
Account: BBLNYS Arcadis **Lab FileID:** M146349.D
Project: National Grid, Philly Coke, Philadelphia PA

```
46) Dimethylnaph 0.675 0.671 0.677 0.673 0.677 0.730 0.656 0.676 0.679   3.20

47) I   Acenaphthene-d10      ----------------ISTD--------------------
48) Hexachlorocy 0.152 0.225 0.383 0.377 0.095 0.290 0.377 0.336 0.279  39.73
         ----- Quadratic regression -----                Coefficient =  0.9996
              Response Ratio = -0.02900 + 0.36947 *A + 0.00393 *A^2

49) 2,4,6-Trichl 0.366 0.417 0.381 0.407 0.396 0.454 0.384 0.401 0.401   6.72
50) 2,4,5-Trichl 0.393 0.444 0.417 0.451 0.359 0.438 0.430 0.425 0.420   7.22
51) 2-Fluorobiph 1.555 1.532 1.348 1.439 1.616 1.539 1.376 1.456 1.483   6.28
52) 2-Chloronaph 1.256 1.221 1.090 1.143 1.244 1.256 1.121 1.183 1.189   5.46
53) Biphenyl     1.694 1.631 1.616 1.689 1.714 1.696 1.642 1.684 1.671   2.13
54) 2-Nitroanili 0.354 0.484 0.537 0.524 0.332 0.572 0.515 0.506 0.478  18.27
55) Dimethylphth 1.470 1.469 1.461 1.521 1.237 1.581 1.488 1.523 1.469   6.92
56) Acenaphthyle 1.831 1.920 1.876 2.014 1.788 2.096 1.919 2.015 1.932   5.35
57) 2,6-Dinitrot 0.213 0.297 0.313 0.325 0.132 0.337 0.319 0.331 0.284  25.67
         ----- Quadratic regression -----                Coefficient =  1.0000
              Response Ratio = -0.00490 + 0.34533 *A + -0.01199 *A^2

58) 3-Nitroanili 0.238 0.377 0.387 0.400       0.379 0.393 0.373 0.364  15.48
59) Acenaphthene 1.286 1.225 1.225 1.290 1.302 1.330 1.237 1.256 1.269   3.07
60) 2,4-Dinitrop 0.042 0.102 0.218 0.197       0.132 0.212 0.181 0.155  42.20
         ----- Quadratic regression -----                Coefficient =  0.9999
              Response Ratio = -0.02189 + 0.18929 *A + 0.00669 *A^2

61) 4-Nitropheno 0.120 0.136 0.289 0.295       0.266 0.294 0.292 0.242  32.43
         ----- Quadratic regression -----                Coefficient =  0.9998
              Response Ratio = -0.01530 + 0.32136 *A + -0.01022 *A^2

62) Dibenzofuran 1.654 1.877 1.771 1.838 1.698 1.899 1.804 1.810 1.794   4.69
63) 2,4-Dinitrot 0.260 0.438 0.412 0.448 0.184 0.462 0.427 0.453 0.386  26.99
         ----- Quadratic regression -----                Coefficient =  1.0000
              Response Ratio = -0.00845 + 0.49200 *A + -0.03048 *A^2

64) 2,3,4,6-Tetr 0.286 0.356 0.410 0.422 0.237 0.438 0.414 0.386 0.368  19.47
65) Diethylphtha 1.521 1.545 1.540 1.613 1.255 1.670 1.563 1.615 1.540   8.13
66) Fluorene     1.284 1.464 1.411 1.501 1.403 1.561 1.442 1.474 1.443   5.67
67) 4-Chlorophen 0.755 0.767 0.664 0.701 0.732 0.767 0.666 0.730 0.723   5.77
68) 4-Nitroanili 0.197 0.354 0.366 0.370 0.342 0.368 0.371 0.375 0.343  17.43

69) I   Phenanthrene-d10      ----------------ISTD--------------------
70) 4,6-Dinitro- 0.062 0.089 0.138 0.142       0.120 0.142 0.135 0.118  26.29
         ----- Quadratic regression -----                Coefficient =  0.9998
              Response Ratio = -0.00730 + 0.15406 *A + -0.00509 *A^2

71) n-Nitrosodip 0.495 0.523 0.478 0.530 0.460 0.551 0.498 0.526 0.508   5.95
72) 1,2-Diphenyl 0.832 0.990 0.819 0.907 0.631 1.002 0.848 0.935 0.870  13.65
73) 2,4,6-Tribro 0.096 0.122 0.123 0.138 0.084 0.141 0.126 0.140 0.121  17.26
74) 4-Bromopheny 0.228 0.244 0.227 0.247 0.204 0.261 0.235 0.245 0.236   7.27
75) Hexachlorobe 0.295 0.292 0.245 0.266 0.312 0.301 0.245 0.275 0.279   9.14
76) Pentachlorop 0.081 0.122 0.166 0.168 0.055 0.152 0.162 0.154 0.133  32.25
         ----- Quadratic regression -----                Coefficient =  0.9996
              Response Ratio = -0.00837 + 0.16611 *A + 0.00019 *A^2

77) Phenanthrene 1.158 1.063 0.942 1.009 1.128 1.113 0.981 1.065 1.057   7.14
78) Anthracene   1.015 1.098 0.993 1.064 0.869 1.150 1.031 1.100 1.040   8.27
79) Carbazole    0.855 1.003 0.965 1.024 0.851 1.063 0.990 1.030 0.973   8.17
80) Di-n-butylph 1.069 1.260 1.288 1.381 0.743 1.316 1.334 1.381 1.222  17.78
81) Fluoranthene 1.165 1.318 1.222 1.326 0.990 1.368 1.266 1.343 1.249   9.97
82) Octadecane   0.392 0.425 0.407 0.429 0.382 0.465 0.412 0.423 0.417   6.09
```

Initial Calibration Summary

Job Number: JC66384 **Sample:** EM6221-ICC6221
Account: BBLNYS Arcadis **Lab FileID:** M146349.D
Project: National Grid, Philly Coke, Philadelphia PA

83)	I Chrysene-d12	----------ISTD----------									
84)	Pyrene	1.186	1.229	1.230	1.270	1.054	1.326	1.258	1.277	1.229	6.66
85)	Terphenyl-d1	0.859	0.893	0.909	0.944	0.881	0.959	0.940	0.915	0.913	3.74
86)	Butylbenzylp	0.351	0.515	0.597	0.609		0.548	0.619	0.582	0.546	17.08
87)	Benzo[a]anth	1.052	1.094	1.192	1.231	1.076	1.219	1.239	1.197	1.162	6.50
88)	3,3'-Dichlor	0.303	0.380	0.425	0.438		0.428	0.435	0.429	0.405	12.17
89)	Chrysene	1.067	1.106	1.045	1.069	1.136	1.132	1.059	1.094	1.088	3.13
90)	bis(2-Ethylh	0.450	0.594	0.770	0.767		0.684	0.789	0.739	0.685	18.00
91)	I Perylene-d12	----------ISTD----------									
92)	Di-n-octylph	0.879	1.012	1.325	1.342		1.097	1.368	1.266	1.184	16.01
93)	Benzo[b]fluo	1.498	1.183	1.241	1.247	0.991	1.341	1.236	1.245	1.248	11.39
94)	Benzo[k]fluo	1.469	1.207	1.040	1.107	0.998	1.163	1.061	1.182	1.154	12.74
95)	Benzo[a]pyre	1.020	0.995	1.083	1.119	0.782	1.098	1.104	1.109	1.039	10.88
96)	Indeno[1,2,3	0.939	0.890	0.957	0.998	0.782	0.982	1.004	1.024	0.947	8.32
97)	Dibenz(a,h)a	0.833	0.780	0.933	0.962	0.678	0.893	0.954	0.956	0.874	11.72
98)	Dibenz[a,h]a	1.037	0.984	0.937	0.994	0.835	1.053	0.967	1.033	0.980	7.19
99)	7,12-Dimethy	0.601	0.401	0.560	0.560	0.269	0.565	0.555	0.573	0.510	22.52

----- Quadratic regression ----- Coefficient = 0.9998
Response Ratio = -0.00574 + 0.56978 *A + -0.00378 *A^2

100)	Benzo[g,h,i]	1.132	0.918	0.898	0.963	0.807	1.009	0.935	0.990	0.956	9.87

(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6221.M Fri May 25 18:10:52 2018 RPT1

8.7.21

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICV6221
Lab FileID: M146353.D

Evaluate Continuing Calibration Report

Data File : D:\EM6221\M146353.D Vial: 11
Acq On : 24 May 2018 4:56 pm Operator: seanb1
Sample : icv6221-50 Inst : Instrument #1
Misc : op10492,em6221,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu May 24 19:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	124	0.00	4.48
5	S	2-Fluorophenol	1.453	1.514	-4.2	117	0.00	3.51
8	S	Phenol-d5	1.908	1.821	4.6	108	0.00	4.24
24	I	Naphthalene-d8	1.000	1.000	0.0	123	0.00	5.56
25	S	Nitrobenzene-d5	0.512	0.532	-3.9	126	0.00	4.92
47	I	Acenaphthene-d10	1.000	1.000	0.0	124	0.00	7.82
51	S	2-Fluorobiphenyl	1.483	1.393	6.1	120	0.00	6.84
69	I	Phenanthrene-d10	1.000	1.000	0.0	107	0.00	10.40
73	S	2,4,6-Tribromophenol	0.121	0.141	-16.5	110	-0.01	9.15
83	I	Chrysene-d12	1.000	1.000	0.0	111	-0.02	15.54
85	S	Terphenyl-d14	0.913	0.958	-4.9	112	0.00	13.56

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Fri May 25 12:51:09 2018 RPT1

8.7.22
8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICV6221
Lab FileID: M146354.D

Evaluate Continuing Calibration Report

Data File : D:\EM6221\M146354.D Vial: 12
Acq On : 24 May 2018 5:26 pm Operator: seanb1
Sample : icv6221-50 Inst : Instrument #1
Misc : op10492,em6221,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu May 24 19:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	4.48
9	t	Phenol	2.248	2.031	9.7	103	0.00	4.25
12	t	2-Chlorophenol	1.406	1.458	-3.7	115	0.00	4.34
19	t	2-Methylphenol	1.267	1.304	-2.9	120	0.00	4.69
21	t	3&4-Methylphenol	1.329	1.385	-4.2	118	0.00	4.82
24	I	Naphthalene-d8	1.000	1.000	0.0	102	0.00	5.56
29	t	2-Nitrophenol	0.201	0.211	-5.0	98	0.00	5.21
30	t	2,4-Dimethylphenol	0.388	0.431	-11.1	107	0.00	5.26
31	t	Benzoic acid	0.321	0.333	-3.7	98	-0.03	5.40
33	t	2,4-Dichlorophenol	0.290	0.291	-0.3	100	0.00	5.44
34	t	2,6-Dichlorophenol	0.271	0.300	-10.7	108	0.00	5.66
43	t	4-Chloro-3-methylphenol	0.387	0.397	-2.6	94	-0.02	6.21
47	I	Acenaphthene-d10	1.000	1.000	0.0	97	0.00	7.82
49	t	2,4,6-Trichlorophenol	0.401	0.457	-14.0	109	-0.01	6.74
50	t	2,4,5-Trichlorophenol	0.420	0.455	-8.3	98	-0.02	6.79
		----------	True	Calc.	% Drift		----------	
60	t	2,4-Dinitrophenol	50.000	47.339	5.3	90	-0.02	7.98
61	t	4-Nitrophenol	50.000	49.739	0.5	97	-0.02	8.16
		----------	AvgRF	CCRF	% Dev		----------	
64	t	2,3,4,6-Tetrachlorophenol	0.368	0.422	-14.7	97	-0.01	8.39
69	I	Phenanthrene-d10	1.000	1.000	0.0	90	0.00	10.40
		----------	True	Calc.	% Drift		----------	
70	t	4,6-Dinitro-2-methylpheno	50.000	53.862	-7.7	97	-0.02	8.89
76	t	Pentachlorophenol	50.000	62.015	-24.0	117	-0.01	10.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Fri May 25 12:51:14 2018 RPT1

8.7.23

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICV6221
Lab FileID: M146355.D

Evaluate Continuing Calibration Report

Data File : D:\EM6221\M146355.D Vial: 13
Acq On : 24 May 2018 5:56 pm Operator: seanb1
Sample : icv6221-50 Inst : Instrument #1
Misc : op10492,em6221,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Fri May 25 18:08:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	148	0.00	4.48
4	t	N-Nitrosodimethylamine	0.992	0.758	23.6	101	0.02	2.29
11	t	bis(2-Chloroethyl)ether	1.353	1.497	-10.6	163	0.00	4.29
14	t	1,3-Dichlorobenzene	1.564	1.618	-3.5	156	0.00	4.44
15	t	1,4-Dichlorobenzene	1.536	1.468	4.4	142	0.00	4.49
17	t	1,2-Dichlorobenzene	1.483	1.415	4.6	144	0.00	4.61
20	t	2,2'-oxybis(1-Chloropropa	0.400	0.406	-1.5	157	0.00	4.70
22	t	n-Nitroso-di-n-propylamin	1.265	1.091	13.8	126	0.00	4.80
23	t	Hexachloroethane	0.593	0.551	7.1	136	0.00	4.87
24	I	Naphthalene-d8	1.000	1.000	0.0	132	0.00	5.57
26	t	Nitrobenzene	0.519	0.471	9.2	123	0.00	4.93
28	t	Isophorone	0.856	0.827	3.4	124	-0.01	5.13
32	t	bis(2-Chloroethoxy)methan	0.415	0.442	-6.5	143	0.00	5.33
36	t	1,2,4-Trichlorobenzene	0.355	0.360	-1.4	137	0.00	5.51
38	t	Naphthalene	1.052	1.023	2.8	129	0.00	5.59
42	t	Hexachlorobutadiene	0.220	0.222	-0.9	134	0.00	5.72
47	I	Acenaphthene-d10	1.000	1.000	0.0	112	0.00	7.82
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	50.000	54.116	-8.2	126	0.00	6.57
		----------	AvgRF	CCRF	% Dev	----------		
52	t	2-Chloronaphthalene	1.189	1.402	-17.9	137	0.00	7.00
55	t	Dimethylphthalate	1.469	1.641	-11.7	121	0.00	7.45
56	t	Acenaphthylene	1.932	2.106	-9.0	117	0.00	7.60
		----------	True	Calc.	% Drift	----------		
57	t	2,6-Dinitrotoluene	50.000	50.498	-1.0	113	0.00	7.54
		----------	AvgRF	CCRF	% Dev	----------		
59	t	Acenaphthene	1.269	1.341	-5.7	116	0.00	7.87
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	50.000	49.509	1.0	111	-0.01	8.19
		----------	AvgRF	CCRF	% Dev	----------		
65	t	Diethylphthalate	1.540	1.689	-9.7	117	-0.01	8.62
66	t	Fluorene	1.443	1.501	-4.0	112	0.00	8.73
67	t	4-Chlorophenyl-phenylethe	0.723	0.675	6.6	108	0.00	8.76

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICV6221
Lab FileID: M146355.D

69	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00	10.40
71	t	n-Nitrosodiphenylamine	0.508	0.505	0.6	100	-0.01	8.98
72	t	1,2-Diphenylhydrazine	0.870	0.948	-9.0	109	0.00	9.04
74	t	4-Bromophenyl-phenylether	0.236	0.241	-2.1	102	0.00	9.63
75	t	Hexachlorobenzene	0.279	0.249	10.8	98	0.00	9.72
77	t	Phenanthrene	1.057	1.116	-5.6	116	0.00	10.44
78	t	Anthracene	1.040	1.087	-4.5	107	0.00	10.54
80	t	Di-n-butylphthalate	1.222	1.397	-14.3	106	0.00	11.70
81	t	Fluoranthene	1.249	1.250	-0.1	99	0.00	12.72
83	I	Chrysene-d12	1.000	1.000	0.0	88	-0.01	15.55
84	t	Pyrene	1.229	1.365	-11.1	95	0.00	13.14
86	t	Butylbenzylphthalate	0.546	0.698	-27.8	101	0.00	14.63
87	t	Benzo[a]anthracene	1.162	1.289	-10.9	93	0.00	15.53
88	t	3,3'-Dichlorobenzidine	0.405	0.487	-20.2	98	-0.01	15.57
89	t	Chrysene	1.088	1.088	0.0	90	-0.01	15.60
90	t	bis(2-Ethylhexyl)phthalat	0.685	0.846	-23.5	97	0.00	15.85
91	I	Perylene-d12	1.000	1.000	0.0	84	0.00	18.16
92	t	Di-n-octylphthalate	1.184	1.509	-27.4	94	0.00	17.07
93	t	Benzo[b]fluoranthene	1.248	1.255	-0.6	84	0.00	17.53
94	t	Benzo[k]fluoranthene	1.154	1.201	-4.1	91	0.00	17.58
95	t	Benzo[a]pyrene	1.039	1.175	-13.1	88	0.00	18.07
96	t	Indeno[1,2,3-cd]pyrene	0.947	1.050	-10.9	88	0.00	19.82
98	t	Dibenz[a,h]anthracene	0.980	1.026	-4.7	86	0.00	19.87
100	t	Benzo[g,h,i]perylene	0.956	1.091	-14.1	95	0.00	20.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Fri May 25 18:10:42 2018 RPT1

8.7.24
8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICV6221
Lab FileID: M146356.D

Evaluate Continuing Calibration Report

Data File : D:\EM6221\M146356.D Vial: 14
Acq On : 24 May 2018 6:26 pm Operator: seanb1
Sample : icv6221-50 Inst : Instrument #1
Misc : op10492,em6221,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu May 24 19:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	4.48
2	t	1,4-Dioxane	0.681	0.679	0.3	100	0.02	1.98
6	t	Indene	2.364	2.601	-10.0	123	0.00	4.68
7	t	Cumene	4.233	4.169	1.5	109	0.00	3.89
13	t	Decane	1.352	1.255	7.2	115	0.00	4.37
18	t	Acetophenone	2.197	2.085	5.1	107	0.00	4.79
24	I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	5.56
27	t	Quinoline	0.741	0.707	4.6	106	-0.03	5.94
40	t	2,3-Dichloroaniline	0.392	0.298	24.0	88	0.00	6.73
41	t	Caprolactam	0.156	0.133	14.7	98	-0.05	6.02
45	t	1-Methylnaphthalene	0.772	0.639	17.2	97	0.00	6.48
46	t	Dimethylnaphthalene	0.679	0.582	14.3	102	-0.01	7.20
47	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00	7.82
53	t	Biphenyl	1.671	1.672	-0.1	99	-0.01	6.97
69	I	Phenanthrene-d10	1.000	1.000	0.0	98	0.00	10.40
82	t	Octadecane	0.417	0.425	-1.9	97	0.00	10.42
91	I	Perylene-d12	1.000	1.000	0.0	93	0.00	18.16
			True	Calc.	% Drift			
99	t	7,12-Dimethylbenz(a)anthr	50.000	41.075	17.8	76	0.00	17.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Fri May 25 12:51:18 2018 RPT1

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICV6221
Lab FileID: M146357.D

Evaluate Continuing Calibration Report

Data File : D:\EM6221\M146357.D Vial: 15
Acq On : 24 May 2018 6:56 pm Operator: seanb1
Sample : icv6221-50 Inst : Instrument #1
Misc : op10492,em6221,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu May 24 19:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	4.49
3	t	Pyridine	1.711	1.655	3.3	87	0.09	2.40
10	t	Aniline	2.353	2.554	-8.5	115	0.00	4.25
16	t	Benzyl alcohol	0.927	0.923	0.4	98	0.00	4.60
24	I	Naphthalene-d8	1.000	1.000	0.0	110	0.00	5.56
39	t	4-Chloroaniline	0.441	0.399	9.5	98	0.00	5.65
44	t	2-Methylnaphthalene	0.653	0.584	10.6	97	0.00	6.36
47	I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00	7.82
54	t	2-Nitroaniline	0.478	0.550	-15.1	103	-0.01	7.16
58	t	3-Nitroaniline	0.364	0.376	-3.3	92	-0.01	7.79
62	t	Dibenzofuran	1.794	1.789	0.3	96	0.00	8.15
68	t	4-Nitroaniline	0.343	0.374	-9.0	100	-0.03	8.81
69	I	Phenanthrene-d10	1.000	1.000	0.0	95	0.00	10.40
79	t	Carbazole	0.973	0.999	-2.7	93	0.00	10.89

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Fri May 25 12:51:20 2018 RPT1

8.7.26

8

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6221-ICV6221
Lab FileID: M146358.D

Evaluate Continuing Calibration Report

Data File : D:\EM6221\M146358.D Vial: 16
Acq On : 24 May 2018 7:26 pm Operator: seanb1
Sample : icv6221-50 Inst : Instrument #1
Misc : op10492,em6221,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu May 24 19:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
83 I	Chrysene-d12	1.000	1.000	0.0	113	-0.02	15.54
88 t	3,3'-Dichlorobenzidine	0.405	0.416	-2.7	108	-0.01	15.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Fri May 25 12:51:22 2018 RPT1

8.7.27

8

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6233-CC6221
Lab FileID: M146632.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6233\M146632.D Vial: 2
Acq On : 5 Jun 2018 8:56 am Operator: angelar
Sample : cc6221-50 Inst : Instrument #1
Misc : op10492,em6233,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Thu Jun 14 15:50:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	87	-0.07	4.41
2	t	1,4-Dioxane	0.681	0.585	14.1	66	-0.09	1.86
3	t	Pyridine	1.711	1.661	2.9	74	-0.09	2.21
4	t	N-Nitrosodimethylamine	0.992	0.881	11.2	69	-0.09	2.18
5	S	2-Fluorophenol	1.453	1.582	-8.9	85	-0.06	3.45
6	t	Indene	2.364	2.445	-3.4	89	-0.07	4.60
7	t	Cumene	4.233	4.570	-8.0	92	-0.07	3.81
8	S	Phenol-d5	1.908	2.034	-6.6	85	-0.02	4.19
9	t	Phenol	2.248	2.113	6.0	81	-0.05	4.20
10	t	Aniline	2.353	2.517	-7.0	96	-0.06	4.18
11	t	bis(2-Chloroethyl)ether	1.353	1.399	-3.4	90	-0.07	4.22
12	t	2-Chlorophenol	1.406	1.456	-3.6	87	-0.06	4.27
13	t	Decane	1.352	0.896	33.7#	63	-0.06	4.30
14	t	1,3-Dichlorobenzene	1.564	1.634	-4.5	93	-0.07	4.37
15	t	1,4-Dichlorobenzene	1.536	1.657	-7.9	95	-0.06	4.43
16	t	Benzyl alcohol	0.927	0.969	-4.5	88	-0.06	4.53
17	t	1,2-Dichlorobenzene	1.483	1.622	-9.4	97	-0.06	4.54
18	t	Acetophenone	2.197	2.458	-11.9	97	-0.07	4.72
19	t	2-Methylphenol	1.267	1.352	-6.7	95	-0.05	4.64
20	t	2,2'-oxybis(1-Chloropropa	0.400	0.398	0.5	91	-0.06	4.62
21	t	3&4-Methylphenol	1.329	1.432	-7.8	93	-0.06	4.76
22	t	n-Nitroso-di-n-propylamin	1.265	1.478	-16.8	101	-0.07	4.73
23	t	Hexachloroethane	0.593	0.659	-11.1	96	-0.07	4.80
24	I	Naphthalene-d8	1.000	1.000	0.0	88	-0.08	5.48
25	S	Nitrobenzene-d5	0.512	0.589	-15.0	99	-0.08	4.84
26	t	Nitrobenzene	0.519	0.557	-7.3	97	-0.08	4.86
27	t	Quinoline	0.741	0.820	-10.7	92	-0.11	5.86
28	t	Isophorone	0.856	0.998	-16.6	100	-0.08	5.06
29	t	2-Nitrophenol	0.201	0.232	-15.4	93	-0.08	5.13
30	t	2,4-Dimethylphenol	0.388	0.492	-26.8#	105	-0.07	5.19
31	t	Benzoic acid	0.321	0.344	-7.2	87	-0.09	5.35
32	t	bis(2-Chloroethoxy)methan	0.415	0.426	-2.7	92	-0.08	5.25
33	t	2,4-Dichlorophenol	0.290	0.344	-18.6	102	-0.07	5.37
34	t	2,6-Dichlorophenol	0.271	0.325	-19.9	101	-0.09	5.58
35	t	1,3,5-Trichlorobenzene	0.371	0.407	-9.7	100	-0.08	5.14
36	t	1,2,4-Trichlorobenzene	0.355	0.381	-7.3	97	-0.09	5.43
37	t	1,2,3-Trichlorobenzene	0.345	0.372	-7.8	99	-0.09	5.65
38	t	Naphthalene	1.052	1.084	-3.0	91	-0.09	5.50
39	t	4-Chloroaniline	0.441	0.474	-7.5	93	-0.08	5.57
40	t	2,3-Dichloroaniline	0.392	0.460	-17.3	101	-0.10	6.63
41	t	Caprolactam	0.156	0.139	10.9	76	-0.11	5.96

Continuing Calibration Summary

Job Number: JC66384 **Sample:** EM6233-CC6221
Account: BBLNYS Arcadis **Lab FileID:** M146632.D
Project: National Grid, Philly Coke, Philadelphia PA

42	t	Hexachlorobutadiene	0.220	0.256	-16.4	103	-0.09	5.63
43	t	4-Chloro-3-methylphenol	0.387	0.491	-26.9#	101	-0.08	6.14
44	t	2-Methylnaphthalene	0.653	0.692	-6.0	91	-0.10	6.26
45	t	1-Methylnaphthalene	0.772	0.854	-10.6	97	-0.10	6.38
46	t	Dimethylnaphthalene	0.679	0.768	-13.1	100	-0.12	7.09
47	I	Acenaphthene-d10	1.000	1.000	0.0	91	-0.12	7.70
			True	Calc.	% Drift			
48	t	Hexachlorocyclopentadiene	100.000	104.832	-4.8	94	-0.10	6.46
			AvgRF	CCRF	% Dev			
49	t	2,4,6-Trichlorophenol	0.401	0.471	-17.5	106	-0.09	6.65
50	t	2,4,5-Trichlorophenol	0.420	0.506	-20.5#	103	-0.08	6.72
51	S	2-Fluorobiphenyl	1.483	1.588	-7.1	101	-0.10	6.74
52	t	2-Chloronaphthalene	1.189	1.279	-7.6	102	-0.11	6.89
53	t	Biphenyl	1.671	1.804	-8.0	98	-0.11	6.87
54	t	2-Nitroaniline	0.478	0.630	-31.8#	110	-0.11	7.06
55	t	Dimethylphthalate	1.469	1.740	-18.4	105	-0.11	7.34
56	t	Acenaphthylene	1.932	2.175	-12.6	99	-0.12	7.48
			True	Calc.	% Drift			
57	t	2,6-Dinitrotoluene	50.000	60.259	-20.5#	110	-0.11	7.43
			AvgRF	CCRF	% Dev			
58	t	3-Nitroaniline	0.364	0.406	-11.5	93	-0.11	7.69
59	t	Acenaphthene	1.269	1.390	-9.5	99	-0.12	7.75
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	86.252	13.7	78	-0.11	7.88
61	t	4-Nitrophenol	50.000	55.093	-10.2	101	-0.07	8.10
			AvgRF	CCRF	% Dev			
62	t	Dibenzofuran	1.794	2.086	-16.3	104	-0.12	8.04
			True	Calc.	% Drift			
63	t	2,4-Dinitrotoluene	50.000	59.445	-18.9	107	-0.12	8.08
			AvgRF	CCRF	% Dev			
64	t	2,3,4,6-Tetrachlorophenol	0.368	0.415	-12.8	90	-0.11	8.28
65	t	Diethylphthalate	1.540	1.900	-23.4#	108	-0.12	8.51
66	t	Fluorene	1.443	1.713	-18.7	104	-0.13	8.60
67	t	4-Chlorophenyl-phenylethe	0.723	0.849	-17.4	111	-0.12	8.64
68	t	4-Nitroaniline	0.343	0.390	-13.7	96	-0.13	8.71
69	I	Phenanthrene-d10	1.000	1.000	0.0	102	-0.13	10.27
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	47.701	4.6	97	-0.12	8.79
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.508	0.537	-5.7	104	-0.12	8.87
72	t	1,2-Diphenylhydrazine	0.870	0.927	-6.6	104	-0.13	8.91
73	S	2,4,6-Tribromophenol	0.121	0.137	-13.2	102	-0.12	9.04
74	t	4-Bromophenyl-phenylether	0.236	0.259	-9.7	107	-0.12	9.50
75	t	Hexachlorobenzene	0.279	0.279	0.0	107	-0.13	9.59
			True	Calc.	% Drift			
76	t	Pentachlorophenol	100.000	78.669	21.3#	78	-0.11	10.00

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6233-CC6221
Lab FileID: M146632.D

			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.057	1.011	4.4	103	-0.13	10.31
78	t	Anthracene	1.040	1.051	-1.1	101	-0.13	10.41
79	t	Carbazole	0.973	1.039	-6.8	104	-0.12	10.77
80	t	Di-n-butylphthalate	1.222	1.439	-17.8	107	-0.12	11.58
81	t	Fluoranthene	1.249	1.397	-11.8	108	-0.13	12.59
82	t	Octadecane	0.417	0.352	15.6	84	-0.12	10.29
83	I	Chrysene-d12	1.000	1.000	0.0	100	-0.12	15.42
84	t	Pyrene	1.229	1.389	-13.0	109	-0.12	13.01
85	S	Terphenyl-d14	0.913	1.019	-11.6	108	-0.12	13.44
86	t	Butylbenzylphthalate	0.546	0.662	-21.2#	108	-0.12	14.50
87	t	Benzo[a]anthracene	1.162	1.279	-10.1	104	-0.12	15.40
88	t	3,3'-Dichlorobenzidine	0.405	0.480	-18.5	109	-0.12	15.45
89	t	Chrysene	1.088	1.122	-3.1	105	-0.12	15.47
90	t	bis(2-Ethylhexyl)phthalat	0.685	0.842	-22.9#	110	-0.11	15.73
91	I	Perylene-d12	1.000	1.000	0.0	71	-0.12	18.04
92	t	Di-n-octylphthalate	1.184	1.848	-56.1#	98	-0.12	16.95
93	t	Benzo[b]fluoranthene	1.248	1.484	-18.9	85	-0.11	17.41
94	t	Benzo[k]fluoranthene	1.154	1.265	-9.6	81	-0.11	17.45
95	t	Benzo[a]pyrene	1.039	1.181	-13.7	75	-0.12	17.94
96	t	Indeno[1,2,3-cd]pyrene	0.947	0.781	17.5	56	-0.12	19.70
97	t	Dibenz(a,h)acridine	0.874	0.762	12.8	56	-0.12	19.37
98	t	Dibenz[a,h]anthracene	0.980	0.796	18.8	57	-0.13	19.73
			True	Calc.	% Drift			
99	t	7,12-Dimethylbenz(a)anthr	50.000	63.659	-27.3#	91	-0.11	17.41
			AvgRF	CCRF	% Dev			
100	t	Benzo[g,h,i]perylene	0.956	0.731	23.5#	54	-0.13	20.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Thu Jun 14 17:11:03 2018 MSM

8.7.28

8

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: EM6233-CC6169
Lab FileID: M146633.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6233\M146633.D Vial: 3
Acq On : 5 Jun 2018 9:28 am Operator: angelar
Sample : cc6169-50 Inst : Instrument #1
Misc : op10492,em6233,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6221.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Fri Jun 01 08:35:54 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 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.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	53	-0.07	4.41
102 t	Benzaldehyde	1.145	0.860	24.9#	44#	-0.08	4.09
103 I	Acenaphthene-d10a	1.000	1.000	0.0	62	-0.12	7.70
104 I	1,2,4,5-Tetrachlorobenzen	0.665	0.656	1.4	67	-0.12	6.47
	----------	True	Calc.	% Drift	----------		
105 t	Atrazine	50.000	60.393	-20.8#	74	-0.04	9.91
	----------	AvgRF	CCRF	% Dev	----------		
106 I	Chrysene-d12a	1.000	1.000	0.0	79	-0.14	15.41
	----------	True	Calc.	% Drift	----------		
107 t	Benzidine	50.000	28.533	42.9#	49	-0.18	12.95
	----------	AvgRF	CCRF	% Dev	----------		
108 s	1-chlorooctadecane	0.241	0.214	11.2	67	-0.21	12.62
109 I	Phenanthrene-d10a	1.000	1.000	0.0	70	-0.13	10.27
110 s	o-terphenyl	0.554	0.622	-12.3	78	-0.13	11.08
	----------	True	Calc.	% Drift	----------		
111	Pentachloronitrobenzene	50.000	60.389	-20.8#	85	-0.13	9.99
	----------	AvgRF	CCRF	% Dev	----------		
112 I	Naphthalene-d8a	1.000	1.000	0.0	54	-0.09	5.47
113	Hydroquinone	0.331	0.388	-17.2	56	0.00	5.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M146349a.D MM6221.M Tue Jun 05 13:12:04 2018 MSM

8.7.29

8

MS Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/31/18 15:27

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-28-18\jonkm\e2m4641\
Data File : 2m104472.d
Acq On : 27 May 2018 2:45 am
Operator : georges
Sample : jc66384-1
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 31 15:23:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.531	152	521998	40.00	ppm	0.00
24) Naphthalene-d8	5.595	136	1969383	40.00	ppm	-0.01
47) Acenaphthene-d10	7.622	164	923137	40.00	ppm	-0.02
69) Phenanthrene-d10	9.778	188	1596777	40.00	ppm	-0.02
83) Chrysene-d12	13.944	240	1247788	40.00	ppm	-0.02
91) Perylene-d12	16.052	264	1276986	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.531	152	521998	40.00	ppm	0.00
103) Acenaphthene-d10a	7.622	164	923137	40.00	ppm	-0.02
105) Chrysene-d12a	13.944	240	1247788	40.00	ppm	-0.02
108) Phenanthrene-d10a	9.778	188	1596777	40.00	ppm	-0.02
112) Naphthalene-d8a	5.595	136	1969383	40.00	ppm	-0.01
114) Chrysene-d12b	13.944	240	1247788	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.557	112	568899	33.45	ppm	0.00
Spiked Amount 50.000			Recovery = 66.90%			
8) Phenol-d5	4.285	99	728798	34.15	ppm	0.01
Spiked Amount 50.000			Recovery = 68.30%			
25) Nitrobenzene-d5	4.964	82	657723	36.54	ppm	0.00
Spiked Amount 50.000			Recovery = 73.08%			
51) 2-Fluorobiphenyl	6.766	172	1219878	36.17	ppm	-0.03
Spiked Amount 50.000			Recovery = 72.34%			
73) 2,4,6-Tribromophenol	8.745	330	171205	35.44	ppm	-0.03
Spiked Amount 50.000			Recovery = 70.88%			
85) Terphenyl-d14	12.329	244	1105442	40.40	ppm	-0.03
Spiked Amount 50.000			Recovery = 80.80%			
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.616	128	237650	4.66	ppm	98
44) 2-Methylnaphthalene	6.333	141	44261	1.49	ppm	94
53) Biphenyl	6.884	154	20932	0.55	ppm	93
56) Acenaphthylene	7.430	152	105198	2.33	ppm	99
59) Acenaphthene	7.665	153	212797	7.19	ppm	97
62) Dibenzofuran	7.906	168	175497	4.41	ppm	90
66) Fluorene	8.387	166	272184	8.44	ppm	98
77) Phenanthrene	9.815	178	2620578	57.52	ppm	100
78) Anthracene	9.890	178	799895	17.47	ppm	98
79) Carbazole	10.163	167	249220	5.83	ppm	99
81) Fluoranthene	11.671	202	3377194	72.24	ppm	99
84) Pyrene	12.013	202	2792457	67.01	ppm	95
87) Benzo[a]anthracene	13.928	228	1247340	33.03	ppm	98
89) Chrysene	13.982	228	1219633	33.99	ppm	98
93) Benzo[b]fluoranthene	15.538	252	1400699	35.84	ppm	98
94) Benzo[k]fluoranthene	15.570	252	431657	11.90	ppm	94
95) Benzo[a]pyrene	15.971	252	1013801	29.92	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.501	276	695910	20.64	ppm	97

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-28-18\jonkm\e2m4641\
Data File : 2m104472.d
Acq On : 27 May 2018 2:45 am
Operator : georges
Sample : jc66384-1
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 31 15:23:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

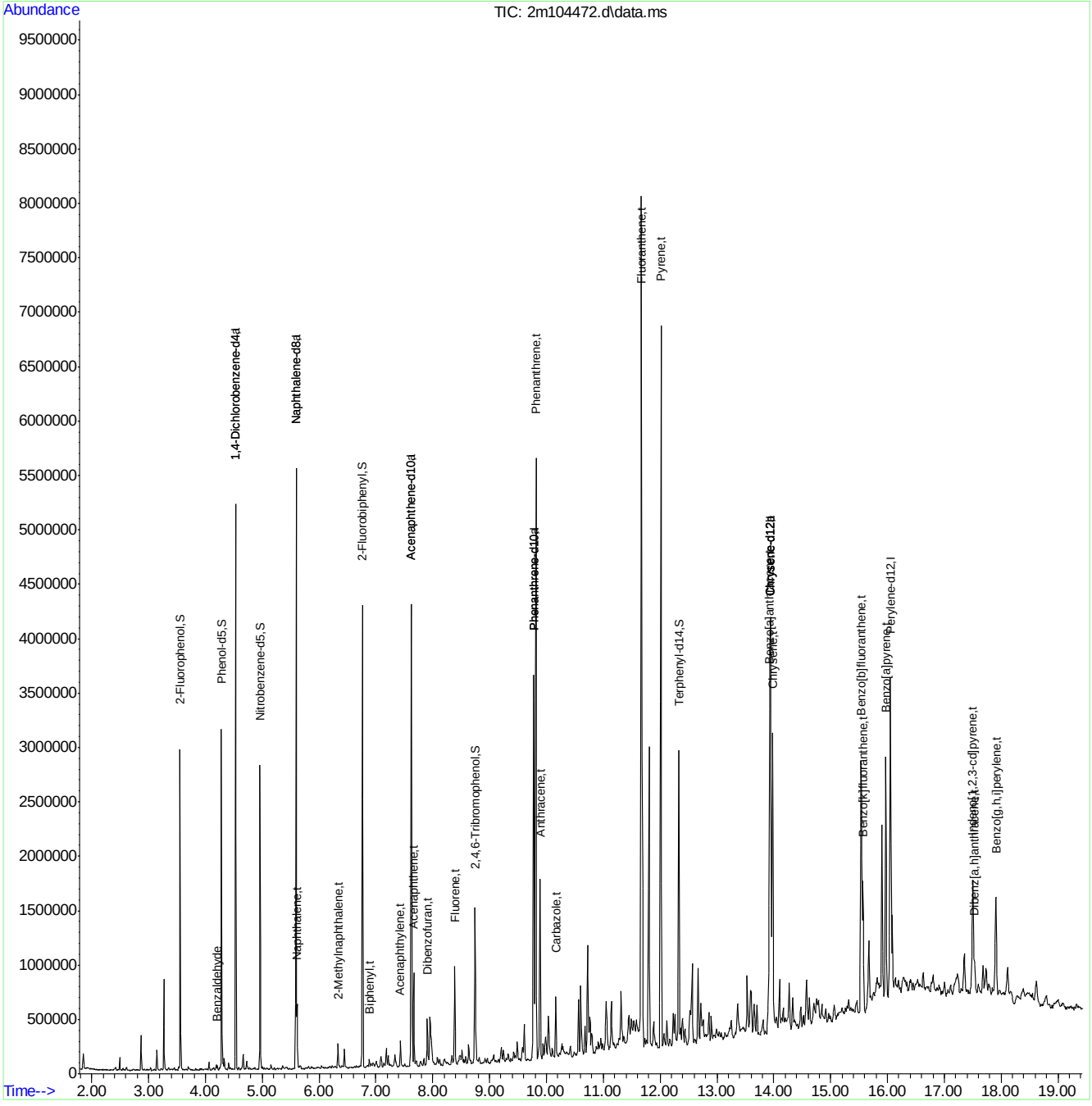
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Dibenz[a,h]anthracene	17.533	278	163021m	4.70	ppm	
100) Benzo[g,h,i]perylene	17.908	276	622008	19.14	ppm	98
102) Benzaldehyde	4.210	105	7787m	0.61	ppm	

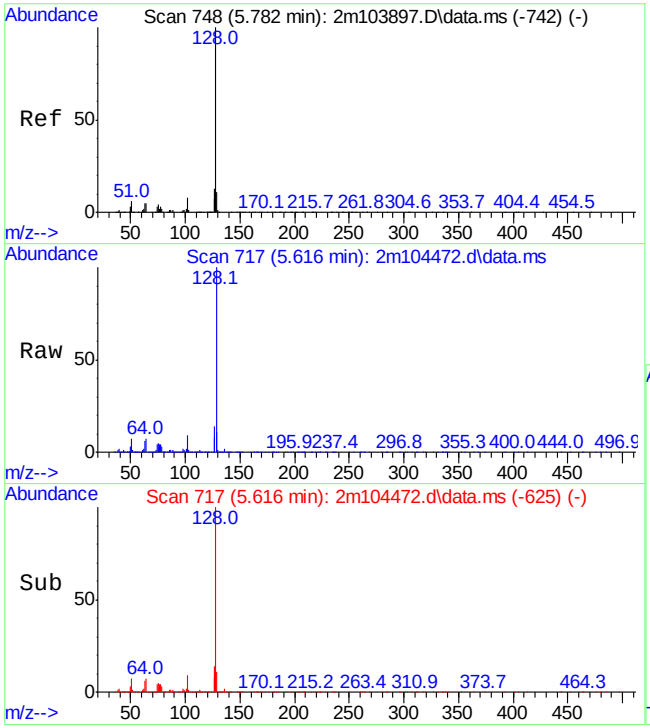
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-28-18\jonkm\e2m4641\
Data File : 2m104472.d
Acq On : 27 May 2018 2:45 am
Operator : georges
Sample : jc66384-1
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 31 15:23:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

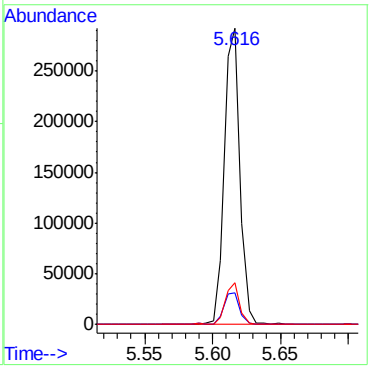


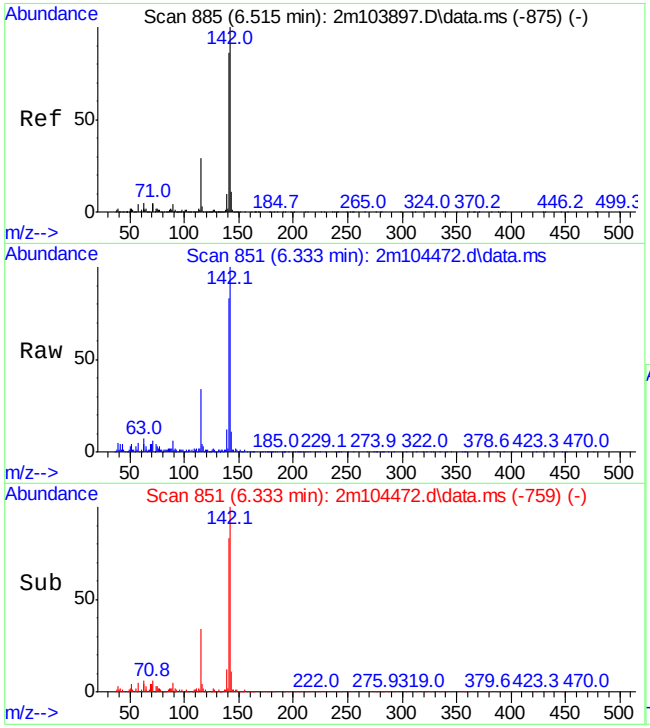


#38
Naphthalene
Concen: 4.66 ppm
RT: 5.616 min Scan# 717
Delta R.T. -0.010 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:128 Resp: 237650

Ion	Ratio	Lower	Upper
128	100		
129	10.5	0.0	40.7
127	13.9	0.0	42.5

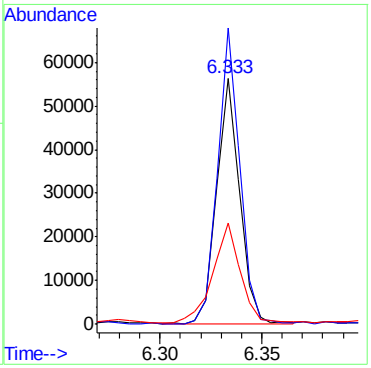


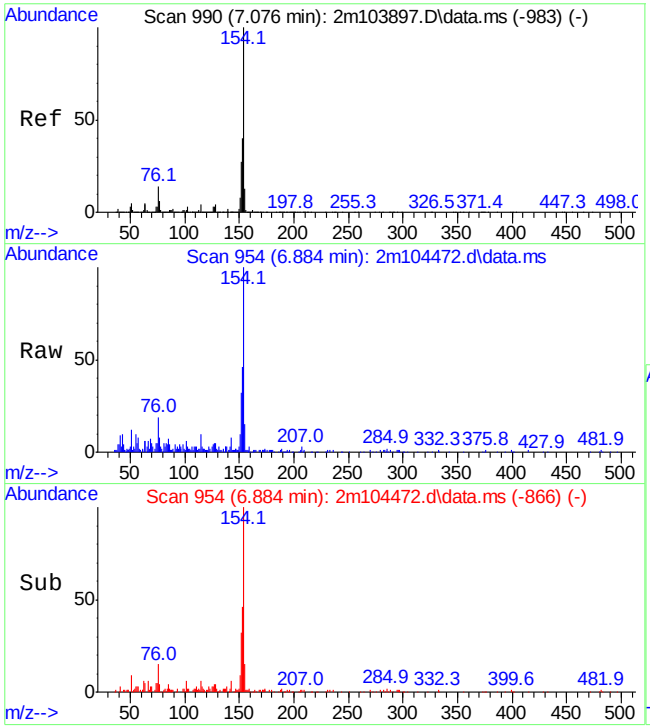


#44
2-Methylnaphthalene
Concen: 1.49 ppm
RT: 6.333 min Scan# 851
Delta R.T. -0.006 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:141 Resp: 44261

Ion	Ratio	Lower	Upper
141	100		
142	120.6	86.4	146.4
115	40.6	3.6	63.6

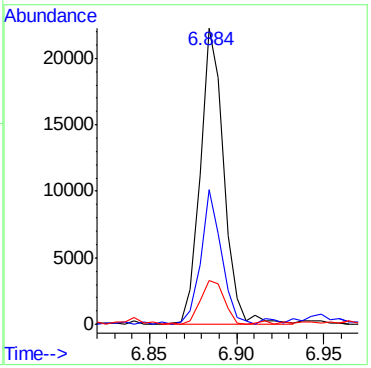


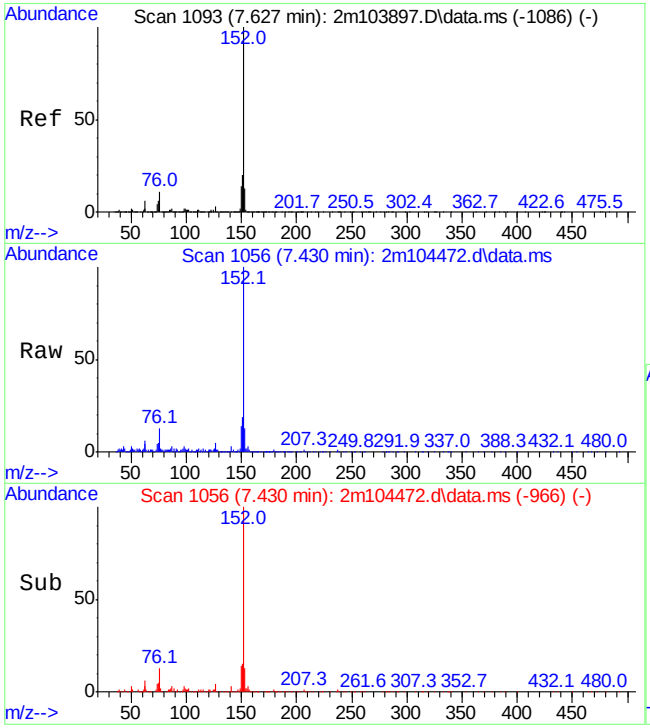


#53
Biphenyl
Concen: 0.55 ppm
RT: 6.884 min Scan# 954
Delta R.T. -0.028 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:154 Resp: 20932

Ion	Ratio	Lower	Upper
154	100		
153	44.1	9.6	69.6
155	15.9	0.0	42.7

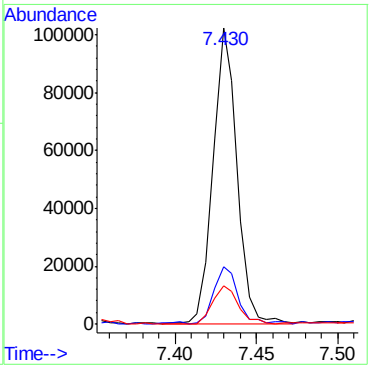


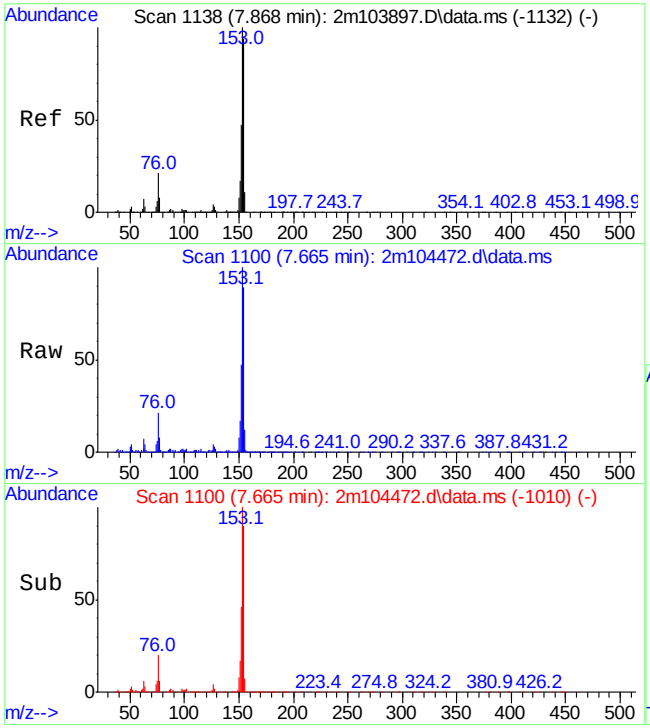


#56
Acenaphthylene
Concen: 2.33 ppm
RT: 7.430 min Scan# 1056
Delta R.T. -0.020 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:152 Resp: 105198

Ion	Ratio	Lower	Upper
152	100		
151	19.1	0.0	49.6
153	12.9	0.0	42.8

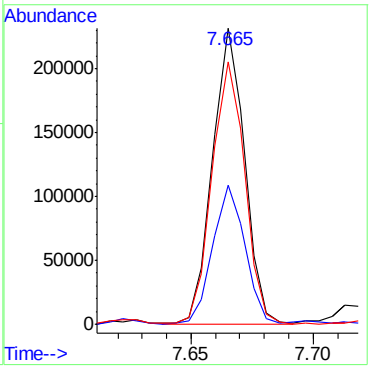


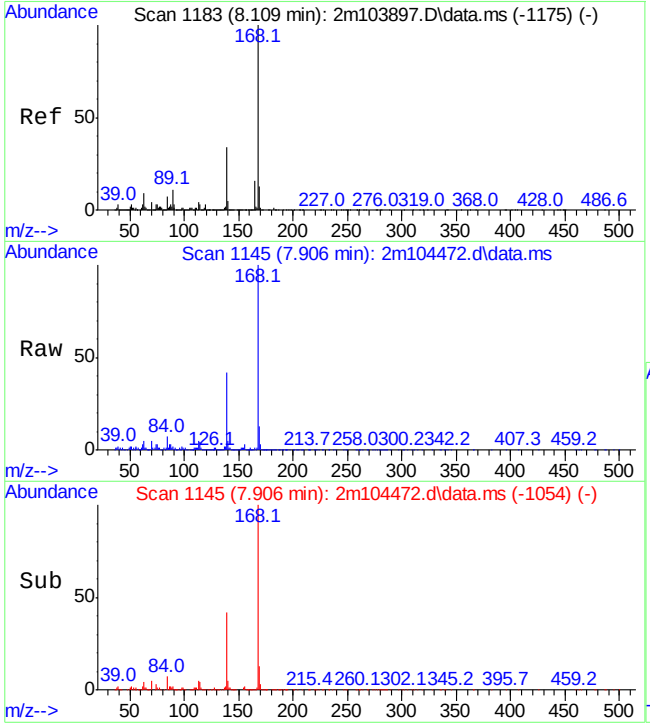


#59
Acenaphthene
Concen: 7.19 ppm
RT: 7.665 min Scan# 1100
Delta R.T. -0.020 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:153 Resp: 212797

Ion	Ratio	Lower	Upper
153	100		
152	46.6	17.1	77.1
154	89.0	62.8	122.8

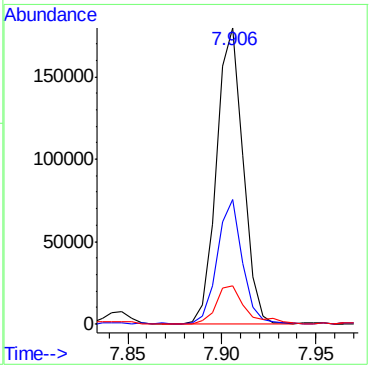


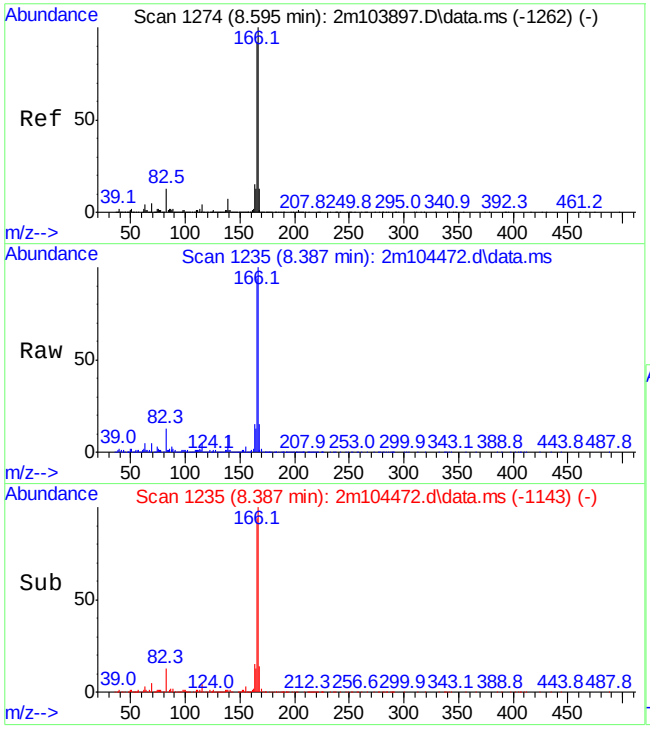


#62
Dibenzofuran
Concen: 4.41 ppm
RT: 7.906 min Scan# 1145
Delta R.T. -0.015 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:168 Resp: 175497

Ion	Ratio	Lower	Upper
168	100		
139	41.6	3.6	63.6
169	12.7	0.0	43.0

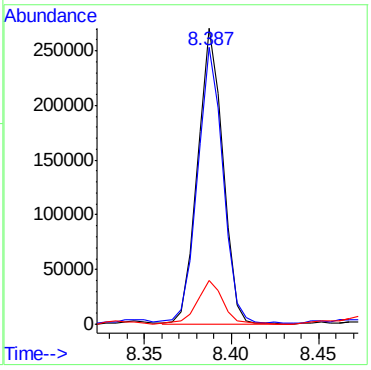


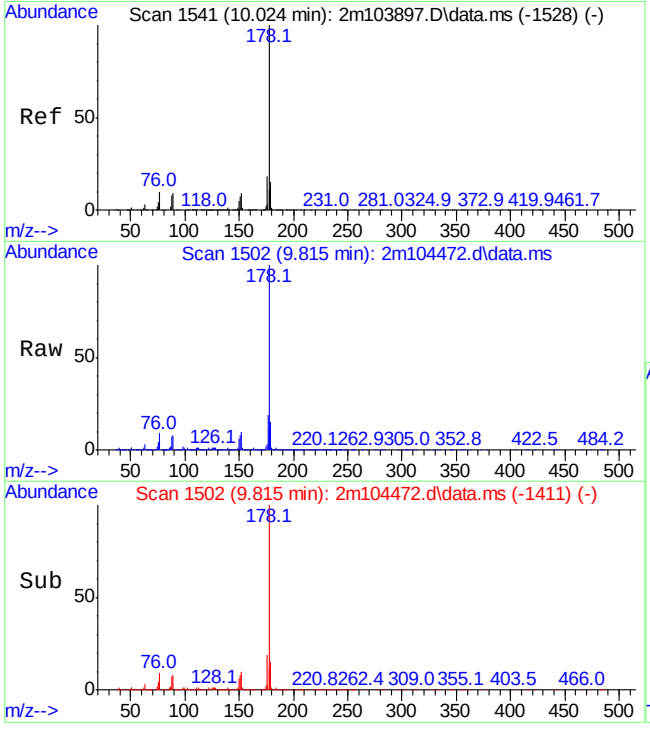


#66
Fluorene
Concen: 8.44 ppm
RT: 8.387 min Scan# 1235
Delta R.T. -0.009 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:166 Resp: 272184

Ion	Ratio	Lower	Upper
166	100		
165	93.2	62.0	122.0
167	14.5	0.0	42.9

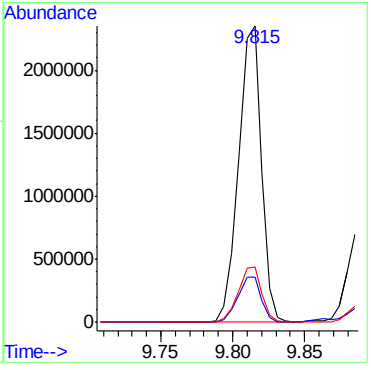


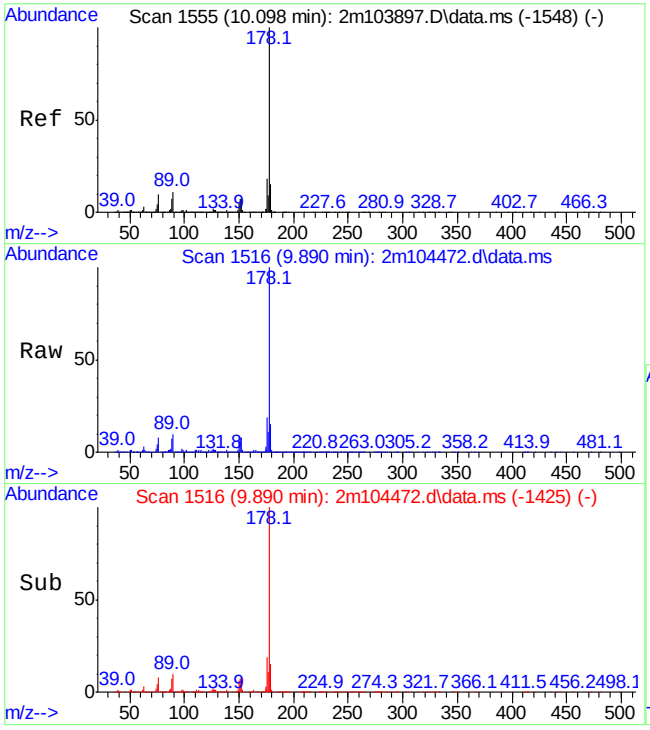


#77
Phenanthrene
Concen: 57.52 ppm
RT: 9.815 min Scan# 1502
Delta R.T. -0.015 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:178 Resp: 2620578

Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	45.2
176	18.6	0.0	48.5

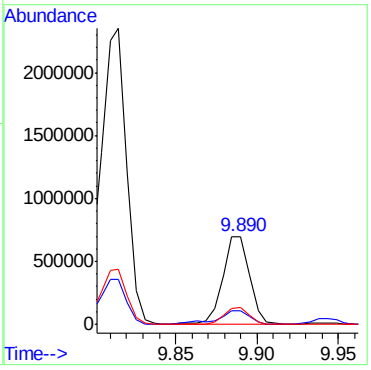


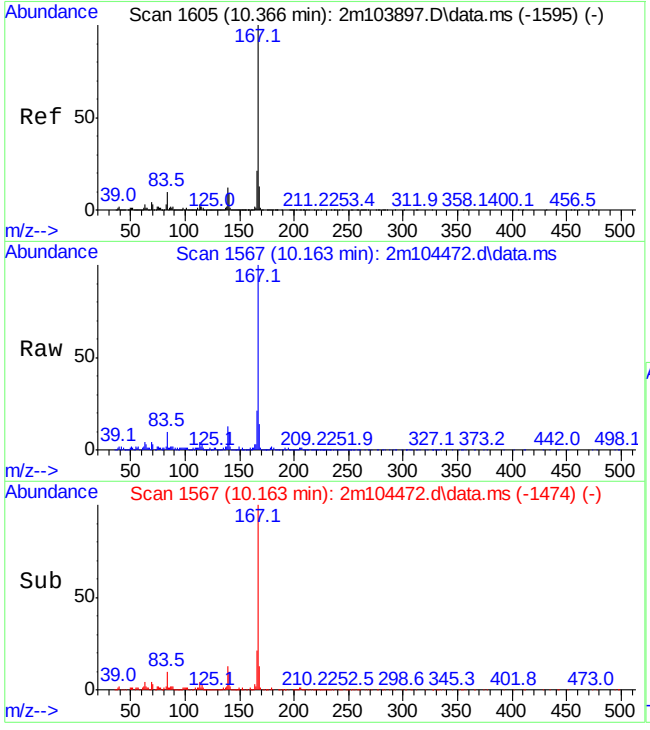


#78
Anthracene
Concen: 17.47 ppm
RT: 9.890 min Scan# 1516
Delta R.T. -0.014 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:178 Resp: 799895

Ion	Ratio	Lower	Upper
178	100		
179	15.0	0.0	45.1
176	19.4	0.0	47.7

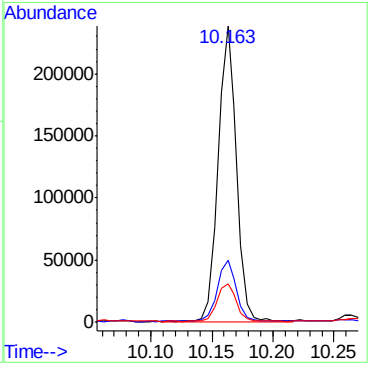


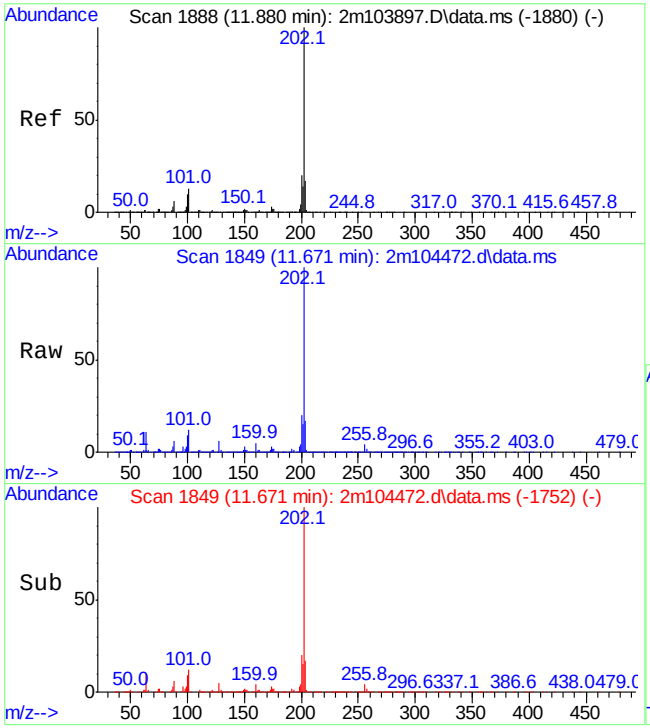


#79
Carbazole
Concen: 5.83 ppm
RT: 10.163 min Scan# 1567
Delta R.T. -0.003 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:167 Resp: 249220

Ion	Ratio	Lower	Upper
167	100		
166	20.5	0.0	50.9
139	12.7	0.0	42.3

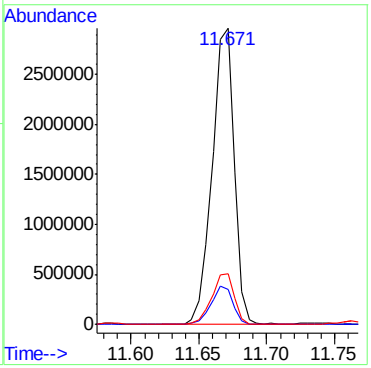


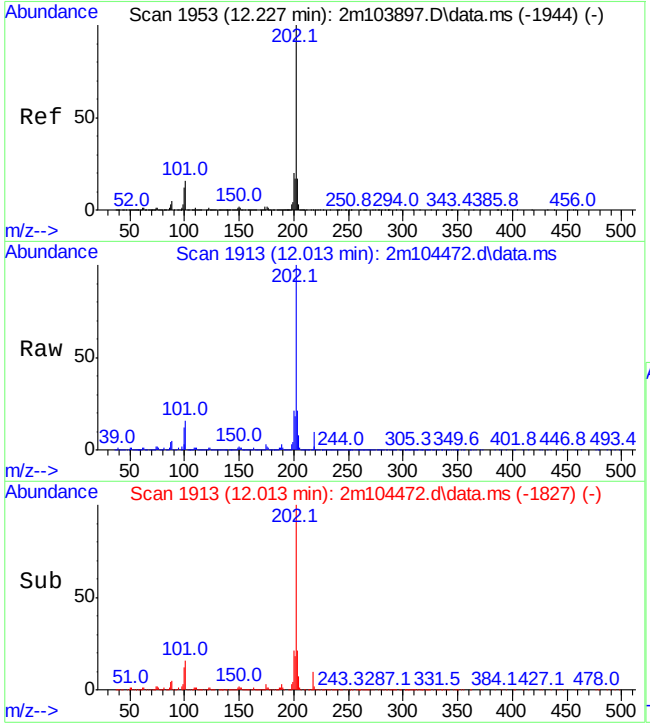


#81
Fluoranthene
Concen: 72.24 ppm
RT: 11.671 min Scan# 1849
Delta R.T. 0.021 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:202 Resp: 3377194

Ion	Ratio	Lower	Upper
202	100		
101	11.9	0.0	43.1
203	17.0	0.0	47.0

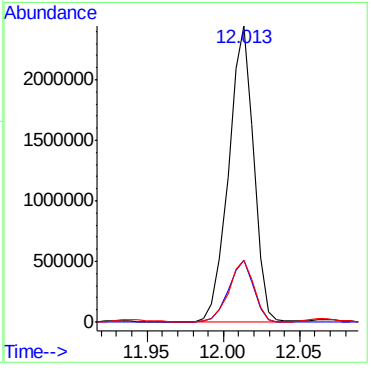


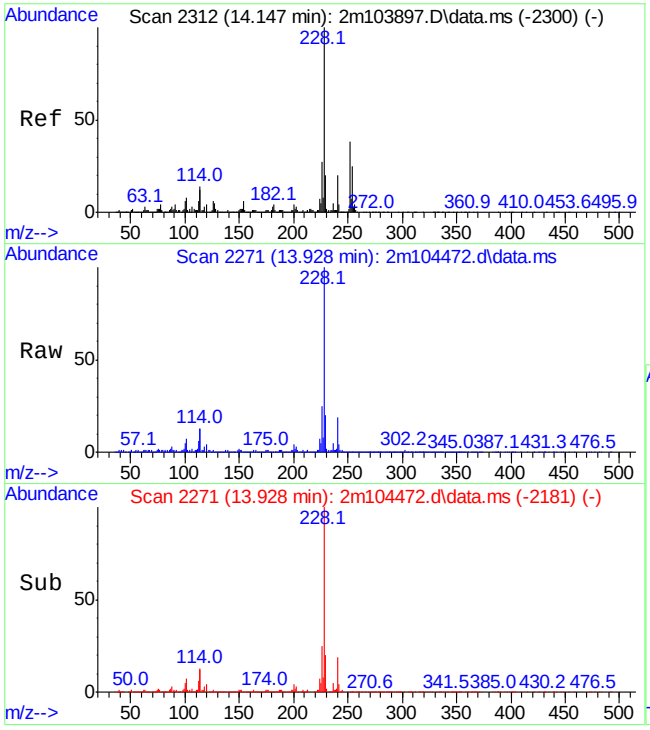


#84
Pyrene
Concen: 67.01 ppm
RT: 12.013 min Scan# 1913
Delta R.T. -0.038 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:202 Resp: 2792457

Ion	Ratio	Lower	Upper
202	100		
200	20.7	0.0	50.0
203	20.8	0.0	47.3

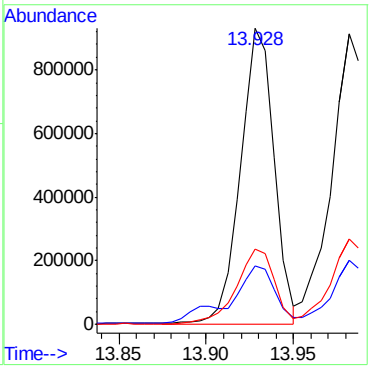


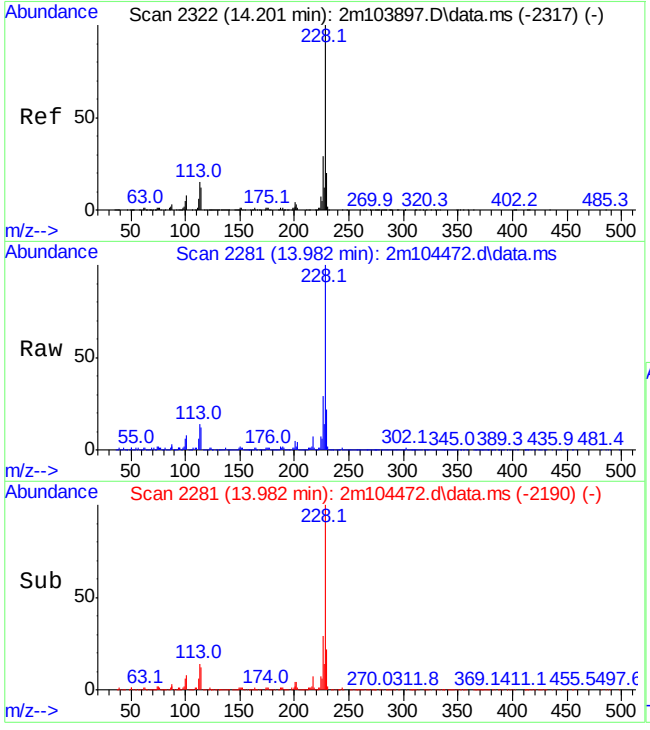


#87
Benzo[a]anthracene
Concen: 33.03 ppm
RT: 13.928 min Scan# 2271
Delta R.T. -0.016 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:228 Resp: 1247340

Ion	Ratio	Lower	Upper
228	100		
229	19.1	0.0	49.8
226	25.1	0.0	56.6

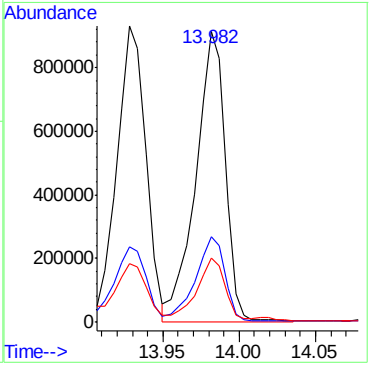


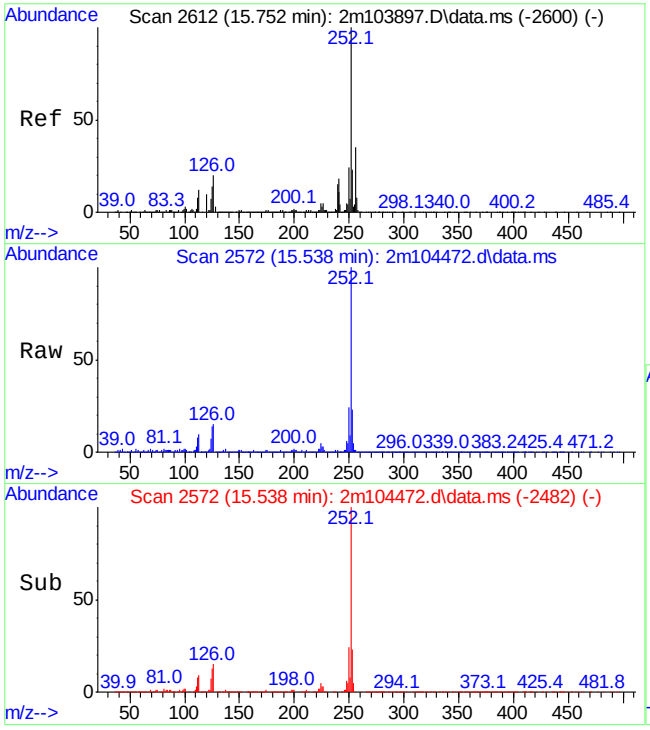


#89
Chrysene
Concen: 33.99 ppm
RT: 13.982 min Scan# 2281
Delta R.T. -0.015 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:228 Resp: 1219633

Ion	Ratio	Lower	Upper
228	100		
226	29.2	0.0	58.8
229	21.3	0.0	49.8

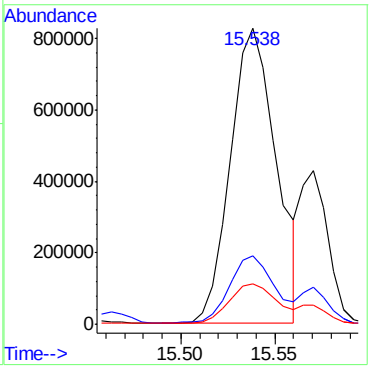


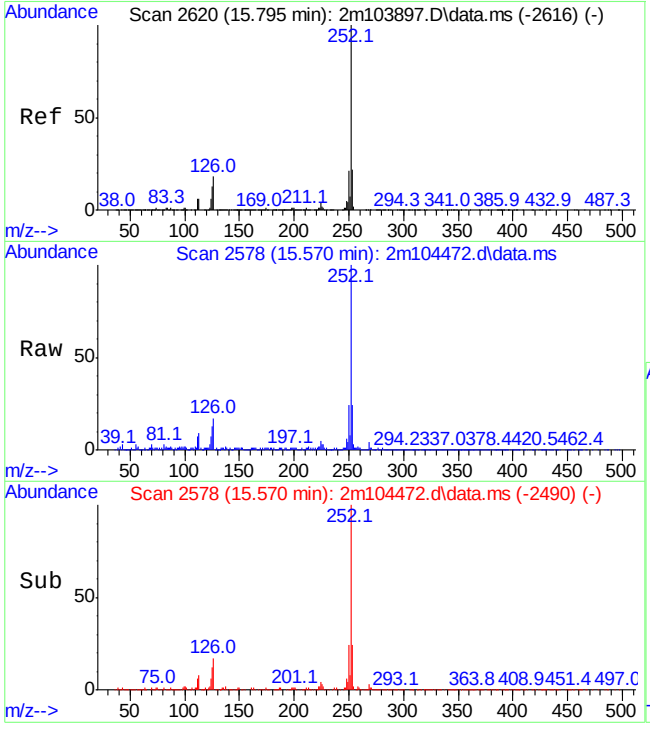


#93
Benzo[b]fluoranthene
Concen: 35.84 ppm
RT: 15.538 min Scan# 2572
Delta R.T. -0.017 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:252 Resp: 1400699

Ion	Ratio	Lower	Upper
252	100		
253	23.5	0.0	52.5
125	13.2	0.0	44.3

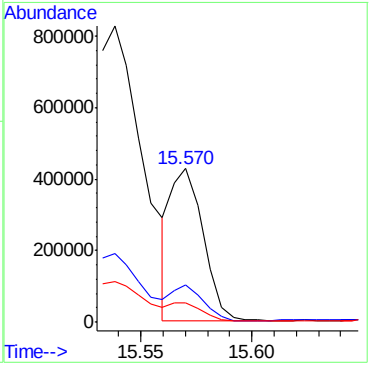


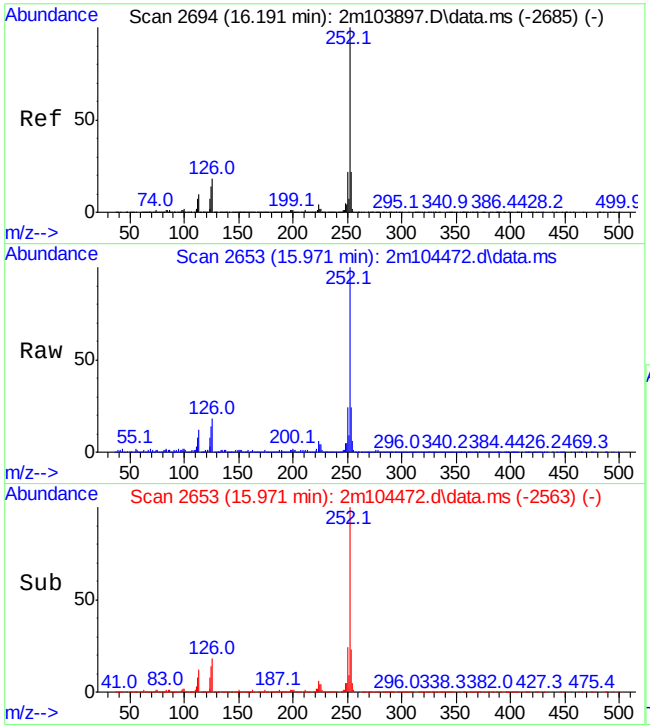


#94
Benzo[k]fluoranthene
Concen: 11.90 ppm
RT: 15.570 min Scan# 2578
Delta R.T. -0.027 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:252 Resp: 431657

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	51.8
125	11.0	0.0	42.9

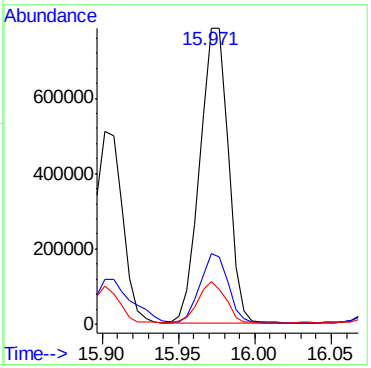


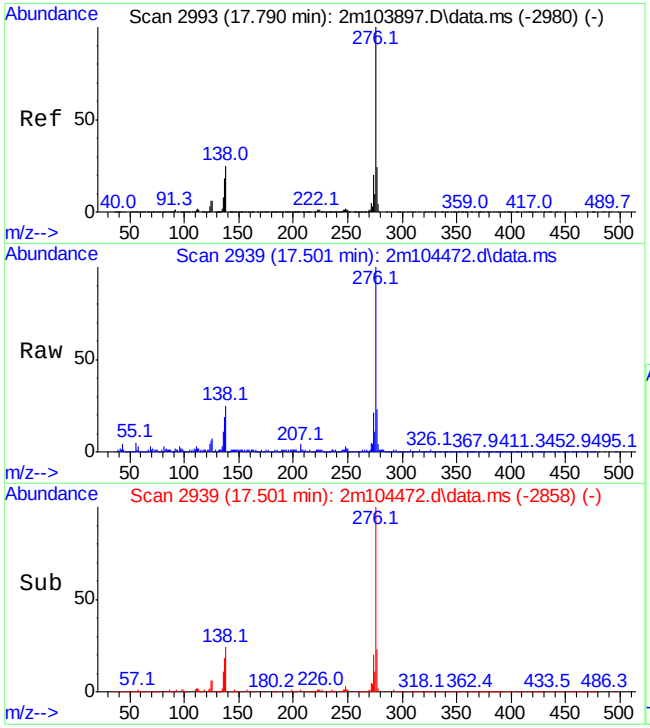


#95
Benzo[a]pyrene
Concen: 29.92 ppm
RT: 15.971 min Scan# 2653
Delta R.T. -0.017 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:252 Resp: 1013801

Ion	Ratio	Lower	Upper
252	100		
253	23.2	0.0	51.6
125	14.0	0.0	44.0

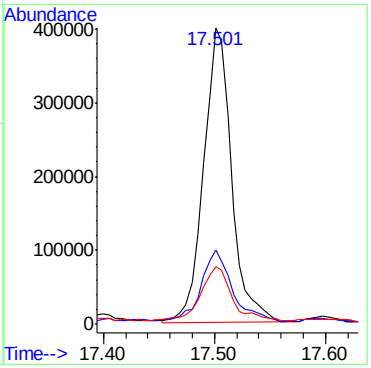


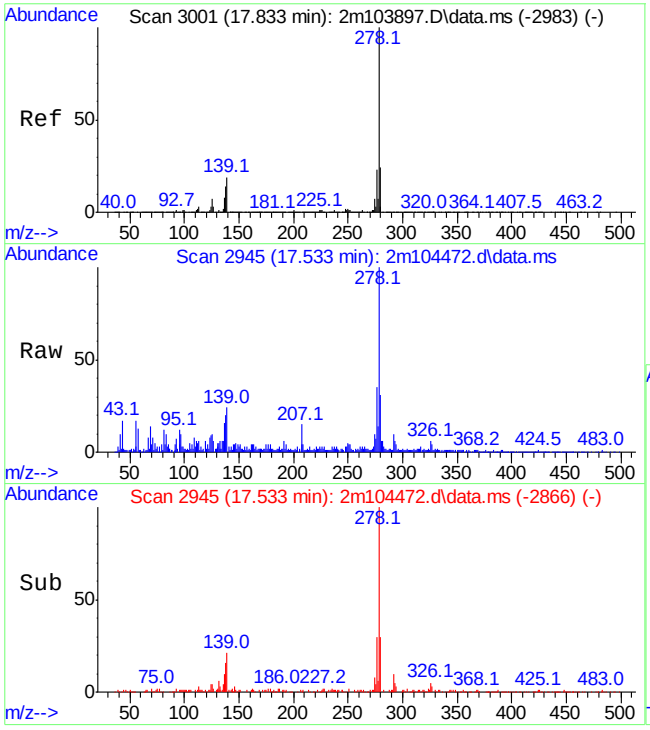


#96
Indeno[1,2,3-cd]pyrene
Concen: 20.64 ppm
RT: 17.501 min Scan# 2939
Delta R.T. -0.066 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:276 Resp: 695910

Ion	Ratio	Lower	Upper
276	100		
138	23.9	0.0	52.7
137	18.3	0.0	46.8

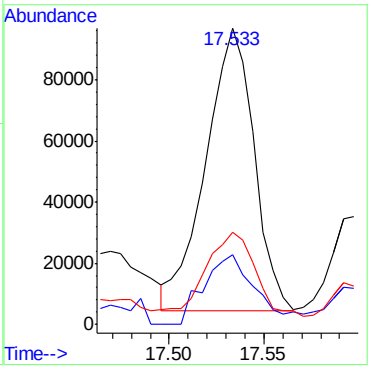


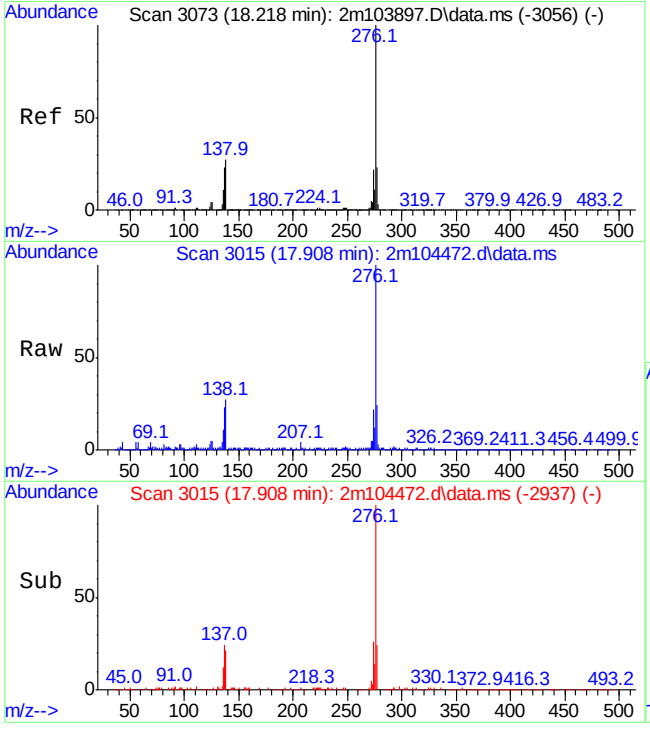


#98
Dibenz[a,h]anthracene
Concen: 4.70 ppm m
RT: 17.533 min Scan# 2945
Delta R.T. -0.077 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:278 Resp: 163021

Ion	Ratio	Lower	Upper
278	100		
139	23.6	0.0	48.9
279	31.1	0.0	53.6

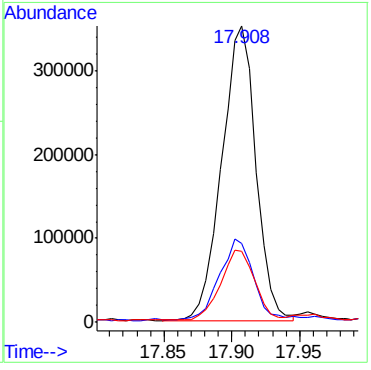


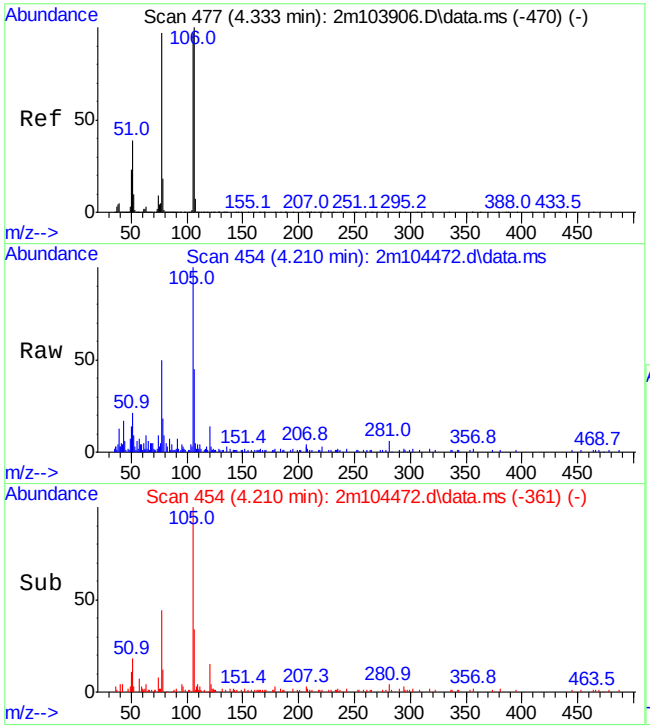


#100
Benzo[g,h,i]perylene
Concen: 19.14 ppm
RT: 17.908 min Scan# 3015
Delta R.T. -0.083 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:276 Resp: 622008

Ion	Ratio	Lower	Upper
276	100		
138	25.7	0.0	57.0
277	22.8	0.0	53.4

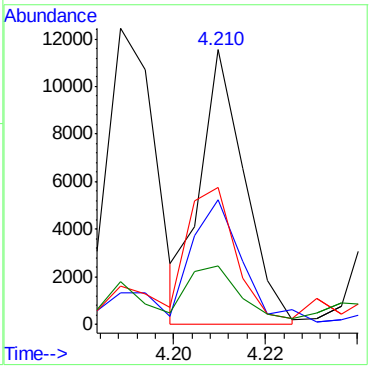




#102
Benzaldehyde
Concen: 0.61 ppm m
RT: 4.210 min Scan# 454
Delta R.T. -0.004 min
Lab File: 2m104472.d
Acq: 27 May 2018 2:45 am

Tgt Ion:105 Resp: 7787

Ion	Ratio	Lower	Upper
105	100		
106	45.4	72.9	132.9#
77	49.9	69.9	129.9#
51	21.4	10.5	70.5



Manual Integration Approval Summary

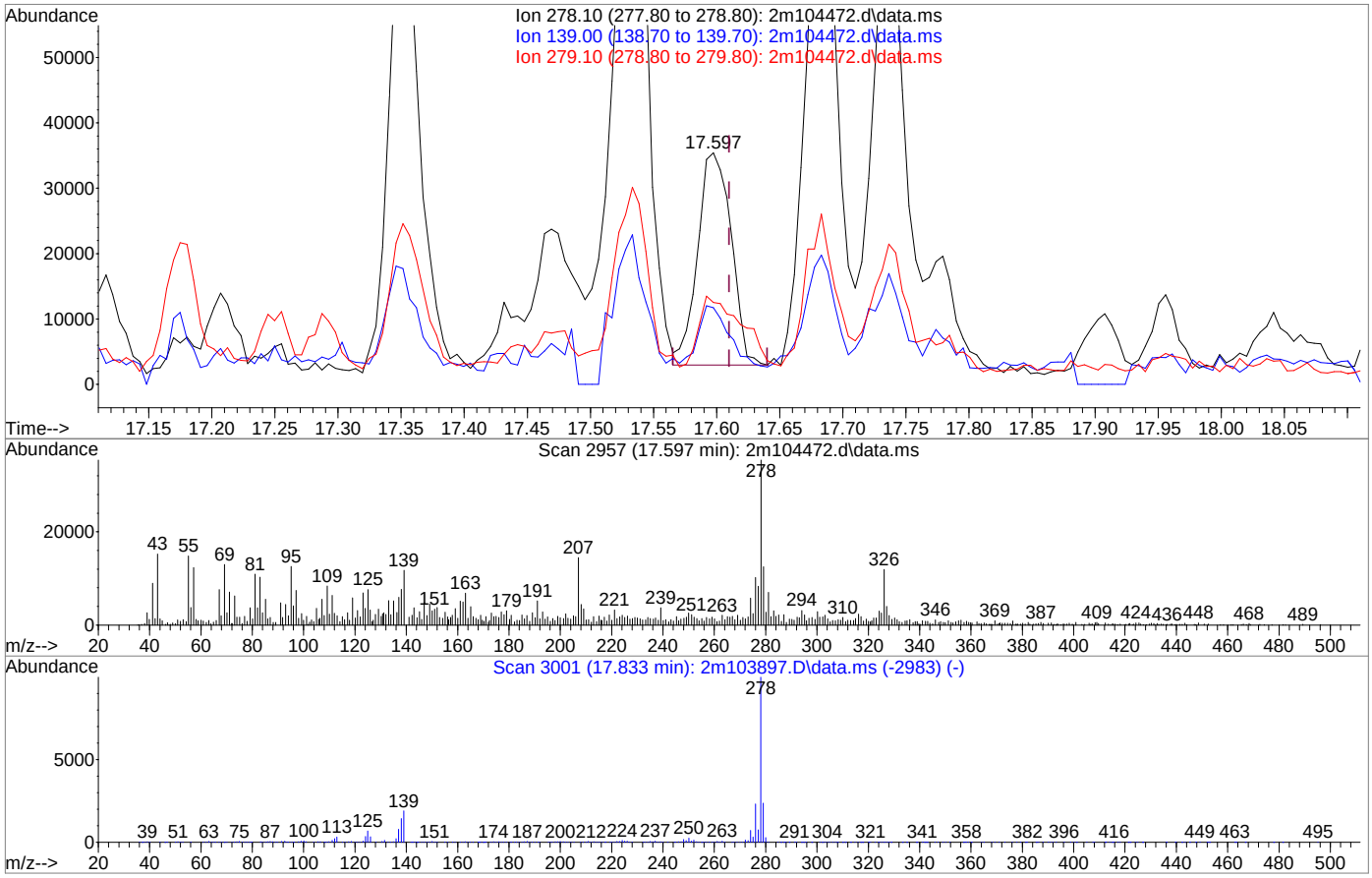
Sample Number:	JC66384-1	**Method:**	SW846 8270D
Lab FileID:	2M104472.D	**Analyst approved:**	05/28/18 08:52 Jon Kreigmor Mamanta
Injection Time:	05/27/18 02:45	**Supervisor approved:**	05/31/18 15:27 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzaldehyde	100-52-7		4.21	Missed peak
Dibenzo(a,h)anthracene	53-70-3		17.53	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104472.d
Acq On : 27 May 2018 2:45 am
Operator : georges
Sample : jc66384-1 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 07:49:11 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104472.d\data.ms

(98) Dibenz[a,h]anthracene (t)

17.597min (-0.012) 1.72ppm

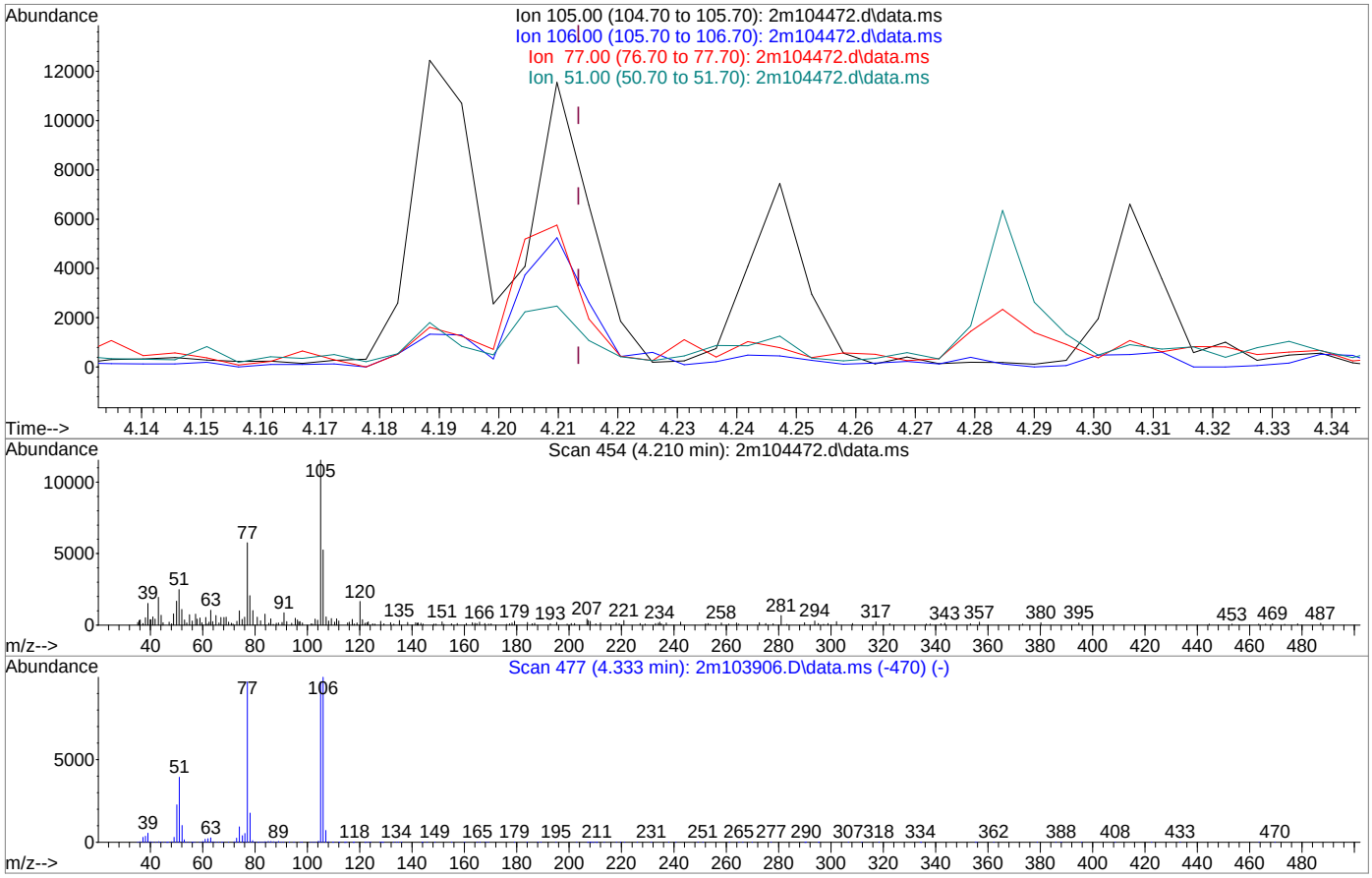
response 59734

Ion	Exp%	Act%
278.10	100	100
139.00	18.90	24.61
279.10	23.60	26.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104472.d
Acq On : 27 May 2018 2:45 am
Operator : georges
Sample : jc66384-1 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 07:49:11 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104472.d\data.ms

(102) Benzaldehyde

4.408min (+0.194) 0.82ppm

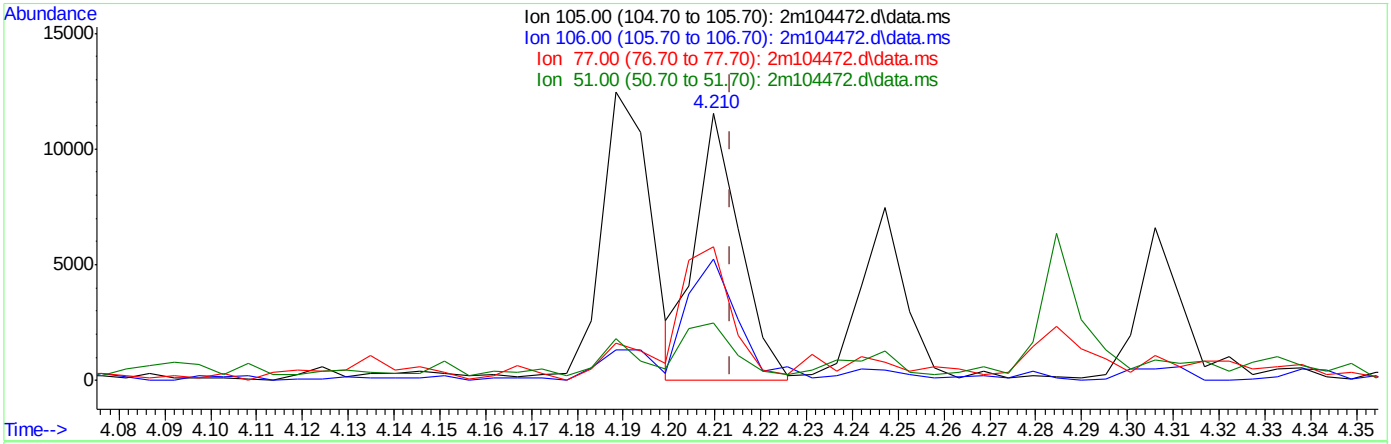
response 10497

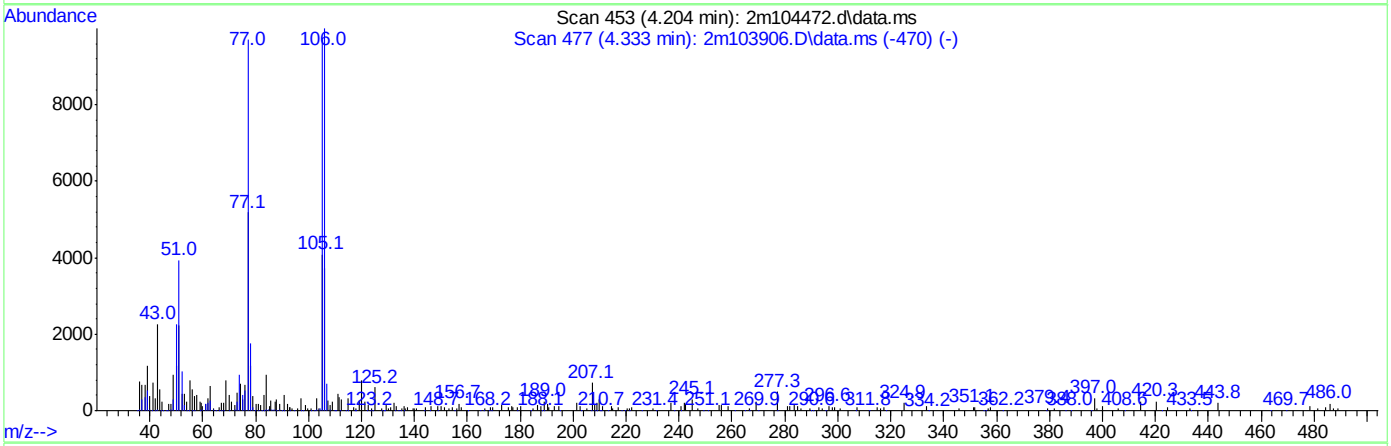
Ion	Exp%	Act%
105.00	100	100
106.00	102.90	8.71#
77.00	99.90	8.20#
51.00	40.50	5.34#

Quantitation Report (Qedit)

Data Path : Z:\svoa\completed\05-28-18\jonkm\e2m4641\
Data File : 2m104472.d
Acq On : 27 May 2018 2:45 am
Operator : georges
Sample : jc66384-1
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 28 07:56:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration





TIC: 2m104472.d\data.ms

(102) Benzaldehyde

4.210min (-0.004) 0.61ppm m

response 7787

Ion	Exp%	Act%
105.00	100	100
106.00	102.90	45.44#
77.00	99.90	49.87#
51.00	40.50	21.40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104467.d
Acq On : 27 May 2018 12:35 am
Operator : georges
Sample : jc66384-2 Inst : MS2M
Misc : op12196,e2m4641,30.4,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 07:45:34 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

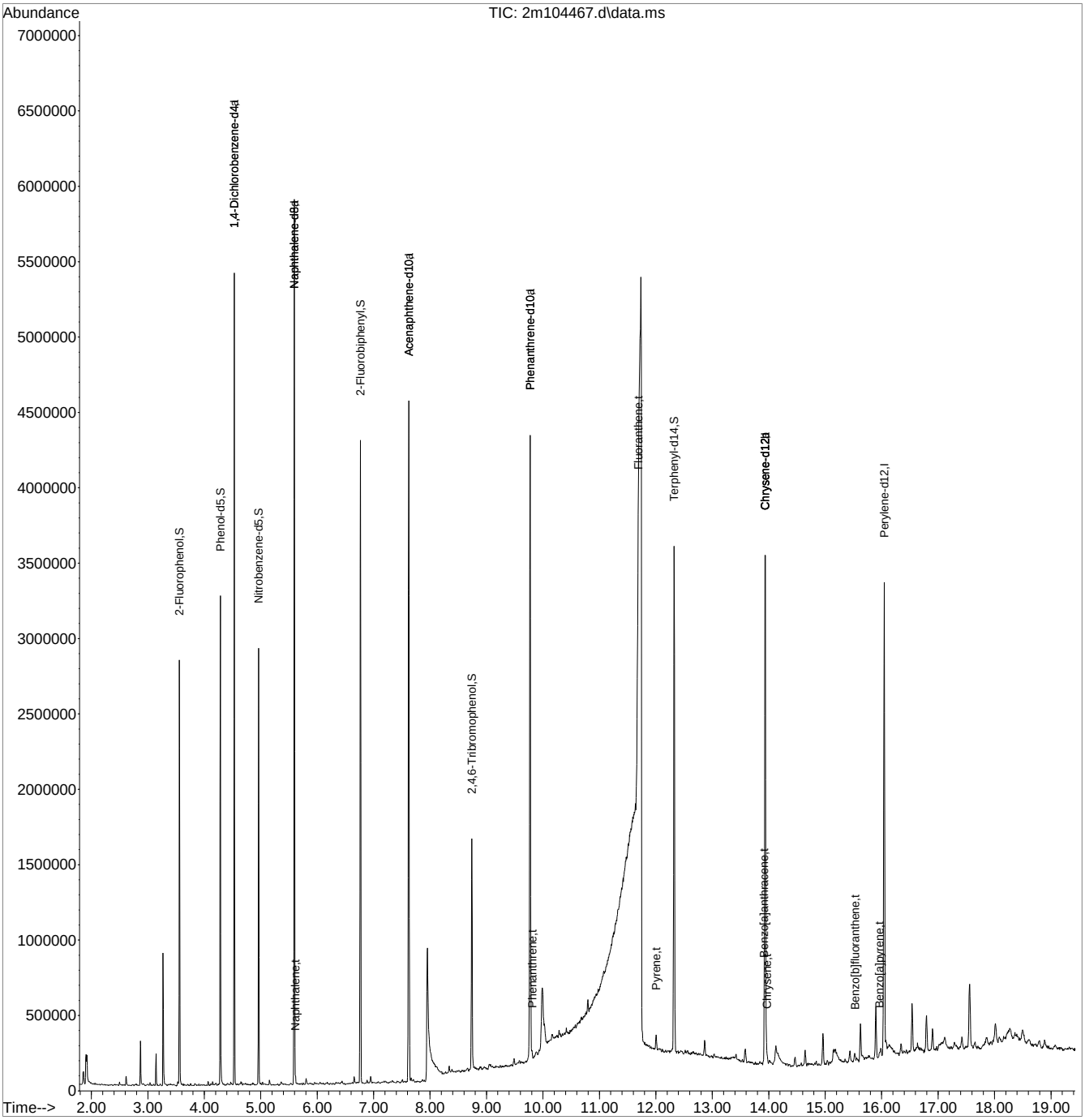
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.531	152	547701	40.00	ppm	0.00
24) Naphthalene-d8	5.595	136	2100126	40.00	ppm	-0.01
47) Acenaphthene-d10	7.622	164	985164	40.00	ppm	-0.02
69) Phenanthrene-d10	9.772	188	1736511	40.00	ppm	-0.02
83) Chrysene-d12	13.933	240	1453054	40.00	ppm	-0.03
91) Perylene-d12	16.046	264	1343314	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.531	152	547701	40.00	ppm	0.00
103) Acenaphthene-d10a	7.622	164	985164	40.00	ppm	-0.02
105) Chrysene-d12a	13.933	240	1453054	40.00	ppm	-0.03
108) Phenanthrene-d10a	9.772	188	1736511	40.00	ppm	-0.02
112) Naphthalene-d8a	5.595	136	2100126	40.00	ppm	-0.01
114) Chrysene-d12b	13.933	240	1453054	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.557	112	611334	34.25	ppm	0.00
Spiked Amount 50.000			Recovery = 68.50%			
8) Phenol-d5	4.285	99	763918	34.12	ppm	0.01
Spiked Amount 50.000			Recovery = 68.24%			
25) Nitrobenzene-d5	4.964	82	690985	36.00	ppm	0.00
Spiked Amount 50.000			Recovery = 72.00%			
51) 2-Fluorobiphenyl	6.766	172	1297689	36.06	ppm	-0.03
Spiked Amount 50.000			Recovery = 72.12%			
73) 2,4,6-Tribromophenol	8.740	330	191936	36.53	ppm	-0.03
Spiked Amount 50.000			Recovery = 73.06%			
85) Terphenyl-d14	12.324	244	1324347	41.56	ppm	-0.04
Spiked Amount 50.000			Recovery = 83.12%			
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.611	128	19542	0.36	ppm	91
77) Phenanthrene	9.810	178	18519	0.37	ppm	82
81) Fluoranthene	11.687	202	32337	0.64	ppm	93
84) Pyrene	12.003	202	41469	0.85	ppm	97
87) Benzo[a]anthracene	13.917	228	23440	0.53	ppm	86
89) Chrysene	13.971	228	18997	0.45	ppm	81
93) Benzo[b]fluoranthene	15.527	252	24548	0.60	ppm	93
95) Benzo[a]pyrene	15.961	252	15296	0.43	ppm	90

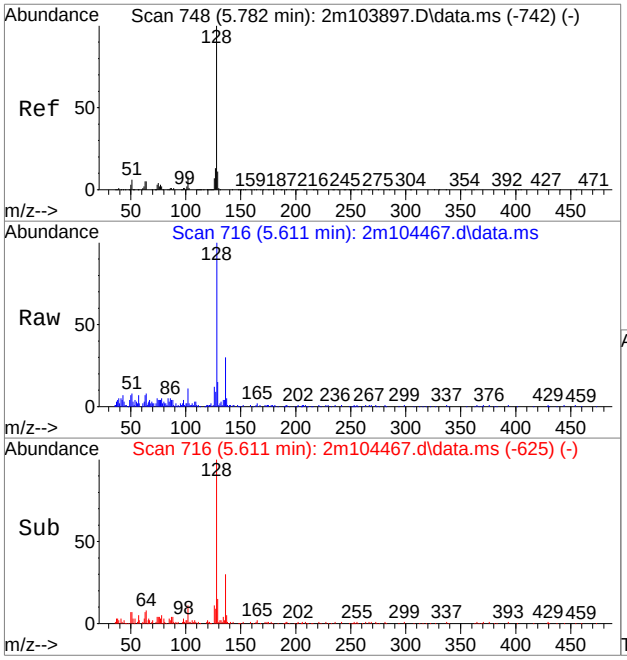
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104467.d
Acq On : 27 May 2018 12:35 am
Operator : georges
Sample : jc66384-2 Inst : MS2M
Misc : op12196,e2m4641,30.4,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 07:45:34 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

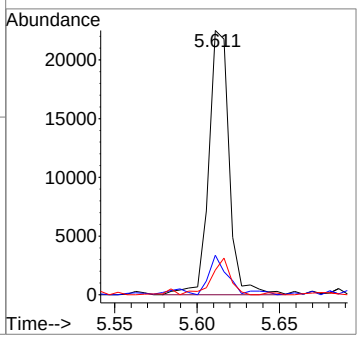


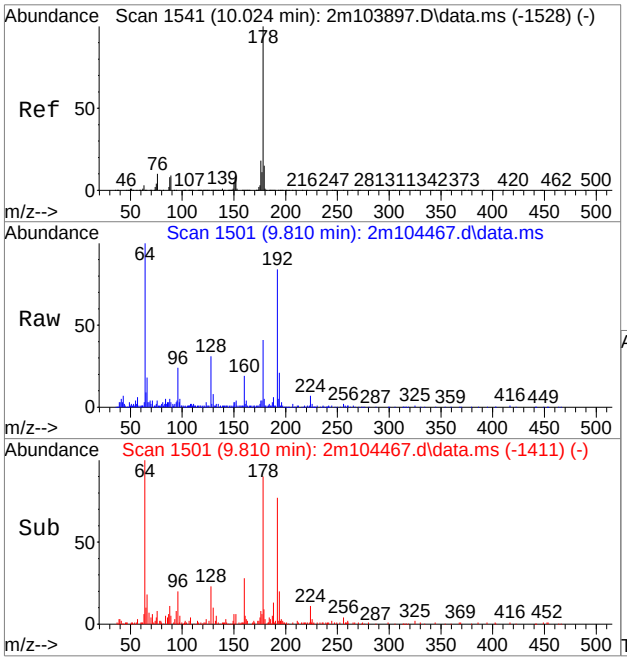


#38
Naphthalene
Concen: 0.36 ppm
RT: 5.611 min Scan# 716
Delta R.T. -0.015 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:128 Resp: 19542

Ion	Ratio	Lower	Upper
128	100		
129	14.4	0.0	40.7
127	9.2	0.0	42.5

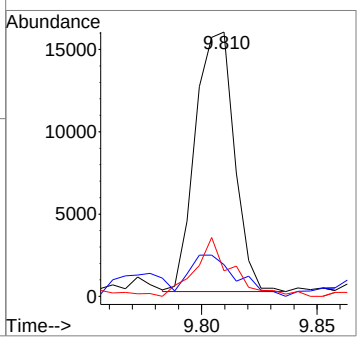


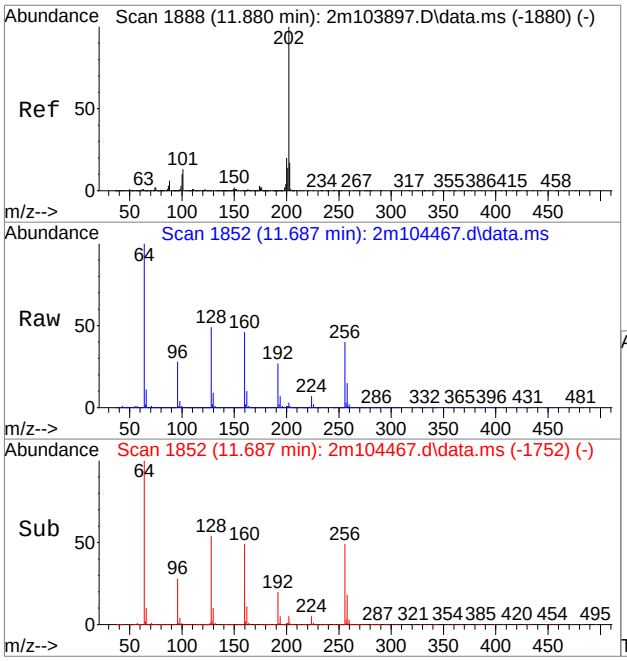


#77
Phenanthrene
Concen: 0.37 ppm
RT: 9.810 min Scan# 1501
Delta R.T. -0.021 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:178 Resp: 18519

Ion	Ratio	Lower	Upper
178	100		
179	8.8	0.0	45.2
176	9.5	0.0	48.5

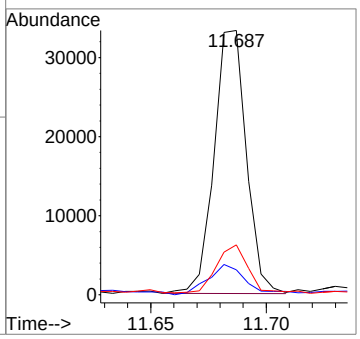


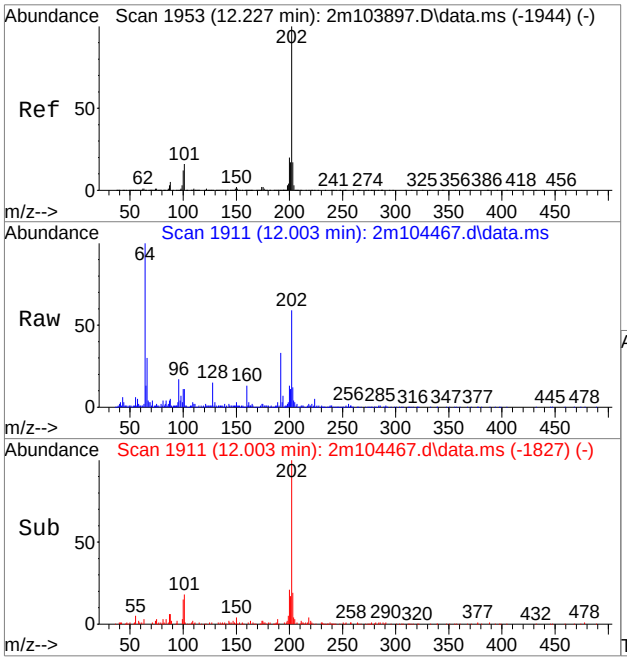


#81
Fluoranthene
Concen: 0.64 ppm
RT: 11.687 min Scan# 1852
Delta R.T. 0.036 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:202 Resp: 32337

Ion	Ratio	Lower	Upper
202	100		
101	8.3	0.0	43.1
203	18.0	0.0	47.0

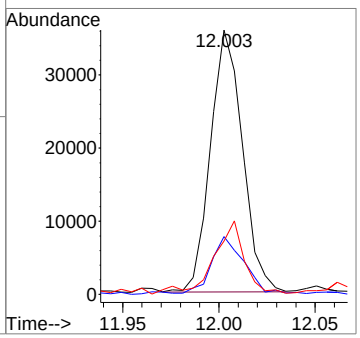


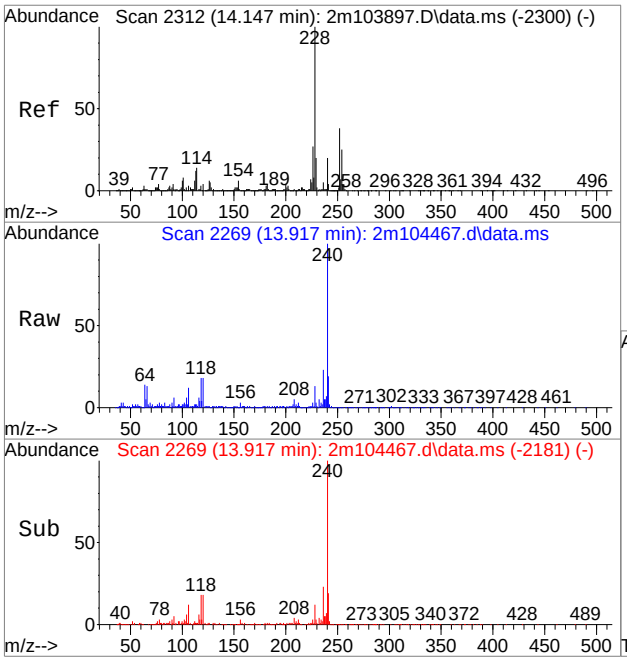


#84
Pyrene
Concen: 0.85 ppm
RT: 12.003 min Scan# 1911
Delta R.T. -0.049 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:202 Resp: 41469

Ion	Ratio	Lower	Upper
202	100		
200	21.1	0.0	50.0
203	19.3	0.0	47.3

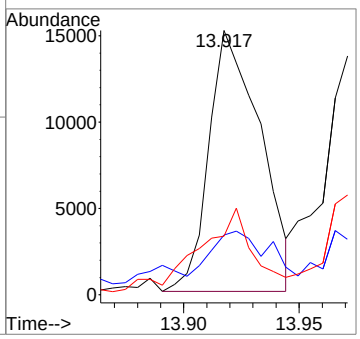


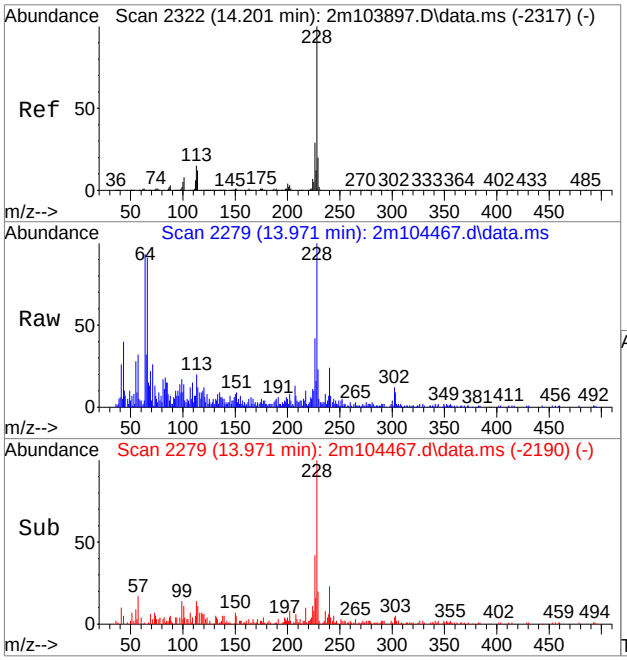


#87
Benzo[a]anthracene
Concen: 0.53 ppm
RT: 13.917 min Scan# 2269
Delta R.T. -0.027 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:228 Resp: 23440

Ion	Ratio	Lower	Upper
228	100		
229	13.3	0.0	49.8
226	19.2	0.0	56.6

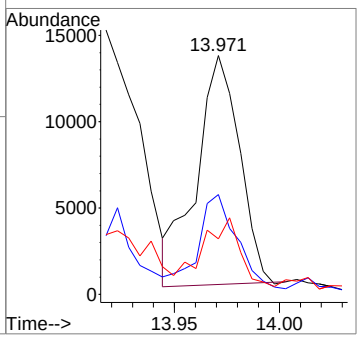


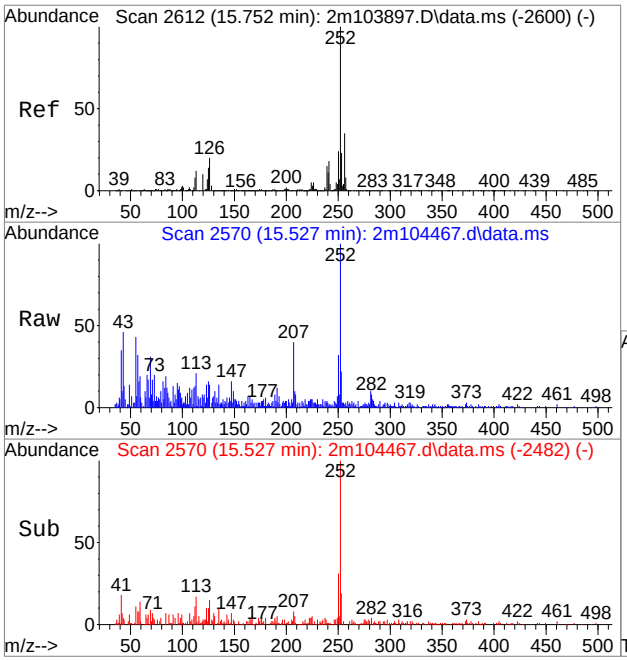


#89
Chrysene
Concen: 0.45 ppm
RT: 13.971 min Scan# 2279
Delta R.T. -0.026 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:228 Resp: 18997

Ion	Ratio	Lower	Upper
228	100		
226	43.2	0.0	58.8
229	16.8	0.0	49.8

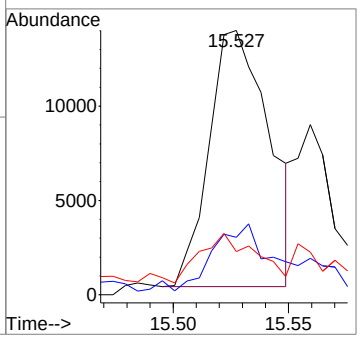


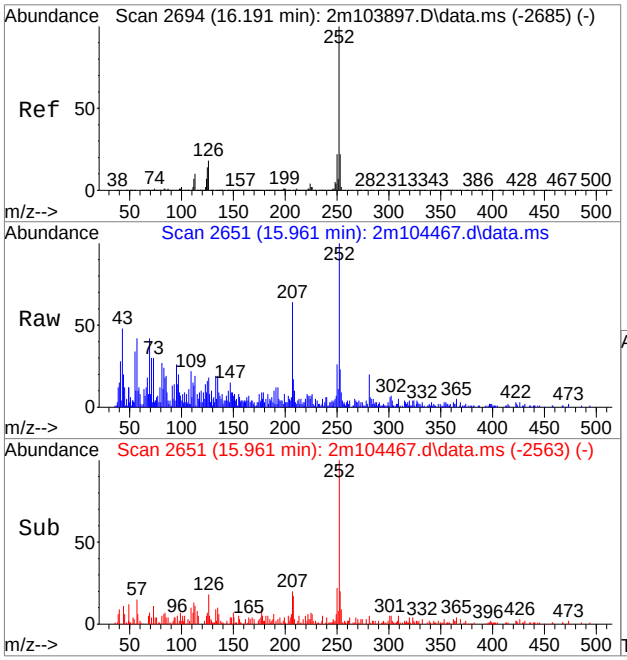


#93
Benzo[b]fluoranthene
Concen: 0.60 ppm
RT: 15.527 min Scan# 2570
Delta R.T. -0.028 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:252 Resp: 24548

Ion	Ratio	Lower	Upper
252	100		
253	17.5	0.0	52.5
125	13.1	0.0	44.3

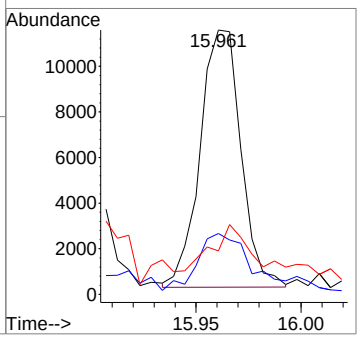




#95
Benzo[a]pyrene
Concen: 0.43 ppm
RT: 15.961 min Scan# 2651
Delta R.T. -0.028 min
Lab File: 2m104467.d
Acq: 27 May 2018 12:35 am

Tgt Ion:252 Resp: 15296

Ion	Ratio	Lower	Upper
252	100		
253	20.5	0.0	51.6
125	5.0	0.0	44.0



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/05/18 16:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:55:23 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

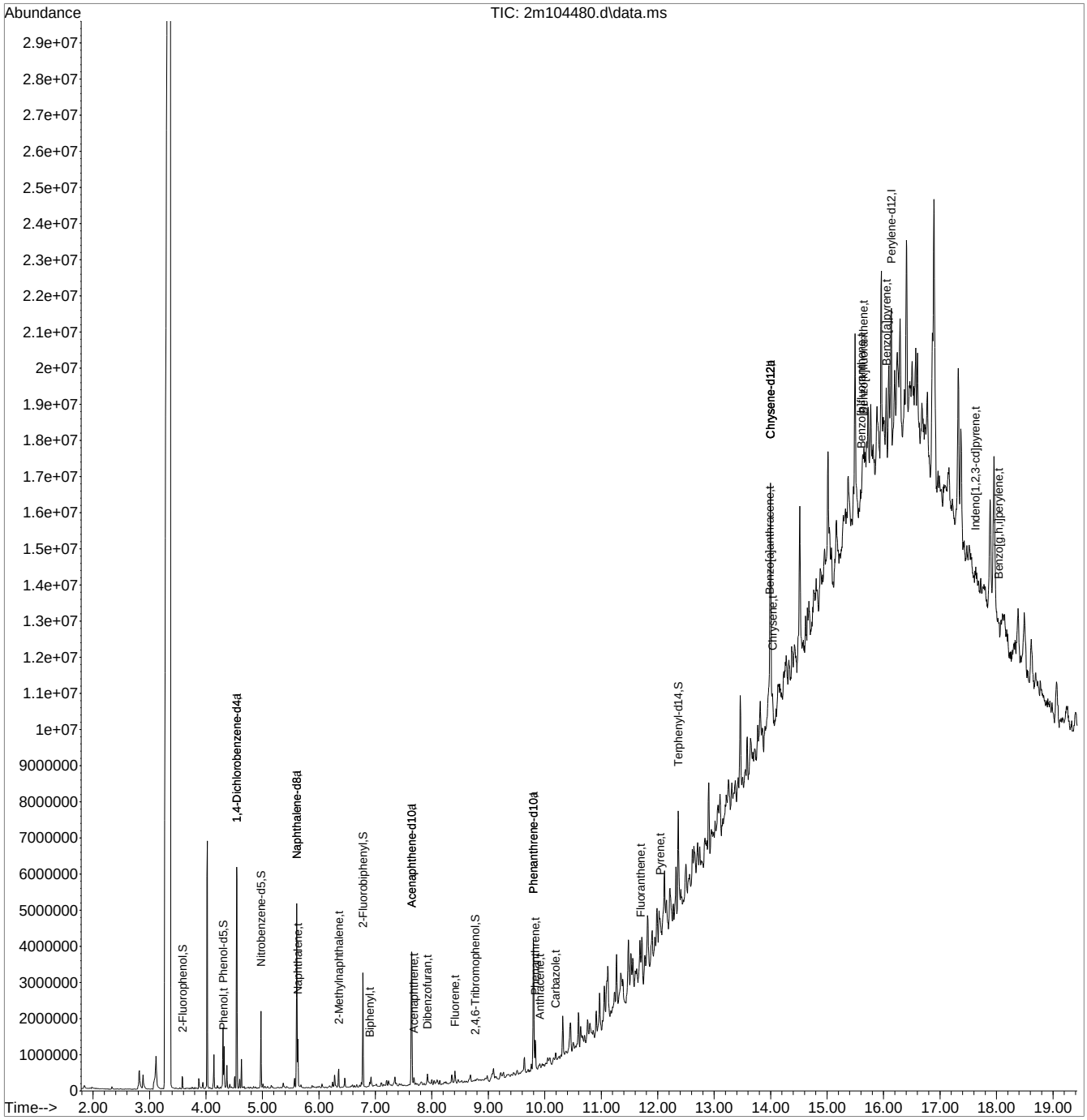
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.541	152	496631	40.00	ppm		0.00
24) Naphthalene-d8	5.606	136	1809490	40.00	ppm		0.00
47) Acenaphthene-d10	7.644	164	834942	40.00	ppm		0.00
69) Phenanthrene-d10	9.799	188	1473453	40.00	ppm		0.00
83) Chrysene-d12	13.998	240	1383046	40.00	ppm		0.04
91) Perylene-d12	16.137	264	1511242	40.00	ppm		0.07
101) 1,4-Dichlorobenzene-d4a	4.541	152	496631	40.00	ppm		0.00
103) Acenaphthene-d10a	7.644	164	834942	40.00	ppm		0.00
105) Chrysene-d12a	13.998	240	1383046	40.00	ppm		0.04
108) Phenanthrene-d10a	9.799	188	1473453	40.00	ppm		0.00
112) Naphthalene-d8a	5.606	136	1809490	40.00	ppm		0.00
114) Chrysene-d12b	13.998	240	1383046	40.00	ppm		0.04
System Monitoring Compounds							
5) 2-Fluorophenol	3.584	112	81514	5.04	ppm		0.02
Spiked Amount 50.000			Recovery =	10.08%			
8) Phenol-d5	4.301	99	424615	20.92	ppm		0.03
Spiked Amount 50.000			Recovery =	41.84%			
25) Nitrobenzene-d5	4.975	82	498235	30.13	ppm		0.00
Spiked Amount 50.000			Recovery =	60.26%			
51) 2-Fluorobiphenyl	6.777	172	949045	31.11	ppm		-0.01
Spiked Amount 50.000			Recovery =	62.22%			
73) 2,4,6-Tribromophenol	8.767	330	590m	0.13	ppm		0.00
Spiked Amount 50.000			Recovery =	0.26%			
85) Terphenyl-d14	12.361	244	908329	29.95	ppm		0.00
Spiked Amount 50.000			Recovery =	59.90%			
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0d	0.00	ppm		
Target Compounds							Qvalue
9) Phenol	4.311	94	57550	2.47	ppm		90
38) Naphthalene	5.627	128	471957	10.07	ppm		99
44) 2-Methylnaphthalene	6.349	141	109440	4.01	ppm		96
53) Biphenyl	6.900	154	30913	0.90	ppm		91
59) Acenaphthene	7.681	153	46744	1.75	ppm		90
62) Dibenzofuran	7.922	168	107231	2.98	ppm		92
66) Fluorene	8.409	166	84031	2.88	ppm		97
77) Phenanthrene	9.831	178	328111	7.80	ppm		95
78) Anthracene	9.911	178	58405	1.38	ppm		91
79) Carbazole	10.190	167	29126m	0.74	ppm		
81) Fluoranthene	11.698	202	106199m	2.46	ppm		
84) Pyrene	12.046	202	196550	4.26	ppm		97
87) Benzo[a]anthracene	13.982	228	107314	2.56	ppm		82
89) Chrysene	14.035	228	210326	5.29	ppm		86
93) Benzo[b]fluoranthene	15.608	252	66424m	1.44	ppm		
94) Benzo[k]fluoranthene	15.645	252	26261m	0.61	ppm		
95) Benzo[a]pyrene	16.052	252	62117	1.55	ppm		59
96) Indeno[1,2,3-cd]pyrene	17.624	276	32003	0.80	ppm	#	61
100) Benzo[g,h,i]perylene	18.041	276	38530	1.00	ppm	#	22

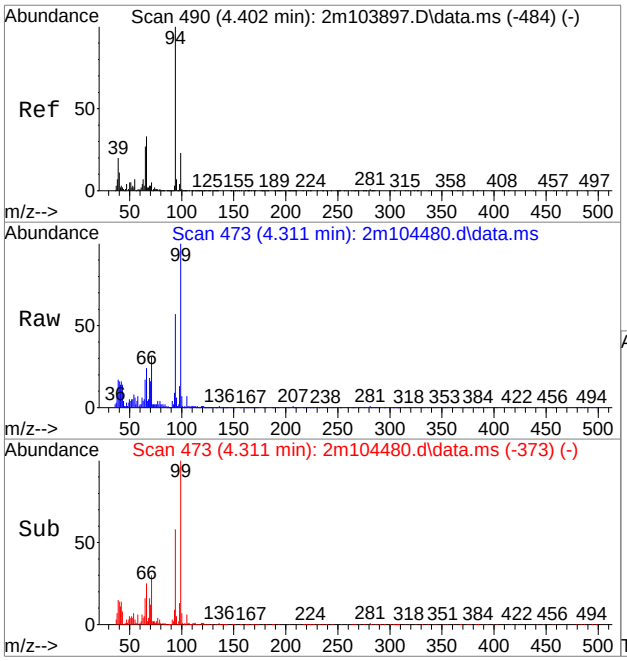
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:55:23 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

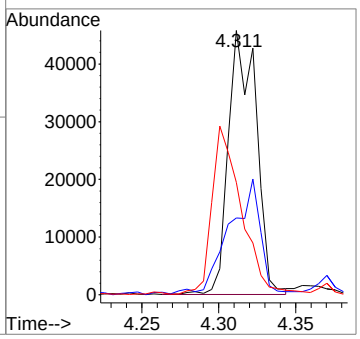


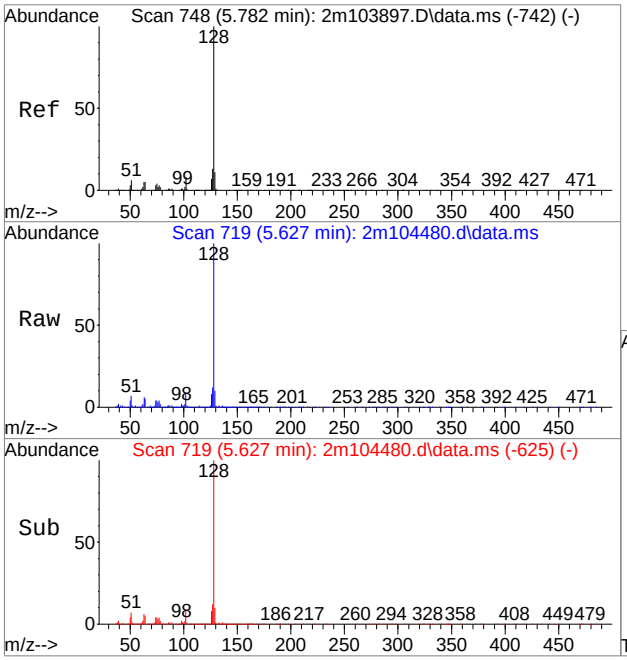


#9
Phenol
Concen: 2.47 ppm
RT: 4.311 min Scan# 473
Delta R.T. 0.035 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion: 94 Resp: 57550

Ion	Ratio	Lower	Upper
94	100		
65	28.3	0.0	56.9
66	41.8	2.6	62.6

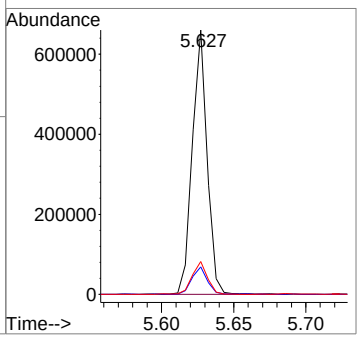


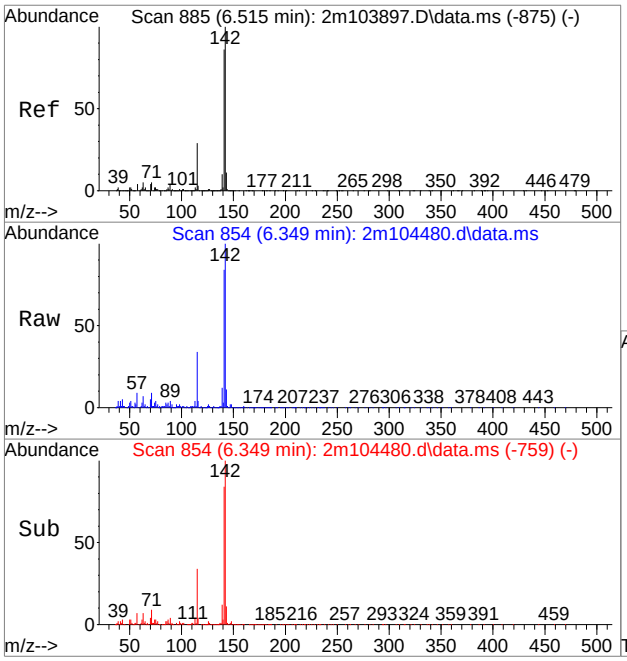


#38
Naphthalene
Concen: 10.07 ppm
RT: 5.627 min Scan# 719
Delta R.T. 0.001 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:128 Resp: 471957

Ion	Ratio	Lower	Upper
128	100		
129	10.2	0.0	40.7
127	12.2	0.0	42.5

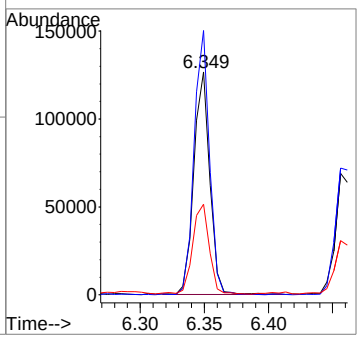


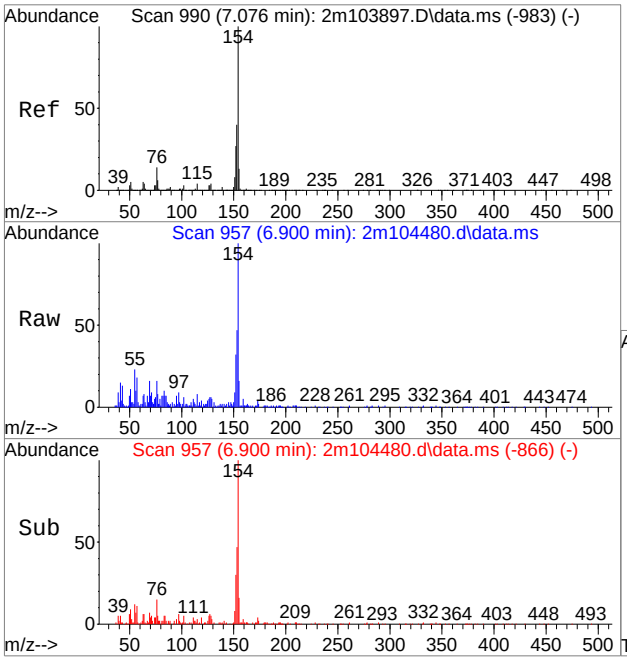


#44
2-Methylnaphthalene
Concen: 4.01 ppm
RT: 6.349 min Scan# 854
Delta R.T. 0.010 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:141 Resp: 109440

Ion	Ratio	Lower	Upper
141	100		
142	118.8	86.4	146.4
115	39.7	3.6	63.6

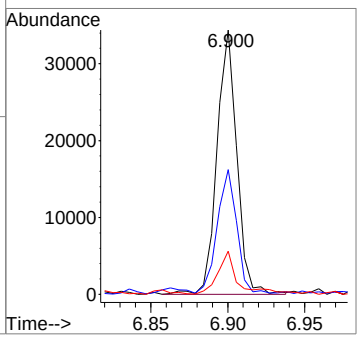


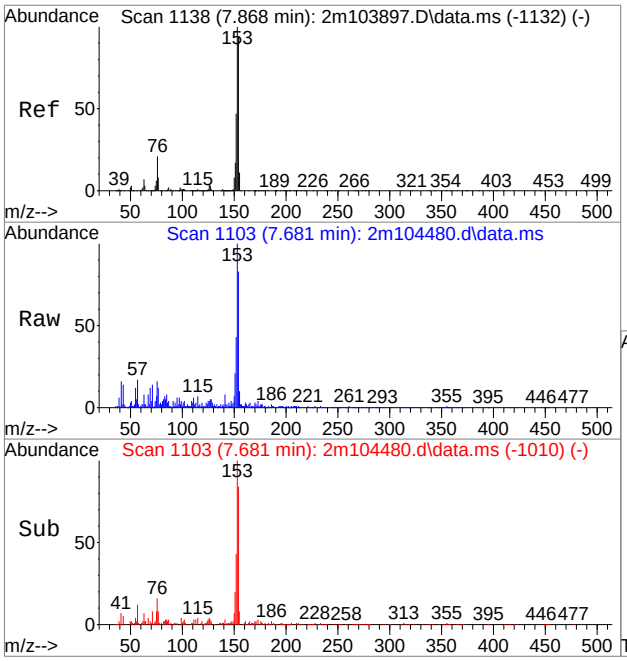


#53
Biphenyl
Concen: 0.90 ppm
RT: 6.900 min Scan# 957
Delta R.T. -0.012 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:154 Resp: 30913

Ion	Ratio	Lower	Upper
154	100		
153	45.9	9.6	69.6
155	14.9	0.0	42.7

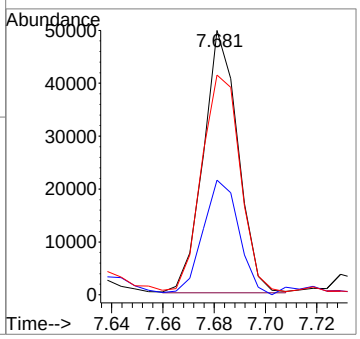


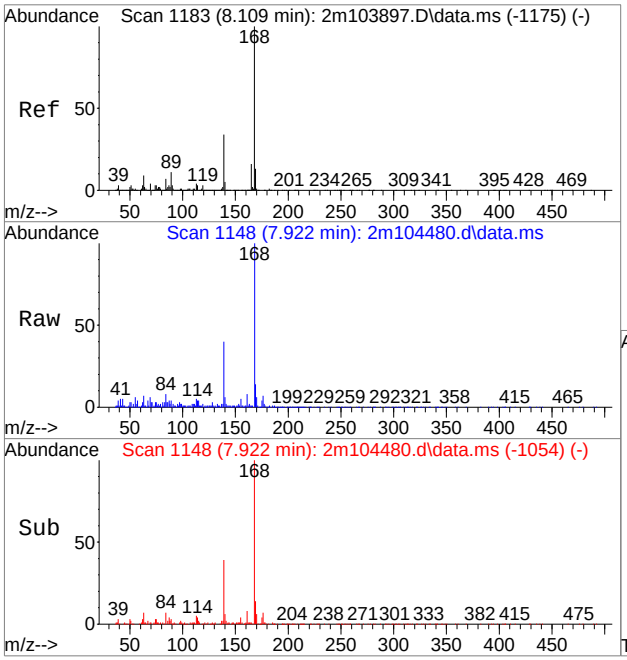


#59
Acenaphthene
Concen: 1.75 ppm
RT: 7.681 min Scan# 1103
Delta R.T. -0.004 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:153 Resp: 46744

Ion	Ratio	Lower	Upper
153	100		
152	42.0	17.1	77.1
154	82.6	62.8	122.8

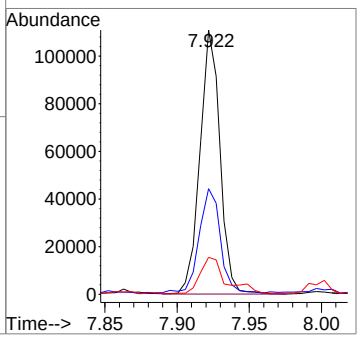


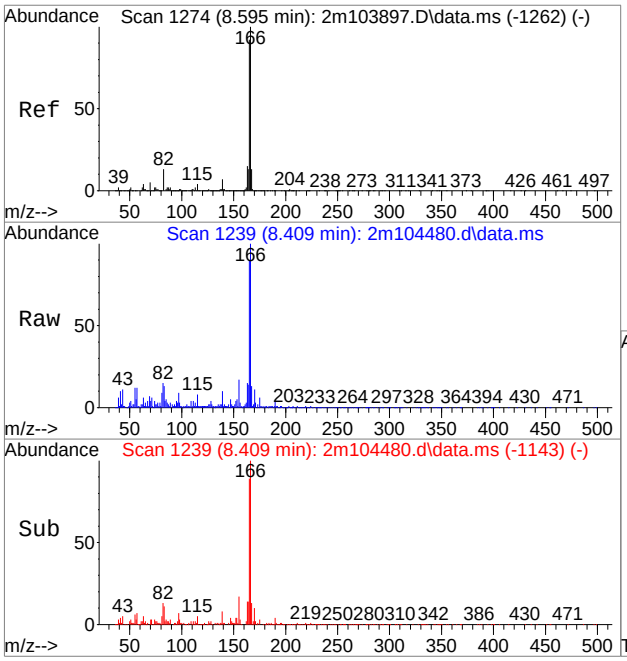


#62
Dibenzofuran
Concen: 2.98 ppm
RT: 7.922 min Scan# 1148
Delta R.T. 0.002 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:168 Resp: 107231

Ion	Ratio	Lower	Upper
168	100		
139	39.3	3.6	63.6
169	13.6	0.0	43.0

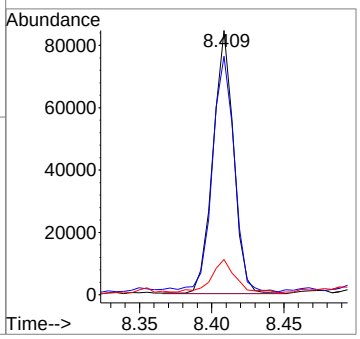


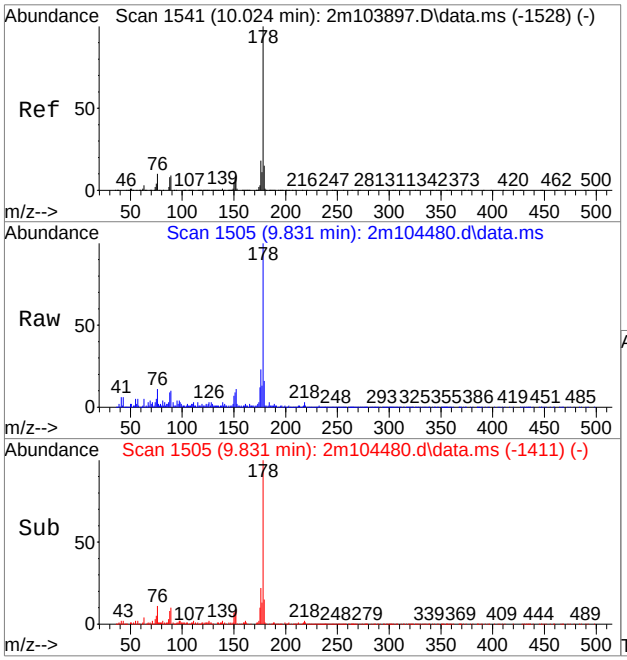


#66
Fluorene
Concen: 2.88 ppm
RT: 8.409 min Scan# 1239
Delta R.T. 0.013 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:166 Resp: 84031

Ion	Ratio	Lower	Upper
166	100		
165	88.7	62.0	122.0
167	12.0	0.0	42.9

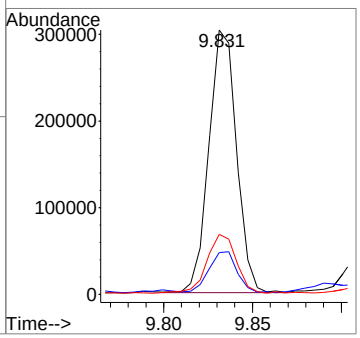


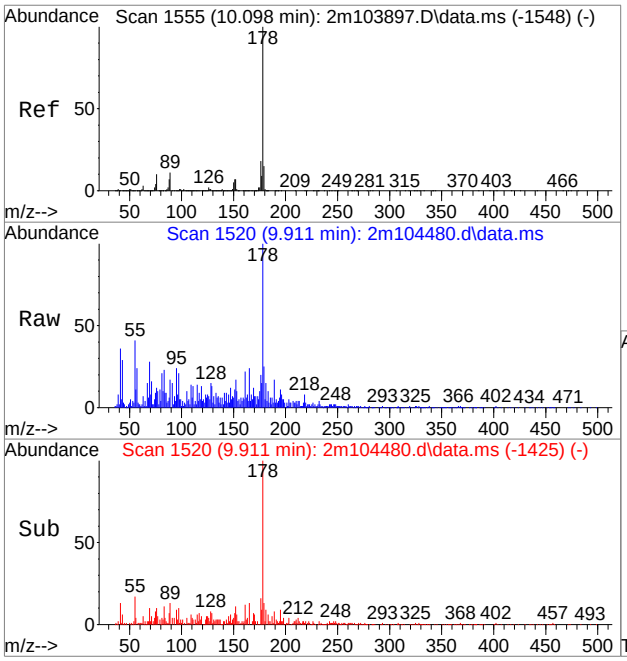


#77
Phenanthrene
Concen: 7.80 ppm
RT: 9.831 min Scan# 1505
Delta R.T. 0.001 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:178 Resp: 328111

Ion	Ratio	Lower	Upper
178	100		
179	14.5	0.0	45.2
176	22.2	0.0	48.5

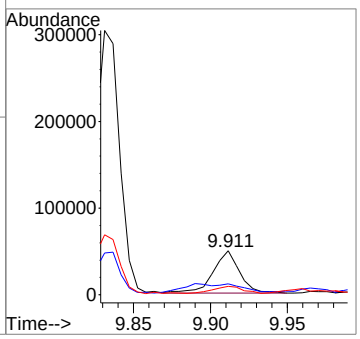


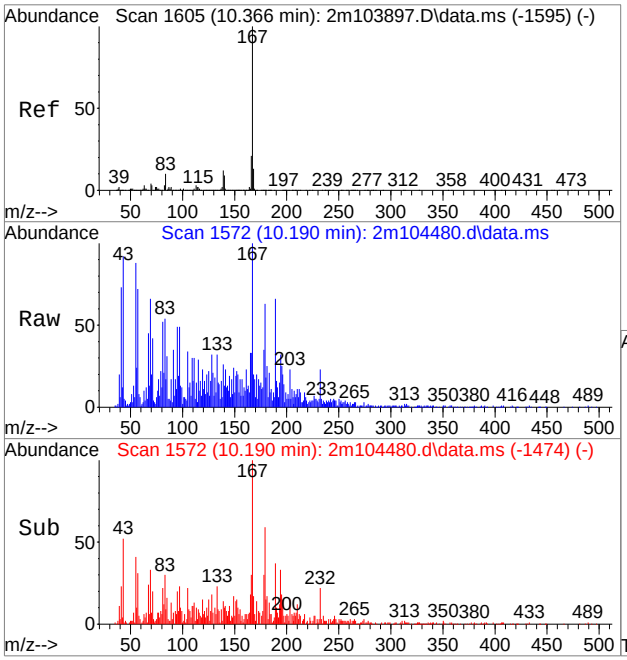


#78
Anthracene
Concen: 1.38 ppm
RT: 9.911 min Scan# 1520
Delta R.T. 0.008 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:178 Resp: 58405

Ion	Ratio	Lower	Upper
178	100		
179	18.9	0.0	45.1
176	13.7	0.0	47.7

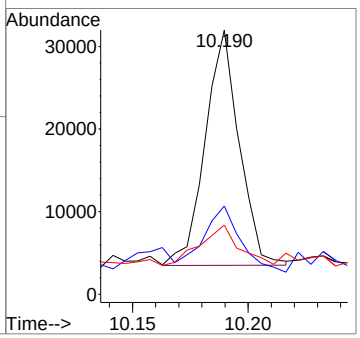


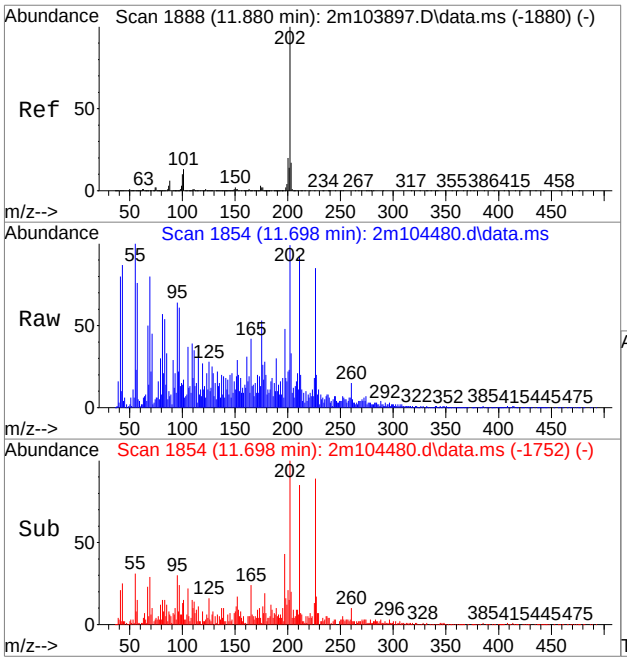


#79
Carbazole
Concen: 0.74 ppm m
RT: 10.190 min Scan# 1572
Delta R.T. 0.024 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:167 Resp: 29126

Ion	Ratio	Lower	Upper
167	100		
166	33.5	0.0	50.9
139	26.2	0.0	42.3

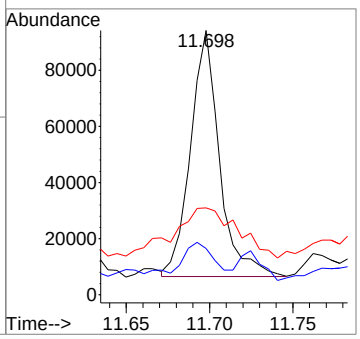


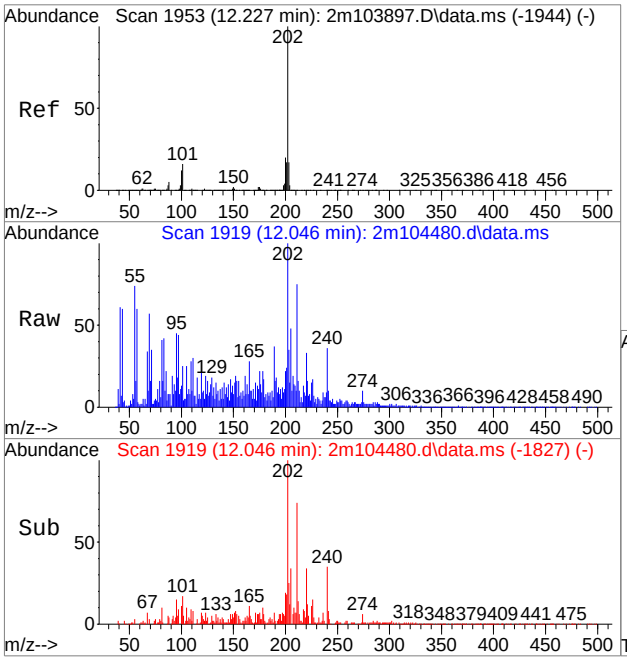


#81
Fluoranthene
Concen: 2.46 ppm m
RT: 11.698 min Scan# 1854
Delta R.T. 0.047 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:202 Resp: 106199

Ion	Ratio	Lower	Upper
202	100		
101	17.6	0.0	43.1
203	32.9	0.0	47.0

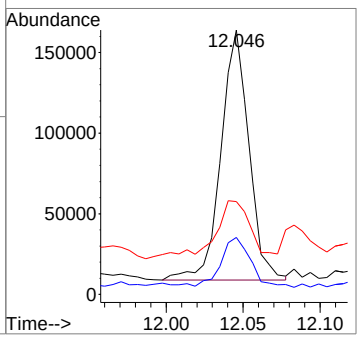


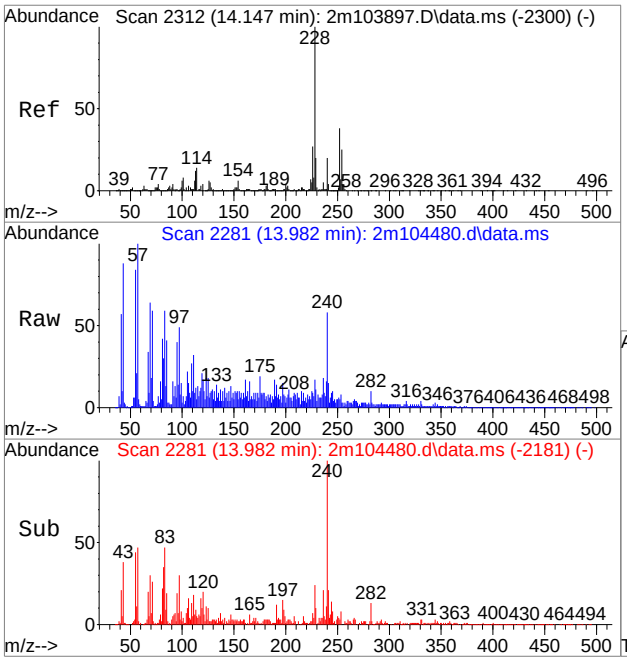


#84
Pyrene
Concen: 4.26 ppm
RT: 12.046 min Scan# 1919
Delta R.T. -0.006 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:202 Resp: 196550

Ion	Ratio	Lower	Upper
202	100		
200	18.7	0.0	50.0
203	16.3	0.0	47.3

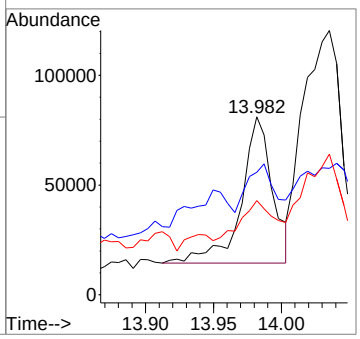


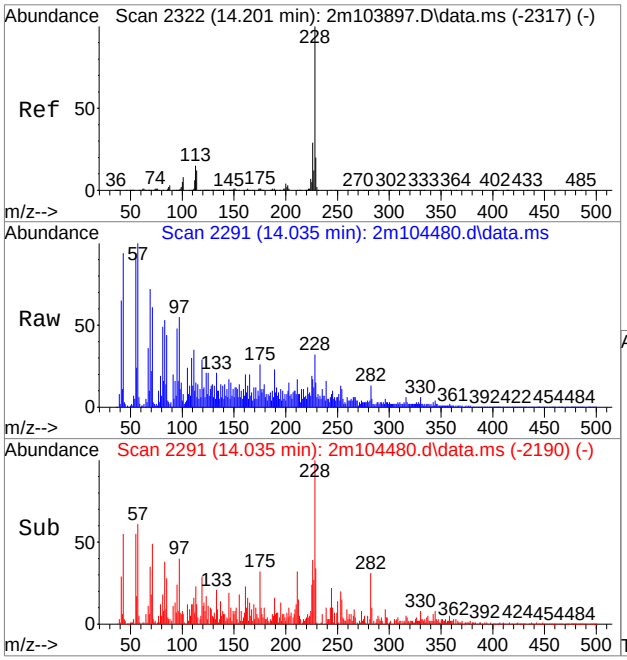


#87
Benzo[a]anthracene
Concen: 2.56 ppm
RT: 13.982 min Scan# 2281
Delta R.T. 0.037 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:228 Resp: 107314

Ion	Ratio	Lower	Upper
228	100		
229	32.5	0.0	49.8
226	21.0	0.0	56.6

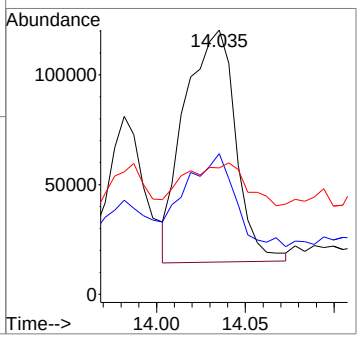


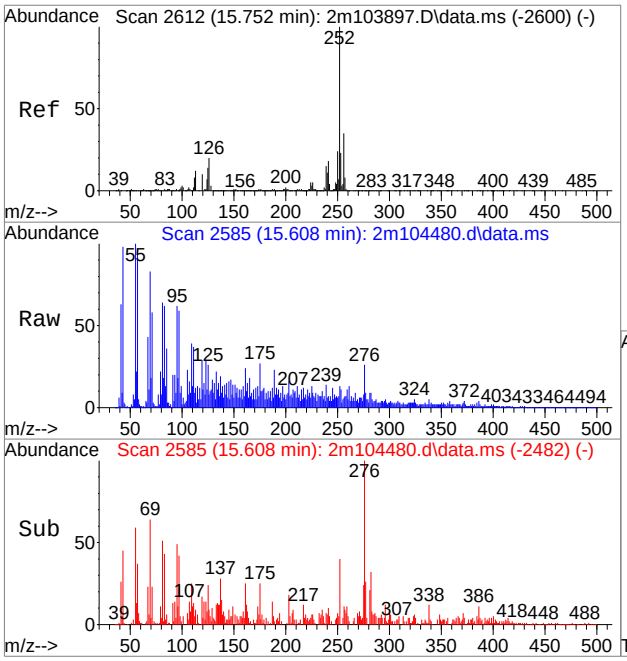


#89
Chrysene
Concen: 5.29 ppm
RT: 14.035 min Scan# 2291
Delta R.T. 0.038 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:228 Resp: 210326

Ion	Ratio	Lower	Upper
228	100		
226	38.9	0.0	58.8
229	16.3	0.0	49.8

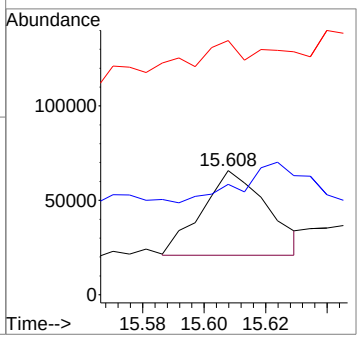


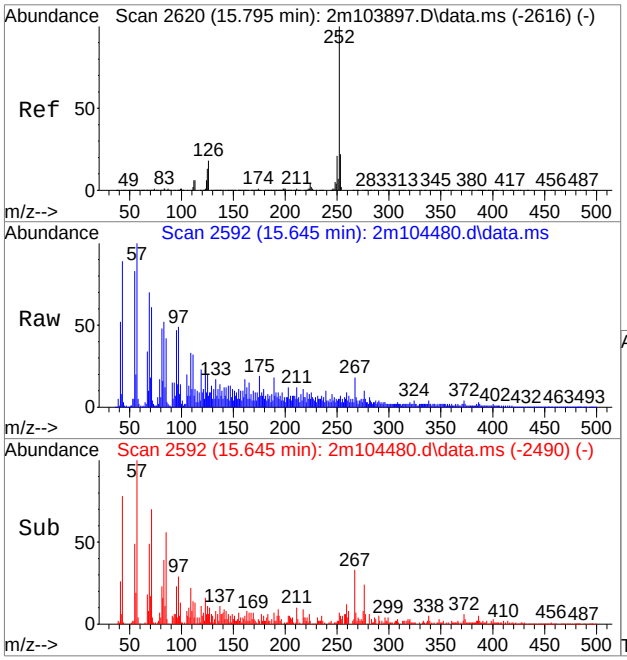


#93
Benzo[b]fluoranthene
Concen: 1.44 ppm m
RT: 15.608 min Scan# 2585
Delta R.T. 0.053 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:252 Resp: 66424

Ion	Ratio	Lower	Upper
252	100		
253	88.9	0.0	52.5#
125	204.7	0.0	44.3#

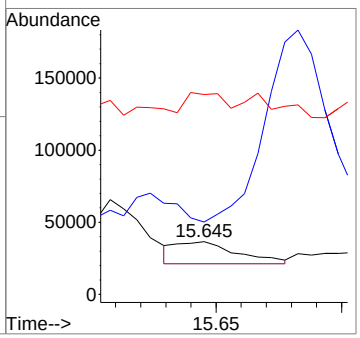


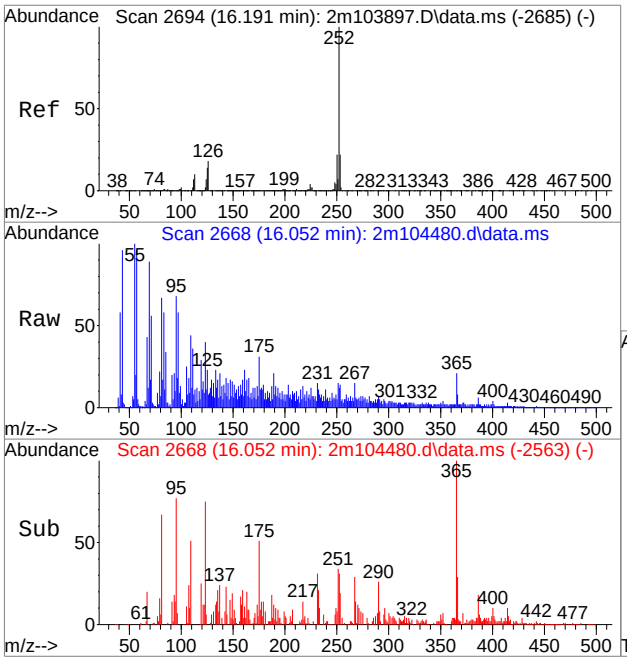


#94
Benzo[k]fluoranthene
Concen: 0.61 ppm m
RT: 15.645 min Scan# 2592
Delta R.T. 0.048 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:252 Resp: 26261

Ion	Ratio	Lower	Upper
252	100		
253	136.7	0.0	51.8#
125	378.2	0.0	42.9#

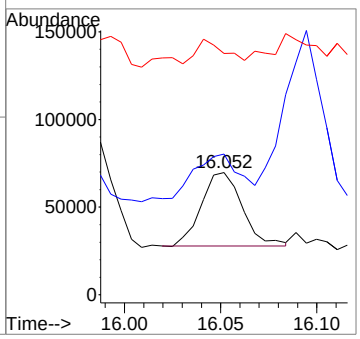


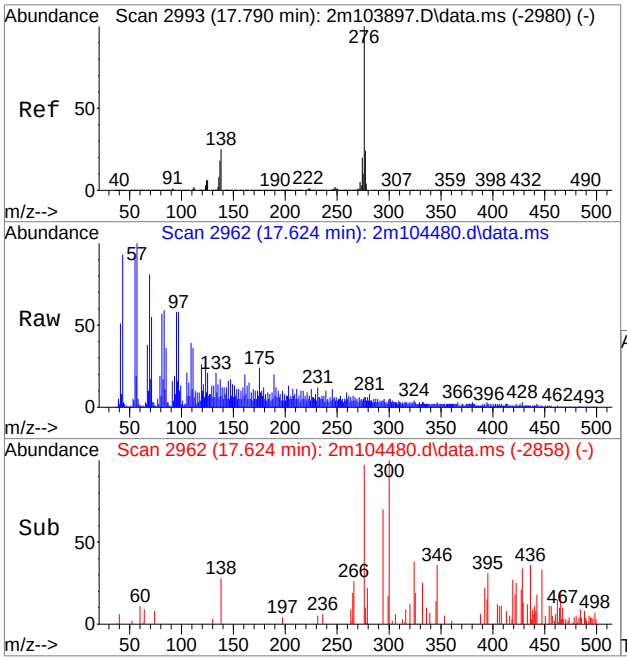


#95
Benzo[a]pyrene
Concen: 1.55 ppm
RT: 16.052 min Scan# 2668
Delta R.T. 0.063 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:252 Resp: 62117

Ion	Ratio	Lower	Upper
252	100		
253	0.0	0.0	51.6
125	0.0	0.0	44.0

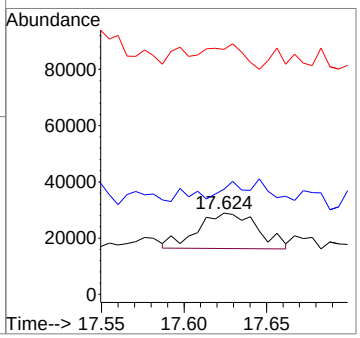


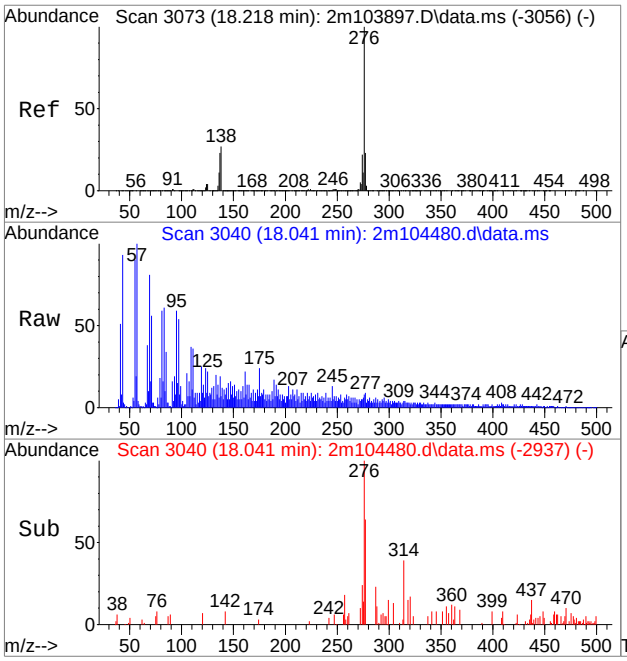


#96
Indeno[1,2,3-cd]pyrene
Concen: 0.80 ppm
RT: 17.624 min Scan# 2962
Delta R.T. 0.057 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:276 Resp: 32003

Ion	Ratio	Lower	Upper
276	100		
138	29.1	0.0	52.7
137	48.9	0.0	46.8#

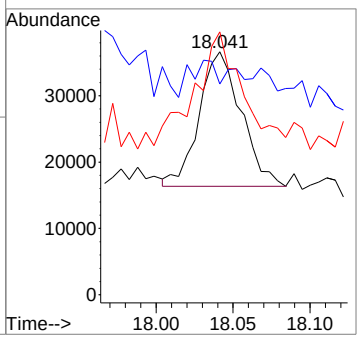




#100
Benzo[g,h,i]perylene
Concen: 1.00 ppm
RT: 18.041 min Scan# 3040
Delta R.T. 0.051 min
Lab File: 2m104480.d
Acq: 27 May 2018 6:12 am

Tgt Ion:276 Resp: 38530

Ion	Ratio	Lower	Upper
276	100		
138	0.0	0.0	57.0
277	76.2	0.0	53.4#



Manual Integration Approval Summary

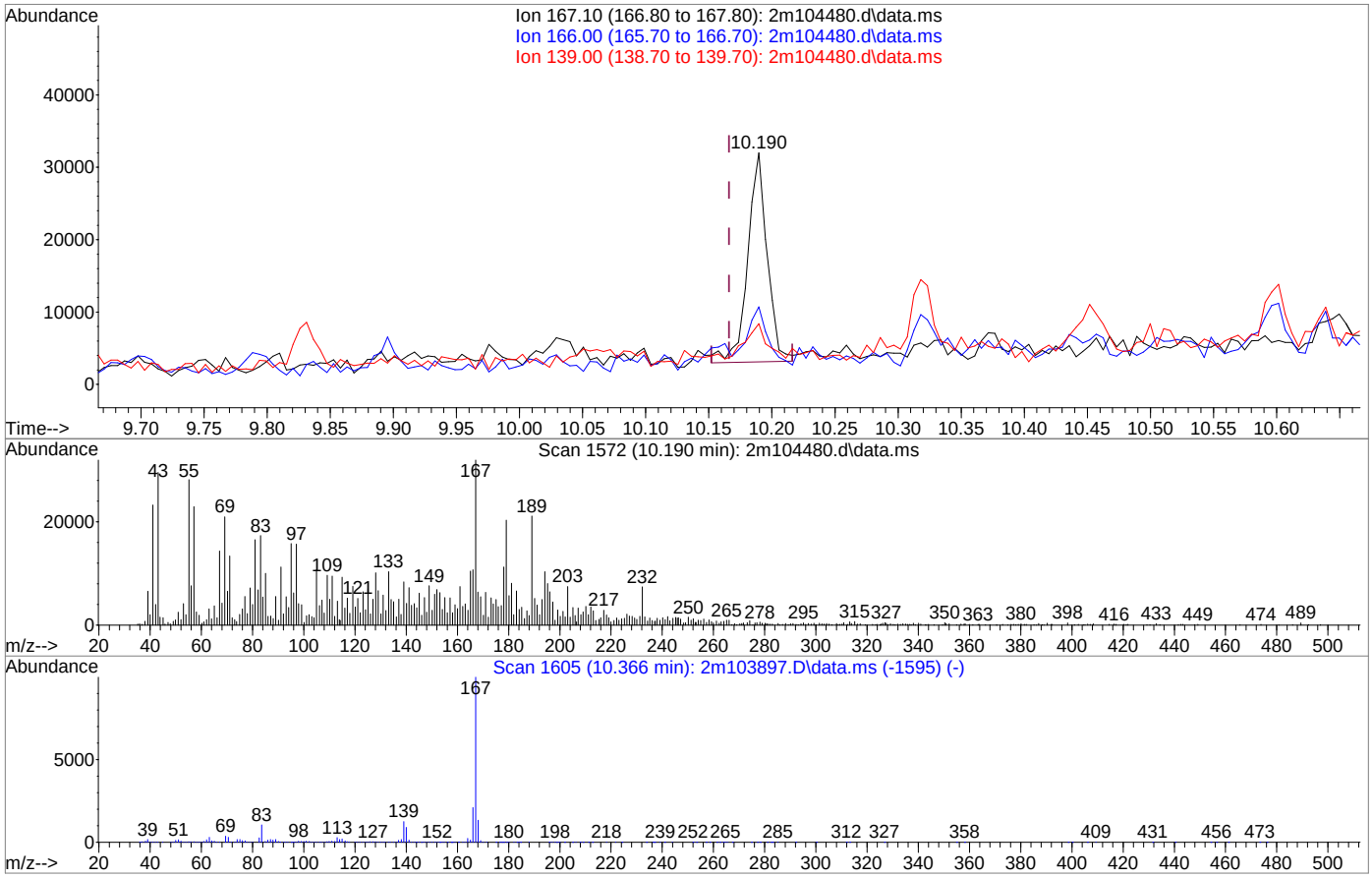
Sample Number: JC66384-4
Lab FileID: 2M104480.D
Injection Time: 05/27/18 06:12
Method: SW846 8270D
Analyst approved: 05/28/18 08:57 Jon Kreigmor Mamanta
Supervisor approved: 06/05/18 16:17 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
2,4,6-Tribromophenol	118-79-6		8.77	Missed peak
Carbazole	86-74-8		10.19	Poor instrument integration
Fluoranthene	206-44-0		11.70	Missed peak
Benzo(b)fluoranthene	205-99-2		15.61	Poor instrument integration
Benzo(k)fluoranthene	207-08-9		15.65	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:38:25 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104480.d\data.ms

(79) Carbazole (t)

10.190min (+0.024) 0.79ppm

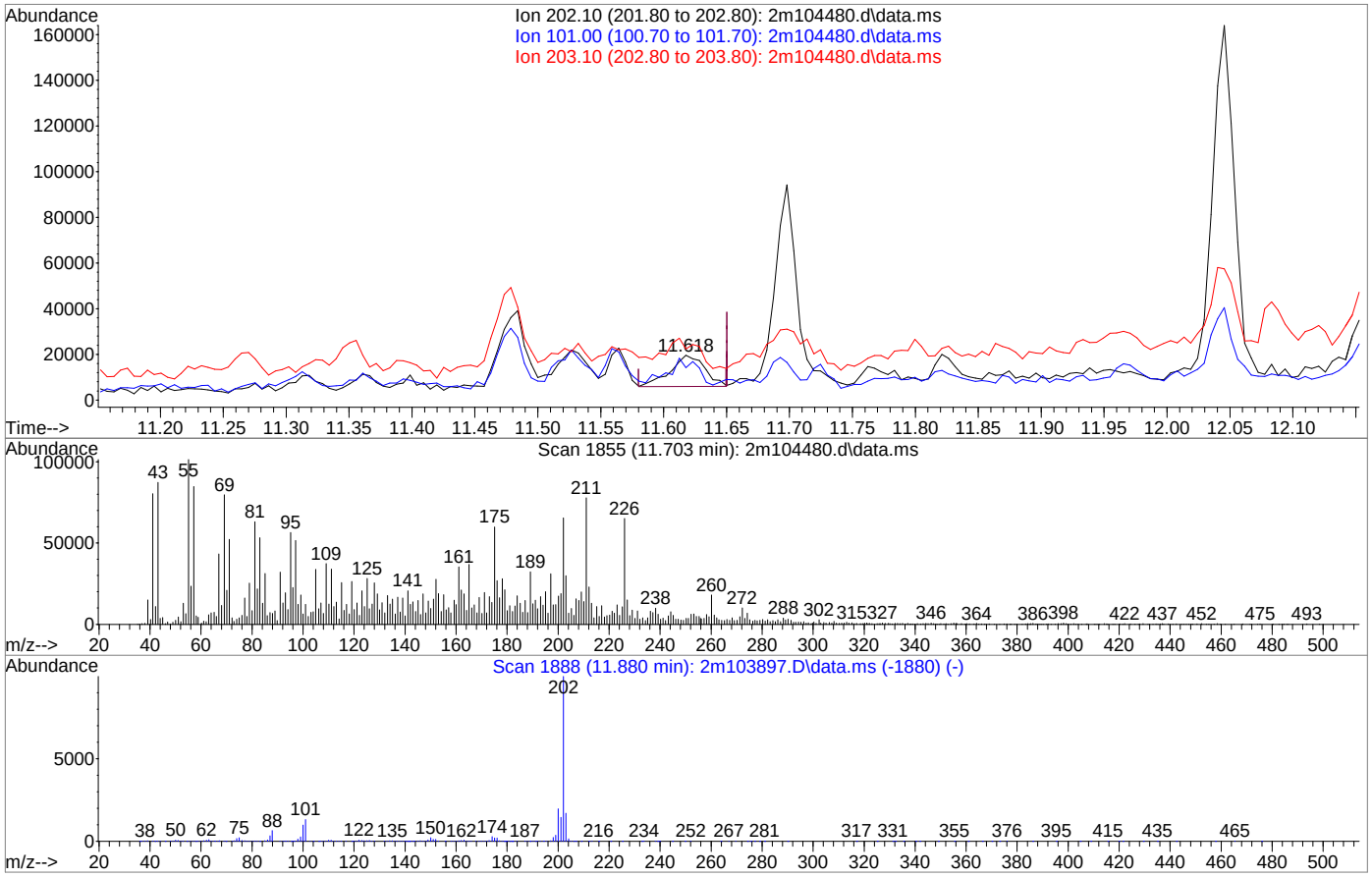
response 31069

Ion	Exp%	Act%
167.10	100	100
166.00	20.90	24.48
139.00	12.30	14.04
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:38:25 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104480.d\data.ms

(81) Fluoranthene (t)

11.618min (-0.033) 0.60ppm

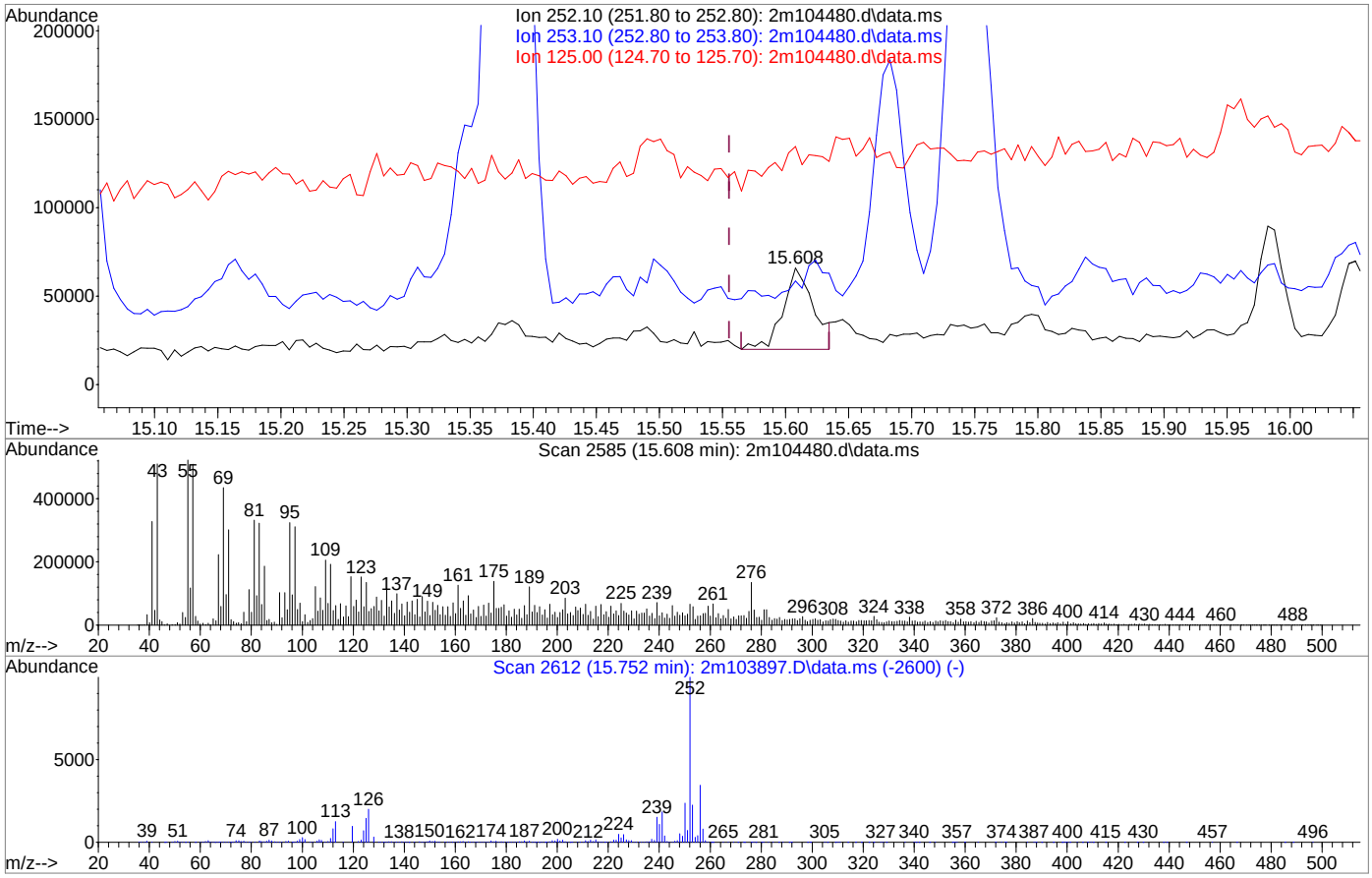
response 25958

Ion	Exp%	Act%
202.10	100	100
101.00	13.10	41.61
203.10	17.00	46.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:38:25 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104480.d\data.ms

(93) Benzo[b]fluoranthene (t)

15.608min (+0.053) 1.68ppm

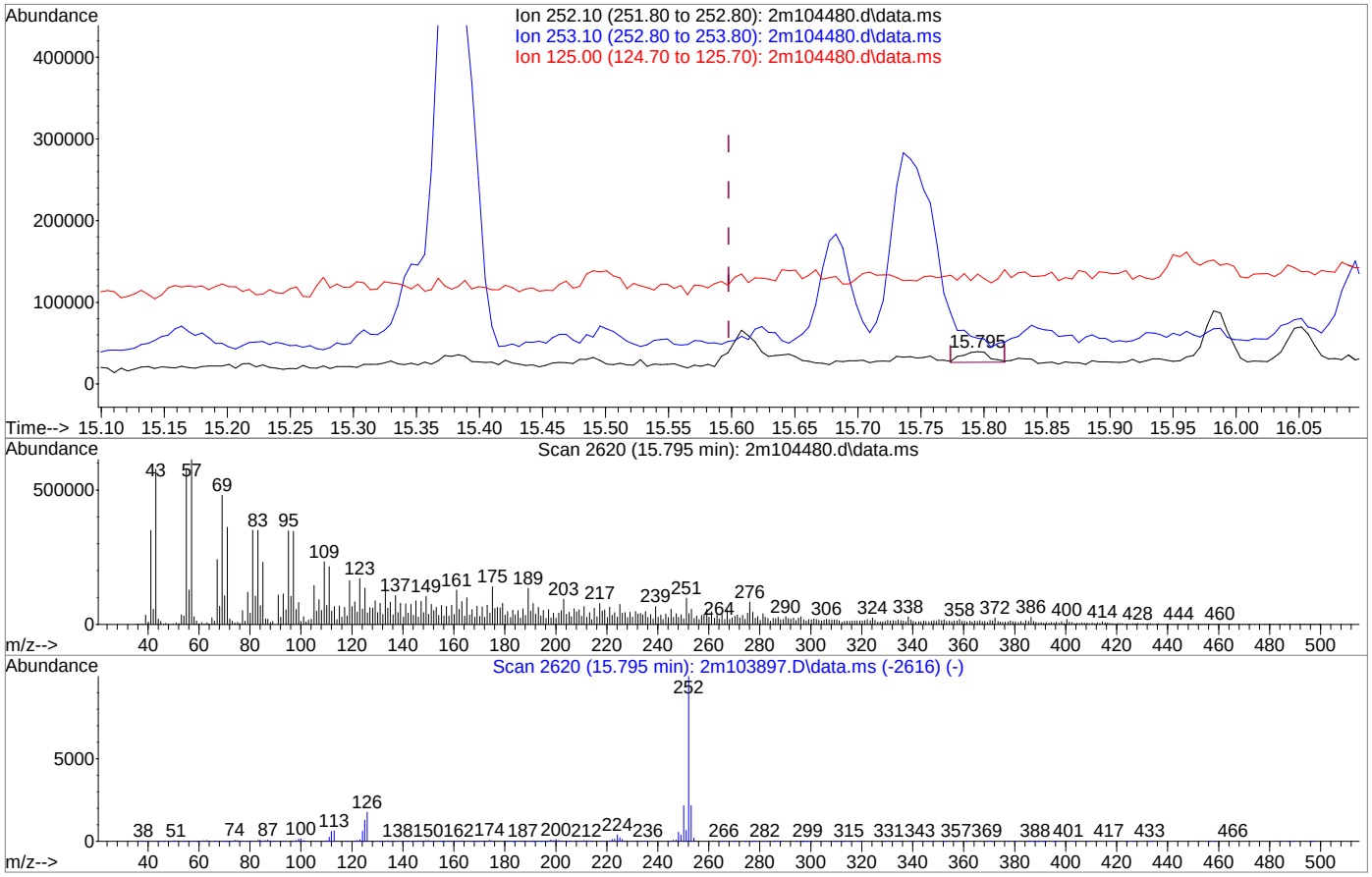
response 77579

Ion	Exp%	Act%
252.10	100	100
253.10	22.50	7.23
125.00	14.30	44.19
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:38:25 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104480.d\data.ms

(94) Benzo[k]fluoranthene (t)

15.795min (+0.197) 0.47ppm

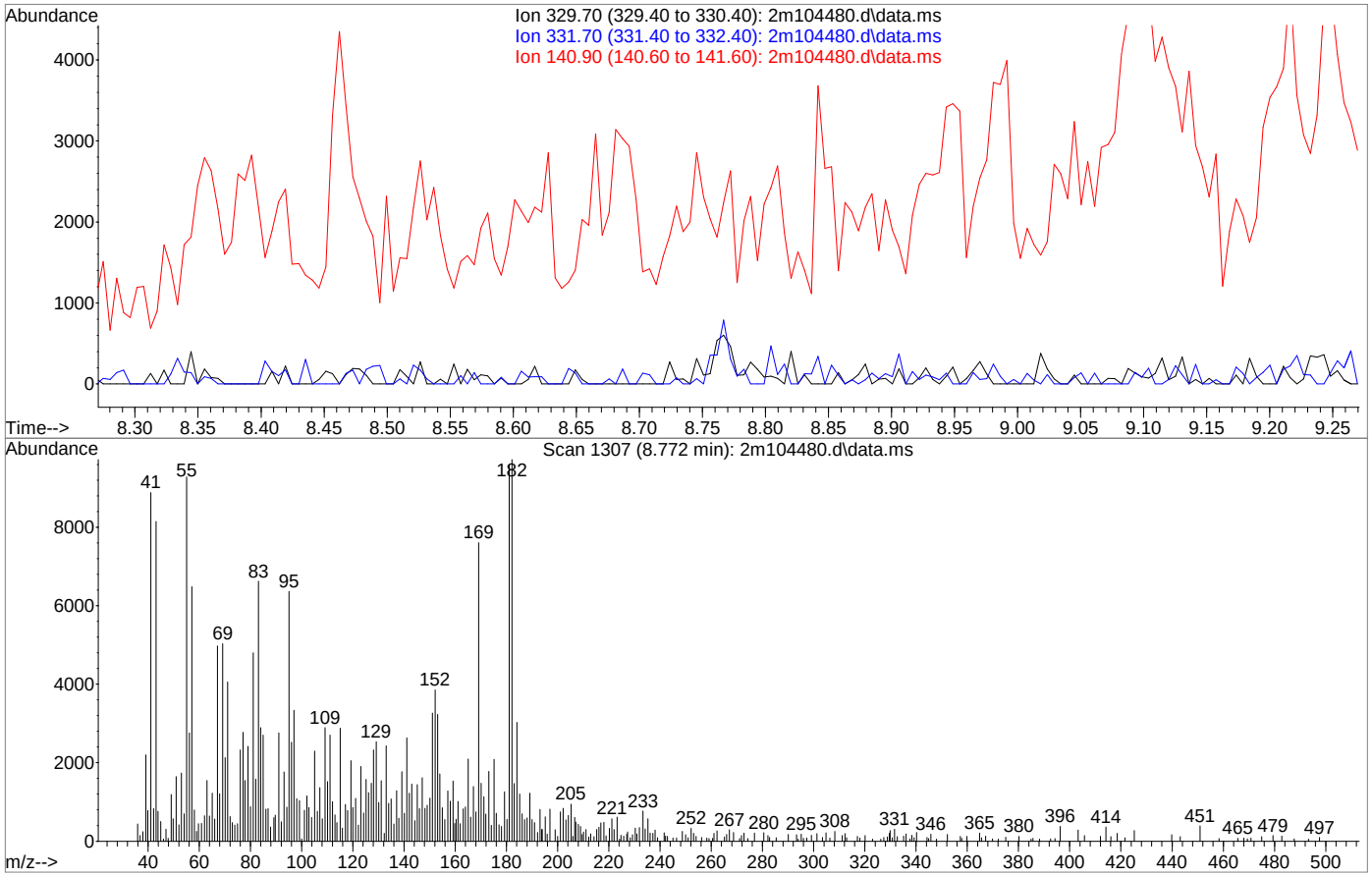
response 20044

Ion	Exp%	Act%
252.10	100	100
253.10	21.80	0.00
125.00	12.90	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:45:48 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104480.d\data.ms

(73) 2,4,6-Tribromophenol (S)

8.771min (-8.771) 0.00ppm

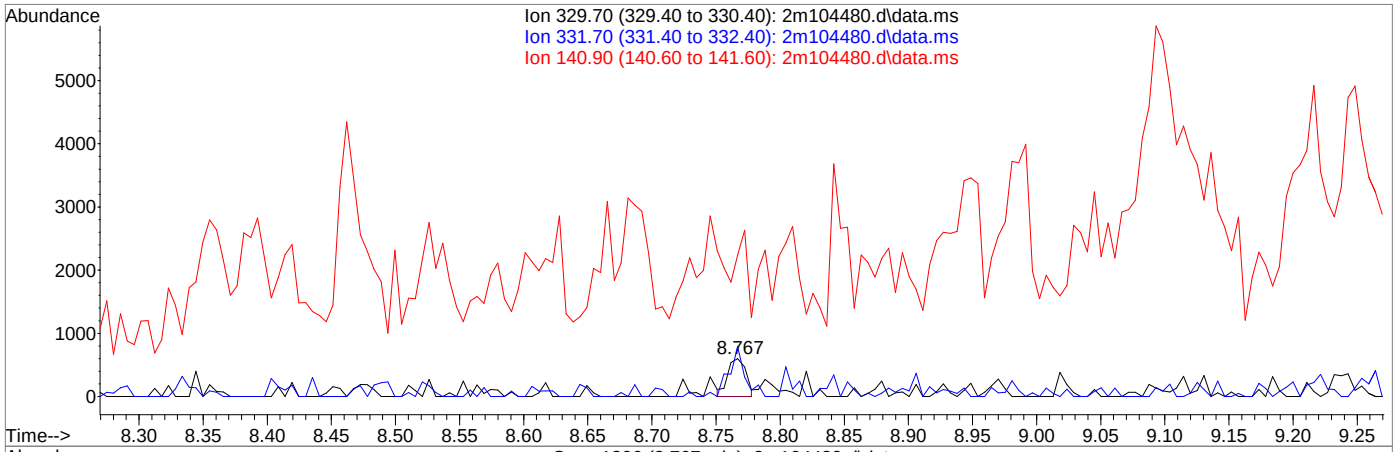
response 0

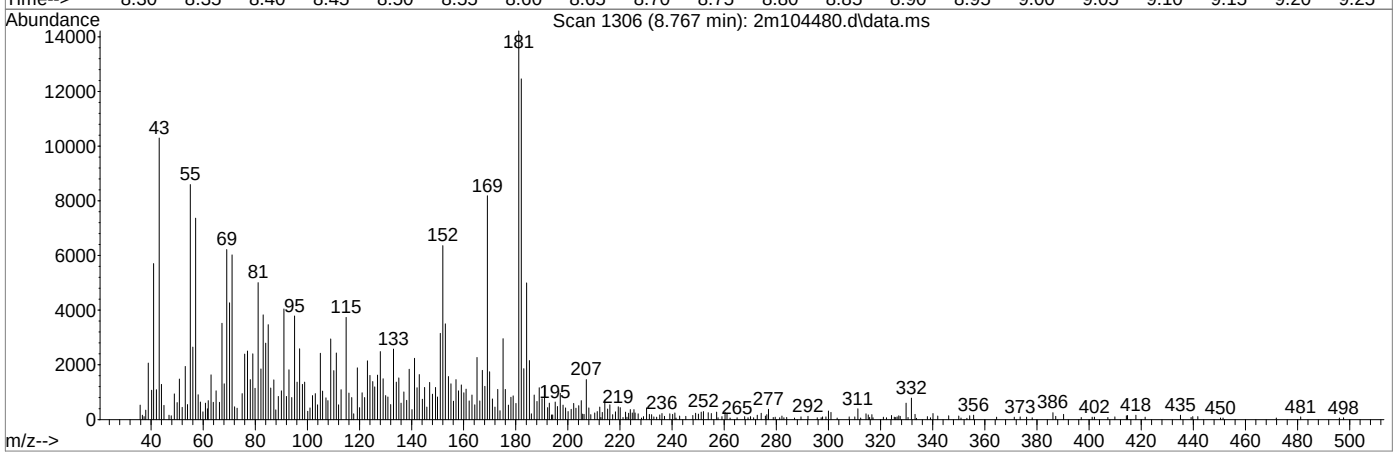
Ion	Exp%	Act%
329.70	100	0.00
331.70	95.50	0.00#
140.90	37.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104480.d
Acq On : 27 May 2018 6:12 am
Operator : georges
Sample : jc66384-4 Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 08:45:48 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration





TIC: 2m104480.d\data.ms

(73) 2,4,6-Tribromophenol (S)

8.767min (-0.004) 0.13ppm m

response 590

Ion	Exp%	Act%
329.70	100	100
331.70	95.50	131.28#
140.90	37.20	372.55#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146640.D
Acq On : 5 Jun 2018 1:12 pm
Operator : angelar
Sample : jc66384-4
Misc : op12509,em6233,15.9,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 05 15:00:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration

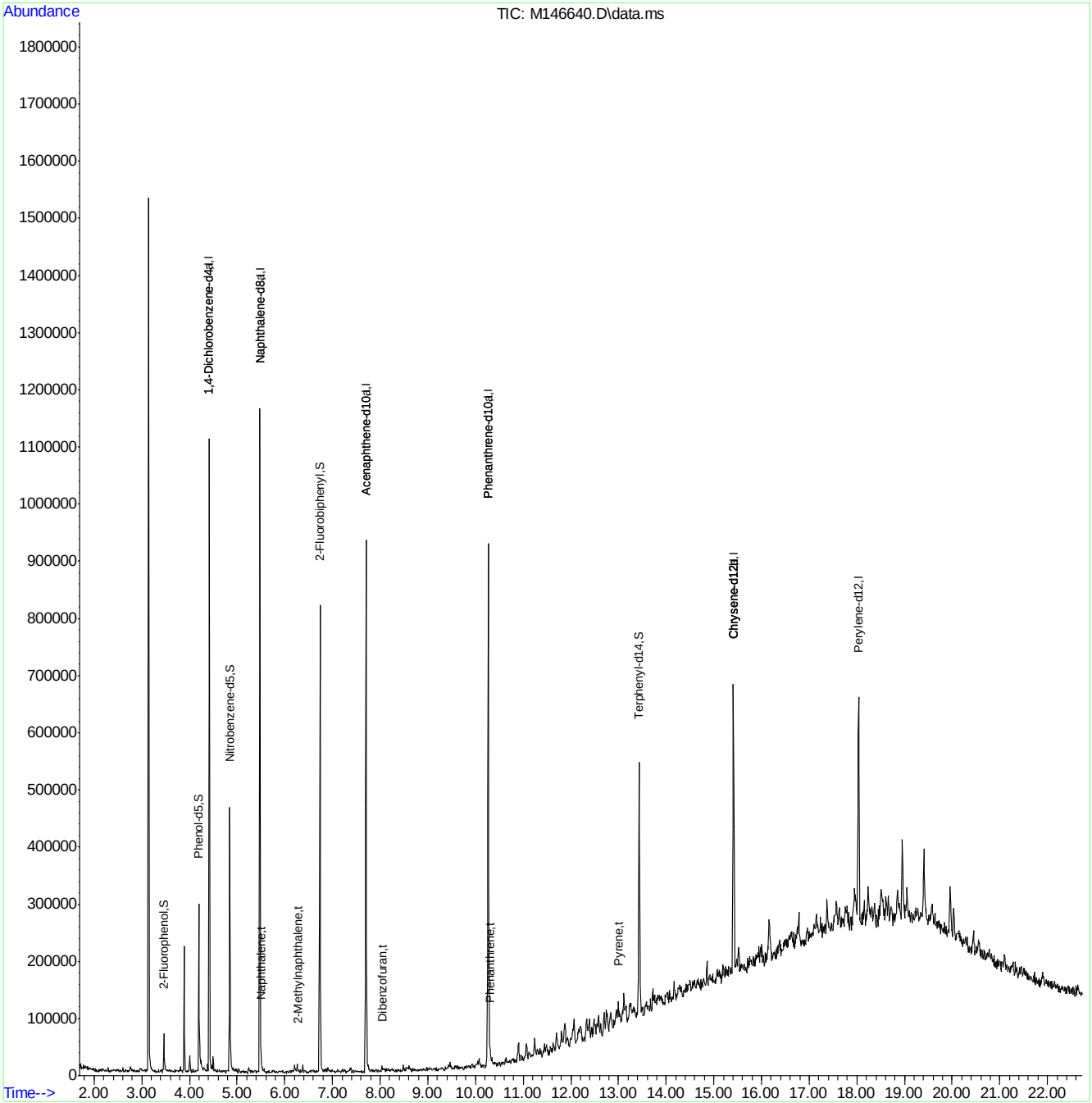
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.414	152	96434	40.00	ppm	-0.07
24) Naphthalene-d8	5.477	136	383296	40.00	ppm	-0.09
47) Acenaphthene-d10	7.704	164	205469	40.00	ppm	-0.12
69) Phenanthrene-d10	10.267	188	408944	40.00	ppm	-0.14
83) Chrysene-d12	15.411	240	223394	40.00	ppm	-0.15
91) Perylene-d12	18.039	264	202350	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4a	4.414	152	96434	40.00	ppm	-0.07
103) Acenaphthene-d10a	7.704	164	205469	40.00	ppm	-0.12
106) Chrysene-d12a	15.411	240	223394	40.00	ppm	-0.15
109) Phenanthrene-d10a	10.267	188	408944	40.00	ppm	-0.14
112) Naphthalene-d8a	5.477	136	383296	40.00	ppm	-0.09
114) Chrysene-d12b	15.411	240	223394	40.00	ppm	-0.15
System Monitoring Compounds						
5) 2-Fluorophenol	3.463	112	13655	3.90	ppm	-0.05
Spiked Amount 50.000			Recovery = 7.80%			
8) Phenol-d5	4.195	99	85542	18.59	ppm	-0.02
Spiked Amount 50.000			Recovery = 37.18%			
25) Nitrobenzene-d5	4.841	82	151947	30.95	ppm	-0.08
Spiked Amount 50.000			Recovery = 61.90%			
51) 2-Fluorobiphenyl	6.737	172	234551	30.80	ppm	-0.11
Spiked Amount 50.000			Recovery = 61.60%			
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	13.429	244	178840	35.09	ppm	-0.14
Spiked Amount 50.000			Recovery = 70.18%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
38) Naphthalene	5.498	128	11369	1.13	ppm	97
44) 2-Methylnaphthalene	6.267	141	2991	0.48	ppm #	79
62) Dibenzofuran	8.040	168	3774	0.41	ppm	86
77) Phenanthrene	10.310	178	11483	1.06	ppm	95
84) Pyrene	13.002	202	5006	0.73	ppm	72

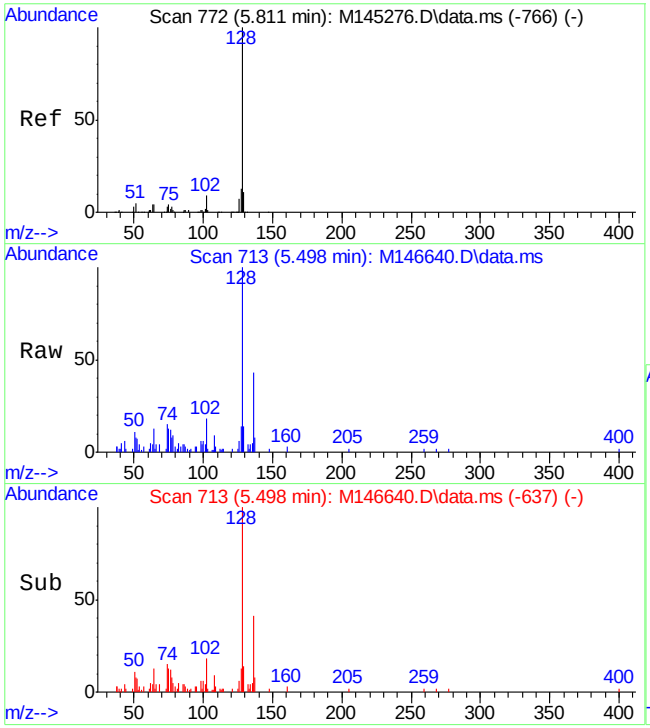
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146640.D
Acq On : 5 Jun 2018 1:12 pm
Operator : angelar
Sample : jc66384-4
Misc : op12509,em6233,15.9,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 05 15:00:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration

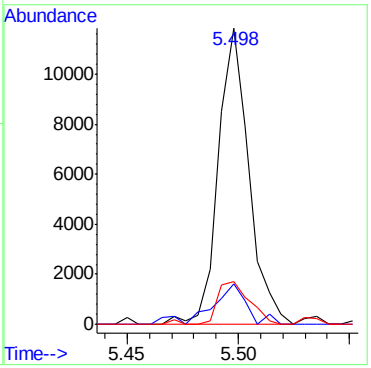


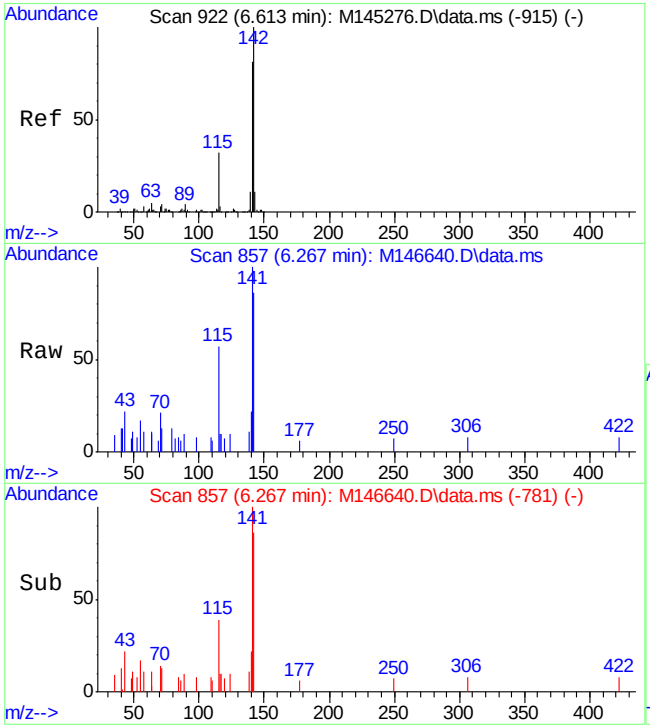


#38
Naphthalene
Concen: 1.13 ppm
RT: 5.498 min Scan# 713
Delta R.T. -0.092 min
Lab File: M146640.D
Acq: 5 Jun 2018 1:12 pm

Tgt Ion:128 Resp: 11369

Ion	Ratio	Lower	Upper
128	100		
129	12.7	0.0	41.4
127	14.5	0.0	43.8

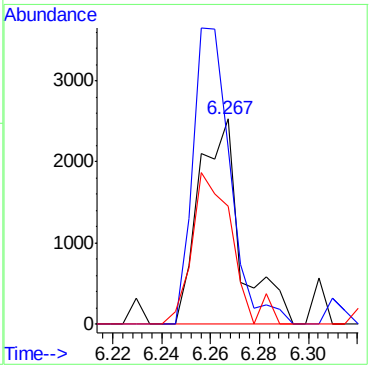


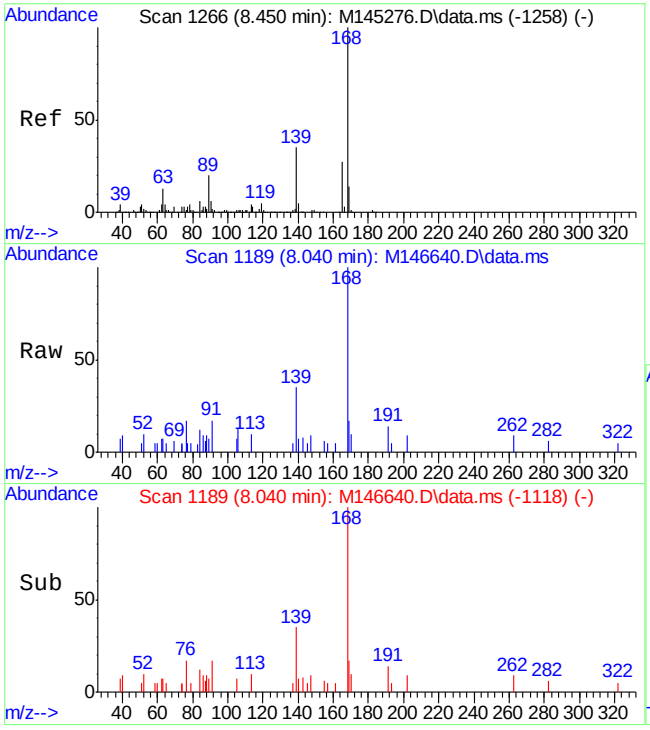


#44
2-Methylnaphthalene
Concen: 0.48 ppm
RT: 6.267 min Scan# 857
Delta R.T. -0.093 min
Lab File: M146640.D
Acq: 5 Jun 2018 1:12 pm

Tgt Ion:141 Resp: 2991

Ion	Ratio	Lower	Upper
141	100		
142	86.1	88.3	148.3#
115	57.4	24.5	84.5

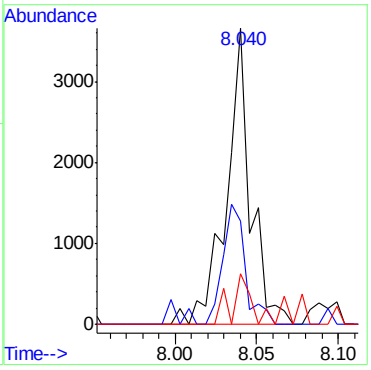


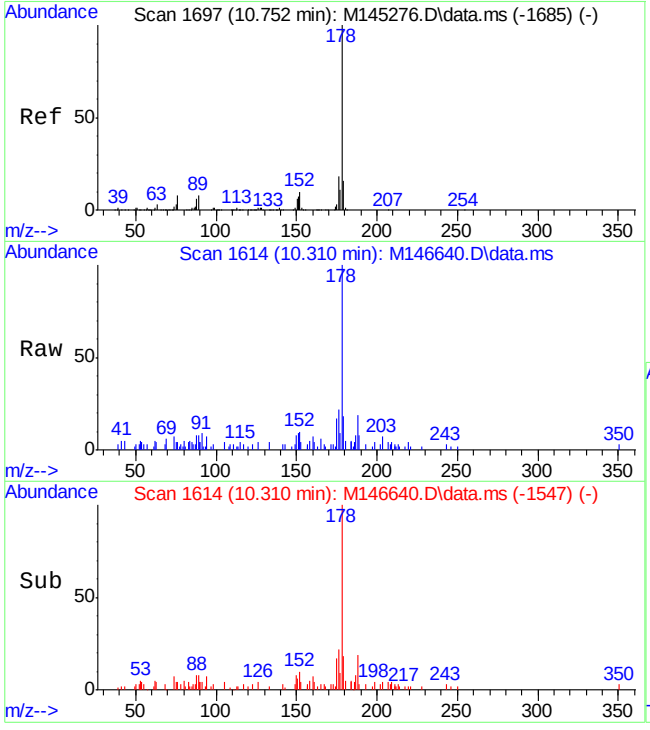


#62
Dibenzofuran
Concen: 0.41 ppm
RT: 8.040 min Scan# 1189
Delta R.T. -0.120 min
Lab File: M146640.D
Acq: 5 Jun 2018 1:12 pm

Tgt Ion:168 Resp: 3774

Ion	Ratio	Lower	Upper
168	100		
139	34.7	14.4	74.4
169	17.2	0.0	43.4

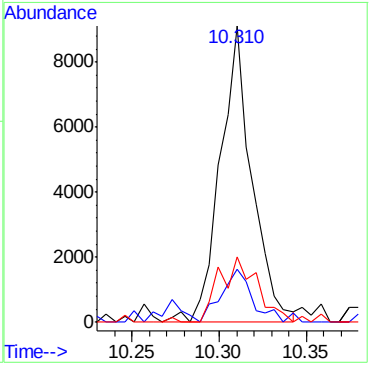


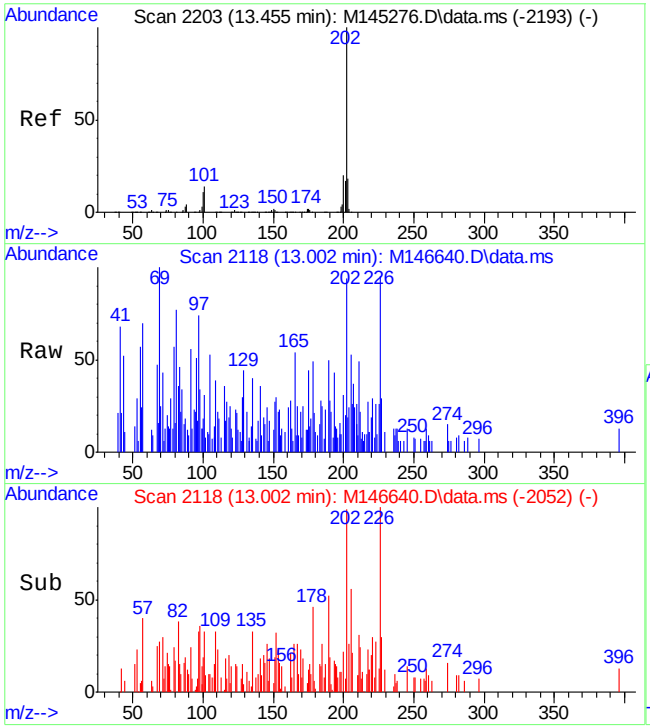


#77
Phenanthrene
Concen: 1.06 ppm
RT: 10.310 min Scan# 1614
Delta R.T. -0.141 min
Lab File: M146640.D
Acq: 5 Jun 2018 1:12 pm

Tgt Ion:178 Resp: 11483

Ion	Ratio	Lower	Upper
178	100		
179	15.6	0.0	44.8
176	22.4	0.0	48.9

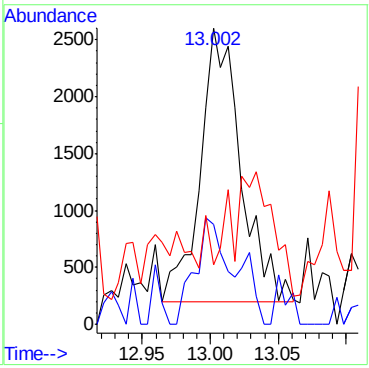




#84
Pyrene
Concen: 0.73 ppm
RT: 13.002 min Scan# 2118
Delta R.T. -0.147 min
Lab File: M146640.D
Acq: 5 Jun 2018 1:12 pm

Tgt Ion:202 Resp: 5006

Ion	Ratio	Lower	Upper
202	100		
200	26.8	0.0	49.9
203	0.0	0.0	48.3



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104457.d
Acq On : 26 May 2018 8:15 pm
Operator : georges
Sample : op12196-mb1 Inst : MS2M
Misc : op12196,e2m4641,30,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:19:34 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

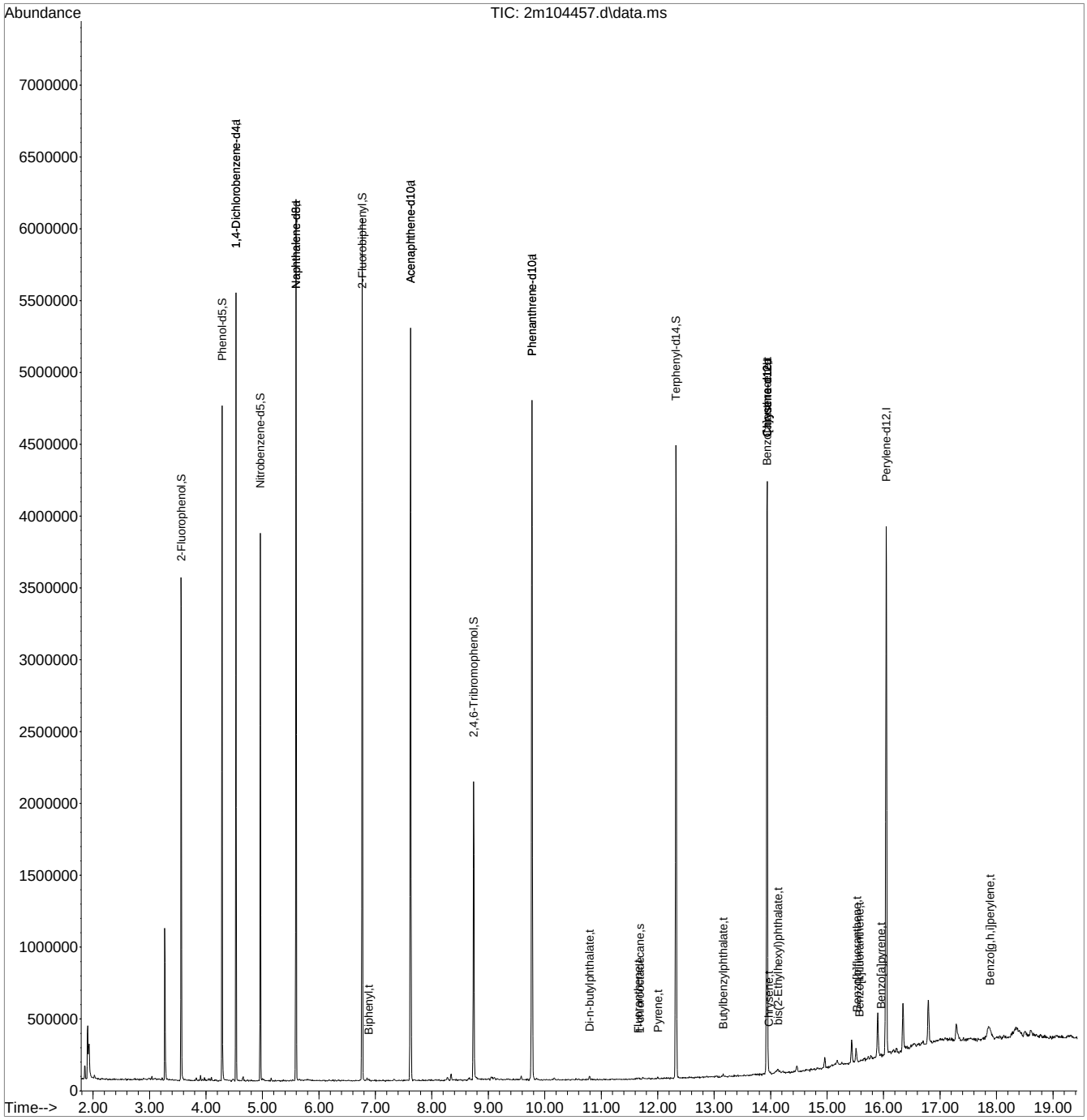
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.531	152	573453	40.00	ppm	0.00
24) Naphthalene-d8	5.595	136	2260163	40.00	ppm	-0.01
47) Acenaphthene-d10	7.622	164	1111996	40.00	ppm	-0.02
69) Phenanthrene-d10	9.772	188	2020910	40.00	ppm	-0.02
83) Chrysene-d12	13.939	240	1729888	40.00	ppm	-0.02
91) Perylene-d12	16.046	264	1673376	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.531	152	573453	40.00	ppm	0.00
103) Acenaphthene-d10a	7.622	164	1111996	40.00	ppm	-0.02
105) Chrysene-d12a	13.939	240	1729888	40.00	ppm	-0.02
108) Phenanthrene-d10a	9.772	188	2020910	40.00	ppm	-0.02
112) Naphthalene-d8a	5.595	136	2260163	40.00	ppm	-0.01
114) Chrysene-d12b	13.939	240	1729888	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.563	112	810819	43.39	ppm	0.00
Spiked Amount 50.000			Recovery = 86.78%			
8) Phenol-d5	4.285	99	1027944	43.85	ppm	0.01
Spiked Amount 50.000			Recovery = 87.70%			
25) Nitrobenzene-d5	4.964	82	903125	43.72	ppm	0.00
Spiked Amount 50.000			Recovery = 87.44%			
51) 2-Fluorobiphenyl	6.766	172	1731299	42.62	ppm	-0.03
Spiked Amount 50.000			Recovery = 85.24%			
73) 2,4,6-Tribromophenol	8.740	330	255541	41.80	ppm	-0.03
Spiked Amount 50.000			Recovery = 83.60%			
85) Terphenyl-d14	12.324	244	1752528	46.19	ppm	-0.04
Spiked Amount 50.000			Recovery = 92.38%			
107) 1-chlorooctadecane	11.682	57	1002	0.07	ppm	0.00
Spiked Amount 50.000			Recovery = 0.14%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
53) Biphenyl	6.884	154	4365	0.10	ppm	69
80) Di-n-butylphthalate	10.794	149	2859	0.04	ppm	95
81) Fluoranthene	11.655	202	2605	0.04	ppm	79
84) Pyrene	12.003	202	3040	0.05	ppm	86
86) Butylbenzylphthalate	13.158	149	4711	0.18	ppm	81
87) Benzo[a]anthracene	13.934	228	11220	0.21	ppm	74
89) Chrysene	13.971	228	4290	0.09	ppm	69
90) bis(2-Ethylhexyl)phtha...	14.132	149	6385	0.17	ppm	80
93) Benzo[b]fluoranthene	15.528	252	13922	0.27	ppm	75
94) Benzo[k]fluoranthene	15.570	252	2872	0.06	ppm	65
95) Benzo[a]pyrene	15.955	252	4129	0.09	ppm	97
100) Benzo[g,h,i]perylene	17.886	276	5757	0.14	ppm	83

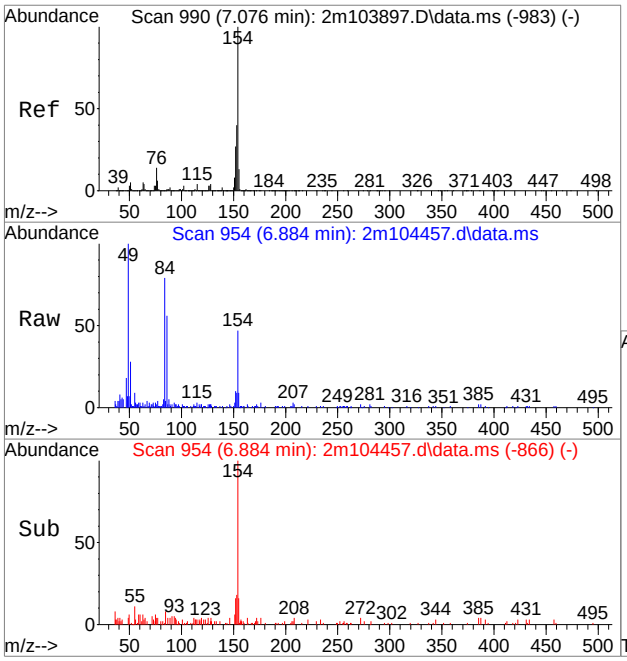
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104457.d
Acq On : 26 May 2018 8:15 pm
Operator : georges
Sample : op12196-mb1 Inst : MS2M
Misc : op12196,e2m4641,30,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:19:34 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

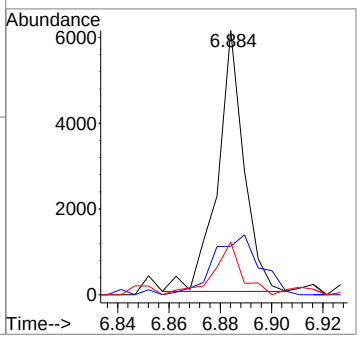


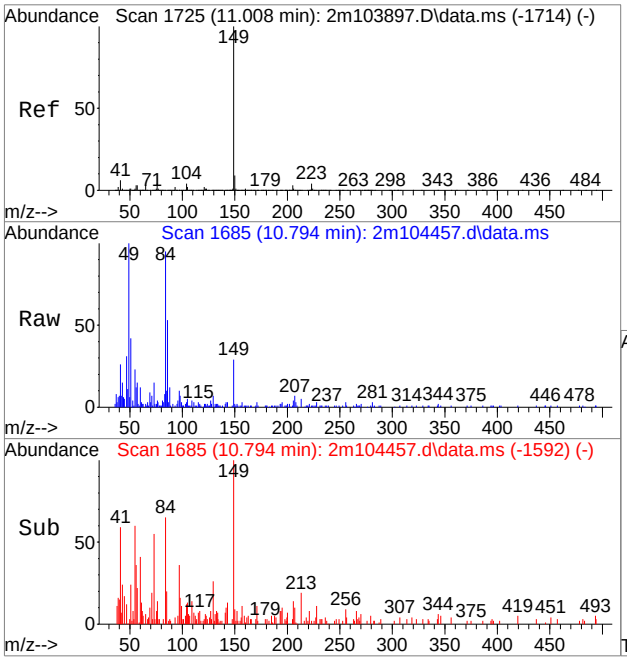


#53
Biphenyl
Concen: 0.10 ppm
RT: 6.884 min Scan# 954
Delta R.T. -0.028 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:154 Resp: 4365

Ion	Ratio	Lower	Upper
154	100		
153	18.1	9.6	69.6
155	19.4	0.0	42.7

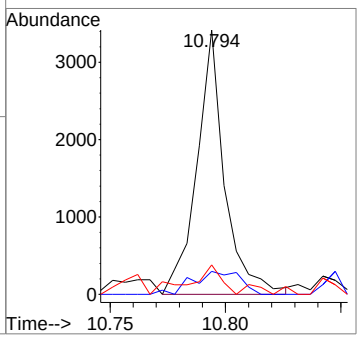


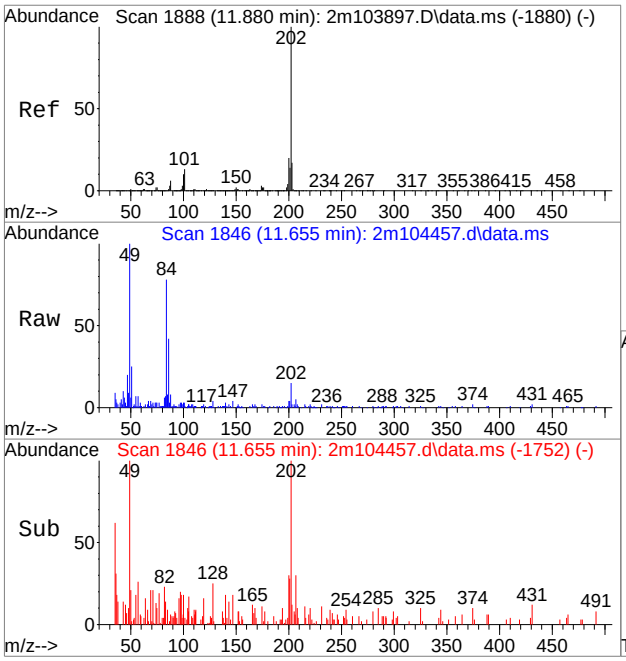


#80
Di-n-butylphthalate
Concen: 0.04 ppm
RT: 10.794 min Scan# 1685
Delta R.T. -0.002 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:149 Resp: 2859

Ion	Ratio	Lower	Upper
149	100		
150	8.0	0.0	39.0
104	7.3	0.0	34.2

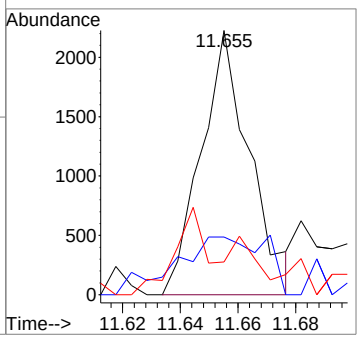


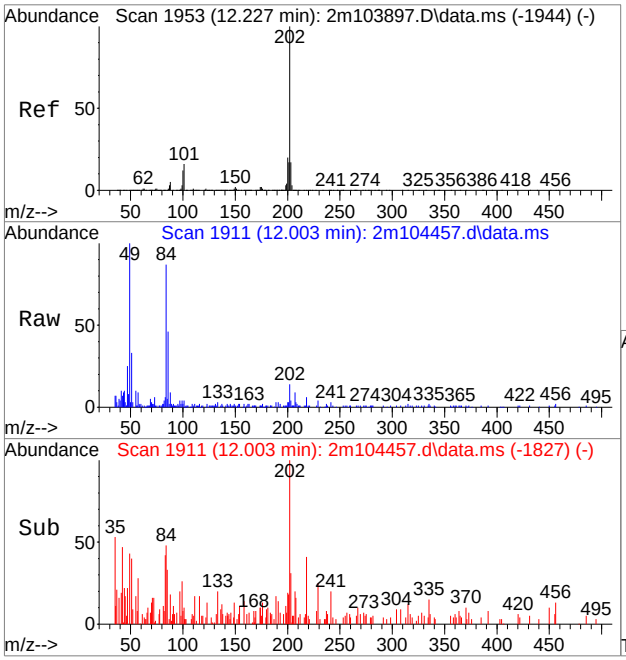


#81
Fluoranthene
Concen: 0.04 ppm
RT: 11.655 min Scan# 1846
Delta R.T. 0.005 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:202 Resp: 2605

Ion	Ratio	Lower	Upper
202	100		
101	20.1	0.0	43.1
203	6.4	0.0	47.0

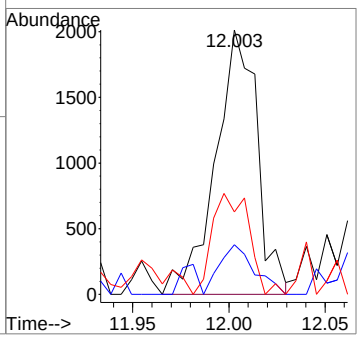


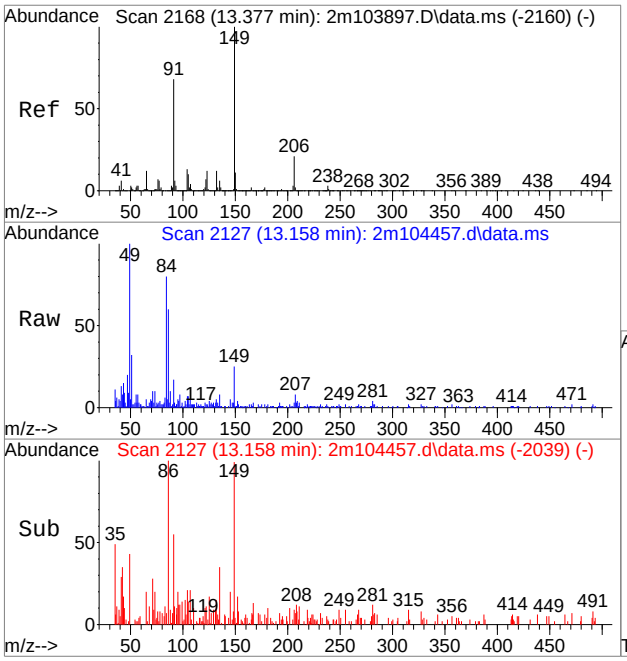


#84
Pyrene
Concen: 0.05 ppm
RT: 12.003 min Scan# 1911
Delta R.T. -0.049 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:202 Resp: 3040

Ion	Ratio	Lower	Upper
202	100		
200	19.3	0.0	50.0
203	29.9	0.0	47.3

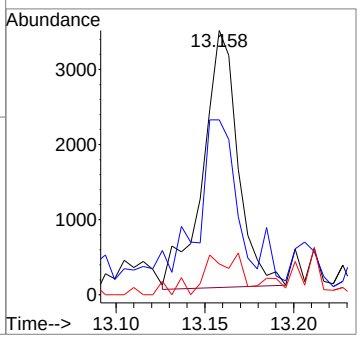


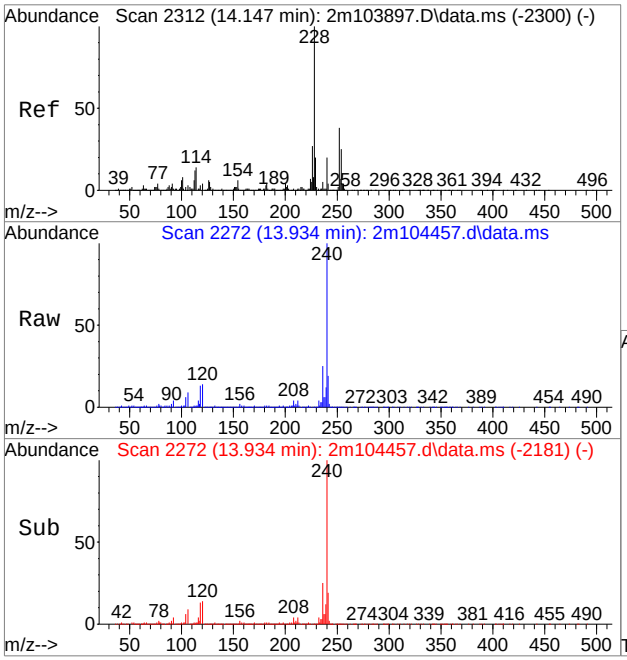


#86
Butylbenzylphthalate
Concen: 0.18 ppm
RT: 13.158 min Scan# 2127
Delta R.T. -0.027 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:149 Resp: 4711

Ion	Ratio	Lower	Upper
149	100		
91	55.0	38.1	98.1
206	7.8	0.0	50.7

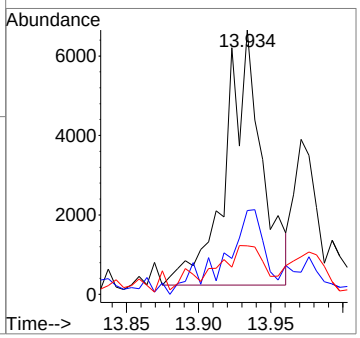


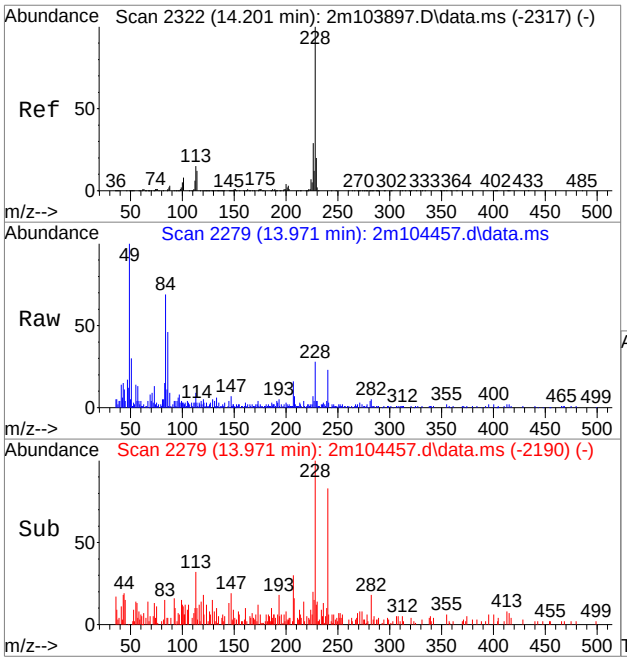


#87
Benzo[a]anthracene
Concen: 0.21 ppm
RT: 13.934 min Scan# 2272
Delta R.T. -0.011 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:228 Resp: 11220

Ion	Ratio	Lower	Upper
228	100		
229	27.8	0.0	49.8
226	10.1	0.0	56.6

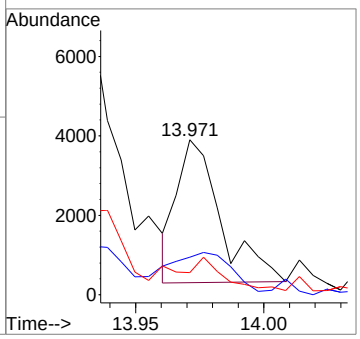


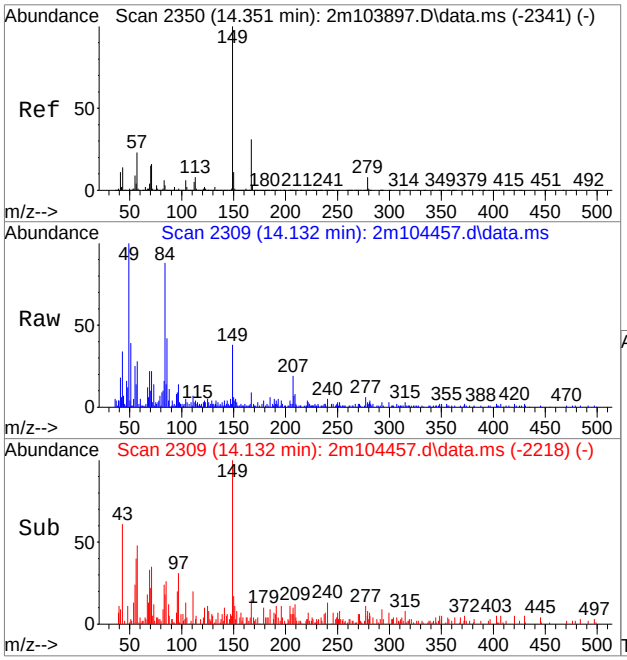


#89
Chrysene
Concen: 0.09 ppm
RT: 13.971 min Scan# 2279
Delta R.T. -0.026 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:228 Resp: 4290

Ion	Ratio	Lower	Upper
228	100		
226	13.1	0.0	58.8
229	4.9	0.0	49.8

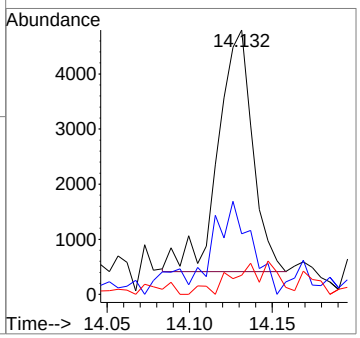


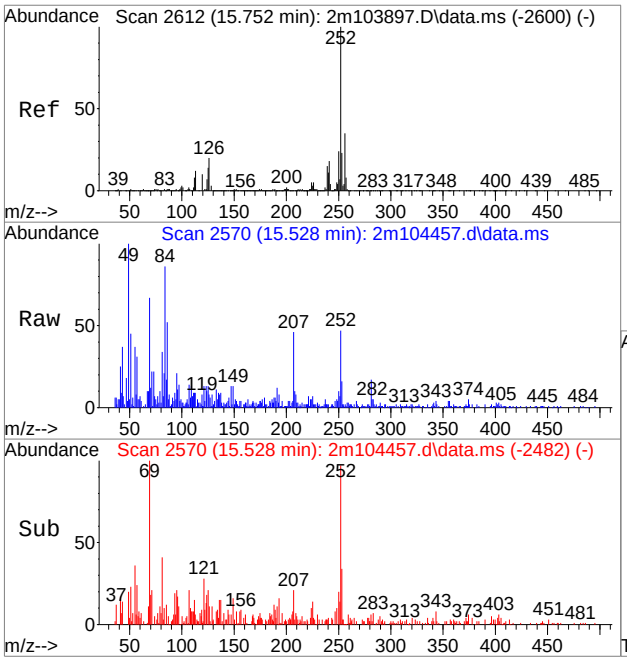


#90
bis(2-Ethylhexyl)phthalate
Concen: 0.17 ppm
RT: 14.132 min Scan# 2309
Delta R.T. -0.013 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:149 Resp: 6385

Ion	Ratio	Lower	Upper
149	100		
167	18.0	0.7	60.7
279	5.4	0.0	37.8

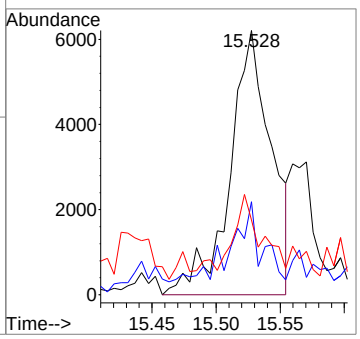


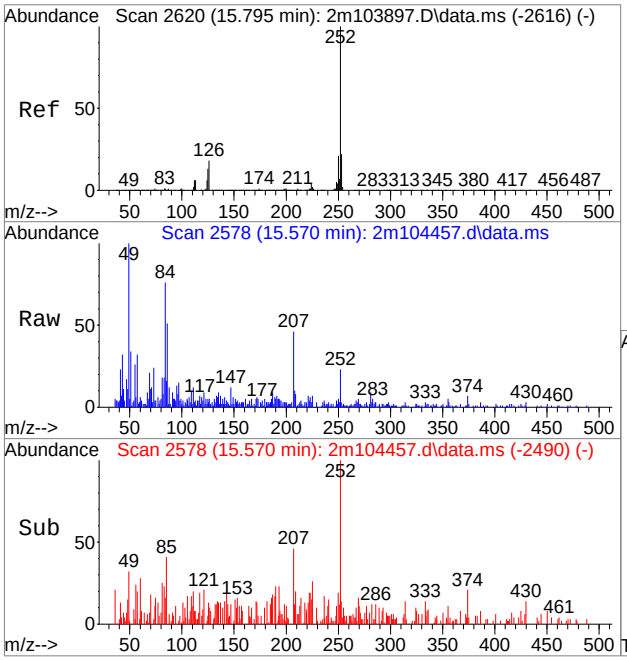


#93
Benzo[b]fluoranthene
Concen: 0.27 ppm
RT: 15.528 min Scan# 2570
Delta R.T. -0.028 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:252 Resp: 13922

Ion	Ratio	Lower	Upper
252	100		
253	36.1	0.0	52.5
125	22.8	0.0	44.3

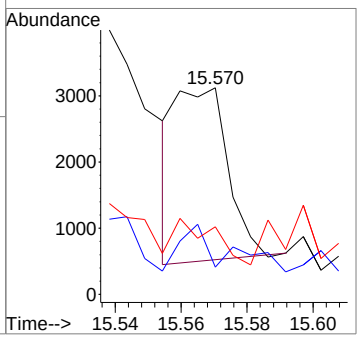


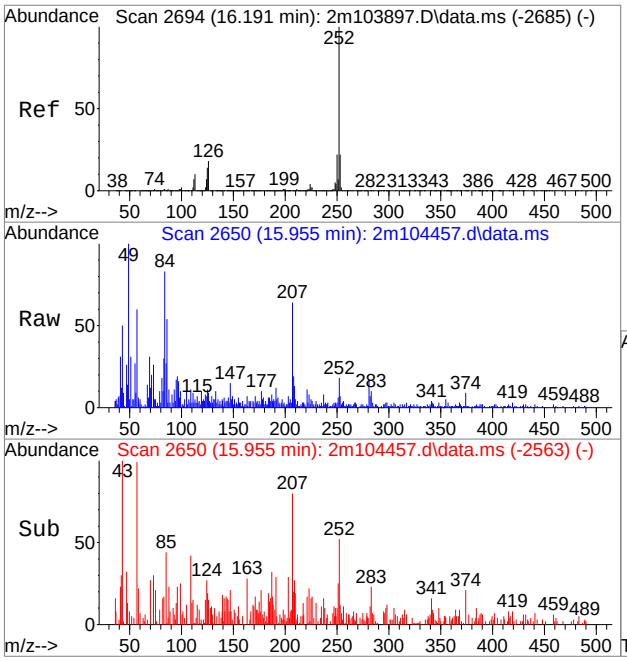


#94
Benzo[k]fluoranthene
Concen: 0.06 ppm
RT: 15.570 min Scan# 2578
Delta R.T. -0.027 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:252 Resp: 2872

Ion	Ratio	Lower	Upper
252	100		
253	0.4	0.0	51.8
125	19.6	0.0	42.9

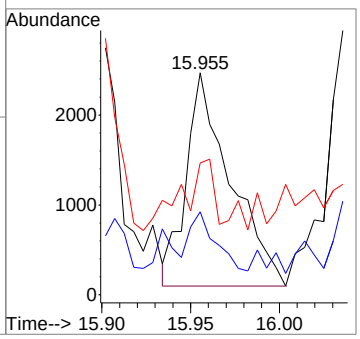


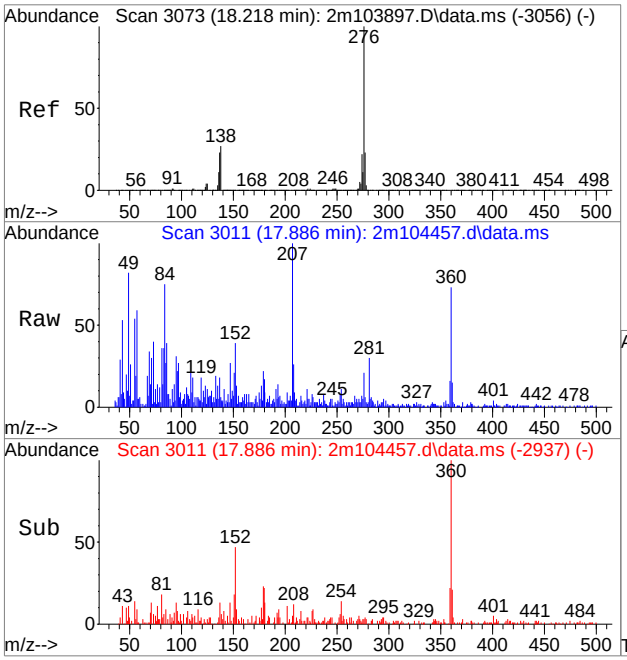


#95
Benzo[a]pyrene
Concen: 0.09 ppm
RT: 15.955 min Scan# 2650
Delta R.T. -0.033 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:252 Resp: 4129

Ion	Ratio	Lower	Upper
252	100		
253	19.5	0.0	51.6
125	14.4	0.0	44.0

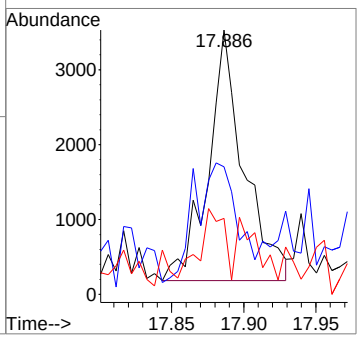




#100
Benzo[g,h,i]perylene
Concen: 0.14 ppm
RT: 17.886 min Scan# 3011
Delta R.T. -0.104 min
Lab File: 2m104457.d
Acq: 26 May 2018 8:15 pm

Tgt Ion:276 Resp: 5757

Ion	Ratio	Lower	Upper
276	100		
138	33.3	0.0	57.0
277	12.5	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4641\
Data File : 2m104458.D
Acq On : 26 May 2018 8:41 pm
Operator : georges
Sample : op12196-bs1
Misc : op12196,e2m4641,30,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 09:26:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 25 11:06:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.531	152	567846	40.00	ppm		-0.02
24) Naphthalene-d8	5.595	136	2234805	40.00	ppm		-0.03
47) Acenaphthene-d10	7.622	164	1097038	40.00	ppm		-0.03
69) Phenanthrene-d10	9.778	188	1971571	40.00	ppm		-0.03
83) Chrysene-d12	13.944	240	1653228	40.00	ppm		-0.03
91) Perylene-d12	16.046	264	1560518	40.00	ppm		-0.04
101) 1,4-Dichlorobenzene-d4a	4.531	152	567846	40.00	ppm		-0.01
103) Acenaphthene-d10a	7.622	164	1097038	40.00	ppm		-0.02
105) Chrysene-d12a	13.944	240	1653228	40.00	ppm		-0.02
108) Phenanthrene-d10a	9.778	188	1971571	40.00	ppm		-0.02
112) Naphthalene-d8a	5.595	136	2234805	40.00	ppm		-0.01
114) Chrysene-d12b	13.944	240	1653228	40.00	ppm		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	3.557	112	807886	43.66	ppm		-0.02
Spiked Amount 50.000			Recovery = 87.32%				
8) Phenol-d5	4.285	99	1007336	43.40	ppm		-0.01
Spiked Amount 50.000			Recovery = 86.80%				
25) Nitrobenzene-d5	4.964	82	887311	43.44	ppm		-0.02
Spiked Amount 50.000			Recovery = 86.88%				
51) 2-Fluorobiphenyl	6.766	172	1681900	41.97	ppm		-0.03
Spiked Amount 50.000			Recovery = 83.94%				
73) 2,4,6-Tribromophenol	8.745	330	245929	41.23	ppm		-0.03
Spiked Amount 50.000			Recovery = 82.46%				
85) Terphenyl-d14	12.324	244	1663751	45.89	ppm		-0.04
Spiked Amount 50.000			Recovery = 91.78%				
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
110) o-terphenyl	0.000	230	0	0.00	ppm		
Target Compounds							Qvalue
2) 1,4-Dioxane	2.049	88	208958	24.33	ppm		99
3) Pyridine	2.381	79	721756	32.75	ppm		96
4) N-Nitrosodimethylamine	2.343	74	428653	32.79	ppm		84
6) Indene	4.729	116	1354513	42.80	ppm		96
7) Cumene	3.937	105	1750115	37.15	ppm		98
9) Phenol	4.295	94	1037338	38.92	ppm		88
10) Aniline	4.290	93	695506	23.78	ppm	#	47
11) bis(2-Chloroethyl)ether	4.338	93	790722	42.92	ppm		99
12) 2-Chlorophenol	4.381	128	819937	41.00	ppm		92
13) Decane	4.418	43	720915	35.01	ppm		97
14) 1,3-Dichlorobenzene	4.488	146	888114	39.41	ppm		98
15) 1,4-Dichlorobenzene	4.541	146	896176	39.27	ppm		98
16) Benzyl alcohol	4.643	108	488172	39.30	ppm		95
17) 1,2-Dichlorobenzene	4.659	146	861698	40.42	ppm		99
18) Acetophenone	4.841	105	1105544	41.79	ppm		87
19) 2-Methylphenol	4.739	108	712515	40.76	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.739	45	975327	43.67	ppm	#	64
21) 3&4-Methylphenol	4.857	108	743165	40.48	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4641\
Data File : 2m104458.D
Acq On : 26 May 2018 8:41 pm
Operator : georges
Sample : op12196-bs1
Misc : op12196,e2m4641,30,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 09:26:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 25 11:06:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.846	70	584549	41.28	ppm		94
23) Hexachloroethane	4.926	201	305447	41.66	ppm		93
26) Nitrobenzene	4.980	77	871813	42.80	ppm		98
27) Quinoline	5.948	129	1521705	40.09	ppm		98
28) Isophorone	5.178	82	1508106	41.97	ppm		93
29) 2-Nitrophenol	5.253	139	466084	42.88	ppm		94
30) 2,4-Dimethylphenol	5.296	107	780802	44.85	ppm		93
31) Benzoic acid	5.419	105	708545	53.69	ppm		97
32) bis(2-Chloroethoxy)met...	5.370	93	896428	43.15	ppm		99
33) 2,4-Dichlorophenol	5.477	162	655614	40.23	ppm		98
34) 2,6-Dichlorophenol	5.681	162	659530	41.35	ppm		96
36) 1,2,4-Trichlorobenzene	5.547	180	721691	40.26	ppm		98
38) Naphthalene	5.616	128	2315579	40.02	ppm		99
39) 4-Chloroaniline	5.670	127	383579	15.58	ppm		95
40) 2,3-Dichloroaniline	6.665	161	679032	33.31	ppm		99
41) Caprolactam	6.034	55	339543	40.56	ppm		98
42) Hexachlorobutadiene	5.739	225	427927	45.72	ppm		98
43) 4-Chloro-3-methylphenol	6.194	107	683653	43.60	ppm		96
44) 2-Methylnaphthalene	6.333	141	1331923	39.53	ppm		96
45) 1-Methylnaphthalene	6.446	141	1282249	36.49	ppm		98
46) Dimethylnaphthalene	7.082	156	1403278	38.98	ppm		96
48) Hexachlorocyclopentadiene	6.526	237	858437	92.07	ppm		97
49) 2,4,6-Trichlorophenol	6.676	196	465000	43.39	ppm		94
50) 2,4,5-Trichlorophenol	6.729	196	487835	43.31	ppm		97
52) 2-Chloronaphthalene	6.906	162	1444896	43.01	ppm		98
53) Biphenyl	6.889	154	1937377	42.92	ppm		99
54) 2-Nitroaniline	7.045	65	452794	48.81	ppm		92
55) Dimethylphthalate	7.291	163	1659420	45.53	ppm		99
56) Acenaphthylene	7.430	152	2325462	43.37	ppm		99
57) 2,6-Dinitrotoluene	7.365	165	392401	48.18	ppm		98
58) 3-Nitroaniline	7.585	138	283725	29.98	ppm		93
59) Acenaphthene	7.665	153	1560599	44.35	ppm		99
60) 2,4-Dinitrophenol	7.745	184	469280	97.69	ppm		91
61) 4-Nitrophenol	7.879	109	242769	59.36	ppm	#	80
62) Dibenzofuran	7.906	168	2047977	43.28	ppm		94
63) 2,4-Dinitrotoluene	7.922	165	510746	46.98	ppm		81
64) 2,3,4,6-Tetrachlorophenol	8.104	232	380588	40.90	ppm		99
65) Diethylphthalate	8.280	149	1731459	48.00	ppm		97
66) Fluorene	8.392	166	1686457	43.98	ppm		98
67) 4-Chlorophenyl-phenyle...	8.408	204	741710	42.57	ppm		91
68) 4-Nitroaniline	8.446	138	412987	43.91	ppm		83
70) 4,6-Dinitro-2-methylph...	8.510	198	321141	46.38	ppm		89
71) n-Nitrosodiphenylamine	8.590	169	1122411	38.99	ppm		99
72) 1,2-Diphenylhydrazine	8.638	77	1724137	45.21	ppm		93
74) 4-Bromophenyl-phenylether	9.125	248	434047	39.98	ppm		87
75) Hexachlorobenzene	9.211	284	484325	39.04	ppm		87
76) Pentachlorophenol	9.526	266	308222	40.86	ppm		98
77) Phenanthrene	9.810	178	2304704	40.97	ppm		100
78) Anthracene	9.890	178	2310873	40.89	ppm		99
79) Carbazole	10.163	167	2164577	41.02	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4641\
Data File : 2m104458.D
Acq On : 26 May 2018 8:41 pm
Operator : georges
Sample : op12196-bs1
Misc : op12196,e2m4641,30,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 09:26:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 25 11:06:02 2018
Response via : Initial Calibration

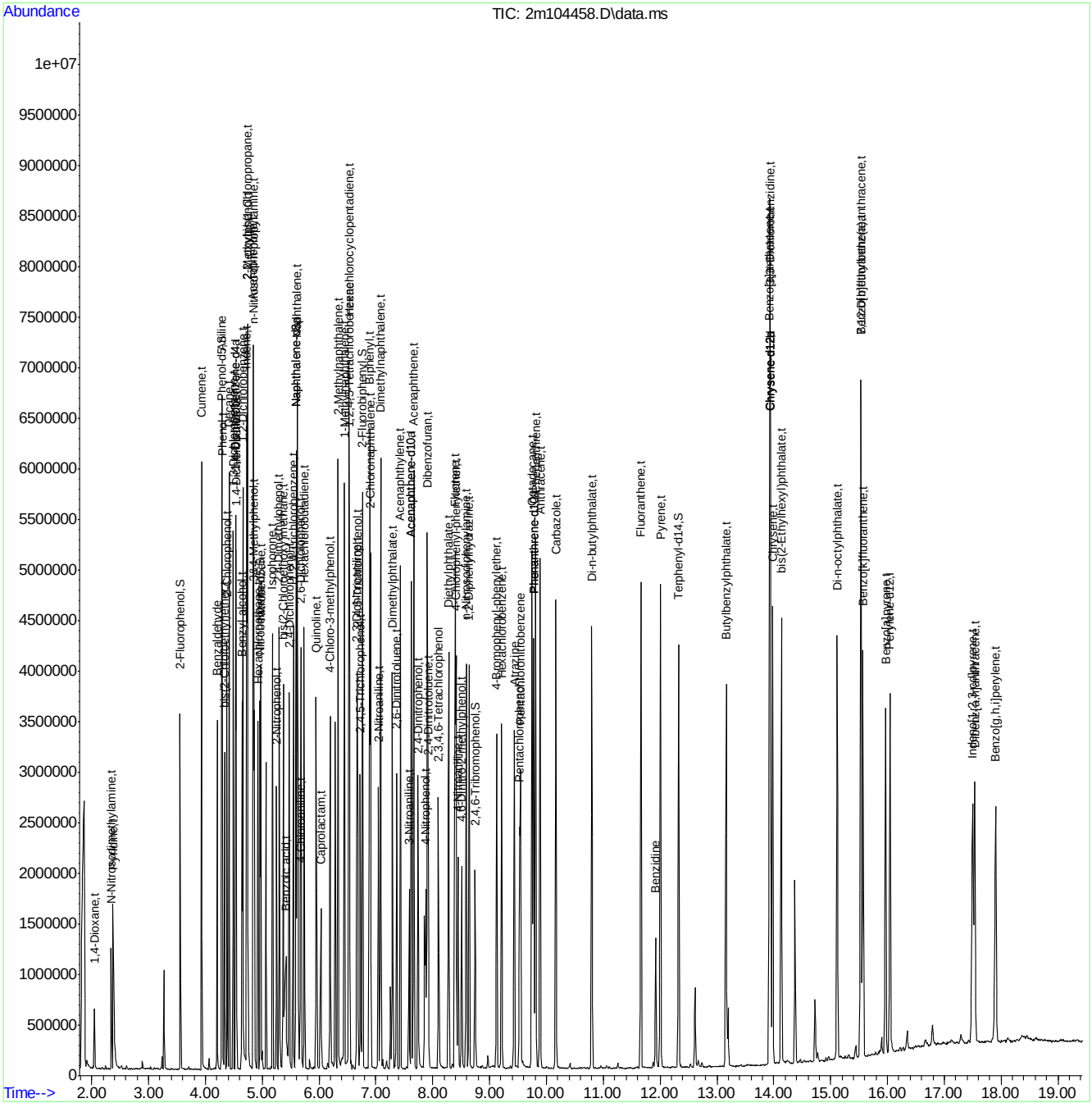
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) Di-n-butylphthalate	10.799	149	2888840	44.78	ppm	99
81) Fluoranthene	11.660	202	2362298	40.92	ppm	99
82) Octadecane	9.746	57	1109464	43.34	ppm	98
84) Pyrene	12.008	202	2377423	43.06	ppm	99
86) Butylbenzylphthalate	13.163	149	1201317	47.10	ppm	99
87) Benzo[a]anthracene	13.928	228	2011923	40.22	ppm	98
88) 3,3'-Dichlorobenzidine	13.939	252	875734	48.27	ppm	99
89) Chrysene	13.982	228	1886000	39.68	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.132	149	1648128	46.86	ppm	97
92) Di-n-octylphthalate	15.116	149	2782951	49.38	ppm	100
93) Benzo[b]fluoranthene	15.533	252	1966652	41.17	ppm	97
94) Benzo[k]fluoranthene	15.570	252	1739311	39.22	ppm	98
95) Benzo[a]pyrene	15.971	252	1662224	40.15	ppm	99
96) Indeno[1,2,3-cd]pyrene	17.501	276	1563852	37.95	ppm	96
98) Dibenz[a,h]anthracene	17.539	278	1550660	36.62	ppm	99
99) 7,12-Dimethylbenz(a)an...	15.533	256	835431	40.16	ppm	95
100) Benzo[g,h,i]perylene	17.902	276	1533908	38.63	ppm	99
102) Benzaldehyde	4.204	105	445485	32.18	ppm	100
104) 1,2,4,5-Tetrachloroben...	6.531	216	692019	42.95	ppm	98
106) Benzidine	11.923	184	605991	37.64	ppm	99
109) Atrazine	9.435	215	236787	43.90	ppm	94
111) Pentachloronitrobenzene	9.542	295	82379	39.37	ppm	91

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4641\
Data File : 2m104458.D
Acq On : 26 May 2018 8:41 pm
Operator : georges
Sample : op12196-bs1
Misc : op12196,e2m4641,30,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 30 09:26:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 25 11:06:02 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
05/30/18 11:57

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On : 27 May 2018 3:11 am
Operator : georges
Sample : op12196-ms Inst : MS2M
Misc : op12196,e2m4641,31.7,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:30:26 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.531	152	583353	40.00	ppm	0.00
24) Naphthalene-d8	5.595	136	2221853	40.00	ppm	-0.01
47) Acenaphthene-d10	7.627	164	1027982	40.00	ppm	-0.01
69) Phenanthrene-d10	9.778	188	1774051	40.00	ppm	-0.02
83) Chrysene-d12	13.950	240	1367987	40.00	ppm	-0.01
91) Perylene-d12	16.057	264	1424840	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.531	152	583353	40.00	ppm	0.00
103) Acenaphthene-d10a	7.627	164	1027982	40.00	ppm	-0.01
105) Chrysene-d12a	13.950	240	1367987	40.00	ppm	-0.01
108) Phenanthrene-d10a	9.778	188	1774051	40.00	ppm	-0.02
112) Naphthalene-d8a	5.595	136	2221853	40.00	ppm	-0.01
114) Chrysene-d12b	13.950	240	1367987	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.557	112	547944	28.83	ppm	0.00
Spiked Amount 50.000			Recovery =	57.66%		
8) Phenol-d5	4.285	99	707844	29.68	ppm	0.01
Spiked Amount 50.000			Recovery =	59.36%		
25) Nitrobenzene-d5	4.964	82	611362	30.11	ppm	0.00
Spiked Amount 50.000			Recovery =	60.22%		
51) 2-Fluorobiphenyl	6.766	172	1173052	31.24	ppm	-0.03
Spiked Amount 50.000			Recovery =	62.48%		
73) 2,4,6-Tribromophenol	8.745	330	175357	32.67	ppm	-0.03
Spiked Amount 50.000			Recovery =	65.34%		
85) Terphenyl-d14	12.329	244	1147980	38.26	ppm	-0.03
Spiked Amount 50.000			Recovery =	76.52%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.043	88	92779	10.51	ppm	92
3) Pyridine	2.380	79	292868	12.94	ppm	96
4) N-Nitrosodimethylamine	2.343	74	241118	17.96	ppm	86
6) Indene	4.729	116	587219	18.06	ppm	98
7) Cumene	3.937	105	755216	15.61	ppm	99
9) Phenol	4.295	94	696536	25.44	ppm	85
10) Aniline	4.290	93	279281	9.29	ppm #	37
11) bis(2-Chloroethyl)ether	4.338	93	434567	22.96	ppm	99
12) 2-Chlorophenol	4.386	128	560597	27.29	ppm	99
13) Decane	4.418	43	322368	15.24	ppm	95
14) 1,3-Dichlorobenzene	4.488	146	482884	20.86	ppm	95
15) 1,4-Dichlorobenzene	4.547	146	493258	21.04	ppm	99
16) Benzyl alcohol	4.643	108	197881	15.51	ppm	91
17) 1,2-Dichlorobenzene	4.659	146	473277	21.61	ppm	98
18) Acetophenone	4.841	105	476068	17.52	ppm	87
19) 2-Methylphenol	4.739	108	492790	27.44	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.739	45	533708	23.26	ppm #	57
21) 3&4-Methylphenol	4.862	108	529463	28.07	ppm	99
22) n-Nitroso-di-n-propyla...	4.846	70	322276	22.15	ppm	97
23) Hexachloroethane	4.926	201	163679	21.73	ppm	97
26) Nitrobenzene	4.980	77	470236	23.22	ppm	94
27) Quinoline	5.948	129	672735	17.82	ppm	97
28) Isophorone	5.178	82	830321	23.24	ppm	93
29) 2-Nitrophenol	5.253	139	308070	28.51	ppm	96
30) 2,4-Dimethylphenol	5.301	107	544569	31.46	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On : 27 May 2018 3:11 am
Operator : georges
Sample : op12196-ms Inst : MS2M
Misc : op12196,e2m4641,31.7,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:30:26 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31)	Benzoic acid	5.392	105	261527	19.93	ppm		96
32)	bis(2-Chloroethoxy)met...	5.370	93	488747	23.66	ppm		99
33)	2,4-Dichlorophenol	5.477	162	475486	29.34	ppm		98
34)	2,6-Dichlorophenol	5.686	162	450390	28.40	ppm		97
36)	1,2,4-Trichlorobenzene	5.547	180	382787	21.48	ppm		98
38)	Naphthalene	5.616	128	1322037	22.98	ppm		99
39)	4-Chloroaniline	5.675	127	218792	8.94	ppm		97
40)	2,3-Dichloroaniline	6.665	161	349908	17.26	ppm		98
41)	Caprolactam	6.018	55	164678	19.79	ppm		91
42)	Hexachlorobutadiene	5.745	225	226673	24.36	ppm		99
43)	4-Chloro-3-methylphenol	6.194	107	504564	32.37	ppm		95
44)	2-Methylnaphthalene	6.333	141	565214	16.87	ppm		96
45)	1-Methylnaphthalene	6.445	141	583031	16.69	ppm		97
46)	Dimethylnaphthalene	7.087	156	631741	17.65	ppm		98
48)	Hexachlorocyclopentadiene	6.526	237	265220	30.36	ppm		99
49)	2,4,6-Trichlorophenol	6.675	196	337407	33.60	ppm		94
50)	2,4,5-Trichlorophenol	6.729	196	352566	33.40	ppm		98
52)	2-Chloronaphthalene	6.905	162	812280	25.80	ppm		97
53)	Biphenyl	6.889	154	858314	20.29	ppm		99
54)	2-Nitroaniline	7.044	65	196018	22.55	ppm		94
55)	Dimethylphthalate	7.290	163	967831	28.34	ppm		99
56)	Acenaphthylene	7.435	152	1563406	31.11	ppm		99
57)	2,6-Dinitrotoluene	7.365	165	220833	28.93	ppm		96
58)	3-Nitroaniline	7.585	138	149401	16.85	ppm		96
59)	Acenaphthene	7.670	153	894486	27.13	ppm		98
60)	2,4-Dinitrophenol	7.745	184	154141	37.72	ppm		92
61)	4-Nitrophenol	7.884	109	167672	43.75	ppm	#	82
62)	Dibenzofuran	7.906	168	894612	20.17	ppm		92
63)	2,4-Dinitrotoluene	7.922	165	305409	29.98	ppm		73
64)	2,3,4,6-Tetrachlorophenol	8.103	232	272330	31.23	ppm		96
65)	Diethylphthalate	8.280	149	1029001	30.44	ppm		97
66)	Fluorene	8.392	166	985180	27.42	ppm		97
67)	4-Chlorophenyl-phenyle...	8.408	204	434652	26.62	ppm		89
68)	4-Nitroaniline	8.440	138	159054	18.05	ppm		81
70)	4,6-Dinitro-2-methylph...	8.510	198	159380	26.43	ppm		87
71)	n-Nitrosodiphenylamine	8.590	169	658889	25.44	ppm		100
72)	1,2-Diphenylhydrazine	8.638	77	999254	29.12	ppm		95
74)	4-Bromophenyl-phenylether	9.125	248	253327	25.93	ppm		88
75)	Hexachlorobenzene	9.216	284	269402	24.14	ppm		90
76)	Pentachlorophenol	9.526	266	198396	29.23	ppm		100
77)	Phenanthrene	9.815	178	2040930	40.32	ppm		99
78)	Anthracene	9.890	178	1508142	29.65	ppm		99
79)	Carbazole	10.163	167	968456	20.39	ppm		98
80)	Di-n-butylphthalate	10.799	149	1642287	28.29	ppm		98
81)	Fluoranthene	11.671	202	4393616	84.59	ppm		99
82)	Octadecane	9.746	57	517911	22.49	ppm		97
84)	Pyrene	12.013	202	4363684	95.51	ppm		99
86)	Butylbenzylphthalate	13.163	149	671587	31.82	ppm		97
87)	Benzo[a]anthracene	13.934	228	2576246	62.23	ppm		100
88)	3,3'-Dichlorobenzidine	13.944	252	638694	42.55	ppm		98
89)	Chrysene	13.987	228	2344722	59.61	ppm		98
90)	bis(2-Ethylhexyl)phtha...	14.131	149	930021	31.96	ppm		95
92)	Di-n-octylphthalate	15.116	149	1543872	30.00	ppm		98
93)	Benzo[b]fluoranthene	15.549	252	3153821	72.32	ppm		98
94)	Benzo[k]fluoranthene	15.581	252	1736270	42.88	ppm		98
95)	Benzo[a]pyrene	15.982	252	2673458	70.72	ppm		99
96)	Indeno[1,2,3-cd]pyrene	17.517	276	2337294m	62.12	ppm		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On : 27 May 2018 3:11 am
Operator : georges
Sample : op12196-ms Inst : MS2M
Misc : op12196,e2m4641,31.7,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:30:26 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

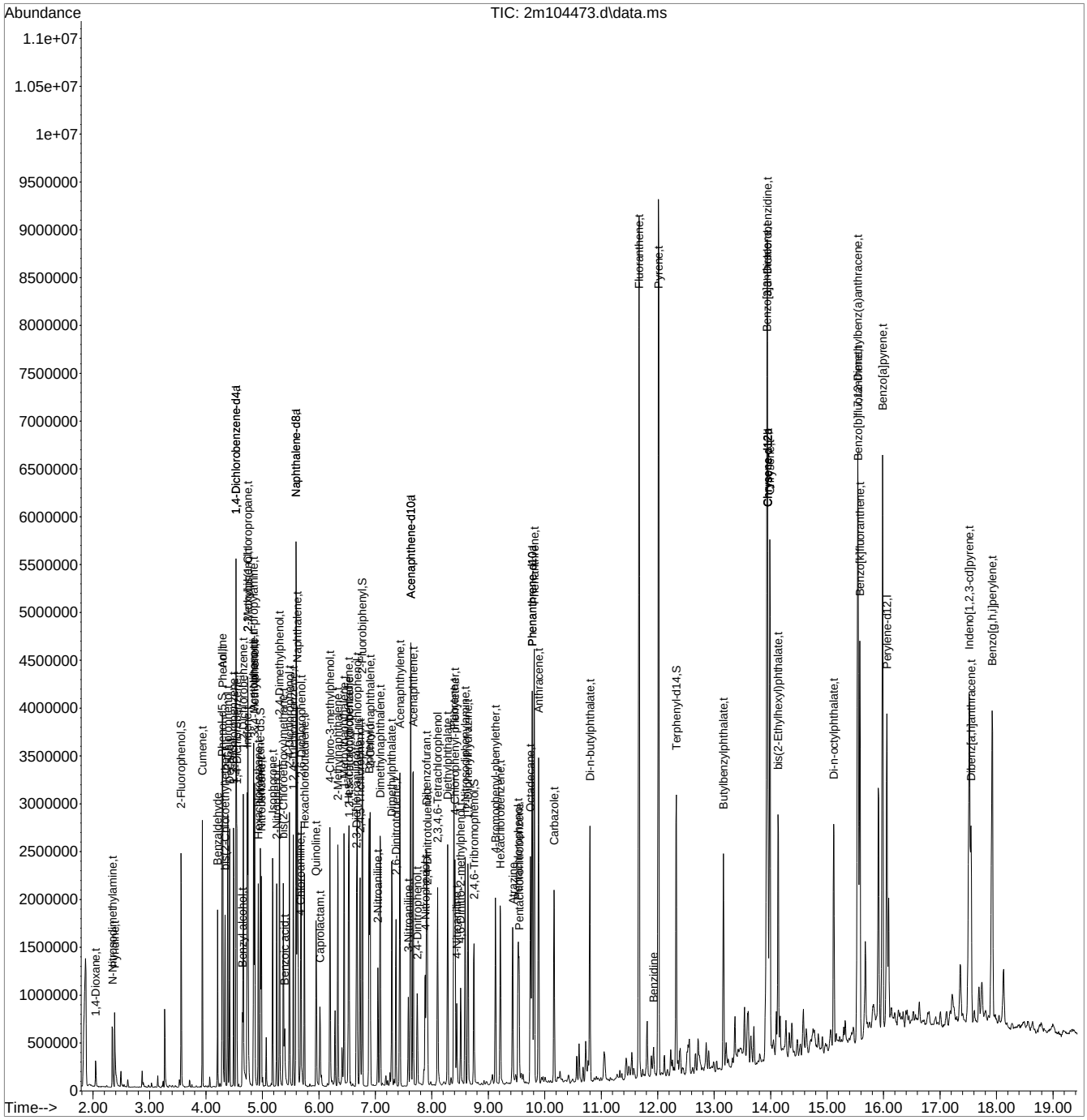
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Dibenz[a,h]anthracene	17.549	278	1210022m	31.29	ppm	
99) 7,12-Dimethylbenz(a)an...	15.543	256	283227	14.91	ppm	97
100) Benzo[g,h,i]perylene	17.924	276	2249595	62.05	ppm	100
102) Benzaldehyde	4.204	105	242349	17.04	ppm	94
104) 1,2,4,5-Tetrachloroben...	6.536	216	379377	25.13	ppm	99
106) Benzidine	11.928	184	125385	9.41	ppm	97
109) Atrazine	9.435	215	109258	22.51	ppm	94
111) Pentachloronitrobenzene	9.548	295	34525	18.34	ppm	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On : 27 May 2018 3:11 am
Operator : georges
Sample : op12196-ms Inst : MS2M
Misc : op12196,e2m4641,31.7,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:30:26 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



Manual Integration Approval Summary

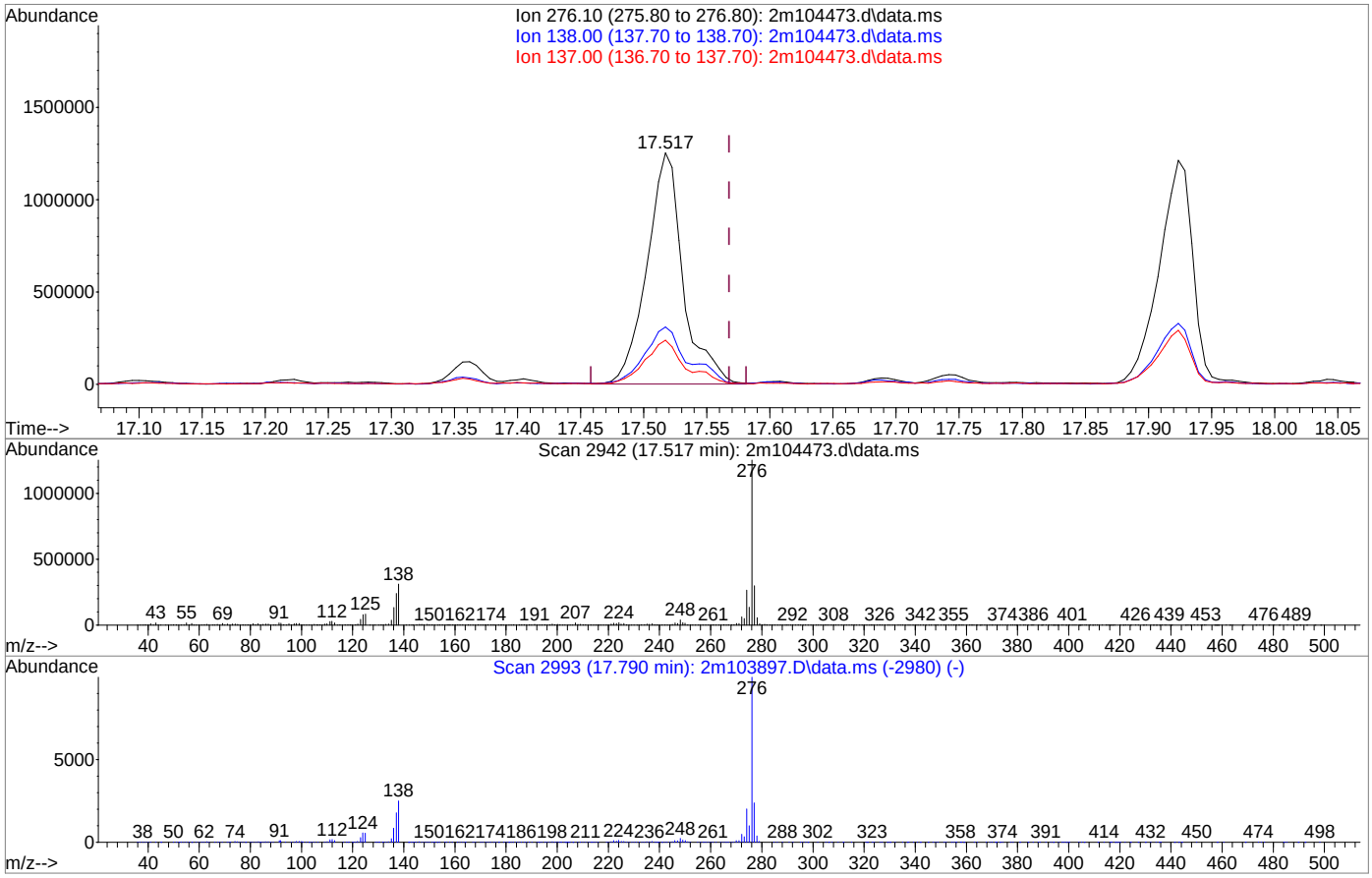
Sample Number:	OP12196-MS	**Method:**	SW846 8270D
Lab FileID:	2M104473.D	**Analyst approved:**	05/28/18 06:06 Jon Kreigmor Mamanta
Injection Time:	05/27/18 03:11	**Supervisor approved:**	05/30/18 11:57 Nancy Ma

Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		17.52	Overlapping peak
Dibenzo(a,h)anthracene	53-70-3		17.55	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On : 27 May 2018 3:11 am
Operator : georges
Sample : op12196-ms Inst : MS2M
Misc : op12196,e2m4641,31.7,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:26:34 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104473.d\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.517min (-0.051) 65.97ppm

response 2482111

Ion	Exp%	Act%
276.10	100	100
138.00	22.70	24.51
137.00	16.80	18.85
0.00	0.00	0.00

Quantitation Report (Qedit)

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Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On    : 27 May 2018   3:11 am
Operator  : georges
Sample    : op12196-ms                                Inst    : MS2M
Misc      : op12196,e2m4641,31.7,,,1,1
ALS Vial  : 20   Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:26:34 2018
Quant Title  : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration
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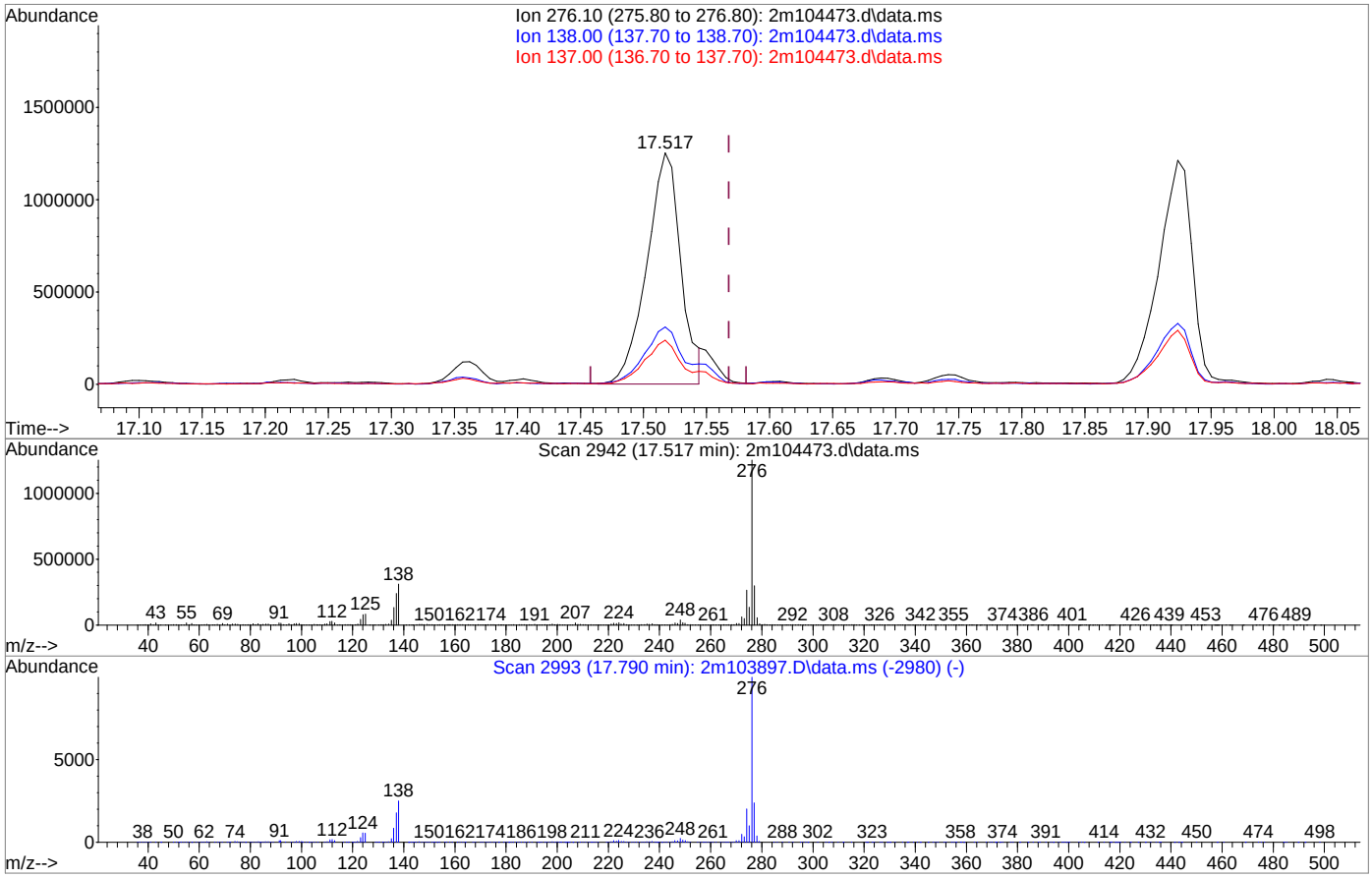


TIC: 2m104473.d\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.517min (-0.051) 62.12ppm m

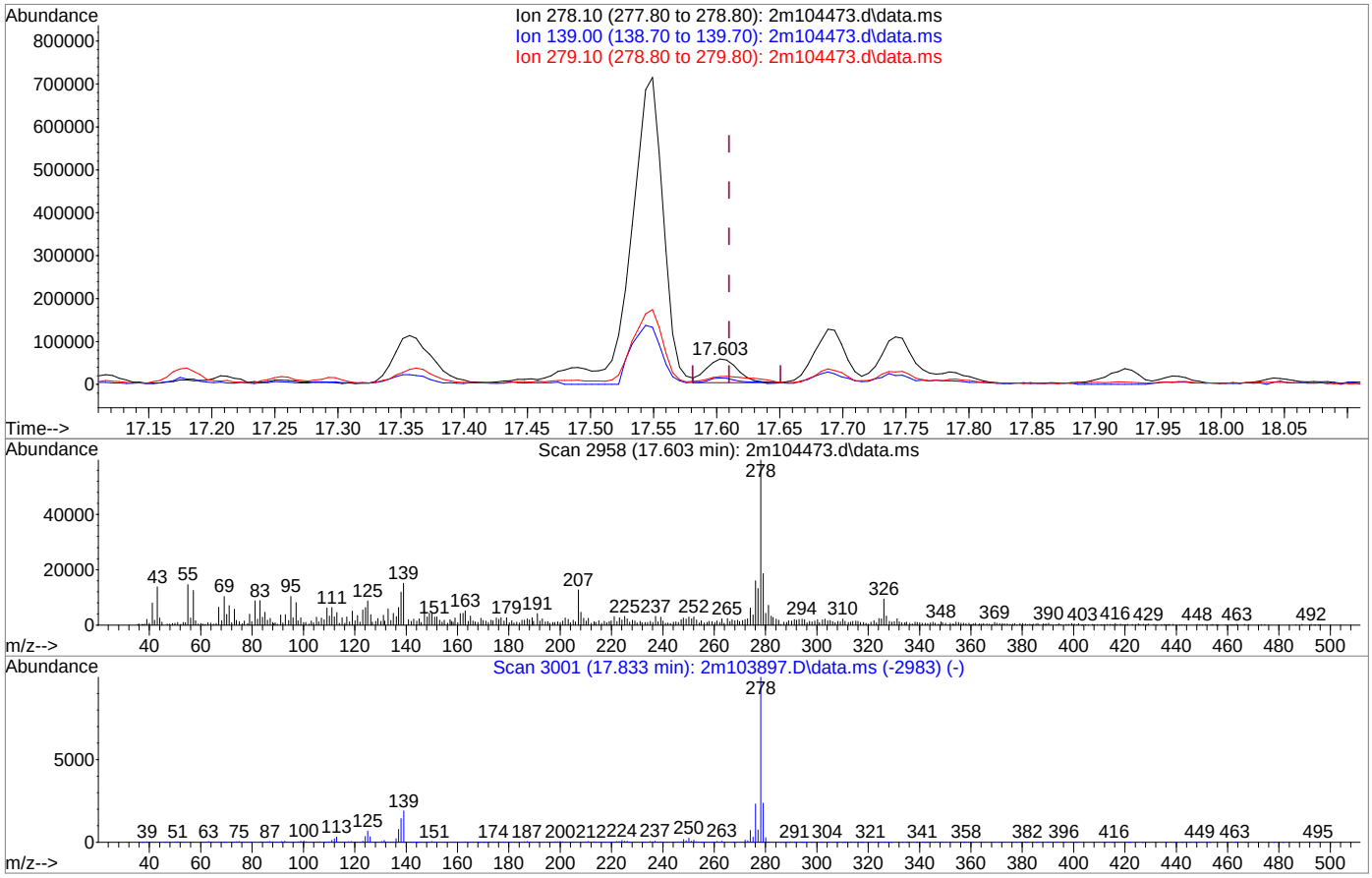
response 2337294

Ion	Exp%	Act%
276.10	100	100
138.00	22.70	24.80
137.00	16.80	19.11
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On : 27 May 2018 3:11 am
Operator : georges
Sample : op12196-ms Inst : MS2M
Misc : op12196,e2m4641,31.7,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:26:34 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104473.d\data.ms

(98) Dibenz[a,h]anthracene (t)

17.603min (-0.007) 2.43ppm

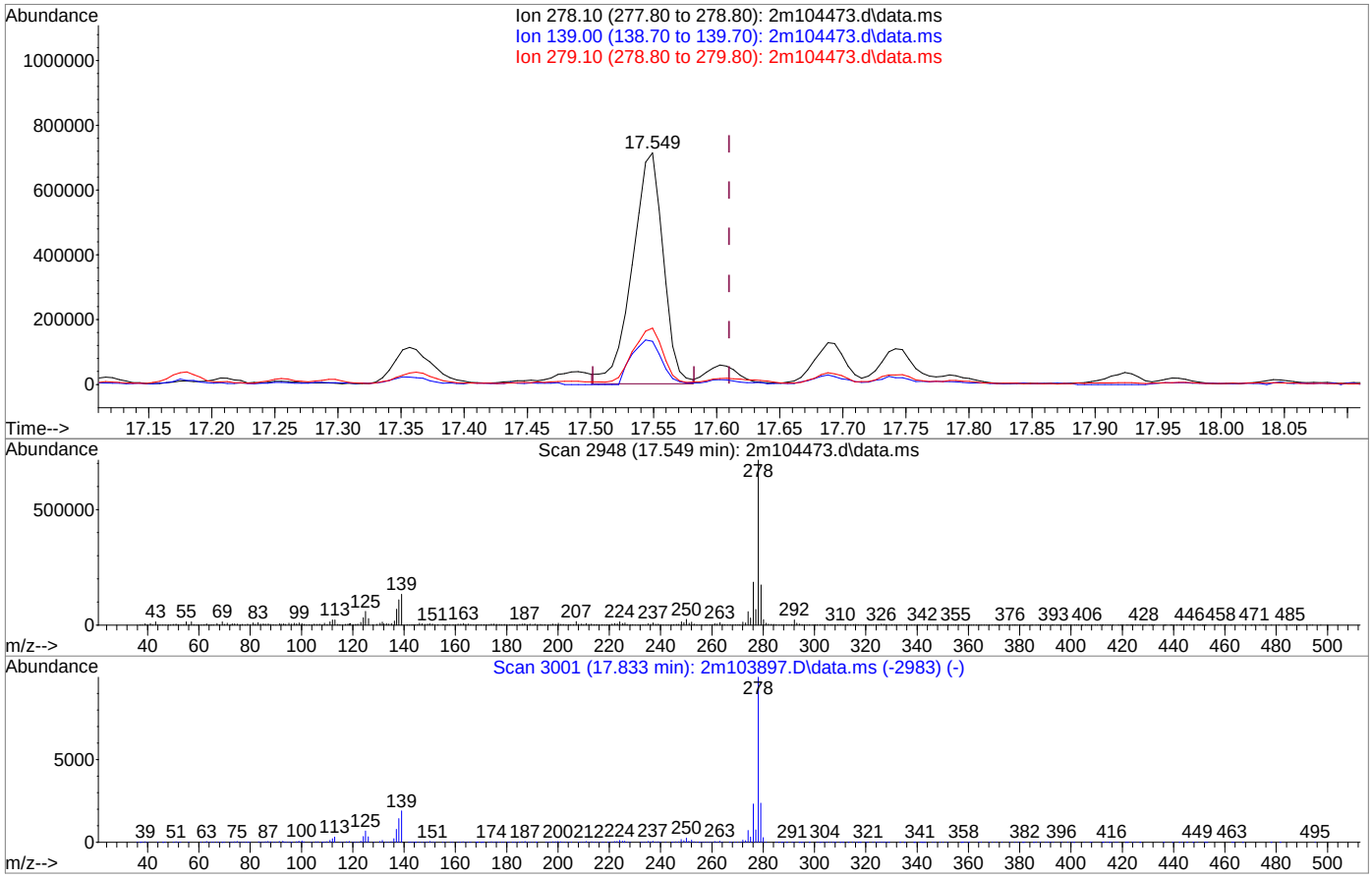
response 93949

Ion	Exp%	Act%
278.10	100	100
139.00	18.90	21.50
279.10	23.60	25.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104473.d
Acq On : 27 May 2018 3:11 am
Operator : georges
Sample : op12196-ms Inst : MS2M
Misc : op12196,e2m4641,31.7,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:26:34 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104473.d\data.ms

(98) Dibenz[a,h]anthracene (t)

17.549min (-0.061) 31.29ppm m

response 1210022

Ion	Exp%	Act%
278.10	100	100
139.00	18.90	18.65
279.10	23.60	24.33
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
05/30/18 11:57

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:37:01 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.531	152	563155	40.00	ppm	0.00
24) Naphthalene-d8	5.595	136	2114055	40.00	ppm	-0.01
47) Acenaphthene-d10	7.628	164	995358	40.00	ppm	-0.01
69) Phenanthrene-d10	9.778	188	1684036	40.00	ppm	-0.02
83) Chrysene-d12	13.950	240	1328223	40.00	ppm	-0.01
91) Perylene-d12	16.062	264	1376905	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.531	152	563155	40.00	ppm	0.00
103) Acenaphthene-d10a	7.628	164	995358	40.00	ppm	-0.01
105) Chrysene-d12a	13.950	240	1328223	40.00	ppm	-0.01
108) Phenanthrene-d10a	9.778	188	1684036	40.00	ppm	-0.02
112) Naphthalene-d8a	5.595	136	2114055	40.00	ppm	-0.01
114) Chrysene-d12b	13.950	240	1328223	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.557	112	630806	34.38	ppm	0.00
Spiked Amount 50.000			Recovery =	68.76%		
8) Phenol-d5	4.290	99	780703	33.91	ppm	0.02
Spiked Amount 50.000			Recovery =	67.82%		
25) Nitrobenzene-d5	4.964	82	685760	35.49	ppm	0.00
Spiked Amount 50.000			Recovery =	70.98%		
51) 2-Fluorobiphenyl	6.766	172	1283683	35.30	ppm	-0.03
Spiked Amount 50.000			Recovery =	70.60%		
73) 2,4,6-Tribromophenol	8.745	330	171126	33.59	ppm	-0.03
Spiked Amount 50.000			Recovery =	67.18%		
85) Terphenyl-d14	12.329	244	1129293	38.77	ppm	-0.03
Spiked Amount 50.000			Recovery =	77.54%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.044	88	155975	18.31	ppm	94
3) Pyridine	2.375	79	503810	23.05	ppm	90
4) N-Nitrosodimethylamine	2.343	74	329651	25.43	ppm	89
6) Indene	4.729	116	932600	29.71	ppm	97
7) Cumene	3.937	105	1246339	26.68	ppm	98
9) Phenol	4.295	94	809546	30.63	ppm	83
10) Aniline	4.290	93	408138	14.07	ppm	59
11) bis(2-Chloroethyl)ether	4.338	93	612070	33.50	ppm	98
12) 2-Chlorophenol	4.386	128	639577	32.25	ppm	99
13) Decane	4.418	43	517545	25.34	ppm	95
14) 1,3-Dichlorobenzene	4.488	146	674460	30.18	ppm	98
15) 1,4-Dichlorobenzene	4.547	146	685266	30.28	ppm	100
16) Benzyl alcohol	4.643	108	329809	26.77	ppm	92
17) 1,2-Dichlorobenzene	4.659	146	649330	30.72	ppm	98
18) Acetophenone	4.841	105	769967	29.35	ppm	88
19) 2-Methylphenol	4.745	108	562355	32.44	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.739	45	734397	33.15	ppm #	72
21) 3&4-Methylphenol	4.862	108	592356	32.53	ppm	100
22) n-Nitroso-di-n-propyla...	4.846	70	456245	32.49	ppm	96
23) Hexachloroethane	4.927	201	227447	31.28	ppm	98
26) Nitrobenzene	4.980	77	656366	34.06	ppm	95
27) Quinoline	5.948	129	1032233	28.74	ppm	97
28) Isophorone	5.178	82	1133268	33.34	ppm	92
29) 2-Nitrophenol	5.253	139	357134	34.74	ppm	94
30) 2,4-Dimethylphenol	5.301	107	601694	36.53	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:37:01 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Benzoic acid	5.397	105	286037	22.91	ppm		92
32) bis(2-Chloroethoxy)met...	5.370	93	674711	34.33	ppm		99
33) 2,4-Dichlorophenol	5.477	162	510061	33.08	ppm		98
34) 2,6-Dichlorophenol	5.686	162	501741	33.25	ppm		98
36) 1,2,4-Trichlorobenzene	5.547	180	531777	31.36	ppm		98
38) Naphthalene	5.617	128	1830682	33.45	ppm		98
39) 4-Chloroaniline	5.675	127	269771	11.59	ppm		99
40) 2,3-Dichloroaniline	6.665	161	479776	24.88	ppm		96
41) Caprolactam	6.023	55	229796	29.02	ppm		97
42) Hexachlorobutadiene	5.745	225	319730	36.11	ppm		100
43) 4-Chloro-3-methylphenol	6.194	107	511476	34.49	ppm		95
44) 2-Methylnaphthalene	6.339	141	902853	28.32	ppm		98
45) 1-Methylnaphthalene	6.446	141	900612	27.10	ppm		96
46) Dimethylnaphthalene	7.087	156	968179	28.43	ppm		97
48) Hexachlorocyclopentadiene	6.526	237	398996	47.17	ppm		98
49) 2,4,6-Trichlorophenol	6.676	196	339727	34.94	ppm		98
50) 2,4,5-Trichlorophenol	6.729	196	352758	34.51	ppm		98
52) 2-Chloronaphthalene	6.911	162	1055312	34.62	ppm		99
53) Biphenyl	6.890	154	1296724	31.66	ppm		98
54) 2-Nitroaniline	7.045	65	291148	34.59	ppm		89
55) Dimethylphthalate	7.291	163	1199816	36.28	ppm		99
56) Acenaphthylene	7.435	152	2115469	43.48	ppm		99
57) 2,6-Dinitrotoluene	7.366	165	274727	37.18	ppm		94
58) 3-Nitroaniline	7.585	138	215476	25.09	ppm		98
59) Acenaphthene	7.670	153	1162722	36.42	ppm		99
60) 2,4-Dinitrophenol	7.745	184	138493	35.27	ppm		92
61) 4-Nitrophenol	7.884	109	177462	47.83	ppm	#	83
62) Dibenzofuran	7.906	168	1429581	33.29	ppm		93
63) 2,4-Dinitrotoluene	7.922	165	364042	36.90	ppm		80
64) 2,3,4,6-Tetrachlorophenol	8.104	232	267220	31.65	ppm		92
65) Diethylphthalate	8.280	149	1229678	37.57	ppm		99
66) Fluorene	8.392	166	1283914	36.90	ppm		99
67) 4-Chlorophenyl-phenyle...	8.414	204	535850	33.89	ppm		93
68) 4-Nitroaniline	8.446	138	223934	26.24	ppm		80
70) 4,6-Dinitro-2-methylph...	8.515	198	151931	26.53	ppm		92
71) n-Nitrosodiphenylamine	8.590	169	793489	32.27	ppm		96
72) 1,2-Diphenylhydrazine	8.644	77	1234160	37.89	ppm		98
74) 4-Bromophenyl-phenylether	9.131	248	302488	32.62	ppm		92
75) Hexachlorobenzene	9.216	284	335393	31.65	ppm		90
76) Pentachlorophenol	9.532	266	201594	31.29	ppm		98
77) Phenanthrene	9.815	178	4261623	88.69	ppm		100
78) Anthracene	9.890	178	2157030	44.68	ppm		99
79) Carbazole	10.168	167	1450775	32.18	ppm		99
80) Di-n-butylphthalate	10.799	149	1953375	35.45	ppm		99
81) Fluoranthene	11.677	202	7259204	147.23	ppm		100
82) Octadecane	9.746	57	707846	32.38	ppm		98
84) Pyrene	12.024	202	6883926	155.19	ppm		98
86) Butylbenzylphthalate	13.163	149	808911	39.47	ppm		97
87) Benzo[a]anthracene	13.939	228	3719574	92.54	ppm		99
88) 3,3'-Dichlorobenzidine	13.944	252	687341	47.16	ppm		99
89) Chrysene	13.993	228	3320272	86.94	ppm		99
90) bis(2-Ethylhexyl)phtha...	14.137	149	1115332	39.47	ppm		95
92) Di-n-octylphthalate	15.121	149	1850661	37.22	ppm		99
93) Benzo[b]fluoranthene	15.554	252	4465580	105.96	ppm		98
94) Benzo[k]fluoranthene	15.586	252	2269527	58.00	ppm		99
95) Benzo[a]pyrene	15.993	252	3736243	102.27	ppm		98
96) Indeno[1,2,3-cd]pyrene	17.528	276	3132836m	86.16	ppm		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:37:01 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

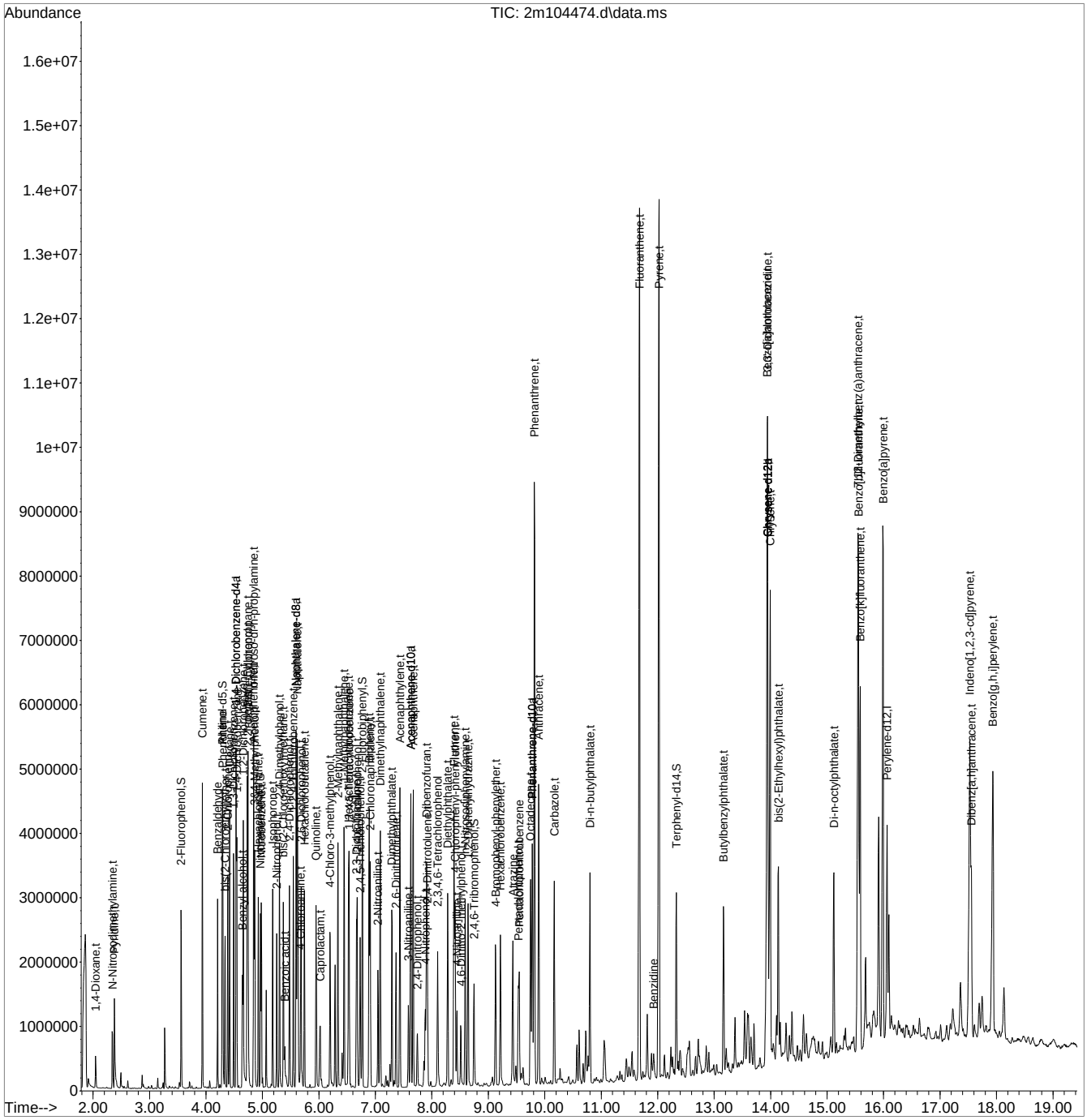
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Dibenz[a,h]anthracene	17.555	278	1517334m	40.61	ppm	
99) 7,12-Dimethylbenz(a)an...	15.549	256	393560	21.44	ppm	94
100) Benzo[g,h,i]perylene	17.934	276	3029163	86.47	ppm	99
102) Benzaldehyde	4.205	105	371932	27.09	ppm	93
104) 1,2,4,5-Tetrachloroben...	6.537	216	508590	34.79	ppm	99
106) Benzidine	11.928	184	148097m	11.45	ppm	
109) Atrazine	9.435	215	150363	32.64	ppm	94
111) Pentachloronitrobenzene	9.548	295	49219	27.54	ppm	87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:37:01 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



Manual Integration Approval Summary

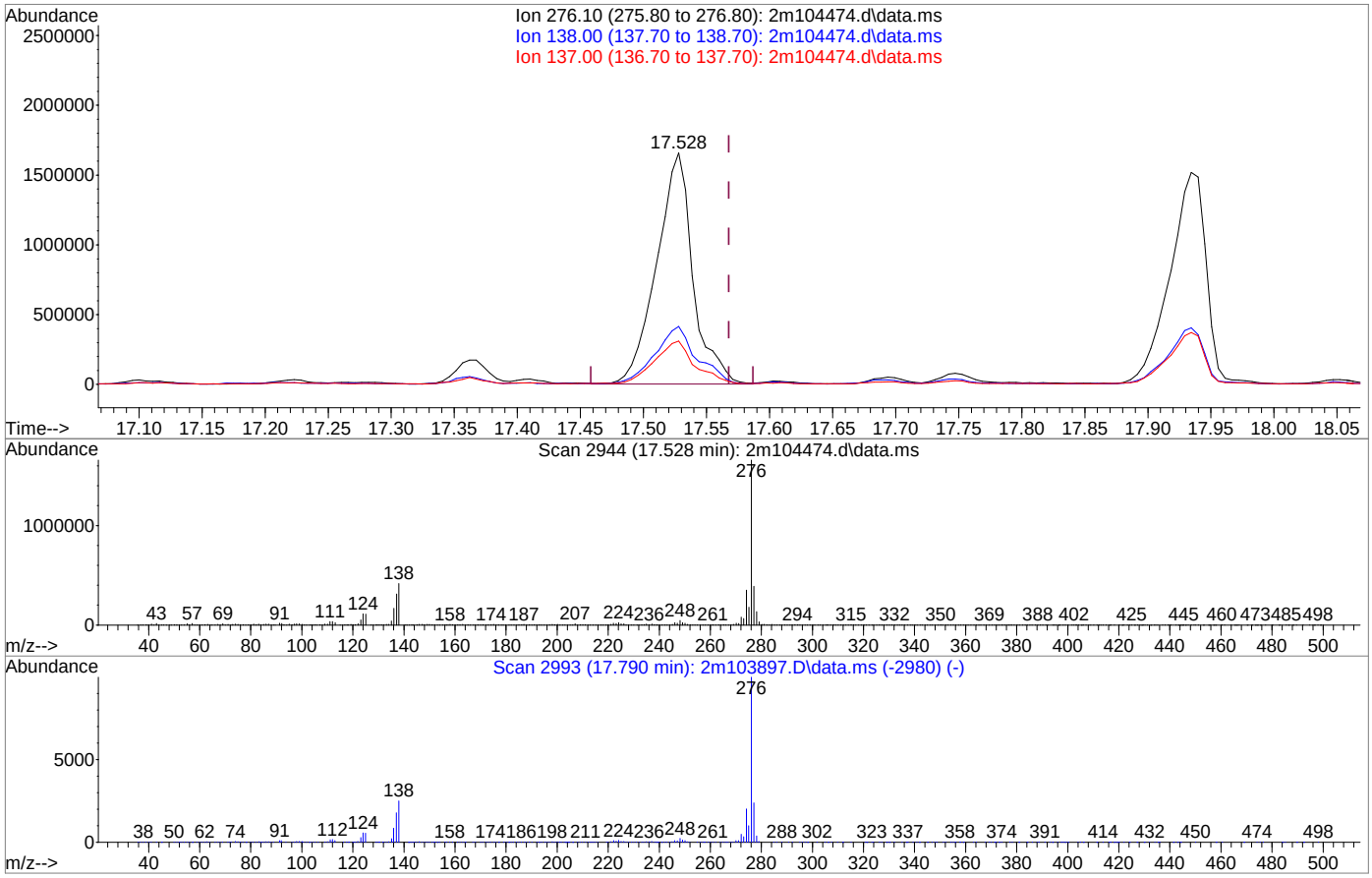
Sample Number: OP12196-MSD
Lab FileID: 2M104474.D
Injection Time: 05/27/18 03:37
Method: SW846 8270D
Analyst approved: 05/28/18 06:06 Jon Kreigmor Mamanta
Supervisor approved: 05/30/18 11:57 Nancy Ma

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzidine	92-87-5		11.93	Poor instrument integration
Indeno(1,2,3-cd)pyrene	193-39-5		17.53	Overlapping peak
Dibenzo(a,h)anthracene	53-70-3		17.55	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:31:21 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104474.d\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.528min (-0.040) 91.04ppm

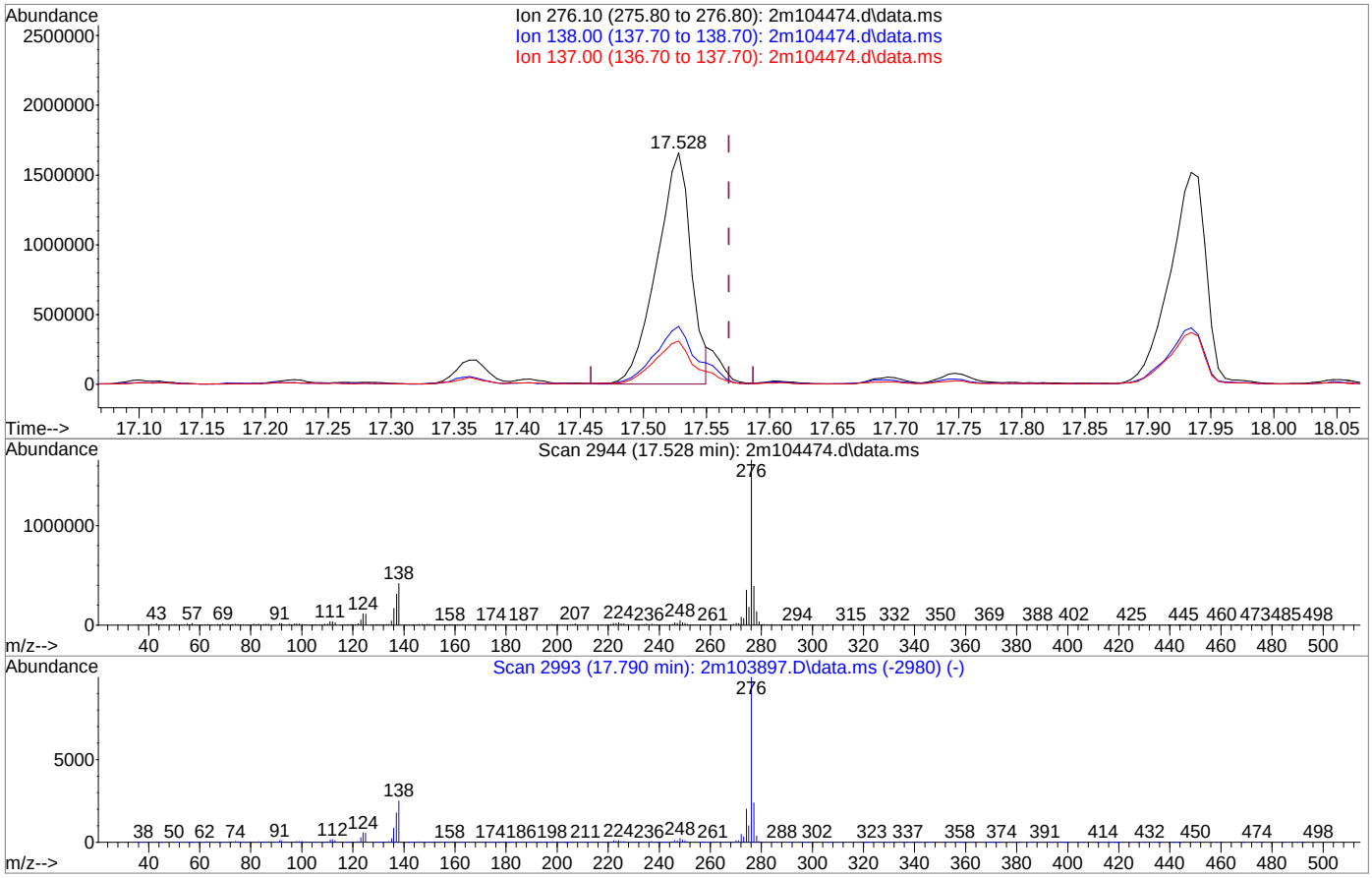
response 3310450

Ion	Exp%	Act%
276.10	100	100
138.00	22.70	24.77
137.00	16.80	18.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:31:21 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104474.d\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

17.528min (-0.040) 86.16ppm m

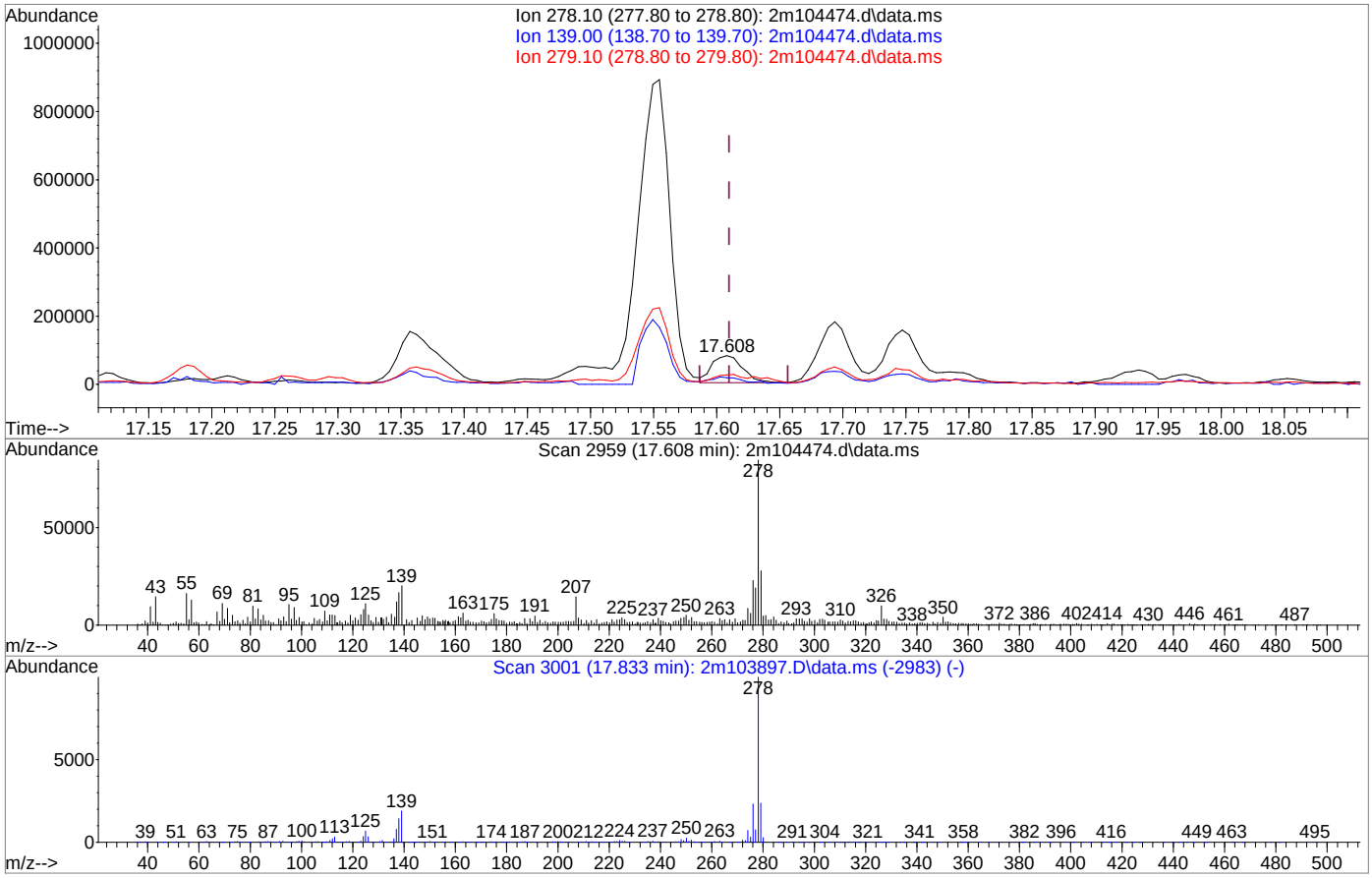
response 3132836

Ion	Exp%	Act%
276.10	100	100
138.00	22.70	25.07
137.00	16.80	18.75
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:31:21 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104474.d\data.ms

(98) Dibenz[a,h]anthracene (t)

17.608min (-0.002) 3.62ppm

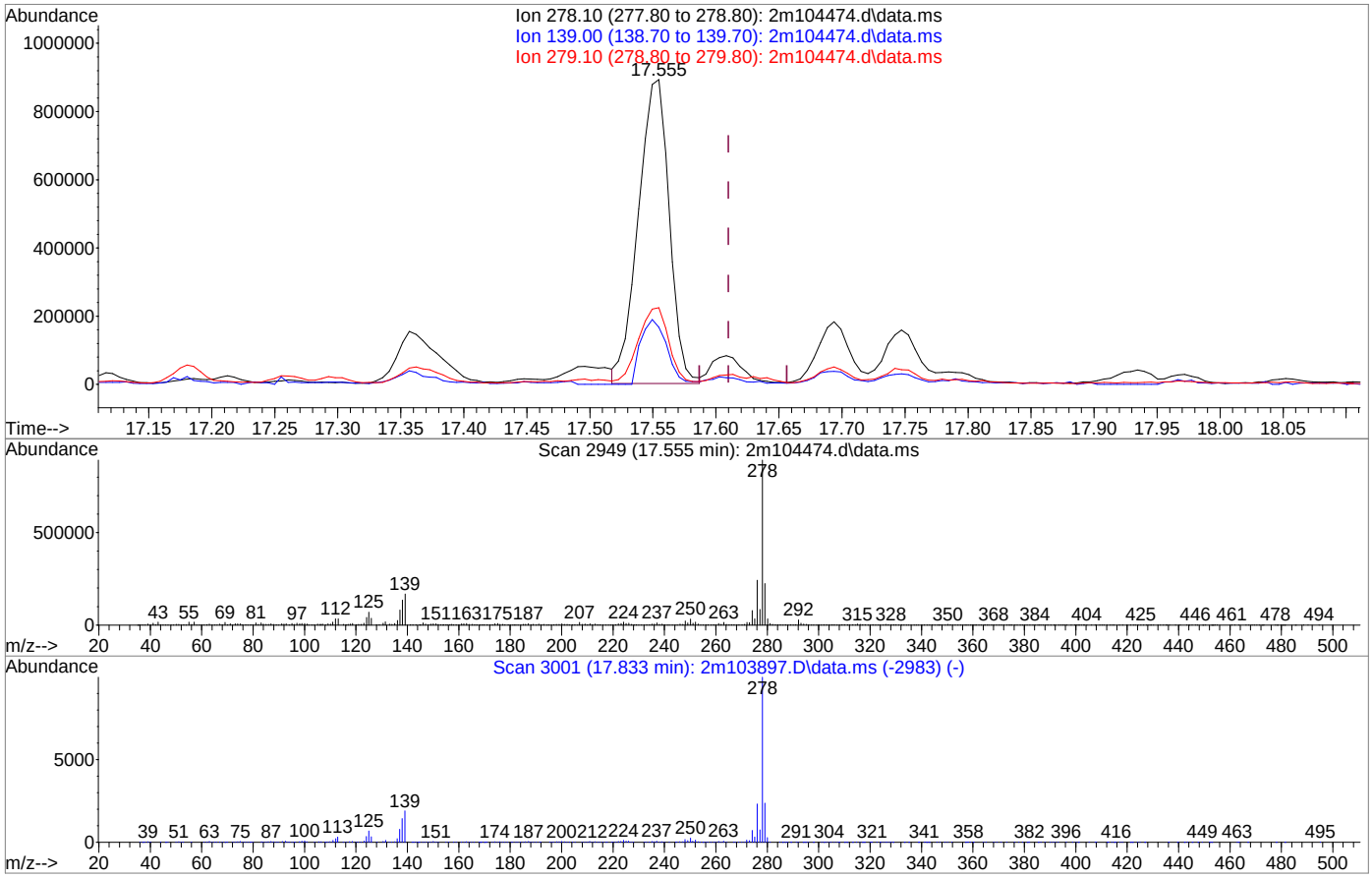
response 135086

Ion	Exp%	Act%
278.10	100	100
139.00	18.90	19.98
279.10	23.60	28.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:31:21 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104474.d\data.ms

(98) Dibenz[a,h]anthracene (t)

17.555min (-0.055) 40.61ppm m

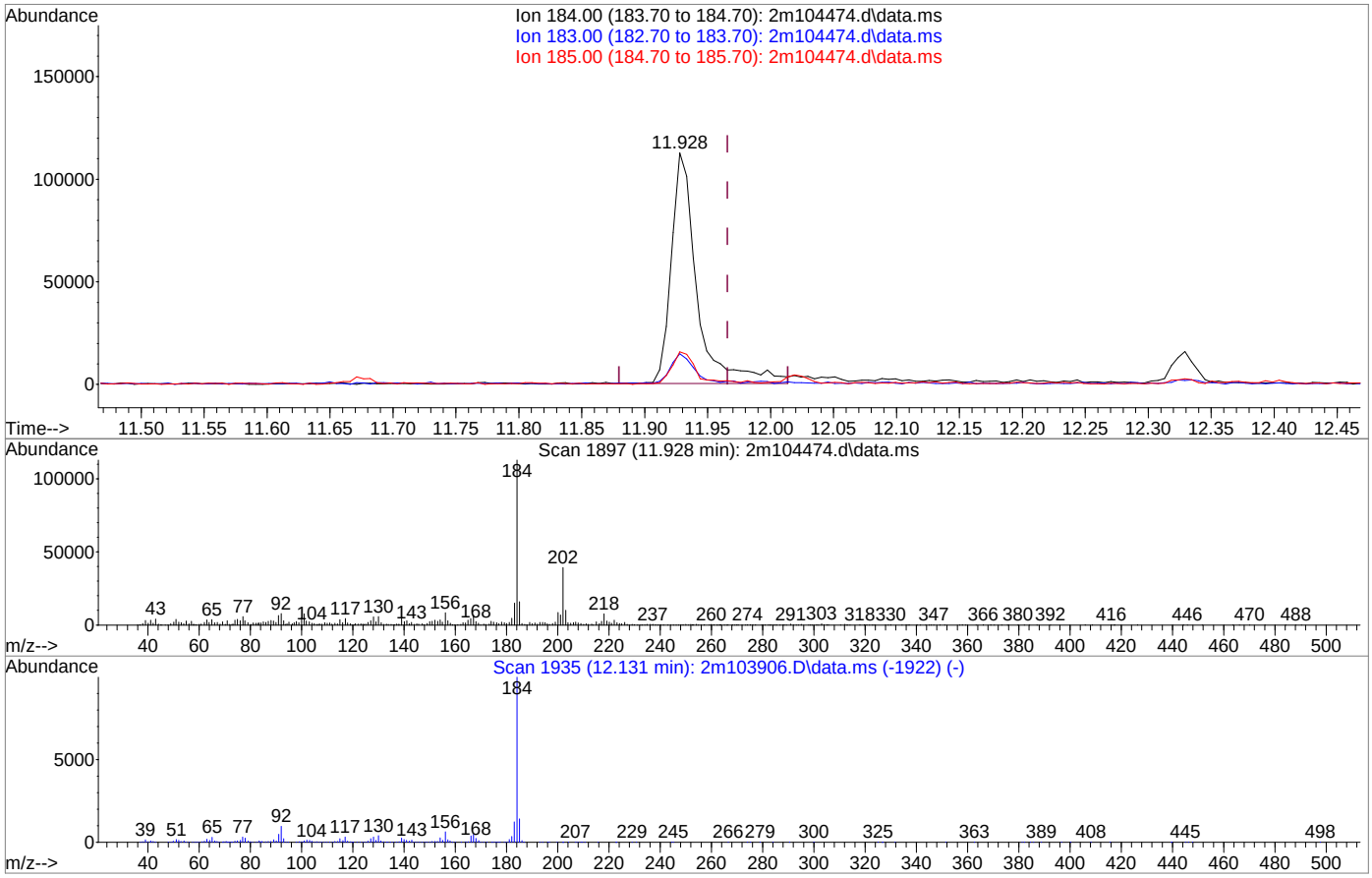
response 1517334

Ion	Exp%	Act%
278.10	100	100
139.00	18.90	18.72
279.10	23.60	25.13
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:31:21 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104474.d\data.ms

(106) Benzidine

11.928min (-0.038) 12.46ppm

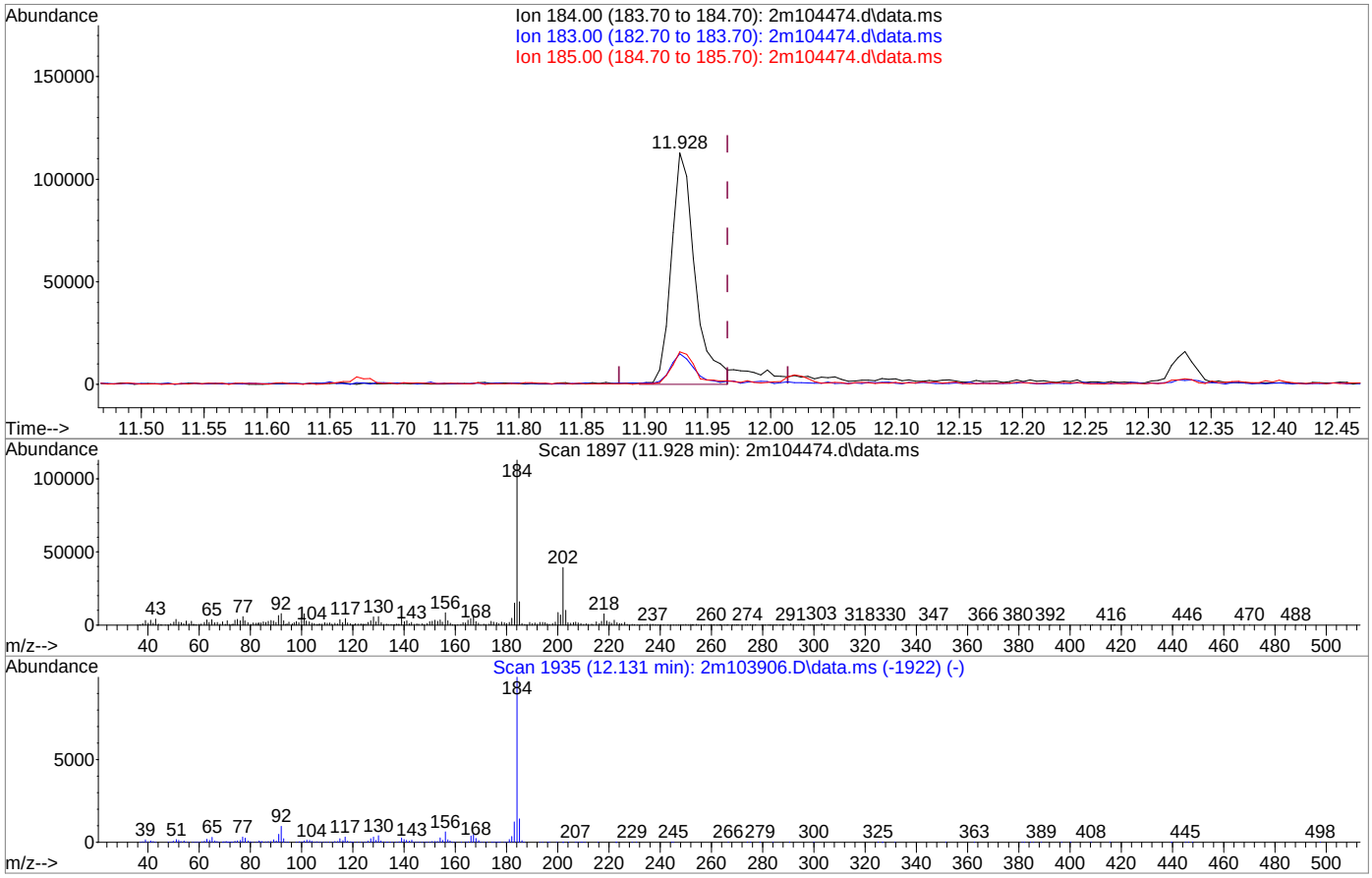
response 161090

Ion	Exp%	Act%
184.00	100	100
183.00	12.30	12.70
185.00	14.10	12.56
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104474.d
Acq On : 27 May 2018 3:37 am
Operator : georges
Sample : op12196-msd Inst : MS2M
Misc : op12196,e2m4641,30.8,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:31:21 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



TIC: 2m104474.d\data.ms

(106) Benzidine

11.928min (-0.038) 11.45ppm m

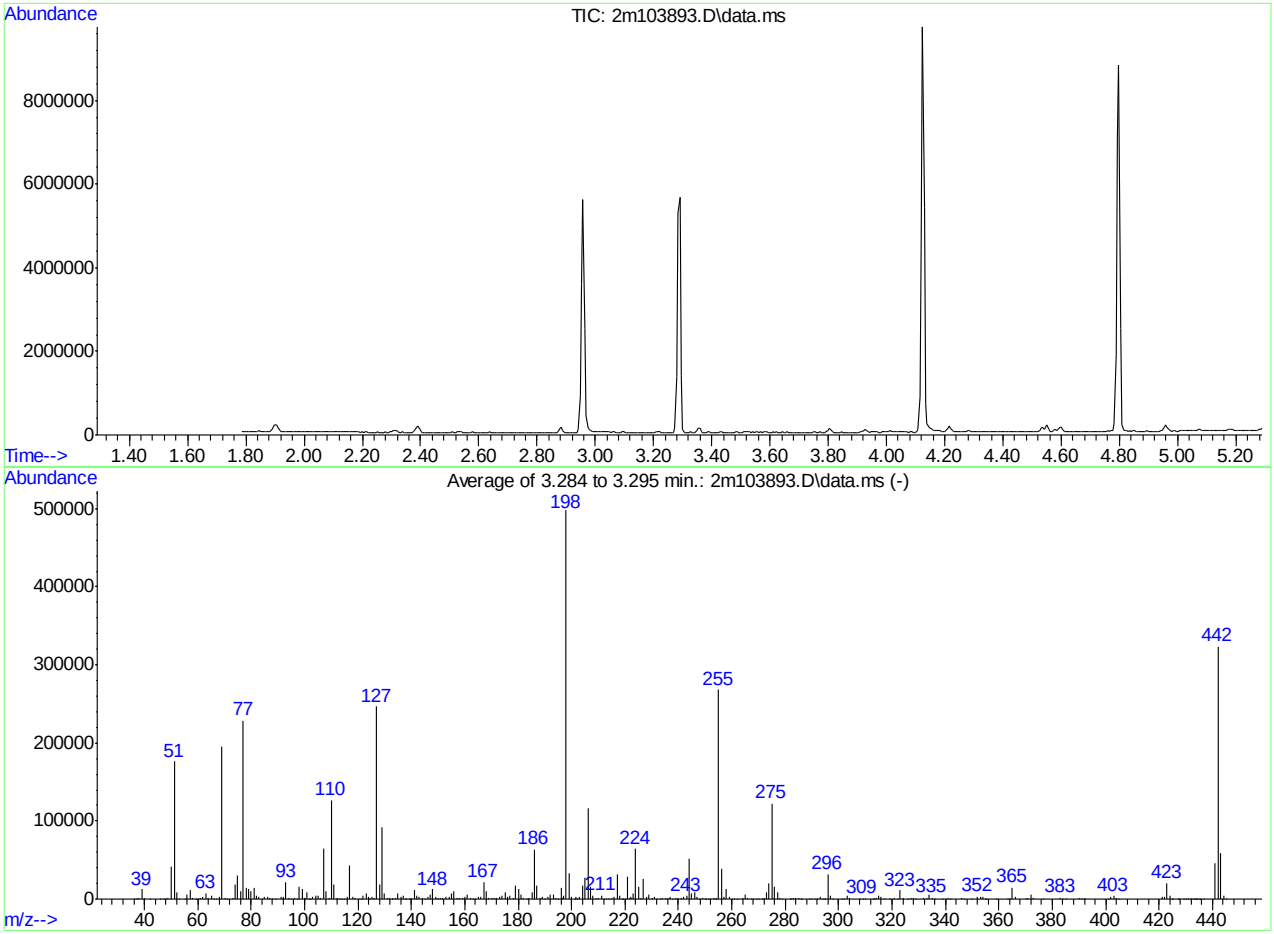
response 148097

Ion	Exp%	Act%
184.00	100	100
183.00	12.30	13.29
185.00	14.10	14.08
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E2M4618\2m103893.D Vial: 1
Acq On : 9 May 2018 10:22 am Operator: christc2
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4618,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 281, 282, 283; Background Corrected with Scan 275

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.4	176008	PASS
68	69	0.00	2	1.5	2989	PASS
69	198	0.00	100	39.2	194999	PASS
70	69	0.00	2	0.5	895	PASS
127	198	40	60	49.6	246965	PASS
197	198	0.00	1	0.9	4345	PASS
198	198	100	100	100.0	497856	PASS
199	198	5	9	6.6	32775	PASS
275	198	10	30	24.5	122106	PASS
365	198	1	100	3.0	14865	PASS
441	443	0.10	100	78.6	46565	PASS
442	198	40	100	65.0	323541	PASS
443	442	17	23	18.3	59280	PASS

2m103893.D DFTPP2M.M Fri May 11 15:03:00 2018

Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	289	51.10	176008	63.00	7570	74.95	29585
36.95	326	52.10	8656	64.00	1083	76.10	10433
38.00	1892	52.95	116	64.95	4070	77.05	228936
39.05	12315	55.05	716	66.00	550	78.05	14389
39.95	882	56.00	5190	66.90	314	79.00	12361
42.05	653	57.05	11685	68.00	2989	80.00	9832
46.00	100	58.00	855	69.00	194999	81.00	14434
46.90	173	59.10	268	70.00	895	82.00	4187
48.00	276	60.00	418	71.00	47	83.00	3194
48.95	956	60.95	1937	73.00	1781	83.95	325
50.05	41455	62.00	2248	74.00	18297	85.00	2336

Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	3527	97.95	15408	107.00	65098	118.00	3183
87.00	1953	99.00	12912	108.00	10133	118.95	876
88.00	477	99.95	1125	109.05	1913	120.05	757
89.15	535	100.20	145	110.00	127101	120.90	239
91.00	3024	101.00	8376	111.00	18847	122.00	3767
92.00	3579	101.85	417	112.00	1663	123.00	6751
93.00	22004	102.20	185	113.00	687	123.95	2732
94.00	1586	103.00	3114	114.00	209	124.20	189
94.95	138	104.00	4853	114.90	377	125.00	2684
96.05	886	105.00	4650	116.00	3370	126.15	1825
96.95	239	106.00	1817	116.95	42559	127.00	246965

Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.00	18724	137.70	363	148.00	12510	159.00	1614
129.00	91554	137.95	659	149.00	2430	160.00	3369
130.00	7759	139.00	397	150.10	872	161.00	5219
131.05	1485	140.05	946	151.00	1249	162.00	1787
132.00	906	141.00	11194	151.75	1060	162.95	692
132.60	184	142.00	3702	153.00	3399	163.95	668
132.95	119	143.00	2768	154.05	2840	164.95	3582
134.00	1953	144.00	907	155.00	6850	166.00	3223
134.95	7055	145.00	664	156.00	9831	167.00	21686
136.00	2967	146.00	2353	156.95	1986	168.00	10098
137.05	3855	147.00	6398	158.00	1864	169.00	1689

Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.00	866	181.00	5326	192.00	5403	201.55	2556
170.95	873	182.00	929	193.00	6160	202.10	508
172.00	2189	182.95	747	194.05	1404	203.00	3473
173.05	3008	184.05	979	195.00	680	204.00	16704
174.05	4783	185.05	8288	196.00	14647	205.05	27117
175.00	8386	186.00	63824	196.70	1672	206.10	115776
176.00	3240	187.00	17328	197.05	4345	207.00	15349
177.00	4495	188.00	1906	198.00	497856	208.00	3694
178.05	1537	189.00	3634	199.00	32775	208.95	1198
179.00	16972	189.95	591	200.05	2857	210.20	2025
180.00	12324	191.00	2208	201.30	200	211.10	4625

Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
211.90	105	221.70	1935	231.95	446	243.00	4057
213.10	163	222.00	2403	233.10	520	244.05	52338
213.80	113	222.95	6637	234.00	1595	245.05	6832
215.05	1167	224.00	64154	235.00	2084	246.00	9291

216.00	2582	225.00	16217	235.95	1430	246.95	2308
217.00	31249	226.05	1712	237.00	2531	247.95	623
218.00	3969	227.00	25815	237.90	229	248.95	2161
219.00	220	228.00	3381	238.90	1083	249.80	267
219.20	252	229.00	5528	239.90	975	250.10	260
220.05	504	230.05	869	241.00	1469	250.95	343
221.00	29418	231.00	2636	242.00	3620	251.95	638

Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
253.05	1417	263.95	859	275.00	122106	286.10	134
254.00	2013	265.00	5749	276.00	15881	288.95	433
254.20	270	265.95	990	277.00	8761	289.95	391
255.00	267906	266.90	47	277.95	1622	291.10	160
256.00	38678	267.90	305	278.90	190	291.80	202
257.00	3529	269.20	112	281.80	136	292.00	218
258.00	13546	269.95	385	282.00	203	293.00	2370
259.00	2316	271.10	575	283.00	1377	294.05	635
260.00	107	271.95	830	284.00	911	294.70	254
261.00	516	273.00	8417	285.05	1806	295.00	332
261.90	132	274.00	19847	285.80	145	296.00	32202

Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
297.00	4069	314.05	1753	327.90	1187	346.95	336
297.90	321	315.00	4540	329.00	143	350.00	122
300.95	443	316.00	2478	331.95	858	352.00	3146
301.85	436	316.90	317	333.00	1124	353.00	2418
303.00	3725	319.10	124	334.00	6434	354.00	3144
304.00	996	321.00	1302	335.05	1811	354.90	255
308.00	459	322.05	476	336.00	117	355.05	329
309.00	460	323.00	10860	339.00	115	358.90	114
310.00	447	324.00	1912	341.10	1687	363.20	101
312.80	104	325.90	113	341.95	299	363.95	211
313.10	184	327.00	2180	346.00	2189	365.00	14865

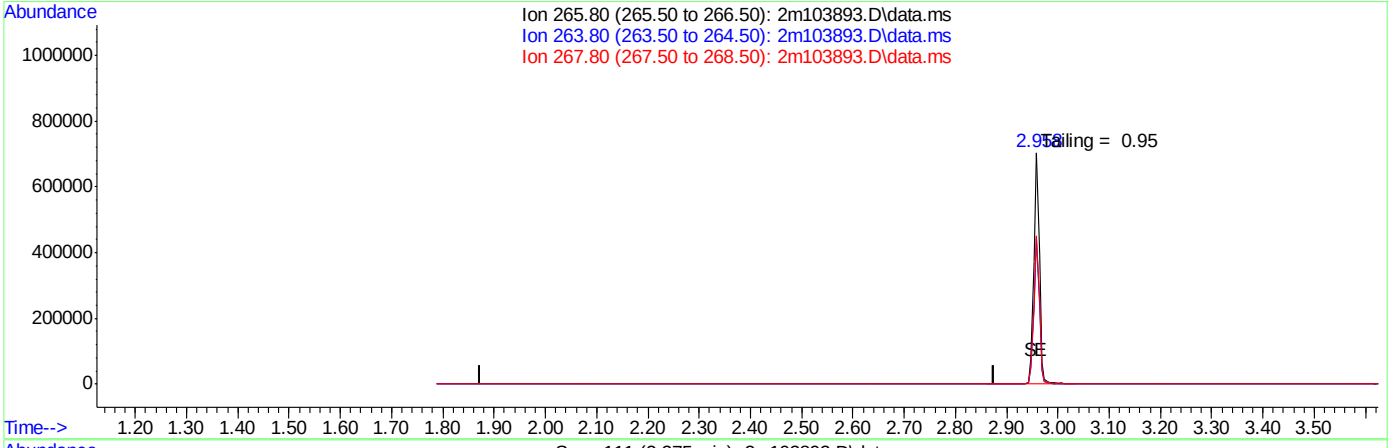
Average of 3.284 to 3.295 min.: 2m103893.D\data.ms
dftpp
Modified:subtracted

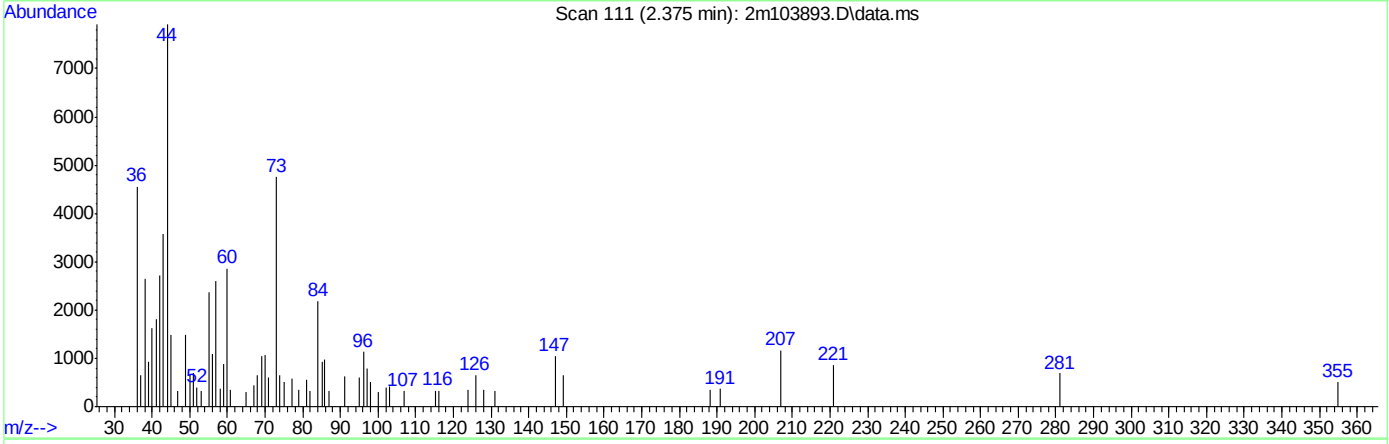
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
366.00	2212	391.80	110	424.90	106	433.70	166
370.05	334	392.05	557	425.10	212	434.10	137
371.00	914	400.95	370	426.90	127	434.90	132
372.00	5628	402.00	2518	427.30	104	435.60	123
373.05	1726	403.00	3830	429.00	343	436.70	155
376.80	108	404.05	1076	429.90	104	441.10	46565
383.00	1798	404.90	109	430.90	142	442.10	323541
383.95	372	421.00	3104	431.80	155	443.10	59280
384.90	147	422.05	2529	432.10	117	444.10	4941
390.05	1031	423.05	20304	432.90	296	444.95	226
390.95	752	424.05	3862	433.40	161		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103893.D
Acq On : 9 May 2018 10:22 am
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 10:27:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103893.D\data.ms

(1) Pentachlorophenol (t)

2.375min (-2.375) 0.00ppb

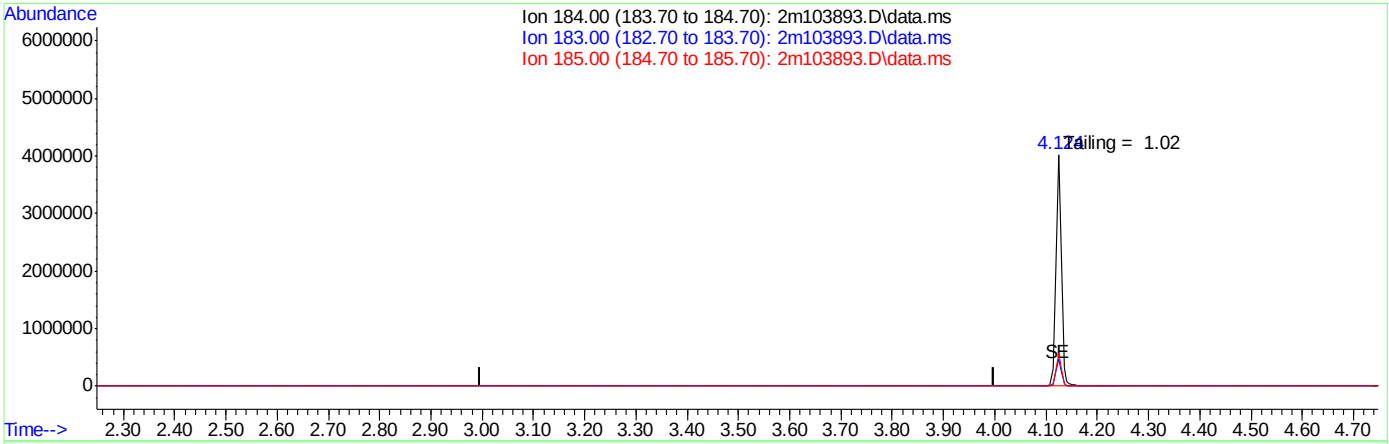
response 0

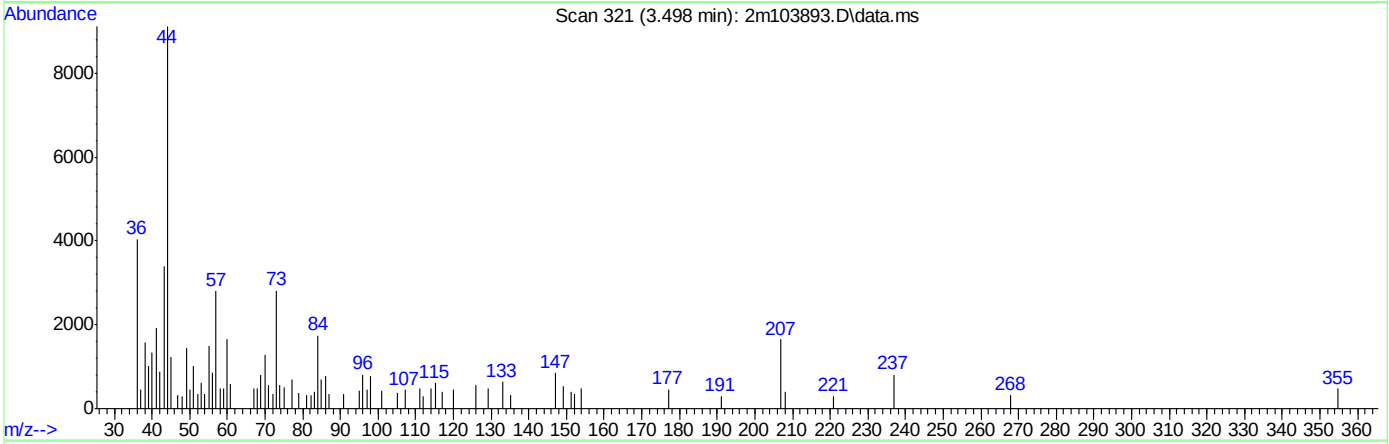
Ion	Exp%	Act%
265.80	100	0.00
263.80	61.00	0.00#
267.80	65.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103893.D
Acq On : 9 May 2018 10:22 am
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 10:27:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103893.D\data.ms

(2) Benzidine (t)

3.498min (-3.498) 0.00ppb

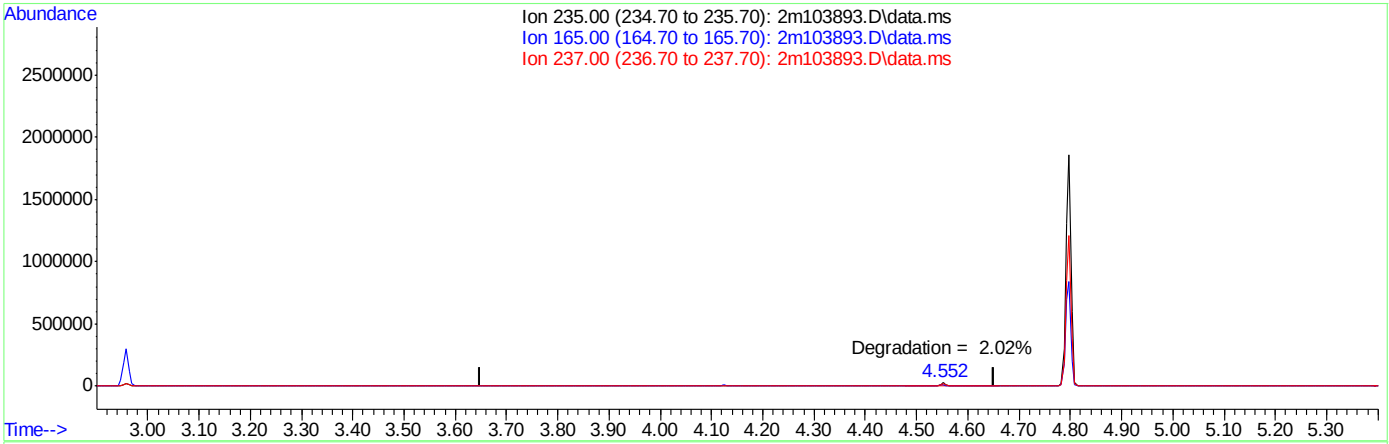
response 0

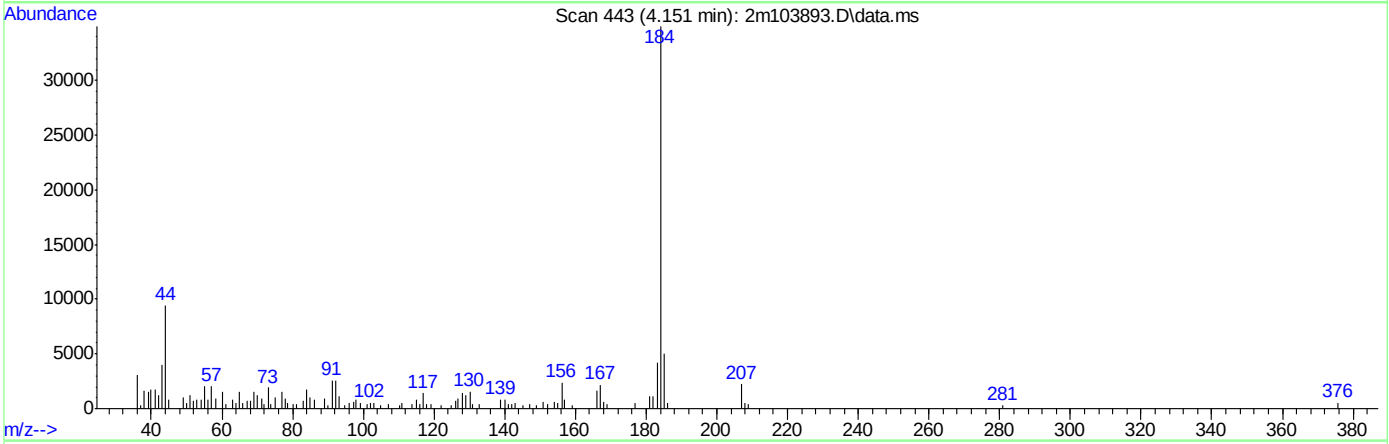
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00
185.00	13.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103893.D
Acq On : 9 May 2018 10:22 am
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 10:27:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103893.D\data.ms

(3) PP-DDT (t)

4.151min (-4.151) 0.00ppb

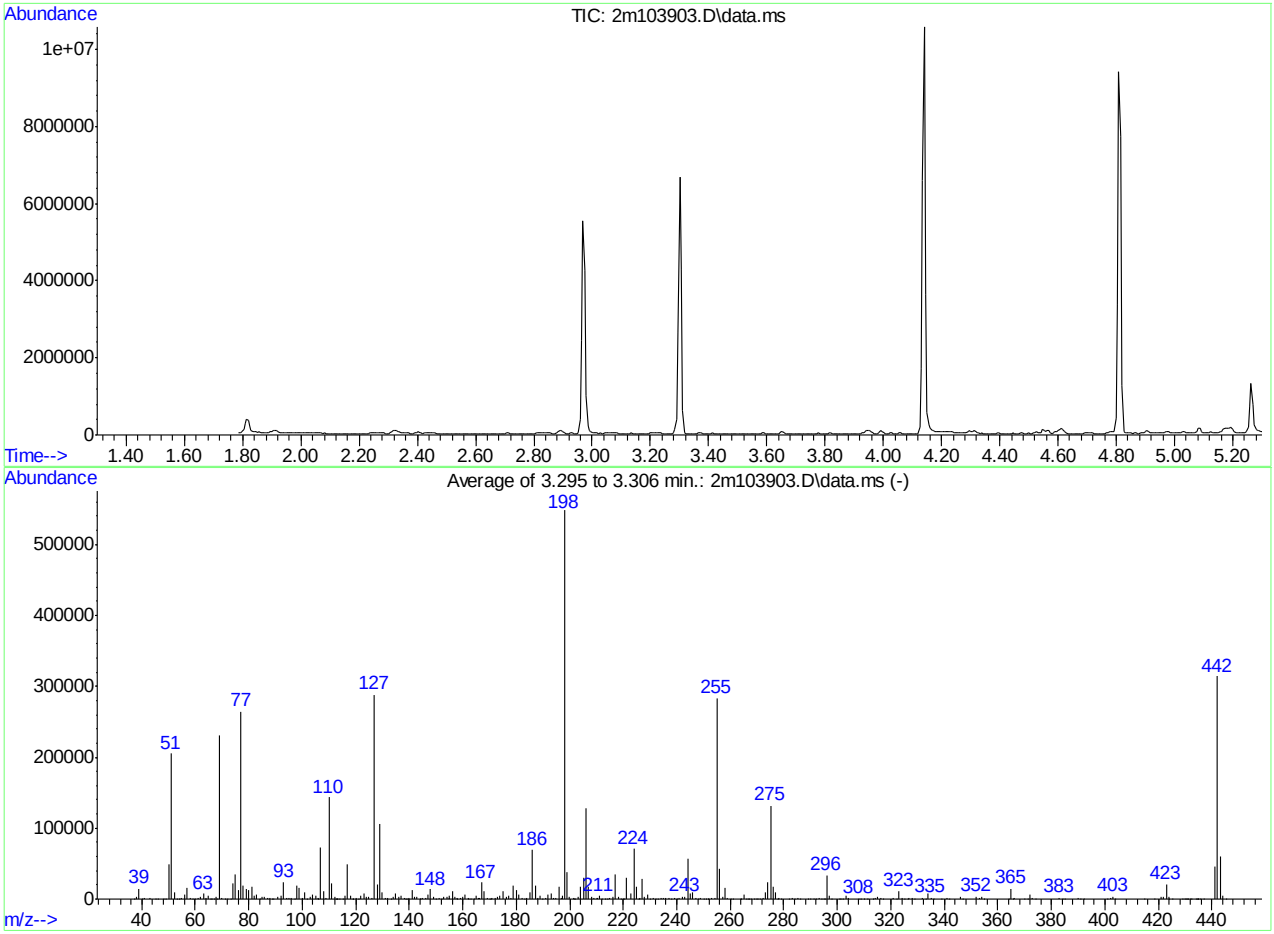
response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	52.20	0.00#
237.00	60.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E2M4619\2m103903.D Vial: 1
Acq On : 9 May 2018 6:30 pm Operator: sufiyana
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 283, 284, 285; Background Corrected with Scan 278

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.4	205172	PASS
68	69	0.00	2	1.3	3087	PASS
69	198	0.00	100	42.0	230153	PASS
70	69	0.00	2	0.7	1679	PASS
127	198	40	60	52.6	288469	PASS
197	198	0.00	1	0.9	4778	PASS
198	198	100	100	100.0	548117	PASS
199	198	5	9	6.9	37624	PASS
275	198	10	30	24.0	131669	PASS
365	198	1	100	2.7	14986	PASS
441	443	0.10	100	75.2	45789	PASS
442	198	40	100	57.4	314570	PASS
443	442	17	23	19.3	60857	PASS

2m103903.D DFTPP2M.M Fri May 11 15:04:50 2018

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.05	692	51.05	205172	62.05	2899	71.00	735
38.10	2470	52.10	9471	63.05	7829	72.05	489
39.05	14420	53.00	313	64.00	1073	73.05	409
39.95	778	54.10	255	65.00	4749	74.00	21935
41.05	1086	55.00	1529	65.90	240	75.00	35517
43.10	970	56.00	5913	66.10	265	76.05	12846
45.05	159	57.00	15867	66.95	495	77.05	264549
45.90	101	58.00	952	68.00	3087	78.05	18949
48.00	111	58.95	254	68.20	673	79.00	15068
48.90	833	59.90	415	69.00	230153	80.00	11974
50.10	48578	61.00	2170	70.00	1679	81.00	18086

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.00	5266	93.00	24066	104.00	5800	113.00	474
83.00	5649	94.00	1979	105.00	5591	113.20	187
84.00	693	95.05	1475	105.90	425	113.85	373
85.00	3654	96.05	2068	106.10	1580	115.00	618
85.95	3892	97.05	417	106.95	73487	116.00	4176
87.00	2271	98.00	18771	108.00	11891	117.00	49010
88.05	974	99.00	16026	109.00	2353	118.00	4056
88.80	353	100.00	1327	110.00	143517	118.80	150
89.00	145	101.00	9766	111.00	21409	118.95	415
91.00	3310	101.90	619	112.05	2819	120.05	1013
92.00	4303	102.95	3396	112.80	192	121.00	565

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
122.00	4682	132.95	431	143.00	2722	153.00	4000
123.00	7797	134.00	3154	143.90	118	154.00	3366
124.00	3212	135.00	8498	144.10	697	154.90	1396
124.95	4013	136.00	3434	145.00	967	155.05	5555
126.05	1840	137.00	4243	146.00	1855	156.00	10955
127.00	288469	138.05	1038	146.95	5660	157.05	2500
128.00	21119	138.80	171	148.00	14155	157.80	433
129.00	106541	139.05	347	149.00	3013	158.00	1879
130.00	9461	140.05	1129	149.95	828	158.95	1814
131.05	1516	141.00	12420	151.10	1727	160.00	3797
131.95	1150	141.95	3832	151.90	248	161.00	5688

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
161.90	500	170.60	322	181.00	6248	192.00	6041
162.05	1514	170.95	1050	182.00	973	193.05	7272
163.00	599	171.95	2344	182.90	732	194.05	1537
164.05	785	173.00	3355	184.00	2064	194.90	1219
164.90	4110	174.00	5523	185.05	8877	196.00	17282
165.90	1733	175.00	10482	186.00	68861	196.80	1293
166.10	1647	176.10	3035	187.00	19378	197.05	4778
167.00	23234	176.95	4456	188.05	2322	198.00	548117
168.00	10881	178.00	1609	189.00	4187	199.00	37624
169.00	2152	179.00	18748	189.90	741	199.95	2815
169.95	737	180.00	12940	191.05	1993	201.30	594

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.50	2389	211.05	4622	221.00	30058	231.95	646
202.00	205	212.10	382	223.00	7293	232.85	643
202.95	3728	213.05	424	224.05	70701	233.95	1461
204.00	18020	214.00	170	225.00	16697	234.95	2043

205.05	30905	215.00	1206	225.90	306	235.95	1498
206.05	128066	216.05	2693	226.05	1427	237.00	1876
207.00	17564	217.00	34093	227.00	28585	238.00	411
208.00	4006	218.00	3848	228.00	3771	238.95	1185
209.00	1253	219.00	203	229.00	5774	240.05	818
210.05	989	219.80	265	229.85	651	240.90	1706
210.40	1148	220.10	528	231.00	2378	242.05	3519

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
243.05	3875	252.95	1495	265.00	5783	274.00	23265
244.00	56834	254.10	2278	265.90	697	275.00	131669
245.05	7342	255.00	283333	266.80	299	276.00	16998
246.00	9741	256.00	43066	267.00	110	277.00	10098
246.95	2069	257.00	3557	267.75	275	277.70	152
247.90	506	258.00	16407	269.10	114	277.95	1705
248.95	2408	259.00	2411	269.90	182	278.95	551
250.05	514	259.95	444	270.10	166	281.90	112
251.00	592	261.00	370	270.95	703	283.05	1396
251.70	396	263.80	414	272.05	969	284.00	840
251.90	233	264.00	212	273.00	8950	285.05	1972

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
285.90	210	297.95	302	314.00	1380	327.95	1128
289.00	330	300.90	256	315.00	3826	329.00	283
290.05	490	301.10	238	316.05	2003	331.95	929
291.00	180	302.05	637	317.05	385	333.05	800
291.95	567	303.05	4160	321.05	1139	334.00	7539
293.00	2372	304.10	1167	322.00	730	335.05	1925
293.90	741	307.90	397	323.05	11281	336.10	100
294.80	413	308.90	131	324.00	2228	339.00	146
295.10	197	310.00	340	325.05	348	340.95	1334
296.00	33640	311.10	137	326.30	110	342.00	340
297.00	4948	313.10	342	326.90	2199	346.00	2740

Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
346.90	366	372.05	6614	403.00	3364	429.70	157
352.00	3714	373.00	1315	403.95	830	430.00	153
353.00	2234	374.10	157	414.90	265	430.50	129
354.05	3402	382.95	1686	418.50	106	431.10	109
354.95	677	383.95	460	421.00	2485	431.80	170
364.20	168	385.00	110	422.00	2905	432.20	122
365.00	14986	389.95	965	423.00	21376	433.80	242
365.80	225	390.95	528	423.90	352	434.50	231
366.00	2232	392.05	362	424.05	3171	434.80	114
369.90	206	400.90	417	425.00	435	435.00	152
371.00	842	402.00	2044	429.10	119	435.50	112

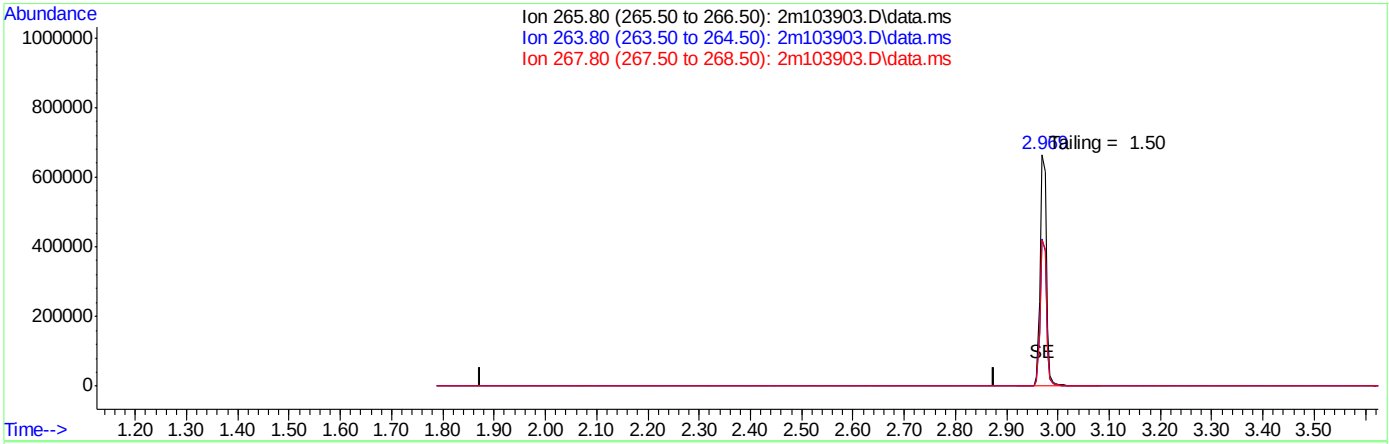
Average of 3.295 to 3.306 min.: 2m103903.D\data.ms
dftpp
Modified:subtracted

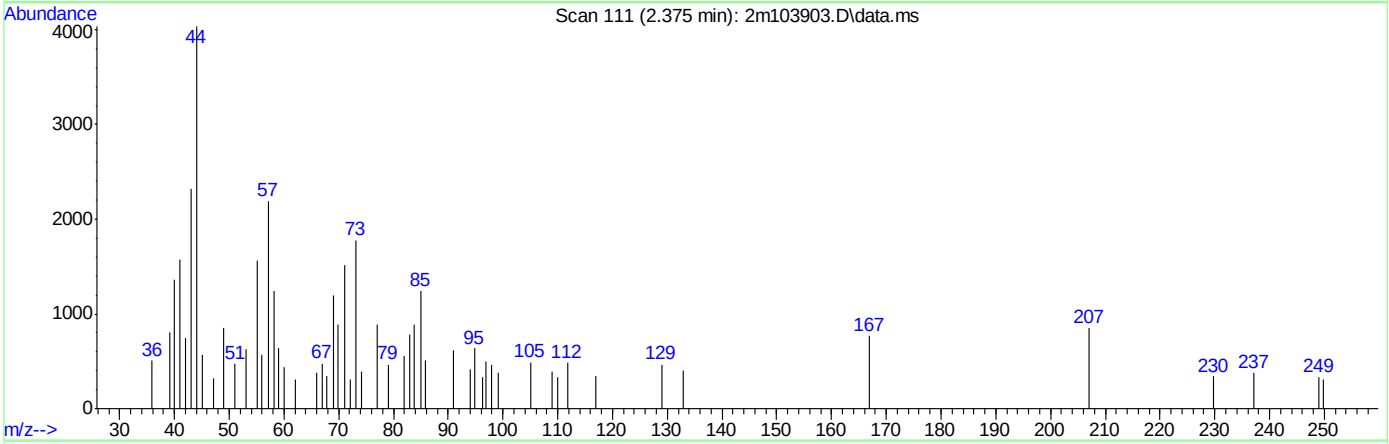
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
437.00	136						
441.10	45789						
442.10	314570						
443.10	60857						
444.05	5040						
445.10	199						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103903.D
Acq On : 9 May 2018 6:30 pm
Operator : sufiyana
Sample : dftpp
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 18:35:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103903.D\data.ms

(1) Pentachlorophenol (t)

2.375min (-2.375) 0.00ppb

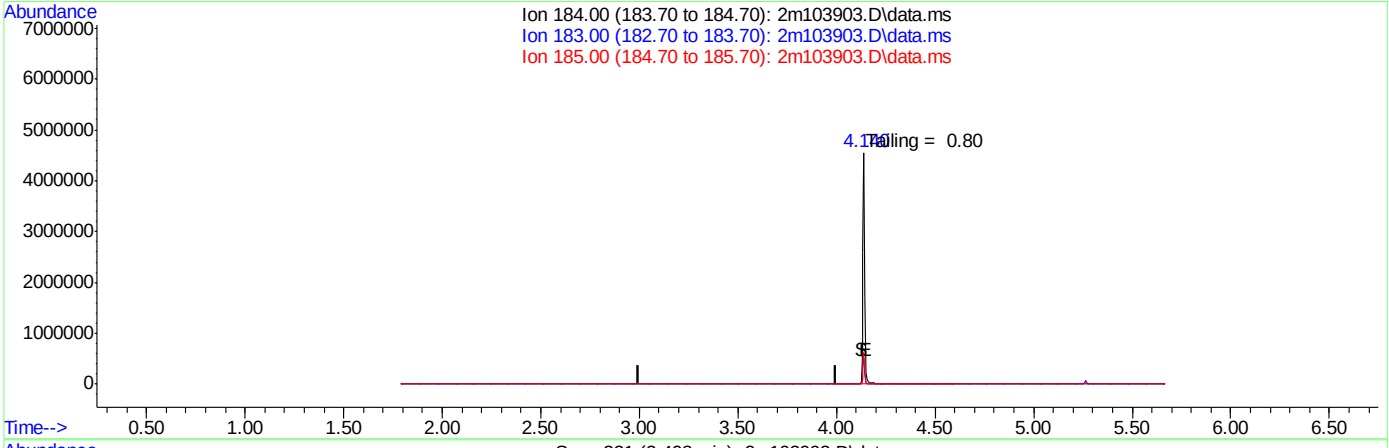
response 0

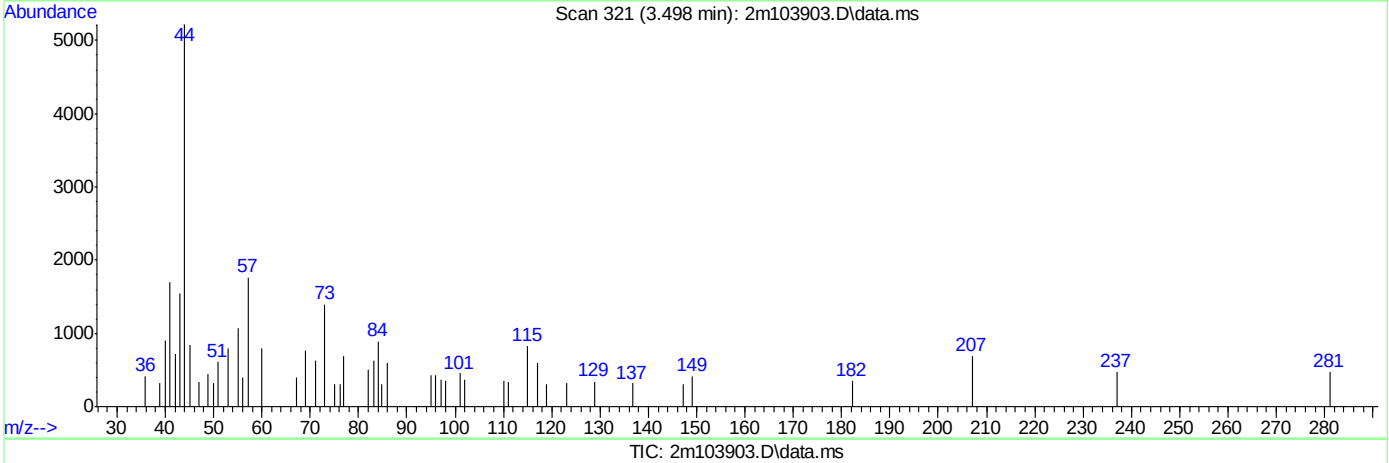
Ion	Exp%	Act%
265.80	100	0.00
263.80	61.00	0.00#
267.80	65.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103903.D
Acq On : 9 May 2018 6:30 pm
Operator : sufiyana
Sample : dftpp
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 18:35:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103903.D\data.ms

(2) Benzidine (t)

3.498min 0.00ppb d

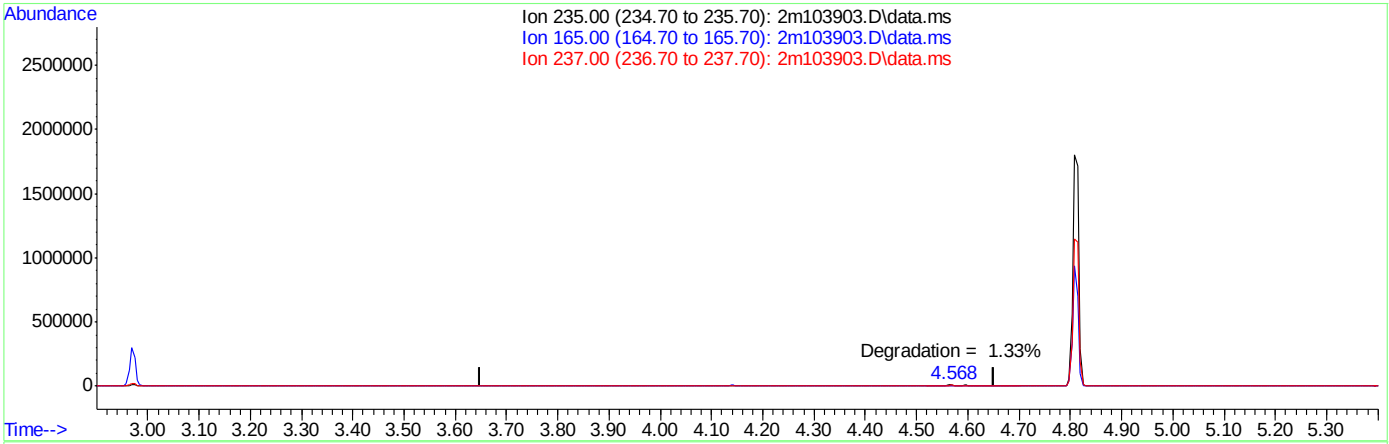
response 0

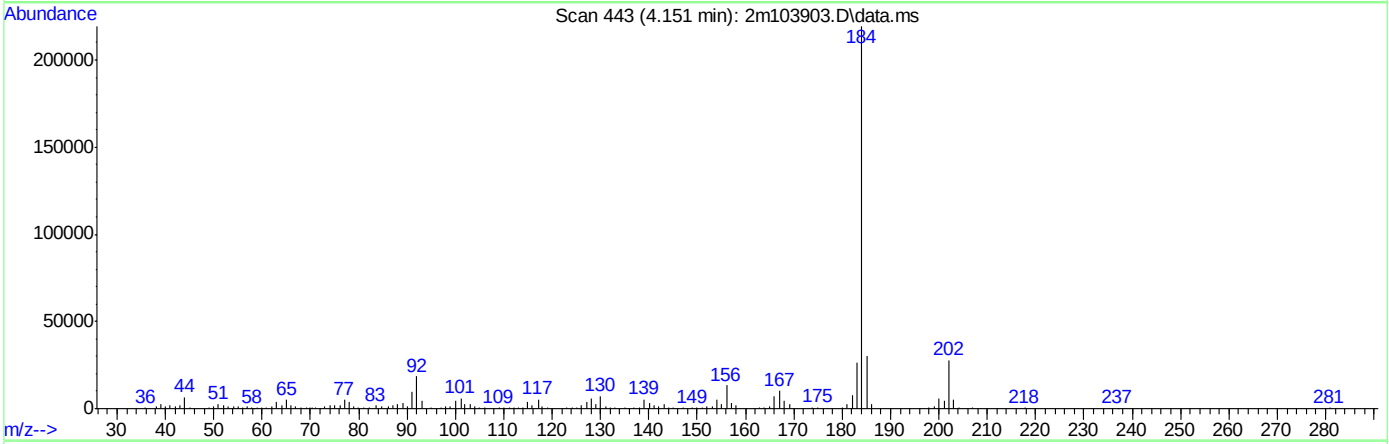
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00
185.00	13.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103903.D
Acq On : 9 May 2018 6:30 pm
Operator : sufiyana
Sample : dftpp
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 18:35:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103903.D\data.ms

(3) PP-DDT (t)

4.151min (-4.151) 0.00ppb

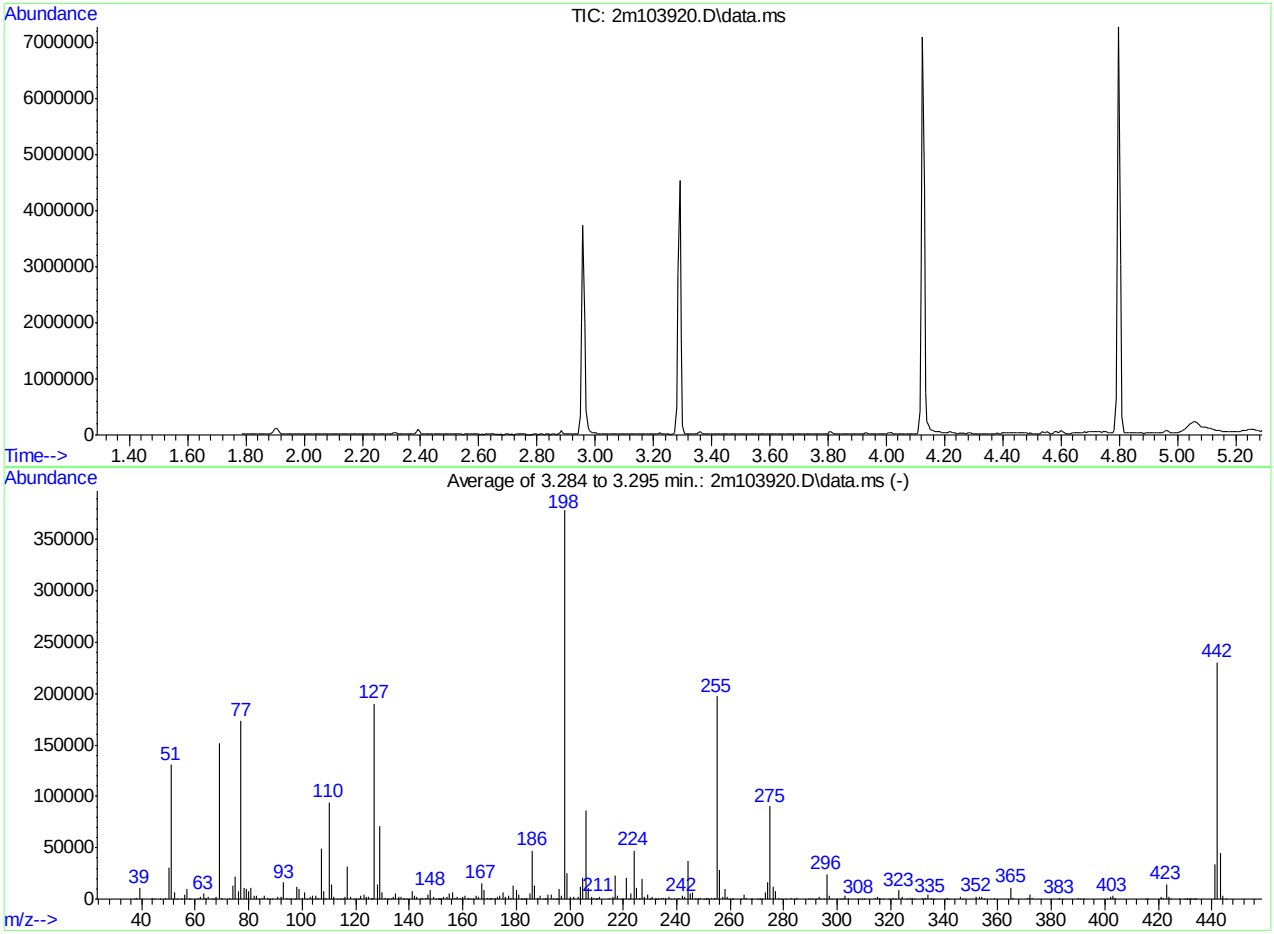
response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	52.20	0.00#
237.00	60.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E2M4620\2m103920.D Vial: 1
Acq On : 11 May 2018 1:43 pm Operator: christc2
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 281, 282, 283; Background Corrected with Scan 276

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.6	130877	PASS
68	69	0.00	2	1.7	2584	PASS
69	198	0.00	100	40.0	151216	PASS
70	69	0.00	2	0.5	823	PASS
127	198	40	60	50.2	189864	PASS
197	198	0.00	1	0.8	3129	PASS
198	198	100	100	100.0	378218	PASS
199	198	5	9	6.5	24697	PASS
275	198	10	30	23.9	90376	PASS
365	198	1	100	3.0	11279	PASS
441	443	0.10	100	76.5	34077	PASS
442	198	40	100	60.9	230490	PASS
443	442	17	23	19.3	44552	PASS

2m103920.D DFTPP2M.M Fri May 11 15:17:27 2018

Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.05	383	53.00	395	66.10	115	79.00	9396
38.00	1614	55.00	54	66.90	133	80.00	7175
39.10	10650	56.00	4096	68.00	2584	81.00	11502
40.00	186	57.00	10049	69.00	151216	82.00	3376
43.95	757	57.90	477	70.00	823	83.00	2975
44.95	485	58.10	120	72.95	907	83.90	534
46.80	117	61.00	1394	74.00	13049	85.00	1676
49.00	989	62.00	1690	75.00	21659	85.95	3016
50.10	30914	63.05	5293	76.05	7868	86.90	775
51.05	130877	63.95	872	77.10	173032	87.10	613
52.10	6203	65.00	2540	78.10	11201	88.00	483

Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.90	152	101.00	6516	112.00	1686	123.00	4422
91.00	2729	101.90	266	113.00	495	123.95	2189
92.05	2718	103.00	1800	114.30	120	124.95	2207
93.00	16129	104.00	3790	114.95	366	125.90	600
94.00	1227	105.00	3658	115.95	2766	126.20	571
95.00	541	106.00	1445	117.00	31445	127.00	189864
96.00	552	107.00	49130	118.00	2100	128.00	13985
97.05	404	108.00	7761	119.15	447	129.00	71165
98.00	11909	109.00	1442	120.00	442	130.00	6626
99.00	9962	110.00	94368	120.95	344	131.00	1263
100.00	883	111.00	14029	122.00	3072	131.85	576

Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.20	181	142.00	2976	151.40	171	160.95	3816
133.00	277	142.95	1914	151.80	568	161.90	310
134.00	1771	143.95	476	152.00	103	162.05	1111
135.00	5402	144.80	620	152.95	2377	163.00	346
136.00	1990	146.00	1506	154.00	2075	163.90	508
137.00	2166	147.05	4149	155.00	5223	165.00	2954
137.70	157	148.00	8743	156.05	6496	166.00	2410
138.00	498	148.95	1795	156.95	1540	167.00	15401
139.05	422	149.90	500	158.00	1707	168.05	8269
139.95	567	150.80	101	159.00	920	169.00	1369
141.00	7841	151.05	1209	160.00	2621	170.00	257

Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.20	241	181.00	4639	189.95	539	199.00	24697
170.95	772	181.95	427	190.90	471	200.00	1763
172.00	1529	182.20	134	191.05	729	201.45	2089
173.00	1959	182.85	504	192.00	3962	203.00	2598
174.00	3750	183.10	124	193.00	4326	204.05	12563
175.05	6497	184.05	1343	194.00	1064	205.00	20740
176.05	1930	185.00	5900	194.90	582	206.00	86352
177.00	3579	186.00	47170	195.20	348	207.00	11212
178.00	1078	187.00	13041	196.00	10055	208.00	2490
179.00	13333	188.10	1488	196.95	3129	209.00	1018
180.00	8836	188.95	2855	198.00	378218	209.90	360

Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
210.20	724	223.00	5012	232.10	370	242.00	3019
210.90	1131	224.00	47157	232.90	210	243.05	2674
211.10	2520	225.00	11298	233.10	167	244.05	37344
215.00	945	226.10	1276	233.95	1204	245.00	5173

JC66384

216.00	1807	227.00	19240	234.95	1164	246.00	6775
217.00	23131	228.00	2595	236.00	832	246.95	1254
218.00	2966	229.00	4504	236.95	1818	247.80	102
218.95	392	229.80	127	238.00	164	248.00	216
219.80	189	230.05	562	239.00	868	248.95	1449
221.05	20558	231.00	1949	240.00	490	249.90	272
222.00	465	231.90	147	240.95	990	250.75	317

Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
251.10	121	260.40	109	272.95	6605	289.00	237
251.90	618	261.00	360	274.00	16194	290.00	297
252.95	1098	263.95	428	275.00	90376	290.70	159
253.90	289	265.00	4109	276.00	11536	292.00	251
254.10	1108	265.85	744	277.00	7340	293.05	1793
255.00	197226	267.80	182	277.95	902	293.85	418
256.00	27962	268.00	105	279.00	279	294.90	358
257.00	2030	270.00	205	280.80	124	296.00	24186
258.00	9968	271.00	114	282.95	921	297.00	3616
259.00	1770	271.20	258	283.90	515	297.90	284
259.90	222	272.05	564	285.05	1529	299.80	100

Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
301.00	524	317.00	118	332.80	148	353.05	1693
301.90	200	319.00	126	333.00	713	354.10	2145
303.00	3050	320.95	1197	334.05	4749	355.00	404
304.00	724	321.90	433	335.05	1518	358.70	109
307.95	385	323.05	8653	335.90	102	365.00	11279
309.00	162	324.05	1823	340.90	830	365.90	1288
310.00	284	325.90	163	341.20	216	371.05	617
314.00	1309	327.00	1570	342.00	257	372.00	4931
315.00	2747	327.95	1206	345.95	1879	373.00	1108
315.90	403	328.95	388	346.85	298	382.90	221
316.05	1077	331.95	603	352.05	2493	383.05	730

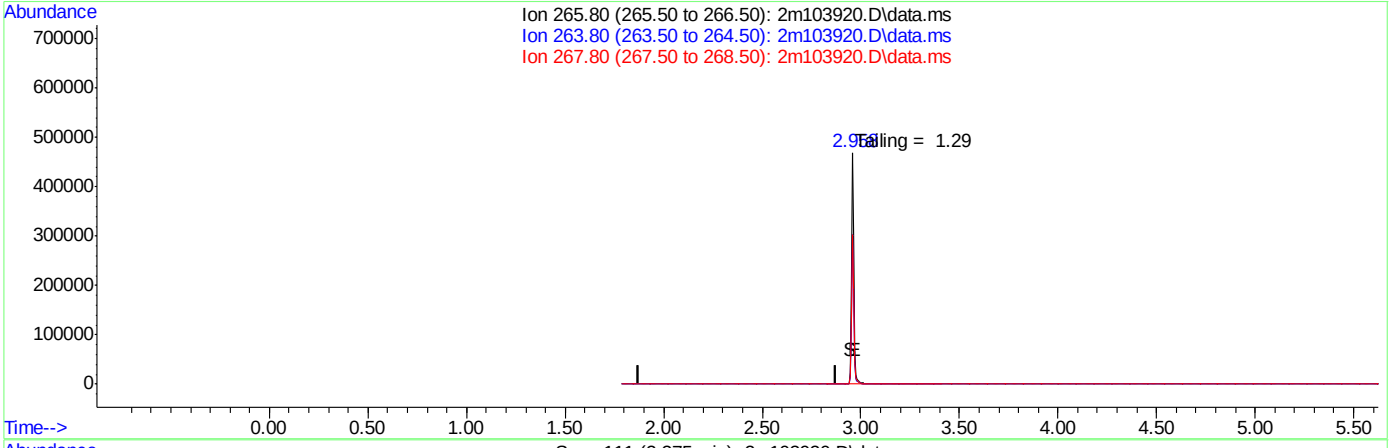
Average of 3.284 to 3.295 min.: 2m103920.D\data.ms
dftpp
Modified:subtracted

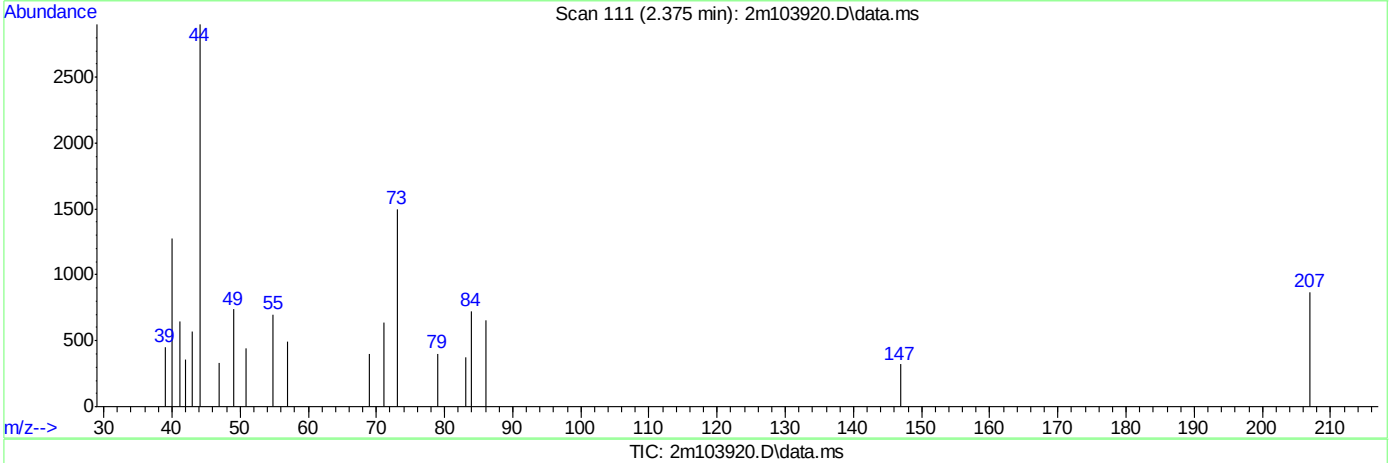
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
384.00	344	422.00	1634	433.10	176		
389.95	625	423.10	14627	433.80	109		
390.90	222	424.05	2762	434.10	105		
392.00	342	425.00	210	441.05	34077		
400.80	295	427.70	100	442.10	230490		
402.00	2107	429.70	107	443.10	44552		
403.00	3028	430.50	132	444.05	3211		
404.00	853	430.80	135	445.15	248		
415.10	100	431.40	113				
415.80	122	431.80	113				
421.00	2051	432.30	120				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4620\
Data File : 2m103920.D
Acq On : 11 May 2018 1:43 pm
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4620,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 13:49:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103920.D\data.ms

(1) Pentachlorophenol (t)

2.375min (-2.375) 0.00ppb

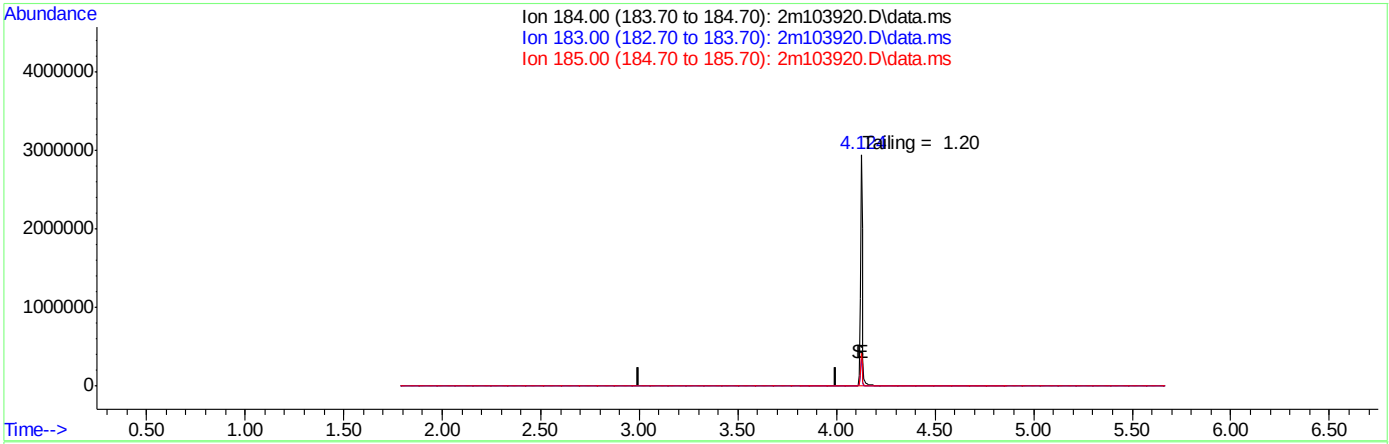
response 0

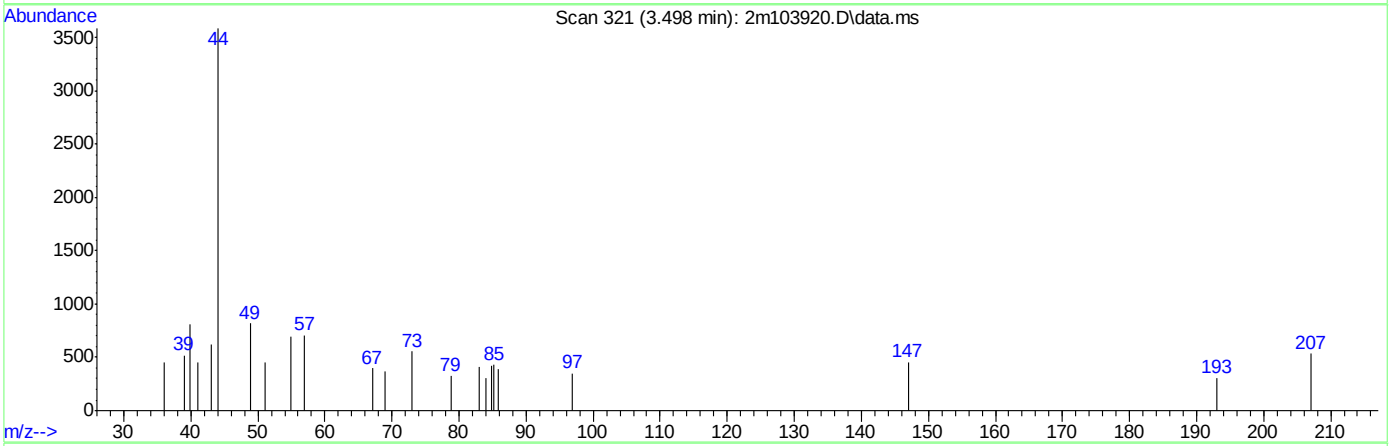
Ion	Exp%	Act%
265.80	100	0.00
263.80	61.00	0.00#
267.80	65.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4620\
Data File : 2m103920.D
Acq On : 11 May 2018 1:43 pm
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4620,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 13:49:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103920.D\data.ms

(2) Benzidine (t)

3.498min 0.00ppb d

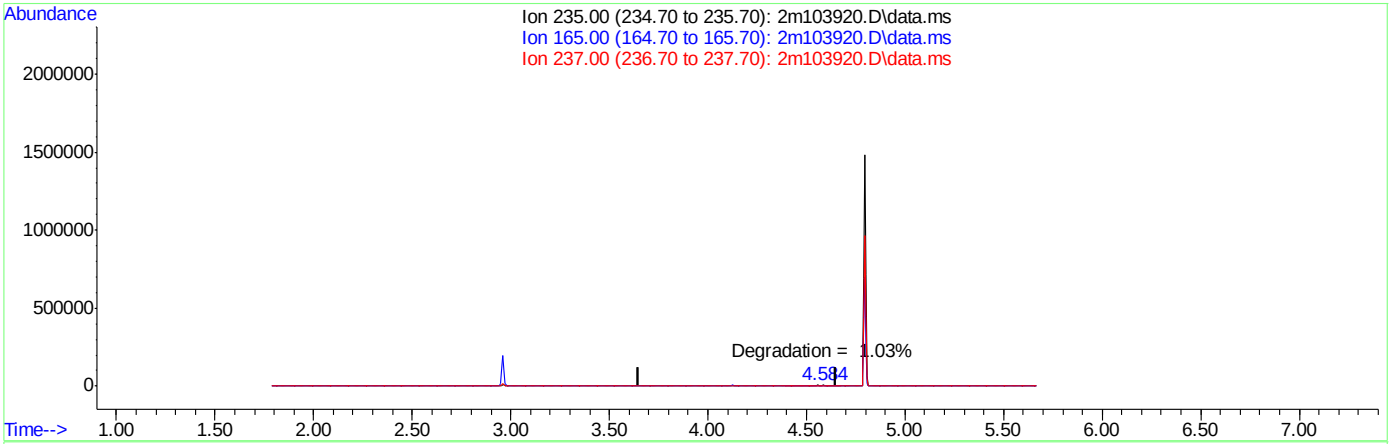
response 0

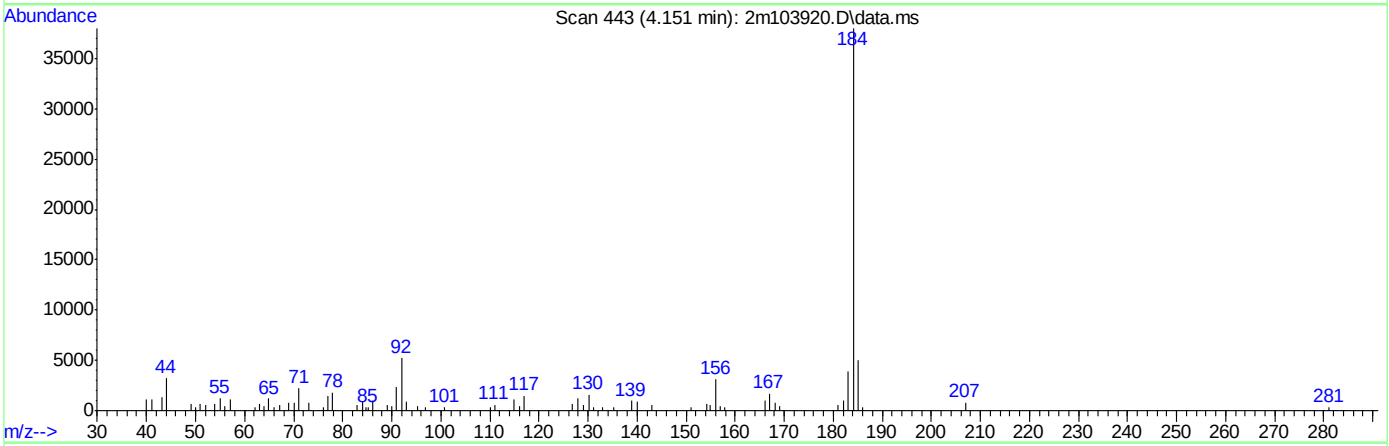
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00
185.00	13.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4620\
Data File : 2m103920.D
Acq On : 11 May 2018 1:43 pm
Operator : christc2
Sample : dftpp
Misc : op10486,e2m4620,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 13:49:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Sun Jan 28 15:07:48 2018
Response via : Initial Calibration





TIC: 2m103920.D\data.ms

(3) PP-DDT (t)

4.151min (-4.151) 0.00ppb

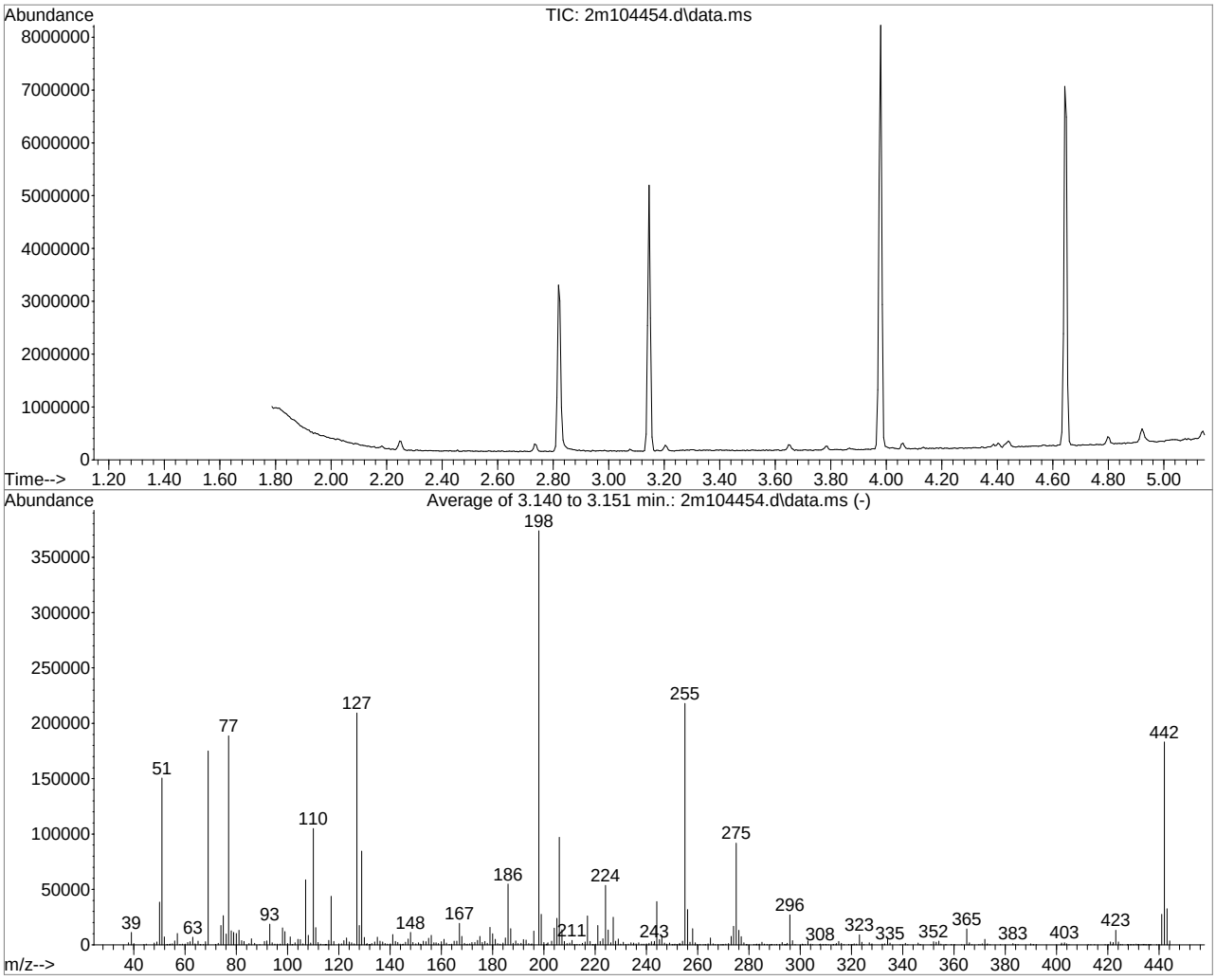
response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	52.20	0.00#
237.00	60.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\data\jonkm\e2m4641\2m104454.d Vial: 1
Acq On : 26 May 2018 7:03 pm Operator: georges
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 254, 255, 256; Background Corrected with Scan 249

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.3	150605	PASS
68	69	0.00	2	1.6	2759	PASS
69	198	0.00	100	46.8	175107	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	56.0	209335	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	373781	PASS
199	198	5	9	7.4	27544	PASS
275	198	10	30	24.6	91773	PASS
365	198	1	100	3.8	14197	PASS
441	443	0.10	100	84.5	27397	PASS
442	198	40	100	49.0	183093	PASS
443	442	17	23	17.7	32425	PASS

2m104454.d DFTPP2M.M Mon May 28 05:00:07 2018

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.95	1807	53.05	336	63.00	6814	74.95	26389
39.05	11121	53.90	157	63.95	884	76.10	9794
39.95	1120	54.15	510	65.05	3247	76.95	188751
43.90	94	55.05	844	65.85	416	78.00	12619
44.90	703	56.00	3442	66.10	131	79.00	11178
48.00	1456	57.00	10295	67.15	179	80.00	10114
49.00	2624	58.00	475	68.00	2759	81.00	13212
50.00	38412	59.00	573	69.00	175107	82.05	3719
51.00	150605	60.00	714	71.90	290	83.00	2900
51.95	7207	61.00	1982	72.95	1252	85.00	1143
52.90	185	61.95	2715	74.00	17492	85.90	5387

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.10	1321	99.95	1110	110.00	105016	120.00	935
89.10	248	101.00	7076	111.00	15543	121.05	780
90.95	2996	101.80	126	111.95	2023	121.95	3672
91.95	3519	102.00	491	112.90	562	123.00	6096
93.00	18595	102.90	1717	113.90	160	124.00	2597
93.95	1929	104.00	4959	114.60	112	125.00	1873
95.00	575	104.95	4728	114.85	482	126.05	860
96.10	597	106.00	932	115.20	299	127.00	209335
97.05	679	107.00	58601	116.00	4062	128.00	17361
98.00	15279	108.05	8493	117.00	43733	128.95	84506
99.00	11818	109.05	1665	118.00	3043	129.95	6665

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.80	334	139.90	220	148.95	2112	158.90	982
131.00	1052	140.05	922	150.00	782	160.00	2782
131.95	401	141.00	9136	151.05	1841	161.00	4949
132.20	368	142.05	3104	151.70	536	162.00	1553
132.85	1066	143.00	2074	152.00	379	163.10	342
134.00	2509	143.95	685	152.95	3260	163.95	660
135.00	6874	144.80	142	154.00	2699	164.95	3321
136.00	3146	145.10	704	155.05	5928	165.95	3164
137.05	2576	146.00	2259	156.10	8494	167.00	19231
138.00	1167	147.00	5065	157.05	1697	168.00	7683
139.00	600	148.00	11183	157.95	1802	169.05	1446

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.70	162	180.00	9860	191.05	1434	201.20	768
170.10	636	181.00	4866	192.00	4802	201.50	1910
171.05	962	181.95	999	193.05	4102	202.95	3305
171.90	2051	182.90	585	194.05	1126	204.00	15054
173.00	2019	184.00	1503	194.90	345	205.05	23879
174.05	4040	184.95	6195	195.20	835	206.00	96997
175.00	7563	186.00	54771	196.00	12391	207.00	13490
175.95	2041	187.00	14541	198.00	373781	208.00	2911
177.00	3038	188.00	1334	199.00	27544	209.00	1030
177.90	1441	189.00	3610	200.00	2061	210.00	1544
179.00	15723	189.95	1033	200.90	343	211.00	4056

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
211.80	128	220.05	561	230.95	2257	240.80	177
212.20	147	221.00	17342	231.90	354	241.00	1399
212.95	481	221.95	3083	232.95	655	242.00	2733
213.90	109	223.00	5361	233.95	1815	242.90	639
215.00	1315	224.05	53680	234.90	317	243.05	2906
216.00	2418	225.05	13356	235.05	1593	244.05	39043
217.00	26061	226.05	1889	235.95	897	245.05	4796
218.05	2960	227.00	24910	236.95	1811	245.95	8320
218.90	123	227.95	3174	238.10	511	247.05	1580
219.10	162	229.00	5117	238.90	546	248.00	552
219.30	111	229.95	693	239.95	855	249.05	1694

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms

DFTPP2M.M Mon May 28 04:59:23 2018

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
250.00	361	256.00	31869	265.00	6253	274.00	16733
250.20	152	256.95	2276	265.95	846	275.00	91773
250.80	172	258.00	14569	266.80	130	276.00	13157
251.10	546	258.90	220	268.00	119	277.00	7398
251.80	220	259.05	1921	268.90	135	278.00	1702
252.00	289	259.90	130	269.50	104	278.90	234
252.70	282	260.95	338	269.85	224	279.15	366
252.95	1446	262.20	106	270.10	193	282.00	396
253.20	350	262.90	205	270.95	660	282.80	412
254.05	3216	263.10	147	272.00	1192	283.10	616
255.00	217923	264.05	944	273.00	7674	283.80	247

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.05	497	293.90	293	304.00	713	313.90	192
285.05	2204	294.20	173	304.90	188	314.05	1213
286.00	537	294.50	139	307.40	113	315.00	3052
287.05	260	294.90	1232	307.90	607	316.00	1398
288.10	135	295.95	27005	308.80	110	317.10	245
288.60	119	296.95	3772	309.00	170	318.95	307
289.05	398	298.00	219	309.85	268	319.90	153
289.90	174	300.85	521	310.20	188	320.50	161
290.75	405	301.10	121	311.10	117	321.05	862
292.00	450	302.00	269	312.80	164	322.00	643
292.95	2159	303.00	3472	313.05	377	323.10	8992

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
324.05	2246	342.00	183	358.95	426	372.80	241
324.90	111	345.95	1582	360.20	127	373.05	911
326.95	1703	346.70	151	363.00	125	374.10	180
327.70	100	347.00	134	365.00	14197	378.10	153
327.95	886	351.00	142	365.70	230	382.95	1007
332.05	694	352.00	2815	366.00	1752	383.90	335
332.95	861	353.00	2266	366.95	252	385.00	142
334.05	5718	354.10	3239	369.60	131	389.80	178
335.05	1499	354.95	558	370.10	191	389.95	875
339.10	121	356.60	126	371.00	859	390.90	193
341.05	1262	357.10	116	372.05	4905	391.10	227

Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
392.10	231	420.20	149	428.80	151	434.80	190
401.80	258	421.00	2453	429.10	111	435.10	116
401.95	1683	421.80	238	429.70	176	435.70	251
402.90	209	422.05	1996	430.20	202	436.20	117
403.05	1767	423.05	13036	431.10	685	436.50	167
403.95	779	424.10	2490	431.70	168	436.90	156
404.90	139	425.00	385	432.00	257	439.00	143
412.50	133	425.70	106	432.60	233	440.00	115
413.30	117	427.60	119	433.35	397	441.05	27397
414.80	229	427.80	251	433.90	259	442.10	183093
418.90	146	428.10	177	434.35	334	443.10	32425

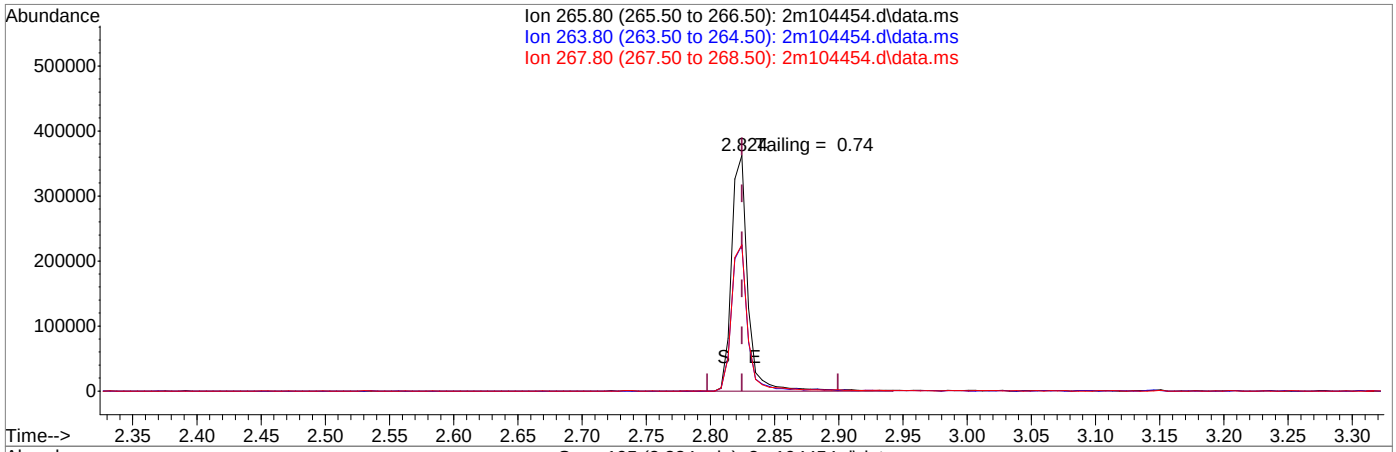
Average of 3.140 to 3.151 min.: 2m104454.d\data.ms
dftpp
Modified:subtracted

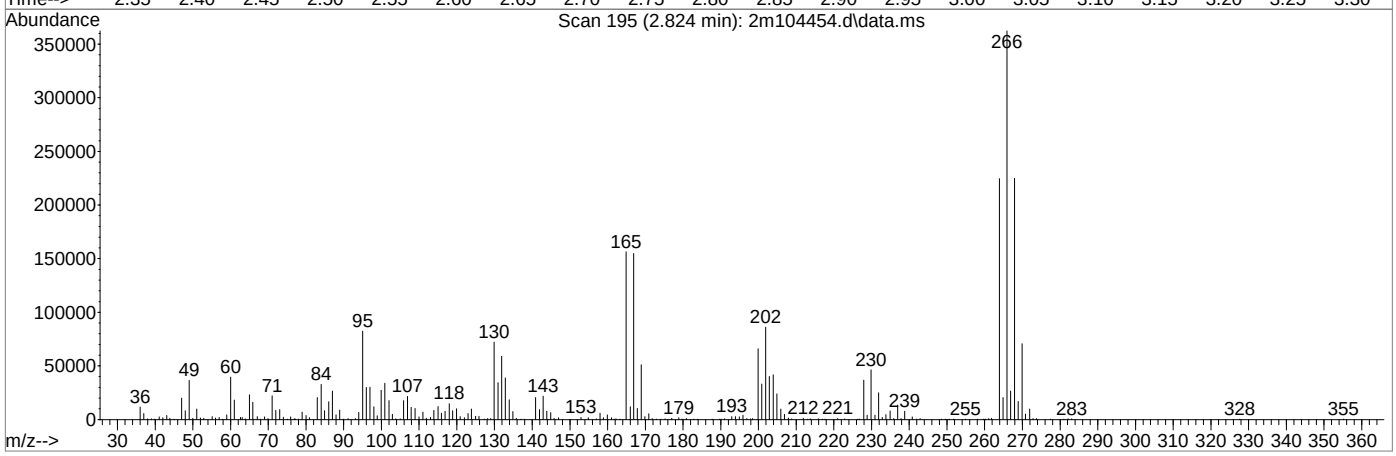
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
444.10	3550						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104454.d
Acq On : 26 May 2018 7:03 pm
Operator : georges
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Results File: DFTPP2M.RES
Quant Time: May 28 04:59:23 2018
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Mon May 28 04:59:04 2018
Response via : Initial Calibration





TIC: 2m104454.d\data.ms

(1) Pentachlorophenol (t)

2.824min (0.000) 0.00ppb

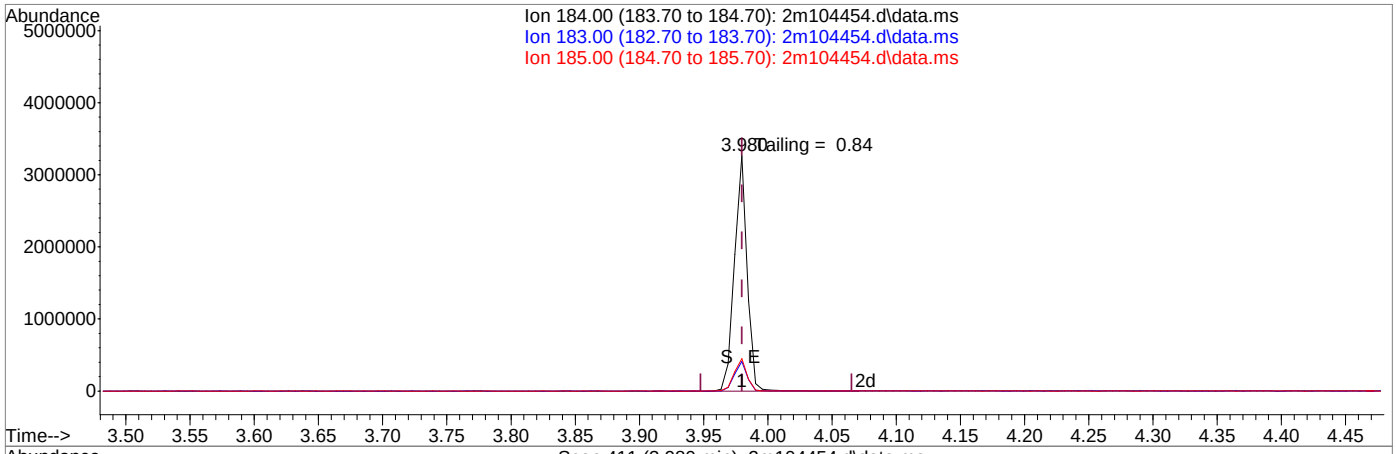
response 318410

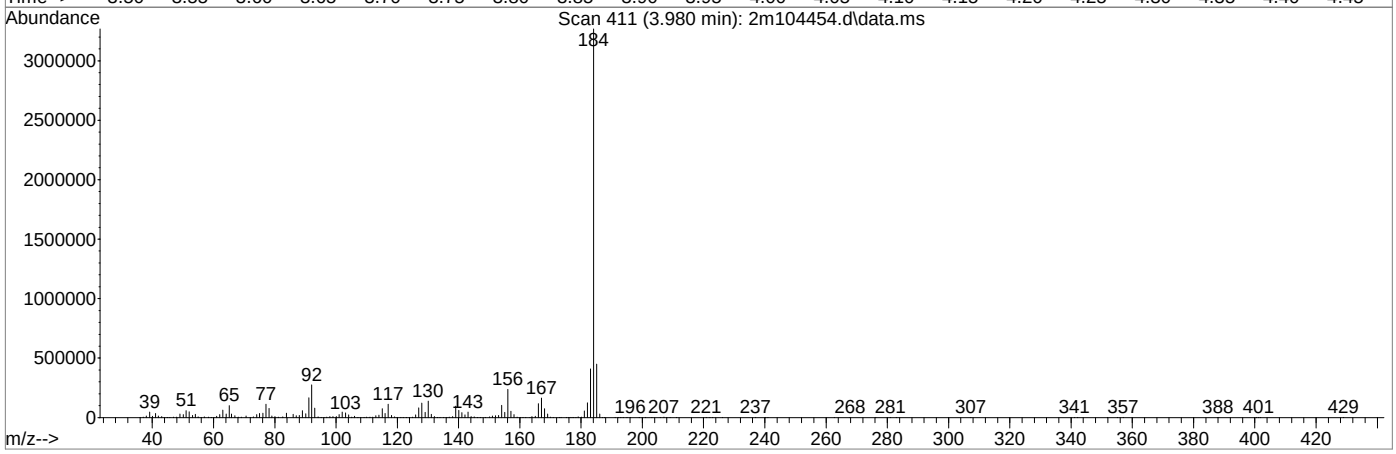
Ion	Exp%	Act%
265.80	100	100
263.80	61.90	61.91
267.80	62.10	61.87
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104454.d
Acq On : 26 May 2018 7:03 pm
Operator : georges
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Results File: DFTPP2M.RES
Quant Time: May 28 04:59:23 2018
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Mon May 28 04:59:04 2018
Response via : Initial Calibration





TIC: 2m104454.d\data.ms

(2) Benzidine (t)

3.980min (0.000) 0.00ppb

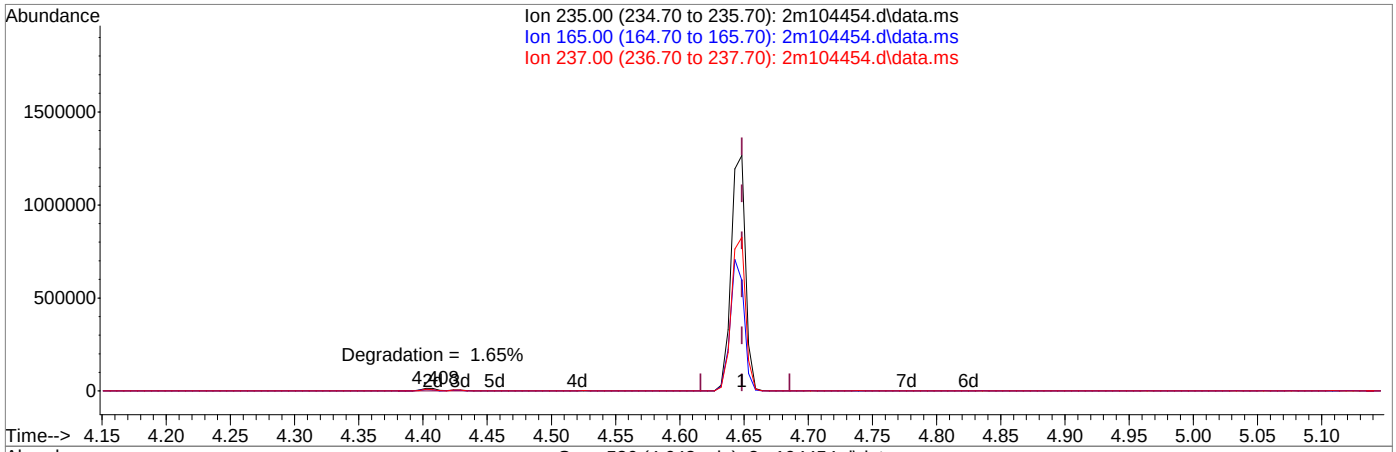
response 2251083

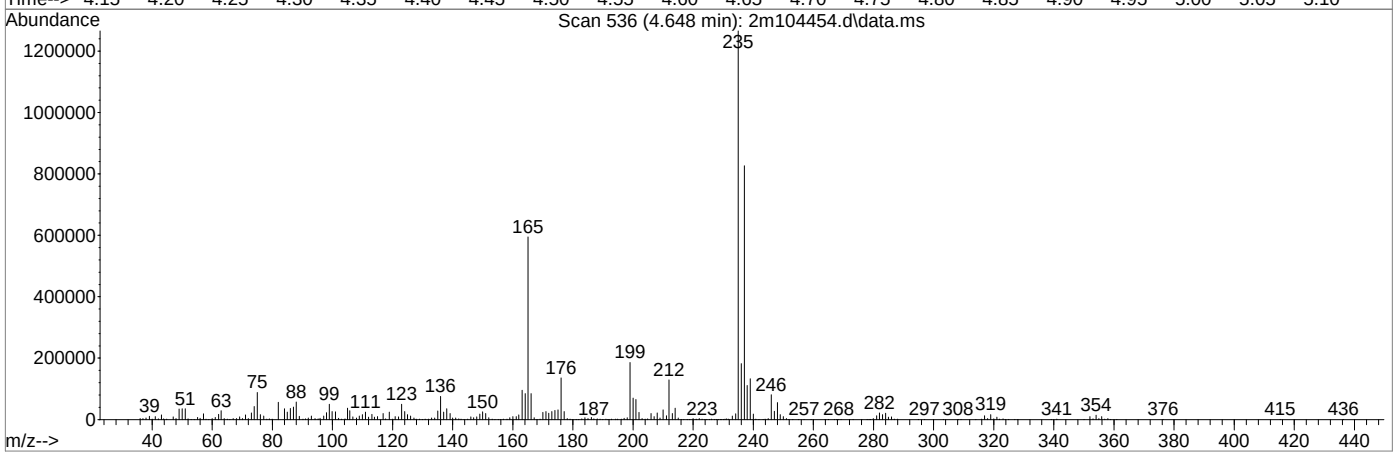
Ion	Exp%	Act%
184.00	100	100
183.00	12.50	12.50
185.00	13.70	13.72
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104454.d
Acq On : 26 May 2018 7:03 pm
Operator : georges
Sample : dftpp Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2M.M
Quant Results File: DFTPP2M.RES
Quant Time: May 28 04:59:23 2018
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Mon May 28 04:59:04 2018
Response via : Initial Calibration





TIC: 2m104454.d\data.ms

(3) PP-DDT (t)

4.648min (0.000) 0.00ppb

response 989324

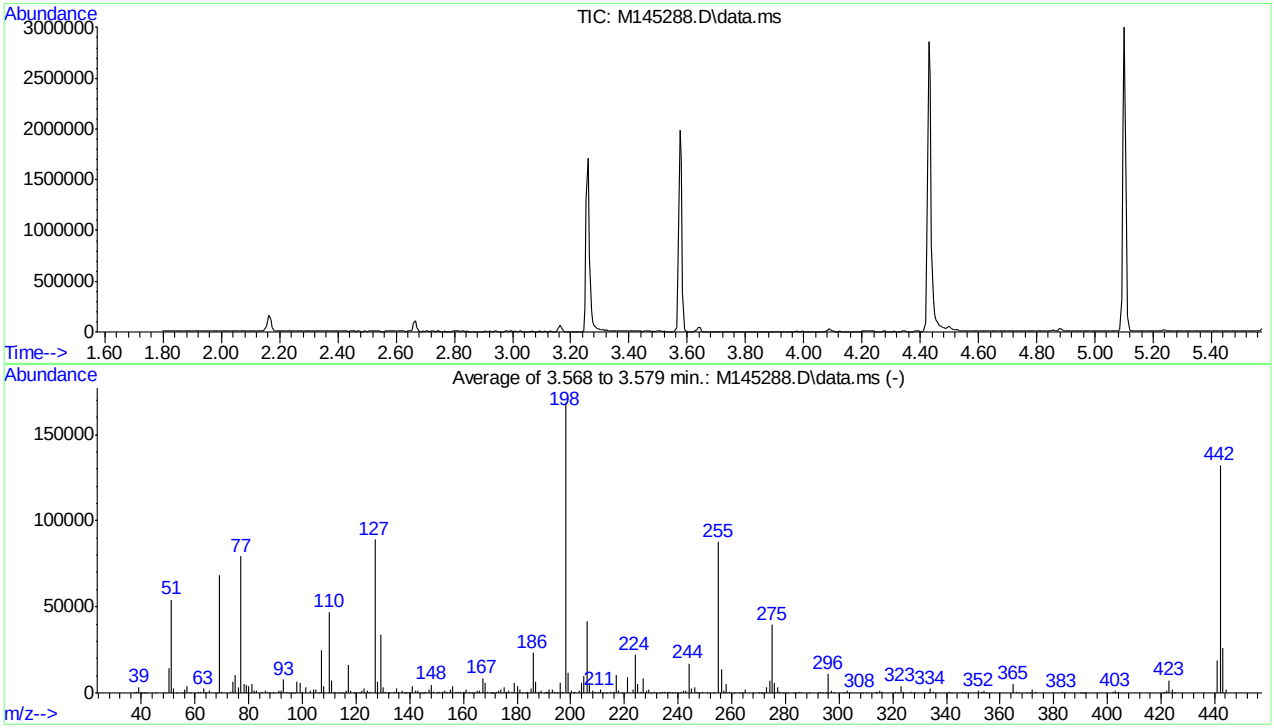
Ion	Exp%	Act%
235.00	100	100
165.00	47.00	53.46
237.00	65.30	64.67
0.00	0.00	0.00

DFTPPR

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145288.D
Acq On : 17 Apr 2018 10:55 am
Operator : chriss2
Sample : dftpp
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
Last Update : Sun Feb 18 15:20:41 2018



AutoFind: Scans 333, 334, 335; Background Corrected with Scan 329

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.2	54344	PASS
68	69	0.00	2	0.5	349	PASS
69	198	0.00	100	40.4	68186	PASS
70	69	0.00	2	0.6	378	PASS
127	198	40	60	52.9	89104	PASS
197	198	0.00	1	0.3	462	PASS
198	198	100	100	100.0	168576	PASS
199	198	5	9	6.9	11591	PASS
275	198	10	30	23.5	39557	PASS
365	198	1	100	2.9	4960	PASS
441	443	0.10	100	73.4	18883	PASS
442	198	40	100	78.5	132344	PASS
443	442	17	23	19.4	25736	PASS

Average of 3.568 to 3.579 min.: M145288.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.15	205	52.15	2886	68.15	349	81.05	5225
38.15	721	53.05	90	69.05	68186	82.05	1418
39.15	3594	55.10	287	70.05	378	83.05	1237
39.95	85	56.05	1745	73.10	647	85.10	911
40.15	300	57.10	3972	74.10	6530	86.05	1461
41.15	104	58.05	239	75.05	10225	87.05	641
42.05	89	61.10	645	76.15	3503	88.00	332
45.15	76	62.05	978	77.10	79265	89.05	70
49.05	250	63.10	2305	78.15	5459	91.10	1105
50.15	14039	64.10	441	79.05	4670	92.05	1256
51.15	54344	65.15	1250	80.05	3793	93.05	7672

Average of 3.568 to 3.579 min.: M145288.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.10	523	106.05	189	118.05	1286	130.10	3044
94.95	79	107.05	24758	119.05	189	131.05	770
96.10	181	108.05	3946	120.10	192	131.95	115
97.15	87	110.05	46965	121.15	67	132.15	92
98.10	6401	111.05	7313	122.05	1444	134.05	949
99.05	5754	112.10	749	123.05	2620	135.10	2507
100.00	507	113.15	139	124.10	1184	136.05	925
101.05	3007	114.05	79	125.00	870	137.10	1385
103.05	1061	115.05	148	127.05	89104	138.00	288
104.00	1914	116.10	1036	128.05	6276	138.25	136
105.05	1797	117.05	16243	129.05	34130	138.85	91

Average of 3.568 to 3.579 min.: M145288.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.05	363	150.15	234	160.10	899	170.75	82
141.05	3942	151.05	607	161.10	1988	171.05	183
142.05	1514	152.05	485	162.05	462	172.05	798
143.10	1173	153.00	1198	162.95	112	173.05	1070
144.10	188	154.00	858	164.10	255	174.05	1654
145.00	171	155.05	2178	165.05	1496	175.05	3071
145.25	128	156.05	3720	166.10	1342	176.00	963
146.05	595	157.05	786	167.05	8691	177.05	1359
147.05	2115	158.00	706	168.05	5586	178.05	579
148.05	4560	159.00	418	169.05	889	179.05	5948
149.05	958	159.95	213	170.25	205	180.05	4132

Average of 3.568 to 3.579 min.: M145288.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.05	2180	191.10	648	201.55	748	213.10	213
182.05	277	192.05	2030	203.05	1169	215.05	486
183.05	137	193.10	2214	204.05	6159	216.05	889
184.05	435	194.05	477	205.05	9919	217.05	10288
185.05	2701	194.85	98	206.05	41396	218.00	1334
186.05	23355	196.05	5581	207.05	5693	219.05	68
187.05	6663	196.75	462	208.05	1419	221.05	9197
188.15	795	198.05	168576	209.05	426	223.05	2176
189.05	1392	199.05	11591	210.10	771	224.05	21863
190.15	82	200.05	1075	211.05	1658	225.05	5422
190.95	136	201.05	126	211.95	112	226.00	708

Average of 3.568 to 3.579 min.: M145288.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
227.05	8667	238.05	69	249.05	525	265.05	1815
228.10	1334	238.95	377	250.85	72	267.85	88
229.00	1659	240.05	205	253.10	271	269.90	178
230.05	264	241.05	505	255.05	87722	270.95	115

DFTPPM.M Wed Apr 18 02:28:33 2018 MSM

231.00	693	242.05	1396	256.05	13488	271.15	110
232.05	75	243.05	1286	257.05	1237	272.00	283
233.05	119	244.05	17216	258.05	4944	273.05	2979
234.00	637	245.05	2666	259.05	984	274.05	6856
235.05	659	246.05	2977	260.95	68	275.05	39557
236.10	448	247.05	841	262.95	76	276.05	5627
237.05	845	248.05	101	263.90	147	277.05	3088

Average of 3.568 to 3.579 min.: M145288.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
277.95	481	295.05	110	314.05	550	334.05	2353
279.05	67	296.05	11022	315.05	1299	335.05	609
281.05	78	297.05	1504	316.05	633	341.05	450
283.00	326	297.95	179	321.05	355	342.05	147
284.00	241	301.95	242	322.00	244	346.00	840
285.05	551	303.05	1547	323.05	3967	346.95	191
285.95	107	304.05	350	324.05	581	352.05	1189
288.95	154	307.90	138	326.95	659	353.00	739
292.05	120	308.85	85	327.95	236	354.05	1495
293.00	821	310.05	72	332.00	209	354.95	221
293.95	109	313.85	76	333.05	314	364.95	4960

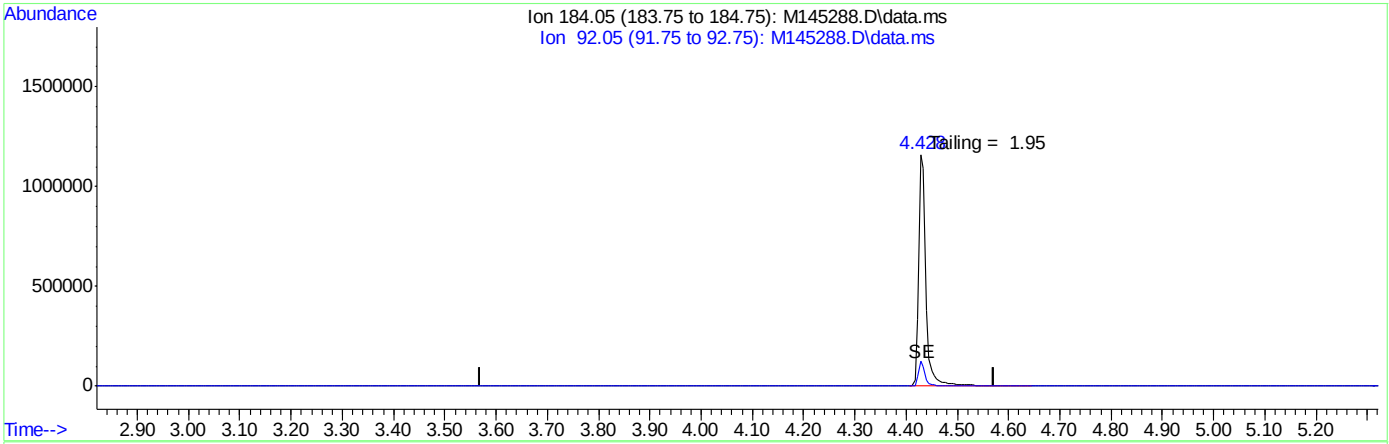
Average of 3.568 to 3.579 min.: M145288.D\data.ms
dftpp
Modified:subtracted

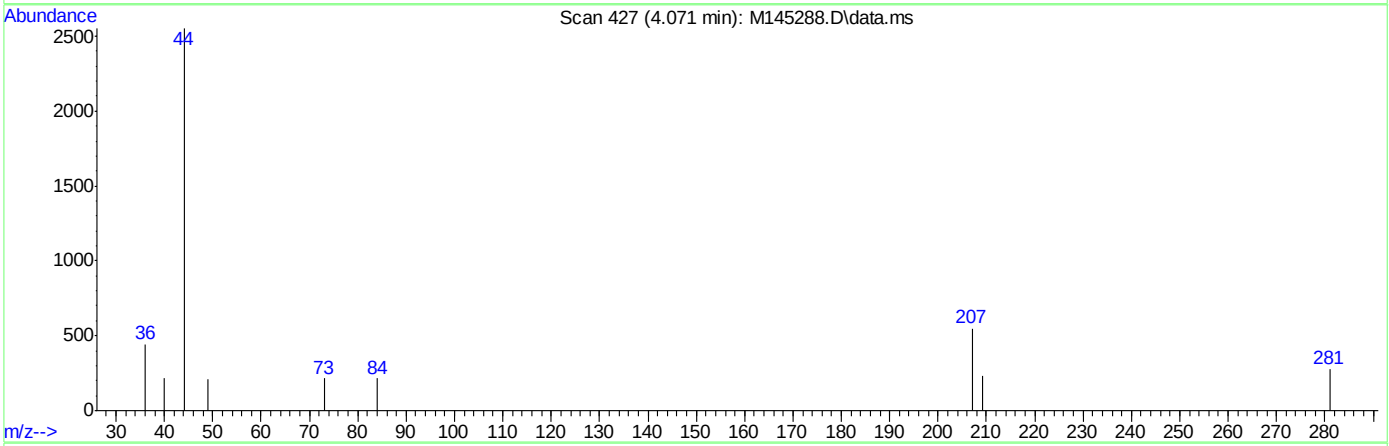
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
366.00	628	392.05	68	441.05	18883		
367.05	71	402.00	994	442.05	132344		
369.95	81	402.85	71	443.05	25736		
371.05	323	403.05	1099	444.05	2117		
372.05	2265	404.05	421				
373.05	587	420.85	120				
383.05	554	421.05	974				
384.00	233	422.00	1055				
390.05	236	423.05	7167				
390.95	130	424.05	1732				
391.15	130	424.95	219				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145288.D
Acq On : 17 Apr 2018 10:55 am
Operator : chriss2
Sample : dftpp
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 17 11:37:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M145288.D\data.ms

(2) Benzidine (M)

4.071min (-4.071) 0.00ppm

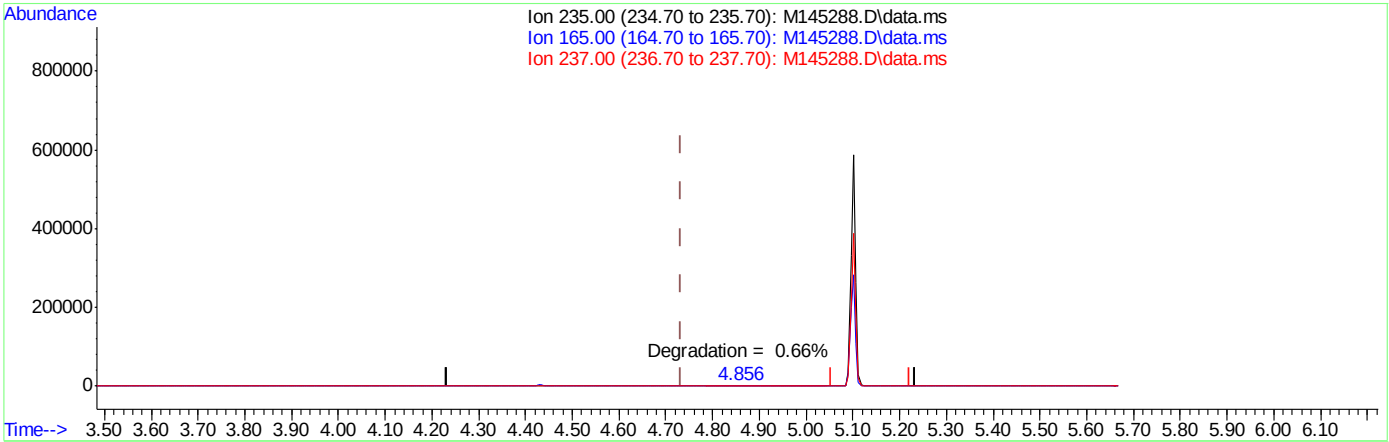
response 0

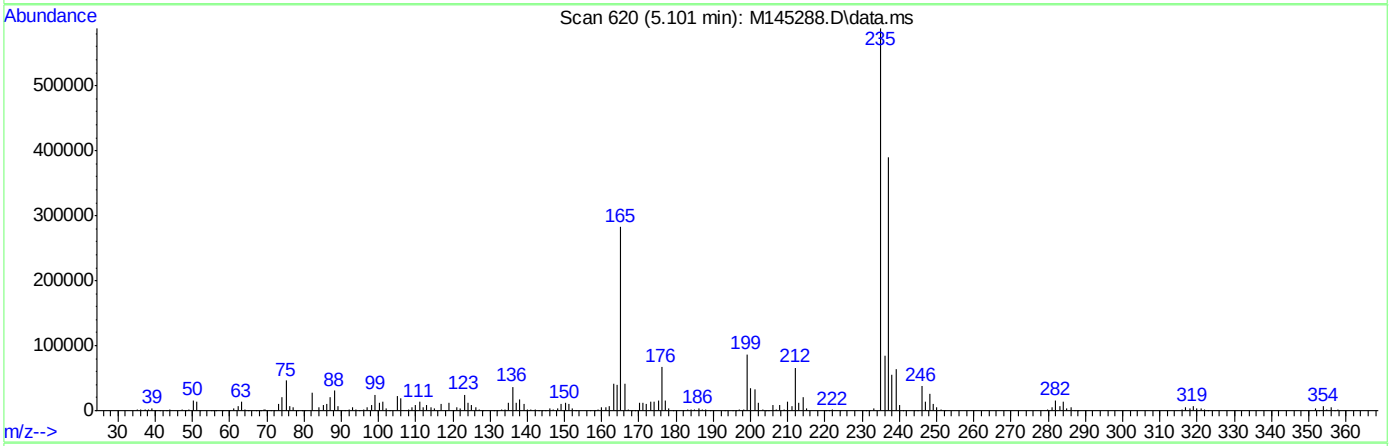
Ion	Exp%	Act%
184.05	100	0.00
92.05	7.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145288.D
Acq On : 17 Apr 2018 10:55 am
Operator : chriss2
Sample : dftpp
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 17 11:37:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M145288.D\data.ms

(3) PP-DDT (MC)

5.101min (+0.368) 0.00ppm m

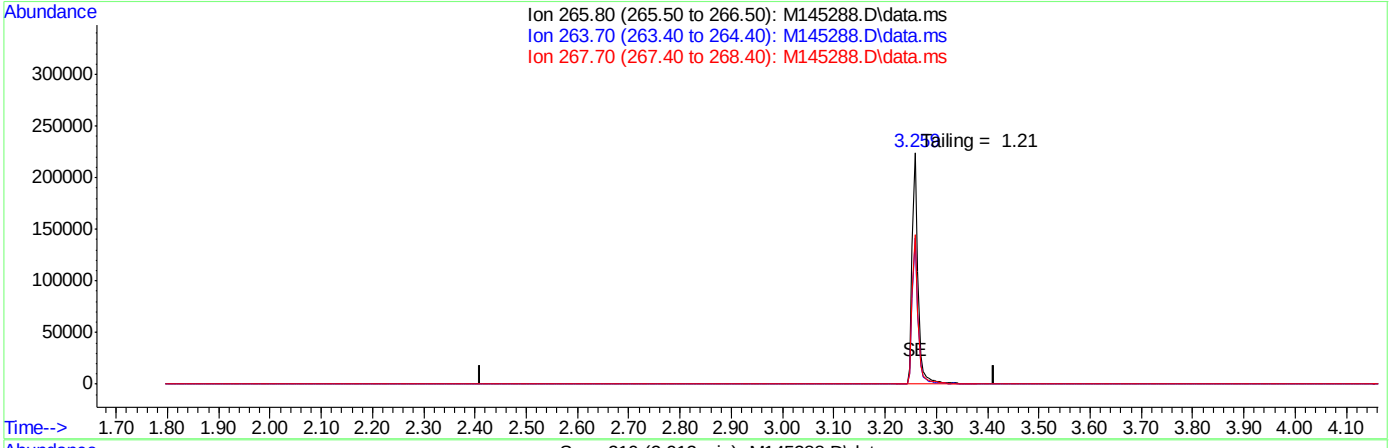
response 402911

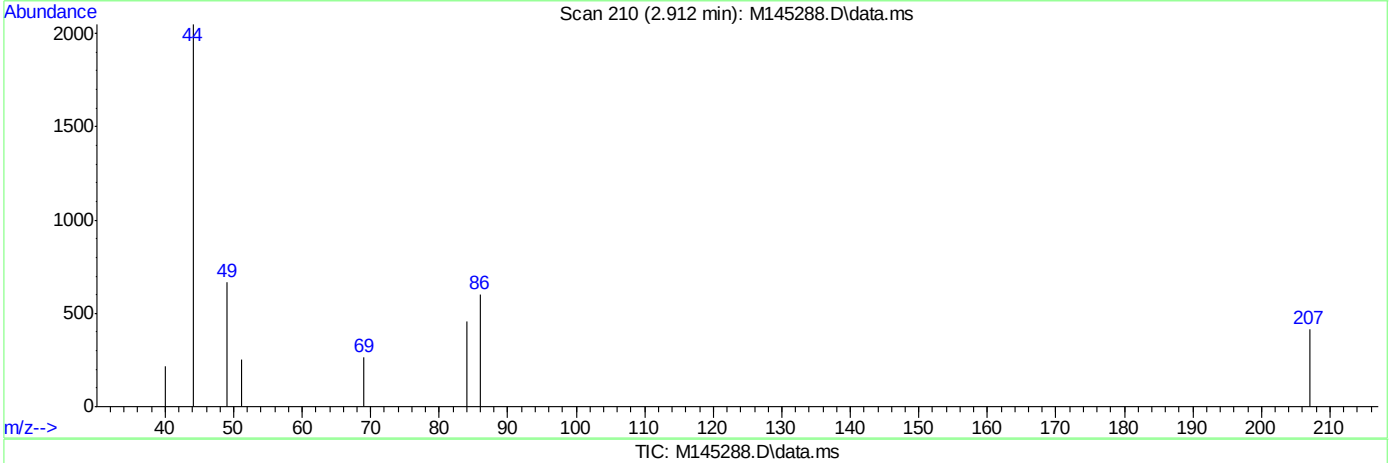
Ion	Exp%	Act%
235.00	100	100
165.00	42.80	47.96
237.00	66.60	66.17
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145288.D
Acq On : 17 Apr 2018 10:55 am
Operator : chriss2
Sample : dftpp
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 17 11:37:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M145288.D\data.ms

(1) Pentachlorophenol (MC)

2.912min (-2.912) 0.00ppm

response 0

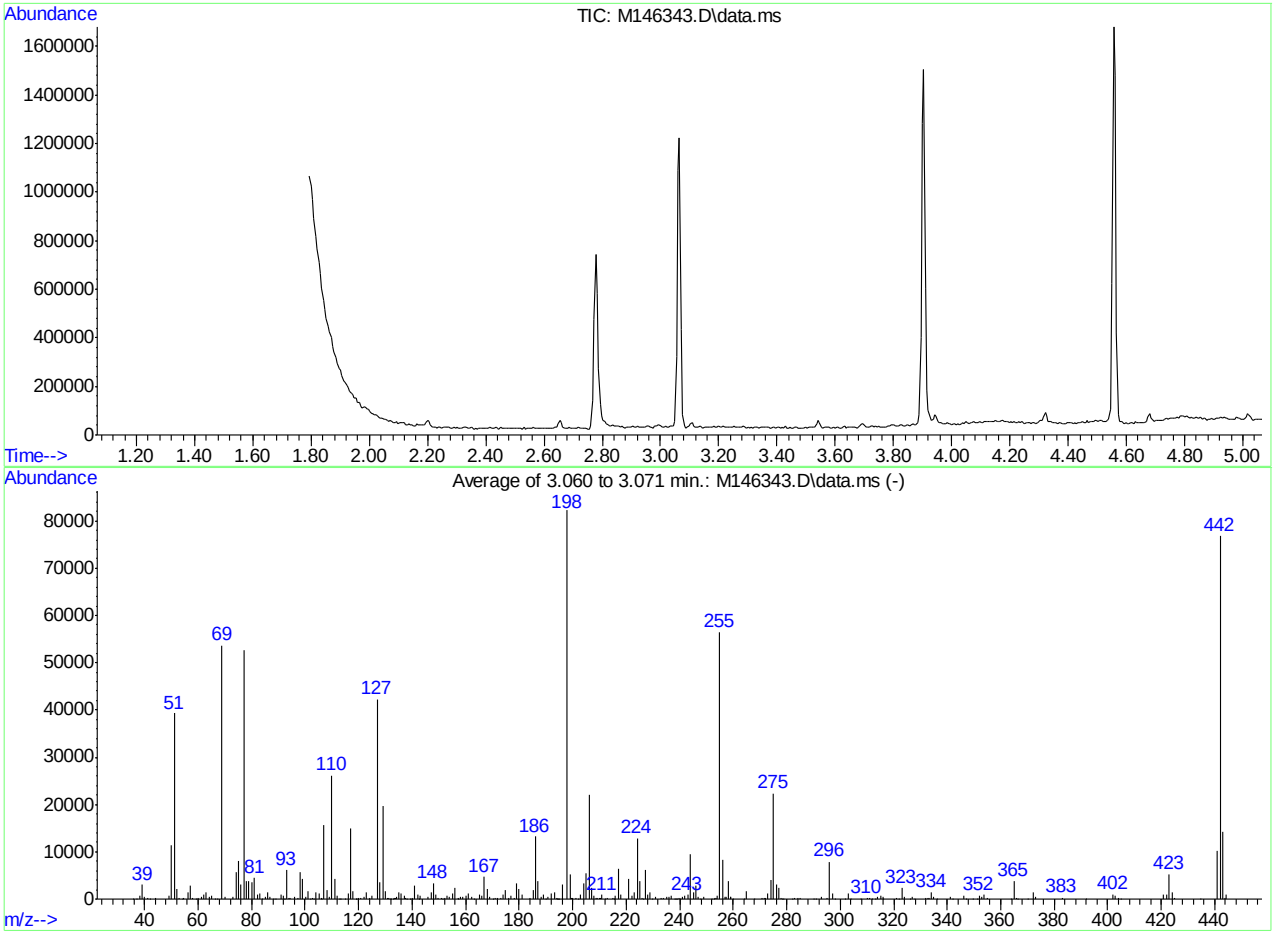
Ion	Exp%	Act%
265.80	100	0.00
263.70	61.50	0.00#
267.70	64.40	0.00#
0.00	0.00	0.00

DFTPPR

Data File : D:\EM6221\M146343.D
Acq On : 24 May 2018 12:16 pm
Sample : dftpp
Misc : op10492,em6221,1000,,,1,1
MS Integration Params: rteint.p

Vial: 1
Operator: seanb1
Inst : Instrument #1
Multiplr: 1.00

Method : D:\DFTPPm.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018



AutoFind: Scans 238, 239, 240; Background Corrected with Scan 233

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.8	39329	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	65.3	53674	PASS
70	69	0.00	2	0.8	438	PASS
127	198	40	60	51.4	42219	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	82203	PASS
199	198	5	9	6.5	5335	PASS
275	198	10	30	27.2	22367	PASS
365	198	1	100	4.6	3804	PASS
441	443	0.10	100	71.9	10238	PASS
442	198	40	100	93.3	76720	PASS
443	442	17	23	18.5	14231	PASS

M146343.D DFTPPm.M Fri May 25 12:49:38 2018 RPT1

Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	124	52.10	2040	63.10	1465	77.10	52589
37.10	97	52.95	267	64.10	380	78.05	3852
38.05	684	54.00	72	65.10	816	79.05	3815
39.10	3030	54.70	141	66.10	96	80.00	3591
40.05	424	56.05	1459	67.10	56	81.05	4426
41.05	271	57.00	2781	69.00	53674	82.00	1063
42.10	78	58.10	290	70.05	438	83.05	1143
43.95	128	59.00	67	73.05	379	84.00	11
49.00	698	59.95	144	74.10	5700	85.00	557
50.05	11355	61.05	563	75.00	8076	86.00	1351
51.05	39329	62.10	974	76.10	2987	86.95	580

Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.00	103	99.05	4204	108.00	1984	118.90	98
89.10	67	100.10	448	109.00	409	119.10	82
91.05	926	101.00	1673	110.00	26167	120.00	290
92.00	705	102.00	77	111.00	4339	120.90	163
92.20	117	102.90	356	112.00	629	122.00	567
93.05	6158	103.20	125	112.70	91	123.00	1484
93.95	357	104.00	1408	113.10	15	123.90	350
94.20	160	105.05	1234	114.80	93	125.00	605
96.15	397	106.00	163	116.05	1157	127.00	42219
97.10	326	106.20	97	117.00	14832	128.05	3530
98.10	5665	107.00	15681	118.00	1614	129.00	19783

Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.00	1615	137.00	808	148.00	3355	157.30	116
130.80	252	137.65	314	149.00	890	158.00	565
131.05	259	138.00	119	149.80	197	158.95	455
131.80	70	139.00	83	151.05	260	160.00	694
132.20	90	139.95	229	151.30	89	161.00	1225
132.70	120	141.00	2758	152.10	331	162.10	366
133.15	266	142.00	912	153.05	834	162.90	91
133.90	196	142.60	87	154.00	521	165.00	1042
134.05	521	143.00	685	155.00	1282	166.00	746
135.10	1359	145.95	580	156.05	2459	167.00	4736
136.00	1189	147.00	1409	157.10	165	168.00	2249

Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.10	442	180.00	2259	193.05	1492	202.10	72
170.10	82	181.00	965	193.90	154	203.00	980
170.90	187	183.95	358	194.20	88	204.00	3407
172.00	345	185.10	1875	194.70	122	205.05	5463
173.05	307	186.05	13249	195.00	90	206.05	22155
173.95	990	187.05	3839	196.00	3039	207.00	2385
175.00	1793	188.05	525	198.00	82203	208.00	683
175.95	180	189.00	958	198.95	5335	208.90	348
177.05	834	190.00	108	199.70	131	209.20	132
177.95	354	190.90	368	200.10	214	210.05	271
179.00	3419	192.05	1163	201.30	181	210.30	275

Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
211.00	851	224.05	12860	234.95	573	244.00	9572
212.00	118	225.05	3705	236.00	501	245.00	1441
213.05	167	225.80	139	237.00	622	246.00	2750
215.00	137	226.20	105	238.10	70	247.00	514

215.40	95	227.00	6240	238.70	98	247.90	106
216.00	737	227.95	1047	239.00	122	249.00	443
217.00	6354	229.00	1324	239.90	144	252.00	127
217.95	890	229.70	79	240.10	125	252.80	76
221.00	4308	231.00	405	241.00	481	253.10	223
222.10	646	232.90	170	242.00	726	253.40	162
223.00	1466	233.95	270	243.10	943	254.00	677

Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
255.00	56483	270.95	264	282.10	86	301.90	98
256.00	8315	271.70	171	283.00	293	303.00	1115
256.90	416	272.10	362	284.10	148	304.00	95
257.20	378	272.95	1163	285.10	231	307.80	77
258.00	3803	274.00	4047	290.00	81	310.10	226
258.90	457	275.00	22367	290.90	87	310.80	130
259.10	376	276.00	3026	293.05	483	312.00	30
259.90	77	276.95	2329	295.00	150	313.10	101
264.00	70	277.80	156	296.00	7830	314.10	564
265.00	1563	278.10	89	296.95	1166	315.05	641
268.00	71	278.90	121	298.20	70	315.90	105

Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
316.05	442	334.05	1492	353.90	1000	402.00	972
320.95	308	334.95	387	354.95	236	402.95	744
321.80	78	336.00	86	363.60	84	404.00	276
323.00	2345	340.95	381	365.00	3804	405.00	100
324.00	476	342.00	117	365.85	234	420.95	938
326.10	79	346.00	692	366.10	119	422.00	982
326.95	556	347.10	92	370.00	125	423.00	5299
327.90	79	349.40	74	371.95	1536	424.00	1411
332.00	232	351.10	87	373.00	409	425.10	142
332.90	203	352.05	738	382.95	302	434.50	70
333.10	132	352.95	471	392.00	71	441.00	10238

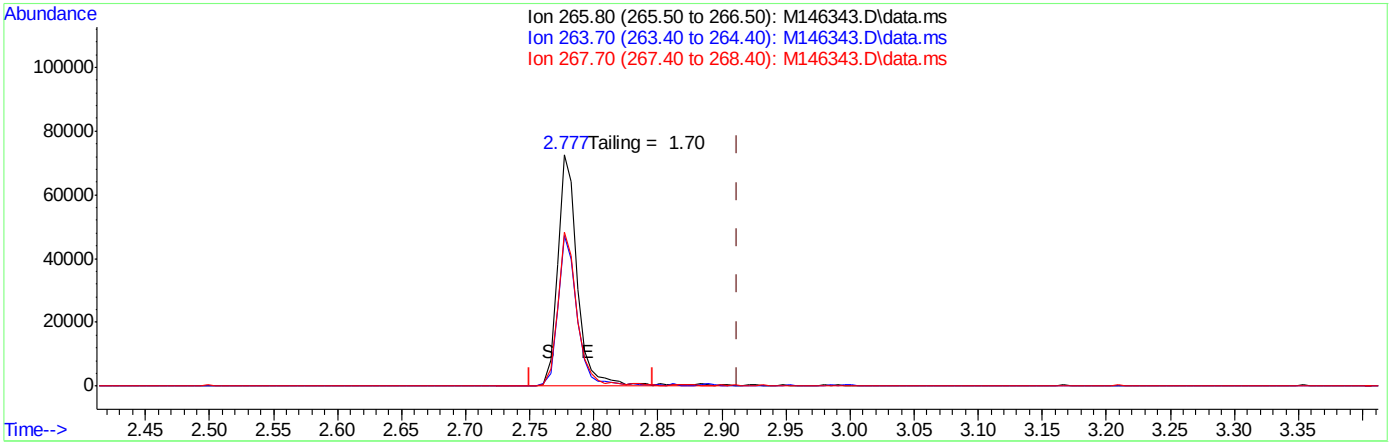
Average of 3.060 to 3.071 min.: M146343.D\data.ms
dftpp
Modified:subtracted

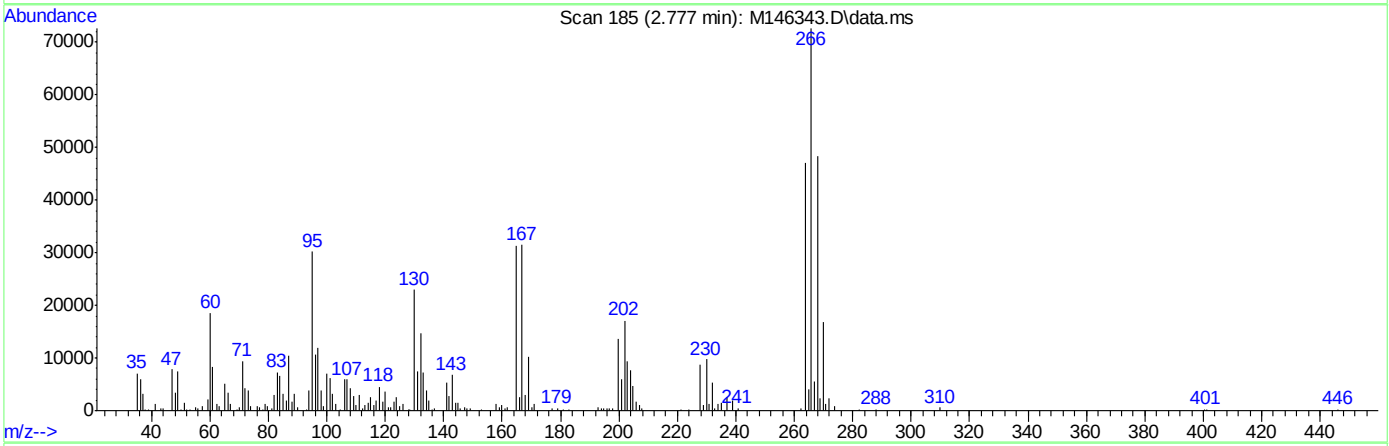
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
442.00	76720						
443.00	14231						
443.90	169						
444.05	884						

Quantitation Report (Qedit)

Data Path : D:\EM6221\
Data File : M146343.D
Acq On : 24 May 2018 12:16 pm
Operator : seanb1
Sample : dftpp
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 12:21:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M146343.D\data.ms

(1) Pentachlorophenol (MC)

2.777min (-0.135) 0.00ppm

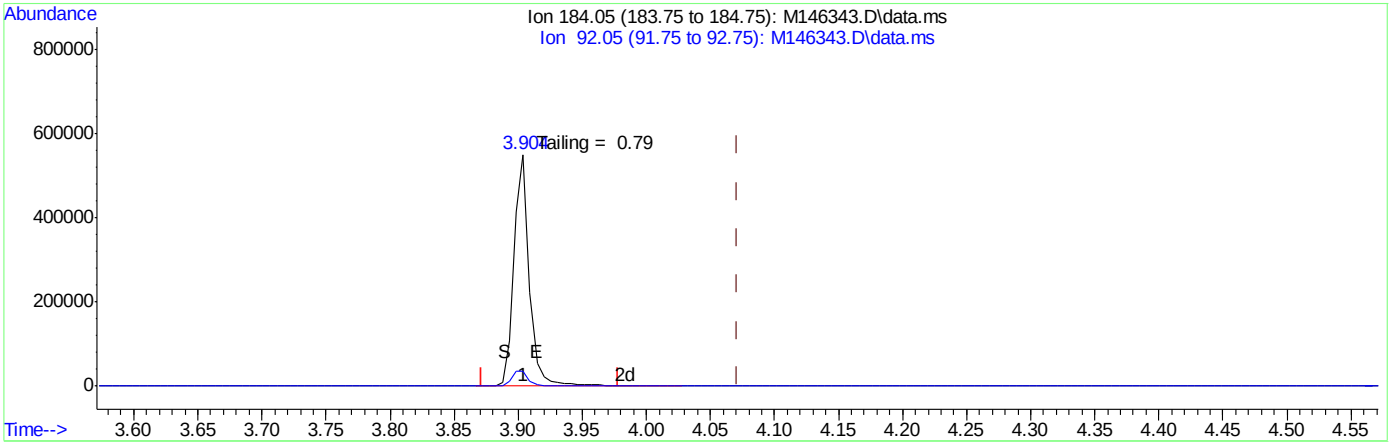
response 77571

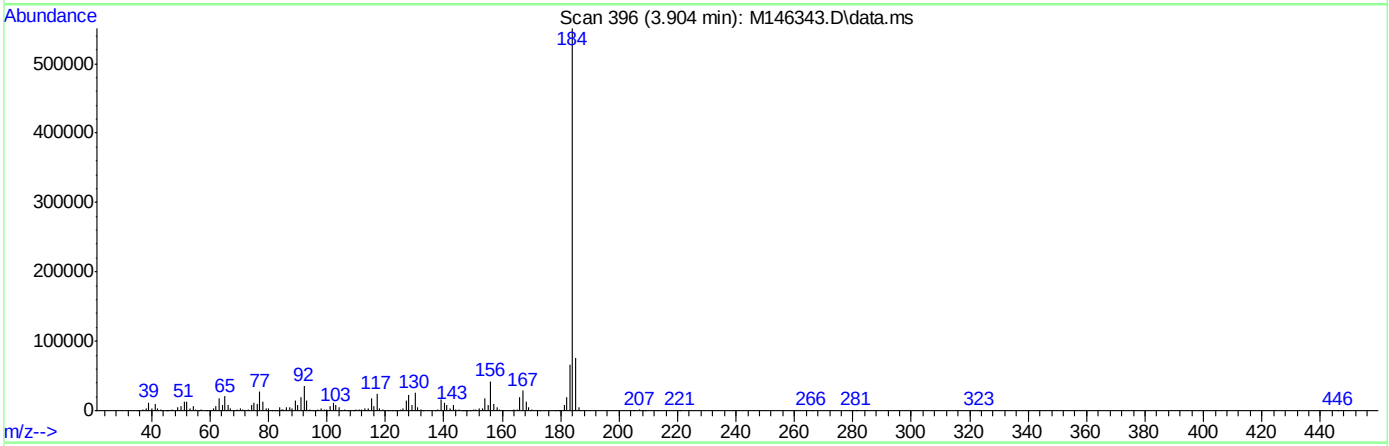
Ion	Exp%	Act%
265.80	100	100
263.70	61.50	64.64
267.70	64.40	66.24
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\EM6221\
Data File : M146343.D
Acq On : 24 May 2018 12:16 pm
Operator : seanb1
Sample : dftpp
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 12:21:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M146343.D\data.ms

(2) Benzidine (M)

3.904min (-0.167) 0.00ppm

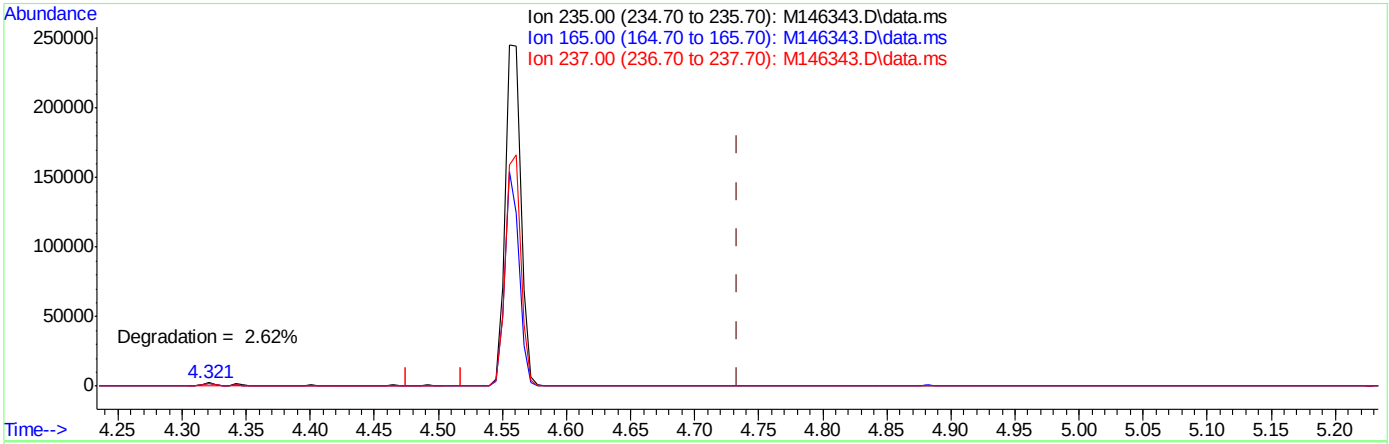
response 460036

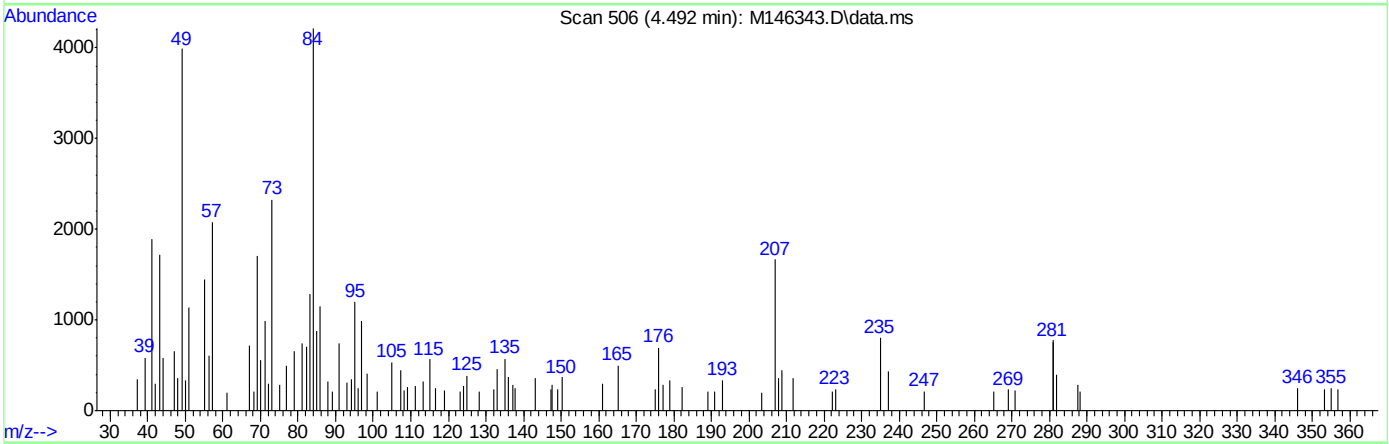
Ion	Exp%	Act%
184.05	100	100
92.05	7.20	6.34
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\EM6221\
Data File : M146343.D
Acq On : 24 May 2018 12:16 pm
Operator : seanb1
Sample : dftpp
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 12:21:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M146343.D\data.ms

(3) PP-DDT (MC)

4.492min (-0.242) 0.00ppm

response 1037

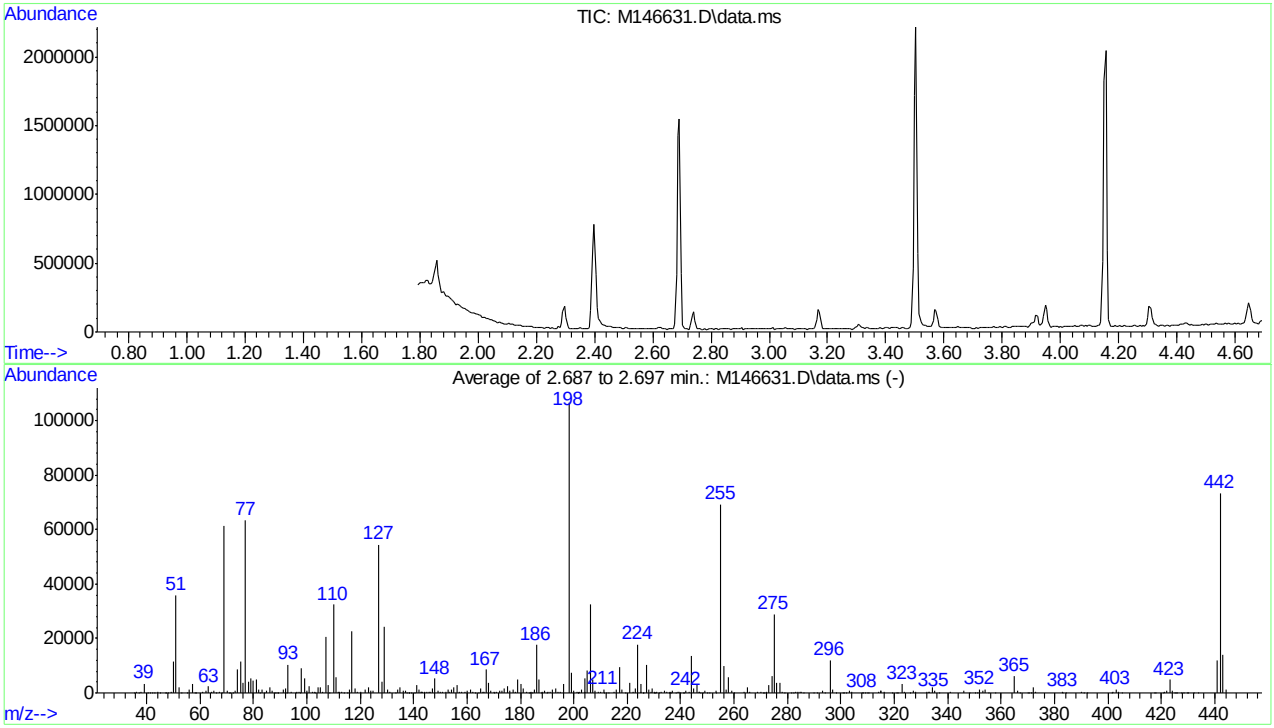
Ion	Exp%	Act%
235.00	100	100
165.00	42.80	44.23
237.00	66.60	50.25
0.00	0.00	0.00

DFTPPR

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146631.D
Acq On : 5 Jun 2018 8:42 am
Operator : angelar
Sample : dftpp
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
Last Update : Sun Feb 18 15:20:41 2018



AutoFind: Scans 168, 169, 170; Background Corrected with Scan 163

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.6	35861	PASS
68	69	0.00	2	0.2	131	PASS
69	198	0.00	100	57.4	61213	PASS
70	69	0.00	2	1.0	636	PASS
127	198	40	60	51.1	54494	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	106637	PASS
199	198	5	9	6.8	7294	PASS
275	198	10	30	27.1	28886	PASS
365	198	1	100	5.9	6250	PASS
441	443	0.10	100	83.8	11778	PASS
442	198	40	100	68.9	73488	PASS
443	442	17	23	19.1	14058	PASS

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.20	217	47.05	87	57.95	128	70.10	636
36.05	380	47.25	79	58.30	155	70.95	68
37.10	127	48.15	89	61.15	429	71.15	141
38.05	383	49.15	225	62.15	943	72.15	112
39.15	3411	50.15	11491	63.15	2370	73.15	999
40.25	188	51.10	35861	64.15	296	74.15	8745
41.15	39	52.15	2160	65.10	724	75.10	11725
42.25	132	53.05	176	66.05	23	76.15	3722
43.15	39	55.10	61	67.10	330	77.15	63590
44.15	262	56.15	1173	68.05	131	78.15	4332
44.95	164	57.10	3367	69.05	61213	79.05	5254

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.05	4358	88.95	108	98.05	9169	108.10	2765
81.05	4982	89.15	83	99.05	5471	108.55	79
82.10	1225	91.05	1157	100.00	643	110.05	32471
82.55	110	92.05	1498	101.05	2443	111.10	5717
83.15	1239	92.35	159	102.10	222	111.95	376
84.05	66	93.05	10314	102.90	543	112.15	370
85.05	845	94.05	508	103.15	64	113.05	296
86.05	1885	95.65	111	104.10	1984	114.05	82
87.05	972	96.10	463	105.05	2059	115.10	97
87.75	86	97.15	245	106.05	330	116.05	1357
88.25	169	97.35	73	107.05	20701	117.00	22832

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
118.10	1496	130.95	380	141.05	2933	149.05	904
118.90	267	133.25	80	142.10	1306	149.95	264
120.05	353	134.00	1053	142.75	334	151.00	377
122.05	1045	135.05	1902	142.95	375	152.10	612
123.05	2245	136.05	659	143.15	396	153.00	1062
124.00	876	137.10	988	144.10	381	153.25	342
125.00	722	137.45	152	145.10	310	154.05	1257
127.05	54494	138.05	207	145.95	390	155.05	2003
128.05	4223	138.35	95	146.15	266	156.10	3053
129.05	24357	139.15	102	147.05	1700	157.10	537
130.05	1375	140.15	192	148.05	5329	157.90	422

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
159.05	628	169.05	827	179.00	4778	187.00	5002
160.10	632	169.95	244	180.05	3446	187.95	166
161.10	1225	170.15	157	181.10	1520	188.20	447
162.05	362	171.10	474	182.10	230	188.95	482
163.10	213	172.10	704	182.95	74	189.15	717
164.05	159	173.00	742	183.75	204	189.95	124
165.00	1493	173.95	1623	184.05	339	190.15	224
165.95	519	175.05	2432	184.35	176	191.10	319
166.15	462	176.10	812	185.05	1295	192.00	1346
167.05	8490	177.05	1434	185.25	1036	193.05	1731
168.10	3684	178.05	349	186.05	17562	194.15	452

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
195.05	414	204.25	478	214.90	424	225.85	178
196.10	3511	205.05	8194	216.05	1092	226.15	169
198.05	106637	206.05	32341	217.00	9529	227.05	10251
199.00	7294	207.05	4888	217.95	1050	228.05	1372

DFTPPM.M Tue Jun 05 15:53:10 2018 MSM

200.00	865	208.05	924	219.15	69	228.85	253
201.15	254	209.10	436	221.00	3913	229.10	1762
201.40	39	210.00	527	222.10	577	229.95	303
201.75	145	211.05	1394	223.05	1559	230.15	76
202.15	224	211.45	120	224.05	17792	230.35	78
203.05	1258	212.05	97	225.05	3428	230.65	108
204.05	5229	213.05	69	225.25	346	231.05	365

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.95	164	239.20	402	247.45	73	259.05	1041
232.65	222	239.95	137	248.05	198	260.00	192
233.95	815	240.85	116	249.00	637	263.75	449
234.95	568	241.05	217	249.85	202	265.00	2202
235.55	79	242.05	955	250.85	147	266.00	471
235.85	181	243.15	508	253.15	739	268.95	250
236.05	251	244.05	13720	253.35	132	269.95	238
236.45	101	245.00	1517	255.05	69240	270.95	191
237.05	759	246.05	3239	256.05	9898	271.25	109
237.95	154	246.75	234	257.05	1050	272.05	341
238.90	415	247.05	331	258.05	5826	273.00	2942

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
274.05	6181	285.15	361	302.05	78	316.00	598
275.05	28886	286.10	204	303.05	984	318.95	69
276.05	3681	289.95	195	304.10	354	320.85	174
277.05	3617	291.05	85	307.95	162	321.15	131
278.15	498	292.95	1020	308.25	80	323.05	3216
278.95	93	294.05	134	309.05	78	323.95	467
281.15	80	296.05	12040	309.85	150	325.85	67
282.25	77	297.05	1279	310.25	125	327.05	762
283.05	482	298.05	204	314.15	536	328.00	448
284.00	381	300.65	74	314.85	707	331.95	371
284.80	329	300.95	175	315.05	729	332.95	313

Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.15	223	354.05	1294	382.85	203	417.45	67
334.05	2275	355.05	46	383.10	416	417.85	70
335.05	733	357.95	84	384.05	115	420.85	171
336.85	189	365.00	6250	390.05	357	421.05	565
341.10	444	366.00	880	391.05	76	421.90	1034
345.90	919	367.15	74	391.95	90	423.05	4917
348.05	68	369.85	67	401.25	105	424.10	1004
350.15	74	370.15	85	402.00	461	424.85	177
350.85	131	371.05	145	403.05	1288	425.25	85
352.05	1338	372.00	1960	404.05	295	425.65	94
353.05	829	373.00	248	405.25	78	427.55	119

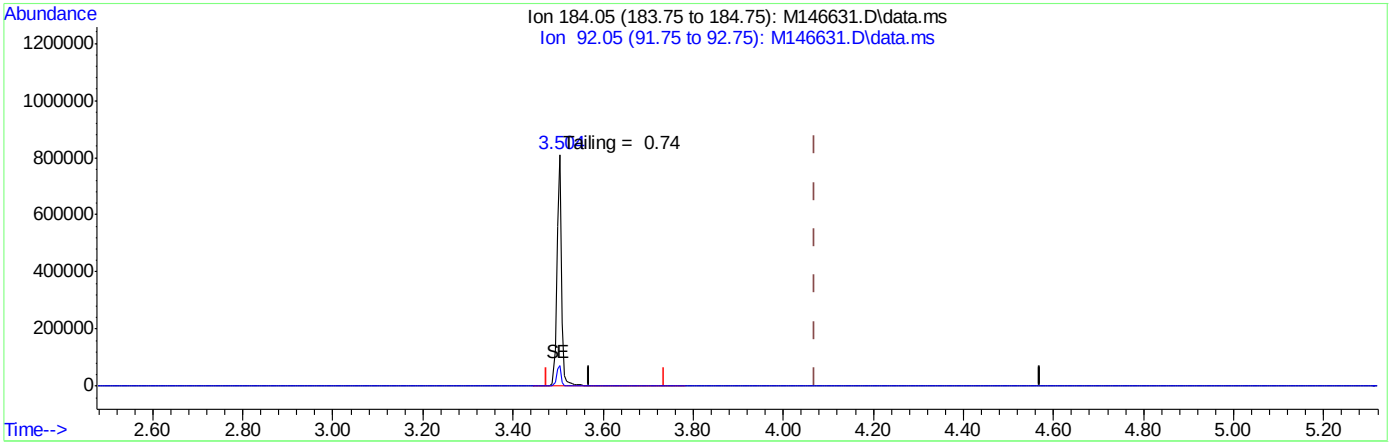
Average of 2.687 to 2.697 min.: M146631.D\data.ms
dftpp
Modified:subtracted

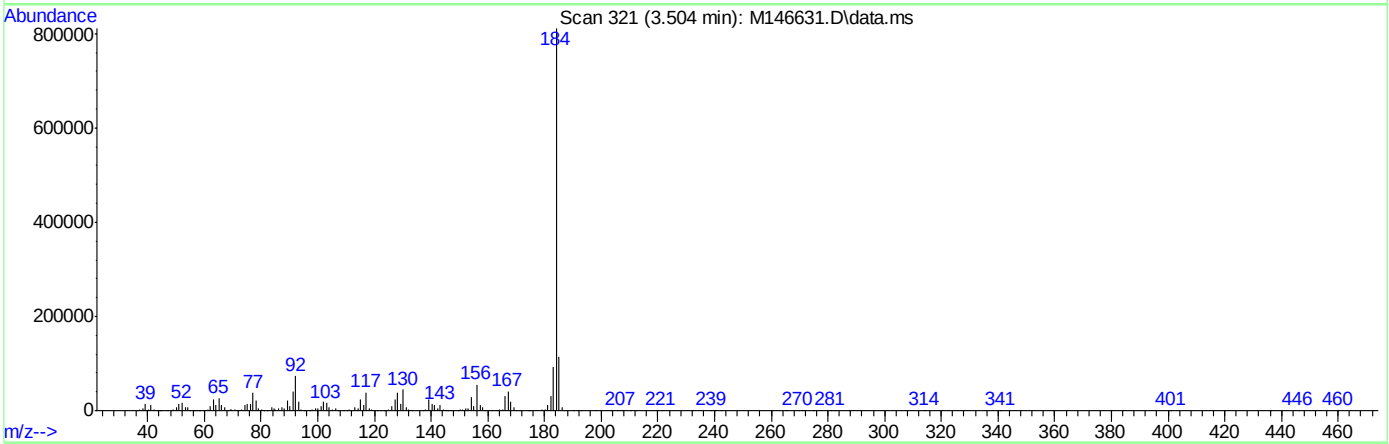
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
428.35	91						
429.45	80						
429.85	78						
432.05	73						
433.55	71						
441.00	11778						
442.05	73488						
443.05	14058						
444.05	1117						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146631.D
Acq On : 5 Jun 2018 8:42 am
Operator : angelar
Sample : dftpp
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 05 08:48:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M146631.D\data.ms

(2) Benzidine (M)

3.504min (-0.567) 0.00ppm m

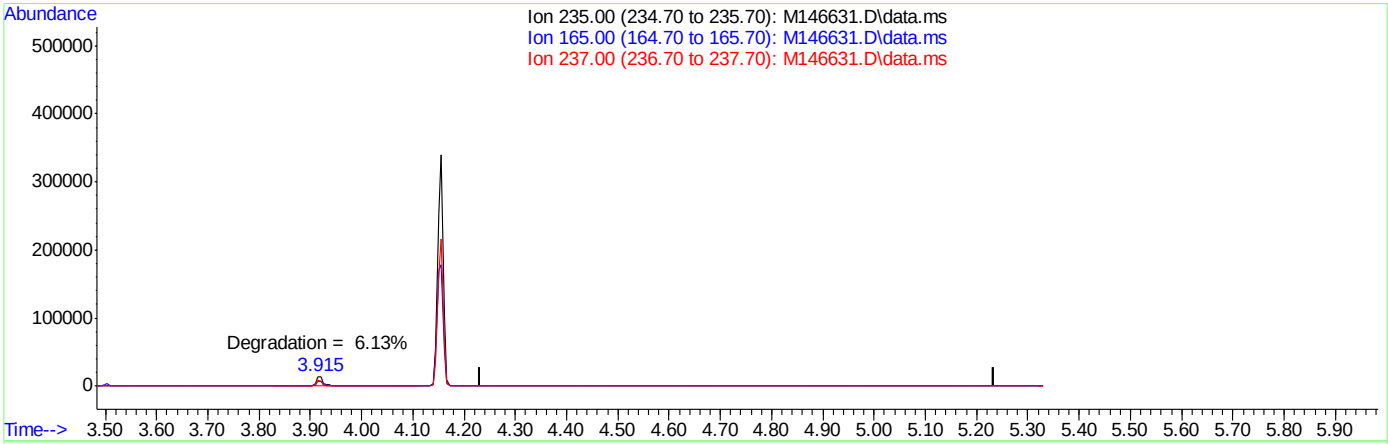
response 594554

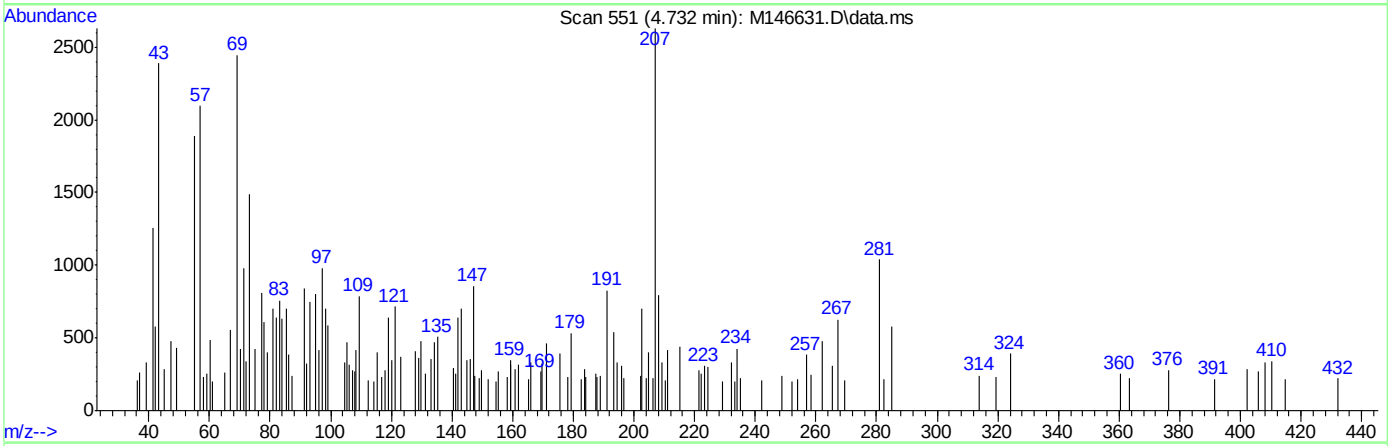
Ion	Exp%	Act%
184.05	100	100
92.05	7.20	8.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146631.D
Acq On : 5 Jun 2018 8:42 am
Operator : angelar
Sample : dftpp
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 05 08:48:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M146631.D\data.ms

(3) PP-DDT (MC)

4.734min (-4.734) 0.00ppm

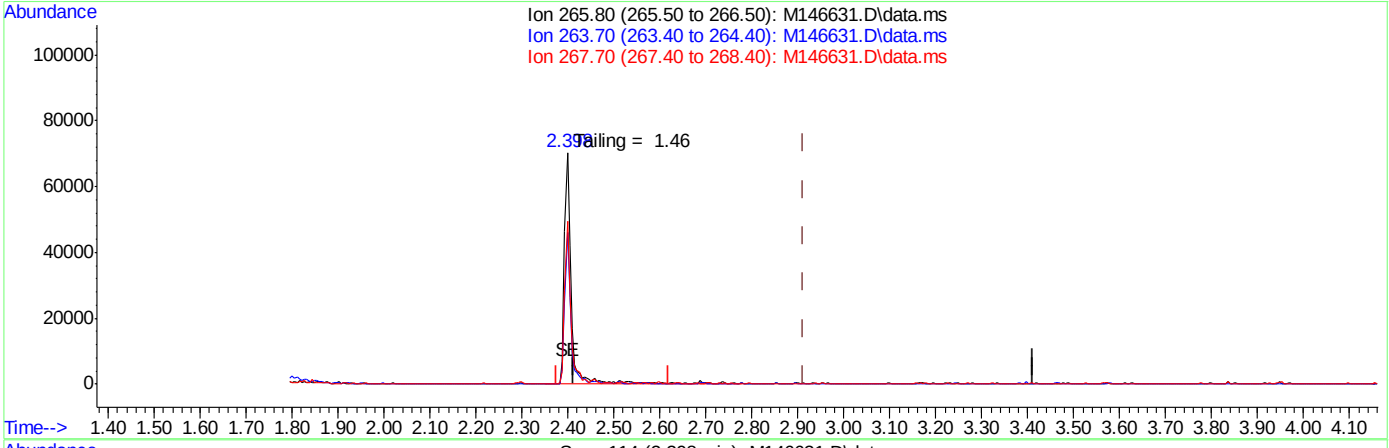
response 0

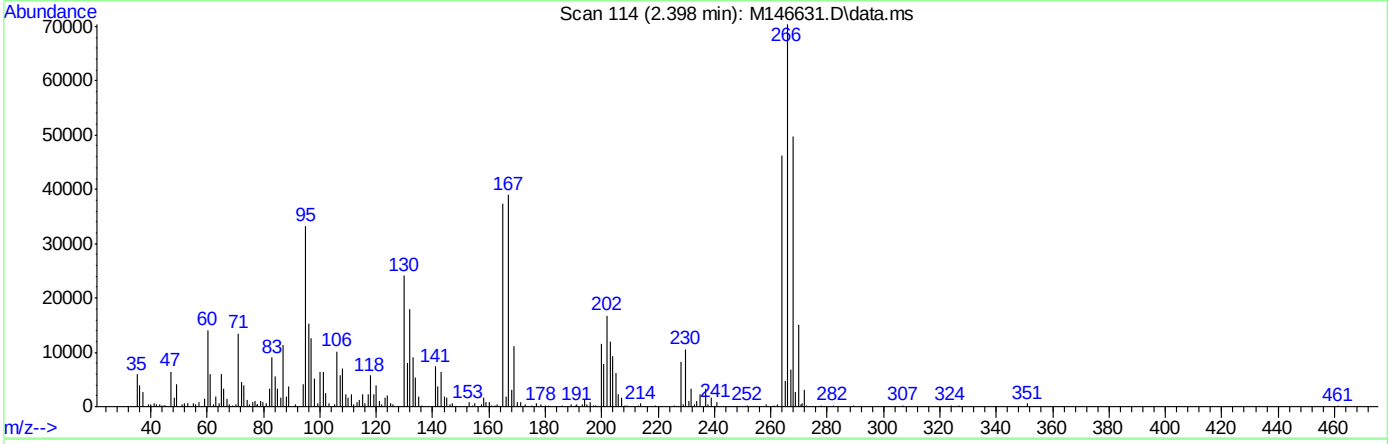
Ion	Exp%	Act%
235.00	100	0.00
165.00	42.80	0.00#
237.00	66.60	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146631.D
Acq On : 5 Jun 2018 8:42 am
Operator : angelar
Sample : dftpp
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 05 08:48:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
QLast Update : Sun Feb 18 15:20:41 2018
Response via : Continuing Cal File:





TIC: M146631.D\data.ms

(1) Pentachlorophenol (MC)

2.398min (-0.514) 0.00ppm m

response 71325

Ion	Exp%	Act%
265.80	100	100
263.70	61.50	65.60
267.70	64.40	70.55
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/11/18 16:35

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103895.D
Acq On : 9 May 2018 11:56 am
Operator : christc2
Sample : ic4618-100
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 12:41:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.670	152	611937	40.00	ppm	0.00
24) Naphthalene-d8	5.761	136	2389326	40.00	ppm	0.00
47) Acenaphthene-d10	7.831	164	1291754	40.00	ppm	0.01
69) Phenanthrene-d10	9.997	188	2216841	40.00	ppm	0.01
83) Chrysene-d12	14.174	240	2177193	40.00	ppm	0.01
91) Perylene-d12	16.282	264	2175501	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.670	152	611937	40.00	ppm	0.00
103) Acenaphthene-d10a	7.831	164	1291754	40.00	ppm	0.01
105) Chrysene-d12a	14.174	240	2177193	40.00	ppm	0.01
108) Phenanthrene-d10a	9.997	188	2216841	40.00	ppm	0.01
112) Naphthalene-d8a	5.761	136	2389326	40.00	ppm	0.00
114) Chrysene-d12b	14.174	240	2177193	40.00	ppm	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.675	112	2017902	99.74	ppm	0.00
Spiked Amount 50.000			Recovery =	199.48%		
8) Phenol-d5	4.402	99	2550003	100.25	ppm	0.00
Spiked Amount 50.000			Recovery =	200.50%		
25) Nitrobenzene-d5	5.114	82	2151788	98.07	ppm	0.00
Spiked Amount 50.000			Recovery =	196.14%		
51) 2-Fluorobiphenyl	6.959	172	4569458	96.75	ppm	0.00
Spiked Amount 50.000			Recovery =	193.50%		
73) 2,4,6-Tribromophenol	8.954	330	681469	100.76	ppm	0.01
Spiked Amount 50.000			Recovery =	201.52%		
85) Terphenyl-d14	12.554	244	4591848	95.56	ppm	0.01
Spiked Amount 50.000			Recovery =	191.12%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.193	88	903722	98.77	ppm	98
3) Pyridine	2.509	79	2292766	100.72	ppm	100
4) N-Nitrosodimethylamine	2.482	74	1406215	99.25	ppm	98
6) Indene	4.873	116	3416878	97.74	ppm	99
7) Cumene	4.071	105	5006395	96.98	ppm	98
9) Phenol	4.413	94	2904738	100.26	ppm	87
10) Aniline	4.418	93	2926425	96.56	ppm	91
11) bis(2-Chloroethyl)ether	4.472	93	1960022	98.63	ppm	98
12) 2-Chlorophenol	4.515	128	2154182	99.38	ppm	97
13) Decane	4.552	43	2061590	94.49	ppm	99
14) 1,3-Dichlorobenzene	4.627	146	2366704	97.34	ppm	98
15) 1,4-Dichlorobenzene	4.680	146	2396896	96.95	ppm	100
16) Benzyl alcohol	4.782	108	1362164	100.67	ppm	91
17) 1,2-Dichlorobenzene	4.803	146	2227409	96.57	ppm	97
18) Acetophenone	4.991	105	2782556	95.81	ppm	98
19) 2-Methylphenol	4.873	108	1877318	97.91	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.884	45	2275912	95.85	ppm	98
21) 3&4-Methylphenol	4.991	108	2021713	99.49	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103895.D
Acq On : 9 May 2018 11:56 am
Operator : christc2
Sample : ic4618-100
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 12:41:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.996	70	1498916	95.70	ppm		95
23) Hexachloroethane	5.076	201	769361	97.43	ppm		93
26) Nitrobenzene	5.130	77	2117633	97.52	ppm		98
27) Quinoline	6.146	129	4035800	100.11	ppm		99
28) Isophorone	5.338	82	3769116	98.79	ppm		97
29) 2-Nitrophenol	5.408	139	1175446	99.74	ppm		96
30) 2,4-Dimethylphenol	5.445	107	1888415	101.67	ppm		98
31) Benzoic acid	5.579	105	1598201m	103.87	ppm		
32) bis(2-Chloroethoxy)met...	5.531	93	2153313	98.39	ppm		99
33) 2,4-Dichlorophenol	5.632	162	1733119	100.22	ppm		97
34) 2,6-Dichlorophenol	5.846	162	1693010	98.95	ppm		99
35) 1,3,5-Trichlorobenzene	5.419	180	1969293	97.54	ppm		98
36) 1,2,4-Trichlorobenzene	5.713	180	1834025	96.86	ppm		99
37) 1,2,3-Trichlorobenzene	5.932	180	1788884	96.57	ppm		98
38) Naphthalene	5.788	128	5989501	98.22	ppm		100
39) 4-Chloroaniline	5.841	127	2550057	98.25	ppm		98
40) 2,3-Dichloroaniline	6.852	161	2188392	100.33	ppm		98
41) Caprolactam	6.221	55	908746	100.19	ppm		98
42) Hexachlorobutadiene	5.916	225	964008	97.68	ppm		99
43) 4-Chloro-3-methylphenol	6.360	107	1714145	101.60	ppm		95
44) 2-Methylnaphthalene	6.520	141	3576997	99.72	ppm		99
45) 1-Methylnaphthalene	6.633	141	3736093	99.85	ppm		99
46) Dimethylnaphthalene	7.285	156	3850808	100.52	ppm		99
48) Hexachlorocyclopentadiene	6.713	237	2385043	199.65	ppm		98
49) 2,4,6-Trichlorophenol	6.857	196	1255930	98.41	ppm		95
50) 2,4,5-Trichlorophenol	6.905	196	1311402	97.30	ppm		100
52) 2-Chloronaphthalene	7.103	162	3770523	96.24	ppm		99
53) Biphenyl	7.082	154	5221427	97.85	ppm		100
54) 2-Nitroaniline	7.237	65	1122947	99.55	ppm		98
55) Dimethylphthalate	7.494	163	4180905	98.78	ppm		100
56) Acenaphthylene	7.638	152	6197607	97.25	ppm		99
57) 2,6-Dinitrotoluene	7.563	165	996379	100.66	ppm		91
58) 3-Nitroaniline	7.783	138	1155260	97.49	ppm		95
59) Acenaphthene	7.874	153	4072320	98.32	ppm		98
60) 2,4-Dinitrophenol	7.932	184	1229695	214.43	ppm	#	67
61) 4-Nitrophenol	8.045	109	529276	101.15	ppm		97
62) Dibenzofuran	8.114	168	5473817	97.81	ppm		99
63) 2,4-Dinitrotoluene	8.114	165	1389686	100.61	ppm		96
64) 2,3,4,6-Tetrachlorophenol	8.301	232	1126033	100.60	ppm		98
65) Diethylphthalate	8.494	149	4268785	99.30	ppm		99
66) Fluorene	8.606	166	4518947	99.18	ppm		100
67) 4-Chlorophenyl-phenyle...	8.622	204	1963424	97.24	ppm		98
68) 4-Nitroaniline	8.660	138	1129457	97.70	ppm		99
70) 4,6-Dinitro-2-methylph...	8.708	198	818215	101.50	ppm		100
71) n-Nitrosodiphenylamine	8.804	169	3226816	99.46	ppm		99
72) 1,2-Diphenylhydrazine	8.852	77	4258640	99.27	ppm		94
74) 4-Bromophenyl-phenylether	9.344	248	1193161	98.39	ppm		93
75) Hexachlorobenzene	9.430	284	1326022	96.74	ppm		98
76) Pentachlorophenol	9.735	266	1871613	204.02	ppm		98
77) Phenanthrene	10.034	178	6117922	98.14	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103895.D
Acq On : 9 May 2018 11:56 am
Operator : christc2
Sample : ic4618-100
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 12:41:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration

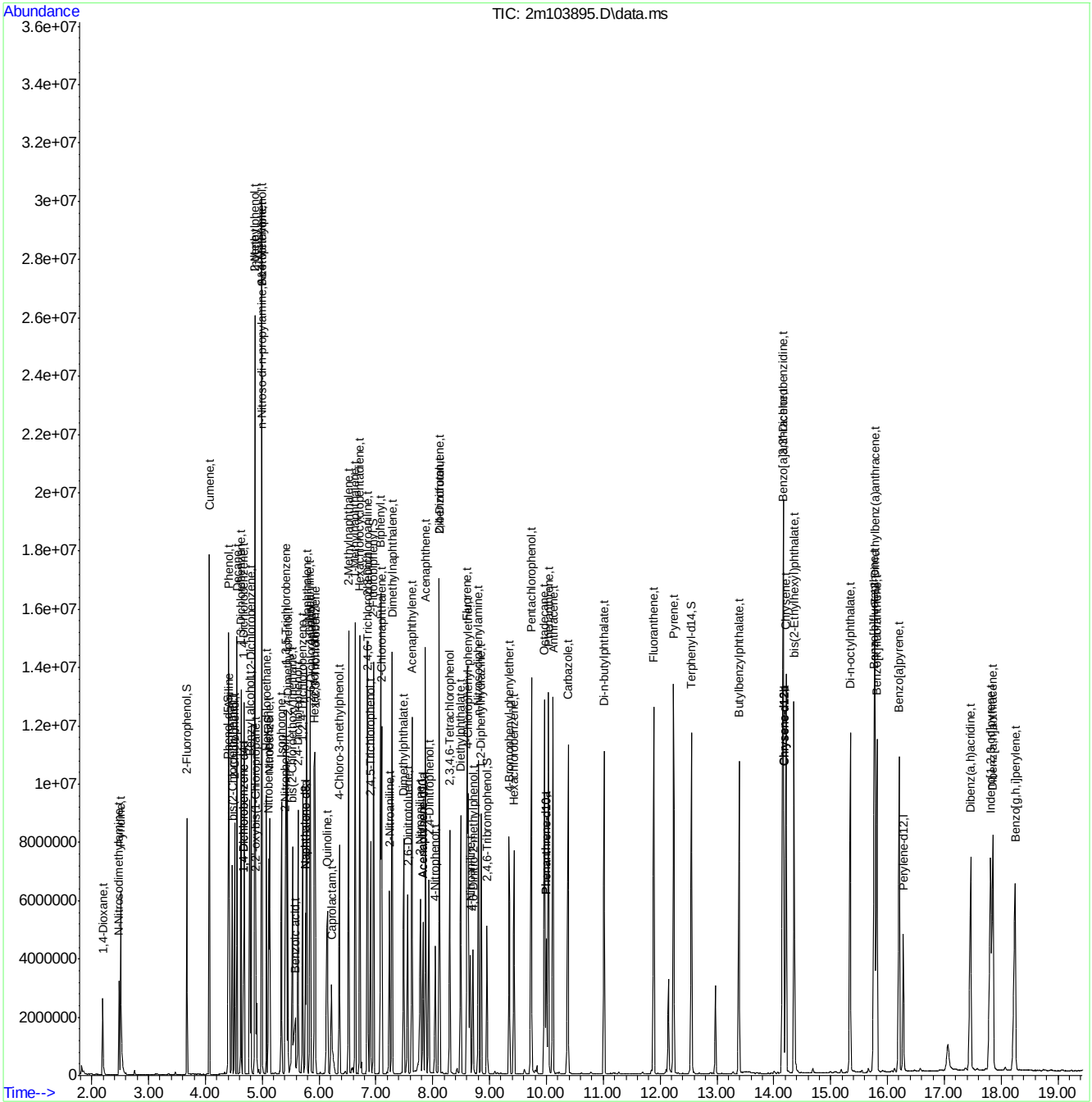
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	10.115	178	6248216	97.99	ppm	99
79)	Carbazole	10.382	167	5969670	100.09	ppm	100
80)	Di-n-butylphthalate	11.019	149	7459947	100.17	ppm	100
81)	Fluoranthene	11.890	202	6552765	99.43	ppm	98
82)	Octadecane	9.965	57	2903975	100.44	ppm	97
84)	Pyrene	12.238	202	6846281	93.70	ppm	98
86)	Butylbenzylphthalate	13.388	149	3300191	96.58	ppm	99
87)	Benzo[a]anthracene	14.158	228	6292640	97.62	ppm	100
88)	3,3'-Dichlorobenzidine	14.164	252	2373765	96.05	ppm	99
89)	Chrysene	14.217	228	5949824	96.18	ppm	100
90)	bis(2-Ethylhexyl)phtha...	14.356	149	4617747	96.83	ppm	99
92)	Di-n-octylphthalate	15.346	149	7991819	98.32	ppm	100
93)	Benzo[b]fluoranthene	15.763	252	6594959	95.79	ppm	99
94)	Benzo[k]fluoranthene	15.816	252	5868987	96.10	ppm	99
95)	Benzo[a]pyrene	16.207	252	5663243	95.64	ppm	99
96)	Indeno[1,2,3-cd]pyrene	17.811	276	5834621	100.83	ppm	99
97)	Dibenz(a,h)acridine	17.464	279	5133907	96.61	ppm	100
98)	Dibenz[a,h]anthracene	17.854	278	5765350	95.81	ppm	97
99)	7,12-Dimethylbenz(a)an...	15.779	256	2893577	96.17	ppm	98
100)	Benzo[g,h,i]perylene	18.250	276	5426822	97.17	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103895.D
Acq On : 9 May 2018 11:56 am
Operator : christc2
Sample : ic4618-100
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 12:41:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration



Manual Integration Approval Summary

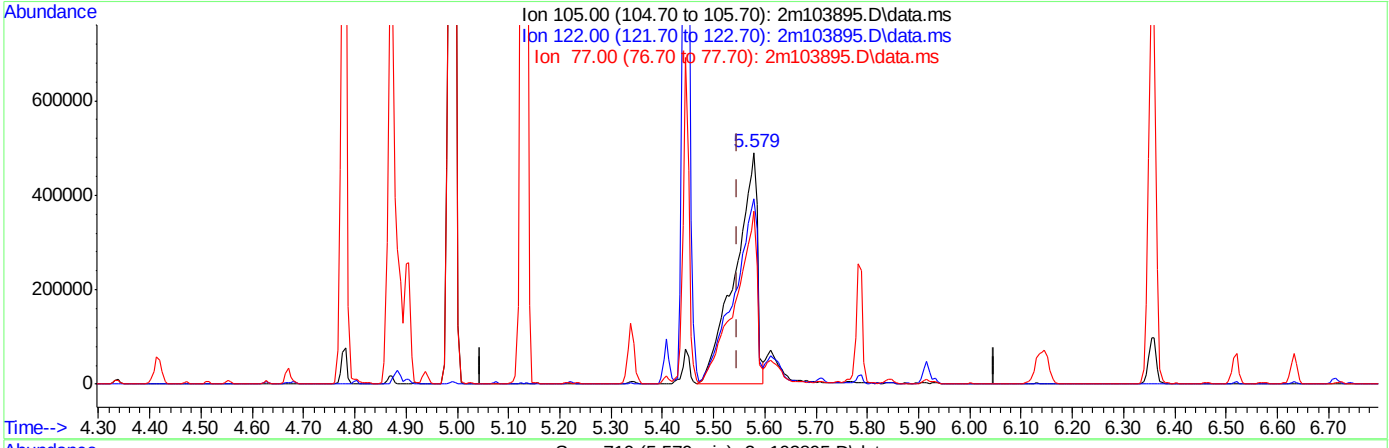
Sample Number:	E2M4618-IC4618	**Method:**	SW846 8270D
Lab FileID:	2M103895.D	**Analyst approved:**	05/11/18 15:24 Sean Block
Injection Time:	05/09/18 11:56	**Supervisor approved:**	05/11/18 16:35 Nina Pandya

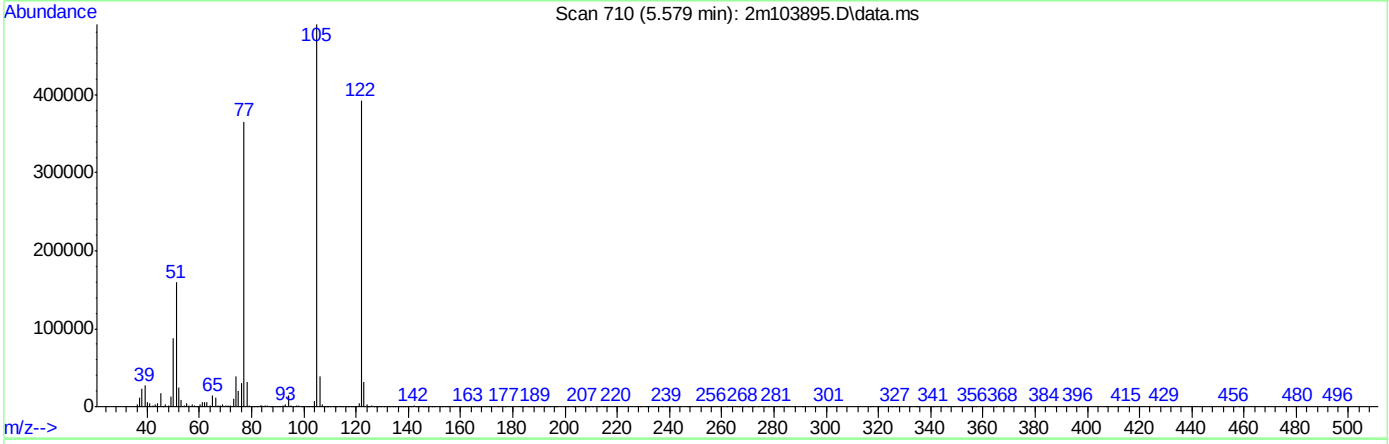
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.58	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103895.D
Acq On : 9 May 2018 11:56 am
Operator : christc2
Sample : ic4618-100
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 10:28:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration





TIC: 2m103895.D\data.ms

(31) Benzoic acid (t)

5.579min (+0.032) 94.89ppm

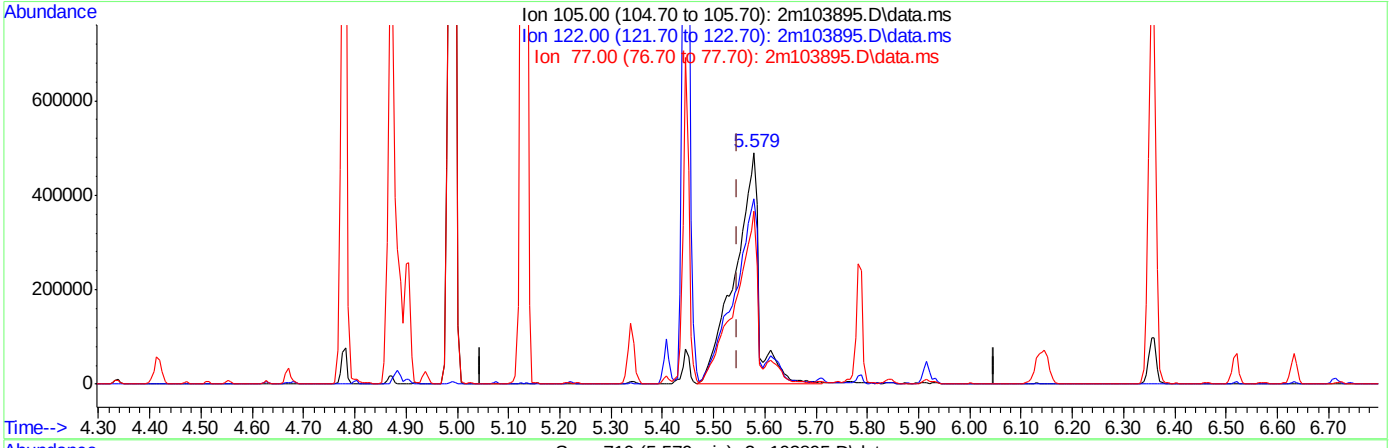
response 1460089

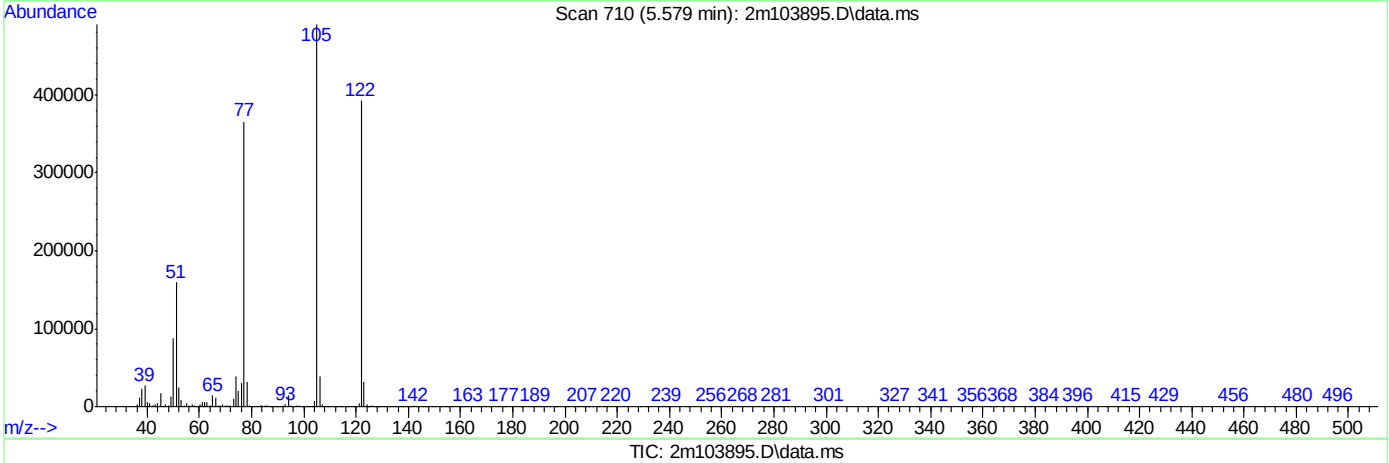
Ion	Exp%	Act%
105.00	100	100
122.00	80.60	77.49
77.00	73.10	74.01
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103895.D
Acq On : 9 May 2018 11:56 am
Operator : christc2
Sample : ic4618-100
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 10:28:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration





TIC: 2m103895.D\data.ms

(31) Benzoic acid (t)

5.579min (+0.032) 103.87ppm m

response 1598201

Ion	Exp%	Act%
105.00	100	100
122.00	80.60	79.94
77.00	73.10	74.50
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103896.D
Acq On : 9 May 2018 12:22 pm
Operator : christc2
Sample : ic4618-80
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 10:29:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.670	152	608497	40.00	ppm	0.00
24) Naphthalene-d8	5.761	136	2342644	40.00	ppm	0.00
47) Acenaphthene-d10	7.826	164	1269144	40.00	ppm	0.00
69) Phenanthrene-d10	9.992	188	2190799	40.00	ppm	0.00
83) Chrysene-d12	14.164	240	2074188	40.00	ppm	0.00
91) Perylene-d12	16.271	264	2093310	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.670	152	608497	40.00	ppm	0.00
103) Acenaphthene-d10a	7.826	164	1269144	40.00	ppm	0.00
105) Chrysene-d12a	14.164	240	2074188	40.00	ppm	0.00
108) Phenanthrene-d10a	9.992	188	2190799	40.00	ppm	0.00
112) Naphthalene-d8a	5.761	136	2342644	40.00	ppm	0.00
114) Chrysene-d12b	14.164	240	2074188	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.675	112	1573953	78.24	ppm	0.00
Spiked Amount 50.000			Recovery =	156.48%		
8) Phenol-d5	4.397	99	1980330	78.29	ppm	0.00
Spiked Amount 50.000			Recovery =	156.58%		
25) Nitrobenzene-d5	5.114	82	1714253	79.69	ppm	0.00
Spiked Amount 50.000			Recovery =	159.38%		
51) 2-Fluorobiphenyl	6.954	172	3606896	77.73	ppm	0.00
Spiked Amount 50.000			Recovery =	155.46%		
73) 2,4,6-Tribromophenol	8.949	330	540852	80.92	ppm	0.00
Spiked Amount 50.000			Recovery =	161.84%		
85) Terphenyl-d14	12.543	244	3631675	79.33	ppm	0.00
Spiked Amount 50.000			Recovery =	158.66%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.193	88	701464	77.10	ppm	98
3) Pyridine	2.509	79	1825312	80.64	ppm	99
4) N-Nitrosodimethylamine	2.477	74	1105353	78.45	ppm	99
6) Indene	4.873	116	2718920	78.22	ppm	99
7) Cumene	4.071	105	3953927	77.03	ppm	99
9) Phenol	4.408	94	2272085	78.87	ppm	98
10) Aniline	4.418	93	2336048	77.52	ppm	98
11) bis(2-Chloroethyl)ether	4.467	93	1546799	78.28	ppm	97
12) 2-Chlorophenol	4.509	128	1700047	78.88	ppm	97
13) Decane	4.552	43	1662560	76.63	ppm	99
14) 1,3-Dichlorobenzene	4.627	146	1879882	77.75	ppm	99
15) 1,4-Dichlorobenzene	4.681	146	1906451	77.55	ppm	100
16) Benzyl alcohol	4.777	108	1076568	80.01	ppm	95
17) 1,2-Dichlorobenzene	4.804	146	1781199	77.66	ppm	96
18) Acetophenone	4.985	105	2248228	77.85	ppm	98
19) 2-Methylphenol	4.868	108	1507989	79.09	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.884	45	1830068	77.51	ppm	97
21) 3&4-Methylphenol	4.991	108	1623579	80.35	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103896.D
Acq On : 9 May 2018 12:22 pm
Operator : christc2
Sample : ic4618-80
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 10:29:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.991	70	1209551	77.66	ppm		97
23) Hexachloroethane	5.076	201	615981	78.45	ppm		99
26) Nitrobenzene	5.130	77	1687178	79.25	ppm		95
27) Quinoline	6.135	129	3203239	81.04	ppm		98
28) Isophorone	5.333	82	2998899	80.17	ppm		97
29) 2-Nitrophenol	5.403	139	933813	80.82	ppm		94
30) 2,4-Dimethylphenol	5.440	107	1493508	82.01	ppm		98
31) Benzoic acid	5.568	105	1246985	82.66	ppm		98
32) bis(2-Chloroethoxy)met...	5.526	93	1716374	79.99	ppm		99
33) 2,4-Dichlorophenol	5.627	162	1363165	80.39	ppm		97
34) 2,6-Dichlorophenol	5.847	162	1341463	79.96	ppm		97
35) 1,3,5-Trichlorobenzene	5.419	180	1560509	78.83	ppm		100
36) 1,2,4-Trichlorobenzene	5.707	180	1463327	78.82	ppm		99
37) 1,2,3-Trichlorobenzene	5.927	180	1440384	79.31	ppm		99
38) Naphthalene	5.782	128	4762335	79.65	ppm		100
39) 4-Chloroaniline	5.836	127	2062152	81.03	ppm		98
40) 2,3-Dichloroaniline	6.847	161	1732150	81.00	ppm		99
41) Caprolactam	6.205	55	723937	81.40	ppm		98
42) Hexachlorobutadiene	5.911	225	767673	79.34	ppm		99
43) 4-Chloro-3-methylphenol	6.349	107	1341699	81.11	ppm		99
44) 2-Methylnaphthalene	6.515	141	2810842	79.92	ppm		98
45) 1-Methylnaphthalene	6.627	141	2936894	80.05	ppm		98
46) Dimethylnaphthalene	7.275	156	3029746	80.66	ppm		99
48) Hexachlorocyclopentadiene	6.708	237	1874721	159.73	ppm		97
49) 2,4,6-Trichlorophenol	6.852	196	996764	79.50	ppm		95
50) 2,4,5-Trichlorophenol	6.895	196	1042848	78.76	ppm		100
52) 2-Chloronaphthalene	7.098	162	3000483	77.95	ppm		98
53) Biphenyl	7.077	154	4132618	78.83	ppm		99
54) 2-Nitroaniline	7.232	65	876247	79.07	ppm		97
55) Dimethylphthalate	7.483	163	3314938	79.72	ppm		99
56) Acenaphthylene	7.628	152	4879372	77.93	ppm		99
57) 2,6-Dinitrotoluene	7.553	165	790349	81.27	ppm		97
58) 3-Nitroaniline	7.777	138	923410	79.31	ppm		98
59) Acenaphthene	7.868	153	3216110	79.03	ppm		100
60) 2,4-Dinitrophenol	7.922	184	950260	168.66	ppm	#	63
61) 4-Nitrophenol	8.034	109	405748	78.92	ppm		98
62) Dibenzofuran	8.109	168	4351994	79.15	ppm		98
63) 2,4-Dinitrotoluene	8.109	165	1093513	80.58	ppm		98
64) 2,3,4,6-Tetrachlorophenol	8.296	232	882633	80.26	ppm		96
65) Diethylphthalate	8.483	149	3363802	79.64	ppm		99
66) Fluorene	8.596	166	3549524	79.29	ppm		100
67) 4-Chlorophenyl-phenyle...	8.617	204	1571735	79.23	ppm		98
68) 4-Nitroaniline	8.644	138	896259	78.91	ppm		94
70) 4,6-Dinitro-2-methylph...	8.697	198	652621	81.92	ppm		98
71) n-Nitrosodiphenylamine	8.794	169	2546881	79.44	ppm		100
72) 1,2-Diphenylhydrazine	8.847	77	3365486	79.38	ppm		96
74) 4-Bromophenyl-phenylether	9.339	248	947316	79.05	ppm		96
75) Hexachlorobenzene	9.419	284	1066882	78.76	ppm		93
76) Pentachlorophenol	9.724	266	1461147	161.17	ppm		99
77) Phenanthrene	10.029	178	4905308	79.62	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103896.D
Acq On : 9 May 2018 12:22 pm
Operator : christc2
Sample : ic4618-80
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 10:29:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration

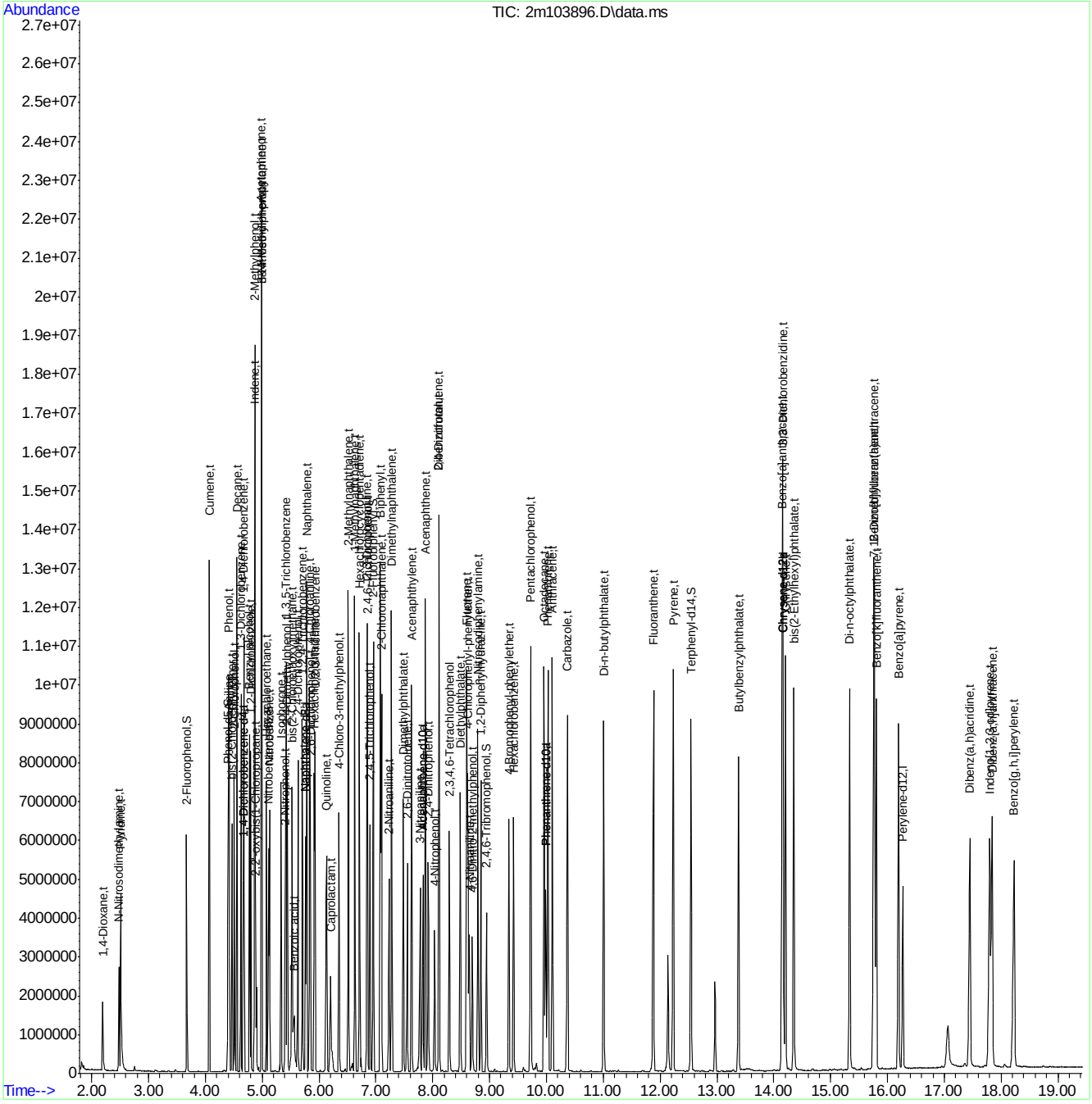
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	10.104	178	4965226	78.80	ppm	99
79)	Carbazole	10.371	167	4734453	80.32	ppm	99
80)	Di-n-butylphthalate	11.008	149	5921215	80.45	ppm	99
81)	Fluoranthene	11.885	202	5216390	80.09	ppm	100
82)	Octadecane	9.960	57	2308199	80.79	ppm	97
84)	Pyrene	12.233	202	5448220	78.27	ppm	99
86)	Butylbenzylphthalate	13.383	149	2589847	79.55	ppm	97
87)	Benzo[a]anthracene	14.148	228	4900444	79.80	ppm	99
88)	3,3'-Dichlorobenzidine	14.158	252	1874319	79.61	ppm	98
89)	Chrysene	14.206	228	4687071	79.53	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.351	149	3635416	80.02	ppm	99
92)	Di-n-octylphthalate	15.335	149	6259097	80.02	ppm	100
93)	Benzo[b]fluoranthene	15.758	252	5156631	77.84	ppm	99
94)	Benzo[k]fluoranthene	15.806	252	4683755	79.70	ppm	97
95)	Benzo[a]pyrene	16.196	252	4475117	78.54	ppm	100
96)	Indeno[1,2,3-cd]pyrene	17.801	276	4469205	80.27	ppm	99
97)	Dibenz(a,h)acridine	17.453	279	4025372	78.72	ppm	99
98)	Dibenz[a,h]anthracene	17.844	278	4545794	78.51	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.768	256	2299091	79.41	ppm	97
100)	Benzo[g,h,i]perylene	18.229	276	4219821	78.52	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103896.D
Acq On : 9 May 2018 12:22 pm
Operator : christc2
Sample : ic4618-80
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 10:29:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:27:24 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103897.D
Acq On : 9 May 2018 12:47 pm
Operator : christc2
Sample : icc4618-50
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 10:25:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:24:44 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.670	152	611513	40.00	ppm		0.00
24) Naphthalene-d8	5.761	136	2389437	40.00	ppm		0.00
47) Acenaphthene-d10	7.820	164	1265516	40.00	ppm		0.00
69) Phenanthrene-d10	9.986	188	2183120	40.00	ppm		0.00
83) Chrysene-d12	14.163	240	2028570	40.00	ppm		0.00
91) Perylene-d12	16.271	264	2040361	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.670	152	611513	40.00	ppm		0.00
103) Acenaphthene-d10a	7.820	164	1265516	40.00	ppm		0.00
105) Chrysene-d12a	14.163	240	2028570	40.00	ppm		0.00
108) Phenanthrene-d10a	9.986	188	2183120	40.00	ppm		0.00
112) Naphthalene-d8a	5.761	136	2389437	40.00	ppm		0.00
114) Chrysene-d12b	14.163	240	2028570	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	3.669	112	1010895	47.13	ppm		-0.02
Spiked Amount 50.000			Recovery =	94.26%			
8) Phenol-d5	4.397	99	1270959	46.68	ppm		0.00
Spiked Amount 50.000			Recovery =	93.36%			
25) Nitrobenzene-d5	5.108	82	1097126	38.38	ppm		0.00
Spiked Amount 50.000			Recovery =	76.76%			
51) 2-Fluorobiphenyl	6.953	172	2313484	43.53	ppm		0.00
Spiked Amount 50.000			Recovery =	87.06%			
73) 2,4,6-Tribromophenol	8.943	330	333016	51.32	ppm		0.00
Spiked Amount 50.000			Recovery =	102.64%			
85) Terphenyl-d14	12.543	244	2238653	46.30	ppm		0.00
Spiked Amount 50.000			Recovery =	92.60%			
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm		
Target Compounds							Qvalue
2) 1,4-Dioxane	2.193	88	457189	54.56	ppm		85
3) Pyridine	2.509	79	1137420	48.48	ppm		84
4) N-Nitrosodimethylamine	2.477	74	707944	51.82	ppm	#	55
6) Indene	4.867	116	1746692	48.18	ppm		97
7) Cumene	4.071	105	2579297	44.60	ppm		91
9) Phenol	4.402	94	1447597	45.66	ppm		84
10) Aniline	4.418	93	1514231	46.69	ppm		89
11) bis(2-Chloroethyl)ether	4.466	93	992946	46.45	ppm		91
12) 2-Chlorophenol	4.509	128	1083021	46.29	ppm		89
13) Decane	4.552	43	1090204	38.26	ppm		88
14) 1,3-Dichlorobenzene	4.627	146	1214847	47.29	ppm		98
15) 1,4-Dichlorobenzene	4.680	146	1235300	46.67	ppm	#	39
16) Benzyl alcohol	4.771	108	676109	48.16	ppm		78
17) 1,2-Dichlorobenzene	4.798	146	1152458	47.50	ppm		97
18) Acetophenone	4.985	105	1451080	42.38	ppm		90
19) 2-Methylphenol	4.867	108	958046	47.86	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.878	45	1186410	40.91	ppm		97
21) 3&4-Methylphenol	4.985	108	1015369	44.86	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103897.D
Acq On : 9 May 2018 12:47 pm
Operator : christc2
Sample : icc4618-50
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 10:25:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:24:44 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.985	70	782602	39.51	ppm		83
23) Hexachloroethane	5.076	201	394563	46.65	ppm		86
26) Nitrobenzene	5.124	77	1085774	38.57	ppm		88
27) Quinoline	6.124	129	2015875	47.28	ppm		95
28) Isophorone	5.333	82	1907800	41.28	ppm		88
29) 2-Nitrophenol	5.402	139	589258	46.61	ppm		82
30) 2,4-Dimethylphenol	5.440	107	928710	42.06	ppm		84
31) Benzoic acid	5.547	105	769360	43.39	ppm		88
32) bis(2-Chloroethoxy)met...	5.520	93	1094272	45.04	ppm		100
33) 2,4-Dichlorophenol	5.622	162	864733	46.78	ppm		98
34) 2,6-Dichlorophenol	5.841	162	855557	45.73	ppm	#	1
35) 1,3,5-Trichlorobenzene	5.418	180	1009548	47.42	ppm		98
36) 1,2,4-Trichlorobenzene	5.707	180	946781	46.35	ppm		98
37) 1,2,3-Trichlorobenzene	5.927	180	926235	46.37	ppm		98
38) Naphthalene	5.782	128	3049315	45.65	ppm		100
39) 4-Chloroaniline	5.830	127	1297811	46.86	ppm		92
40) 2,3-Dichloroaniline	6.841	161	1090604	46.81	ppm		95
41) Caprolactam	6.189	55	453553	40.24	ppm		90
42) Hexachlorobutadiene	5.910	225	493459	42.54	ppm		98
43) 4-Chloro-3-methylphenol	6.344	107	843588	40.00	ppm		89
44) 2-Methylnaphthalene	6.515	141	1793665	46.57	ppm		91
45) 1-Methylnaphthalene	6.627	141	1870977	46.84	ppm		95
46) Dimethylnaphthalene	7.274	156	1915527	46.84	ppm		94
48) Hexachlorocyclopentadiene	6.707	237	1170333	87.47	ppm		98
49) 2,4,6-Trichlorophenol	6.852	196	625132	43.45	ppm		97
50) 2,4,5-Trichlorophenol	6.895	196	660186	45.01	ppm		99
52) 2-Chloronaphthalene	7.093	162	1919046	43.24	ppm		95
53) Biphenyl	7.076	154	2613789	44.51	ppm		99
54) 2-Nitroaniline	7.226	65	552543	33.88	ppm	#	76
55) Dimethylphthalate	7.483	163	2073234	39.64	ppm		99
56) Acenaphthylene	7.627	152	3121799	45.12	ppm		100
57) 2,6-Dinitrotoluene	7.547	165	484871	44.53	ppm		78
58) 3-Nitroaniline	7.772	138	580478	47.86	ppm		82
59) Acenaphthene	7.868	153	2028881	43.17	ppm		98
60) 2,4-Dinitrophenol	7.916	184	561819	76.54	ppm		74
61) 4-Nitrophenol	8.023	109	256314	29.74	ppm	#	63
62) Dibenzofuran	8.109	168	2741363	43.23	ppm		88
63) 2,4-Dinitrotoluene	8.103	165	676616	43.27	ppm		74
64) 2,3,4,6-Tetrachlorophenol	8.291	232	548316	45.55	ppm		87
65) Diethylphthalate	8.483	149	2105843	34.43	ppm		97
66) Fluorene	8.595	166	2231821	44.19	ppm		99
67) 4-Chlorophenyl-phenyle...	8.617	204	989089	41.76	ppm		84
68) 4-Nitroaniline	8.638	138	566282	49.05	ppm	#	65
70) 4,6-Dinitro-2-methylph...	8.692	198	396932	47.37	ppm		81
71) n-Nitrosodiphenylamine	8.788	169	1597463	46.38	ppm		99
72) 1,2-Diphenylhydrazine	8.847	77	2112370	38.39	ppm		86
74) 4-Bromophenyl-phenylether	9.339	248	597095	48.35	ppm	#	80
75) Hexachlorobenzene	9.419	284	674935	48.96	ppm		87
76) Pentachlorophenol	9.724	266	903421	101.87	ppm		98
77) Phenanthrene	10.024	178	3069582	45.32	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103897.D
Acq On : 9 May 2018 12:47 pm
Operator : christc2
Sample : icc4618-50
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 10:25:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:24:44 2018
Response via : Initial Calibration

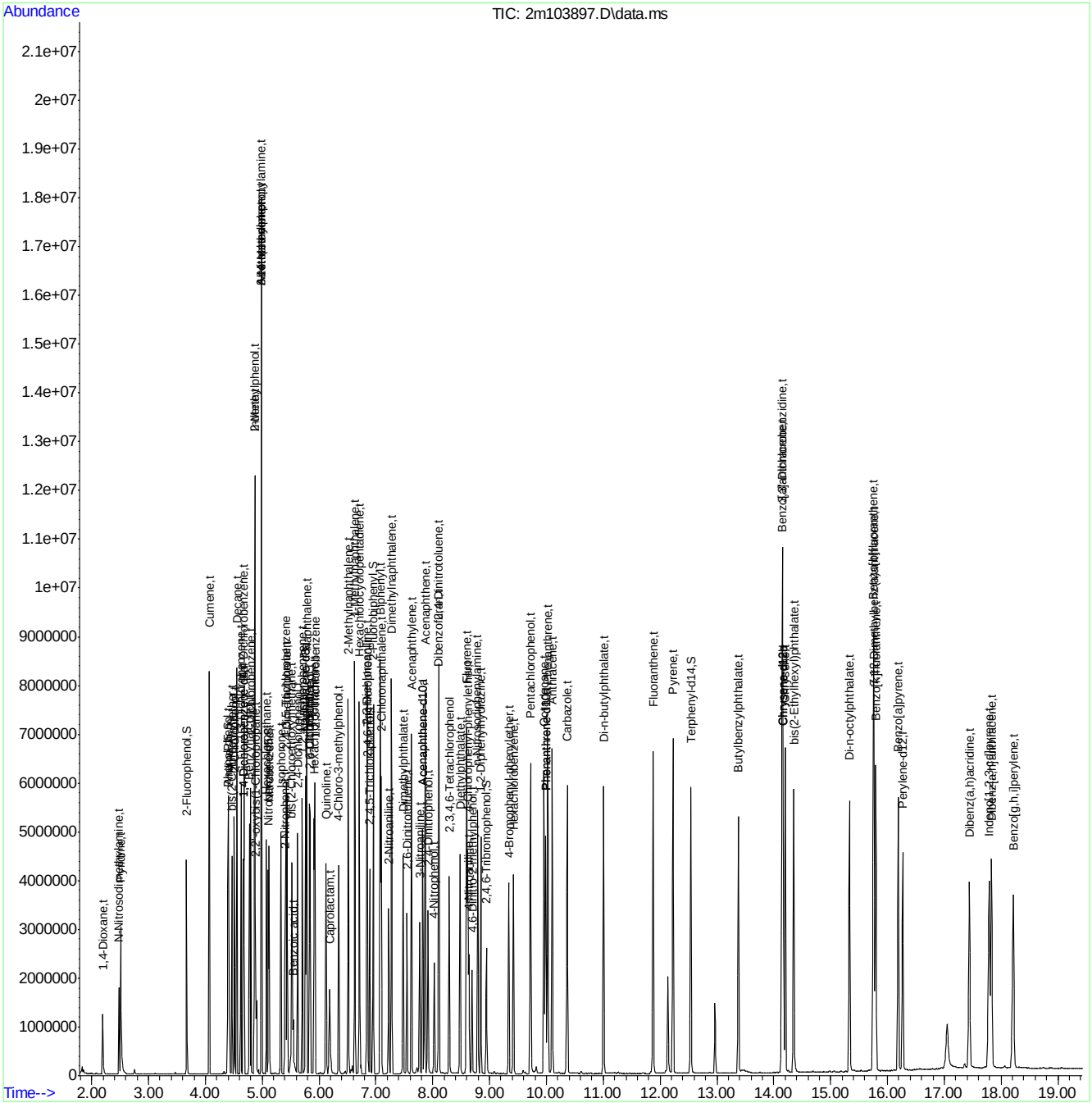
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	10.098	178	3139676	46.37	ppm	99
79)	Carbazole	10.366	167	2936905	46.31	ppm	97
80)	Di-n-butylphthalate	11.008	149	3667160	40.78	ppm	98
81)	Fluoranthene	11.880	202	3245061	47.59	ppm	99
82)	Octadecane	9.954	57	1423581	42.84	ppm	90
84)	Pyrene	12.227	202	3404001	46.43	ppm	98
86)	Butylbenzylphthalate	13.377	149	1591976	44.43	ppm	89
87)	Benzo[a]anthracene	14.147	228	3003039	45.68	ppm	99
88)	3,3'-Dichlorobenzidine	14.153	252	1151339	49.21	ppm	98
89)	Chrysene	14.201	228	2881790	45.51	ppm	100
90)	bis(2-Ethylhexyl)phtha...	14.351	149	2221606	44.86	ppm	94
92)	Di-n-octylphthalate	15.335	149	3811909	51.55	ppm	66
93)	Benzo[b]fluoranthene	15.752	252	3228519	49.93	ppm	97
94)	Benzo[k]fluoranthene	15.795	252	2863920	43.19	ppm	95
95)	Benzo[a]pyrene	16.191	252	2776927	50.76	ppm	95
96)	Indeno[1,2,3-cd]pyrene	17.790	276	2713458	41.75	ppm	95
97)	Dibenz(a,h)acridine	17.442	279	2492073	54.07	ppm	100
98)	Dibenz[a,h]anthracene	17.833	278	2821976	53.38	ppm	90
99)	7,12-Dimethylbenz(a)an...	15.763	256	1410941	49.34	ppm	86
100)	Benzo[g,h,i]perylene	18.218	276	2619049	49.79	ppm	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103897.D
Acq On : 9 May 2018 12:47 pm
Operator : christc2
Sample : icc4618-50
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 10:25:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:24:44 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103898.D
Acq On : 9 May 2018 1:13 pm
Operator : christc2
Sample : ic4618-25
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 10:30:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:29:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	631661	40.00	ppm	0.00
24) Naphthalene-d8	5.761	136	2413624	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1274722	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2146941	40.00	ppm	0.00
83) Chrysene-d12	14.158	240	2002653	40.00	ppm	0.00
91) Perylene-d12	16.265	264	2018605	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	631661	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1274722	40.00	ppm	0.00
105) Chrysene-d12a	14.158	240	2002653	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	2146941	40.00	ppm	0.00
112) Naphthalene-d8a	5.761	136	2413624	40.00	ppm	0.00
114) Chrysene-d12b	14.158	240	2002653	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.669	112	517688	25.07	ppm	0.00
Spiked Amount 50.000			Recovery =	50.14%		
8) Phenol-d5	4.391	99	641699	24.70	ppm	0.00
Spiked Amount 50.000			Recovery =	49.40%		
25) Nitrobenzene-d5	5.108	82	551582	24.93	ppm	0.00
Spiked Amount 50.000			Recovery =	49.86%		
51) 2-Fluorobiphenyl	6.953	172	1158665	25.22	ppm	0.00
Spiked Amount 50.000			Recovery =	50.44%		
73) 2,4,6-Tribromophenol	8.943	330	170114	25.82	ppm	0.00
Spiked Amount 50.000			Recovery =	51.64%		
85) Terphenyl-d14	12.537	244	1100915	25.01	ppm	0.00
Spiked Amount 50.000			Recovery =	50.02%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.193	88	235274	25.37	ppm	95
3) Pyridine	2.509	79	630497	26.73	ppm	96
4) N-Nitrosodimethylamine	2.477	74	365422	25.23	ppm	100
6) Indene	4.868	116	878976	24.63	ppm	99
7) Cumene	4.071	105	1312522	25.10	ppm	99
9) Phenol	4.402	94	731998	24.65	ppm	97
10) Aniline	4.413	93	804326	26.12	ppm	95
11) bis(2-Chloroethyl)ether	4.461	93	509113	25.09	ppm	95
12) 2-Chlorophenol	4.509	128	553120	24.90	ppm	98
13) Decane	4.552	43	564054	25.58	ppm	99
14) 1,3-Dichlorobenzene	4.621	146	621557	25.12	ppm	97
15) 1,4-Dichlorobenzene	4.680	146	635126	25.27	ppm	100
16) Benzyl alcohol	4.771	108	337994	24.20	ppm	95
17) 1,2-Dichlorobenzene	4.798	146	588518	25.09	ppm	99
18) Acetophenone	4.980	105	744066	25.16	ppm	99
19) 2-Methylphenol	4.862	108	479484	24.36	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.878	45	615114	25.49	ppm	99
21) 3&4-Methylphenol	4.980	108	510383	24.28	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103898.D
Acq On : 9 May 2018 1:13 pm
Operator : christc2
Sample : ic4618-25
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 10:30:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:29:24 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	4.985	70	394542	24.77	ppm	96
23) Hexachloroethane	5.076	201	201438	24.95	ppm	97
26) Nitrobenzene	5.124	77	548027	25.10	ppm	96
27) Quinoline	6.114	129	1021527	24.92	ppm	99
28) Isophorone	5.327	82	959030	24.86	ppm	98
29) 2-Nitrophenol	5.402	139	295778	24.72	ppm	93
30) 2,4-Dimethylphenol	5.434	107	466492	24.55	ppm	94
31) Benzoic acid	5.525	105	365204	23.11	ppm	99
32) bis(2-Chloroethoxy)met...	5.520	93	560907	25.37	ppm	98
33) 2,4-Dichlorophenol	5.622	162	436268	24.91	ppm	99
34) 2,6-Dichlorophenol	5.841	162	432457	25.03	ppm	98
35) 1,3,5-Trichlorobenzene	5.413	180	516035	25.49	ppm	97
36) 1,2,4-Trichlorobenzene	5.707	180	473557	24.94	ppm	99
37) 1,2,3-Trichlorobenzene	5.927	180	479807	25.75	ppm	97
38) Naphthalene	5.777	128	1544789	25.13	ppm	100
39) 4-Chloroaniline	5.830	127	661607	25.07	ppm	99
40) 2,3-Dichloroaniline	6.841	161	542560	24.47	ppm	99
41) Caprolactam	6.173	55	226005	24.45	ppm	99
42) Hexachlorobutadiene	5.910	225	251379	25.32	ppm	98
43) 4-Chloro-3-methylphenol	6.344	107	421749	24.58	ppm	96
44) 2-Methylnaphthalene	6.510	141	898971	24.82	ppm	99
45) 1-Methylnaphthalene	6.627	141	939059	24.84	ppm	99
46) Dimethylnaphthalene	7.274	156	962943	24.78	ppm	98
48) Hexachlorocyclopentadiene	6.707	237	568463	48.26	ppm	98
49) 2,4,6-Trichlorophenol	6.847	196	314538	25.05	ppm	97
50) 2,4,5-Trichlorophenol	6.889	196	332176	25.17	ppm	99
52) 2-Chloronaphthalene	7.093	162	962820	25.23	ppm	99
53) Biphenyl	7.071	154	1296005	24.79	ppm	99
54) 2-Nitroaniline	7.221	65	274108	24.77	ppm	98
55) Dimethylphthalate	7.478	163	1042531	25.01	ppm	99
56) Acenaphthylene	7.627	152	1556879	25.08	ppm	99
57) 2,6-Dinitrotoluene	7.542	165	246767	25.06	ppm	99
58) 3-Nitroaniline	7.766	138	283670	24.36	ppm	97
59) Acenaphthene	7.863	153	1017006	25.03	ppm	99
60) 2,4-Dinitrophenol	7.911	184	248273	42.72	ppm	97
61) 4-Nitrophenol	8.018	109	127931	24.94	ppm	99
62) Dibenzofuran	8.103	168	1373784	25.01	ppm	98
63) 2,4-Dinitrotoluene	8.098	165	331250	24.21	ppm	94
64) 2,3,4,6-Tetrachlorophenol	8.291	232	273959	24.76	ppm	96
65) Diethylphthalate	8.478	149	1050932	24.83	ppm	98
66) Fluorene	8.590	166	1110813	24.82	ppm	98
67) 4-Chlorophenyl-phenyle...	8.612	204	510296	25.73	ppm	97
68) 4-Nitroaniline	8.628	138	275150	24.28	ppm	96
70) 4,6-Dinitro-2-methylph...	8.681	198	180908	22.90	ppm	93
71) n-Nitrosodiphenylamine	8.788	169	803579	25.67	ppm	99
72) 1,2-Diphenylhydrazine	8.842	77	1055046	25.49	ppm	99
74) 4-Bromophenyl-phenylether	9.334	248	296377	25.39	ppm	95
75) Hexachlorobenzene	9.414	284	338528	25.70	ppm	99
76) Pentachlorophenol	9.719	266	434840	48.77	ppm	100
77) Phenanthrene	10.018	178	1530833	25.42	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103898.D
Acq On : 9 May 2018 1:13 pm
Operator : christc2
Sample : ic4618-25
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 10:30:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:29:24 2018
Response via : Initial Calibration

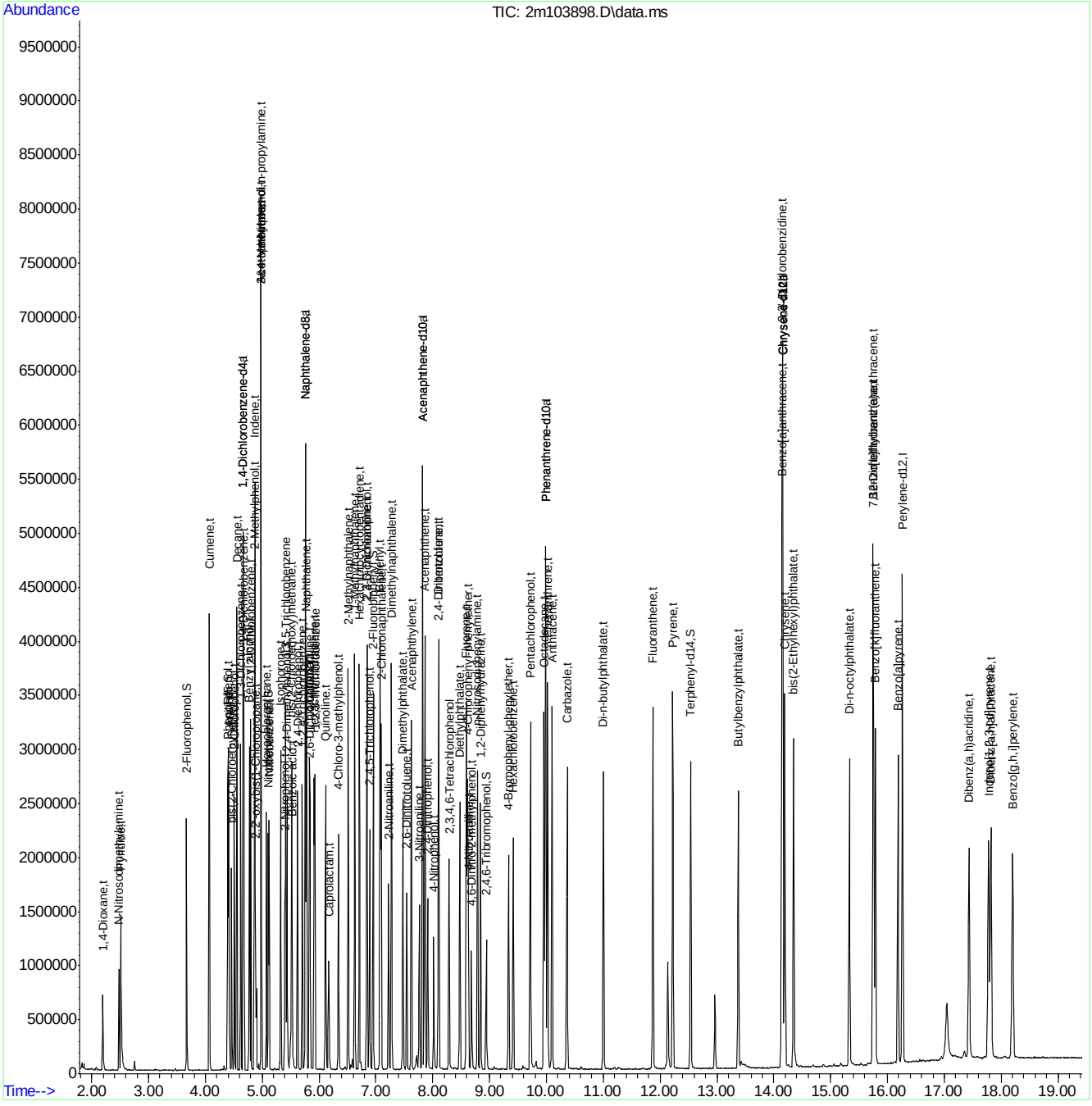
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	10.098	178	1553704	25.35	ppm	99
79)	Carbazole	10.366	167	1463542	25.29	ppm	99
80)	Di-n-butylphthalate	11.002	149	1786530	24.70	ppm	99
81)	Fluoranthene	11.874	202	1588506	24.87	ppm	99
82)	Octadecane	9.954	57	711983	25.30	ppm	99
84)	Pyrene	12.222	202	1682163	25.30	ppm	99
86)	Butylbenzylphthalate	13.377	149	769983	24.57	ppm	98
87)	Benzo[a]anthracene	14.142	228	1472571	24.87	ppm	100
88)	3,3'-Dichlorobenzidine	14.147	252	568104	25.05	ppm	99
89)	Chrysene	14.196	228	1437199	25.33	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.345	149	1064088	24.26	ppm	98
92)	Di-n-octylphthalate	15.329	149	1845676	24.47	ppm	99
93)	Benzo[b]fluoranthene	15.747	252	1574968	24.99	ppm	99
94)	Benzo[k]fluoranthene	15.784	252	1418593	25.08	ppm	100
95)	Benzo[a]pyrene	16.185	252	1349402	24.78	ppm	99
96)	Indeno[1,2,3-cd]pyrene	17.779	276	1362053	25.33	ppm	97
97)	Dibenz(a,h)acridine	17.437	279	1219026	24.92	ppm	99
98)	Dibenz[a,h]anthracene	17.822	278	1396077	25.24	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.752	256	679383	24.42	ppm	100
100)	Benzo[g,h,i]perylene	18.207	276	1310460	25.52	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103898.D
Acq On : 9 May 2018 1:13 pm
Operator : christc2
Sample : ic4618-25
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 10:30:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:29:24 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103899.D
Acq On : 9 May 2018 1:38 pm
Operator : christc2
Sample : ic4618-10
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 10:30:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	648682	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2456567	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1290250	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2222426	40.00	ppm	0.00
83) Chrysene-d12	14.158	240	2003544	40.00	ppm	0.00
91) Perylene-d12	16.265	264	2013633	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	648682	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1290250	40.00	ppm	0.00
105) Chrysene-d12a	14.158	240	2003544	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	2222426	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2456567	40.00	ppm	0.00
114) Chrysene-d12b	14.158	240	2003544	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.669	112	219942	10.36	ppm	0.00
Spiked Amount 50.000			Recovery = 20.72%			
8) Phenol-d5	4.391	99	269514	10.14	ppm	0.00
Spiked Amount 50.000			Recovery = 20.28%			
25) Nitrobenzene-d5	5.103	82	234630	10.43	ppm	0.00
Spiked Amount 50.000			Recovery = 20.86%			
51) 2-Fluorobiphenyl	6.948	172	499704	10.71	ppm	0.00
Spiked Amount 50.000			Recovery = 21.42%			
73) 2,4,6-Tribromophenol	8.943	330	66098	9.59	ppm	0.00
Spiked Amount 50.000			Recovery = 19.18%			
85) Terphenyl-d14	12.537	244	468948	10.65	ppm	0.00
Spiked Amount 50.000			Recovery = 21.30%			
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.193	88	99724	10.42	ppm	95
3) Pyridine	2.514	79	271452	10.95	ppm	95
4) N-Nitrosodimethylamine	2.477	74	154540	10.36	ppm	98
6) Indene	4.868	116	372824	10.22	ppm	98
7) Cumene	4.071	105	549193	10.21	ppm	98
9) Phenol	4.402	94	317664	10.47	ppm	95
10) Aniline	4.413	93	352283	10.98	ppm	96
11) bis(2-Chloroethyl)ether	4.461	93	218321	10.46	ppm	99
12) 2-Chlorophenol	4.509	128	238927	10.49	ppm	96
13) Decane	4.552	43	243282	10.66	ppm	98
14) 1,3-Dichlorobenzene	4.621	146	270143	10.61	ppm	95
15) 1,4-Dichlorobenzene	4.680	146	271995	10.50	ppm	98
16) Benzyl alcohol	4.771	108	141952	10.00	ppm	93
17) 1,2-Dichlorobenzene	4.798	146	251886	10.44	ppm	99
18) Acetophenone	4.980	105	313383	10.30	ppm	99
19) 2-Methylphenol	4.862	108	204965	10.23	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.878	45	263286	10.56	ppm	99
21) 3&4-Methylphenol	4.980	108	213279	9.98	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103899.D
Acq On : 9 May 2018 1:38 pm
Operator : christc2
Sample : ic4618-10
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 10:30:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.980	70	167680	10.28	ppm		96
23) Hexachloroethane	5.076	201	89826	10.84	ppm		94
26) Nitrobenzene	5.119	77	232467	10.45	ppm		98
27) Quinoline	6.114	129	429553	10.31	ppm		100
28) Isophorone	5.327	82	407753	10.40	ppm		99
29) 2-Nitrophenol	5.402	139	124171	10.23	ppm		95
30) 2,4-Dimethylphenol	5.434	107	198485	10.33	ppm		92
31) Benzoic acid	5.504	105	143834	9.17	ppm		94
32) bis(2-Chloroethoxy)met...	5.520	93	239359	10.59	ppm		98
33) 2,4-Dichlorophenol	5.622	162	180767	10.15	ppm		96
34) 2,6-Dichlorophenol	5.836	162	180284	10.25	ppm		99
35) 1,3,5-Trichlorobenzene	5.413	180	220291	10.62	ppm		96
36) 1,2,4-Trichlorobenzene	5.702	180	203448	10.54	ppm		98
37) 1,2,3-Trichlorobenzene	5.921	180	201567	10.52	ppm		98
38) Naphthalene	5.777	128	657240	10.49	ppm		100
39) 4-Chloroaniline	5.825	127	280296	10.43	ppm		98
40) 2,3-Dichloroaniline	6.841	161	232035	10.36	ppm		97
41) Caprolactam	6.157	55	96480	10.33	ppm		99
42) Hexachlorobutadiene	5.910	225	106775	10.52	ppm		98
43) 4-Chloro-3-methylphenol	6.338	107	177538	10.22	ppm		96
44) 2-Methylnaphthalene	6.510	141	378558	10.29	ppm		98
45) 1-Methylnaphthalene	6.622	141	399508	10.40	ppm		98
46) Dimethylnaphthalene	7.269	156	409128	10.37	ppm		99
48) Hexachlorocyclopentadiene	6.707	237	230650	19.57	ppm		96
49) 2,4,6-Trichlorophenol	6.847	196	131304	10.33	ppm		97
50) 2,4,5-Trichlorophenol	6.884	196	139241	10.40	ppm		97
52) 2-Chloronaphthalene	7.093	162	411132	10.61	ppm		99
53) Biphenyl	7.071	154	554201	10.50	ppm		99
54) 2-Nitroaniline	7.221	65	112824	10.10	ppm		97
55) Dimethylphthalate	7.478	163	445867	10.56	ppm		99
56) Acenaphthylene	7.622	152	658606	10.47	ppm		100
57) 2,6-Dinitrotoluene	7.542	165	100448	10.07	ppm		95
58) 3-Nitroaniline	7.761	138	116565	9.98	ppm		99
59) Acenaphthene	7.863	153	430357	10.46	ppm		97
60) 2,4-Dinitrophenol	7.911	184	86402	15.44	ppm	#	58
61) 4-Nitrophenol	8.013	109	50082	9.65	ppm		99
62) Dibenzofuran	8.103	168	575071	10.34	ppm		99
63) 2,4-Dinitrotoluene	8.093	165	131337	9.59	ppm		97
64) 2,3,4,6-Tetrachlorophenol	8.285	232	112817	10.11	ppm		98
65) Diethylphthalate	8.473	149	440053	10.29	ppm		99
66) Fluorene	8.590	166	461932	10.22	ppm		100
67) 4-Chlorophenyl-phenyle...	8.612	204	213311	10.52	ppm		99
68) 4-Nitroaniline	8.622	138	119085	10.48	ppm		98
70) 4,6-Dinitro-2-methylph...	8.676	198	68339	8.60	ppm		91
71) n-Nitrosodiphenylamine	8.783	169	331719	10.14	ppm		98
72) 1,2-Diphenylhydrazine	8.842	77	442905	10.27	ppm		96
74) 4-Bromophenyl-phenylether	9.334	248	127287	10.48	ppm		95
75) Hexachlorobenzene	9.414	284	145775	10.59	ppm		97
76) Pentachlorophenol	9.713	266	174185	19.03	ppm		97
77) Phenanthrene	10.018	178	647355	10.33	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103899.D
Acq On : 9 May 2018 1:38 pm
Operator : christc2
Sample : ic4618-10
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 10:30:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:05 2018
Response via : Initial Calibration

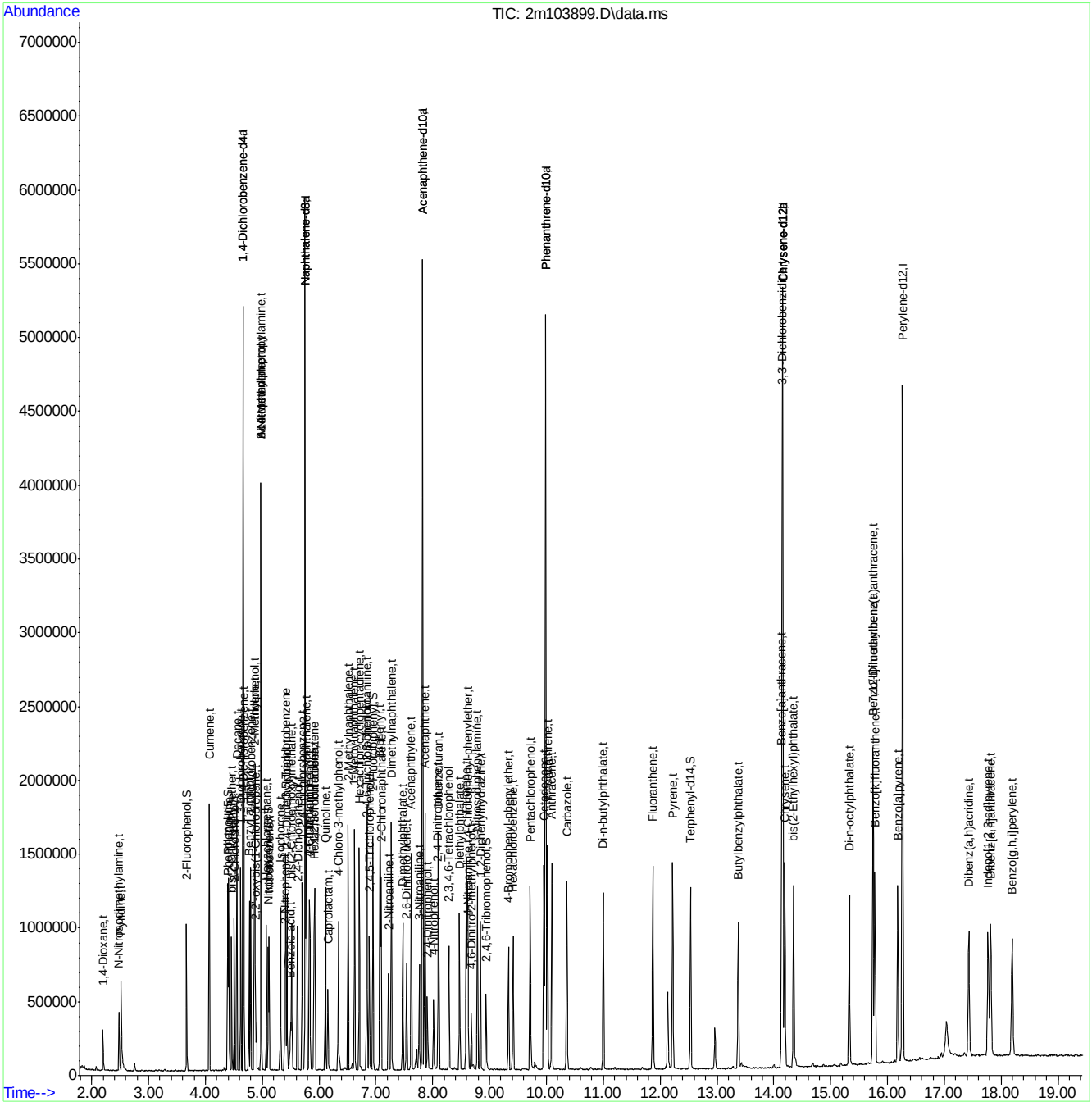
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	10.093	178	657873	10.32	ppm	100
79)	Carbazole	10.361	167	612321	10.18	ppm	99
80)	Di-n-butylphthalate	11.002	149	746521	10.01	ppm	100
81)	Fluoranthene	11.874	202	661189	10.02	ppm	99
82)	Octadecane	9.954	57	298460	10.21	ppm	98
84)	Pyrene	12.217	202	707570	10.60	ppm	99
86)	Butylbenzylphthalate	13.377	149	318171	10.21	ppm	96
87)	Benzo[a]anthracene	14.137	228	617490	10.44	ppm	99
88)	3,3'-Dichlorobenzidine	14.147	252	233502	10.29	ppm	98
89)	Chrysene	14.196	228	596304	10.46	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.345	149	440493	10.14	ppm	99
92)	Di-n-octylphthalate	15.329	149	754393	10.10	ppm	99
93)	Benzo[b]fluoranthene	15.741	252	648368	10.31	ppm	99
94)	Benzo[k]fluoranthene	15.779	252	602891	10.67	ppm	99
95)	Benzo[a]pyrene	16.180	252	566920	10.47	ppm	98
96)	Indeno[1,2,3-cd]pyrene	17.768	276	542080	10.06	ppm	97
97)	Dibenz(a,h)acridine	17.431	279	502758	10.31	ppm	100
98)	Dibenz[a,h]anthracene	17.817	278	569939	10.30	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.747	256	278990	10.13	ppm	98
100)	Benzo[g,h,i]perylene	18.196	276	535791	10.39	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103899.D
Acq On : 9 May 2018 1:38 pm
Operator : christc2
Sample : ic4618-10
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 10:30:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:05 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103900.D
Acq On : 9 May 2018 2:04 pm
Operator : christc2
Sample : ic4618-5
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 10:31:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.665	152	691461	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	2587528	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1374832	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2335000	40.00	ppm	0.00
83) Chrysene-d12	14.158	240	2108790	40.00	ppm	0.00
91) Perylene-d12	16.266	264	2105164	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.665	152	691461	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1374832	40.00	ppm	0.00
105) Chrysene-d12a	14.158	240	2108790	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	2335000	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	2587528	40.00	ppm	0.00
114) Chrysene-d12b	14.158	240	2108790	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.670	112	108718	4.76	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.52%	
8) Phenol-d5	4.392	99	137895	4.85	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.70%	
25) Nitrobenzene-d5	5.103	82	115576	4.83	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.66%	
51) 2-Fluorobiphenyl	6.948	172	253904	5.02	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.04%	
73) 2,4,6-Tribromophenol	8.938	330	33760	4.71	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.42%	
85) Terphenyl-d14	12.538	244	230999	4.90	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.80%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.199	88	51713	5.02	ppm	98
3) Pyridine	2.520	79	134720	4.98	ppm	94
4) N-Nitrosodimethylamine	2.482	74	76666	4.78	ppm	91
6) Indene	4.868	116	187205	4.79	ppm	99
7) Cumene	4.071	105	280221	4.86	ppm	98
9) Phenol	4.397	94	154449	4.72	ppm	99
10) Aniline	4.413	93	181988	5.19	ppm	97
11) bis(2-Chloroethyl)ether	4.461	93	110081	4.89	ppm	97
12) 2-Chlorophenol	4.504	128	122330	4.98	ppm	98
13) Decane	4.552	43	124130	5.02	ppm	98
14) 1,3-Dichlorobenzene	4.622	146	135996	4.94	ppm	97
15) 1,4-Dichlorobenzene	4.681	146	137858	4.93	ppm	96
16) Benzyl alcohol	4.771	108	71604	4.73	ppm	96
17) 1,2-Dichlorobenzene	4.798	146	124034	4.77	ppm	97
18) Acetophenone	4.980	105	157245	4.81	ppm	97
19) 2-Methylphenol	4.857	108	103090	4.80	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.878	45	134186	4.98	ppm	98
21) 3&4-Methylphenol	4.980	108	108233	4.75	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103900.D
Acq On : 9 May 2018 2:04 pm
Operator : christc2
Sample : ic4618-5
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 10:31:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:49 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.980	70	82591	4.72	ppm		96
23) Hexachloroethane	5.076	201	43398	4.81	ppm		98
26) Nitrobenzene	5.119	77	118383	5.00	ppm		98
27) Quinoline	6.114	129	216964	4.90	ppm		98
28) Isophorone	5.322	82	205548	4.93	ppm		98
29) 2-Nitrophenol	5.397	139	61193	4.76	ppm		98
30) 2,4-Dimethylphenol	5.435	107	97923	4.80	ppm		97
31) Benzoic acid	5.488	105	65881	4.07	ppm		96
32) bis(2-Chloroethoxy)met...	5.520	93	119326	4.94	ppm		98
33) 2,4-Dichlorophenol	5.622	162	93877	4.99	ppm		94
34) 2,6-Dichlorophenol	5.836	162	89552	4.80	ppm		97
35) 1,3,5-Trichlorobenzene	5.413	180	111487	5.03	ppm		96
36) 1,2,4-Trichlorobenzene	5.702	180	104669	5.08	ppm		98
37) 1,2,3-Trichlorobenzene	5.921	180	103215	5.05	ppm		98
38) Naphthalene	5.777	128	330925	4.95	ppm		99
39) 4-Chloroaniline	5.825	127	144041	5.03	ppm		99
40) 2,3-Dichloroaniline	6.841	161	117031	4.92	ppm		97
41) Caprolactam	6.151	55	47831	4.82	ppm		96
42) Hexachlorobutadiene	5.911	225	52900	4.89	ppm		96
43) 4-Chloro-3-methylphenol	6.333	107	88379	4.80	ppm		97
44) 2-Methylnaphthalene	6.510	141	192392	4.93	ppm		98
45) 1-Methylnaphthalene	6.622	141	202020	4.94	ppm		95
46) Dimethylnaphthalene	7.269	156	205826	4.91	ppm		96
48) Hexachlorocyclopentadiene	6.708	237	110984	8.89	ppm		94
49) 2,4,6-Trichlorophenol	6.847	196	62811	4.60	ppm		99
50) 2,4,5-Trichlorophenol	6.884	196	69596	4.83	ppm		97
52) 2-Chloronaphthalene	7.087	162	212098	5.06	ppm		99
53) Biphenyl	7.071	154	276974	4.87	ppm		98
54) 2-Nitroaniline	7.216	65	54799	4.59	ppm		96
55) Dimethylphthalate	7.473	163	224572	4.92	ppm		99
56) Acenaphthylene	7.622	152	329264	4.86	ppm		100
57) 2,6-Dinitrotoluene	7.542	165	49761	4.67	ppm		94
58) 3-Nitroaniline	7.761	138	56256	4.52	ppm		90
59) Acenaphthene	7.863	153	217979	4.92	ppm		99
60) 2,4-Dinitrophenol	7.906	184	37642	6.69	ppm	#	55
61) 4-Nitrophenol	8.013	109	24488	4.47	ppm		97
62) Dibenzofuran	8.104	168	294802	4.93	ppm		98
63) 2,4-Dinitrotoluene	8.093	165	62168	4.30	ppm		99
64) 2,3,4,6-Tetrachlorophenol	8.286	232	57300	4.80	ppm		95
65) Diethylphthalate	8.473	149	219806	4.79	ppm		100
66) Fluorene	8.590	166	236941	4.89	ppm		99
67) 4-Chlorophenyl-phenyle...	8.612	204	107867	4.93	ppm		98
68) 4-Nitroaniline	8.617	138	59312	4.84	ppm		94
70) 4,6-Dinitro-2-methylph...	8.676	198	28818	3.58	ppm		92
71) n-Nitrosodiphenylamine	8.783	169	169189	4.91	ppm		97
72) 1,2-Diphenylhydrazine	8.836	77	224038	4.91	ppm		96
74) 4-Bromophenyl-phenylether	9.334	248	63899	4.95	ppm		97
75) Hexachlorobenzene	9.414	284	72266	4.92	ppm		98
76) Pentachlorophenol	9.714	266	85604	9.01	ppm		97
77) Phenanthrene	10.018	178	327930	4.94	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103900.D
Acq On : 9 May 2018 2:04 pm
Operator : christc2
Sample : ic4618-5
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 10:31:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:49 2018
Response via : Initial Calibration

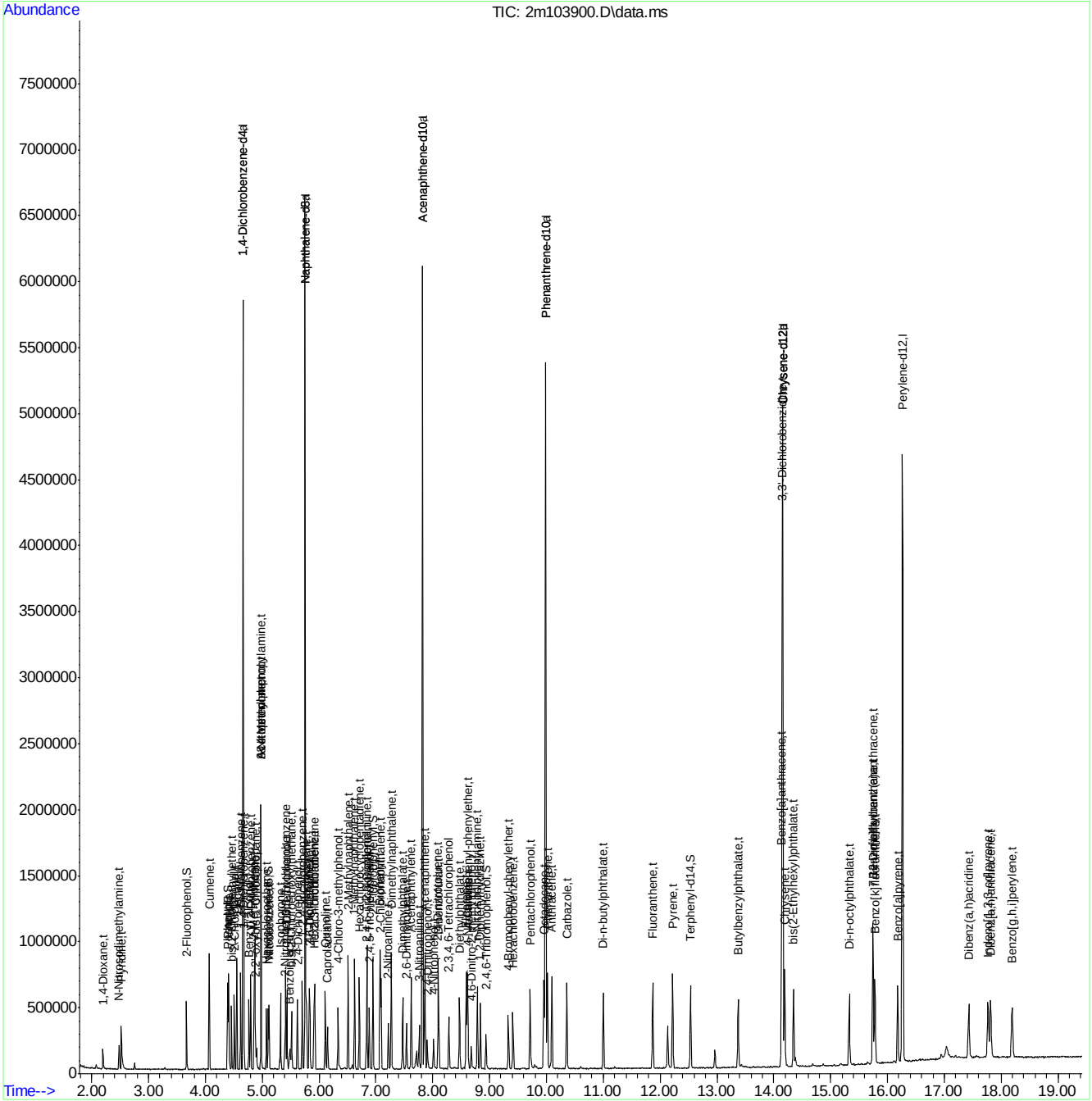
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	10.093	178	334283	4.95	ppm	99
79)	Carbazole	10.361	167	302749	4.77	ppm	100
80)	Di-n-butylphthalate	11.003	149	366840	4.68	ppm	99
81)	Fluoranthene	11.869	202	326099	4.70	ppm	98
82)	Octadecane	9.954	57	145512	4.71	ppm	99
84)	Pyrene	12.217	202	358821	5.03	ppm	99
86)	Butylbenzylphthalate	13.372	149	156834	4.76	ppm	99
87)	Benzo[a]anthracene	14.137	228	314842	5.00	ppm	99
88)	3,3'-Dichlorobenzidine	14.148	252	113943	4.73	ppm	97
89)	Chrysene	14.190	228	301770	4.97	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.346	149	219503	4.78	ppm	99
92)	Di-n-octylphthalate	15.330	149	364960	4.66	ppm	100
93)	Benzo[b]fluoranthene	15.742	252	314741	4.75	ppm	100
94)	Benzo[k]fluoranthene	15.779	252	306469	5.10	ppm	97
95)	Benzo[a]pyrene	16.180	252	277162	4.84	ppm	98
96)	Indeno[1,2,3-cd]pyrene	17.769	276	266736	4.73	ppm	98
97)	Dibenz(a,h)acridine	17.432	279	247544	4.82	ppm	99
98)	Dibenz[a,h]anthracene	17.811	278	284442	4.88	ppm	100
99)	7,12-Dimethylbenz(a)an...	15.747	256	136079	4.71	ppm	95
100)	Benzo[g,h,i]perylene	18.191	276	269173	4.94	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103900.D
Acq On : 9 May 2018 2:04 pm
Operator : christc2
Sample : ic4618-5
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 10:31:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:30:49 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103901.D
Acq On : 9 May 2018 2:29 pm
Operator : christc2
Sample : ic4618-2
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 10:32:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:31:33 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	634096	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	2391935	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1252247	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2145083	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	1955378	40.00	ppm	-0.01
91) Perylene-d12	16.266	264	1994061	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	634096	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1252247	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	1955378	40.00	ppm	-0.01
108) Phenanthrene-d10a	9.986	188	2145083	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	2391935	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	1955378	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.670	112	42040	2.03	ppm	0.00
Spiked Amount 50.000			Recovery =	4.06%		
8) Phenol-d5	4.386	99	51353	1.98	ppm	-0.01
Spiked Amount 50.000			Recovery =	3.96%		
25) Nitrobenzene-d5	5.103	82	44122	2.01	ppm	0.00
Spiked Amount 50.000			Recovery =	4.02%		
51) 2-Fluorobiphenyl	6.948	172	89766	1.95	ppm	0.00
Spiked Amount 50.000			Recovery =	3.90%		
73) 2,4,6-Tribromophenol	8.938	330	12509	1.92	ppm	0.00
Spiked Amount 50.000			Recovery =	3.84%		
85) Terphenyl-d14	12.538	244	84305	1.94	ppm	0.00
Spiked Amount 50.000			Recovery =	3.88%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.199	88	19940	2.11	ppm	90
3) Pyridine	2.530	79	48396	1.95	ppm	94
4) N-Nitrosodimethylamine	2.482	74	28972	1.99	ppm	97
6) Indene	4.868	116	68792	1.94	ppm	95
7) Cumene	4.071	105	103032	1.96	ppm	98
9) Phenol	4.397	94	59706	2.01	ppm	99
10) Aniline	4.413	93	67543	2.09	ppm	96
11) bis(2-Chloroethyl)ether	4.461	93	40519	1.97	ppm	98
12) 2-Chlorophenol	4.504	128	44475	1.97	ppm	96
13) Decane	4.552	43	47931	2.11	ppm	97
14) 1,3-Dichlorobenzene	4.622	146	50253	1.99	ppm	98
15) 1,4-Dichlorobenzene	4.680	146	50007	1.96	ppm	95
16) Benzyl alcohol	4.766	108	27080	1.97	ppm	97
17) 1,2-Dichlorobenzene	4.798	146	46998	1.99	ppm	96
18) Acetophenone	4.980	105	58096	1.95	ppm	96
19) 2-Methylphenol	4.857	108	39303	2.01	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.878	45	51481	2.08	ppm	96
21) 3&4-Methylphenol	4.980	108	40212	1.94	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103901.D
Acq On : 9 May 2018 2:29 pm
Operator : christc2
Sample : ic4618-2
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 10:32:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:31:33 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	4.980	70	30517	1.92	ppm	89
23) Hexachloroethane	5.076	201	16004	1.95	ppm	98
26) Nitrobenzene	5.119	77	43868	2.00	ppm	96
27) Quinoline	6.109	129	80428	1.97	ppm	98
28) Isophorone	5.322	82	76665	1.99	ppm	95
29) 2-Nitrophenol	5.397	139	22480	1.91	ppm	94
30) 2,4-Dimethylphenol	5.435	107	36988	1.98	ppm	97
31) Benzoic acid	5.477	105	21777	1.51	ppm	95
32) bis(2-Chloroethoxy)met...	5.520	93	44280	1.99	ppm	95
33) 2,4-Dichlorophenol	5.616	162	35469	2.04	ppm	97
34) 2,6-Dichlorophenol	5.836	162	33104	1.94	ppm	97
35) 1,3,5-Trichlorobenzene	5.413	180	43136	2.10	ppm	93
36) 1,2,4-Trichlorobenzene	5.702	180	38223	2.00	ppm	96
37) 1,2,3-Trichlorobenzene	5.921	180	37982	2.01	ppm	94
38) Naphthalene	5.777	128	125113	2.03	ppm	99
39) 4-Chloroaniline	5.825	127	52404	1.98	ppm	98
40) 2,3-Dichloroaniline	6.841	161	42960	1.96	ppm	99
41) Caprolactam	6.146	55	16786	1.84	ppm	88
42) Hexachlorobutadiene	5.911	225	20889	2.10	ppm	94
43) 4-Chloro-3-methylphenol	6.333	107	33411	1.98	ppm	99
44) 2-Methylnaphthalene	6.510	141	71345	1.98	ppm	96
45) 1-Methylnaphthalene	6.622	141	74768	1.98	ppm	99
46) Dimethylnaphthalene	7.269	156	74890	1.94	ppm	96
48) Hexachlorocyclopentadiene	6.708	237	37699	3.39	ppm	96
49) 2,4,6-Trichlorophenol	6.841	196	24692	2.02	ppm	94
50) 2,4,5-Trichlorophenol	6.884	196	24566	1.88	ppm	98
52) 2-Chloronaphthalene	7.087	162	78577	2.05	ppm	97
53) Biphenyl	7.071	154	104723	2.03	ppm	96
54) 2-Nitroaniline	7.216	65	20248	1.89	ppm	95
55) Dimethylphthalate	7.472	163	83781	2.02	ppm	99
56) Acenaphthylene	7.622	152	121219	1.97	ppm	99
57) 2,6-Dinitrotoluene	7.542	165	17077	1.78	ppm	97
58) 3-Nitroaniline	7.761	138	19360	1.74	ppm	86
59) Acenaphthene	7.863	153	79377	1.97	ppm	97
60) 2,4-Dinitrophenol	7.906	184	9543	1.99	ppm	82
61) 4-Nitrophenol	8.013	109	7856	1.61	ppm	91
62) Dibenzofuran	8.104	168	107208	1.97	ppm	99
63) 2,4-Dinitrotoluene	8.093	165	22966	1.80	ppm	93
64) 2,3,4,6-Tetrachlorophenol	8.285	232	20464	1.90	ppm	94
65) Diethylphthalate	8.473	149	80164	1.93	ppm	94
66) Fluorene	8.590	166	87978	2.00	ppm	98
67) 4-Chlorophenyl-phenyle...	8.612	204	40281	2.03	ppm	96
68) 4-Nitroaniline	8.617	138	19871	1.79	ppm	99
70) 4,6-Dinitro-2-methylph...	8.676	198	10006	1.43	ppm	95
71) n-Nitrosodiphenylamine	8.783	169	61750	1.96	ppm	98
72) 1,2-Diphenylhydrazine	8.836	77	80098	1.92	ppm	94
74) 4-Bromophenyl-phenylether	9.328	248	23305	1.97	ppm	89
75) Hexachlorobenzene	9.409	284	26447	1.97	ppm	91
76) Pentachlorophenol	9.714	266	29195	3.41	ppm	98
77) Phenanthrene	10.018	178	125267	2.06	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103901.D
Acq On : 9 May 2018 2:29 pm
Operator : christc2
Sample : ic4618-2
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 10:32:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:31:33 2018
Response via : Initial Calibration

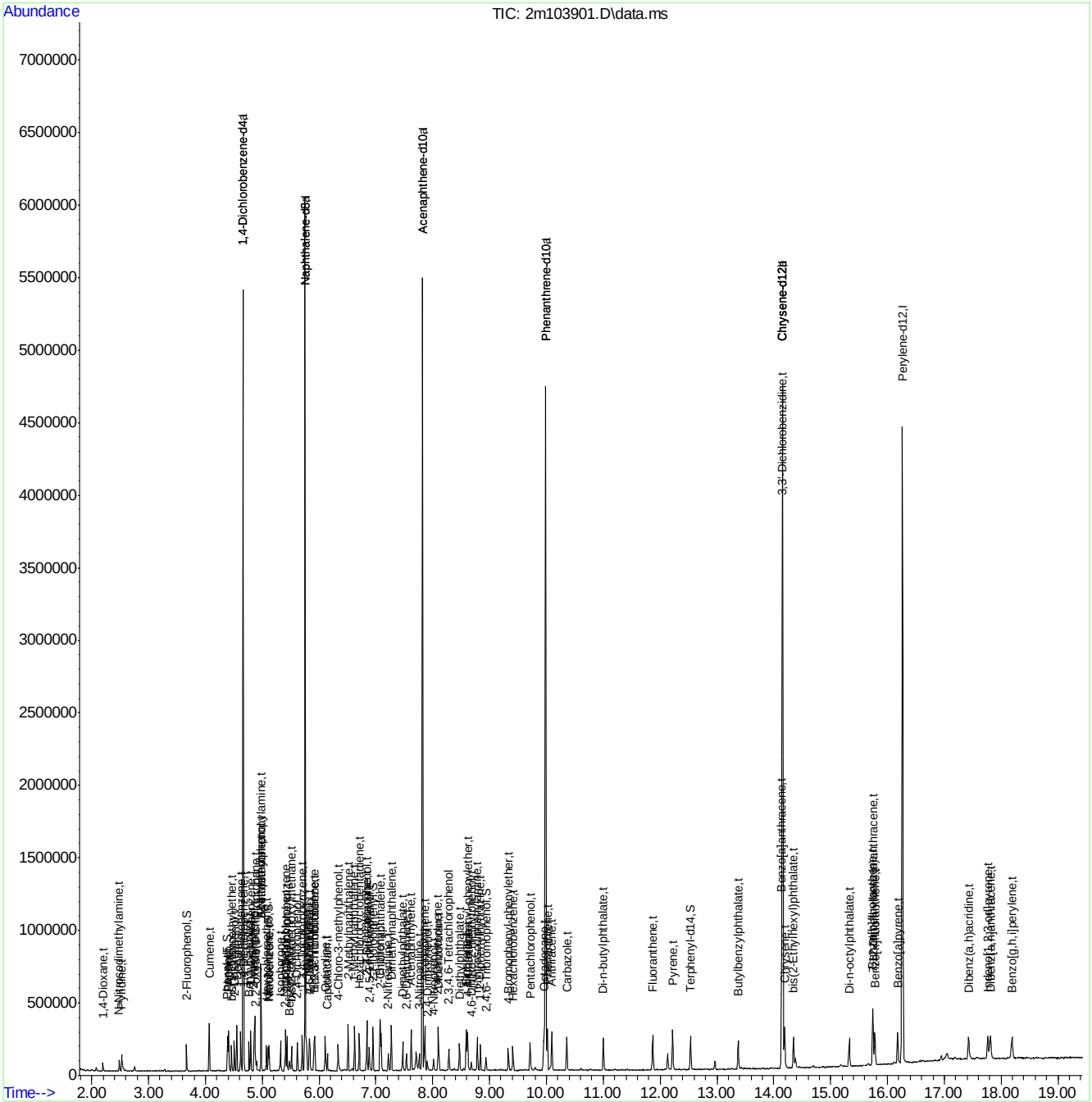
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	10.093	178	121810	1.97	ppm	98
79)	Carbazole	10.361	167	111717	1.93	ppm	97
80)	Di-n-butylphthalate	11.003	149	132266	1.86	ppm	99
81)	Fluoranthene	11.874	202	123319	1.96	ppm	97
82)	Octadecane	9.954	57	54202	1.93	ppm	98
84)	Pyrene	12.217	202	130812	1.98	ppm	98
86)	Butylbenzylphthalate	13.372	149	60825	2.01	ppm	96
87)	Benzo[a]anthracene	14.137	228	119394	2.05	ppm	96
88)	3,3'-Dichlorobenzidine	14.148	252	40627	1.84	ppm	95
89)	Chrysene	14.190	228	114390	2.03	ppm	98
90)	bis(2-Ethylhexyl)phtha...	14.345	149	79771	1.89	ppm	99
92)	Di-n-octylphthalate	15.330	149	134929	1.84	ppm	97
93)	Benzo[b]fluoranthene	15.736	252	117799	1.90	ppm	98
94)	Benzo[k]fluoranthene	15.779	252	111649	1.95	ppm	98
95)	Benzo[a]pyrene	16.180	252	102494	1.90	ppm	99
96)	Indeno[1,2,3-cd]pyrene	17.763	276	101649	1.92	ppm	94
97)	Dibenz(a,h)acridine	17.426	279	92460	1.91	ppm	99
98)	Dibenz[a,h]anthracene	17.811	278	104685	1.90	ppm	97
99)	7,12-Dimethylbenz(a)an...	15.747	256	50339	1.86	ppm	97
100)	Benzo[g,h,i]perylene	18.191	276	98778	1.92	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103901.D
Acq On : 9 May 2018 2:29 pm
Operator : christc2
Sample : ic4618-2
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 10:32:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:31:33 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103902.D
Acq On : 9 May 2018 2:55 pm
Operator : christc2
Sample : ic4618-1
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 10:32:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:32:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	642368	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2422851	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1279587	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2173273	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2007505	40.00	ppm	-0.01
91) Perylene-d12	16.265	264	2058543	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	642368	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1279587	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2007505	40.00	ppm	-0.01
108) Phenanthrene-d10a	9.981	188	2173273	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2422851	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2007505	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.669	112	19932	0.95	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.90%	
8) Phenol-d5	4.391	99	26044	0.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.98%	
25) Nitrobenzene-d5	5.103	82	21646	0.97	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.94%	
51) 2-Fluorobiphenyl	6.948	172	47257	1.01	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.02%	
73) 2,4,6-Tribromophenol	8.938	330	6609	1.01	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.02%	
85) Terphenyl-d14	12.537	244	43236	0.97	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.94%	
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.198	88	10229	1.06	ppm	97
3) Pyridine	2.535	79	25294	1.01	ppm	96
4) N-Nitrosodimethylamine	2.487	74	14987	1.02	ppm	95
6) Indene	4.867	116	35675	1.00	ppm	94
7) Cumene	4.070	105	55372	1.04	ppm	99
9) Phenol	4.397	94	30141	1.00	ppm	98
10) Aniline	4.413	93	35739	1.08	ppm	98
11) bis(2-Chloroethyl)ether	4.461	93	21555	1.04	ppm	95
12) 2-Chlorophenol	4.509	128	21769	0.96	ppm	90
13) Decane	4.552	43	25485	1.10	ppm	87
14) 1,3-Dichlorobenzene	4.621	146	26027	1.02	ppm	98
15) 1,4-Dichlorobenzene	4.680	146	26563	1.03	ppm	95
16) Benzyl alcohol	4.771	108	14890	1.07	ppm	79
17) 1,2-Dichlorobenzene	4.798	146	26079	1.09	ppm	95
18) Acetophenone	4.980	105	30086	1.00	ppm	91
19) 2-Methylphenol	4.857	108	19608	0.99	ppm	94
20) 2,2'-oxybis(1-Chloropr...	4.878	45	27065	1.07	ppm	96
21) 3&4-Methylphenol	4.980	108	19806	0.95	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103902.D
Acq On : 9 May 2018 2:55 pm
Operator : christc2
Sample : ic4618-1
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 10:32:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:32:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.980	70	16567	1.04	ppm		91
23) Hexachloroethane	5.076	201	8594	1.04	ppm		87
26) Nitrobenzene	5.119	77	22059	0.99	ppm		98
27) Quinoline	6.114	129	41279	1.00	ppm		96
28) Isophorone	5.327	82	39922	1.03	ppm		99
29) 2-Nitrophenol	5.397	139	11358	0.96	ppm		98
30) 2,4-Dimethylphenol	5.434	107	18335	0.97	ppm		98
31) Benzoic acid	5.472	105	8529	0.61	ppm		92
32) bis(2-Chloroethoxy)met...	5.520	93	23075	1.02	ppm		97
33) 2,4-Dichlorophenol	5.616	162	17736	1.00	ppm		97
34) 2,6-Dichlorophenol	5.836	162	17804	1.03	ppm		94
35) 1,3,5-Trichlorobenzene	5.413	180	21856	1.04	ppm		94
36) 1,2,4-Trichlorobenzene	5.702	180	20733	1.07	ppm		95
37) 1,2,3-Trichlorobenzene	5.921	180	21183	1.10	ppm		98
38) Naphthalene	5.777	128	65473	1.05	ppm		98
39) 4-Chloroaniline	5.825	127	26930	1.01	ppm		94
40) 2,3-Dichloroaniline	6.841	161	21769	0.98	ppm		97
41) Caprolactam	6.140	55	8783	0.97	ppm		94
42) Hexachlorobutadiene	5.910	225	10366	1.02	ppm		98
43) 4-Chloro-3-methylphenol	6.333	107	16229	0.95	ppm		92
44) 2-Methylnaphthalene	6.509	141	37669	1.04	ppm		95
45) 1-Methylnaphthalene	6.622	141	38138	1.00	ppm		96
46) Dimethylnaphthalene	7.269	156	39680	1.02	ppm		95
48) Hexachlorocyclopentadiene	6.707	237	17464	1.58	ppm		98
49) 2,4,6-Trichlorophenol	6.841	196	12402	0.99	ppm		87
50) 2,4,5-Trichlorophenol	6.884	196	12978	0.98	ppm		84
52) 2-Chloronaphthalene	7.087	162	40468	1.03	ppm		97
53) Biphenyl	7.071	154	52439	0.99	ppm		99
54) 2-Nitroaniline	7.215	65	10478	0.97	ppm		92
55) Dimethylphthalate	7.472	163	44270	1.04	ppm		98
56) Acenaphthylene	7.622	152	63285	1.01	ppm		98
57) 2,6-Dinitrotoluene	7.542	165	8508	0.89	ppm		94
58) 3-Nitroaniline	7.756	138	10177	0.92	ppm		94
59) Acenaphthene	7.863	153	41781	1.02	ppm		94
60) 2,4-Dinitrophenol	7.905	184	4404	0.98	ppm	#	43
61) 4-Nitrophenol	8.012	109	3946	0.82	ppm	#	70
62) Dibenzofuran	8.098	168	55233	1.00	ppm		94
63) 2,4-Dinitrotoluene	8.093	165	10591	0.82	ppm		95
64) 2,3,4,6-Tetrachlorophenol	8.285	232	10148	0.93	ppm		92
65) Diethylphthalate	8.472	149	41605	0.99	ppm		99
66) Fluorene	8.590	166	43722	0.97	ppm		92
67) 4-Chlorophenyl-phenyle...	8.611	204	21035	1.03	ppm		97
68) 4-Nitroaniline	8.617	138	9779	0.88	ppm		93
70) 4,6-Dinitro-2-methylph...	8.681	198	4506	0.67	ppm		93
71) n-Nitrosodiphenylamine	8.783	169	31082	0.98	ppm		94
72) 1,2-Diphenylhydrazine	8.836	77	42473	1.01	ppm		93
74) 4-Bromophenyl-phenylether	9.328	248	12263	1.03	ppm		94
75) Hexachlorobenzene	9.414	284	14915	1.10	ppm		89
76) Pentachlorophenol	9.713	266	13208	1.56	ppm		92
77) Phenanthrene	10.018	178	64379	1.04	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103902.D
Acq On : 9 May 2018 2:55 pm
Operator : christc2
Sample : ic4618-1
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 10:32:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:32:11 2018
Response via : Initial Calibration

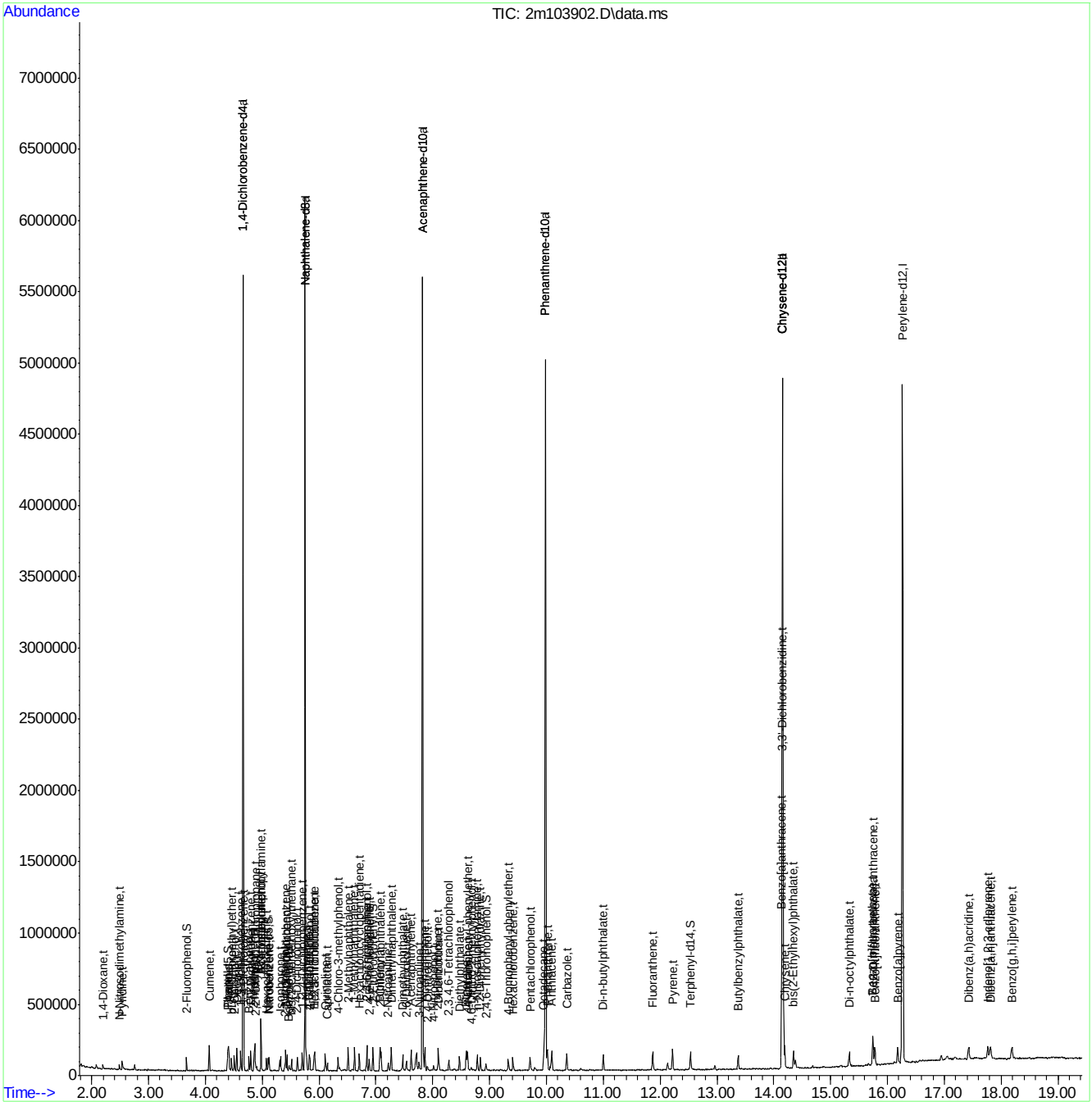
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.093	178	61898	0.99	ppm	95
79) Carbazole	10.360	167	57594	0.99	ppm	99
80) Di-n-butylphthalate	11.002	149	68655	0.96	ppm	99
81) Fluoranthene	11.869	202	63355	1.00	ppm	96
82) Octadecane	9.949	57	27729	0.98	ppm	91
84) Pyrene	12.216	202	66126	0.97	ppm	97
86) Butylbenzylphthalate	13.372	149	30687	0.99	ppm	97
87) Benzo[a]anthracene	14.137	228	67094	1.12	ppm	95
88) 3,3'-Dichlorobenzidine	14.142	252	20156	0.90	ppm	92
89) Chrysene	14.190	228	59612	1.03	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.345	149	41567	0.97	ppm	97
92) Di-n-octylphthalate	15.329	149	71860	0.96	ppm	98
93) Benzo[b]fluoranthene	15.736	252	60230	0.95	ppm	96
94) Benzo[k]fluoranthene	15.779	252	60009	1.02	ppm	96
95) Benzo[a]pyrene	16.180	252	52193	0.95	ppm	99
96) Indeno[1,2,3-cd]pyrene	17.768	276	54385	1.00	ppm	94
97) Dibenz(a,h)acridine	17.431	279	47831	0.97	ppm	98
98) Dibenz[a,h]anthracene	17.811	278	54668	0.97	ppm	96
99) 7,12-Dimethylbenz(a)an...	15.747	256	26600	0.96	ppm	98
100) Benzo[g,h,i]perylene	18.191	276	51081	0.97	ppm	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4618\
Data File : 2m103902.D
Acq On : 9 May 2018 2:55 pm
Operator : christc2
Sample : ic4618-1
Misc : op10486,e2m4618,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 10:32:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 10:32:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103904.D
Acq On : 9 May 2018 6:59 pm
Operator : sufiyana
Sample : ic4618-100
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 12:43:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

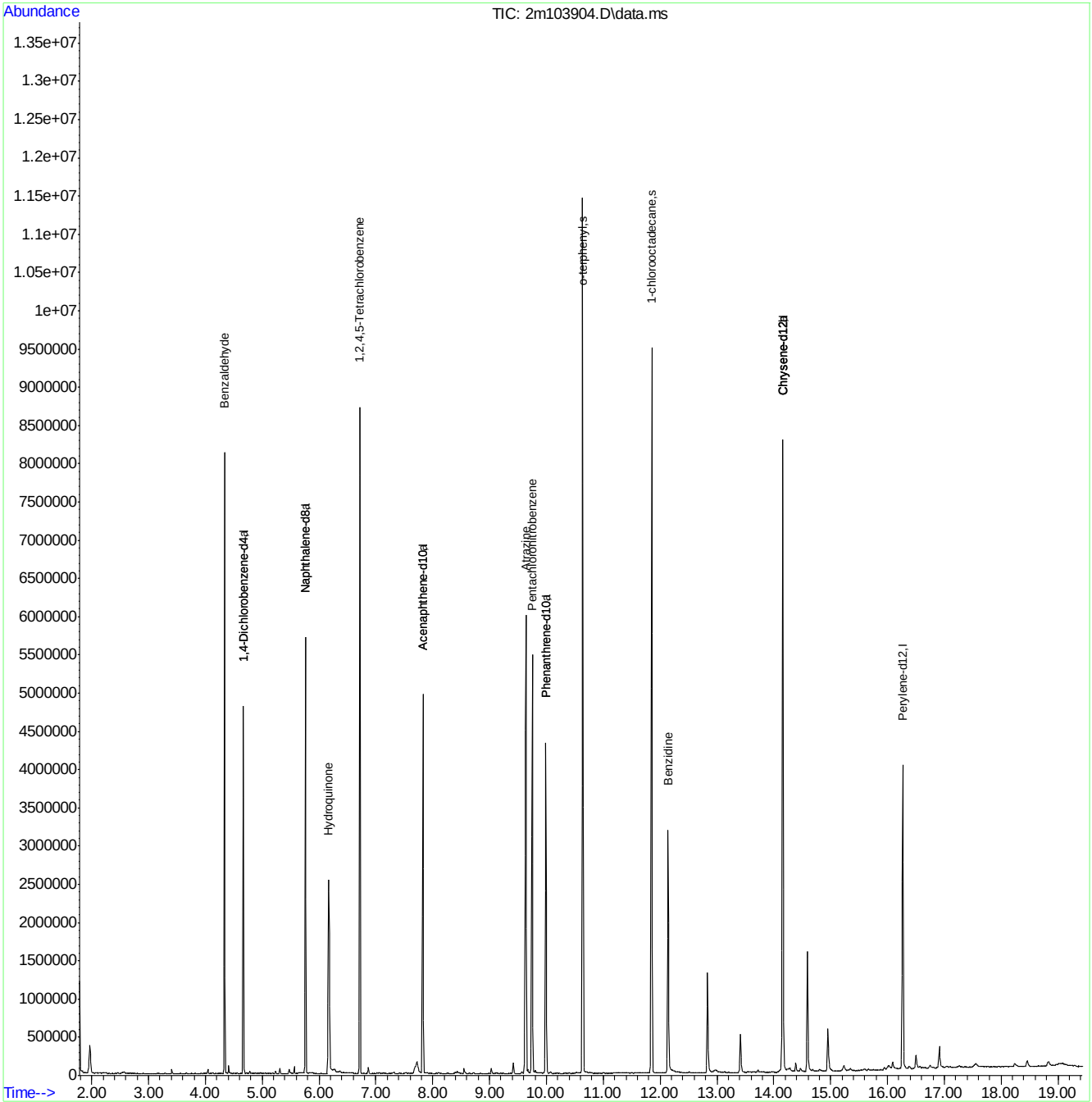
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.670	152	580424	40.00	ppm	0.00
24) Naphthalene-d8	5.761	136	2150092	40.00	ppm	0.00
47) Acenaphthene-d10	7.825	164	1101604	40.00	ppm	0.00
69) Phenanthrene-d10	9.992	188	1910456	40.00	ppm	0.00
83) Chrysene-d12	14.158	240	1826937	40.00	ppm	0.00
91) Perylene-d12	16.271	264	1785537	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.670	152	580424	40.00	ppm	0.00
103) Acenaphthene-d10a	7.825	164	1101604	40.00	ppm	0.00
105) Chrysene-d12a	14.158	240	1826937	40.00	ppm	0.00
108) Phenanthrene-d10a	9.992	188	1910456	40.00	ppm	0.00
112) Naphthalene-d8a	5.761	136	2150092	40.00	ppm	0.00
114) Chrysene-d12b	14.158	240	1826937	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.853	57	1551371	106.62	ppm	0.01
Spiked Amount 50.000			Recovery =	213.24%		
110) o-terphenyl	10.639	230	2645168	100.76	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.338	105	1247530	97.45	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.718	216	1591631	99.89	ppm	99
106) Benzidine	12.142	184	1699290	96.65	ppm	98
109) Atrazine	9.638	215	535474	98.82	ppm	97
111) Pentachloronitrobenzene	9.751	295	216056	104.84	ppm	98
113) Hydroquinone	6.167	110	1732194	96.92	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103904.D
Acq On : 9 May 2018 6:59 pm
Operator : sufiyana
Sample : ic4618-100
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 12:43:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103905.D
Acq On : 9 May 2018 7:25 pm
Operator : sufiyana
Sample : ic4618-80
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 12:44:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

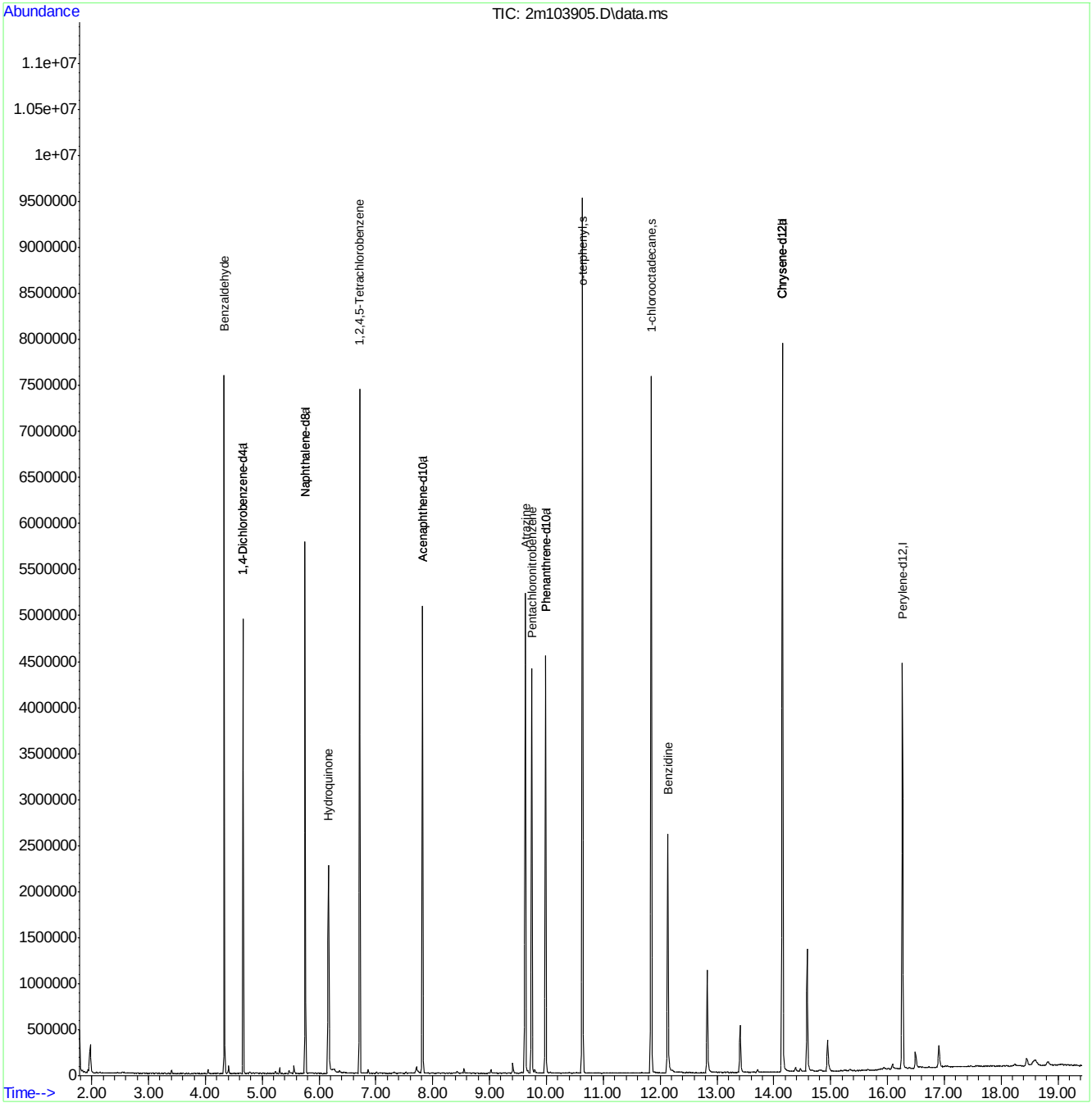
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	581891	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2167959	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1106784	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	1958194	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	1913644	40.00	ppm	-0.01
91) Perylene-d12	16.265	264	1862639	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	581891	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1106784	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	1913644	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	1958194	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2167959	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	1913644	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) 1-chlorooctadecane	11.848	57	1256966	82.47	ppm	0.00
Spiked Amount 50.000			Recovery = 164.94%			
110) o-terphenyl	10.633	230	2170689	80.67	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	1016768	79.22	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.713	216	1291244	80.66	ppm	99
106) Benzidine	12.136	184	1399656	76.00	ppm	99
109) Atrazine	9.633	215	434676	78.26	ppm	99
111) Pentachloronitrobenzene	9.745	295	173661	82.21	ppm	99
113) Hydroquinone	6.167	110	1361838	75.57	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103905.D
Acq On : 9 May 2018 7:25 pm
Operator : sufiyana
Sample : ic4618-80
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 12:44:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103906.D
Acq On : 9 May 2018 7:50 pm
Operator : sufiyana
Sample : icc4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 12:44:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

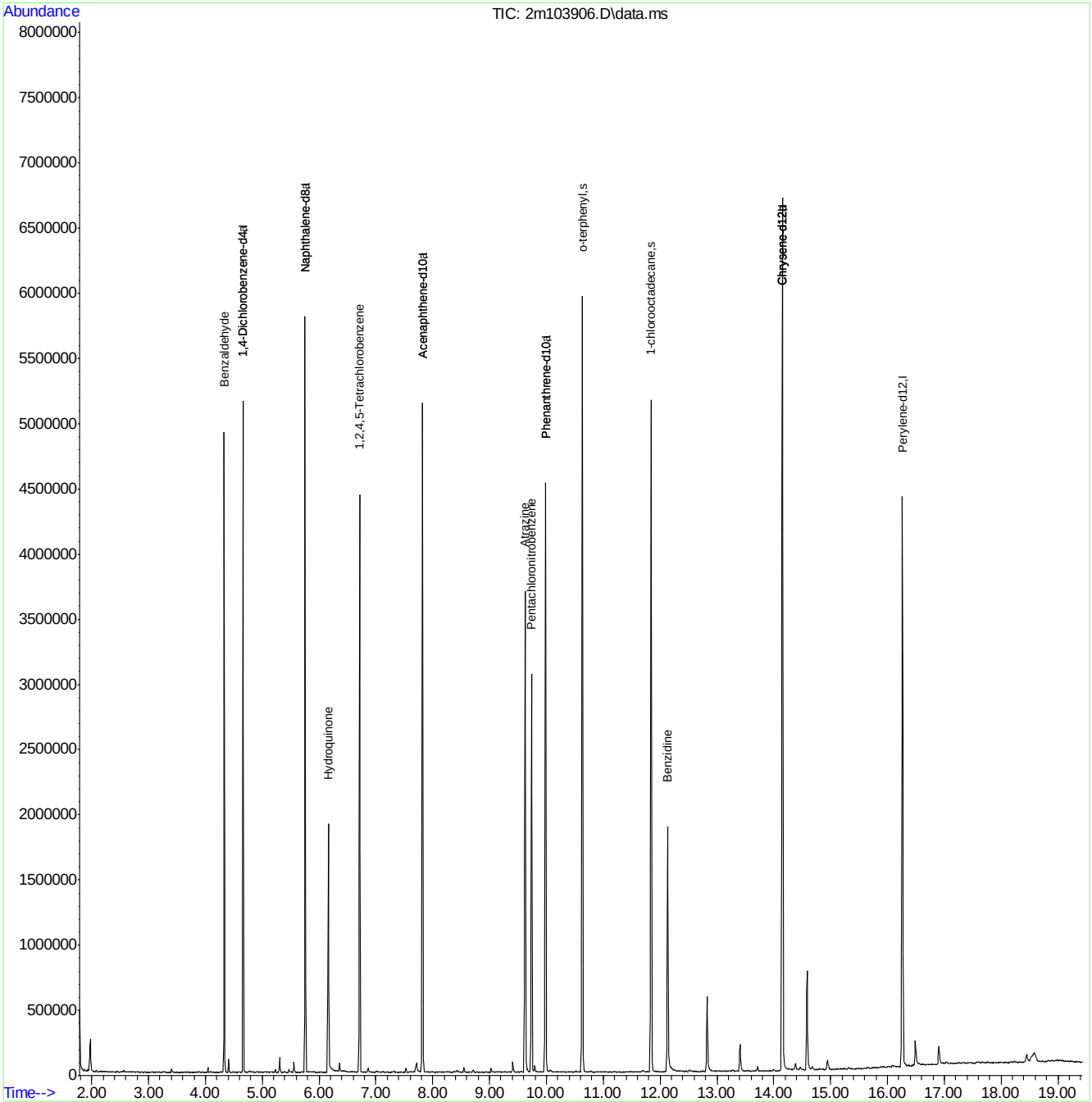
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	584619	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	2161486	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1115436	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2011562	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2005138	40.00	ppm	-0.01
91) Perylene-d12	16.266	264	1940870	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	584619	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1115436	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2005138	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	2011562	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	2161486	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2005138	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.842	57	798517	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
110) o-terphenyl	10.633	230	1382099	50.00	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	644737	50.00	ppm	100
104) 1,2,4,5-Tetrachloroben...	6.713	216	806709	50.00	ppm	100
106) Benzidine	12.131	184	964827	50.00	ppm	100
109) Atrazine	9.628	215	285282	50.00	ppm	100
111) Pentachloronitrobenzene	9.740	295	108496	50.00	ppm	100
113) Hydroquinone	6.162	110	898402	50.00	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103906.D
Acq On : 9 May 2018 7:50 pm
Operator : sufiyana
Sample : icc4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 12:44:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103907.D
Acq On : 9 May 2018 8:16 pm
Operator : sufiyana
Sample : ic4618-25
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 12:45:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

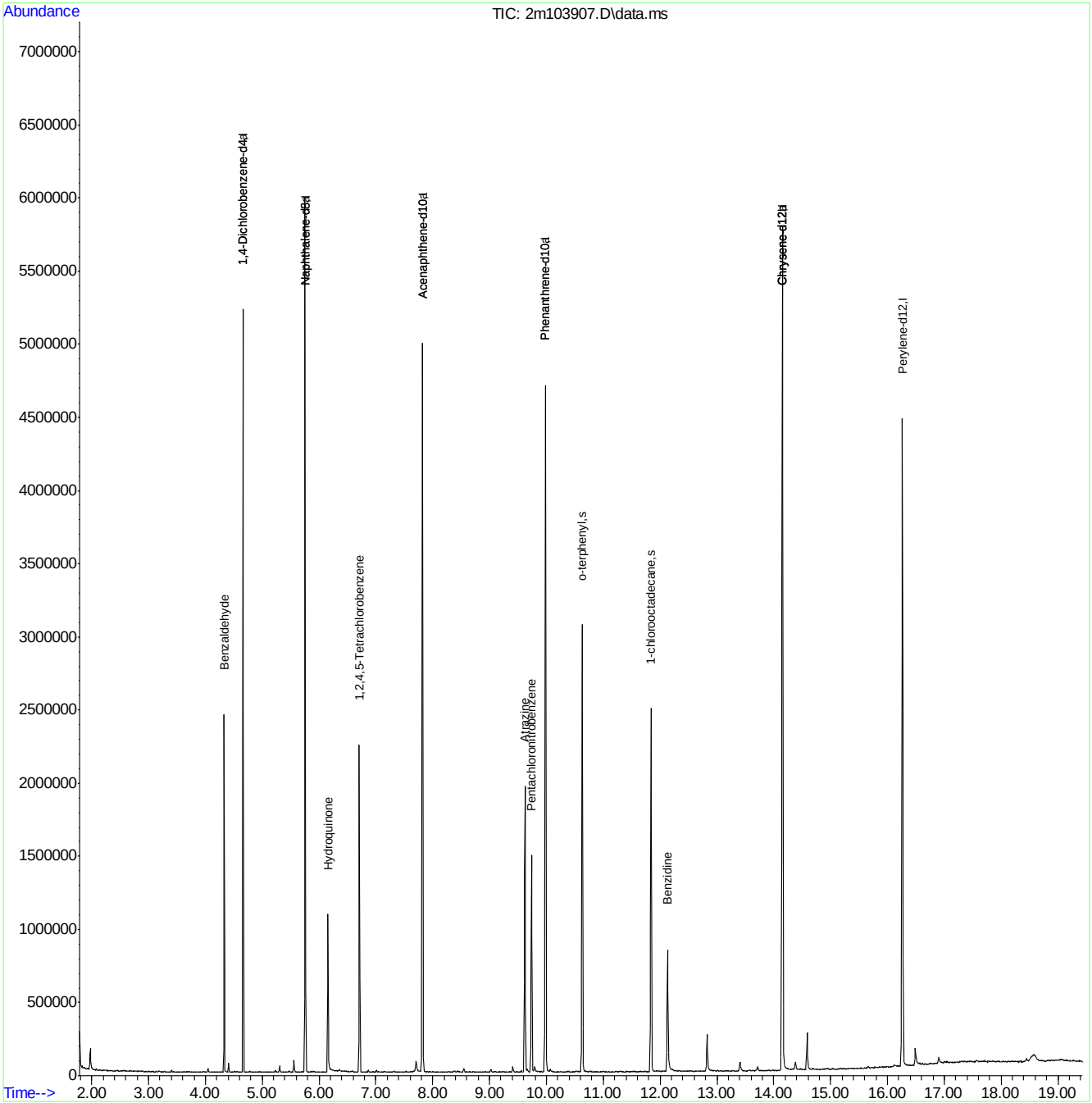
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	591006	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2176471	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1124895	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2025663	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	1999481	40.00	ppm	-0.01
91) Perylene-d12	16.265	264	1925692	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	591006	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1124895	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	1999481	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2025663	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2176471	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	1999481	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) 1-chlorooctadecane	11.842	57	397728	24.97	ppm	0.00
Spiked Amount 50.000			Recovery = 49.94%			
110) o-terphenyl	10.628	230	698517	25.09	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	343482	26.35	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.707	216	407834	25.07	ppm	98
106) Benzidine	12.131	184	454979	23.64	ppm	98
109) Atrazine	9.622	215	142363	24.78	ppm	98
111) Pentachloronitrobenzene	9.740	295	54083	24.75	ppm	99
113) Hydroquinone	6.157	110	414906	22.93	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103907.D
Acq On : 9 May 2018 8:16 pm
Operator : sufiyana
Sample : ic4618-25
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 12:45:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



SGS JC66384

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103908.D
Acq On : 9 May 2018 8:41 pm
Operator : sufiyana
Sample : ic4618-10
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 12:45:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

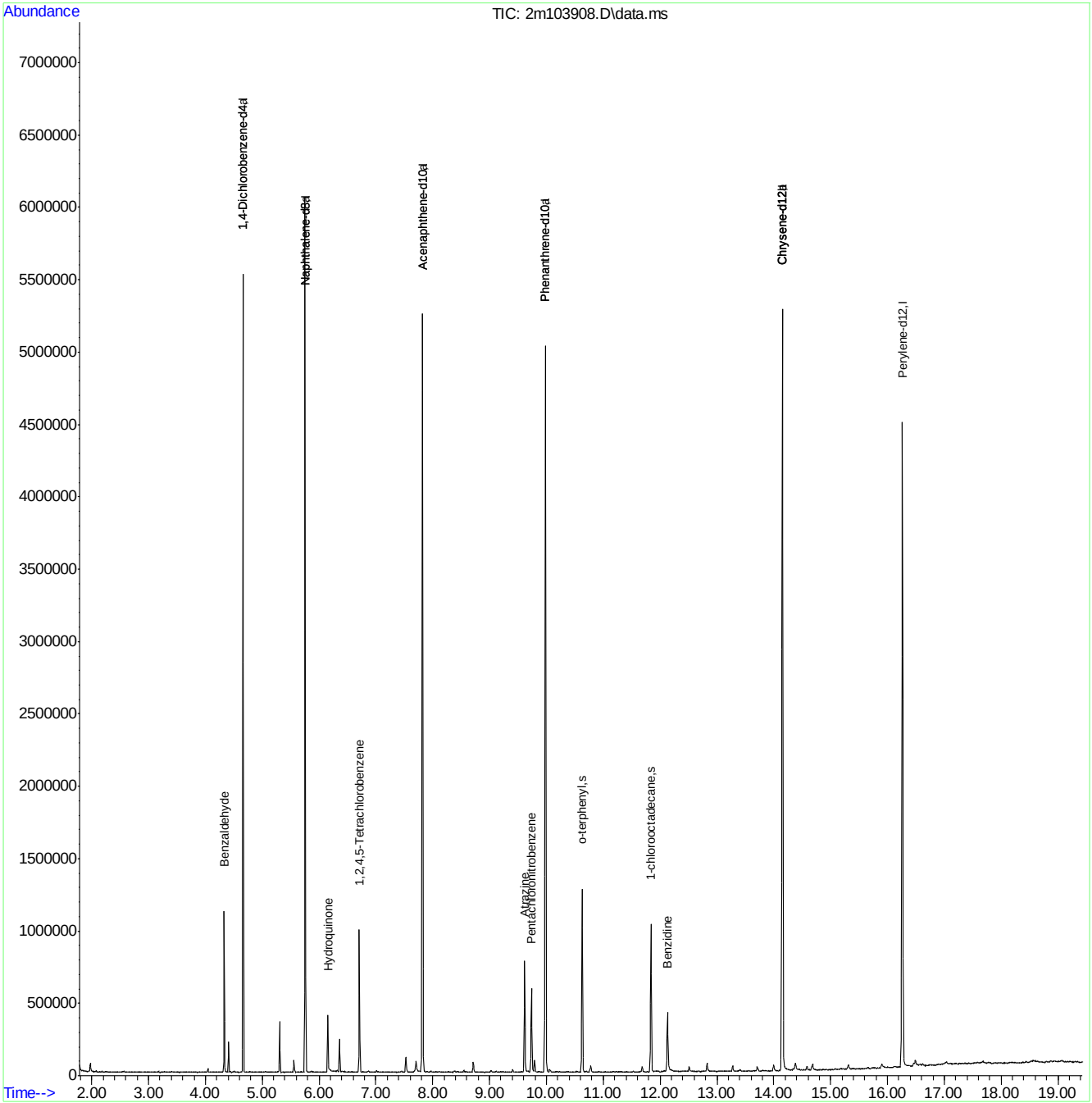
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	618356	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2274657	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1166310	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2105127	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2058690	40.00	ppm	-0.01
91) Perylene-d12	16.265	264	1990795	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	618356	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1166310	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2058690	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2105127	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2274657	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2058690	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) 1-chlorooctadecane	11.842	57	161294	9.84	ppm	0.00
Spiked Amount 50.000			Recovery = 19.68%			
110) o-terphenyl	10.628	230	289783	10.02	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	155029	11.37	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.707	216	173673	10.29	ppm	98
106) Benzidine	12.131	184	231831	11.70	ppm	99
109) Atrazine	9.617	215	57010	9.55	ppm	94
111) Pentachloronitrobenzene	9.735	295	22213	9.78	ppm	97
113) Hydroquinone	6.157	110	146829	7.77	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103908.D
Acq On : 9 May 2018 8:41 pm
Operator : sufiyana
Sample : ic4618-10
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 12:45:38 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103909.D
Acq On : 9 May 2018 9:06 pm
Operator : sufiyana
Sample : ic4618-5
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 12:46:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

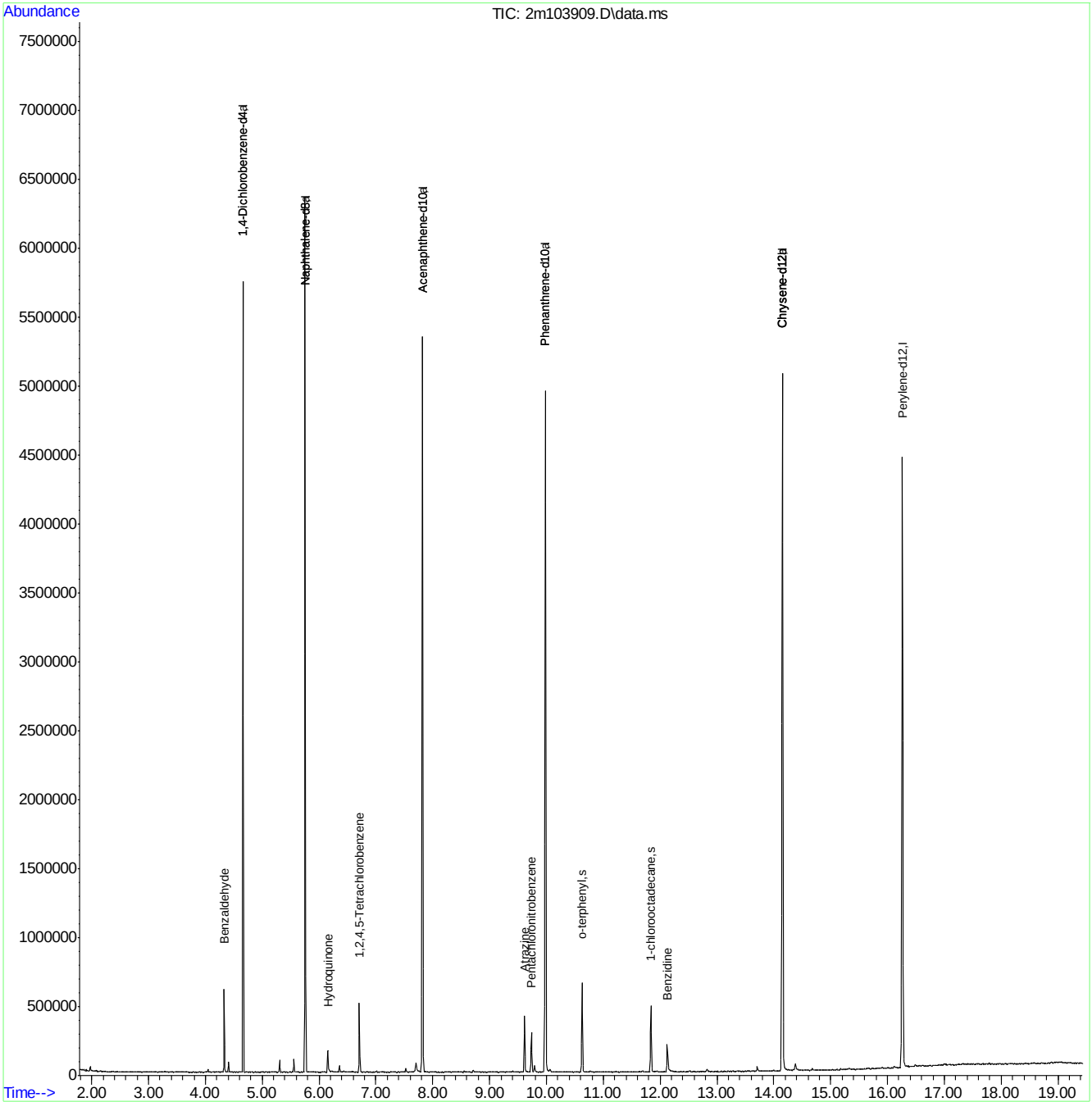
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	641221	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2314784	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1195324	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2151794	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2080499	40.00	ppm	-0.01
91) Perylene-d12	16.265	264	2005755	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	641221	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1195324	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2080499	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2151794	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2314784	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2080499	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.842	57	80517	4.86	ppm	0.00
Spiked Amount 50.000			Recovery =	9.72%		
110) o-terphenyl	10.628	230	143545	4.85	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	81262	5.75	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.707	216	86211	4.99	ppm	95
106) Benzidine	12.131	184	114601	5.72	ppm	98
109) Atrazine	9.617	215	29081	4.76	ppm	92
111) Pentachloronitrobenzene	9.740	295	10861	4.68	ppm	96
113) Hydroquinone	6.157	110	67935	3.53	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103909.D
Acq On : 9 May 2018 9:06 pm
Operator : sufiyana
Sample : ic4618-5
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 12:46:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103910.D
Acq On : 9 May 2018 9:32 pm
Operator : sufiyana
Sample : ic4618-2
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 12:46:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

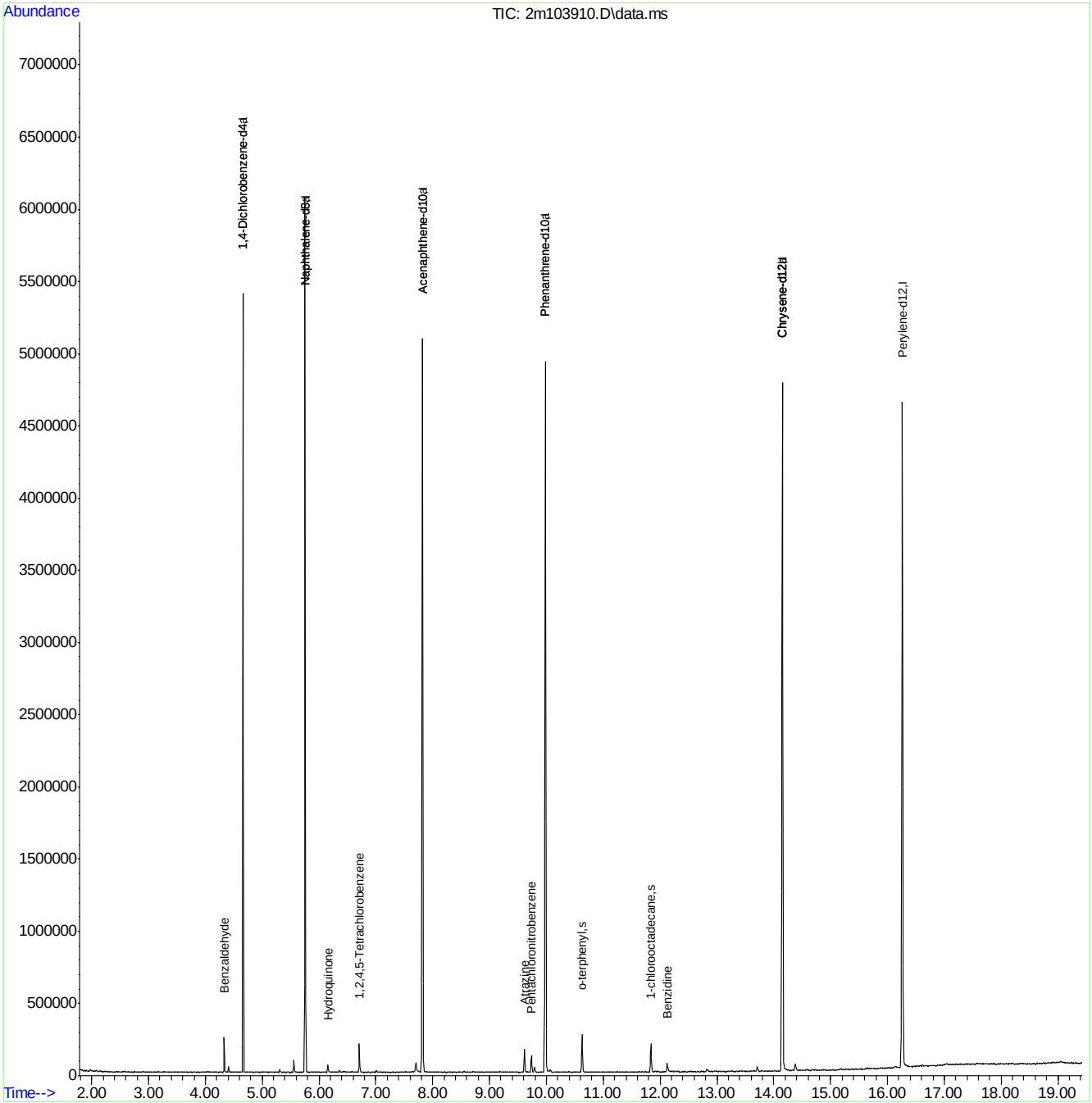
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	608179	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2222584	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1143864	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2072463	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	1988082	40.00	ppm	-0.01
91) Perylene-d12	16.260	264	1930273	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.664	152	608179	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1143864	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	1988082	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2072463	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2222584	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	1988082	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.837	57	31292	1.98	ppm	0.00
Spiked Amount 50.000			Recovery =	3.96%		
110) o-terphenyl	10.628	230	57616	2.02	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	33480	2.50	ppm	96
104) 1,2,4,5-Tetrachloroben...	6.707	216	34286	2.07	ppm	99
106) Benzidine	12.126	184	34649	1.81	ppm	97
109) Atrazine	9.617	215	10983	1.87	ppm	95
111) Pentachloronitrobenzene	9.740	295	3900	1.74	ppm	90
113) Hydroquinone	6.157	110	23107	1.25	ppm	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103910.D
Acq On : 9 May 2018 9:32 pm
Operator : sufiyana
Sample : ic4618-2
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 12:46:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103911.D
Acq On : 9 May 2018 9:57 pm
Operator : sufiyana
Sample : ic4618-1
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 12:47:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration

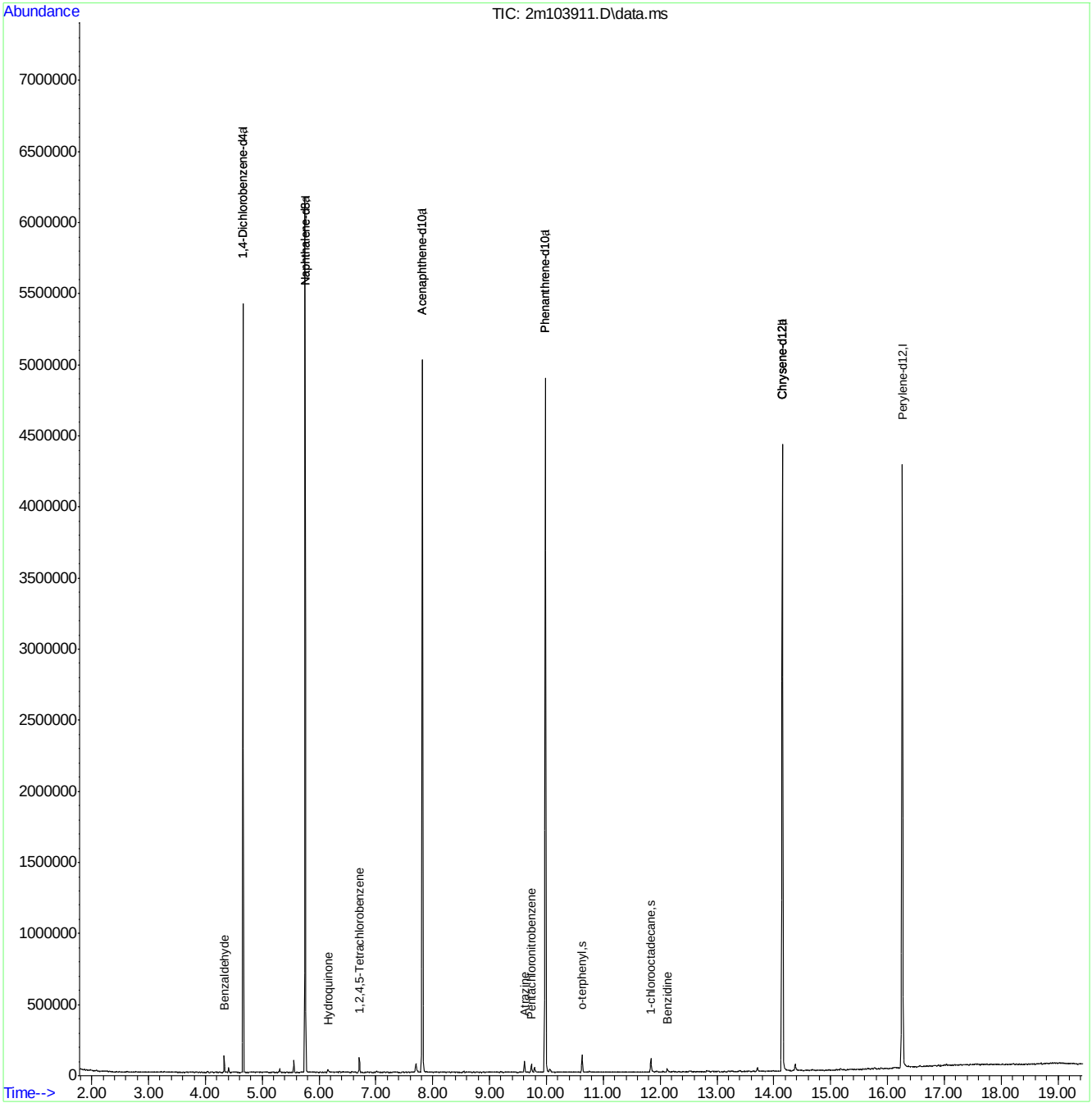
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	603590	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	2223420	40.00	ppm	0.00
47) Acenaphthene-d10	7.815	164	1155575	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2062316	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	1967557	40.00	ppm	-0.01
91) Perylene-d12	16.260	264	1920160	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.664	152	603590	40.00	ppm	0.00
103) Acenaphthene-d10a	7.815	164	1155575	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	1967557	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2062316	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	2223420	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	1967557	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.837	57	15703	1.00	ppm	0.00
Spiked Amount 50.000			Recovery =	2.00%		
110) o-terphenyl	10.628	230	28498	1.01	ppm	0.00
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	17157	1.29	ppm	89
104) 1,2,4,5-Tetrachloroben...	6.708	216	17547	1.05	ppm	96
106) Benzidine	12.126	184	11939	0.63	ppm	94
109) Atrazine	9.617	215	5365	0.92	ppm #	84
111) Pentachloronitrobenzene	9.735	295	2267	1.02	ppm	91
113) Hydroquinone	6.157	110	8704	0.47	ppm	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103911.D
Acq On : 9 May 2018 9:57 pm
Operator : sufiyana
Sample : ic4618-1
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 12:47:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:42:30 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103912.D
Acq On : 9 May 2018 10:23 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 11 12:53:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

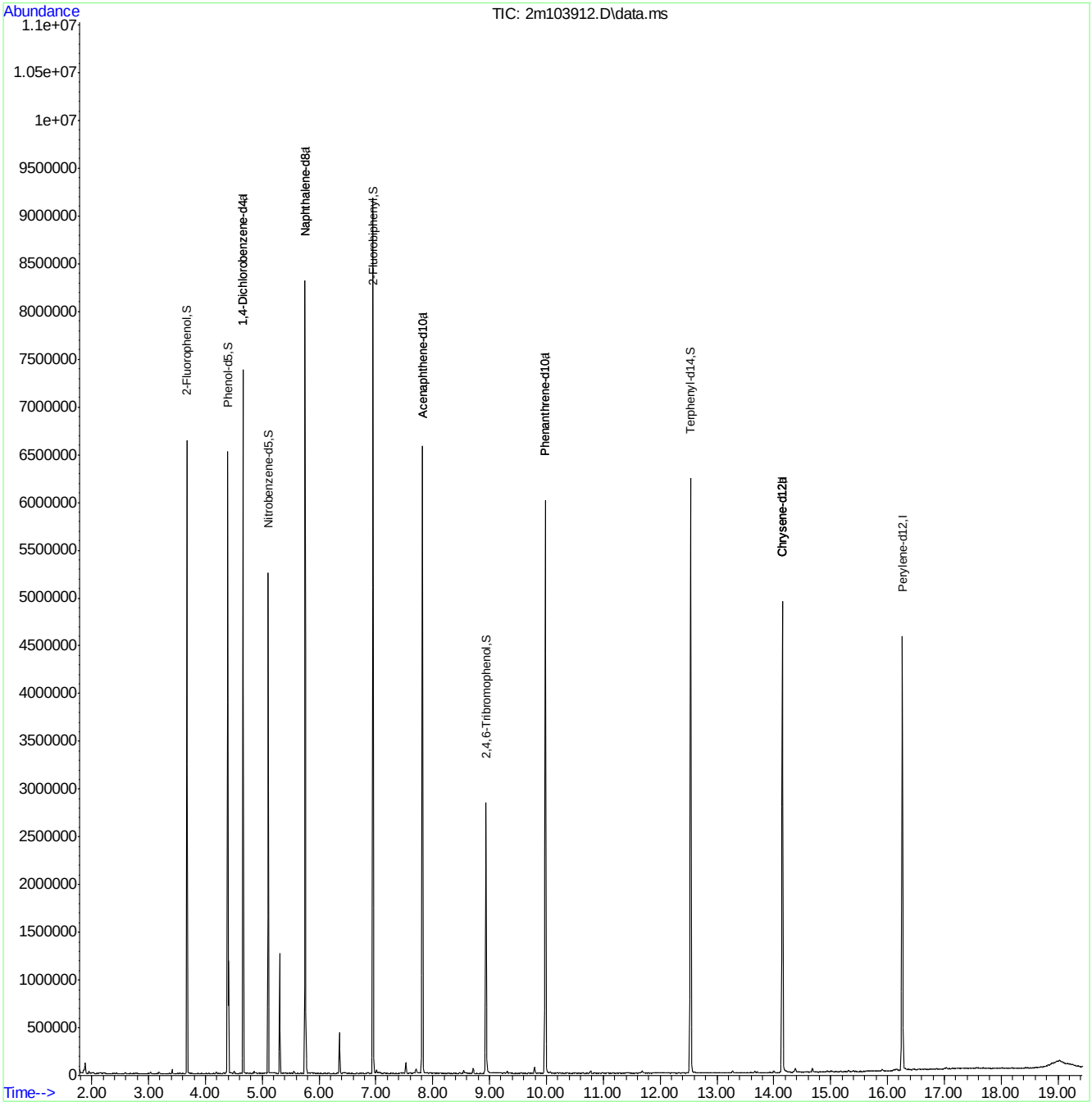
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	839528	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	3083293	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1662009	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2603252	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2203261	40.00	ppm	-0.01
91) Perylene-d12	16.260	264	1974540	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.664	152	839528	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1662009	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2203261	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2603252	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	3083293	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2203261	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.675	112	1347948	49.27	ppm	0.00
Spiked Amount 50.000			Recovery = 98.54%			
8) Phenol-d5	4.392	99	1640787	47.81	ppm	0.00
Spiked Amount 50.000			Recovery = 95.62%			
25) Nitrobenzene-d5	5.103	82	1427550	50.66	ppm	0.00
Spiked Amount 50.000			Recovery = 101.32%			
51) 2-Fluorobiphenyl	6.948	172	2834955	46.69	ppm	0.00
Spiked Amount 50.000			Recovery = 93.38%			
73) 2,4,6-Tribromophenol	8.938	330	383129	48.65	ppm	0.00
Spiked Amount 50.000			Recovery = 97.30%			
85) Terphenyl-d14	12.538	244	2674263	55.35	ppm	0.00
Spiked Amount 50.000			Recovery = 110.70%			
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103912.D
Acq On : 9 May 2018 10:23 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 11 12:53:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103913.D
Acq On : 9 May 2018 10:48 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 11 12:55:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	824310	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	3049556	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1474229	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2540678	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2011894	40.00	ppm	-0.01
91) Perylene-d12	16.260	264	1903893	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.664	152	824310	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1474229	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2011894	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2540678	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	3049556	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2011894	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
9) Phenol	4.402	94	1727402	44.65	ppm	95
12) 2-Chlorophenol	4.509	128	1449616	49.93	ppm	97
19) 2-Methylphenol	4.862	108	1209545	47.66	ppm	96
21) 3&4-Methylphenol	4.980	108	1294652	48.58	ppm	99
29) 2-Nitrophenol	5.397	139	741696	50.01	ppm	97
30) 2,4-Dimethylphenol	5.435	107	1141325	48.04	ppm	99
31) Benzoic acid	5.547	105	871059	48.37	ppm	97
33) 2,4-Dichlorophenol	5.617	162	1105347	49.70	ppm	99
34) 2,6-Dichlorophenol	5.836	162	1096649	50.38	ppm	99
43) 4-Chloro-3-methylphenol	6.333	107	1052418	49.19	ppm	99
49) 2,4,6-Trichlorophenol	6.847	196	772240	53.62	ppm	98
50) 2,4,5-Trichlorophenol	6.884	196	804419	53.14	ppm	96
60) 2,4-Dinitrophenol	7.906	184	275315	45.97	ppm	98
61) 4-Nitrophenol	8.018	109	274296	49.91	ppm	99
64) 2,3,4,6-Tetrachlorophenol	8.286	232	637435	50.98	ppm	99
70) 4,6-Dinitro-2-methylph...	8.681	198	430031	48.08	ppm	99
76) Pentachlorophenol	9.714	266	568936	58.53	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103913.D
Acq On : 9 May 2018 10:48 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 11 12:55:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

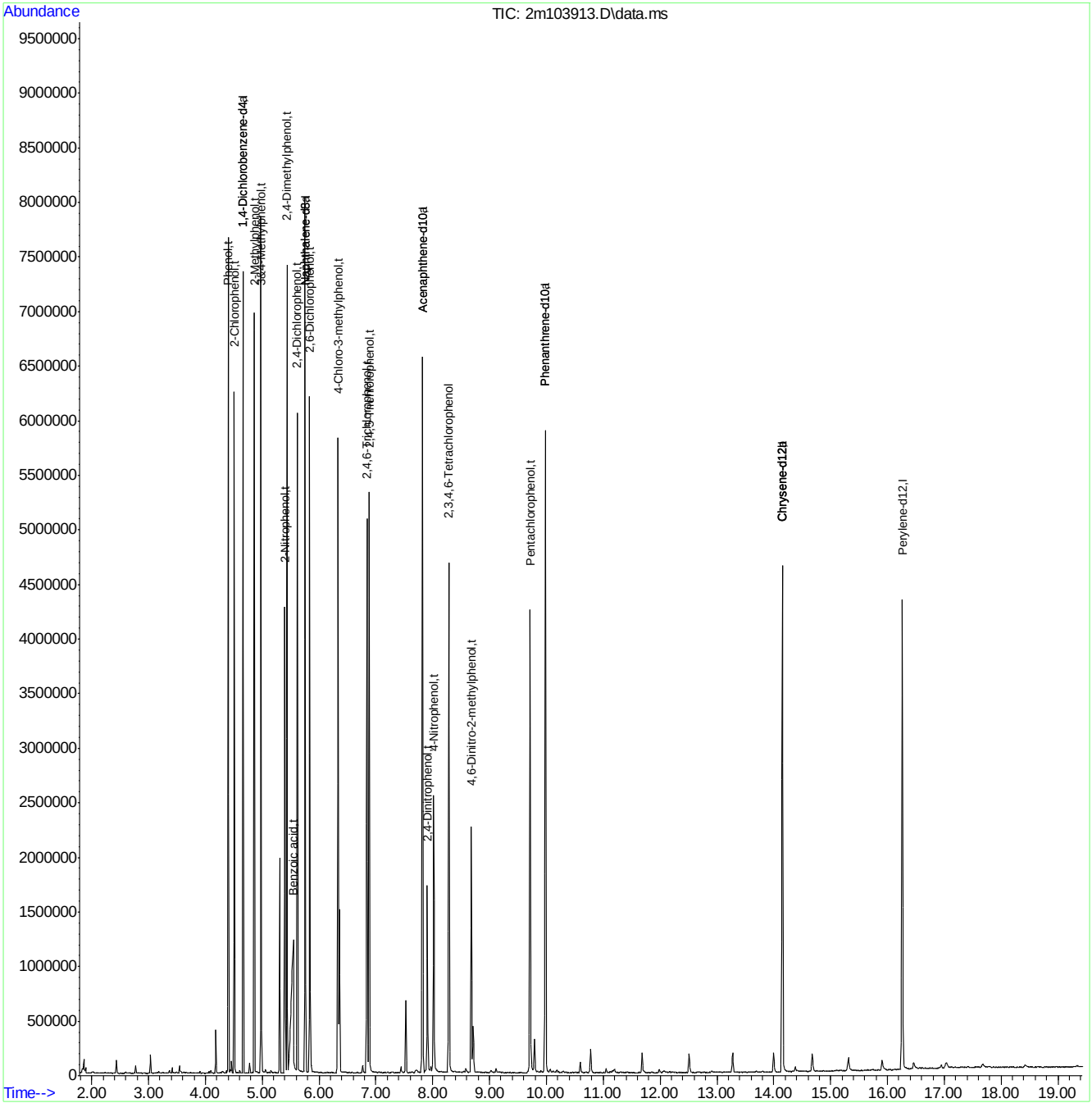
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103913.D
Acq On : 9 May 2018 10:48 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 11 12:55:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103915.D
Acq On : 9 May 2018 11:38 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 11 15:05:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	843088	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	3140937	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1632552	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2659263	40.00	ppm	0.00
83) Chrysene-d12	14.158	240	2210730	40.00	ppm	0.00
91) Perylene-d12	16.266	264	2078936	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	843088	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1632552	40.00	ppm	0.00
105) Chrysene-d12a	14.158	240	2210730	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2659263	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	3140937	40.00	ppm	0.00
114) Chrysene-d12b	14.158	240	2210730	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.498	74	774592	39.91	ppm	99
11) bis(2-Chloroethyl)ether	4.461	93	1381962	50.53	ppm	97
14) 1,3-Dichlorobenzene	4.627	146	1599506	47.80	ppm	99
15) 1,4-Dichlorobenzene	4.680	146	1615046	47.66	ppm	99
17) 1,2-Dichlorobenzene	4.798	146	1523497	48.14	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.878	45	1735538	52.34	ppm	99
22) n-Nitroso-di-n-propyla...	4.980	70	964560	45.87	ppm	97
23) Hexachloroethane	5.076	201	519234	47.70	ppm	94
26) Nitrobenzene	5.124	77	1322024	46.17	ppm	94
28) Isophorone	5.322	82	2444158	48.40	ppm	96
32) bis(2-Chloroethoxy)met...	5.520	93	1489300	51.00	ppm	100
36) 1,2,4-Trichlorobenzene	5.702	180	1222208	48.51	ppm	99
38) Naphthalene	5.777	128	3943385	48.49	ppm	99
42) Hexachlorobutadiene	5.911	225	661667	50.30	ppm	98
48) Hexachlorocyclopentadiene	6.708	237	653840	47.12	ppm	97
52) 2-Chloronaphthalene	7.087	162	2379956	47.60	ppm	100
55) Dimethylphthalate	7.478	163	2568499	47.36	ppm	99
56) Acenaphthylene	7.622	152	3735676	46.81	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103915.D
Acq On : 9 May 2018 11:38 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 11 15:05:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

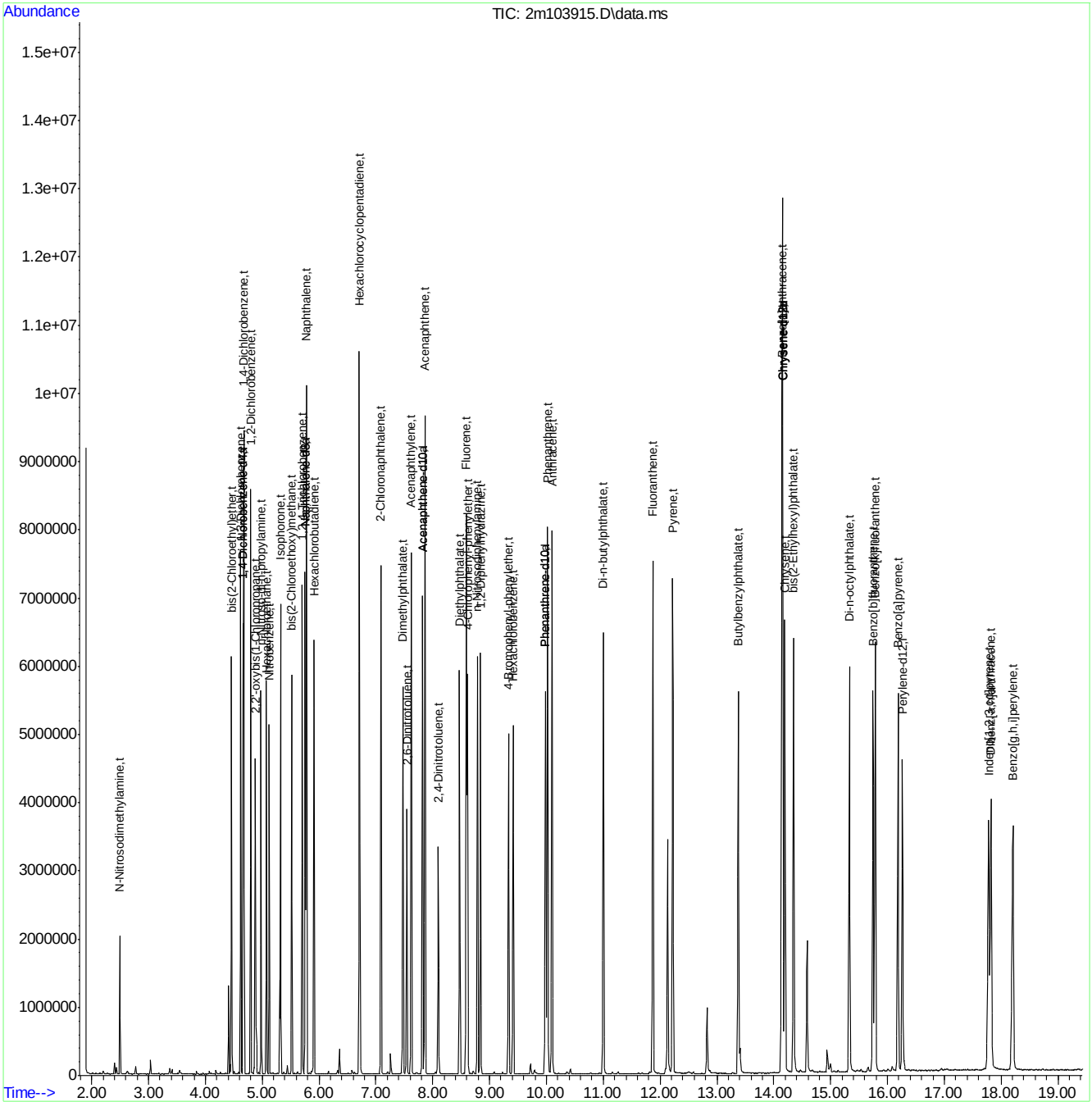
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57)	2,6-Dinitrotoluene	7.547	165	560310	46.23	ppm	94
59)	Acenaphthene	7.863	153	2508702	47.91	ppm	99
63)	2,4-Dinitrotoluene	8.098	165	690759	42.69	ppm	79
65)	Diethylphthalate	8.473	149	2537300	47.27	ppm	100
66)	Fluorene	8.590	166	2693245	47.20	ppm	100
67)	4-Chlorophenyl-phenyle...	8.612	204	1211873	46.73	ppm	98
71)	n-Nitrosodiphenylamine	8.788	169	1809510	46.60	ppm	100
72)	1,2-Diphenylhydrazine	8.842	77	2577023	50.10	ppm	99
74)	4-Bromophenyl-phenylether	9.334	248	713786	48.74	ppm	95
75)	Hexachlorobenzene	9.414	284	800205	47.82	ppm	97
77)	Phenanthrene	10.018	178	3668448	48.35	ppm	99
78)	Anthracene	10.099	178	3648114	47.86	ppm	100
80)	Di-n-butylphthalate	11.002	149	4219402	48.49	ppm	100
81)	Fluoranthene	11.874	202	3627987	46.60	ppm	99
84)	Pyrene	12.222	202	3690936	49.99	ppm	100
86)	Butylbenzylphthalate	13.377	149	1698474	49.79	ppm	98
87)	Benzo[a]anthracene	14.142	228	3100185	46.34	ppm	99
89)	Chrysene	14.201	228	2950769	46.42	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.345	149	2330244	49.55	ppm	99
92)	Di-n-octylphthalate	15.330	149	3916269	52.16	ppm	99
93)	Benzo[b]fluoranthene	15.747	252	2865944	45.04	ppm	98
94)	Benzo[k]fluoranthene	15.784	252	2894361	48.99	ppm	99
95)	Benzo[a]pyrene	16.185	252	2662140	48.26	ppm	100
96)	Indeno[1,2,3-cd]pyrene	17.779	276	2614473	47.62	ppm	100
98)	Dibenz[a,h]anthracene	17.822	278	2624273	46.51	ppm	98
100)	Benzo[g,h,i]perylene	18.207	276	2666671	50.41	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103915.D
Acq On : 9 May 2018 11:38 pm
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 11 15:05:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103915a.D
Acq On : 9 May 2018 11:38 pm
Operator : sufiyana
Sample : icv4619-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 11 15:06:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

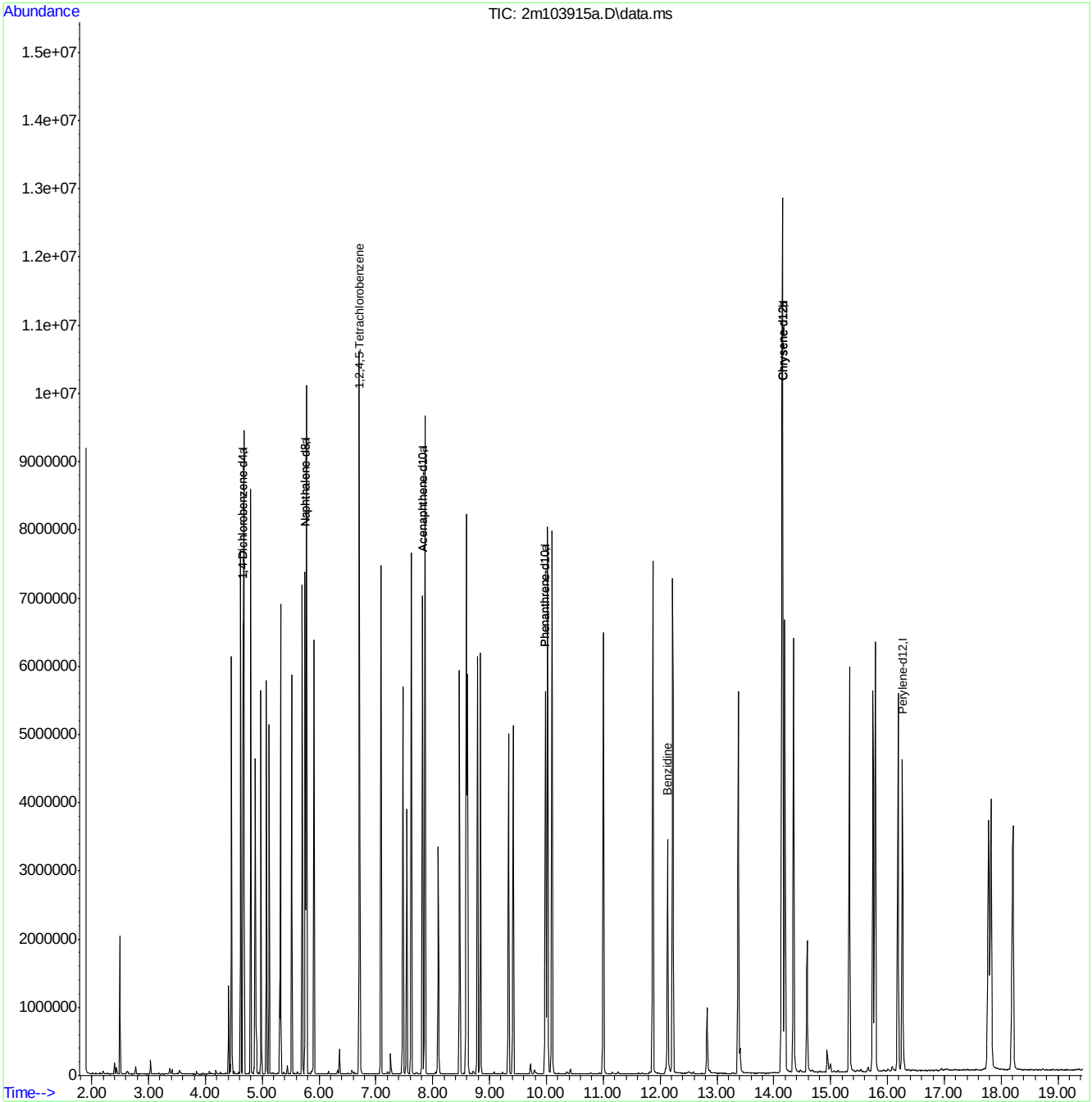
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	843088	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	3140937	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1632552	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2659263	40.00	ppm	0.00
83) Chrysene-d12	14.158	240	2210730	40.00	ppm	0.00
91) Perylene-d12	16.266	264	2078936	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	843088	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1632552	40.00	ppm	0.00
105) Chrysene-d12a	14.158	240	2210730	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2659263	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	3140937	40.00	ppm	0.00
114) Chrysene-d12b	14.158	240	2210730	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
104) 1,2,4,5-Tetrachloroben...	6.713	216	1337347	55.78	ppm	99
106) Benzidine	12.131	184	1606849	74.64	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103915a.D
Acq On : 9 May 2018 11:38 pm
Operator : sufiyana
Sample : icv4619-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 11 15:06:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103916.D
Acq On : 10 May 2018 12:04 am
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 15:15:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

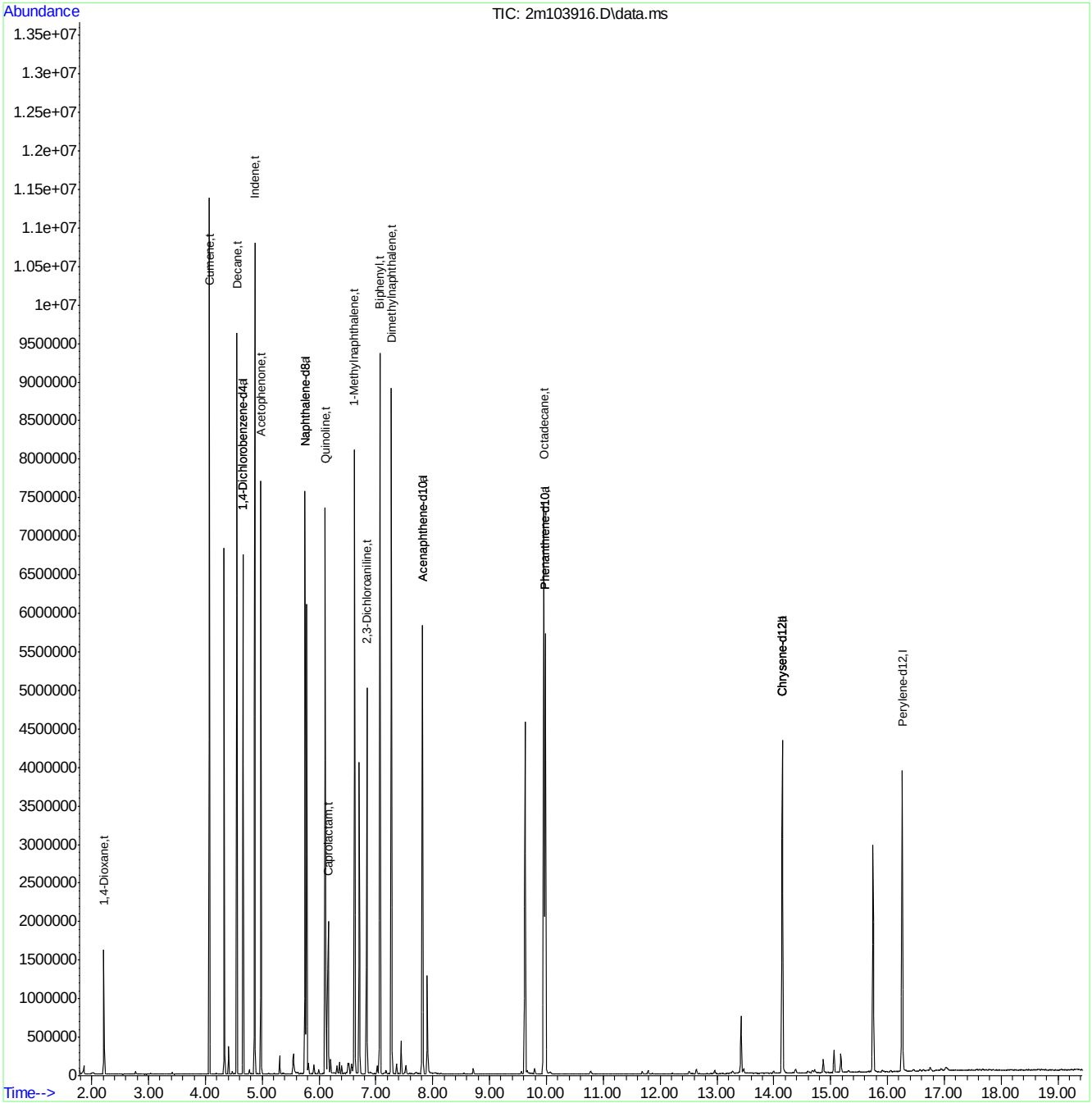
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	765442	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2898166	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1384003	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2419596	40.00	ppm	0.00
83) Chrysene-d12	14.147	240	1952527	40.00	ppm	-0.02
91) Perylene-d12	16.260	264	1751292	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.664	152	765442	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1384003	40.00	ppm	0.00
105) Chrysene-d12a	14.147	240	1952527	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2419596	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2898166	40.00	ppm	0.00
114) Chrysene-d12b	14.147	240	1952527	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.215	88	521910	45.08	ppm	97
6) Indene	4.868	116	2265853	53.11	ppm	99
7) Cumene	4.071	105	3007897	47.37	ppm	99
13) Decane	4.552	43	1276110	45.98	ppm	99
18) Acetophenone	4.980	105	1672087	46.89	ppm	81
27) Quinoline	6.108	129	2389773	48.54	ppm	99
40) 2,3-Dichloroaniline	6.841	161	1098694	41.56	ppm	98
41) Caprolactam	6.162	55	469955	43.29	ppm	95
45) 1-Methylnaphthalene	6.622	141	2021258	44.36	ppm	99
46) Dimethylnaphthalene	7.269	156	2185139	46.81	ppm	99
53) Biphenyl	7.071	154	2976786	52.28	ppm	100
82) Octadecane	9.954	57	1584191	50.43	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103916.D
Acq On : 10 May 2018 12:04 am
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 15:15:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103916a.D
Acq On : 10 May 2018 12:04 am
Operator : sufiyana
Sample : icv4619-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 15:07:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

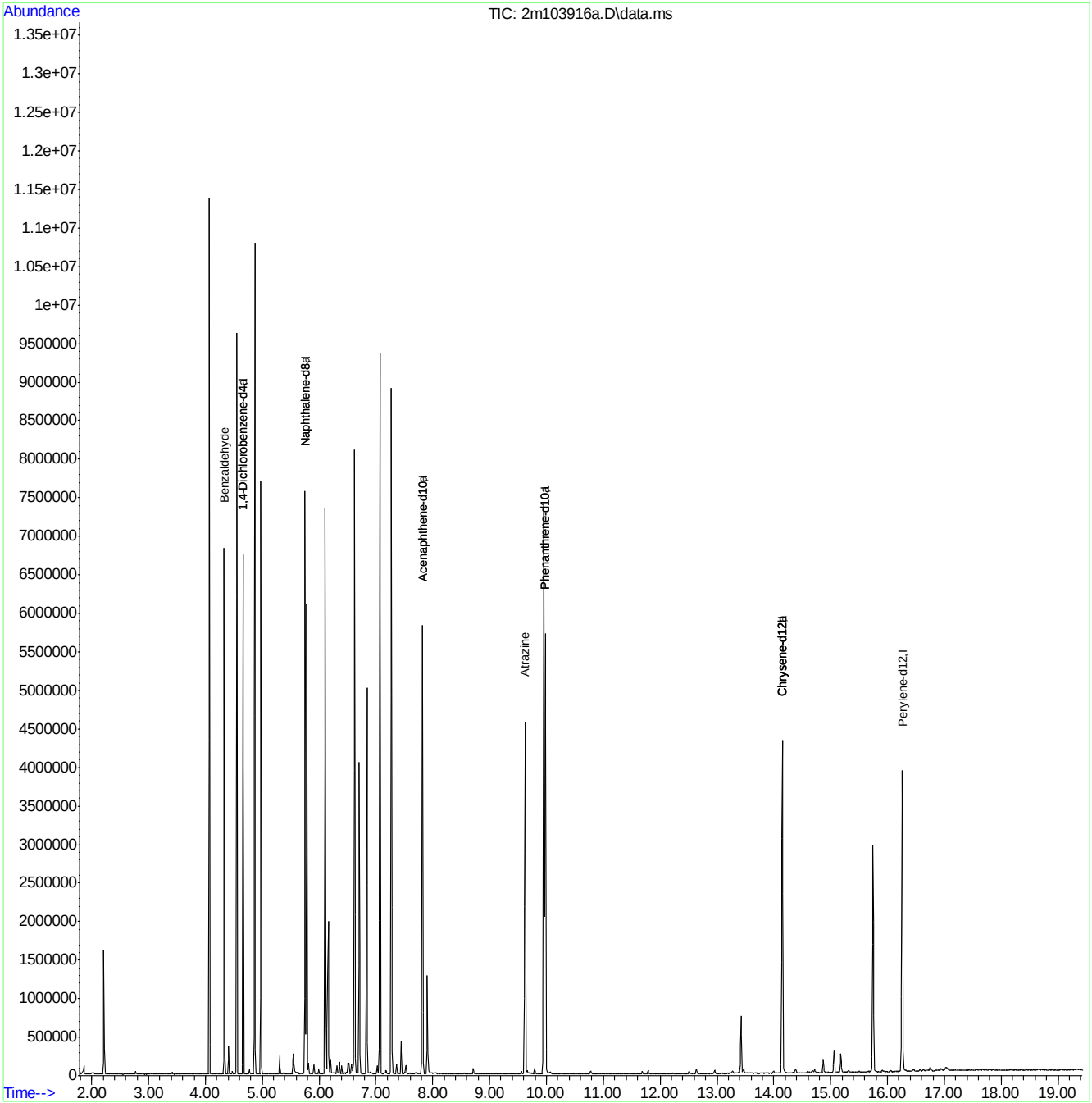
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	765442	40.00	ppm	0.00
24) Naphthalene-d8	5.755	136	2898166	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1384003	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2419596	40.00	ppm	0.00
83) Chrysene-d12	14.147	240	1952527	40.00	ppm	-0.02
91) Perylene-d12	16.260	264	1751292	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.664	152	765442	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1384003	40.00	ppm	0.00
105) Chrysene-d12a	14.147	240	1952527	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2419596	40.00	ppm	0.00
112) Naphthalene-d8a	5.755	136	2898166	40.00	ppm	0.00
114) Chrysene-d12b	14.147	240	1952527	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
102) Benzaldehyde	4.333	105	902435	48.37	ppm	97
109) Atrazine	9.628	215	361452	54.60	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103916a.D
Acq On : 10 May 2018 12:04 am
Operator : sufiyana
Sample : icv4619-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 15:07:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103917.D
Acq On : 10 May 2018 12:29 am
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 11 13:03:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

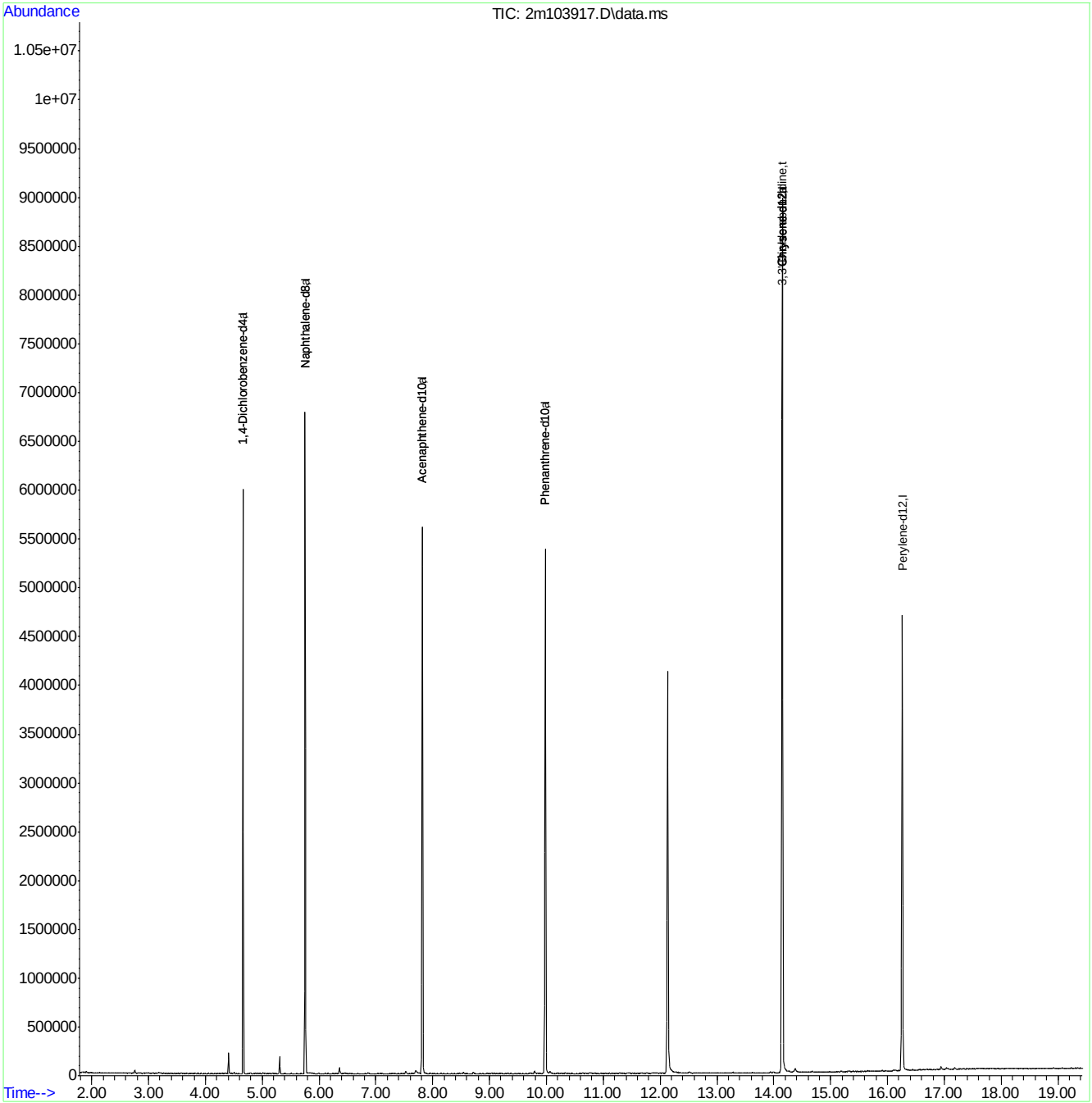
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	678152	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	2545260	40.00	ppm	0.00
47) Acenaphthene-d10	7.815	164	1351935	40.00	ppm	0.00
69) Phenanthrene-d10	9.981	188	2312994	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2155858	40.00	ppm	-0.01
91) Perylene-d12	16.260	264	2165751	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.664	152	678152	40.00	ppm	0.00
103) Acenaphthene-d10a	7.815	164	1351935	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2155858	40.00	ppm	0.00
108) Phenanthrene-d10a	9.981	188	2312994	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	2545260	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2155858	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	14.148	252	1204122	50.90	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103917.D
Acq On : 10 May 2018 12:29 am
Operator : sufiyana
Sample : icv4618-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 11 13:03:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103918.D
Acq On : 10 May 2018 2:14 am
Operator : chriss2
Sample : icv4619-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 11 13:04:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

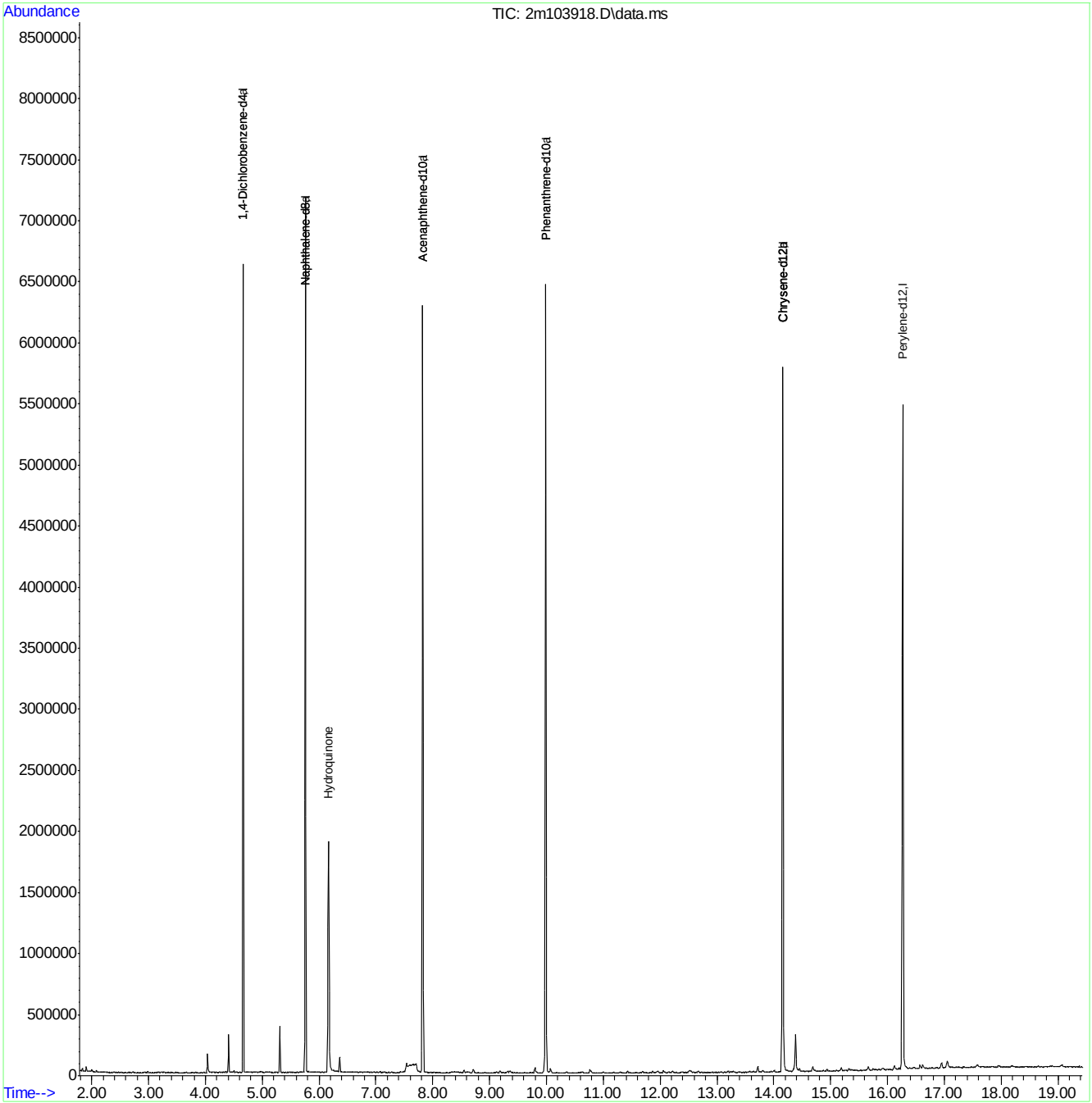
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.664	152	817037	40.00	ppm	0.00
24) Naphthalene-d8	5.761	136	3097761	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1468191	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2742306	40.00	ppm	0.00
83) Chrysene-d12	14.158	240	2730236	40.00	ppm	0.00
91) Perylene-d12	16.271	264	2542069	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.664	152	817037	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1468191	40.00	ppm	0.00
105) Chrysene-d12a	14.158	240	2730236	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	2742306	40.00	ppm	0.00
112) Naphthalene-d8a	5.761	136	3097761	40.00	ppm	0.00
114) Chrysene-d12b	14.158	240	2730236	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
113) Hydroquinone	6.167	110	1238515	56.69	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4619\
Data File : 2m103918.D
Acq On : 10 May 2018 2:14 am
Operator : chriss2
Sample : icv4619-50
Misc : op10486,e2m4619,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 11 13:04:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4620\
Data File : 2m103921a.D
Acq On : 11 May 2018 1:55 pm
Operator : christc2
Sample : icv4618-50
Misc : op10486,e2m4620,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 15:18:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

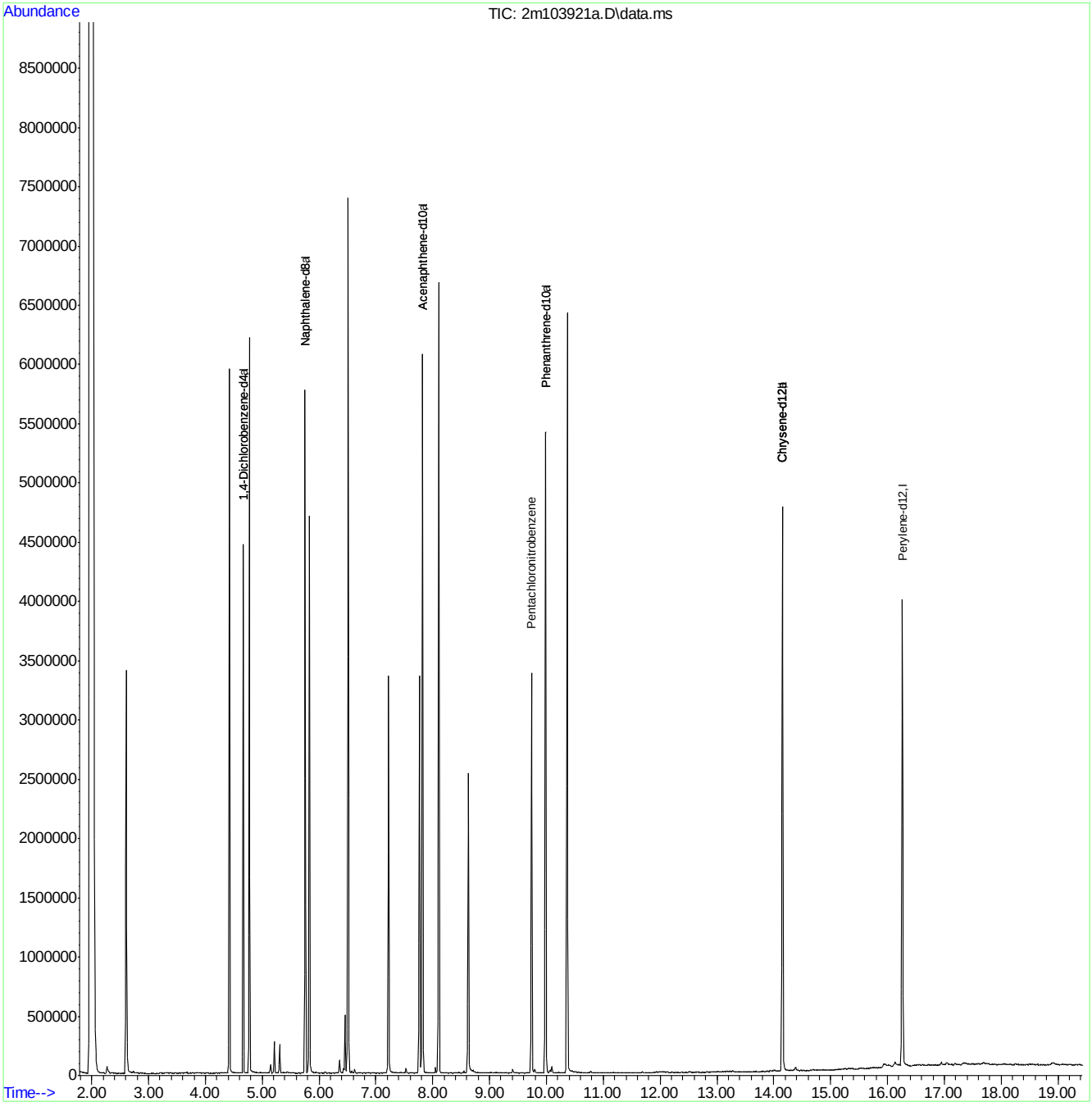
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.670	152	671030	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	2684707	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1443008	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2447872	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2007549	40.00	ppm	-0.01
91) Perylene-d12	16.266	264	1888767	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.670	152	671030	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1443008	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2007549	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	2447872	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	2684707	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2007549	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
111) Pentachloronitrobenzene	9.740	295	123943	47.71	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4620\
Data File : 2m103921a.D
Acq On : 11 May 2018 1:55 pm
Operator : christc2
Sample : icv4618-50
Misc : op10486,e2m4620,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 15:18:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4620\
Data File : 2m103921.D
Acq On : 11 May 2018 1:55 pm
Operator : christc2
Sample : icv4618-50
Misc : op10486,e2m4620,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 15:18:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

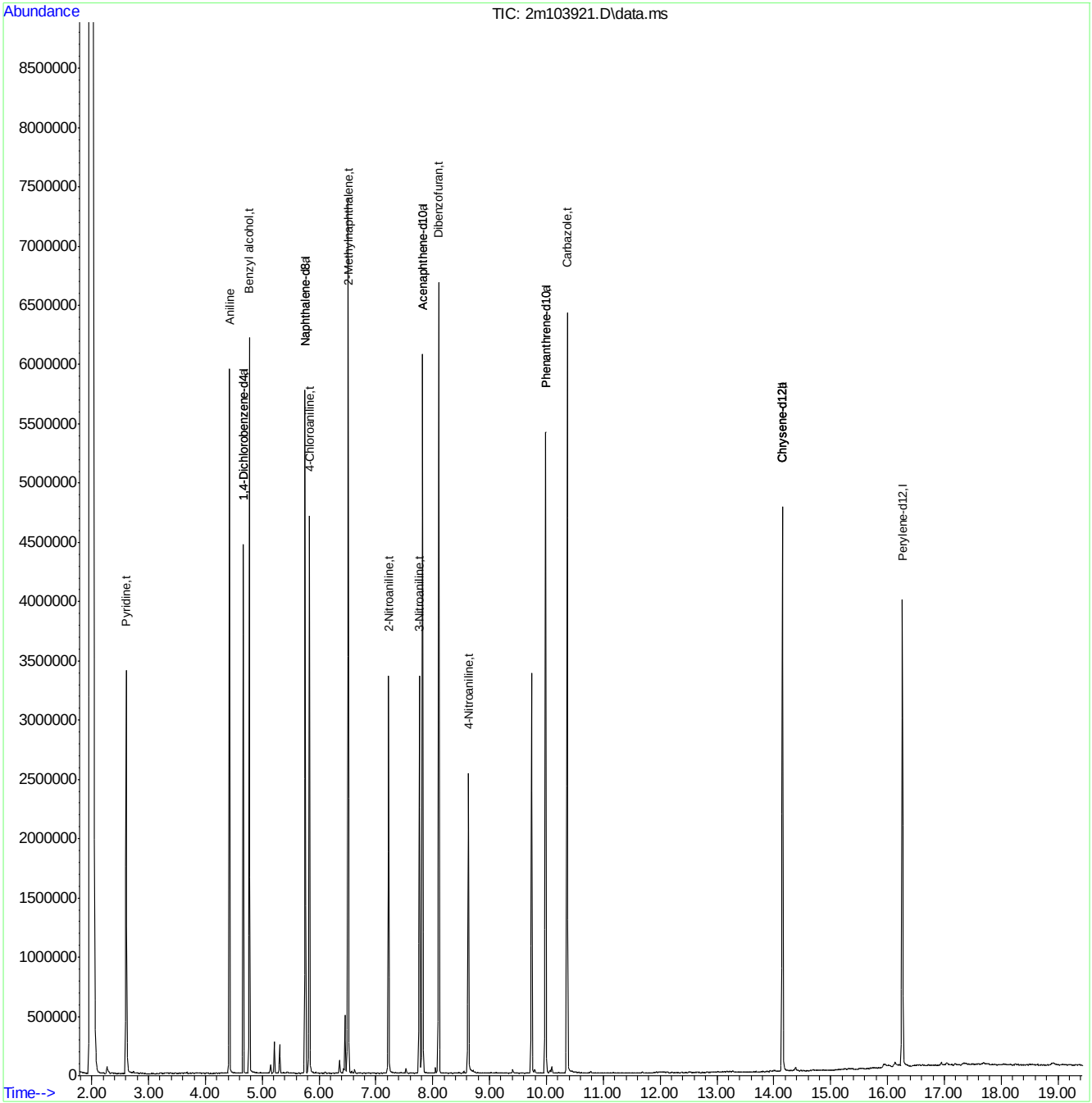
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.670	152	671030	40.00	ppm	0.00
24) Naphthalene-d8	5.756	136	2684707	40.00	ppm	0.00
47) Acenaphthene-d10	7.820	164	1443008	40.00	ppm	0.00
69) Phenanthrene-d10	9.986	188	2447872	40.00	ppm	0.00
83) Chrysene-d12	14.153	240	2007549	40.00	ppm	-0.01
91) Perylene-d12	16.266	264	1888767	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.670	152	671030	40.00	ppm	0.00
103) Acenaphthene-d10a	7.820	164	1443008	40.00	ppm	0.00
105) Chrysene-d12a	14.153	240	2007549	40.00	ppm	0.00
108) Phenanthrene-d10a	9.986	188	2447872	40.00	ppm	0.00
112) Naphthalene-d8a	5.756	136	2684707	40.00	ppm	0.00
114) Chrysene-d12b	14.153	240	2007549	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
3) Pyridine	2.605	79	1274913	48.96	ppm	100
10) Aniline	4.424	93	1845840	53.40	ppm	99
16) Benzyl alcohol	4.777	108	788029	53.68	ppm	93
39) 4-Chloroaniline	5.830	127	1365958	46.19	ppm	98
44) 2-Methylnaphthalene	6.515	141	1962911	48.49	ppm	99
54) 2-Nitroaniline	7.221	65	582342	47.73	ppm	97
58) 3-Nitroaniline	7.767	138	616911	49.56	ppm	100
62) Dibenzofuran	8.104	168	3064178	49.23	ppm	99
68) 4-Nitroaniline	8.628	138	560187	45.28	ppm	98
79) Carbazole	10.366	167	3153308	48.12	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4620\
Data File : 2m103921.D
Acq On : 11 May 2018 1:55 pm
Operator : christc2
Sample : icv4618-50
Misc : op10486,e2m4620,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 15:18:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104455.d
Acq On : 26 May 2018 7:19 pm
Operator : georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:06:24 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.531	152	547643	40.00	ppm	0.00
24) Naphthalene-d8	5.595	136	2101991	40.00	ppm	-0.01
47) Acenaphthene-d10	7.622	164	1148859	40.00	ppm	-0.02
69) Phenanthrene-d10	9.772	188	1990777	40.00	ppm	-0.02
83) Chrysene-d12	13.939	240	1781133	40.00	ppm	-0.02
91) Perylene-d12	16.052	264	1820102	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.531	152	547643	40.00	ppm	0.00
103) Acenaphthene-d10a	7.622	164	1148859	40.00	ppm	-0.02
105) Chrysene-d12a	13.939	240	1781133	40.00	ppm	-0.02
108) Phenanthrene-d10a	9.772	188	1990777	40.00	ppm	-0.02
112) Naphthalene-d8a	5.595	136	2101991	40.00	ppm	-0.01
114) Chrysene-d12b	13.939	240	1781133	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.552	112	436813	24.48	ppm	-0.01
Spiked Amount 50.000			Recovery =	48.96%		
8) Phenol-d5	4.285	99	554730	24.78	ppm	0.01
Spiked Amount 50.000			Recovery =	49.56%		
25) Nitrobenzene-d5	4.964	82	529686	27.57	ppm	0.00
Spiked Amount 50.000			Recovery =	55.14%		
51) 2-Fluorobiphenyl	6.766	172	1045147	24.90	ppm	-0.03
Spiked Amount 50.000			Recovery =	49.80%		
73) 2,4,6-Tribromophenol	8.745	330	147767	24.53	ppm	-0.03
Spiked Amount 50.000			Recovery =	49.06%		
85) Terphenyl-d14	12.324	244	980388	25.10	ppm	-0.04
Spiked Amount 50.000			Recovery =	50.20%		
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.022	88	197913	23.89	ppm	100
3) Pyridine	2.359	79	510961	24.04	ppm	91
4) N-Nitrosodimethylamine	2.322	74	286937	22.76	ppm	82
6) Indene	4.729	116	742301	24.32	ppm	95
7) Cumene	3.932	105	1146282	25.23	ppm	97
9) Phenol	4.295	94	631242	24.56	ppm	89
10) Aniline	4.285	93	664623	23.56	ppm	80
11) bis(2-Chloroethyl)ether	4.333	93	432446	24.34	ppm	94
12) 2-Chlorophenol	4.381	128	477914	24.78	ppm	96
13) Decane	4.413	43	488672	24.61	ppm	94
14) 1,3-Dichlorobenzene	4.488	146	533821	24.56	ppm	99
15) 1,4-Dichlorobenzene	4.541	146	539367	24.50	ppm	99
16) Benzyl alcohol	4.643	108	256249	21.39	ppm	96
17) 1,2-Dichlorobenzene	4.659	146	509236	24.77	ppm	99
18) Acetophenone	4.841	105	661847	25.94	ppm	85
19) 2-Methylphenol	4.739	108	440901	26.15	ppm	95
20) 2,2'-oxybis(1-Chloropr...	4.739	45	515018	23.91	ppm #	53
21) 3&4-Methylphenol	4.857	108	440085	24.86	ppm	97
22) n-Nitroso-di-n-propyla...	4.846	70	357146	26.15	ppm	96
23) Hexachloroethane	4.926	201	182904	25.87	ppm	91
26) Nitrobenzene	4.980	77	520128	27.15	ppm	99
27) Quinoline	5.948	129	902144	25.27	ppm	96
28) Isophorone	5.178	82	886499	26.23	ppm	94
29) 2-Nitrophenol	5.253	139	274781	26.88	ppm	88
30) 2,4-Dimethylphenol	5.296	107	431324	26.34	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104455.d
Acq On : 26 May 2018 7:19 pm
Operator : georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:06:24 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Benzoic acid	5.403	105	381481	30.73	ppm	95
32) bis(2-Chloroethoxy)met...	5.370	93	484109	24.77	ppm	98
33) 2,4-Dichlorophenol	5.477	162	387805	25.30	ppm	99
34) 2,6-Dichlorophenol	5.681	162	377317	25.15	ppm	97
35) 1,3,5-Trichlorobenzene	5.263	180	451084	24.81	ppm	98
36) 1,2,4-Trichlorobenzene	5.547	180	419037	24.85	ppm	99
37) 1,2,3-Trichlorobenzene	5.761	180	418059	24.96	ppm	97
38) Naphthalene	5.616	128	1340798	24.64	ppm	100
39) 4-Chloroaniline	5.670	127	574208	24.80	ppm	97
40) 2,3-Dichloroaniline	6.665	161	491138	25.61	ppm	97
41) Caprolactam	6.018	55	209220	26.57	ppm	95
42) Hexachlorobutadiene	5.739	225	232986	26.46	ppm	99
43) 4-Chloro-3-methylphenol	6.194	107	402191	27.27	ppm	98
44) 2-Methylnaphthalene	6.333	141	799517	25.23	ppm	97
45) 1-Methylnaphthalene	6.446	141	846928	25.63	ppm	96
46) Dimethylnaphthalene	7.082	156	868463	25.65	ppm	97
48) Hexachlorocyclopentadiene	6.520	237	493032	50.49	ppm	97
49) 2,4,6-Trichlorophenol	6.676	196	281144	25.05	ppm	95
50) 2,4,5-Trichlorophenol	6.724	196	301792	25.58	ppm	98
52) 2-Chloronaphthalene	6.905	162	866849	24.64	ppm	98
53) Biphenyl	6.884	154	1181758	25.00	ppm	98
54) 2-Nitroaniline	7.045	65	278500	28.67	ppm	96
55) Dimethylphthalate	7.291	163	981622	25.72	ppm	99
56) Acenaphthylene	7.430	152	1413981	25.18	ppm	99
57) 2,6-Dinitrotoluene	7.365	165	243599	28.56	ppm	98
58) 3-Nitroaniline	7.585	138	267913	27.03	ppm	91
59) Acenaphthene	7.665	153	926895	25.15	ppm	98
60) 2,4-Dinitrophenol	7.740	184	289524	60.36	ppm	87
61) 4-Nitrophenol	7.879	109	149786	34.97	ppm	87
62) Dibenzofuran	7.906	168	1252931	25.28	ppm	94
63) 2,4-Dinitrotoluene	7.916	165	331030	29.07	ppm	92
64) 2,3,4,6-Tetrachlorophenol	8.104	232	242943	24.93	ppm	98
65) Diethylphthalate	8.280	149	1033920	27.37	ppm	99
66) Fluorene	8.387	166	1021976	25.45	ppm	99
67) 4-Chlorophenyl-phenyle...	8.408	204	457973	25.10	ppm	91
68) 4-Nitroaniline	8.441	138	268430	27.25	ppm	83
70) 4,6-Dinitro-2-methylph...	8.510	198	193137	28.43	ppm	96
71) n-Nitrosodiphenylamine	8.585	169	733148	25.22	ppm	99
72) 1,2-Diphenylhydrazine	8.638	77	1037735	26.95	ppm	95
74) 4-Bromophenyl-phenylether	9.125	248	267099	24.36	ppm	91
75) Hexachlorobenzene	9.211	284	292743	23.37	ppm	90
76) Pentachlorophenol	9.526	266	359037	47.14	ppm	99
77) Phenanthrene	9.810	178	1411937	24.86	ppm	99
78) Anthracene	9.885	178	1446000	25.34	ppm	99
79) Carbazole	10.163	167	1367915	25.67	ppm	99
80) Di-n-butylphthalate	10.794	149	1783156	27.38	ppm	99
81) Fluoranthene	11.660	202	1485472	25.49	ppm	98
82) Octadecane	9.746	57	677140	26.20	ppm	97
84) Pyrene	12.008	202	1531511	25.75	ppm	99
86) Butylbenzylphthalate	13.158	149	778593	28.33	ppm	97
87) Benzo[a]anthracene	13.928	228	1349396	25.04	ppm	100
88) 3,3'-Dichlorobenzidine	13.934	252	516511	26.43	ppm	96
89) Chrysene	13.982	228	1284432	25.08	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.132	149	1094428	28.88	ppm	96
92) Di-n-octylphthalate	15.110	149	1884055	28.66	ppm	98
93) Benzo[b]fluoranthene	15.533	252	1371319	24.62	ppm	97
94) Benzo[k]fluoranthene	15.570	252	1268581	24.53	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104455.d
Acq On : 26 May 2018 7:19 pm
Operator : georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:06:24 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

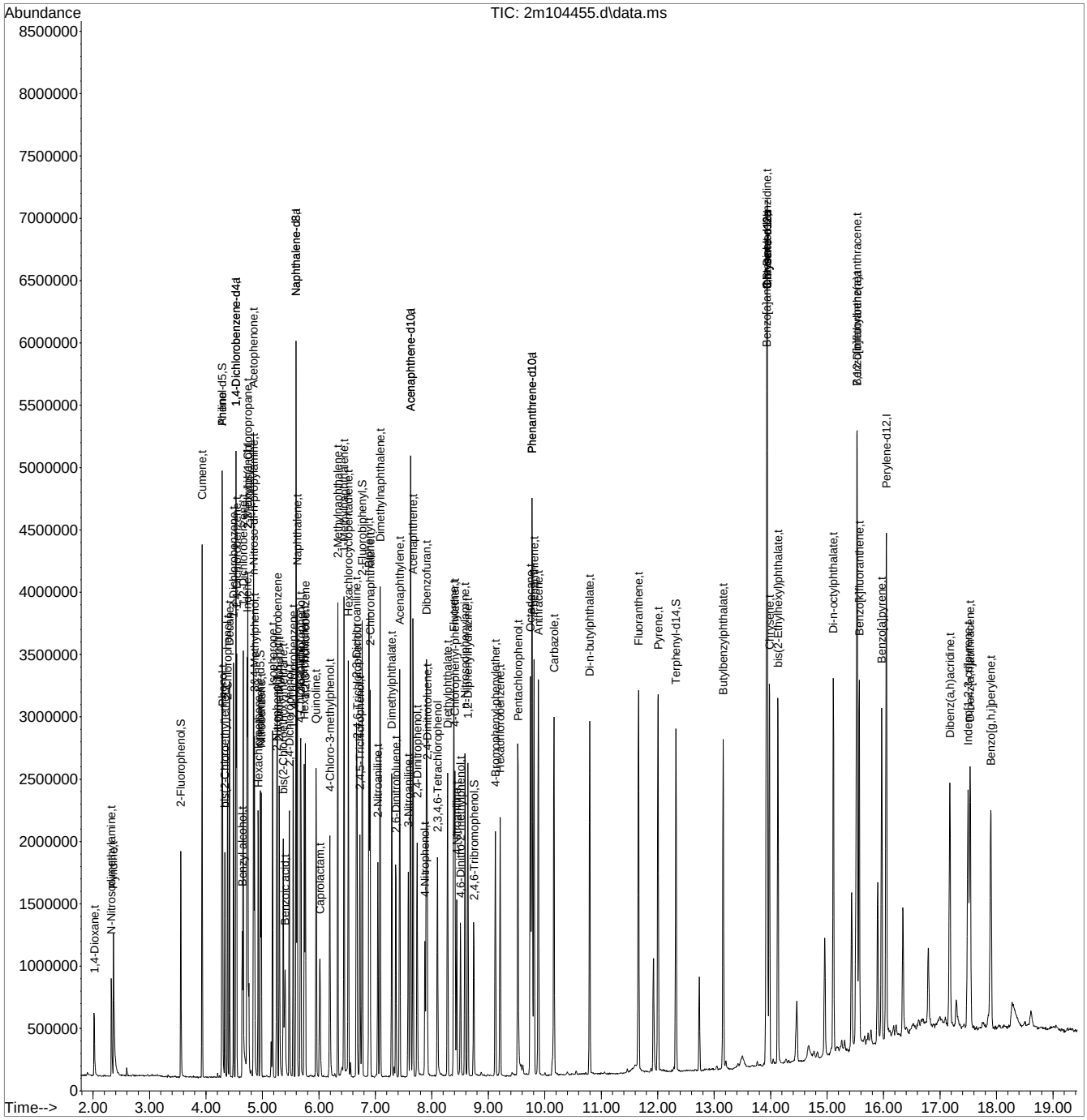
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	Benzo[a]pyrene	15.966	252	1235171	25.58	ppm	100
96)	Indeno[1,2,3-cd]pyrene	17.496	276	1231268	25.62	ppm	95
97)	Dibenz(a,h)acridine	17.175	279	1072211	24.66	ppm	97
98)	Dibenz[a,h]anthracene	17.533	278	1243418	25.17	ppm	98
99)	7,12-Dimethylbenz(a)an...	15.533	256	597610	24.63	ppm	91
100)	Benzo[g,h,i]perylene	17.897	276	1145266	24.73	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104455.d
Acq On : 26 May 2018 7:19 pm
Operator : georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:06:24 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104456.d
Acq On : 26 May 2018 7:45 pm
Operator : georges
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:07:32 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration

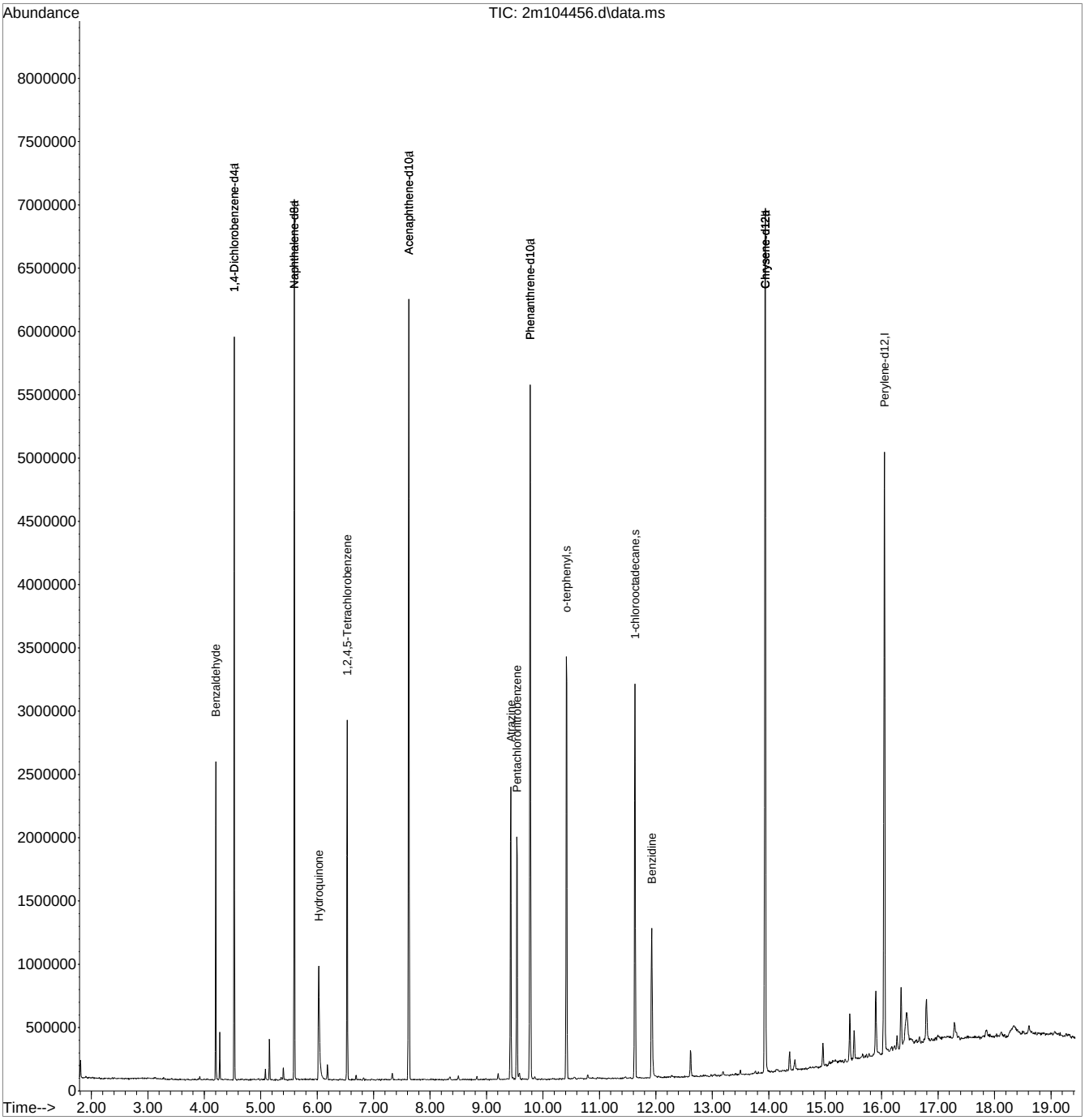
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.531	152	649149	40.00	ppm	0.00
24) Naphthalene-d8	5.595	136	2424561	40.00	ppm	-0.01
47) Acenaphthene-d10	7.622	164	1267527	40.00	ppm	-0.02
69) Phenanthrene-d10	9.772	188	2289651	40.00	ppm	-0.02
83) Chrysene-d12	13.939	240	2186707	40.00	ppm	-0.02
91) Perylene-d12	16.052	264	2085754	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.531	152	649149	40.00	ppm	0.00
103) Acenaphthene-d10a	7.622	164	1267527	40.00	ppm	-0.02
105) Chrysene-d12a	13.939	240	2186707	40.00	ppm	-0.02
108) Phenanthrene-d10a	9.772	188	2289651	40.00	ppm	-0.02
112) Naphthalene-d8a	5.595	136	2424561	40.00	ppm	-0.01
114) Chrysene-d12b	13.939	240	2186707	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
107) 1-chlorooctadecane	11.628	57	481181	27.48	ppm	-0.05
Spiked Amount 50.000			Recovery =	54.96%		
110) o-terphenyl	10.414	230	755469	23.98	ppm	-0.01
Target Compounds						Qvalue
102) Benzaldehyde	4.204	105	362886	22.93	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.531	216	446524	23.99	ppm	98
106) Benzidine	11.928	184	710335	33.36	ppm	99
109) Atrazine	9.430	215	160093	25.56	ppm	96
111) Pentachloronitrobenzene	9.537	295	62193	25.59	ppm	91
113) Hydroquinone	6.028	110	515666	30.16	ppm	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\e2m4641\
Data File : 2m104456.d
Acq On : 26 May 2018 7:45 pm
Operator : georges
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4641,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 28 05:07:32 2018
Quant Title : Semi Volatile GC/MS,rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 28 01:36:03 2018
Response via : Initial Calibration



SGS JC66384

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145289.D
Acq On : 17 Apr 2018 11:39 am
Operator : chriss2
Sample : ic6169-100
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 17 17:03:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

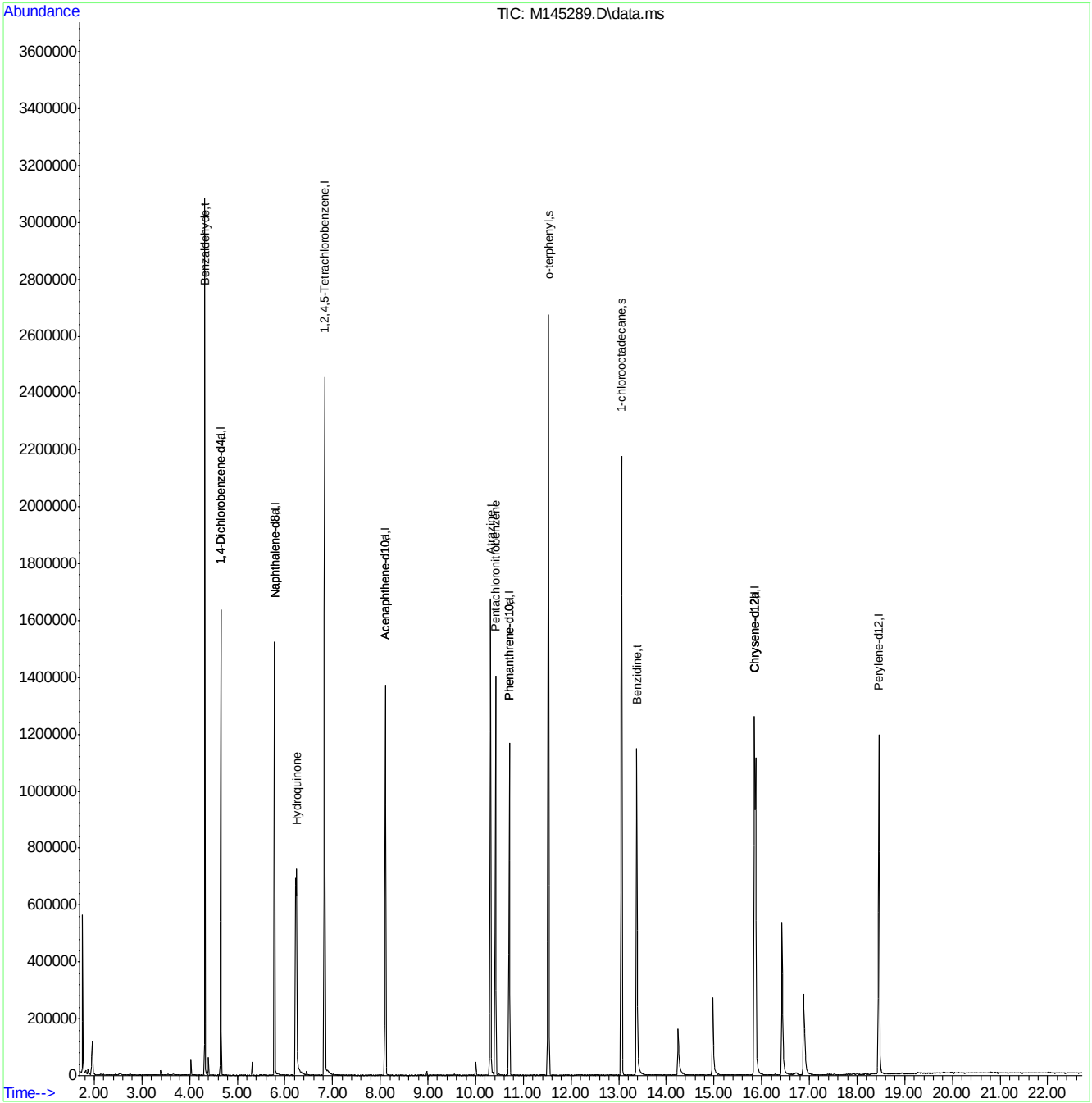
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.652	152	203543	40.00	ppm	0.00
24) Naphthalene-d8	5.784	136	718329	40.00	ppm	0.00
47) Acenaphthene-d10	8.108	164	359690	40.00	ppm	0.00
69) Phenanthrene-d10	10.704	188	634953	40.00	ppm	0.00
83) Chrysene-d12	15.852	240	621506	40.00	ppm	0.00
91) Perylene-d12	18.459	264	665724	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.652	152	203543	40.00	ppm	0.00
103) Acenaphthene-d10a	8.108	164	359690	40.00	ppm	0.00
106) Chrysene-d12a	15.852	240	621506	40.00	ppm	0.00
109) Phenanthrene-d10a	10.704	188	634953	40.00	ppm	0.00
112) Naphthalene-d8a	5.784	136	718329	40.00	ppm	0.00
114) Chrysene-d12b	15.852	240	621506	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.064	57	379035	96.27	ppm	0.00
Spiked Amount 50.000			Recovery =	192.54%		
110) o-terphenyl	11.531	230	817736	93.30	ppm	0.00
Spiked Amount 50.000			Recovery =	186.60%		
Target Compounds						Qvalue
102) Benzaldehyde	4.321	105	461421	87.36	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.831	216	522092	95.68	ppm	99
105) Atrazine	10.319	215	186244	97.27	ppm	93
107) Benzidine	13.379	184	681053	74.98	ppm	99
111) Pentachloronitrobenzene	10.421	295	65869	102.66	ppm	99
113) Hydroquinone	6.244	110	667375	99.44	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145289.D
Acq On : 17 Apr 2018 11:39 am
Operator : chriss2
Sample : ic6169-100
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 17 17:03:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145290.D
Acq On : 17 Apr 2018 12:08 pm
Operator : chriss2
Sample : ic6169-80
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 17 17:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

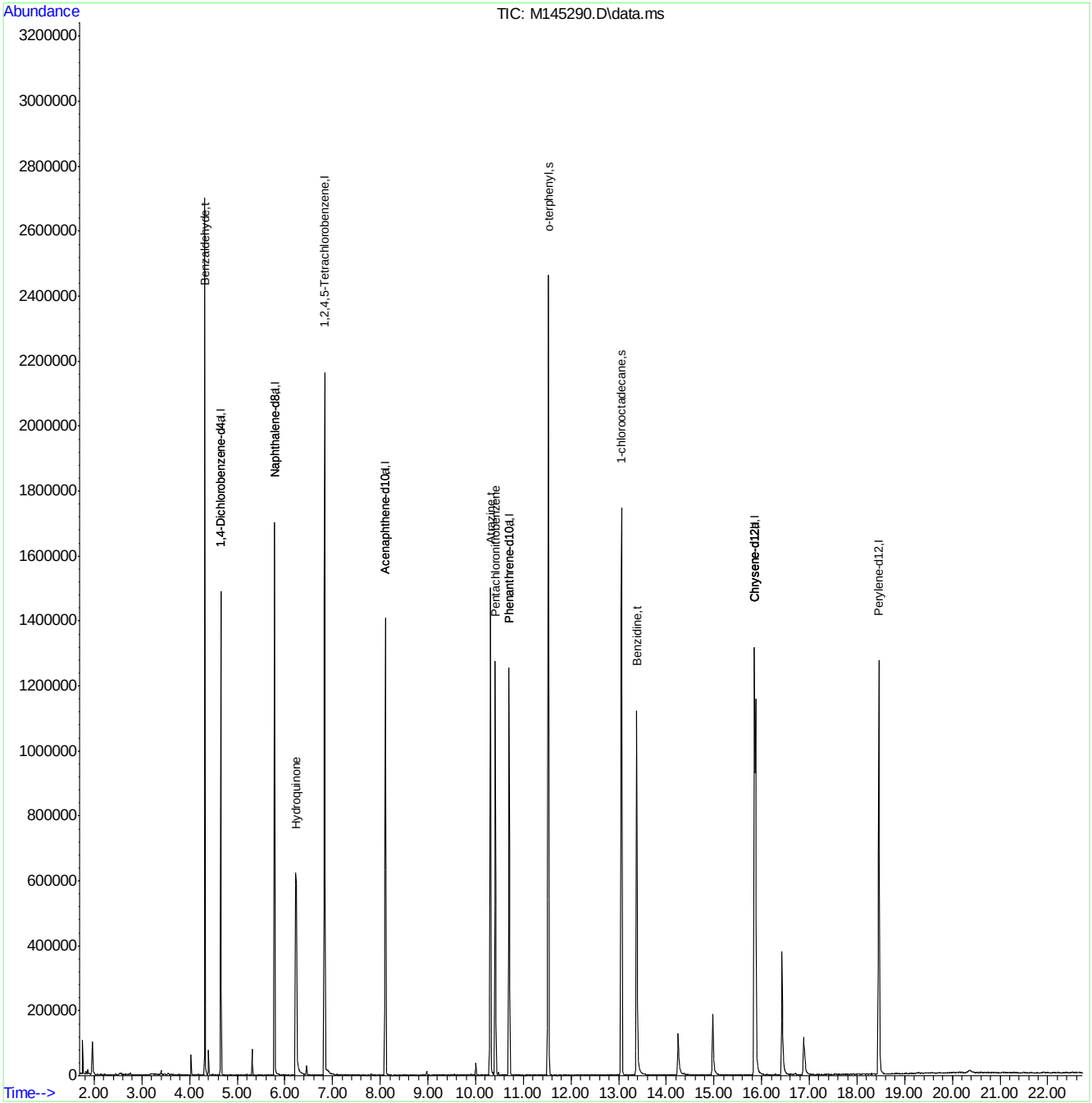
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.652	152	206471	40.00	ppm	0.00
24) Naphthalene-d8	5.784	136	742046	40.00	ppm	0.00
47) Acenaphthene-d10	8.107	164	370190	40.00	ppm	0.00
69) Phenanthrene-d10	10.703	188	671337	40.00	ppm	0.00
83) Chrysene-d12	15.852	240	646514	40.00	ppm	0.00
91) Perylene-d12	18.458	264	695445	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.652	152	206471	40.00	ppm	0.00
103) Acenaphthene-d10a	8.107	164	370190	40.00	ppm	0.00
106) Chrysene-d12a	15.852	240	646514	40.00	ppm	0.00
109) Phenanthrene-d10a	10.703	188	671337	40.00	ppm	0.00
112) Naphthalene-d8a	5.784	136	742046	40.00	ppm	0.00
114) Chrysene-d12b	15.852	240	646514	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	13.059	57	325664	79.51	ppm	0.00
Spiked Amount 50.000			Recovery = 159.02%			
110) o-terphenyl	11.526	230	710763	76.70	ppm	0.00
Spiked Amount 50.000			Recovery = 153.40%			
Target Compounds						Qvalue
102) Benzaldehyde	4.321	105	406077	75.79	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.831	216	454332	80.90	ppm	99
105) Atrazine	10.313	215	157305	79.83	ppm	94
107) Benzidine	13.379	184	704706	74.58	ppm	98
111) Pentachloronitrobenzene	10.415	295	54669	80.59	ppm	100
113) Hydroquinone	6.238	110	530884	76.58	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145290.D
Acq On : 17 Apr 2018 12:08 pm
Operator : chriss2
Sample : ic6169-80
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 17 17:04:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



MM6168.M Tue Apr 17 17:04:29 2018 MSM Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145291.D
Acq On : 17 Apr 2018 12:37 pm
Operator : chriss2
Sample : icc6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 17 17:04:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

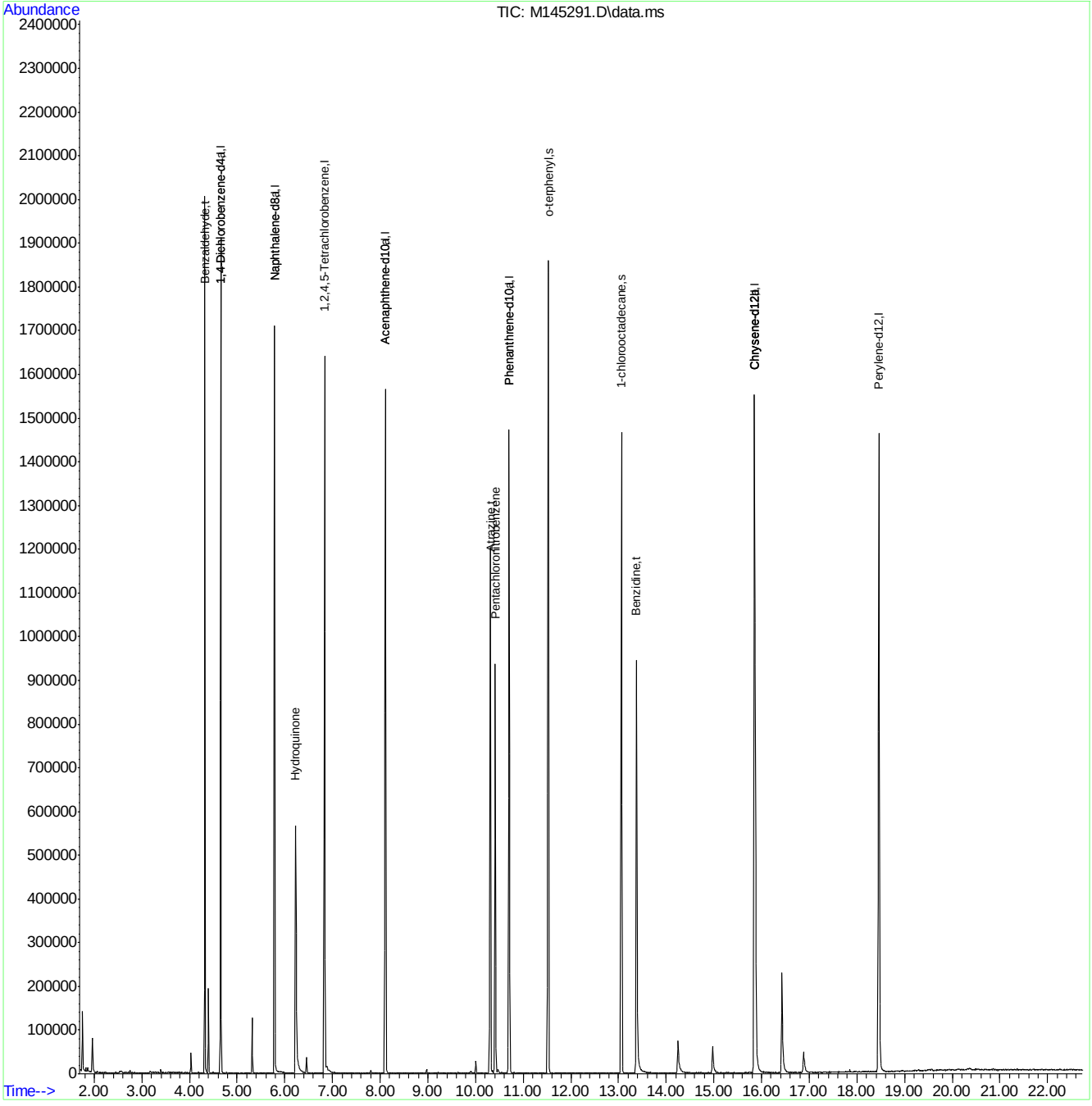
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.653	152	231342	40.00	ppm	0.00
24) Naphthalene-d8	5.786	136	826062	40.00	ppm	0.00
47) Acenaphthene-d10	8.109	164	425732	40.00	ppm	0.00
69) Phenanthrene-d10	10.705	188	773567	40.00	ppm	0.00
83) Chrysene-d12	15.848	240	767414	40.00	ppm	0.00
91) Perylene-d12	18.460	264	820743	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.653	152	231342	40.00	ppm	0.00
103) Acenaphthene-d10a	8.109	164	425732	40.00	ppm	0.00
106) Chrysene-d12a	15.848	240	767414	40.00	ppm	0.00
109) Phenanthrene-d10a	10.705	188	773567	40.00	ppm	0.00
112) Naphthalene-d8a	5.786	136	826062	40.00	ppm	0.00
114) Chrysene-d12b	15.848	240	767414	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.060	57	243086	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
110) o-terphenyl	11.527	230	533898	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.322	105	300162	50.00	ppm	100
104) 1,2,4,5-Tetrachloroben...	6.832	216	322928	50.00	ppm	100
105) Atrazine	10.315	215	113314	50.00	ppm	100
107) Benzidine	13.375	184	560810	50.00	ppm	100
111) Pentachloronitrobenzene	10.416	295	39085	50.00	ppm	100
113) Hydroquinone	6.224	110	385886	50.00	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145291.D
Acq On : 17 Apr 2018 12:37 pm
Operator : chriss2
Sample : icc6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 17 17:04:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145292.D
Acq On : 17 Apr 2018 1:07 pm
Operator : chriss2
Sample : ic6169-25
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 17 17:05:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

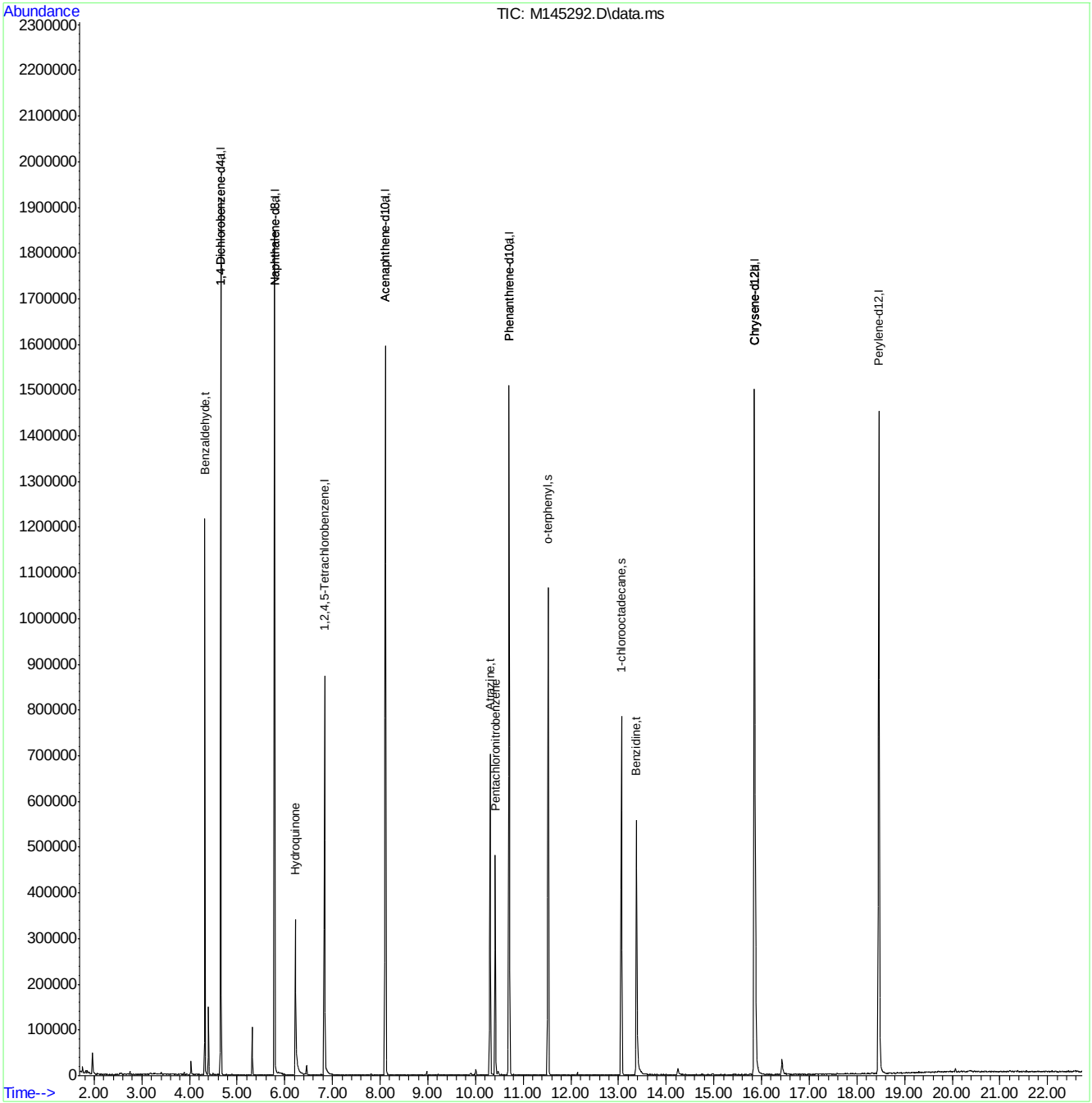
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.653	152	239454	40.00	ppm	0.00
24) Naphthalene-d8	5.785	136	830812	40.00	ppm	0.00
47) Acenaphthene-d10	8.109	164	435249	40.00	ppm	0.00
69) Phenanthrene-d10	10.704	188	786070	40.00	ppm	0.00
83) Chrysene-d12	15.848	240	771156	40.00	ppm	-0.01
91) Perylene-d12	18.460	264	800420	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.653	152	239454	40.00	ppm	0.00
103) Acenaphthene-d10a	8.109	164	435249	40.00	ppm	0.00
106) Chrysene-d12a	15.848	240	771156	40.00	ppm	0.00
109) Phenanthrene-d10a	10.704	188	786070	40.00	ppm	0.00
112) Naphthalene-d8a	5.785	136	830812	40.00	ppm	0.00
114) Chrysene-d12b	15.848	240	771156	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.060	57	130602	26.73	ppm	0.00
Spiked Amount 50.000			Recovery =	53.46%		
110) o-terphenyl	11.522	230	281705	25.96	ppm	0.00
Spiked Amount 50.000			Recovery =	51.92%		
Target Compounds						Qvalue
102) Benzaldehyde	4.322	105	173050	27.85	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.832	216	182917	27.70	ppm	99
105) Atrazine	10.304	215	58483	25.24	ppm	93
107) Benzidine	13.375	184	336389	29.85	ppm	99
111) Pentachloronitrobenzene	10.416	295	19129	24.08	ppm	100
113) Hydroquinone	6.223	110	183840	23.68	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145292.D
Acq On : 17 Apr 2018 1:07 pm
Operator : chriss2
Sample : ic6169-25
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 17 17:05:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145293.D
Acq On : 17 Apr 2018 1:36 pm
Operator : chriss2
Sample : ic6169-10
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 17 17:05:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

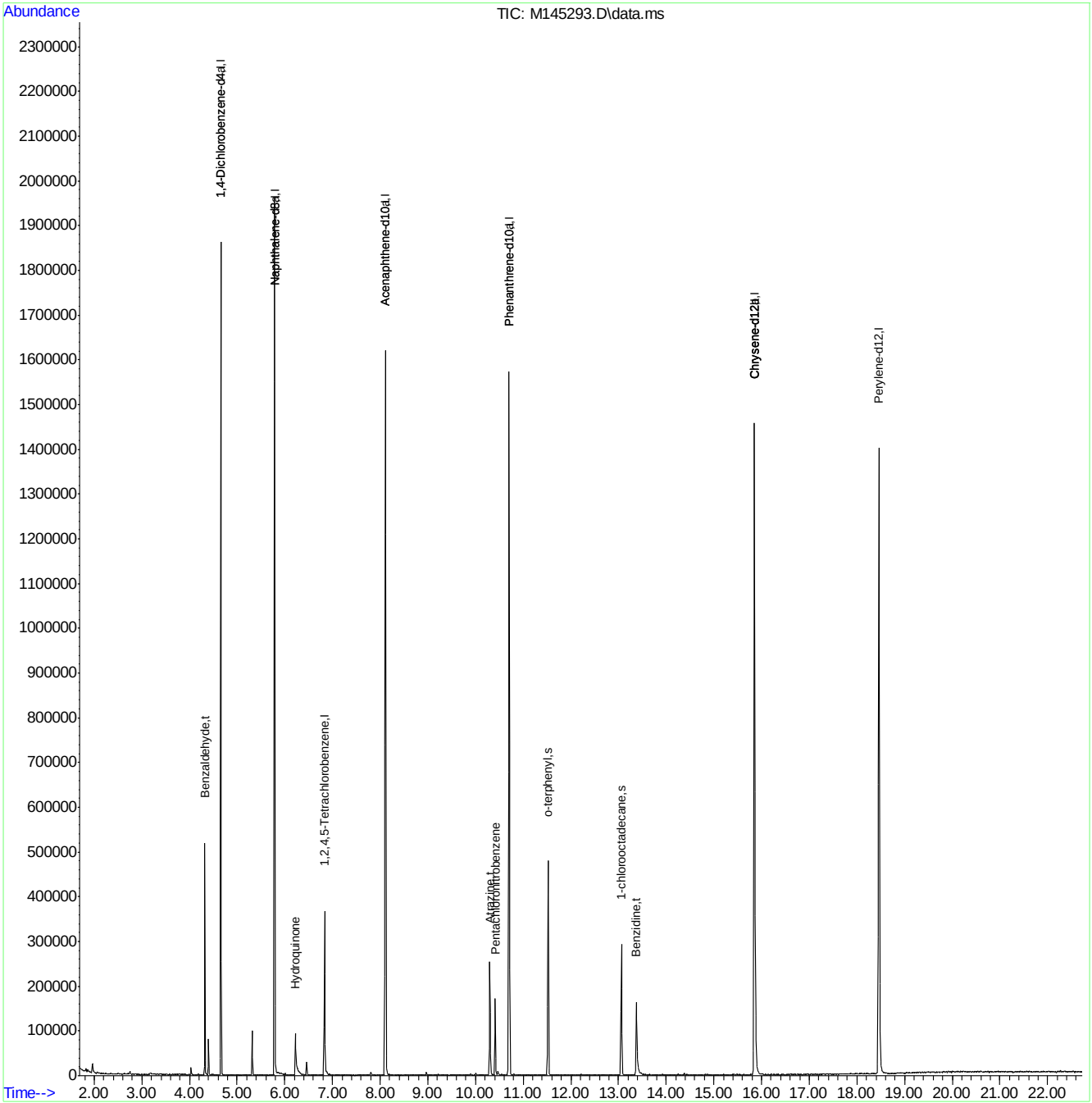
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.653	152	245610	40.00	ppm	0.00
24) Naphthalene-d8	5.785	136	854048	40.00	ppm	0.00
47) Acenaphthene-d10	8.108	164	442209	40.00	ppm	0.00
69) Phenanthrene-d10	10.704	188	812680	40.00	ppm	0.00
83) Chrysene-d12	15.853	240	772469	40.00	ppm	0.00
91) Perylene-d12	18.465	264	803603	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.653	152	245610	40.00	ppm	0.00
103) Acenaphthene-d10a	8.108	164	442209	40.00	ppm	0.00
106) Chrysene-d12a	15.853	240	772469	40.00	ppm	0.00
109) Phenanthrene-d10a	10.704	188	812680	40.00	ppm	0.00
112) Naphthalene-d8a	5.785	136	854048	40.00	ppm	0.00
114) Chrysene-d12b	15.853	240	772469	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.059	57	45847	9.37	ppm	0.00
Spiked Amount 50.000			Recovery =	18.74%		
110) o-terphenyl	11.521	230	118283	10.54	ppm	0.00
Spiked Amount 50.000			Recovery =	21.08%		
Target Compounds						Qvalue
102) Benzaldehyde	4.321	105	71876	11.28	ppm	95
104) 1,2,4,5-Tetrachloroben...	6.832	216	75691	11.28	ppm	98
105) Atrazine	10.303	215	20265	8.61	ppm	93
107) Benzidine	13.374	184	113919	10.09	ppm	99
111) Pentachloronitrobenzene	10.416	295	6183	7.53	ppm	94
113) Hydroquinone	6.223	110	63825	8.00	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145293.D
Acq On : 17 Apr 2018 1:36 pm
Operator : chriss2
Sample : ic6169-10
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 17 17:05:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145294.D
Acq On : 17 Apr 2018 2:06 pm
Operator : chriss2
Sample : ic6169-5
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 17 17:06:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

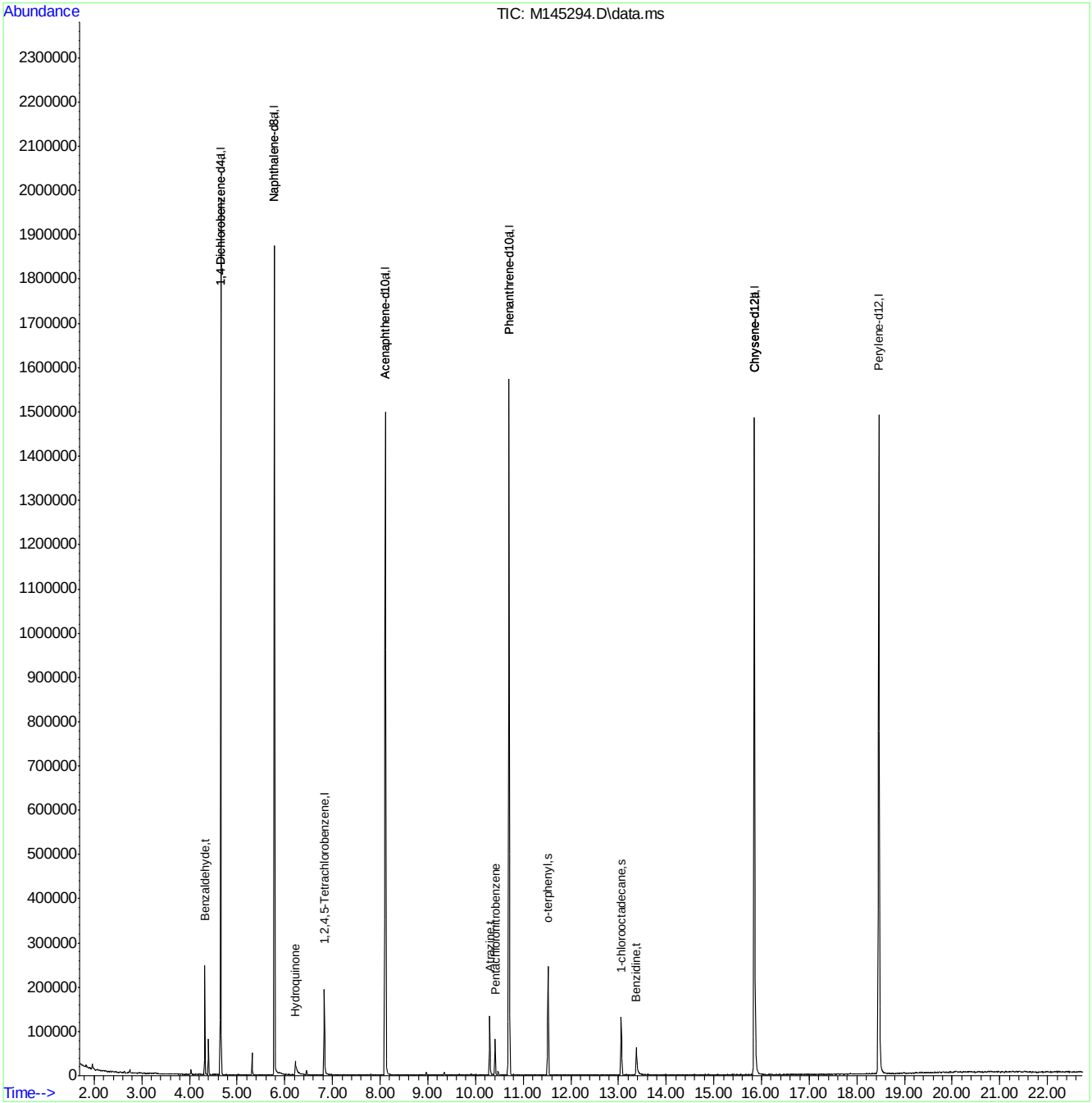
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.655	152	241401	40.00	ppm		0.00
24) Naphthalene-d8	5.782	136	826606	40.00	ppm		0.00
47) Acenaphthene-d10	8.105	164	433146	40.00	ppm		0.00
69) Phenanthrene-d10	10.706	188	816129	40.00	ppm		0.00
83) Chrysene-d12	15.850	240	766705	40.00	ppm		0.00
91) Perylene-d12	18.461	264	795828	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.655	152	241401	40.00	ppm		0.00
103) Acenaphthene-d10a	8.105	164	433146	40.00	ppm		0.00
106) Chrysene-d12a	15.850	240	766705	40.00	ppm		0.00
109) Phenanthrene-d10a	10.706	188	816129	40.00	ppm		0.00
112) Naphthalene-d8a	5.782	136	826606	40.00	ppm		0.00
114) Chrysene-d12b	15.850	240	766705	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
108) 1-chlorooctadecane	13.061	57	22146	4.56	ppm		0.00
Spiked Amount 50.000			Recovery =	9.12%			
110) o-terphenyl	11.523	230	63704	5.65	ppm		0.00
Spiked Amount 50.000			Recovery =	11.30%			
Target Compounds							Qvalue
102) Benzaldehyde	4.324	105	39035	6.23	ppm		97
104) 1,2,4,5-Tetrachloroben...	6.828	216	41441	6.31	ppm		98
105) Atrazine	10.300	215	9760	4.23	ppm		92
107) Benzidine	13.377	184	48378	4.32	ppm		96
111) Pentachloronitrobenzene	10.412	295	2379	2.88	ppm	#	81
113) Hydroquinone	6.225	110	23738	3.07	ppm		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145294.D
Acq On : 17 Apr 2018 2:06 pm
Operator : chriss2
Sample : ic6169-5
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 17 17:06:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



M145295.D

Manual Integrations APPROVED (compounds with "m" flag)

Nina Pandya 04/18/18 15:52

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145295.D
Acq On : 17 Apr 2018 2:35 pm
Operator : chriss2
Sample : ic6169-2
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 17 17:07:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

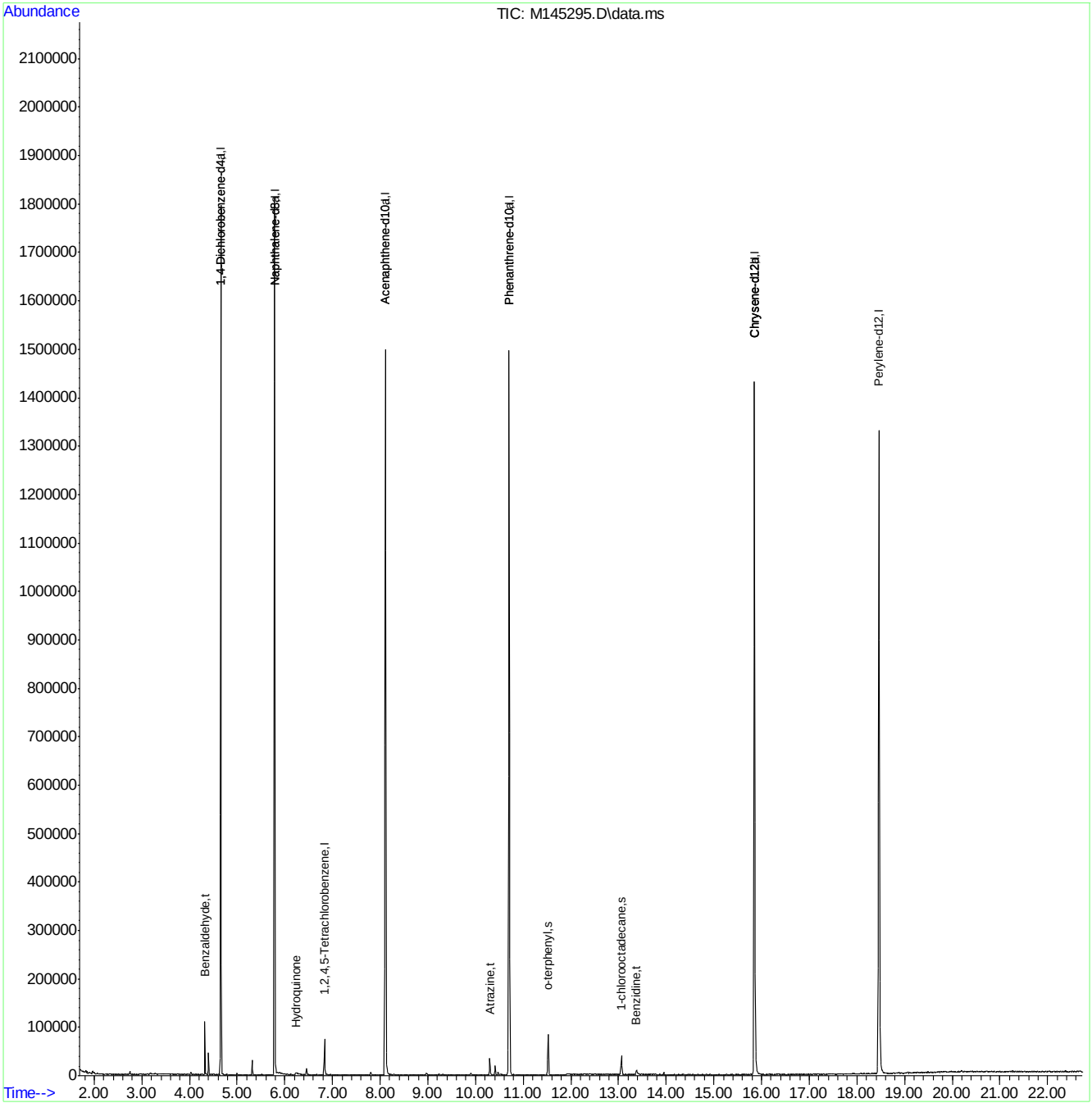
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.653	152	231675	40.00	ppm	0.00
24) Naphthalene-d8	5.785	136	783486	40.00	ppm	0.00
47) Acenaphthene-d10	8.108	164	409281	40.00	ppm	0.00
69) Phenanthrene-d10	10.704	188	773303	40.00	ppm	0.00
83) Chrysene-d12	15.853	240	716000	40.00	ppm	0.00
91) Perylene-d12	18.465	264	731362	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.653	152	231675	40.00	ppm	0.00
103) Acenaphthene-d10a	8.108	164	409281	40.00	ppm	0.00
106) Chrysene-d12a	15.853	240	716000	40.00	ppm	0.00
109) Phenanthrene-d10a	10.704	188	773303	40.00	ppm	0.00
112) Naphthalene-d8a	5.785	136	783486	40.00	ppm	0.00
114) Chrysene-d12b	15.853	240	716000	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.059	57	7034	1.55	ppm	0.00
Spiked Amount 50.000			Recovery =	3.10%		
110) o-terphenyl	11.521	230	21189	1.99	ppm	0.00
Spiked Amount 50.000			Recovery =	3.98%		
Target Compounds						Qvalue
102) Benzaldehyde	4.321	105	15334	2.55	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.832	216	14624	2.36	ppm	97
105) Atrazine	10.298	215	2745	1.26	ppm	94
107) Benzidine	13.374	184	9522	0.91	ppm	94
113) Hydroquinone	6.228	110	7078m	0.97	ppm	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145295.D
Acq On : 17 Apr 2018 2:35 pm
Operator : chriss2
Sample : ic6169-2
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 17 17:07:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



Manual Integration Approval Summary

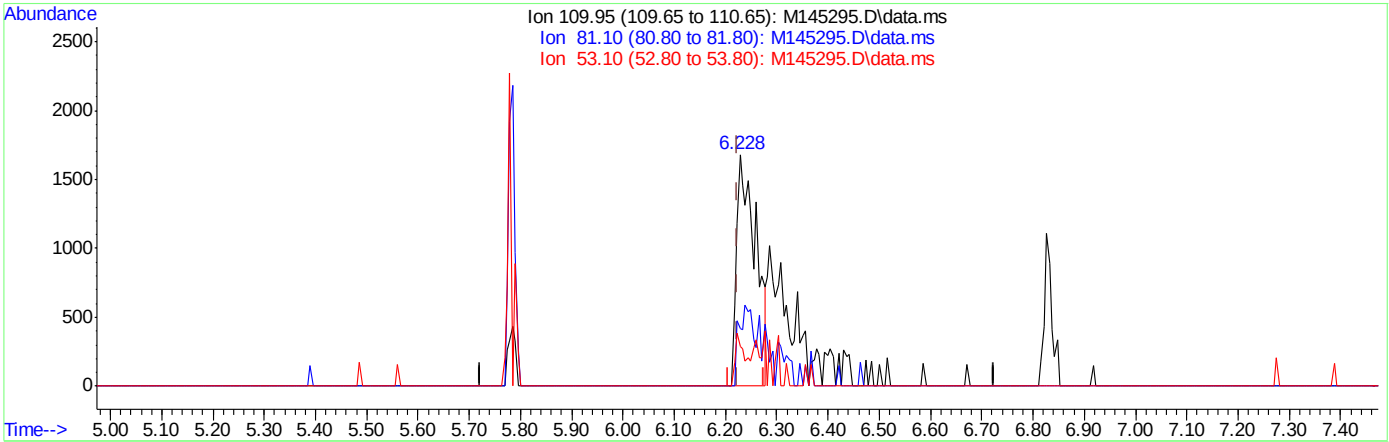
Sample Number:	EM6169-IC6169	**Method:**	SW846 8270D
Lab FileID:	M145295.D	**Analyst approved:**	04/18/18 02:50 Christopher Sowa
Injection Time:	04/17/18 14:35	**Supervisor approved:**	04/18/18 15:52 Nina Pandya

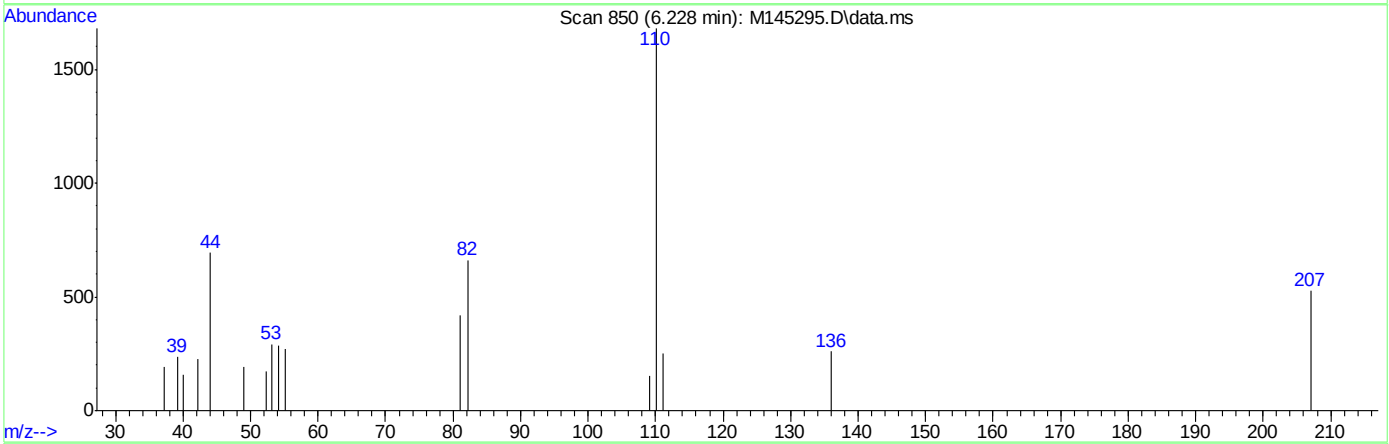
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hydroquinone	123-31-9		6.23	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145295.D
Acq On : 17 Apr 2018 2:35 pm
Operator : chriss2
Sample : ic6169-2
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 17 17:06:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration





TIC: M145295.D\data.ms

(113) Hydroquinone

6.228min (+0.005) 0.59ppm

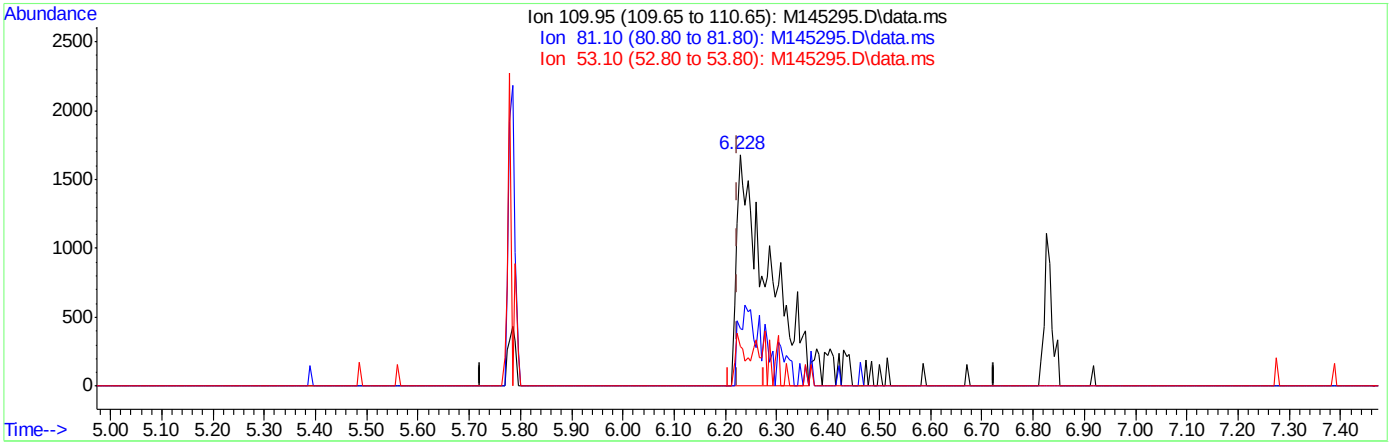
response 4294

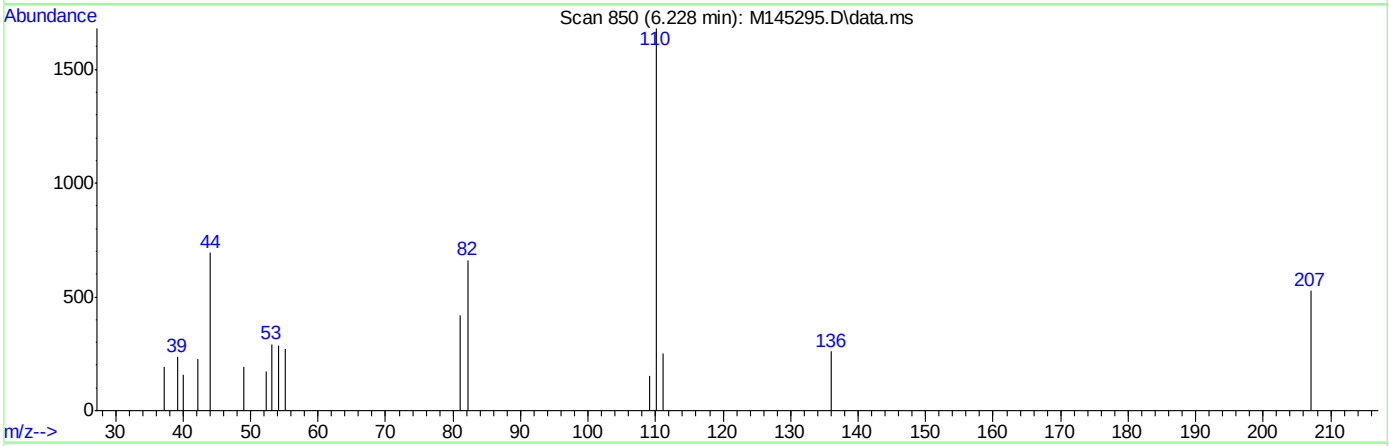
Ion	Exp%	Act%
109.95	100	100
81.10	29.40	14.78
53.10	17.50	6.69
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145295.D
Acq On : 17 Apr 2018 2:35 pm
Operator : chriss2
Sample : ic6169-2
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 17 17:06:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration





TIC: M145295.D\data.ms

(113) Hydroquinone

6.228min (+0.005) 0.97ppm m

response 7078

Ion	Exp%	Act%
109.95	100	100
81.10	29.40	24.99
53.10	17.50	17.31
0.00	0.00	0.00

9.6.35.3

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145296.D
Acq On : 17 Apr 2018 3:04 pm
Operator : chriss2
Sample : ic6169-1
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 17 17:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration

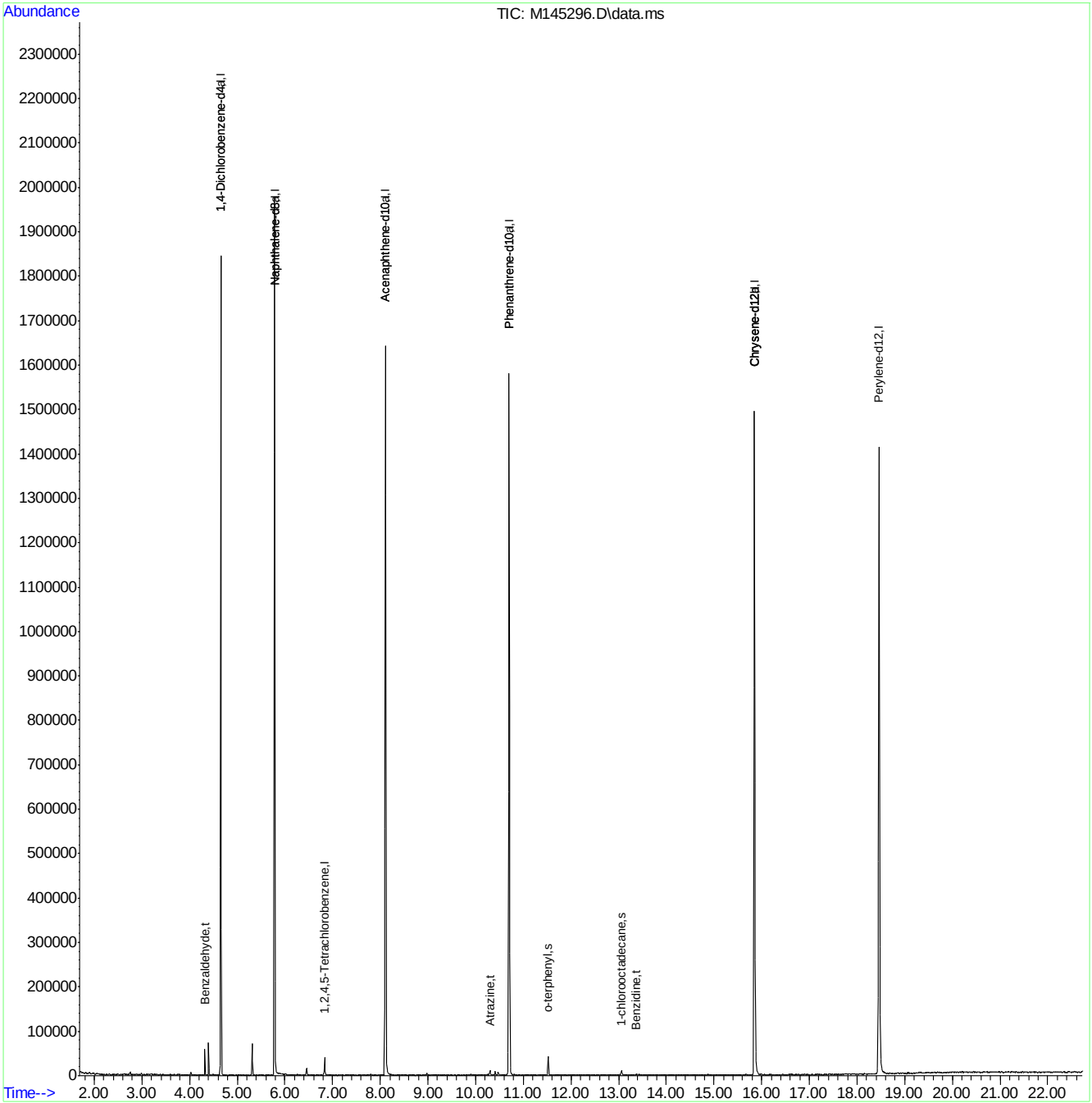
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.652	152	254215	40.00	ppm	0.00
24) Naphthalene-d8	5.784	136	848348	40.00	ppm	0.00
47) Acenaphthene-d10	8.108	164	434077	40.00	ppm	0.00
69) Phenanthrene-d10	10.703	188	823702	40.00	ppm	0.00
83) Chrysene-d12	15.852	240	758069	40.00	ppm	0.00
91) Perylene-d12	18.464	264	784947	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.652	152	254215	40.00	ppm	0.00
103) Acenaphthene-d10a	8.108	164	434077	40.00	ppm	0.00
106) Chrysene-d12a	15.852	240	758069	40.00	ppm	0.00
109) Phenanthrene-d10a	10.703	188	823702	40.00	ppm	0.00
112) Naphthalene-d8a	5.784	136	848348	40.00	ppm	0.00
114) Chrysene-d12b	15.852	240	758069	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	13.059	57	1874	0.39	ppm	0.00
Spiked Amount 50.000			Recovery =	0.78%		
110) o-terphenyl	11.521	230	10414	0.92	ppm	0.00
Spiked Amount 50.000			Recovery =	1.84%		
Target Compounds						Qvalue
102) Benzaldehyde	4.321	105	8206	1.24	ppm	91
104) 1,2,4,5-Tetrachloroben...	6.831	216	7399	1.12	ppm	88
105) Atrazine	10.297	215	1306	0.57	ppm #	74
107) Benzidine	13.369	184	3031	0.27	ppm	85

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145296.D
Acq On : 17 Apr 2018 3:04 pm
Operator : chriss2
Sample : ic6169-1
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 17 17:07:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:03:09 2018
Response via : Initial Calibration



MM6168.M Tue Apr 17 17:07:40 2018 MSM Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145297.D
Acq On : 17 Apr 2018 3:34 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 17 17:23:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

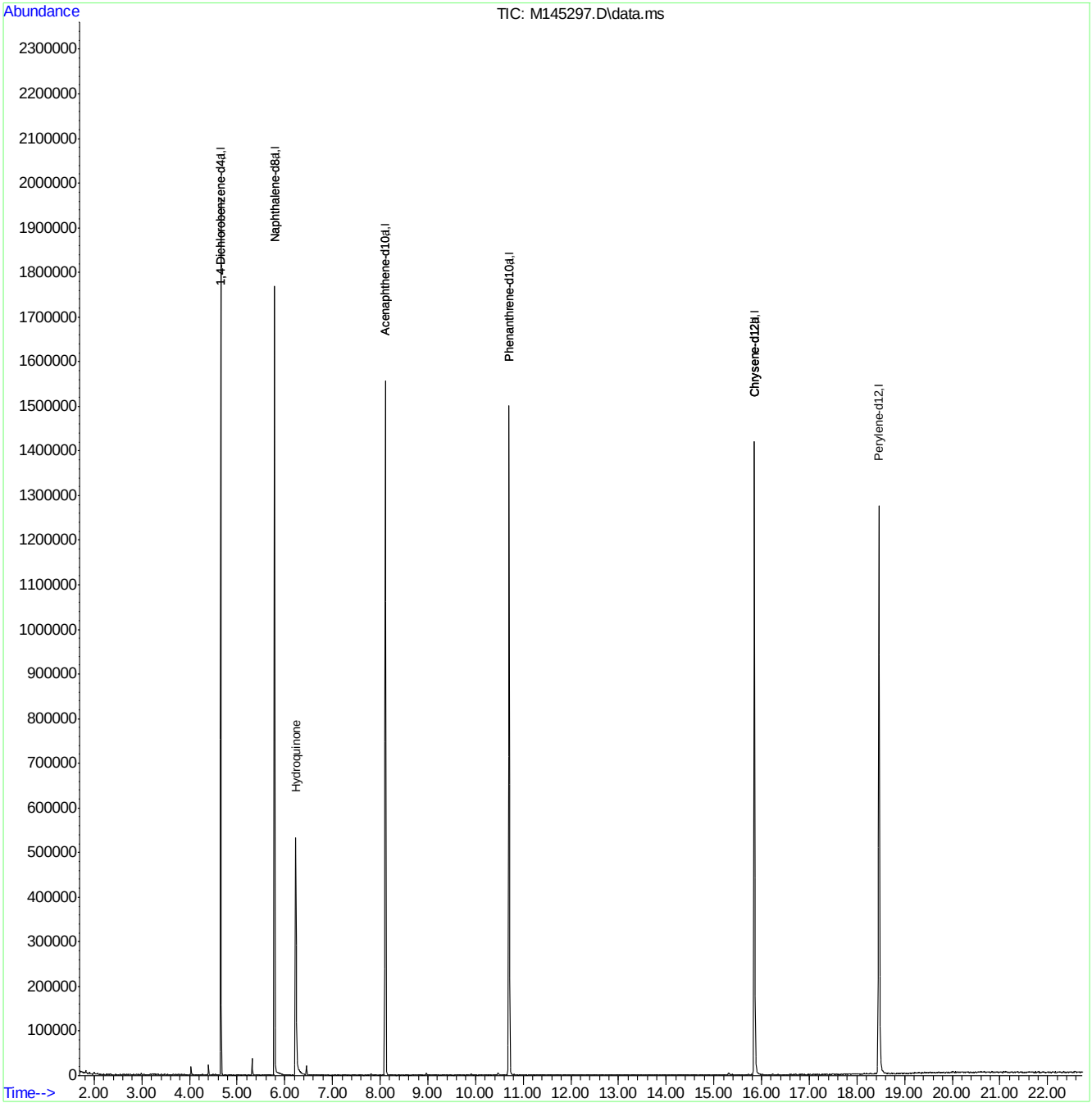
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.653	152	234639	40.00	ppm	0.00
24) Naphthalene-d8	5.785	136	799184	40.00	ppm	0.00
47) Acenaphthene-d10	8.109	164	411638	40.00	ppm	0.00
69) Phenanthrene-d10	10.705	188	779800	40.00	ppm	0.00
83) Chrysene-d12	15.853	240	771811	40.00	ppm	0.00
91) Perylene-d12	18.465	264	729060	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.653	152	234639	40.00	ppm	0.00
103) Acenaphthene-d10a	8.109	164	411638	40.00	ppm	0.00
106) Chrysene-d12a	15.853	240	771811	40.00	ppm	0.00
109) Phenanthrene-d10a	10.705	188	779800	40.00	ppm	0.00
112) Naphthalene-d8a	5.785	136	799184	40.00	ppm	0.00
114) Chrysene-d12b	15.853	240	771811	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
113) Hydroquinone	6.229	110	350019	52.93	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145297.D
Acq On : 17 Apr 2018 3:34 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 17 17:23:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145298.D
Acq On : 17 Apr 2018 4:03 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 17 17:24:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

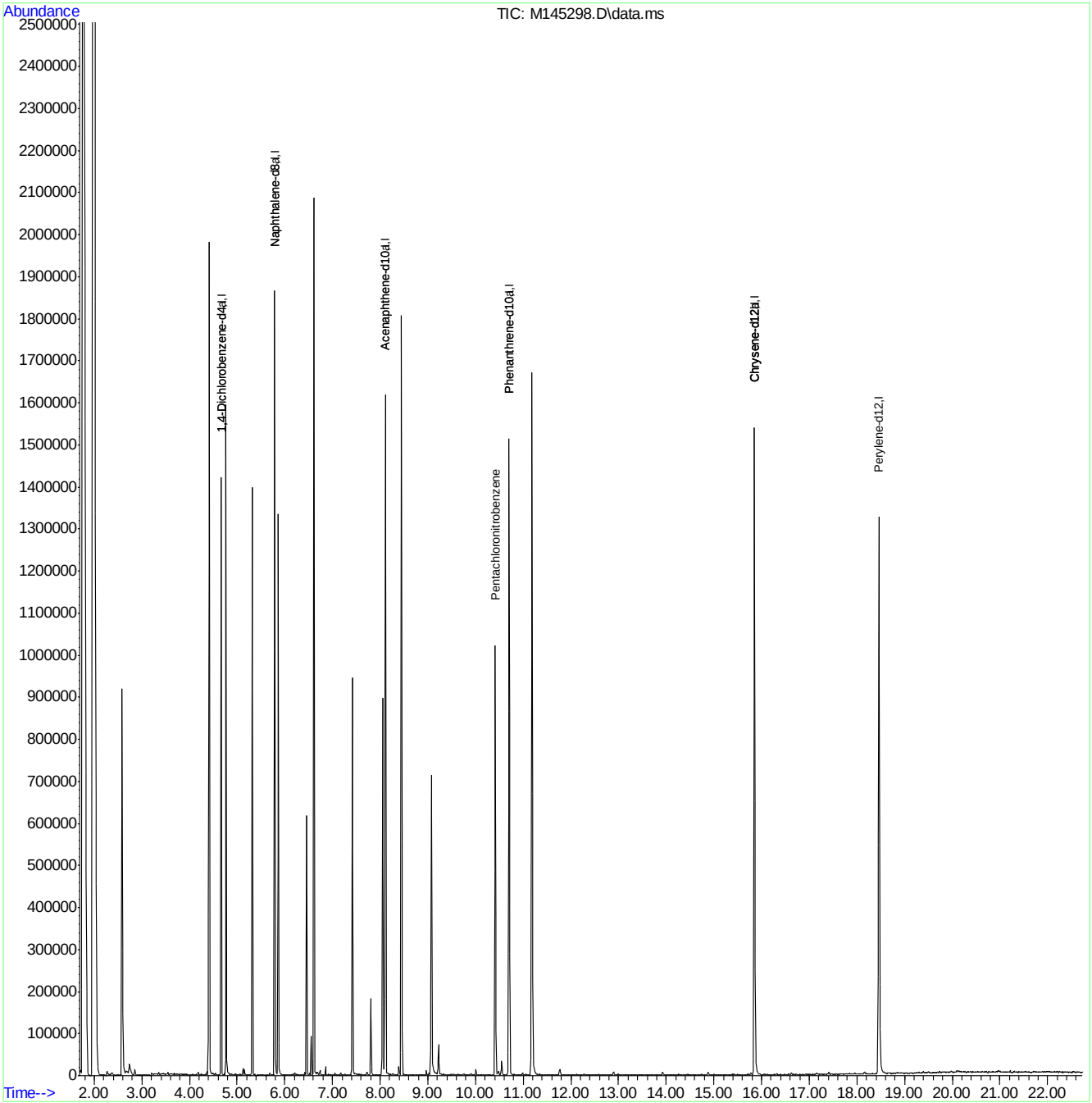
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.663	152	194039	40.00	ppm	0.00
24) Naphthalene-d8	5.785	136	783440	40.00	ppm	0.00
47) Acenaphthene-d10	8.108	164	452728	40.00	ppm	0.00
69) Phenanthrene-d10	10.704	188	813528	40.00	ppm	0.00
83) Chrysene-d12	15.853	240	807652	40.00	ppm	0.00
91) Perylene-d12	18.464	264	742317	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.663	152	194039	40.00	ppm	0.00
103) Acenaphthene-d10a	8.108	164	452728	40.00	ppm	0.00
106) Chrysene-d12a	15.853	240	807652	40.00	ppm	0.00
109) Phenanthrene-d10a	10.704	188	813528	40.00	ppm	0.00
112) Naphthalene-d8a	5.785	136	783440	40.00	ppm	0.00
114) Chrysene-d12b	15.853	240	807652	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
111) Pentachloronitrobenzene	10.415	295	41937	51.10	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145298.D
Acq On : 17 Apr 2018 4:03 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 17 17:24:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145299.D
Acq On : 17 Apr 2018 4:32 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 17 17:25:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

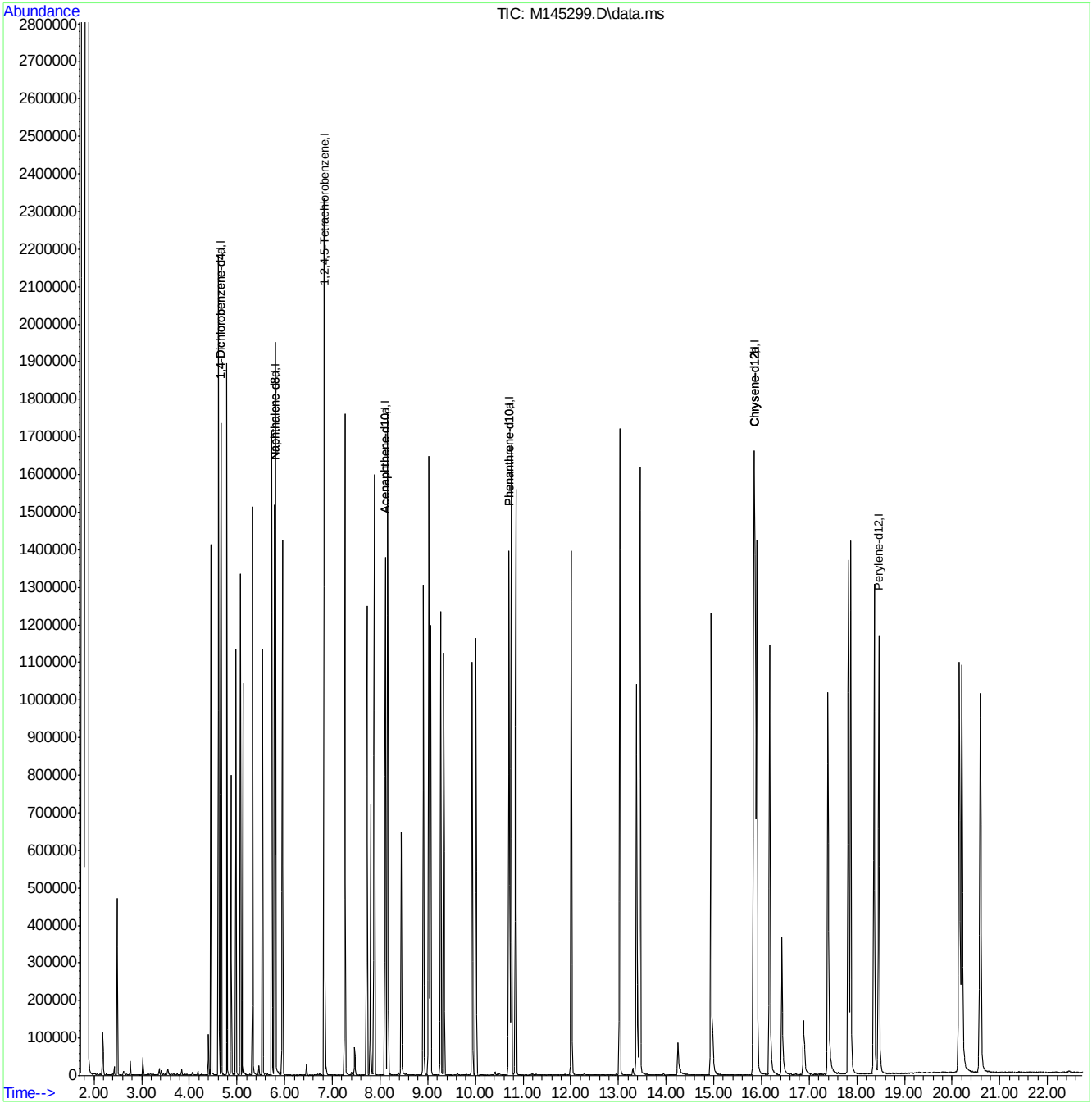
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.655	152	206305	40.00	ppm	0.00
24) Naphthalene-d8	5.787	136	714576	40.00	ppm	0.00
47) Acenaphthene-d10	8.111	164	408590	40.00	ppm	0.00
69) Phenanthrene-d10	10.706	188	735197	40.00	ppm	0.00
83) Chrysene-d12	15.855	240	605563	40.00	ppm	0.00
91) Perylene-d12	18.462	264	617364	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.655	152	206305	40.00	ppm	0.00
103) Acenaphthene-d10a	8.111	164	408590	40.00	ppm	0.00
106) Chrysene-d12a	15.855	240	605563	40.00	ppm	0.00
109) Phenanthrene-d10a	10.706	188	735197	40.00	ppm	0.00
112) Naphthalene-d8a	5.787	136	714576	40.00	ppm	0.00
114) Chrysene-d12b	15.855	240	605563	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
104) 1,2,4,5-Tetrachloroben...	6.834	216	334300	49.21	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145299.D
Acq On : 17 Apr 2018 4:32 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 17 17:25:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145300.D
Acq On : 17 Apr 2018 5:02 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 17 17:26:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

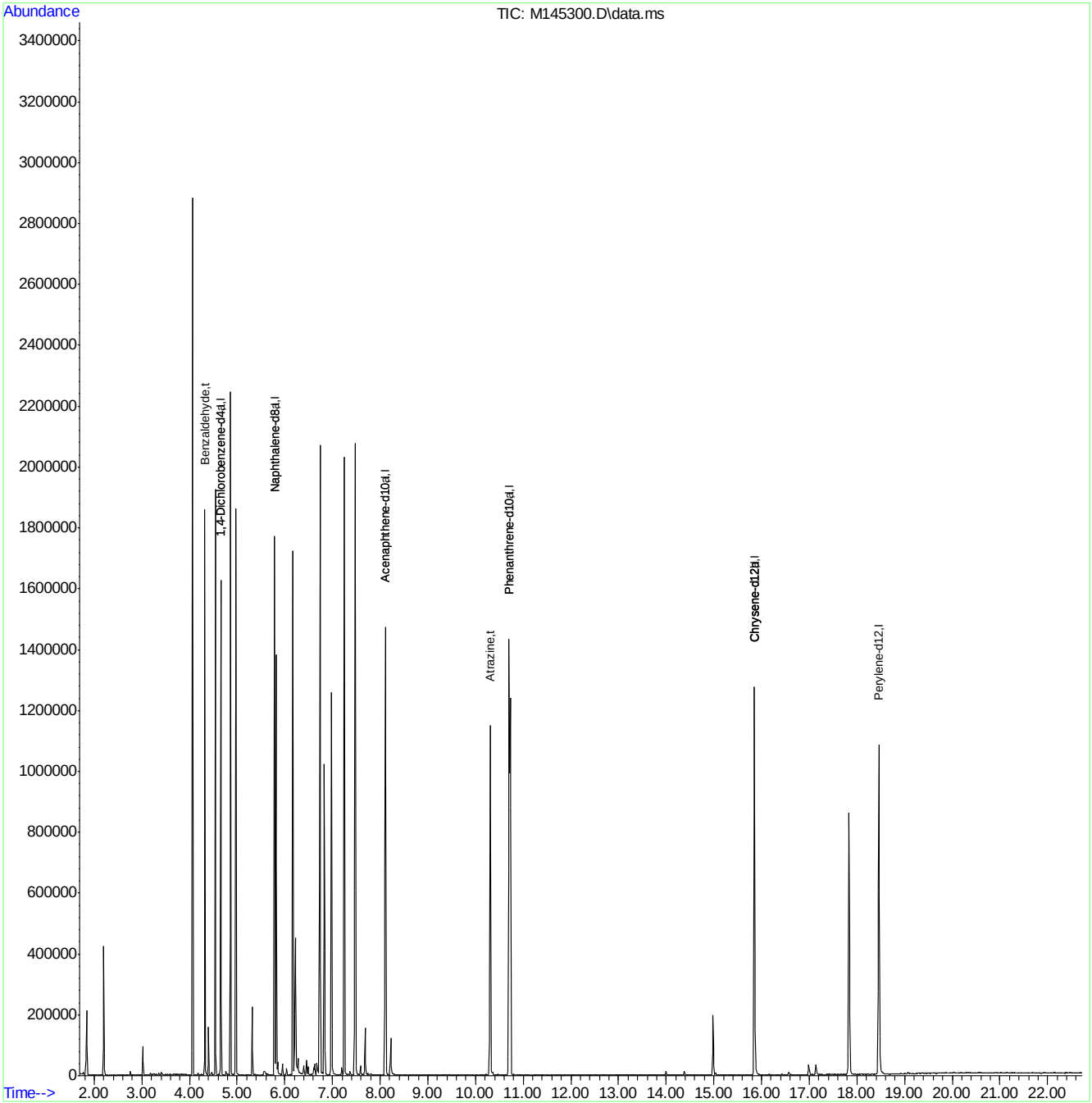
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.653	152	217149	40.00	ppm	0.00
24) Naphthalene-d8	5.785	136	782591	40.00	ppm	0.00
47) Acenaphthene-d10	8.108	164	397953	40.00	ppm	0.00
69) Phenanthrene-d10	10.704	188	736877	40.00	ppm	0.00
83) Chrysene-d12	15.853	240	655873	40.00	ppm	0.00
91) Perylene-d12	18.459	264	603503	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.653	152	217149	40.00	ppm	0.00
103) Acenaphthene-d10a	8.108	164	397953	40.00	ppm	0.00
106) Chrysene-d12a	15.853	240	655873	40.00	ppm	0.00
109) Phenanthrene-d10a	10.704	188	736877	40.00	ppm	0.00
112) Naphthalene-d8a	5.785	136	782591	40.00	ppm	0.00
114) Chrysene-d12b	15.853	240	655873	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.321	105	257620	41.43	ppm	98
105) Atrazine	10.309	215	105854	50.87	ppm	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145300.D
Acq On : 17 Apr 2018 5:02 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 17 17:26:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145301.D
Acq On : 17 Apr 2018 5:31 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 18 02:15:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

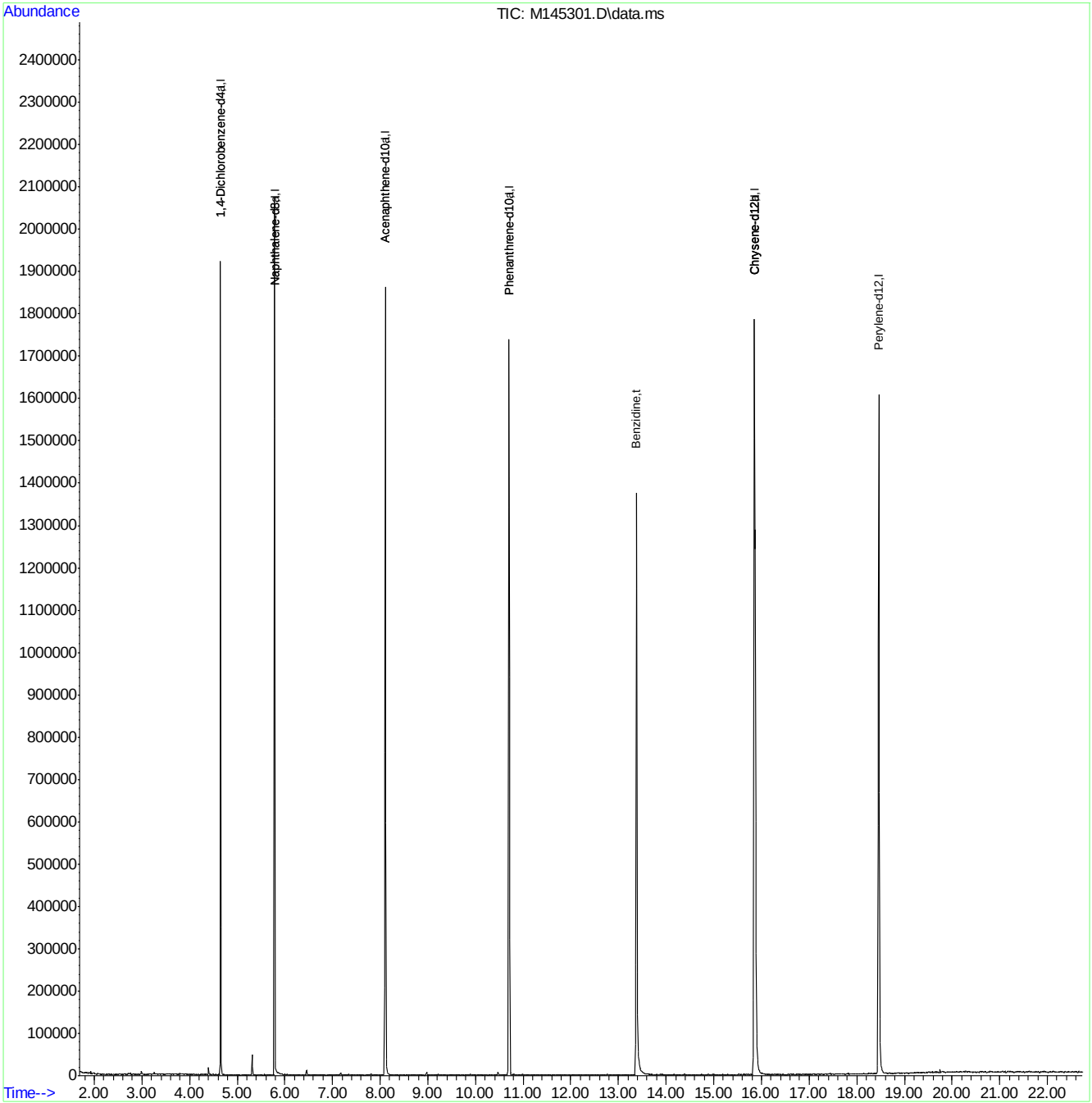
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.652	152	265745	40.00	ppm	0.00
24) Naphthalene-d8	5.784	136	887571	40.00	ppm	0.00
47) Acenaphthene-d10	8.108	164	540023	40.00	ppm	0.00
69) Phenanthrene-d10	10.703	188	926955	40.00	ppm	0.00
83) Chrysene-d12	15.852	240	900984	40.00	ppm	0.00
91) Perylene-d12	18.464	264	890115	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.652	152	265745	40.00	ppm	0.00
103) Acenaphthene-d10a	8.108	164	540023	40.00	ppm	0.00
106) Chrysene-d12a	15.852	240	900984	40.00	ppm	0.00
109) Phenanthrene-d10a	10.703	188	926955	40.00	ppm	0.00
112) Naphthalene-d8a	5.784	136	887571	40.00	ppm	0.00
114) Chrysene-d12b	15.852	240	900984	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.379	184	807683	61.82	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6168\
Data File : M145301.D
Acq On : 17 Apr 2018 5:31 pm
Operator : chriss2
Sample : icv6169-50
Misc : op10492,em6169,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 18 02:15:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/25/18 18:23

Quantitation Report (QT Reviewed)

Data Path : D:\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 25 18:07:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.478	152	125080	40.00	ppm	-0.02
24) Naphthalene-d8	5.563	136	464855	40.00	ppm	-0.02
47) Acenaphthene-d10	7.817	164	257139	40.00	ppm	-0.03
69) Phenanthrene-d10	10.397	188	495965	40.00	ppm	-0.03
83) Chrysene-d12	15.542	240	538524	40.00	ppm	-0.06
91) Perylene-d12	18.159	264	409556	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4a	4.478	152	125080	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.817	164	257139	40.00	ppm	-0.03
106) Chrysene-d12a	15.542	240	538524	40.00	ppm	-0.06
109) Phenanthrene-d10a	10.397	188	495965	40.00	ppm	-0.03
112) Naphthalene-d8a	5.563	136	464855	40.00	ppm	-0.02
114) Chrysene-d12b	15.542	240	538524	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.517	112	6606	1.41	ppm	-0.02
Spiked Amount 50.000			Recovery =	2.82%		
8) Phenol-d5	4.249	99	10980	1.97	ppm	0.02
Spiked Amount 50.000			Recovery =	3.94%		
25) Nitrobenzene-d5	4.916	82	10963	2.41	ppm	-0.01
Spiked Amount 50.000			Recovery =	4.82%		
51) 2-Fluorobiphenyl	6.839	172	19987	2.00	ppm	0.02
Spiked Amount 50.000			Recovery =	4.00%		
73) 2,4,6-Tribromophenol	9.153	330	2390	1.72	ppm	-0.05
Spiked Amount 50.000			Recovery =	3.44%		
85) Terphenyl-d14	13.560	244	23125	1.80	ppm	-0.10
Spiked Amount 50.000			Recovery =	3.60%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.973	88	2556	1.15	ppm	88
3) Pyridine	2.368	79	10698m	1.93	ppm	
4) N-Nitrosodimethylamine	2.304	42	5624	3.13	ppm #	29
6) Indene	4.676	116	14132	2.24	ppm	89
7) Cumene	3.880	105	24370	2.26	ppm	84
9) Phenol	4.254	94	12327	2.00	ppm #	35
10) Aniline	4.243	93	14748	2.29	ppm	75
11) bis(2-Chloroethyl)ether	4.291	93	8197	2.05	ppm	83
12) 2-Chlorophenol	4.339	128	9274	2.10	ppm	63
13) Decane	4.366	43	9853	3.42	ppm	82
14) 1,3-Dichlorobenzene	4.441	146	9838	1.89	ppm	80
15) 1,4-Dichlorobenzene	4.494	146	9689	1.98	ppm	86
16) Benzyl alcohol	4.601	108	5432	2.00	ppm #	64
17) 1,2-Dichlorobenzene	4.612	146	9560	2.09	ppm	87
18) Acetophenone	4.793	105	13577	2.62	ppm	90
19) 2-Methylphenol	4.697	108	7672	2.12	ppm	88
20) 2,2'-oxybis(1-Chloropr...	4.692	121	2543m	2.24	ppm	

Quantitation Report (QT Reviewed)

Data Path : D:\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 25 18:07:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.820	108	8421	2.33	ppm	#	38
22) n-Nitroso-di-n-propyla...	4.793	70	8201	3.22	ppm		85
23) Hexachloroethane	4.874	201	3655	2.23	ppm	#	76
26) Nitrobenzene	4.932	77	13224	3.14	ppm		79
27) Quinoline	5.942	129	16126	1.87	ppm		89
28) Isophorone	5.135	82	18458	2.35	ppm		75
29) 2-Nitrophenol	5.210	139	4302	2.00	ppm	#	27
30) 2,4-Dimethylphenol	5.264	107	8573	2.32	ppm		75
31) Benzoic acid	5.349	105	4567m	4.04	ppm		
32) bis(2-Chloroethoxy)met...	5.328	93	8991	2.06	ppm		90
33) 2,4-Dichlorophenol	5.451	162	6384	1.92	ppm		83
34) 2,6-Dichlorophenol	5.659	162	6367	1.95	ppm		77
35) 1,3,5-Trichlorobenzene	5.215	180	8933	2.08	ppm		93
36) 1,2,4-Trichlorobenzene	5.509	180	8273	1.90	ppm		89
37) 1,2,3-Trichlorobenzene	5.739	180	8435	2.16	ppm		79
38) Naphthalene	5.584	128	23258	1.91	ppm		99
39) 4-Chloroaniline	5.648	127	10041	1.93	ppm		67
40) 2,3-Dichloroaniline	6.727	161	8815	1.93	ppm		91
41) Caprolactam	6.011	55	2727	1.94	ppm	#	70
42) Hexachlorobutadiene	5.718	225	4971	2.29	ppm		96
43) 4-Chloro-3-methylphenol	6.214	107	7920	2.16	ppm		67
44) 2-Methylnaphthalene	6.359	141	14306	1.95	ppm		85
45) 1-Methylnaphthalene	6.476	142	18290	2.07	ppm		91
46) Dimethylnaphthalene	7.197	156	15697	2.02	ppm		93
48) Hexachlorocyclopentadiene	6.562	237	3900	2.02	ppm		94
49) 2,4,6-Trichlorophenol	6.743	196	4706	1.99	ppm		78
50) 2,4,5-Trichlorophenol	6.807	196	5055	1.93	ppm		78
52) 2-Chloronaphthalene	6.994	162	16147	2.01	ppm		95
53) Biphenyl	6.973	154	21779	2.10	ppm		94
54) 2-Nitroaniline	7.165	65	4547	2.53	ppm	#	55
55) Dimethylphthalate	7.448	163	18896	2.06	ppm		97
56) Acenaphthylene	7.593	152	23544	1.88	ppm		93
57) 2,6-Dinitrotoluene	7.534	165	2739	1.61	ppm		95
58) 3-Nitroaniline	7.790	138	3060	1.45	ppm		79
59) Acenaphthene	7.865	153	16537	2.10	ppm		91
60) 2,4-Dinitrophenol	7.988	184	1086	7.72	ppm		85
61) 4-Nitrophenol	8.202	109	1548	2.30	ppm	#	18
62) Dibenzofuran	8.148	168	21263	1.84	ppm		84
63) 2,4-Dinitrotoluene	8.186	165	3343	2.02	ppm		88
64) 2,3,4,6-Tetrachlorophenol	8.399	232	3672	1.78	ppm		84
65) Diethylphthalate	8.613	149	19560	2.18	ppm		100
66) Fluorene	8.725	166	16503	1.79	ppm		92
67) 4-Chlorophenyl-phenyle...	8.757	204	9702	2.23	ppm		87
68) 4-Nitroaniline	8.816	138	2538	1.26	ppm		92
70) 4,6-Dinitro-2-methylph...	8.891	198	1534m	3.74	ppm		
71) n-Nitrosodiphenylamine	8.971	169	12277	1.86	ppm		94
72) 1,2-Diphenylhydrazine	9.035	77	20622	2.32	ppm		90
74) 4-Bromophenyl-phenylether	9.623	248	5666	2.06	ppm		86
75) Hexachlorobenzene	9.708	284	7316	2.12	ppm		90
76) Pentachlorophenol	10.109	266	4027	2.16	ppm		91

Quantitation Report (QT Reviewed)

Data Path : D:\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 25 18:07:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration

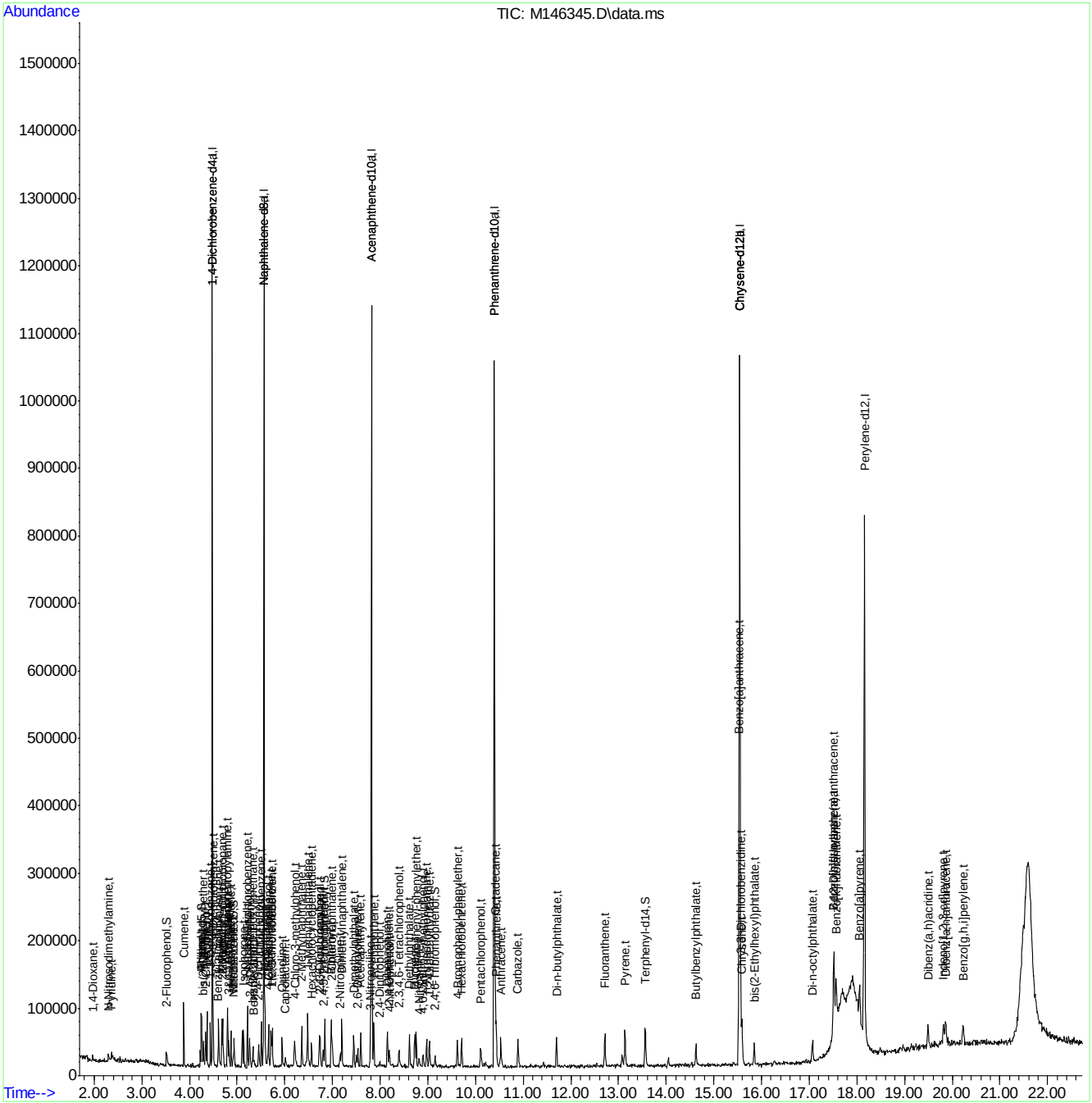
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
77) Phenanthrene	10.435	178	28719	2.12	ppm		93
78) Anthracene	10.536	178	25177	1.86	ppm		93
79) Carbazole	10.889	167	21201	1.53	ppm		99
80) Di-n-butylphthalate	11.701	149	26516	1.79	ppm		93
81) Fluoranthene	12.716	202	28881	1.91	ppm		93
82) Octadecane	10.413	57	9726	2.50	ppm		89
84) Pyrene	13.133	202	31932	1.67	ppm		94
86) Butylbenzylphthalate	14.623	149	9453	1.19	ppm	#	65
87) Benzo[a]anthracene	15.526	228	28332	1.80	ppm		91
88) 3,3'-Dichlorobenzidine	15.563	252	8150	2.12	ppm		88
89) Chrysene	15.590	228	28717	1.89	ppm		97
90) bis(2-Ethylhexyl)phtha...	15.852	149	12110	2.10	ppm		88
92) Di-n-octylphthalate	17.070	149	18005	2.75	ppm		93
93) Benzo[b]fluoranthene	17.513	252	30672m	2.61	ppm		
94) Benzo[k]fluoranthene	17.561	252	30091	2.70	ppm		98
95) Benzo[a]pyrene	18.058	252	20878	2.08	ppm		96
96) Indeno[1,2,3-cd]pyrene	19.816	276	19238m	2.01	ppm		
97) Dibenz(a,h)acridine	19.490	279	17064	1.86	ppm		94
98) Dibenz[a,h]anthracene	19.858	278	21242	2.08	ppm		95
99) 7,12-Dimethylbenz(a)an...	17.513	256	12312	2.64	ppm		96
100) Benzo[g,h,i]perylene	20.232	276	23184	2.31	ppm		74

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

Quantitation Report (QT Reviewed)

Data Path : D:\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 25 18:07:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EM6221-IC6221
Lab FileID: M146345.D
Injection Time: 05/24/18 12:57

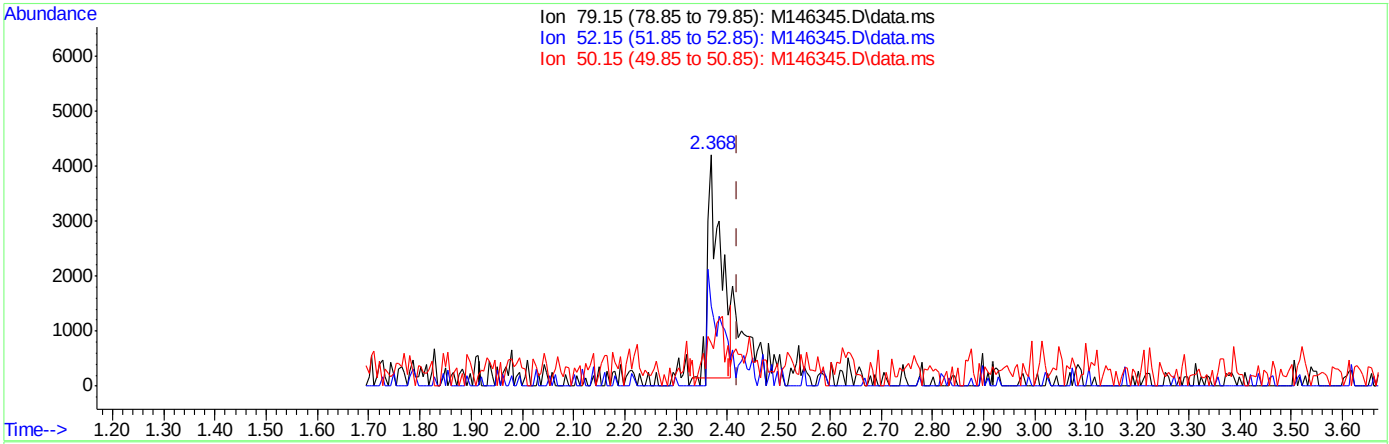
Method: SW846 8270D
Analyst approved: 05/25/18 18:15 Sean Block
Supervisor approved: 05/25/18 18:23 Nina Pandya

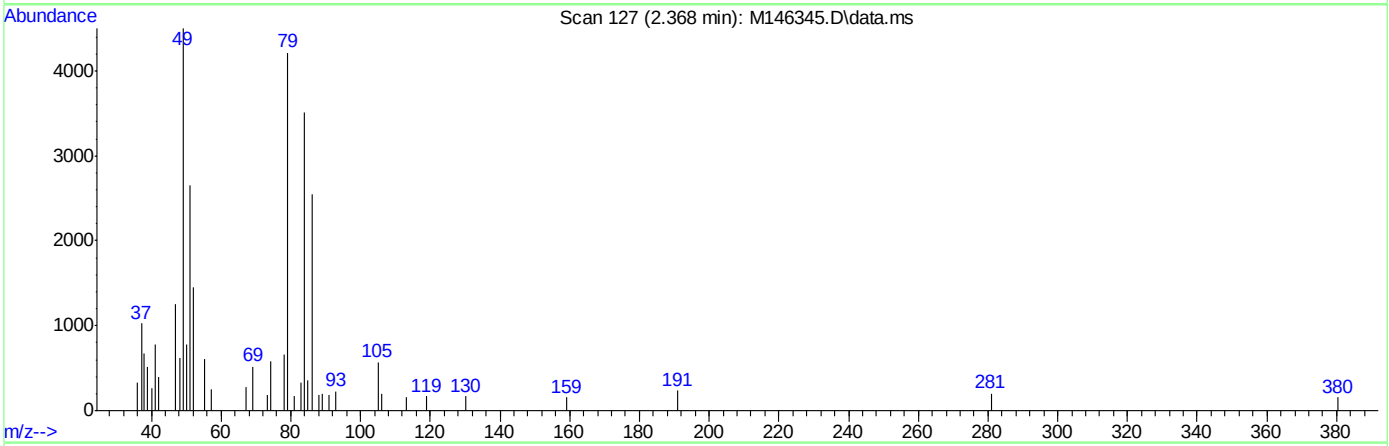
Parameter	CAS	Sig#	R.T. (min.)	Reason
Pyridine	110-86-1		2.37	Split peak
2,2'-Oxybis(1-chloropropane)	108-60-1		4.69	Split peak
Benzoic acid	65-85-0		5.35	Split peak
4,6-Dinitro-o-cresol	534-52-1		8.89	Split peak
Benzo(b)fluoranthene	205-99-2		17.51	Missed peak
Indeno(1,2,3-cd)pyrene	193-39-5		19.82	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(3) Pyridine (t)

2.368min (-0.052) 1.24ppm

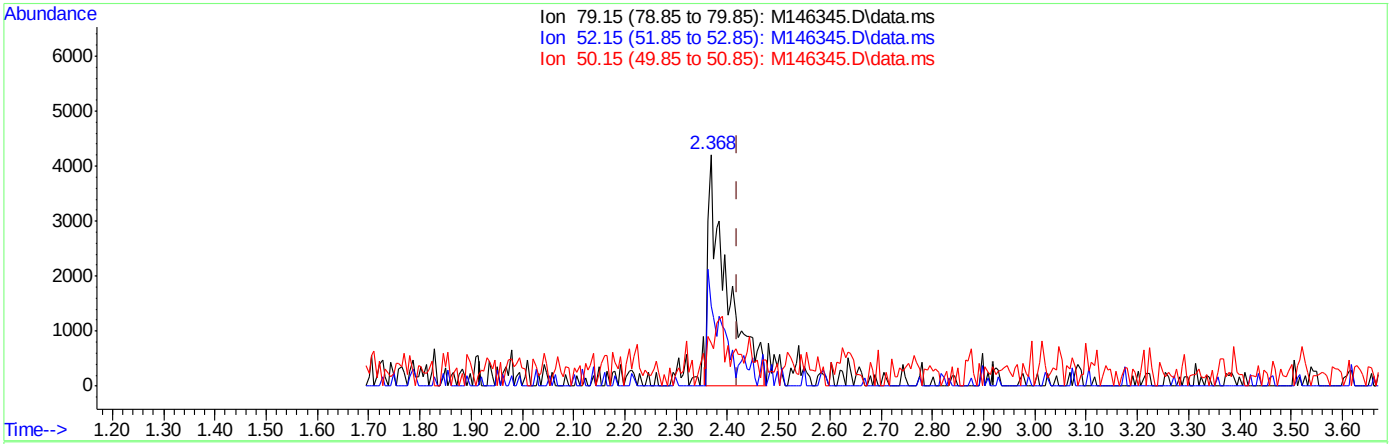
response 6862

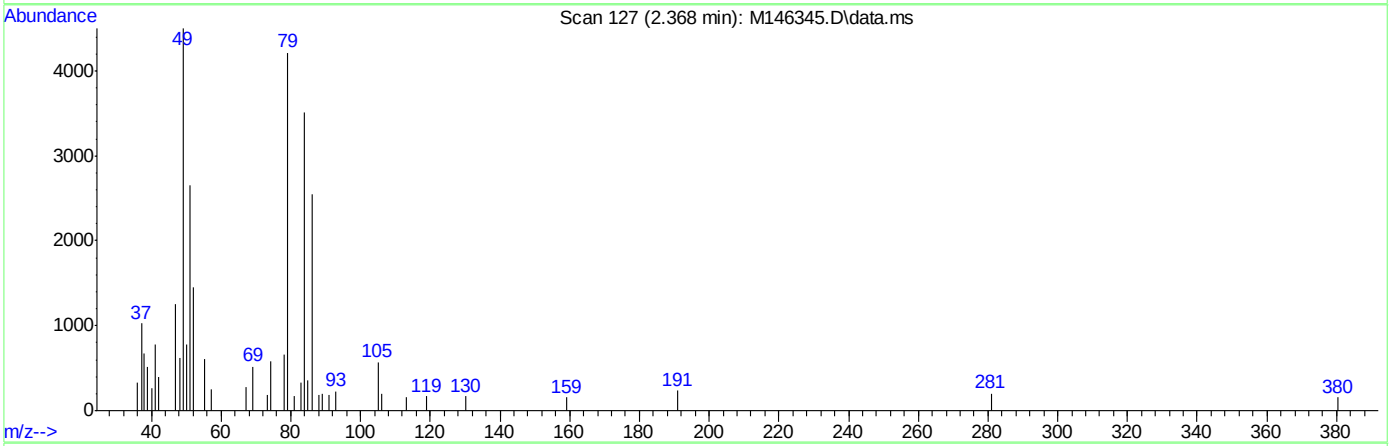
Ion	Exp%	Act%
79.15	100	100
52.15	52.00	35.72
50.15	21.00	10.98
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(3) Pyridine (t)

2.368min (-0.052) 1.93ppm m

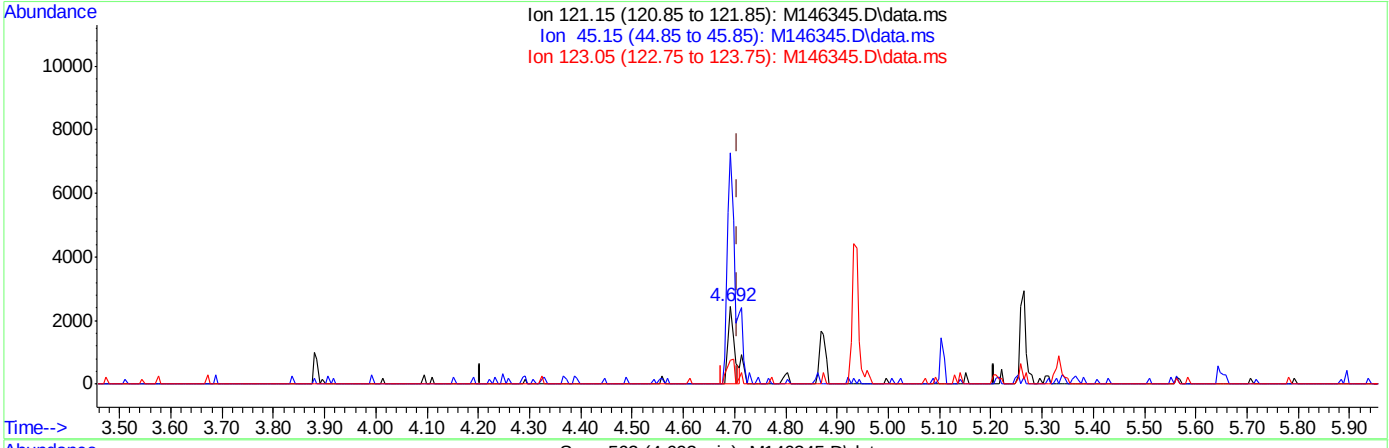
response 10698

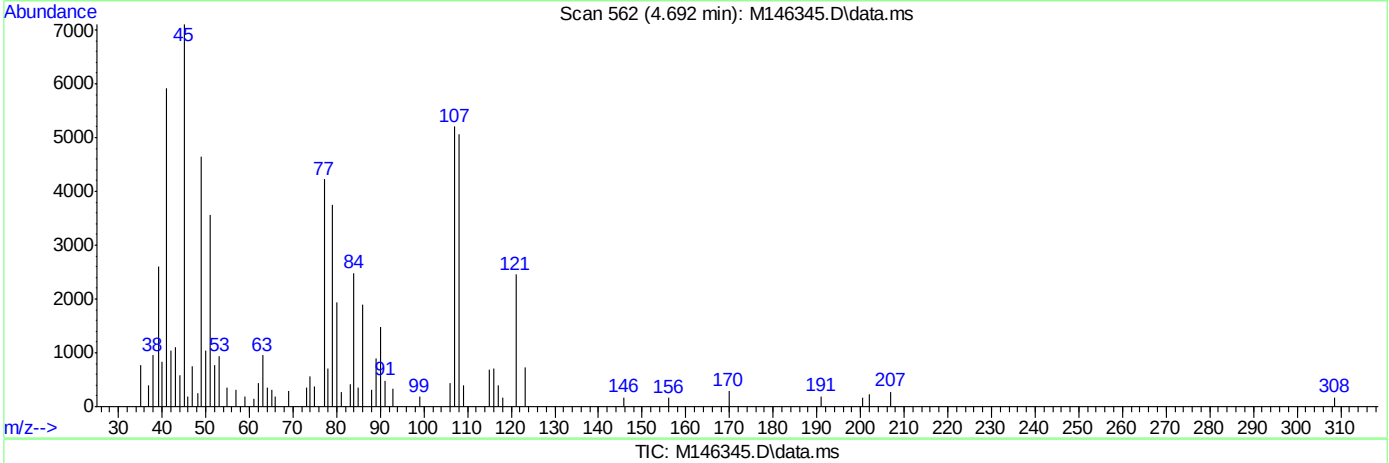
Ion	Exp%	Act%
79.15	100	100
52.15	52.00	34.39
50.15	21.00	18.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(20) 2,2'-oxybis(1-Chloropropane (t)

4.692min (-0.014) 1.82ppm

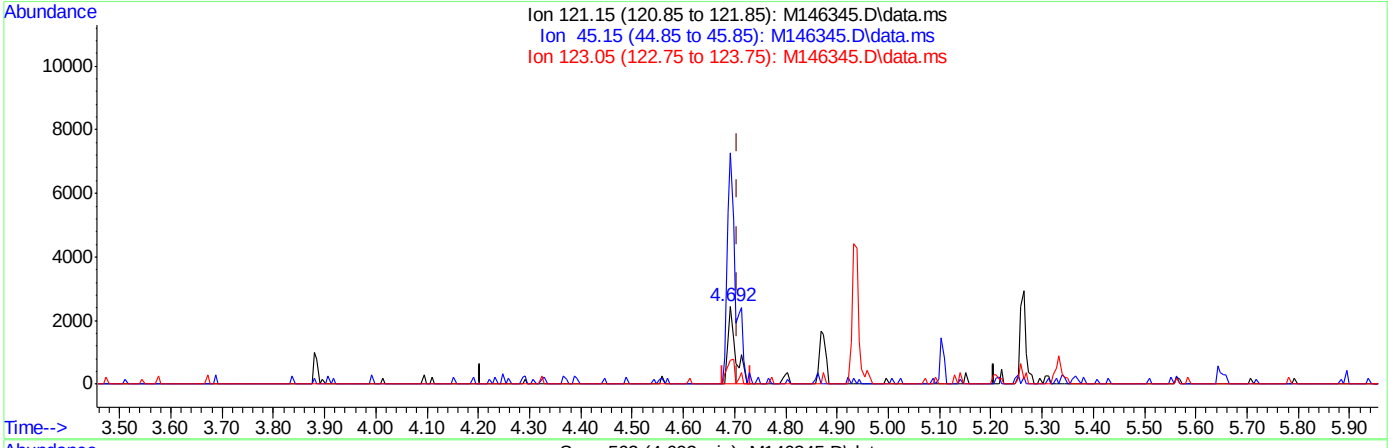
response 2060

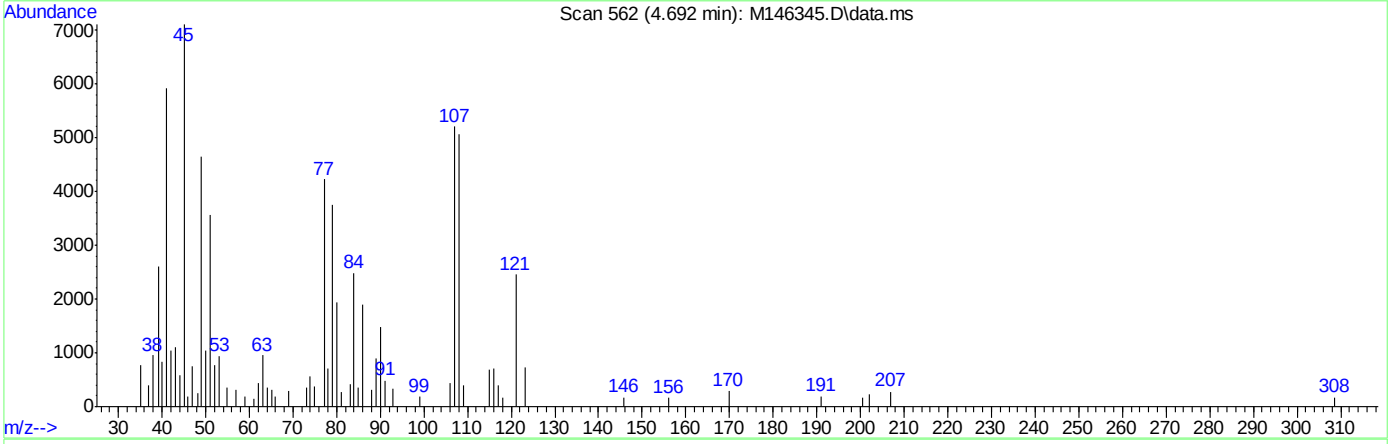
Ion	Exp%	Act%
121.15	100	100
45.15	285.20	281.40
123.05	32.30	29.61
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(20) 2,2'-oxybis(1-Chloropropane (t)

4.692min (-0.014) 2.24ppm m

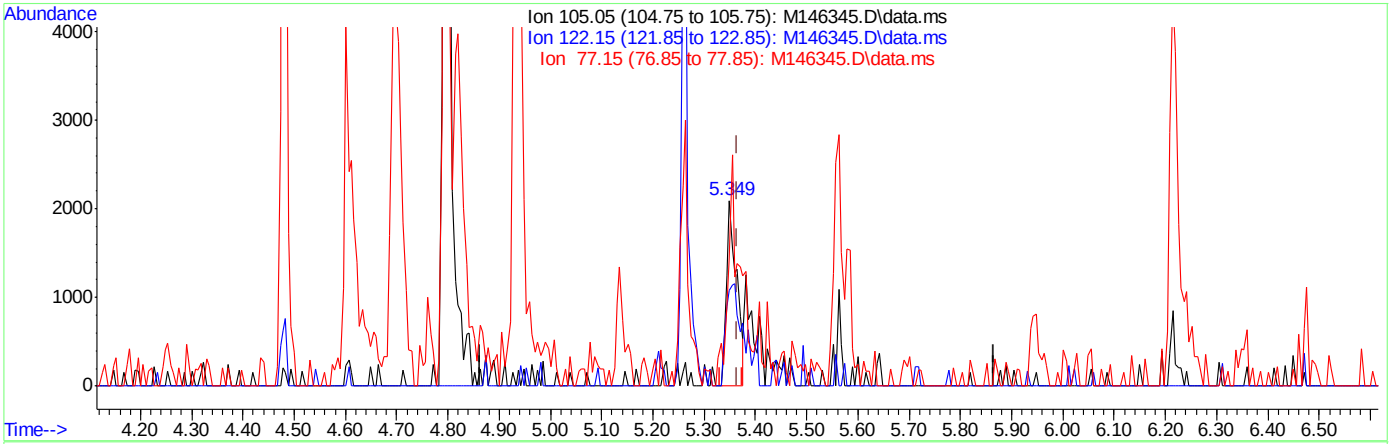
response 2543

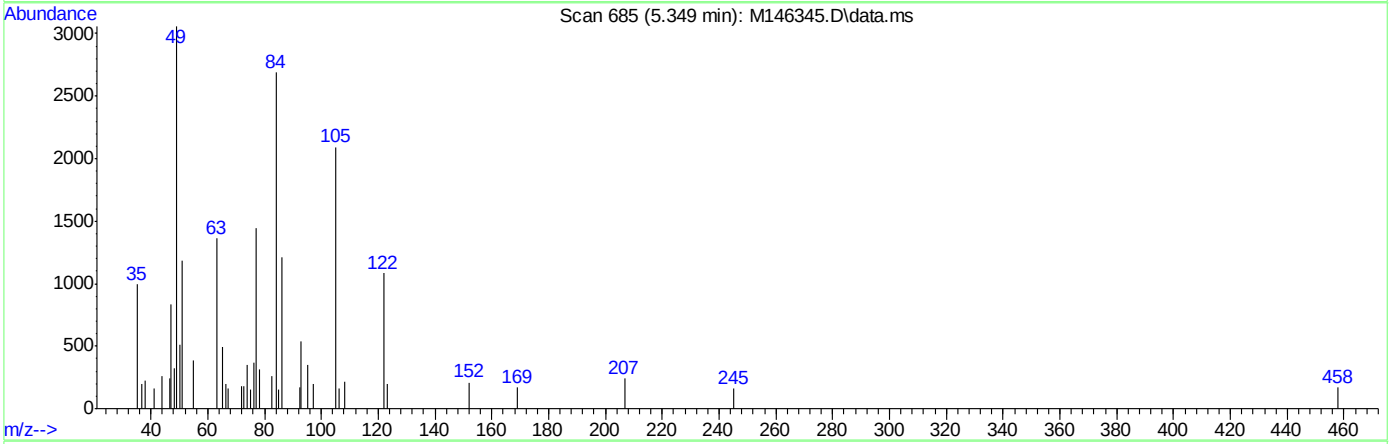
Ion	Exp%	Act%
121.15	100	100
45.15	285.20	289.68
123.05	32.30	30.14
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(31) Benzoic acid (t)

5.349min (-0.016) 3.41ppm

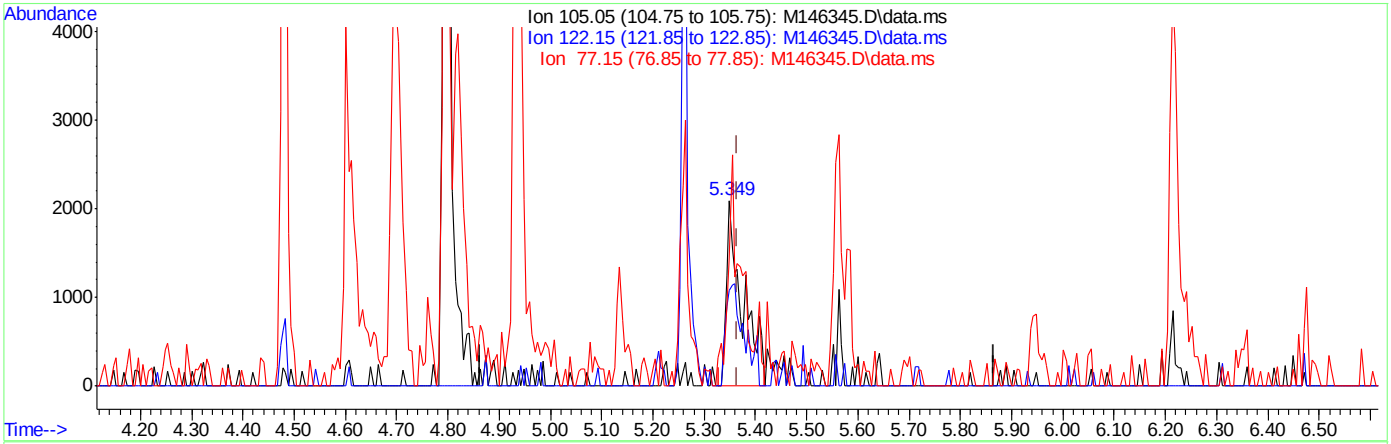
response 2941

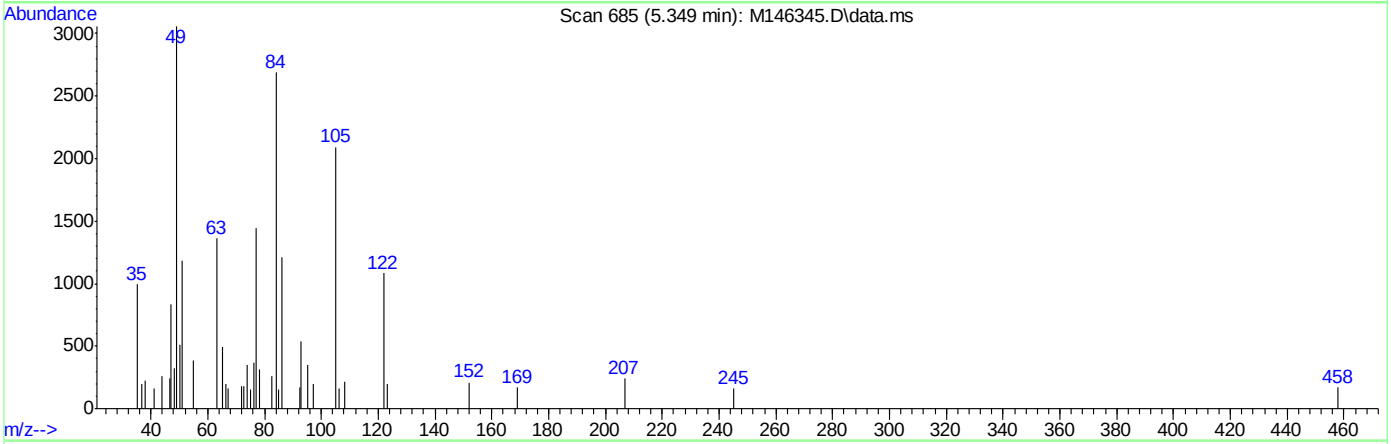
Ion	Exp%	Act%
105.05	100	100
122.15	82.10	39.78#
77.15	67.40	31.85#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(31) Benzoic acid (t)

5.349min (-0.016) 4.04ppm m

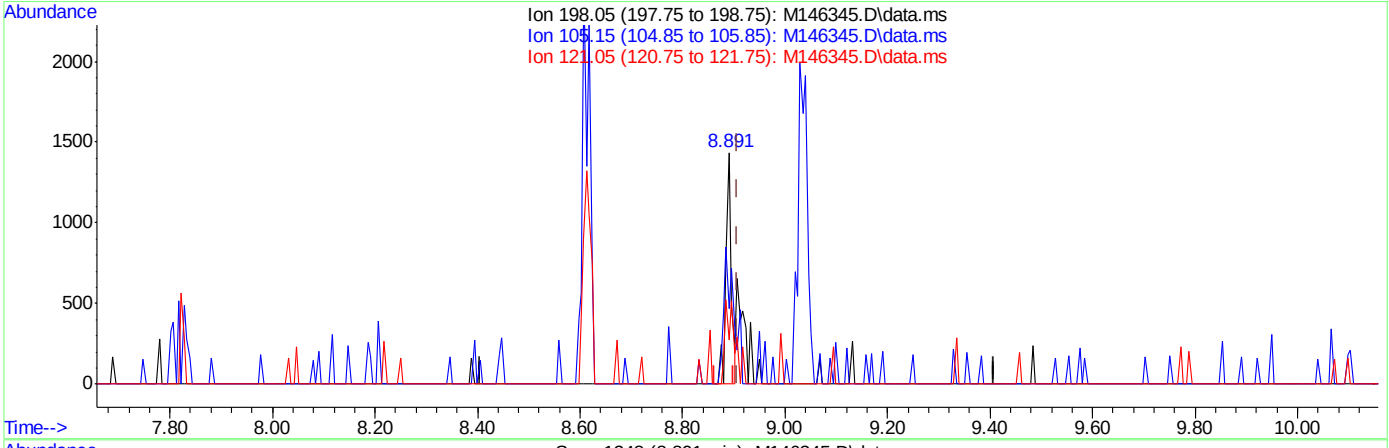
response 4567

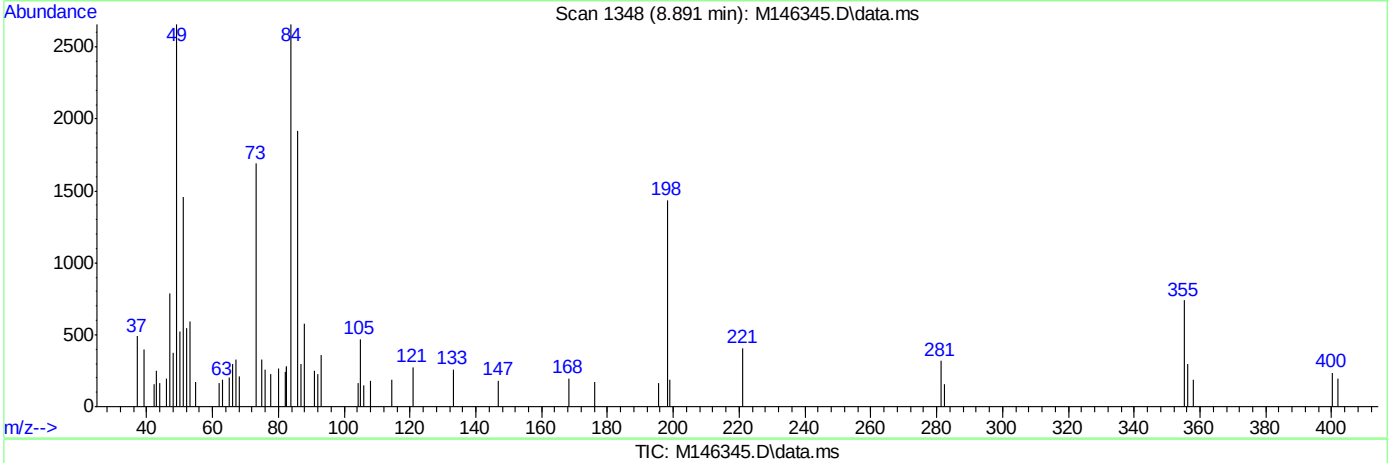
Ion	Exp%	Act%
105.05	100	100
122.15	82.10	51.74#
77.15	67.40	68.90
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(70) 4,6-Dinitro-2-methylphenol (t)

8.891min (-0.017) 3.42ppm

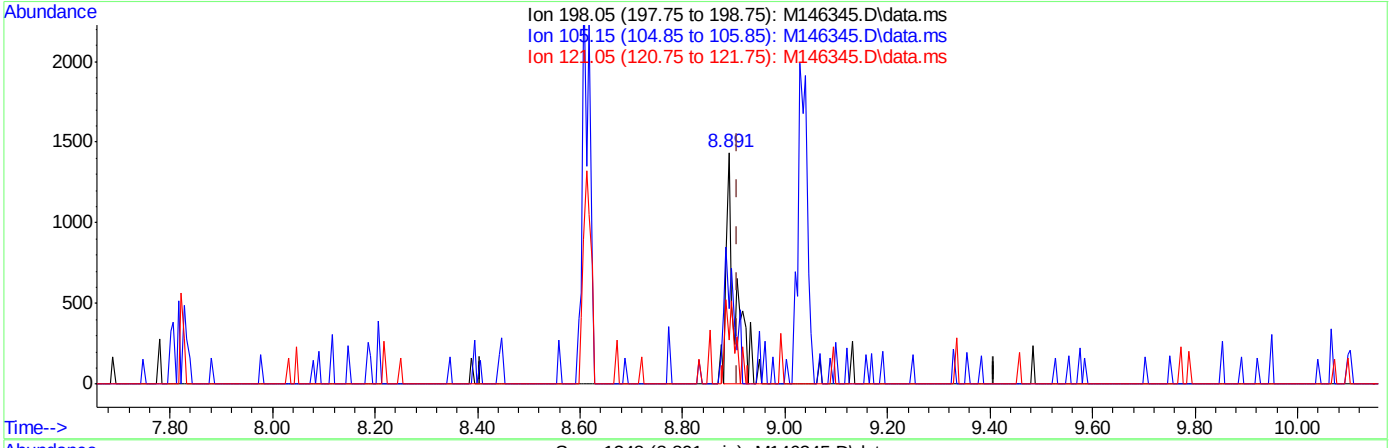
response 1018

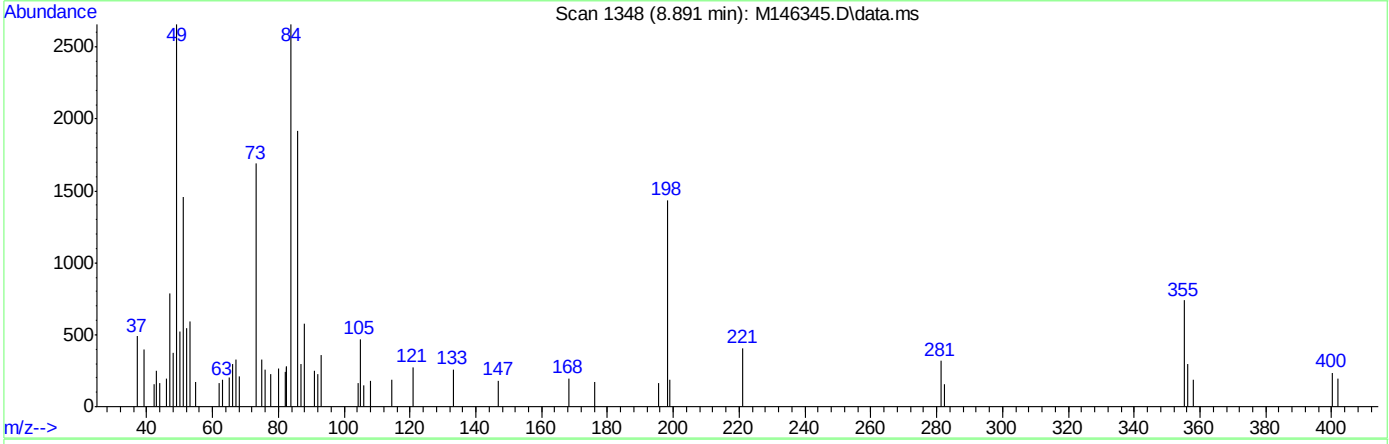
Ion	Exp%	Act%
198.05	100	100
105.15	40.90	22.25
121.05	34.60	13.66
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:33:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(70) 4,6-Dinitro-2-methylphenol (t)

8.891min (-0.017) 3.74ppm m

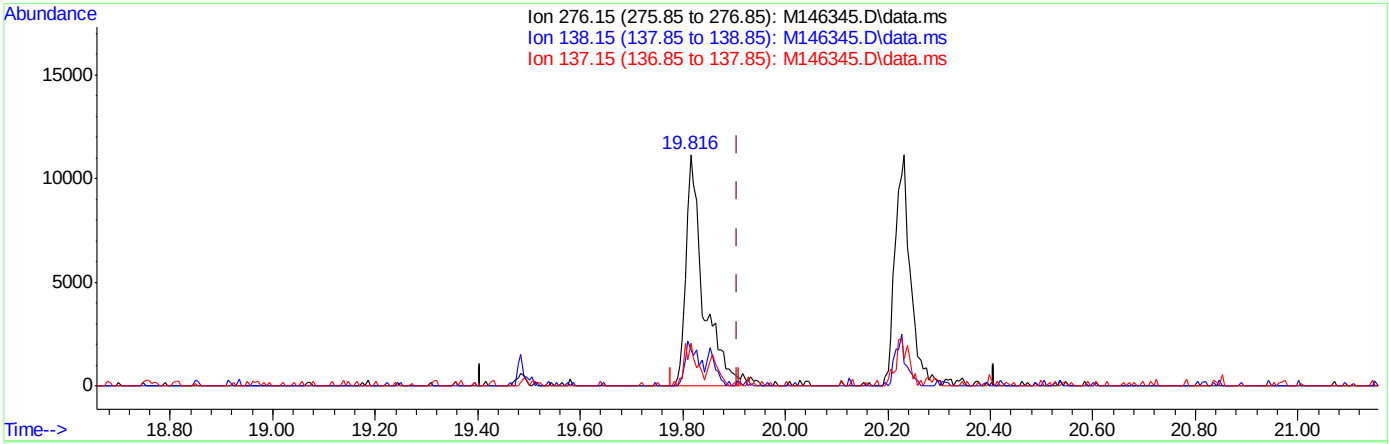
response 1534

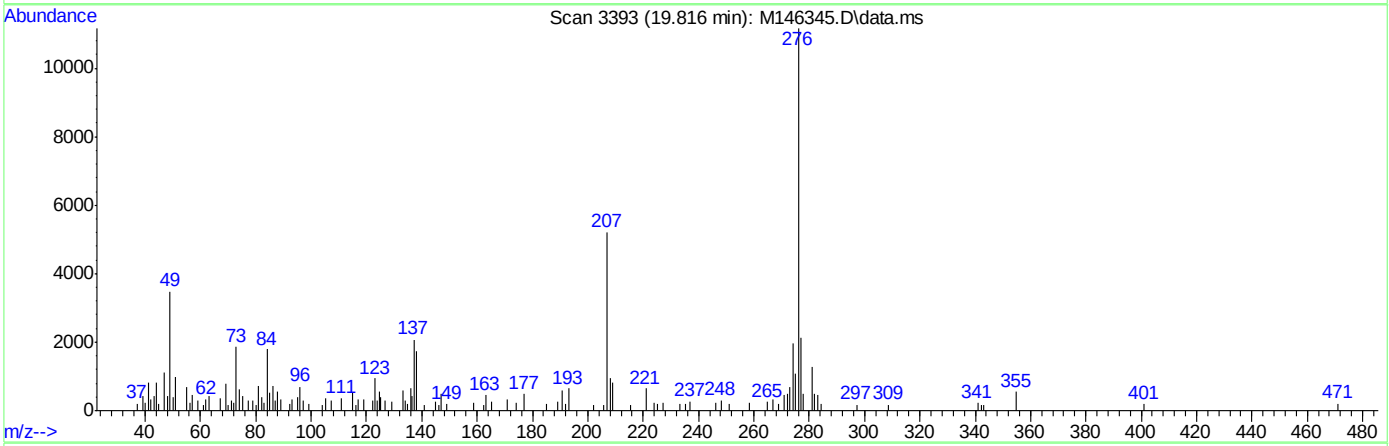
Ion	Exp%	Act%
198.05	100	100
105.15	40.90	32.66
121.05	34.60	19.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:34:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

19.816min (-0.091) 2.73ppm

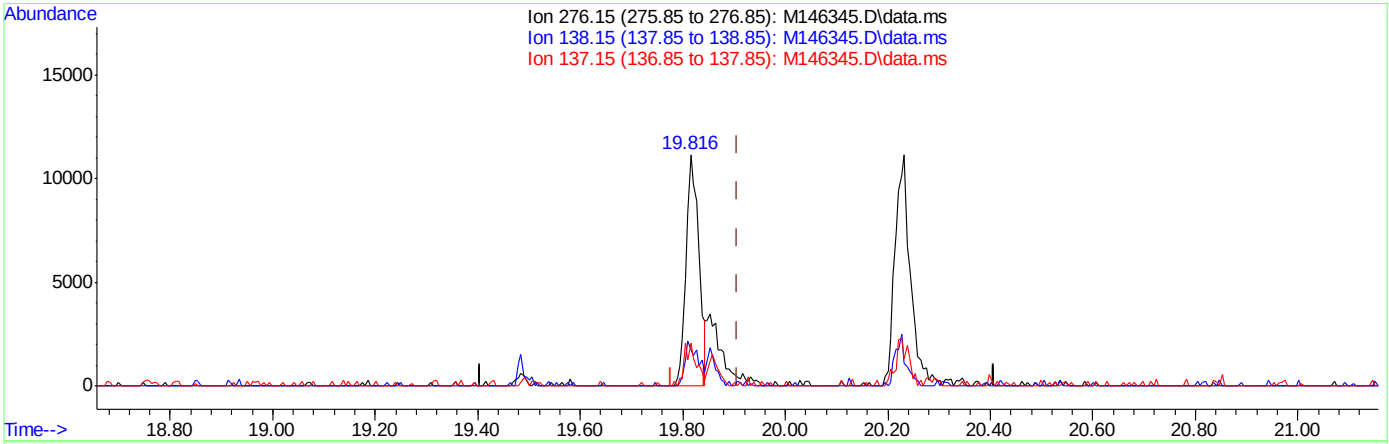
response 26098

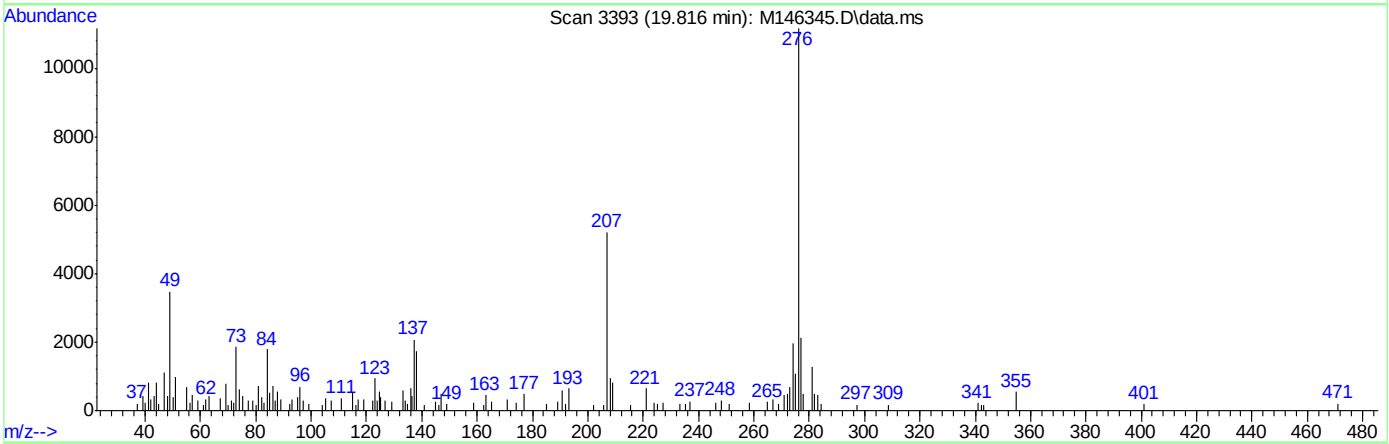
Ion	Exp%	Act%
276.15	100	100
138.15	22.40	15.14
137.15	15.70	18.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:34:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

19.816min (-0.091) 2.01ppm m

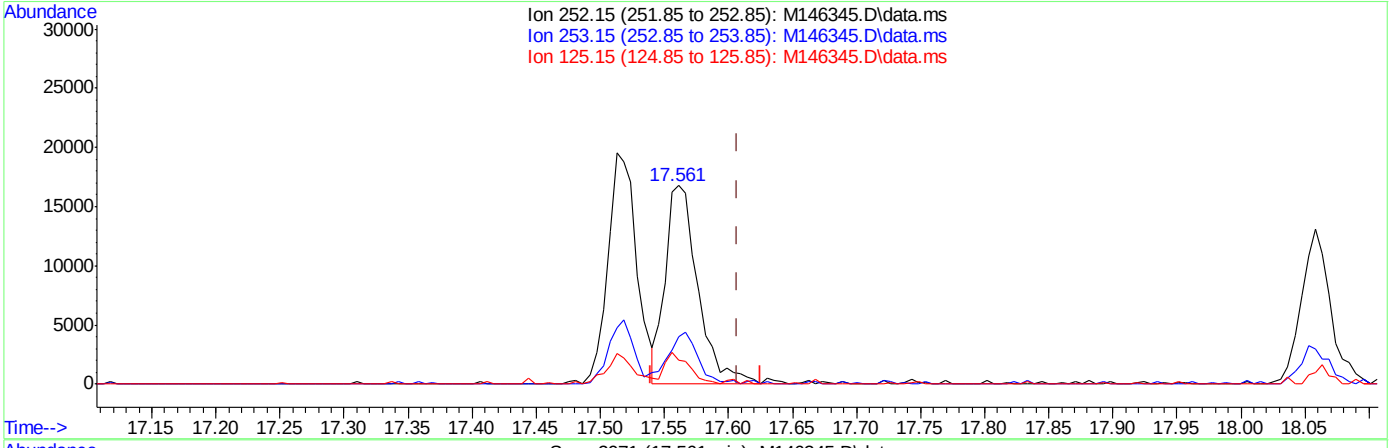
response 19238

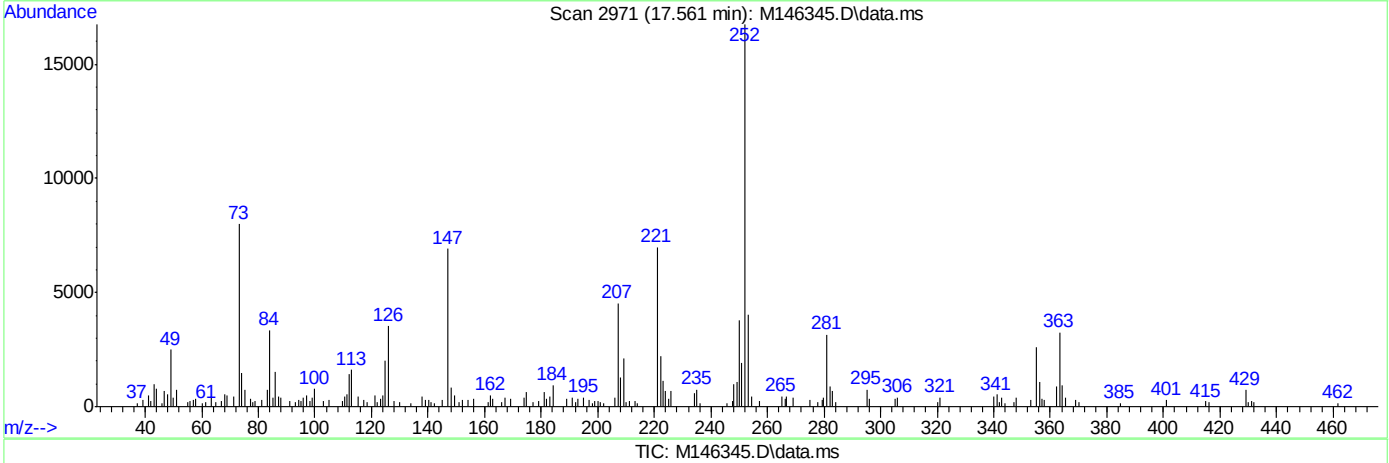
Ion	Exp%	Act%
276.15	100	100
138.15	22.40	15.66
137.15	15.70	18.51
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:42:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(93) Benzo[b]fluoranthene (t)

17.561min (-0.046) 2.56ppm

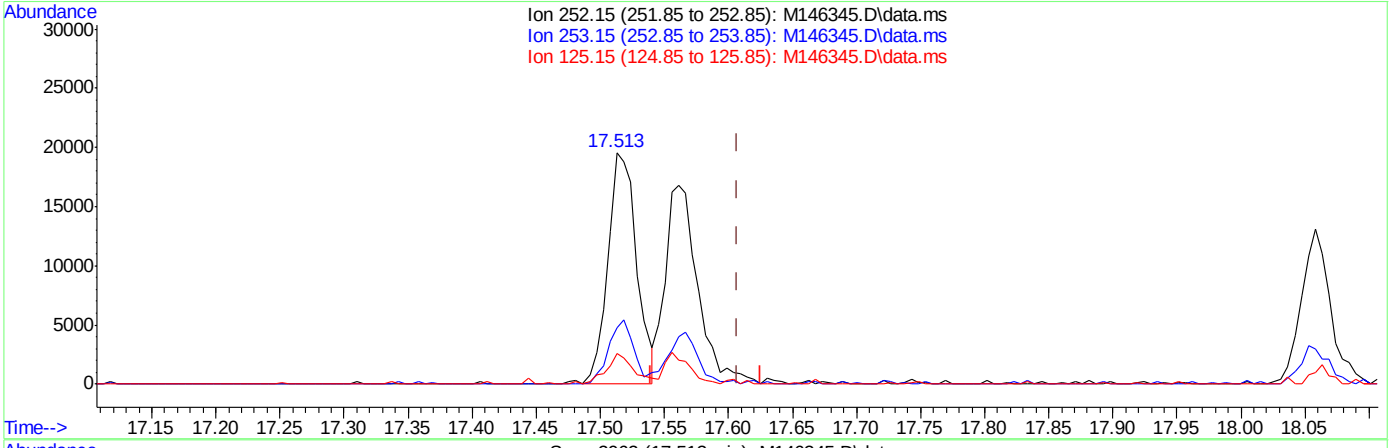
response 30091

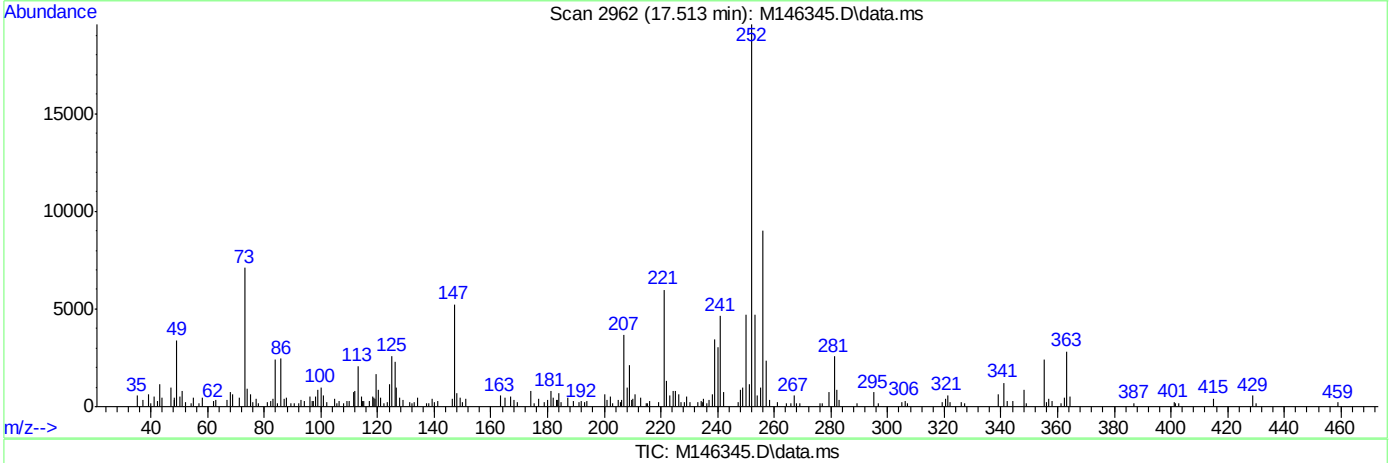
Ion	Exp%	Act%
252.15	100	100
253.15	22.10	23.21
125.15	11.00	11.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\EM6221\
Data File : M146345.D
Acq On : 24 May 2018 12:57 pm
Operator : seanb1
Sample : ic6221-2
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 19:42:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 07:55:35 2018
Response via : Initial Calibration





TIC: M146345.D\data.ms

(93) Benzo[b]fluoranthene (t)

17.513min (-0.094) 2.61ppm m

response 30672

Ion	Exp%	Act%
252.15	100	100
253.15	22.10	24.18
125.15	11.00	13.30
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
05/25/18 18:23

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.482	152	127777	40.00	ppm		-0.02
24) Naphthalene-d8	5.561	136	472631	40.00	ppm		-0.02
47) Acenaphthene-d10	7.816	164	266028	40.00	ppm		-0.03
69) Phenanthrene-d10	10.396	188	520491	40.00	ppm		-0.04
83) Chrysene-d12	15.540	240	551154	40.00	ppm		-0.06
91) Perylene-d12	18.163	264	560812	40.00	ppm		-0.07
101) 1,4-Dichlorobenzene-d4a	4.482	152	127777	40.00	ppm		-0.02
103) Acenaphthene-d10a	7.816	164	266028	40.00	ppm		-0.03
106) Chrysene-d12a	15.540	240	551154	40.00	ppm		-0.06
109) Phenanthrene-d10a	10.396	188	520491	40.00	ppm		-0.04
112) Naphthalene-d8a	5.561	136	472631	40.00	ppm		-0.02
114) Chrysene-d12b	15.540	240	551154	40.00	ppm		-0.06
System Monitoring Compounds							
5) 2-Fluorophenol	3.520	112	2548	0.53	ppm		-0.01
Spiked Amount 50.000			Recovery =	1.06%			
8) Phenol-d5	4.252	99	4338	0.76	ppm		0.02
Spiked Amount 50.000			Recovery =	1.52%			
25) Nitrobenzene-d5	4.920	82	5614	1.22	ppm		0.00
Spiked Amount 50.000			Recovery =	2.44%			
51) 2-Fluorobiphenyl	6.838	172	10749	1.04	ppm		0.02
Spiked Amount 50.000			Recovery =	2.08%			
73) 2,4,6-Tribromophenol	9.151	330	1088	0.75	ppm		-0.05
Spiked Amount 50.000			Recovery =	1.50%			
85) Terphenyl-d14	13.558	244	12141	0.92	ppm		-0.10
Spiked Amount 50.000			Recovery =	1.84%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.971	88	2359	1.04	ppm		67
3) Pyridine	2.393	79	4248m	0.75	ppm		
4) N-Nitrosodimethylamine	2.313	42	2505m	1.36	ppm		
6) Indene	4.680	116	7915	1.23	ppm		95
7) Cumene	3.884	105	13761	1.25	ppm		85
9) Phenol	4.258	94	7728	1.23	ppm	#	46
10) Aniline	4.247	93	7377	1.12	ppm		83
11) bis(2-Chloroethyl)ether	4.295	93	3741	0.91	ppm		82
12) 2-Chlorophenol	4.343	128	3678	0.81	ppm		74
13) Decane	4.364	43	4867	1.66	ppm	#	78
14) 1,3-Dichlorobenzene	4.439	146	4892	0.92	ppm		74
15) 1,4-Dichlorobenzene	4.493	146	5151	1.03	ppm		89
16) Benzyl alcohol	4.610	108	1393	0.50	ppm	#	35
17) 1,2-Dichlorobenzene	4.610	146	4629	0.99	ppm		84
18) Acetophenone	4.797	105	6772	1.28	ppm		72
19) 2-Methylphenol	4.696	108	3531	0.96	ppm		69
20) 2,2'-oxybis(1-Chloropr...	4.690	121	1298	1.12	ppm	#	49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.824	108	3823	1.04	ppm	#	43
22) n-Nitroso-di-n-propyla...	4.797	70	3113	1.20	ppm		73
23) Hexachloroethane	4.872	201	1876	1.12	ppm	#	66
26) Nitrobenzene	4.936	77	6246	1.46	ppm		69
27) Quinoline	5.946	129	7295	0.83	ppm		86
28) Isophorone	5.134	82	8523	1.07	ppm		82
29) 2-Nitrophenol	5.214	139	1692	0.77	ppm	#	1
30) 2,4-Dimethylphenol	5.262	107	3555	0.94	ppm		90
31) Benzoic acid	5.363	105	1838	2.97	ppm	#	48
32) bis(2-Chloroethoxy)met...	5.331	93	5101	1.15	ppm		95
33) 2,4-Dichlorophenol	5.454	162	3293	0.98	ppm		95
34) 2,6-Dichlorophenol	5.663	162	2632	0.79	ppm		100
35) 1,3,5-Trichlorobenzene	5.219	180	4433	1.01	ppm		98
36) 1,2,4-Trichlorobenzene	5.513	180	4663	1.05	ppm		98
37) 1,2,3-Trichlorobenzene	5.737	180	4530	1.14	ppm		93
38) Naphthalene	5.582	128	13279	1.07	ppm		87
39) 4-Chloroaniline	5.657	127	4881	0.92	ppm		78
40) 2,3-Dichloroaniline	6.726	161	4933	1.06	ppm		90
42) Hexachlorobutadiene	5.716	225	2575	1.17	ppm		81
43) 4-Chloro-3-methylphenol	6.218	107	3378	0.91	ppm		71
44) 2-Methylnaphthalene	6.357	141	7540	1.01	ppm		80
45) 1-Methylnaphthalene	6.480	142	8293	0.92	ppm	#	64
46) Dimethylnaphthalene	7.201	156	7999	1.01	ppm		91
48) Hexachlorocyclopentadiene	6.565	237	1269	0.64	ppm		92
49) 2,4,6-Trichlorophenol	6.742	196	2632	1.07	ppm		100
50) 2,4,5-Trichlorophenol	6.811	196	2388	0.88	ppm		100
52) 2-Chloronaphthalene	6.993	162	8276	0.99	ppm		83
53) Biphenyl	6.977	154	11398	1.06	ppm		90
54) 2-Nitroaniline	7.164	65	2208	1.19	ppm	#	37
55) Dimethylphthalate	7.447	163	8226	0.87	ppm		90
56) Acenaphthylene	7.596	152	11890	0.92	ppm		93
57) 2,6-Dinitrotoluene	7.532	165	879m	0.50	ppm		
58) 3-Nitroaniline	7.810	138	1177	0.54	ppm	#	1
59) Acenaphthene	7.869	153	8656	1.06	ppm		90
62) Dibenzofuran	8.152	168	11292	0.95	ppm		66
63) 2,4-Dinitrotoluene	8.189	165	1224	1.20	ppm		71
64) 2,3,4,6-Tetrachlorophenol	8.398	232	1577	0.74	ppm		71
65) Diethylphthalate	8.617	149	8349	0.90	ppm		85
66) Fluorene	8.724	166	9332	0.98	ppm		98
67) 4-Chlorophenyl-phenyle...	8.761	204	4868	1.08	ppm		75
71) n-Nitrosodiphenylamine	8.975	169	5980	0.86	ppm		94
72) 1,2-Diphenylhydrazine	9.034	77	8214	0.88	ppm		94
74) 4-Bromophenyl-phenylether	9.616	248	2649	0.92	ppm		97
75) Hexachlorobenzene	9.712	284	4062	1.12	ppm		88
76) Pentachlorophenol	10.107	266	1440	0.74	ppm	#	56
77) Phenanthrene	10.438	178	14676	1.03	ppm		86
78) Anthracene	10.540	178	11310	0.79	ppm		92
79) Carbazole	10.893	167	11069	0.76	ppm		83
80) Di-n-butylphthalate	11.699	149	9670	0.62	ppm		83
81) Fluoranthene	12.720	202	12884	0.81	ppm		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration

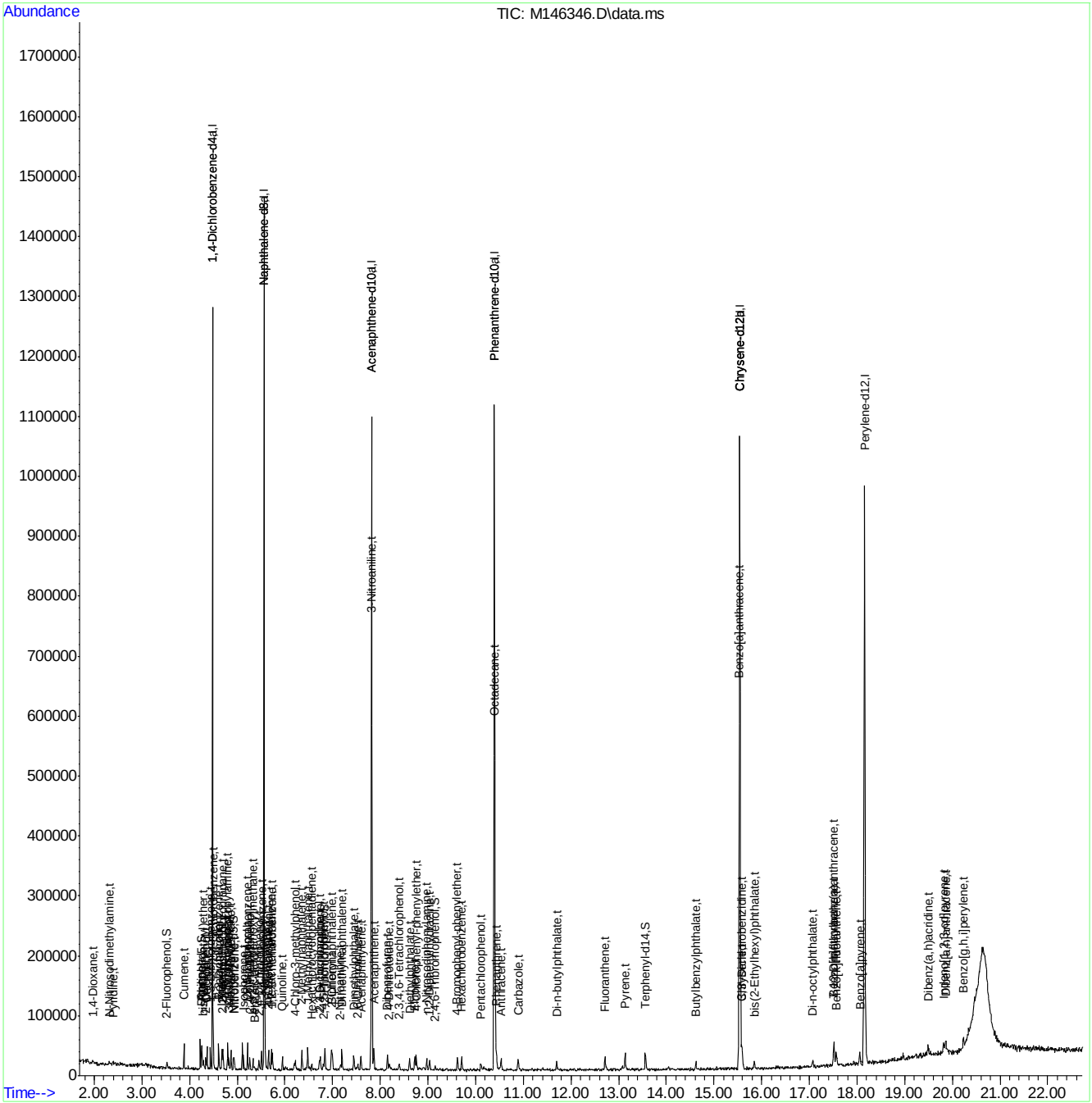
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Octadecane	10.406	57	4969	1.22	ppm		83
84) Pyrene	13.136	202	14517	0.74	ppm		94
86) Butylbenzylphthalate	14.621	149	3276	0.40	ppm	#	67
87) Benzo[a]anthracene	15.530	228	14827	0.92	ppm		98
88) 3,3'-Dichlorobenzidine	15.578	252	2872	1.20	ppm	#	56
89) Chrysene	15.588	228	15658	1.01	ppm		89
90) bis(2-Ethylhexyl)phtha...	15.850	149	3789	1.34	ppm		92
92) Di-n-octylphthalate	17.068	149	5852	1.79	ppm		94
93) Benzo[b]fluoranthene	17.517	252	13896	0.86	ppm		88
94) Benzo[k]fluoranthene	17.570	252	13998	0.92	ppm		86
95) Benzo[a]pyrene	18.062	252	10962	0.80	ppm		90
96) Indeno[1,2,3-cd]pyrene	19.819	276	10969m	0.84	ppm		
97) Dibenz(a,h)acridine	19.488	279	9511	0.76	ppm		68
98) Dibenz[a,h]anthracene	19.862	278	11703	0.84	ppm		94
99) 7,12-Dimethylbenz(a)an...	17.511	256	3769	0.59	ppm		84
100) Benzo[g,h,i]perylene	20.225	276	11319	0.82	ppm		83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration



Manual Integration Approval Summary

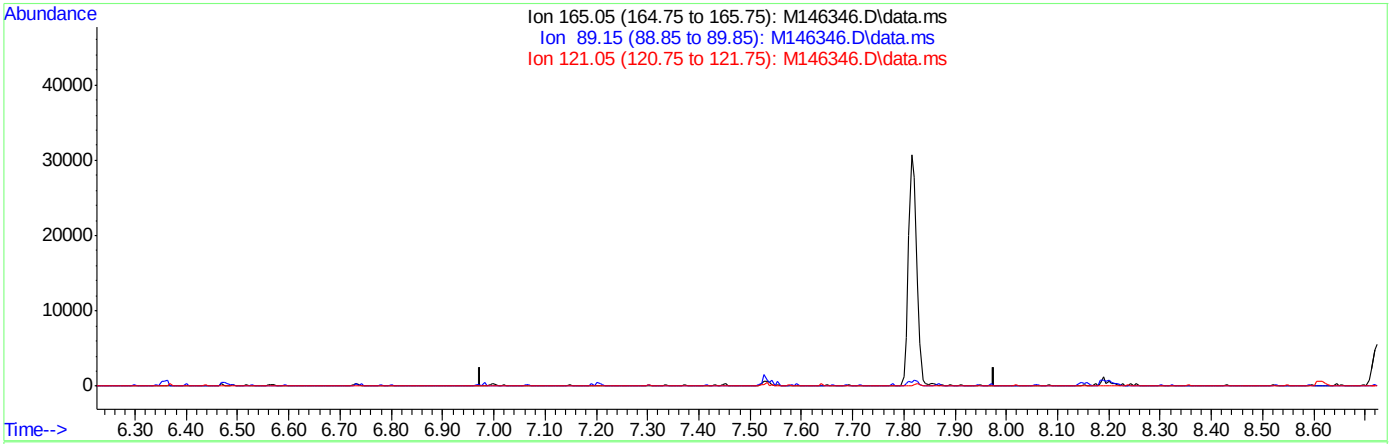
Sample Number:	EM6221-IC6221	**Method:**	SW846 8270D
Lab FileID:	M146346.D	**Analyst approved:**	05/25/18 13:03 Sean Block
Injection Time:	05/24/18 13:27	**Supervisor approved:**	05/25/18 18:23 Nina Pandya

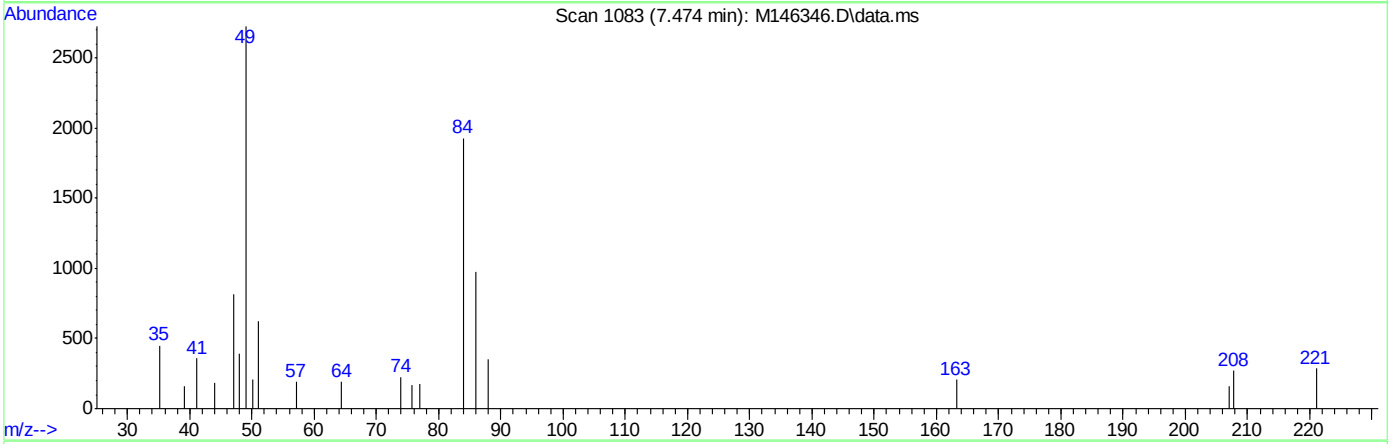
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Nitrosodimethylamine	62-75-9		2.31	Split peak
Pyridine	110-86-1		2.39	Split peak
2,6-Dinitrotoluene	606-20-2		7.53	Split peak
Indeno(1,2,3-cd)pyrene	193-39-5		19.82	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:36:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(57) 2,6-Dinitrotoluene (t)

7.476min (-7.476) 0.00ppm

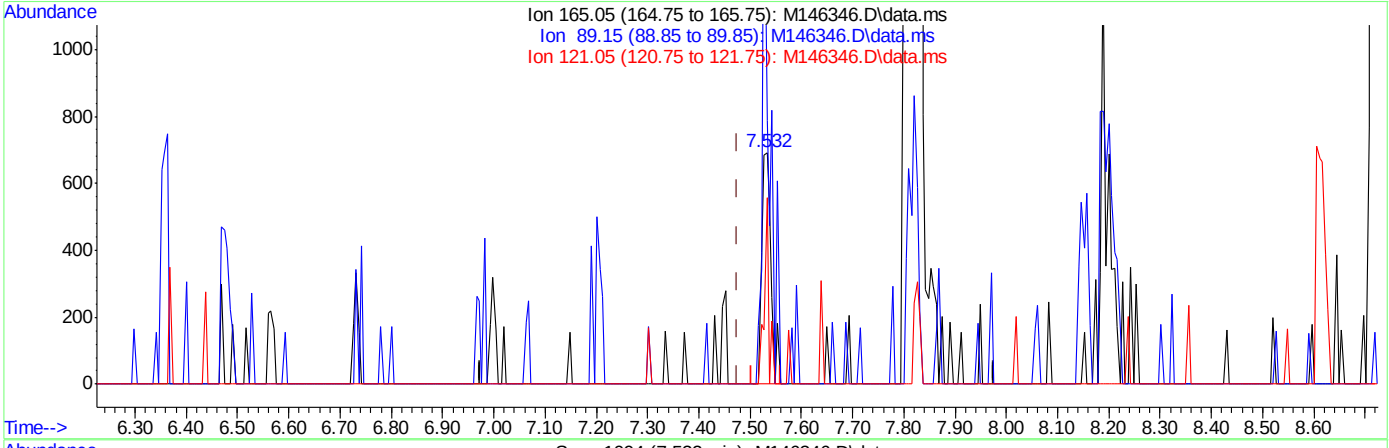
response 0

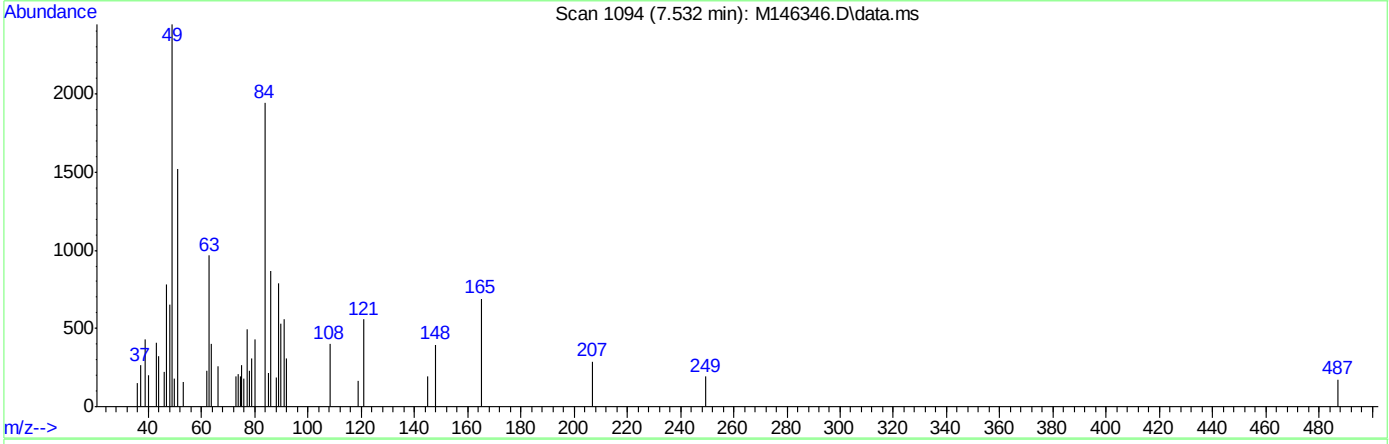
Ion	Exp%	Act%
165.05	100	0.00
89.15	53.60	0.00#
121.05	18.60	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:36:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(57) 2,6-Dinitrotoluene (t)

7.532min (+0.057) 0.50ppm m

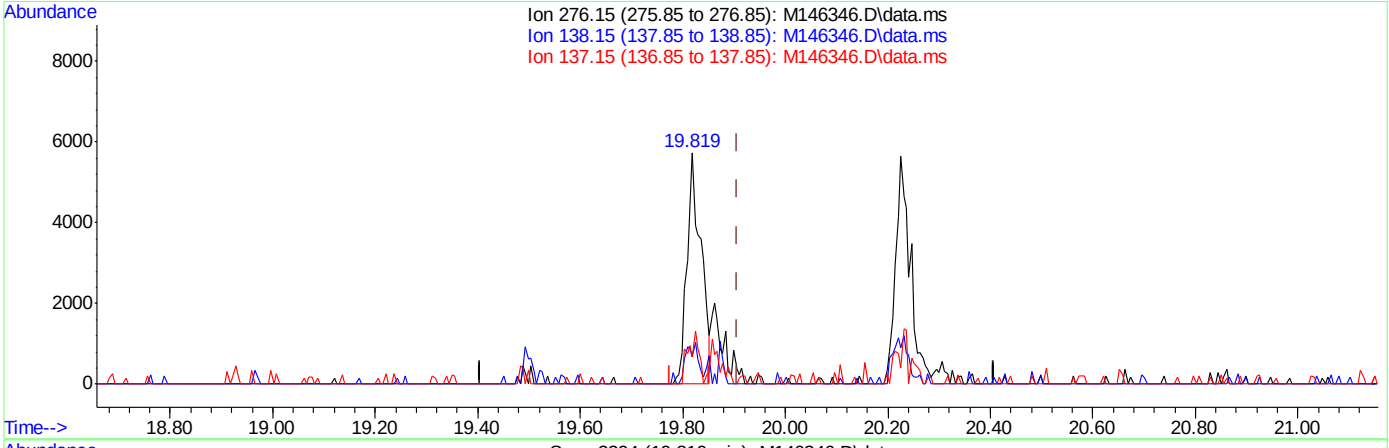
response 879

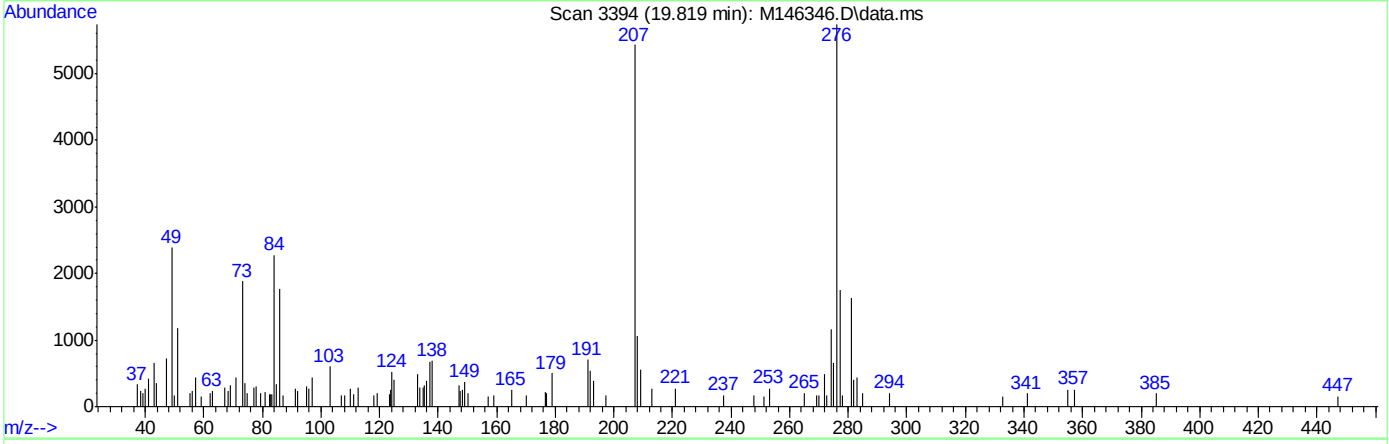
Ion	Exp%	Act%
165.05	100	100
89.15	53.60	113.87#
121.05	18.60	80.64#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:36:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

19.819min (-0.088) 0.84ppm

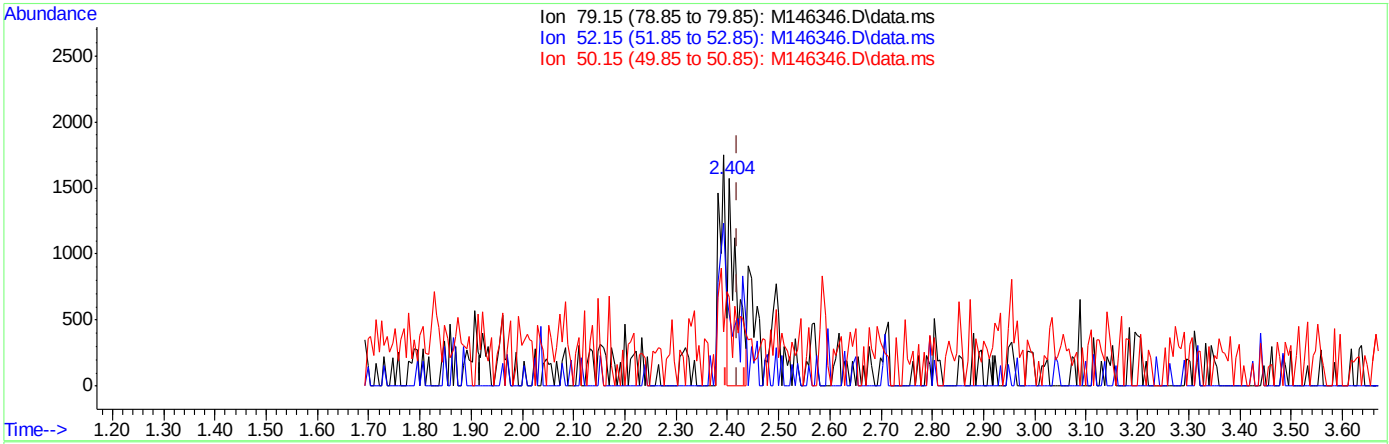
response 10969

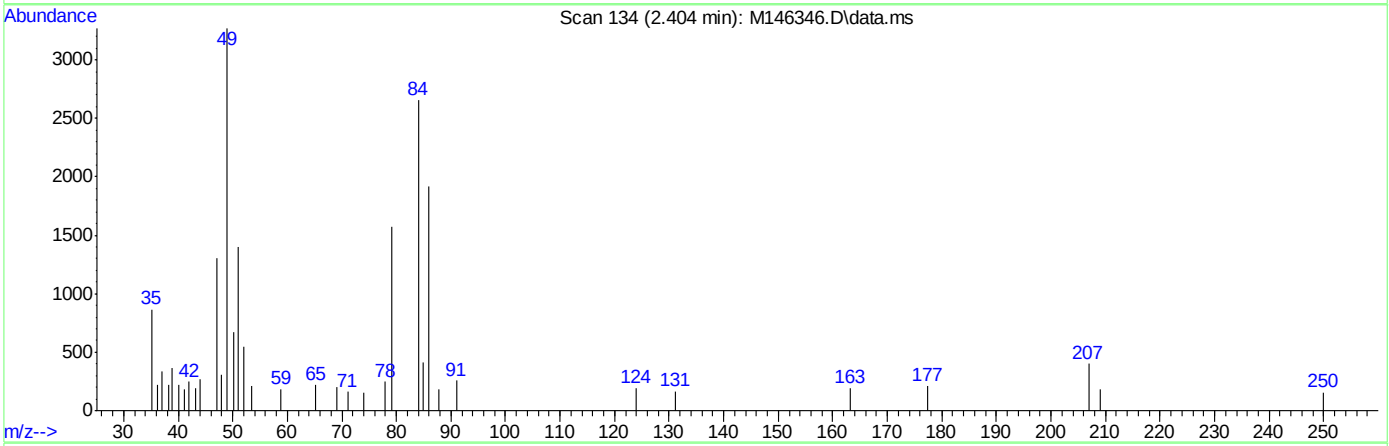
Ion	Exp%	Act%
276.15	100	100
138.15	22.40	6.55
137.15	15.70	10.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:36:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(3) Pyridine (t)

2.404min (-0.016) 0.30ppm

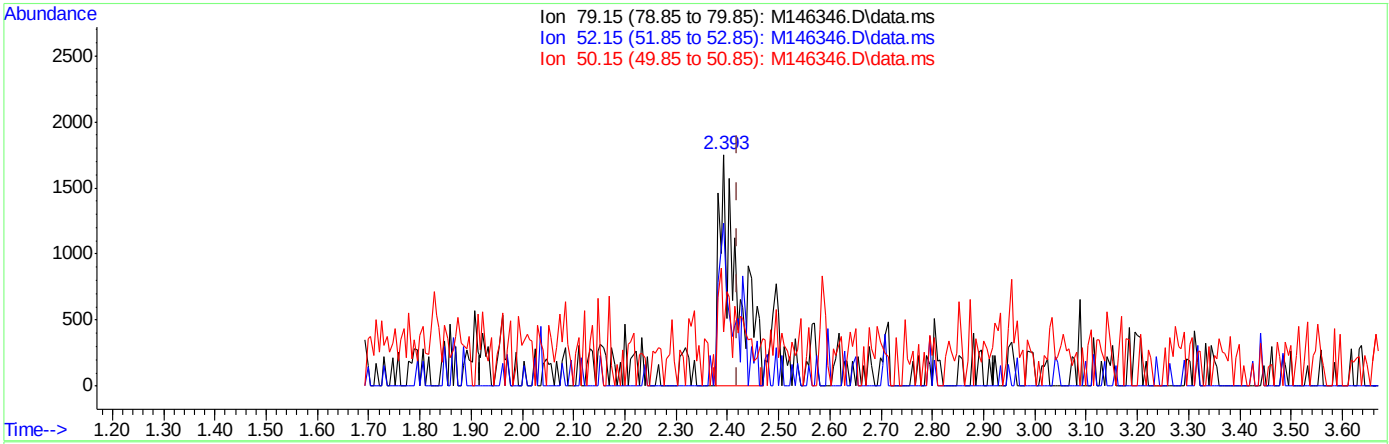
response 1701

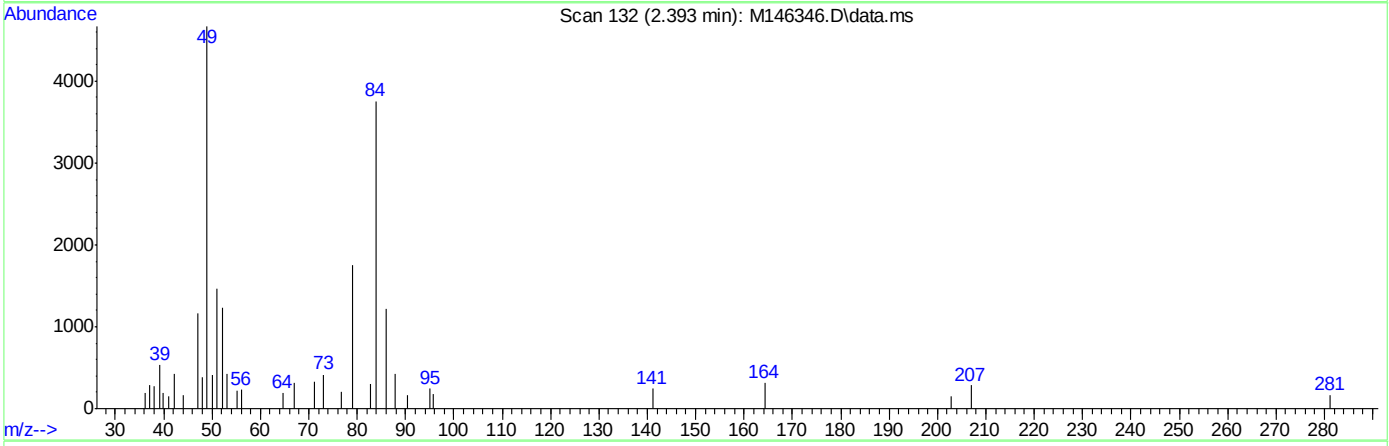
Ion	Exp%	Act%
79.15	100	100
52.15	52.00	0.00#
50.15	21.00	10.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:36:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(3) Pyridine (t)

2.393min (-0.027) 0.75ppm m

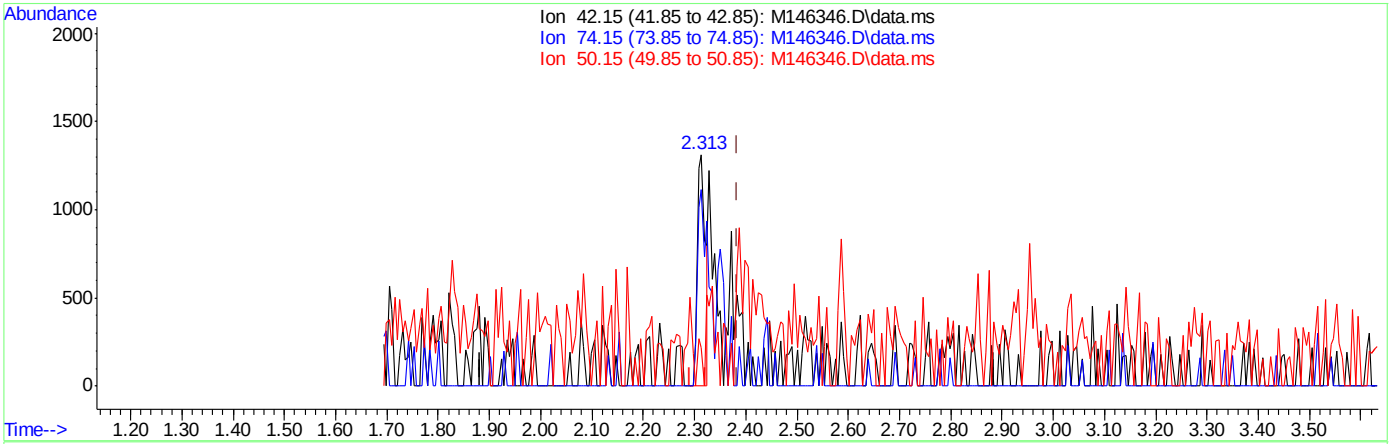
response 4248

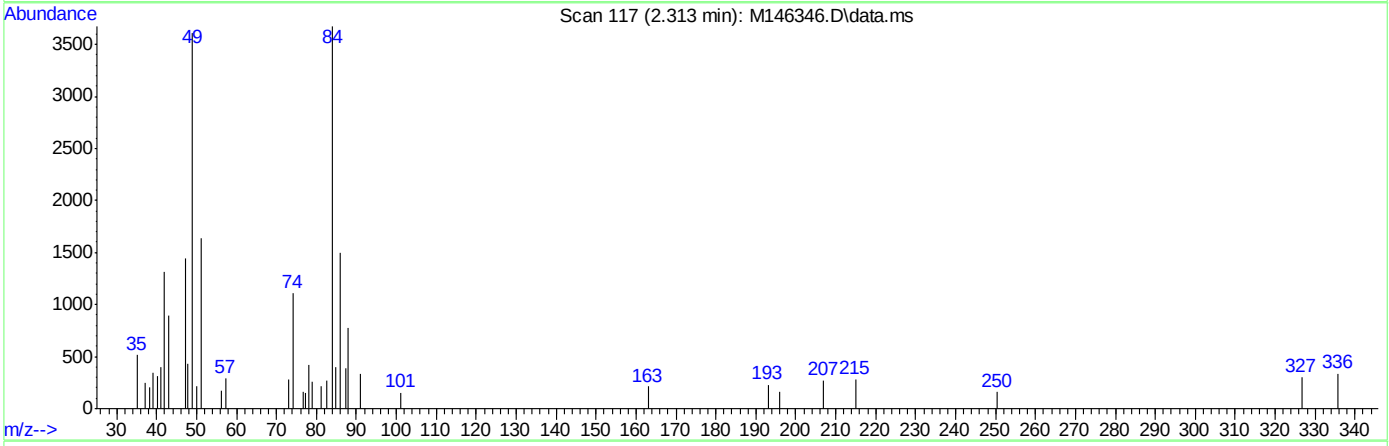
Ion	Exp%	Act%
79.15	100	100
52.15	52.00	70.45
50.15	21.00	23.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:36:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(4) N-Nitrosodimethylamine (t)

2.313min (-0.071) 0.77ppm

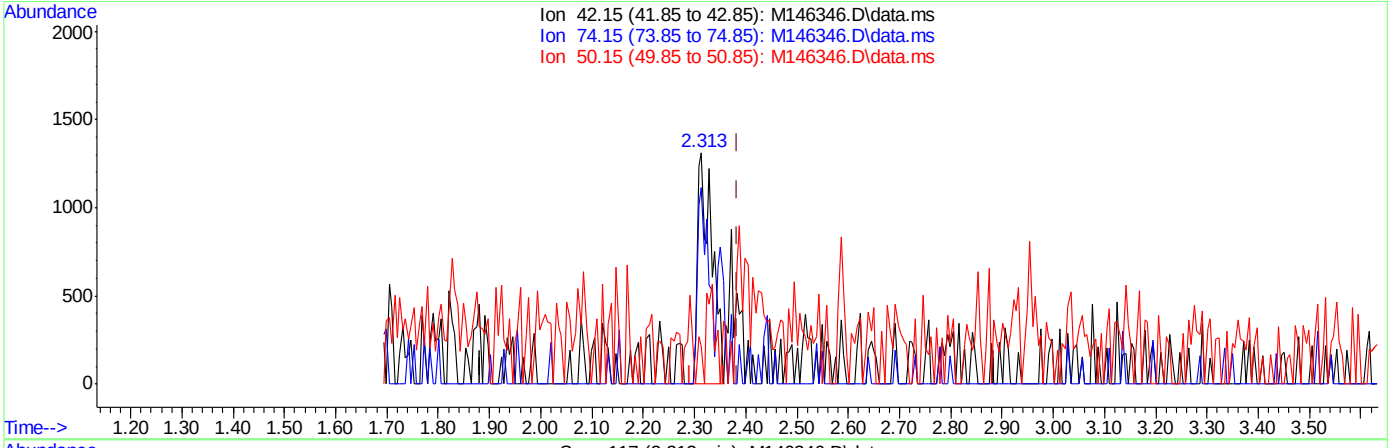
response 1415

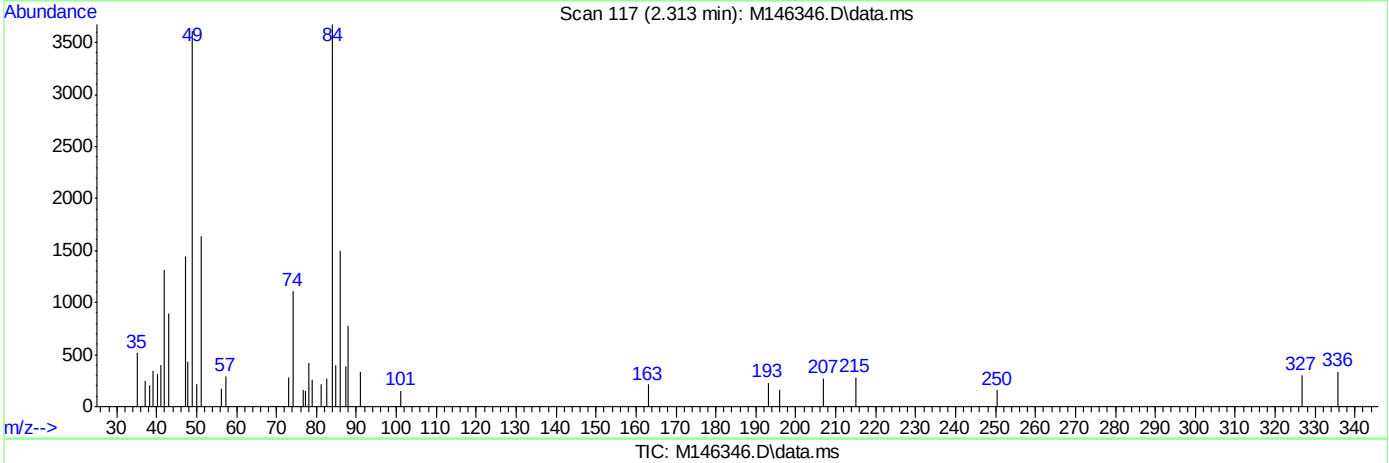
Ion	Exp%	Act%
42.15	100	100
74.15	172.70	70.31#
50.15	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:36:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(4) N-Nitrosodimethylamine (t)

2.313min (-0.071) 1.36ppm m

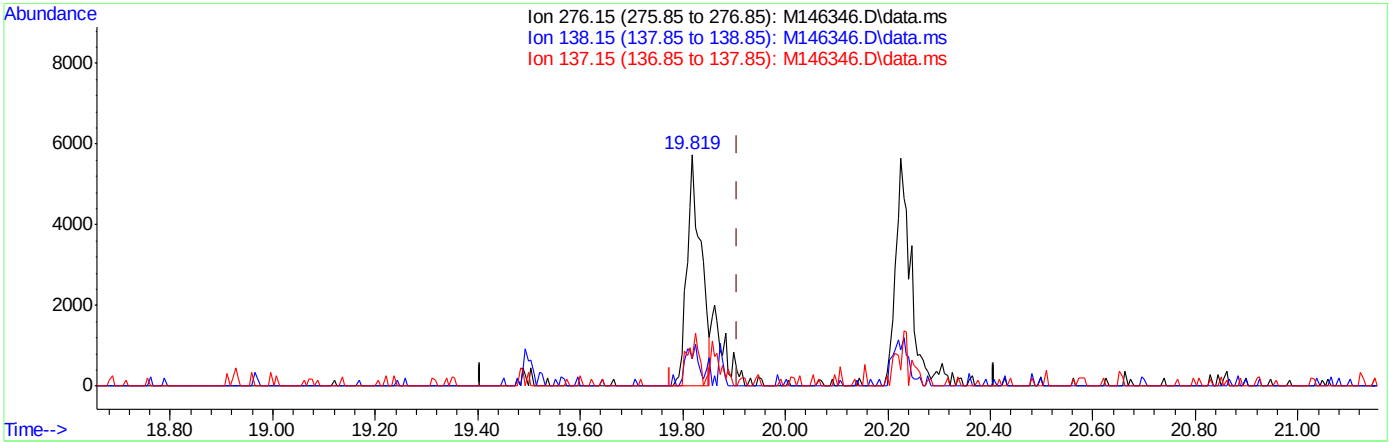
response 2505

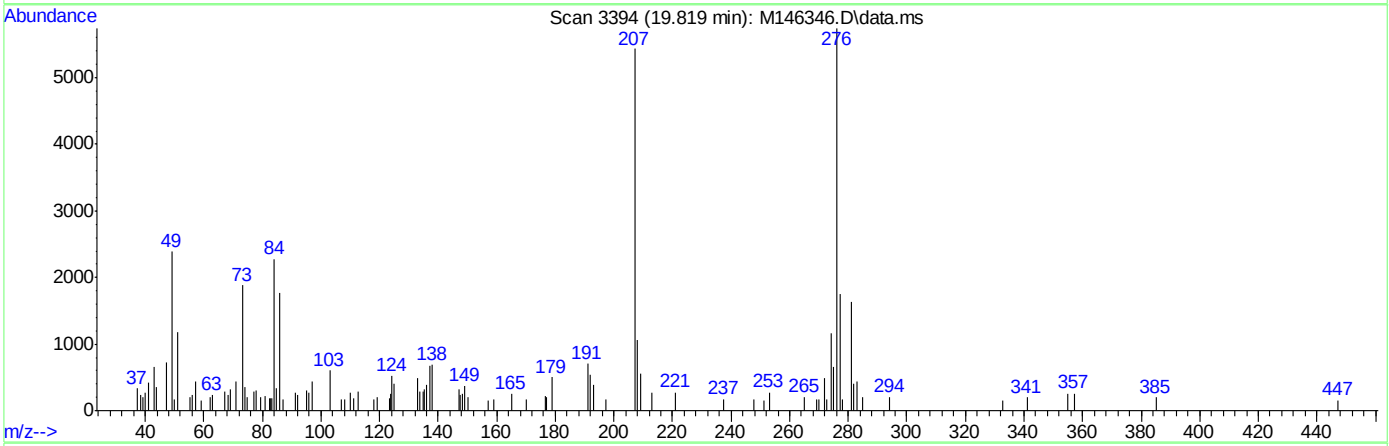
Ion	Exp%	Act%
42.15	100	100
74.15	172.70	84.62#
50.15	0.00	16.76
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146346.D
Acq On : 24 May 2018 1:27 pm
Operator : seanb1
Sample : ic6221-1
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 24 19:37:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:36:18 2018
Response via : Initial Calibration





TIC: M146346.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

19.819min (-0.088) 0.84ppm m

response 10969

Ion	Exp%	Act%
276.15	100	100
138.15	22.40	11.89
137.15	15.70	11.72
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146347.D
Acq On : 24 May 2018 1:57 pm
Operator : seanb1
Sample : ic6221-100
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 24 19:41:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	98597	40.00	ppm	0.00
24) Naphthalene-d8	5.564	136	392610	40.00	ppm	0.00
47) Acenaphthene-d10	7.823	164	236613	40.00	ppm	0.00
69) Phenanthrene-d10	10.404	188	512797	40.00	ppm	0.00
83) Chrysene-d12	15.559	240	504850	40.00	ppm	0.00
91) Perylene-d12	18.166	264	517723	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.484	152	98597	40.00	ppm	0.00
103) Acenaphthene-d10a	7.823	164	236613	40.00	ppm	0.00
106) Chrysene-d12a	15.559	240	504850	40.00	ppm	0.00
109) Phenanthrene-d10a	10.404	188	512797	40.00	ppm	0.00
112) Naphthalene-d8a	5.564	136	392610	40.00	ppm	0.00
114) Chrysene-d12b	15.559	240	504850	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.512	112	406978	110.34	ppm	0.00
Spiked Amount 50.000			Recovery =	220.68%		
8) Phenol-d5	4.244	99	519206	118.26	ppm	0.00
Spiked Amount 50.000			Recovery =	236.52%		
25) Nitrobenzene-d5	4.923	82	496050	129.38	ppm	0.00
Spiked Amount 50.000			Recovery =	258.76%		
51) 2-Fluorobiphenyl	6.846	172	797302	86.77	ppm	0.00
Spiked Amount 50.000			Recovery =	173.54%		
73) 2,4,6-Tribromophenol	9.164	330	157234	109.32	ppm	0.00
Spiked Amount 50.000			Recovery =	218.64%		
85) Terphenyl-d14	13.571	244	1147485	95.33	ppm	0.00
Spiked Amount 50.000			Recovery =	190.66%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.958	88	169739	96.71	ppm	100
3) Pyridine	2.305	79	454762	104.26	ppm	100
4) N-Nitrosodimethylamine	2.273	42	278747	196.64	ppm	100
6) Indene	4.677	116	586863	117.92	ppm	100
7) Cumene	3.881	105	1058423	124.27	ppm	100
9) Phenol	4.255	94	552633	113.74	ppm	100
10) Aniline	4.244	93	571798	112.46	ppm	99
11) bis(2-Chloroethyl)ether	4.292	93	323300	102.38	ppm	100
12) 2-Chlorophenol	4.335	128	354408	101.69	ppm	100
13) Decane	4.367	43	310616	136.97	ppm	100
14) 1,3-Dichlorobenzene	4.442	146	384568	93.71	ppm	100
15) 1,4-Dichlorobenzene	4.495	146	376477	97.49	ppm	100
16) Benzyl alcohol	4.602	108	243091	113.78	ppm	100
17) 1,2-Dichlorobenzene	4.607	146	364456	101.14	ppm	100
18) Acetophenone	4.800	105	558110	136.39	ppm	100
19) 2-Methylphenol	4.698	108	320015	112.18	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.693	121	93449	104.47	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146347.D
Acq On : 24 May 2018 1:57 pm
Operator : seanb1
Sample : ic6221-100
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 24 19:41:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
21) 3&4-Methylphenol	4.821	108	337188	118.42	ppm	96
22) n-Nitroso-di-n-propyla...	4.805	70	315745	157.27	ppm	100
23) Hexachloroethane	4.874	201	145620	112.80	ppm	100
26) Nitrobenzene	4.939	77	476201	133.99	ppm	100
27) Quinoline	5.970	129	754246	103.78	ppm	100
28) Isophorone	5.147	82	849203	128.20	ppm	100
29) 2-Nitrophenol	5.211	139	207627	114.42	ppm	100
30) 2,4-Dimethylphenol	5.264	107	415177	132.79	ppm	99
31) Benzoic acid	5.435	105	340665	123.10	ppm	98
32) bis(2-Chloroethoxy)met...	5.334	93	397625	107.78	ppm	100
33) 2,4-Dichlorophenol	5.446	162	283448	101.16	ppm	100
34) 2,6-Dichlorophenol	5.665	162	276588	100.07	ppm	99
35) 1,3,5-Trichlorobenzene	5.222	180	347375	95.57	ppm	100
36) 1,2,4-Trichlorobenzene	5.516	180	338852	91.94	ppm	100
37) 1,2,3-Trichlorobenzene	5.740	180	317171	96.36	ppm	100
38) Naphthalene	5.590	128	1015147	98.46	ppm	100
39) 4-Chloroaniline	5.654	127	431138	97.99	ppm	100
40) 2,3-Dichloroaniline	6.728	161	390545	101.31	ppm	100
41) Caprolactam	6.071	55	164036	138.14	ppm	99
42) Hexachlorobutadiene	5.719	225	211314	115.19	ppm	100
43) 4-Chloro-3-methylphenol	6.226	107	410419	132.77	ppm	100
44) 2-Methylnaphthalene	6.360	141	639216	103.28	ppm	100
45) 1-Methylnaphthalene	6.482	142	754228	101.03	ppm	100
46) Dimethylnaphthalene	7.209	156	664974	101.37	ppm	100
48) Hexachlorocyclopentadiene	6.568	237	453270	255.19	ppm	100
49) 2,4,6-Trichlorophenol	6.750	196	225388	103.39	ppm	100
50) 2,4,5-Trichlorophenol	6.808	196	246790	102.36	ppm	100
52) 2-Chloronaphthalene	7.001	162	644892	87.10	ppm	100
53) Biphenyl	6.985	154	956090	100.08	ppm	100
54) 2-Nitroaniline	7.177	65	317421	191.67	ppm	100
55) Dimethylphthalate	7.460	163	864264	102.37	ppm	100
56) Acenaphthylene	7.604	152	1109802	96.11	ppm	100
57) 2,6-Dinitrotoluene	7.546	165	185409	118.53	ppm	99
58) 3-Nitroaniline	7.807	138	229188	117.70	ppm	100
59) Acenaphthene	7.877	153	724474	99.75	ppm	100
60) 2,4-Dinitrophenol	7.994	184	257616	229.74	ppm	100
61) 4-Nitrophenol	8.176	109	171174	141.43	ppm	100
62) Dibenzofuran	8.160	168	1047340	98.67	ppm	100
63) 2,4-Dinitrotoluene	8.203	165	243747	121.51	ppm	99
64) 2,3,4,6-Tetrachlorophenol	8.400	232	242288	127.68	ppm	100
65) Diethylphthalate	8.635	149	910845	110.55	ppm	100
66) Fluorene	8.737	166	834656	98.31	ppm	100
67) 4-Chlorophenyl-phenyle...	8.769	204	392841	98.31	ppm	100
68) 4-Nitroaniline	8.844	138	216478	116.55	ppm	100
70) 4,6-Dinitro-2-methylph...	8.908	198	176496	99.45	ppm	100
71) n-Nitrosodiphenylamine	8.993	169	612982	89.88	ppm	100
72) 1,2-Diphenylhydrazine	9.047	77	1050195	114.51	ppm	100
74) 4-Bromophenyl-phenylether	9.629	248	291534	102.54	ppm	100
75) Hexachlorobenzene	9.720	284	313641	87.74	ppm	100
76) Pentachlorophenol	10.115	266	426094	221.51	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146347.D
Acq On : 24 May 2018 1:57 pm
Operator : seanb1
Sample : ic6221-100
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 24 19:41:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

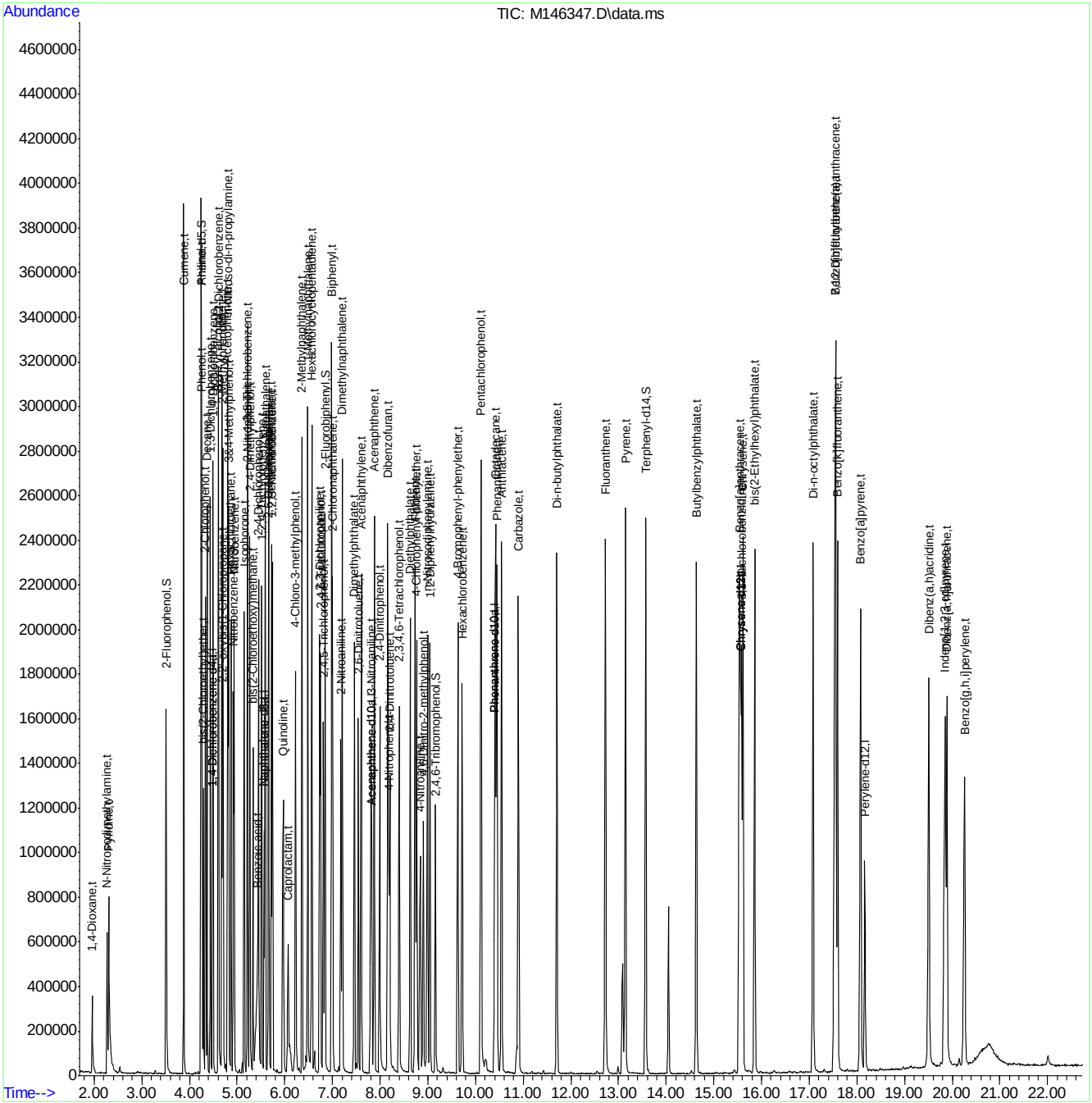
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.452	178	1207216	86.03	ppm	100
78) Anthracene	10.548	178	1272487	90.77	ppm	100
79) Carbazole	10.900	167	1236574	86.56	ppm	100
80) Di-n-butylphthalate	11.707	149	1651454	107.91	ppm	100
81) Fluoranthene	12.727	202	1565994	100.08	ppm	100
82) Octadecane	10.420	57	521557	129.57	ppm	100
84) Pyrene	13.149	202	1552150	86.72	ppm	100
86) Butylbenzylphthalate	14.635	149	753463	101.31	ppm	100
87) Benzo[a]anthracene	15.537	228	1504678	101.85	ppm	100
88) 3,3'-Dichlorobenzidine	15.580	252	535780	92.10	ppm	100
89) Chrysene	15.612	228	1318367	92.52	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.858	149	971633	89.52	ppm	100
92) Di-n-octylphthalate	17.081	149	1715107	96.65	ppm	100
93) Benzo[b]fluoranthene	17.551	252	1606689	107.98	ppm	99
94) Benzo[k]fluoranthene	17.599	252	1346235	95.72	ppm	100
95) Benzo[a]pyrene	18.080	252	1401925	110.58	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.848	276	1238206	102.28	ppm	96
97) Dibenz(a,h)acridine	19.512	279	1207723	103.93	ppm	88
98) Dibenz[a,h]anthracene	19.891	278	1212886	93.83	ppm	100
99) 7,12-Dimethylbenz(a)an...	17.551	256	724857	122.84	ppm	100
100) Benzo[g,h,i]perylene	20.265	276	1162203	91.65	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146347.D
Acq On : 24 May 2018 1:57 pm
Operator : seanb1
Sample : ic6221-100
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 24 19:41:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146348.D
Acq On : 24 May 2018 2:26 pm
Operator : seanb1
Sample : ic6221-80
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 24 19:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.482	152	103451	40.00	ppm	0.00
24) Naphthalene-d8	5.566	136	407393	40.00	ppm	0.00
47) Acenaphthene-d10	7.821	164	234504	40.00	ppm	0.00
69) Phenanthrene-d10	10.401	188	495469	40.00	ppm	0.00
83) Chrysene-d12	15.556	240	488054	40.00	ppm	0.00
91) Perylene-d12	18.163	264	505897	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.482	152	103451	40.00	ppm	0.00
103) Acenaphthene-d10a	7.821	164	234504	40.00	ppm	0.00
106) Chrysene-d12a	15.556	240	488054	40.00	ppm	0.00
109) Phenanthrene-d10a	10.401	188	495469	40.00	ppm	0.00
112) Naphthalene-d8a	5.566	136	407393	40.00	ppm	0.00
114) Chrysene-d12b	15.556	240	488054	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.509	112	334922	86.54	ppm	0.00
Spiked Amount 50.000			Recovery = 173.08%			
8) Phenol-d5	4.247	99	426258	92.54	ppm	0.00
Spiked Amount 50.000			Recovery = 185.08%			
25) Nitrobenzene-d5	4.920	82	404726	101.73	ppm	0.00
Spiked Amount 50.000			Recovery = 203.46%			
51) 2-Fluorobiphenyl	6.848	172	645279	70.86	ppm	0.00
Spiked Amount 50.000			Recovery = 141.72%			
73) 2,4,6-Tribromophenol	9.161	330	125108	90.02	ppm	0.00
Spiked Amount 50.000			Recovery = 180.04%			
85) Terphenyl-d14	13.569	244	917560	78.85	ppm	0.00
Spiked Amount 50.000			Recovery = 157.70%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.960	88	150616	81.79	ppm	96
3) Pyridine	2.307	79	383076	83.70	ppm	97
4) N-Nitrosodimethylamine	2.275	42	225498	151.61	ppm	97
6) Indene	4.679	116	484643	92.81	ppm	98
7) Cumene	3.883	105	859979	96.23	ppm	99
9) Phenol	4.257	94	451309	88.53	ppm	92
10) Aniline	4.241	93	465967	87.35	ppm	97
11) bis(2-Chloroethyl)ether	4.289	93	275501	83.15	ppm	99
12) 2-Chlorophenol	4.337	128	291407	79.69	ppm	92
13) Decane	4.370	43	248495	104.44	ppm	98
14) 1,3-Dichlorobenzene	4.439	146	315134	73.19	ppm	97
15) 1,4-Dichlorobenzene	4.492	146	306211	75.57	ppm	99
16) Benzyl alcohol	4.599	108	198159	88.40	ppm	98
17) 1,2-Dichlorobenzene	4.610	146	289897	76.68	ppm	97
18) Acetophenone	4.797	105	460618	107.28	ppm	97
19) 2-Methylphenol	4.701	108	259851	86.81	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.695	121	75920	80.89	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146348.D
Acq On : 24 May 2018 2:26 pm
Operator : seanb1
Sample : ic6221-80
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 24 19:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.818	108	279922	93.69	ppm	#	85
22) n-Nitroso-di-n-propyla...	4.802	70	260210	123.53	ppm		95
23) Hexachloroethane	4.872	201	117963	87.09	ppm		89
26) Nitrobenzene	4.936	77	389315	105.57	ppm		99
27) Quinoline	5.961	129	625962	83.00	ppm		99
28) Isophorone	5.144	82	692259	100.71	ppm		99
29) 2-Nitrophenol	5.214	139	175666	93.29	ppm		82
30) 2,4-Dimethylphenol	5.262	107	329955	101.71	ppm		99
31) Benzoic acid	5.422	105	284322	103.33	ppm		96
32) bis(2-Chloroethoxy)met...	5.336	93	320308	83.68	ppm		98
33) 2,4-Dichlorophenol	5.443	162	235309	80.93	ppm		99
34) 2,6-Dichlorophenol	5.662	162	223683	77.99	ppm		97
35) 1,3,5-Trichlorobenzene	5.219	180	282010	74.77	ppm		99
36) 1,2,4-Trichlorobenzene	5.513	180	270449	70.72	ppm		96
37) 1,2,3-Trichlorobenzene	5.737	180	252617	73.96	ppm		98
38) Naphthalene	5.588	128	829936	77.57	ppm		100
39) 4-Chloroaniline	5.652	127	354931	77.74	ppm		98
40) 2,3-Dichloroaniline	6.731	161	310648	77.66	ppm		97
41) Caprolactam	6.063	55	130526	105.93	ppm		97
42) Hexachlorobutadiene	5.721	225	171990	90.35	ppm		99
43) 4-Chloro-3-methylphenol	6.223	107	330798	103.13	ppm		98
44) 2-Methylnaphthalene	6.362	141	517057	80.51	ppm		98
45) 1-Methylnaphthalene	6.480	142	615187	79.42	ppm		99
46) Dimethylnaphthalene	7.206	156	534449	78.51	ppm		100
48) Hexachlorocyclopentadiene	6.565	237	353373	200.74	ppm		98
49) 2,4,6-Trichlorophenol	6.747	196	180053	83.34	ppm		100
50) 2,4,5-Trichlorophenol	6.806	196	201547	84.34	ppm		97
52) 2-Chloronaphthalene	7.003	162	525709	71.64	ppm		98
53) Biphenyl	6.982	154	770316	81.36	ppm		97
54) 2-Nitroaniline	7.169	65	241599	147.20	ppm		96
55) Dimethylphthalate	7.457	163	697718	83.38	ppm		99
56) Acenaphthylene	7.602	152	899840	78.63	ppm		99
57) 2,6-Dinitrotoluene	7.543	165	149660	96.54	ppm		97
58) 3-Nitroaniline	7.805	138	184541	95.62	ppm		96
59) Acenaphthene	7.874	153	579972	80.57	ppm		99
60) 2,4-Dinitrophenol	7.992	184	198746	189.15	ppm		96
61) 4-Nitrophenol	8.168	109	137944	116.94	ppm	#	45
62) Dibenzofuran	8.157	168	846193	80.43	ppm		97
63) 2,4-Dinitrotoluene	8.200	165	200500	96.77	ppm		96
64) 2,3,4,6-Tetrachlorophenol	8.398	232	194103	103.21	ppm		97
65) Diethylphthalate	8.633	149	732944	89.76	ppm		99
66) Fluorene	8.734	166	676215	80.37	ppm		97
67) 4-Chlorophenyl-phenyle...	8.766	204	312400	78.88	ppm		99
68) 4-Nitroaniline	8.836	138	174063	94.56	ppm		95
70) 4,6-Dinitro-2-methylph...	8.905	198	140463	83.74	ppm		98
71) n-Nitrosodiphenylamine	8.990	169	493502	74.89	ppm		97
72) 1,2-Diphenylhydrazine	9.044	77	840230	94.82	ppm		99
74) 4-Bromophenyl-phenylether	9.626	248	232453	84.62	ppm		95
75) Hexachlorobenzene	9.717	284	242446	70.19	ppm		93
76) Pentachlorophenol	10.112	266	321759	173.12	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146348.D
Acq On : 24 May 2018 2:26 pm
Operator : seanb1
Sample : ic6221-80
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 24 19:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

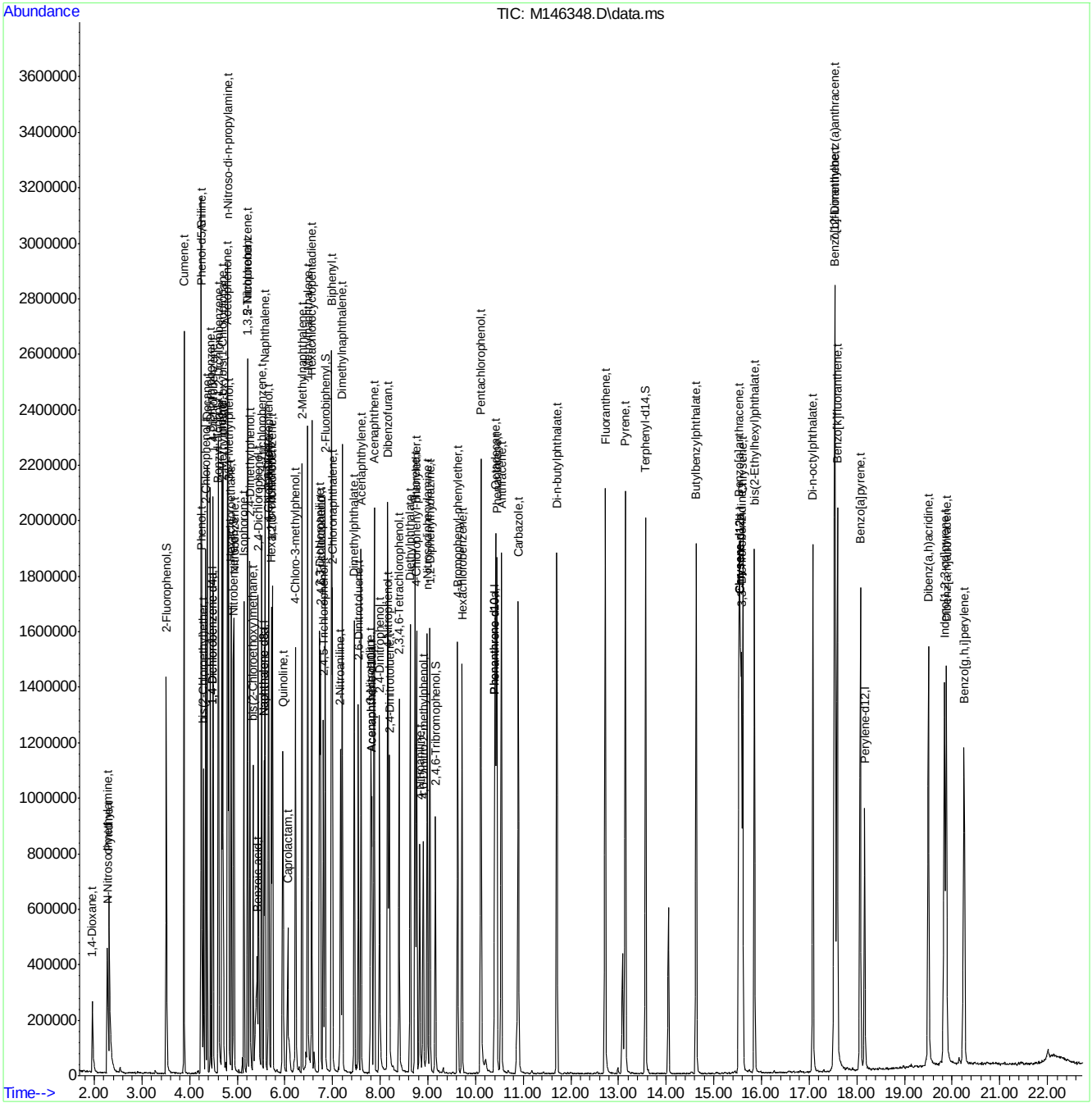
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.449	178	972396	71.72	ppm	99
78) Anthracene	10.545	178	1021344	75.40	ppm	99
79) Carbazole	10.898	167	980868	71.06	ppm	100
80) Di-n-butylphthalate	11.704	149	1322251	89.42	ppm	100
81) Fluoranthene	12.725	202	1254231	82.96	ppm	99
82) Octadecane	10.422	57	408334	104.99	ppm	97
84) Pyrene	13.147	202	1227501	70.95	ppm	99
86) Butylbenzylphthalate	14.632	149	604351	84.05	ppm	100
87) Benzo[a]anthracene	15.535	228	1208994	84.65	ppm	99
88) 3,3'-Dichlorobenzidine	15.577	252	424769	76.54	ppm	99
89) Chrysene	15.609	228	1033671	75.04	ppm	98
90) bis(2-Ethylhexyl)phtha...	15.855	149	770170	74.36	ppm	98
92) Di-n-octylphthalate	17.078	149	1384333	80.09	ppm	99
93) Benzo[b]fluoranthene	17.538	252	1251072	86.04	ppm	100
94) Benzo[k]fluoranthene	17.591	252	1073266	78.09	ppm	99
95) Benzo[a]pyrene	18.077	252	1117451	90.20	ppm	99
96) Indeno[1,2,3-cd]pyrene	19.840	276	1016311	85.91	ppm	96
97) Dibenz(a,h)acridine	19.504	279	965570	85.03	ppm	84
98) Dibenz[a,h]anthracene	19.883	278	978211	77.44	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.543	256	561708	97.41	ppm	94
100) Benzo[g,h,i]perylene	20.252	276	945987	76.34	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146348.D
Acq On : 24 May 2018 2:26 pm
Operator : seanb1
Sample : ic6221-80
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 24 19:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146349.D
Acq On : 24 May 2018 2:56 pm
Operator : seanb1
Sample : ic6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 24 19:45:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.481	152	106946	40.00	ppm		0.00
24) Naphthalene-d8	5.566	136	408825	40.00	ppm		0.00
47) Acenaphthene-d10	7.820	164	233793	40.00	ppm		0.00
69) Phenanthrene-d10	10.400	188	488803	40.00	ppm		0.00
83) Chrysene-d12	15.550	240	499584	40.00	ppm		0.00
91) Perylene-d12	18.162	264	511816	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.481	152	106946	40.00	ppm		0.00
103) Acenaphthene-d10a	7.820	164	233793	40.00	ppm		0.00
106) Chrysene-d12a	15.550	240	499584	40.00	ppm		0.00
109) Phenanthrene-d10a	10.400	188	488803	40.00	ppm		0.00
112) Naphthalene-d8a	5.566	136	408825	40.00	ppm		0.00
114) Chrysene-d12b	15.550	240	499584	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	3.509	112	215719	53.92	ppm		0.00
Spiked Amount 50.000			Recovery = 107.84%				
8) Phenol-d5	4.241	99	279012	58.59	ppm		0.00
Spiked Amount 50.000			Recovery = 117.18%				
25) Nitrobenzene-d5	4.919	82	265680	66.55	ppm		0.00
Spiked Amount 50.000			Recovery = 133.10%				
51) 2-Fluorobiphenyl	6.842	172	420511	46.32	ppm		0.00
Spiked Amount 50.000			Recovery = 92.64%				
73) 2,4,6-Tribromophenol	9.155	330	84027	61.29	ppm		0.00
Spiked Amount 50.000			Recovery = 122.58%				
85) Terphenyl-d14	13.568	244	589549	49.49	ppm		0.00
Spiked Amount 50.000			Recovery = 98.98%				
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.960	88	103210	54.21	ppm		95
3) Pyridine	2.307	79	262109	55.40	ppm		98
4) N-Nitrosodimethylamine	2.275	42	148367	96.49	ppm		90
6) Indene	4.679	116	320907	59.45	ppm		98
7) Cumene	3.883	105	577894	62.55	ppm		98
9) Phenol	4.251	94	303177	57.53	ppm		98
10) Aniline	4.241	93	304979	55.30	ppm		98
11) bis(2-Chloroethyl)ether	4.289	93	180728	52.76	ppm		99
12) 2-Chlorophenol	4.337	128	194332	51.41	ppm		91
13) Decane	4.369	43	165815	67.41	ppm		98
14) 1,3-Dichlorobenzene	4.438	146	204918	46.03	ppm		98
15) 1,4-Dichlorobenzene	4.492	146	203572	48.60	ppm		98
16) Benzyl alcohol	4.599	108	128767	55.57	ppm		98
17) 1,2-Dichlorobenzene	4.609	146	194358	49.73	ppm		99
18) Acetophenone	4.796	105	294561	66.36	ppm		97
19) 2-Methylphenol	4.695	108	166024	53.65	ppm		95
20) 2,2'-oxybis(1-Chloropr...	4.695	121	50912	52.47	ppm	#	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146349.D
Acq On : 24 May 2018 2:56 pm
Operator : seanb1
Sample : ic6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 24 19:45:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.818	108	179480	58.11	ppm	#	74
22) n-Nitroso-di-n-propyla...	4.802	70	170639	78.36	ppm		94
23) Hexachloroethane	4.871	201	79757	56.96	ppm		92
26) Nitrobenzene	4.935	77	256614	69.34	ppm		97
27) Quinoline	5.950	129	399765	52.82	ppm		99
28) Isophorone	5.138	82	447939	64.94	ppm		99
29) 2-Nitrophenol	5.208	139	111684	59.10	ppm		93
30) 2,4-Dimethylphenol	5.261	107	209630	64.39	ppm		96
31) Benzoic acid	5.405	105	176233	69.29	ppm		97
32) bis(2-Chloroethoxy)met...	5.330	93	207632	54.05	ppm		98
33) 2,4-Dichlorophenol	5.443	162	150763	51.67	ppm		95
34) 2,6-Dichlorophenol	5.662	162	143716	49.93	ppm		99
35) 1,3,5-Trichlorobenzene	5.218	180	183166	48.39	ppm		99
36) 1,2,4-Trichlorobenzene	5.512	180	176290	45.94	ppm		98
37) 1,2,3-Trichlorobenzene	5.737	180	167581	48.89	ppm		94
38) Naphthalene	5.587	128	534310	49.77	ppm		100
39) 4-Chloroaniline	5.651	127	228946	49.97	ppm		99
40) 2,3-Dichloroaniline	6.730	161	203861	50.78	ppm		97
41) Caprolactam	6.046	55	81672	66.05	ppm		95
42) Hexachlorobutadiene	5.715	225	111506	58.37	ppm		97
43) 4-Chloro-3-methylphenol	6.217	107	218468	67.87	ppm		96
44) 2-Methylnaphthalene	6.356	141	340529	52.84	ppm		99
45) 1-Methylnaphthalene	6.479	142	394734	50.78	ppm		97
46) Dimethylnaphthalene	7.200	156	343885	50.34	ppm		99
48) Hexachlorocyclopentadiene	6.565	237	220125	125.42	ppm		98
49) 2,4,6-Trichlorophenol	6.746	196	118814	55.16	ppm		99
50) 2,4,5-Trichlorophenol	6.805	196	131671	55.27	ppm		98
52) 2-Chloronaphthalene	6.997	162	333963	45.65	ppm		98
53) Biphenyl	6.976	154	493733	52.30	ppm		98
54) 2-Nitroaniline	7.168	65	153272	93.67	ppm		99
55) Dimethylphthalate	7.451	163	444380	53.27	ppm		99
56) Acenaphthylene	7.596	152	588531	51.58	ppm		99
57) 2,6-Dinitrotoluene	7.537	165	94991	61.46	ppm		97
58) 3-Nitroaniline	7.799	138	116846	60.73	ppm		96
59) Acenaphthene	7.873	153	376881	52.52	ppm		99
60) 2,4-Dinitrophenol	7.980	184	114975	122.24	ppm		92
61) 4-Nitrophenol	8.167	109	86262	75.66	ppm	#	65
62) Dibenzofuran	8.156	168	537066	51.21	ppm		96
63) 2,4-Dinitrotoluene	8.189	165	130925	59.94	ppm		81
64) 2,3,4,6-Tetrachlorophenol	8.397	232	123339	65.78	ppm		98
65) Diethylphthalate	8.627	149	471503	57.92	ppm		100
66) Fluorene	8.728	166	438654	52.29	ppm		99
67) 4-Chlorophenyl-phenyle...	8.760	204	204950	51.91	ppm		94
68) 4-Nitroaniline	8.824	138	107984	58.84	ppm		95
70) 4,6-Dinitro-2-methylph...	8.894	198	86780	55.09	ppm		96
71) n-Nitrosodiphenylamine	8.985	169	323574	49.77	ppm		98
72) 1,2-Diphenylhydrazine	9.038	77	554333	63.41	ppm		98
74) 4-Bromophenyl-phenylether	9.626	248	150887	55.68	ppm		95
75) Hexachlorobenzene	9.716	284	162255	47.62	ppm		95
76) Pentachlorophenol	10.112	266	204935	111.77	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146349.D
Acq On : 24 May 2018 2:56 pm
Operator : seanb1
Sample : ic6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 24 19:45:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration

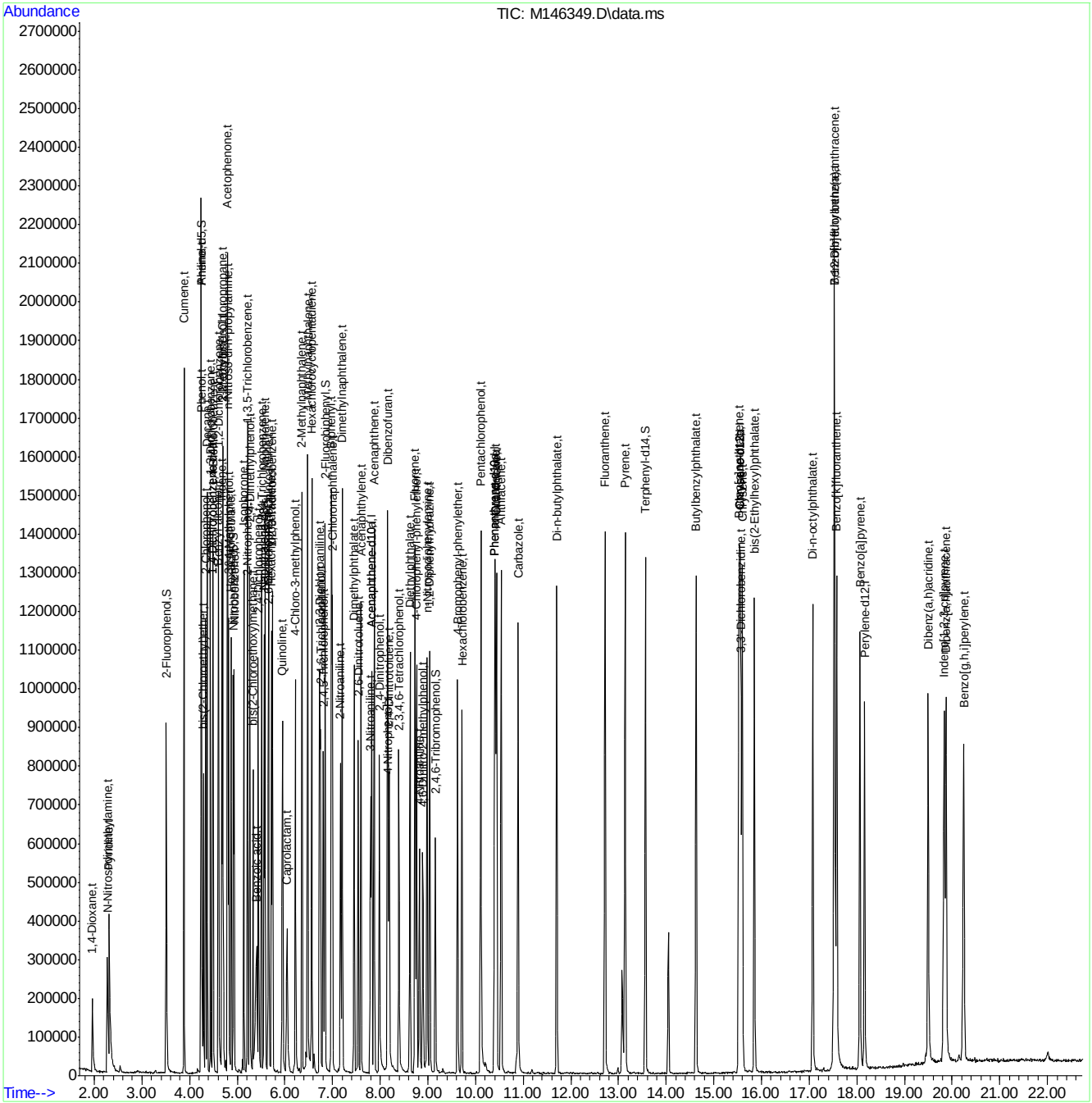
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.443	178	616461	46.09	ppm	99
78) Anthracene	10.539	178	650412	48.67	ppm	100
79) Carbazole	10.892	167	625761	45.95	ppm	100
80) Di-n-butylphthalate	11.704	149	843632	57.83	ppm	100
81) Fluoranthene	12.719	202	809917	54.30	ppm	99
82) Octadecane	10.416	57	261972	68.27	ppm	97
84) Pyrene	13.141	202	793288	44.79	ppm	99
86) Butylbenzylphthalate	14.626	149	380453	51.69	ppm	96
87) Benzo[a]anthracene	15.529	228	768434	52.56	ppm	99
88) 3,3'-Dichlorobenzidine	15.571	252	273822	49.46	ppm	98
89) Chrysene	15.598	228	667597	47.34	ppm	96
90) bis(2-Ethylhexyl)phtha...	15.849	149	478762	46.44	ppm	98
92) Di-n-octylphthalate	17.078	149	858856	49.69	ppm	99
93) Benzo[b]fluoranthene	17.532	252	797655	54.22	ppm	100
94) Benzo[k]fluoranthene	17.580	252	708246	50.94	ppm	99
95) Benzo[a]pyrene	18.066	252	715647	57.10	ppm	97
96) Indeno[1,2,3-cd]pyrene	19.834	276	638177	53.32	ppm	92
97) Dibenz(a,h)acridine	19.498	279	615315	53.56	ppm	99
98) Dibenz[a,h]anthracene	19.872	278	636158	49.78	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.532	256	358098	61.38	ppm	95
100) Benzo[g,h,i]perylene	20.246	276	616356	49.16	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146349.D
Acq On : 24 May 2018 2:56 pm
Operator : seanb1
Sample : ic6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 24 19:45:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:41:15 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146350.D
Acq On : 24 May 2018 3:26 pm
Operator : seanb1
Sample : ic6221-25
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 24 19:46:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.483	152	110978	40.00	ppm	0.00
24) Naphthalene-d8	5.562	136	415214	40.00	ppm	0.00
47) Acenaphthene-d10	7.821	164	237040	40.00	ppm	0.00
69) Phenanthrene-d10	10.396	188	487785	40.00	ppm	0.00
83) Chrysene-d12	15.546	240	515520	40.00	ppm	-0.01
91) Perylene-d12	18.164	264	510935	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.483	152	110978	40.00	ppm	0.00
103) Acenaphthene-d10a	7.821	164	237040	40.00	ppm	0.00
106) Chrysene-d12a	15.546	240	515520	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.396	188	487785	40.00	ppm	0.00
112) Naphthalene-d8a	5.562	136	415214	40.00	ppm	0.00
114) Chrysene-d12b	15.546	240	515520	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.510	112	106386	25.62	ppm	0.00
Spiked Amount 50.000			Recovery =	51.24%		
8) Phenol-d5	4.242	99	140027	28.34	ppm	0.00
Spiked Amount 50.000			Recovery =	56.68%		
25) Nitrobenzene-d5	4.915	82	138007	34.04	ppm	0.00
Spiked Amount 50.000			Recovery =	68.08%		
51) 2-Fluorobiphenyl	6.844	172	215766	23.44	ppm	0.00
Spiked Amount 50.000			Recovery =	46.88%		
73) 2,4,6-Tribromophenol	9.157	330	42664	31.18	ppm	0.00
Spiked Amount 50.000			Recovery =	62.36%		
85) Terphenyl-d14	13.564	244	294825	23.99	ppm	0.00
Spiked Amount 50.000			Recovery =	47.98%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.966	88	50811	25.72	ppm	90
3) Pyridine	2.319	79	131280	26.74	ppm	93
4) N-Nitrosodimethylamine	2.276	42	70251	44.03	ppm	99
6) Indene	4.675	116	163985	29.27	ppm	99
7) Cumene	3.879	105	295400	30.81	ppm	97
9) Phenol	4.253	94	160692	29.38	ppm	96
10) Aniline	4.242	93	164600	28.76	ppm	95
11) bis(2-Chloroethyl)ether	4.290	93	97128	27.33	ppm	98
12) 2-Chlorophenol	4.333	128	99506	25.37	ppm	99
13) Decane	4.365	43	88471	34.66	ppm	99
14) 1,3-Dichlorobenzene	4.440	146	108784	23.55	ppm	96
15) 1,4-Dichlorobenzene	4.493	146	104033	23.93	ppm	98
16) Benzyl alcohol	4.595	108	65410	27.20	ppm	86
17) 1,2-Dichlorobenzene	4.611	146	102471	25.26	ppm	96
18) Acetophenone	4.792	105	151797	32.96	ppm	96
19) 2-Methylphenol	4.696	108	89744	27.95	ppm	94
20) 2,2'-oxybis(1-Chloropr...	4.696	121	28113	27.92	ppm #	70

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146350.D
Acq On : 24 May 2018 3:26 pm
Operator : seanb1
Sample : ic6221-25
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 24 19:46:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.814	108	92650	28.91	ppm		89
22) n-Nitroso-di-n-propyla...	4.798	70	88889	39.34	ppm		97
23) Hexachloroethane	4.873	201	40437	27.83	ppm		90
26) Nitrobenzene	4.931	77	133739	35.58	ppm		99
27) Quinoline	5.941	129	202540	26.35	ppm		98
28) Isophorone	5.134	82	230538	32.91	ppm		98
29) 2-Nitrophenol	5.209	139	54835	28.57	ppm		91
30) 2,4-Dimethylphenol	5.257	107	108315	32.76	ppm		99
31) Benzoic acid	5.380	105	86197	36.97	ppm		97
32) bis(2-Chloroethoxy)met...	5.332	93	109279	28.01	ppm		97
33) 2,4-Dichlorophenol	5.444	162	75817	25.59	ppm		96
34) 2,6-Dichlorophenol	5.658	162	72818	24.91	ppm		99
35) 1,3,5-Trichlorobenzene	5.214	180	95425	24.82	ppm		96
36) 1,2,4-Trichlorobenzene	5.514	180	91795	23.55	ppm		99
37) 1,2,3-Trichlorobenzene	5.738	180	86761	24.92	ppm		96
38) Naphthalene	5.583	128	270375	24.80	ppm		99
39) 4-Chloroaniline	5.647	127	114904	24.69	ppm		98
40) 2,3-Dichloroaniline	6.726	161	99115	24.31	ppm		99
41) Caprolactam	6.026	55	42439	33.79	ppm		93
42) Hexachlorobutadiene	5.717	225	57774	29.78	ppm		97
43) 4-Chloro-3-methylphenol	6.213	107	109769	33.58	ppm		96
44) 2-Methylnaphthalene	6.358	141	174291	26.63	ppm		93
45) 1-Methylnaphthalene	6.481	142	199344	25.25	ppm		94
46) Dimethylnaphthalene	7.202	156	175509	25.30	ppm		98
48) Hexachlorocyclopentadiene	6.566	237	99438	55.88	ppm		96
49) 2,4,6-Trichlorophenol	6.742	196	59482	27.24	ppm		95
50) 2,4,5-Trichlorophenol	6.801	196	63030	26.09	ppm		97
52) 2-Chloronaphthalene	6.993	162	175235	23.62	ppm		93
53) Biphenyl	6.977	154	249443	26.06	ppm		97
54) 2-Nitroaniline	7.164	65	74890	45.14	ppm		93
55) Dimethylphthalate	7.453	163	225612	26.67	ppm		99
56) Acenaphthylene	7.597	152	298489	25.80	ppm		100
57) 2,6-Dinitrotoluene	7.533	165	49046	31.30	ppm		100
58) 3-Nitroaniline	7.789	138	55278	28.34	ppm		95
59) Acenaphthene	7.870	153	186086	25.58	ppm		98
60) 2,4-Dinitrophenol	7.982	184	53548	64.28	ppm		98
61) 4-Nitrophenol	8.163	109	43248	38.82	ppm	#	29
62) Dibenzofuran	8.153	168	268217	25.22	ppm		97
63) 2,4-Dinitrotoluene	8.185	165	67061	29.26	ppm		99
64) 2,3,4,6-Tetrachlorophenol	8.393	232	57193	30.08	ppm		96
65) Diethylphthalate	8.623	149	239193	28.98	ppm		99
66) Fluorene	8.724	166	218446	25.68	ppm		96
67) 4-Chlorophenyl-phenyle...	8.762	204	108183	27.02	ppm		99
68) 4-Nitroaniline	8.810	138	55585	29.87	ppm		95
70) 4,6-Dinitro-2-methylph...	8.890	198	41167	28.41	ppm		96
71) n-Nitrosodiphenylamine	8.981	169	160213	24.70	ppm		94
72) 1,2-Diphenylhydrazine	9.034	77	285027	32.67	ppm		97
74) 4-Bromophenyl-phenylether	9.622	248	74748	27.64	ppm		94
75) Hexachlorobenzene	9.713	284	83693	24.61	ppm		99
76) Pentachlorophenol	10.108	266	94141	51.45	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146350.D
Acq On : 24 May 2018 3:26 pm
Operator : seanb1
Sample : ic6221-25
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 24 19:46:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

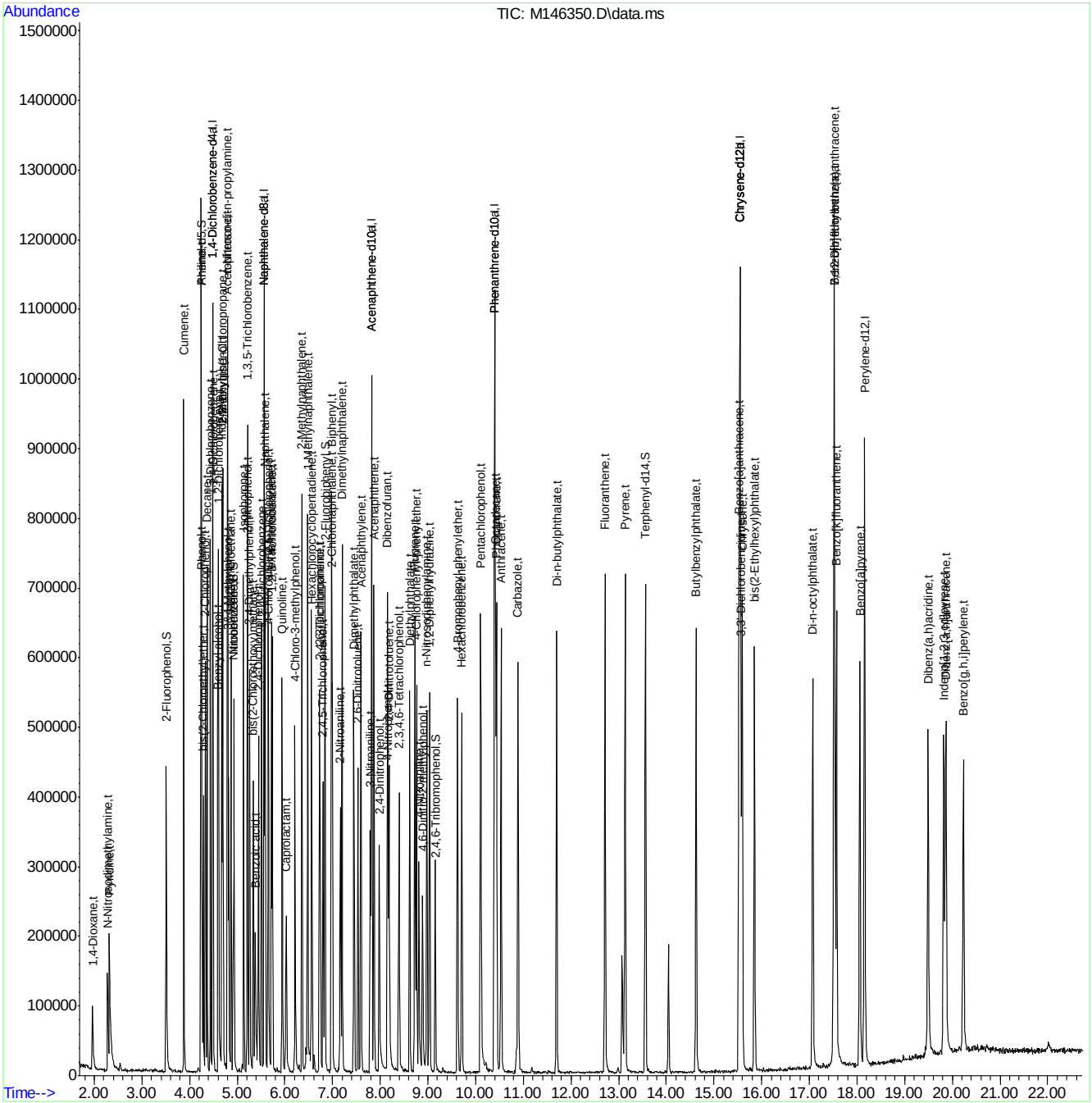
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.439	178	324719	24.33	ppm	97
78) Anthracene	10.535	178	335424	25.15	ppm	99
79) Carbazole	10.888	167	314087	23.11	ppm	100
80) Di-n-butylphthalate	11.700	149	420927	28.91	ppm	99
81) Fluoranthene	12.715	202	409345	27.50	ppm	97
82) Octadecane	10.418	57	129036	33.70	ppm	92
84) Pyrene	13.137	202	411550	22.52	ppm	99
86) Butylbenzylphthalate	14.627	149	187521	24.69	ppm	95
87) Benzo[a]anthracene	15.525	228	385645	25.56	ppm	99
88) 3,3'-Dichlorobenzidine	15.568	252	138193	25.02	ppm	94
89) Chrysene	15.594	228	352349	24.22	ppm	96
90) bis(2-Ethylhexyl)phtha...	15.851	149	237958	23.26	ppm	99
92) Di-n-octylphthalate	17.074	149	404181	24.21	ppm	100
93) Benzo[b]fluoranthene	17.523	252	397465	27.07	ppm	100
94) Benzo[k]fluoranthene	17.571	252	377541	27.20	ppm	100
95) Benzo[a]pyrene	18.062	252	354039	28.30	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.825	276	326839	27.36	ppm	96
97) Dibenz(a,h)acridine	19.494	279	305262	26.62	ppm	100
98) Dibenz[a,h]anthracene	19.868	278	329960	25.86	ppm	100
99) 7,12-Dimethylbenz(a)an...	17.523	256	183000	31.42	ppm	100
100) Benzo[g,h,i]perylene	20.237	276	316155	25.26	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146350.D
Acq On : 24 May 2018 3:26 pm
Operator : seanb1
Sample : ic6221-25
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 24 19:46:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146351.D
Acq On : 24 May 2018 3:56 pm
Operator : seanb1
Sample : ic6221-10
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 24 19:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.484	152	114699	40.00	ppm		0.00
24) Naphthalene-d8	5.563	136	426212	40.00	ppm		0.00
47) Acenaphthene-d10	7.817	164	242839	40.00	ppm		0.00
69) Phenanthrene-d10	10.397	188	492381	40.00	ppm		0.00
83) Chrysene-d12	15.542	240	535792	40.00	ppm		-0.02
91) Perylene-d12	18.159	264	544714	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.484	152	114699	40.00	ppm		0.00
103) Acenaphthene-d10a	7.817	164	242839	40.00	ppm		0.00
106) Chrysene-d12a	15.542	240	535792	40.00	ppm		-0.02
109) Phenanthrene-d10a	10.397	188	492381	40.00	ppm		0.00
112) Naphthalene-d8a	5.563	136	426212	40.00	ppm		0.00
114) Chrysene-d12b	15.542	240	535792	40.00	ppm		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	3.517	112	41326	9.63	ppm		0.00
Spiked Amount 50.000			Recovery = 19.26%				
8) Phenol-d5	4.243	99	58322	11.42	ppm		0.00
Spiked Amount 50.000			Recovery = 22.84%				
25) Nitrobenzene-d5	4.916	82	60093	14.44	ppm		0.00
Spiked Amount 50.000			Recovery = 28.88%				
51) 2-Fluorobiphenyl	6.839	172	93436	9.91	ppm		0.00
Spiked Amount 50.000			Recovery = 19.82%				
73) 2,4,6-Tribromophenol	9.153	330	17341	12.56	ppm		-0.01
Spiked Amount 50.000			Recovery = 25.12%				
85) Terphenyl-d14	13.560	244	128415	10.05	ppm		-0.01
Spiked Amount 50.000			Recovery = 20.10%				
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.973	88	20302	9.94	ppm		92
3) Pyridine	2.336	79	44913	8.85	ppm		91
4) N-Nitrosodimethylamine	2.288	42	28384	17.21	ppm		99
6) Indene	4.676	116	67913	11.73	ppm		96
7) Cumene	3.880	105	121777	12.29	ppm		96
9) Phenol	4.254	94	67866	12.01	ppm		92
10) Aniline	4.243	93	72966	12.34	ppm		92
11) bis(2-Chloroethyl)ether	4.291	93	42009	11.44	ppm		97
12) 2-Chlorophenol	4.334	128	43530	10.74	ppm		95
13) Decane	4.366	43	38568	14.62	ppm		99
14) 1,3-Dichlorobenzene	4.441	146	48076	10.07	ppm		96
15) 1,4-Dichlorobenzene	4.494	146	46206	10.28	ppm		95
16) Benzyl alcohol	4.596	108	25980	10.45	ppm	#	76
17) 1,2-Dichlorobenzene	4.612	146	44665	10.66	ppm		99
18) Acetophenone	4.793	105	66345	13.94	ppm		99
19) 2-Methylphenol	4.697	108	41407	12.48	ppm		95
20) 2,2'-oxybis(1-Chloropr...	4.692	121	12063	11.59	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146351.D
Acq On : 24 May 2018 3:56 pm
Operator : seanb1
Sample : ic6221-10
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 24 19:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.815	108	39034	11.78	ppm	#	77
22) n-Nitroso-di-n-propyla...	4.793	70	41552	17.79	ppm		93
23) Hexachloroethane	4.874	201	18055	12.02	ppm		89
26) Nitrobenzene	4.932	77	58452	15.15	ppm		100
27) Quinoline	5.942	129	82862	10.50	ppm		98
28) Isophorone	5.135	82	102639	14.27	ppm		98
29) 2-Nitrophenol	5.210	139	23210	11.78	ppm		86
30) 2,4-Dimethylphenol	5.258	107	45242	13.33	ppm		97
31) Benzoic acid	5.360	105	33844	16.21	ppm		92
32) bis(2-Chloroethoxy)met...	5.328	93	46117	11.52	ppm		98
33) 2,4-Dichlorophenol	5.445	162	33781	11.11	ppm		100
34) 2,6-Dichlorophenol	5.659	162	30728	10.24	ppm		95
35) 1,3,5-Trichlorobenzene	5.215	180	41430	10.50	ppm		92
36) 1,2,4-Trichlorobenzene	5.509	180	38526	9.63	ppm		95
37) 1,2,3-Trichlorobenzene	5.734	180	38596	10.80	ppm		97
38) Naphthalene	5.584	128	117281	10.48	ppm		100
39) 4-Chloroaniline	5.648	127	52429	10.98	ppm		94
40) 2,3-Dichloroaniline	6.727	161	42705	10.20	ppm		97
41) Caprolactam	6.011	55	17478	13.56	ppm		91
42) Hexachlorobutadiene	5.718	225	23950	12.03	ppm		97
43) 4-Chloro-3-methylphenol	6.214	107	44471	13.25	ppm		94
44) 2-Methylnaphthalene	6.353	141	74393	11.07	ppm		93
45) 1-Methylnaphthalene	6.476	142	88458	10.92	ppm		91
46) Dimethylnaphthalene	7.197	156	77823	10.93	ppm		98
48) Hexachlorocyclopentadiene	6.562	237	35205	19.31	ppm		96
49) 2,4,6-Trichlorophenol	6.743	196	27580	12.33	ppm		90
50) 2,4,5-Trichlorophenol	6.797	196	26609	10.75	ppm		95
52) 2-Chloronaphthalene	6.994	162	76231	10.03	ppm		97
53) Biphenyl	6.973	154	102957	10.50	ppm		96
54) 2-Nitroaniline	7.160	65	34717	20.43	ppm		84
55) Dimethylphthalate	7.448	163	95975	11.08	ppm		98
56) Acenaphthylene	7.593	152	127248	10.74	ppm		98
57) 2,6-Dinitrotoluene	7.534	165	20475	12.75	ppm		96
58) 3-Nitroaniline	7.790	138	23027	11.52	ppm		92
59) Acenaphthene	7.865	153	80723	10.83	ppm		95
60) 2,4-Dinitrophenol	7.983	184	16006	24.45	ppm		85
61) 4-Nitrophenol	8.170	109	16145	15.02	ppm		85
62) Dibenzofuran	8.148	168	115272	10.58	ppm		95
63) 2,4-Dinitrotoluene	8.186	165	28052	12.10	ppm		92
64) 2,3,4,6-Tetrachlorophenol	8.389	232	26590	13.65	ppm		91
65) Diethylphthalate	8.618	149	101402	11.99	ppm		99
66) Fluorene	8.725	166	94780	10.88	ppm		97
67) 4-Chlorophenyl-phenyle...	8.763	204	46591	11.36	ppm		92
68) 4-Nitroaniline	8.805	138	22334	11.72	ppm		92
70) 4,6-Dinitro-2-methylph...	8.886	198	14807	12.08	ppm		90
71) n-Nitrosodiphenylamine	8.976	169	67887	10.37	ppm		97
72) 1,2-Diphenylhydrazine	9.035	77	123353	14.01	ppm		99
74) 4-Bromophenyl-phenylether	9.623	248	32112	11.76	ppm		91
75) Hexachlorobenzene	9.708	284	37017	10.78	ppm		95
76) Pentachlorophenol	10.109	266	37407	20.25	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146351.D
Acq On : 24 May 2018 3:56 pm
Operator : seanb1
Sample : ic6221-10
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 24 19:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

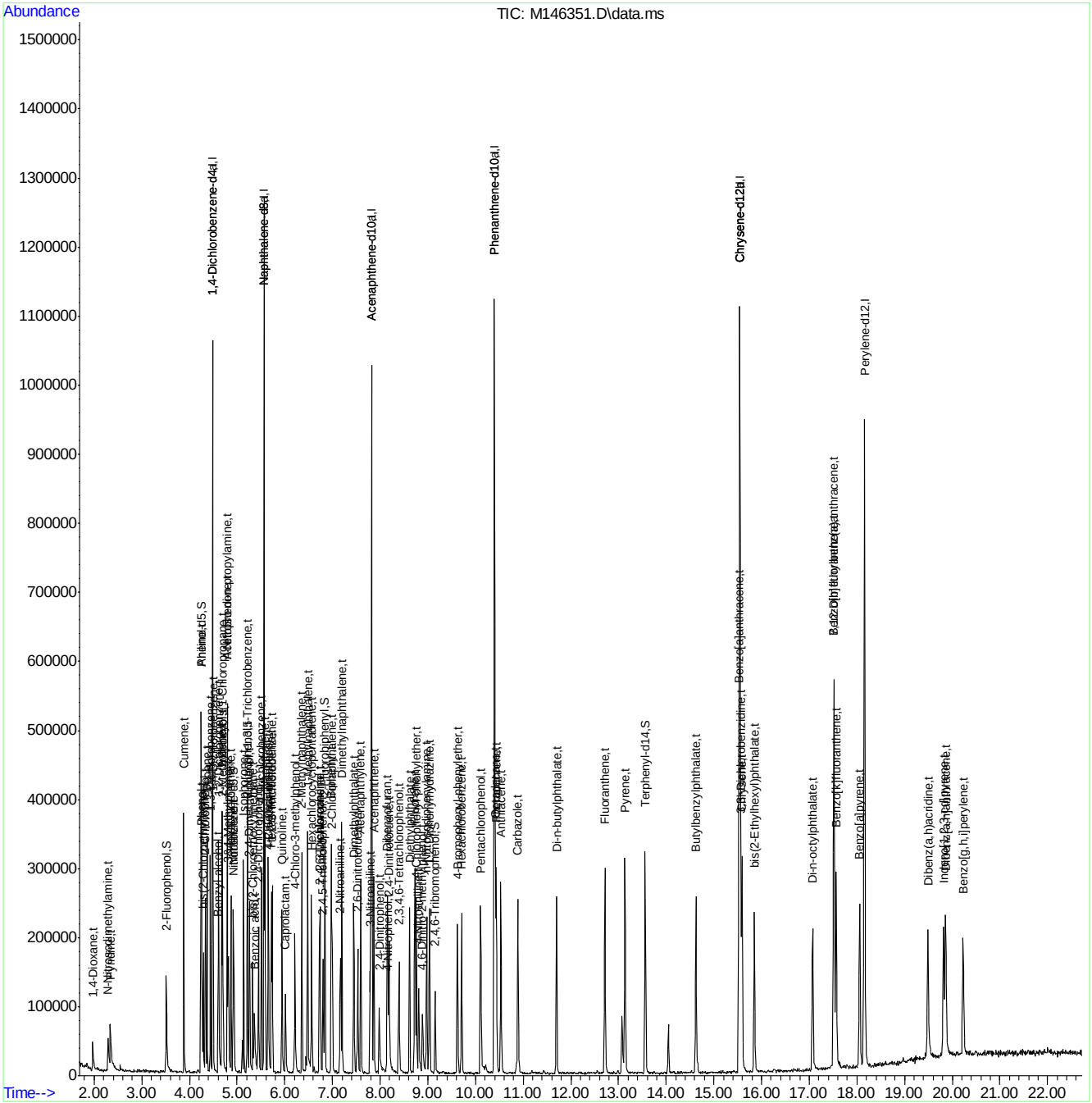
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.435	178	137029	10.17	ppm	98
78) Anthracene	10.531	178	141529	10.51	ppm	99
79) Carbazole	10.889	167	130872	9.54	ppm	100
80) Di-n-butylphthalate	11.701	149	162020	11.03	ppm	98
81) Fluoranthene	12.716	202	168361	11.21	ppm	99
82) Octadecane	10.419	57	57240	14.81	ppm	91
84) Pyrene	13.133	202	177605	9.35	ppm	96
86) Butylbenzylphthalate	14.623	149	73387	9.30	ppm	95
87) Benzo[a]anthracene	15.526	228	163222	10.41	ppm	96
88) 3,3'-Dichlorobenzidine	15.563	252	57303	10.53	ppm	95
89) Chrysene	15.590	228	151578	10.02	ppm	97
90) bis(2-Ethylhexyl)phtha...	15.852	149	91680	9.34	ppm	96
92) Di-n-octylphthalate	17.070	149	149435	9.37	ppm	98
93) Benzo[b]fluoranthene	17.518	252	182606	11.66	ppm	100
94) Benzo[k]fluoranthene	17.566	252	158391	10.70	ppm	95
95) Benzo[a]pyrene	18.058	252	149557	11.21	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.821	276	133745	10.50	ppm	97
97) Dibenz(a,h)acridine	19.490	279	121567	9.94	ppm	99
98) Dibenz[a,h]anthracene	19.858	278	143343	10.54	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.518	256	76967	12.40	ppm	94
100) Benzo[g,h,i]perylene	20.227	276	137341	10.29	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146351.D
Acq On : 24 May 2018 3:56 pm
Operator : seanb1
Sample : ic6221-10
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 24 19:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146352.D
Acq On : 24 May 2018 4:26 pm
Operator : seanb1
Sample : ic6221-5
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 24 19:47:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.483	152	130128	40.00	ppm		0.00
24) Naphthalene-d8	5.562	136	478737	40.00	ppm		0.00
47) Acenaphthene-d10	7.822	164	271989	40.00	ppm		0.00
69) Phenanthrene-d10	10.396	188	544706	40.00	ppm		0.00
83) Chrysene-d12	15.541	240	603338	40.00	ppm		-0.02
91) Perylene-d12	18.159	264	607646	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.483	152	130128	40.00	ppm		0.00
103) Acenaphthene-d10a	7.822	164	271989	40.00	ppm		0.00
106) Chrysene-d12a	15.541	240	603338	40.00	ppm		-0.02
109) Phenanthrene-d10a	10.396	188	544706	40.00	ppm		0.00
112) Naphthalene-d8a	5.562	136	478737	40.00	ppm		0.00
114) Chrysene-d12b	15.541	240	603338	40.00	ppm		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	3.516	112	20489	4.21	ppm		0.00
Spiked Amount 50.000			Recovery =	8.42%			
8) Phenol-d5	4.242	99	30029	5.18	ppm		0.00
Spiked Amount 50.000			Recovery =	10.36%			
25) Nitrobenzene-d5	4.915	82	31975	6.84	ppm		0.00
Spiked Amount 50.000			Recovery =	13.68%			
51) 2-Fluorobiphenyl	6.839	172	52072	4.93	ppm		0.00
Spiked Amount 50.000			Recovery =	9.86%			
73) 2,4,6-Tribromophenol	9.152	330	8309	5.44	ppm		-0.01
Spiked Amount 50.000			Recovery =	10.88%			
85) Terphenyl-d14	13.559	244	67356	4.68	ppm		-0.01
Spiked Amount 50.000			Recovery =	9.36%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.967	88	10951	4.73	ppm		79
3) Pyridine	2.346	79	24961	4.34	ppm		92
4) N-Nitrosodimethylamine	2.292	42	14903	7.97	ppm		97
6) Indene	4.675	116	37677	5.74	ppm		94
7) Cumene	3.884	105	71225	6.34	ppm		100
9) Phenol	4.253	94	36129	5.63	ppm		76
10) Aniline	4.242	93	38840	5.79	ppm		94
11) bis(2-Chloroethyl)ether	4.290	93	24101	5.78	ppm		99
12) 2-Chlorophenol	4.338	128	22112	4.81	ppm		96
13) Decane	4.365	43	22743	7.60	ppm		86
14) 1,3-Dichlorobenzene	4.440	146	25183	4.65	ppm		95
15) 1,4-Dichlorobenzene	4.493	146	24114	4.73	ppm		95
16) Benzyl alcohol	4.606	108	14106	5.00	ppm	#	76
17) 1,2-Dichlorobenzene	4.611	146	24654	5.18	ppm		96
18) Acetophenone	4.798	105	33958	6.29	ppm		98
19) 2-Methylphenol	4.696	108	20647	5.48	ppm		94
20) 2,2'-oxybis(1-Chloropr...	4.691	121	7114	6.03	ppm		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146352.D
Acq On : 24 May 2018 4:26 pm
Operator : seanb1
Sample : ic6221-5
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 24 19:47:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.819	108	21600	5.75	ppm	#	70
22) n-Nitroso-di-n-propyla...	4.798	70	21018	7.93	ppm		95
23) Hexachloroethane	4.873	201	9801	5.75	ppm		98
26) Nitrobenzene	4.931	77	31357	7.24	ppm		94
27) Quinoline	5.941	129	44309	5.00	ppm		92
28) Isophorone	5.134	82	53372	6.61	ppm		97
29) 2-Nitrophenol	5.209	139	12173	5.50	ppm		90
30) 2,4-Dimethylphenol	5.263	107	21021	5.51	ppm		91
31) Benzoic acid	5.353	105	14187	7.58	ppm		97
32) bis(2-Chloroethoxy)met...	5.332	93	26552	5.90	ppm		94
33) 2,4-Dichlorophenol	5.444	162	16819	4.92	ppm		97
34) 2,6-Dichlorophenol	5.663	162	15926	4.73	ppm		86
35) 1,3,5-Trichlorobenzene	5.215	180	23458	5.29	ppm		96
36) 1,2,4-Trichlorobenzene	5.508	180	20918	4.65	ppm		93
37) 1,2,3-Trichlorobenzene	5.738	180	21109	5.26	ppm		99
38) Naphthalene	5.583	128	63044	5.01	ppm		96
39) 4-Chloroaniline	5.653	127	25515	4.76	ppm		95
40) 2,3-Dichloroaniline	6.726	161	22871	4.87	ppm		94
41) Caprolactam	6.011	55	9697	6.70	ppm		93
42) Hexachlorobutadiene	5.717	225	14044	6.28	ppm		98
43) 4-Chloro-3-methylphenol	6.214	107	22422	5.95	ppm		89
44) 2-Methylnaphthalene	6.358	141	38919	5.16	ppm		94
45) 1-Methylnaphthalene	6.475	142	47554	5.22	ppm		97
46) Dimethylnaphthalene	7.197	156	40128	5.02	ppm		96
48) Hexachlorocyclopentadiene	6.561	237	15267	7.48	ppm		94
49) 2,4,6-Trichlorophenol	6.742	196	14178	5.66	ppm		81
50) 2,4,5-Trichlorophenol	6.801	196	15108	5.45	ppm		83
52) 2-Chloronaphthalene	6.994	162	41501	4.88	ppm		95
53) Biphenyl	6.972	154	55446	5.05	ppm		95
54) 2-Nitroaniline	7.164	65	16439	8.64	ppm		89
55) Dimethylphthalate	7.448	163	49949	5.15	ppm		97
56) Acenaphthylene	7.592	152	65279	4.92	ppm		99
57) 2,6-Dinitrotoluene	7.533	165	10098	5.62	ppm		92
58) 3-Nitroaniline	7.789	138	12821	5.73	ppm		83
59) Acenaphthene	7.864	153	41642	4.99	ppm		91
60) 2,4-Dinitrophenol	7.982	184	6961	13.62	ppm	#	67
61) 4-Nitrophenol	8.179	109	4620	4.63	ppm	#	37
62) Dibenzofuran	8.153	168	63824	5.23	ppm		92
63) 2,4-Dinitrotoluene	8.190	165	14880	6.08	ppm		94
64) 2,3,4,6-Tetrachlorophenol	8.393	232	12091	5.54	ppm		87
65) Diethylphthalate	8.618	149	52514	5.54	ppm		95
66) Fluorene	8.724	166	49788	5.10	ppm		97
67) 4-Chlorophenyl-phenyle...	8.756	204	26066	5.67	ppm		86
68) 4-Nitroaniline	8.810	138	12034	5.64	ppm		94
70) 4,6-Dinitro-2-methylph...	8.895	198	6076	6.25	ppm		90
71) n-Nitrosodiphenylamine	8.975	169	35602	4.91	ppm		94
72) 1,2-Diphenylhydrazine	9.034	77	67377	6.92	ppm		100
74) 4-Bromophenyl-phenylether	9.622	248	16602	5.50	ppm		96
75) Hexachlorobenzene	9.707	284	19848	5.23	ppm		95
76) Pentachlorophenol	10.103	266	16657	8.15	ppm		82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146352.D
Acq On : 24 May 2018 4:26 pm
Operator : seanb1
Sample : ic6221-5
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 24 19:47:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration

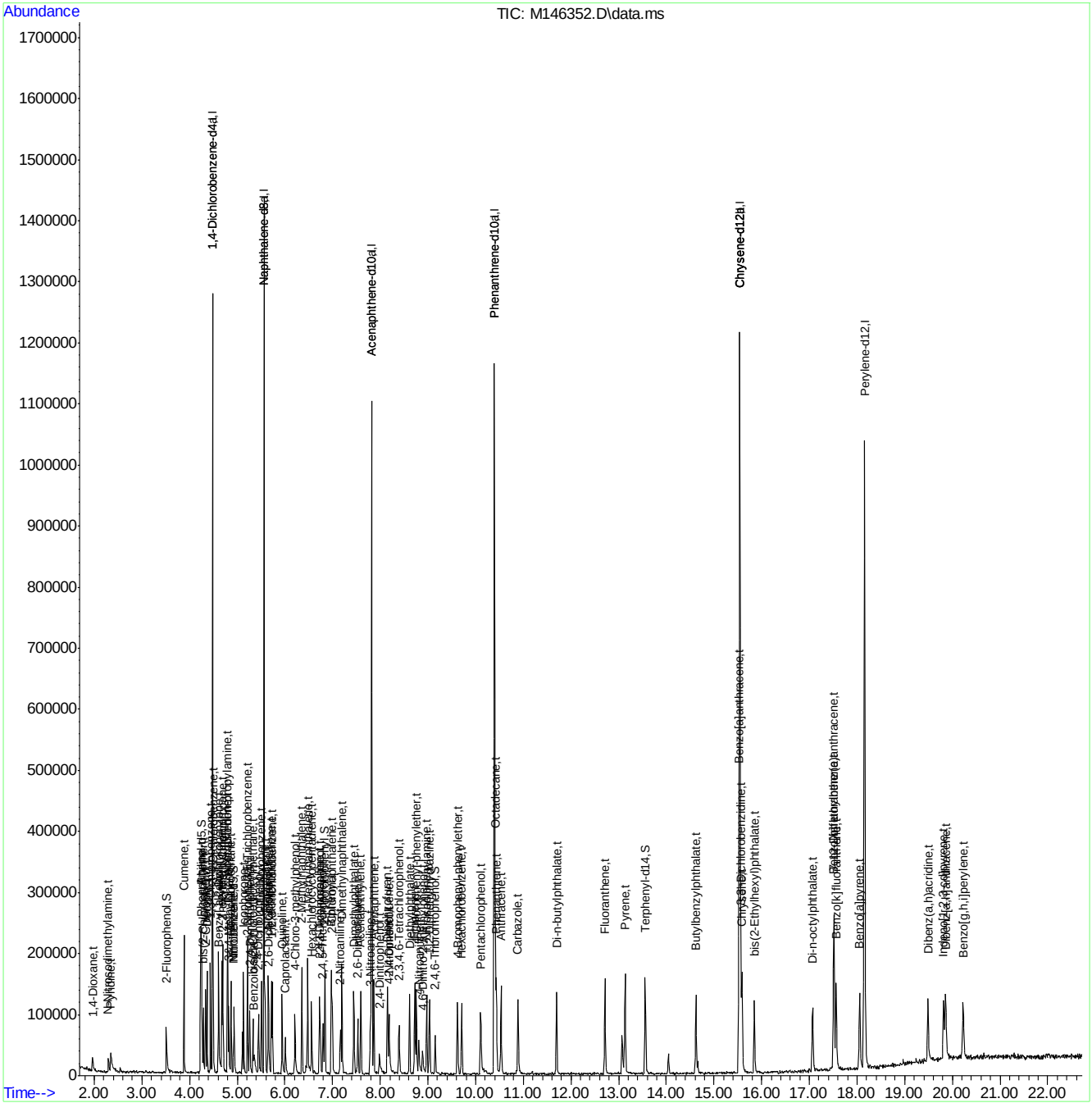
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.439	178	72386	4.86	ppm	99
78) Anthracene	10.535	178	74769	5.02	ppm	96
79) Carbazole	10.888	167	68324	4.50	ppm	98
80) Di-n-butylphthalate	11.700	149	85768	5.28	ppm	98
81) Fluoranthene	12.715	202	89725	5.40	ppm	94
82) Octadecane	10.412	57	28913	6.76	ppm	96
84) Pyrene	13.137	202	92710	4.33	ppm	96
86) Butylbenzylphthalate	14.622	149	38870	4.37	ppm	99
87) Benzo[a]anthracene	15.525	228	82489	4.67	ppm	96
88) 3,3'-Dichlorobenzidine	15.562	252	28643	5.09	ppm	98
89) Chrysene	15.589	228	83407	4.90	ppm	98
90) bis(2-Ethylhexyl)phtha...	15.845	149	44825	4.63	ppm	92
92) Di-n-octylphthalate	17.069	149	76841	5.12	ppm	98
93) Benzo[b]fluoranthene	17.512	252	89881	5.15	ppm	99
94) Benzo[k]fluoranthene	17.560	252	91681	5.55	ppm	97
95) Benzo[a]pyrene	18.057	252	75548	5.08	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.815	276	67618	4.76	ppm	92
97) Dibenz(a,h)acridine	19.489	279	59268	4.35	ppm	90
98) Dibenz[a,h]anthracene	19.857	278	74732	4.93	ppm	94
99) 7,12-Dimethylbenz(a)an...	17.518	256	30431	4.39	ppm	94
100) Benzo[g,h,i]perylene	20.226	276	69690	4.68	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146352.D
Acq On : 24 May 2018 4:26 pm
Operator : seanb1
Sample : ic6221-5
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 24 19:47:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:46:01 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146353.D
Acq On : 24 May 2018 4:56 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 24 19:57:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

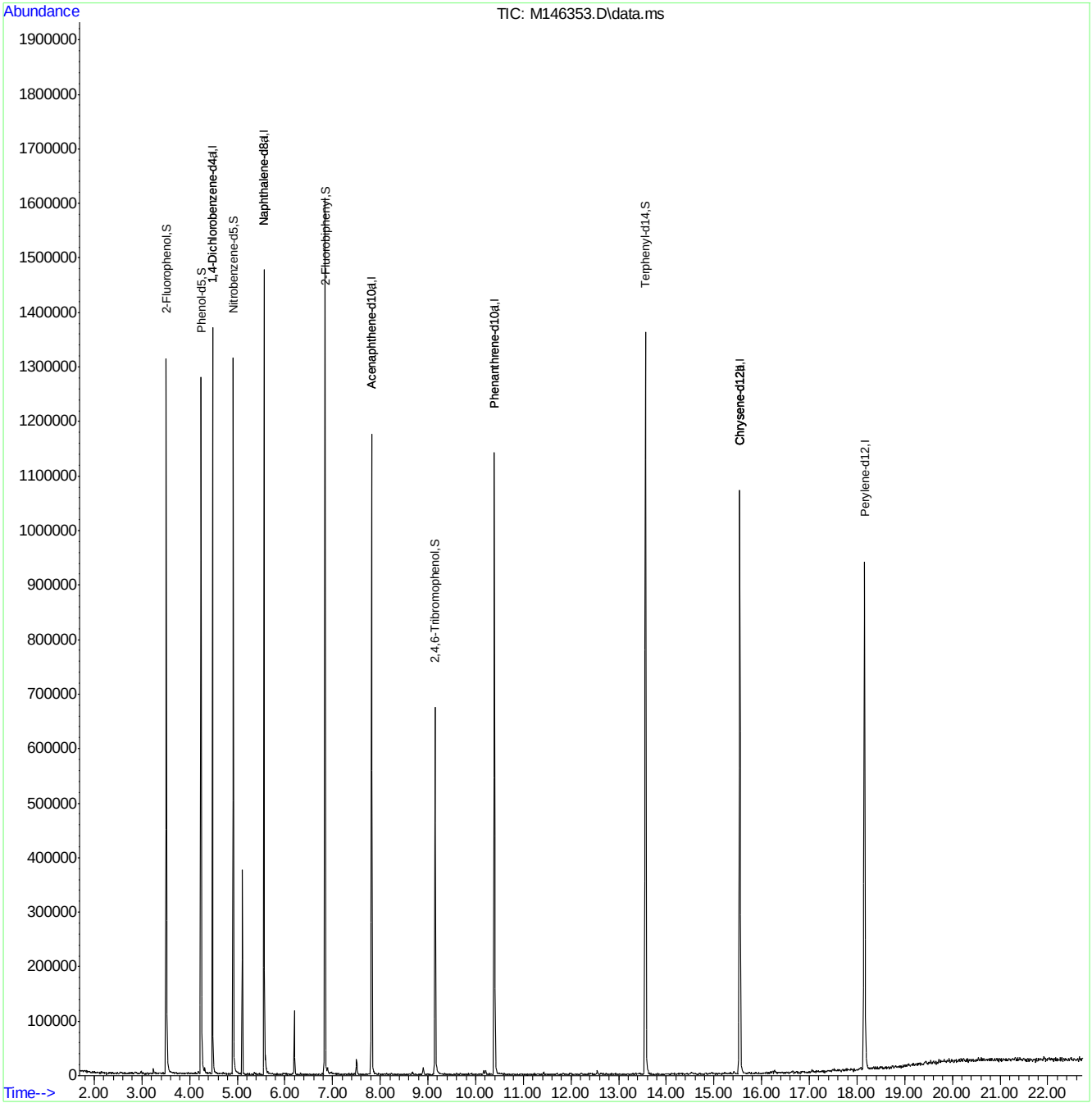
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.483	152	132930	40.00	ppm	0.00
24) Naphthalene-d8	5.562	136	503167	40.00	ppm	0.00
47) Acenaphthene-d10	7.816	164	289155	40.00	ppm	0.00
69) Phenanthrene-d10	10.397	188	524527	40.00	ppm	0.00
83) Chrysene-d12	15.541	240	552677	40.00	ppm	-0.02
91) Perylene-d12	18.159	264	538190	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.483	152	132930	40.00	ppm	0.00
103) Acenaphthene-d10a	7.816	164	289155	40.00	ppm	0.00
106) Chrysene-d12a	15.541	240	552677	40.00	ppm	-0.02
109) Phenanthrene-d10a	10.397	188	524527	40.00	ppm	0.00
112) Naphthalene-d8a	5.562	136	503167	40.00	ppm	0.00
114) Chrysene-d12b	15.541	240	552677	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.511	112	251618	52.09	ppm	0.00
Spiked Amount 50.000			Recovery =	104.18%		
8) Phenol-d5	4.243	99	302664	47.73	ppm	0.00
Spiked Amount 50.000			Recovery =	95.46%		
25) Nitrobenzene-d5	4.916	82	334504	51.90	ppm	0.00
Spiked Amount 50.000			Recovery =	103.80%		
51) 2-Fluorobiphenyl	6.844	172	503541	46.98	ppm	0.00
Spiked Amount 50.000			Recovery =	93.96%		
73) 2,4,6-Tribromophenol	9.152	330	92281	58.08	ppm	-0.01
Spiked Amount 50.000			Recovery =	116.16%		
85) Terphenyl-d14	13.565	244	661757	52.49	ppm	0.00
Spiked Amount 50.000			Recovery =	104.98%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146353.D
Acq On : 24 May 2018 4:56 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 24 19:57:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146354.D
Acq On : 24 May 2018 5:26 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 19:58:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.479	152	122631	40.00	ppm	0.00
24) Naphthalene-d8	5.564	136	415315	40.00	ppm	0.00
47) Acenaphthene-d10	7.818	164	227339	40.00	ppm	0.00
69) Phenanthrene-d10	10.399	188	440850	40.00	ppm	0.00
83) Chrysene-d12	15.543	240	473137	40.00	ppm	-0.02
91) Perylene-d12	18.161	264	484078	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.479	152	122631	40.00	ppm	0.00
103) Acenaphthene-d10a	7.818	164	227339	40.00	ppm	0.00
106) Chrysene-d12a	15.543	240	473137	40.00	ppm	-0.02
109) Phenanthrene-d10a	10.399	188	440850	40.00	ppm	0.00
112) Naphthalene-d8a	5.564	136	415315	40.00	ppm	0.00
114) Chrysene-d12b	15.543	240	473137	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Phenol	4.250	94	311325	45.17	ppm	95
12) 2-Chlorophenol	4.335	128	223447	51.85	ppm	93
19) 2-Methylphenol	4.693	108	199817	51.44	ppm	98
21) 3&4-Methylphenol	4.816	108	212349	52.12	ppm	100
29) 2-Nitrophenol	5.211	139	109651	52.59	ppm	89
30) 2,4-Dimethylphenol	5.259	107	223747	55.59	ppm	100
31) Benzoic acid	5.404	105	173084	51.88	ppm	95
33) 2,4-Dichlorophenol	5.441	162	151196	50.30	ppm	98
34) 2,6-Dichlorophenol	5.660	162	155740	55.31	ppm	95
43) 4-Chloro-3-methylphenol	6.210	107	206219	51.37	ppm	96
49) 2,4,6-Trichlorophenol	6.739	196	129983	57.07	ppm	98
50) 2,4,5-Trichlorophenol	6.793	196	129347	54.22	ppm	97
60) 2,4-Dinitrophenol	7.979	184	48081	47.34	ppm	96
61) 4-Nitrophenol	8.160	109	83774	49.74	ppm	84
64) 2,3,4,6-Tetrachlorophenol	8.390	232	120005	57.30	ppm	95
70) 4,6-Dinitro-2-methylph...	8.887	198	84164	53.86	ppm	99
76) Pentachlorophenol	10.105	266	110051	62.02	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146354.D
Acq On : 24 May 2018 5:26 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 19:58:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

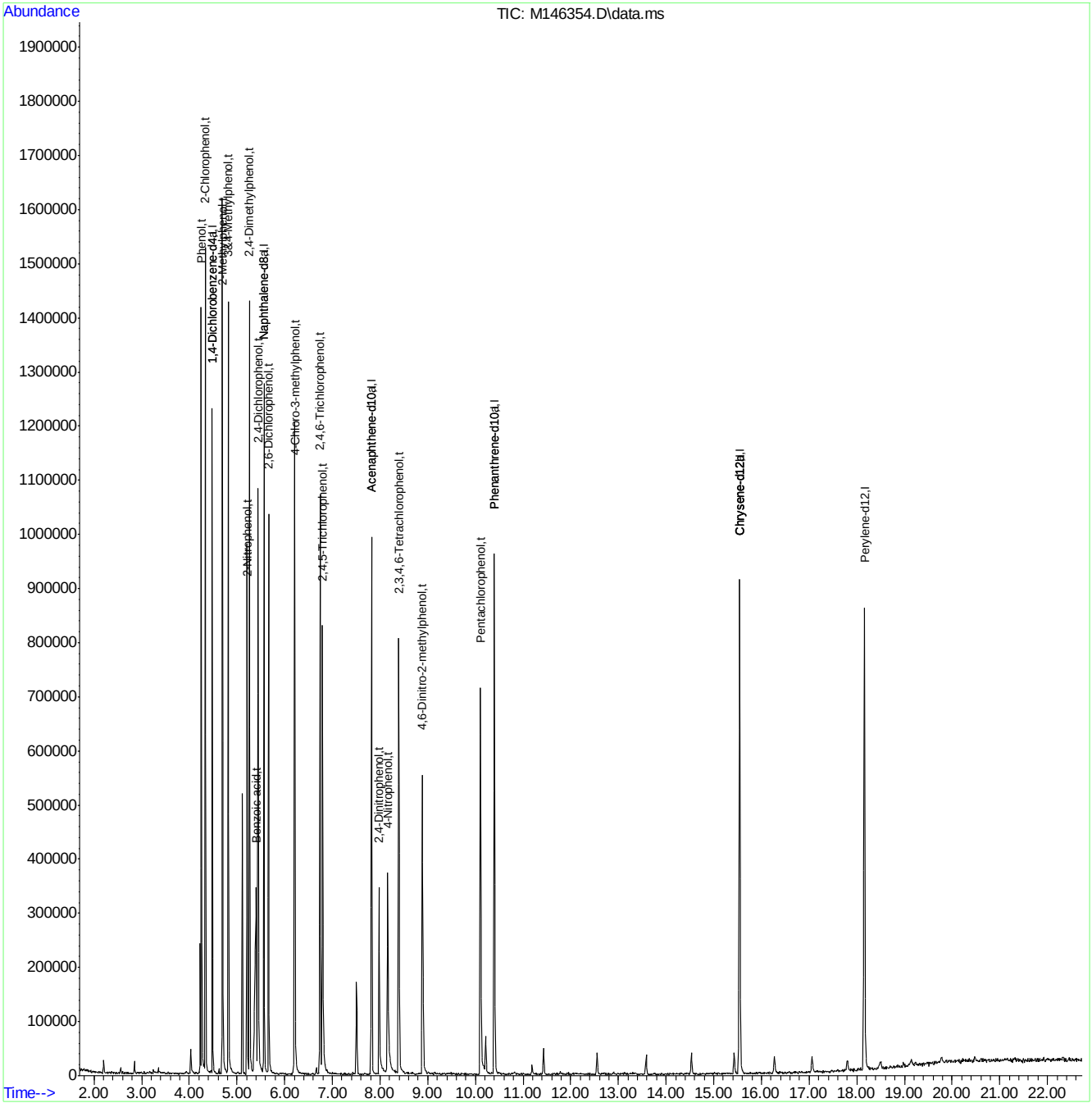
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146354.D
Acq On : 24 May 2018 5:26 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 24 19:58:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\EM6221\
Data File : M146355.D
Acq On : 24 May 2018 5:56 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 25 18:09:50 2018
Quant Method : D:\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.482	152	157802	40.00	ppm		0.00
24) Naphthalene-d8	5.566	136	537751	40.00	ppm		0.00
47) Acenaphthene-d10	7.820	164	261459	40.00	ppm		0.00
69) Phenanthrene-d10	10.401	188	512047	40.00	ppm		0.00
83) Chrysene-d12	15.545	240	441193	40.00	ppm		-0.01
91) Perylene-d12	18.157	264	428011	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.482	152	157802	40.00	ppm		0.00
103) Acenaphthene-d10a	7.820	164	261459	40.00	ppm		0.00
106) Chrysene-d12a	15.545	240	441193	40.00	ppm		-0.01
109) Phenanthrene-d10a	10.401	188	512047	40.00	ppm		0.00
112) Naphthalene-d8a	5.566	136	537751	40.00	ppm		0.00
114) Chrysene-d12b	15.545	240	441193	40.00	ppm		-0.01
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
4) N-Nitrosodimethylamine	2.291	42	149582	38.24	ppm		90
11) bis(2-Chloroethyl)ether	4.289	93	295348	55.33	ppm		94
14) 1,3-Dichlorobenzene	4.439	146	319249	51.73	ppm		98
15) 1,4-Dichlorobenzene	4.492	146	289655	47.81	ppm		99
17) 1,2-Dichlorobenzene	4.610	146	279028	47.70	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.695	121	80059	50.68	ppm	#	60
22) n-Nitroso-di-n-propyla...	4.797	70	215117	43.09	ppm		90
23) Hexachloroethane	4.872	201	108677	46.45	ppm		87
26) Nitrobenzene	4.930	77	316621	45.39	ppm		98
28) Isophorone	5.133	82	555956	48.29	ppm		98
32) bis(2-Chloroethoxy)met...	5.331	93	296998	53.22	ppm		97
36) 1,2,4-Trichlorobenzene	5.513	180	241661	50.68	ppm		98
38) Naphthalene	5.587	128	687941	48.63	ppm		100
42) Hexachlorobutadiene	5.716	225	149212	50.49	ppm		99
48) Hexachlorocyclopentadiene	6.565	237	124993	54.12	ppm		96
52) 2-Chloronaphthalene	6.998	162	458132	58.94	ppm		99
55) Dimethylphthalate	7.452	163	536196	55.86	ppm		99

Quantitation Report (QT Reviewed)

Data Path : D:\EM6221\
Data File : M146355.D
Acq On : 24 May 2018 5:56 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 25 18:09:50 2018
Quant Method : D:\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

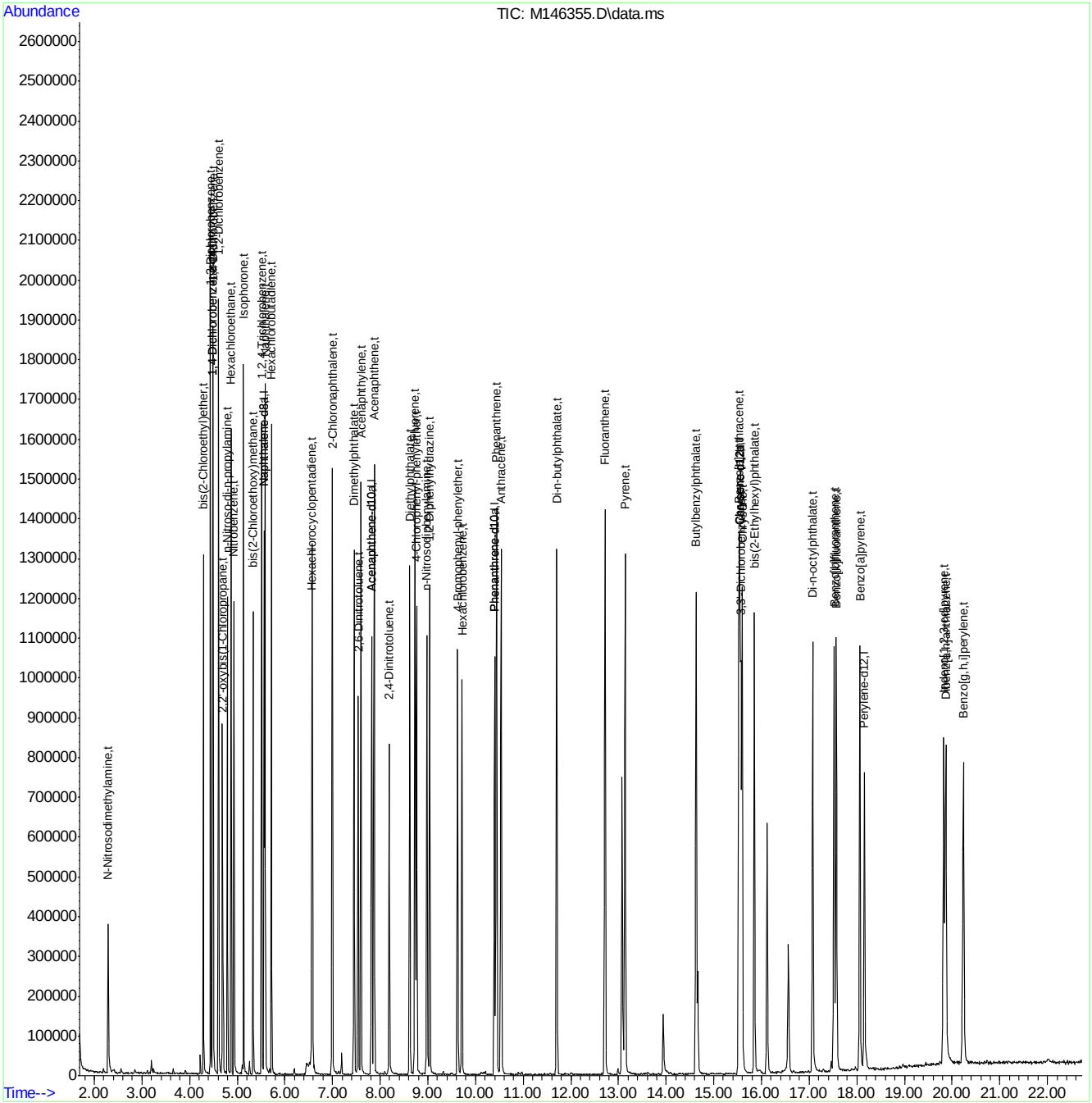
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Acenaphthylene	7.596	152	688144	54.48	ppm	99
57) 2,6-Dinitrotoluene	7.537	165	107710	50.50	ppm	93
59) Acenaphthene	7.874	153	438152	52.84	ppm	99
63) 2,4-Dinitrotoluene	8.189	165	144800	49.51	ppm	96
65) Diethylphthalate	8.622	149	552081	54.84	ppm	99
66) Fluorene	8.729	166	490462	52.01	ppm	100
67) 4-Chlorophenyl-phenyle...	8.761	204	220646	46.70	ppm	89
71) n-Nitrosodiphenylamine	8.980	169	322959	49.71	ppm	97
72) 1,2-Diphenylhydrazine	9.038	77	606617	54.44	ppm	99
74) 4-Bromophenyl-phenylether	9.626	248	154498	51.06	ppm	93
75) Hexachlorobenzene	9.717	284	159336	44.68	ppm	97
77) Phenanthrene	10.443	178	714261	52.77	ppm	99
78) Anthracene	10.540	178	695484	52.24	ppm	100
80) Di-n-butylphthalate	11.704	149	894277	57.19	ppm	99
81) Fluoranthene	12.719	202	800230	50.03	ppm	98
84) Pyrene	13.141	202	752814	55.55	ppm	99
86) Butylbenzylphthalate	14.626	149	384851	63.91	ppm	99
87) Benzo[a]anthracene	15.529	228	711129	55.47	ppm	99
88) 3,3'-Dichlorobenzidine	15.567	252	268774	60.12	ppm	97
89) Chrysene	15.599	228	599938	49.98	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.850	149	466319	61.75	ppm	96
92) Di-n-octylphthalate	17.073	149	807594	63.73	ppm	99
93) Benzo[b]fluoranthene	17.527	252	671521	50.29	ppm	96
94) Benzo[k]fluoranthene	17.575	252	642699	52.07	ppm	99
95) Benzo[a]pyrene	18.067	252	628852	56.58	ppm	99
96) Indeno[1,2,3-cd]pyrene	19.824	276	561930	55.45	ppm	95
98) Dibenz[a,h]anthracene	19.867	278	548817	52.34	ppm	94
100) Benzo[g,h,i]perylene	20.236	276	583604	57.02	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : D:\EM6221\
Data File : M146355.D
Acq On : 24 May 2018 5:56 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 25 18:09:50 2018
Quant Method : D:\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146356.D
Acq On : 24 May 2018 6:26 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 24 20:00:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

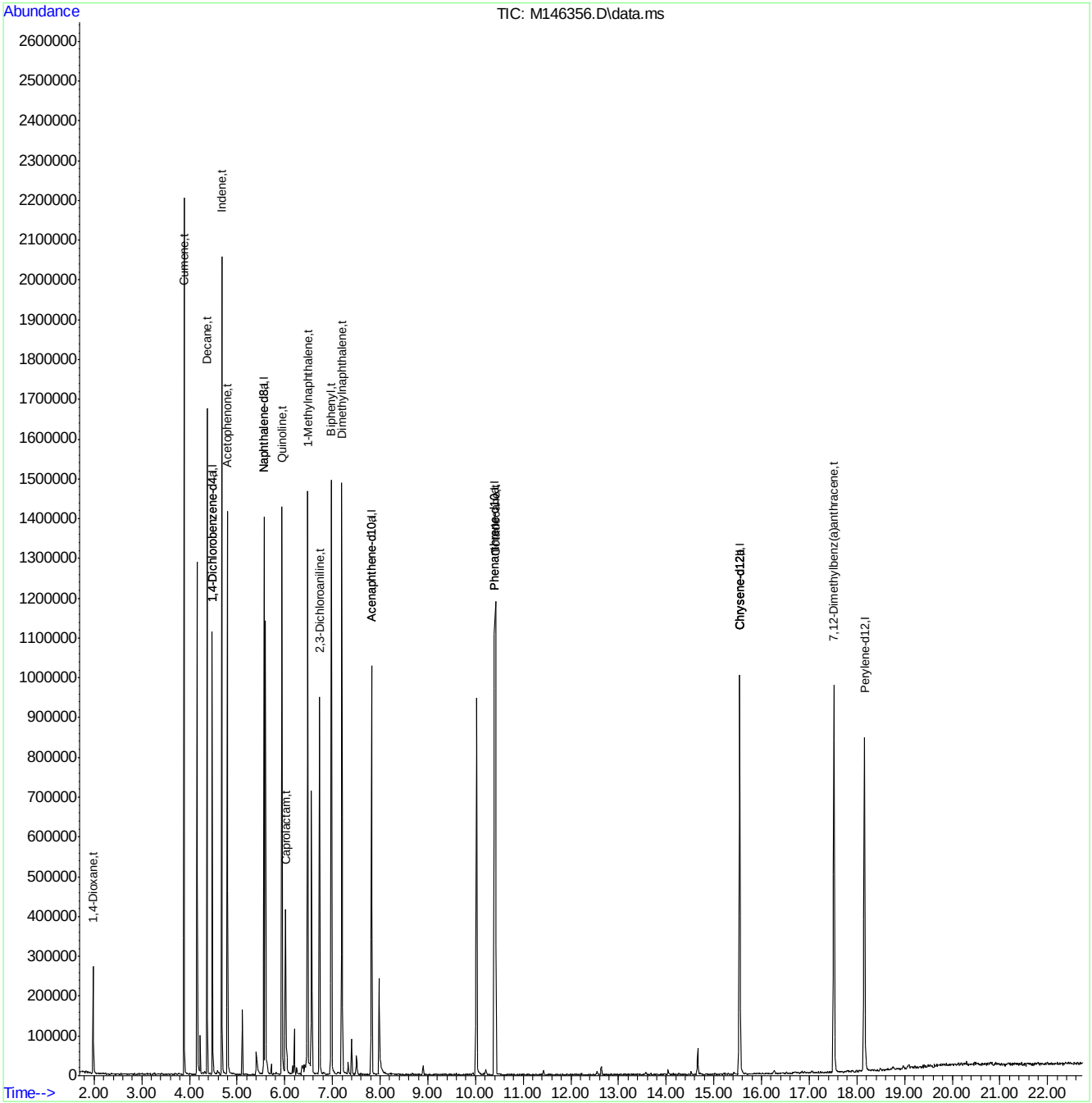
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	121229	40.00	ppm	0.00
24) Naphthalene-d8	5.563	136	480551	40.00	ppm	0.00
47) Acenaphthene-d10	7.818	164	233838	40.00	ppm	0.00
69) Phenanthrene-d10	10.398	188	478209	40.00	ppm	0.00
83) Chrysene-d12	15.542	240	502768	40.00	ppm	-0.02
91) Perylene-d12	18.160	264	473951	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.484	152	121229	40.00	ppm	0.00
103) Acenaphthene-d10a	7.818	164	233838	40.00	ppm	0.00
106) Chrysene-d12a	15.542	240	502768	40.00	ppm	-0.02
109) Phenanthrene-d10a	10.398	188	478209	40.00	ppm	0.00
112) Naphthalene-d8a	5.563	136	480551	40.00	ppm	0.00
114) Chrysene-d12b	15.542	240	502768	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.979	88	102919	49.85	ppm	96
6) Indene	4.676	116	394221	55.03	ppm	100
7) Cumene	3.886	105	631691	49.24	ppm	99
13) Decane	4.367	43	190235	46.41	ppm	96
18) Acetophenone	4.794	105	316028	47.47	ppm	94
27) Quinoline	5.937	129	424817	47.71	ppm	98
40) 2,3-Dichloroaniline	6.728	161	178891	37.94	ppm	95
41) Caprolactam	6.017	55	79886	42.56	ppm	93
45) 1-Methylnaphthalene	6.477	142	383877	41.38	ppm	99
46) Dimethylnaphthalene	7.198	156	349726	42.84	ppm	98
53) Biphenyl	6.974	154	488604	50.02	ppm	98
82) Octadecane	10.419	57	254330	51.04	ppm	96
99) 7,12-Dimethylbenz(a)an...	17.519	256	272698	41.08	ppm	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146356.D
Acq On : 24 May 2018 6:26 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 24 20:00:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146357.D
Acq On : 24 May 2018 6:56 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 24 20:01:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

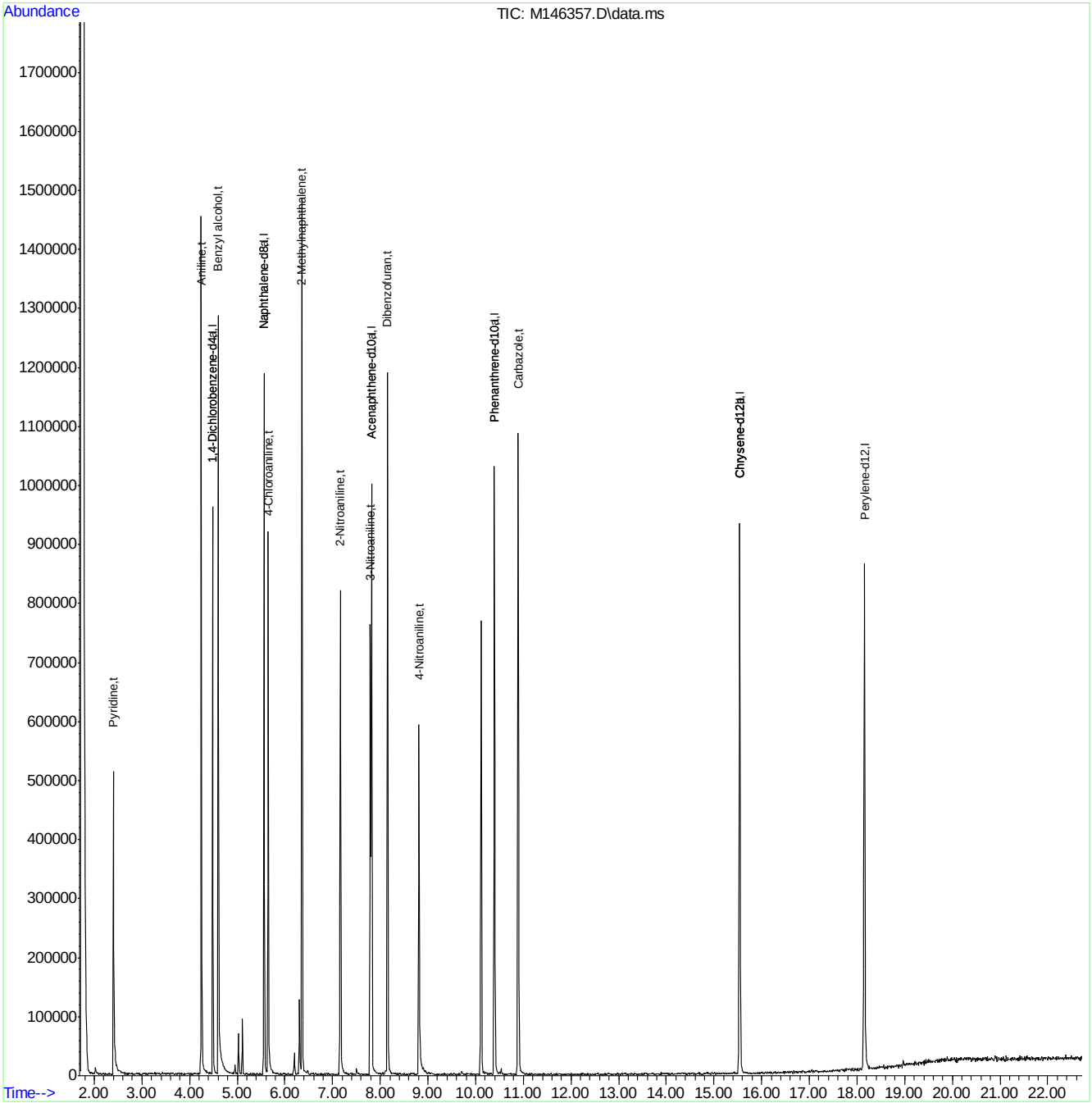
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.487	152	109868	40.00	ppm	0.00
24) Naphthalene-d8	5.561	136	451374	40.00	ppm	0.00
47) Acenaphthene-d10	7.821	164	230084	40.00	ppm	0.00
69) Phenanthrene-d10	10.396	188	464374	40.00	ppm	0.00
83) Chrysene-d12	15.540	240	487137	40.00	ppm	-0.02
91) Perylene-d12	18.158	264	470782	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.487	152	109868	40.00	ppm	0.00
103) Acenaphthene-d10a	7.821	164	230084	40.00	ppm	0.00
106) Chrysene-d12a	15.540	240	487137	40.00	ppm	-0.02
109) Phenanthrene-d10a	10.396	188	464374	40.00	ppm	0.00
112) Naphthalene-d8a	5.561	136	451374	40.00	ppm	0.00
114) Chrysene-d12b	15.540	240	487137	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
3) Pyridine	2.399	79	227325	48.36	ppm	97
10) Aniline	4.247	93	350751	54.26	ppm	94
16) Benzyl alcohol	4.600	108	126770	49.77	ppm	92
39) 4-Chloroaniline	5.652	127	224973	45.19	ppm	96
44) 2-Methylnaphthalene	6.357	141	329248	44.67	ppm	99
54) 2-Nitroaniline	7.164	65	158168	57.55	ppm	95
58) 3-Nitroaniline	7.794	138	108043	51.60	ppm	98
62) Dibenzofuran	8.152	168	514392	49.85	ppm	99
68) 4-Nitroaniline	8.815	138	107661	54.58	ppm	97
79) Carbazole	10.893	167	579956	51.36	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146357.D
Acq On : 24 May 2018 6:56 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 24 20:01:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146358.D
Acq On : 24 May 2018 7:26 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 24 20:02:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration

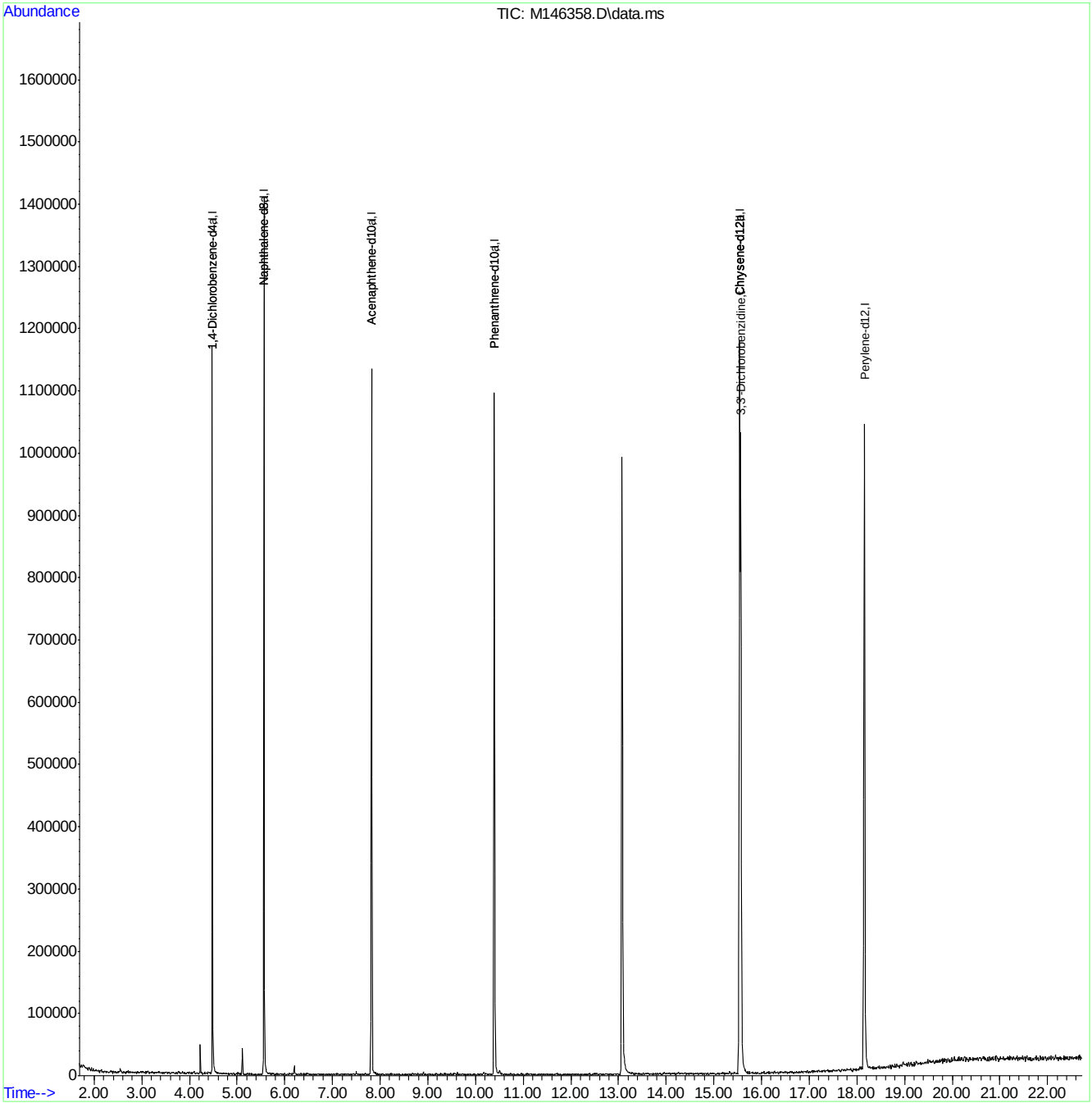
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	127515	40.00	ppm	0.00
24) Naphthalene-d8	5.563	136	486763	40.00	ppm	0.00
47) Acenaphthene-d10	7.818	164	269448	40.00	ppm	0.00
69) Phenanthrene-d10	10.398	188	527524	40.00	ppm	0.00
83) Chrysene-d12	15.542	240	566607	40.00	ppm	-0.02
91) Perylene-d12	18.160	264	581070	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.484	152	127515	40.00	ppm	0.00
103) Acenaphthene-d10a	7.818	164	269448	40.00	ppm	0.00
106) Chrysene-d12a	15.542	240	566607	40.00	ppm	-0.02
109) Phenanthrene-d10a	10.398	188	527524	40.00	ppm	0.00
112) Naphthalene-d8a	5.563	136	486763	40.00	ppm	0.00
114) Chrysene-d12b	15.542	240	566607	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	15.569	252	294633	51.32	ppm	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6221\
Data File : M146358.D
Acq On : 24 May 2018 7:26 pm
Operator : seanb1
Sample : icv6221-50
Misc : op10492,em6221,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 24 20:02:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 24 19:56:16 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146632.D
Acq On : 5 Jun 2018 8:56 am
Operator : angelar
Sample : cc6221-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 05 13:10:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.411	152	93129	40.00	ppm		-0.07
24) Naphthalene-d8	5.480	136	358340	40.00	ppm		-0.08
47) Acenaphthene-d10	7.701	164	213735	40.00	ppm		-0.12
69) Phenanthrene-d10	10.270	188	500068	40.00	ppm		-0.13
83) Chrysene-d12	15.419	240	498755	40.00	ppm		-0.14
91) Perylene-d12	18.036	264	363825	40.00	ppm		-0.13
101) 1,4-Dichlorobenzene-d4a	4.411	152	93129	40.00	ppm		-0.07
103) Acenaphthene-d10a	7.701	164	213735	40.00	ppm		-0.12
106) Chrysene-d12a	15.419	240	498755	40.00	ppm		-0.14
109) Phenanthrene-d10a	10.270	188	500068	40.00	ppm		-0.13
112) Naphthalene-d8a	5.480	136	358340	40.00	ppm		-0.08
114) Chrysene-d12b	15.419	240	498755	40.00	ppm		-0.14
System Monitoring Compounds							
5) 2-Fluorophenol	3.450	112	184145	54.42	ppm		-0.06
Spiked Amount 50.000			Recovery = 108.84%				
8) Phenol-d5	4.192	99	236765	53.29	ppm		-0.02
Spiked Amount 50.000			Recovery = 106.58%				
25) Nitrobenzene-d5	4.844	82	263834	57.48	ppm		-0.08
Spiked Amount 50.000			Recovery = 114.96%				
51) 2-Fluorobiphenyl	6.740	172	424357	53.57	ppm		-0.11
Spiked Amount 50.000			Recovery = 107.14%				
73) 2,4,6-Tribromophenol	9.037	330	85765	56.62	ppm		-0.13
Spiked Amount 50.000			Recovery = 113.24%				
85) Terphenyl-d14	13.438	244	635017	55.81	ppm		-0.13
Spiked Amount 50.000			Recovery = 111.62%				
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
110) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.864	88	68117	42.95	ppm		74
3) Pyridine	2.211	79	193321	48.52	ppm		84
4) N-Nitrosodimethylamine	2.179	42	102600	44.44	ppm		90
6) Indene	4.604	116	284633	51.72	ppm		99
7) Cumene	3.808	105	532008	53.98	ppm		98
9) Phenol	4.203	94	246025	47.00	ppm		91
10) Aniline	4.176	93	292961	53.47	ppm		65
11) bis(2-Chloroethyl)ether	4.219	93	162808	51.68	ppm		96
12) 2-Chlorophenol	4.272	128	169450	51.77	ppm		98
13) Decane	4.299	43	104354	33.14	ppm		76
14) 1,3-Dichlorobenzene	4.369	146	190253	52.24	ppm		95
15) 1,4-Dichlorobenzene	4.427	146	192916	53.96	ppm		98
16) Benzyl alcohol	4.534	108	112759	52.22	ppm		90
17) 1,2-Dichlorobenzene	4.539	146	188791	54.69	ppm		99
18) Acetophenone	4.721	105	286161	55.95	ppm		99
19) 2-Methylphenol	4.641	108	157361	53.35	ppm		86
20) 2,2'-oxybis(1-Chloropr...	4.625	121	46373	49.74	ppm	#	42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146632.D
Acq On : 5 Jun 2018 8:56 am
Operator : angelar
Sample : cc6221-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 05 13:10:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.758	108	166650	53.86	ppm		89
22) n-Nitroso-di-n-propyla...	4.732	70	172041	58.39	ppm		80
23) Hexachloroethane	4.796	201	76679	55.53	ppm		93
26) Nitrobenzene	4.860	77	249368	53.65	ppm		96
27) Quinoline	5.859	129	367228	55.31	ppm		96
28) Isophorone	5.063	82	447112	58.29	ppm		97
29) 2-Nitrophenol	5.132	139	103747	57.67	ppm		85
30) 2,4-Dimethylphenol	5.191	107	220307	63.44	ppm		93
31) Benzoic acid	5.346	105	154114	53.54	ppm		96
32) bis(2-Chloroethoxy)met...	5.250	93	190734	51.29	ppm		97
33) 2,4-Dichlorophenol	5.373	162	154197	59.45	ppm		95
34) 2,6-Dichlorophenol	5.576	162	145717	59.98	ppm		95
35) 1,3,5-Trichlorobenzene	5.138	180	182262	54.87	ppm		97
36) 1,2,4-Trichlorobenzene	5.426	180	170748	53.74	ppm		98
37) 1,2,3-Trichlorobenzene	5.650	180	166408	53.91	ppm		95
38) Naphthalene	5.501	128	485330	51.48	ppm		99
39) 4-Chloroaniline	5.570	127	212313	53.72	ppm		99
40) 2,3-Dichloroaniline	6.628	161	206174	58.64	ppm		98
41) Caprolactam	5.960	55	62434	44.60	ppm		81
42) Hexachlorobutadiene	5.629	225	114460	58.13	ppm		95
43) 4-Chloro-3-methylphenol	6.142	107	219984	63.51	ppm		94
44) 2-Methylnaphthalene	6.259	141	309932	52.96	ppm		96
45) 1-Methylnaphthalene	6.377	142	382553	55.30	ppm		95
46) Dimethylnaphthalene	7.093	156	343868	56.49	ppm		98
48) Hexachlorocyclopentadiene	6.462	237	206540	104.83	ppm		95
49) 2,4,6-Trichlorophenol	6.649	196	125913	58.80	ppm		96
50) 2,4,5-Trichlorophenol	6.719	196	135113	60.24	ppm		96
52) 2-Chloronaphthalene	6.890	162	341732	53.78	ppm		98
53) Biphenyl	6.874	154	482077	54.00	ppm		99
54) 2-Nitroaniline	7.060	65	168327	65.93	ppm		92
55) Dimethylphthalate	7.344	163	464894	59.24	ppm		99
56) Acenaphthylene	7.482	152	581146	56.29	ppm		99
57) 2,6-Dinitrotoluene	7.429	165	104328	60.26	ppm		85
58) 3-Nitroaniline	7.691	138	108555	55.81	ppm		84
59) Acenaphthene	7.755	153	371377	54.78	ppm		99
60) 2,4-Dinitrophenol	7.878	184	89207	86.25	ppm		96
61) 4-Nitrophenol	8.097	109	87188	55.09	ppm	#	79
62) Dibenzofuran	8.038	168	557220	58.13	ppm		98
63) 2,4-Dinitrotoluene	8.081	165	140084	59.44	ppm		99
64) 2,3,4,6-Tetrachlorophenol	8.284	232	110866	56.31	ppm		95
65) Diethylphthalate	8.508	149	507679	61.69	ppm		99
66) Fluorene	8.604	166	457764	59.39	ppm		97
67) 4-Chlorophenyl-phenyle...	8.641	204	226810	58.73	ppm		97
68) 4-Nitroaniline	8.711	138	104204	56.87	ppm		86
70) 4,6-Dinitro-2-methylph...	8.786	198	84599	47.70	ppm		91
71) n-Nitrosodiphenylamine	8.866	169	335512	52.88	ppm		97
72) 1,2-Diphenylhydrazine	8.914	77	579277	53.23	ppm		97
74) 4-Bromophenyl-phenylether	9.501	248	162160	54.88	ppm		95
75) Hexachlorobenzene	9.587	284	174275	50.04	ppm		94
76) Pentachlorophenol	9.998	266	159560	78.67	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146632.D
Acq On : 5 Jun 2018 8:56 am
Operator : angelar
Sample : cc6221-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 05 13:10:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration

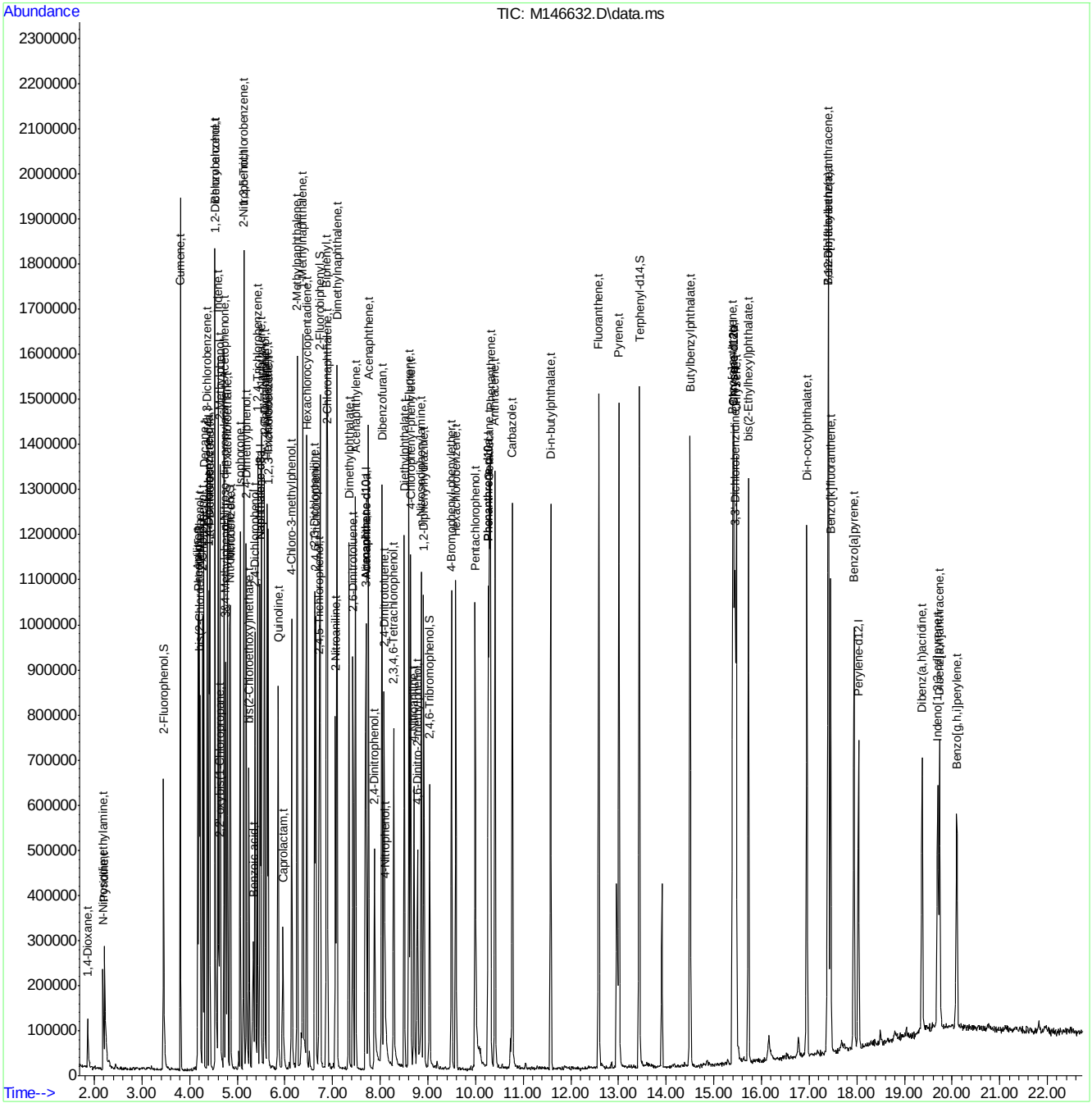
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.313	178	632263	47.83	ppm	99
78) Anthracene	10.409	178	657058	50.53	ppm	98
79) Carbazole	10.773	167	649220	53.39	ppm	98
80) Di-n-butylphthalate	11.579	149	899587	58.91	ppm	97
81) Fluoranthene	12.588	202	873227	55.90	ppm	97
82) Octadecane	10.292	57	219875	42.19	ppm	85
84) Pyrene	13.010	202	865837	56.51	ppm	98
86) Butylbenzylphthalate	14.501	149	412762	60.63	ppm	93
87) Benzo[a]anthracene	15.398	228	797474	55.02	ppm	98
88) 3,3'-Dichlorobenzidine	15.446	252	299538	59.27	ppm	94
89) Chrysene	15.473	228	699433	51.54	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.729	149	524777	61.47	ppm	99
92) Di-n-octylphthalate	16.952	149	840612	78.04	ppm	98
93) Benzo[b]fluoranthene	17.406	252	674898	59.63	ppm	98
94) Benzo[k]fluoranthene	17.454	252	575280	54.83	ppm	98
95) Benzo[a]pyrene	17.940	252	537064	56.85	ppm	97
96) Indeno[1,2,3-cd]pyrene	19.697	276	355368	41.26	ppm	96
97) Dibenz(a,h)acridine	19.372	279	346589	43.61	ppm	95
98) Dibenz[a,h]anthracene	19.735	278	362047	40.62	ppm	95
99) 7,12-Dimethylbenz(a)an...	17.406	256	324344	63.66	ppm	97
100) Benzo[g,h,i]perylene	20.098	276	332378	38.21	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146632.D
Acq On : 5 Jun 2018 8:56 am
Operator : angelar
Sample : cc6221-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 05 13:10:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration



MM6221.M Tue Jun 05 13:27:19 2018 MSM Page: 4

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
06/05/18 16:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146633.D
Acq On : 5 Jun 2018 9:28 am
Operator : angelar
Sample : cc6169-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 05 13:11:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.411	152	122370	40.00 ppm	-0.07
24) Naphthalene-d8	5.474	136	443680	40.00 ppm	-0.09
47) Acenaphthene-d10	7.701	164	265335	40.00 ppm	-0.12
69) Phenanthrene-d10	10.270	188	538875	40.00 ppm	-0.13
83) Chrysene-d12	15.414	240	606431	40.00 ppm	-0.14
91) Perylene-d12	18.031	264	501331	40.00 ppm	-0.13
101) 1,4-Dichlorobenzene-d4a	4.411	152	122370	40.00 ppm	-0.07
103) Acenaphthene-d10a	7.701	164	265335	40.00 ppm	-0.12
106) Chrysene-d12a	15.414	240	606431	40.00 ppm	-0.14
109) Phenanthrene-d10a	10.270	188	538875	40.00 ppm	-0.13
112) Naphthalene-d8a	5.474	136	443680	40.00 ppm	-0.09
114) Chrysene-d12b	15.414	240	606431	40.00 ppm	-0.14
System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-chlorooctadecane	12.615	57	162498	44.52 ppm	-0.21
Spiked Amount 50.000			Recovery	= 89.04%	
110) o-terphenyl	11.077	230	418763	56.13 ppm	-0.13
Spiked Amount 50.000			Recovery	= 112.26%	
Target Compounds					Qvalue
102) Benzaldehyde	4.086	105	131520	37.53 ppm	# 81
104) 1,2,4,5-Tetrachloroben...	6.473	216	217716	49.36 ppm	95
105) Atrazine	9.913	215	83899	60.39 ppm	86
107) Benzidine	12.952	184	277026	28.53 ppm	97
111) Pentachloronitrobenzene	9.993	295	33077	60.39 ppm	# 76
113) Hydroquinone	5.987	110	215260m	58.64 ppm	

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

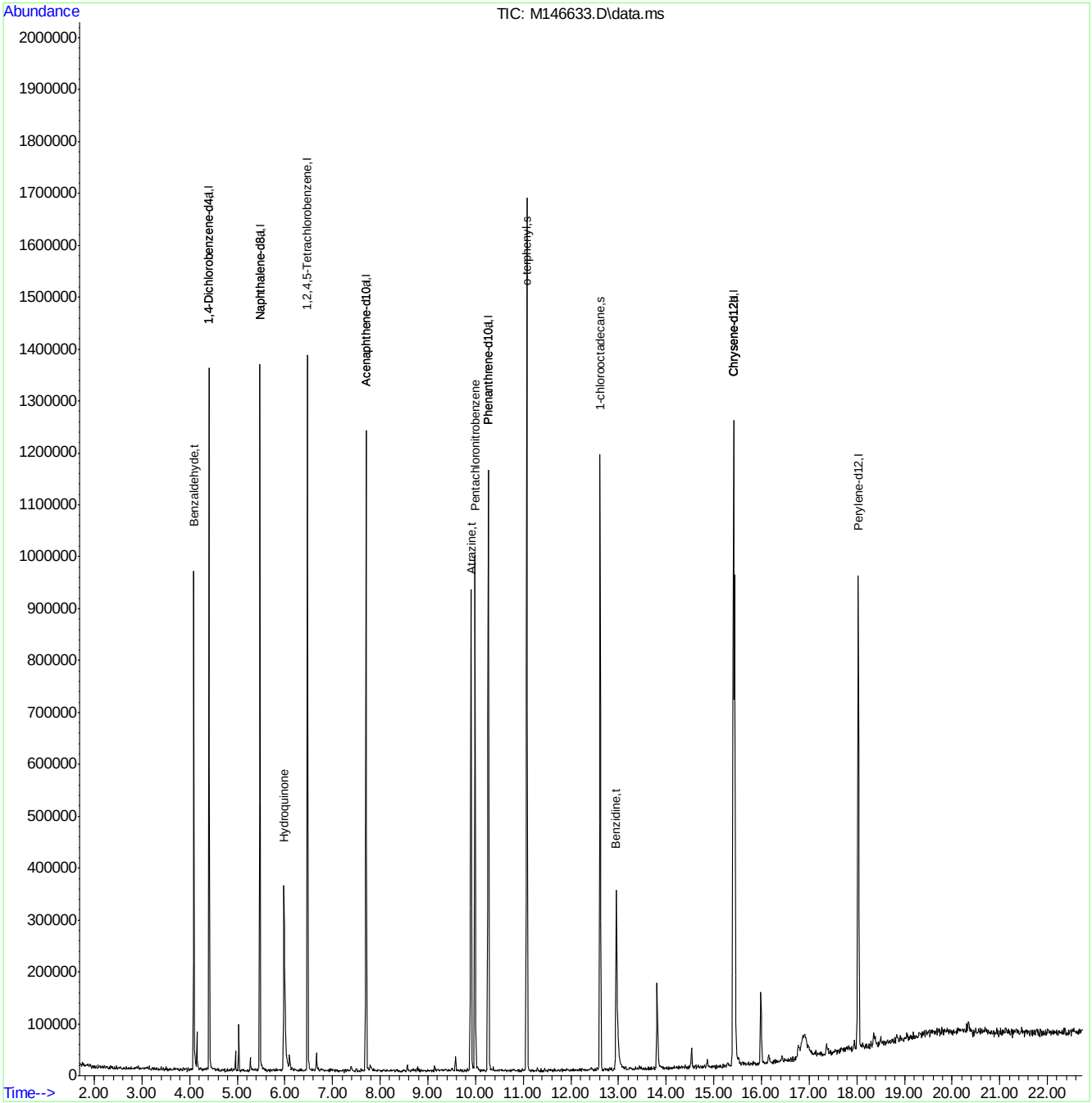
9.6.57

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146633.D
Acq On : 5 Jun 2018 9:28 am
Operator : angelar
Sample : cc6169-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 05 13:11:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration



Manual Integration Approval Summary

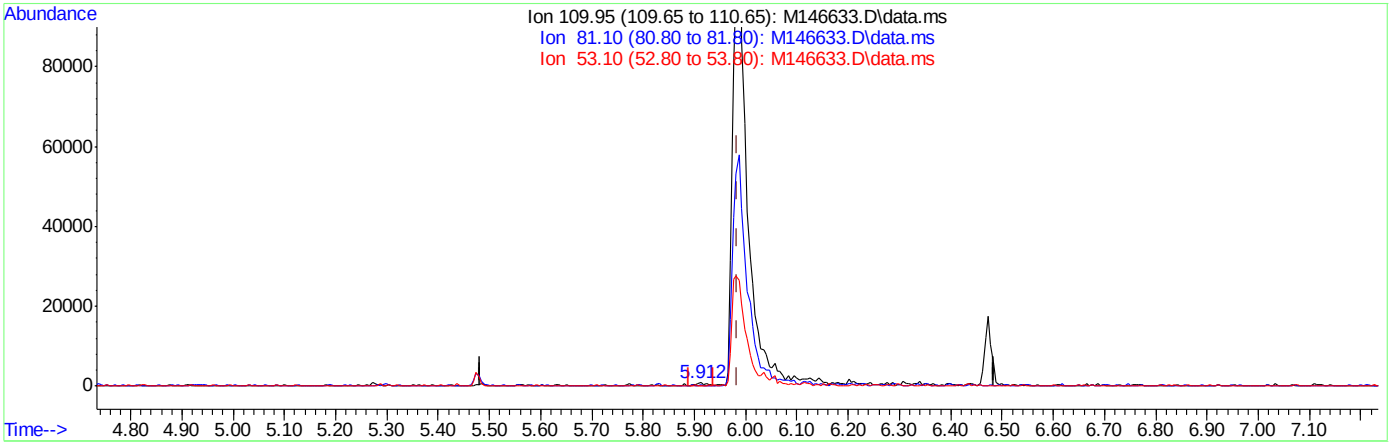
Sample Number:	EM6233-CC6169	**Method:**	SW846 8270D
Lab FileID:	M146633.D	**Analyst approved:**	06/05/18 13:16 Dong, Mei
Injection Time:	06/05/18 09:28	**Supervisor approved:**	06/05/18 16:16 Nina Pandya

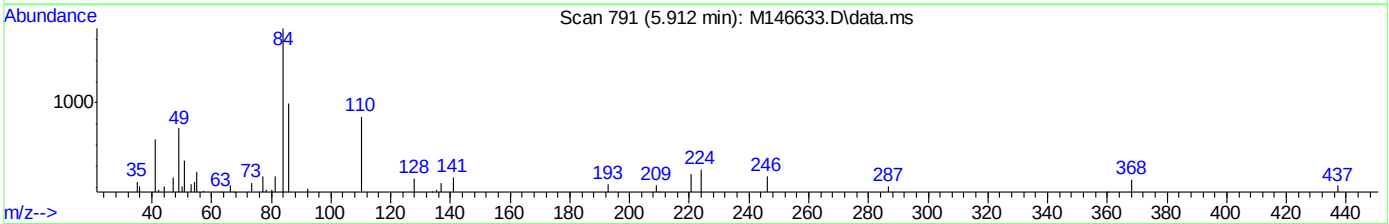
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hydroquinone	123-31-9		5.99	Missed peak

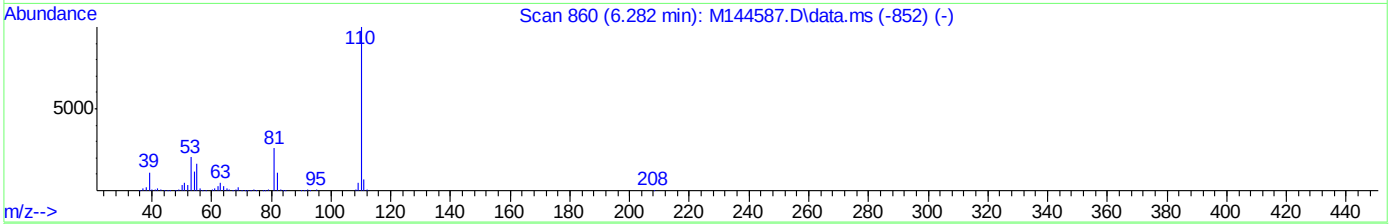
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146633.D
Acq On : 5 Jun 2018 9:28 am
Operator : angelar
Sample : cc6169-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 05 09:51:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration







TIC: M146633.D\data.ms

(113) Hydroquinone

5.912min (-0.072) 0.34ppm

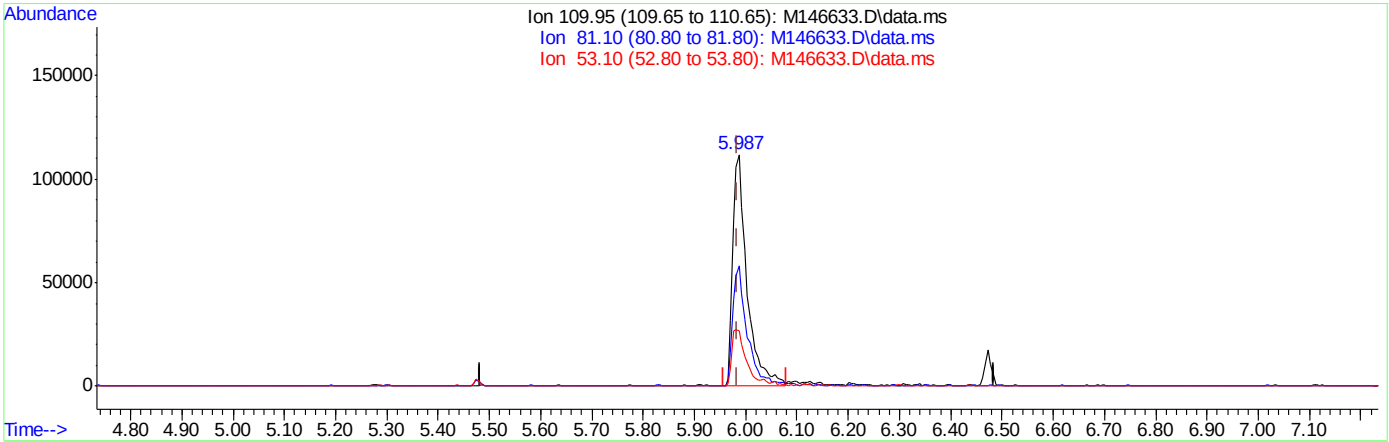
response 1257

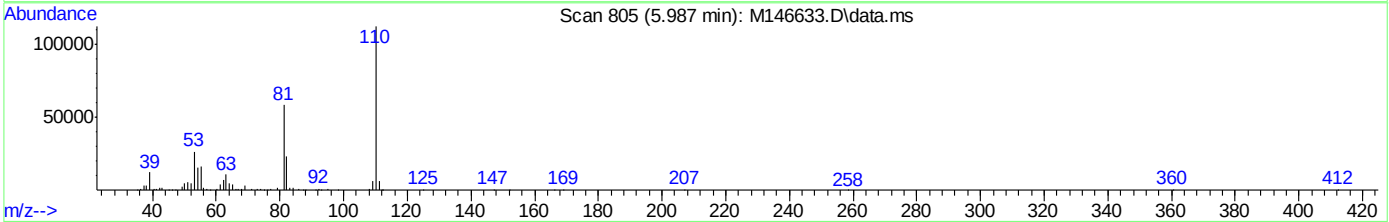
Ion	Exp%	Act%
109.95	100	100
81.10	29.40	14.24
53.10	17.50	10.51
0.00	0.00	0.00

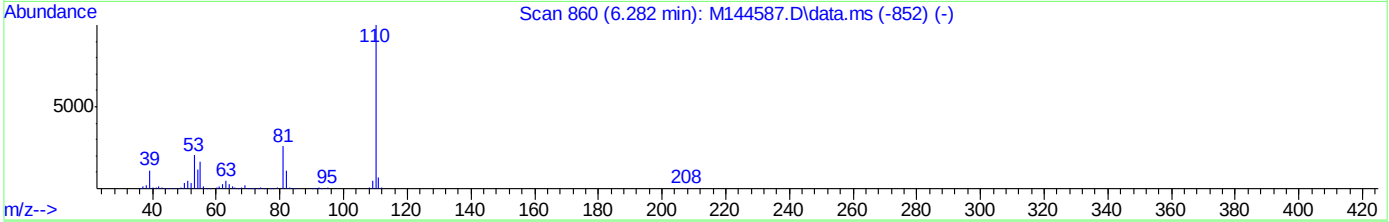
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6233\
Data File : M146633.D
Acq On : 5 Jun 2018 9:28 am
Operator : angelar
Sample : cc6169-50
Misc : op10492,em6233,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 05 09:51:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6221.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Jun 01 08:35:54 2018
Response via : Initial Calibration







TIC: M146633.D\data.ms

(113) Hydroquinone

5.987min (+0.003) 58.64ppm m

response 215260

Ion	Exp%	Act%
109.95	100	100
81.10	29.40	51.85
53.10	17.50	23.66
0.00	0.00	0.00

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: E2M4618

Print Analyst Name: Christina Chang

Date: 5/9/2018

Analyst Signature: [signature]

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
SV172359-61	DFTPP	50ppm
A0136190	ISTD	400ppm
181959	DCM	—

Columns: Rxi 5 Silms 30m x .25mm x .25m

Method: 8270D 1625

Initial Cal. Method: M2M4618

Injection Volume: 1 µl

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/11/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M103893	DFTPP				1					ok	10:22 am
	103894	1C4618-100		BNA Test		2					not yet	SV182451-1A
	103895	1C4618-100		BNA		2					ok	SV182451-1A
	103896	-80				3					ok	-1B
	103897	1C4618-50				4					ok	-1C
	103898	1C4618-25				5					ok	-1D
	103899	-10				6					ok	-1E
	103900	-5				7					ok	-1G
	103901	-2				8					ok	-1H
	103902	-1				9					ok	-1I 2:25pm

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08

Rev. Date: 5/25/17

9.7.1

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SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID: E2M4619

Print Analyst Name: Sufiyanu Ahmed

Date: 5/9/18

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV172359-61	DFtpp	50ppm
136190	DTD	[illegible]
181959	DCM	

Columns: Rxi5Sylms 30m x .25m x .25 elm

Method 8270D/625

Initial Cal. Method M2M4618

Injection Volume: 1 ell

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 5/11/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	2M103903	DFtpp				1					ca	6:30pm
	904	ic4618-100		TCL42		2					ca	SV182451-3A
	905	-80				3					ca	-3B
	906	icc4618-50				4					ca	-3C
	907	ic4618-25				5					ca	-3D
	908	-10				6					ca	-3E
	909	-5				7					ca	-3G
	910	-2				8					ca	-3H
	911	-1				9					ca	-3I
	912	ICV4618-50		ABN Surr		10					ca	op18215802
	913	ICV4618-50	S.A 5/9	~~TCL42~~ Acid spike		11					ca	op18215832
	914	ICV4618-50		Aniline		12					RR	op172106-124
	915	-50		BN1		13					ca	op182158-29
	916	-50		BN2		14					ca	-10
	917	-50		B2D 3rd		15					ca	SV172359-37
	103918	icv4619-50		HQ 2nd		16					ca	op182158-42 7.14

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-08

Rev Date: 5/25/17

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9.7.2

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SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID E2M4620

Print Analyst Name: Christine Chang

Date: 5/11/2018

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV182451-61	DFTPP	50 PM
AO 136190	STD	400/
181961	DCM Cleaned	—

Columns: Rxi 5Silms 30m x .3 mm x 25

Method 8270D/625

Initial Cal. Method M2M4618

Injection Volume: 1 ml

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 5/11/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	2M103919	DFTPP				1					OK	Bakeout RM
	103920	DFTPP				1					OK	1:43 PM
	103921	ICV 4618-50		Sniline		2					OK	1:55 pm

W = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

Strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

Form OR015-08

Date: 5/25/17

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9.7.3

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GCMS Semi Volatile Run Log

Instrument ID: GCMS2M

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	SV172359-61	50ppm	Internal Standard	A0136190	4000ppm
BNA	sv182451-1P	25ppm	DCM-fisher	181961	---
TCL42	sv182451-3J	25ppm			

Column	silms 30mX0.25mmX0.2	Initial Calib Date	5/9/18	Sequence Loaded By:	Georges	Quant Method/s	M2M4618
Batch ID	E2M4641	Analysis Date	5/26/2018	Data Processed By:	JONKM	Injection Volume	1 uL
Approved By:		Approved Date					

☑ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2M	104454	DFTPP				1						7:03pm
2M	104455	CC4618-25		BNA		2						H (31 60 61)
2M	104456	CC4619-25		TCL42		3						H (106 113)
	104457	OP12196-MB1	OP12196	AB8270RCP,AB8270TCL11,AB8270TCL20,AB8270TCL20+	SO	4		X	Y	Y	Y	
	104458	OP12196-BSP	OP12196	AB8270RCP,AB8270TCL11,AB8270TCL20,AB8270TCL20+	SO	5		X	Y	Y	Y	
2M	104459	JC66476-2	OP12196	AB8270TCL11	SO	6			Y	Y	Y	
2M	104460	JC66411-1	OP12196	AB8270TCL20+	SO	7		X	Y	Y	Y	
2M	104461	JC66409-2	OP12196	AB8270TCL20+	SO	8		X	Y	Y	Y	
2M	104462	JC66476-1	OP12196	AB8270TCL11	SO	9			Y	Y	Y	
2M	104463	JC66410-2	OP12196	AB8270TCL20+	SO	10		X	Y	Y	Y	

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2M	104464	JC66410-1	OP12196	AB8270TCL20+	SO	11		X	Y	Y	Y	
2M	104465	JC66410-5	OP12196	AB8270TCL20+	SO	12		X	Y	Y	Y	
2M	104466	JC66396-3	OP12196	AB8270TCL20+	SO	13		X	Y	Y	Y	
2M	104467	JC66384-2	OP12196	AB8270TCL20	SO	14			Y	Y	Y	
2M	104468	JC66476-5	OP12196	AB8270TCL11	SO	15			Y	Y	Y	
2M	104469	JC66409-1	OP12196	AB8270TCL20+	SO	16		X	Y	Y	Y	
2M	104470	JC66405-3	OP12196	AB8270RCP	SO	17			Y	Y	Y	
2M	104471	JC66476-4	OP12196	AB8270TCL11	SO	18			N	Y	Y	surr 5 failed
2M	104472	JC66384-1	OP12196	AB8270TCL20	SO	19				Y	Y	
2M	104473	OP12196-MS	OP12196	AB8270RCP,AB8270TCL11,AB8270TCL20,AB8270TCL20+	SO	20		X	Y	Y	Y	
2M	104474	OP12196-MSD	OP12196	AB8270RCP,AB8270TCL11,AB8270TCL20,AB8270TCL20+	SO	21		X	Y	Y	Y	
2M	104475	JC66405-1	OP12196	AB8270RCP	SO	22			Y	Y	Y	
2M	104476	JC66476-3	OP12196	AB8270TCL11	SO	23	5		Y	Y	Y	
2M	104477	JC66405-2	OP12196	AB8270RCP	SO	24			Y	Y	Y	
2M	104478	JC66410-4	OP12196	AB8270TCL20+	SO	25		X	Y	Y	Y	
2M	104479	JC66410-3	OP12196	AB8270TCL20+	SO	26		X	Y	Y	Y	
2M	104480	JC66384-4	OP12196	AB8270TCL20	SO	27			N	Y	Y	SURR FAILED

SEMI-VOLATILE by GCMS ANALYSIS

SGS

Batch ID EM 6169 4/17/18

Print Analyst Name: Christopher Sow

Analyst Signature:

Date: 4/17/18

Columns: Rxi5ilms 30m x 0.25mm x 0.25u

Method 8270D/625

Initial Cal. Method ~6168

Injection Volume: 1 uL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
5019339-01	APPs	50ppm
A013375A	7570	40ppm
181398	Decafluo	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 4/17/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	195284	APPs				1					OK	100ppm
	195285	IC CI69-100		TCL42		16					OK	5019339-79A
	195291	-80				17					OK	->8
	195292	IC CI69-50				18					OK	->C
	195293	IC CI69-25				19					OK	->40
	195294	-10				20					OK	->46
	195295	-5				21					OK	->40
	195296	-2				22					OK	->4A
	195297	-1				23					OK	->4Z
	195298	IC V CI69-50		HQ2		24					OK	0.1821589Z
	195299	-50		Acrolein		12					OK	0.1732106-14
	195300	-50		BN1		13					OK	0.1821758-23
	195301	-50		BN2		14					OK	0.1821582-5
	195302	-50		BZ03		15					OK	5019339-52 5:1
	Acq 4/17/18											

MTX = Matrix . Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Sample volume/weight used and final volumes refer to extraction log.

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Form: OR015-08
Rev. Date: 5/25/17

GCMS Semi Volatile Run Log

Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
dftpp	sv172359-61	50ppm			
bna	sv182451-1N	50ppm			
ISTD	A0136190	4000ppm			
DCM-Fisher	181961	--			

Column	i5silms30mx.25mmx.25u	Initial Calib Date	5/24/18	Sequence Loaded By:	seanb1	Quant Method/s	MM6221
Batch ID	EM6221	Analysis Date	5/24/2018	Data Processed By:	seanb1	Injection Volume	1uL
Approved By:	NINAP	Approved Date	29/2018 9:39:33 A				

☑ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	146343	DFTPP				1					OK	12:16pm
M	146344	CC6168-50				2					NO	Recalibrate
M	146345	IC6221-2				3					OK	SV182451-1H
M	146346	IC6221-1				4					OK	SV182451-1I
M	146347	IC6221-100				5					OK	SV182451-1A
M	146348	IC6221-80				6					OK	SV182451-1B
M	146349	ICC6221-50				7					OK	SV182451-1C
M	146350	IC6221-25				8					OK	SV182451-1D
M	146351	IC6221-10				9					OK	SV182451-1E
M	146352	IC6221-5				10					OK	SV182451-1G

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	146353	ICV6221-50		ABN Surrogate		11					OK	OP182158-02
M	146354	ICV6221-50		Acids		12					OK	OP182158-32
M	146355	ICV6221-50		BN1		13					OK	OP182158-101
M	146356	ICV6221-50		BN2		14					OK	OP182158-77
M	146357	ICV6221-50		Anilines		15					OK	OP182158-96
M	146358	ICV6221-50		Benzidine 3rd		16					OK	SV172359-37; 7:26pm

Print | Save (In Progress) | Save (For Review) | Exit | Change Instrument ID

Next Data File#: Next ALS #: 1

GCMS Semi Volatile Run Log

Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
dftpp	sv172359-61	50ppm			
bna	sv182451-23b	50ppm			
tcl42	sv182451-3k	50ppm			
bna ver	sv182451-1z	1ppm			
tcl42 ver	sv152451-3z	2ppm			
bna ver	sv182451-1v	2ppm			
ISTD	A0136190	4000ppm			
DCM					

Column	Rxi5silms30mx.25mmx.25um	Initial Calib Date	5/24/18	Sequence Loaded By:	Angela	Quant Method/s	MM6221
Batch ID	EM6233	Analysis Date	6/5/2018	Data Processed By:	dong,mei &	Injection Volume	1uL

☐ SW846 8270 D
☐ EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment

1	M	146631	DFTPP						1				8:42am
2	M	146632	CC6221-50		bna				2				13,76,100 low
3	M	146633	CC6169-50		tcl42				3				102,107 low
4	M	146634	BNA 1PPM VER		bna				4				
5	M	146635	TCL42 2PPM VER						5				
6	M	146636	BNA 2PPM VER						6				
7		146637	OP12509-MB	OP12509	AB8270MCP,B8270BAPYRN,B8270CP51FO,B8270PAH	SO	7						
8		146638	OP12509-BS	OP12509	AB8270MCP,B8270BAPYRN,B8270CP51FO,B8270PAH	SO	8						
9		146639	OP12509-BSD	OP12509	AB8270MCP,B8270BAPYRN,B8270CP51FO,B8270PAH	SO	9						
1	M	146640	JC66384-4	OP12509	AB8270TCL20	SO	10			n	n	ok	IS5 low. Sur low.
1	M	146641	JC66780-1	OP12509	AB8270STD+	SO	11		X	y	n	ok/dl	IS5 low
1		146642	OP12509-MS	OP12509	AB8270MCP,B8270BAPYRN,B8270CP51FO,B8270PAH	SO	12			y	n	rr	IS 5 low 1x
1		146643	OP12509-MSD	OP12509	AB8270MCP,B8270BAPYRN,B8270CP51FO,B8270PAH	SO	13			y	y	ok	
1	M	146644	JC67120-5	OP12509	AB8270MCP	SO	14			y	y	ok	
1	M	146645	DCM CLEAN UP				15						
1	M	146646	JC67075-1	OP12479	AB8270TCL20+	SO	16		X				
1	M	146647	JC67053-2	OP12479	B8270PAH	SO	17						
1	M	146648	JC67036-4	OP12479	B8270PAH	SO	18						
1	M	146649	JC67036-3	OP12479	B8270PAH	SO	19						
1	M	146650	JC66958-1	OP12479	AB8270TCL20	SO	20						
1	M	146651	DA5707-1	OP12324	AB8270TCLP	AQ	21	5					ran after M146645
1													
1													
1												

8-2212

LOGBOOK ID:

ABN Extraction Log - Solids

Date started: 5/23/18 Time started: 4:50PM
Date finished: 5/23/18 Time finished: 9:20PM

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Microwave SW3546 X Sonication SW3550C ____
Waste Dil. SW3580A ____ Soxhlet SW3540C ____

BATCH # MS 12196	RACK# V-05 (ANK)
Weighed by:	NT
Extracted by:	NT
Concentrated by:	NT
Final Vol. Top-up:	LL
Vialed by:	LL
Supervisor Review:	5/23/18

Special Client Spike Instructions					
QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS
Rx Reason:
Spiking:
Weights/Volumes:
Required MS/MSD:
Final Volume:
Other: DD 06/01

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Wet Wt. (g) Oil (g) Liq (mL)	Decant Y	Decant N	Sonicator ID	Microwave ID	Final Extract Color	Final Extract Vol(mL)	GPC Cleanup	Comments
	MB1	ABN		sand	30.0			12		CLEAR	1.0		
	BS1			sand	30.0			12		Yellow	1.0		
	JC66405-1 MS		1	SOIL	31.7		/	12		brown	1.0		
	MSD		1	SOIL	30.8		/	12		brown	1.0		
	BS												
	MS												
	MSD												
	BS												
	MS												
	MSD												
1	JC66384-1	ABN	1	SOIL	30.8		/	12		brown	1.0		
2	-2		1	CLAY	30.4		/	12		brown	1.0		
3	-4		1	SOIL	30.8		/	12		brown	1.0		
4	JC66405-1		1	SOIL	31.1		/	12		brown	1.0		
5	-2		1	SOIL	31.9		/	12		brown	1.0		
6	-3		1	SOIL	31.2		/	12		brown	1.0		
7	JC66396-3		3	SOIL	30.6		/	12		brown	1.0		
8	JC66409-1		2	CLAY	30.2		/	12		brown	1.0		
9	-2		3	SOIL	30.7		/	12		l.yellow	1.0		
10	JC66410-1		1	SOIL	30.8		/	12		yellow	1.0		
11	-2		3	SOIL	31.7		/	12		yellow	1.0		
12	-3		3	SOIL	30.3		/	12		brown	1.0		
13	-4		1	SOIL	30.9		/	12		brown	1.0		
14	-5		3	SOIL	30.3		/	12		yellow	1.0		
15	JC66476-1		1	SOIL	30.9		/	12		yellow	1.0		
16	-2		1	SOIL	30.4		/	12		l.yellow	1.0		
17	-3		1	SOIL	30.2		/	12		brown	10.0	0	
18	-4		1	SOIL	30.7		/	12		brown	1.0		
19	-5		1	SOIL	31.7		/	12		brown	1.0		
20	JC66411-1		3	SOIL	30.7		/	12		l.yellow	1.0		

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:
O could not concentrate to 1.0mL; very thick extract.

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	10 S	74.3, 75.1	±0.0	—	—
Waterbath Chiller (GPM)	H1 H3	6.3	—	—	1.5
NEVAP (32-38°C, LPM)	2	35.4	+0.1	35.5	10
Balance	B-30	N/A	N/A	N/A	N/A

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	OP18-2158-109	50	1.0
ABN DOD SIM			

WITNESS SIGN: CC SPIKE SIGN: NT

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	OP18-2158-102	50	Acid: 1.0
Acid (for SIM)			A(SIM):
Base #1	OP18-2158-116	50	1.0
Base #2	OP18-2158-77	50	1.0
Aniline	OP18-2158-115	50	1.0
BSIM			

WITNESS SIGN: CC SPIKE SIGN: NT

SOLVENT	LOT #	BRAND	AMT (mL)
1:1 METH CHLOR/ ACETONE	181959 / 180148	Fisher	300
METH CHLOR			

REAGENT	LOT #	BAKE BATCH #	BRAND
HYDROMATRIX	6400661	5/14/18-A	Agilent
SODIUM SULFATE	171696	5/2/18-A	Fisher
FILTER PAPER	1245061		Fisher

MATRIX	LOT #	BAKE BATCH #	BRAND
SAND	76K1707202A	3/5/18	Fisher

SGS
Form: OP019A-10
Rev Date: 8/2/17

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Acid Base/Neutrals Extraction Log - Solid (MS)

Date Started:	6/4/2018	**Time Started:**	15:00
Date Finished:	6/4/18	**Time Finished:**	2130

Batch # OP12509	**Rack #** V-05
Weighed By:	CC
Extracted By:	CC
Concentrated By:	NT
Final Vol. Top-up:	RG
Vialed By:	RG
Supervisor Review:	ay 6/4/2018

Extraction Method:

Microwave SW3546 — Sonication SW3550C

Waste DIL SW3580A — Soxhlet SW3540C

Special Client Spike Instructions

QC ID # for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt Spiked

Sample #	Analysis Type	Samp Bot #	Sample Description	Sample Wt (g) Oil (g)	Decant Y	Decant N	Microwave ID Sonicator ID	Final Extract Color	Final Extract Vol (mL)	Cleanup	Comments
OP12509-MB			Sand	30.0			12	CLEAR	1.0		
OP12509-BS			Sand	30.0			12	YELLOW	1.0		
OP12509-BSD			Sand	30.0			12	YELLOW	1.0		
OP12509-MS		1	Soil	30.1		x	12	BROWN	1.0		JC67120-5,
OP12509-MSD		1	Soil	30.3		x	12	BROWN	1.0		JC67120-5,
JC67120-5		1	Soil	30.0		x	12	BROWN	1.0		

Acid Base/Neutrals Extraction Log - Solid (MS)

Sample #	Analysis Type	Samp Bot #	Sample Description	Sample Wt (g) Oil (g)	Decant Y	Decant N	Microwave ID Sonicator ID	Final Extract Color	Final Extract Vol (mL)	Cleanup	Comments
JC66384-4		1	clay	15.9		x	12	BROWN	1.0		reduced due to poor sample matrix
JC66780-1		1	Soil	30.2		x	12	BROWN	1.0		
JC66836-1		1	Mud/rock	30.1		x	12	BROWN	1.0		
JC67187-6		1	Soil	30.1		x	12	L YELLOW	1.0		
JC67188-1		1	Soil	30.2		x	12	BROWN	1.0		
JC67188-2		1	Mud	30.3		x	12	YELLOW	1.0		
JC67188-3		1	soil	30.2		x	12	L YELLOW	1.0		
JC67207-1		1	gravel	30.5		x	12	YELLOW	1.0		
JC67207-2		1	gravel	30.6		x	12	YELLOW	1.0		
JC67207-3		1	gravel	30.0		x	12	YELLOW	1.0		
JC67207-5		1	gravel	30.0		x	12	YELLOW	1.0		
JC67207-6		1	gravel	31.0		x	12	YELLOW	1.0		
JC67229-2		2	Sand	30.0		x	12	BROWN	1.0		
JC67235-1		1	Soil	30.4		x	12	BROWN	1.0		
JC67235-3		1	Sand	30.6		x	12	YELLOW	1.0		
JC67235-5		1	Sand	30.0		x	12	YELLOW	1.0		
JC67235-7		1	Soil	30.4		x	12	CLEAR	1.0		
JC67235-8		1	Soil	30.0		x	12	YELLOW	1.0		
JC67235-10		1	Soil	30.9		x	12	YELLOW	1.0		

Acid Base/Neutrals Extraction Log - Solid (MS)

Equipment/Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	8 10	75.2,75.6	+0.0	--	--
Waterbath Chiller (GPM)	M3 M1	6,2	--	--	1.6
NEVAP (32-38°C, LPM)	2	35.2	+0.1	35.3	10
Balance	B-30	N/A	N/A	N/A	N/A

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	op18-2158-123	50	1.0
ABN DOD SIM			
WITNESS SIGN:	RG	SPIKE SIGN:	NT

Reagent	LOT #		Brand
Hydromatrix	6400661		Agilent
Sodium Sulfate	18192		Fisher
Filter Paper	12145061		Fisher

Matrix	Lot #	Bake Batch #	Brand
SAND	7GK17071202A		Fisher

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	op18-2158-102	50	1.0
Acid (for SIM)			
Base #1	op18-2158-116	50	1.0
Base #2	op18-2158-128	50	1.0
Aniline	op18-2158-115	50	1.0
BSIM			
WITNESS SIGN:	RG	SPIKE SIGN:	NT

SOLVENT	LOT #	Brand	AMT (mL)
1:1 METH CHLOR/ACETON	182955/181819	Fisher	30.0
METH CHLOR			

Special Processing Instructions

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:
RG

Other:

Batch Comments:

Acid Base/Neutrals Extraction Log - Solid (MS)

Approved By: ay 6/4/2018 Approval Date: _____

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12247-MB1	6G56621.D	1	05/26/18	DS	05/25/18	OP12247	G6G1691

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.67	0.55	ug/kg	
319-84-6	alpha-BHC	ND	0.67	0.54	ug/kg	
319-85-7	beta-BHC	ND	0.67	0.60	ug/kg	
319-86-8	delta-BHC	ND	0.67	0.64	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.67	0.49	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.67	0.54	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.67	0.30	ug/kg	
60-57-1	Dieldrin	ND	0.67	0.46	ug/kg	
72-54-8	4,4'-DDD	ND	0.67	0.61	ug/kg	
72-55-9	4,4'-DDE	ND	0.67	0.58	ug/kg	
50-29-3	4,4'-DDT	ND	0.67	0.59	ug/kg	
72-20-8	Endrin	ND	0.67	0.52	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.67	0.52	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.67	0.38	ug/kg	
959-98-8	Endosulfan-I	ND	0.67	0.38	ug/kg	
33213-65-9	Endosulfan-II	ND	0.67	0.42	ug/kg	
76-44-8	Heptachlor	ND	0.67	0.57	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.67	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.3	0.53	ug/kg	
53494-70-5	Endrin ketone	ND	0.67	0.48	ug/kg	
8001-35-2	Toxaphene	ND	17	16	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	54%	25-135%
877-09-8	Tetrachloro-m-xylene	55%	25-135%
2051-24-3	Decachlorobiphenyl	83%	10-156%
2051-24-3	Decachlorobiphenyl	84%	10-156%

Method Blank Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12244-MB1	2G164419.D	1	05/27/18	TR	05/25/18	OP12244	G2G4347

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	5.0	ug/kg	
37324-23-5	Aroclor 1262	ND	33	2.5	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	62%	24-152%
877-09-8	Tetrachloro-m-xylene	64%	24-152%
2051-24-3	Decachlorobiphenyl	88%	10-166%
2051-24-3	Decachlorobiphenyl	98%	10-166%

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12247-BS1	6G56622.D	1	05/26/18	DS	05/25/18	OP12247	G6G1691
OP12247-BSD	6G56623.D	1	05/26/18	DS	05/25/18	OP12247	G6G1691

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	16.7	11.4	68	14.9	89	28* [a]	46-120/25
319-84-6	alpha-BHC	16.7	10.1	61	14.3	86	34* [a]	45-116/25
319-85-7	beta-BHC	16.7	13.7	82	15.6	94	13	42-121/25
319-86-8	delta-BHC	16.7	12.6	76	14.1	85	11	42-121/25
58-89-9	gamma-BHC (Lindane)	16.7	10.9	65	14.4	86	28* [a]	46-118/25
5103-71-9	alpha-Chlordane	16.7	13.8	83	15.3	92	10	49-119/25
5103-74-2	gamma-Chlordane	16.7	13.1	79	15.6	94	17	48-121/25
60-57-1	Dieldrin	16.7	13.3	80	15.0	90	12	48-126/25
72-54-8	4,4'-DDD	16.7	13.3	80	14.3	86	9	47-120/25
72-55-9	4,4'-DDE	16.7	13.7	82	14.9	89	8	48-121/25
50-29-3	4,4'-DDT	16.7	15.5	93	16.5	99	6	45-135/25
72-20-8	Endrin	16.7	15.1	91	16.8	101	11	51-137/25
1031-07-8	Endosulfan sulfate	16.7	14.5	87	15.5	93	7	48-128/25
7421-93-4	Endrin aldehyde	16.7	14.8	89	15.8	95	7	46-125/25
959-98-8	Endosulfan-I	16.7	13.0	78	14.9	89	14	47-118/25
33213-65-9	Endosulfan-II	16.7	13.7	82	14.5	87	6	49-121/25
76-44-8	Heptachlor	16.7	11.6	70	15.7	94	30* [a]	48-120/25
1024-57-3	Heptachlor epoxide	16.7	12.5	75	14.6	88	15	46-122/25
72-43-5	Methoxychlor	16.7	15.4	92	16.3	98	6	44-136/25
53494-70-5	Endrin ketone	16.7	14.7	88	15.3	92	4	44-139/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	49%	77%	25-135%
877-09-8	Tetrachloro-m-xylene	49%	77%	25-135%
2051-24-3	Decachlorobiphenyl	78%	82%	10-156%
2051-24-3	Decachlorobiphenyl	81%	83%	10-156%

(a) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12244-BS1	2G164420.D	1	05/27/18	TR	05/25/18	OP12244	G2G4347
OP12244-BSD	2G164421.D	1	05/27/18	TR	05/25/18	OP12244	G2G4347

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	133	139	104	137	103	1	61-146/30
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/30
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/30
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/30
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/30
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/30
11096-82-5	Aroclor 1260	133	133	100	151	113	13	62-148/30
11100-14-4	Aroclor 1268		ND		ND		nc	-/30
37324-23-5	Aroclor 1262		ND		ND		nc	-/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	88%	71%	24-152%
877-09-8	Tetrachloro-m-xylene	89%	68%	24-152%
2051-24-3	Decachlorobiphenyl	75%	85%	10-166%
2051-24-3	Decachlorobiphenyl	85%	96%	10-166%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12247-MS	6G56751.D	1	05/30/18	CP	05/25/18	OP12247	G6G1694
OP12247-MSD	6G56787.D	1	05/31/18	DM	05/25/18	OP12247	G6G1695
JC66384-2	6G56750.D	1	05/30/18	CP	05/25/18	OP12247	G6G1694

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	JC66384-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		22.1	16.8	76	22.1	16.3	74	3	23-143/44
319-84-6	alpha-BHC	ND		22.1	16.9	76	22.1	15.9	72	6	18-152/47
319-85-7	beta-BHC	ND		22.1	17.3	78	22.1	16.0	72	8	7-143/48
319-86-8	delta-BHC	ND		22.1	15.9	72	22.1	14.3	65	11	13-155/49
58-89-9	gamma-BHC (Lindane)	ND		22.1	16.1	73	22.1	15.1	68	6	23-138/49
5103-71-9	alpha-Chlordane	ND		22.1	17.4	79	22.1	18.1	82	4	16-149/46
5103-74-2	gamma-Chlordane	ND		22.1	17.3	78	22.1	16.3	74	6	14-152/45
60-57-1	Dieldrin	ND		22.1	17.0	77	22.1	16.5	75	3	14-154/46
72-54-8	4,4'-DDD	ND		22.1	15.8	71	22.1	15.4	70	3	18-149/51
72-55-9	4,4'-DDE	ND		22.1	16.2	73	22.1	15.8	71	2	10-154/49
50-29-3	4,4'-DDT	ND		22.1	17.5	79	22.1	16.3	74	7	10-170/50
72-20-8	Endrin	ND		22.1	18.5	84	22.1	18.2	82	2	18-173/49
1031-07-8	Endosulfan sulfate	ND		22.1	14.4	65	22.1	13.3	60	8	19-132/50
7421-93-4	Endrin aldehyde	ND		22.1	3.0	14	22.1	3.1	14	3	10-160/53
959-98-8	Endosulfan-I	ND		22.1	17.0	77	22.1	16.2	73	5	18-143/46
33213-65-9	Endosulfan-II	ND		22.1	13.9	63	22.1	13.3	60	4	21-132/46
76-44-8	Heptachlor	ND		22.1	17.2	78	22.1	16.2	73	6	22-146/46
1024-57-3	Heptachlor epoxide	ND		22.1	17.2	78	22.1	15.9	72	8	21-151/45
72-43-5	Methoxychlor	ND		22.1	16.8	76	22.1	15.9	72	6	11-166/50
53494-70-5	Endrin ketone	ND		22.1	16.5	75	22.1	15.2	69	8	8-179/51
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC66384-2	Limits
877-09-8	Tetrachloro-m-xylene	67%	66%	64%	25-135%
877-09-8	Tetrachloro-m-xylene	65%	65%	60%	25-135%
2051-24-3	Decachlorobiphenyl	66%	67%	64%	10-156%
2051-24-3	Decachlorobiphenyl	72%	70%	69%	10-156%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12244-MS	2G164446.D	1	05/28/18	TR	05/25/18	OP12244	G2G4347
OP12244-MSD	2G164447.D	1	05/28/18	TR	05/25/18	OP12244	G2G4347
JC66384-1	2G164445.D	1	05/28/18	TR	05/25/18	OP12244	G2G4347

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC66384-1, JC66384-2, JC66384-4

CAS No.	Compound	JC66384-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		160	246	154	160	208	130	17	24-178/46
11104-28-2	Aroclor 1221	ND			ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND			ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND			ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND			ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	200			327			293		11	70-130/50
11096-82-5	Aroclor 1260	ND		160	263	164	160	291	182	10	15-185/45
11100-14-4	Aroclor 1268	ND			ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND			ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC66384-1	Limits
877-09-8	Tetrachloro-m-xylene	101%	88%	94%	24-152%
877-09-8	Tetrachloro-m-xylene	95%	82%	91%	24-152%
2051-24-3	Decachlorobiphenyl	102%	65%	94%	10-166%
2051-24-3	Decachlorobiphenyl	112%	119%	101%	10-166%

* = Outside of Control Limits.

Internal Standard Area Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1691-CC1671	**Injection Date:**	05/26/18
Lab File ID:	6G56619.D	**Injection Time:**	08:48
Instrument ID:	GC6G	**Method:**	SW846 8081B

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
Check Std	254120512	2.14	317838229	1.94
Upper Limit [a]	508241024	2.64	635676458	2.44
Lower Limit [b]	127060256	1.64	158919115	1.44

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
OP12247-MB1	229234392	2.14	272020050	1.94
OP12247-BS1	262002881	2.14	317496556	1.94
OP12247-BSD	270467625	2.14	330261080	1.94
JC66384-4	229173749	2.14	275520391	1.94
ZZZZZZ	247314626	2.14	280143560	1.94
ZZZZZZ	230758054	2.14	297697467	1.94
ZZZZZZ	252601945	2.14	341000260	1.94
ZZZZZZ	244481541	2.14	300273214	1.94
ZZZZZZ	263409536	2.14	324167968	1.94
ZZZZZZ	262573076	2.14	317772368	1.94
ZZZZZZ	260603558	2.14	351267717	1.94
ZZZZZZ	259041217	2.15	328167323	1.95
ZZZZZZ	265061888	2.15	348452244	1.95
ZZZZZZ	255982025	2.15	315179612	1.95

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(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: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56744.D	**Injection Time:**	11:06
Instrument ID:	GC6G	**Method:**	SW846 8081B

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
Check Std	288820203	2.15	391409532	1.95
Upper Limit [a]	577640406	2.65	782819064	2.45
Lower Limit [b]	144410102	1.65	195704766	1.45

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
ZZZZZZ	276093328	2.15	399278691	1.95
ZZZZZZ	290646586	2.15	429008073	1.95
JC66384-1	363765884	2.15	448175064	1.95
JC66384-2	350495667	2.15	439284604	1.95
OP12247-MS	371283110	2.15	476036511	1.95

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(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: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1695-CC1671	**Injection Date:**	05/31/18
Lab File ID:	6G56780.D	**Injection Time:**	10:20
Instrument ID:	GC6G	**Method:**	SW846 8081B

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
Check Std	270832648	2.14	359720516	1.94
Upper Limit [a]	541665296	2.64	719441032	2.44
Lower Limit [b]	135416324	1.64	179860258	1.44

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
OP12414-MB1	253175192	2.13	299652769	1.93
OP12414-BS1	269501676	2.14	340676186	1.94
JC66812-1	228725457	2.14	321641728	1.94
OP12414-MS	272022708	2.14	336665088	1.94
OP12414-MSD	225629740	2.14	316051411	1.94
OP12247-MSD	415984957	2.14	534435518	1.94
ZZZZZZ	255441628	2.14	313543440	1.94
ZZZZZZ	248312636	2.14	336458488	1.94

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(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.

DDT/Endrin Breakdown Check

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G6G1671-DDT	**Injection Date:**	04/30/18
Lab File ID:	6G55778.D	**Injection Time:**	10:46
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	11318971	7536013
4,4'-DDE	11688813	6661386
4,4'-DDT	697113892	431734229
DDT Breakdown [a]	3.2 %	3.2 %
Endrin aldehyde	0	0
Endrin ketone	3648777	6453656
Endrin	397383387	243111166
Endrin Breakdown [b]	0.9 %	2.6 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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
G6G1671-IC1671	6G55780.D	04/30/18	11:25	00:39	Initial cal 1
G6G1671-IC1671	6G55781.D	04/30/18	11:43	00:57	Initial cal 2
G6G1671-IC1671	6G55782.D	04/30/18	12:01	01:15	Initial cal 5
G6G1671-IC1671	6G55783.D	04/30/18	12:18	01:33	Initial cal 10
G6G1671-ICC1671	6G55784.D	04/30/18	12:36	01:50	Initial cal 25
G6G1671-IC1671	6G55785.D	04/30/18	12:54	02:08	Initial cal 50
G6G1671-IC1671	6G55786.D	04/30/18	13:12	02:26	Initial cal 75
G6G1671-IC1671	6G55787.D	04/30/18	13:29	02:44	Initial cal 100
G6G1671-IC1671	6G55788.D	04/30/18	13:47	03:02	Initial cal 500
G6G1671-IC1671	6G55789.D	04/30/18	14:05	03:19	Initial cal 500
G6G1671-ICV1671	6G55790.D	04/30/18	14:23	03:37	Initial cal verification 25
G6G1671-ICV1671	6G55791.D	04/30/18	14:41	03:55	Initial cal verification 500
G6G1671-ICV1671	6G55792.D	04/30/18	14:58	04:13	Initial cal verification 500
G6G1671-ICV1671	6G55793.D	04/30/18	15:16	04:31	Initial cal verification 50
G6G1671-ICV1671	6G55794.D	04/30/18	15:34	04:48	Initial cal verification 50

DDT/Endrin Breakdown Check

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G6G1691-DDT	**Injection Date:**	05/26/18
Lab File ID:	6G56618.D	**Injection Time:**	08:30
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	7993492	7146341
4,4'-DDE	8764670	7327136
4,4'-DDT	675312813	502749721
DDT Breakdown [a]	2.4 %	2.8 %
Endrin aldehyde	730485	576090
Endrin ketone	2254384	1792433
Endrin	388598467	286422544
Endrin Breakdown [b]	0.8 %	0.8 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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
G6G1691-CC1671	6G56619.D	05/26/18	08:48	00:18	Continuing cal 50
OP12247-MB1	6G56621.D	05/26/18	09:45	01:14	Method Blank
OP12247-BS1	6G56622.D	05/26/18	10:02	01:32	Blank Spike
OP12247-BSD	6G56623.D	05/26/18	10:20	01:50	Blank Spike Duplicate
JC66384-4	6G56628.D	05/26/18	11:49	03:19	MW-102(12-13)
ZZZZZZ	6G56629.D	05/26/18	12:07	03:37	(unrelated sample)
ZZZZZZ	6G56630.D	05/26/18	12:25	03:55	(unrelated sample)
ZZZZZZ	6G56631.D	05/26/18	12:43	04:13	(unrelated sample)
ZZZZZZ	6G56632.D	05/26/18	13:01	04:30	(unrelated sample)
ZZZZZZ	6G56633.D	05/26/18	13:19	04:48	(unrelated sample)
ZZZZZZ	6G56634.D	05/26/18	13:37	05:06	(unrelated sample)
ZZZZZZ	6G56635.D	05/26/18	13:54	05:24	(unrelated sample)
ZZZZZZ	6G56636.D	05/26/18	14:12	05:42	(unrelated sample)
ZZZZZZ	6G56637.D	05/26/18	14:30	06:00	(unrelated sample)
ZZZZZZ	6G56638.D	05/26/18	14:48	06:18	(unrelated sample)
G6G1691-CC1671	6G56640.D	05/26/18	15:24	06:53	Continuing cal 25
ZZZZZZ	6G56642.D	05/26/18	16:00	07:29	(unrelated sample)
ZZZZZZ	6G56643.D	05/26/18	16:17	07:47	(unrelated sample)
ZZZZZZ	6G56644.D	05/26/18	16:35	08:05	(unrelated sample)
ZZZZZZ	6G56645.D	05/26/18	16:53	08:23	(unrelated sample)
ZZZZZZ	6G56646.D	05/26/18	17:11	08:41	(unrelated sample)
ZZZZZZ	6G56647.D	05/26/18	17:29	08:58	(unrelated sample)
ZZZZZZ	6G56648.D	05/26/18	17:47	09:16	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G6G1694-DDT	**Injection Date:**	05/30/18
Lab File ID:	6G56722.D	**Injection Time:**	03:15
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	7278374	5617371
4,4'-DDE	10455893	7940198
4,4'-DDT	631508615	437131147
DDT Breakdown [a]	2.7 %	3 %
Endrin aldehyde	818021	727895
Endrin ketone	2395985	1923230
Endrin	371753934	261701949
Endrin Breakdown [b]	0.9 %	1 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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
G6G1694-CC1671	6G56723.D	05/30/18	03:33	00:18	Continuing cal 50
OP12331-MB1	6G56725.D	05/30/18	04:09	00:54	Method Blank
OP12329-MB1	6G56725.D	05/30/18	04:09	00:54	Method Blank
OP12330-MB1	6G56725.D	05/30/18	04:09	00:54	Method Blank
OP12331-BS1	6G56726.D	05/30/18	04:27	01:11	Blank Spike
OP12330-BS1	6G56726.D	05/30/18	04:27	01:11	Blank Spike
OP12329-BS1	6G56726.D	05/30/18	04:27	01:11	Blank Spike
JC66319-3	6G56727.D	05/30/18	04:45	01:29	(used for QC only; not part of job JC66384)
OP12329-LS1	6G56728.D	05/30/18	05:02	01:47	Leachate Spike
OP12329-MS	6G56728.D	05/30/18	05:02	01:47	Matrix Spike
OP12329-MSD	6G56729.D	05/30/18	05:20	02:05	Matrix Spike Duplicate
JC66781-1	6G56730.D	05/30/18	05:38	02:23	(used for QC only; not part of job JC66384)
OP12330-MS	6G56731.D	05/30/18	05:56	02:41	Matrix Spike
OP12330-LS10	6G56731.D	05/30/18	05:56	02:41	Leachate Spike
OP12330-MSD	6G56732.D	05/30/18	06:14	02:59	Matrix Spike Duplicate
ZZZZZZ	6G56733.D	05/30/18	06:32	03:16	(unrelated sample)
JC66409-1A	6G56734.D	05/30/18	08:07	04:52	(used for QC only; not part of job JC66384)
OP12331-MS	6G56735.D	05/30/18	08:25	05:10	Matrix Spike
OP12331-LS3	6G56735.D	05/30/18	08:25	05:10	Leachate Spike
OP12331-MSD	6G56736.D	05/30/18	08:43	05:27	Matrix Spike Duplicate
ZZZZZZ	6G56737.D	05/30/18	09:01	05:45	(unrelated sample)
ZZZZZZ	6G56738.D	05/30/18	09:18	06:03	(unrelated sample)
ZZZZZZ	6G56739.D	05/30/18	09:36	06:21	(unrelated sample)
ZZZZZZ	6G56740.D	05/30/18	09:54	06:39	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G6G1694-DDT	**Injection Date:**	05/30/18
Lab File ID:	6G56722.D	**Injection Time:**	03:15
Instrument ID:	GC6G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP12331-LB1	6G56741.D	05/30/18	10:12	06:57	Leachate Blank
OP12329-LB6	6G56742.D	05/30/18	10:30	07:15	Leachate Blank
OP12330-LB15	6G56743.D	05/30/18	10:48	07:32	Leachate Blank
G6G1694-CC1671	6G56744.D	05/30/18	11:06	07:50	Continuing cal 25
ZZZZZZ	6G56746.D	05/30/18	11:41	08:26	(unrelated sample)
ZZZZZZ	6G56747.D	05/30/18	11:59	08:44	(unrelated sample)
JC66384-1	6G56749.D	05/30/18	12:39	09:24	MW-103(6-7)
JC66384-2	6G56750.D	05/30/18	12:57	09:42	MW-103(15-16)
OP12247-MS	6G56751.D	05/30/18	13:15	10:00	Matrix Spike

DDT/Endrin Breakdown Check

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample:	G6G1695-DDT	**Injection Date:**	05/31/18
Lab File ID:	6G56779.D	**Injection Time:**	10:03
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	13942582	10206810
4,4'-DDE	10672674	8093296
4,4'-DDT	615085504	422430575
DDT Breakdown [a]	3.8 %	4.2 %
Endrin aldehyde	2439263	364848
Endrin ketone	2809638	1766140
Endrin	391868123	274503988
Endrin Breakdown [b]	1.3 %	0.8 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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
G6G1695-CC1671	6G56780.D	05/31/18	10:20	00:18	Continuing cal 50
OP12414-MB1	6G56782.D	05/31/18	11:07	01:05	Method Blank
OP12414-BS1	6G56783.D	05/31/18	11:25	01:23	Blank Spike
JC66812-1	6G56784.D	05/31/18	11:44	01:42	(used for QC only; not part of job JC66384)
OP12414-MS	6G56785.D	05/31/18	12:02	02:00	Matrix Spike
OP12414-MSD	6G56786.D	05/31/18	12:20	02:18	Matrix Spike Duplicate
OP12247-MSD	6G56787.D	05/31/18	12:38	02:35	Matrix Spike Duplicate
ZZZZZZ	6G56788.D	05/31/18	12:56	02:53	(unrelated sample)
ZZZZZZ	6G56789.D	05/31/18	13:14	03:11	(unrelated sample)

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1691-CC1671	**Injection Date:**	05/26/18
Lab File ID:	6G56619.D	**Injection Time:**	08:48
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP12247-BS1	**Injection Date:**	05/26/18
Lab File ID:	6G56622.D	**Injection Time:**	10:02
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.09	4.09	11.4		ug/kg	1.8
Aldrin	2	4.95	4.94	11.2		ug/kg	
alpha-BHC	1 [a]	2.99	2.99	10.1		ug/kg	1.0
alpha-BHC	2	3.55	3.55	10		ug/kg	
beta-BHC	1 [a]	3.35	3.35	13.7		ug/kg	9.2
beta-BHC	2	4.04	4.04	12.5		ug/kg	
delta-BHC	1 [a]	3.53	3.53	12.6		ug/kg	9.1
delta-BHC	2	4.42	4.42	11.5		ug/kg	
gamma-BHC (Lindane)	1 [a]	3.28	3.28	10.9		ug/kg	0.9
gamma-BHC (Lindane)	2	3.96	3.96	10.8		ug/kg	
alpha-Chlordane	1 [a]	5.13	5.12	13.8		ug/kg	2.9
alpha-Chlordane	2	6.24	6.24	13.4		ug/kg	
gamma-Chlordane	1 [a]	4.96	4.96	13.1		ug/kg	4.7
gamma-Chlordane	2	6.02	6.02	12.5		ug/kg	
Dieldrin	1	5.62	5.62	13.0		ug/kg	2.3
Dieldrin	2 [a]	6.76	6.76	13.3		ug/kg	
4,4'-DDD	1	6.06	6.06	13.1		ug/kg	1.5
4,4'-DDD	2 [a]	7.43	7.44	13.3		ug/kg	
4,4'-DDE	1	5.24	5.24	13.0		ug/kg	5.2
4,4'-DDE	2 [a]	6.50	6.50	13.7		ug/kg	
4,4'-DDT	1 [a]	6.48	6.48	15.5		ug/kg	3.3
4,4'-DDT	2	7.96	7.96	15.0		ug/kg	
Endrin	1 [a]	5.94	5.94	15.1		ug/kg	10.5
Endrin	2	7.25	7.25	13.6		ug/kg	
Endosulfan sulfate	1 [a]	7.56	7.56	14.5		ug/kg	2.8
Endosulfan sulfate	2	8.62	8.62	14.1		ug/kg	
Endrin aldehyde	1 [a]	6.88	6.88	14.8		ug/kg	14.5
Endrin aldehyde	2	8.16	8.16	12.8		ug/kg	
Endosulfan-I	1 [a]	5.30	5.30	13.0		ug/kg	3.9
Endosulfan-I	2	6.33	6.33	12.5		ug/kg	
Endosulfan-II	1	6.26	6.26	13.2		ug/kg	3.7
Endosulfan-II	2 [a]	7.59	7.59	13.7		ug/kg	
Heptachlor	1 [a]	3.76	3.76	11.6		ug/kg	4.4
Heptachlor	2	4.51	4.51	11.1		ug/kg	
Heptachlor epoxide	1 [a]	4.80	4.79	12.5		ug/kg	5.8
Heptachlor epoxide	2	5.74	5.74	11.8		ug/kg	
Methoxychlor	1 [a]	7.26	7.26	15.4		ug/kg	2.6
Methoxychlor	2	9.19	9.19	15.0		ug/kg	
Endrin ketone	1 [a]	8.00	8.00	14.7		ug/kg	12.3
Endrin ketone	2	9.57	9.57	13.0		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1691-CC1671	**Injection Date:**	05/26/18
Lab File ID:	6G56619.D	**Injection Time:**	08:48
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP12247-BSD	**Injection Date:**	05/26/18
Lab File ID:	6G56623.D	**Injection Time:**	10:20
Client ID:	Blank Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1	4.09	4.09	14.7		ug/kg	1.4
Aldrin	2 [a]	4.94	4.94	14.9		ug/kg	
alpha-BHC	1 [a]	2.99	2.99	14.3		ug/kg	0.7
alpha-BHC	2	3.55	3.55	14.2		ug/kg	
beta-BHC	1 [a]	3.35	3.35	15.6		ug/kg	10.8
beta-BHC	2	4.04	4.04	14.0		ug/kg	
delta-BHC	1 [a]	3.53	3.53	14.1		ug/kg	5.8
delta-BHC	2	4.42	4.42	13.3		ug/kg	
gamma-BHC (Lindane)	1 [a]	3.28	3.28	14.4		ug/kg	1.4
gamma-BHC (Lindane)	2	3.96	3.96	14.2		ug/kg	
alpha-Chlordane	1 [a]	5.13	5.12	15.3		ug/kg	2.0
alpha-Chlordane	2	6.24	6.24	15.0		ug/kg	
gamma-Chlordane	1 [a]	4.96	4.96	15.6		ug/kg	5.9
gamma-Chlordane	2	6.02	6.02	14.7		ug/kg	
Dieldrin	1	5.62	5.62	13.6		ug/kg	9.8
Dieldrin	2 [a]	6.75	6.76	15.0		ug/kg	
4,4'-DDD	1 [a]	6.06	6.06	14.3		ug/kg	1.4
4,4'-DDD	2	7.43	7.44	14.1		ug/kg	
4,4'-DDE	1	5.24	5.24	14.3		ug/kg	4.1
4,4'-DDE	2 [a]	6.50	6.50	14.9		ug/kg	
4,4'-DDT	1 [a]	6.48	6.48	16.5		ug/kg	3.7
4,4'-DDT	2	7.96	7.96	15.9		ug/kg	
Endrin	1 [a]	5.94	5.94	16.8		ug/kg	11.3
Endrin	2	7.25	7.25	15.0		ug/kg	
Endosulfan sulfate	1 [a]	7.56	7.56	15.5		ug/kg	4.6
Endosulfan sulfate	2	8.62	8.62	14.8		ug/kg	
Endrin aldehyde	1 [a]	6.88	6.88	15.8		ug/kg	12.8
Endrin aldehyde	2	8.16	8.16	13.9		ug/kg	
Endosulfan-I	1 [a]	5.30	5.30	14.9		ug/kg	2.0
Endosulfan-I	2	6.33	6.33	14.6		ug/kg	
Endosulfan-II	1	6.26	6.26	14.4		ug/kg	0.7
Endosulfan-II	2 [a]	7.59	7.59	14.5		ug/kg	
Heptachlor	1 [a]	3.76	3.76	15.7		ug/kg	6.6
Heptachlor	2	4.51	4.51	14.7		ug/kg	
Heptachlor epoxide	1 [a]	4.79	4.79	14.6		ug/kg	5.6
Heptachlor epoxide	2	5.74	5.74	13.8		ug/kg	
Methoxychlor	1 [a]	7.26	7.26	16.3		ug/kg	3.8
Methoxychlor	2	9.19	9.19	15.7		ug/kg	
Endrin ketone	1 [a]	8.00	8.00	15.3		ug/kg	12.5
Endrin ketone	2	9.57	9.57	13.5		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56744.D	**Injection Time:**	11:06
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP12247-MS	**Injection Date:**	05/30/18
Lab File ID:	6G56751.D	**Injection Time:**	13:15
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.10	4.09	16.8		ug/kg	3.5
Aldrin	2	4.95	4.94	17.4		ug/kg	
alpha-BHC	1 [a]	2.99	2.99	16.9		ug/kg	6.1
alpha-BHC	2	3.55	3.55	15.9		ug/kg	
beta-BHC	1 [a]	3.35	3.35	17.3		ug/kg	12.9
beta-BHC	2	4.04	4.04	15.2		ug/kg	
delta-BHC	1 [a]	3.54	3.53	15.9		ug/kg	10.6
delta-BHC	2	4.42	4.42	14.3		ug/kg	
gamma-BHC (Lindane)	1 [a]	3.28	3.28	16.1		ug/kg	2.5
gamma-BHC (Lindane)	2	3.96	3.96	15.7		ug/kg	
alpha-Chlordane	1 [a]	5.13	5.13	17.4		ug/kg	4.7
alpha-Chlordane	2	6.24	6.24	16.6		ug/kg	
gamma-Chlordane	1 [a]	4.96	4.96	17.3		ug/kg	9.1
gamma-Chlordane	2	6.02	6.02	15.8		ug/kg	
Dieldrin	1 [a]	5.62	5.62	17.0		ug/kg	3.0
Dieldrin	2	6.76	6.75	16.5		ug/kg	
4,4'-DDD	1 [a]	6.06	6.07	15.8		ug/kg	1.9
4,4'-DDD	2	7.43	7.44	16.1		ug/kg	
4,4'-DDE	1 [a]	5.24	5.24	16.2		ug/kg	0.6
4,4'-DDE	2	6.50	6.50	16.3		ug/kg	
4,4'-DDT	1 [a]	6.48	6.48	17.5		ug/kg	4.1
4,4'-DDT	2	7.96	7.96	16.8		ug/kg	
Endrin	1 [a]	5.94	5.94	18.5		ug/kg	10.8
Endrin	2	7.25	7.25	16.6		ug/kg	
Endosulfan sulfate	1 [a]	7.56	7.56	14.4		ug/kg	2.1
Endosulfan sulfate	2	8.62	8.62	14.7		ug/kg	
Endrin aldehyde	1 [a]	6.89	6.88	3.0		ug/kg	85.7
Endrin aldehyde	2	8.16	8.16	1.2		ug/kg	
Endosulfan-I	1 [a]	5.30	5.30	17.0		ug/kg	7.3
Endosulfan-I	2	6.33	6.33	15.8		ug/kg	
Endosulfan-II	1 [a]	6.26	6.26	13.9		ug/kg	6.3
Endosulfan-II	2	7.59	7.59	14.8		ug/kg	
Heptachlor	1 [a]	3.77	3.76	17.2		ug/kg	5.4
Heptachlor	2	4.51	4.51	16.3		ug/kg	
Heptachlor epoxide	1 [a]	4.80	4.80	17.2		ug/kg	2.4
Heptachlor epoxide	2	5.74	5.74	16.8		ug/kg	
Methoxychlor	1 [a]	7.26	7.27	16.8		ug/kg	4.3
Methoxychlor	2	9.19	9.20	16.1		ug/kg	
Endrin ketone	1 [a]	8.00	8.00	16.5		ug/kg	16.4
Endrin ketone	2	9.57	9.57	14.0		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1695-CC1671	**Injection Date:**	05/31/18
Lab File ID:	6G56780.D	**Injection Time:**	10:20
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP12247-MSD	**Injection Date:**	05/31/18
Lab File ID:	6G56787.D	**Injection Time:**	12:38
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.09	4.09	16.3		ug/kg	3.0
Aldrin	2	4.94	4.94	16.8		ug/kg	
alpha-BHC	1 [a]	2.99	2.99	15.9		ug/kg	0.0
alpha-BHC	2	3.55	3.55	15.9		ug/kg	
beta-BHC	1 [a]	3.35	3.35	16.0		ug/kg	7.1
beta-BHC	2	4.04	4.04	14.9		ug/kg	
delta-BHC	1 [a]	3.53	3.53	14.3		ug/kg	10.3
delta-BHC	2	4.42	4.42	12.9		ug/kg	
gamma-BHC (Lindane)	1 [a]	3.28	3.28	15.1		ug/kg	2.6
gamma-BHC (Lindane)	2	3.96	3.96	15.5		ug/kg	
alpha-Chlordane	1 [a]	5.13	5.12	18.1		ug/kg	11.1
alpha-Chlordane	2	6.24	6.24	16.2		ug/kg	
gamma-Chlordane	1 [a]	4.96	4.96	16.3		ug/kg	1.9
gamma-Chlordane	2	6.02	6.02	16.0		ug/kg	
Dieldrin	1 [a]	5.62	5.62	16.5		ug/kg	2.5
Dieldrin	2	6.75	6.75	16.1		ug/kg	
4,4'-DDD	1 [a]	6.06	6.06	15.4		ug/kg	2.6
4,4'-DDD	2	7.43	7.43	15.8		ug/kg	
4,4'-DDE	1 [a]	5.24	5.24	15.8		ug/kg	0.6
4,4'-DDE	2	6.50	6.50	15.9		ug/kg	
4,4'-DDT	1 [a]	6.48	6.48	16.3		ug/kg	2.5
4,4'-DDT	2	7.96	7.96	15.9		ug/kg	
Endrin	1 [a]	5.94	5.94	18.2		ug/kg	10.4
Endrin	2	7.25	7.24	16.4		ug/kg	
Endosulfan sulfate	1 [a]	7.56	7.56	13.3		ug/kg	6.5
Endosulfan sulfate	2	8.62	8.62	14.2		ug/kg	
Endrin aldehyde	1 [a]	6.88	6.88	3.1		ug/kg	75.6
Endrin aldehyde	2	8.15	8.15	1.4		ug/kg	
Endosulfan-I	1 [a]	5.30	5.30	16.2		ug/kg	3.8
Endosulfan-I	2	6.33	6.33	15.6		ug/kg	
Endosulfan-II	1 [a]	6.26	6.26	13.3		ug/kg	9.3
Endosulfan-II	2	7.59	7.59	14.6		ug/kg	
Heptachlor	1 [a]	3.76	3.76	16.2		ug/kg	2.5
Heptachlor	2	4.51	4.51	15.8		ug/kg	
Heptachlor epoxide	1 [a]	4.79	4.79	15.9		ug/kg	1.3
Heptachlor epoxide	2	5.74	5.74	16.1		ug/kg	
Methoxychlor	1 [a]	7.26	7.26	15.9		ug/kg	3.2
Methoxychlor	2	9.19	9.19	15.4		ug/kg	
Endrin ketone	1 [a]	8.00	8.00	15.2		ug/kg	17.1
Endrin ketone	2	9.56	9.56	12.8		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/28/18
Lab File ID:	2G164439.D	**Injection Time:**	04:06
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	JC66384-1	**Injection Date:**	05/28/18
Lab File ID:	2G164445.D	**Injection Time:**	05:48
Client ID:	MW-103(6-7)		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1			225		ug/kg	11.8
Aroclor 1254	2 [a]			200		ug/kg	
AR1254-D	1	6.10	6.14 [b]	200		ug/kg	
AR1254-D	2	7.59	7.63 [b]	217		ug/kg	
AR1254-E	1	6.48	6.52 [b]	185		ug/kg	
AR1254-E	2	7.91	7.96 [b]	194		ug/kg	
AR1254-F	1	6.73	6.77 [b]	236		ug/kg	
AR1254-F	2	8.38	8.42 [b]	193		ug/kg	
Ar1254-G	1	7.10	7.15 [b]	279		ug/kg	
Ar1254-G	2	8.67	8.71 [b]	195		ug/kg	

(a) Final result reported from this column.
(b) StdRT taken from init cal: G2G4311-IC4311 2G162102.D 04/19/18 13:52

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/27/18
Lab File ID:	2G164417.D	**Injection Time:**	21:54
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	OP12244-BS1	**Injection Date:**	05/27/18
Lab File ID:	2G164420.D	**Injection Time:**	22:44
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			139		ug/kg	7.5
Aroclor 1016	2			129		ug/kg	
AR1016-A	1	3.15	3.14	172		ug/kg	
AR1016-A	2	4.10	4.09	161		ug/kg	
AR1016-B	1	3.54	3.54	145		ug/kg	
AR1016-B	2	4.62	4.61	138		ug/kg	
AR1016-C	1	4.09	4.08	115		ug/kg	
AR1016-C	2	5.28	5.27	99.8		ug/kg	
AR1016-D	1	4.25	4.24	130		ug/kg	
AR1016-D	2	5.46	5.45	125		ug/kg	
AR1016-E	1	4.75	4.75	131		ug/kg	
AR1016-E	2	6.09	6.09	120		ug/kg	
Aroclor 1260	1			123		ug/kg	7.8
Aroclor 1260	2 [a]			133		ug/kg	
AR1260-A	1	7.12	7.11	90.9		ug/kg	
AR1260-A	2	8.69	8.69	97.9		ug/kg	
AR1260-B	1	7.27	7.27	144		ug/kg	
AR1260-B	2	8.80	8.79	154		ug/kg	
AR1260-C	1	7.61	7.60	125		ug/kg	
AR1260-C	2	9.23	9.22	134		ug/kg	
AR1260-D	1	8.04	8.04	128		ug/kg	
AR1260-D	2	9.58	9.58	130		ug/kg	
AR1260-E	1	8.48	8.47	125		ug/kg	
AR1260-E	2	10.12	10.12	147		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/27/18
Lab File ID:	2G164417.D	**Injection Time:**	21:54
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	OP12244-BSD	**Injection Date:**	05/27/18
Lab File ID:	2G164421.D	**Injection Time:**	23:01
Client ID:	Blank Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			137		ug/kg	6.8
Aroclor 1016	2			128		ug/kg	
AR1016-A	1	3.15	3.14	156		ug/kg	
AR1016-A	2	4.10	4.09	152		ug/kg	
AR1016-B	1	3.54	3.54	135		ug/kg	
AR1016-B	2	4.62	4.61	132		ug/kg	
AR1016-C	1	4.09	4.08	118		ug/kg	
AR1016-C	2	5.28	5.27	102		ug/kg	
AR1016-D	1	4.25	4.24	134		ug/kg	
AR1016-D	2	5.46	5.45	126		ug/kg	
AR1016-E	1	4.76	4.75	141		ug/kg	
AR1016-E	2	6.09	6.09	129		ug/kg	
Aroclor 1260	1			147		ug/kg	2.7
Aroclor 1260	2 [a]			151		ug/kg	
AR1260-A	1	7.12	7.11	112		ug/kg	
AR1260-A	2	8.69	8.69	121		ug/kg	
AR1260-B	1	7.27	7.27	169		ug/kg	
AR1260-B	2	8.80	8.79	158		ug/kg	
AR1260-C	1	7.61	7.60	153		ug/kg	
AR1260-C	2	9.23	9.22	157		ug/kg	
AR1260-D	1	8.04	8.04	152		ug/kg	
AR1260-D	2	9.58	9.58	164		ug/kg	
AR1260-E	1	8.44	8.47	148		ug/kg	
AR1260-E	2	10.12	10.12	157		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/28/18
Lab File ID:	2G164439.D	**Injection Time:**	04:06
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	OP12244-MS	**Injection Date:**	05/28/18
Lab File ID:	2G164446.D	**Injection Time:**	06:05
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			246		ug/kg	13.4
Aroclor 1016	2			215		ug/kg	
AR1016-B	1	3.54	3.54	222		ug/kg	
AR1016-B	2	4.61	4.61	231		ug/kg	
AR1016-C	1	4.09	4.09	189		ug/kg	
AR1016-C	2	5.25	5.25	180		ug/kg	
AR1016-D	1	4.24	4.24	247		ug/kg	
AR1016-D	2	5.43	5.44	148		ug/kg	
AR1016-E	1	4.75	4.75	328		ug/kg	
AR1016-E	2	6.08	6.08	301		ug/kg	
Aroclor 1254	1			452		ug/kg	32.1
Aroclor 1254	2 [a]			327		ug/kg	
AR1254-D	1	6.10	6.14 [b]	286		ug/kg	
AR1254-D	2	7.59	7.63 [b]	252		ug/kg	
AR1254-E	1	6.48	6.52 [b]	269		ug/kg	
AR1254-E	2	7.91	7.96 [b]	313		ug/kg	
AR1254-F	1	6.73	6.77 [b]	803		ug/kg	
AR1254-F	2	8.38	8.42 [b]	414		ug/kg	
Aroclor 1260	1 [a]			263		ug/kg	17.8
Aroclor 1260	2			220		ug/kg	
AR1260-B	1	7.27	7.27	243		ug/kg	
AR1260-B	2	8.79	8.79	202		ug/kg	
AR1260-D	1	8.03	8.03	242		ug/kg	
AR1260-D	2	9.56	9.57	190		ug/kg	
AR1260-E	1	8.41	8.43	304		ug/kg	
AR1260-E	2	10.10	10.11	268		ug/kg	

(a) QC results reported from this column.
(b) StdRT taken from init cal: G2G4311-IC4311 2G162102.D 04/19/18 13:52

GC Identification Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/28/18
Lab File ID:	2G164439.D	**Injection Time:**	04:06
Instrument ID:	GC2G	**Method:**	SW846 8082A

Sample ID:	OP12244-MSD	**Injection Date:**	05/28/18
Lab File ID:	2G164447.D	**Injection Time:**	06:22
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			208		ug/kg	3.4
Aroclor 1016	2			201		ug/kg	
AR1016-B	1	3.54	3.54	181		ug/kg	
AR1016-B	2	4.61	4.61	212		ug/kg	
AR1016-C	1	4.08	4.09	174		ug/kg	
AR1016-C	2	5.25	5.25	164		ug/kg	
AR1016-D	1	4.24	4.24	178		ug/kg	
AR1016-D	2	5.43	5.44	152		ug/kg	
AR1016-E	1	4.75	4.75	298		ug/kg	
AR1016-E	2	6.08	6.08	276		ug/kg	
Aroclor 1254	1			395		ug/kg	29.7
Aroclor 1254	2 [a]			293		ug/kg	
AR1254-D	1	6.10	6.14 [b]	250		ug/kg	
AR1254-D	2	7.59	7.63 [b]	222		ug/kg	
AR1254-E	1	6.48	6.52 [b]	230		ug/kg	
AR1254-E	2	7.91	7.96 [b]	290		ug/kg	
AR1254-F	1	6.73	6.77 [b]	706		ug/kg	
AR1254-F	2	8.38	8.42 [b]	365		ug/kg	
Aroclor 1260	1 [a]			291		ug/kg	26.5
Aroclor 1260	2			223		ug/kg	
AR1260-B	1	7.27	7.27	281		ug/kg	
AR1260-B	2	8.79	8.79	187		ug/kg	
AR1260-D	1	8.03	8.03	243		ug/kg	
AR1260-D	2	9.56	9.57	166		ug/kg	
AR1260-E	1	8.44	8.43	348		ug/kg	
AR1260-E	2	10.10	10.11	315		ug/kg	

(a) QC results reported from this column.
(b) StdRT taken from init cal: G2G4311-IC4311 2G162102.D 04/19/18 13:52

Surrogate Recovery Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8081B **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC66384-1	6G56749.D	76	71	28	10
JC66384-2	6G56750.D	64	60	64	69
JC66384-4	6G56628.D	81	75	54	56
OP12247-BS1	6G56622.D	49	49	78	81
OP12247-BSD	6G56623.D	77	77	82	83
OP12247-MB1	6G56621.D	54	55	83	84
OP12247-MS	6G56751.D	67	65	66	72
OP12247-MSD	6G56787.D	66	65	67	70

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	25-135%
S2 = Decachlorobiphenyl	10-156%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Surrogate Recovery Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Method: SW846 8082A **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC66384-1	2G164445.D	94	91	94	101
JC66384-2	2G164523.D	87	86	73	76
JC66384-4	2G164453.D	89	80	52	45
OP12244-BS1	2G164420.D	88	89	75	85
OP12244-BSD	2G164421.D	71	68	85	96
OP12244-MB1	2G164419.D	62	64	88	98
OP12244-MS	2G164446.D	101	95	102	112
OP12244-MSD	2G164447.D	88	82	65	119

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	24-152%
S2 = Decachlorobiphenyl	10-166%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1691-CC1671	**Injection Date:**	05/26/18
Lab File ID:	6G56619.D	**Injection Time:**	08:48
Instrument ID:	GC6G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.52	2.92	9.81	11.70

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12247-MB1	6G56621.D	05/26/18	09:45	2.53	2.92	9.81	11.71
OP12247-BS1	6G56622.D	05/26/18	10:02	2.53	2.92	9.81	11.71
OP12247-BSD	6G56623.D	05/26/18	10:20	2.52	2.92	9.81	11.71
JC66384-4	6G56628.D	05/26/18	11:49	2.53	2.93	9.81	11.71
ZZZZZZ	6G56629.D	05/26/18	12:07	2.53	2.93	9.81	11.68
ZZZZZZ	6G56630.D	05/26/18	12:25	2.53	2.93	9.81	11.70
ZZZZZZ	6G56631.D	05/26/18	12:43	2.53	2.93	9.81	11.68
ZZZZZZ	6G56632.D	05/26/18	13:01	2.53	2.93	9.81	11.71
ZZZZZZ	6G56633.D	05/26/18	13:19	2.53	2.93	9.81	11.71
ZZZZZZ	6G56634.D	05/26/18	13:37	2.53	2.93	9.81	11.70
ZZZZZZ	6G56635.D	05/26/18	13:54	2.53	2.93	9.81	11.71
ZZZZZZ	6G56636.D	05/26/18	14:12	2.53	2.93	9.81	11.71
ZZZZZZ	6G56637.D	05/26/18	14:30	2.53	2.93	9.81	11.71
ZZZZZZ	6G56638.D	05/26/18	14:48	2.53	2.93	9.81	11.71

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1694-CC1671	**Injection Date:**	05/30/18
Lab File ID:	6G56744.D	**Injection Time:**	11:06
Instrument ID:	GC6G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.53	2.93	9.81	11.70

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	6G56746.D	05/30/18	11:41	2.53	2.93	9.81	11.70
ZZZZZZ	6G56747.D	05/30/18	11:59	2.53	2.93	9.81	11.70
JC66384-1	6G56749.D	05/30/18	12:39	2.53	2.93	9.86	11.79
JC66384-2	6G56750.D	05/30/18	12:57	2.53	2.93	9.80	11.70
OP12247-MS	6G56751.D	05/30/18	13:15	2.53	2.93	9.80	11.70

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G6G1695-CC1671	**Injection Date:**	05/31/18
Lab File ID:	6G56780.D	**Injection Time:**	10:20
Instrument ID:	GC6G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.52	2.92	9.81	11.70

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12414-MB1	6G56782.D	05/31/18	11:07	2.52	2.92	9.81	11.70
OP12414-BS1	6G56783.D	05/31/18	11:25	2.52	2.92	9.81	11.70
JC66812-1	6G56784.D	05/31/18	11:44	2.52	2.92	9.81	11.70
OP12414-MS	6G56785.D	05/31/18	12:02	2.52	2.92	9.80	11.70
OP12414-MSD	6G56786.D	05/31/18	12:20	2.52	2.92	9.80	11.70
OP12247-MSD	6G56787.D	05/31/18	12:38	2.52	2.92	9.80	11.70
ZZZZZZ	6G56788.D	05/31/18	12:56	2.52	2.92	9.80	11.70
ZZZZZZ	6G56789.D	05/31/18	13:14	2.52	2.92	9.81	11.70

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/27/18
Lab File ID:	2G164417.D	**Injection Time:**	21:54
Instrument ID:	GC2G	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.42	9.96	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12244-MB1	2G164419.D	05/27/18	22:28	2.77	3.43	9.96	11.77
OP12244-BS1	2G164420.D	05/27/18	22:44	2.77	3.43	9.96	11.77
OP12244-BSD	2G164421.D	05/27/18	23:01	2.78	3.43	9.96	11.77
OP12272-MB1	2G164422.D	05/27/18	23:18	2.77	3.42	9.96	11.76
OP12272-BS1	2G164423.D	05/27/18	23:35	2.77	3.42	9.96	11.76
OP12272-BSD	2G164424.D	05/27/18	23:52	2.77	3.42	9.96	11.76

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/28/18
Lab File ID:	2G164439.D	**Injection Time:**	04:06
Instrument ID:	GC2G	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.42	9.96	11.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	2G164441.D	05/28/18	04:40	2.78	3.42	9.96	11.76
ZZZZZZ	2G164442.D	05/28/18	04:57	2.77	3.42	9.96	11.76
ZZZZZZ	2G164443.D	05/28/18	05:14	2.77	3.42	9.95	11.76
ZZZZZZ	2G164444.D	05/28/18	05:31	2.77	3.42	9.96	11.76
JC66384-1	2G164445.D	05/28/18	05:48	2.78	3.42	9.95	11.76
OP12244-MS	2G164446.D	05/28/18	06:05	2.77	3.42	9.95	11.76
OP12244-MSD	2G164447.D	05/28/18	06:22	2.77	3.42	9.95	11.76

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4347-CC4311	**Injection Date:**	05/28/18
Lab File ID:	2G164450.D	**Injection Time:**	07:13
Instrument ID:	GC2G	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.77	3.42	9.96	11.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC66384-4	2G164453.D	05/28/18	08:04	2.78	3.42	9.95	11.76
ZZZZZZ	2G164454.D	05/28/18	08:21	2.77	3.42	9.95	11.77
ZZZZZZ	2G164455.D	05/28/18	08:38	2.78	3.42	9.95	11.76
ZZZZZZ	2G164456.D	05/28/18	08:55	2.77	3.42	9.95	11.76
ZZZZZZ	2G164457.D	05/28/18	09:12	2.78	3.42	9.96	11.76
ZZZZZZ	2G164458.D	05/28/18	09:29	2.78	3.42	9.96	11.76

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Check Std:	G2G4348-CC4311	**Injection Date:**	05/29/18
Lab File ID:	2G164516.D	**Injection Time:**	09:00
Instrument ID:	GC2G	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.78	3.43	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC66384-2	2G164523.D	05/29/18	11:06	2.78	3.43	9.96	11.77
ZZZZZZ	2G164524.D	05/29/18	11:23	2.79	3.43	9.96	11.76
ZZZZZZ	2G164525.D	05/29/18	11:40	2.79	3.43	9.96	11.77

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 2PCB4311.M
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response Via : Initial Calibration

Calibration Files
50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1) S	Tetrachloro-m...	3.853	3.487	3.538	3.692	3.667	3.785	3.670	E6	3.81
2)	AR1221-A				2.897			2.897	E4	0.00
3)	AR1221-B				4.202			4.202	E4	0.00
4)	AR1221-C				1.288			1.288	E5	0.00
5)	AR1221-D				1.466			1.466	E4	0.00
6)	AR1221-E				1.436			1.436	E4	0.00
7)	AR1232-A				9.734			9.734	E4	0.00
8)	AR1232-B				6.684			6.684	E4	0.00
9)	AR1232-C				1.305			1.305	E5	0.00
10)	AR1232-D				5.447			5.447	E4	0.00
11)	AR1232-E				5.149			5.149	E4	0.00
12)	AR1242-A				1.198			1.198	E5	0.00
13)	AR1242-B				2.525			2.525	E5	0.00
14)	AR1242-C				1.054			1.054	E5	0.00
15)	AR1242-D				1.090			1.090	E5	0.00
16)	AR1242-E				9.298			9.298	E4	0.00
17)	AR1248-A				5.917			5.917	E4	0.00
18)	AR1248-B				1.544			1.544	E5	0.00
19)	AR1248-C				1.652			1.652	E5	0.00
20)	AR1248-D				1.598			1.598	E5	0.00
21)	AR1248-E				1.421			1.421	E5	0.00
22)	AR1248-F				1.402			1.402	E5	0.00
23)	AR1248-G				1.572			1.572	E5	0.00
24)	AR1254-A				1.234			1.234	E5	0.00
25)	AR1254-B				2.588			2.588	E5	0.00
26)	AR1254-C				1.370			1.370	E5	0.00
27)	AR1254-D				2.459			2.459	E5	0.00
28)	AR1254-E				1.825			1.825	E5	0.00
29)	AR1254-F				1.712			1.712	E5	0.00
30)	AR1254-G				2.518			2.518	E5	0.00
31)	AR1016-A	9.451	7.869	7.627	7.558	7.126	7.105	7.789	E4	11.13
32)	AR1016-B	1.685	1.361	1.324	1.304	1.242	1.247	1.361	E5	12.16
33)	AR1016-C	3.261	2.840	2.792	2.854	2.797	2.854	2.900	E5	6.18
34)	AR1016-D	1.360	1.162	1.156	1.157	1.119	1.140	1.182	E5	7.49
35)	AR1016-E	1.424	1.227	1.184	1.176	1.145	1.161	1.219	E5	8.51
36)	AR1260-A	3.759	3.397	3.078	3.178	3.473	3.566	3.408	E5	7.36
37)	AR1260-B	1.602	1.368	1.501	1.530	1.316	1.349	1.444	E5	8.00
38)	AR1260-C	1.676	1.539	1.642	1.690	1.480	1.527	1.592	E5	5.54
39)	AR1260-D	3.627	3.372	3.743	3.953	3.621	3.712	3.671	E5	5.17
40)	AR1260-E	3.931	3.596	3.895	4.026	3.611	3.668	3.788	E5	4.88
41)	AR1262-A				1.935			1.935	E5	0.00
42)	AR1262-B				2.424			2.424	E5	0.00
43)	AR1262-C				2.270			2.270	E5	0.00
44)	AR1262-D				4.854			4.854	E5	0.00
45)	AR1262-E				5.588			5.588	E5	0.00
46)	AR1268-A				5.754			5.754	E5	0.00

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

47)		AR1268-B				5.673			5.673	E5	0.00
48)		AR1268-C				4.730			4.730	E5	0.00
49)		AR1268-D				1.992			1.992	E5	0.00
50)		AR1268-E				1.615			1.615	E6	0.00
51)	S	Decachlorobip...	4.697	4.061	3.924	3.931	3.825	3.897	4.056	E6	7.97

Signal #2 Calibration Files

50	=2G162102a.D	250	=2G162097.D	500	=2G162098.D
1000	=2G162099.D	2000	=2G162100.D	3000	=2G162101.D

		Compound	50	250	500	1000	2000	3000	Avg		%RSD
1)	S	Tetrachloro-m...	2.359	2.161	2.233	2.322	2.300	2.354	2.288	E7	3.37
2)		AR1221-A				1.409			1.409	E5	0.00
3)		AR1221-B				2.507			2.507	E5	0.00
4)		AR1221-C				6.558			6.558	E5	0.00
5)		AR1221-D				1.222			1.222	E5	0.00
6)		AR1221-E				8.849			8.849	E4	0.00
7)		AR1232-A				5.020			5.020	E5	0.00
8)		AR1232-B				3.935			3.935	E5	0.00
9)		AR1232-C				8.152			8.152	E5	0.00
10)		AR1232-D				3.615			3.615	E5	0.00
11)		AR1232-E				2.173			2.173	E5	0.00
12)		AR1242-A				7.054			7.054	E5	0.00
13)		AR1242-B				1.548			1.548	E6	0.00
14)		AR1242-C				6.668			6.668	E5	0.00
15)		AR1242-D				4.564			4.564	E5	0.00
16)		AR1242-E				6.343			6.343	E5	0.00
17)		AR1248-A				3.627			3.627	E5	0.00
18)		AR1248-B				9.548			9.548	E5	0.00
19)		AR1248-C				5.697			5.697	E5	0.00
20)		AR1248-D				7.271			7.271	E5	0.00
21)		AR1248-E				8.799			8.799	E5	0.00
22)		AR1248-F				1.097			1.097	E6	0.00
23)		AR1248-G				1.220			1.220	E6	0.00
24)		AR1254-A				9.925			9.925	E5	0.00
25)		AR1254-B				9.839			9.839	E5	0.00
26)		AR1254-C				7.977			7.977	E5	0.00
27)		AR1254-D				1.634			1.634	E6	0.00
28)		AR1254-E				1.089			1.089	E6	0.00
29)		AR1254-F				1.181			1.181	E6	0.00
30)		AR1254-G				1.511			1.511	E6	0.00
31)		AR1016-A	4.464	3.663	3.554	3.667	3.532	3.597	3.746	E5	9.50
32)		AR1016-B	1.008	0.785	0.781	0.777	0.734	0.721	0.801	E6	13.07
33)		AR1016-C	1.870	1.661	1.687	1.744	1.719	1.721	1.734	E6	4.20
34)		AR1016-D	8.979	7.276	7.297	7.378	7.117	7.090	7.523	E5	9.59
35)		AR1016-E	5.760	4.925	4.923	5.029	5.023	5.124	5.131	E5	6.19
36)		AR1260-A	2.222	1.949	1.820	1.882	2.043	2.081	2.000	E6	7.30
37)		AR1260-B	1.009	0.803	0.897	0.917	0.804	0.816	0.874	E6	9.41
38)		AR1260-C	1.124	0.949	1.023	1.051	0.980	1.006	1.022	E6	5.98
39)		AR1260-D	2.347	1.930	2.170	2.256	2.063	2.114	2.146	E6	6.84
40)		AR1260-E	2.219	1.874	2.089	2.144	1.933	1.971	2.038	E6	6.55
41)		AR1262-A				1.044			1.044	E6	0.00
42)		AR1262-B				1.428			1.428	E6	0.00
43)		AR1262-C				1.336			1.336	E6	0.00
44)		AR1262-D				2.732			2.732	E6	0.00
45)		AR1262-E				3.034			3.034	E6	0.00
46)		AR1268-A				3.086			3.086	E6	0.00
47)		AR1268-B				3.099			3.099	E6	0.00
48)		AR1268-C				2.498			2.498	E6	0.00

Initial Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

49)		AR1268-D				1.038		1.038 E6	0.00
50)		AR1268-E				8.238		8.238 E6	0.00
51)	S	Decachlorobip...	2.219	1.845	1.796	1.874	1.841 1.884	1.910 E7	8.10

(#) = Out of Range

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	3.975 E6	-8.3	108	0.00	2.75- 2.81
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	76.686 E3	1.5	101	0.00	3.12- 3.18
32	AR1016-B	136.058	141.949 E3	-4.3	109	0.00	3.53- 3.59
33	AR1016-C	289.965	305.729 E3	-5.4	107	0.00	4.08- 4.14
34	AR1016-D	118.235	126.283 E3	-6.8	109	0.00	4.24- 4.30
35	AR1016-E	121.934	124.361 E3	-2.0	106	0.00	4.75- 4.81
36	AR1260-A	340.850	344.355 E3	-1.0	108	0.00	7.12- 7.18
37	AR1260-B	144.444	147.854 E3	-2.4	97	0.00	7.28- 7.34
38	AR1260-C	159.229	170.106 E3	-6.8	101	0.00	7.62- 7.68
39	AR1260-D	367.146	387.161 E3	-5.5	98	0.00	8.05- 8.11
40	AR1260-E	378.788	394.757 E3	-4.2	98	0.00	8.39- 8.55
41	AR1262-A		----------NA----------				

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				
48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	4.056	4.006 E6	1.2	102	0.00	9.98-10.04	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	25.201 E6	-10.1	109	0.00	3.40- 3.46	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1016-A	374.605	415.731 E3	-11.0	113	0.00	4.06- 4.12	
32		AR1016-B	0.801	0.845 E6	-5.5	109	0.00	4.60- 4.66	
33		AR1016-C	1.734	1.899 E6	-9.5	109	0.00	5.25- 5.31	
34		AR1016-D	752.270	823.449 E3	-9.5	112	0.00	5.43- 5.49	
35		AR1016-E	513.080	544.014 E3	-6.0	108	0.00	6.08- 6.14	
36		AR1260-A	2.000	2.060 E6	-3.0	109	0.00	8.68- 8.74	
37		AR1260-B	0.874	0.905 E6	-3.5	99	0.00	8.80- 8.86	
38		AR1260-C	1.022	1.071 E6	-4.8	102	0.00	9.23- 9.29	
39		AR1260-D	2.146	2.253 E6	-5.0	100	0.00	9.58- 9.64	
40		AR1260-E	2.038	2.122 E6	-4.1	99	0.00	10.12-10.18	
41		AR1262-A			----------NA----------				
42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	19.099	18.717 E6	2.0	100	0.00	11.78-11.84	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 15:43:22 2018 RPT1

10.9.2 10

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162107.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
2	AR1221-A	28.967	30.231 E3	-4.4	104	0.00	2.18- 2.38
3	AR1221-B	42.023	40.285 E3	4.1	96	0.00	2.85- 3.05
4	AR1221-C	128.795	122.705 E3	4.7	95	0.00	3.05- 3.25
5	AR1221-D	14.657	11.965 E3	18.4	82	0.00	3.46- 3.66
6	AR1221-E	14.364	14.535 E3	-1.2	101	0.00	3.60- 3.80
24	AR1254-A	123.364	129.470 E3	-4.9	105	0.00	4.78- 5.78
25	AR1254-B	258.753	268.829 E3	-3.9	104	0.00	5.52- 5.72
26	AR1254-C	136.952	143.562 E3	-4.8	105	0.00	5.88- 6.08
27	AR1254-D	245.908	257.604 E3	-4.8	105	0.00	6.04- 6.24
28	AR1254-E	182.509	189.827 E3	-4.0	104	0.00	6.42- 6.62
29	AR1254-F	171.196	179.789 E3	-5.0	105	0.00	6.67- 6.87
30	AR1254-G	251.778	263.449 E3	-4.6	105	0.00	7.05- 7.25

***** Signal #2 *****

2	AR1221-A	140.927	146.033 E3	-3.6	104	0.00	2.77- 2.97
3	AR1221-B	250.670	252.257 E3	-0.6	101	0.00	3.72- 3.92
4	AR1221-C	655.831	636.187 E3	3.0	97	0.00	3.99- 4.19
5	AR1221-D	122.166	105.889 E3	13.3	87	0.00	4.55- 4.75
6	AR1221-E	88.492	89.522 E3	-1.2	101	0.00	4.67- 4.87
24	AR1254-A	992.497	1051.994 E3	-6.0	106	0.00	6.20- 7.20
25	AR1254-B	983.915	1037.386 E3	-5.4	105	0.00	6.86- 7.06
26	AR1254-C	797.725	839.207 E3	-5.2	105	0.00	7.37- 7.56
27	AR1254-D	1.634	1.719 E6	-5.2	105	0.00	7.53- 7.73
28	AR1254-E	1.089	1.136 E6	-4.3	104	0.00	7.86- 8.06
29	AR1254-F	1.181	1.231 E6	-4.2	104	0.00	8.32- 8.52
30	AR1254-G	1.511	1.615 E6	-6.9	107	0.00	8.62- 8.82

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:15:57 2018 RPT1

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162108.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
7	AR1232-A	97.343	98.365 E3	-1.0	101	0.00	3.05- 3.25
8	AR1232-B	66.843	68.498 E3	-2.5	102	0.00	3.46- 3.66
9	AR1232-C	130.487	135.897 E3	-4.1	104	0.00	4.01- 4.21
10	AR1232-D	54.474	56.766 E3	-4.2	104	0.00	4.17- 4.37
11	AR1232-E	51.489	53.116 E3	-3.2	103	0.00	4.68- 4.88
41	AR1262-A	193.481	203.733 E3	-5.3	105	0.00	6.67- 6.87
42	AR1262-B	242.383	258.534 E3	-6.7	107	0.00	7.21- 7.41
43	AR1262-C	227.005	238.593 E3	-5.1	105	0.00	7.55- 7.75
44	AR1262-D	485.357	514.218 E3	-5.9	106	0.00	7.98- 8.18
45	AR1262-E	558.779	598.920 E3	-7.2	107	0.00	8.43- 8.63
*****	Signal #2 *****						
7	AR1232-A	501.961	512.204 E3	-2.0	102	0.00	4.00- 4.20
8	AR1232-B	393.517	401.624 E3	-2.1	102	0.00	4.54- 4.74
9	AR1232-C	815.235	827.075 E3	-1.5	101	0.00	5.18- 5.38
10	AR1232-D	361.545	372.004 E3	-2.9	103	0.00	5.37- 5.57
11	AR1232-E	217.324	220.012 E3	-1.2	101	0.00	6.02- 6.22
41	AR1262-A	1.044	1.084 E6	-3.8	104	0.00	8.09- 8.29
42	AR1262-B	1.428	1.495 E6	-4.7	105	0.00	8.73- 8.93
43	AR1262-C	1.336	1.393 E6	-4.3	104	0.00	9.16- 9.36
44	AR1262-D	2.732	2.841 E6	-4.0	104	0.00	9.51- 9.71
45	AR1262-E	3.034	3.169 E6	-4.4	104	0.00	10.02-10.22

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:15:59 2018 RPT1

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
12	AR1242-A	119.785	114.904 E3	4.1	96	0.00	3.46- 3.66
13	AR1242-B	252.484	244.856 E3	3.0	97	0.00	4.01- 4.21
14	AR1242-C	105.443	101.790 E3	3.5	97	0.00	4.17- 4.37
15	AR1242-D	108.979	102.543 E3	5.9	94	0.00	4.68- 4.88
16	AR1242-E	92.981	87.846 E3	5.5	94	0.00	5.27- 5.47
46	AR1268-A	575.351	581.914 E3	-1.1	101	0.00	8.42- 8.62
47	AR1268-B	567.310	583.888 E3	-2.9	103	0.00	8.48- 8.68
48	AR1268-C	473.024	486.973 E3	-2.9	103	0.00	8.75- 8.95
49	AR1268-D	199.180	204.671 E3	-2.8	103	0.00	9.24- 9.44
50	AR1268-E	1.615	1.646 E6	-1.9	102	0.00	9.64- 9.84

***** Signal #2 *****

12	AR1242-A	705.391	679.662 E3	3.6	96	0.00	4.53- 4.73
13	AR1242-B	1.548	1.499 E6	3.2	97	0.00	5.18- 5.38
14	AR1242-C	666.761	667.573 E3	-0.1	100	0.00	5.37- 5.57
15	AR1242-D	456.404	438.896 E3	3.8	96	0.00	6.01- 6.21
16	AR1242-E	634.341	601.296 E3	5.2	95	0.00	6.63- 6.83
46	AR1268-A	3.086	3.010 E6	2.5	98	0.00	10.02-10.22
47	AR1268-B	3.099	3.068 E6	1.0	99	0.00	10.09-10.29
48	AR1268-C	2.498	2.444 E6	2.2	98	0.00	10.46-10.66
49	AR1268-D	1.038	1.042 E6	-0.4	100	0.00	10.86-11.06
50	AR1268-E	8.238	7.835 E6	4.9	95	0.00	11.33-11.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:23:22 2018 RPT1

10.9.5 10

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4311-ICV4311
Lab FileID: 2G162110.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
17	AR1248-A	59.174	55.493 E3	6.2	94	0.00	3.45- 3.65
18	AR1248-B	154.398	154.781 E3	-0.2	100	0.00	4.01- 4.21
19	AR1248-C	165.207	165.431 E3	-0.1	100	0.00	4.40- 4.60
20	AR1248-D	159.827	163.966 E3	-2.6	103	0.00	4.68- 4.88
21	AR1248-E	142.066	146.330 E3	-3.0	103	0.00	4.79- 4.99
22	AR1248-F	140.157	154.154 E3	-10.0	110	0.00	5.26- 5.46
23	AR1248-G	157.220	168.971 E3	-7.5	107	0.00	5.12- 6.12

***** Signal #2 *****

17	AR1248-A	362.749	338.780 E3	6.6	93	0.00	4.53- 4.73
18	AR1248-B	954.786	932.709 E3	2.3	98	0.00	5.18- 5.38
19	AR1248-C	569.681	572.997 E3	-0.6	101	0.00	5.63- 5.83
20	AR1248-D	727.117	735.665 E3	-1.2	101	0.00	6.01- 6.21
21	AR1248-E	879.894	914.038 E3	-3.9	104	0.00	6.19- 6.39
22	AR1248-F	1.097	1.158 E6	-5.6	106	0.00	6.62- 6.82
23	AR1248-G	1.220	1.306 E6	-7.0	107	0.00	6.55- 7.55

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 16:41:13 2018 RPT1

10.9.6 10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164417.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4347\2G164417.D\ECD1A.CH Vial: 61
Signal #2 : C:\msdchem\1\DATA\2G4347\2G164417.D\ECD2B.CH
Acq On : 27 May 2018 9:54 pm Operator: edouarda
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12249,G2G4347,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Fri May 25 17:33:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	3.670	4.069 E6	-10.9	110	0.00	2.74- 2.80
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1016-A	77.893	81.087 E3	-4.1	107	-0.02	3.11- 3.17
32		AR1016-B	136.058	143.038 E3	-5.1	110	-0.02	3.51- 3.57
33		AR1016-C	289.965	276.422 E3	4.7	97	-0.01	4.05- 4.11
34		AR1016-D	118.235	118.023 E3	0.2	102	-0.01	4.21- 4.27
35		AR1016-E	121.934	124.414 E3	-2.0	106	-0.02	4.72- 4.78
36		AR1260-A	340.850	293.310 E3	13.9	92	0.00	7.08- 7.14
37		AR1260-B	144.444	161.419 E3	-11.8	105	-0.02	7.24- 7.30
38		AR1260-C	159.229	161.151 E3	-1.2	95	-0.01	7.57- 7.63
39		AR1260-D	367.146	383.909 E3	-4.6	97	0.00	8.01- 8.07
40		AR1260-E	378.788	371.092 E3	2.0	92	0.04	8.39- 8.55
41		AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164417.D

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	3.567 E6	12.1	91	0.00	9.93-	9.99
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	24.284 E6	-6.1	105	0.00	3.39-	3.45
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	403.094 E3	-7.6	110	0.00	4.06-	4.12
32		AR1016-B	0.801	0.811 E6	-1.2	104	-0.01	4.58-	4.64
33		AR1016-C	1.734	1.587 E6	8.5	91	0.00	5.24-	5.30
34		AR1016-D	752.270	870.686 E3	-15.7	118	0.00	5.42-	5.48
35		AR1016-E	513.080	519.408 E3	-1.2	103	0.00	6.06-	6.12
36		AR1260-A	2.000	1.792 E6	10.4	95	0.00	8.66-	8.72
37		AR1260-B	0.874	1.039 E6	-18.9	113	0.00	8.76-	8.82
38		AR1260-C	1.022	1.119 E6	-9.5	106	0.00	9.19-	9.25
39		AR1260-D	2.146	2.459 E6	-14.6	109	0.00	9.55-	9.61
40		AR1260-E	2.038	2.276 E6	-11.7	106	0.00	10.09-	10.15
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164417.D

48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	19.099	19.402 E6	-1.6	104	0.00	11.74-11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G164246.D 2PCB4311.M Mon May 28 19:44:21 2018 RPT1

10.9.7
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164428.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4347\2G164428.D\ECD1A.CH Vial: 70
Signal #2 : C:\msdchem\1\DATA\2G4347\2G164428.D\ECD2B.CH
Acq On : 28 May 2018 1:00 am Operator: edouarda
Sample : cc4311-500 Inst : HP G1530A
Misc : OP12249,G2G4347,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Fri May 25 17:33:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	4.107 E6	-11.9	116	0.00	2.75- 2.81
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	87.239 E3	-12.0	114	-0.01	3.12- 3.17
32	AR1016-B	136.058	149.736 E3	-10.1	113	-0.01	3.51- 3.57
33	AR1016-C	289.965	274.990 E3	5.2	98	-0.01	4.06- 4.12
34	AR1016-D	118.235	121.088 E3	-2.4	105	-0.01	4.22- 4.28
35	AR1016-E	121.934	126.130 E3	-3.4	107	-0.01	4.72- 4.78
36	AR1260-A	340.850	294.204 E3	13.7	96	0.00	7.08- 7.14
37	AR1260-B	144.444	163.206 E3	-13.0	109	-0.01	7.24- 7.30
38	AR1260-C	159.229	163.169 E3	-2.5	99	0.00	7.58- 7.64
39	AR1260-D	367.146	334.971 E3	8.8	89	0.00	8.01- 8.07
40	AR1260-E	378.788	379.080 E3	-0.1	97	0.00	8.36- 8.51
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164428.D

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	3.677 E6	9.3	94	0.00	9.93-	9.99
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	23.854 E6	-4.2	107	0.00	3.40-	3.46
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	415.504 E3	-10.9	117	0.00	4.07-	4.13
32		AR1016-B	0.801	0.838 E6	-4.6	107	0.00	4.58-	4.64
33		AR1016-C	1.734	1.490 E6	14.1	88	0.01	5.24-	5.30
34		AR1016-D	752.270	885.320 E3	-17.7	121	0.00	5.42-	5.48
35		AR1016-E	513.080	522.292 E3	-1.8	106	0.00	6.06-	6.12
36		AR1260-A	2.000	1.799 E6	10.1	99	0.00	8.66-	8.72
37		AR1260-B	0.874	1.045 E6	-19.6	116	0.00	8.76-	8.82
38		AR1260-C	1.022	1.106 E6	-8.2	108	0.00	9.19-	9.25
39		AR1260-D	2.146	2.379 E6	-10.9	110	0.00	9.55-	9.61
40		AR1260-E	2.038	2.299 E6	-12.8	110	0.00	10.09-	10.15
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164428.D

```
48      AR1268-C                              ----------NA----------
49      AR1268-D                              ----------NA----------
50      AR1268-E                              ----------NA----------
51 S    Decachlorobiphenyl       19.099  19.572 E6  -2.5  109   0.00   11.74-11.80
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    2G162098.D 2PCB4311.M       Mon May 28 19:55:32 2018   RPT1
```

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164439.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4347\2G164439.D\ECD1A.CH Vial: 78
Signal #2 : C:\msdchem\1\DATA\2G4347\2G164439.D\ECD2B.CH
Acq On : 28 May 2018 4:06 am Operator: edouarda
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12272,G2G4347,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Fri May 25 17:33:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	4.090 E6	-11.4	111	0.00	2.74- 2.80
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	82.333 E3	-5.7	109	-0.01	3.11- 3.17
32	AR1016-B	136.058	143.885 E3	-5.8	110	-0.01	3.51- 3.57
33	AR1016-C	289.965	289.650 E3	0.1	101	-0.01	4.06- 4.12
34	AR1016-D	118.235	125.381 E3	-6.0	108	-0.01	4.21- 4.27
35	AR1016-E	121.934	125.824 E3	-3.2	107	-0.01	4.72- 4.78
36	AR1260-A	340.850	308.088 E3	9.6	97	0.00	7.08- 7.14
37	AR1260-B	144.444	156.139 E3	-8.1	102	-0.01	7.24- 7.30
38	AR1260-C	159.229	164.405 E3	-3.3	97	-0.01	7.57- 7.63
39	AR1260-D	367.146	345.494 E3	5.9	87	0.00	8.00- 8.06
40	AR1260-E	378.788	367.767 E3	2.9	91	0.00	8.35- 8.51
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164439.D

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	3.248 E6	19.9	83	0.00	9.93-	9.99
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	24.612 E6	-7.6	106	0.00	3.39-	3.45
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	412.343 E3	-10.1	112	0.00	4.05-	4.11
32		AR1016-B	0.801	0.813 E6	-1.5	105	-0.01	4.58-	4.64
33		AR1016-C	1.734	1.728 E6	0.3	99	0.00	5.22-	5.28
34		AR1016-D	752.270	822.869 E3	-9.4	112	0.00	5.41-	5.47
35		AR1016-E	513.080	531.702 E3	-3.6	106	-0.01	6.05-	6.11
36		AR1260-A	2.000	1.824 E6	8.8	97	0.00	8.65-	8.71
37		AR1260-B	0.874	0.947 E6	-8.4	103	-0.01	8.76-	8.82
38		AR1260-C	1.022	1.031 E6	-0.9	98	-0.01	9.19-	9.25
39		AR1260-D	2.146	2.068 E6	3.6	92	0.00	9.54-	9.60
40		AR1260-E	2.038	2.017 E6	1.0	94	0.00	10.08-	10.14
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164439.D

48		AR1268-C			----------NA----------			
49		AR1268-D			----------NA----------			
50		AR1268-E			----------NA----------			
51	S	Decachlorobiphenyl	19.099	15.805 E6	17.2	84	0.00	11.73-11.79

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G164246.D 2PCB4311.M Mon May 28 19:44:23 2018 RPT1

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164450.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4347\2G164450.D\ECD1A.CH Vial: 86
Signal #2 : C:\msdchem\1\DATA\2G4347\2G164450.D\ECD2B.CH
Acq On : 28 May 2018 7:13 am Operator: edouarda
Sample : cc4311-500 Inst : HP G1530A
Misc : OP12244,G2G4347,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Fri May 25 17:33:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	4.126 E6	-12.4	117	0.00	2.74- 2.80
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	89.200 E3	-14.5	117	-0.01	3.12- 3.18
32	AR1016-B	136.058	153.894 E3	-13.1	116	-0.01	3.51- 3.57
33	AR1016-C	289.965	291.917 E3	-0.7	105	-0.01	4.06- 4.12
34	AR1016-D	118.235	125.469 E3	-6.1	109	-0.01	4.22- 4.28
35	AR1016-E	121.934	130.514 E3	-7.0	110	-0.01	4.72- 4.78
36	AR1260-A	340.850	299.876 E3	12.0	97	0.00	7.08- 7.14
37	AR1260-B	144.444	155.675 E3	-7.8	104	-0.01	7.24- 7.30
38	AR1260-C	159.229	156.522 E3	1.7	95	-0.01	7.58- 7.64
39	AR1260-D	367.146	373.532 E3	-1.7	100	0.00	8.01- 8.07
40	AR1260-E	378.788	372.756 E3	1.6	96	0.00	8.35- 8.51
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164450.D

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	3.280 E6	19.1	84	0.00	9.93-	9.99
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	25.187 E6	-10.1	113	0.00	3.39-	3.45
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	421.029 E3	-12.4	118	0.00	4.05-	4.11
32		AR1016-B	0.801	0.867 E6	-8.2	111	-0.01	4.58-	4.64
33		AR1016-C	1.734	1.745 E6	-0.6	103	0.00	5.23-	5.29
34		AR1016-D	752.270	885.180 E3	-17.7	121	0.00	5.41-	5.47
35		AR1016-E	513.080	546.843 E3	-6.6	111	0.00	6.05-	6.11
36		AR1260-A	2.000	1.875 E6	6.3	103	0.00	8.65-	8.71
37		AR1260-B	0.874	0.996 E6	-14.0	111	0.00	8.76-	8.82
38		AR1260-C	1.022	1.063 E6	-4.0	104	0.00	9.19-	9.25
39		AR1260-D	2.146	2.222 E6	-3.5	102	0.00	9.54-	9.60
40		AR1260-E	2.038	2.081 E6	-2.1	100	0.00	10.09-	10.15
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164450.D

48		AR1268-C			----------NA----------			
49		AR1268-D			----------NA----------			
50		AR1268-E			----------NA----------			
51	S	Decachlorobiphenyl	19.099	16.123 E6	15.6	90	0.00	11.73-11.79

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Mon May 28 19:55:34 2018 RPT1

10.9.10
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164461.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4347\2G164461.D\ECD1A.CH Vial: 94
Signal #2 : C:\msdchem\1\DATA\2G4347\2G164461.D\ECD2B.CH
Acq On : 28 May 2018 10:20 am Operator: edouarda
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12244,G2G4347,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Fri May 25 17:33:47 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	3.670	4.182 E6	-14.0	113	0.00	2.74- 2.80
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1016-A	77.893	84.104 E3	-8.0	111	-0.01	3.12- 3.18
32		AR1016-B	136.058	146.950 E3	-8.0	113	-0.01	3.51- 3.57
33		AR1016-C	289.965	295.693 E3	-2.0	104	-0.01	4.06- 4.12
34		AR1016-D	118.235	128.960 E3	-9.1	111	-0.01	4.22- 4.28
35		AR1016-E	121.934	129.495 E3	-6.2	110	-0.01	4.72- 4.78
36		AR1260-A	340.850	318.428 E3	6.6	100	0.00	7.08- 7.14
37		AR1260-B	144.444	161.880 E3	-12.1	106	-0.01	7.24- 7.30
38		AR1260-C	159.229	170.724 E3	-7.2	101	-0.01	7.58- 7.64
39		AR1260-D	367.146	359.221 E3	2.2	91	0.00	8.00- 8.06
40		AR1260-E	378.788	375.607 E3	0.8	93	0.00	8.35- 8.51
41		AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164461.D

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	3.191 E6	21.3#	81	0.00	9.93-	9.99
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	25.158 E6	-9.9	108	0.00	3.39-	3.45
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	420.716 E3	-12.3	115	0.00	4.05-	4.11
32		AR1016-B	0.801	0.834 E6	-4.1	107	-0.01	4.58-	4.64
33		AR1016-C	1.734	1.779 E6	-2.6	102	0.00	5.22-	5.28
34		AR1016-D	752.270	850.651 E3	-13.1	115	0.00	5.41-	5.47
35		AR1016-E	513.080	548.627 E3	-6.9	109	0.00	6.05-	6.11
36		AR1260-A	2.000	1.907 E6	4.6	101	0.00	8.65-	8.71
37		AR1260-B	0.874	0.989 E6	-13.2	108	-0.01	8.76-	8.82
38		AR1260-C	1.022	1.068 E6	-4.5	102	0.00	9.19-	9.25
39		AR1260-D	2.146	2.150 E6	-0.2	95	0.00	9.54-	9.60
40		AR1260-E	2.038	2.058 E6	-1.0	96	0.00	10.08-	10.14
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4347-CC4311
Lab FileID: 2G164461.D

48		AR1268-C			----------NA----------			
49		AR1268-D			----------NA----------			
50		AR1268-E			----------NA----------			
51	S	Decachlorobiphenyl	19.099	15.326 E6	19.8	82	0.00	11.73-11.79

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G164246.D 2PCB4311.M Mon May 28 19:44:25 2018 RPT1

10.9.11
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164516.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4348\2G164516.D\ECD1A.CH Vial: 28
Signal #2 : C:\msdchem\1\DATA\2G4348\2G164516.D\ECD2B.CH
Acq On : 29 May 2018 9:00 am Operator: tianweir
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12273,G2G4348,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 09:35:23 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	3.878 E6	-5.7	105	0.00	2.75- 2.81
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	78.167 E3	-0.4	103	0.00	3.12- 3.18
32	AR1016-B	136.058	137.685 E3	-1.2	106	0.00	3.51- 3.57
33	AR1016-C	289.965	260.478 E3	10.2	91	0.00	4.06- 4.12
34	AR1016-D	118.235	112.731 E3	4.7	97	0.00	4.22- 4.28
35	AR1016-E	121.934	115.839 E3	5.0	99	0.00	4.73- 4.79
36	AR1260-A	340.850	268.946 E3	21.1#	85	0.00	7.13- 7.19
37	AR1260-B	144.444	159.334 E3	-10.3	104	0.00	7.25- 7.31
38	AR1260-C	159.229	139.449 E3	12.4	83	0.00	7.59- 7.65
39	AR1260-D	367.146	418.522 E3	-14.0	106	0.00	8.04- 8.10
40	AR1260-E	378.788	378.011 E3	0.2	94	0.00	8.41- 8.57
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164516.D

42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				
48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	4.056	3.467 E6	14.5	88	0.00	9.94-10.00	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	23.147 E6	-1.2	100	0.00	3.40- 3.46	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1016-A	374.605	393.027 E3	-4.9	107	0.00	4.06- 4.12	
32		AR1016-B	0.801	0.780 E6	2.6	100	0.00	4.59- 4.65	
33		AR1016-C	1.734	1.588 E6	8.4	91	0.00	5.23- 5.29	
34		AR1016-D	752.270	810.636 E3	-7.8	110	0.00	5.42- 5.48	
35		AR1016-E	513.080	479.597 E3	6.5	95	0.00	6.06- 6.12	
36		AR1260-A	2.000	1.651 E6	17.4	88	0.00	8.67- 8.73	
37		AR1260-B	0.874	1.006 E6	-15.1	110	0.00	8.77- 8.83	
38		AR1260-C	1.022	1.004 E6	1.8	96	0.00	9.20- 9.26	
39		AR1260-D	2.146	2.242 E6	-4.5	99	0.00	9.56- 9.62	
40		AR1260-E	2.038	2.137 E6	-4.9	100	0.00	10.12-10.18	
41		AR1262-A			----------NA----------				
42		AR1262-B			----------NA----------				
43		AR1262-C			----------NA----------				
44		AR1262-D			----------NA----------				
45		AR1262-E			----------NA----------				
46		AR1268-A			----------NA----------				
47		AR1268-B			----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164516.D

48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	19.099	17.509 E6	8.3	93	0.00	11.74-11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G164516.D 2PCB4311.M Tue May 29 12:58:18 2018 RPT1

10.9.12
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164527.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4348\2G164527.D\ECD1A.CH Vial: 37
Signal #2 : C:\msdchem\1\DATA\2G4348\2G164527.D\ECD2B.CH
Acq On : 29 May 2018 12:37 pm Operator: tianweir
Sample : cc4311-500 Inst : HP G1530A
Misc : OP12244,G2G4348,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 09:35:23 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	3.837 E6	-4.6	108	0.00	2.76- 2.82
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	81.108 E3	-4.1	106	0.00	3.13- 3.19
32	AR1016-B	136.058	140.110 E3	-3.0	106	0.00	3.52- 3.58
33	AR1016-C	289.965	257.530 E3	11.2	92	0.00	4.07- 4.13
34	AR1016-D	118.235	115.233 E3	2.5	100	0.00	4.23- 4.29
35	AR1016-E	121.934	118.433 E3	2.9	100	0.00	4.73- 4.79
36	AR1260-A	340.850	285.345 E3	16.3	93	-0.02	7.10- 7.16
37	AR1260-B	144.444	159.336 E3	-10.3	106	0.00	7.25- 7.31
38	AR1260-C	159.229	145.991 E3	8.3	89	0.00	7.59- 7.65
39	AR1260-D	367.146	405.636 E3	-10.5	108	0.00	8.03- 8.09
40	AR1260-E	378.788	367.512 E3	3.0	94	0.00	8.40- 8.56
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164527.D

42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					
48		AR1268-C		----------NA----------					
49		AR1268-D		----------NA----------					
50		AR1268-E		----------NA----------					
51	S	Decachlorobiphenyl	4.056	3.555 E6	12.4	91	0.00	9.94-10.00	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	22.882	24.227 E6	-5.9	108	0.00	3.41- 3.47	
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1016-A	374.605	434.225 E3	-15.9	122	0.00	4.07- 4.13	
32		AR1016-B	0.801	0.850 E6	-6.1	109	0.00	4.59- 4.65	
33		AR1016-C	1.734	1.656 E6	4.5	98	0.00	5.24- 5.30	
34		AR1016-D	752.270	874.097 E3	-16.2	120	0.00	5.42- 5.48	
35		AR1016-E	513.080	511.909 E3	0.2	104	0.00	6.06- 6.12	
36		AR1260-A	2.000	1.691 E6	15.4	93	0.00	8.66- 8.72	
37		AR1260-B	0.874	0.997 E6	-14.1	111	0.00	8.77- 8.83	
38		AR1260-C	1.022	0.994 E6	2.7	97	0.00	9.20- 9.26	
39		AR1260-D	2.146	2.116 E6	1.4	98	0.00	9.56- 9.62	
40		AR1260-E	2.038	2.027 E6	0.5	97	-0.02	10.10-10.16	
41		AR1262-A		----------NA----------					
42		AR1262-B		----------NA----------					
43		AR1262-C		----------NA----------					
44		AR1262-D		----------NA----------					
45		AR1262-E		----------NA----------					
46		AR1268-A		----------NA----------					
47		AR1268-B		----------NA----------					

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164527.D

48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	19.099	15.875 E6	16.9	88	0.00	11.74-11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Tue May 29 12:57:48 2018 RPT1

10.9.13
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164531.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4348\2G164531.D\ECD1A.CH Vial: 28
Signal #2 : C:\msdchem\1\DATA\2G4348\2G164531.D\ECD2B.CH
Acq On : 29 May 2018 3:31 pm Operator: tianweir
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12244,G2G4348,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 09:35:23 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	3.670	3.769 E6	-2.7	102	-0.02	2.73- 2.79
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1016-A	77.893	74.511 E3	4.3	99	-0.02	3.10- 3.16
32	AR1016-B	136.058	131.840 E3	3.1	101	-0.01	3.50- 3.56
33	AR1016-C	289.965	283.318 E3	2.3	99	0.00	4.05- 4.11
34	AR1016-D	118.235	109.365 E3	7.5	95	-0.01	4.21- 4.27
35	AR1016-E	121.934	112.330 E3	7.9	96	0.00	4.72- 4.78
36	AR1260-A	340.850	284.220 E3	16.6	89	-0.02	7.11- 7.17
37	AR1260-B	144.444	152.023 E3	-5.2	99	0.00	7.25- 7.31
38	AR1260-C	159.229	141.820 E3	10.9	84	0.00	7.59- 7.65
39	AR1260-D	367.146	416.042 E3	-13.3	105	0.00	8.03- 8.09
40	AR1260-E	378.788	372.291 E3	1.7	92	0.00	8.41- 8.56
41	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164531.D

42		AR1262-B		----------NA----------				
43		AR1262-C		----------NA----------				
44		AR1262-D		----------NA----------				
45		AR1262-E		----------NA----------				
46		AR1268-A		----------NA----------				
47		AR1268-B		----------NA----------				
48		AR1268-C		----------NA----------				
49		AR1268-D		----------NA----------				
50		AR1268-E		----------NA----------				
51	S	Decachlorobiphenyl	4.056	3.593 E6	11.4	91	0.00	9.94-10.00
*****		Signal #2 *****						
1	S	Tetrachloro-m-xylene	22.882	23.265 E6	-1.7	100	-0.02	3.38- 3.44
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1016-A	374.605	396.907 E3	-6.0	108	-0.02	4.04- 4.10
32		AR1016-B	0.801	0.785 E6	2.0	101	-0.01	4.58- 4.64
33		AR1016-C	1.734	1.666 E6	3.9	96	0.00	5.23- 5.29
34		AR1016-D	752.270	766.218 E3	-1.9	104	0.00	5.41- 5.47
35		AR1016-E	513.080	483.957 E3	5.7	96	0.00	6.06- 6.12
36		AR1260-A	2.000	1.711 E6	14.4	91	0.00	8.66- 8.72
37		AR1260-B	0.874	0.940 E6	-7.6	103	0.00	8.77- 8.83
38		AR1260-C	1.022	0.993 E6	2.8	94	0.00	9.20- 9.26
39		AR1260-D	2.146	2.209 E6	-2.9	98	0.00	9.56- 9.62
40		AR1260-E	2.038	2.091 E6	-2.6	98	-0.02	10.10-10.16
41		AR1262-A		----------NA----------				
42		AR1262-B		----------NA----------				
43		AR1262-C		----------NA----------				
44		AR1262-D		----------NA----------				
45		AR1262-E		----------NA----------				
46		AR1268-A		----------NA----------				
47		AR1268-B		----------NA----------				

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G2G4348-CC4311
Lab FileID: 2G164531.D

48		AR1268-C			----------NA----------				
49		AR1268-D			----------NA----------				
50		AR1268-E			----------NA----------				
51	S	Decachlorobiphenyl	19.099	18.782 E6	1.7	100	0.00	11.74-11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G164516.D 2PCB4311.M Tue May 29 15:54:14 2018 RPT1

10.9.14
10

Initial Calibration Summary

Job Number: JC66384 **Sample:** G6G1671-ICC1671
Account: BBLNYS Arcadis **Lab FileID:** 6G55784.D
Project: National Grid, Philly Coke, Philadelphia PA

Response Factor Report GC6G

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration

Calibration Files
5 =6g55782.d 10 =6g55783.d 25 =6g55784.d 50 =6g55785.d
100 =6g55787.d 1 =6g55780.d 75 =6g55786.d 2 =6g55781.d
= =

Compound	5	10	25	50	100	1	75	2	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-m-xylene	0.937	0.914	0.936	0.973	1.007	1.084	0.982	0.943	0.972	5.57
3) hexachlorobenzene	1.022	1.033	1.042	1.079	1.085	1.271	1.095	1.053	1.085	7.34
4) alpha-BHC	1.184	1.208	1.340	1.459	1.524	1.314	1.516	1.163	1.338	11.04
5) gamma-BHC	1.132	1.137	1.236	1.325	1.368	1.415	1.374	1.152	1.267	9.25
6) Heptachlor	1.099	1.099	1.172	1.249	1.270	1.305	1.276	1.109	1.197	7.32
7) beta-BHC	0.560	0.531	0.543	0.559	0.560	0.645	0.568	0.567	0.567	6.05
8) delta-BHC	0.969	1.003	1.123	1.228	1.293	1.083	1.279	0.962	1.117	12.18
9) Aldrin	1.052	1.060	1.150	1.238	1.265	1.222	1.274	1.047	1.164	8.51
10) alachlor	0.145	0.140	0.140	0.142	0.134		0.140		0.140	2.52
11) Heptachlor Epoxide	1.019	0.991	1.060	1.124	1.145	1.121	1.155	0.991	1.076	6.40
12) gamma-Chlordane	0.964	0.976	1.051	1.129	1.174	1.059	1.174	0.952	1.060	8.65
13) alpha-Chlordane	1.019	0.982	1.040	1.103	1.136	1.224	1.139	1.039	1.085	7.33
14) Endosulfan I	0.944	0.924	0.979	1.039	1.058	1.118	1.068	0.963	1.012	6.79
15) 4,4'-DDE	0.934	0.922	1.009	1.096	1.140	1.095	1.140	0.931	1.033	9.24
16) Dieldrin	0.993	0.994	1.079	1.165	1.187	1.144	1.206	0.997	1.096	8.36
17) Endrin	0.953	0.899	0.964	1.033	1.049	1.054	1.068	0.913	0.992	6.79
18) 4,4'-DDD	0.797	0.774	0.836	0.900	0.920	0.899	0.934	0.788	0.856	7.56
19) Endosulfan II	0.970	0.933	0.963	1.012	1.017	1.406	1.039	1.074	1.052	14.27
20) 4,4'-DDT	0.737	0.743	0.802	0.870	0.903	0.844	0.914	0.751	0.821	8.84
21) Endrin Aldehyde	0.803	0.770	0.796	0.836	0.833	0.945	0.855	0.824	0.833	6.32
22) Endosulfan Sulfate	0.791	0.758	0.792	0.833	0.841	0.925	0.858	0.801	0.825	6.29
23) Methoxychlor										

Initial Calibration Summary

Job Number: JC66384 **Sample:** G6G1671-ICC1671
Account: BBLNYS Arcadis **Lab FileID:** 6G55784.D
Project: National Grid, Philly Coke, Philadelphia PA

```
          0.516 0.458 0.468 0.480 0.473 0.552 0.487 0.482          0.490    6.24
 24)  Mirex
          0.833 0.792 0.774 0.785 0.773 1.050 0.798 0.858          0.833   11.13
 25)  Endrin Ketone
          0.924 0.912 0.956 1.006 1.005 1.086 1.029 0.931          0.981    6.17
 26)  Decachlorobiphenyl
          0.983 0.929 0.914 0.922 0.892 1.300 0.929 1.055          0.991   13.66

 27) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
 28)  Toxaphene{A}
                              0.016                                0.016    0.00
 29)  Toxaphene{B}
                              0.041                                0.041    0.00
 30)  Toxaphene{C}
                              0.033                                0.033    0.00
 31)  Toxaphene{D}
                              0.026                                0.026    0.00
 32)  Toxaphene{E}
                              0.027                                0.027    0.00

 33) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
 34)  Chlordane {A}
                              0.054                                0.054    0.00
 35)  Chlordane {B}
                              0.045                                0.045    0.00
 36)  Chlordane {C}
                              0.145                                0.145    0.00
 37)  Chlordane {D}
                              0.228                                0.228    0.00
 38)  Chlordane {E}
                              0.026                                0.026    0.00

Signal #2


  1) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
  2)  Tetrachloro-m-xylene
          0.878 0.885 0.907 0.945 1.004 0.981 0.968 0.882          0.931    5.35
  3)  hexachlorobenzene
          1.120 1.130 1.119 1.146 1.192 1.299 1.165 1.172          1.168    5.06
  4)  alpha-BHC
          1.073 1.128 1.243 1.360 1.490 1.146 1.430 1.045          1.239   13.63
  5)  gamma-BHC
          1.031 1.065 1.150 1.242 1.352 1.136 1.298 1.023          1.162   10.67
  6)  Heptachlor
          1.093 1.097 1.153 1.225 1.303 1.223 1.267 1.097          1.182    7.06
  7)  beta-BHC
          0.513 0.510 0.515 0.527 0.550 0.604 0.537 0.514          0.534    5.92
  8)  delta-BHC
          0.923 0.964 1.051 1.160 1.279 1.110 1.225 0.921          1.079   12.73
  9)  Aldrin
          0.939 0.957 1.022 1.101 1.190 1.050 1.147 0.919          1.041    9.61
 10)  alachlor
          0.152 0.138 0.135 0.135 0.133       0.134                0.138    5.09
 11)  Heptachlor Epoxide
          0.953 0.942 0.979 1.034 1.098 1.030 1.065 0.948          1.006    5.86
 12)  gamma-Chlordane
          0.951 0.927 0.976 1.036 1.112 0.910 1.074 0.902          0.986    8.03
 13)  alpha-Chlordane
          0.936 0.896 0.970 1.012 1.066 0.939 1.032 0.827          0.960    8.08
```

Initial Calibration Summary

Job Number: JC66384 **Sample:** G6G1671-ICC1671
Account: BBLNYS Arcadis **Lab FileID:** 6G55784.D
Project: National Grid, Philly Coke, Philadelphia PA

```
14)  Endosulfan I
          0.892 0.845 0.882 0.932 0.994 0.993 0.955 0.844          0.917     6.61
15)  4,4'-DDE
          0.839 0.863 0.923 0.997 1.085 0.903 1.044 0.802          0.932    10.82
16)  Dieldrin
          0.884 0.904 0.959 1.034 1.124 0.978 1.078 0.912          0.984     8.86
17)  Endrin
          0.872 0.882 0.909 0.976 1.050 1.138 1.020 0.881          0.966    10.03
18)  4,4'-DDD
          0.736 0.733 0.765 0.820 0.889 0.891 0.858 0.731          0.803     8.76
19)  Endosulfan II
          0.900 0.876 0.885 0.926 0.978 1.323 0.951 0.983          0.978    14.84
20)  4,4'-DDT
          0.670 0.708 0.760 0.820 0.901 0.776 0.863 0.703          0.775    10.51
21)  Endrin Aldehyde
          0.703 0.697 0.710 0.734 0.774 0.847 0.755 0.721          0.743     6.71
22)  Endosulfan Sulfate
          0.687 0.695 0.715 0.747 0.796 0.836 0.774 0.700          0.744     7.26
23)  Methoxychlor
          0.423 0.429 0.438 0.449 0.467 0.431 0.460 0.426          0.440     3.73
24)  Mirex
          0.734 0.730 0.711 0.712 0.735 0.885 0.725 0.736          0.746     7.67
25)  Endrin Ketone
          0.879 0.850 0.879 0.915 0.975 1.451 0.953 0.981          0.985    19.70
26)  Decachlorobiphenyl
          0.924 0.908 0.866 0.875 0.893 1.128 0.885 0.952          0.929     9.16

27) I   1-bromo-2-nitrobenzen ----------------ISTD--------------------
28)  Toxaphene{A}
                              0.019                                      0.019     0.00
29)  Toxaphene{B}
                              0.025                                      0.025     0.00
30)  Toxaphene{C}
                              0.047                                      0.047     0.00
31)  Toxaphene{D}
                              0.026                                      0.026     0.00
32)  Toxaphene{E}
                              0.023                                      0.023     0.00

33) I   1-bromo-2-nitrobenzen ----------------ISTD--------------------
34)  Chlordane {A}
                              0.054                                      0.054     0.00
35)  Chlordane {B}
                              0.040                                      0.040     0.00
36)  Chlordane {C}
                              0.126                                      0.126     0.00
37)  Chlordane {D}
                              0.206                                      0.206     0.00
38)  Chlordane {E}
                              0.021                                      0.021     0.00
--------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          6PST1671.M        Mon Apr 30 17:43:44 2018
```

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD2B.CH
Acq On : 30-Apr-18, 14:23:25 Operator: dharas
Sample : icv1671-25 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44- 2.44
2	SAB	Tetrachloro-m-xylene	0.972	1.010	-3.9	110	-0.02	2.50- 2.56
4	A	alpha-BHC	1.338	1.571	-17.4	119	-0.01	2.97- 3.03
5	MA	gamma-BHC	1.267	1.426	-12.5	117	-0.01	3.26- 3.32
6	MA	Heptachlor	1.197	1.362	-13.8	118	-0.01	3.75- 3.81
7	B	beta-BHC	0.567	0.628	-10.8	118	-0.01	3.33- 3.39
8	B	delta-BHC	1.117	1.334	-19.4	121	-0.01	3.51- 3.57
9	MB	Aldrin	1.164	1.327	-14.0	117	-0.01	4.08- 4.14
11	B	Heptachlor Epoxide	1.076	1.233	-14.6	118	-0.01	4.78- 4.84
12	B	gamma-Chlordane	1.060	1.261	-19.0	122	-0.01	4.95- 5.01
13	B	alpha-Chlordane	1.085	1.229	-13.3	120	-0.01	5.12- 5.18
14	A	Endosulfan I	1.012	1.180	-16.6	123	-0.01	5.29- 5.35
15	B	4,4'-DDE	1.033	1.198	-16.0	121	-0.01	5.23- 5.29
16	MA	Dieldrin	1.096	1.269	-15.8	120	-0.01	5.61- 5.67
17	MA	Endrin	0.992	1.152	-16.1	122	-0.01	5.93- 5.99
18	A	4,4'-DDD	0.856	0.999	-16.7	122	-0.01	6.06- 6.12
19	B	Endosulfan II	1.052	1.107	-5.2	117	-0.01	6.25- 6.31
20	MA	4,4'-DDT	0.821	0.930	-13.3	118	-0.01	6.47- 6.53
21	B	Endrin Aldehyde	0.833	0.937	-12.5	120	-0.01	6.88- 6.94
22	B	Endosulfan Sulfate	0.825	0.962	-16.6	124	-0.01	7.56- 7.62
23	A	Methoxychlor	0.490	0.535	-9.2	116	-0.01	7.26- 7.32
24		Mirex	0.833	0.886	-6.4	117	-0.01	7.41- 7.47
25	B	Endrin Ketone	0.981	1.108	-12.9	118	-0.01	8.00- 8.06
26	SA	Decachlorobiphenyl	0.991	1.025	-3.4	114	-0.01	9.81- 9.87

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65- 2.65
2	SAB	Tetrachloro-m-xylene	0.931	0.973	-4.5	107	0.00	2.90- 2.96
4	A	alpha-BHC	1.239	1.459	-17.8	117	0.00	3.53- 3.59
5	MA	gamma-BHC	1.162	1.337	-15.1	116	0.00	3.94- 4.00
6	MA	Heptachlor	1.182	1.342	-13.5	116	0.00	4.50- 4.56
7	B	beta-BHC	0.534	0.593	-11.0	115	0.00	4.02- 4.08
8	B	delta-BHC	1.079	1.250	-15.8	118	0.00	4.40- 4.46
9	MB	Aldrin	1.041	1.180	-13.4	115	0.00	4.93- 4.99
11	B	Heptachlor Epoxide	1.006	1.143	-13.6	116	0.00	5.73- 5.79
12	B	gamma-Chlordane	0.986	1.164	-18.1	119	0.00	6.01- 6.07
13	B	alpha-Chlordane	0.960	1.122	-16.9	115	0.00	6.23- 6.29

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

14	A	Endosulfan I	0.917	1.067	-16.4	120	0.00	6.32- 6.38
15	B	4,4'-DDE	0.932	1.097	-17.7	118	0.00	6.49- 6.55
16	MA	Dieldrin	0.984	1.136	-15.4	118	0.00	6.75- 6.81
17	MA	Endrin	0.966	1.101	-14.0	120	-0.01	7.24- 7.30
18	A	4,4'-DDD	0.803	0.923	-14.9	120	0.00	7.42- 7.48
19	B	Endosulfan II	0.978	1.021	-4.4	115	0.00	7.58- 7.64
20	MA	4,4'-DDT	0.775	0.887	-14.5	116	-0.01	7.95- 8.01
21	B	Endrin Aldehyde	0.743	0.843	-13.5	118	-0.01	8.15- 8.21
22	B	Endosulfan Sulfate	0.744	0.875	-17.6	122	-0.01	8.61- 8.67
23	A	Methoxychlor	0.440	0.516	-17.3	117	-0.02	9.18- 9.24
24		Mirex	0.746	0.824	-10.5	115	-0.02	9.49- 9.55
25	B	Endrin Ketone	0.985	1.028	-4.4	116	-0.02	9.56- 9.62
26	SA	Decachlorobiphenyl	0.929	0.998	-7.4	115	-0.02	11.69-11.75

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55784.d 6PST1671.M Mon Apr 30 17:38:40 2018

10.9.16
10

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1671-ICV1671
Lab FileID: 6G55791.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD2B.CH
Acq On : 30-Apr-18, 14:41:11 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
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 : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44- 2.44
34	Chlordane {A}	0.054	0.063	-16.7	117	-0.01	3.68- 3.88
35	Chlordane {B}	0.045	0.039	13.3	88	-0.01	4.15- 4.35
36	Chlordane {C}	0.145	0.145	0.0	99	-0.01	4.87- 5.07
37	Chlordane {D}	0.228	0.230	-0.9	101	-0.01	5.04- 5.24
38	Chlordane {E}	0.026	0.028	-7.7	110	-0.01	5.92- 6.12

***** Signal #2 *****

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65- 2.65
34	Chlordane {A}	0.054	0.064	-18.5	116	0.00	4.43- 4.63
35	Chlordane {B}	0.040	0.036	10.0	89	0.00	5.05- 5.25
36	Chlordane {C}	0.126	0.128	-1.6	100	0.00	5.94- 6.14
37	Chlordane {D}	0.206	0.208	-1.0	100	0.00	6.16- 6.36
38	Chlordane {E}	0.021	0.023	-9.5	108	0.00	7.30- 7.50

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:38:57 2018

10.9.17 10

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1671-ICV1671
Lab FileID: 6G55792.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD1A.CH Vial: 15
Acq On : 30-Apr-18, 14:58:58 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD2B.CH Vial: 0
Acq On : 30-Apr-18, 14:58:59 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44- 2.44
28	L8	Toxaphene{A}	0.016	0.017	-6.3	107	-0.01	5.55- 5.75
29	L8	Toxaphene{B}	0.041	0.044	-7.3	108	-0.01	6.17- 6.37
30	L8	Toxaphene{C}	0.033	0.035	-6.1	107	0.00	6.35- 6.55
31	L8	Toxaphene{D}	0.026	0.026	0.0	103	-0.01	6.69- 6.89
32	L8	Toxaphene{E}	0.027	0.029	-7.4	110	-0.01	7.33- 7.53

***** Signal #2 *****

27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.65- 2.65
28	L8	Toxaphene{A}	0.019	0.021	-10.5	108	0.00	6.64- 6.84
29	L8	Toxaphene{B}	0.025	0.026	-4.0	102	-0.01	7.48- 7.68
30	L8	Toxaphene{C}	0.047	0.046	2.1	98	-0.01	7.64- 7.84
31	L8	Toxaphene{D}	0.026	0.027	-3.8	104	-0.01	8.08- 8.28
32	L8	Toxaphene{E}	0.023	0.024	-4.3	101	-0.02	8.97- 9.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:38:59 2018

10.9.18 10

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1671-ICV1671
Lab FileID: 6G55793.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD2B.CH
Acq On : 30-Apr-18, 15:16:44 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
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 : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44- 2.44
10	alachlor	0.140	0.155	-10.7	109	-0.01	4.22- 4.28

***** Signal #2 *****

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	-0.01	1.65- 2.65
10	alachlor	0.138	0.150	-8.7	109	0.00	4.75- 4.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:01 2018

10.9.19 10

Initial Calibration Verification

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1671-ICV1671
Lab FileID: 6G55794.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD2B.CH
Acq On : 30-Apr-18, 15:34:38 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
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 : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	-0.02	1.44- 2.44
3	hexachlorobenzene	1.085	1.076	0.8	102	-0.01	2.83- 2.89

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.01	1.65- 2.65
3	hexachlorobenzene	1.168	1.139	2.5	99	0.00	3.38- 3.44

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:03 2018

10.9.20 10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1691-CC1671
Lab FileID: 6G56619.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1691\6g56619.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1691\6g56619.d\ECD2B.CH
Acq On : 26-May-18, 08:48:46 Operator: dharas
Sample : cc1671-50 Inst : GC6G
Misc : OP12276,g6g1691,16.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Tue May 29 10:49:35 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	79	0.00	1.44- 2.44
2	SAB	Tetrachloro-m-xylene	0.972	0.941	3.2	76	0.00	2.49- 2.55
3		hexachlorobenzene	1.085	1.063	2.0	78	0.00	2.82- 2.88
4	A	alpha-BHC	1.338	1.431	-7.0	77	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.268	-0.1	75	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.261	-5.3	80	0.00	3.73- 3.79
7	B	beta-BHC	0.567	0.532	6.2	75	0.00	3.32- 3.38
8	B	delta-BHC	1.117	1.142	-2.2	73	0.00	3.50- 3.56
9	MB	Aldrin	1.164	1.206	-3.6	77	0.00	4.06- 4.12
10		alachlor	0.140	0.145	-3.6	80	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	1.019	5.3	72	0.00	4.76- 4.82
12	B	gamma-Chlordane	1.060	1.026	3.2	72	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	1.038	4.3	74	0.00	5.09- 5.15
14	A	Endosulfan I	1.012	1.005	0.7	76	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	1.026	0.7	74	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.108	-1.1	75	0.00	5.59- 5.65
17	MA	Endrin	0.992	1.058	-6.7	81	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.854	0.2	75	0.00	6.03- 6.09
19	B	Endosulfan II	1.052	0.978	7.0	76	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.864	-5.2	78	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.815	2.2	77	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.860	-4.2	81	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.496	-1.2	82	0.00	7.23- 7.29
24		Mirex	0.833	0.772	7.3	78	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	1.009	-2.9	79	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.900	9.2	77	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.64- 2.64
2	SAB	Tetrachloro-m-xylene	0.931	0.927	0.4	98	0.00	2.89- 2.95
3		hexachlorobenzene	1.168	1.180	-1.0	103	0.00	3.37- 3.43
4	A	alpha-BHC	1.239	1.351	-9.0	100	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.223	-5.2	99	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.216	-2.9	99	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.515	3.6	98	0.00	4.01- 4.07
8	B	delta-BHC	1.079	1.116	-3.4	96	0.00	4.39- 4.45
9	MB	Aldrin	1.041	1.074	-3.2	98	0.00	4.91- 4.97

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1691-CC1671
Lab FileID: 6G56619.D

10		alachlor	0.138	0.138	0.0	103	0.00	4.73- 4.79
11	B	Heptachlor Epoxide	1.006	1.003	0.3	97	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	1.003	-1.7	97	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	0.962	-0.2	95	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.895	2.4	96	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	0.966	-3.6	97	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	1.005	-2.1	97	0.00	6.73- 6.79
17	MA	Endrin	0.966	0.970	-0.4	100	0.00	7.22- 7.28
18	A	4,4'-DDD	0.803	0.793	1.2	97	0.00	7.41- 7.47
19	B	Endosulfan II	0.978	0.908	7.2	98	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.795	-2.6	97	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.721	3.0	98	0.00	8.13- 8.19
22	B	Endosulfan Sulfate	0.744	0.780	-4.8	105	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.439	0.2	98	0.00	9.16- 9.22
24		Mirex	0.746	0.709	5.0	100	0.00	9.47- 9.53
25	B	Endrin Ketone	0.985	0.916	7.0	100	0.00	9.54- 9.60
26	SA	Decachlorobiphenyl	0.929	0.873	6.0	100	0.00	11.67-11.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Wed May 30 09:47:50 2018

10.9.21
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1691-CC1671
Lab FileID: 6G56640.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1691\6g56640.d\ECD1A.CH Vial: 2
Signal #2 : C:\msdchem\1\data\G6G1691\6g56640.d\ECD2B.CH
Acq On : 26-May-18, 15:24:16 Operator: dharas
Sample : cc1671-25 Inst : GC6G
Misc : OP12247,g6g1691,15.2,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Tue May 29 10:49:35 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	95	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.972	1.006	-3.5	102	0.00	2.50- 2.56
3		hexachlorobenzene	1.085	1.135	-4.6	104	0.00	2.83- 2.89
4	A	alpha-BHC	1.338	1.370	-2.4	97	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.267	0.0	97	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.170	2.3	95	0.00	3.74- 3.80
7	B	beta-BHC	0.567	0.557	1.8	97	0.00	3.32- 3.38
8	B	delta-BHC	1.117	1.116	0.1	94	0.00	3.51- 3.57
9	MB	Aldrin	1.164	1.166	-0.2	96	0.00	4.07- 4.13
10		alachlor	0.140	0.151	-7.9	102	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	1.073	0.3	96	0.00	4.77- 4.83
12	B	gamma-Chlordane	1.060	1.061	-0.1	96	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	1.044	3.8	95	0.00	5.10- 5.16
14	A	Endosulfan I	1.012	0.986	2.6	96	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	0.987	4.5	93	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.083	1.2	95	0.00	5.59- 5.65
17	MA	Endrin	0.992	0.990	0.2	98	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.883	-3.2	100	0.00	6.03- 6.09
19	B	Endosulfan II	1.052	0.934	11.2	92	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.657	20.0	78	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.766	8.0	91	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.723	12.4	87	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.398	18.8	81	0.00	7.23- 7.29
24		Mirex	0.833	0.706	15.2	87	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	0.880	10.3	88	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.819	17.4	85	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	114	0.00	1.65- 2.65
2	SAB	Tetrachloro-m-xylene	0.931	0.977	-4.9	123	0.00	2.90- 2.96
3		hexachlorobenzene	1.168	1.286	-10.1	131	0.00	3.38- 3.44
4	A	alpha-BHC	1.239	1.304	-5.2	120	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.203	-3.5	119	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.167	1.3	115	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.538	-0.7	119	0.00	4.01- 4.07
8	B	delta-BHC	1.079	1.094	-1.4	119	0.00	4.39- 4.45
9	MB	Aldrin	1.041	1.093	-5.0	122	0.00	4.92- 4.98
10		alachlor	0.138	0.153	-10.9	130	0.00	4.74- 4.80

10.9.22 10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1691-CC1671
Lab FileID: 6G56640.D

11	B	Heptachlor Epoxide	1.006	1.047	-4.1	122	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	1.050	-6.5	123	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	1.007	-4.9	118	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.929	-1.3	120	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	0.970	-4.1	120	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	1.019	-3.6	121	0.00	6.73- 6.79
17	MA	Endrin	0.966	0.958	0.8	120	0.00	7.22- 7.28
18	A	4,4'-DDD	0.803	0.849	-5.7	126	0.00	7.41- 7.47
19	B	Endosulfan II	0.978	0.917	6.2	118	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.623	19.6	93	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.722	2.8	116	0.00	8.13- 8.19
22	B	Endosulfan Sulfate	0.744	0.715	3.9	114	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.372	15.5	97	0.00	9.16- 9.22
24		Mirex	0.746	0.706	5.4	113	0.00	9.47- 9.53
25	B	Endrin Ketone	0.985	0.840	14.7	109	0.00	9.54- 9.60
26	SA	Decachlorobiphenyl	0.929	0.778	16.3	102	0.00	11.68-11.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55784.d 6PST1671.M Wed May 30 10:08:32 2018

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1694-CC1671
Lab FileID: 6G56744.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1694\6g56744.d\ECD1A.CH Vial: 2
Signal #2 : C:\msdchem\1\data\G6G1694\6g56744.d\ECD2B.CH
Acq On : 30-May-18, 11:06:03 Operator: christp
Sample : cc1671-25 Inst : GC6G
Misc : OP12330,g6g1694,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Tue May 29 10:49:35 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.972	0.960	1.2	99	0.00	2.50- 2.56
3		hexachlorobenzene	1.085	1.049	3.3	98	0.00	2.82- 2.88
4	A	alpha-BHC	1.338	1.317	1.6	95	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.228	3.1	96	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.202	-0.4	99	0.00	3.73- 3.79
7	B	beta-BHC	0.567	0.553	2.5	99	0.00	3.32- 3.38
8	B	delta-BHC	1.117	1.054	5.6	91	0.00	3.50- 3.56
9	MB	Aldrin	1.164	1.142	1.9	96	0.00	4.06- 4.12
10		alachlor	0.140	0.160	-14.3	111	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	1.088	-1.1	99	0.00	4.77- 4.83
12	B	gamma-Chlordane	1.060	1.071	-1.0	99	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	1.029	5.2	96	0.00	5.10- 5.16
14	A	Endosulfan I	1.012	1.002	1.0	99	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	0.931	9.9	89	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.086	0.9	98	0.00	5.59- 5.65
17	MA	Endrin	0.992	0.992	0.0	100	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.765	10.6	89	0.00	6.04- 6.10
19	B	Endosulfan II	1.052	0.957	9.0	96	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.796	3.0	96	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.805	3.4	98	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.752	8.8	92	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.475	3.1	98	0.00	7.24- 7.30
24		Mirex	0.833	0.824	1.1	103	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	0.905	7.7	92	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.892	10.0	95	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	114	0.00	1.65- 2.65
2	SAB	Tetrachloro-m-xylene	0.931	0.930	0.1	117	0.00	2.90- 2.96
3		hexachlorobenzene	1.168	1.179	-0.9	120	0.00	3.38- 3.44
4	A	alpha-BHC	1.239	1.248	-0.7	115	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.161	0.1	115	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.176	0.5	116	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.518	3.0	115	0.00	4.01- 4.07
8	B	delta-BHC	1.079	1.010	6.4	110	0.00	4.39- 4.45
9	MB	Aldrin	1.041	1.063	-2.1	119	0.00	4.91- 4.97
10		alachlor	0.138	0.149	-8.0	126	0.00	4.74- 4.80

10.9.23 10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1694-CC1671
Lab FileID: 6G56744.D

11	B	Heptachlor Epoxide	1.006	1.019	-1.3	119	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	1.014	-2.8	118	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	0.992	-3.3	117	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.915	0.2	118	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	0.944	-1.3	117	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	0.998	-1.4	119	0.00	6.72- 6.78
17	MA	Endrin	0.966	0.937	3.0	118	0.00	7.22- 7.28
18	A	4,4'-DDD	0.803	0.722	10.1	108	0.00	7.41- 7.47
19	B	Endosulfan II	0.978	0.898	8.2	116	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.735	5.2	110	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.729	1.9	117	0.00	8.13- 8.19
22	B	Endosulfan Sulfate	0.744	0.690	7.3	110	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.421	4.3	110	0.00	9.17- 9.23
24		Mirex	0.746	0.754	-1.1	121	0.00	9.47- 9.53
25	B	Endrin Ketone	0.985	0.819	16.9	106	0.00	9.54- 9.60
26	SA	Decachlorobiphenyl	0.929	0.931	-0.2	123	0.00	11.67-11.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55784.d 6PST1671.M Wed May 30 12:41:26 2018

10.9.23
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1694-CC1671
Lab FileID: 6G56758.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1694\6g56758.d\ECD1A.CH Vial: 2
Signal #2 : C:\msdchem\1\data\G6G1694\6g56758.d\ECD2B.CH
Acq On : 30-May-18, 23:44:29 Operator: christp
Sample : cc1671-25 Inst : GC6G
Misc : OP12359,g6g1694,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed May 30 16:51:15 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	91	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.972	0.934	3.9	91	0.00	2.50- 2.56
3		hexachlorobenzene	1.085	1.010	6.9	89	0.00	2.82- 2.88
4	A	alpha-BHC	1.338	1.268	5.2	87	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.158	8.6	86	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.187	0.8	93	0.00	3.73- 3.79
7	B	beta-BHC	0.567	0.514	9.3	87	0.00	3.32- 3.38
8	B	delta-BHC	1.117	0.936	16.2	76	0.00	3.50- 3.56
9	MB	Aldrin	1.164	1.115	4.2	89	0.00	4.06- 4.12
10		alachlor	0.140	0.145	-3.6	94	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	0.966	10.2	83	0.00	4.76- 4.82
12	B	gamma-Chlordane	1.060	0.959	9.5	84	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	0.979	9.8	86	0.00	5.10- 5.16
14	A	Endosulfan I	1.012	0.944	6.7	88	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	0.968	6.3	88	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.033	5.7	88	0.00	5.59- 5.65
17	MA	Endrin	0.992	0.982	1.0	93	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.789	7.8	86	0.00	6.03- 6.09
19	B	Endosulfan II	1.052	0.916	12.9	87	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.752	8.4	86	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.766	8.0	88	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.693	16.0	80	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.454	7.3	89	0.00	7.23- 7.29
24		Mirex	0.833	0.742	10.9	88	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	0.887	9.6	85	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.844	14.8	84	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	112	0.00	1.65- 2.65
2	SAB	Tetrachloro-m-xylene	0.931	0.895	3.9	111	0.00	2.90- 2.96
3		hexachlorobenzene	1.168	1.135	2.8	114	0.00	3.38- 3.44
4	A	alpha-BHC	1.239	1.197	3.4	108	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.103	5.1	108	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.131	4.3	110	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.494	7.5	108	0.00	4.01- 4.07
8	B	delta-BHC	1.079	0.885	18.0	94	0.00	4.39- 4.45
9	MB	Aldrin	1.041	0.997	4.2	109	0.00	4.91- 4.97
10		alachlor	0.138	0.134	2.9	112	0.00	4.74- 4.80

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1694-CC1671
Lab FileID: 6G56758.D

11	B	Heptachlor Epoxide	1.006	0.941	6.5	108	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	0.937	5.0	108	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	0.919	4.3	106	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.850	7.3	108	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	0.912	2.1	111	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	0.933	5.2	109	0.00	6.72- 6.78
17	MA	Endrin	0.966	0.899	6.9	111	0.00	7.22- 7.28
18	A	4,4'-DDD	0.803	0.726	9.6	106	0.00	7.40- 7.46
19	B	Endosulfan II	0.978	0.850	13.1	108	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.671	13.4	99	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.674	9.3	106	0.00	8.13- 8.19
22	B	Endosulfan Sulfate	0.744	0.627	15.7	98	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.393	10.7	101	0.00	9.16- 9.22
24		Mirex	0.746	0.661	11.4	104	0.00	9.47- 9.53
25	B	Endrin Ketone	0.985	0.791	19.7	101	0.00	9.54- 9.60
26	SA	Decachlorobiphenyl	0.929	0.814	12.4	105	0.00	11.67-11.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g56619.d 6PST1671.M Thu May 31 09:25:06 2018

10.9.24
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1695-CC1671
Lab FileID: 6G56780.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1695\6g56780.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1695\6g56780.d\ECD2B.CH
Acq On : 31-May-18, 10:20:58 Operator: minam
Sample : cc1671-50 Inst : GC6G
Misc : OP12372,g6g1695,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Thu May 31 14:07:15 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	89	0.00	1.44- 2.44
2	SAB	Tetrachloro-m-xylene	0.972	0.952	2.1	87	0.00	2.49- 2.55
3		hexachlorobenzene	1.085	1.029	5.2	85	0.00	2.82- 2.88
4	A	alpha-BHC	1.338	1.361	-1.7	83	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.152	9.1	78	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.158	3.3	83	0.00	3.73- 3.79
7	B	beta-BHC	0.567	0.492	13.2	79	0.00	3.32- 3.38
8	B	delta-BHC	1.117	1.016	9.0	74	0.00	3.50- 3.56
9	MB	Aldrin	1.164	1.136	2.4	82	0.00	4.06- 4.12
10		alachlor	0.140	0.143	-2.1	90	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	0.976	9.3	78	0.00	4.76- 4.82
12	B	gamma-Chlordane	1.060	0.976	7.9	77	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	0.981	9.6	79	0.00	5.09- 5.15
14	A	Endosulfan I	1.012	0.955	5.6	82	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	0.955	7.6	78	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.058	3.5	81	0.00	5.59- 5.65
17	MA	Endrin	0.992	1.005	-1.3	87	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.804	6.1	80	0.00	6.03- 6.09
19	B	Endosulfan II	1.052	0.928	11.8	82	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.762	7.2	78	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.766	8.0	82	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.763	7.5	82	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.445	9.2	83	0.00	7.23- 7.29
24		Mirex	0.833	0.736	11.6	84	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	0.872	11.1	77	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.863	12.9	84	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	1.64- 2.64
2	SAB	Tetrachloro-m-xylene	0.931	0.935	-0.4	106	0.00	2.89- 2.95
3		hexachlorobenzene	1.168	1.155	1.1	108	0.00	3.37- 3.43
4	A	alpha-BHC	1.239	1.316	-6.2	103	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.177	-1.3	101	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.142	3.4	99	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.496	7.1	100	0.00	4.01- 4.07
8	B	delta-BHC	1.079	1.005	6.9	93	0.00	4.39- 4.45
9	MB	Aldrin	1.041	0.999	4.0	97	0.00	4.91- 4.97

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1695-CC1671
Lab FileID: 6G56780.D

10		alachlor	0.138	0.128	7.2	101	0.00	4.73- 4.79
11	B	Heptachlor Epoxide	1.006	0.939	6.7	97	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	0.945	4.2	97	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	0.912	5.0	96	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.859	6.3	98	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	0.917	1.6	98	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	0.962	2.2	99	0.00	6.72- 6.78
17	MA	Endrin	0.966	0.931	3.6	102	0.00	7.21- 7.27
18	A	4,4'-DDD	0.803	0.750	6.6	98	0.00	7.40- 7.46
19	B	Endosulfan II	0.978	0.867	11.3	100	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.691	10.8	90	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.684	7.9	99	0.00	8.12- 8.18
22	B	Endosulfan Sulfate	0.744	0.700	5.9	100	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.398	9.5	94	0.00	9.16- 9.22
24		Mirex	0.746	0.689	7.6	103	0.00	9.46- 9.52
25	B	Endrin Ketone	0.985	0.794	19.4	93	0.00	9.53- 9.59
26	SA	Decachlorobiphenyl	0.929	0.868	6.6	106	0.00	11.67-11.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g56780.d 6PST1671.M Thu May 31 14:44:20 2018

10.9.25
10

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1696-CC1671
Lab FileID: 6G56794.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1696\6g56794.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1696\6g56794.d\ECD2B.CH
Acq On : 01-Jun-18, 00:52:15 Operator: christp
Sample : cc1671-50 Inst : GC6G
Misc : OP12414,g6g1696,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Fri Jun 01 10:56:30 2018
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 : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.44- 2.44
2	SAB	Tetrachloro-m-xylene	0.972	0.956	1.6	100	0.00	2.50- 2.56
3		hexachlorobenzene	1.085	1.046	3.6	99	0.00	2.82- 2.88
4	A	alpha-BHC	1.338	1.417	-5.9	99	0.00	2.96- 3.02
5	MA	gamma-BHC	1.267	1.294	-2.1	100	0.00	3.25- 3.31
6	MA	Heptachlor	1.197	1.282	-7.1	105	0.00	3.73- 3.79
7	B	beta-BHC	0.567	0.545	3.9	100	0.00	3.32- 3.38
8	B	delta-BHC	1.117	1.120	-0.3	93	0.00	3.50- 3.56
9	MB	Aldrin	1.164	1.230	-5.7	102	0.00	4.06- 4.12
10		alachlor	0.140	0.144	-2.9	104	0.00	4.20- 4.26
11	B	Heptachlor Epoxide	1.076	1.135	-5.5	103	0.00	4.76- 4.82
12	B	gamma-Chlordane	1.060	1.111	-4.8	101	0.00	4.93- 4.99
13	B	alpha-Chlordane	1.085	1.072	1.2	99	0.00	5.09- 5.15
14	A	Endosulfan I	1.012	1.048	-3.6	103	0.00	5.27- 5.33
15	B	4,4'-DDE	1.033	1.030	0.3	96	0.00	5.21- 5.27
16	MA	Dieldrin	1.096	1.152	-5.1	101	0.00	5.59- 5.65
17	MA	Endrin	0.992	1.073	-8.2	106	0.00	5.91- 5.97
18	A	4,4'-DDD	0.856	0.836	2.3	95	0.00	6.04- 6.10
19	B	Endosulfan II	1.052	0.984	6.5	99	0.00	6.23- 6.29
20	MA	4,4'-DDT	0.821	0.856	-4.3	101	0.00	6.45- 6.51
21	B	Endrin Aldehyde	0.833	0.816	2.0	100	0.00	6.85- 6.91
22	B	Endosulfan Sulfate	0.825	0.773	6.3	95	0.00	7.53- 7.59
23	A	Methoxychlor	0.490	0.476	2.9	101	0.00	7.23- 7.29
24		Mirex	0.833	0.793	4.8	103	0.00	7.38- 7.44
25	B	Endrin Ketone	0.981	0.943	3.9	96	0.00	7.97- 8.03
26	SA	Decachlorobiphenyl	0.991	0.877	11.5	97	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	119	0.00	1.64- 2.64
2	SAB	Tetrachloro-m-xylene	0.931	0.936	-0.5	118	0.00	2.89- 2.95
3		hexachlorobenzene	1.168	1.163	0.4	121	0.00	3.37- 3.43
4	A	alpha-BHC	1.239	1.350	-9.0	118	0.00	3.52- 3.58
5	MA	gamma-BHC	1.162	1.228	-5.7	118	0.00	3.93- 3.99
6	MA	Heptachlor	1.182	1.238	-4.7	120	0.00	4.48- 4.54
7	B	beta-BHC	0.534	0.515	3.6	116	0.00	4.01- 4.07
8	B	delta-BHC	1.079	1.073	0.6	110	0.00	4.39- 4.45
9	MB	Aldrin	1.041	1.127	-8.3	122	0.00	4.91- 4.97

Continuing Calibration Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: G6G1696-CC1671
Lab FileID: 6G56794.D

10		alachlor	0.138	0.136	1.4	121	0.00	4.73- 4.79
11	B	Heptachlor Epoxide	1.006	1.052	-4.6	121	0.00	5.71- 5.77
12	B	gamma-Chlordane	0.986	1.059	-7.4	122	0.00	5.99- 6.05
13	B	alpha-Chlordane	0.960	1.019	-6.1	120	0.00	6.21- 6.27
14	A	Endosulfan I	0.917	0.941	-2.6	120	0.00	6.30- 6.36
15	B	4,4'-DDE	0.932	1.015	-8.9	121	0.00	6.47- 6.53
16	MA	Dieldrin	0.984	1.057	-7.4	122	0.00	6.72- 6.78
17	MA	Endrin	0.966	1.006	-4.1	123	0.00	7.21- 7.27
18	A	4,4'-DDD	0.803	0.791	1.5	115	0.00	7.40- 7.46
19	B	Endosulfan II	0.978	0.926	5.3	119	0.00	7.56- 7.62
20	MA	4,4'-DDT	0.775	0.795	-2.6	115	0.00	7.93- 7.99
21	B	Endrin Aldehyde	0.743	0.735	1.1	119	0.00	8.12- 8.18
22	B	Endosulfan Sulfate	0.744	0.712	4.3	114	0.00	8.59- 8.65
23	A	Methoxychlor	0.440	0.429	2.5	114	0.00	9.16- 9.22
24		Mirex	0.746	0.741	0.7	124	0.00	9.46- 9.52
25	B	Endrin Ketone	0.985	0.865	12.2	113	0.00	9.53- 9.59
26	SA	Decachlorobiphenyl	0.929	0.912	1.8	124	0.00	11.67-11.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g56780.d 6PST1671.M Fri Jun 01 11:07:17 2018

10.9.26 10

GC/LC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 09:20

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56749.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:39:56
Operator : christp
Sample : jc66384-1
Misc : OP12247,g6g1694,15.2,,,10,1
ALS Vial : 61 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 08:43:28 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.948	2.146	448.2E6	363.8E6	50.000	50.000
27)	I 1-bromo-2...	1.948	2.146	448.2E6	363.8E6	50.000	50.000
33)	I 1-bromo-2...	1.948	2.146	448.2E6	363.8E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.533	2.928	263.9E6	192.7E6	30.295	28.438
	Spiked Amount 40.000	Range 30 - 150		Recovery =		75.74%	71.09%
26)	SA Decachlor...	9.855	11.786f	98148271	27049905	11.054m	4.003m#
	Spiked Amount 40.000			Recovery =		27.63%	10.01%
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

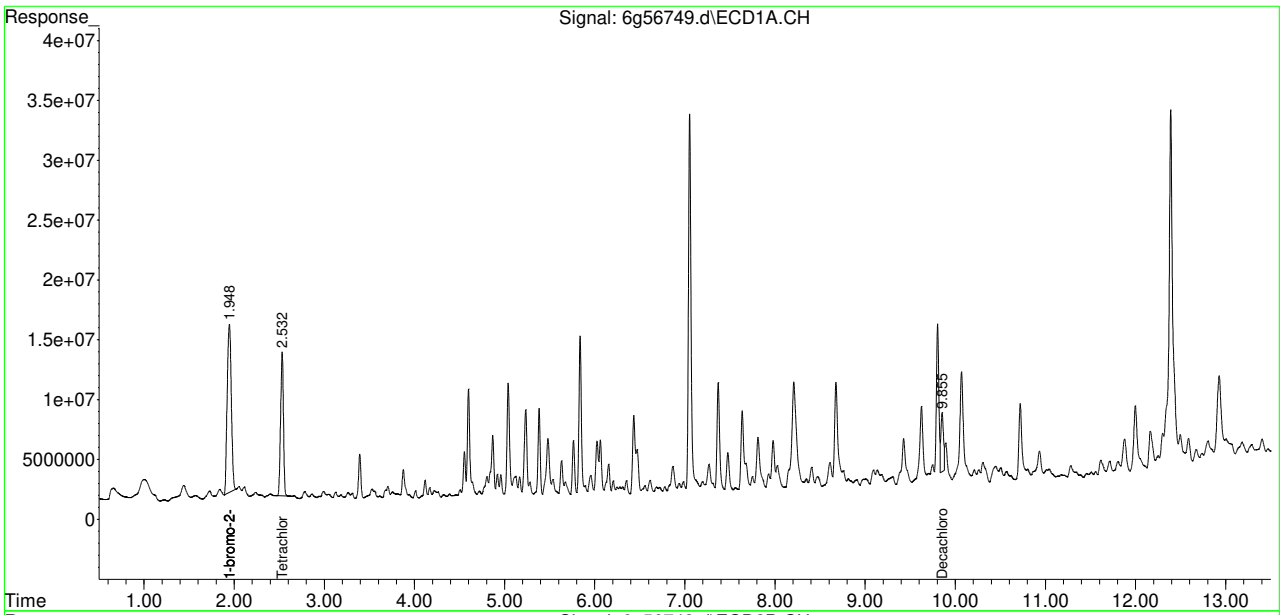
11.1.1 11

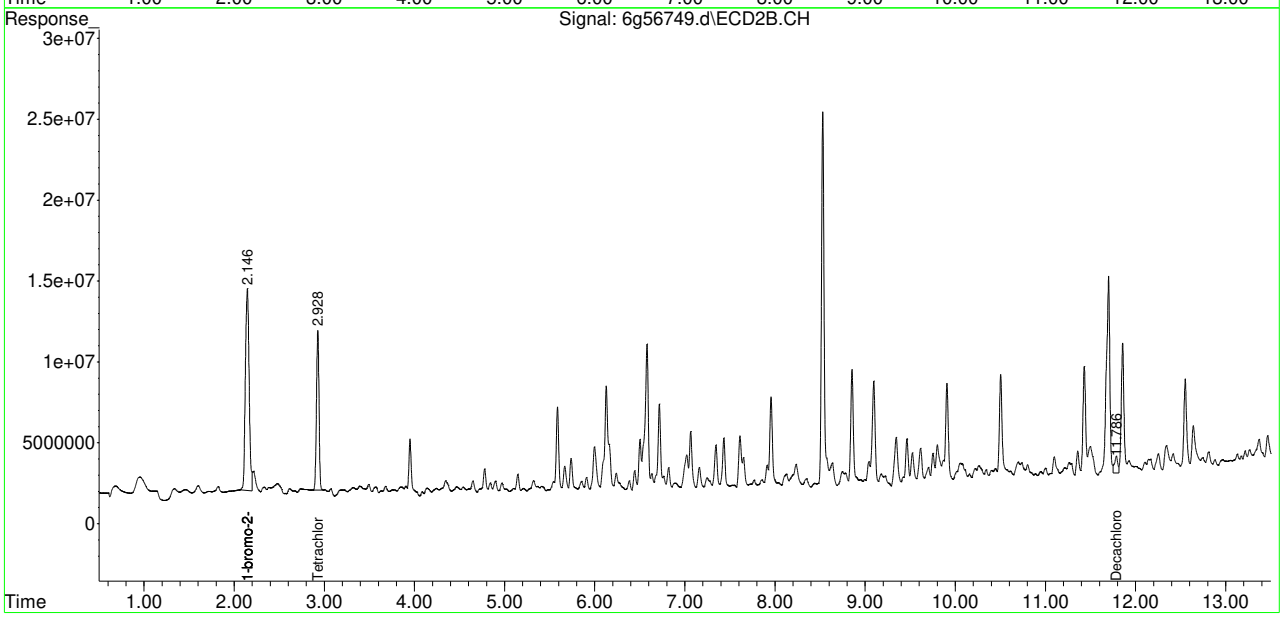
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56749.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:39:56
Operator : christp
Sample : jc66384-1
Misc : OP12247,g6g1694,15.2,,,10,1
ALS Vial : 61 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 08:43:28 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: JC66384-1
Lab FileID: 6G56749.D
Injection Time: 05/30/18 12:39

Method: SW846 8081B
Analyst approved: 05/31/18 08:55 Dharmistha Mehta
Supervisor approved: 05/31/18 09:20 Gwendolyn Burns

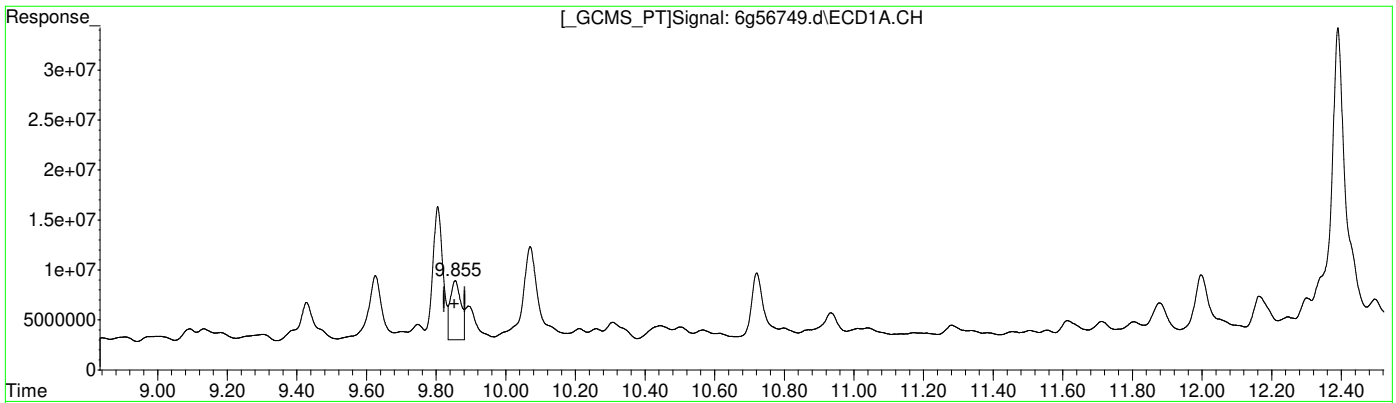
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.86	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	11.79	Poorly defined baseline

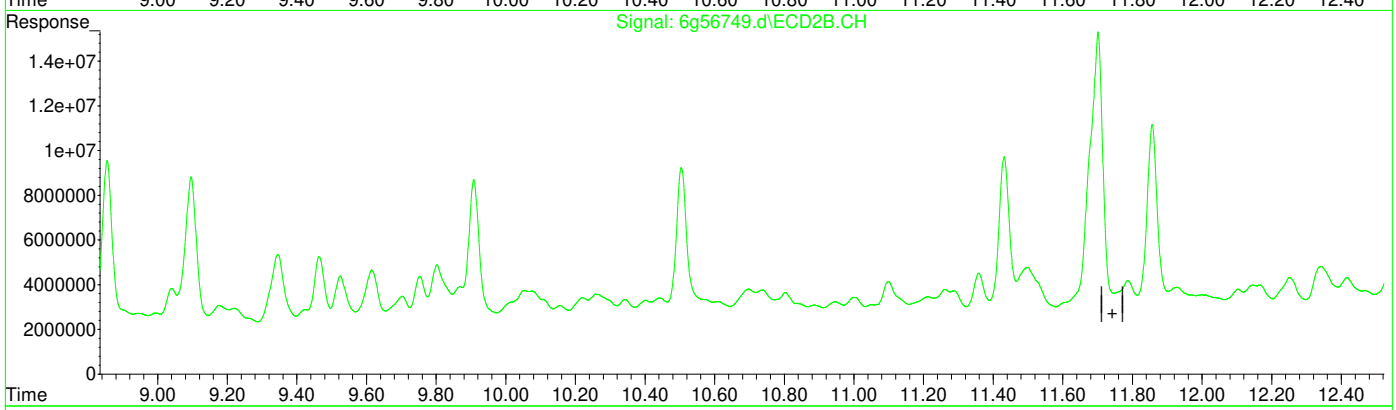
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56749.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:39:56
Operator : christp
Sample : jc66384-1
Misc : OP12247,g6g1694,15.2,,,10,1
ALS Vial : 61 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 14:21:09 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.855min 14.302 PPB

response 126986741

(26) Decachlorobiphenyl #2 (SA)

0.000min 0.000 PPB

response 0

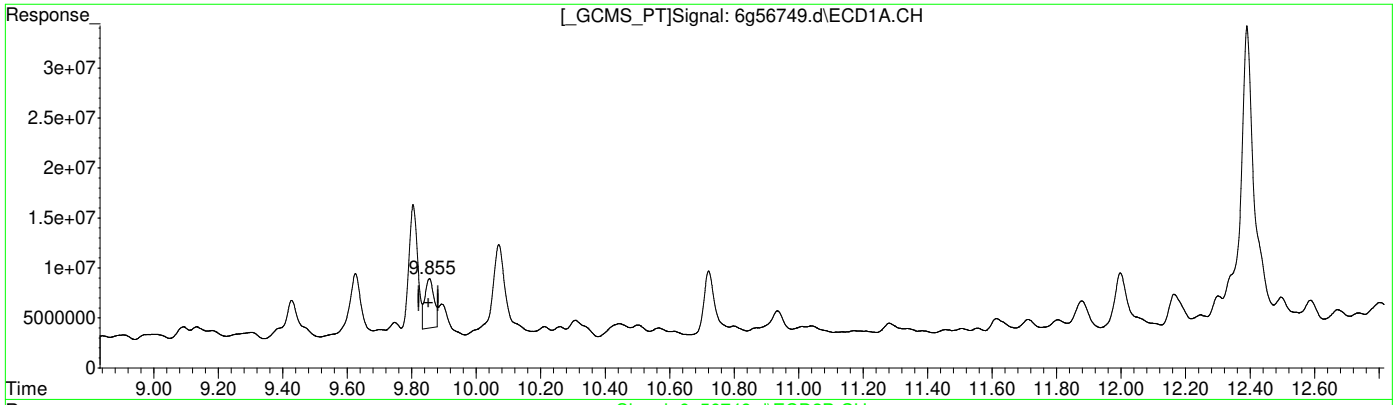
(+) = Expected Retention Time
6PST1671.M Wed May 30 14:23:39 2018

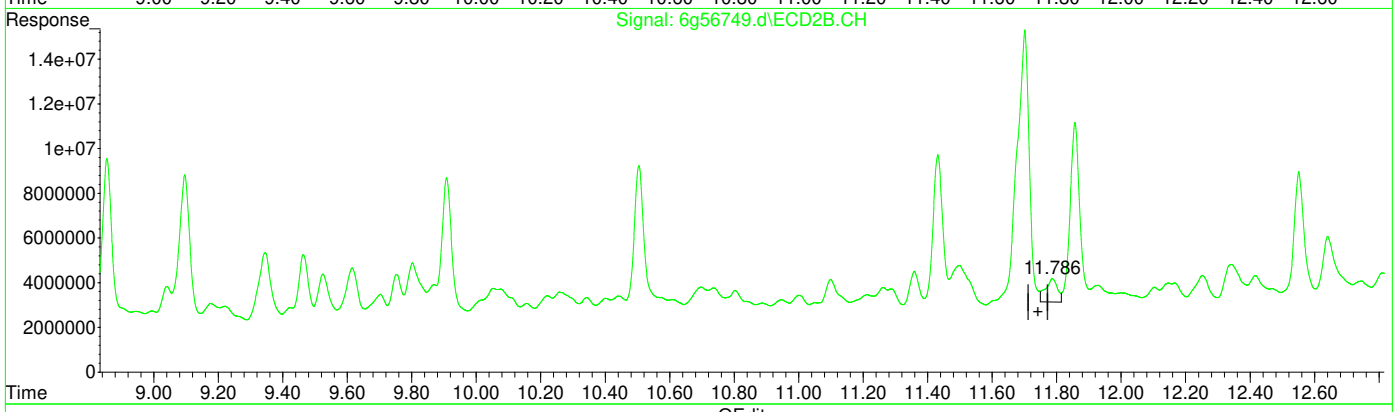
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56749.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:39:56
Operator : christp
Sample : jc66384-1
Misc : OP12247,g6g1694,15.2,,,10,1
ALS Vial : 61 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 14:25:15 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.855min 11.054 PPB m

response 98148271

(26) Decachlorobiphenyl #2 (SA)

11.786min 4.003 PPB m

response 27049905

(+) = Expected Retention Time
6PST1671.M Thu May 31 08:43:59 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/30/18 15:26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56750.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:57:46
Operator : christp
Sample : jc66384-2
Misc : OP12247,g6g1694,16.3,,,10,1
ALS Vial : 62 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 14:27:14 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.947	2.146	439.3E6	350.5E6	50.000	50.000
27)	I 1-bromo-2...	1.947	2.146	439.3E6	350.5E6	50.000	50.000
33)	I 1-bromo-2...	1.947	2.146	439.3E6	350.5E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.531	2.928	217.1E6	157.9E6	25.427	24.190
	Spiked Amount 40.000	Range 30 - 150		Recovery =		63.57%	60.48%
26)	SA Decachlor...	9.805f	11.703f	223.1E6	180.5E6	25.638m	27.716m
	Spiked Amount 40.000			Recovery =		64.09%	69.29%
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

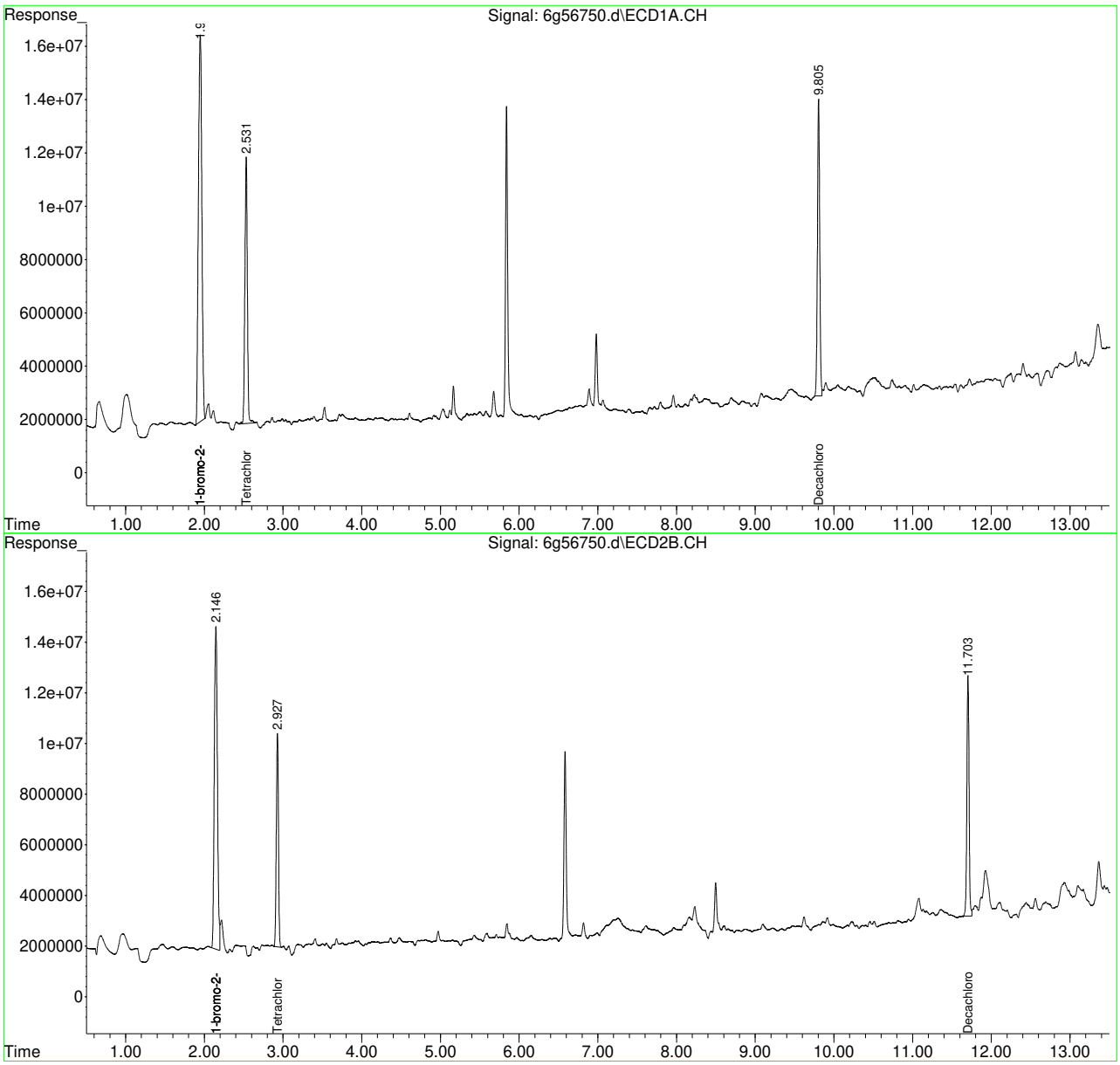
11.1.2 11

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56750.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:57:46
Operator : christp
Sample : jc66384-2
Misc : OP12247,g6g1694,16.3,,,10,1
ALS Vial : 62 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 14:27:14 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integration Approval Summary

Sample Number:	JC66384-2	**Method:**	SW846 8081B
Lab FileID:	6G56750.D	**Analyst approved:**	05/30/18 14:32 Dharmistha Mehta
Injection Time:	05/30/18 12:57	**Supervisor approved:**	05/30/18 15:26 Gwendolyn Burns

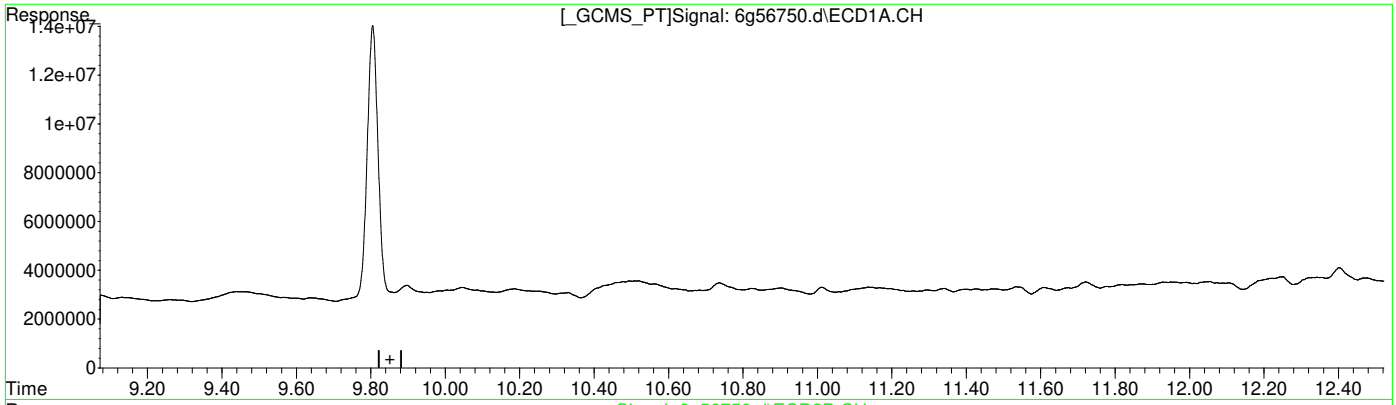
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.80	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	11.70	Poorly defined baseline

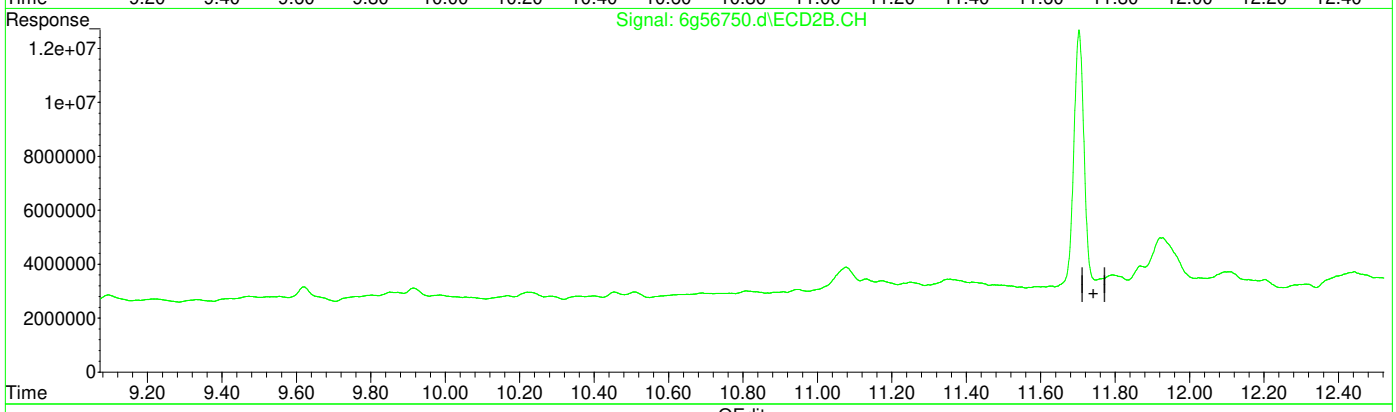
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56750.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:57:46
Operator : christp
Sample : jc66384-2
Misc : OP12247,g6g1694,16.3,,,10,1
ALS Vial : 62 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 14:26:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

0.000min 0.000 PPB d

response 0

(26) Decachlorobiphenyl #2 (SA)

0.000min 0.000 PPB d

response 0

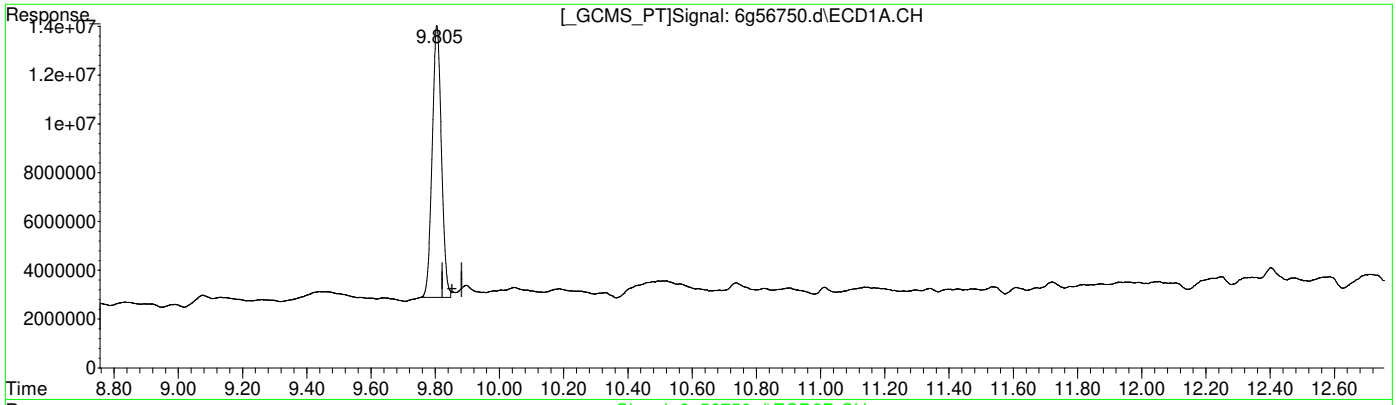
(+) = Expected Retention Time
6PST1671.M Wed May 30 14:26:38 2018

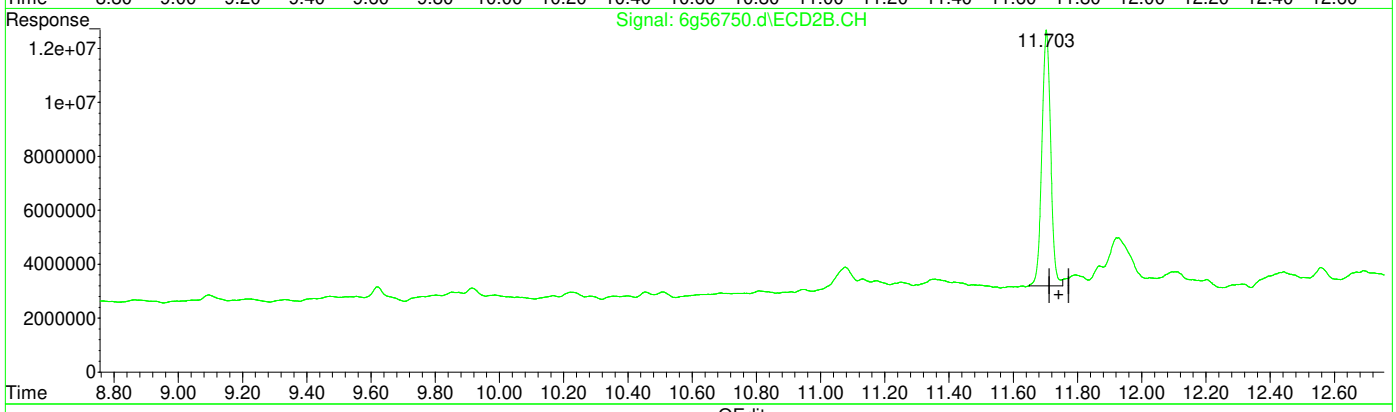
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56750.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 12:57:46
Operator : christp
Sample : jc66384-2
Misc : OP12247,g6g1694,16.3,,,10,1
ALS Vial : 62 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 14:26:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.805min 25.638 PPB m

response 223128648

(26) Decachlorobiphenyl #2 (SA)

11.703min 27.716 PPB m

response 180474261

(+) = Expected Retention Time
6PST1671.M Wed May 30 14:26:59 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56628.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 11:49:54
Operator : dharas
Sample : jc66384-4
Misc : OP12247,g6g1691,16.3,,,10,1
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 16:52:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.945	2.145	275.5E6	229.2E6	50.000	50.000
27)	I 1-bromo-2...	1.945	2.145	275.5E6	229.2E6	50.000	50.000
33)	I 1-bromo-2...	1.945	2.145	275.5E6	229.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.531	2.928	174.4E6	128.9E6	32.570	30.188
	Spiked Amount	40.000	Range 30 - 150	Recovery	=	81.42%	75.47%
26)	SA Decachlor...	9.809	11.707	118.4E6	94793424	21.689	22.265
	Spiked Amount	40.000		Recovery	=	54.22%	55.66%
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

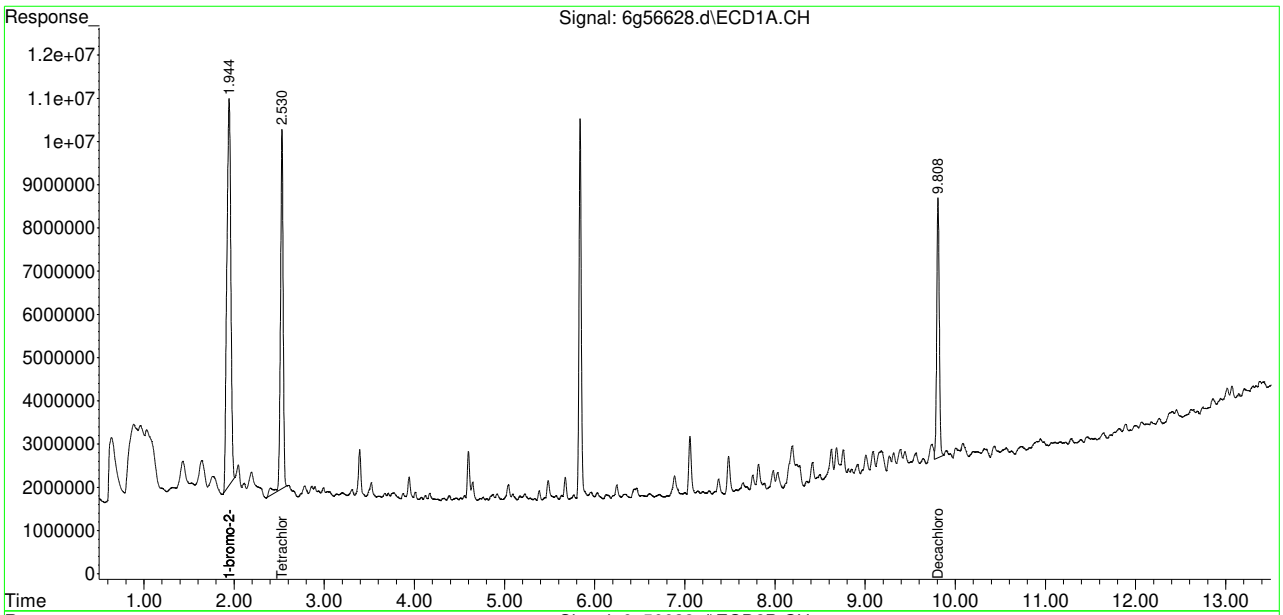
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

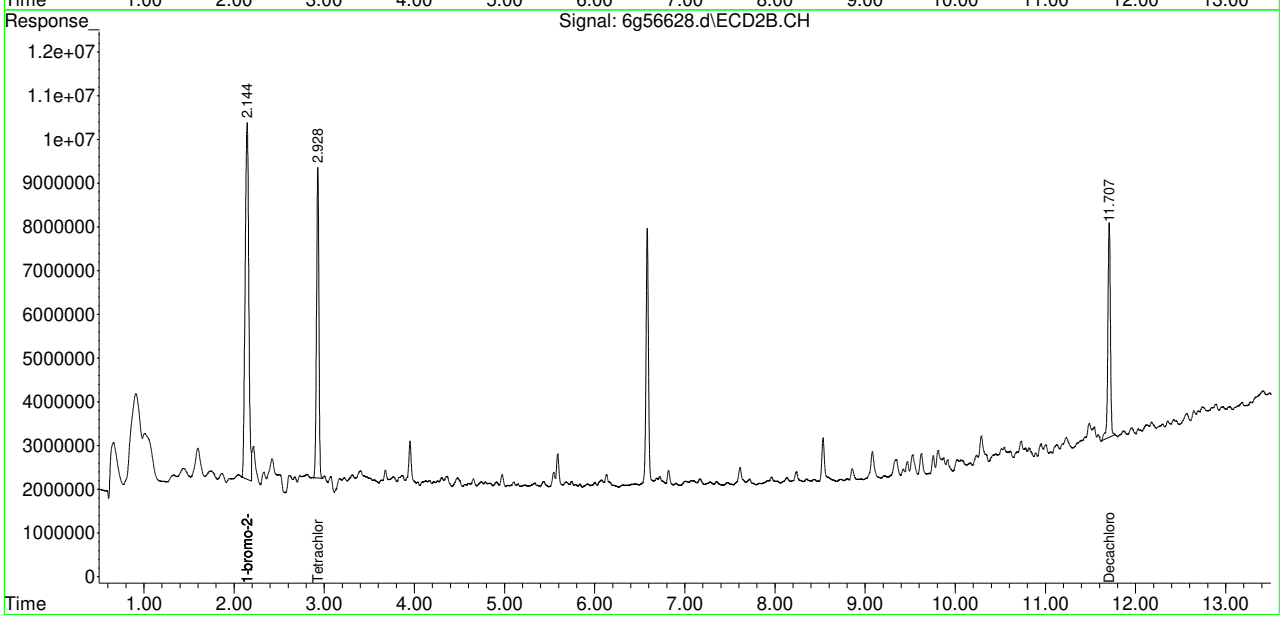
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56628.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 11:49:54
Operator : dharas
Sample : jc66384-4
Misc : OP12247,g6g1691,16.3,,,10,1
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 16:52:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 06:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164445.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 5:48 am
Operator : edouarda
Sample : jc66384-1
Misc : OP12244,G2G4347,15.2,,,10,1
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:15:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1)	S Tetrachlo...	2.775	3.419	137.4E6	836.1E6	37.425	36.541
	Spiked Amount 40.000			Recovery	=	93.56%	91.35%
51)	S Decachlor...	9.953	11.762	152.1E6	771.8E6	37.500	40.409
	Spiked Amount 40.000			Recovery	=	93.75%	101.02%
	Target Compounds						
27)	AR1254-D	6.103	7.591	59900516	431.1E6	243.589	263.806
28)	AR1254-E	6.477	7.907	41143801	257.0E6	225.434	235.997
29)	AR1254-F	6.728	8.377f	49294068	277.9E6	287.939	235.315m
30)	AR1254-G	7.104	8.670	85454514	357.9E6	339.404	236.900m#

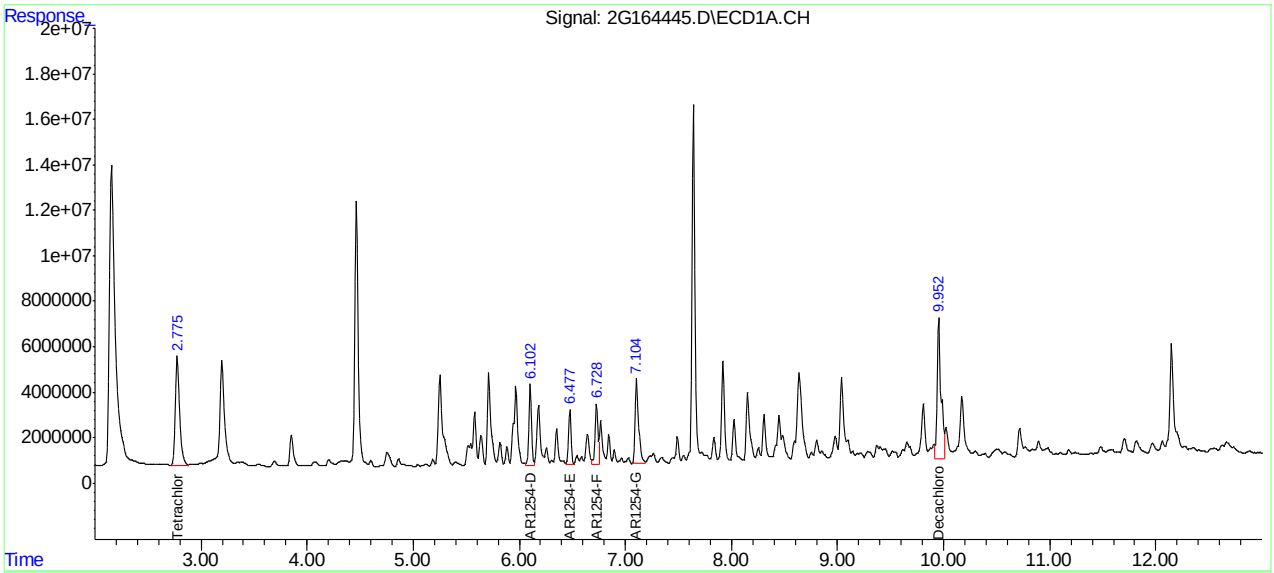
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

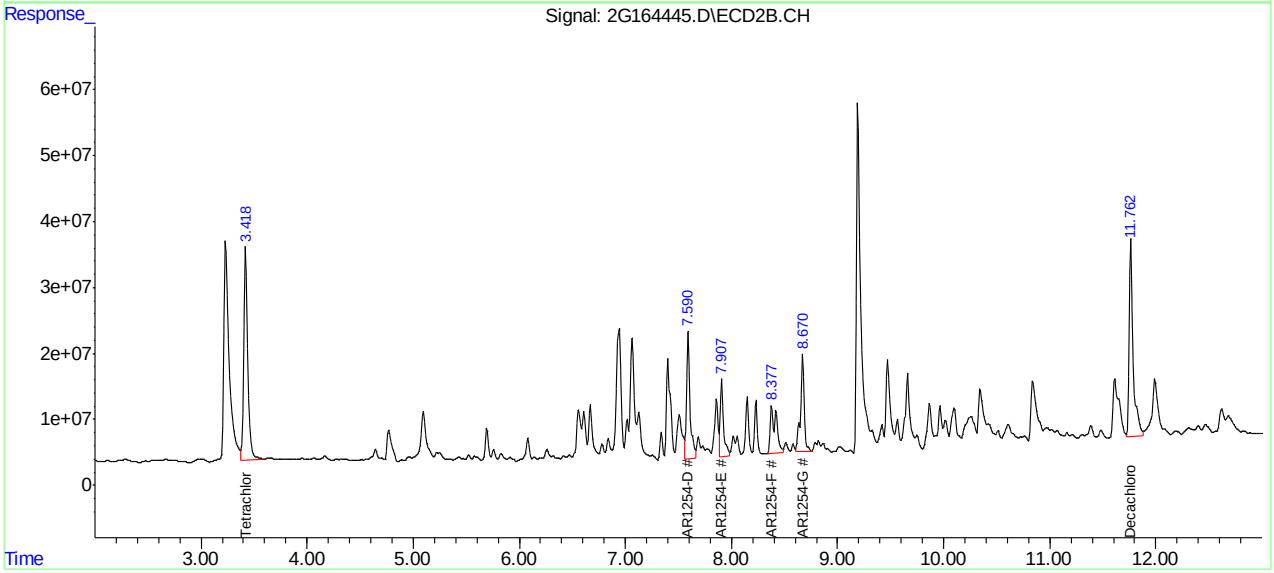
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164445.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 5:48 am
Operator : edouarda
Sample : jc66384-1
Misc : OP12244,G2G4347,15.2,,,10,1
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:15:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	JC66384-1	**Method:**	SW846 8082A
Lab FileID:	2G164445.D	**Analyst approved:**	05/28/18 22:26 Edouard Adrian Lee
Injection Time:	05/28/18 05:48	**Supervisor approved:**	05/29/18 06:49 Gwendolyn Burns

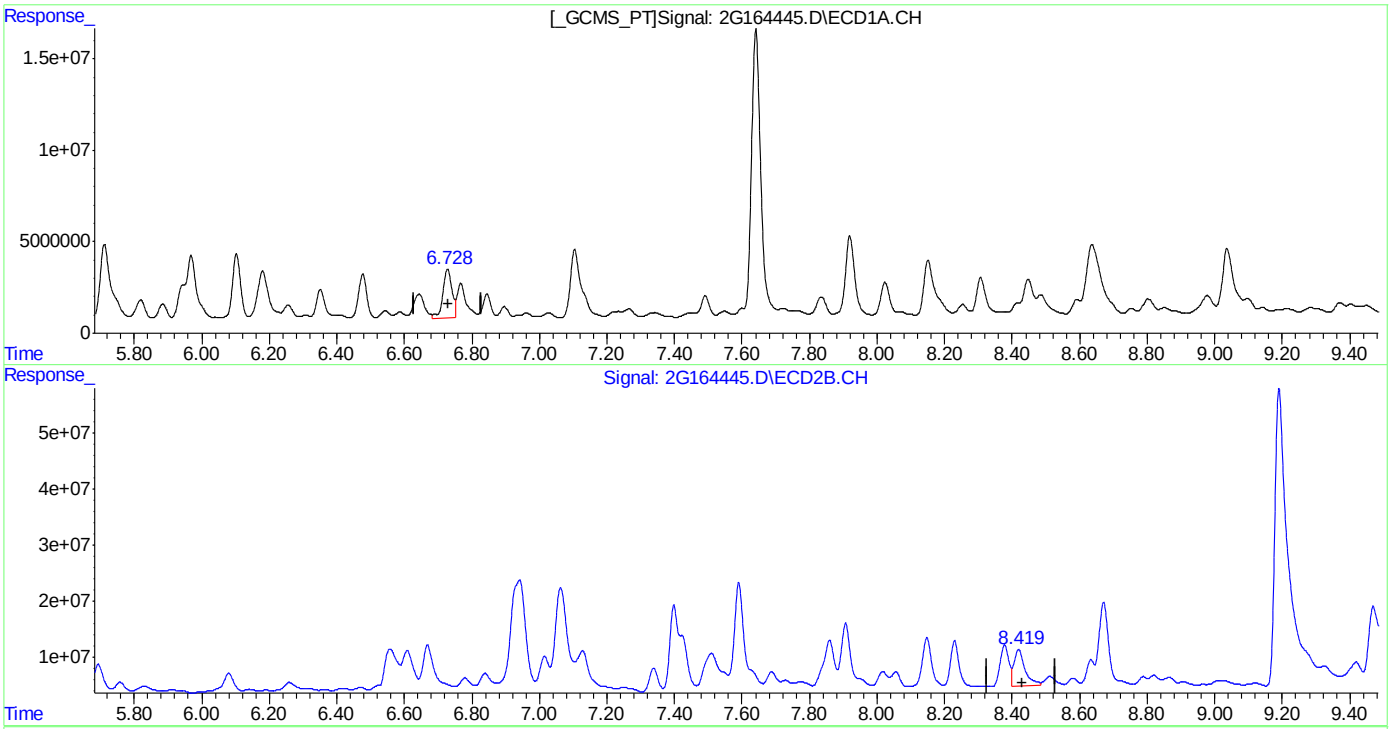
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1254-F		2	8.38	Split peak
Ar1254-G		2	8.67	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164445.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 5:48 am
Operator : edouarda
Sample : jc66384-1
Misc : OP12244,G2G4347,15.2,,,10,1
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.728min 287.939PPB
response 49294068

(29) AR1254-F #2
8.419min 126.174PPB
response 149034513

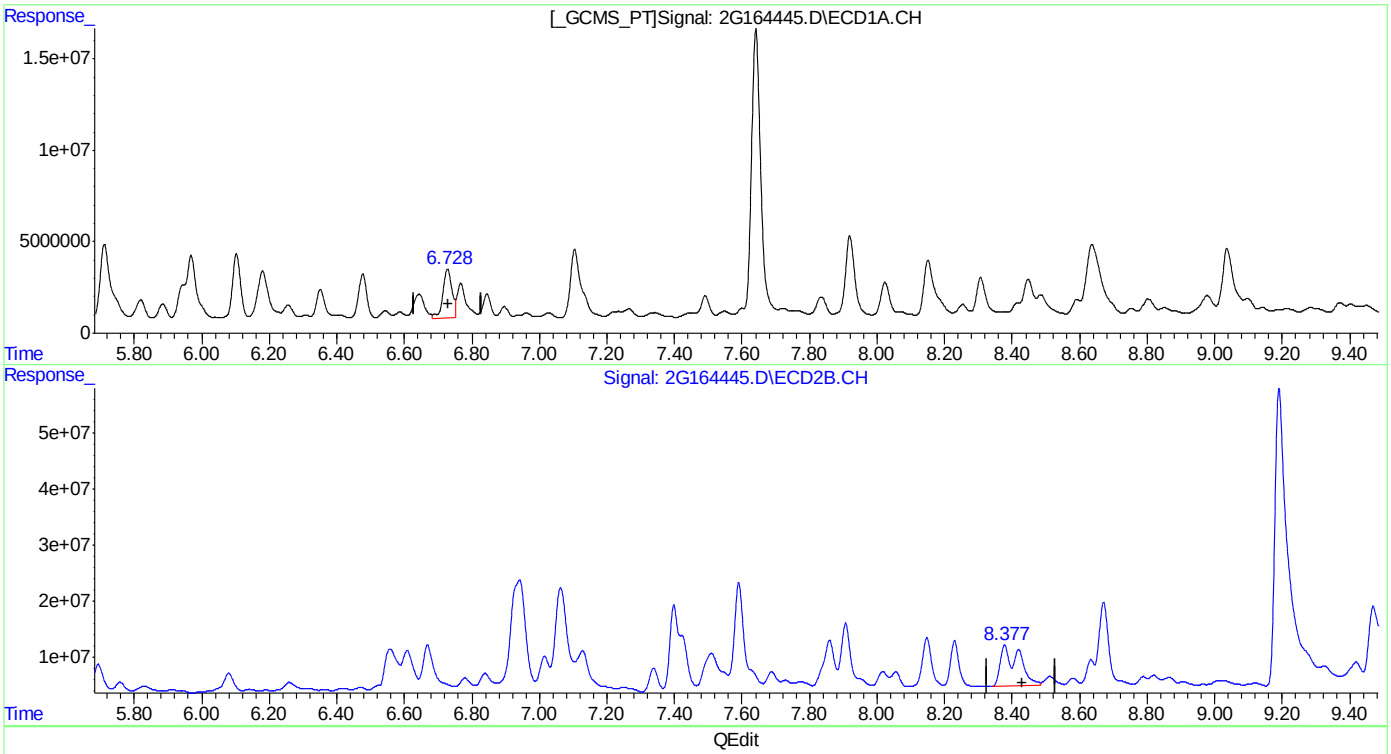
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:15:08 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164445.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 5:48 am
Operator : edouarda
Sample : jc66384-1
Misc : OP12244,G2G4347,15.2,,,10,1
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.728min 287.939PPB
response 49294068

(29) AR1254-F #2
8.377min 235.315PPB m
response 277949979

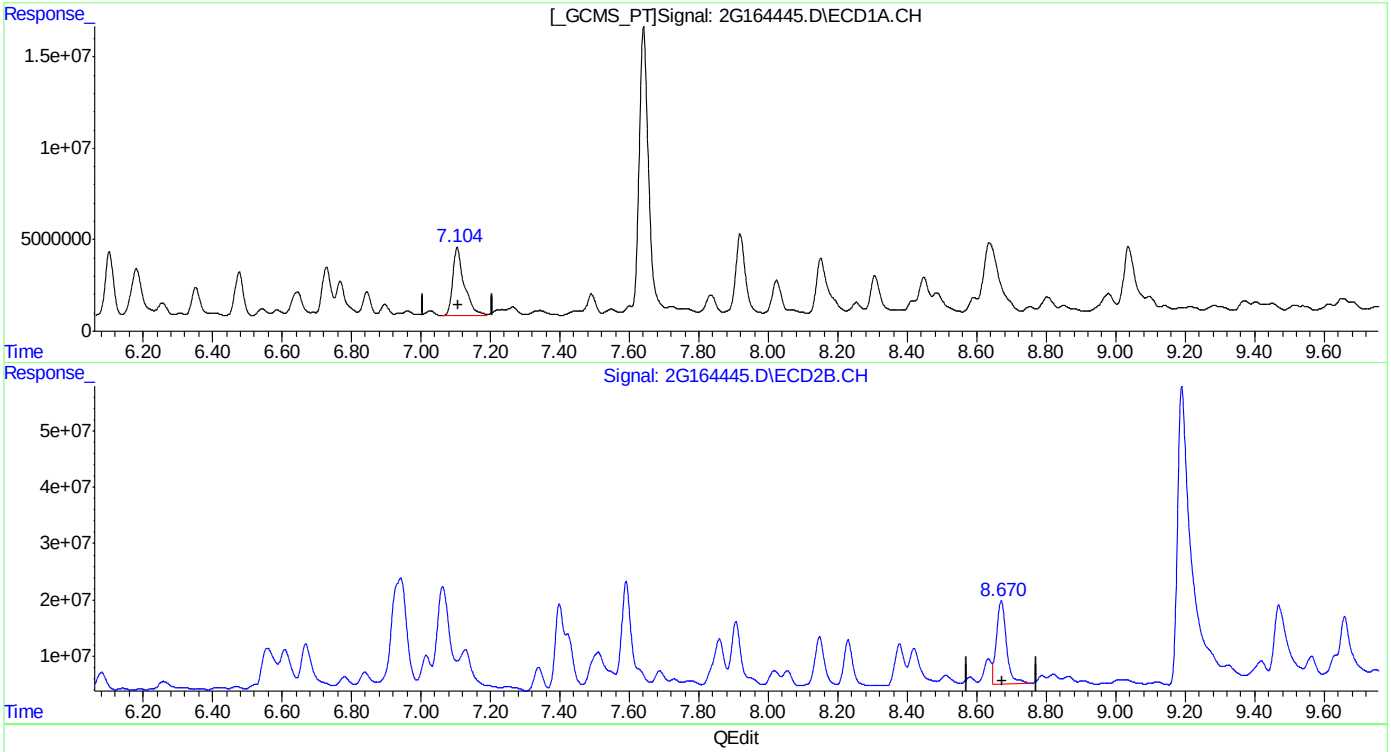
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:15:15 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164445.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 5:48 am
Operator : edouarda
Sample : jc66384-1
Misc : OP12244,G2G4347,15.2,,,10,1
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(30) AR1254-G
7.104min 339.404PPB
response 85454514

(30) AR1254-G #2
8.670min 196.085PPB
response 296237343

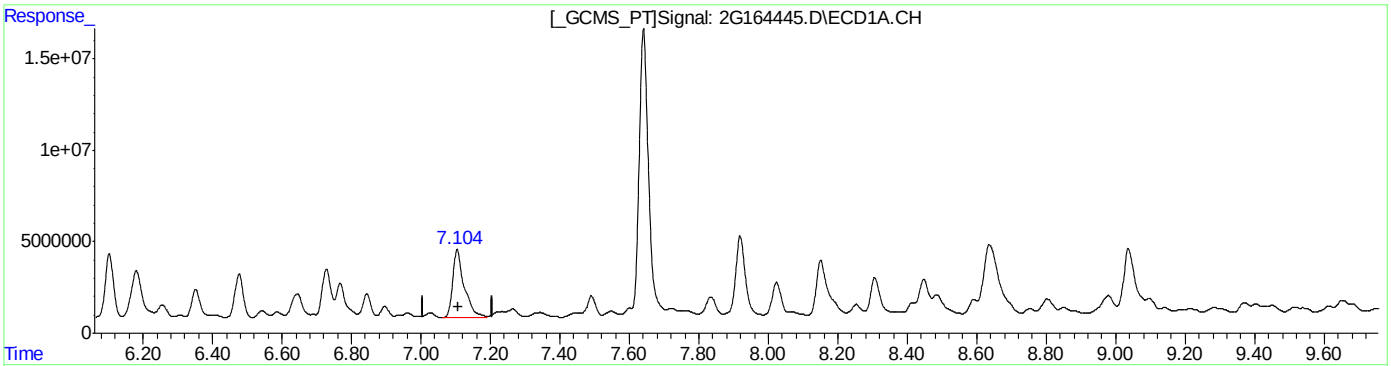
(+) = Expected Retention Time

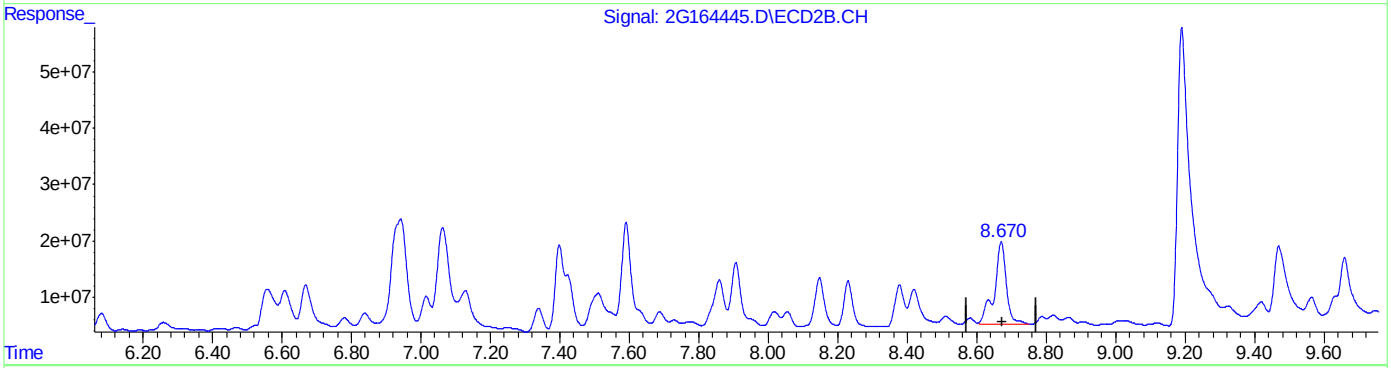
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164445.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 5:48 am
Operator : edouarda
Sample : jc66384-1
Misc : OP12244,G2G4347,15.2,,,10,1
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:13:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(30) AR1254-G
7.104min 339.404PPB
response 85454514

(30) AR1254-G #2
8.670min 236.900PPB m
response 357898187

(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:15:27 2018 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164523.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 11:06 am
Operator : tianweir
Sample : jc66384-2
Misc : OP12244,G2G4348,16.3,,,10,1
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 13:01:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.783	3.428	128.1E6	782.7E6	34.902	34.204
	Spiked Amount 40.000			Recovery	=	87.26%	85.51%
51) S	Decachlor...	9.957	11.765	117.6E6	583.8E6	29.003	30.565
	Spiked Amount 40.000			Recovery	=	72.51%	76.41%
	Target Compounds						

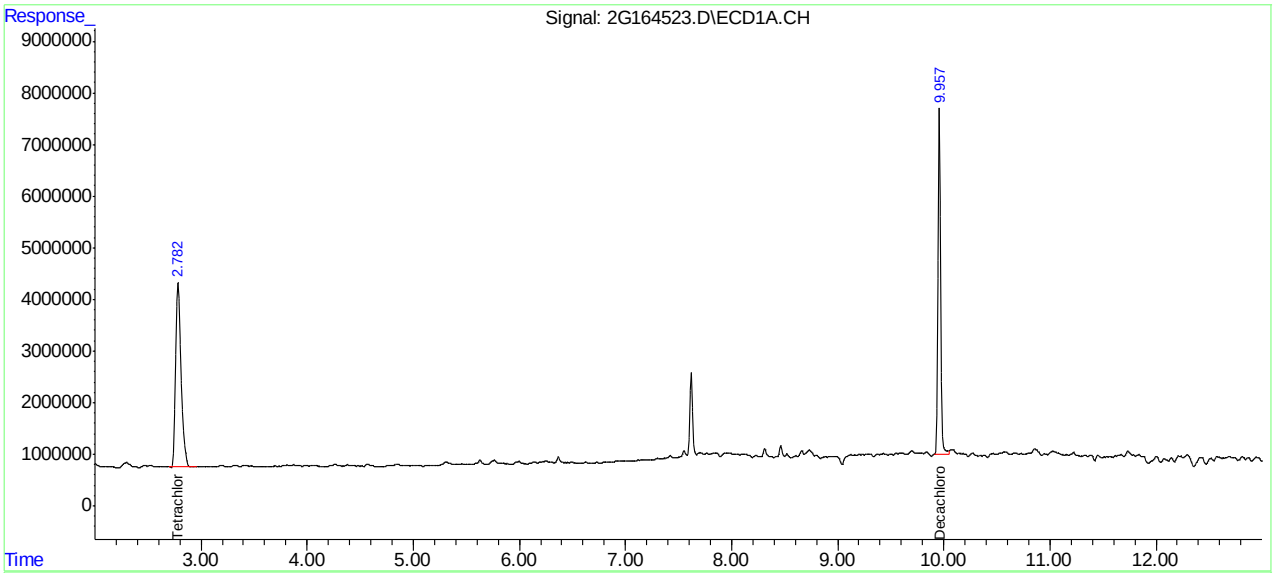
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

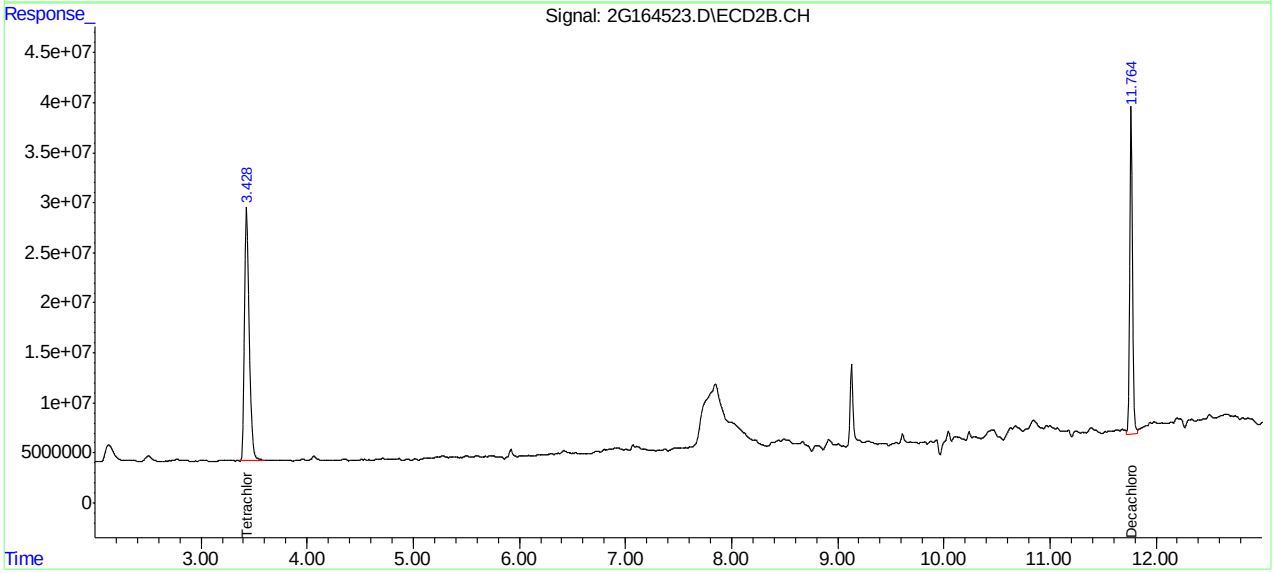
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164523.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 11:06 am
Operator : tianweir
Sample : jc66384-2
Misc : OP12244,G2G4348,16.3,,,10,1
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 13:01:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164453.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 8:04 am
Operator : edouarda
Sample : jc66384-4
Misc : OP12244,G2G4347,16.3,,,10,1
ALS Vial : 88 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:26:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.776	3.421	131.2E6	733.6E6	35.754	32.058
	Spiked Amount 40.000			Recovery	=	89.38%	80.14%
51) S	Decachlor...	9.954	11.763	85015676	341.5E6	20.962	17.879
	Spiked Amount 40.000			Recovery	=	52.41%	44.70%
	Target Compounds						

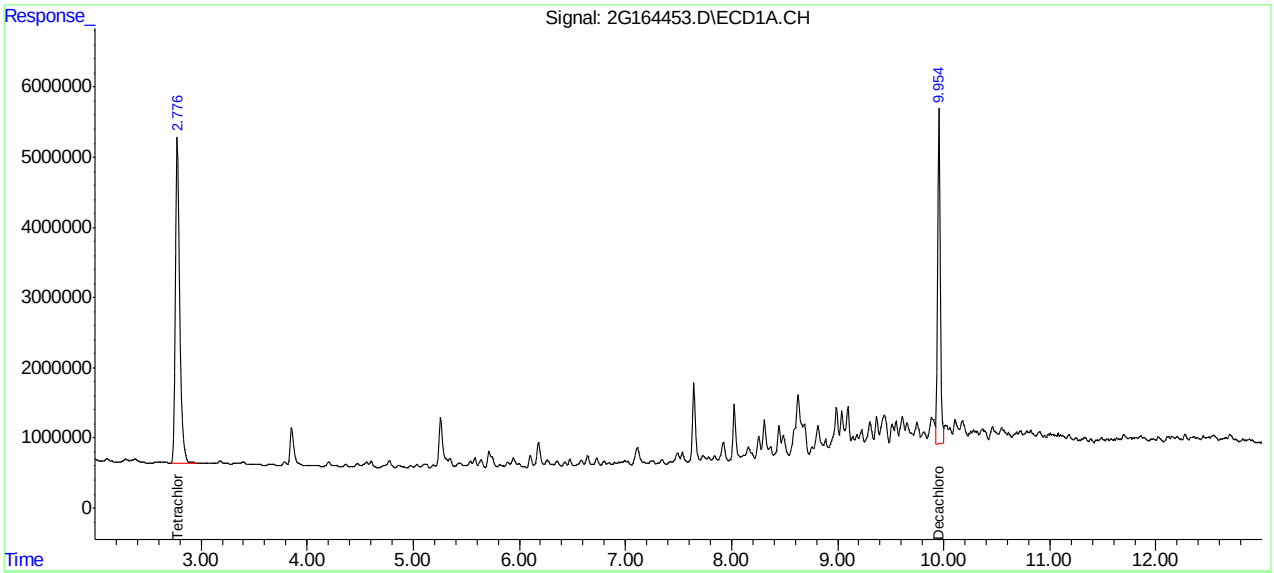
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

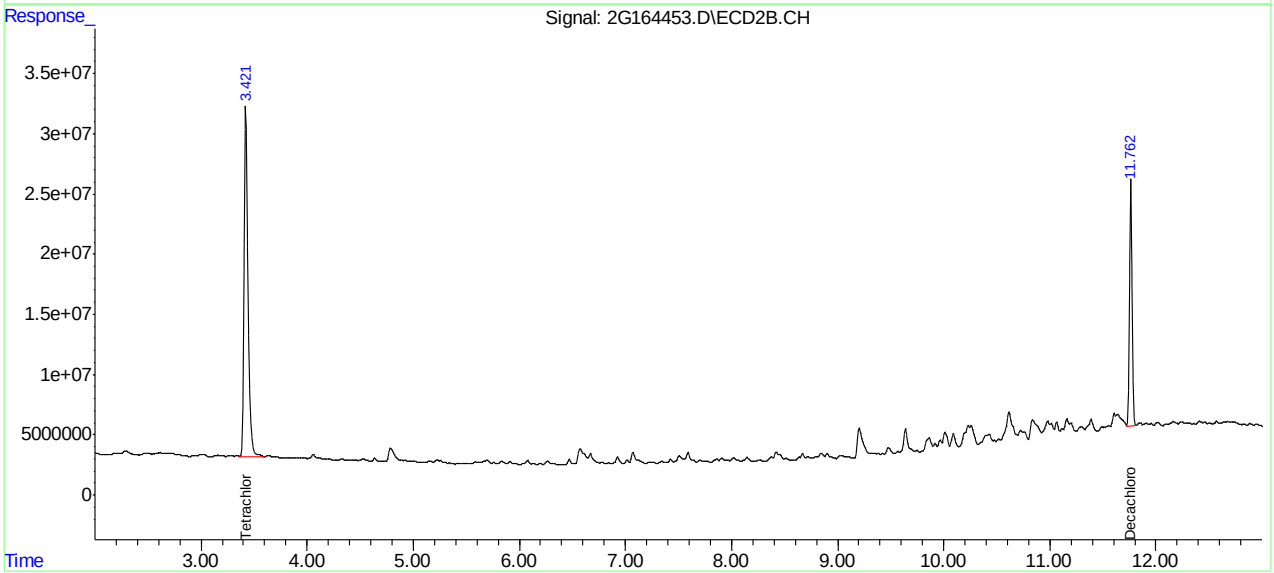
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164453.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 8:04 am
Operator : edouarda
Sample : jc66384-4
Misc : OP12244,G2G4347,16.3,,,10,1
ALS Vial : 88 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:26:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/30/18 11:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56621.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 09:45:01
Operator : dharas
Sample : op12247-mb1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:55:38 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.942	2.140	272.0E6	229.2E6	50.000	50.000
27)	I 1-bromo-2...	1.942	2.140	272.0E6	229.2E6	50.000	50.000
33)	I 1-bromo-2...	1.942	2.140	272.0E6	229.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.528	2.924	114.7E6	94457488	21.702	22.122
	Spiked Amount 40.000	Range 30 - 150		Recovery =		54.26%	55.31%
26)	SA Decachlor...	9.812	11.707	179.0E6	142.4E6	33.214m	33.426
	Spiked Amount 40.000			Recovery =		83.03%	83.56%
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

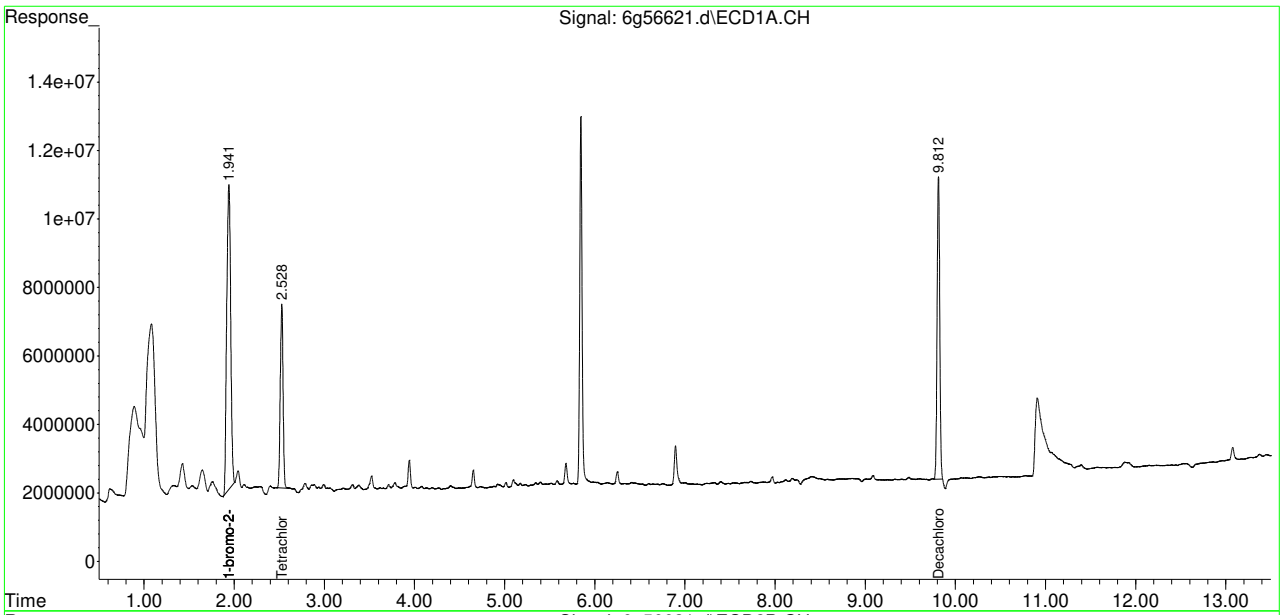
11.2.1 11

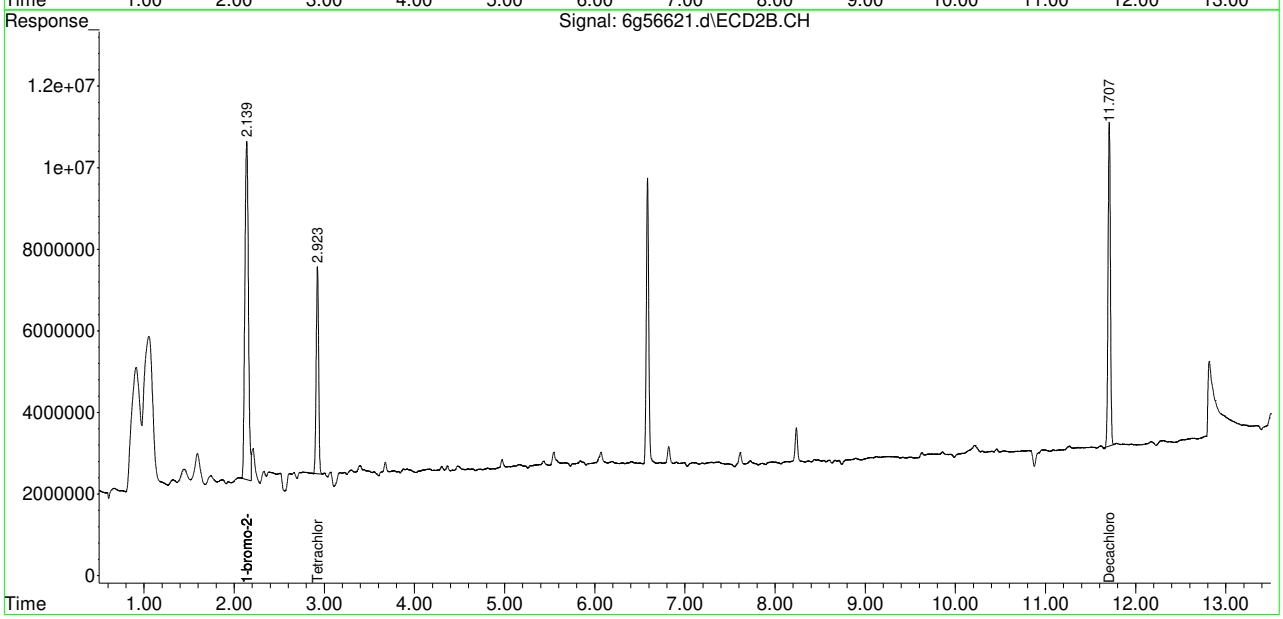
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56621.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 09:45:01
Operator : dharas
Sample : op12247-mb1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:55:38 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	OP12247-MB1	**Method:**	SW846 8081B
Lab FileID:	6G56621.D	**Analyst approved:**	05/30/18 09:50 Dharmistha Mehta
Injection Time:	05/26/18 09:45	**Supervisor approved:**	05/30/18 11:00 Gwendolyn Burns

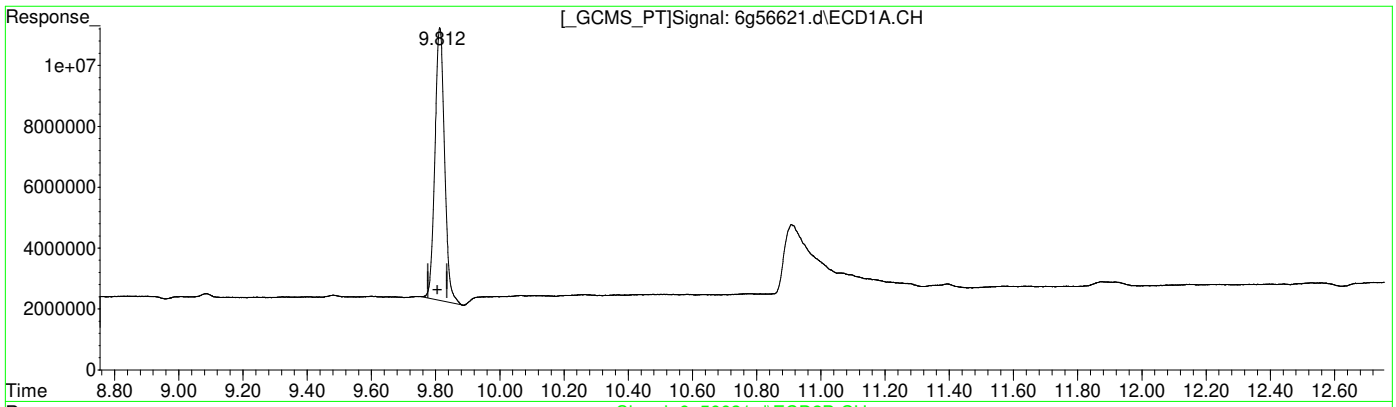
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	9.81	Poorly defined baseline

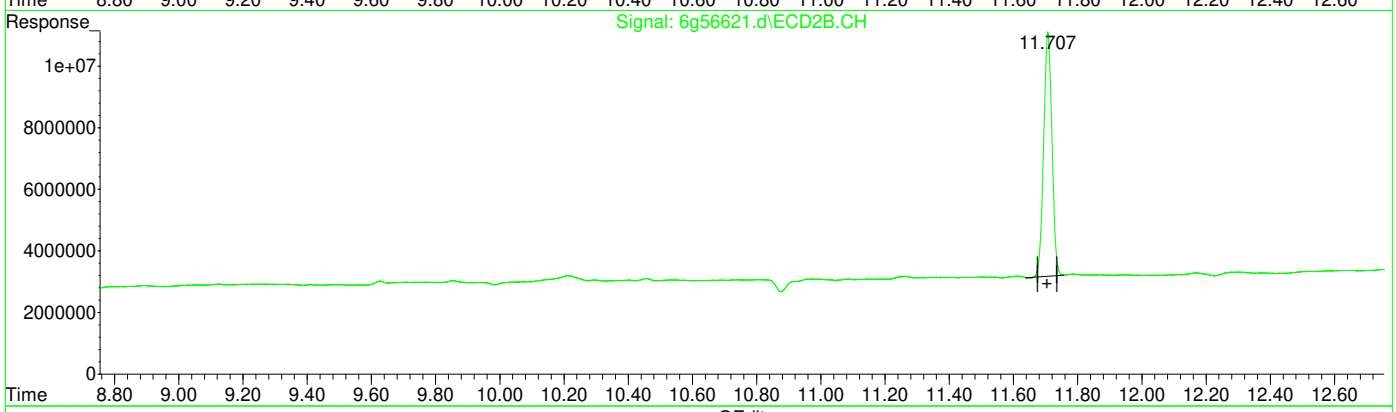
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56621.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 09:45:01
Operator : dharas
Sample : op12247-mb1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:54:54 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.813min 34.662 PPB

response 186798200

(26) Decachlorobiphenyl #2 (SA)

11.707min 33.426 PPB

response 142352549

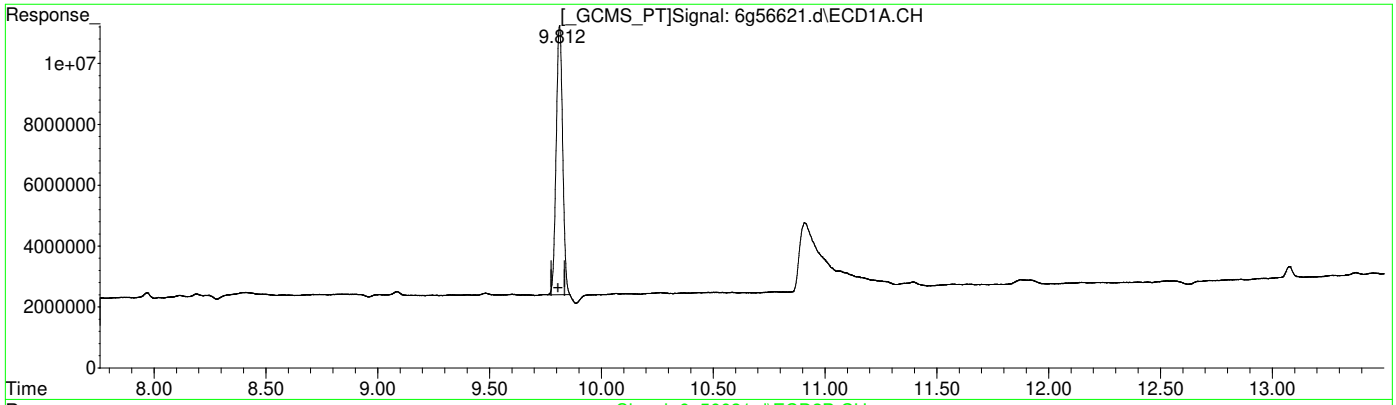
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:55:31 2018

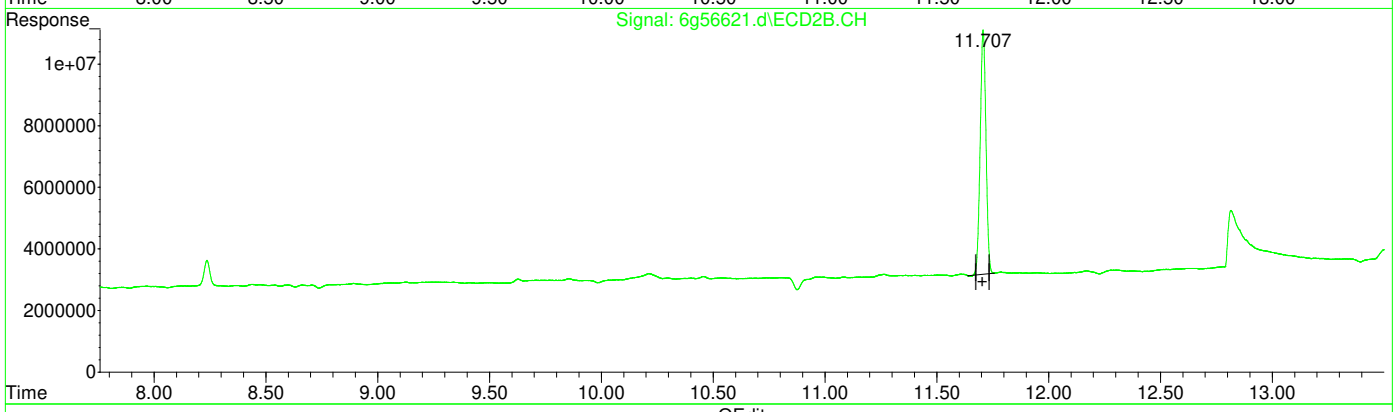
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56621.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 09:45:01
Operator : dharas
Sample : op12247-mb1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:54:54 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.812min 33.214 PPB m

response 178994717

(26) Decachlorobiphenyl #2 (SA)

11.707min 33.426 PPB

response 142352549

(+) = Expected Retention Time
6PST1671.M Tue May 29 15:55:41 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164419.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:28 pm
Operator : edouarda
Sample : op12244-mb1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 62 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.775	3.426	91412353	581.4E6	24.905	25.408
	Spiked Amount 40.000			Recovery	=	62.26%	63.52%
51) S	Decachlor...	9.962	11.765	143.5E6	747.3E6	35.390	39.125
	Spiked Amount 40.000			Recovery	=	88.48%	97.81%
	Target Compounds						

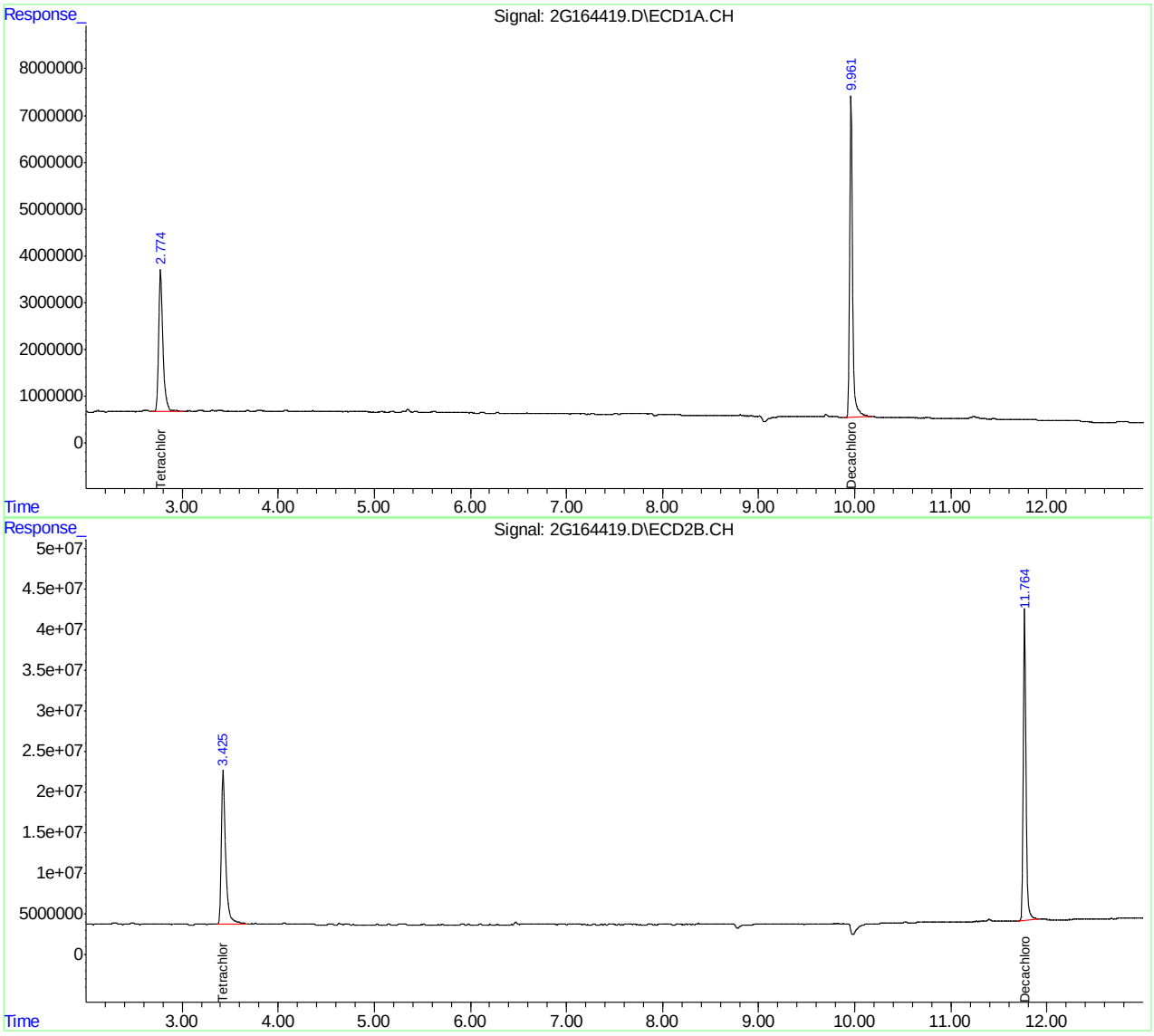
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164419.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:28 pm
Operator : edouarda
Sample : op12244-mb1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 62 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/30/18 11:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:57:26 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.941	2.142	317.5E6	262.0E6	50.000	50.000
27)	I 1-bromo-2...	1.941	2.142	317.5E6	262.0E6	50.000	50.000
33)	I 1-bromo-2...	1.941	2.142	317.5E6	262.0E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.526	2.924	121.7E6	94983830	19.715	19.463
	Spiked Amount 40.000	Range 30 - 150		Recovery =		49.29%	48.66%
26)	SA Decachlor...	9.806	11.705	197.1E6	157.5E6	31.328m	32.360
	Spiked Amount 40.000			Recovery =		78.32%	80.90%
	Target Compounds						
3)	hexachlor...	2.852	3.404	99850680	94221036	14.495	15.397m
4)	A alpha-BHC	2.988	3.551	128.3E6	97244355	15.101	14.974
5)	MA gamma-BHC	3.278	3.959	131.7E6	98531998	16.368	16.178
6)	MA Heptachlor	3.764	4.512	132.7E6	102.7E6	17.448	16.583
7)	B beta-BHC	3.351	4.041	74045481	52504952	20.582	18.770
8)	B delta-BHC	3.532	4.419	133.9E6	97936671	18.876	17.319
9)	MB Aldrin	4.093	4.945	126.9E6	91826575	17.173	16.838
10)	alachlor	4.230	4.764	26501669	19259479	29.737m	26.658m
11)	B Heptachlo...	4.795	5.742	127.9E6	93125128	18.721	17.661
12)	B gamma-Chl...	4.957	6.019	132.1E6	96895379	19.628	18.754
13)	B alpha-Chl...	5.125	6.239	142.7E6	101.1E6	20.704	20.094
14)	A Endosulfan I	5.301	6.330	124.8E6	90171888	19.434	18.766
15)	B 4,4'-DDE	5.236	6.502	128.2E6	100.2E6	19.535	20.511
16)	MA Dieldrin	5.620	6.755	135.7E6	103.2E6	19.511	20.019
17)	MA Endrin	5.941	7.248	143.0E6	103.6E6	22.712	20.461
18)	A 4,4'-DDD	6.063	7.434	106.7E6	83883213	19.641	19.937
19)	B Endosulfa...	6.258	7.593	132.2E6	105.3E6	19.789	20.559
20)	MA 4,4'-DDT	6.479	7.960	120.9E6	91472517	23.212	22.520
21)	B Endrin Al...	6.880	8.158	117.7E6	74721938	22.247	19.202
22)	B Endosulfa...	7.559	8.621	113.5E6	82275205	21.679	21.113
23)	A Methoxychlor	7.260	9.193	71938584	51752165	23.140	22.430
25)	B Endrin Ke...	7.998	9.567	137.8E6	100.9E6	22.125	19.535
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

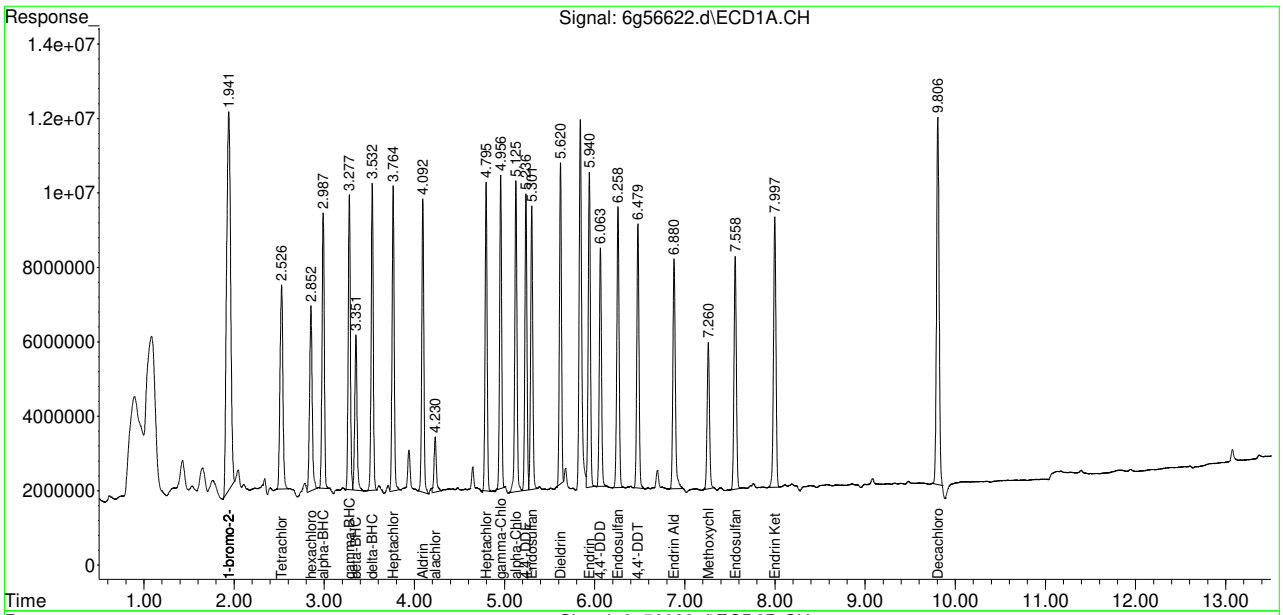
11.3.1 11

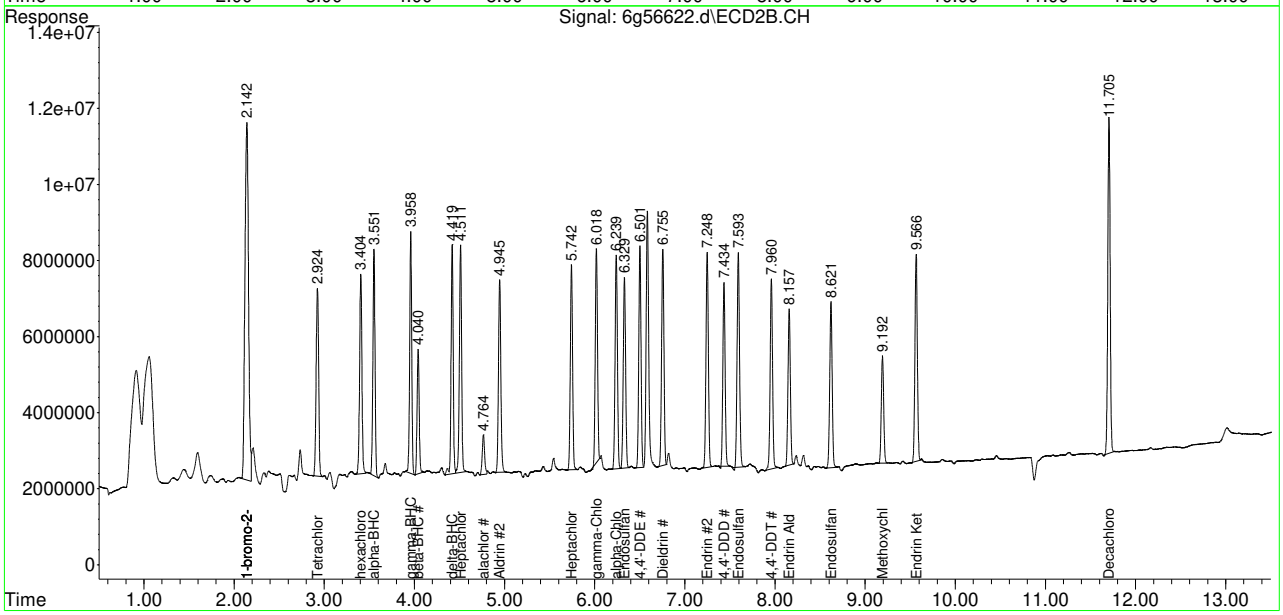
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:57:26 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: OP12247-BS1
Lab FileID: 6G56622.D
Injection Time: 05/26/18 10:02
Method: SW846 8081B
Analyst approved: 05/30/18 09:50 Dharmistha Mehta
Supervisor approved: 05/30/18 11:00 Gwendolyn Burns

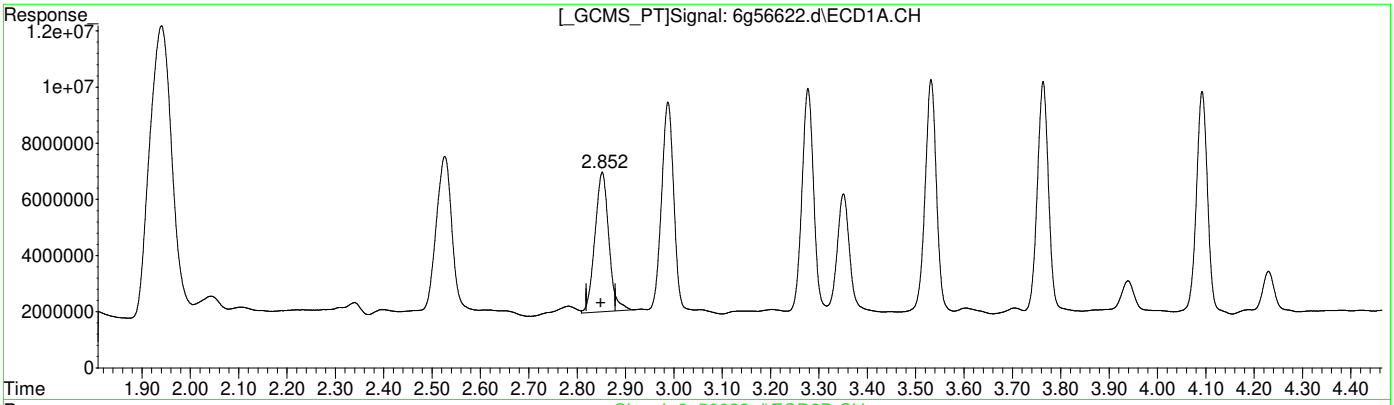
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexachlorobenzene	118-74-1	2	3.40	Poorly defined baseline
Alachlor	15972-60-8	1	4.23	Poorly defined baseline
Alachlor	15972-60-8	2	4.76	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.81	Poorly defined baseline

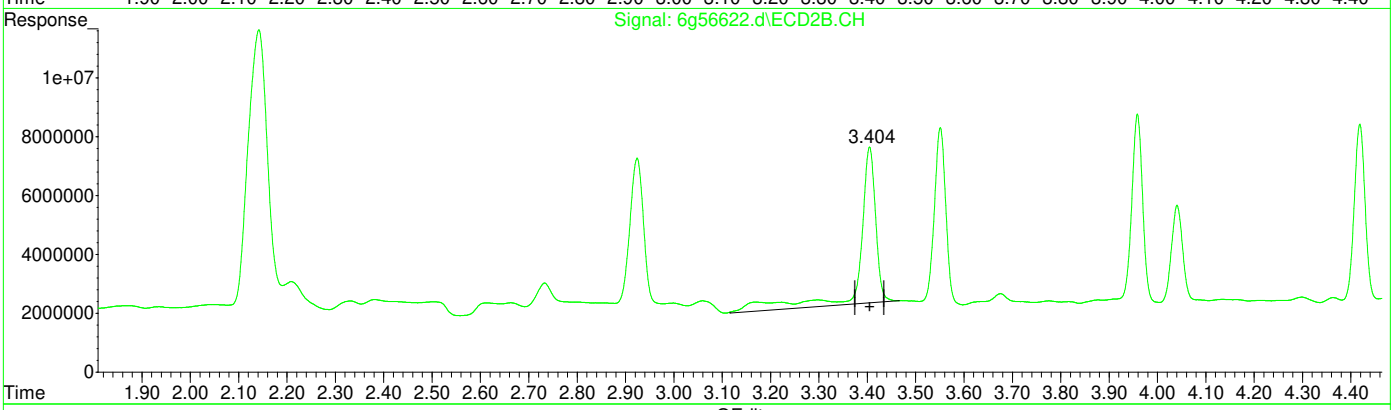
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:56:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(3) hexachlorobenzene

2.852min 14.495 PPB

response 99850680

(3) hexachlorobenzene #2

3.405min 20.343 PPB

response 124487472

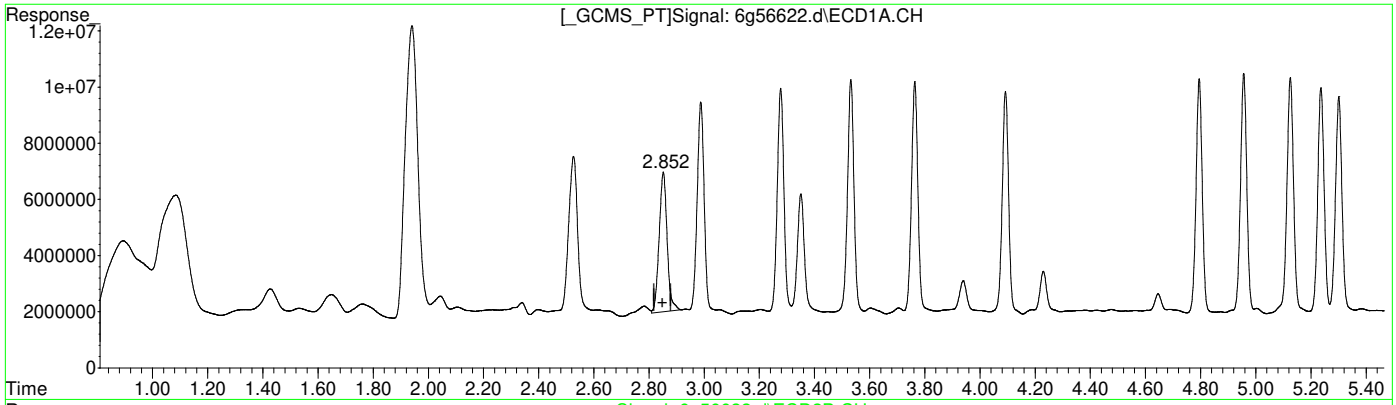
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:56:16 2018

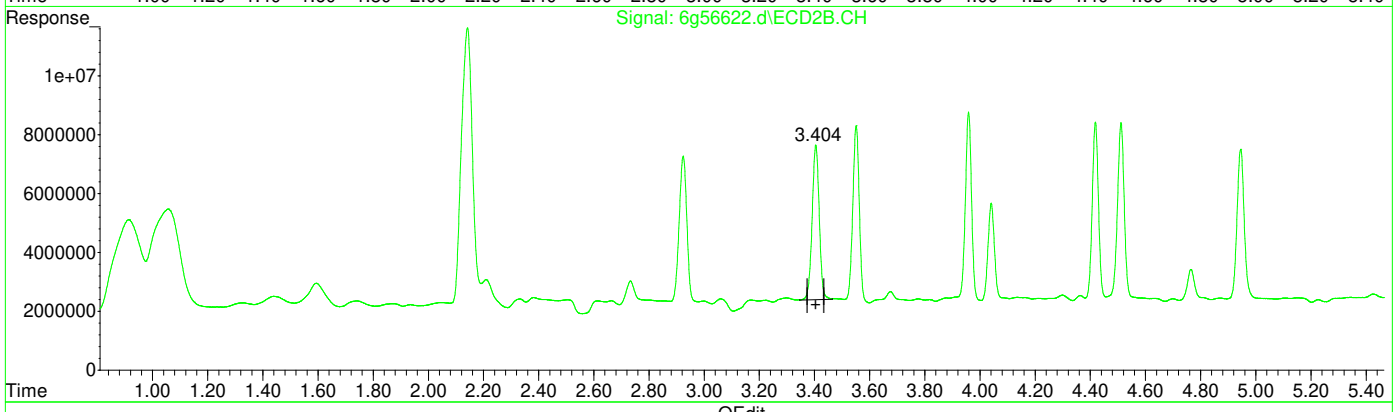
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:56:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(3) hexachlorobenzene

2.852min 14.495 PPB

response 99850680

(3) hexachlorobenzene #2

3.404min 15.397 PPB m

response 94221036

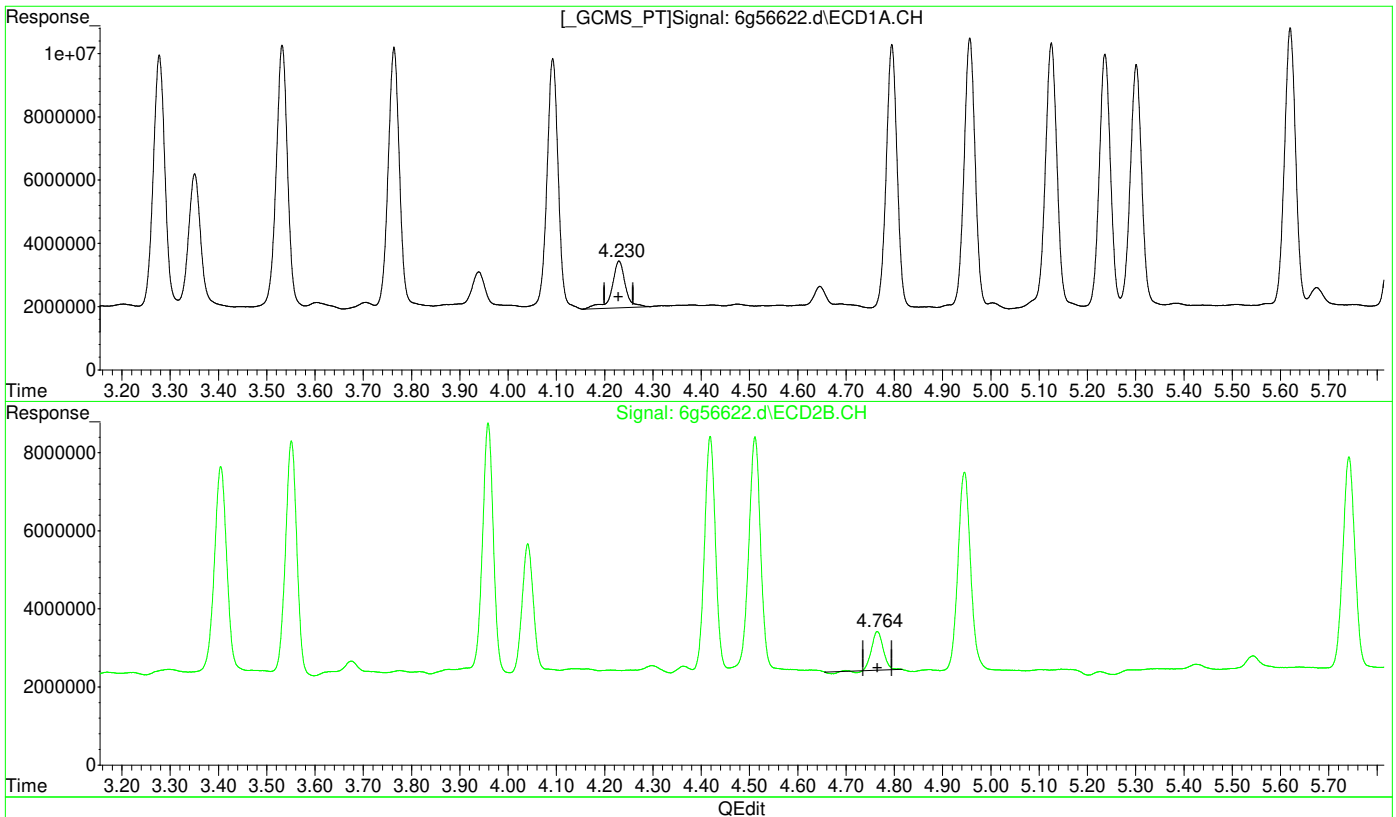
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:56:24 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:56:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(10) alachlor

4.230min 32.246 PPB

response 28737100

(10) alachlor #2

4.765min 22.326 PPB

response 16129539

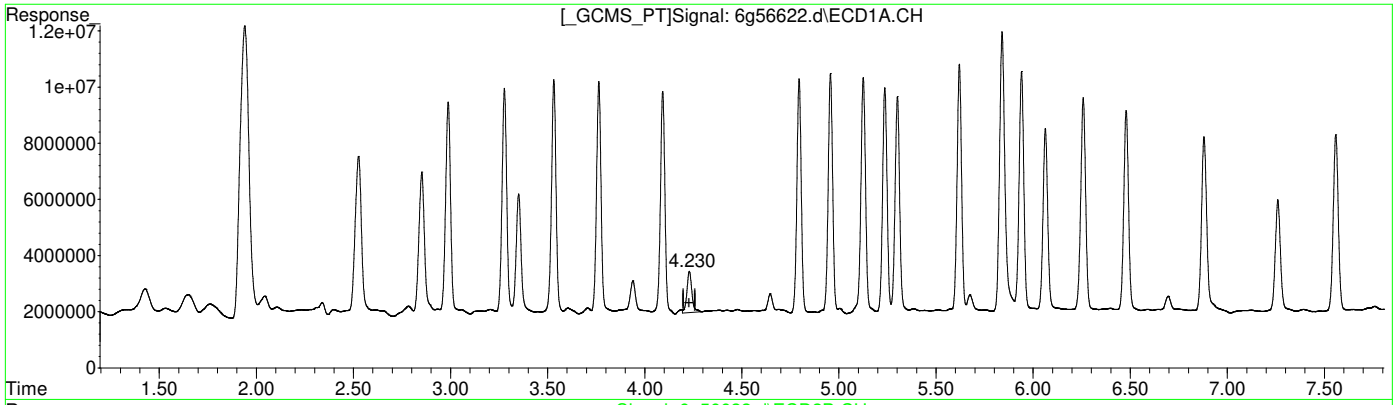
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:56:32 2018

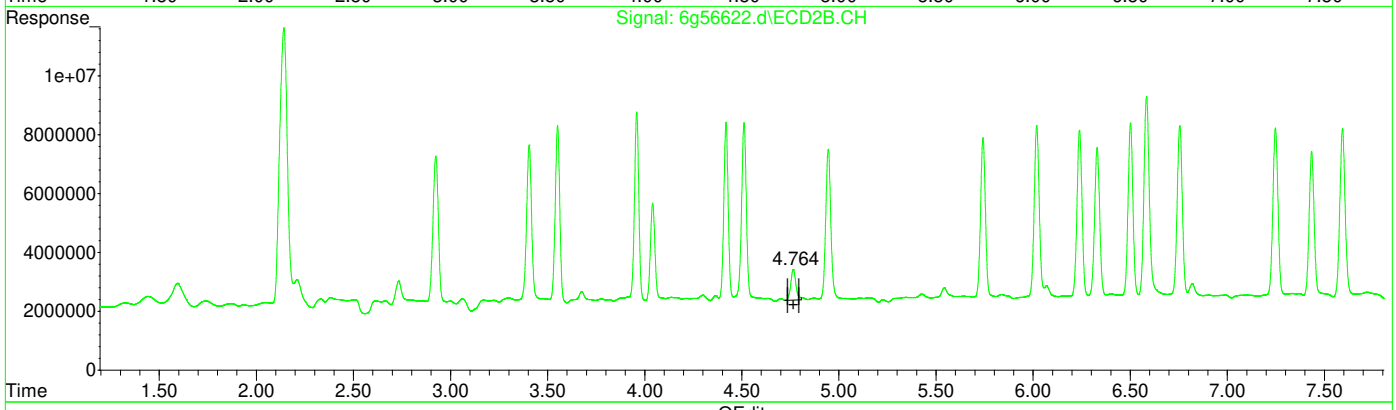
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:56:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(10) alachlor

4.230min 29.737 PPB m

response 26501669

(10) alachlor #2

4.764min 26.658 PPB m

response 19259479

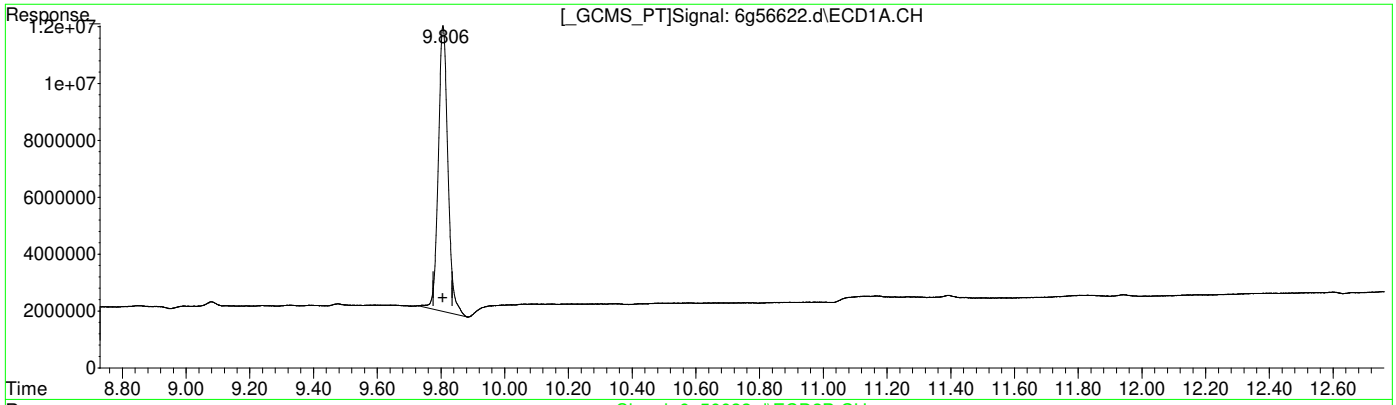
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:57:04 2018

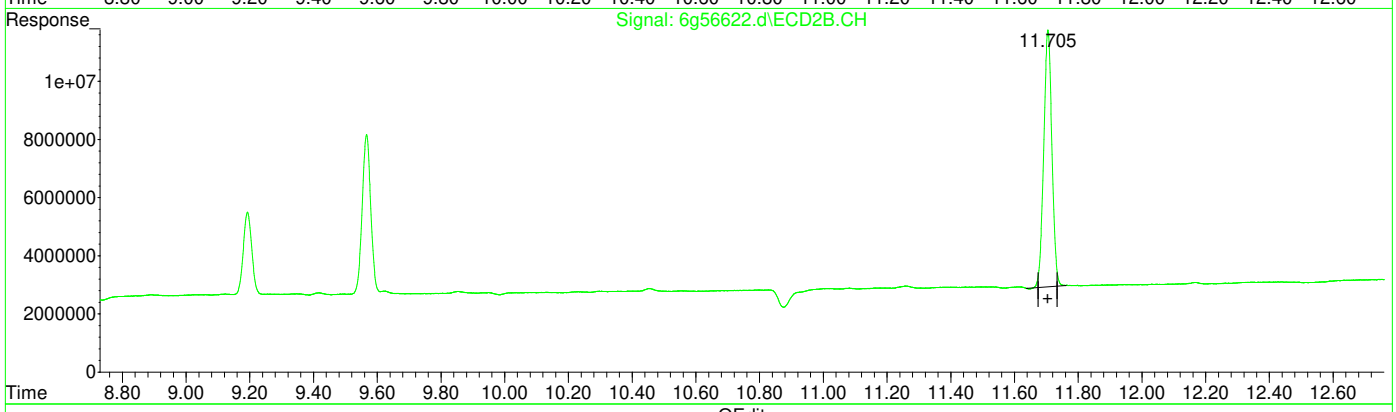
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:56:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.806min 33.378 PPB

response 209955378

(26) Decachlorobiphenyl #2 (SA)

11.705min 32.360 PPB

response 157511861

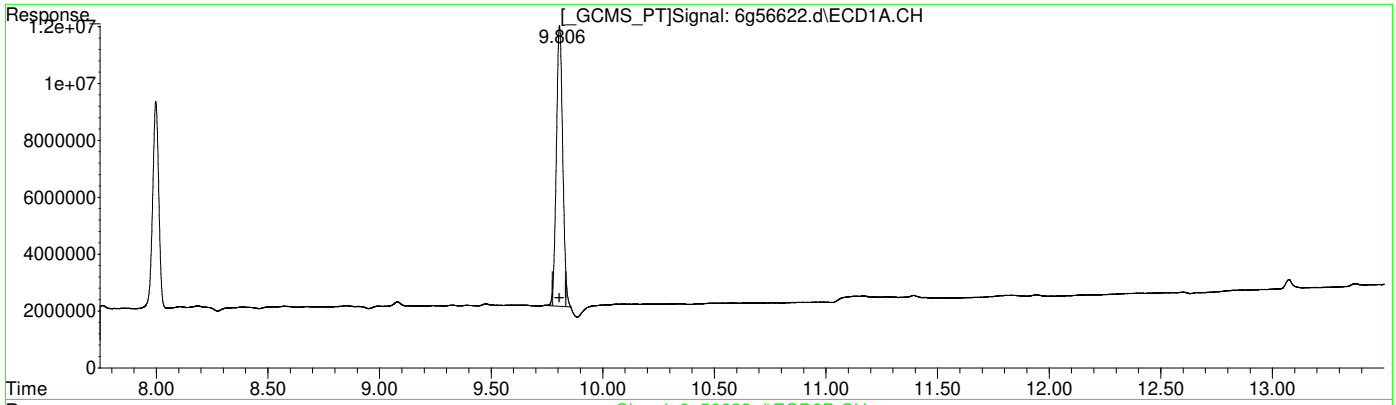
(+) = Expected Retention Time

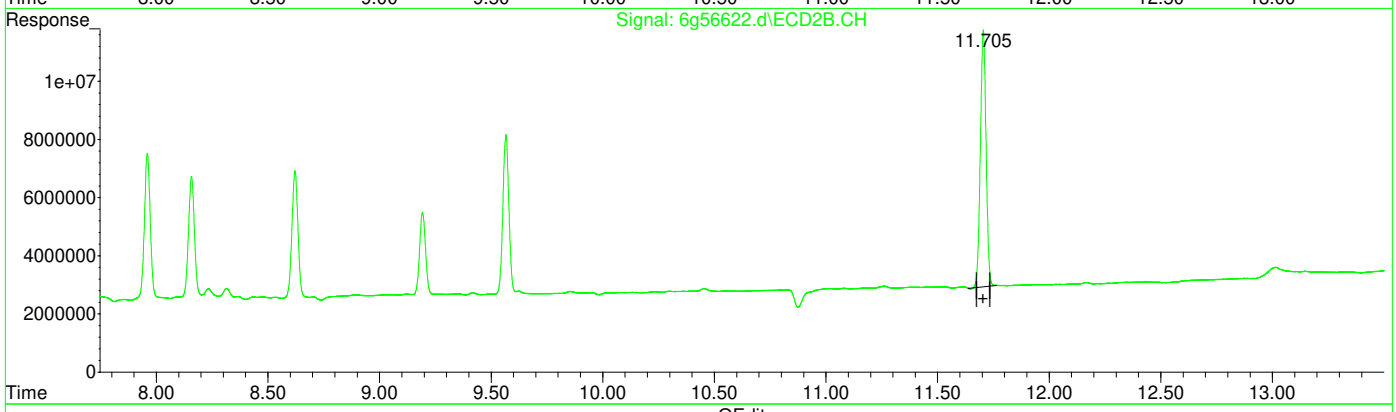
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56622.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:02:50
Operator : dharas
Sample : op12247-bs1
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:56:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.806min 31.328 PPB m

response 197058074

(26) Decachlorobiphenyl #2 (SA)

11.705min 32.360 PPB

response 157511861

(+) = Expected Retention Time
6PST1671.M Tue May 29 15:57:28 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/30/18 11:00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56623.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:20:39
Operator : dharas
Sample : op12247-bsd
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:59:01 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.938	2.140	330.3E6	270.5E6	50.000	50.000
27)	I	1-bromo-2...	1.938	2.140	330.3E6	270.5E6	50.000	50.000
33)	I	1-bromo-2...	1.938	2.140	330.3E6	270.5E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.525	2.923	196.6E6	154.5E6	30.632	30.659
		Spiked Amount 40.000	Range 30 - 150		Recovery =		76.58%	76.65%
26)	SA	Decachlor...	9.806	11.705	213.7E6	166.6E6	32.665m	33.158
		Spiked Amount 40.000			Recovery =		81.66%	82.90%
		Target Compounds						
3)		hexachlor...	2.851	3.405	151.1E6	144.1E6	21.085	22.811
4)	A	alpha-BHC	2.988	3.551	190.0E6	142.8E6	21.487	21.306
5)	MA	gamma-BHC	3.277	3.958	180.3E6	134.0E6	21.539	21.309
6)	MA	Heptachlor	3.763	4.511	185.8E6	141.1E6	23.489	22.064
7)	B	beta-BHC	3.350	4.041	87610159	60528048	23.411	20.961
8)	B	delta-BHC	3.532	4.418	156.6E6	116.5E6	21.216	19.963
9)	MB	Aldrin	4.093	4.945	169.8E6	125.5E6	22.097	22.283
10)		alachlor	4.230	4.766	26790727	19573393	28.900	26.245
11)	B	Heptachlo...	4.794	5.742	156.1E6	112.9E6	21.971	20.742
12)	B	gamma-Chl...	4.956	6.018	163.5E6	117.5E6	23.348	22.035
13)	B	alpha-Chl...	5.125	6.239	164.7E6	116.9E6	22.977	22.507
14)	A	Endosulfan I	5.301	6.330	149.4E6	108.5E6	22.366	21.876
15)	B	4,4'-DDE	5.236	6.502	146.8E6	112.7E6	21.512	22.345
16)	MA	Dieldrin	5.619	6.755	148.0E6	119.5E6	20.445m	22.439
17)	MA	Endrin	5.940	7.248	165.4E6	117.9E6	25.251	22.564
18)	A	4,4'-DDD	6.063	7.435	121.4E6	91796961	21.482	21.135
19)	B	Endosulfa...	6.259	7.593	150.2E6	115.2E6	21.617	21.788
20)	MA	4,4'-DDT	6.479	7.960	134.3E6	99948197	24.775	23.836
21)	B	Endrin Al...	6.880	8.157	130.5E6	83767048	23.724	20.852
22)	B	Endosulfa...	7.558	8.621	126.6E6	89590566	23.236	22.271
23)	A	Methoxychlor	7.260	9.193	79110459	55984843	24.463	23.505
25)	B	Endrin Ke...	7.998	9.567	148.6E6	108.2E6	22.921	20.304
		Sum Toxaphene			0	0	N.D.	N.D.
		Average Toxaphene					0.000	0.000
		SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

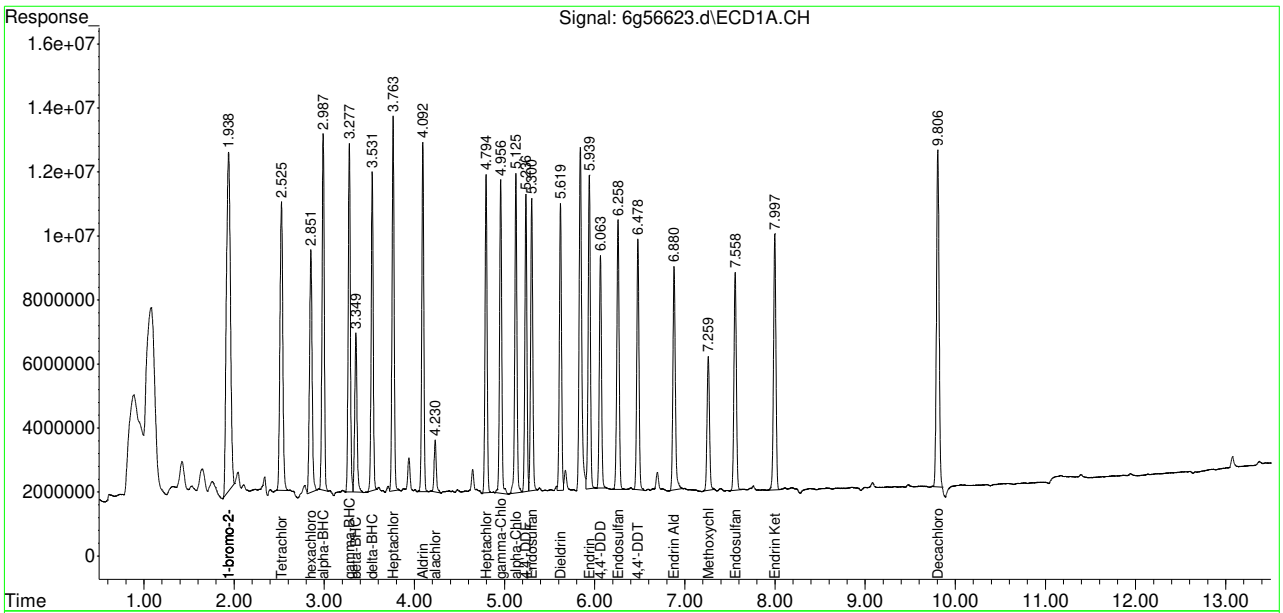
11.3.2 11

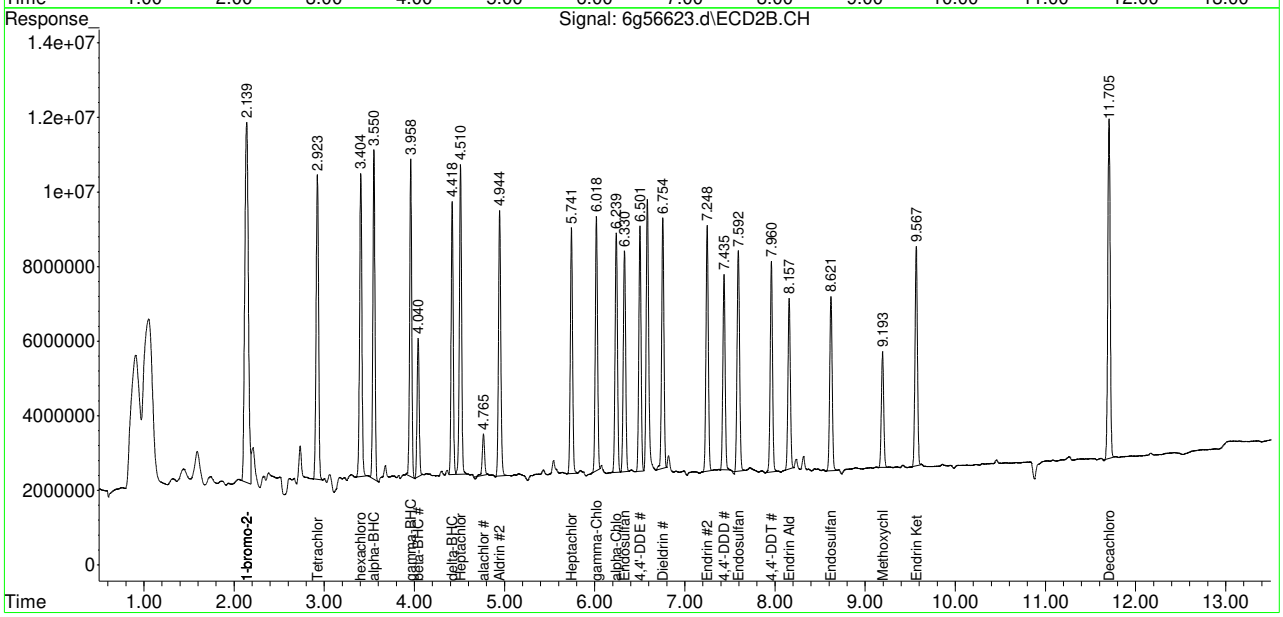
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56623.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:20:39
Operator : dharas
Sample : op12247-bsd
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:59:01 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	OP12247-BSD	**Method:**	SW846 8081B
Lab FileID:	6G56623.D	**Analyst approved:**	05/30/18 09:50 Dharmistha Mehta
Injection Time:	05/26/18 10:20	**Supervisor approved:**	05/30/18 11:00 Gwendolyn Burns

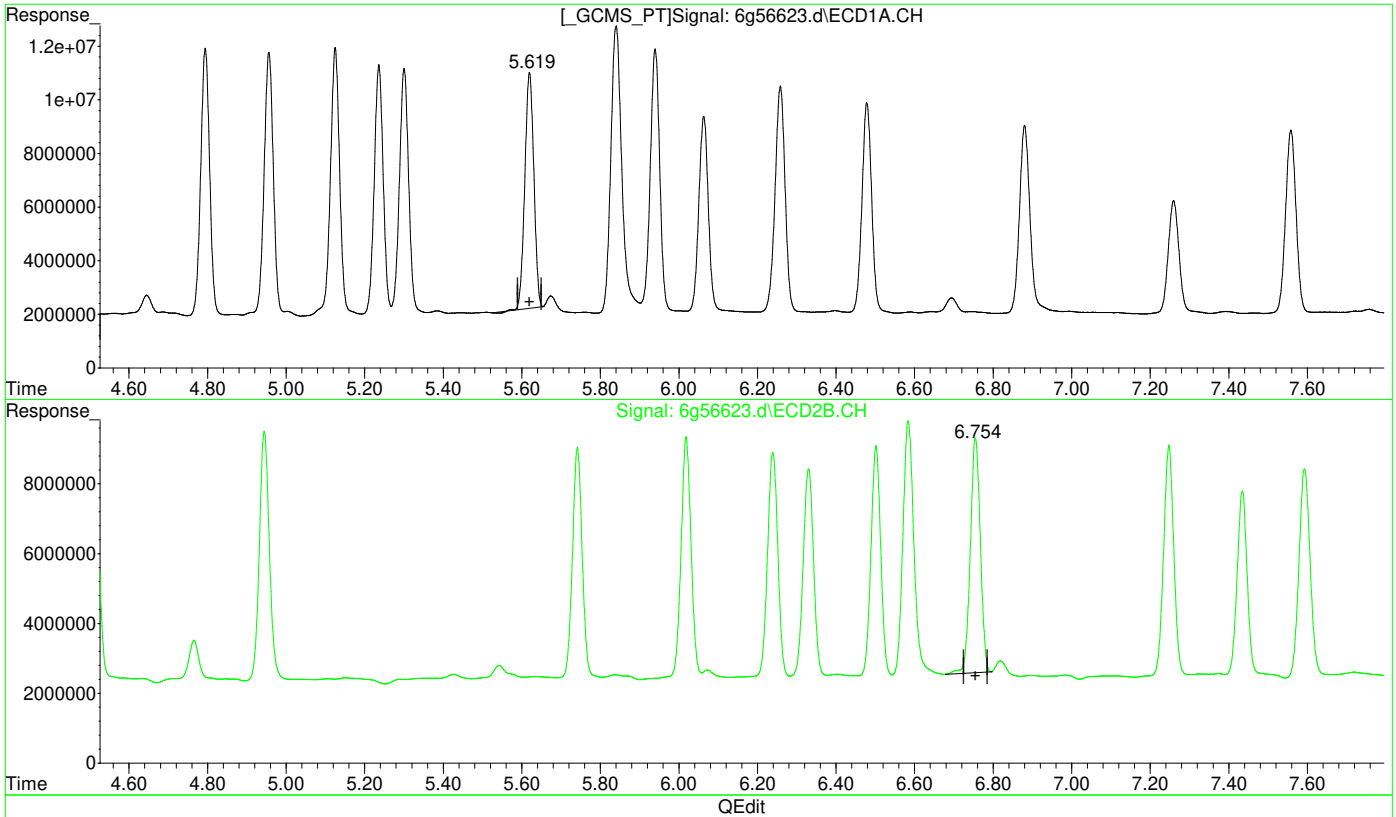
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dieldrin	60-57-1	1	5.62	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.81	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56623.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:20:39
Operator : dharas
Sample : op12247-bsd
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:57:57 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(16) Dieldrin (MA)

5.620min 19.367 PPB

response 140158811

(16) Dieldrin #2 (MA)

6.755min 22.439 PPB

response 119460192

(+) = Expected Retention Time

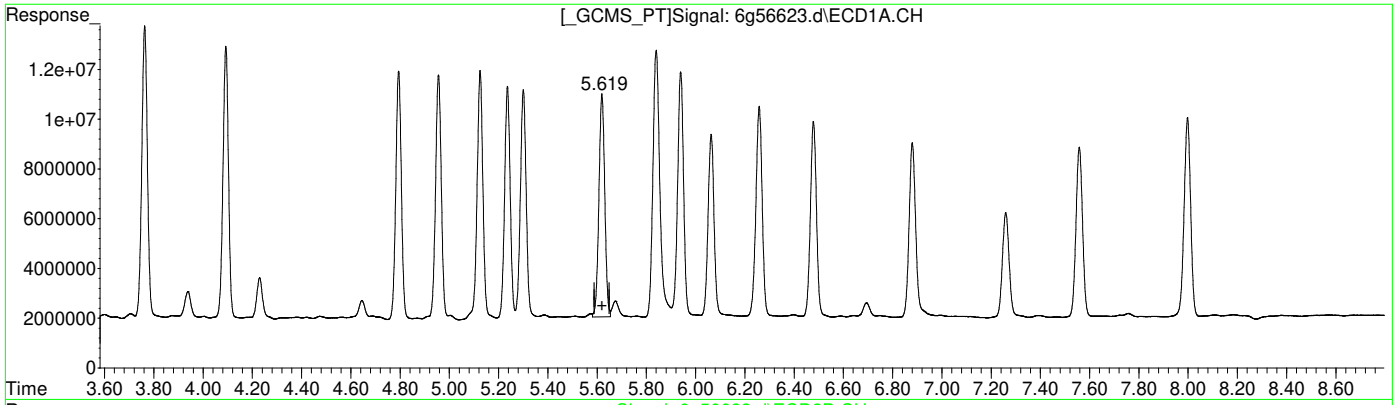
6PST1671.M Tue May 29 15:58:30 2018

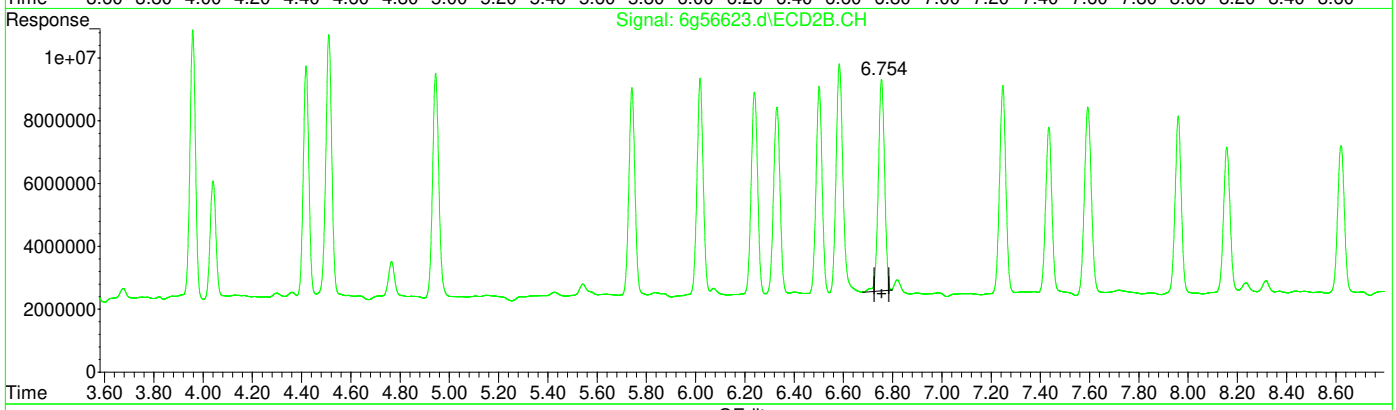
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56623.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:20:39
Operator : dharas
Sample : op12247-bsd
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:57:57 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(16) Dieldrin (MA)

5.619min 20.445 PPB m

response 147961738

(16) Dieldrin #2 (MA)

6.755min 22.439 PPB

response 119460192

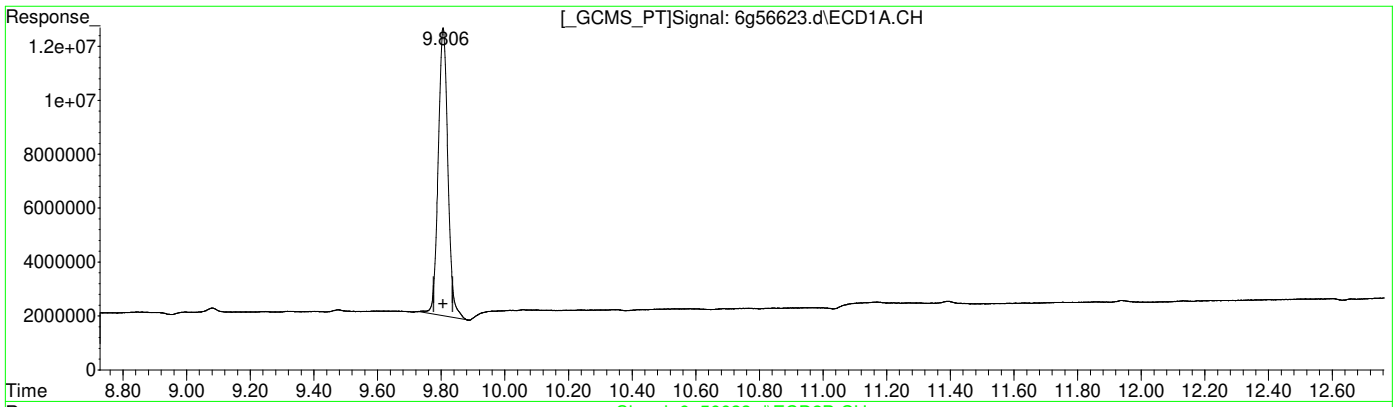
(+) = Expected Retention Time

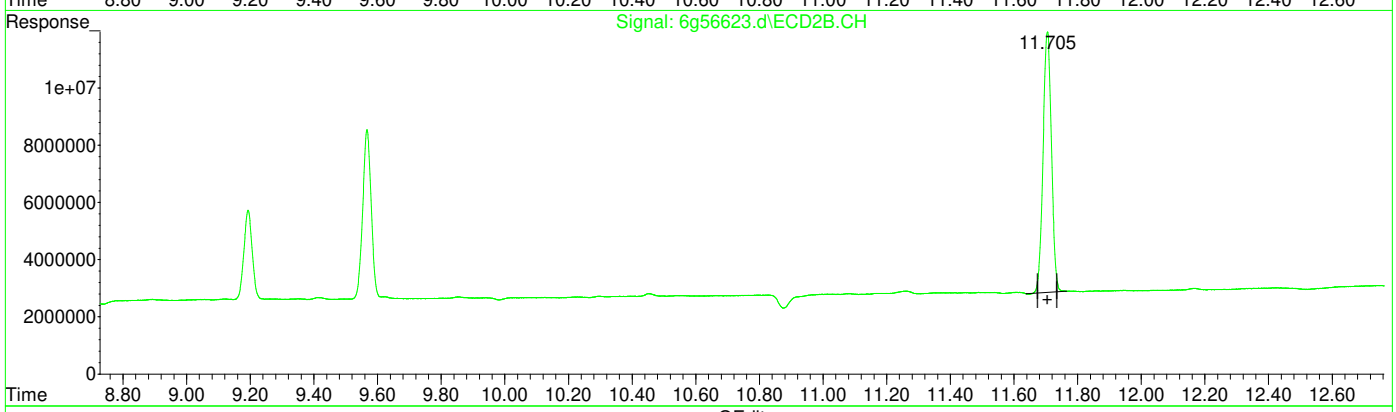
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56623.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:20:39
Operator : dharas
Sample : op12247-bsd
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:57:57 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.806min 34.400 PPB

response 225082574

(26) Decachlorobiphenyl #2 (SA)

11.705min 33.158 PPB

response 166611736

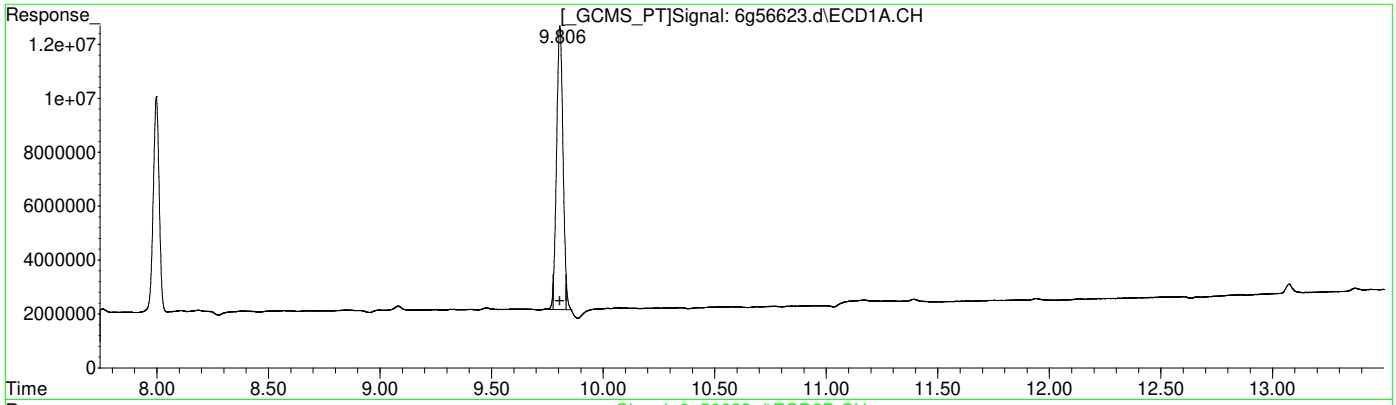
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:58:54 2018

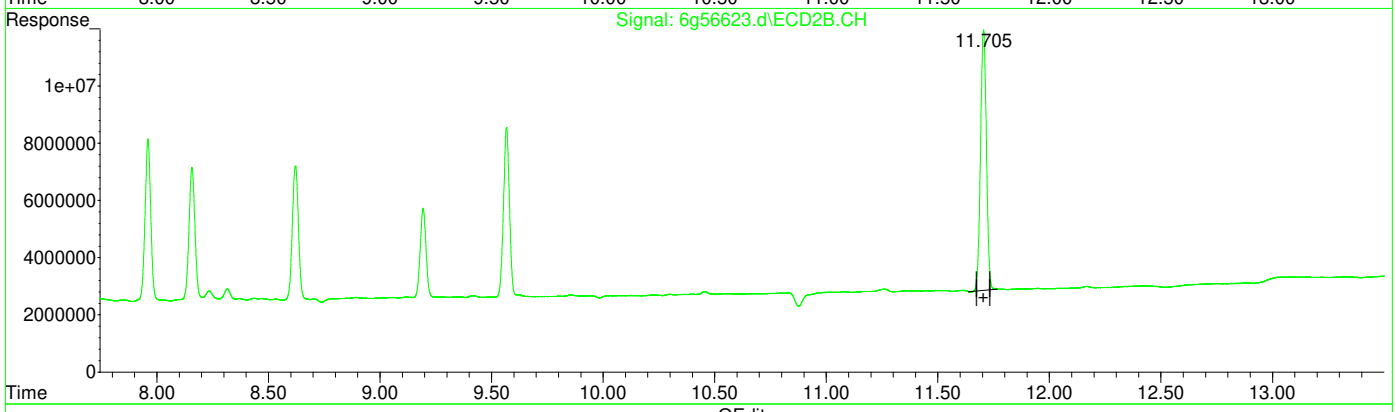
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56623.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 10:20:39
Operator : dharas
Sample : op12247-bsd
Misc : OP12247,g6g1691,15.0,,,10,1
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:57:57 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.806min 32.665 PPB m

response 213726724

(26) Decachlorobiphenyl #2 (SA)

11.705min 33.158 PPB

response 166611736

(+) = Expected Retention Time
6PST1671.M Tue May 29 15:59:04 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/29/18 06:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.774	3.426	129.0E6	817.1E6	35.133	35.711
	Spiked Amount 40.000			Recovery	=	87.83%	89.28%
51) S	Decachlor...	9.961	11.766	121.5E6	648.4E6	29.967	33.949
	Spiked Amount 40.000			Recovery	=	74.92%	84.87%
	Target Compounds						
31)	AR1016-A	3.145	4.101	20113625	90234621	258.221	240.879
32)	AR1016-B	3.541	4.618	29564365	165.3E6	217.293	206.371
33)	AR1016-C	4.087	5.282f	50131346	259.6E6	172.888	149.713
34)	AR1016-D	4.249	5.463f	22999903	141.1E6	194.528	187.571
35)	AR1016-E	4.754	6.089	23900793	92133083	196.014	179.569
36)	AR1260-A	7.122	8.690	46462204	293.8E6	136.313	146.911m
37)	AR1260-B	7.271	8.796	31292364	201.8E6	216.641	230.809
38)	AR1260-C	7.608	9.226	29948359	205.3E6	188.083	200.911
39)	AR1260-D	8.044	9.582	70453638	418.5E6	191.896m	194.972
40)	AR1260-E	8.478f	10.125	71283948	449.5E6	188.190m	220.554m

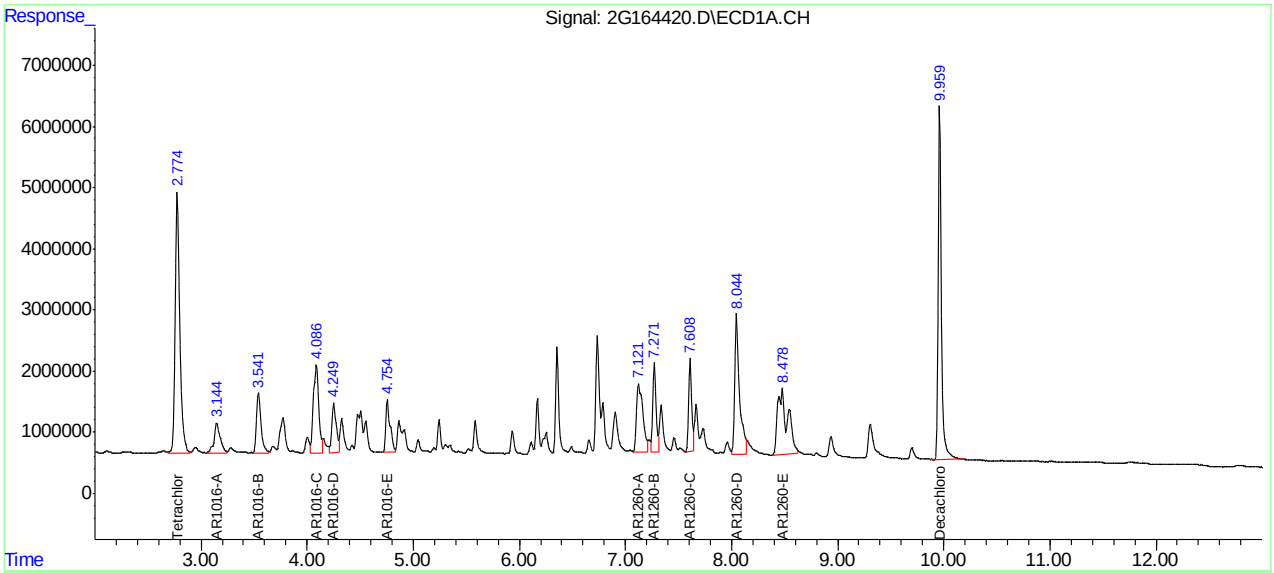
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

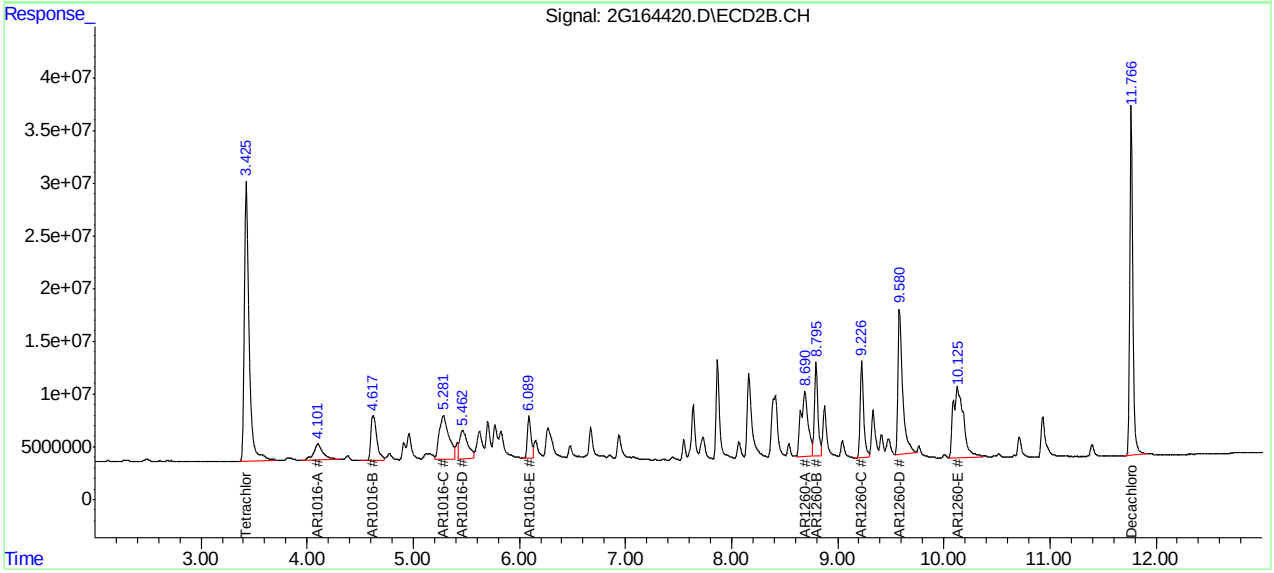
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12244-BS1	**Method:**	SW846 8082A
Lab FileID:	2G164420.D	**Analyst approved:**	05/28/18 22:26 Edouard Adrian Lee
Injection Time:	05/27/18 22:44	**Supervisor approved:**	05/29/18 06:43 Gwendolyn Burns

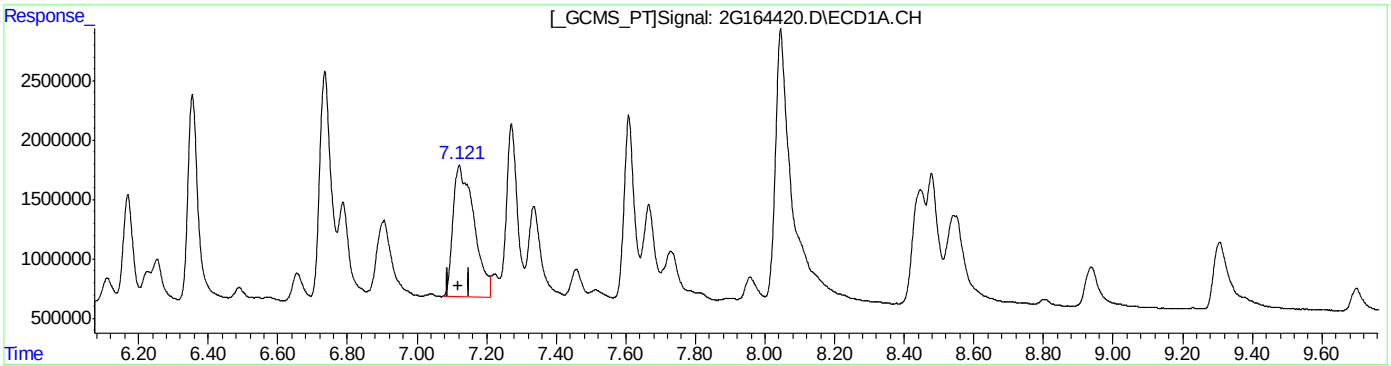
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	8.04	Split peak
AR1260-E		1	8.48	Split peak
AR1260-A		2	8.69	Split peak
AR1260-E		2	10.12	Split peak

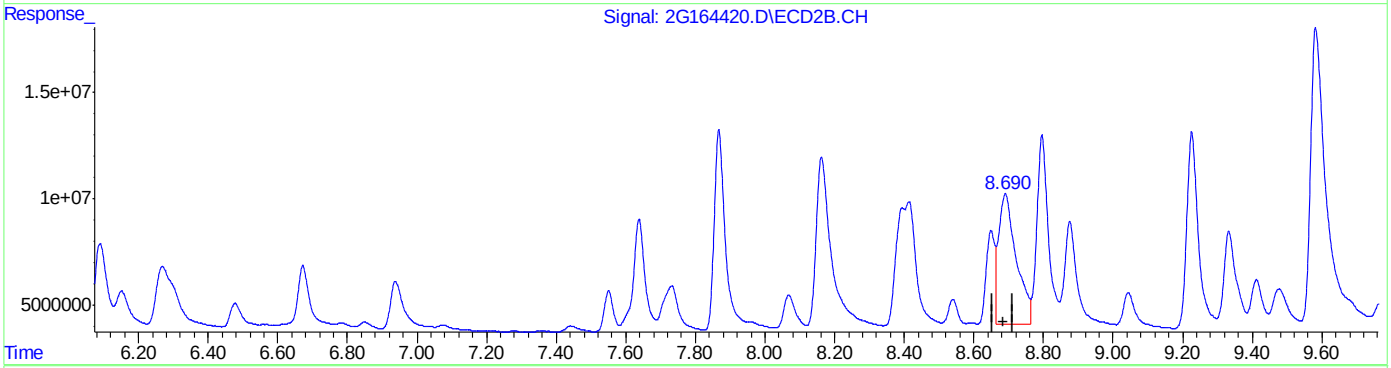
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.122min 136.313PPB
response 46462204

(36) AR1260-A #2
8.691min 107.421PPB
response 214809726

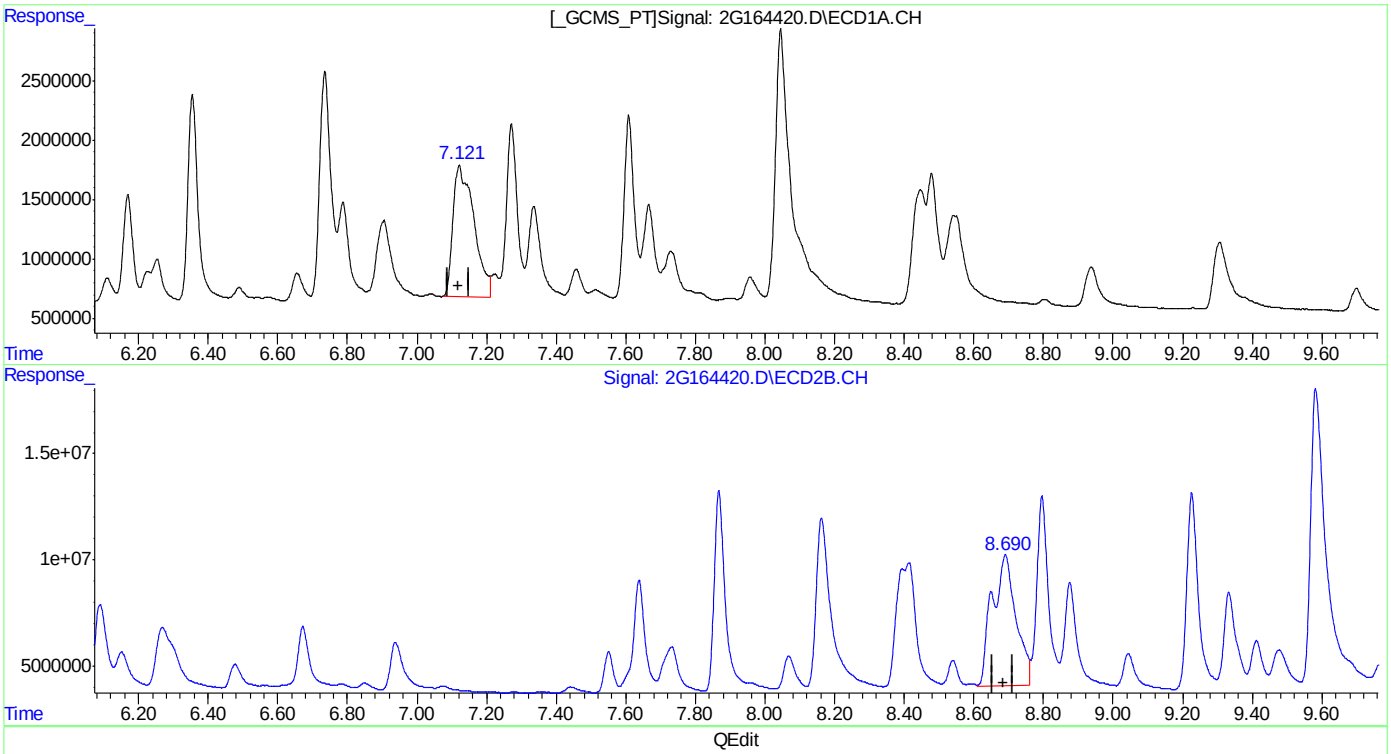
(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:31:54 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.122min 136.313PPB
response 46462204

(36) AR1260-A #2
8.690min 146.911PPB m
response 293776291

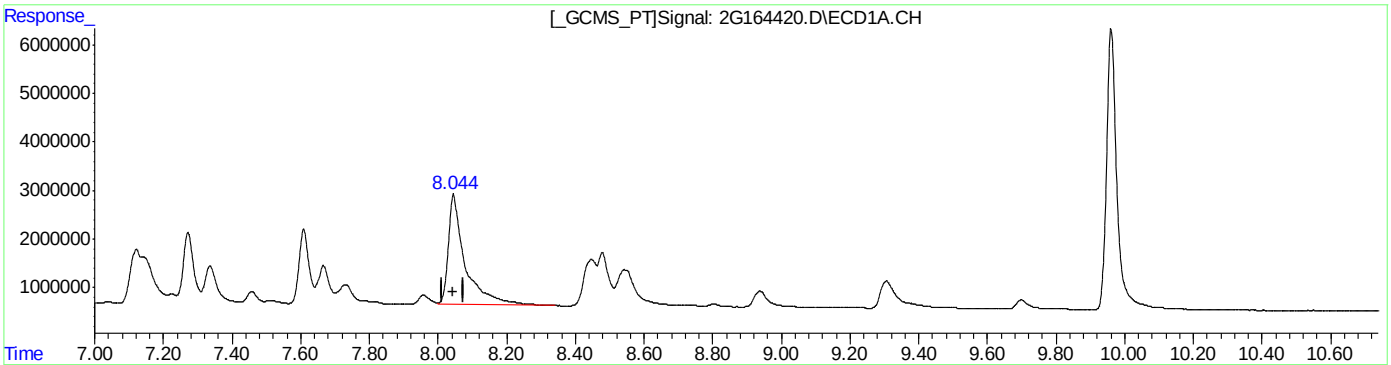
(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:32:01 2018 RPT1

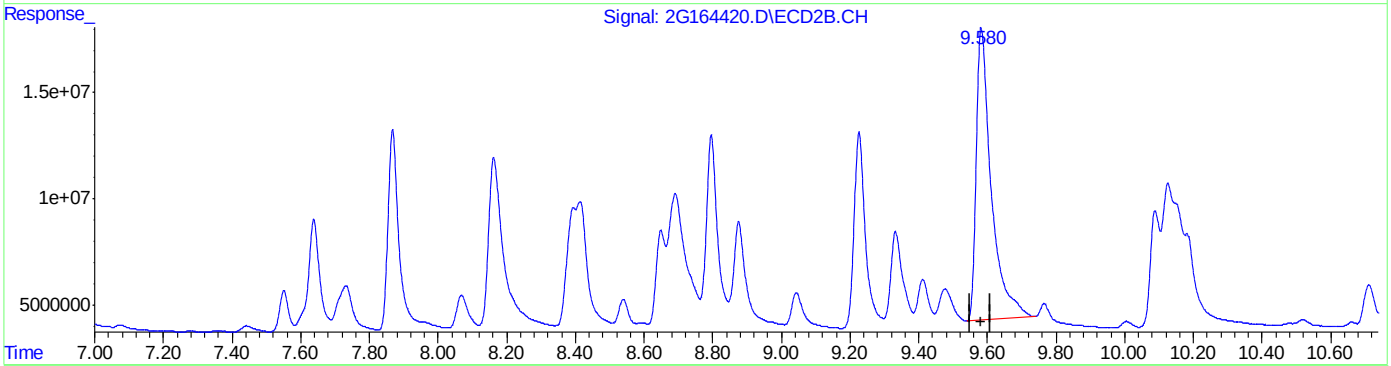
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.045min 212.060PPB
response 77857064

(39) AR1260-D #2
9.582min 194.972PPB
response 418506564

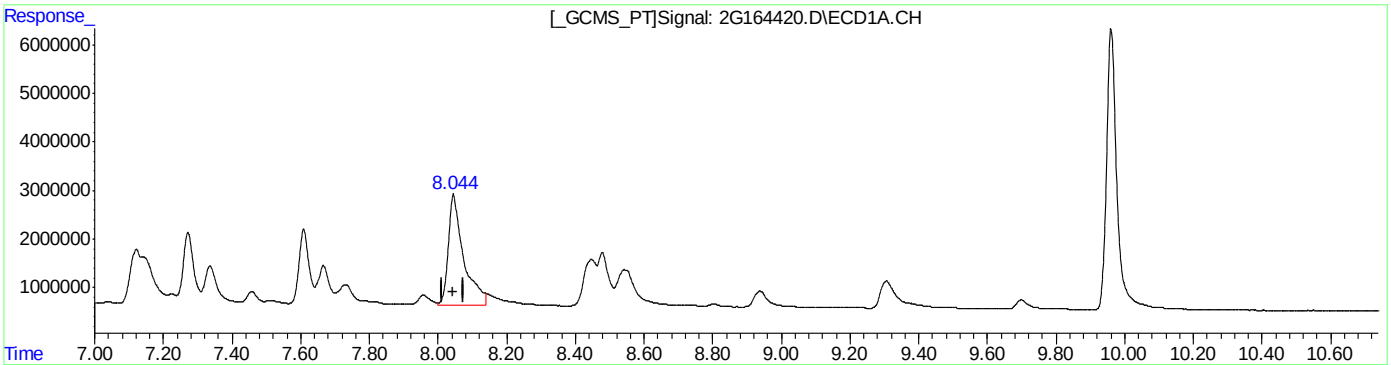
(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:32:07 2018 RPT1

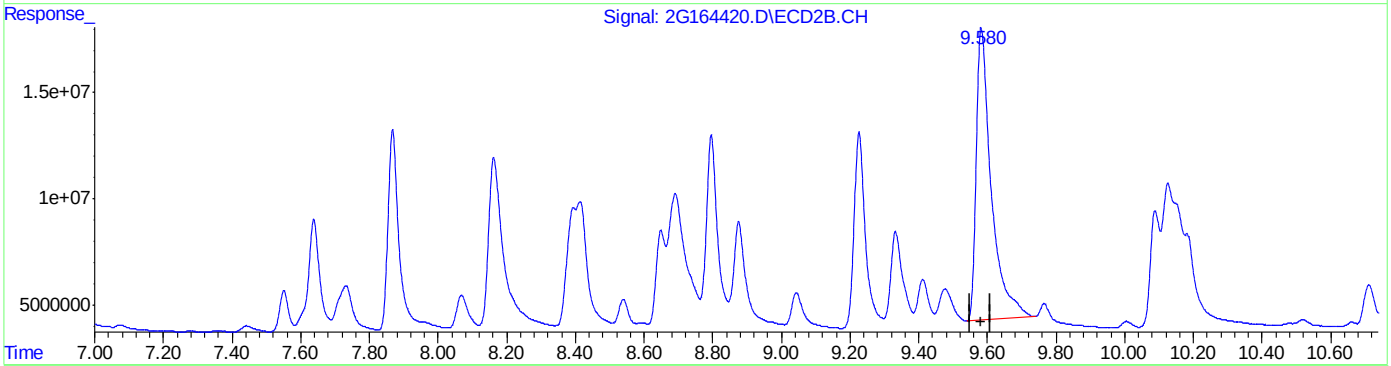
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.044min 191.896PPB m
response 70453638

(39) AR1260-D #2
9.582min 194.972PPB
response 418506564

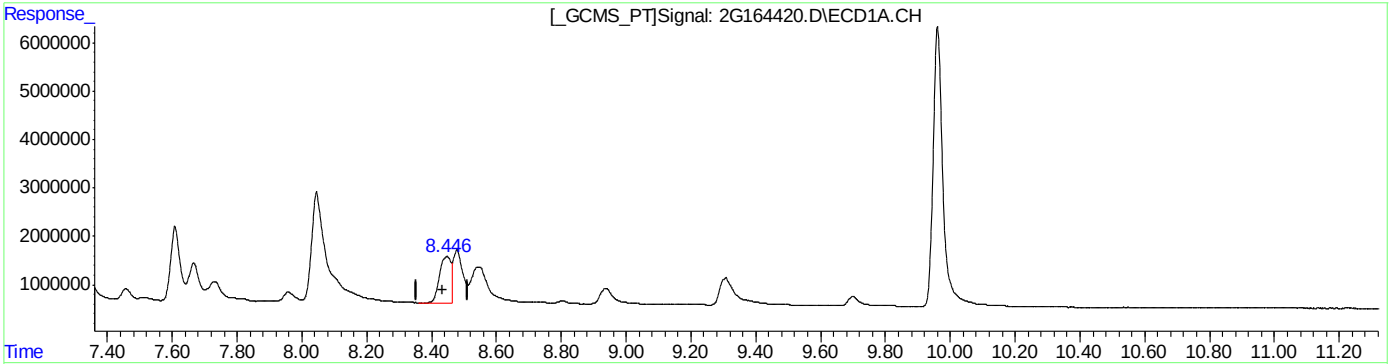
(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:32:13 2018 RPT1

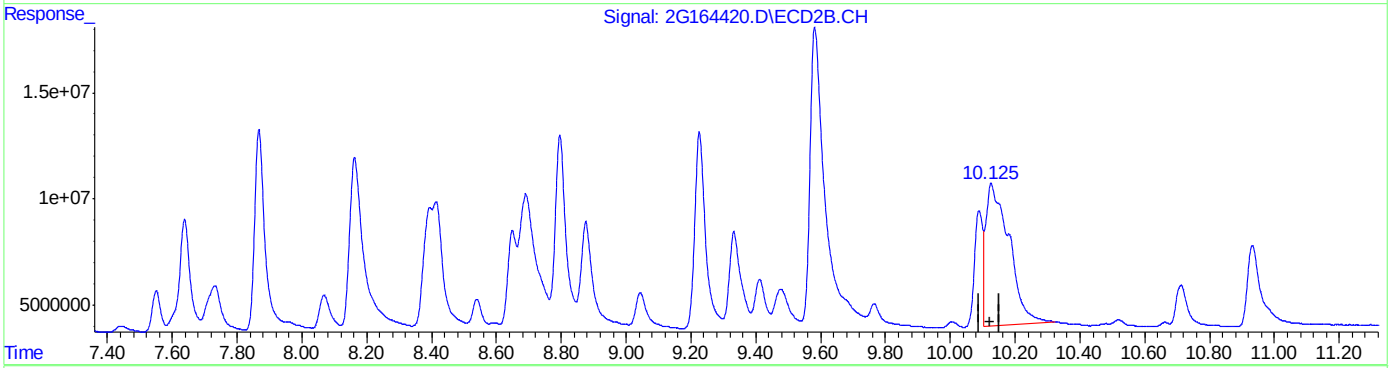
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.446min 60.402PPB
response 22879381

(40) AR1260-E #2
10.126min 161.636PPB
response 329441858

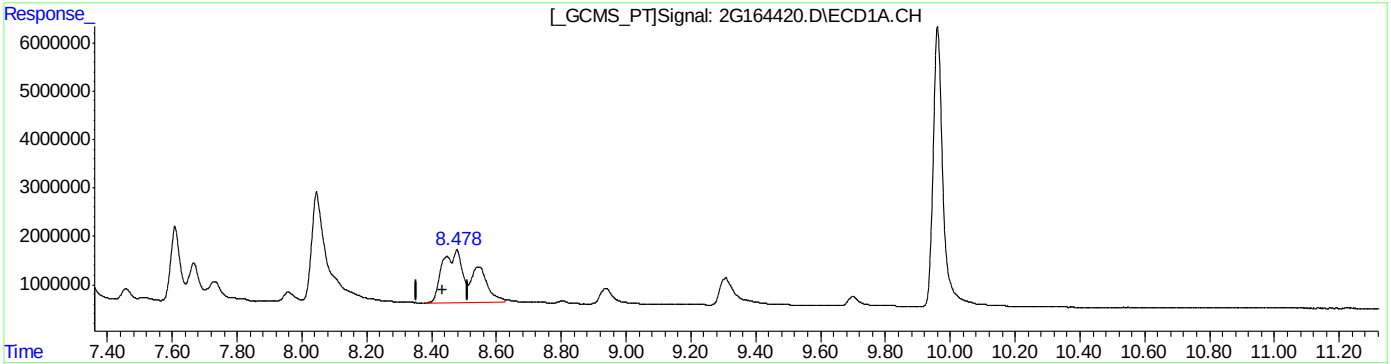
(+) = Expected Retention Time

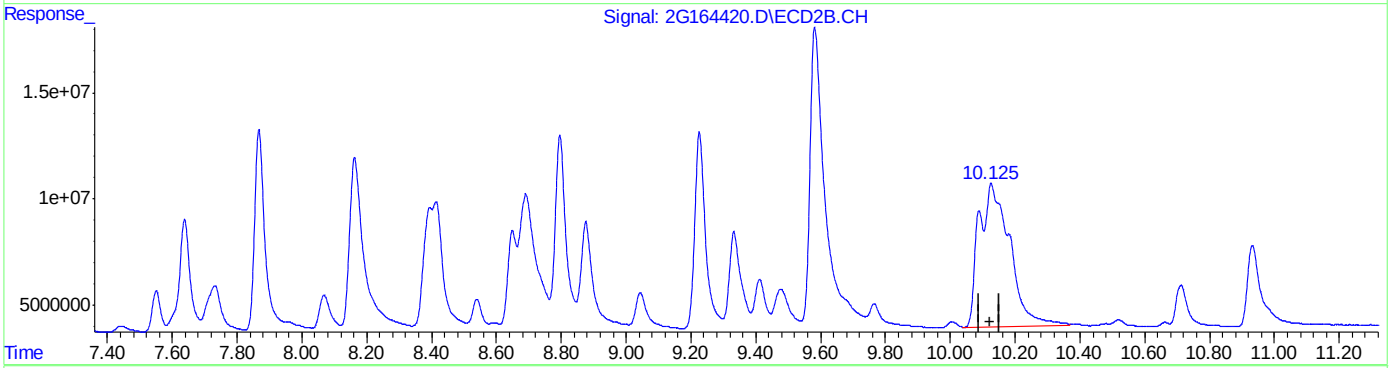
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 10:44 pm
Operator : edouarda
Sample : op12244-bs1
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 63 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:31:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.478min 188.190PPB m
response 71283948

(40) AR1260-E #2
10.125min 220.554PPB m
response 449527799

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 06:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:33:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.775	3.425	104.0E6	626.8E6	28.344	27.391
	Spiked Amount 40.000			Recovery	=	70.86%	68.48%
51) S	Decachlor...	9.960	11.766	137.2E6	736.0E6	33.819	38.534
	Spiked Amount 40.000			Recovery	=	84.55%	96.33%
	Target Compounds						
31)	AR1016-A	3.147	4.101	18182220	85486704	233.426	228.205
32)	AR1016-B	3.541	4.616	27612454	158.4E6	202.947	197.788
33)	AR1016-C	4.088	5.281f	51396789	265.4E6	177.252	153.104
34)	AR1016-D	4.249	5.463f	23833631	142.5E6	201.579	189.408
35)	AR1016-E	4.756	6.089	25779185	99387956	211.419	193.709
36)	AR1260-A	7.119	8.689	57398413	362.2E6	168.398	181.151m
37)	AR1260-B	7.270	8.796	36531560	207.2E6	252.912	236.941
38)	AR1260-C	7.608	9.225	36434587	240.5E6	228.818	235.288
39)	AR1260-D	8.043	9.581	83845238	527.5E6	228.370m	245.763
40)	AR1260-E	8.436	10.123	83925121	479.4E6	221.563m	235.228m

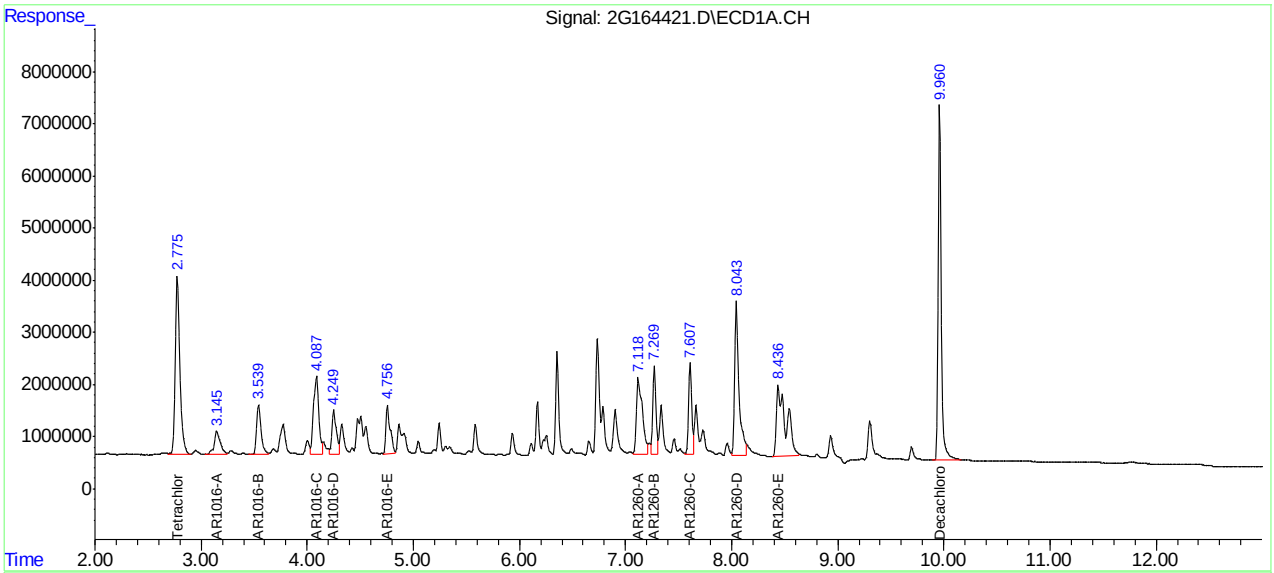
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

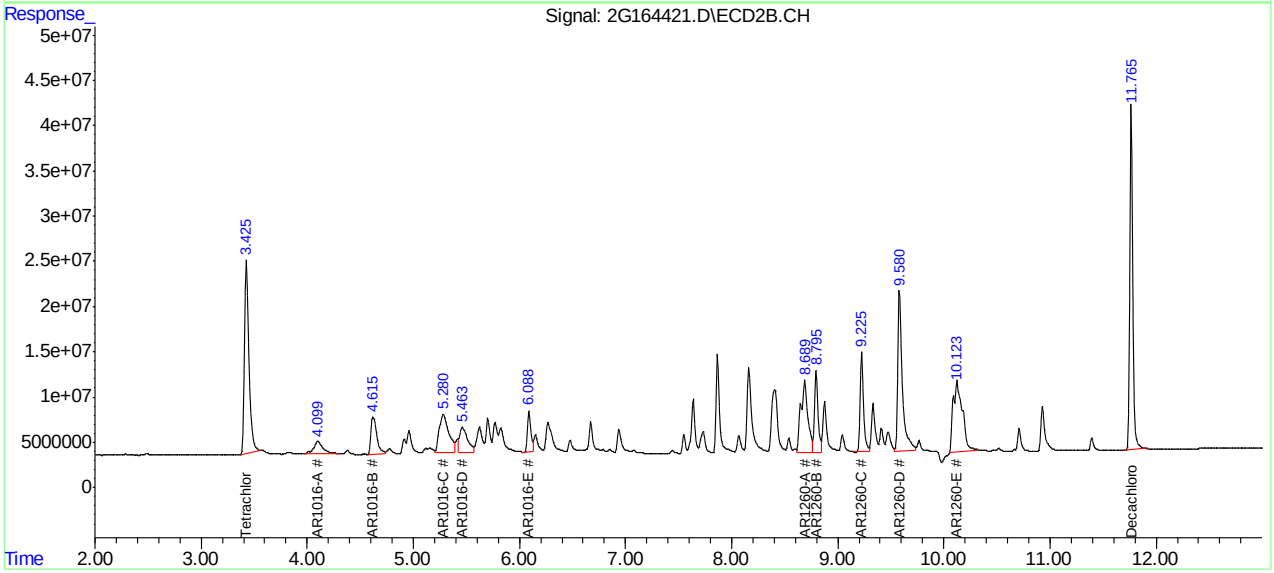
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:33:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12244-BSD	**Method:**	SW846 8082A
Lab FileID:	2G164421.D	**Analyst approved:**	05/28/18 22:26 Edouard Adrian Lee
Injection Time:	05/27/18 23:01	**Supervisor approved:**	05/29/18 06:43 Gwendolyn Burns

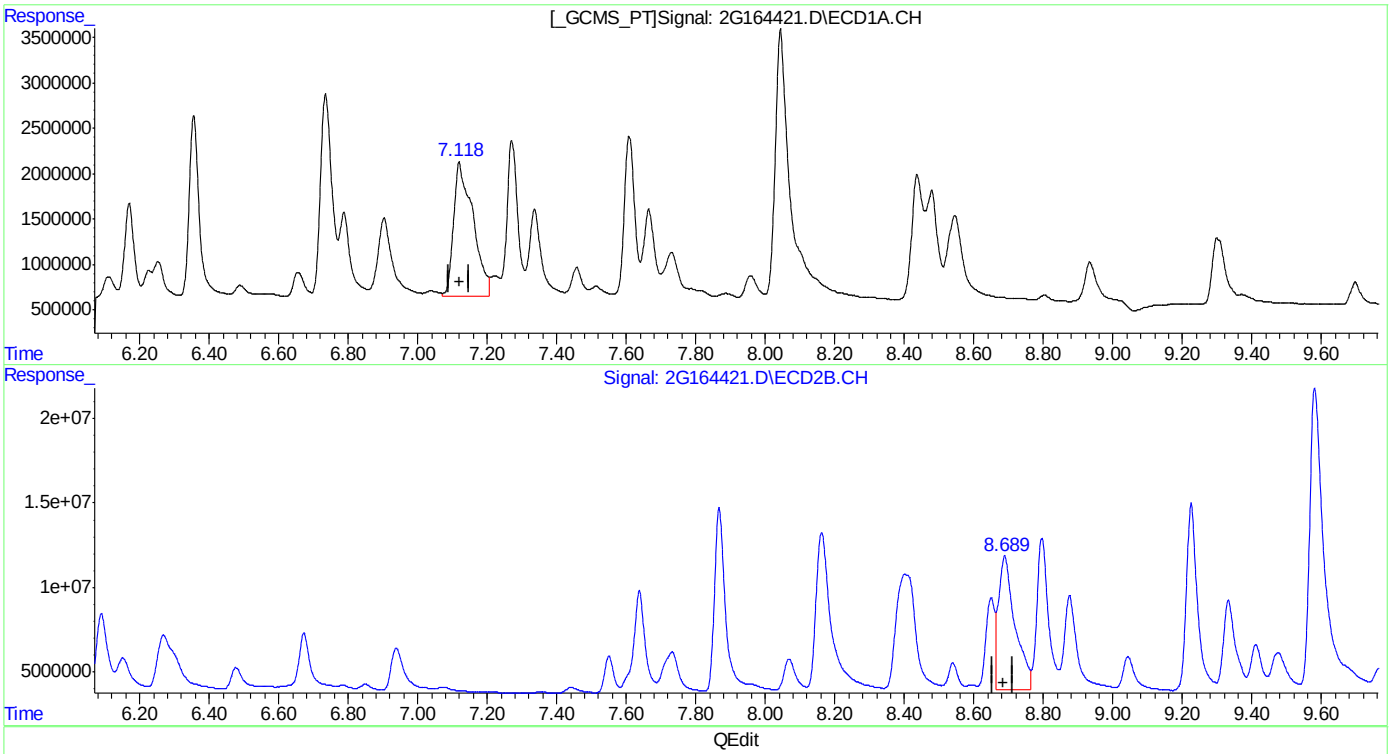
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	8.04	Split peak
AR1260-E		1	8.44	Split peak
AR1260-A		2	8.69	Split peak
AR1260-E		2	10.12	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.119min 168.398PPB
response 57398413

(36) AR1260-A #2
8.689min 132.209PPB
response 264377879

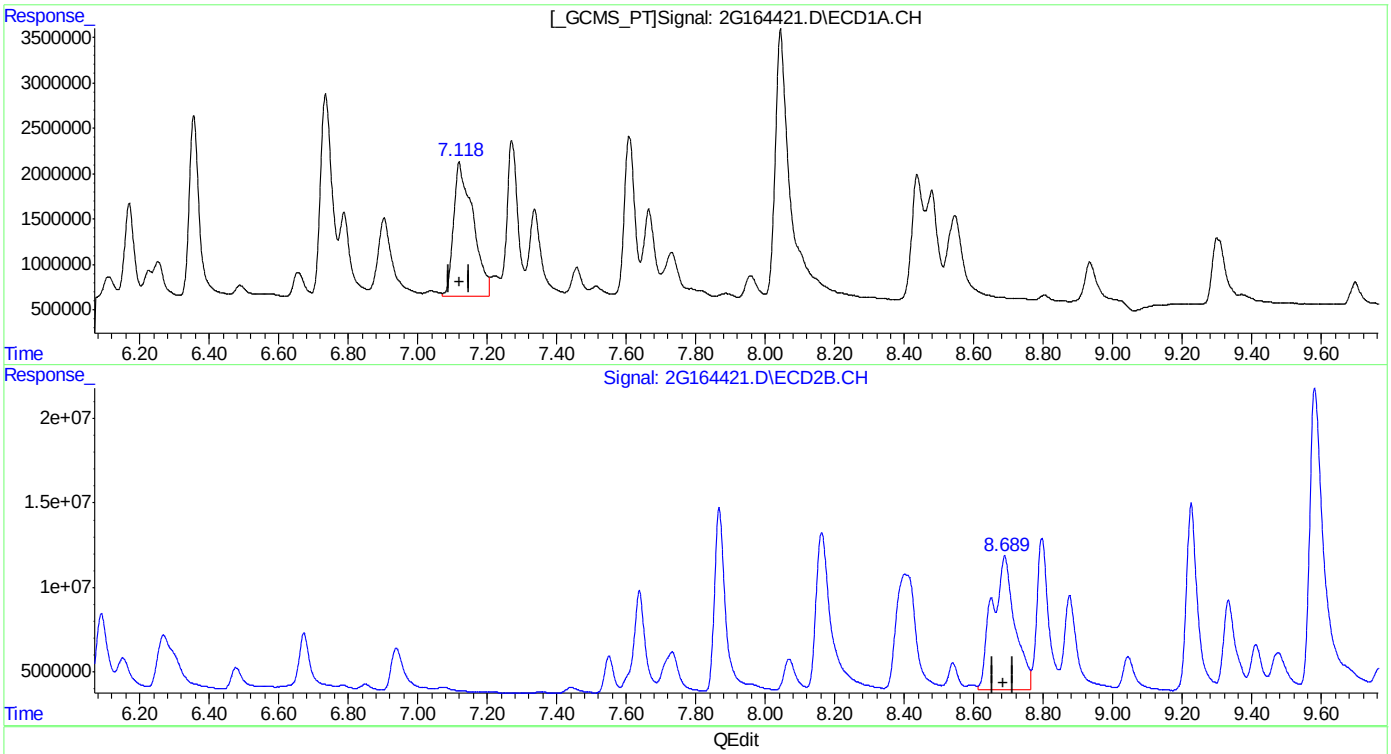
(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:33:11 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.119min 168.398PPB
response 57398413

(36) AR1260-A #2
8.689min 181.151PPB m
response 362246762

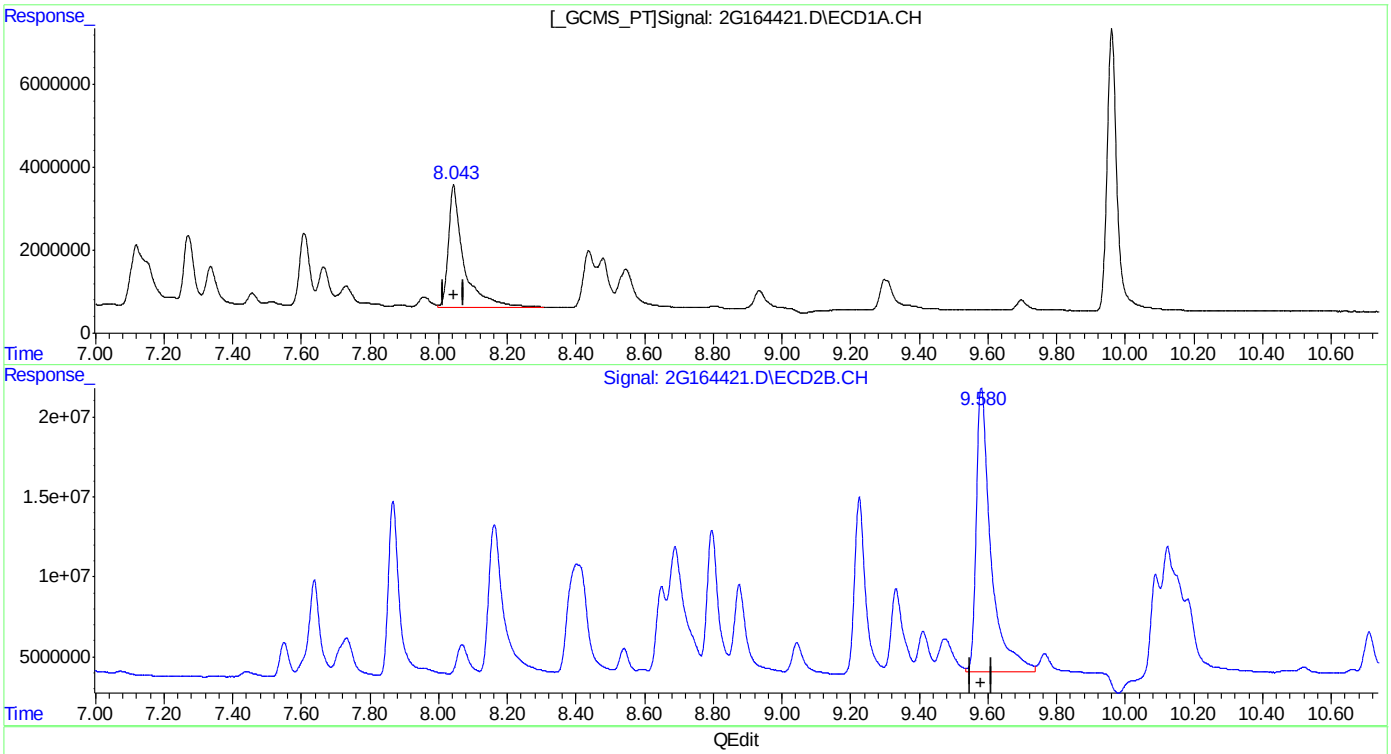
(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:33:18 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(39) AR1260-D
8.043min 246.012PPB
response 90322218

(39) AR1260-D #2
9.581min 245.763PPB
response 527528728

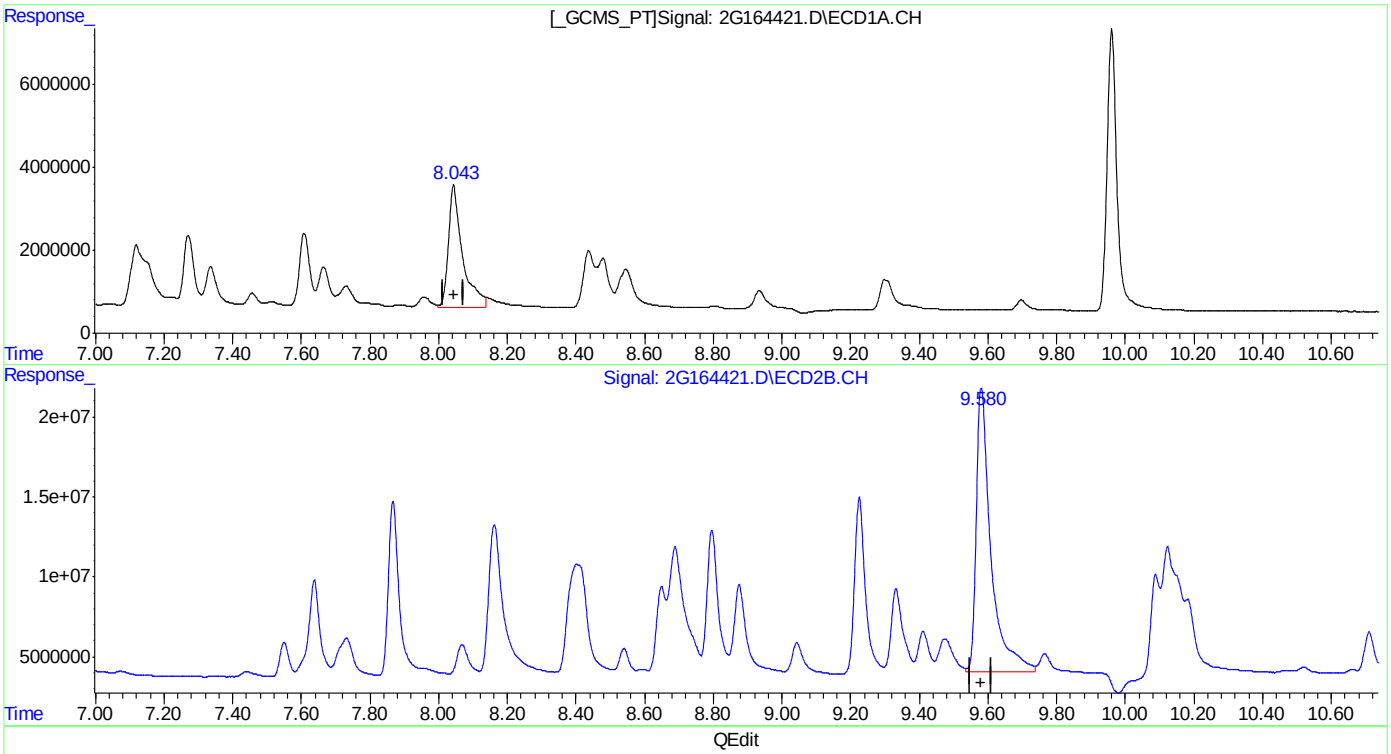
(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:33:25 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(39) AR1260-D
8.043min 228.370PPB m
response 83845238

(39) AR1260-D #2
9.581min 245.763PPB
response 527528728

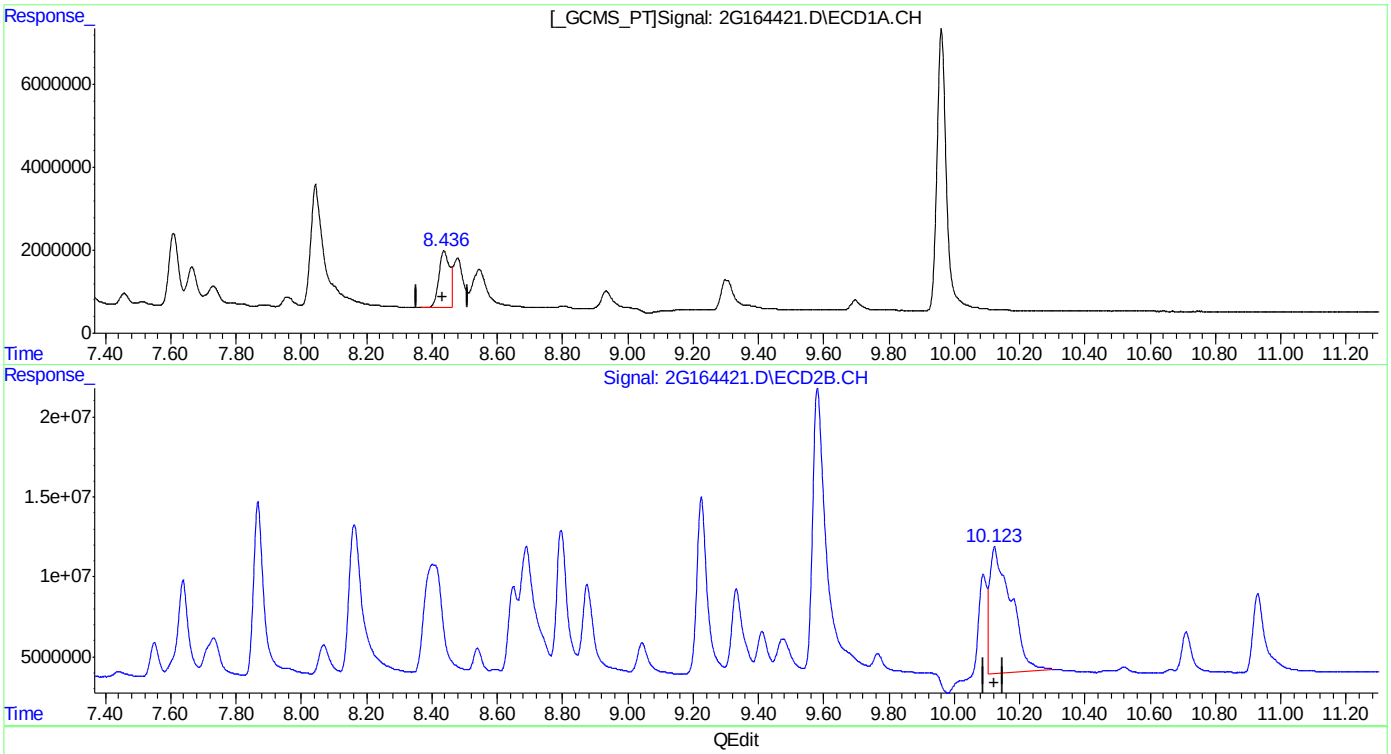
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.437min 83.107PPB
response 31479989

(40) AR1260-E #2
10.123min 175.895PPB
response 358503981

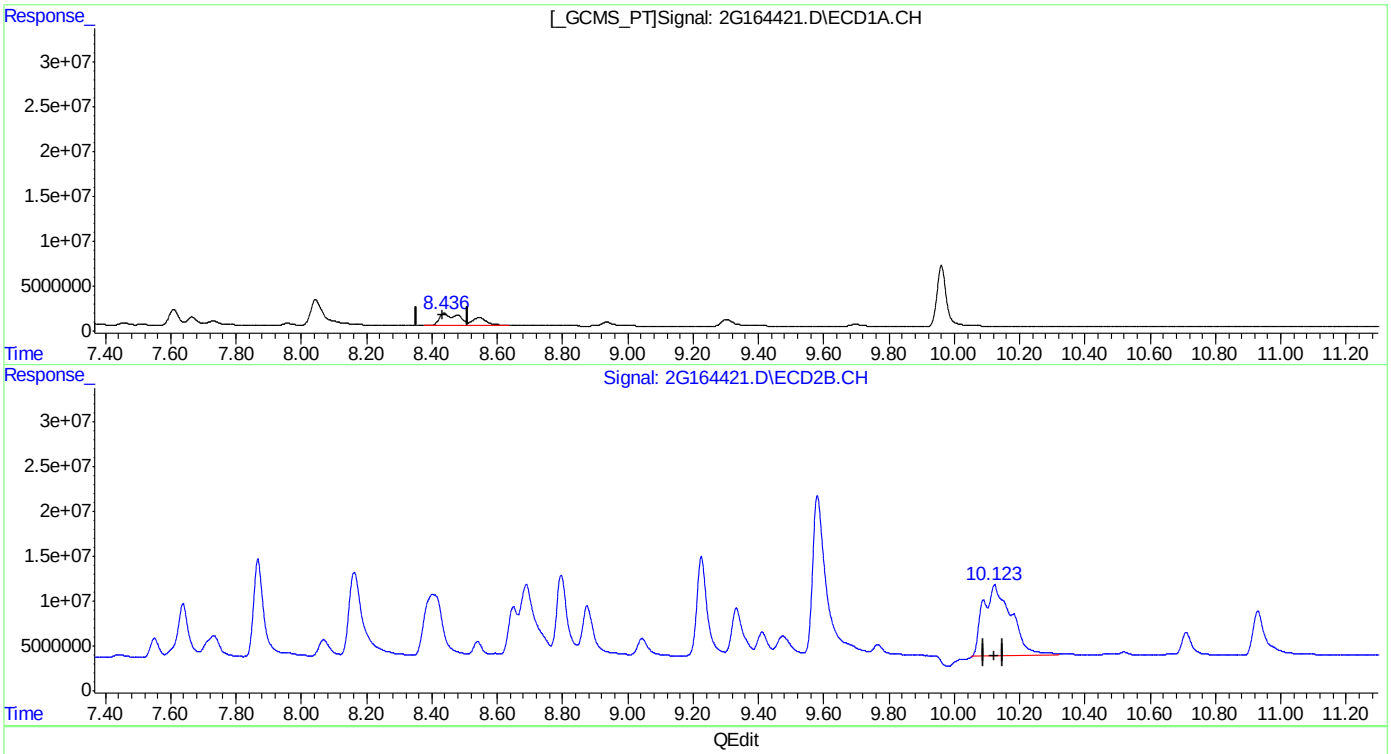
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 11:01 pm
Operator : edouarda
Sample : op12244-bsd
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 20:32:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.436min 221.563PPB m
response 83925121

(40) AR1260-E #2
10.123min 235.228PPB m
response 479435342

(+) = Expected Retention Time
2PCB4311.M Mon May 28 20:33:45 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 16:07

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56751.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 13:15:38
Operator : christp
Sample : op12247-ms
Misc : OP12247,g6g1694,16.0,,,10,1
ALS Vial : 63 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 12:25:12 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.951	2.149	476.0E6	371.3E6	50.000	50.000
27)	I	1-bromo-2...	1.951	2.149	476.0E6	371.3E6	50.000	50.000
33)	I	1-bromo-2...	1.951	2.149	476.0E6	371.3E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.533	2.930	247.6E6	180.1E6	26.763	26.048
		Spiked Amount 40.000	Range 30 - 150		Recovery =		66.91%	65.12%
26)	SA	Decachlor...	9.803	11.702	248.2E6	198.2E6	26.316m	28.730m
		Spiked Amount 40.000			Recovery =		65.79%	71.83%
		Target Compounds						
3)		hexachlor...	2.858	3.410	202.5E6	166.9E6	19.602	19.242
4)	A	alpha-BHC	2.994	3.555	243.5E6	165.3E6	19.105	17.962
5)	MA	gamma-BHC	3.282	3.961	219.2E6	153.5E6	18.162	17.782
6)	MA	Heptachlor	3.767	4.513	222.1E6	162.3E6	19.485	18.483
7)	B	beta-BHC	3.355	4.044	105.7E6	68036856	19.596	17.164
8)	B	delta-BHC	3.536	4.420	191.1E6	130.1E6	17.958	16.229
9)	MB	Aldrin	4.096	4.947	210.9E6	152.3E6	19.039	19.713
10)		alachlor	4.232	4.766	36615568	26816044	27.403	26.193
11)	B	Heptachlo...	4.796	5.742	199.3E6	141.8E6	19.463	18.980
12)	B	gamma-Chl...	4.958	6.020	197.0E6	131.1E6	19.524	17.910
13)	B	alpha-Chl...	5.127	6.239	203.9E6	134.0E6	19.732	18.799
14)	A	Endosulfan I	5.302	6.330	184.8E6	121.9E6	19.189	17.898
15)	B	4,4'-DDE	5.238	6.502	180.1E6	127.5E6	18.301	18.416
16)	MA	Dieldrin	5.621	6.756	200.3E6	136.7E6	19.198	18.712
17)	MA	Endrin	5.940	7.247	197.5E6	135.0E6	20.925	18.812
18)	A	4,4'-DDD	6.063	7.434	145.4E6	108.3E6	17.839	18.160
19)	B	Endosulfa...	6.260	7.592	157.1E6	122.0E6	15.681	16.797
20)	MA	4,4'-DDT	6.479	7.959	154.3E6	109.3E6	19.757	18.981
21)	B	Endrin Al...	6.885	8.157	26494766	7399740	3.341	1.342m#
22)	B	Endosulfa...	7.558	8.620	127.6E6	91973228	16.249	16.655
23)	A	Methoxychlor	7.259	9.192	88825411	59643228	19.056	18.241
25)	B	Endrin Ke...	7.997	9.566	174.7E6	115.8E6	18.701	15.829
		Sum Toxaphene			0	0	N.D.	N.D.
		Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

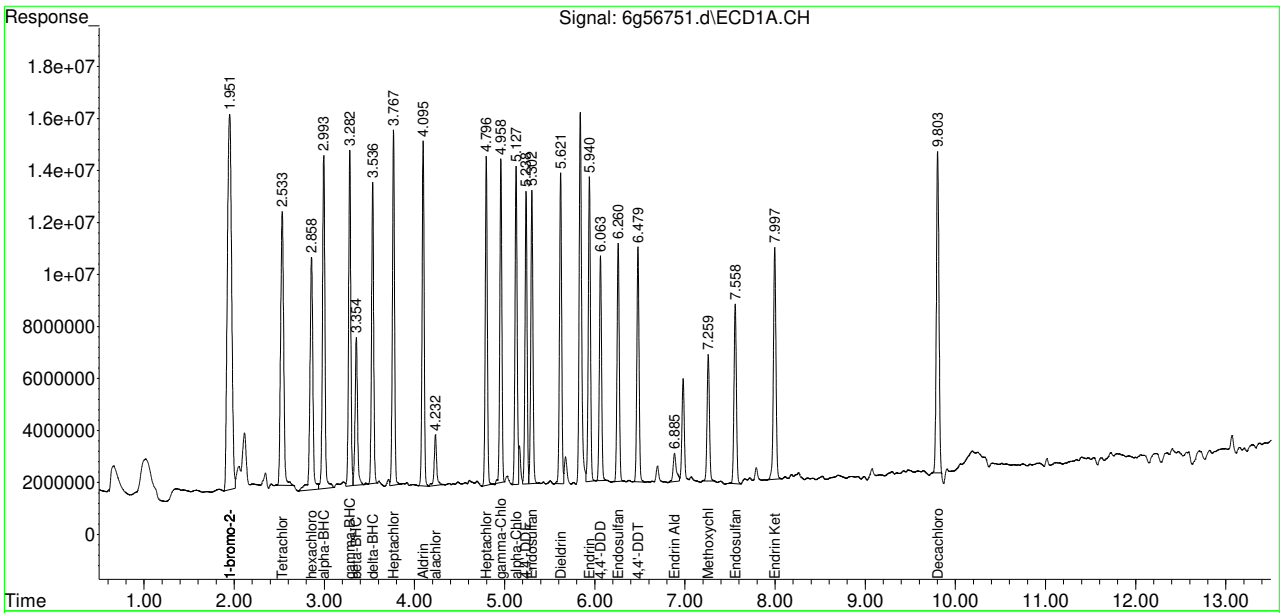
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

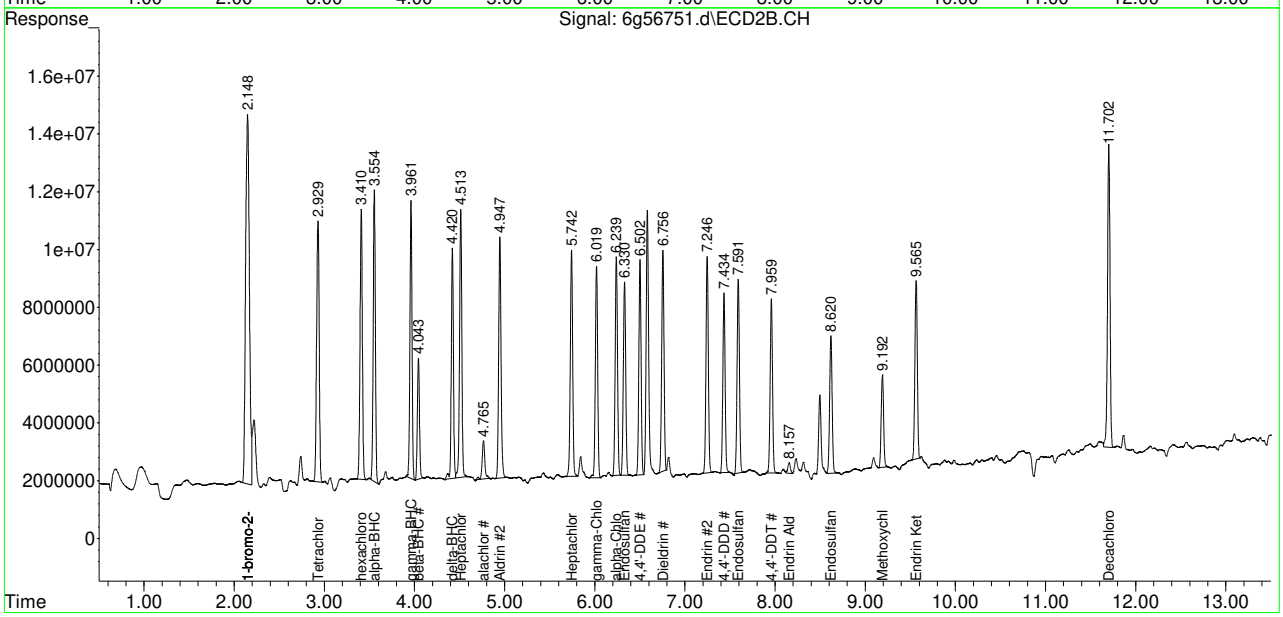
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56751.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 13:15:38
Operator : christp
Sample : op12247-ms
Misc : OP12247,g6g1694,16.0,,,10,1
ALS Vial : 63 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 12:25:12 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	OP12247-MS	**Method:**	SW846 8081B
Lab FileID:	6G56751.D	**Analyst approved:**	05/31/18 14:46 Dharmistha Mehta
Injection Time:	05/30/18 13:15	**Supervisor approved:**	05/31/18 16:07 Gwendolyn Burns

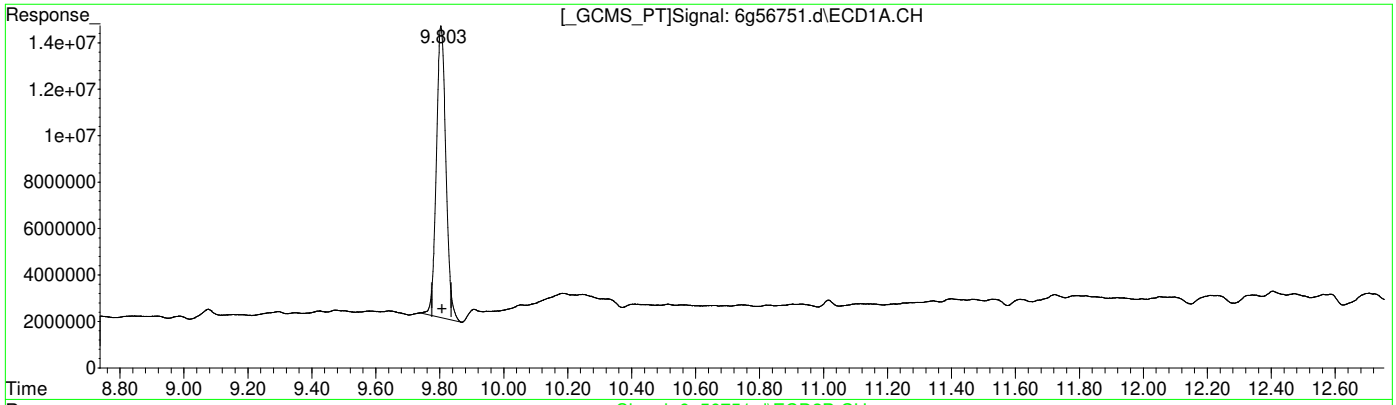
Parameter	CAS	Sig#	R.T. (min.)	Reason
Endrin aldehyde	7421-93-4	2	8.16	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.80	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	11.70	Poorly defined baseline

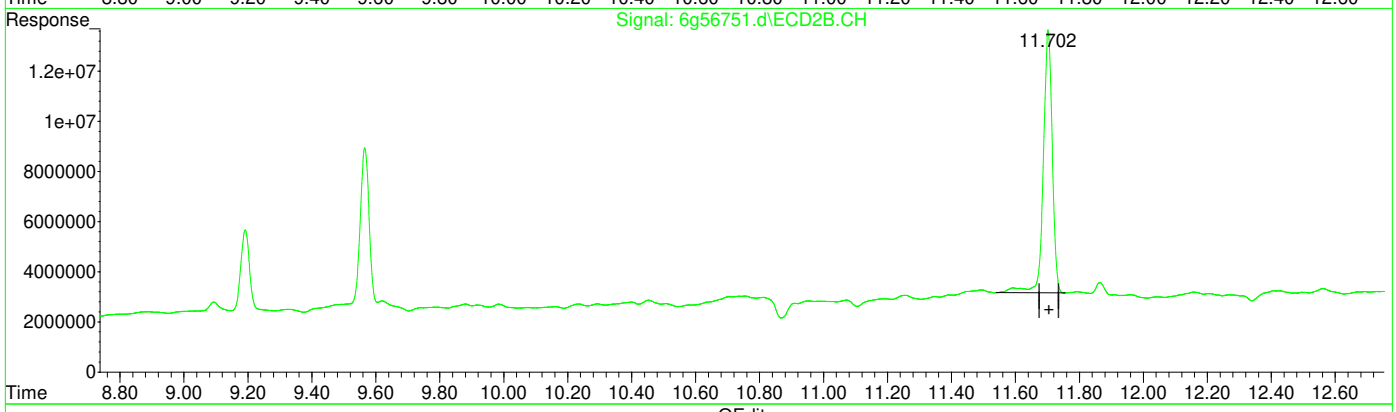
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56751.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 13:15:38
Operator : christp
Sample : op12247-ms
Misc : OP12247,g6g1694,16.0,,,10,1
ALS Vial : 63 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:51:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.804min 27.653 PPB

response 260798861

(26) Decachlorobiphenyl #2 (SA)

11.702min 29.788 PPB

response 205471640

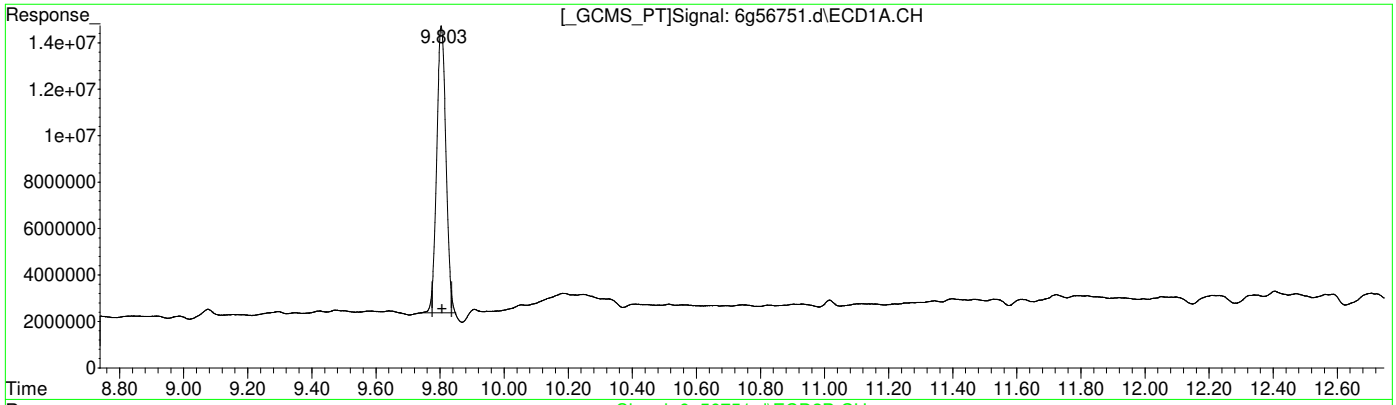
(+) = Expected Retention Time
6PST1671.M Thu May 31 09:53:47 2018

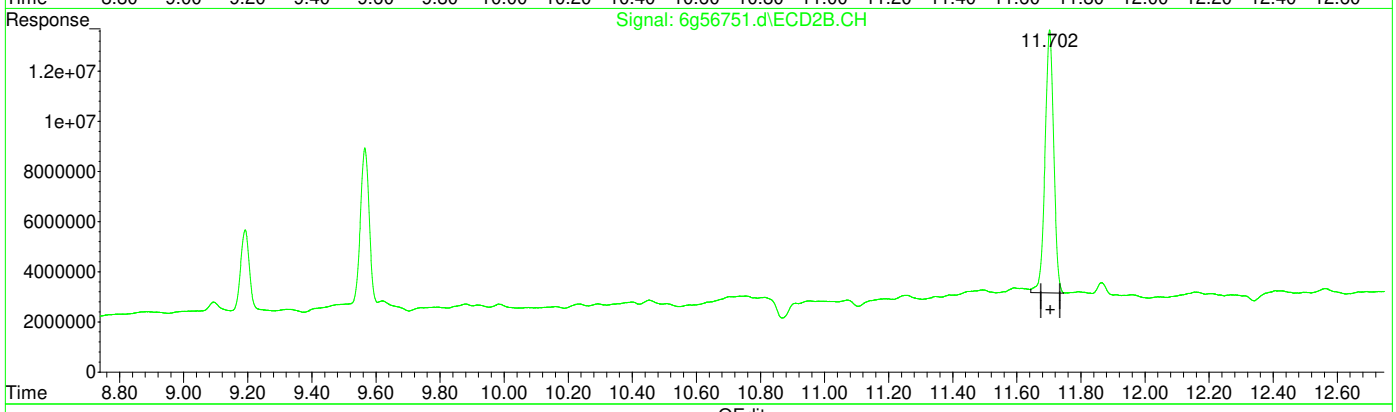
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56751.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 13:15:38
Operator : christp
Sample : op12247-ms
Misc : OP12247,g6g1694,16.0,,,10,1
ALS Vial : 63 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:51:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.803min 26.316 PPB m

response 248186633

(26) Decachlorobiphenyl #2 (SA)

11.702min 28.730 PPB m

response 198167875

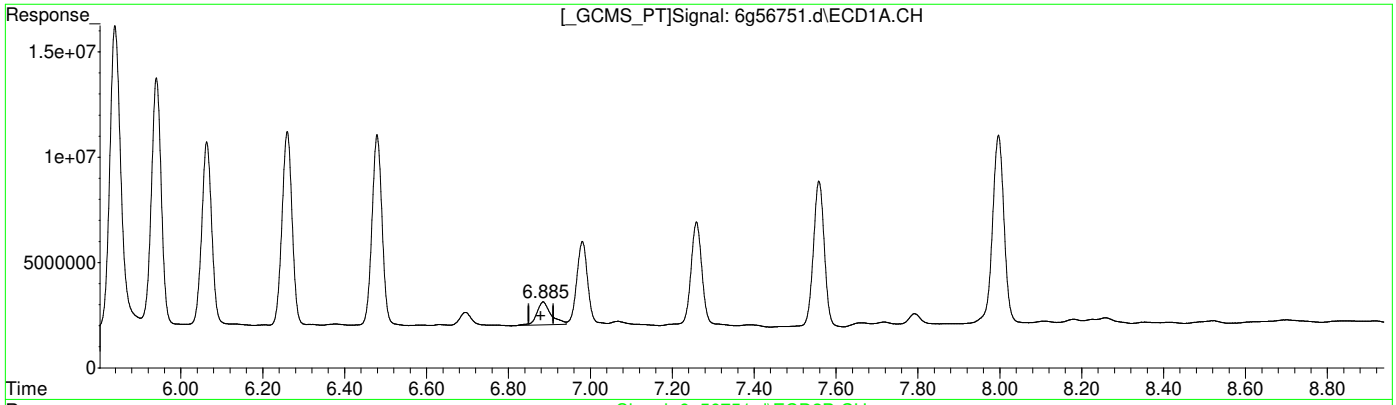
(+) = Expected Retention Time
6PST1671.M Thu May 31 09:54:11 2018

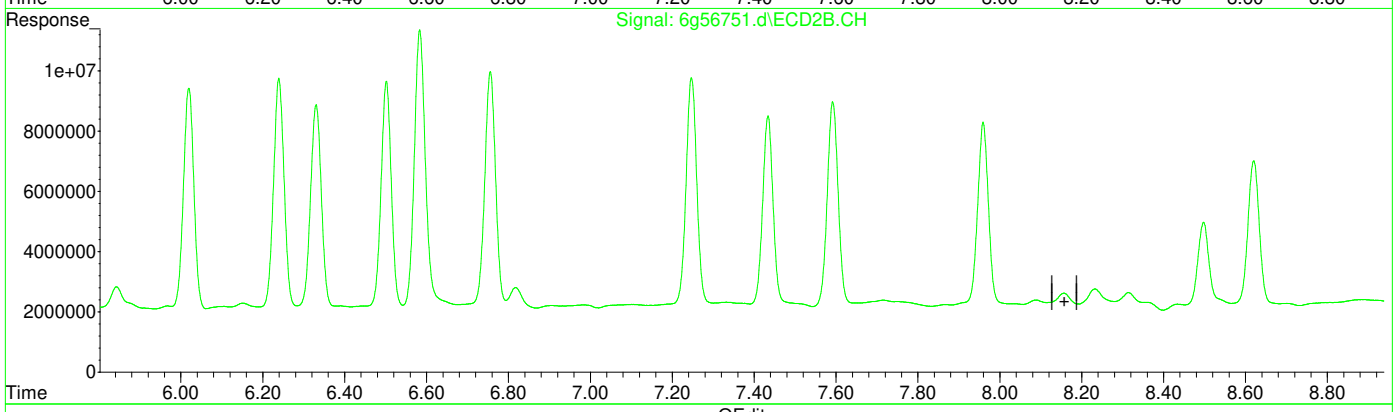
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56751.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 13:15:38
Operator : christp
Sample : op12247-ms
Misc : OP12247,g6g1694,16.0,,,10,1
ALS Vial : 63 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:54:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

6.885min 3.341 PPB

response 26494766

(21) Endrin Aldehyde #2 (B)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

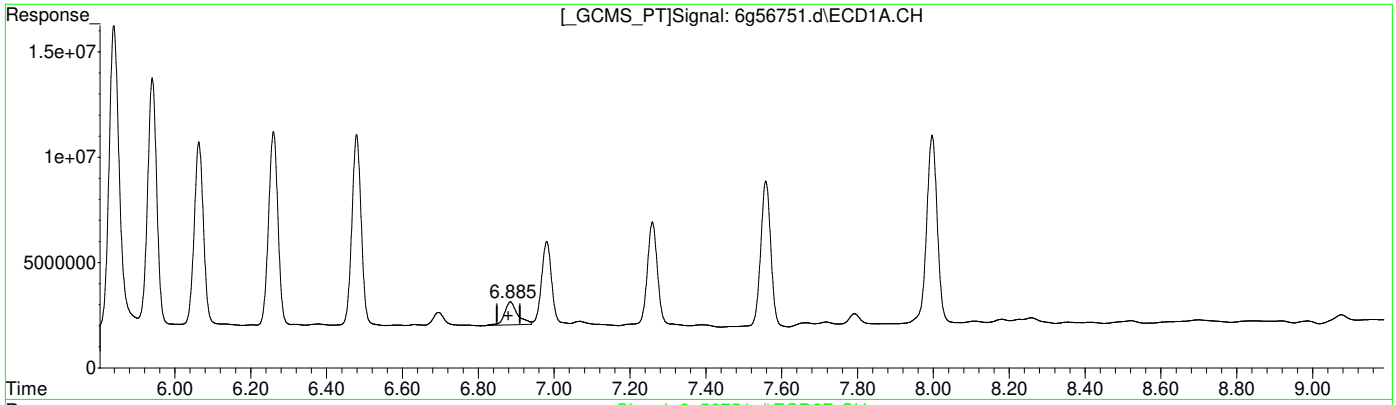
6PST1671.M Thu May 31 12:25:07 2018

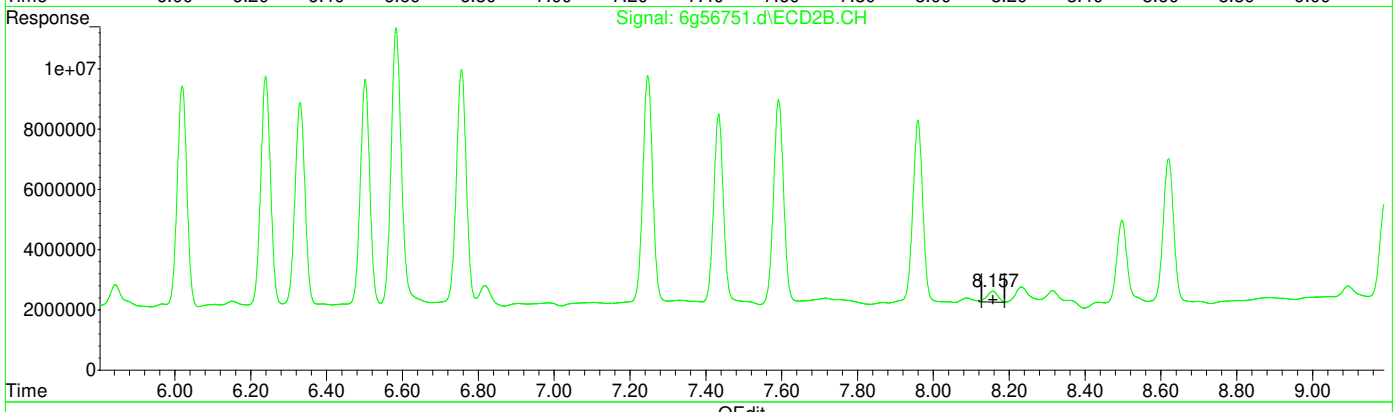
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56751.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 13:15:38
Operator : christp
Sample : op12247-ms
Misc : OP12247,g6g1694,16.0,,,10,1
ALS Vial : 63 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 09:54:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

6.885min 3.341 PPB

response 26494766

(21) Endrin Aldehyde #2 (B)

8.157min 1.342 PPB m

response 7399740

(+) = Expected Retention Time
6PST1671.M Thu May 31 12:25:27 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 16:07

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 12:38:31
Operator : minam
Sample : op12247-msd
Misc : OP12247,g6g1695,16.0,,,10,1
ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 14:36:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 31 14:07:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.936	2.137	534.4E6	416.0E6	50.000	50.000
27)	I 1-bromo-2...	1.936	2.137	534.4E6	416.0E6	50.000	50.000
33)	I 1-bromo-2...	1.936	2.137	534.4E6	416.0E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.524	2.923	274.7E6	202.2E6	26.444	26.090
	Spiked Amount 40.000	Range 30 - 150		Recovery =		66.11%	65.22%
26)	SA Decachlor...	9.803	11.701	282.4E6	215.5E6	26.670m	27.891
	Spiked Amount 40.000			Recovery =		66.68%	69.73%
	Target Compounds						
3)	hexachlor...	2.851	3.404	208.8E6	183.9E6	18.010	18.933
4)	A alpha-BHC	2.987	3.550	256.6E6	185.0E6	17.934	17.942
5)	MA gamma-BHC	3.277	3.957	230.7E6	169.6E6	17.031	17.534
6)	MA Heptachlor	3.763	4.510	234.0E6	176.2E6	18.282	17.917
7)	B beta-BHC	3.350	4.040	109.7E6	74605793	18.108	16.798
8)	B delta-BHC	3.531	4.417	193.8E6	131.4E6	16.225	14.640
9)	MB Aldrin	4.092	4.943	228.7E6	164.7E6	18.386	19.021
10)	alachlor	4.229	4.764	38427792	28141799	25.616	24.534
11)	B Heptachlo...	4.794	5.739	206.6E6	152.0E6	17.968	18.157
12)	B gamma-Chl...	4.956	6.017	208.6E6	148.9E6	18.416	18.147
13)	B alpha-Chl...	5.125	6.237	237.4E6	146.5E6	20.467	18.349
14)	A Endosulfan I	5.300	6.328	198.1E6	134.3E6	18.318	17.599
15)	B 4,4'-DDE	5.236	6.500	197.6E6	139.5E6	17.884	17.993
16)	MA Dieldrin	5.619	6.754	218.3E6	149.5E6	18.636	18.261
17)	MA Endrin	5.939	7.245	218.5E6	148.9E6	20.613	18.530
18)	A 4,4'-DDD	6.062	7.432	159.1E6	119.7E6	17.388	17.918
19)	B Endosulfa...	6.258	7.589	169.4E6	134.3E6	15.065	16.513
20)	MA 4,4'-DDT	6.478	7.957	161.3E6	115.9E6	18.387	17.976
21)	B Endrin Al...	6.883	8.154	31457061	10036608	3.533	1.624m#
22)	B Endosulfa...	7.557	8.617	132.3E6	99468920	15.004	16.077
23)	A Methoxychlor	7.258	9.189	94158211	63965800	17.993	17.461
25)	B Endrin Ke...	7.996	9.562	179.8E6	118.5E6	17.145	14.460
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

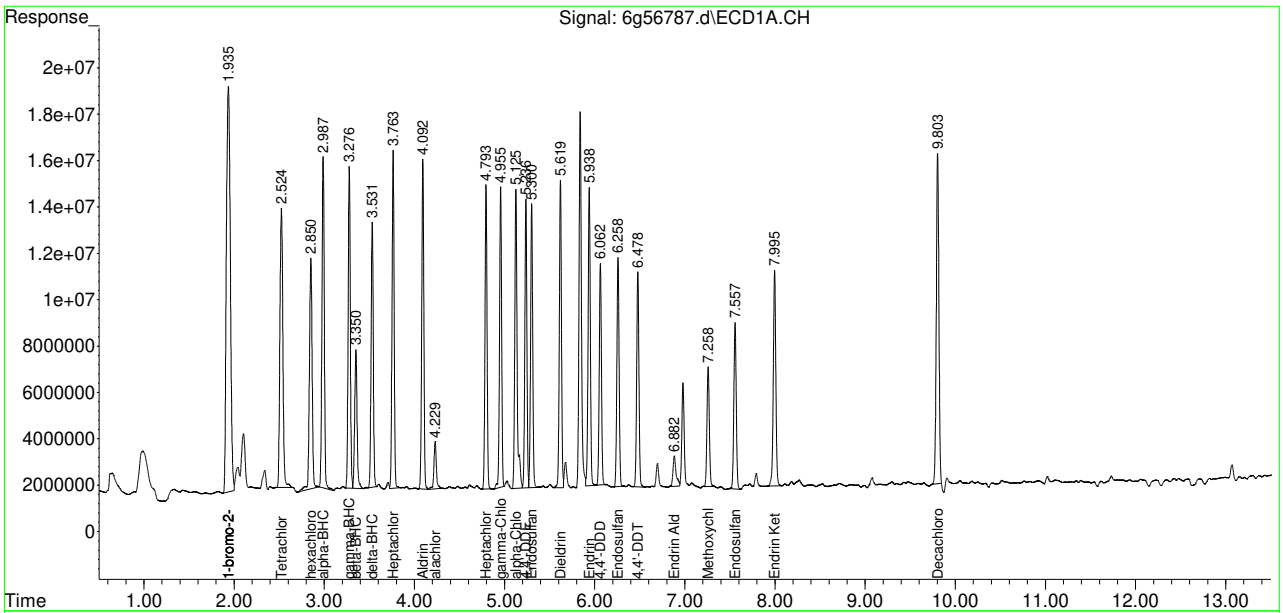
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 12:38:31
Operator : minam
Sample : op12247-msd
Misc : OP12247,g6g1695,16.0,,,10,1
ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 14:36:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 31 14:07:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integration Approval Summary

Sample Number:	OP12247-MSD	**Method:**	SW846 8081B
Lab FileID:	6G56787.D	**Analyst approved:**	05/31/18 14:46 Dharmistha Mehta
Injection Time:	05/31/18 12:38	**Supervisor approved:**	05/31/18 16:07 Gwendolyn Burns

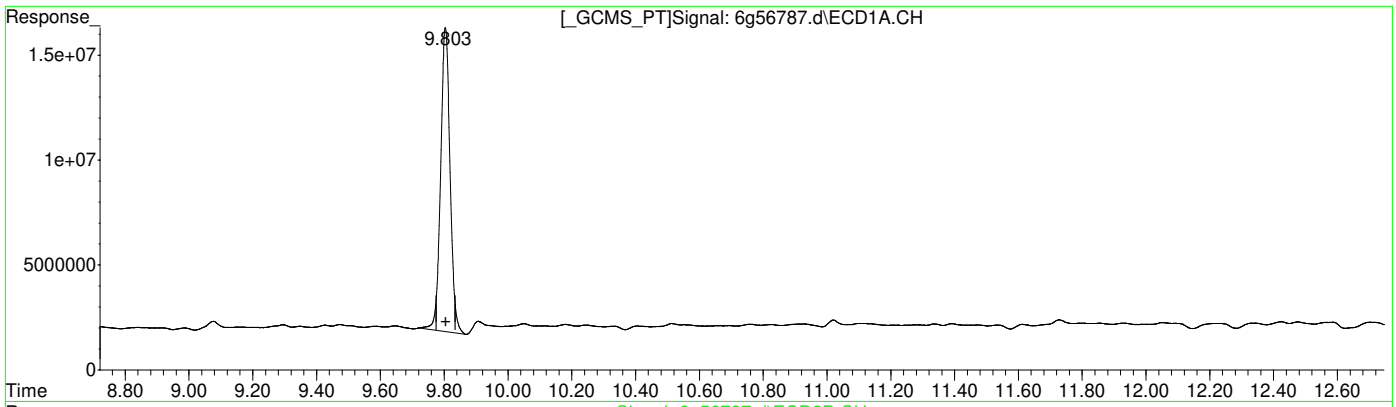
Parameter	CAS	Sig#	R.T. (min.)	Reason
Endrin aldehyde	7421-93-4	2	8.15	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.80	Poorly defined baseline

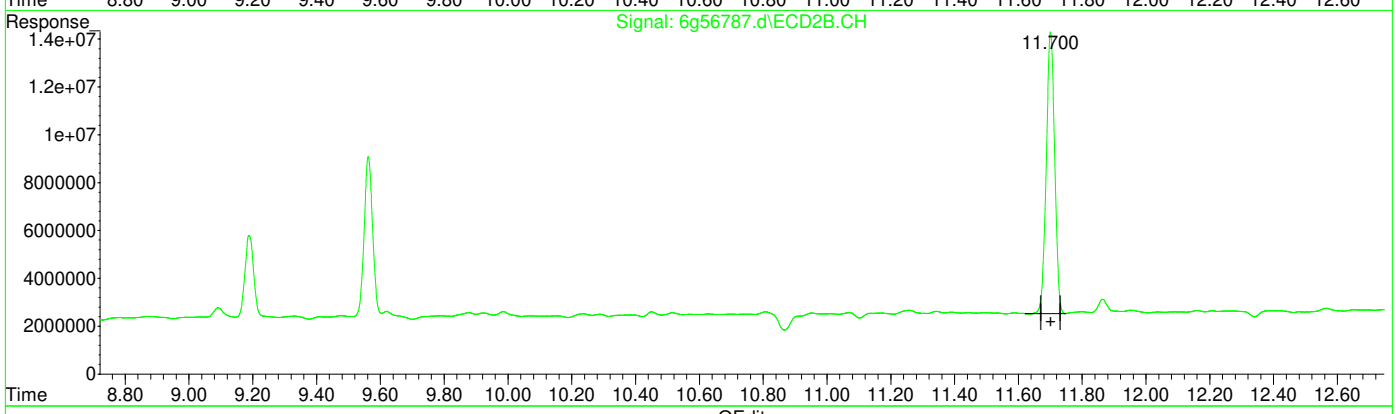
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 12:38:31
Operator : minam
Sample : op12247-msd
Misc : OP12247,g6g1695,16.0,,,10,1
ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 14:33:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 31 14:07:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.804min 28.121 PPB

response 297751997

(26) Decachlorobiphenyl #2 (SA)

11.701min 27.891 PPB

response 215545402

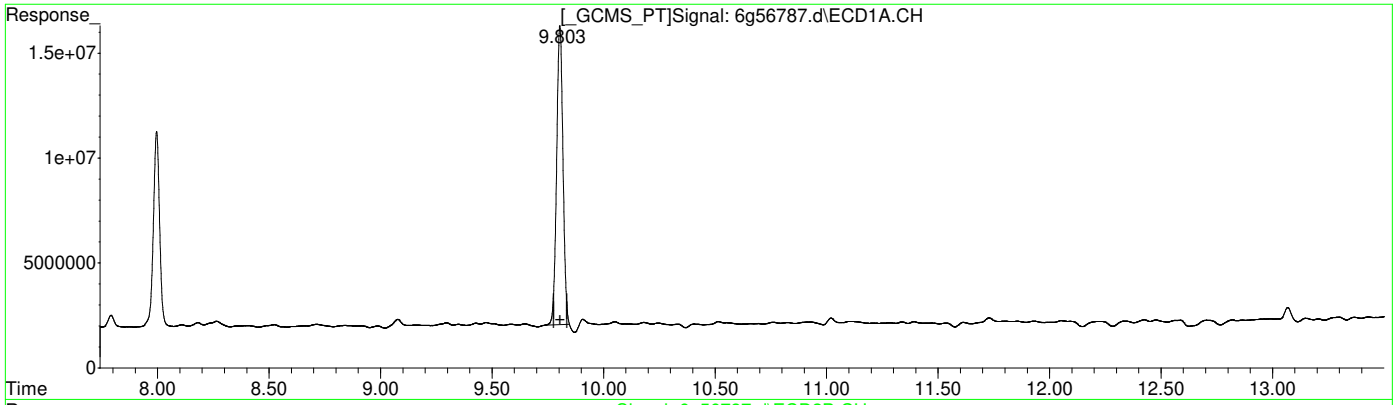
(+) = Expected Retention Time
6PST1671.M Thu May 31 14:34:30 2018

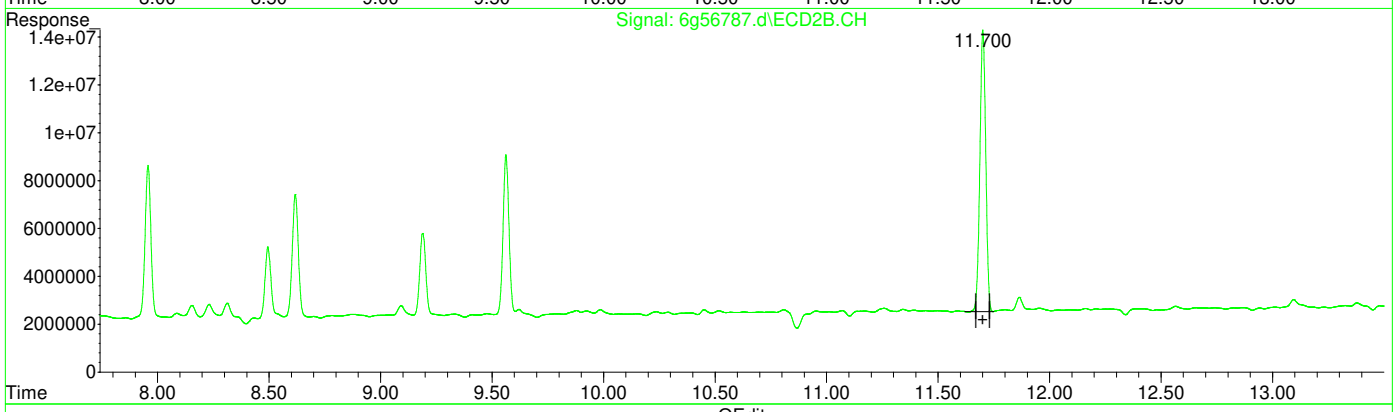
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 12:38:31
Operator : minam
Sample : op12247-msd
Misc : OP12247,g6g1695,16.0,,,10,1
ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 14:33:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 31 14:07:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)

9.803min 26.670 PPB m

response 282382143

(26) Decachlorobiphenyl #2 (SA)

11.701min 27.891 PPB

response 215545402

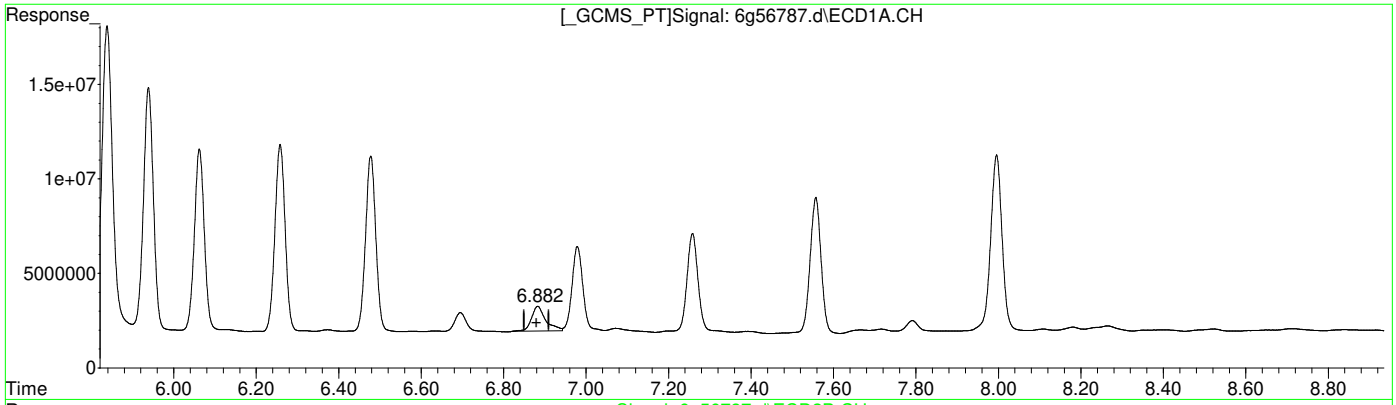
(+) = Expected Retention Time
6PST1671.M Thu May 31 14:34:44 2018

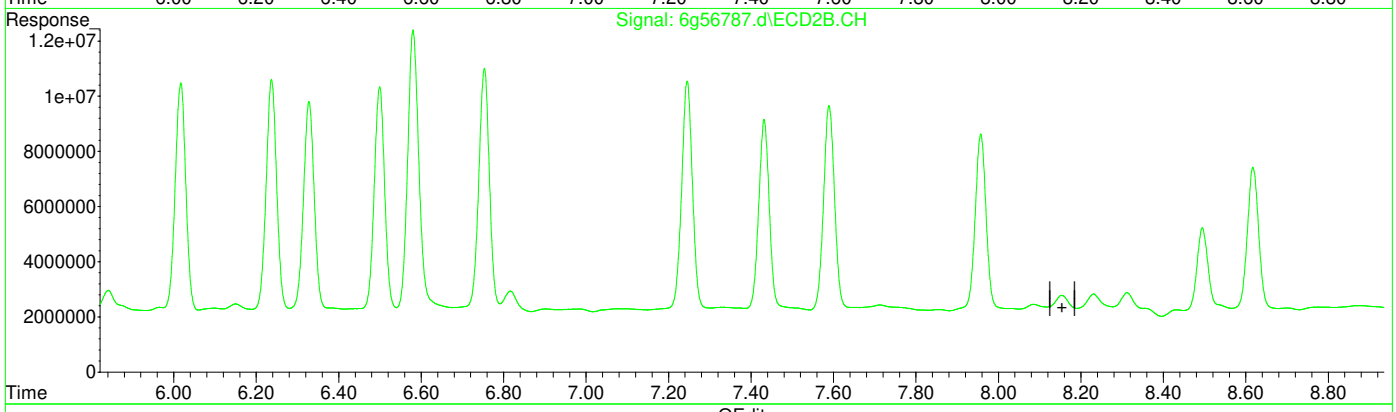
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 12:38:31
Operator : minam
Sample : op12247-msd
Misc : OP12247,g6g1695,16.0,,,10,1
ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 14:33:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 31 14:07:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

6.883min 3.533 PPB

response 31457061

(21) Endrin Aldehyde #2 (B)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

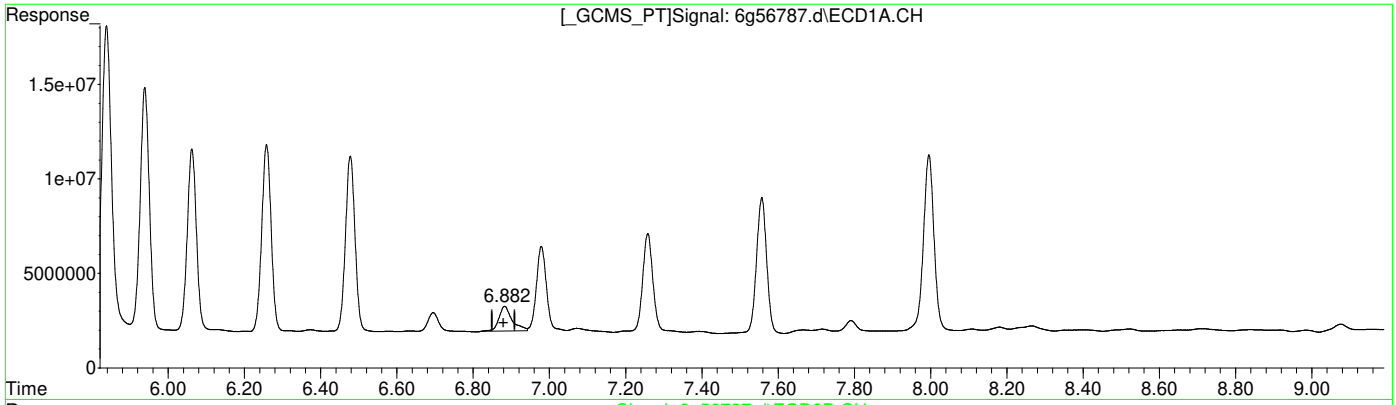
6PST1671.M Thu May 31 14:36:04 2018

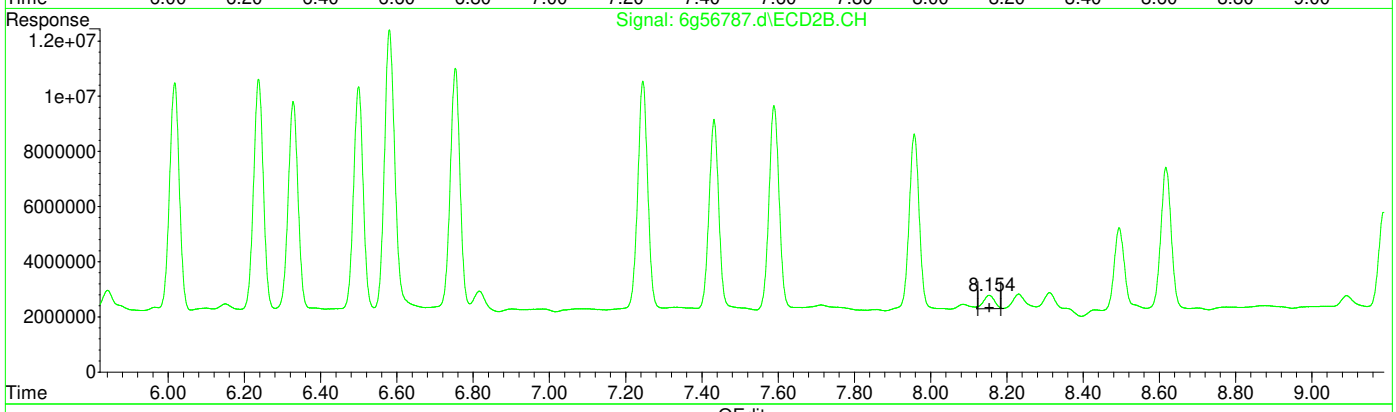
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 12:38:31
Operator : minam
Sample : op12247-msd
Misc : OP12247,g6g1695,16.0,,,10,1
ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 14:33:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 31 14:07:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

6.883min 3.533 PPB

response 31457061

(21) Endrin Aldehyde #2 (B)

8.154min 1.624 PPB m

response 10036608

(+) = Expected Retention Time
6PST1671.M Thu May 31 14:36:32 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/29/18 06:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:21:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.775	3.418	148.0E6	866.6E6	40.314	37.872
	Spiked Amount 40.000			Recovery	= 100.79%		94.68%
51) S	Decachlor...	9.952	11.763	165.8E6	855.8E6	40.891	44.808
	Spiked Amount 40.000			Recovery	= 102.23%		112.02%
	Target Compounds						
27)	AR1254-D	6.104	7.590	87758560	515.4E6	356.875	315.337
28)	AR1254-E	6.476	7.905	61349957	426.5E6	336.147	391.667
29)	AR1254-F	6.727	8.378f	171.8E6	610.7E6	1003.241m	516.997m#
32)	AR1016-B	3.539	4.608f	37806805	231.1E6	277.873	288.471
33)	AR1016-C	4.085	5.247	68561867	390.3E6	236.449	225.122m
34)	AR1016-D	4.243	5.428f	36421310	139.3E6	308.043	185.134 #
35)	AR1016-E	4.752	6.079	49911052	193.1E6	409.328	376.320
37)	AR1260-B	7.266	8.788	43850519	221.0E6	303.582	252.748
39)	AR1260-D	8.025f	9.564f	111.2E6	510.0E6	302.835	237.580
40)	AR1260-E	8.413f	10.102f	144.1E6	682.4E6	380.327m	334.814m

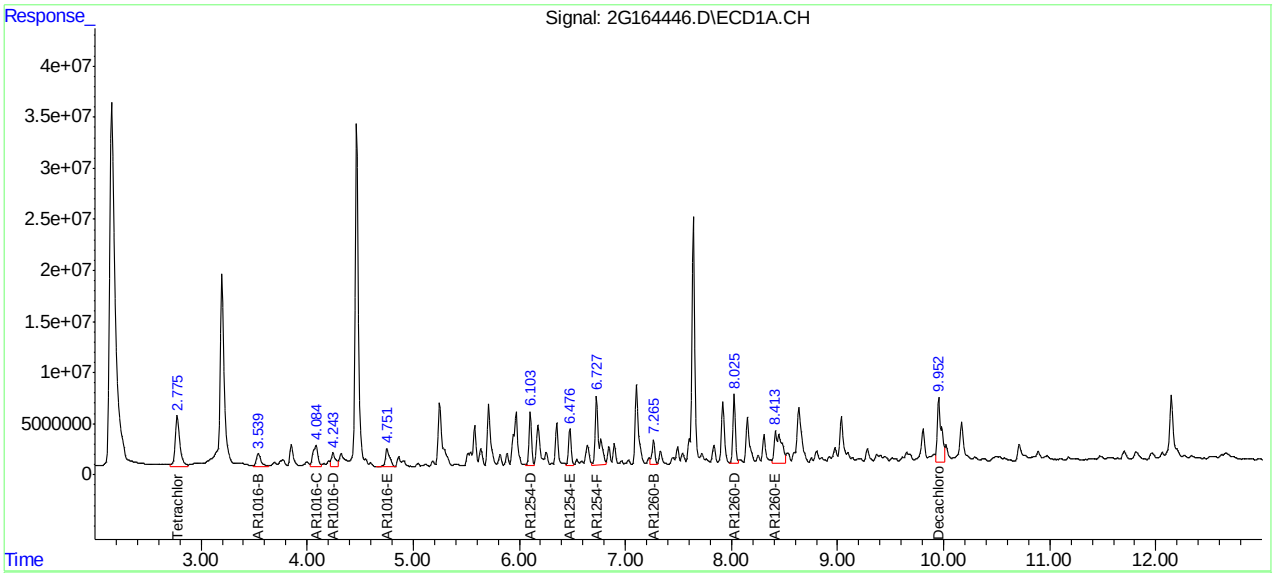
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

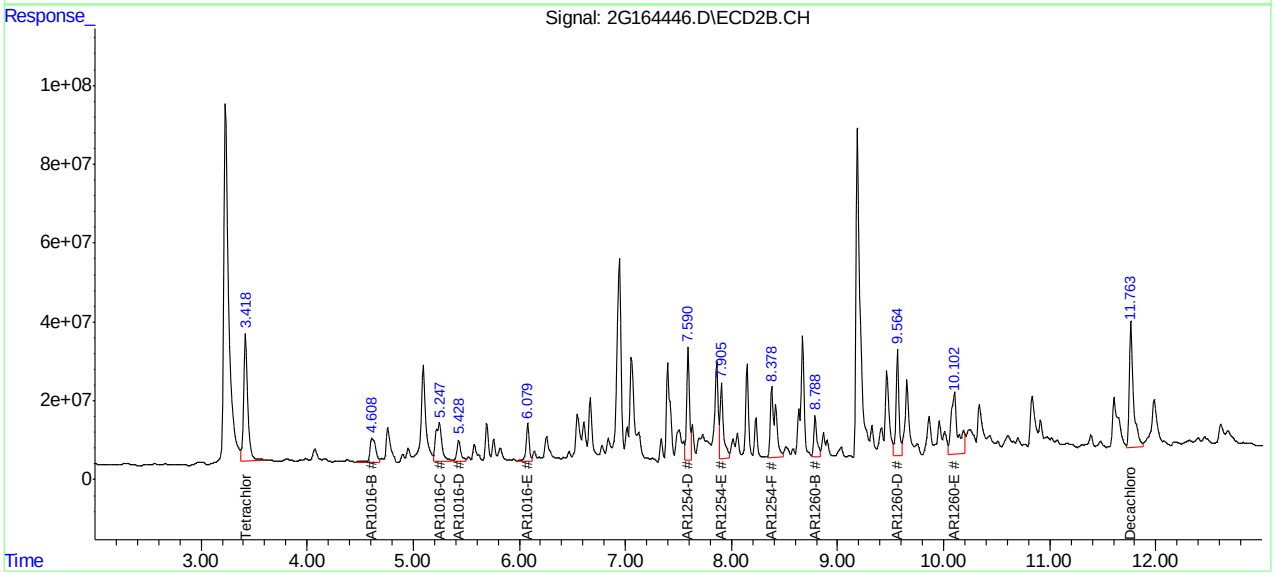
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:21:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12244-MS	**Method:**	SW846 8082A
Lab FileID:	2G164446.D	**Analyst approved:**	05/28/18 22:26 Edouard Adrian Lee
Injection Time:	05/28/18 06:05	**Supervisor approved:**	05/29/18 06:49 Gwendolyn Burns

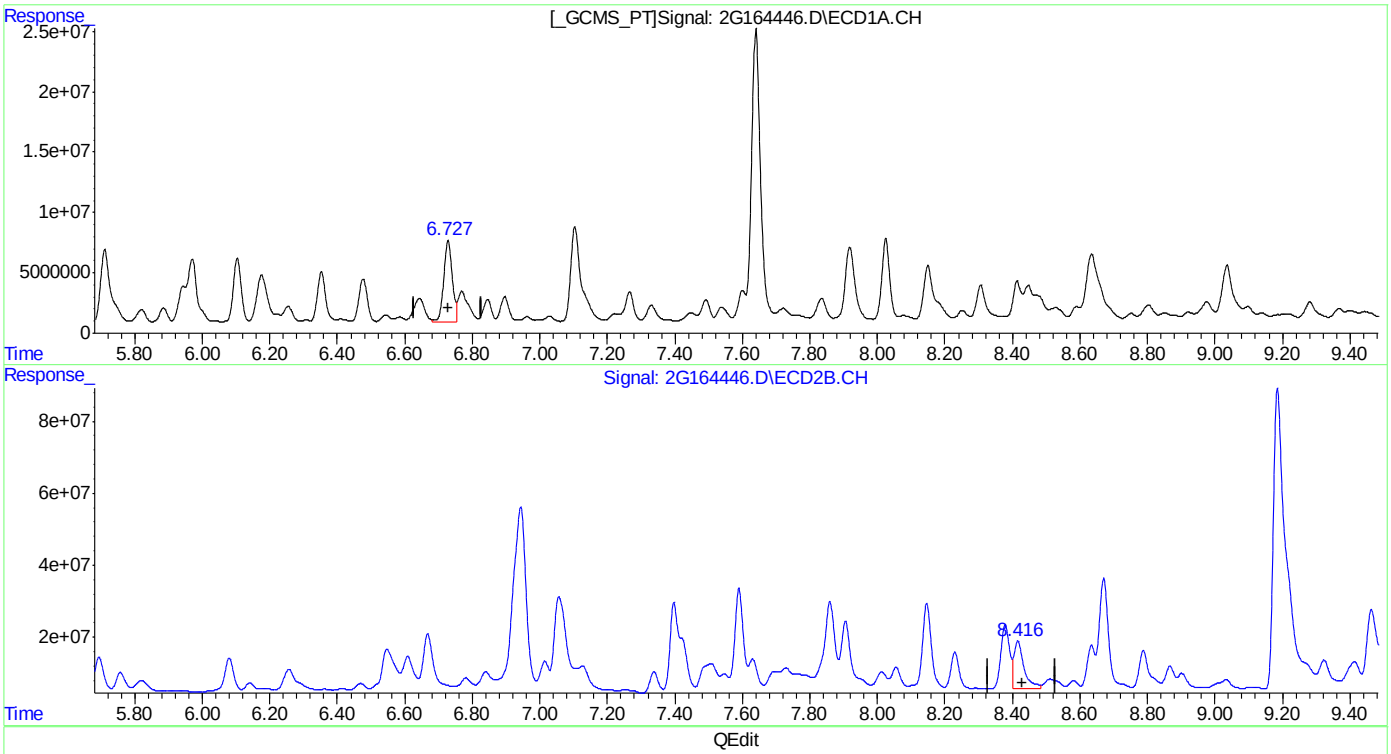
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		2	5.25	Split peak
AR1254-F		1	6.73	Split peak
AR1254-F		2	8.38	Split peak
AR1260-E		1	8.41	Split peak
AR1260-E		2	10.10	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:19:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.728min 690.999PPB
response 118296509

(29) AR1254-F #2
8.416min 236.784PPB
response 279685159

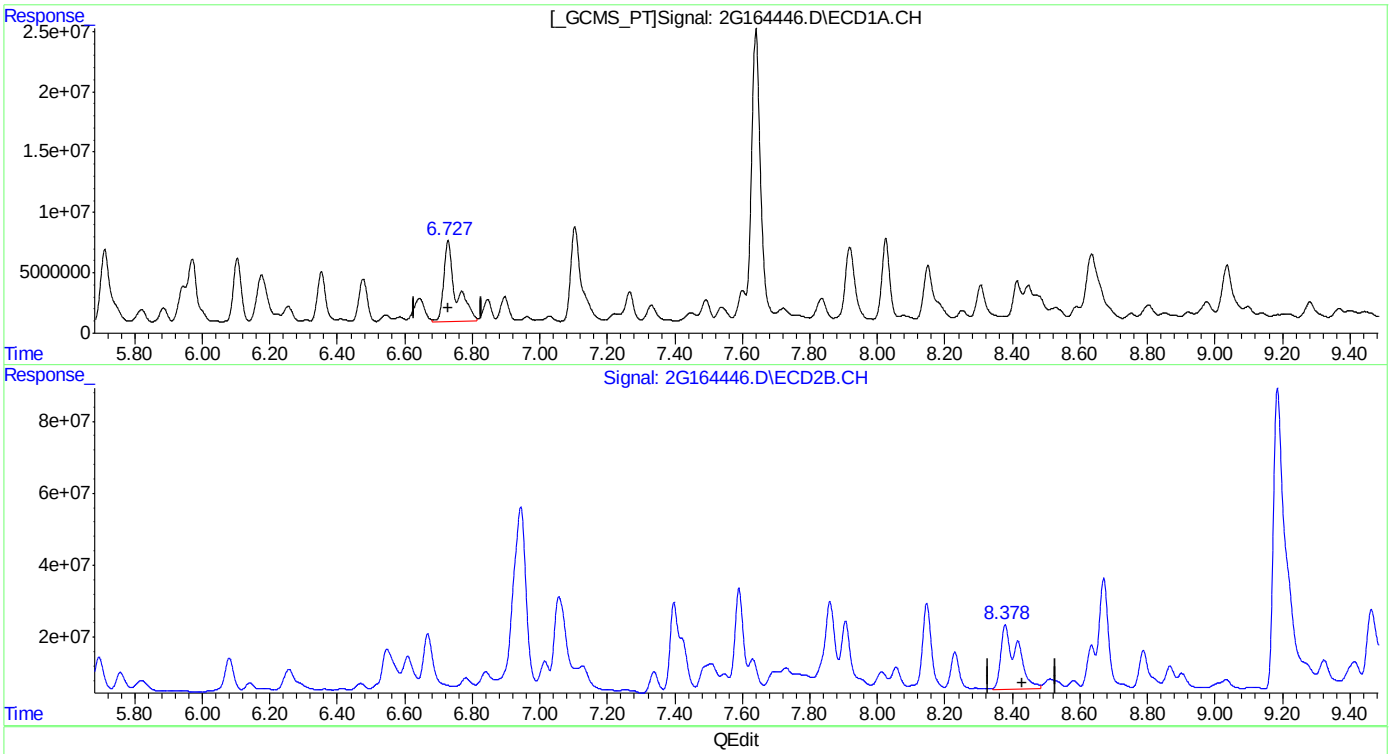
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:19:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.727min 1003.241PPB m
response 171751331

(29) AR1254-F #2
8.378min 516.997PPB m
response 610668543

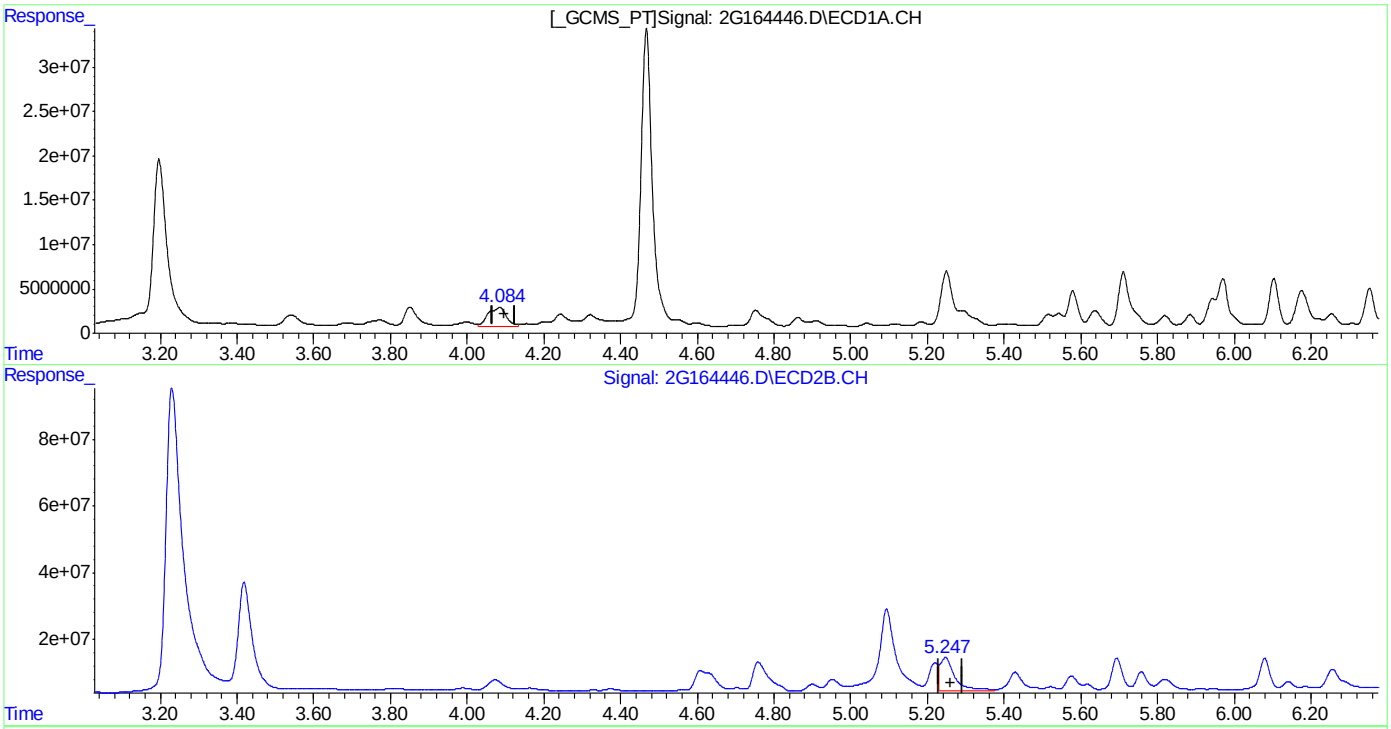
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:19:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.085min 236.449PPB
response 68561867

(33) AR1016-C #2
5.247min 151.681PPB
response 262967554

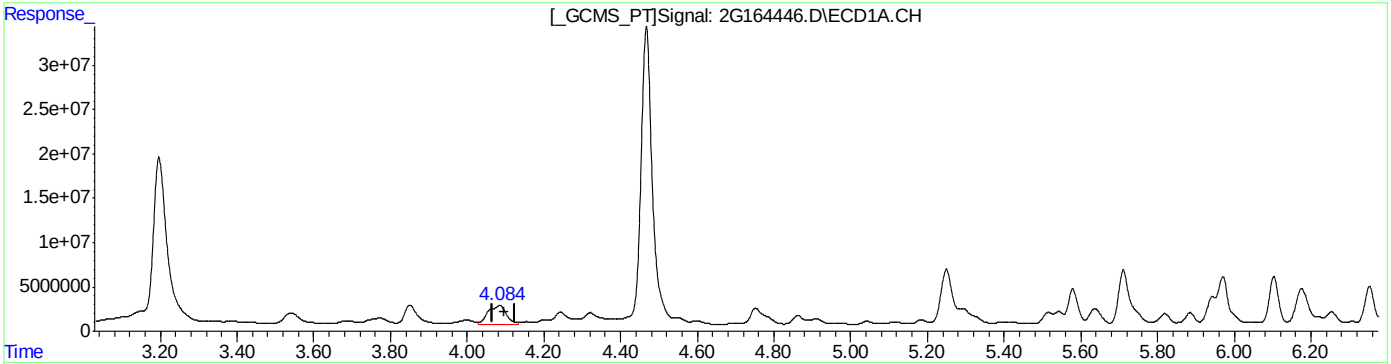
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:21:12 2018 RPT1

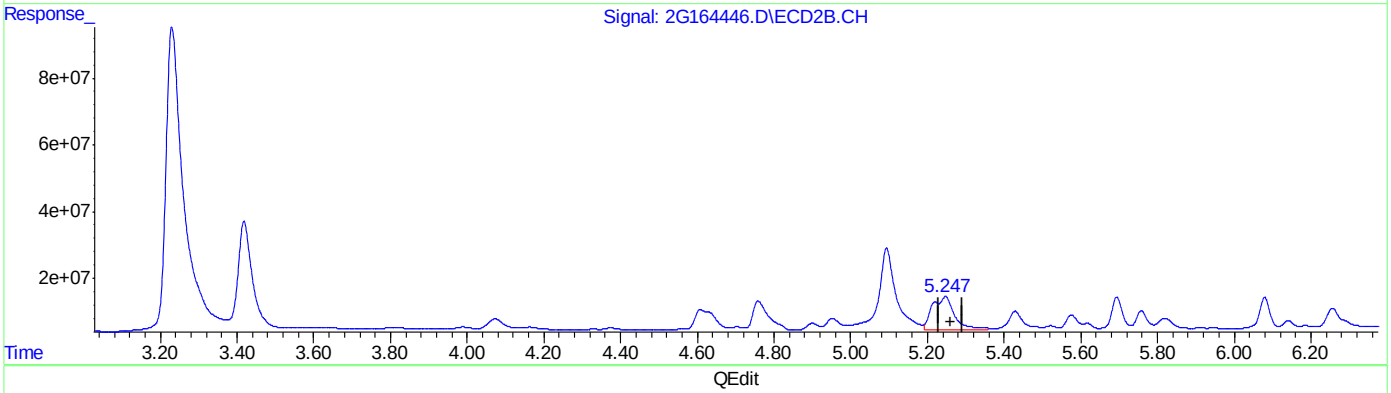
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:19:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(33) AR1016-C
4.085min 236.449PPB
response 68561867

(33) AR1016-C #2
5.247min 225.122PPB m
response 390290824

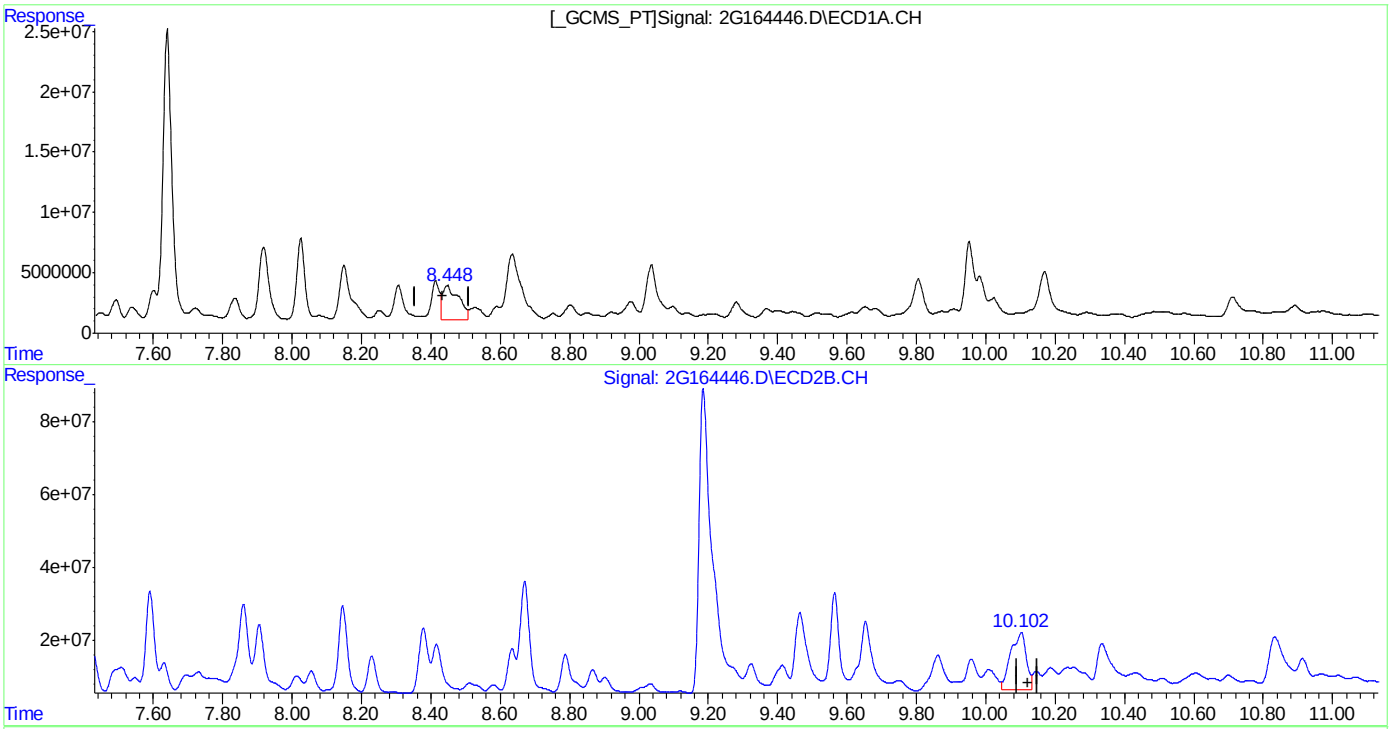
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:21:18 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:19:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.447min 236.960PPB
response 89757403

(40) AR1260-E #2
10.102min 241.316PPB
response 491844373

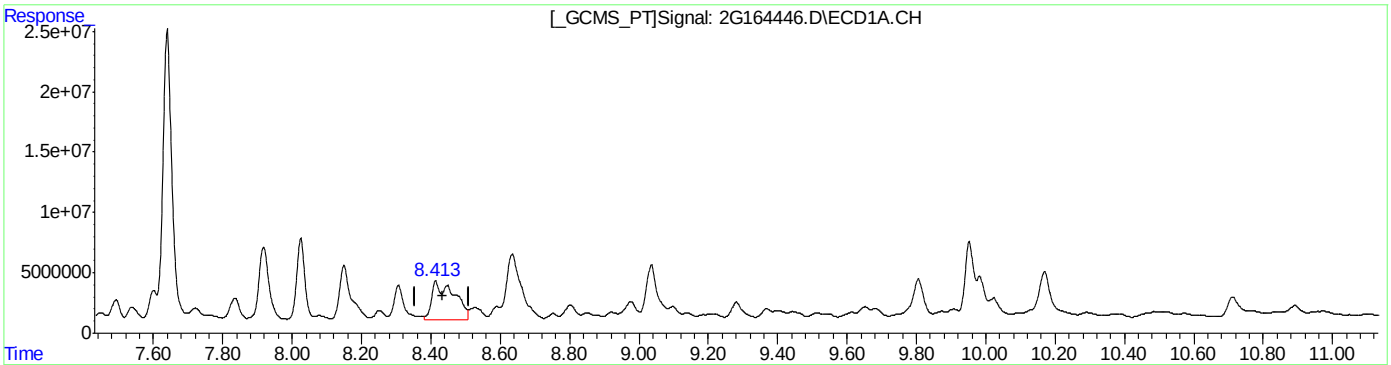
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:21:44 2018 RPT1

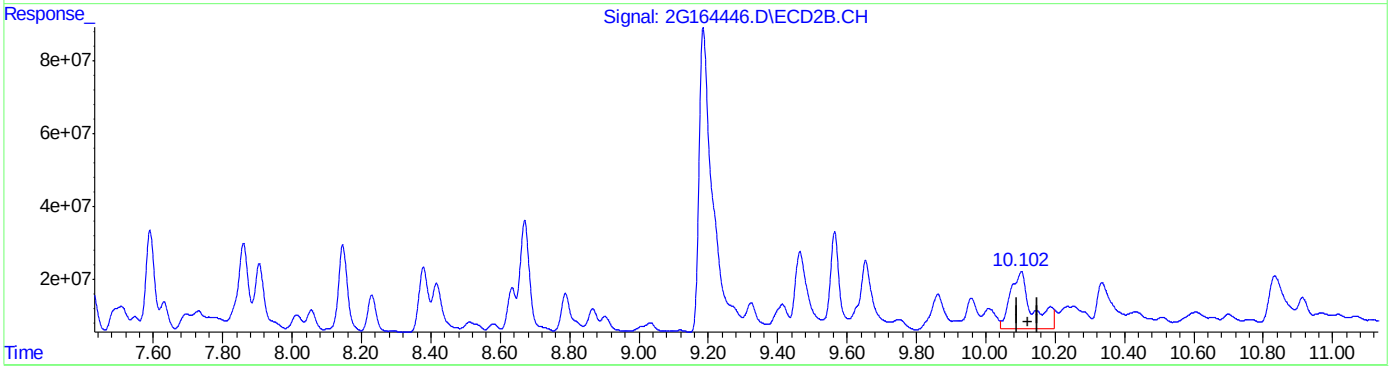
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164446.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:05 am
Operator : edouarda
Sample : op12244-ms
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:19:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.413min 380.327PPB m
response 144063239

(40) AR1260-E #2
10.102min 334.814PPB m
response 682408474

(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:21:56 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 06:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:23:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1)	S Tetrachlo...	2.775	3.419	129.6E6	747.1E6	35.307	32.650
	Spiked Amount 40.000			Recovery	=	88.27%	81.62%
51)	S Decachlor...	9.953	11.763	105.2E6	909.7E6	25.927	47.628 #
	Spiked Amount 40.000			Recovery	=	64.82%	119.07%
	Target Compounds						
27)	AR1254-D	6.104	7.591	76878779	453.0E6	312.632	277.156
28)	AR1254-E	6.476	7.905	52404205	395.1E6	287.132	362.868 #
29)	AR1254-F	6.728	8.379	151.0E6	539.2E6	881.772m	456.503m#
32)	AR1016-B	3.539	4.609	30827020	212.3E6	226.573	264.972
33)	AR1016-C	4.083	5.248	63062706	355.5E6	217.484	205.032m
34)	AR1016-D	4.243f	5.430f	26339573	143.3E6	222.774	190.453
35)	AR1016-E	4.753	6.079	45415945	177.1E6	372.463	345.214
37)	AR1260-B	7.266f	8.788	50782841	204.3E6	351.576	233.605 #
39)	AR1260-D	8.025f	9.564f	111.7E6	446.6E6	304.208	208.048 #
40)	AR1260-E	8.445	10.102f	164.6E6	801.2E6	434.494m	393.115m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

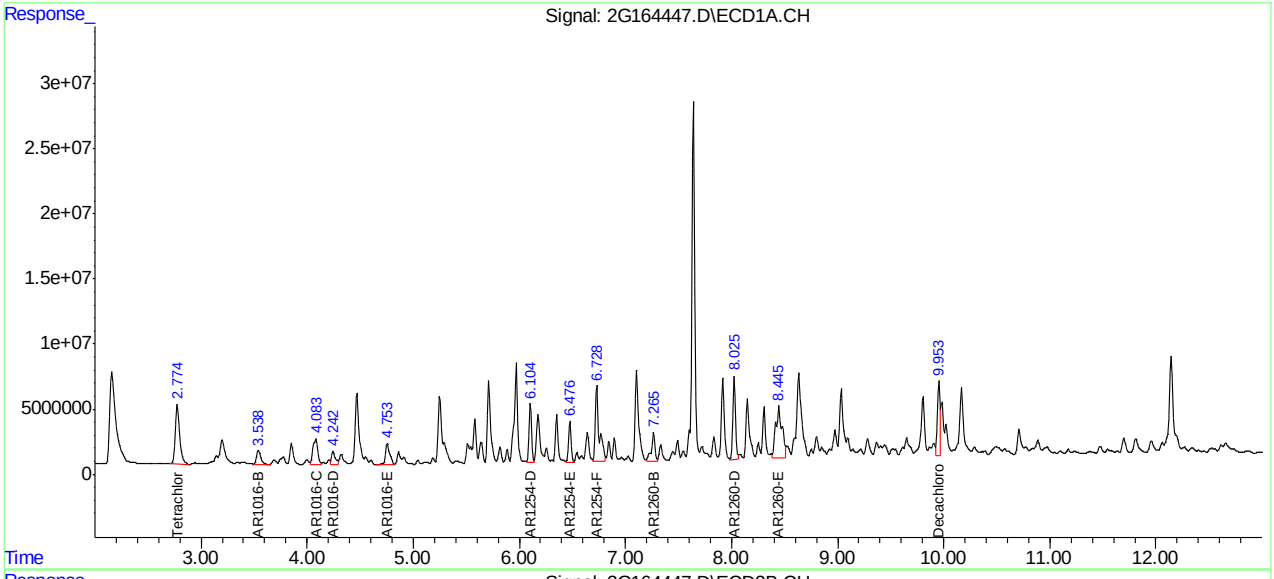
11.4.4 11

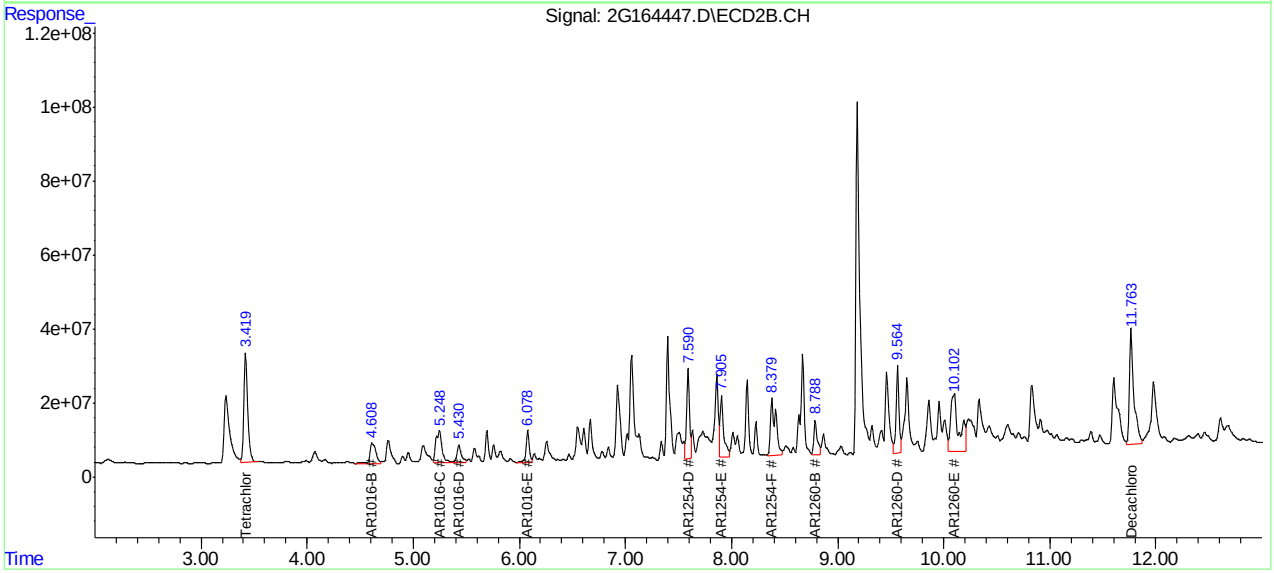
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:23:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	OP12244-MSD	**Method:**	SW846 8082A
Lab FileID:	2G164447.D	**Analyst approved:**	05/28/18 22:26 Edouard Adrian Lee
Injection Time:	05/28/18 06:22	**Supervisor approved:**	05/29/18 06:49 Gwendolyn Burns

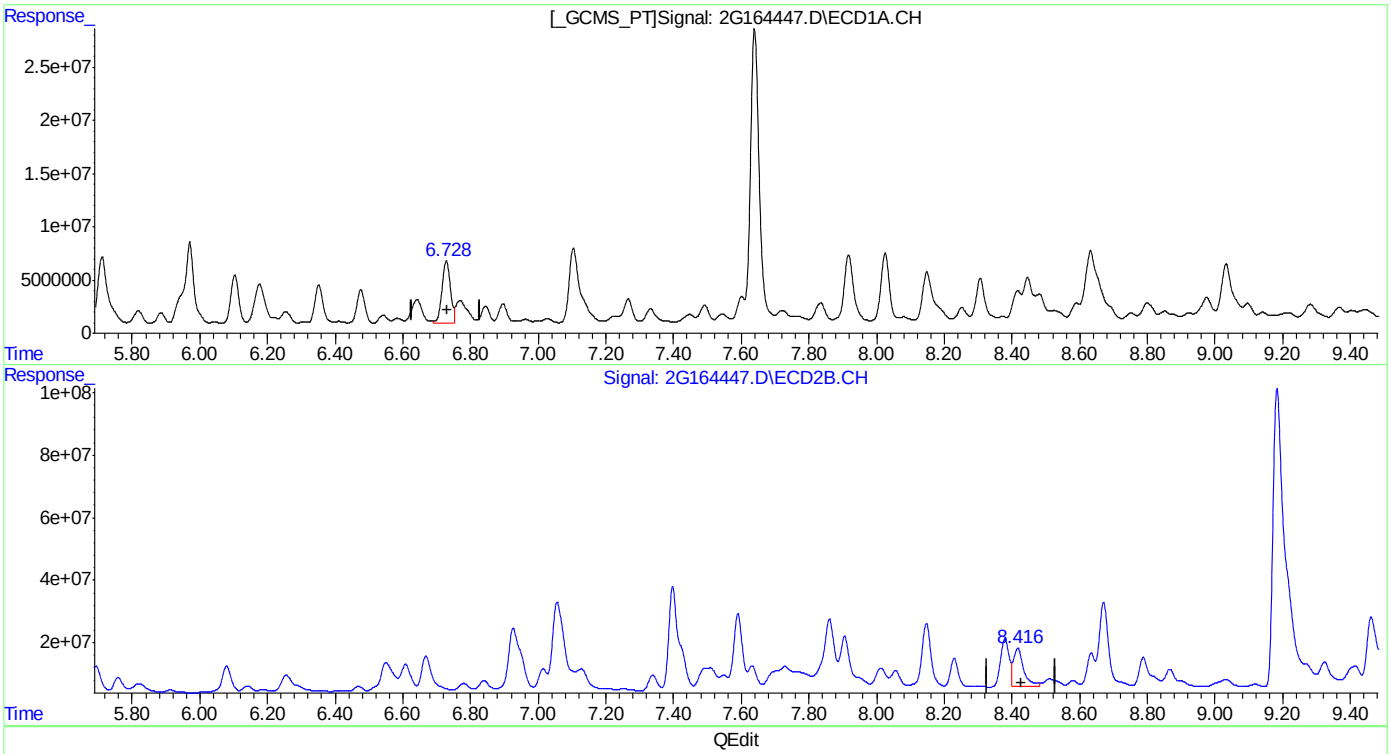
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		2	5.25	Split peak
AR1254-F		1	6.73	Split peak
AR1254-F		2	8.38	Split peak
AR1260-E		1	8.44	Split peak
AR1260-E		2	10.10	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.728min 596.230PPB
response 102072493

(29) AR1254-F #2
8.417min 220.884PPB
response 260904172

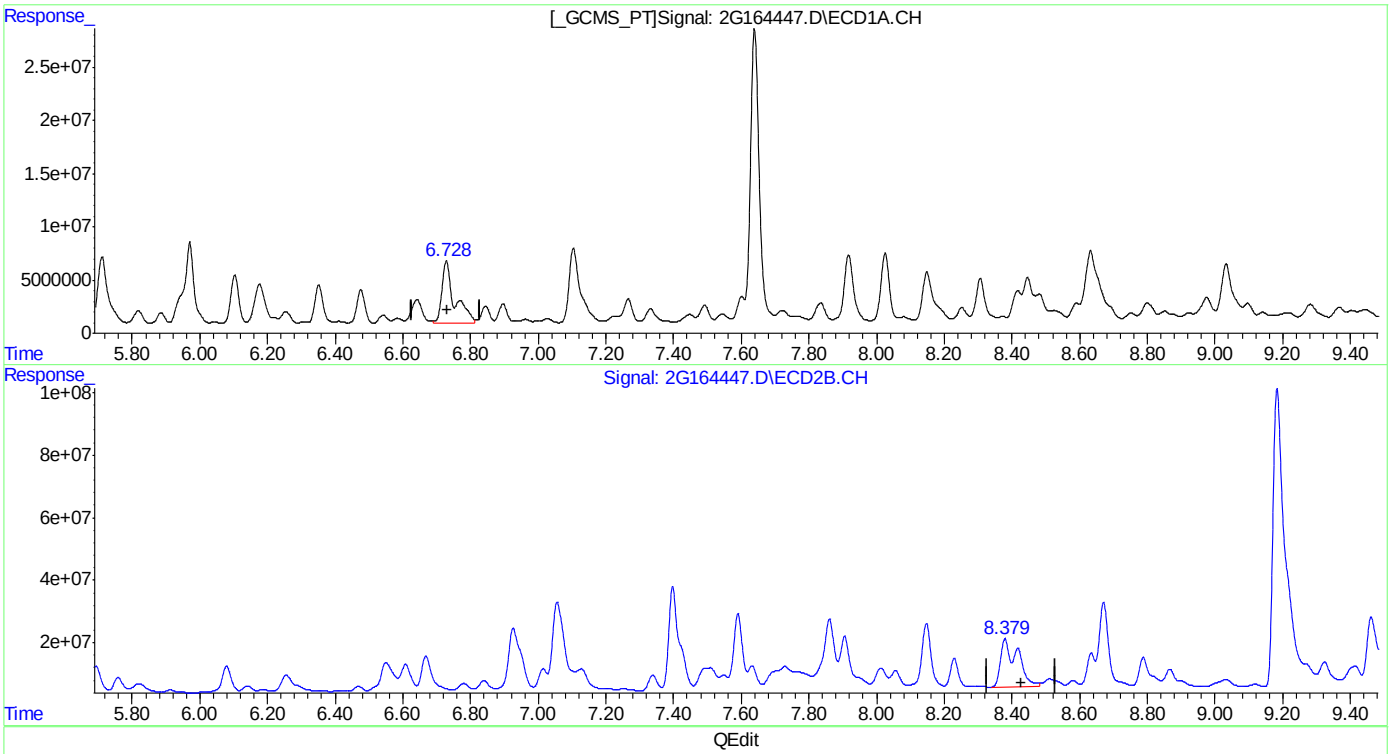
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.728min 881.772PPB m
response 150956156

(29) AR1254-F #2
8.379min 456.503PPB m
response 539213261

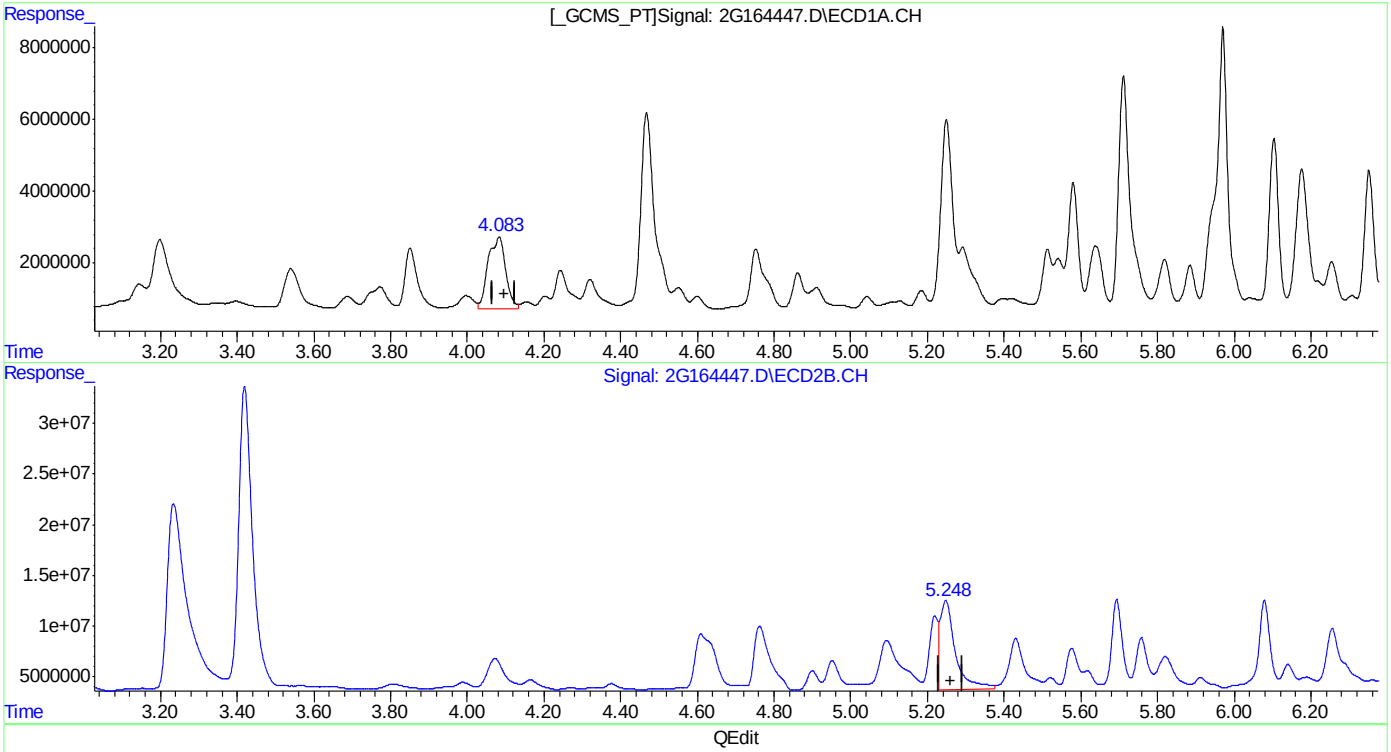
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:23:16 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.083min 217.484PPB
response 63062706

(33) AR1016-C #2
5.248min 141.605PPB
response 245498976

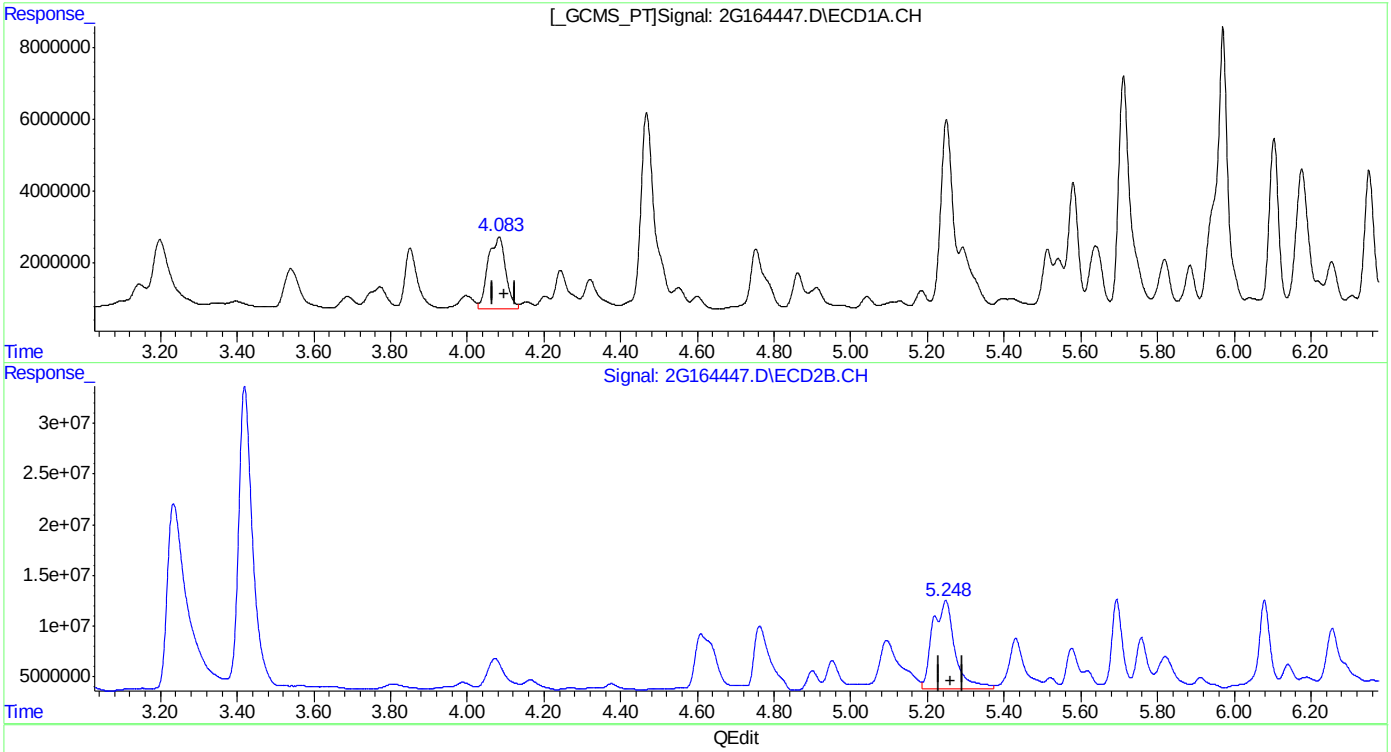
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:23:23 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.083min 217.484PPB
response 63062706

(33) AR1016-C #2
5.248min 205.032PPB m
response 355461581

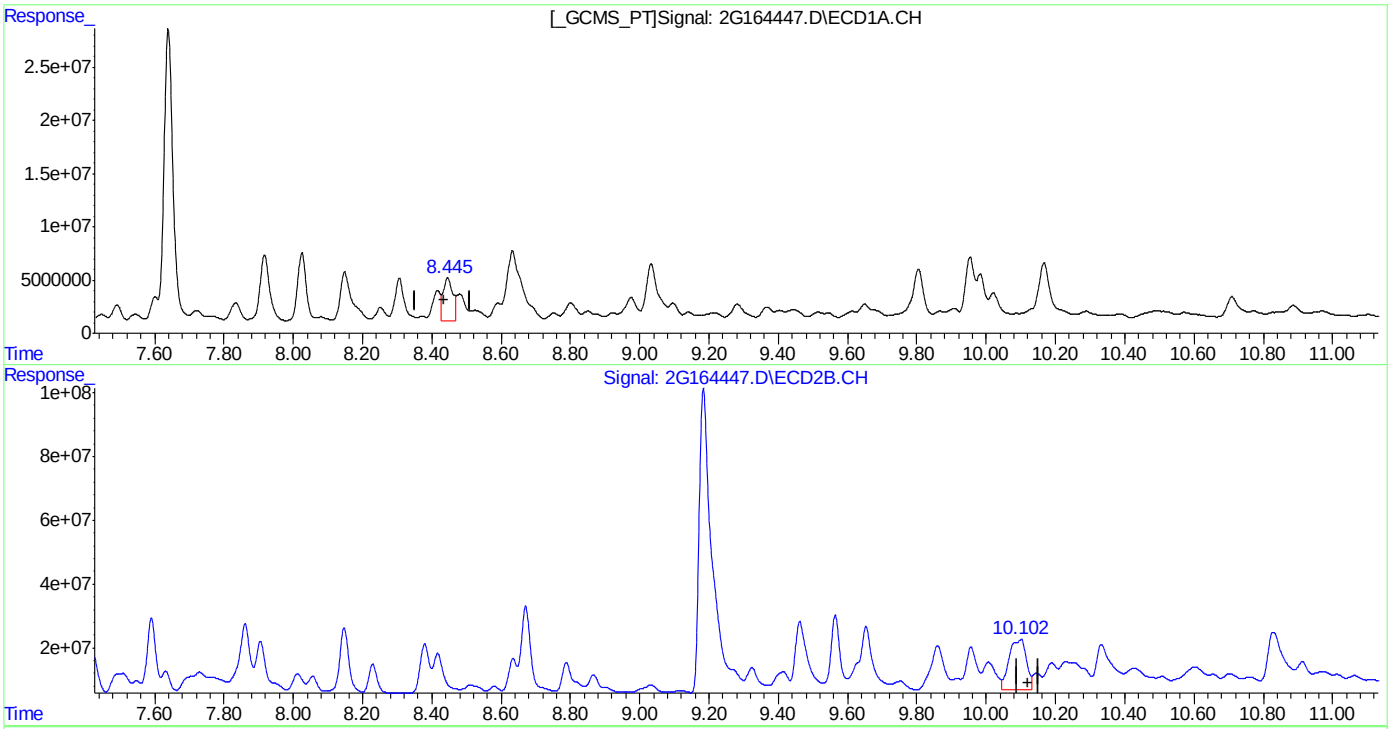
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:23:30 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.446min 201.580PPB
response 76355995

(40) AR1260-E #2
10.101min 265.562PPB
response 541260270

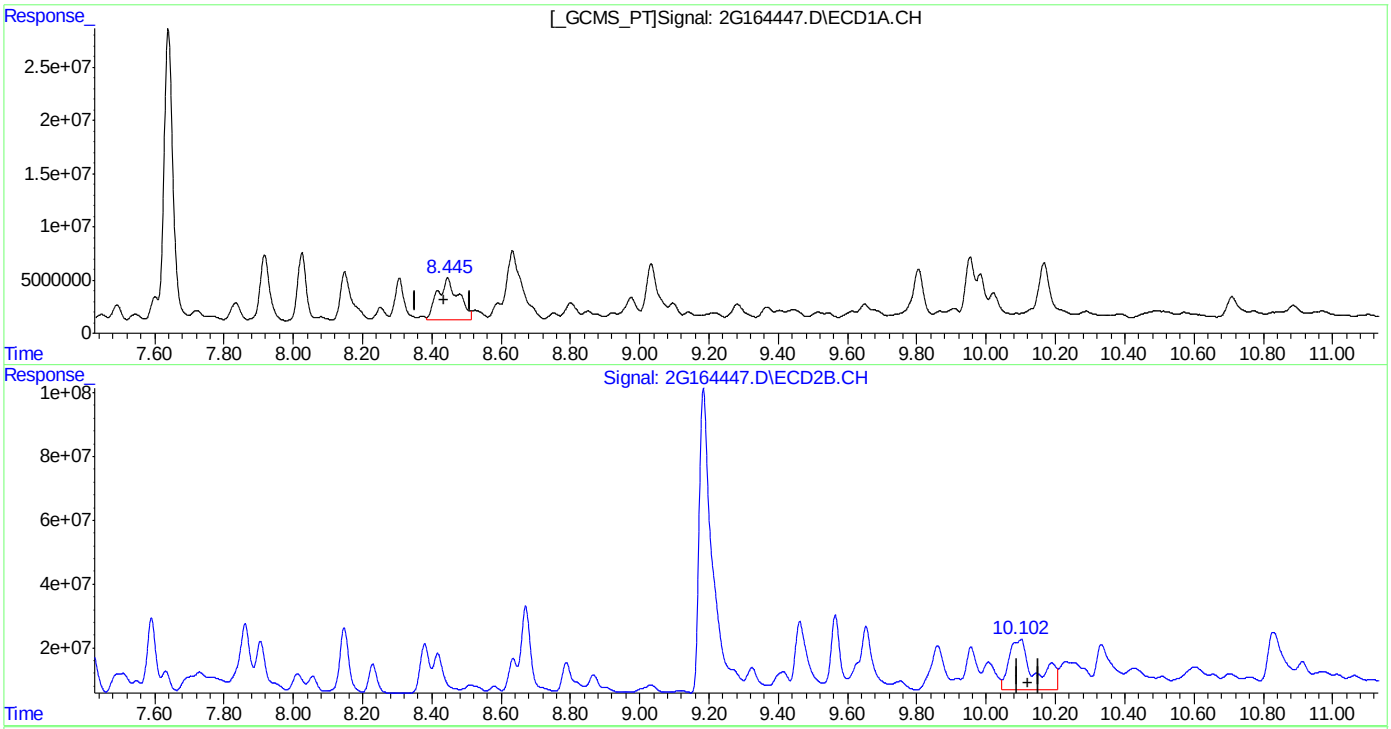
(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:23:41 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164447.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 6:22 am
Operator : edouarda
Sample : op12244-msd
Misc : OP12244,G2G4347,15.6,,,10,1
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 21:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.445min 434.494PPB m
response 164580962

(40) AR1260-E #2
10.102min 393.115PPB m
response 801235165

(+) = Expected Retention Time
2PCB4311.M Mon May 28 21:23:54 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 10:46:12
Operator : dharas
Sample : ddt
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:42:32 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.942	2.147	385.2E6	251.7E6	50.000	50.000
27)	I 1-bromo-2...	1.942	2.147	385.2E6	251.7E6	50.000	50.000
33)	I 1-bromo-2...	1.942	2.147	385.2E6	251.7E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.529f	2.933	370.3E6	235.5E6	49.464	50.237
	Spiked Amount 40.000	Range 30 - 150		Recovery =		123.66%	125.59%
26)	SA Decachlor...	9.835f	11.722f	348.8E6	211.9E6	45.707	45.314
	Spiked Amount 40.000			Recovery =		114.27%	113.29%
	Target Compounds						
15)	B 4,4'-DDE	5.254	6.521	11688813	6661386	1.468	1.420
17)	MA Endrin	5.961f	7.269	397.4E6	243.1E6	52.024	49.988
18)	A 4,4'-DDD	6.083f	7.454	11318971	7536013	1.717	1.864
20)	MA 4,4'-DDT	6.500f	7.981	697.1E6	431.7E6	110.287	110.638
25)	B Endrin Ke...	8.022f	9.588	3648777	6453656	0.483m	1.301m#
	Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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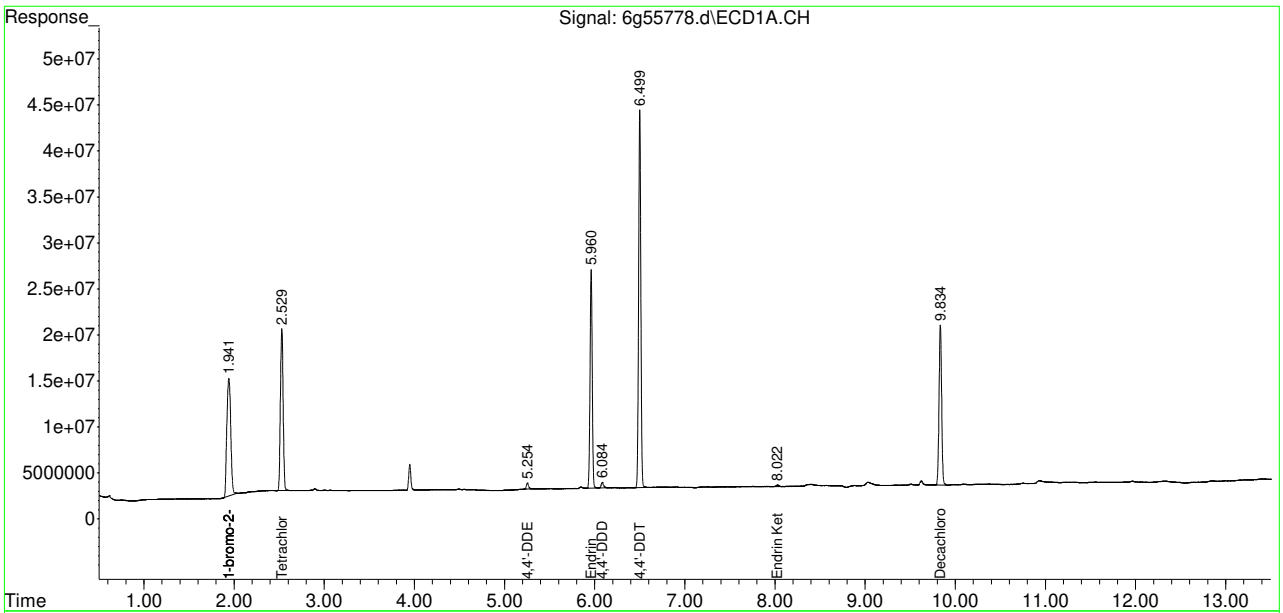
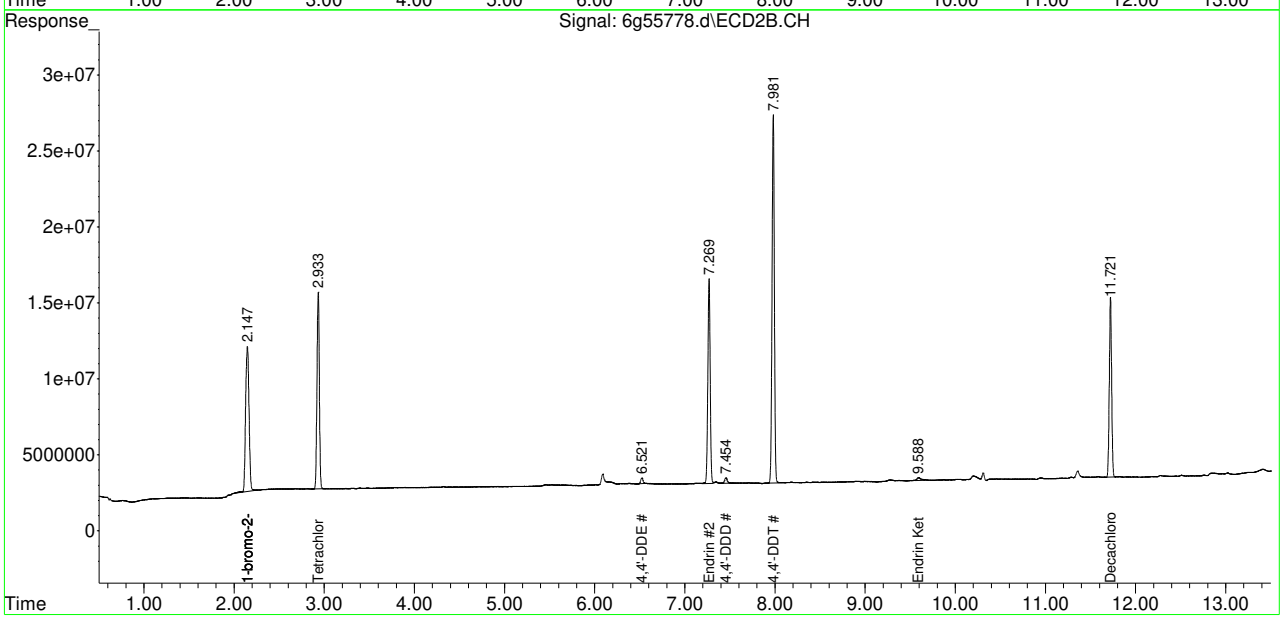
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 10:46:12
Operator : dharas
Sample : ddt
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:42:32 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-DDT	**Method:**	EPA 608
Lab FileID:	6G55778.D	**Analyst approved:**	04/30/18 17:43 Rebecca Krug
Injection Time:	04/30/18 10:46	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

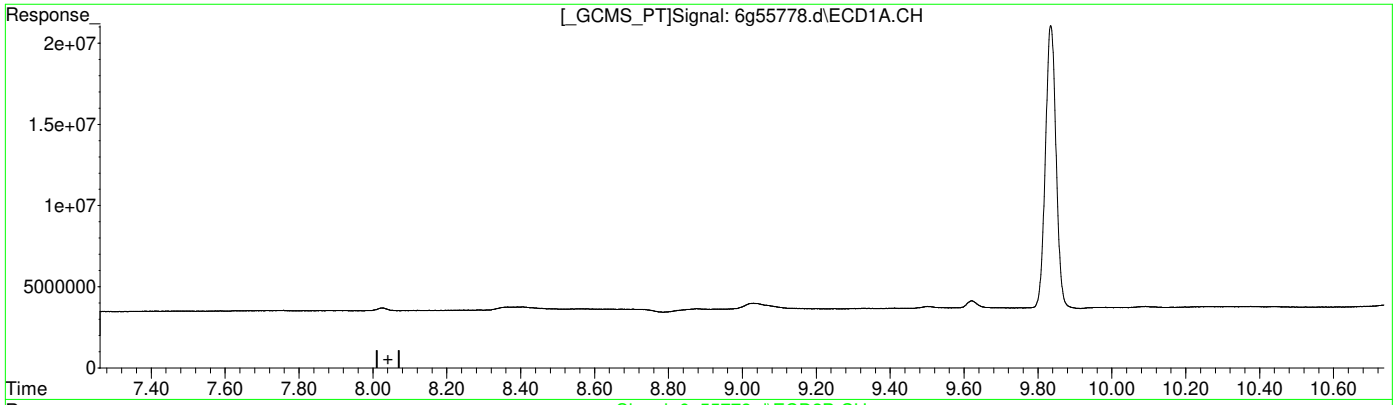
Parameter	CAS	Sig#	R.T. (min.)	Reason
Endrin ketone	53494-70-5	1	8.02	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.59	Poorly defined baseline

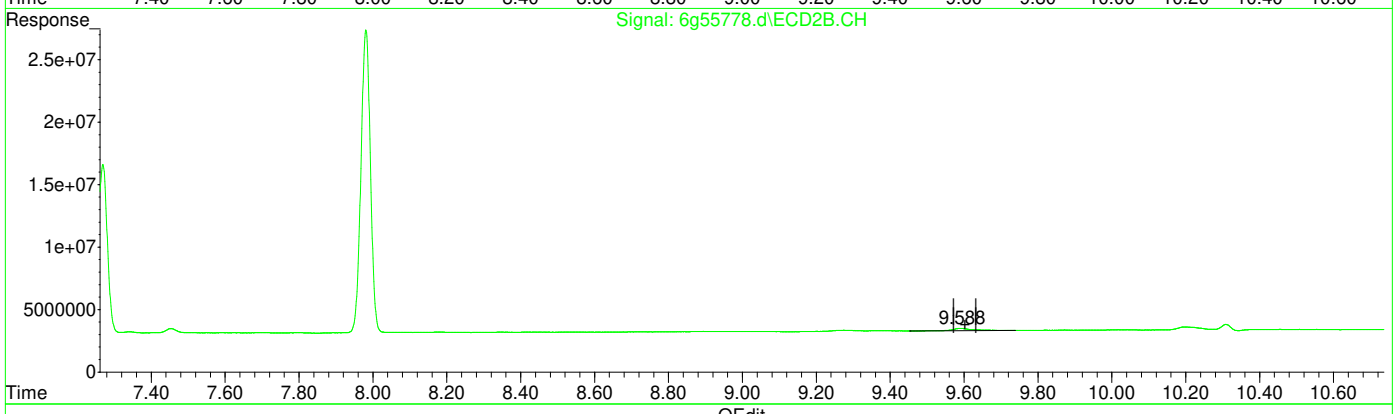
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 10:46:12
Operator : dharas
Sample : ddt
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:41:59 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)

0.000min 0.000 PPB

response 0

(25) Endrin Ketone #2 (B)

9.590min 1.526 PPB

response 7570610

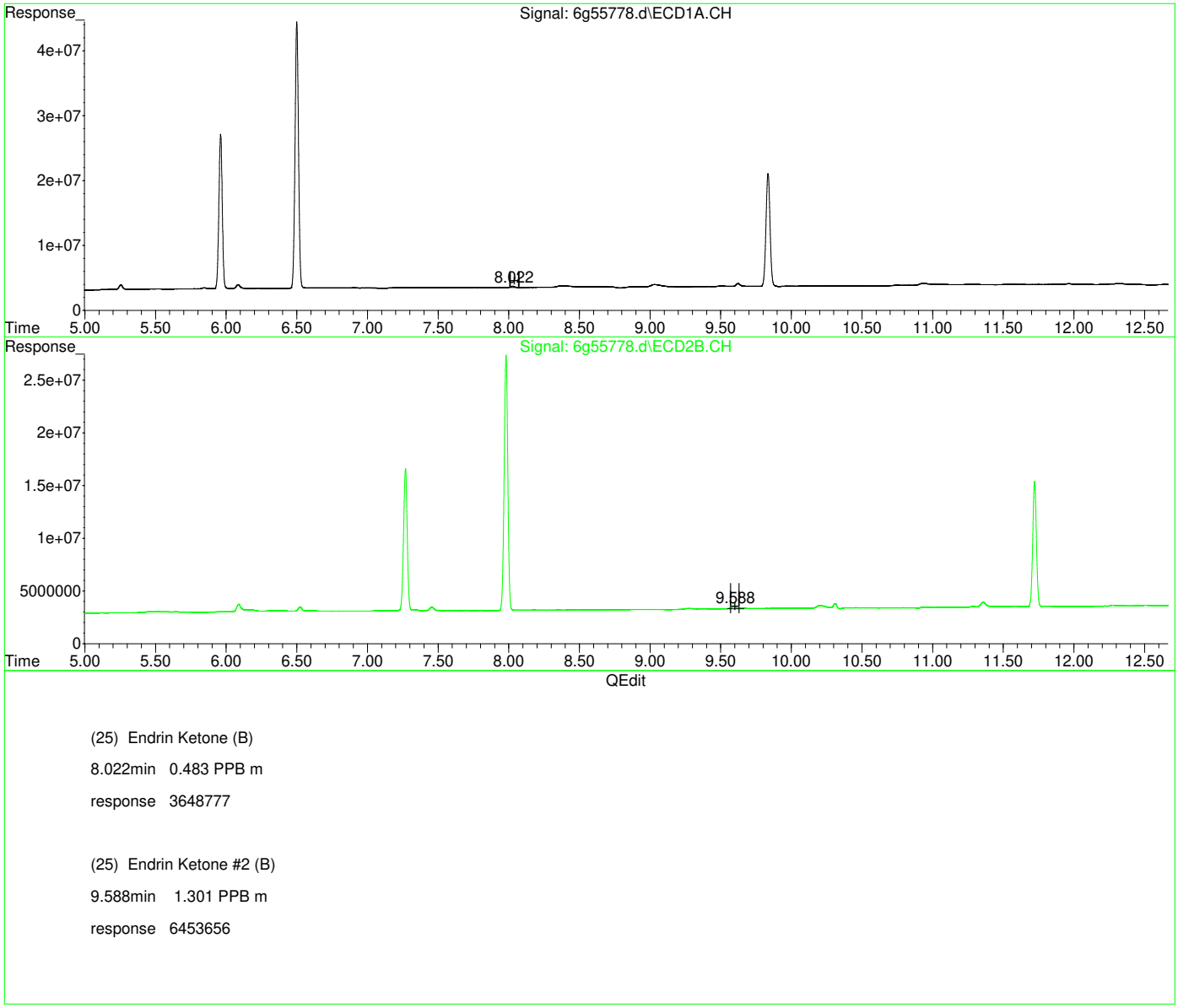
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55778.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 10:46:12
Operator : dharas
Sample : ddt
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:41:59 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(25) Endrin Ketone (B)

8.022min 0.483 PPB m

response 3648777

(25) Endrin Ketone #2 (B)

9.588min 1.301 PPB m

response 6453656

(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:42:34 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/30/18 10:50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:51:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.938	2.140	363.4E6	290.2E6	50.000	50.000
27)	I 1-bromo-2...	1.938	2.140	363.4E6	290.2E6	50.000	50.000
33)	I 1-bromo-2...	1.938	2.140	363.4E6	290.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.523	2.923	348.3E6	276.3E6	49.308	51.116
	Spiked Amount 40.000	Range 30 - 150		Recovery =		123.27%	127.79%
26)	SA Decachlor...	9.803	11.704	321.1E6	252.5E6	44.606	46.841
	Spiked Amount 40.000			Recovery =		111.52%	117.10%
	Target Compounds						
15)	B 4,4'-DDE	5.234	6.500	8764670	7327136	1.167m	1.355m
17)	MA Endrin	5.938	7.247	388.6E6	286.4E6	53.925	51.088
18)	A 4,4'-DDD	6.060	7.433	7993492	7146341	1.285m	1.534m
20)	MA 4,4'-DDT	6.476	7.960	675.3E6	502.7E6	113.246	111.762
21)	B Endrin Al...	6.874	8.158	730485	576090	0.121m	0.134m
25)	B Endrin Ke...	7.995	9.566	2254384	1792433	0.316m	0.313m
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

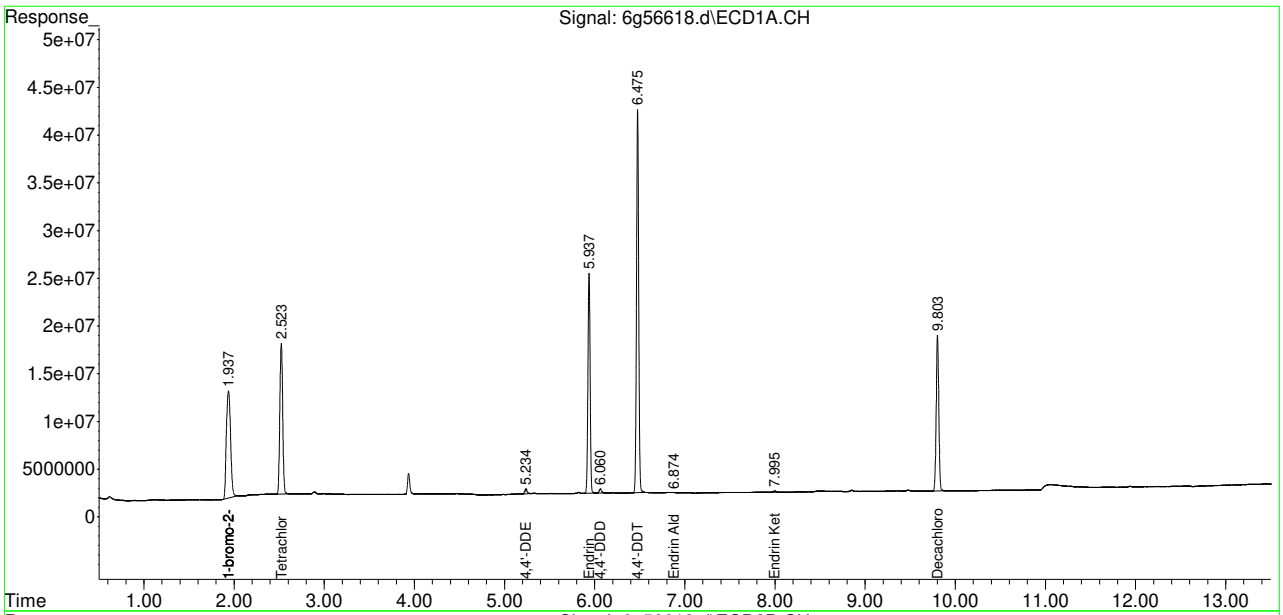
11.5.2 11

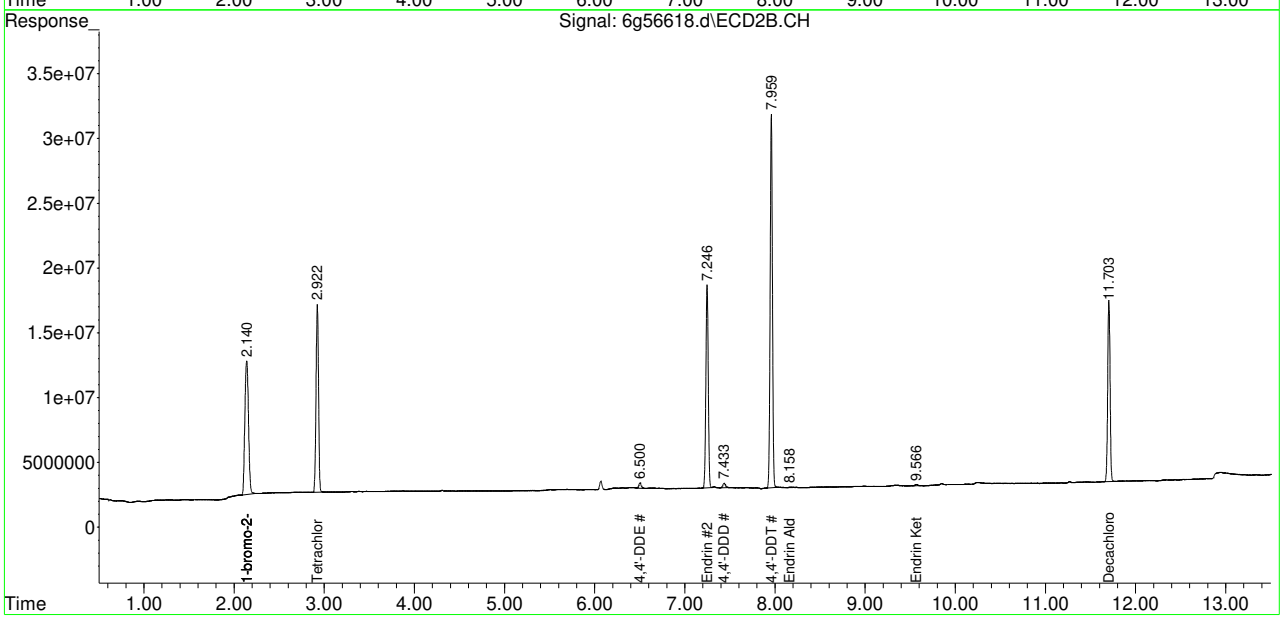
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:51:43 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: G6G1691-DDT
Lab FileID: 6G56618.D
Injection Time: 05/26/18 08:30
Method: SW846 8081B
Analyst approved: 05/30/18 09:50 Dharmistha Mehta
Supervisor approved: 05/30/18 10:50 Gwendolyn Burns

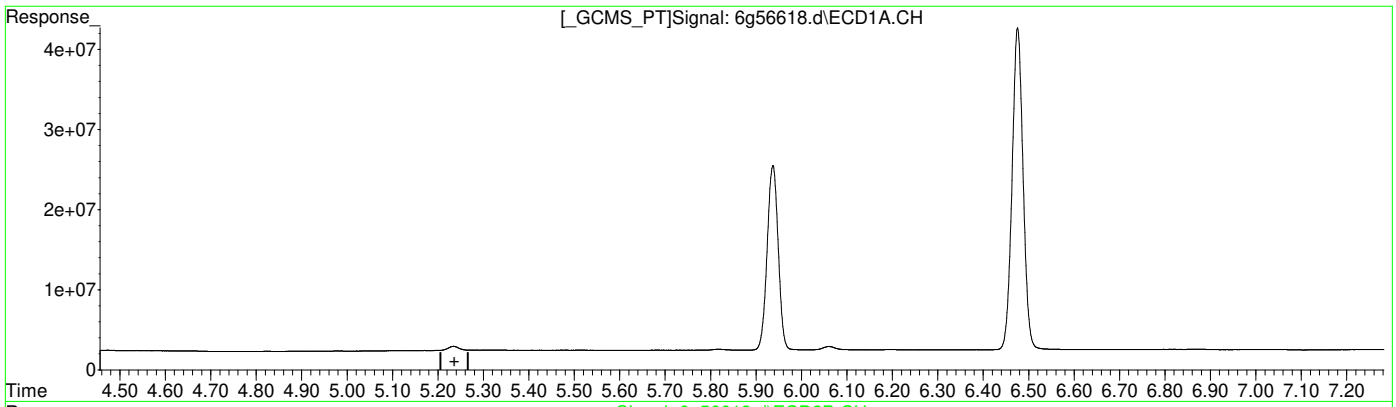
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.23	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.06	Poorly defined baseline
4,4'-DDE	72-55-9	2	6.50	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.87	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.43	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.99	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.16	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.57	Poorly defined baseline

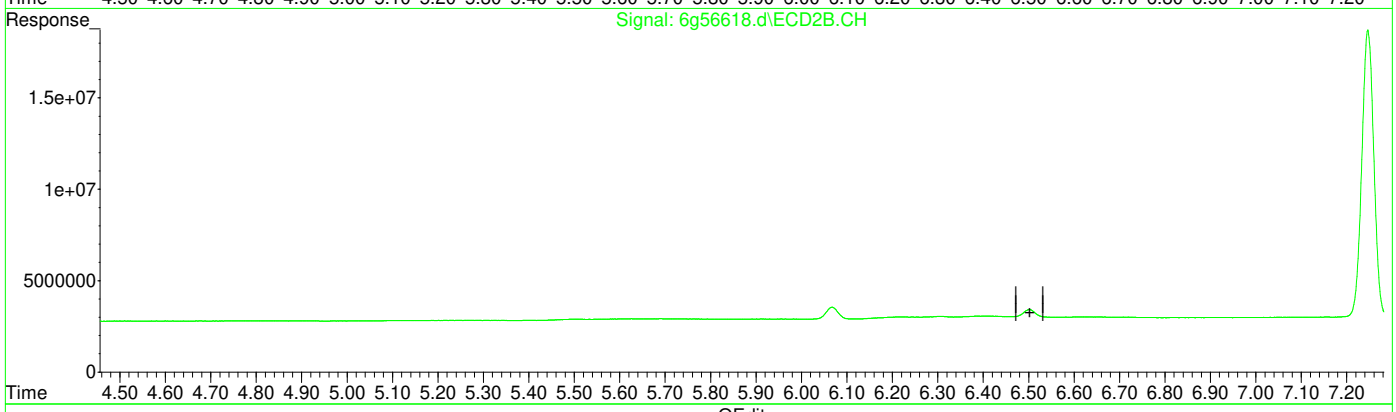
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)

0.000min 0.000 PPB

response 0

(15) 4,4'-DDE #2 (B)

0.000min 0.000 PPB

response 0

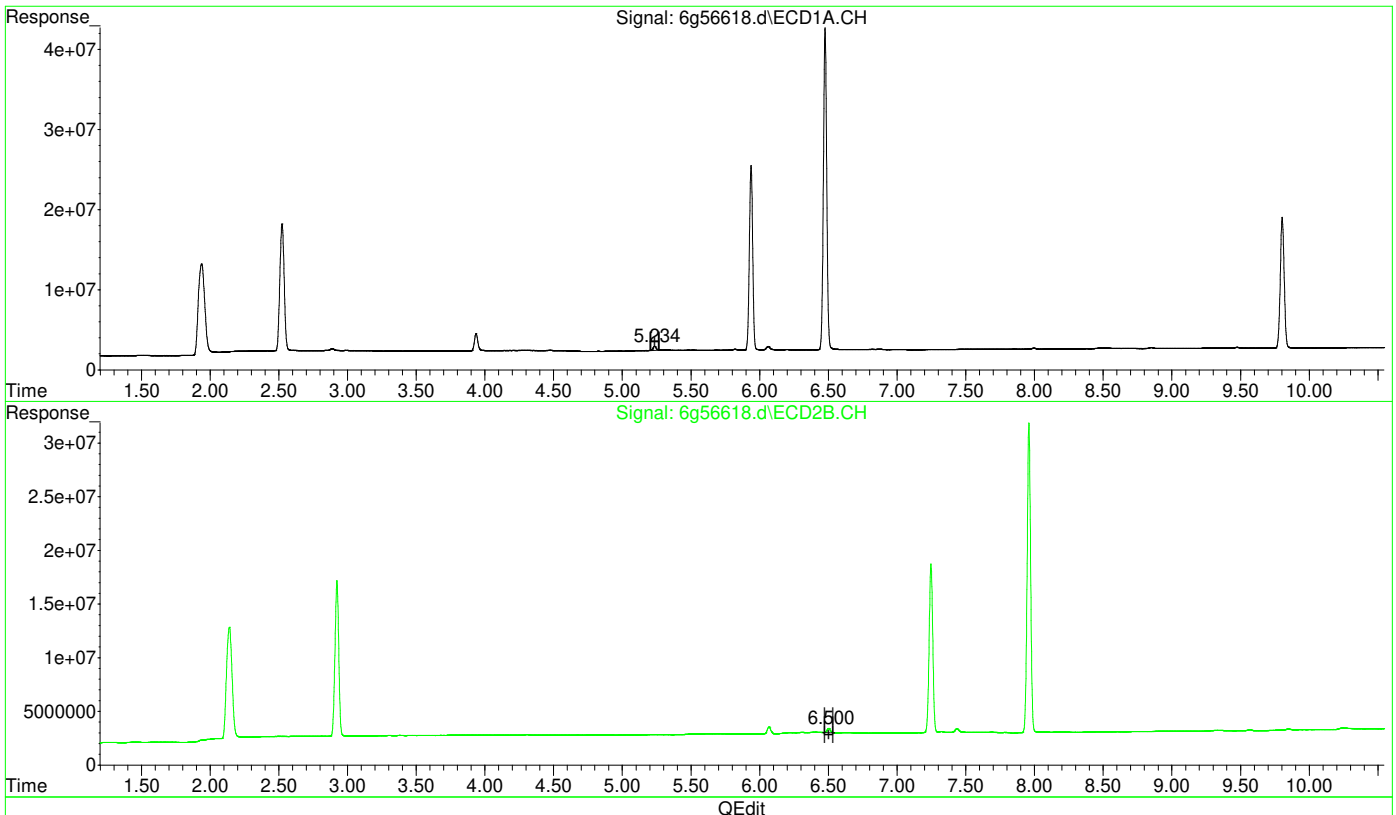
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:50:25 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(15) 4,4'-DDE (B)

5.234min 1.167 PPB m

response 8764670

(15) 4,4'-DDE #2 (B)

6.500min 1.355 PPB m

response 7327136

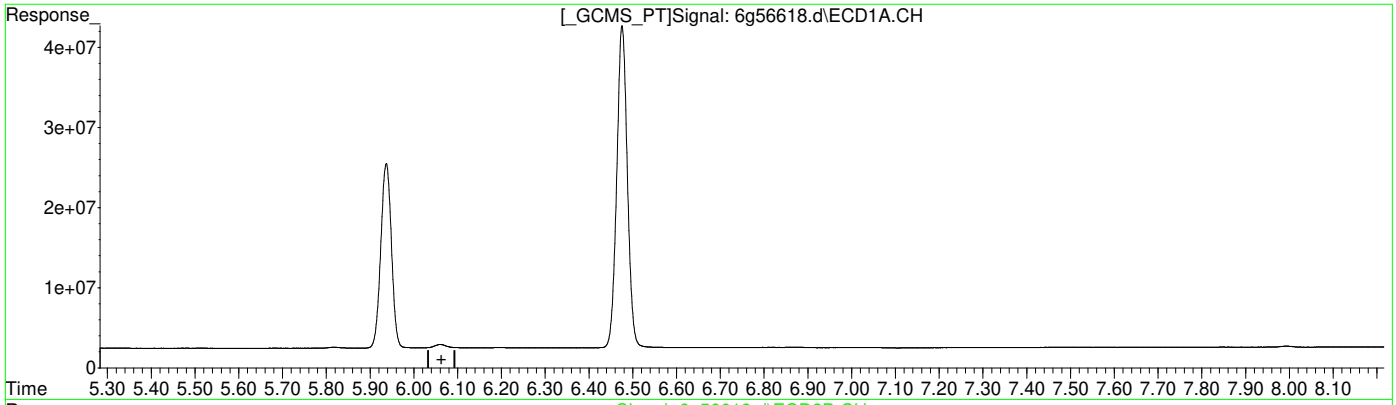
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:50:44 2018

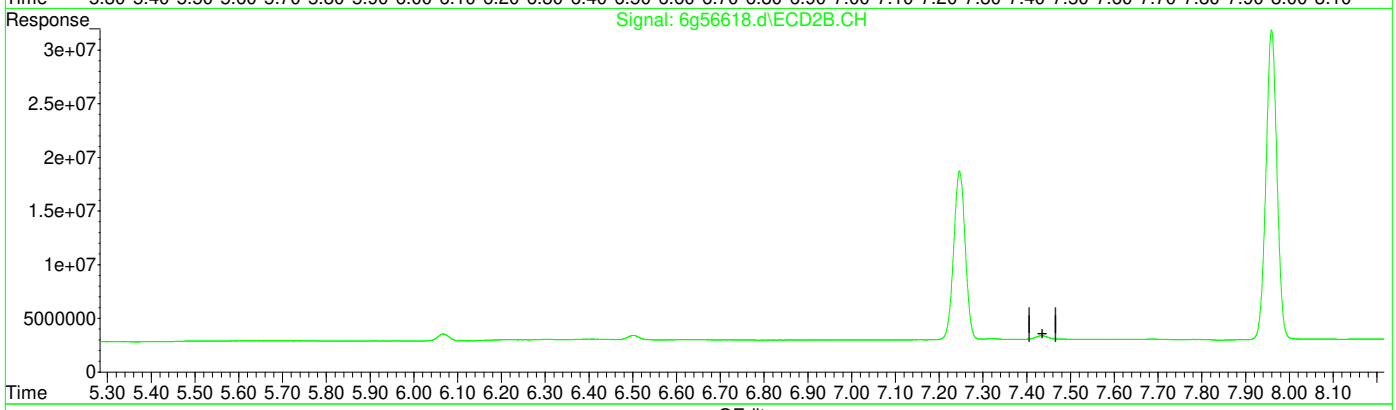
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)

0.000min 0.000 PPB

response 0

(18) 4,4'-DDD #2 (A)

0.000min 0.000 PPB

response 0

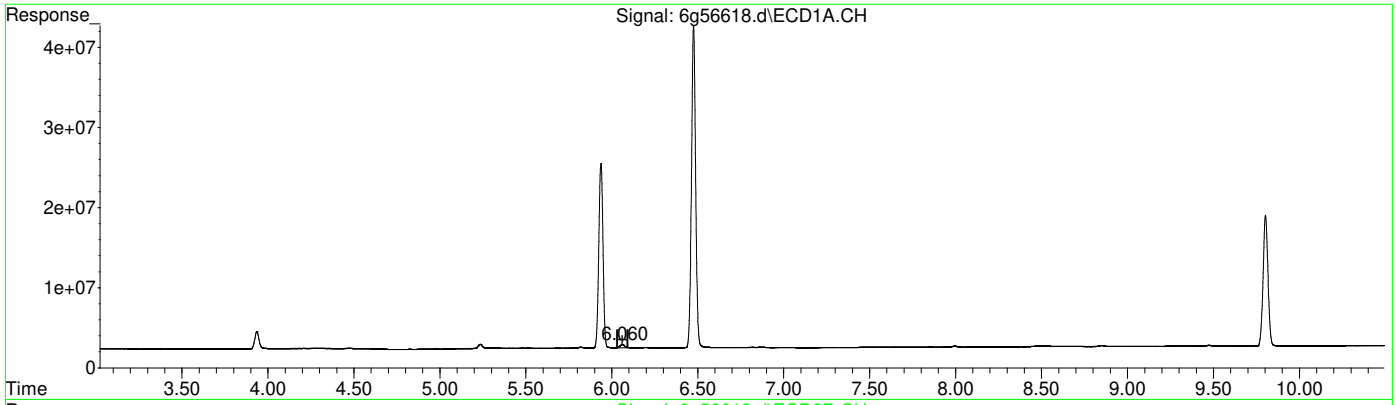
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:50:47 2018

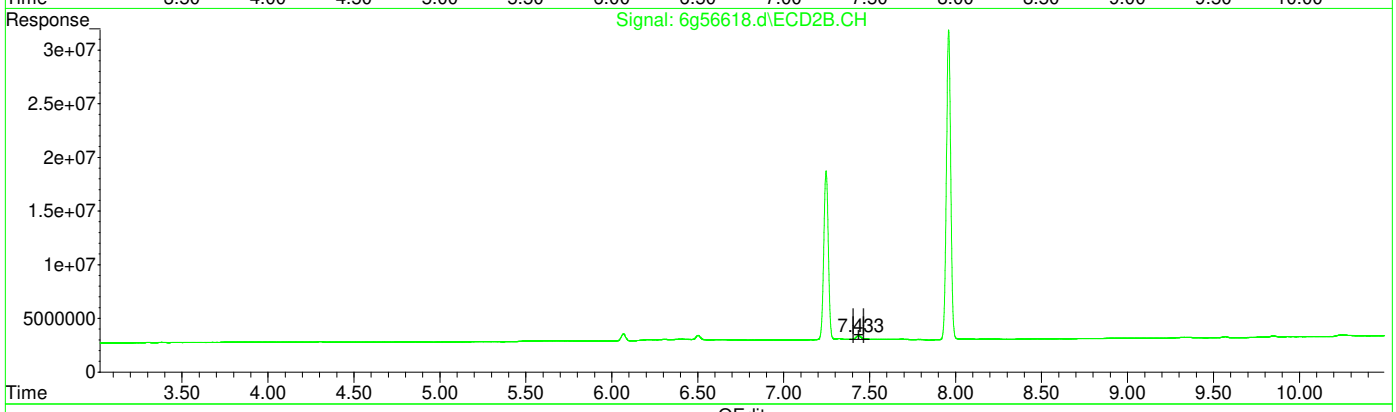
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)

6.060min 1.285 PPB m

response 7993492

(18) 4,4'-DDD #2 (A)

7.433min 1.534 PPB m

response 7146341

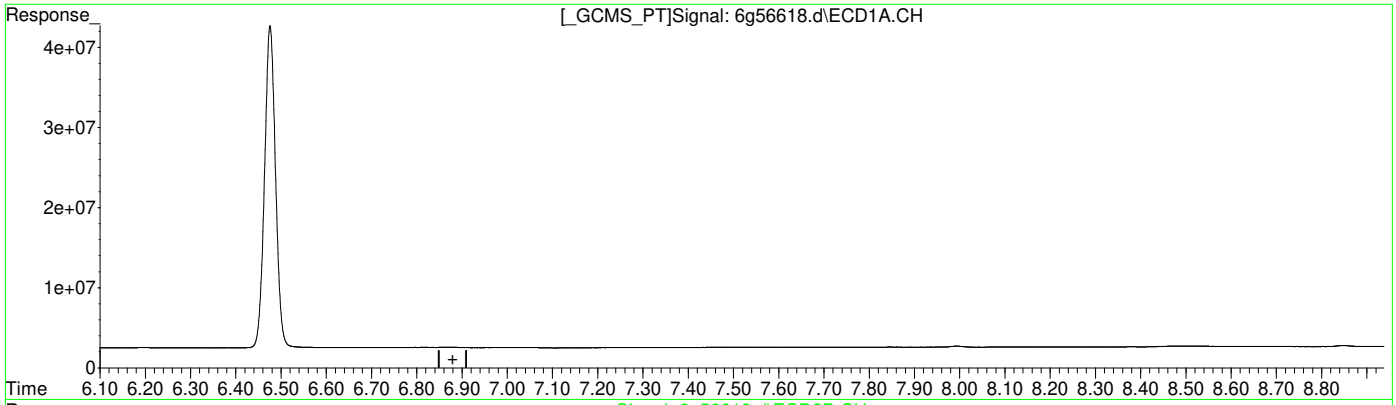
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:51:05 2018

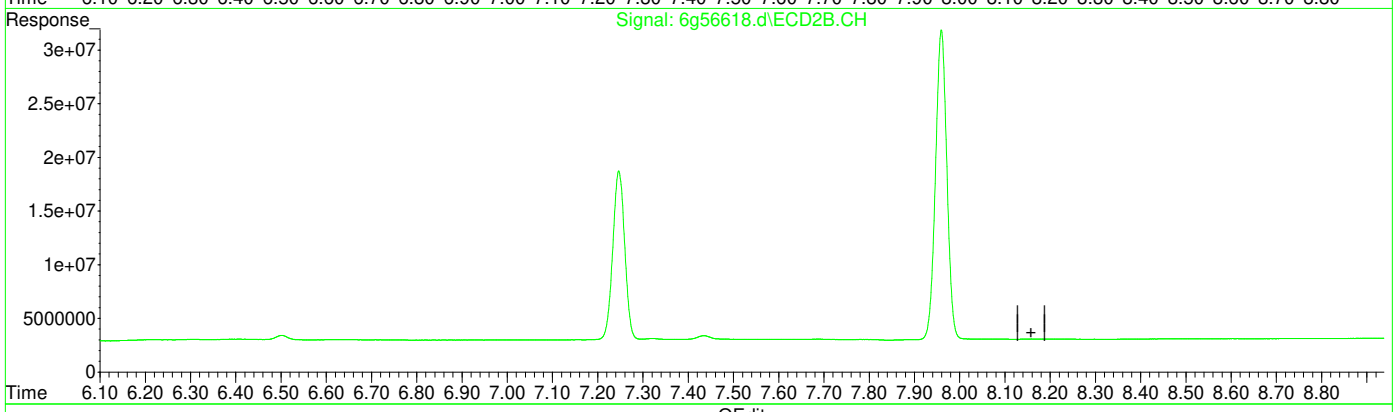
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

0.000min 0.000 PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.000min 0.000 PPB

response 0

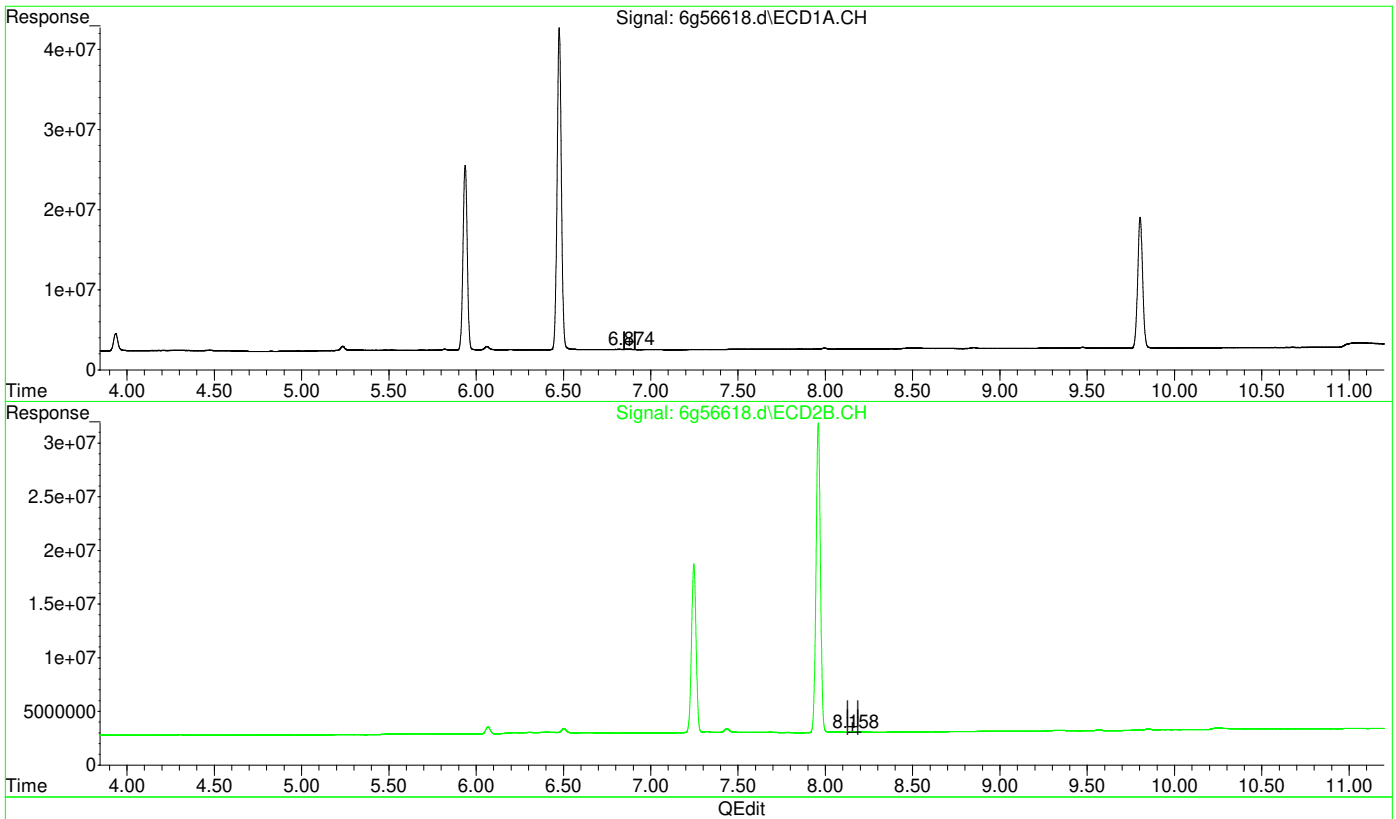
(+) = Expected Retention Time
6PST1671.M Tue May 29 15:51:12 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(21) Endrin Aldehyde (B)

6.874min 0.121 PPB m

response 730485

(21) Endrin Aldehyde #2 (B)

8.158min 0.134 PPB m

response 576090

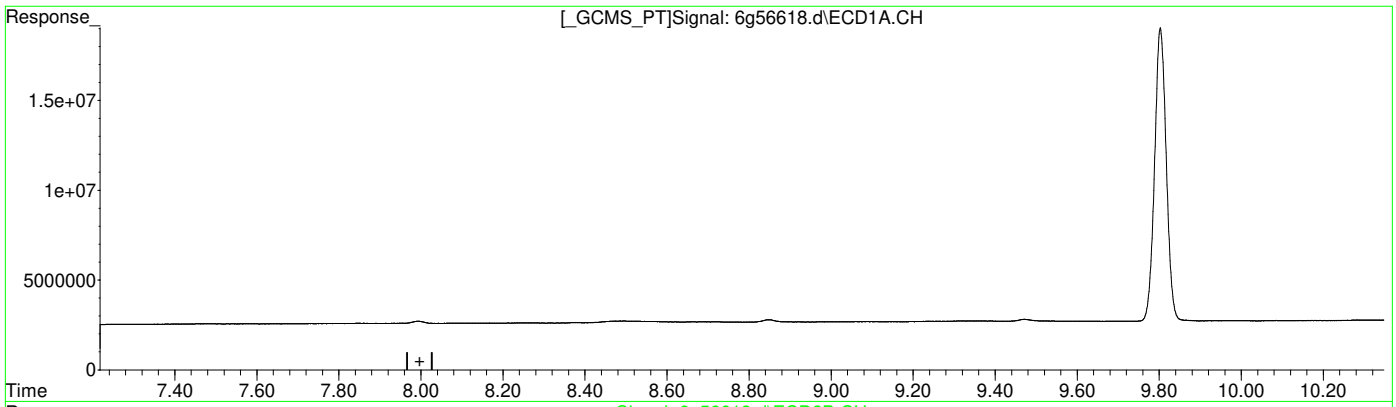
(+) = Expected Retention Time

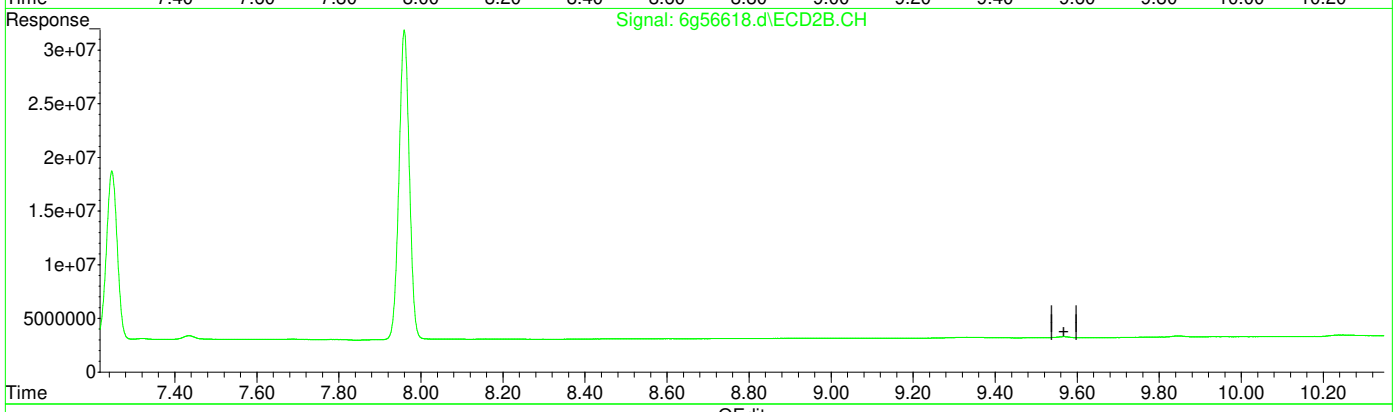
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)

0.000min 0.000 PPB

response 0

(25) Endrin Ketone #2 (B)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

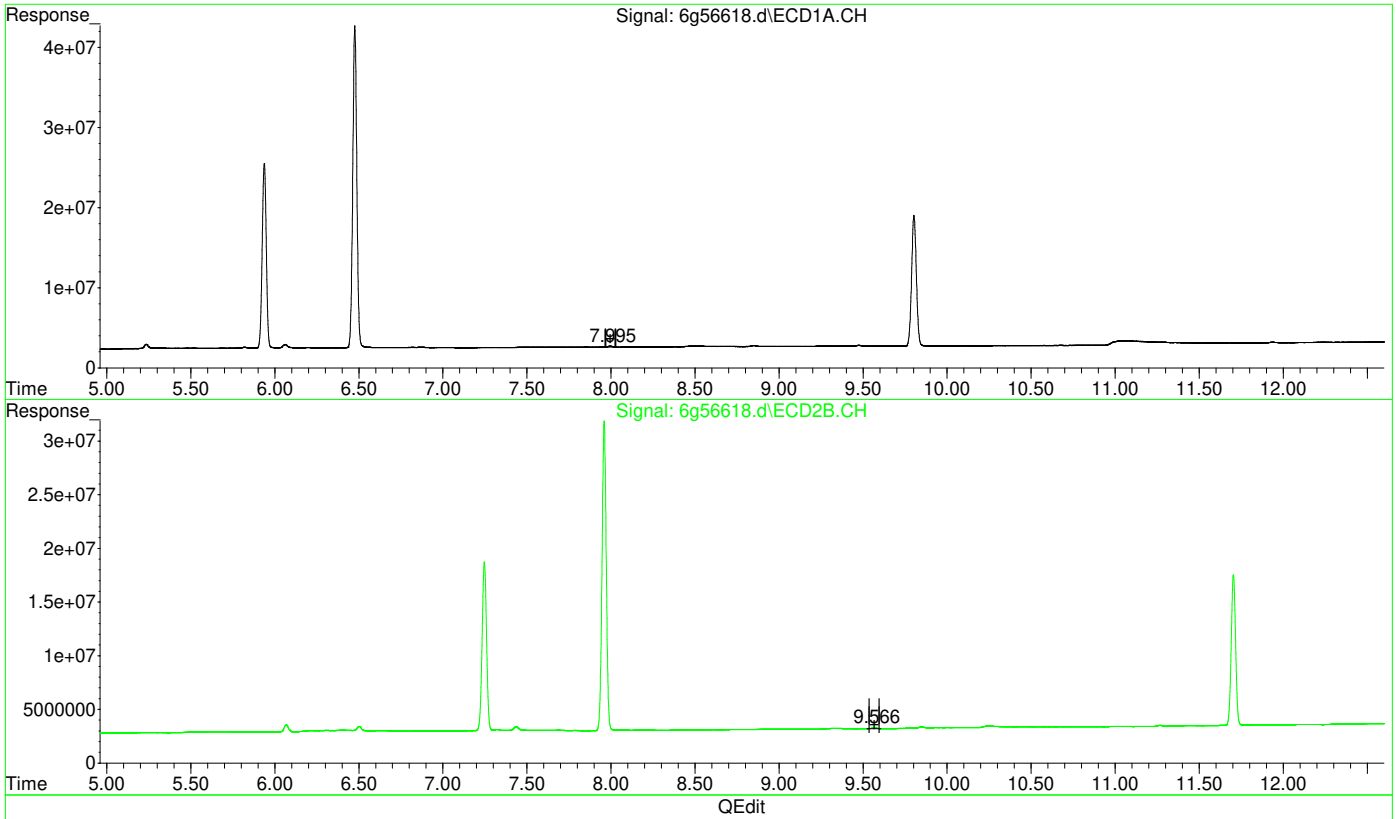
6PST1671.M Tue May 29 15:51:31 2018 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56618.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:30:56
Operator : dharas
Sample : ddt
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 29 15:49:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(25) Endrin Ketone (B)

7.995min 0.316 PPB m

response 2254384

(25) Endrin Ketone #2 (B)

9.566min 0.313 PPB m

response 1792433

(+) = Expected Retention Time
6PST1671.M Tue May 29 15:51:46 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/30/18 06:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:34:27 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.951	2.150	358.9E6	275.2E6	50.000	50.000
27)	I 1-bromo-2...	1.951	2.150	358.9E6	275.2E6	50.000	50.000
33)	I 1-bromo-2...	1.951	2.150	358.9E6	275.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530	2.928	340.1E6	259.7E6	48.752	50.673
	Spiked Amount 40.000	Range 30 - 150		Recovery =		121.88%	126.68%
26)	SA Decachlor...	9.804	11.704	323.3E6	238.7E6	45.476	46.685
	Spiked Amount 40.000			Recovery =		113.69%	116.71%
	Target Compounds						
15)	B 4,4'-DDE	5.236	6.502	10455893	7940198	1.410m	1.548m
17)	MA Endrin	5.939	7.247	371.8E6	261.7E6	52.238	49.223
18)	A 4,4'-DDD	6.062	7.434	7278374	5617371	1.185m	1.271m
20)	MA 4,4'-DDT	6.477	7.959	631.5E6	437.1E6	107.235	102.471
21)	B Endrin Al...	6.878	8.173f	818021	727895	0.137m	0.178m#
25)	B Endrin Ke...	7.996	9.568	2395985	1923230	0.340m	0.355m
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

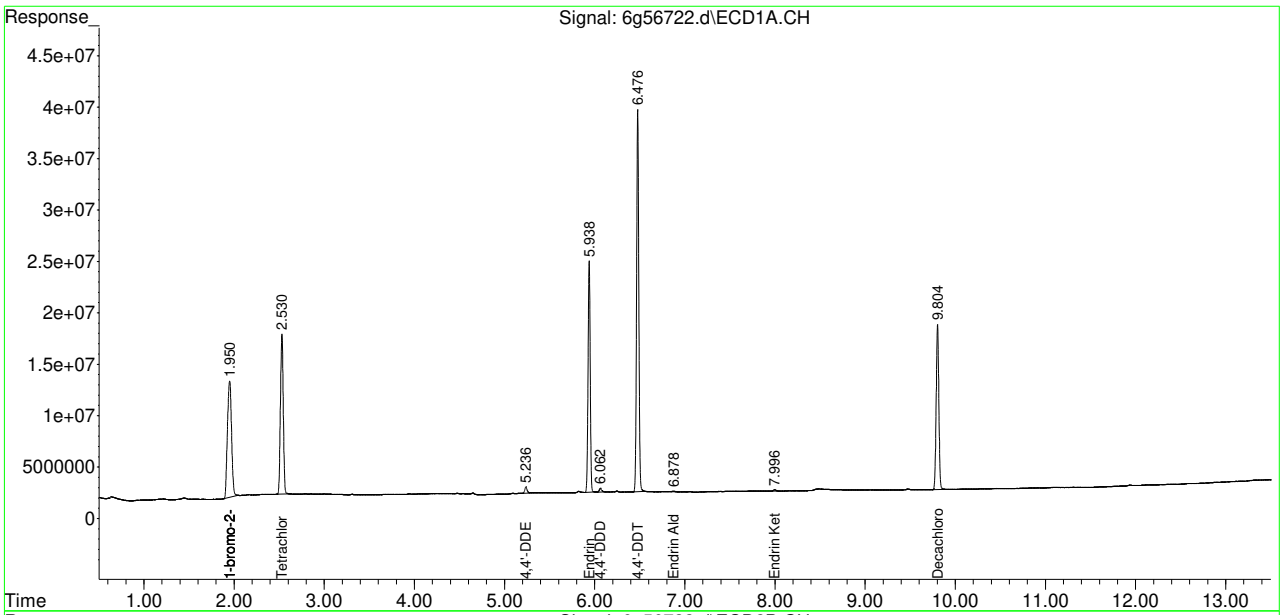
11.5.3 11

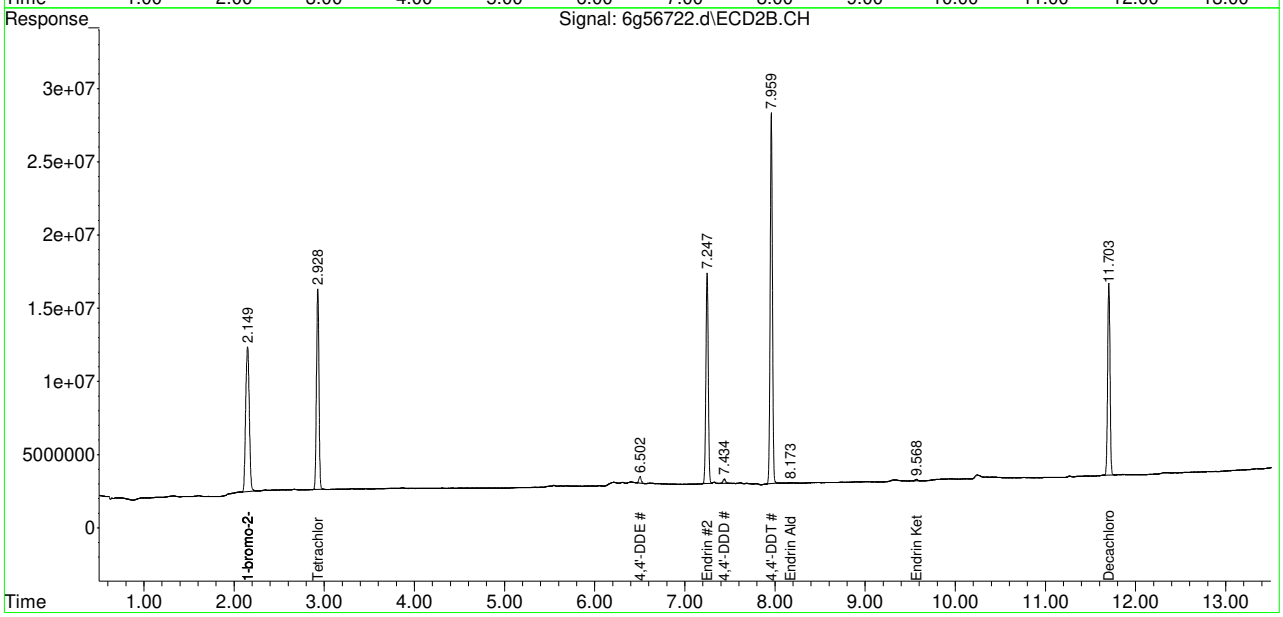
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:34:27 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: G6G1694-DDT
Lab FileID: 6G56722.D
Injection Time: 05/30/18 03:15
Method: SW846 8081B
Analyst approved: 05/30/18 03:47 Christine Phillips
Supervisor approved: 05/30/18 06:38 Gwendolyn Burns

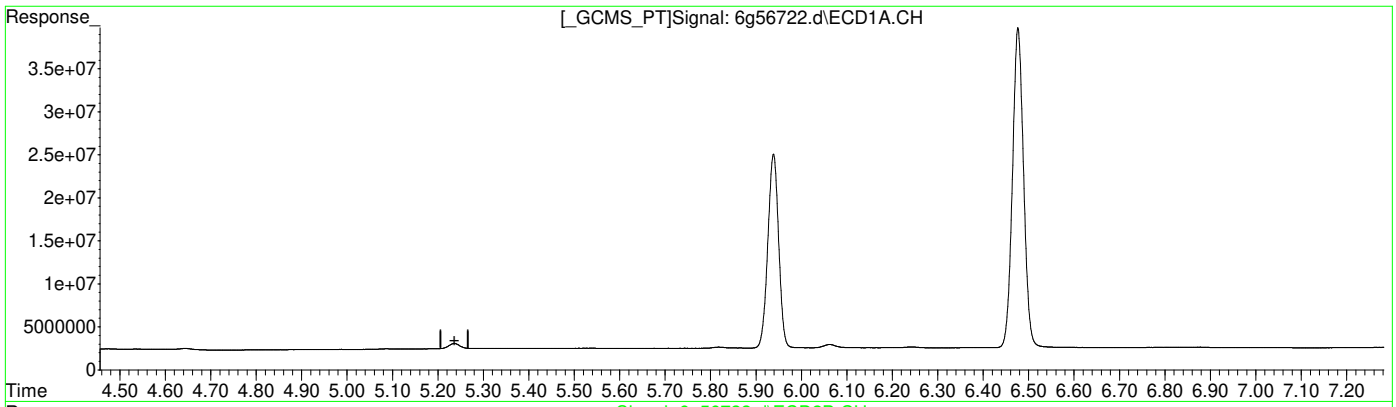
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.24	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.06	Poorly defined baseline
4,4'-DDE	72-55-9	2	6.50	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.88	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.43	Poorly defined baseline
Endrin ketone	53494-70-5	1	8.00	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.17	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.57	Poorly defined baseline

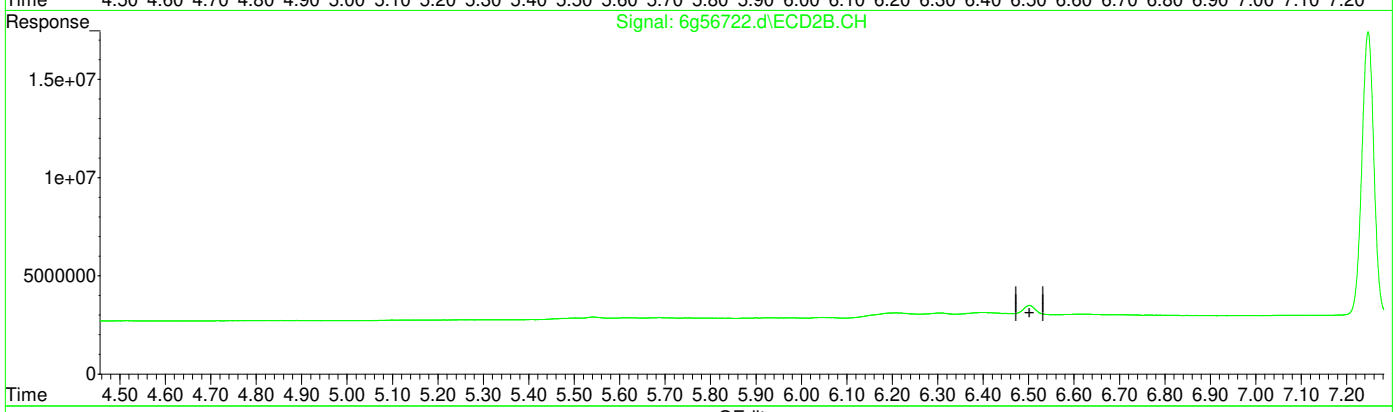
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)

5.239min 0.000 PPB m

response 0

(15) 4,4'-DDE #2 (B)

0.000min 0.000 PPB

response 0

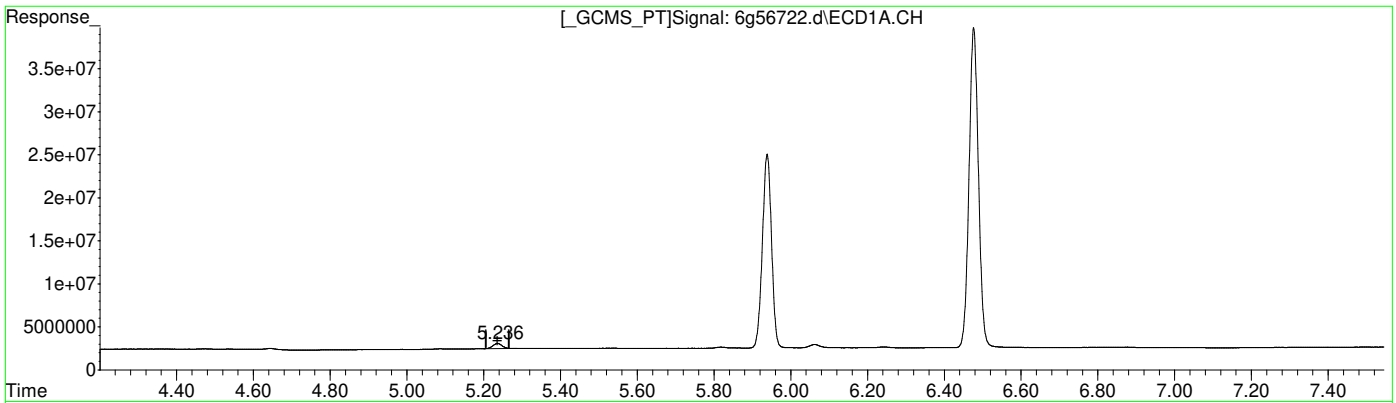
(+) = Expected Retention Time
6PST1671.M Wed May 30 03:31:53 2018

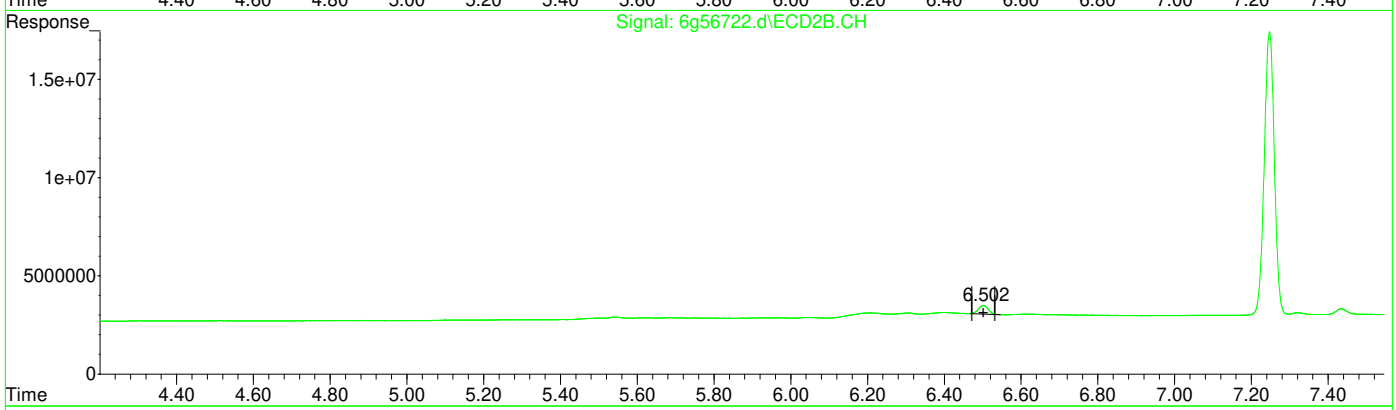
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)

5.236min 1.410 PPB m

response 10455893

(15) 4,4'-DDE #2 (B)

6.502min 1.548 PPB m

response 7940198

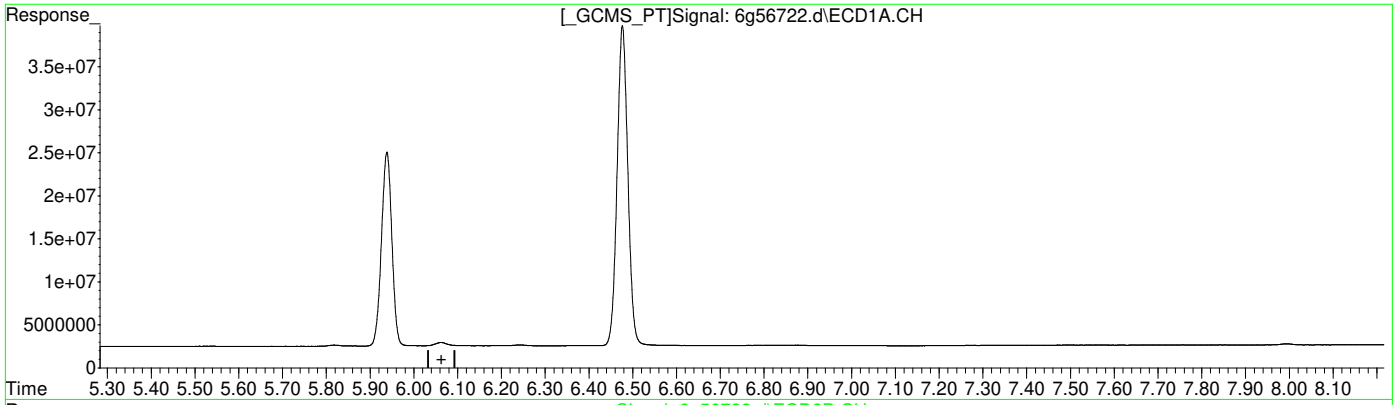
(+) = Expected Retention Time
6PST1671.M Wed May 30 03:32:15 2018

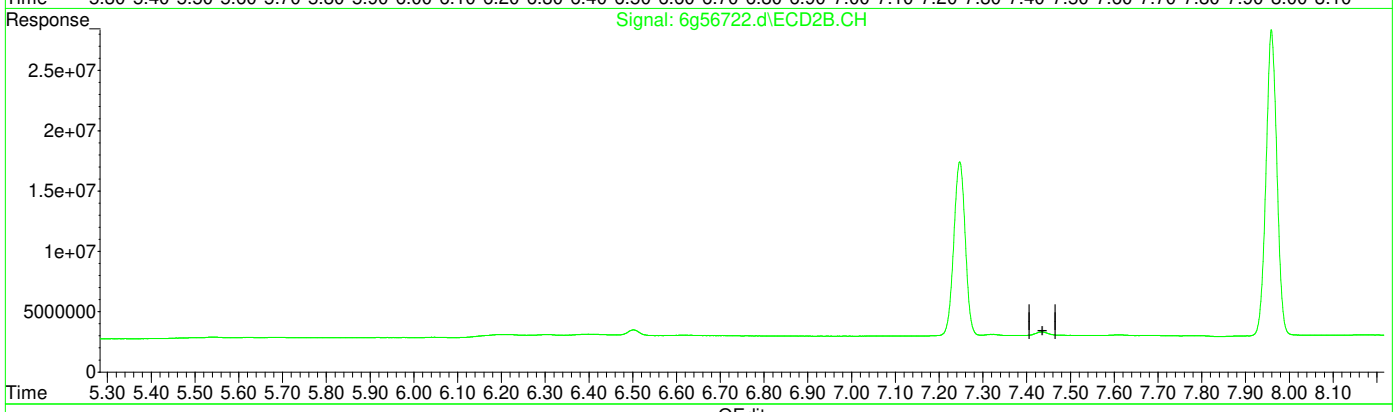
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)

0.000min 0.000 PPB

response 0

(18) 4,4'-DDD #2 (A)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

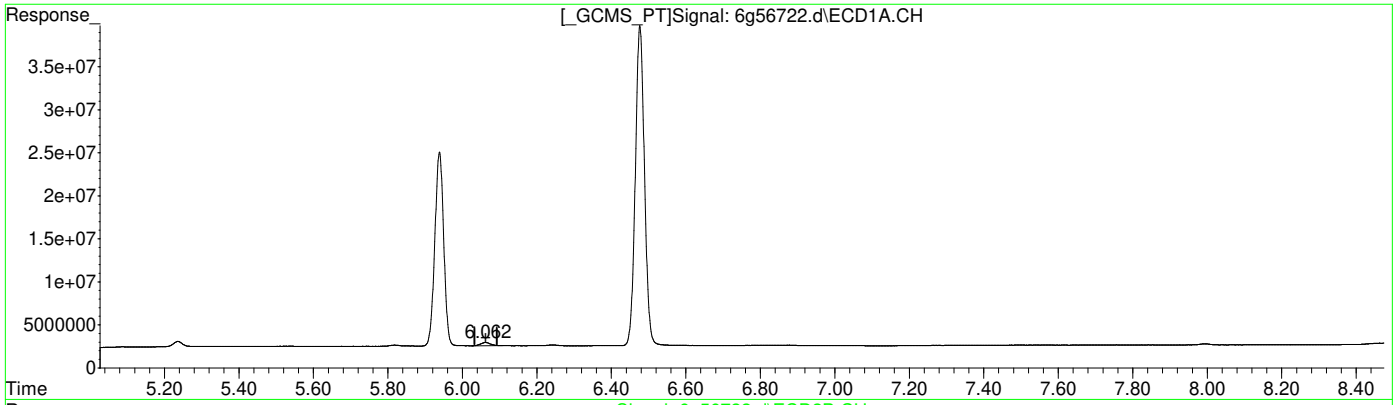
6PST1671.M Wed May 30 03:32:23 2018

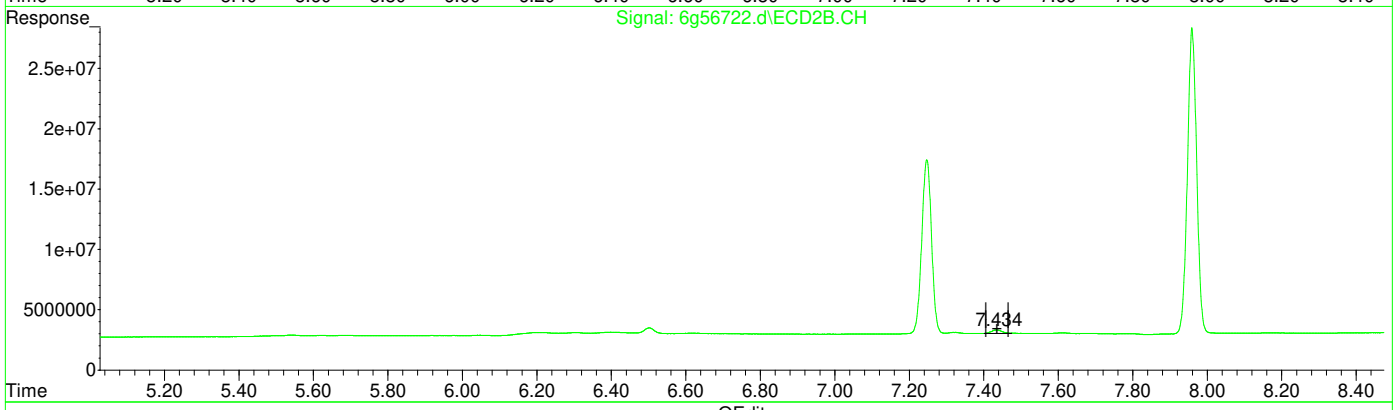
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)

6.062min 1.185 PPB m

response 7278374

(18) 4,4'-DDD #2 (A)

7.434min 1.271 PPB m

response 5617371

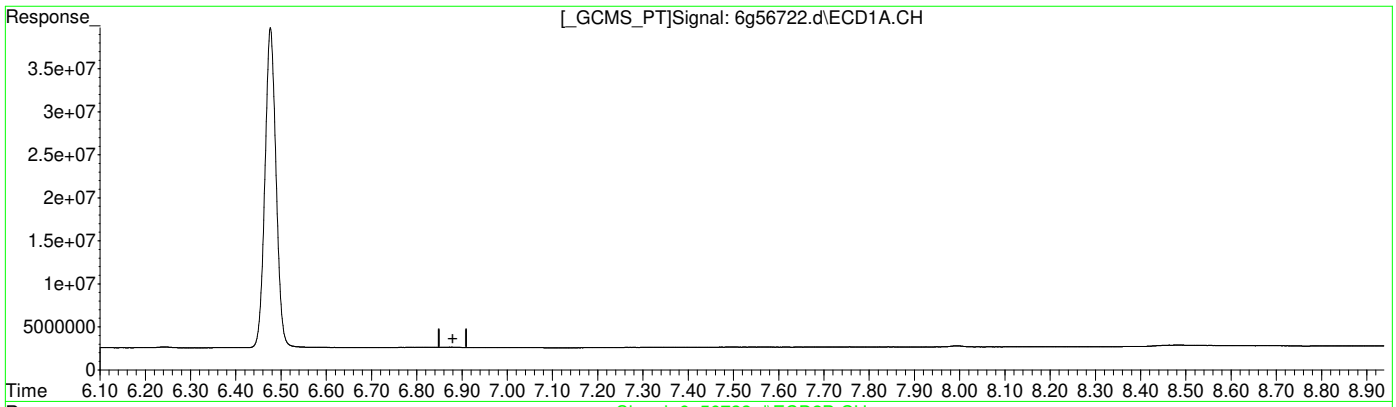
(+) = Expected Retention Time
6PST1671.M Wed May 30 03:32:46 2018

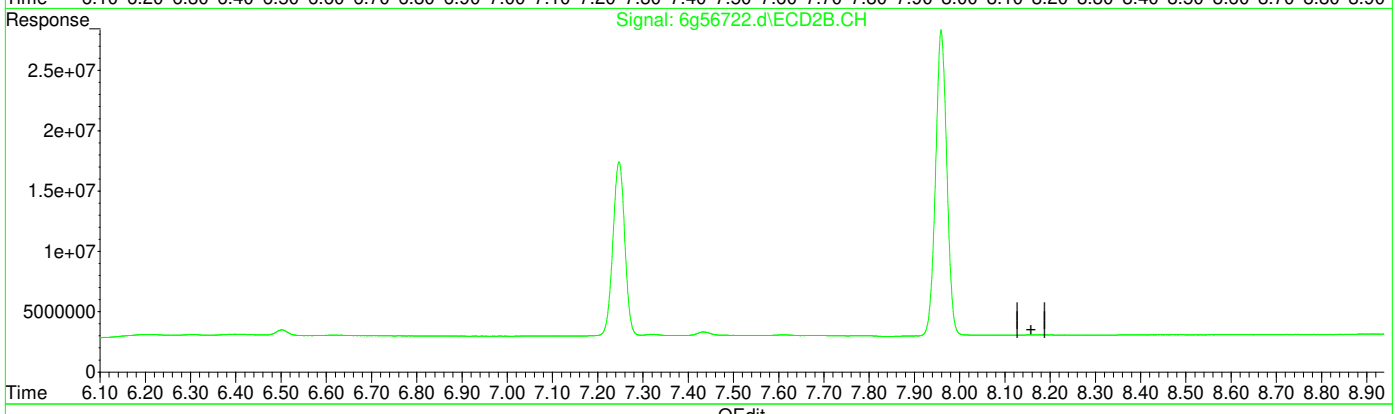
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

6.606min 0.000 PPB m

response 0

(21) Endrin Aldehyde #2 (B)

0.000min 0.000 PPB

response 0

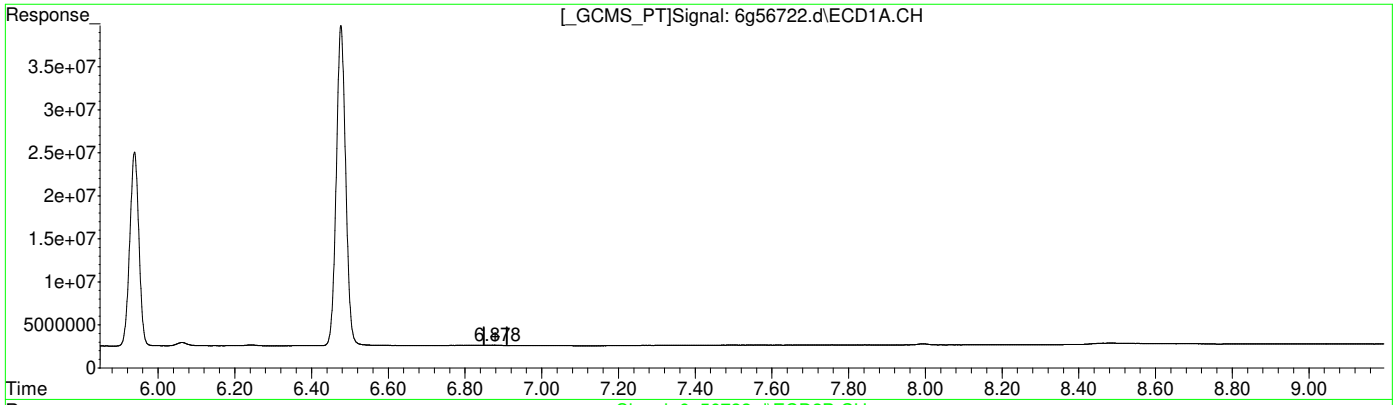
(+) = Expected Retention Time
6PST1671.M Wed May 30 03:32:58 2018

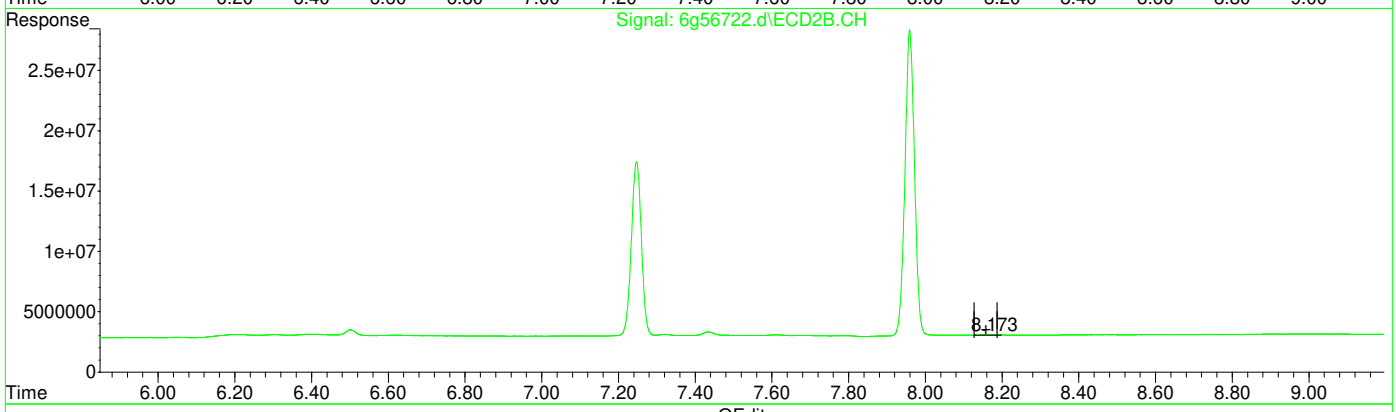
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

6.878min 0.137 PPB m

response 818021

(21) Endrin Aldehyde #2 (B)

8.173min 0.178 PPB m

response 727895

(+) = Expected Retention Time
6PST1671.M Wed May 30 03:33:35 2018

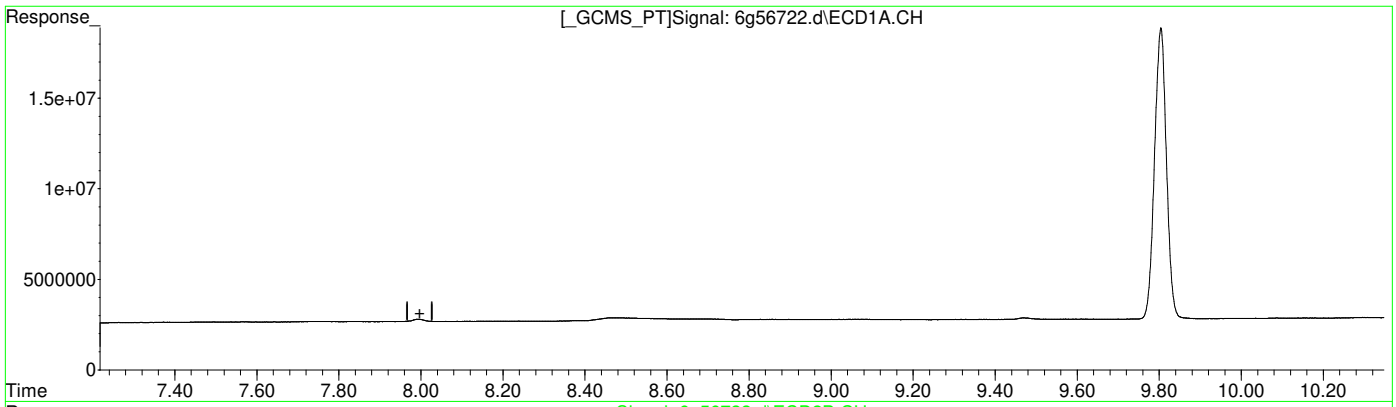
11.5.3.7

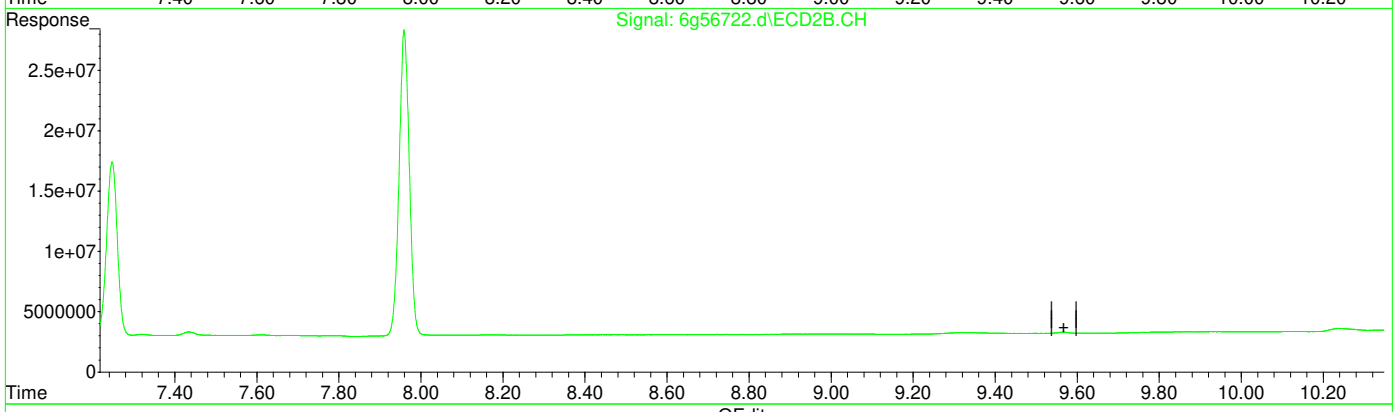
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)

7.838min 0.000 PPB m

response 0

(25) Endrin Ketone #2 (B)

0.000min 0.000 PPB

response 0

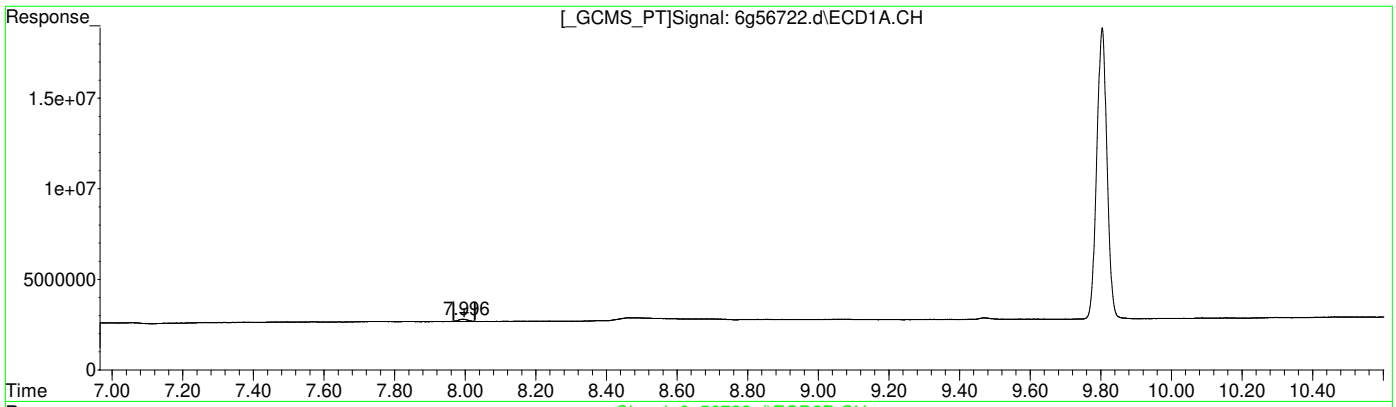
(+) = Expected Retention Time
6PST1671.M Wed May 30 03:33:49 2018

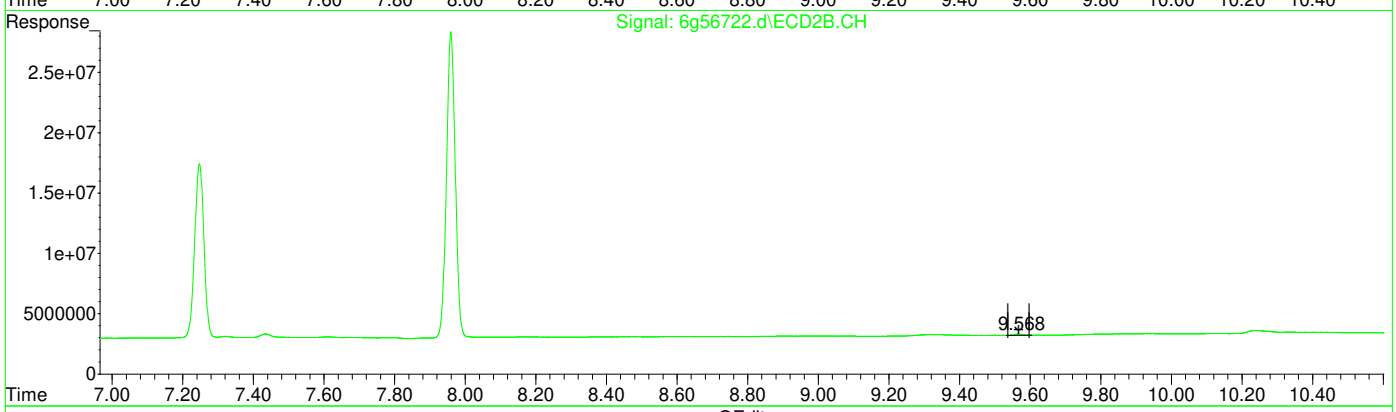
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56722.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 03:15:49
Operator : christp
Sample : ddt
Misc : OP12308,g6g1694,16.1,,,10,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 03:31:35 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)

7.996min 0.340 PPB m

response 2395985

(25) Endrin Ketone #2 (B)

9.568min 0.355 PPB m

response 1923230

(+) = Expected Retention Time
6PST1671.M Wed May 30 03:34:15 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/31/18 14:56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:25:32 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.933	2.136	384.5E6	290.4E6	50.000	50.000
27)	I 1-bromo-2...	1.933	2.136	384.5E6	290.4E6	50.000	50.000
33)	I 1-bromo-2...	1.933	2.136	384.5E6	290.4E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.521	2.920	366.3E6	276.3E6	49.012	51.076
	Spiked Amount 40.000	Range 30 - 150		Recovery =		122.53%	127.69%
26)	SA Decachlor...	9.802	11.700	340.6E6	257.3E6	44.719	47.696
	Spiked Amount 40.000			Recovery =		111.80%	119.24%
	Target Compounds						
15)	B 4,4'-DDE	5.236	6.499	10672674	8093296	1.343m	1.495m
17)	MA Endrin	5.936	7.244	391.9E6	274.5E6	51.398	48.925
18)	A 4,4'-DDD	6.063	7.433	13942582	10206810	2.119m	2.189m
20)	MA 4,4'-DDT	6.478	7.957	615.1E6	422.4E6	97.492	93.836
21)	B Endrin Al...	6.883	8.183f	2439263	364848	0.381m	0.085m#
25)	B Endrin Ke...	7.993	9.563	2809638	1766140	0.372m	0.309m
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

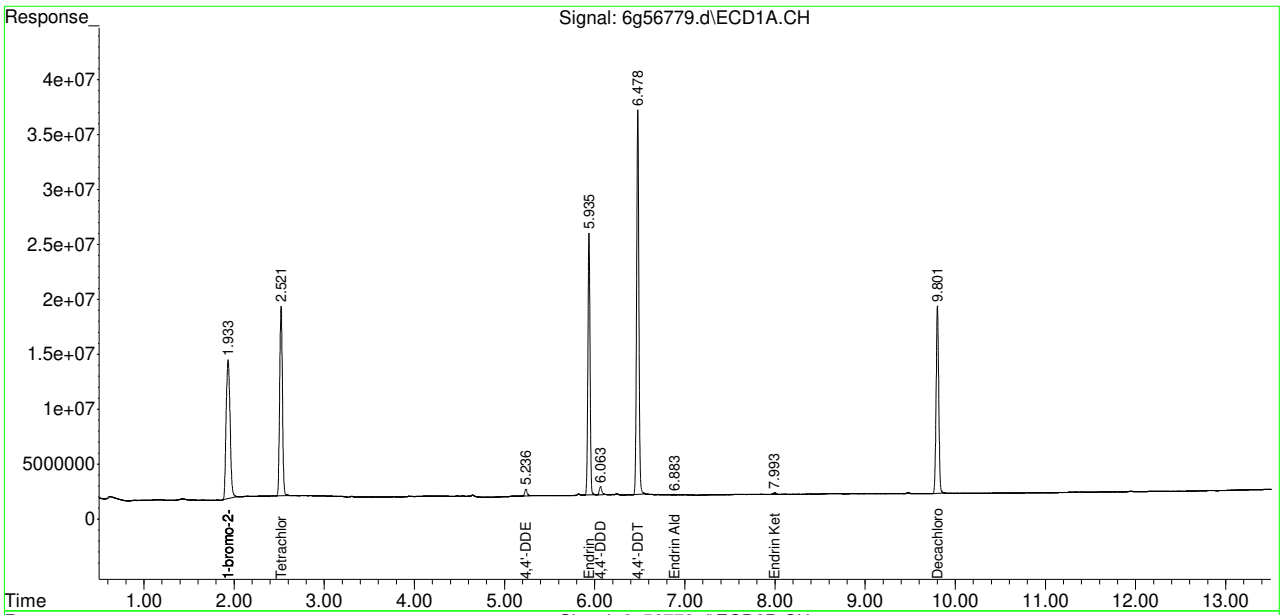
11.5.4 11

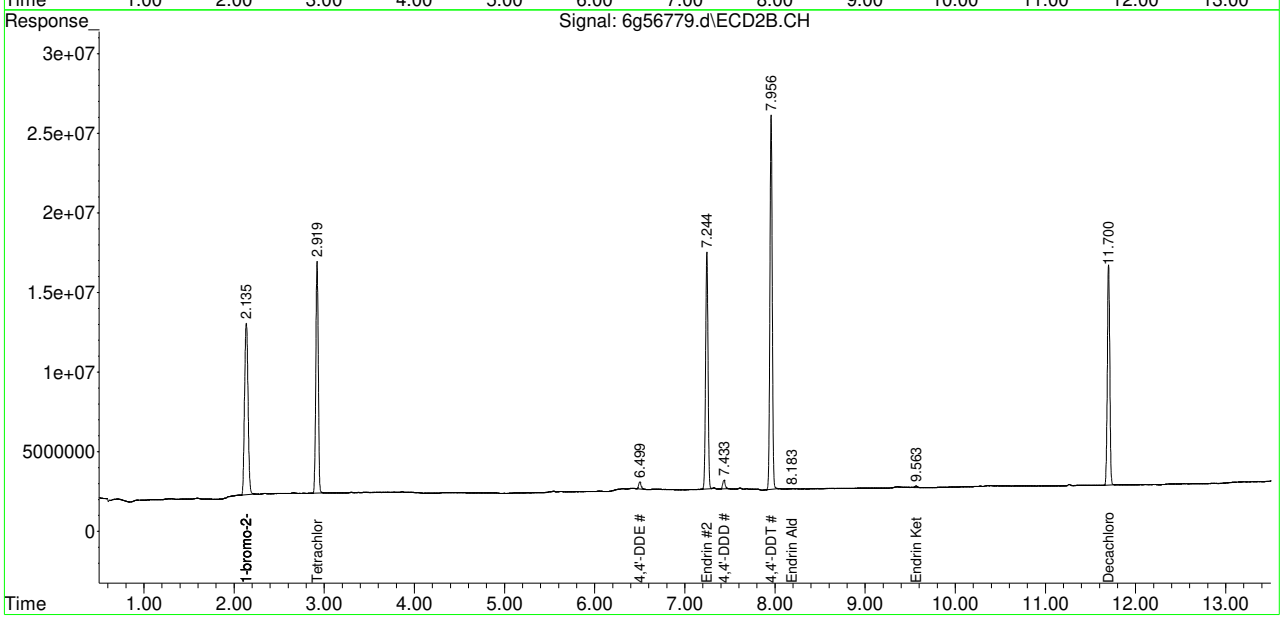
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:25:32 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number: G6G1695-DDT
Lab FileID: 6G56779.D
Injection Time: 05/31/18 10:03
Method: SW846 8081B
Analyst approved: 05/31/18 14:46 Dharmistha Mehta
Supervisor approved: 05/31/18 14:56 Gwendolyn Burns

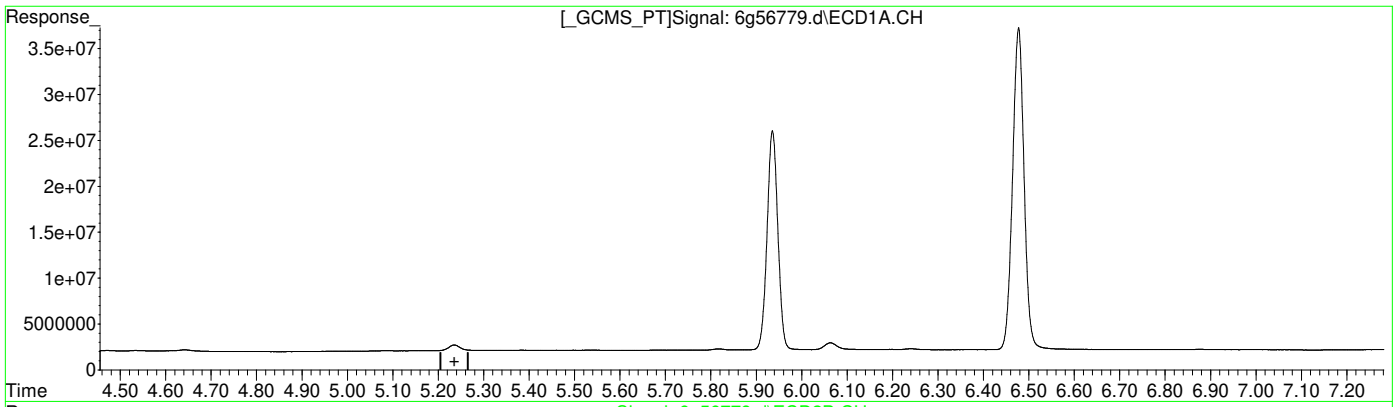
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.24	Poorly defined baseline
4,4'-DDD	72-54-8	1	6.06	Poorly defined baseline
4,4'-DDE	72-55-9	2	6.50	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.88	Poorly defined baseline
4,4'-DDD	72-54-8	2	7.43	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.99	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	8.18	Poorly defined baseline
Endrin ketone	53494-70-5	2	9.56	Poorly defined baseline

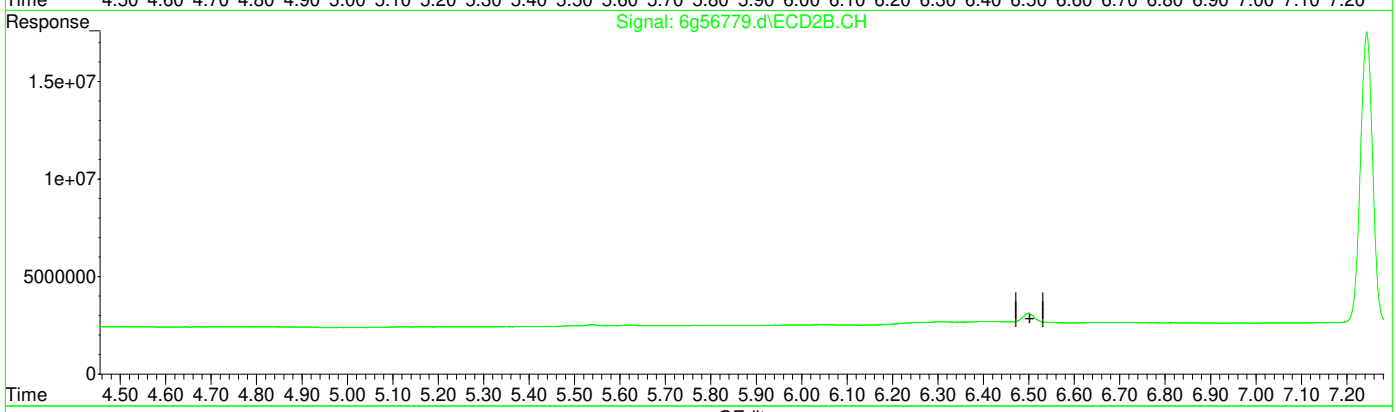
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)

0.000min 0.000 PPB

response 0

(15) 4,4'-DDE #2 (B)

0.000min 0.000 PPB

response 0

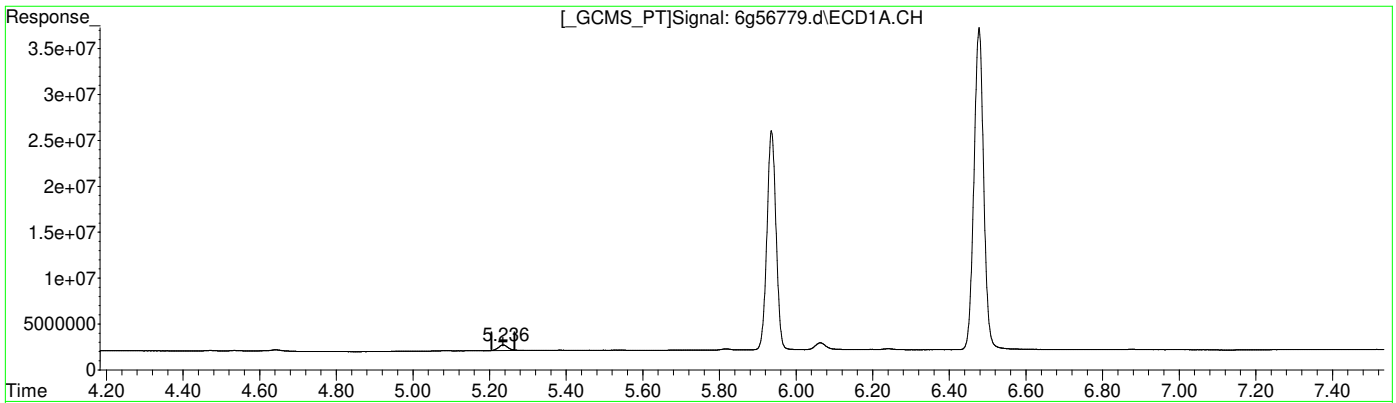
(+) = Expected Retention Time
6PST1671.M Thu May 31 10:22:57 2018

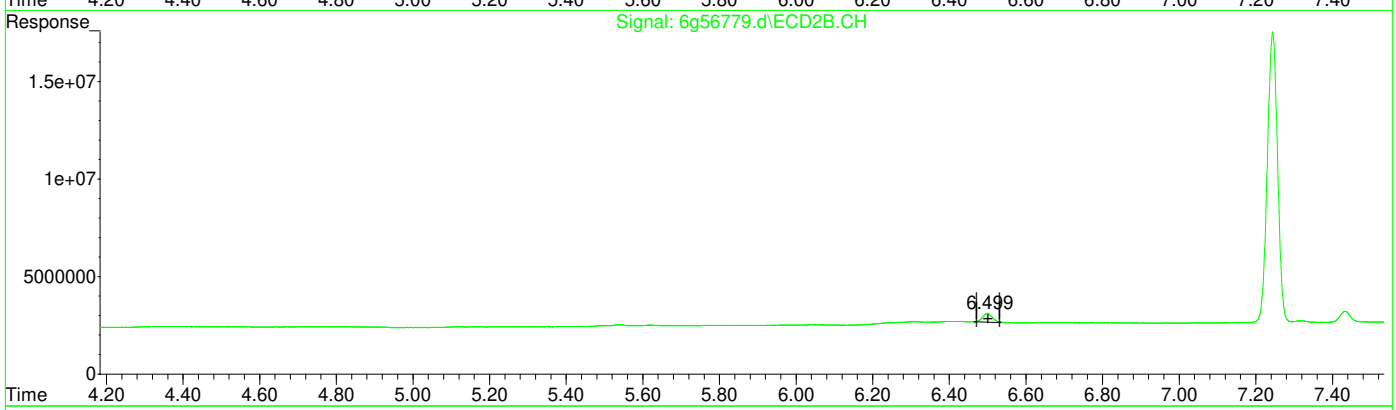
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)

5.236min 1.343 PPB m

response 10672674

(15) 4,4'-DDE #2 (B)

6.499min 1.495 PPB m

response 8093296

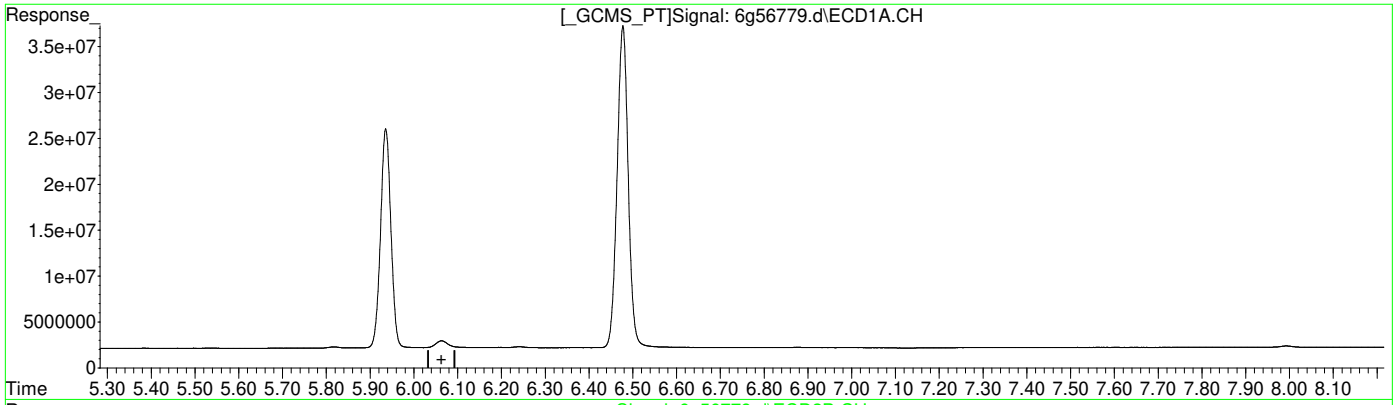
(+) = Expected Retention Time
6PST1671.M Thu May 31 10:23:35 2018

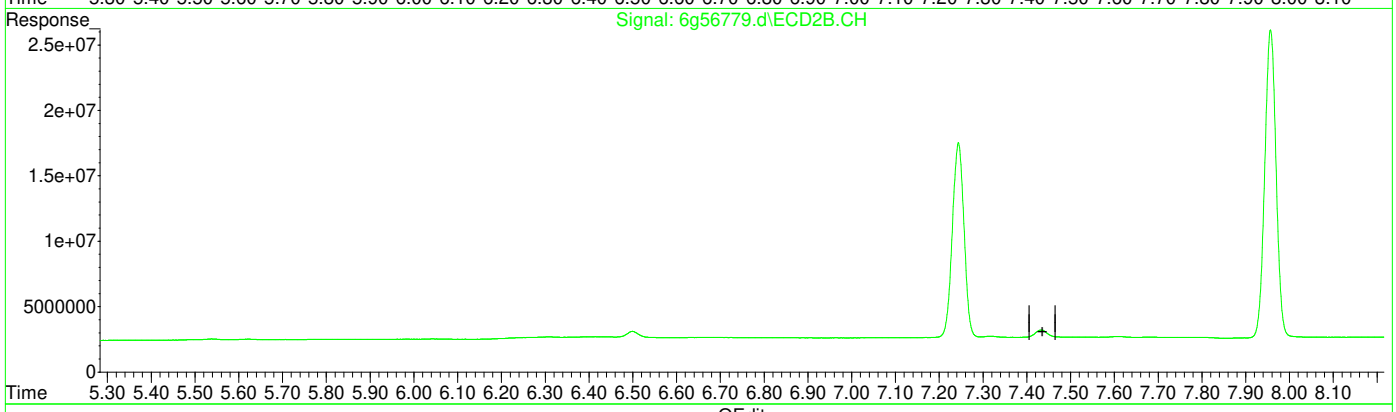
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(18) 4,4'-DDD (A)

0.000min 0.000 PPB

response 0

(18) 4,4'-DDD #2 (A)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

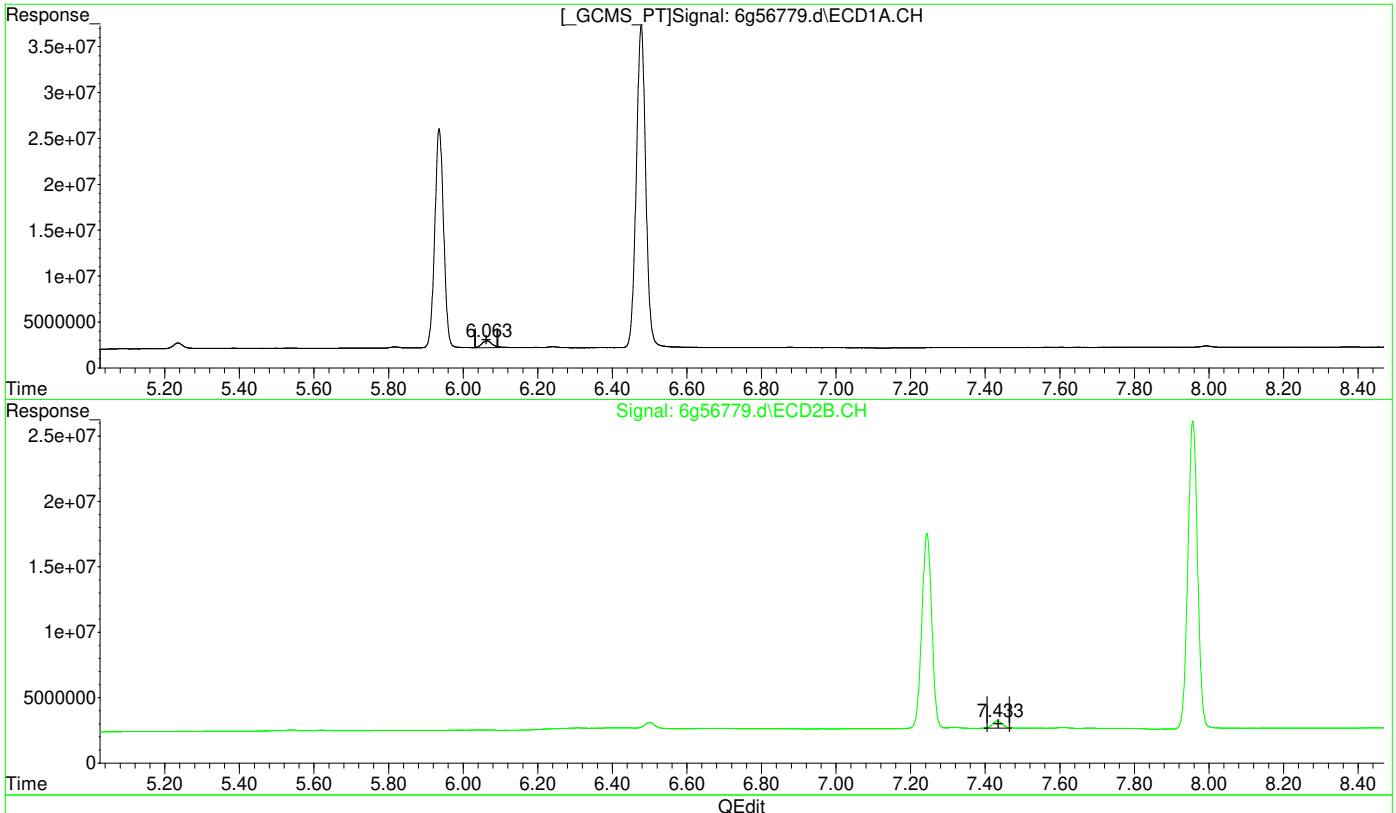
6PST1671.M Thu May 31 10:23:44 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDD (A)

6.063min 2.119 PPB m

response 13942582

(18) 4,4'-DDD #2 (A)

7.433min 2.189 PPB m

response 10206810

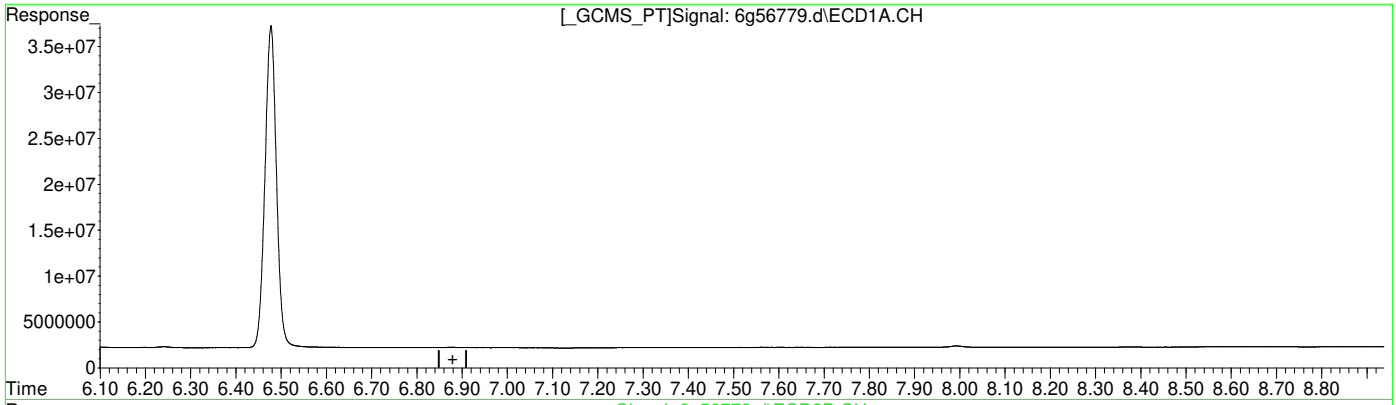
(+) = Expected Retention Time
6PST1671.M Thu May 31 10:24:05 2018

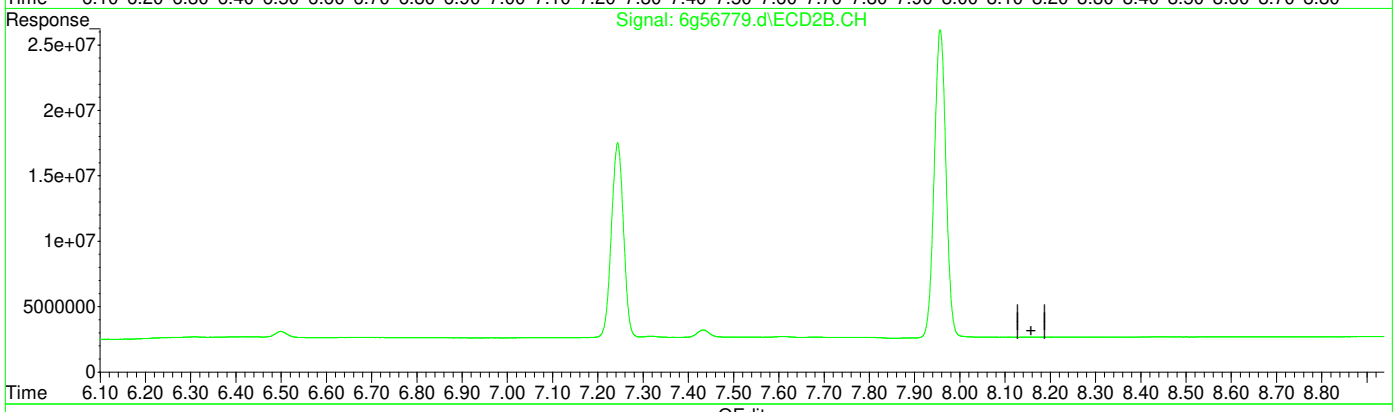
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

0.000min 0.000 PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.000min 0.000 PPB

response 0

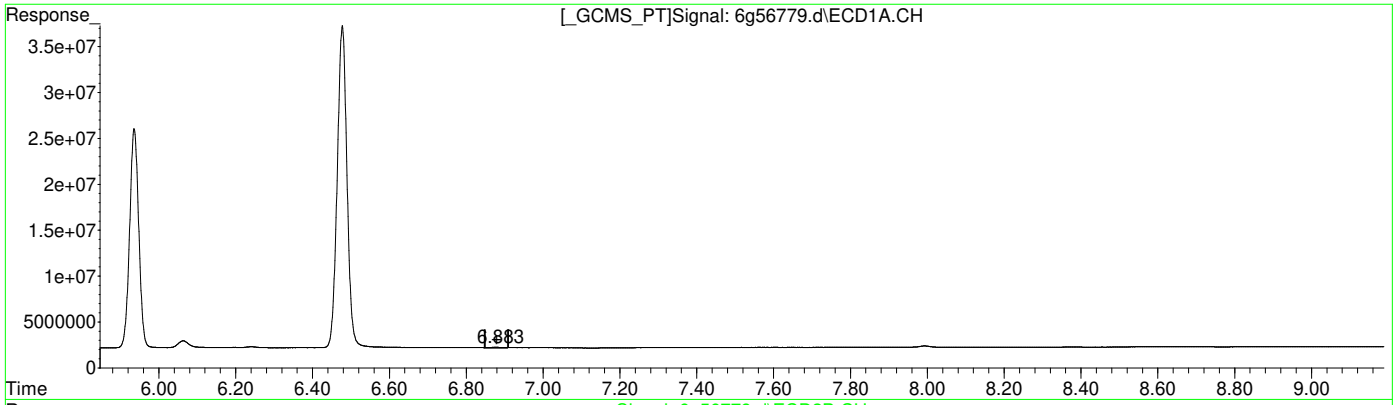
(+) = Expected Retention Time
6PST1671.M Thu May 31 10:24:14 2018

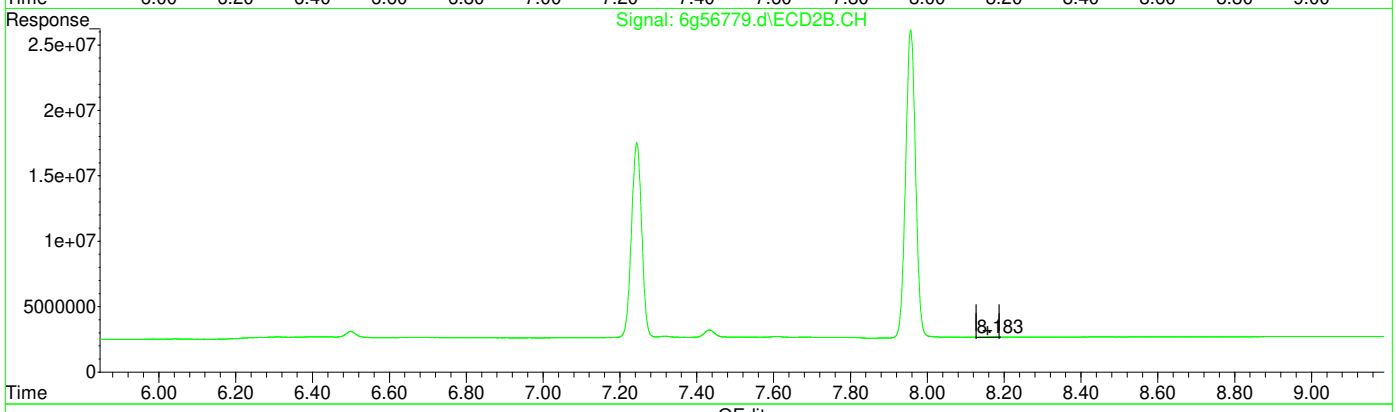
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)

6.883min 0.381 PPB m

response 2439263

(21) Endrin Aldehyde #2 (B)

8.183min 0.085 PPB m

response 364848

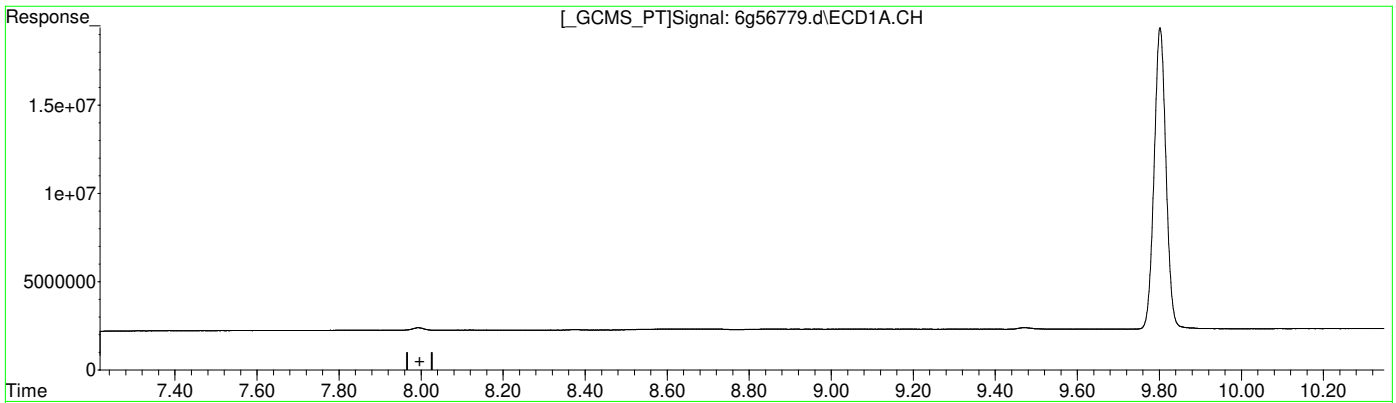
(+) = Expected Retention Time

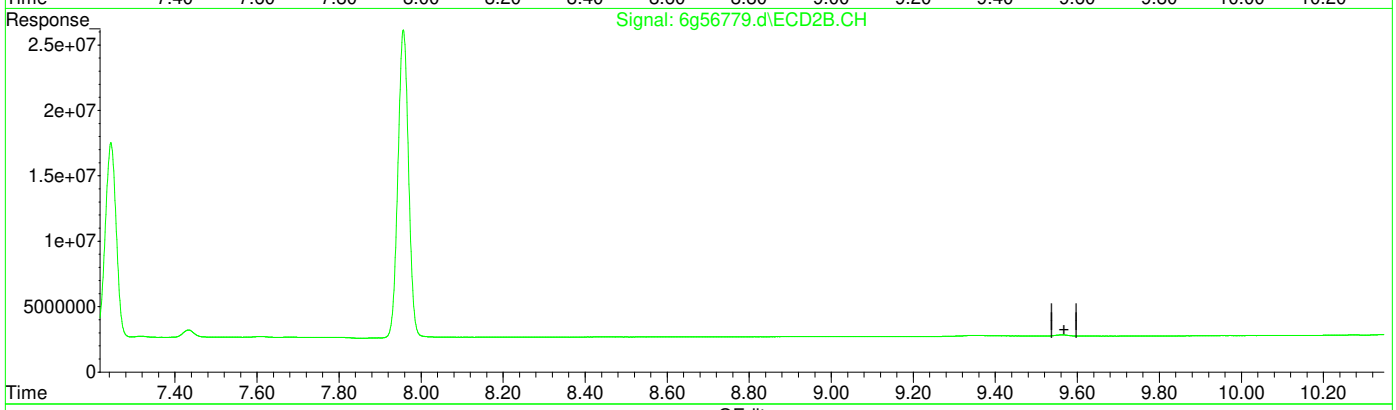
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)

0.000min 0.000 PPB

response 0

(25) Endrin Ketone #2 (B)

0.000min 0.000 PPB

response 0

(+) = Expected Retention Time

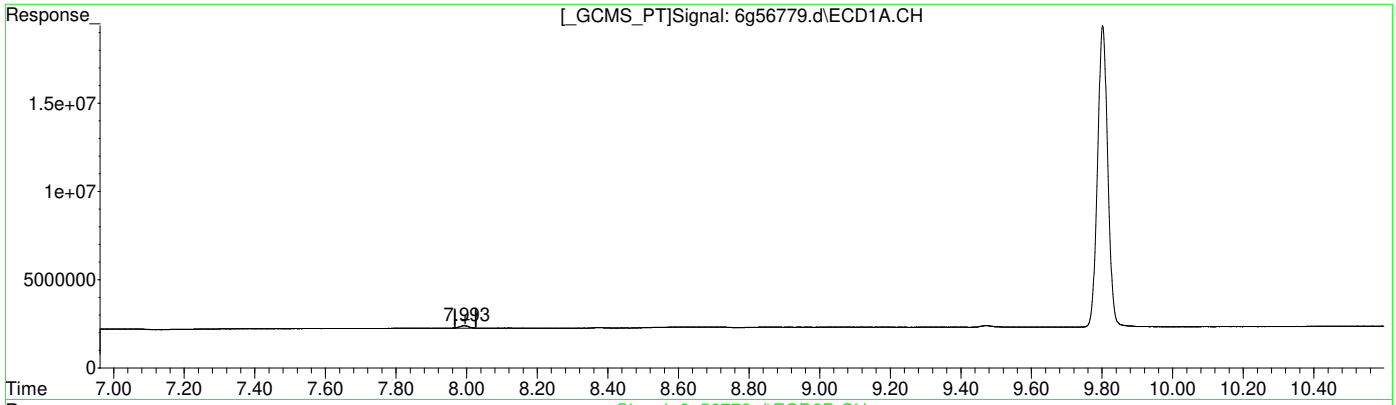
6PST1671.M Thu May 31 10:24:56 2018 Page: 1

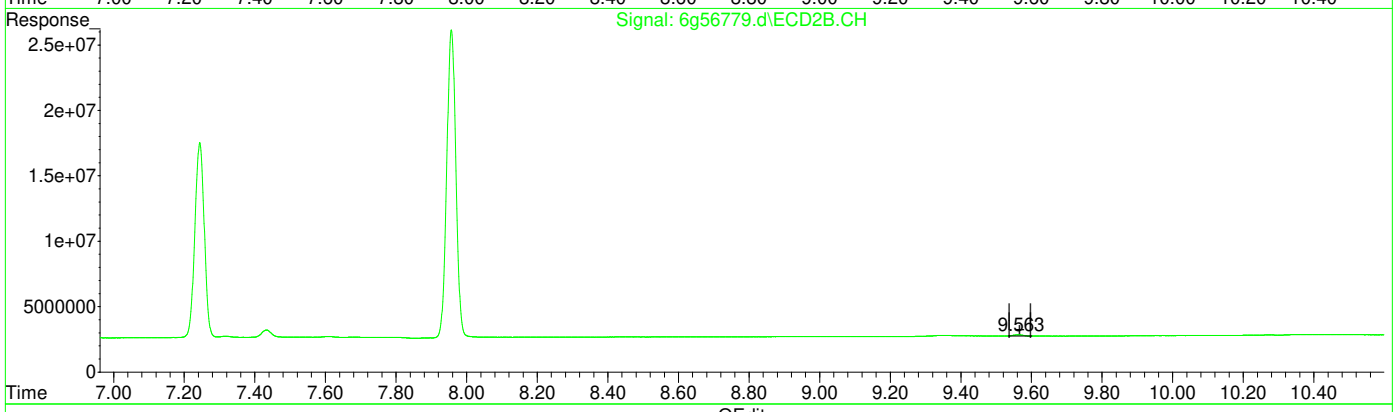
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56779.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:03:07
Operator : minam
Sample : ddt
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:22:30 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)

7.993min 0.372 PPB m

response 2809638

(25) Endrin Ketone #2 (B)

9.563min 0.309 PPB m

response 1766140

(+) = Expected Retention Time
6PST1671.M Thu May 31 10:25:16 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:39:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.778	3.431	34873866	216.1E6	7.981	7.067
	Spiked Amount 40.000			Recovery =		19.95%	17.67%
51) S	Decachlor...	10.016	11.811	40611685	184.5E6	9.011	9.735
	Spiked Amount 40.000			Recovery =		22.53%	24.34%
	Target Compounds						
31)	AR1016-A	3.154	4.096	19673262	91567470	215.440m	190.191
32)	AR1016-B	3.557	4.632	34032635	196.2E6	295.735	203.024 #
33)	AR1016-C	4.107	5.282	71006697	415.2E6	192.339	198.425
34)	AR1016-D	4.269	5.466	29041365	181.9E6	215.958	235.122
35)	AR1016-E	4.784	6.114	30667090	123.1E6	217.948	216.206
36)	AR1260-A	7.153	8.716	84935639	487.3E6	223.398	261.665m
37)	AR1260-B	7.315	8.831	34207307	200.8E6	200.258	206.033
38)	AR1260-C	7.653	9.261	38470552	237.1E6	232.255	253.148
39)	AR1260-D	8.083	9.615	84306739	482.4E6	182.500	205.123
40)	AR1260-E	8.476	10.157	89912203	468.4E6	206.651m	228.844m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

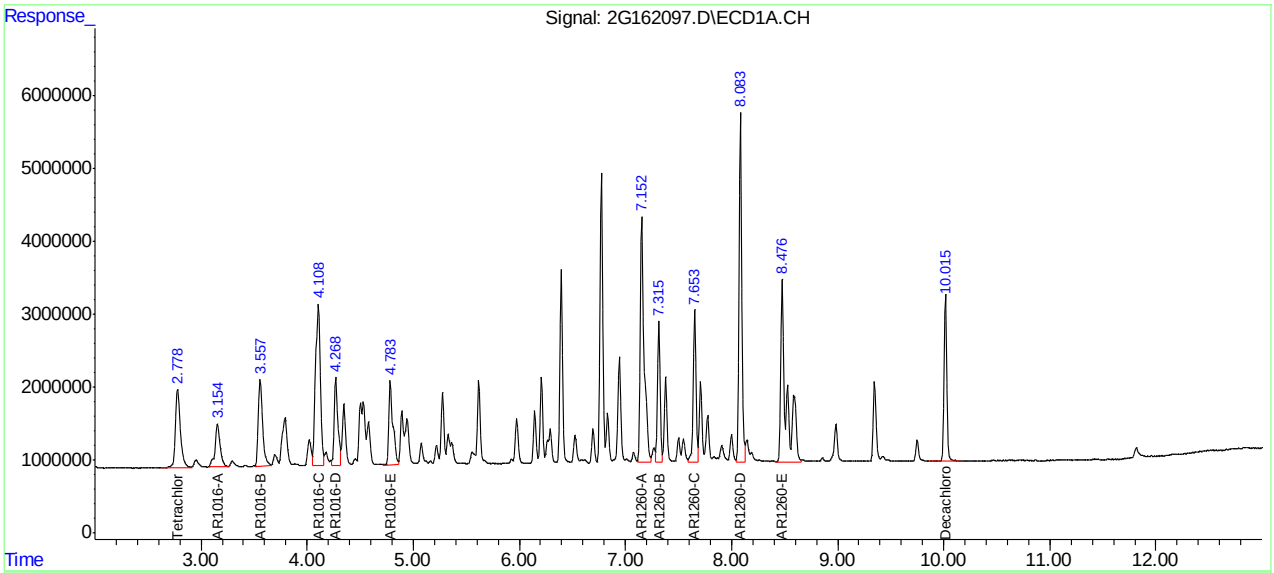
11.6.1 11

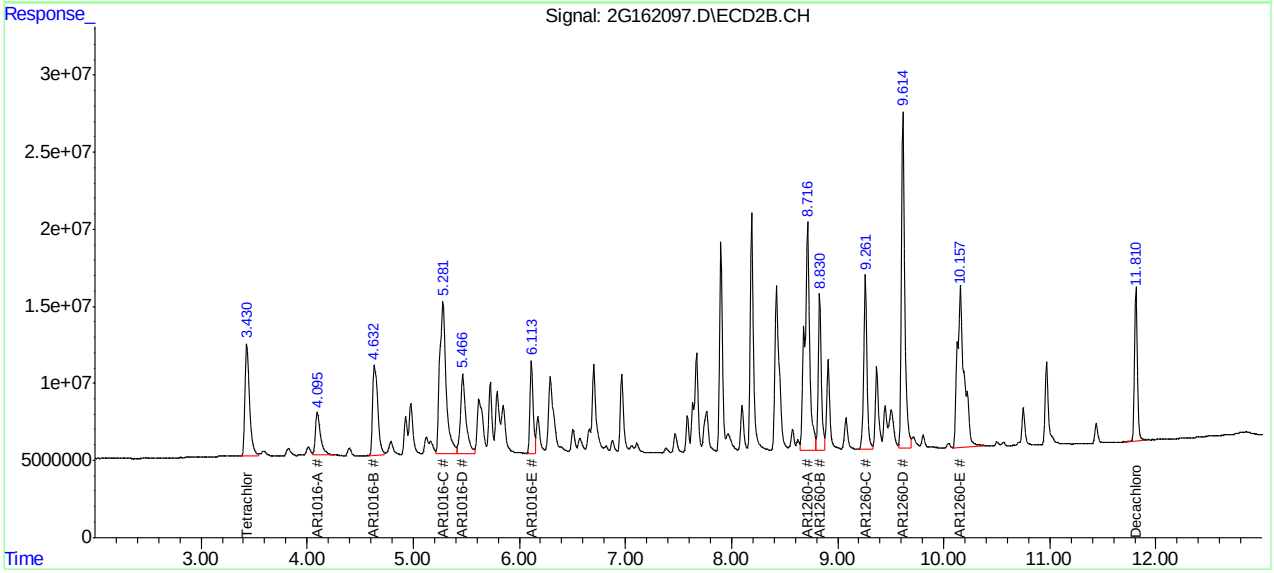
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:39:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162097.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 12:28	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

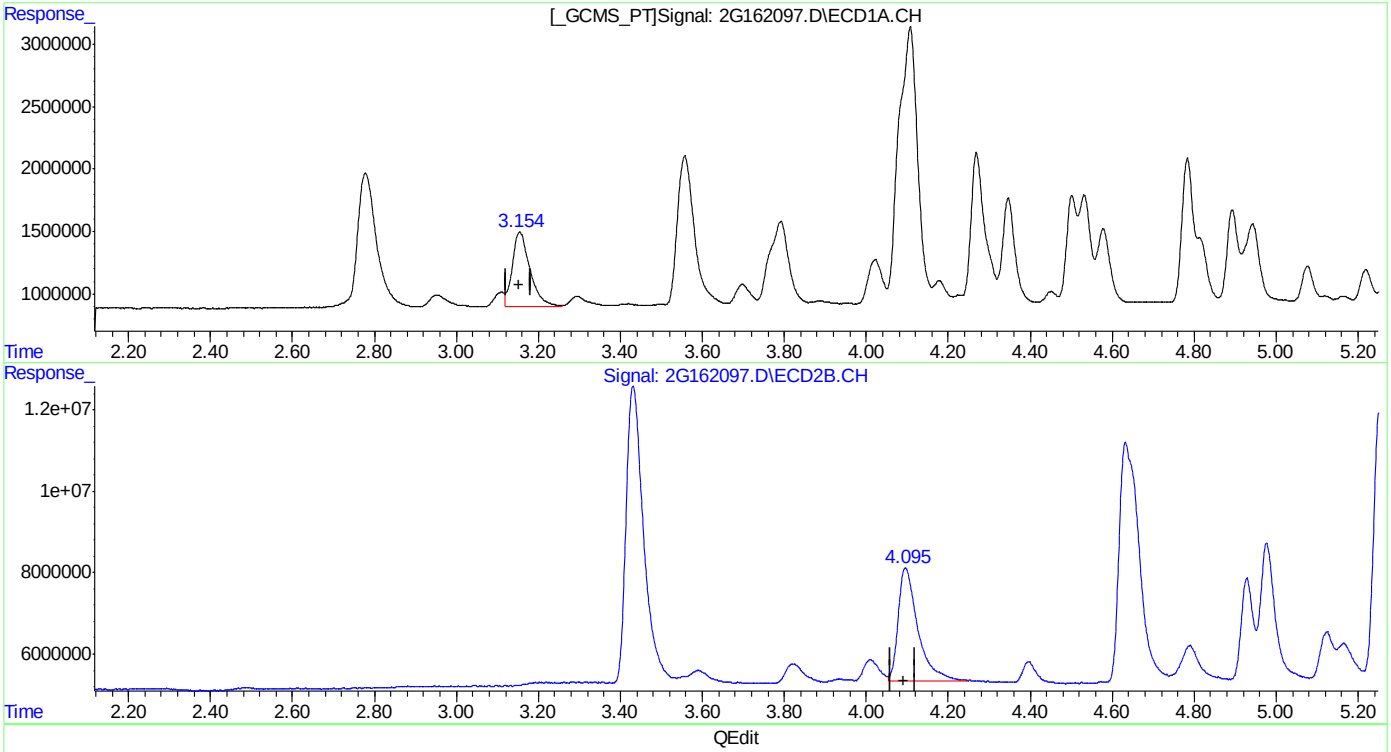
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.15	Split peak
AR1260-E		1	8.48	Split peak
AR1260-A		2	8.72	Split peak
AR1260-E		2	10.16	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.155min 194.227PPB
response 17736162

(31) AR1016-A #2
4.096min 190.191PPB
response 91567470

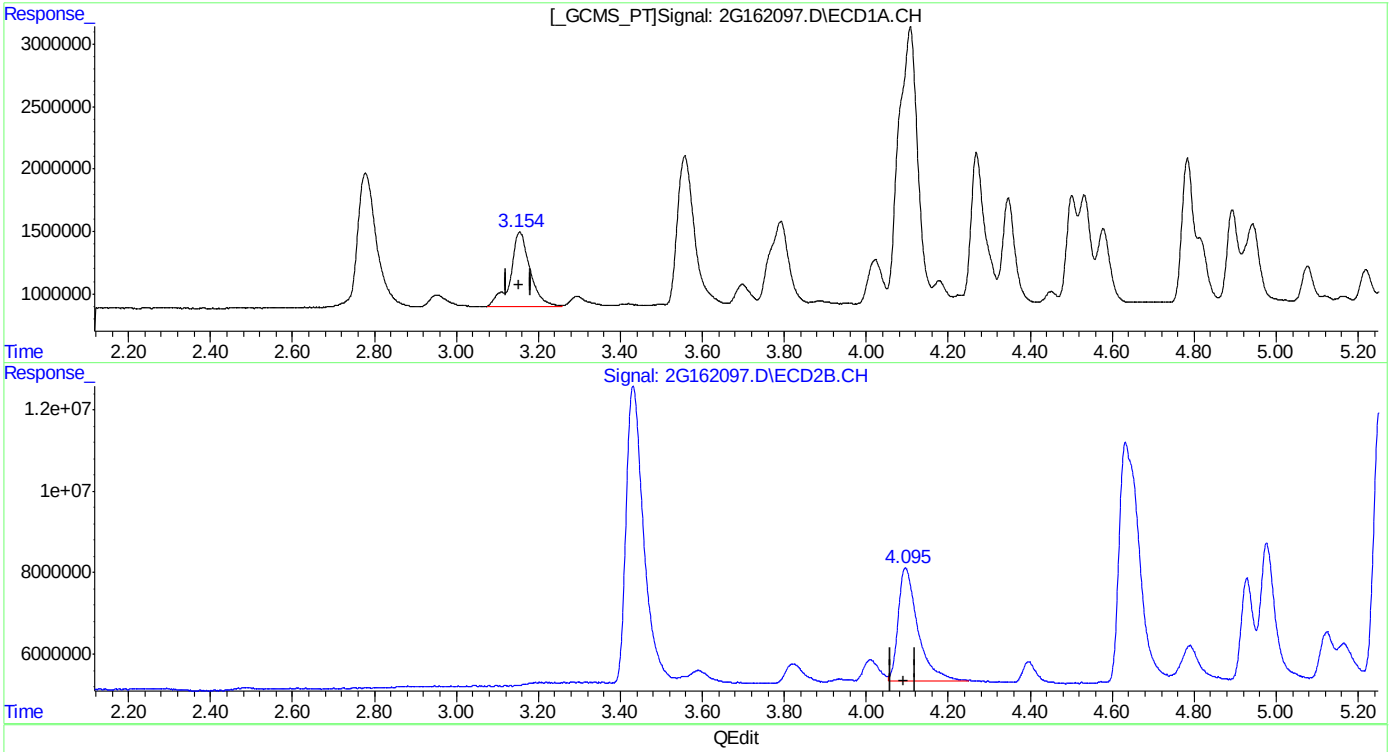
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 215.440PPB m
response 19673262

(31) AR1016-A #2
4.096min 190.191PPB
response 91567470

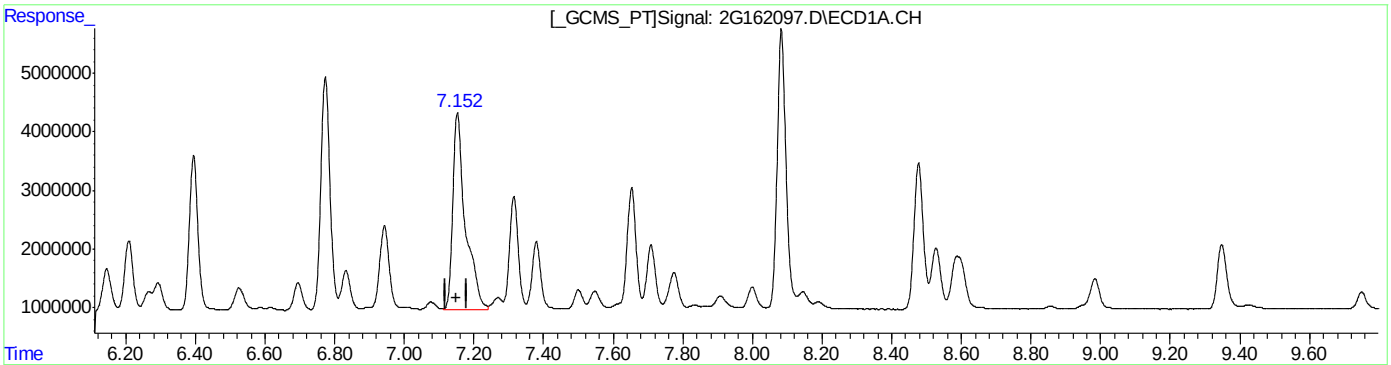
(+) = Expected Retention Time

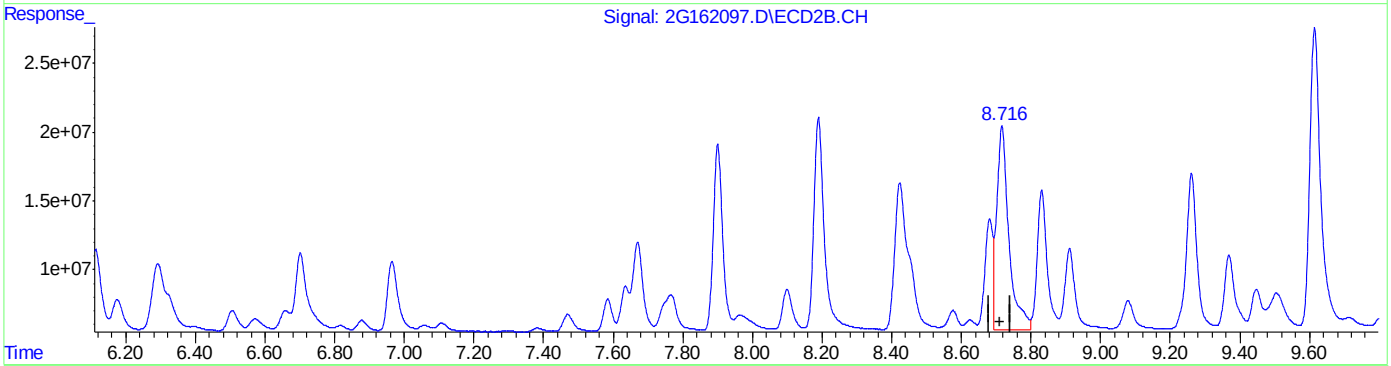
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.153min 223.398PPB
response 84935639

(36) AR1260-A #2
8.717min 193.204PPB
response 359776045

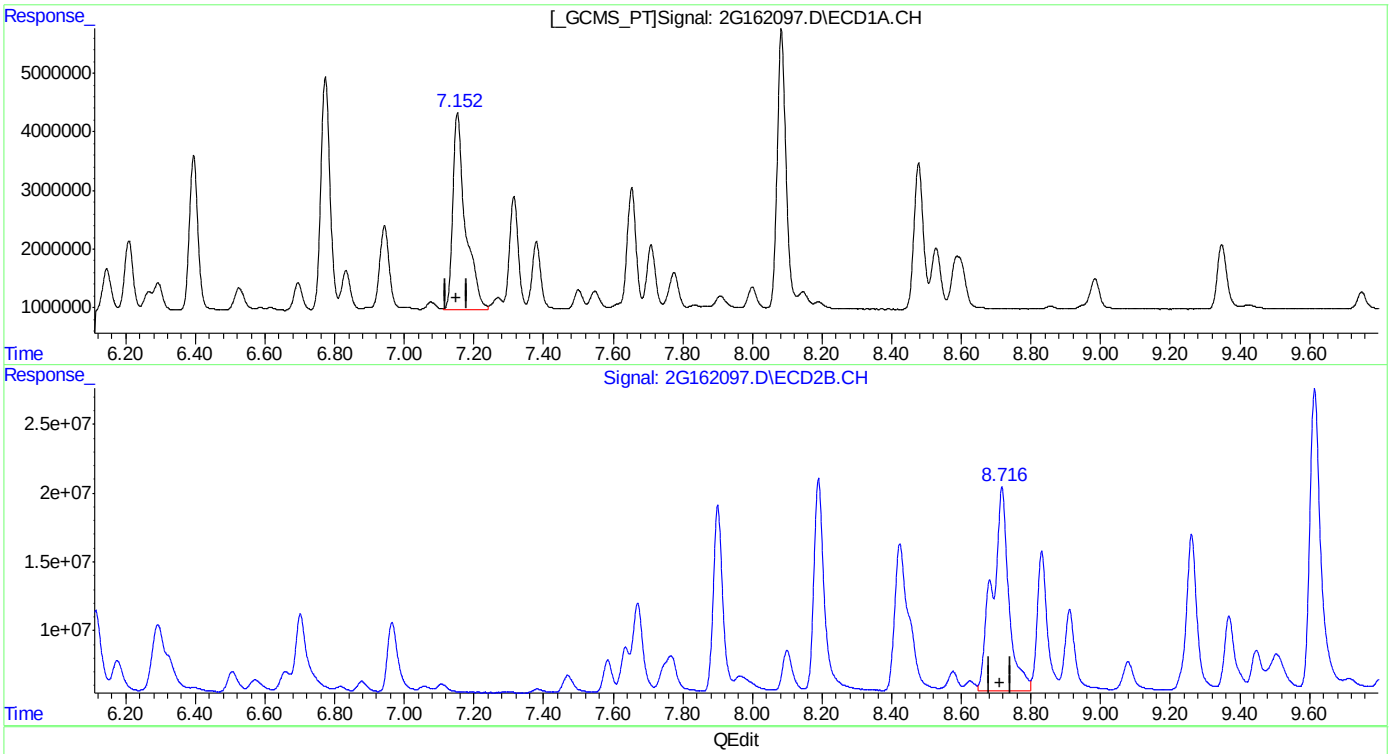
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.153min 223.398PPB
response 84935639

(36) AR1260-A #2
8.716min 261.665PPB m
response 487261202

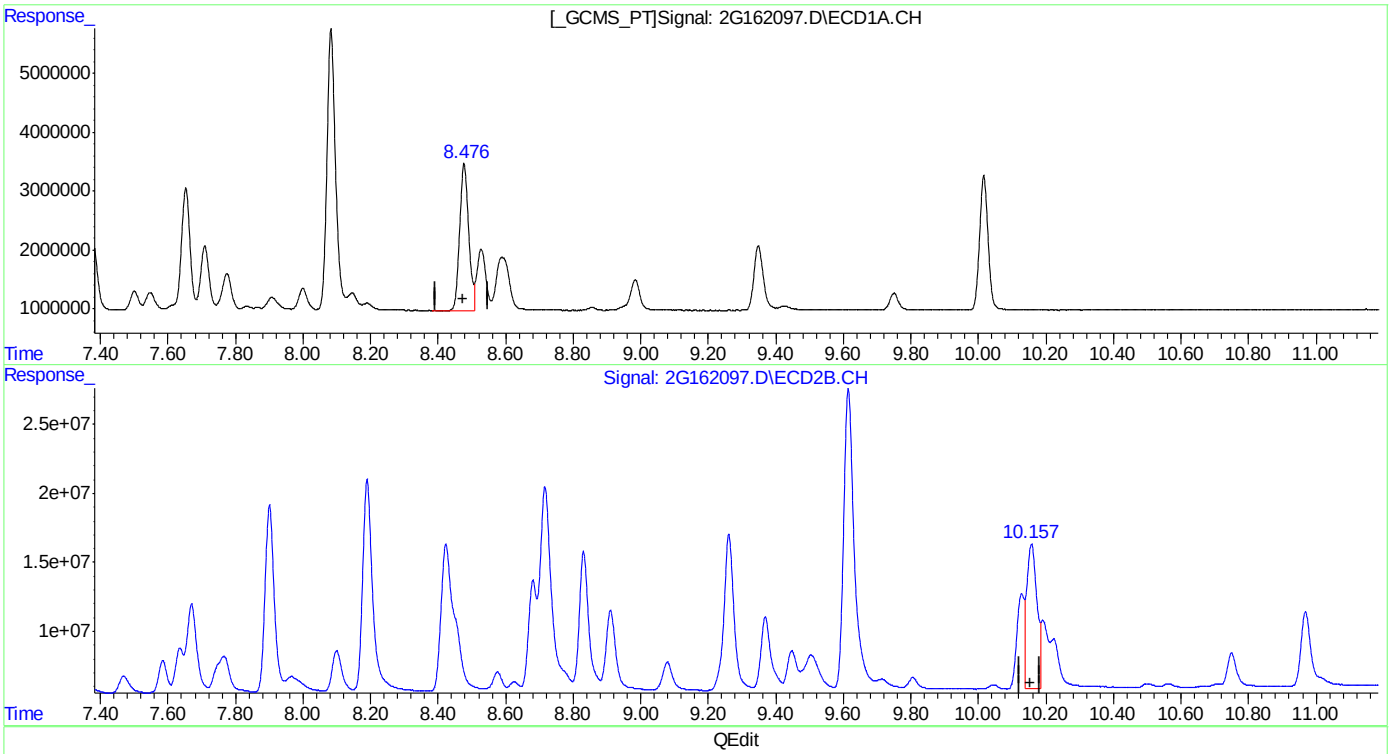
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.477min 105.933PPB
response 46090682

(40) AR1260-E #2
10.157min 108.220PPB
response 221500668

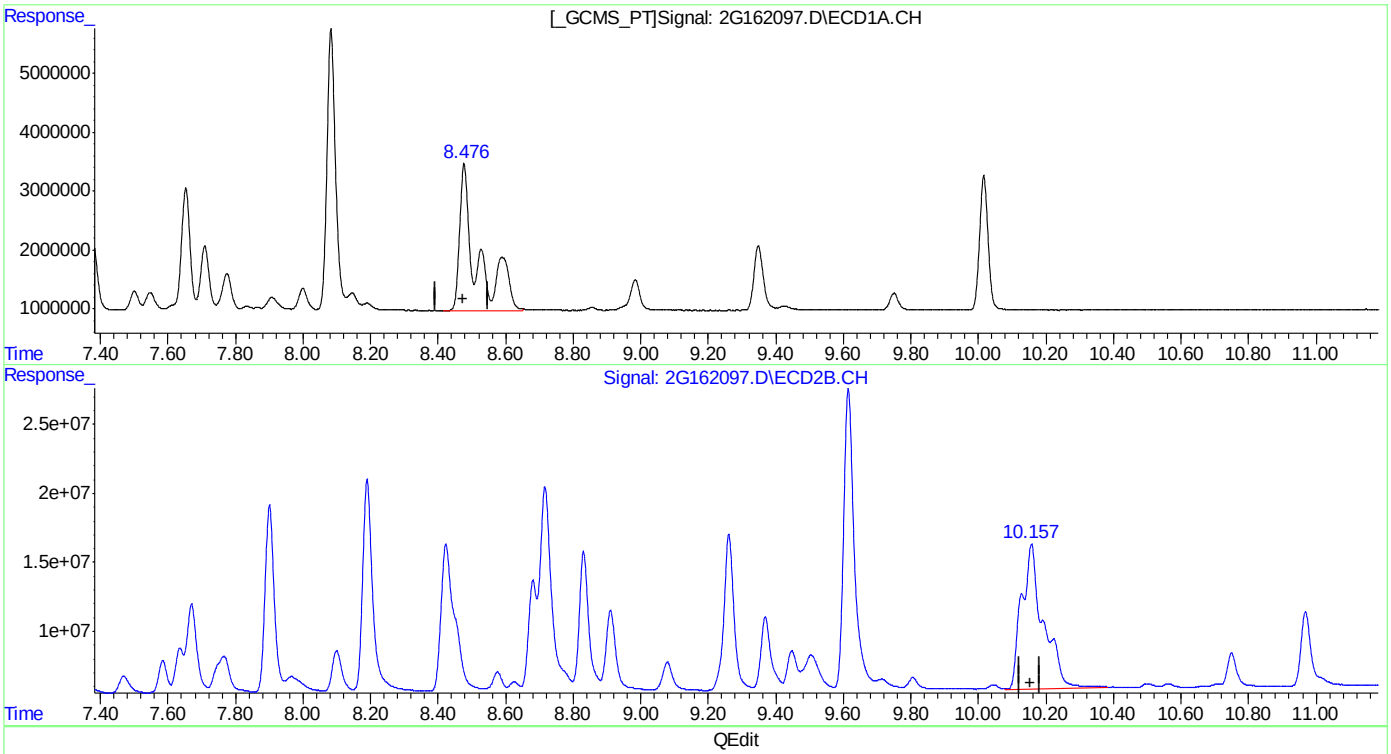
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:39:20 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162097.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:28 pm
Operator : tianweir
Sample : ic4311-250
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:38:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.476min 206.651PPB m
response 89912203

(40) AR1260-E #2
10.157min 228.844PPB m
response 468390055

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:39:33 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:37:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.779	3.431	70768166	446.6E6	16.195	14.603
	Spiked Amount 40.000			Recovery	=	40.49%	36.51%
51) S	Decachlor...	10.014	11.809	78475972	359.2E6	17.412	18.954
	Spiked Amount 40.000			Recovery	=	43.53%	47.38%
	Target Compounds						
31)	AR1016-A	3.154	4.094	38133288	177.7E6	417.595	369.093
32)	AR1016-B	3.557	4.631	66201865	390.3E6	575.277	403.833 #
33)	AR1016-C	4.106	5.277	139.6E6	843.6E6	378.178	403.177
34)	AR1016-D	4.269	5.464	57791829	364.9E6	429.753	471.601
35)	AR1016-E	4.782	6.113	59202818	246.2E6	420.749m	432.237
36)	AR1260-A	7.151	8.714	153.9E6	910.2E6	404.766	488.798m
37)	AR1260-B	7.313	8.829	75039708	448.7E6	439.301	460.504
38)	AR1260-C	7.651	9.260	82119479	511.3E6	495.773	545.829
39)	AR1260-D	8.082	9.611	187.2E6	1084.8E6	405.158	461.244
40)	AR1260-E	8.474	10.153	194.8E6	1044.4E6	447.646m	510.257m

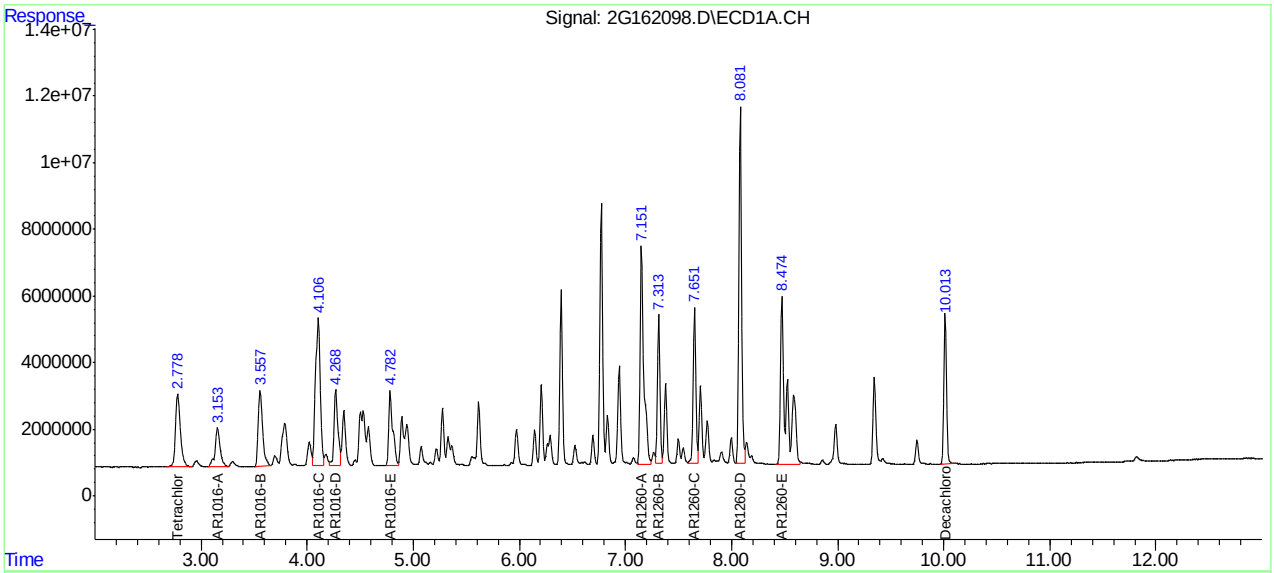
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

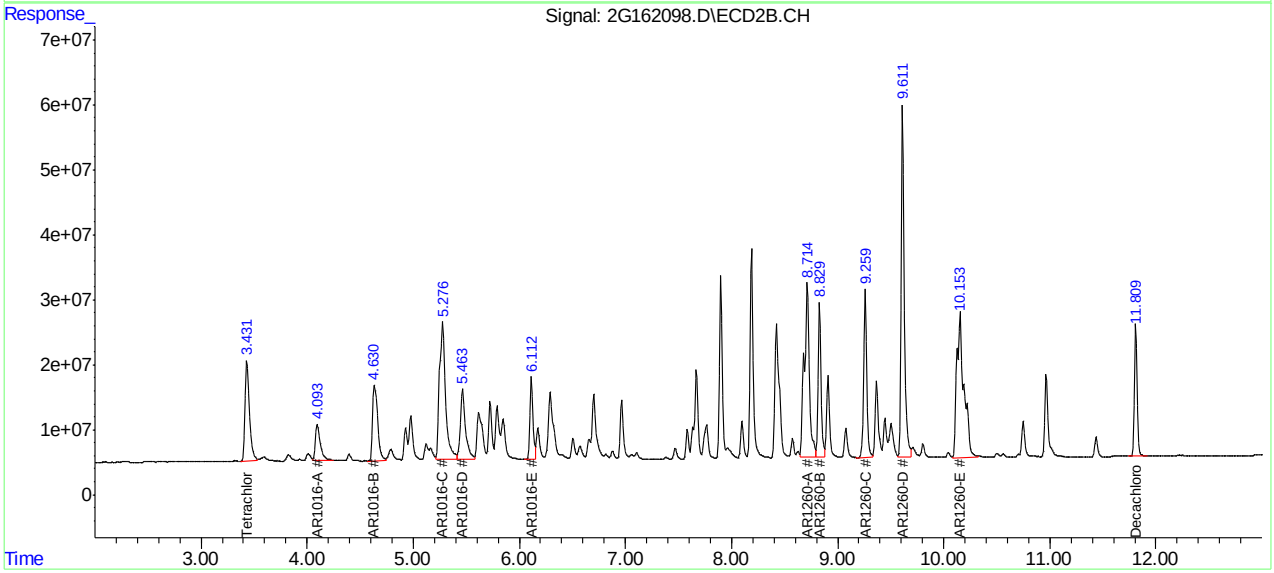
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:37:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162098.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 12:45	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

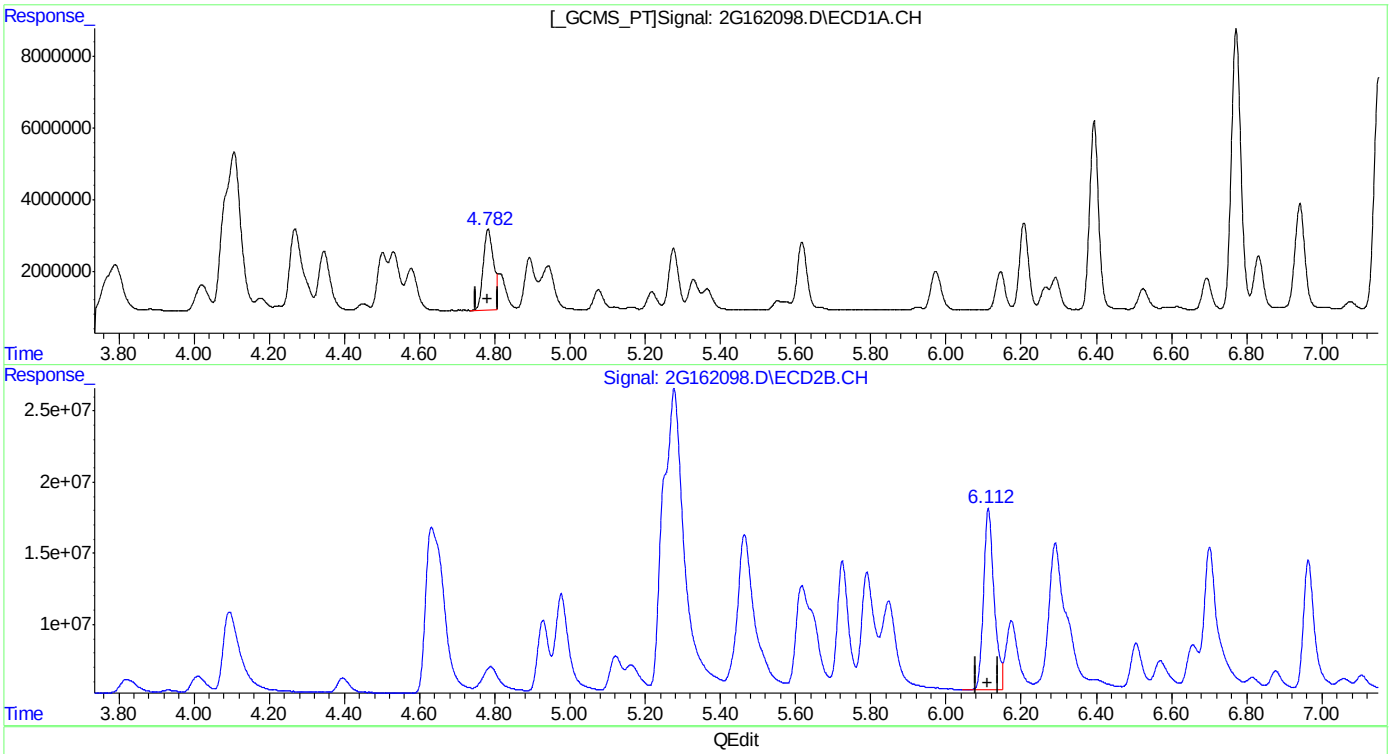
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.78	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.782min 306.742PPB
response 43161068

(35) AR1016-E #2
6.113min 432.237PPB
response 246151896

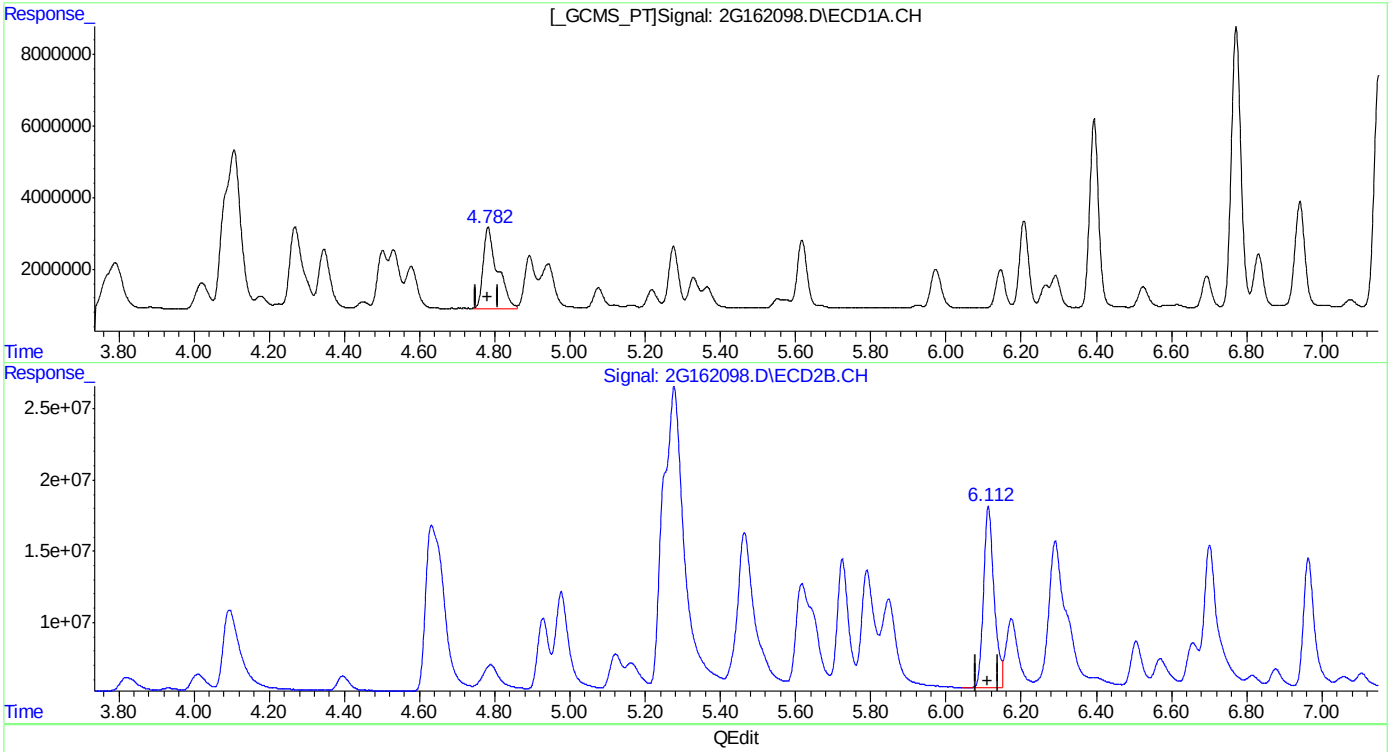
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:36:19 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.782min 420.749PPB m
response 59202818

(35) AR1016-E #2
6.113min 432.237PPB
response 246151896

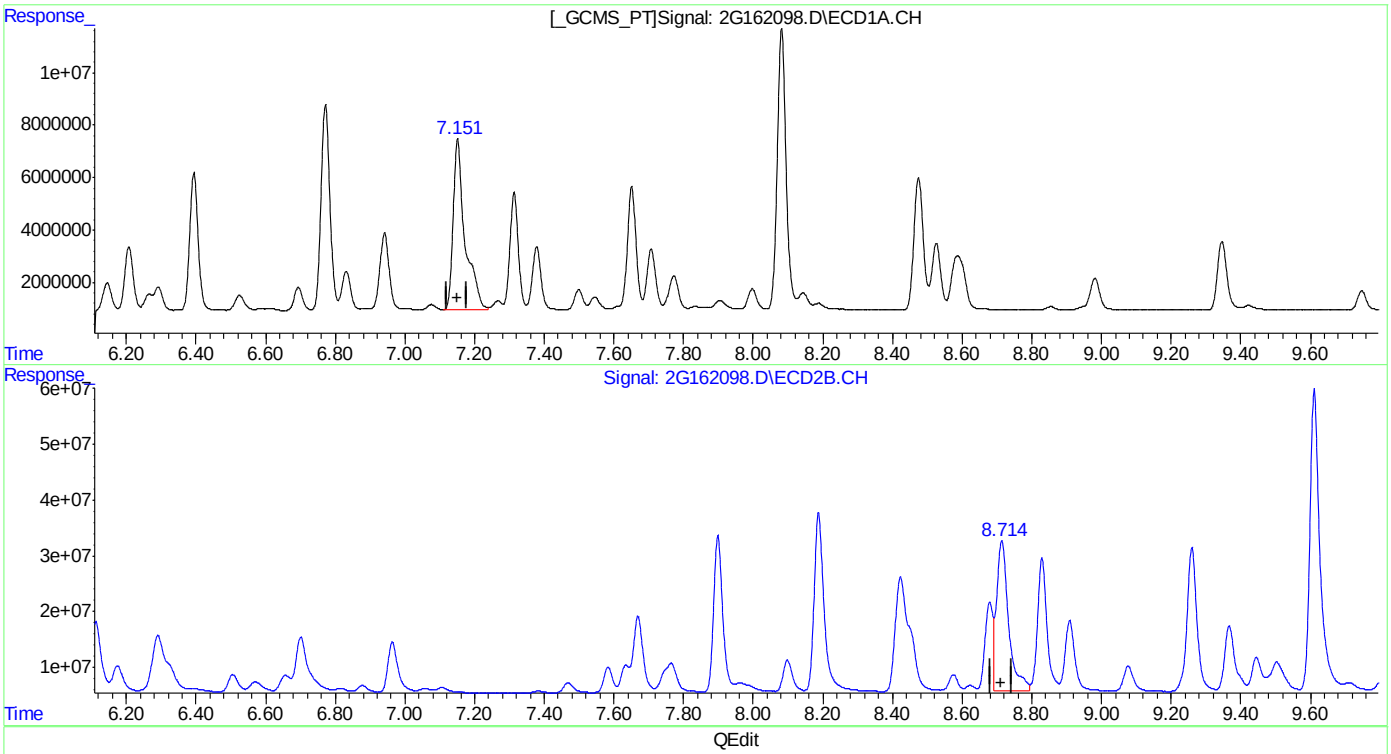
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:36:28 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 404.766PPB
response 153891736

(36) AR1260-A #2
8.714min 350.412PPB
response 652523715

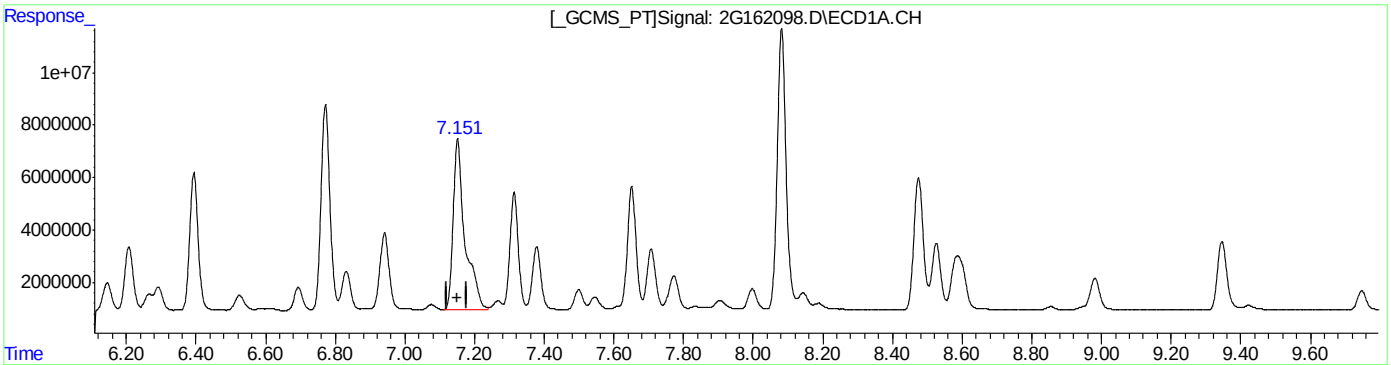
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:36:31 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 404.766PPB
response 153891736

(36) AR1260-A #2
8.714min 488.798PPB m
response 910220199

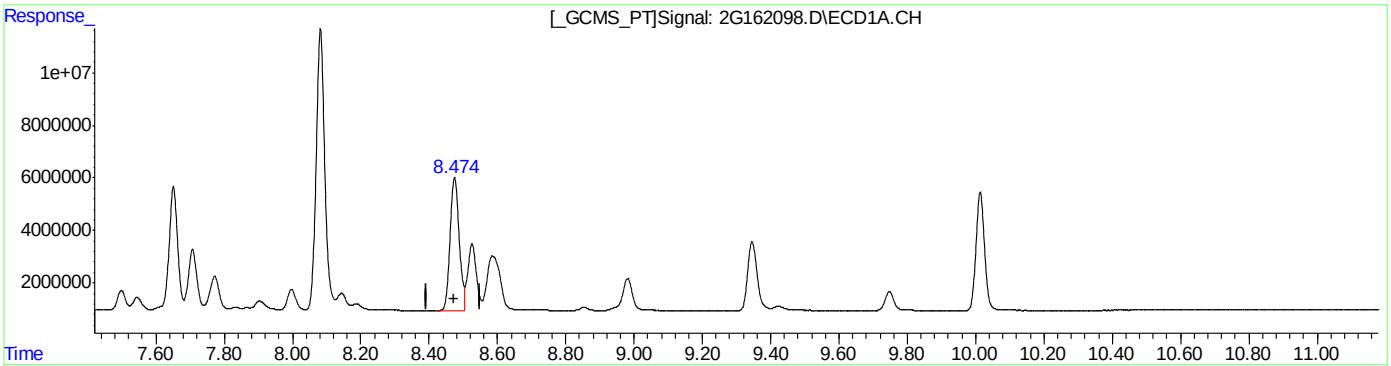
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:36:43 2018 RPT1

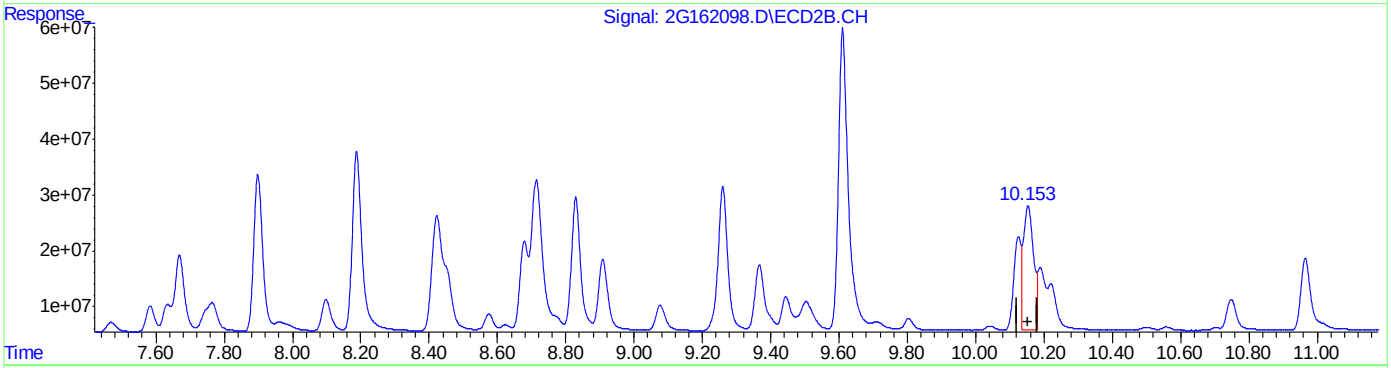
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.475min 216.506PPB
response 94200169

(40) AR1260-E #2
10.154min 219.008PPB
response 448257209

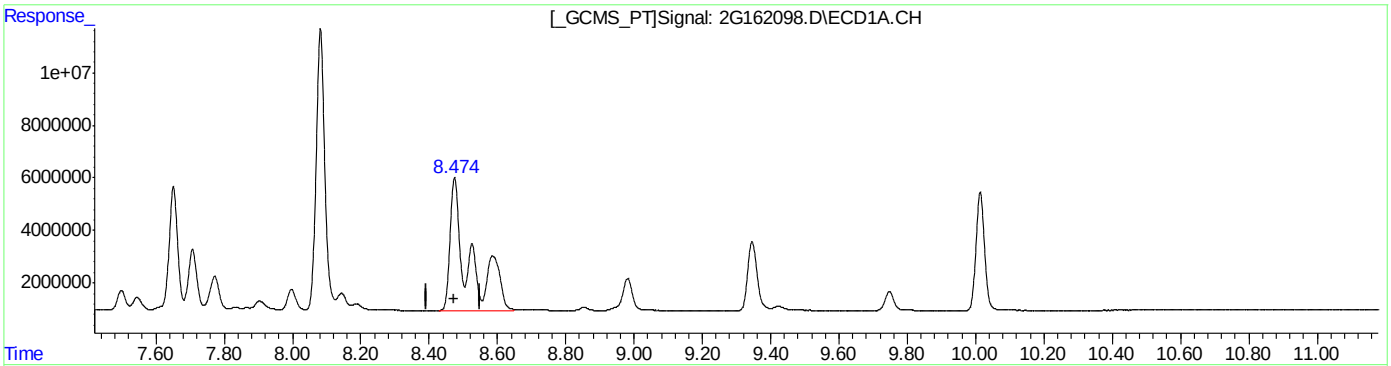
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:36:50 2018 RPT1

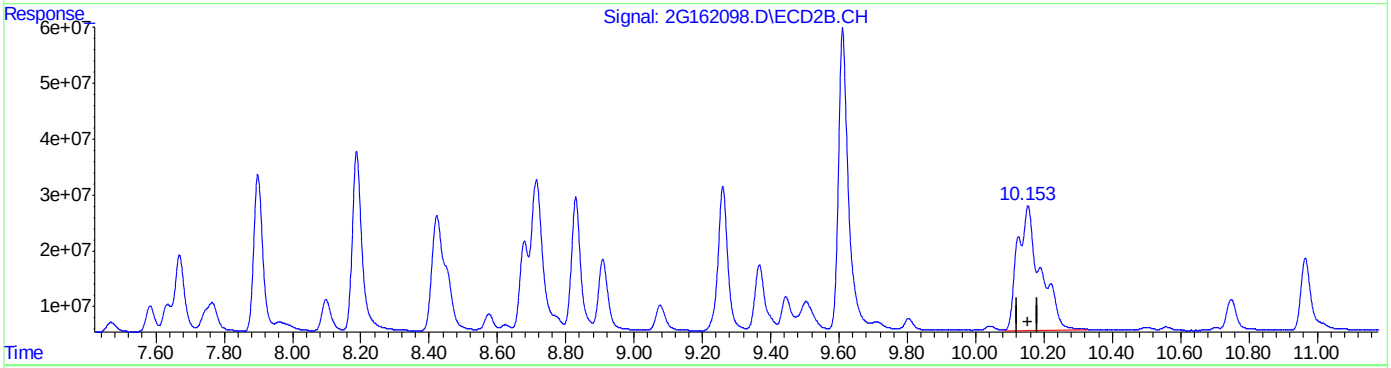
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162098.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 12:45 pm
Operator : tianweir
Sample : ic4311-500
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:36:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.474min 447.646PPB m
response 194767242

(40) AR1260-E #2
10.153min 510.257PPB m
response 1044376932

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:37:13 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1)	S Tetrachlo...	2.778	3.432	147.7E6	928.7E6	33.797	30.364	
	Spiked Amount 40.000			Recovery	=	84.49%	75.91%	
51)	S Decachlor...	10.013	11.809	157.2E6	749.6E6	34.886	39.555	
	Spiked Amount 40.000			Recovery	=	87.22%	98.89%	
	Target Compounds							
31)	AR1016-A	3.155	4.092	75576037	366.7E6	827.627	761.652	
32)	AR1016-B	3.557	4.630	130.4E6	777.2E6	1133.202	804.122	#
33)	AR1016-C	4.107	5.275	285.4E6	1744.2E6	773.001	833.586	
34)	AR1016-D	4.268	5.461	115.7E6	737.8E6	860.556	953.596	
35)	AR1016-E	4.782	6.112	117.6E6	502.9E6	835.629m	883.134	
36)	AR1260-A	7.151	8.712	317.8E6	1882.4E6	835.813	1010.865m	
37)	AR1260-B	7.312	8.828	153.0E6	917.3E6	895.825	941.444	
38)	AR1260-C	7.650	9.260	169.0E6	1051.3E6	1020.047	1122.233	
39)	AR1260-D	8.080	9.610	395.3E6	2256.3E6	855.811	959.373	
40)	AR1260-E	8.472	10.153	402.6E6	2144.0E6	925.282m	1047.495m	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

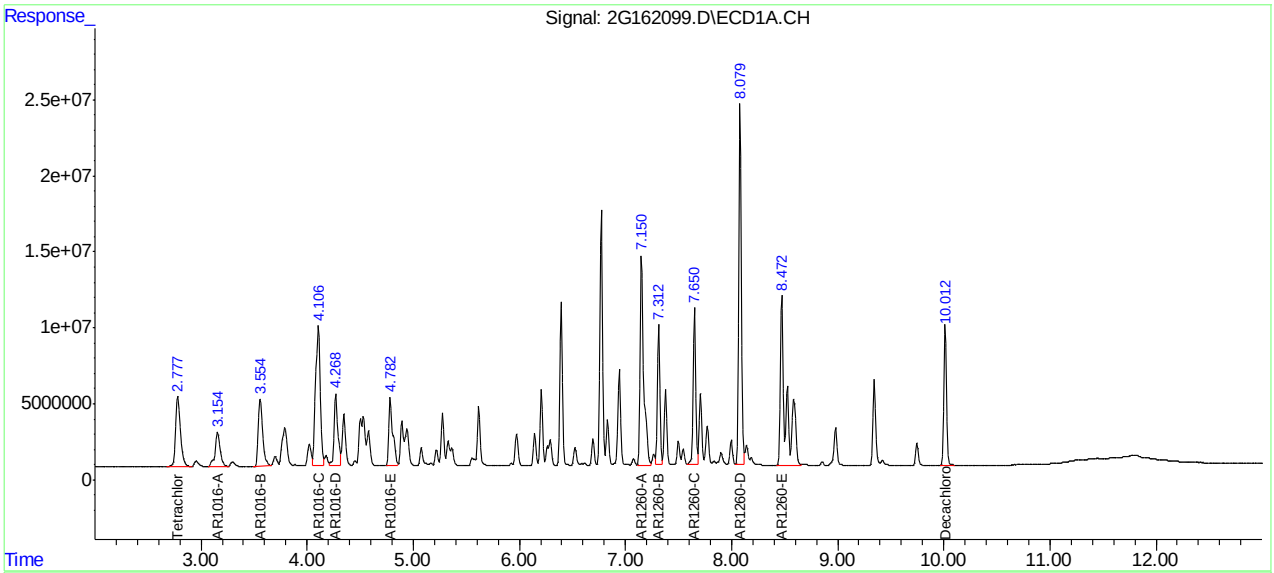
11.6.3 11

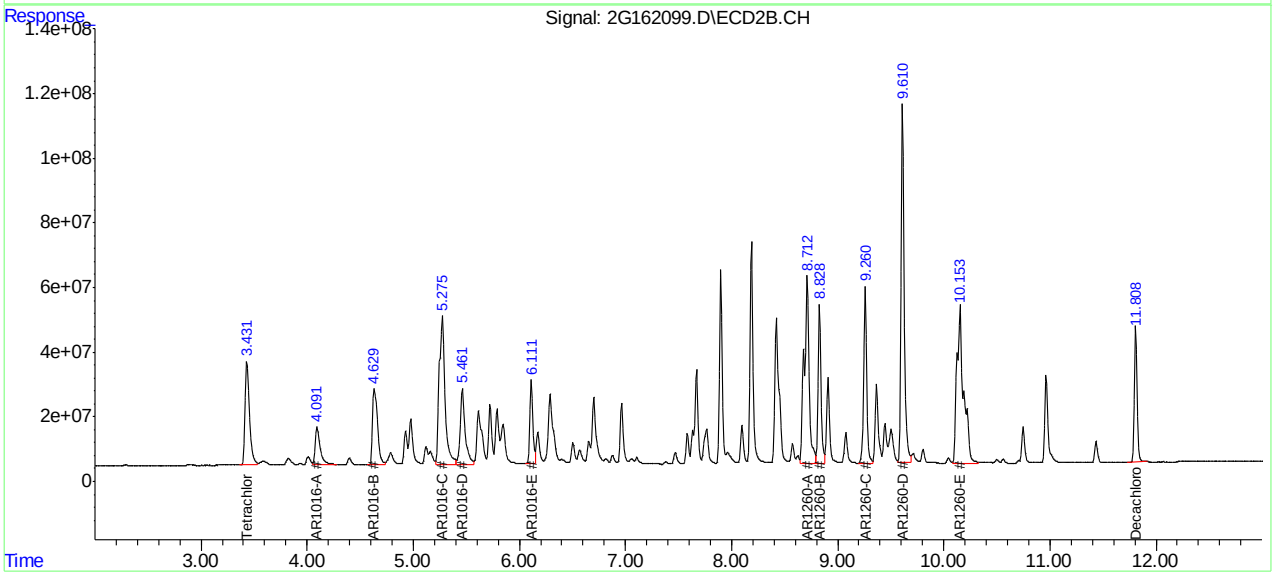
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICC4311	**Method:**	SW846 8082A
Lab FileID:	2G162099.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:02	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

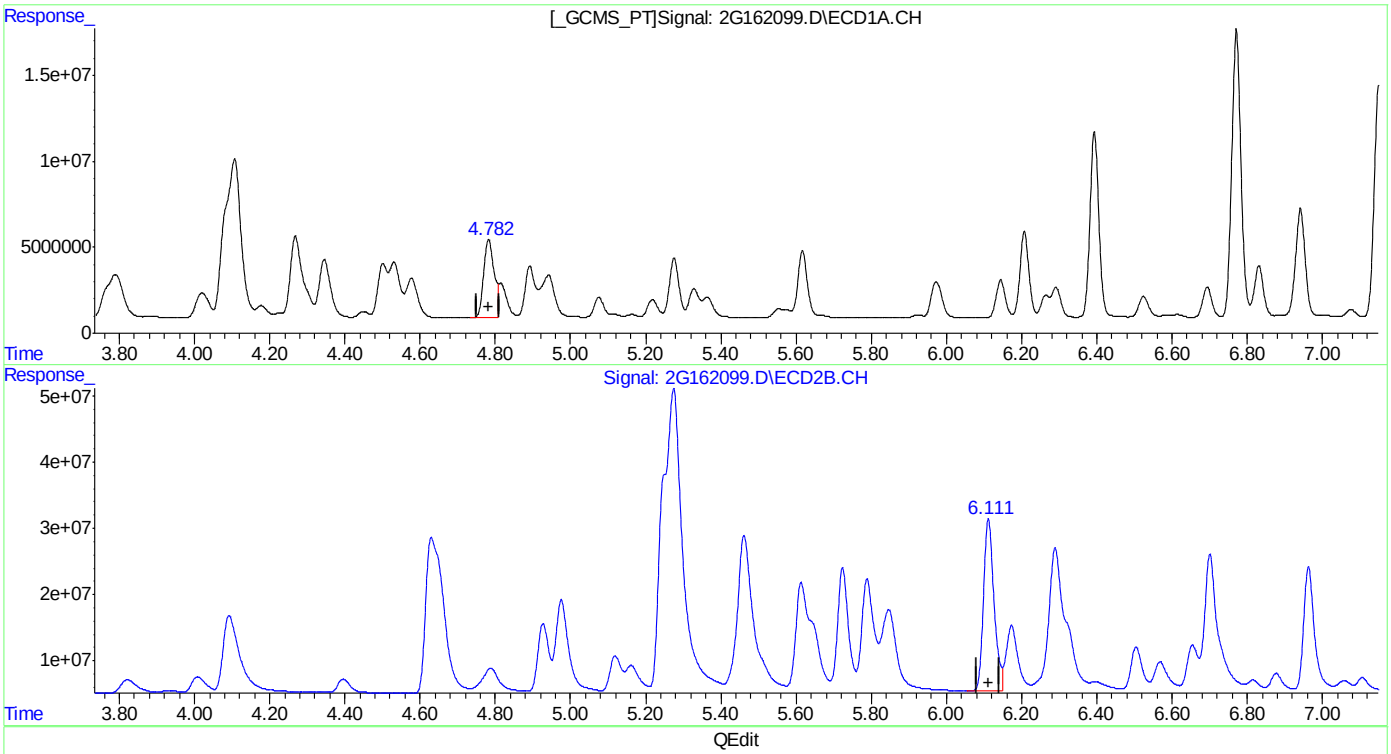
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.78	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.782min 619.178PPB
response 87123426

(35) AR1016-E #2
6.112min 883.134PPB
response 502930503

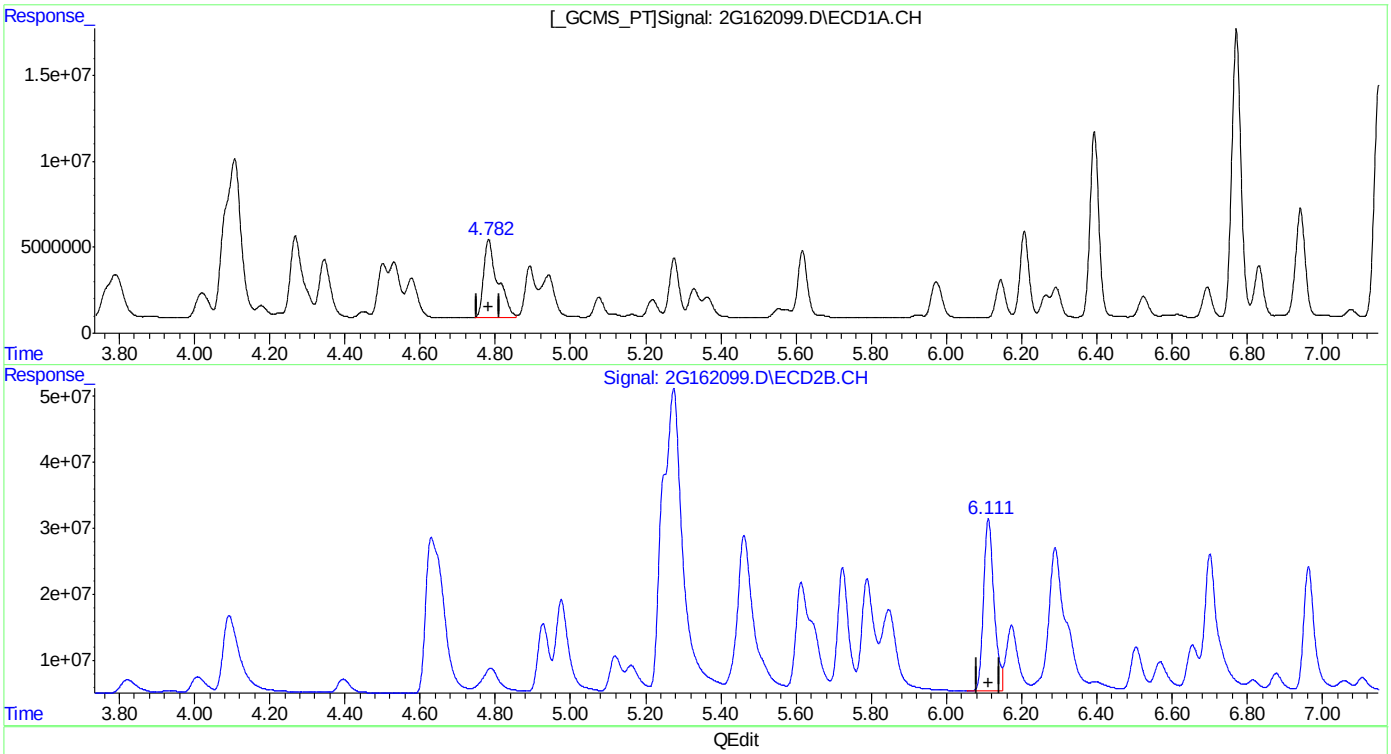
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.782min 835.629PPB m
response 117579859

(35) AR1016-E #2
6.112min 883.134PPB
response 502930503

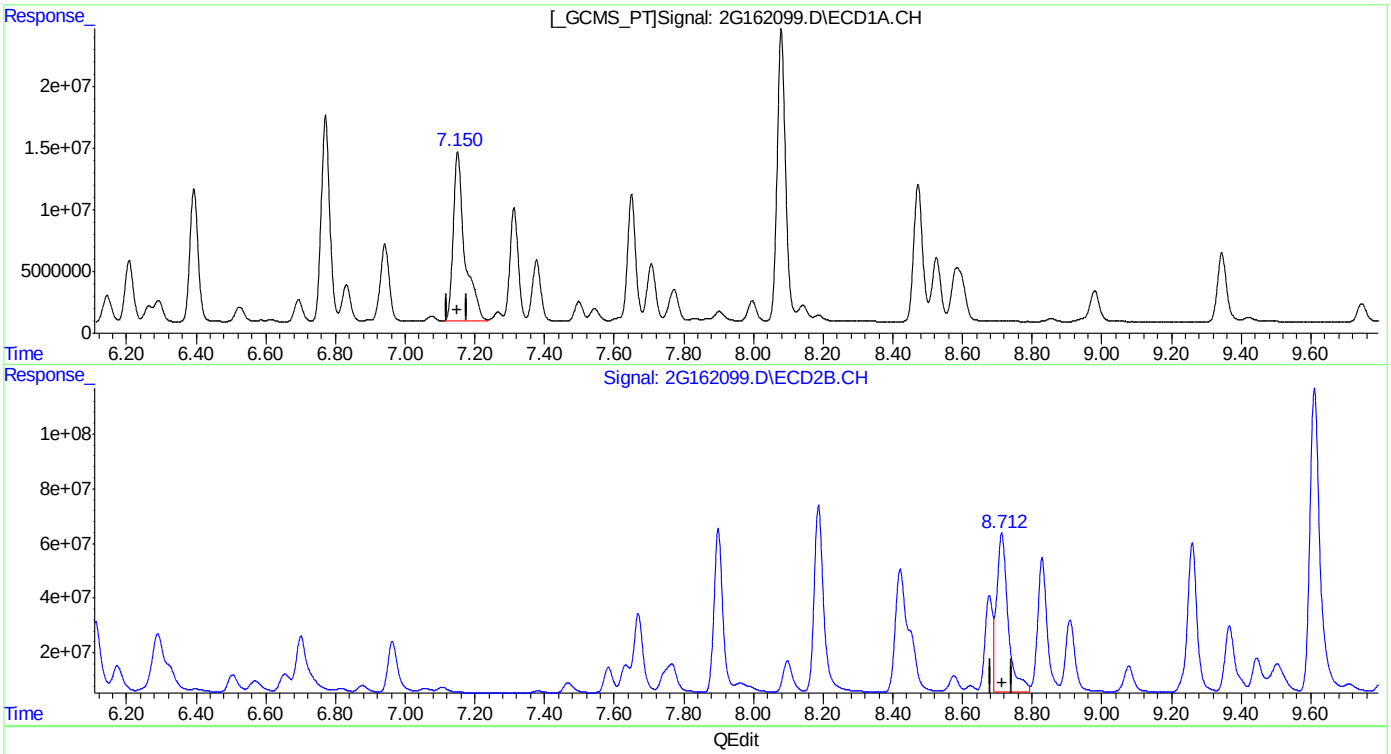
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 835.813PPB
response 317775802

(36) AR1260-A #2
8.713min 713.165PPB
response 1328026831

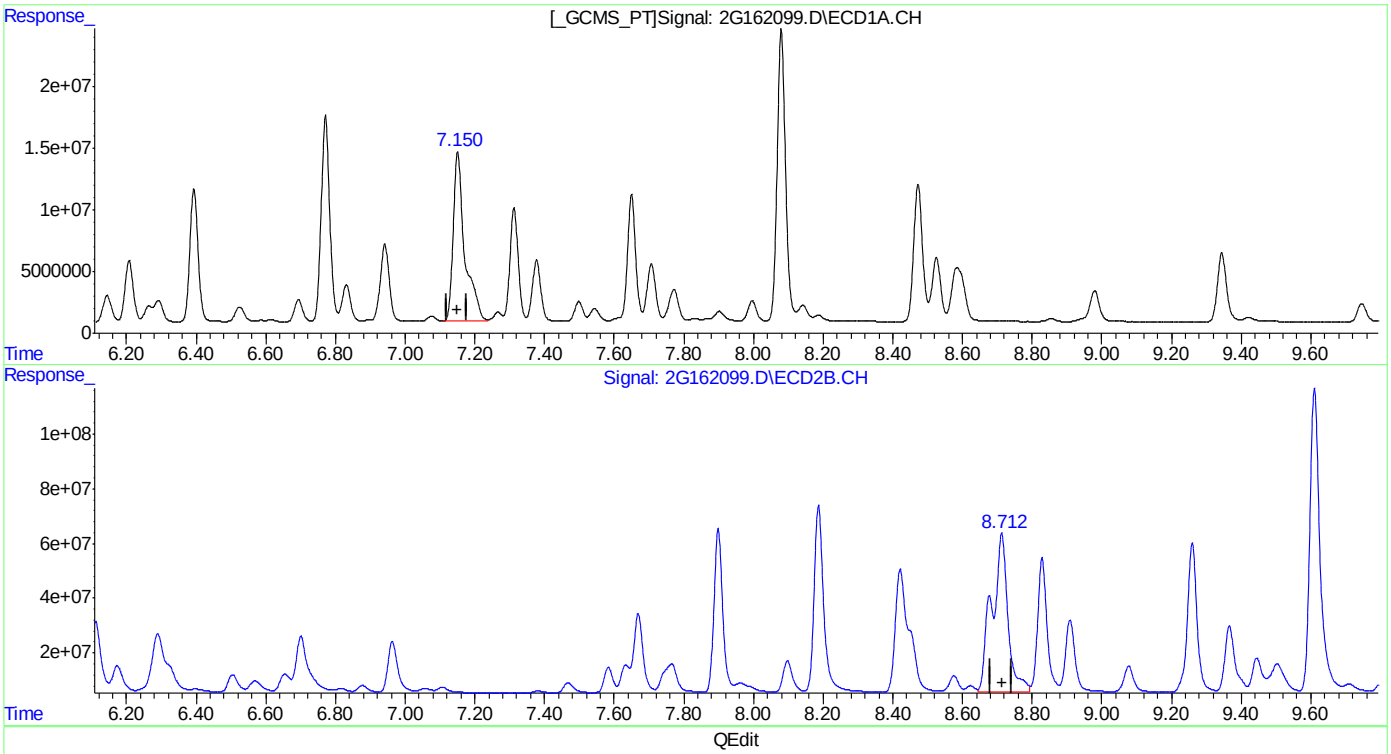
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:32:56 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 835.813PPB
response 317775802

(36) AR1260-A #2
8.712min 1010.865PPB m
response 1882392227

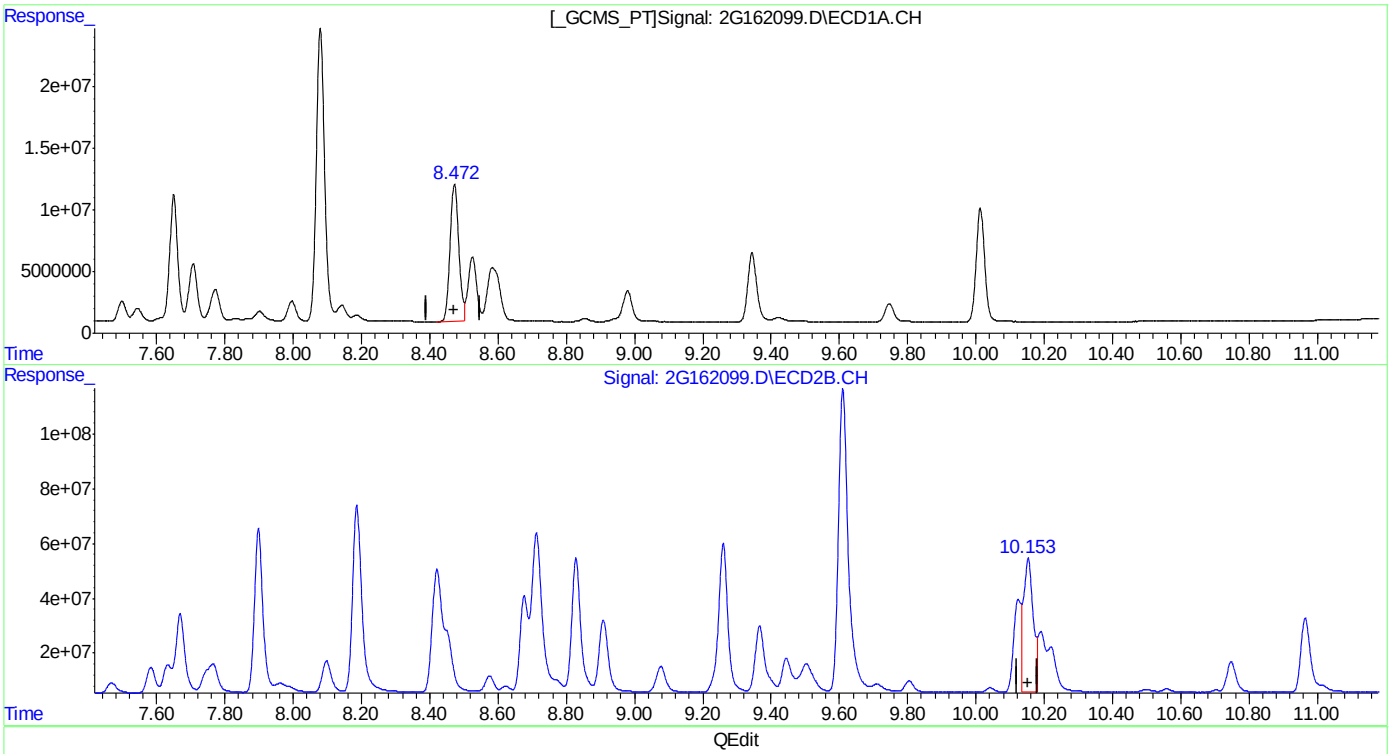
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(40) AR1260-E
8.473min 455.176PPB
response 198043542

(40) AR1260-E #2
10.153min 470.111PPB
response 962206715

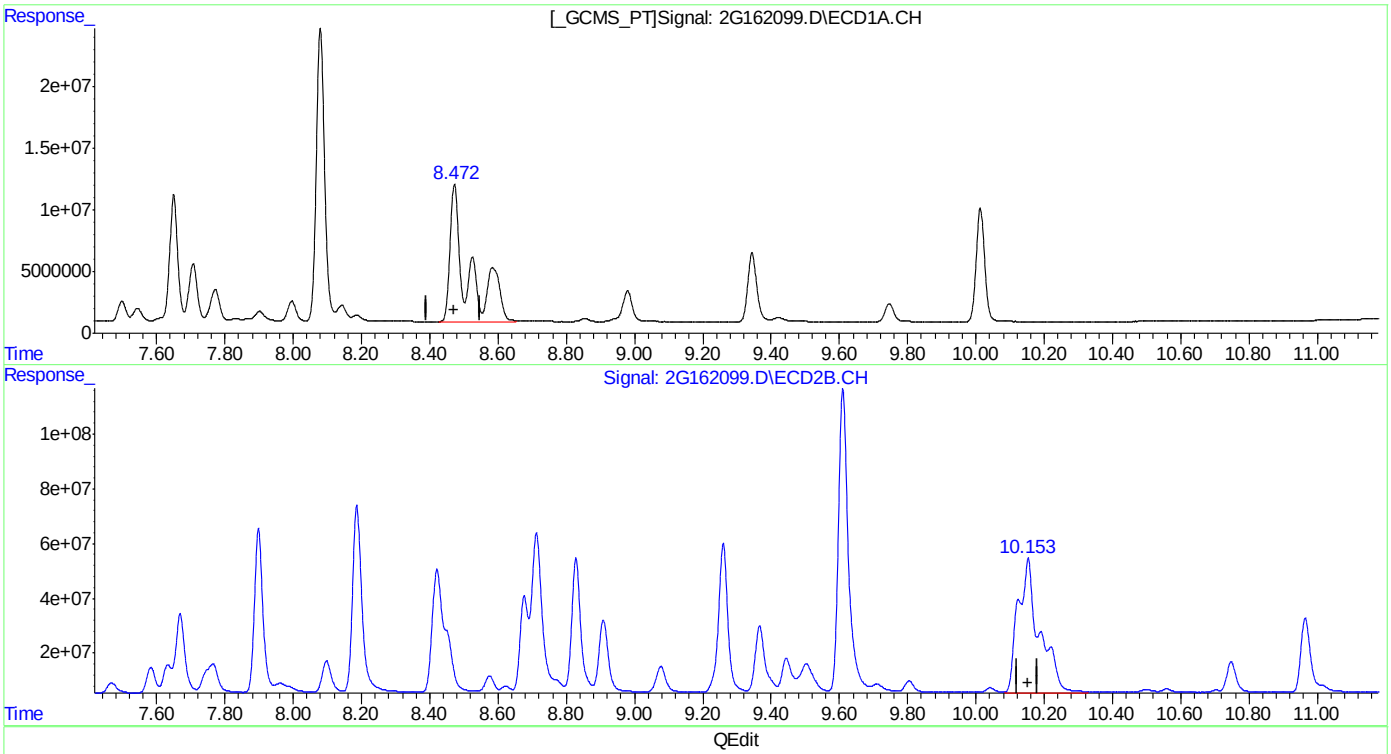
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.472min 925.282PPB m
response 402582918

(40) AR1260-E #2
10.153min 1047.495PPB m
response 2143977225

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:33:21 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:35:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.779	3.431	293.4E6	1839.9E6	67.140	60.158
	Spiked Amount 40.000			Recovery	= 167.85%	150.40%	
51) S	Decachlor...	10.011	11.809	306.0E6	1473.2E6	67.895	77.733
	Spiked Amount 40.000			Recovery	= 169.74%	194.33%	
	Target Compounds						
31)	AR1016-A	3.154	4.088	142.5E6	706.5E6	1560.748	1467.398
32)	AR1016-B	3.557	4.628	248.4E6	1468.7E6	2158.143	1519.571 #
33)	AR1016-C	4.105	5.269	559.4E6	3437.9E6	1515.198	1643.034m
34)	AR1016-D	4.267	5.458	223.8E6	1423.4E6	1664.568	1839.787
35)	AR1016-E	4.781	6.109	229.0E6	1004.6E6	1627.184m	1764.070
36)	AR1260-A	7.150	8.710	694.6E6	4085.5E6	1826.832	2193.943m
37)	AR1260-B	7.312	8.828	263.3E6	1607.9E6	1541.300	1650.207
38)	AR1260-C	7.649	9.259	296.0E6	1960.0E6	1786.948	2092.348
39)	AR1260-D	8.079	9.607	724.1E6	4125.5E6	1567.540	1754.127
40)	AR1260-E	8.470	10.150	722.1E6	3867.0E6	1659.737m	1889.312m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

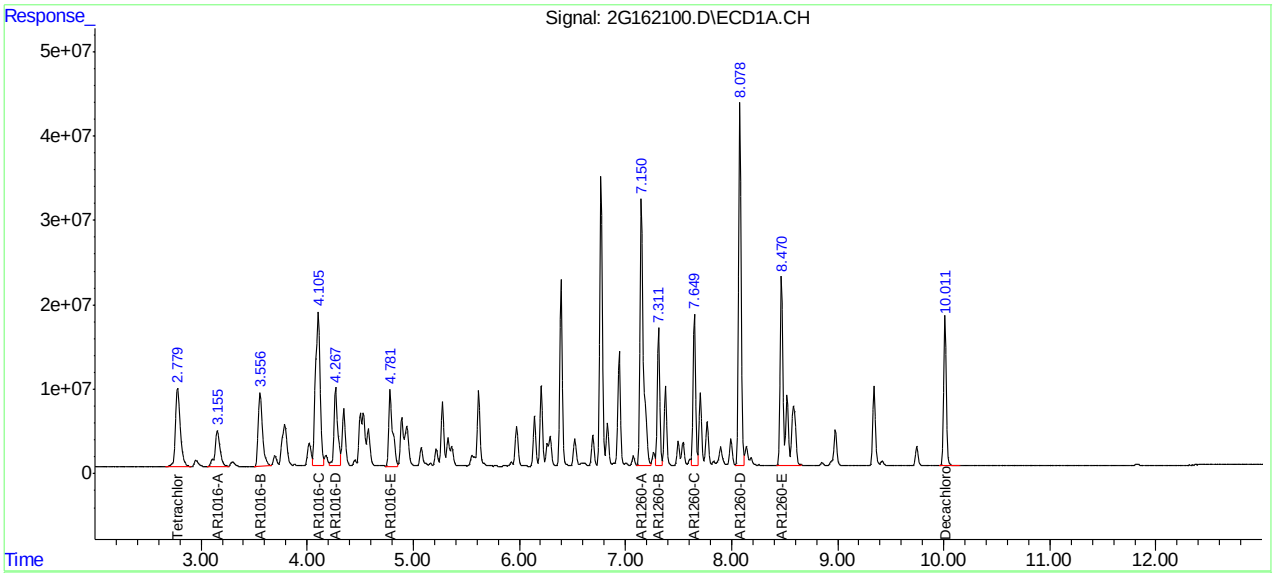
11.6.4 11

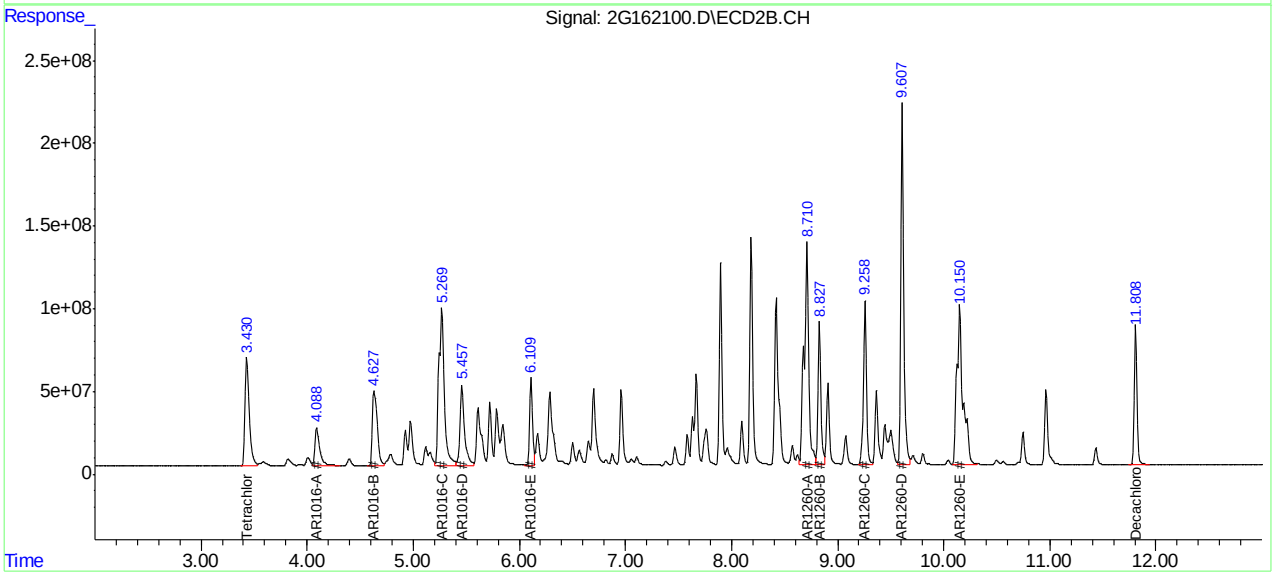
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:35:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162100.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:19	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

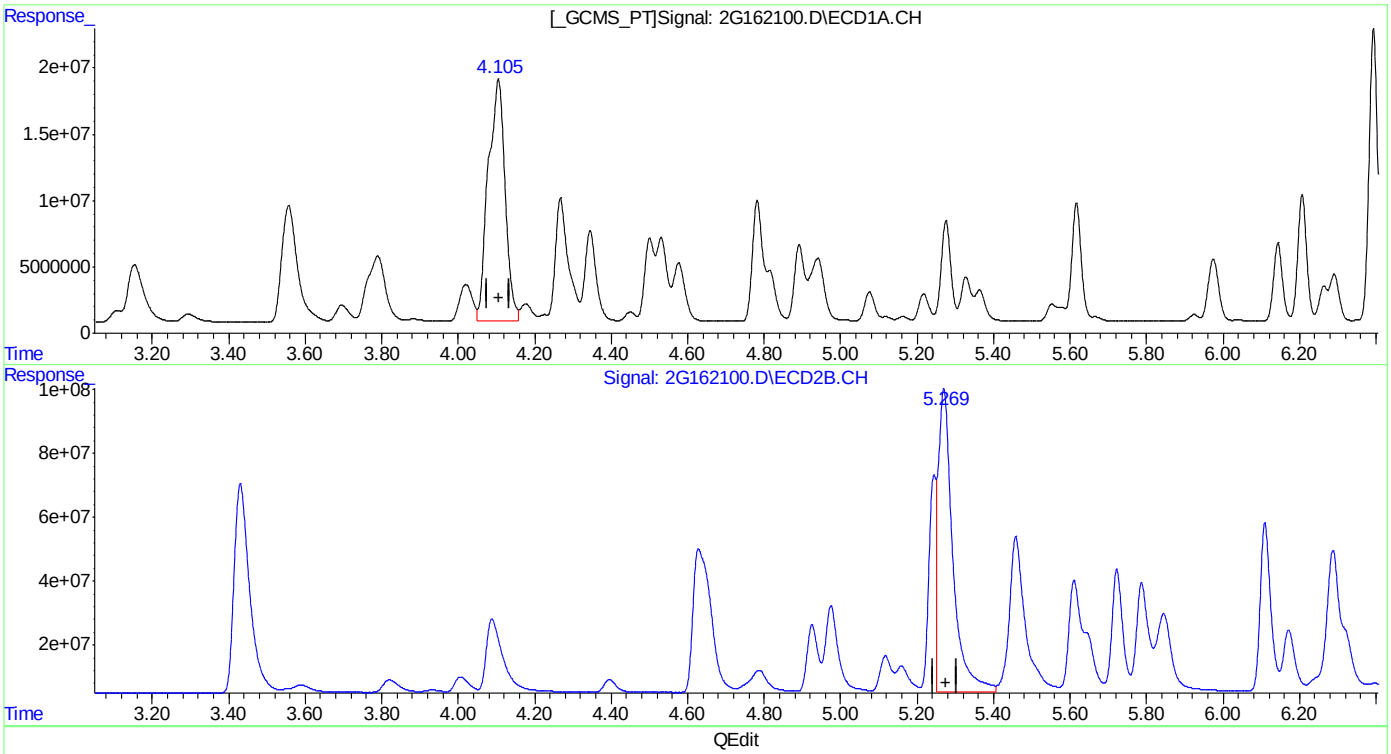
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.78	Split peak
AR1016-C		2	5.27	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.105min 1515.198PPB
response 559372601

(33) AR1016-C #2
5.270min 1223.870PPB
response 2560828231

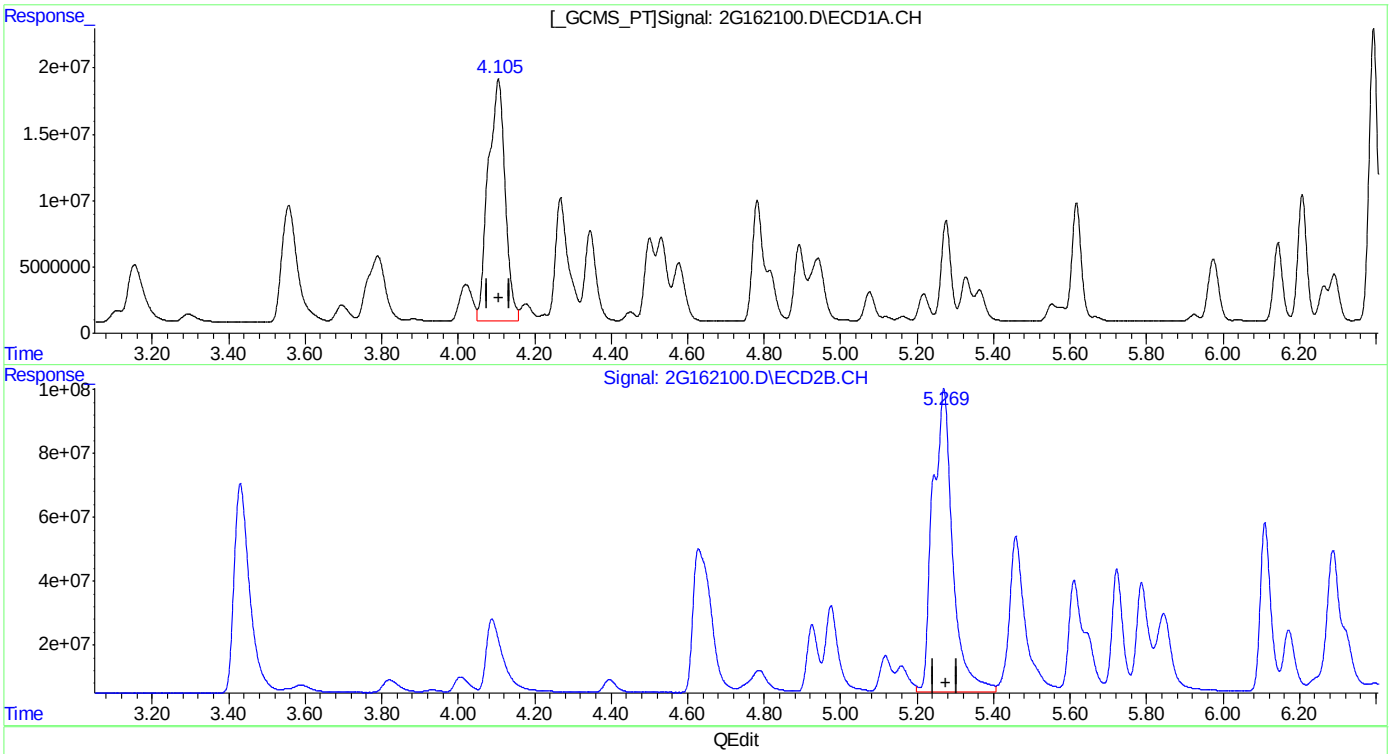
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:15 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.105min 1515.198PPB
response 559372601

(33) AR1016-C #2
5.269min 1643.034PPB m
response 3437887302

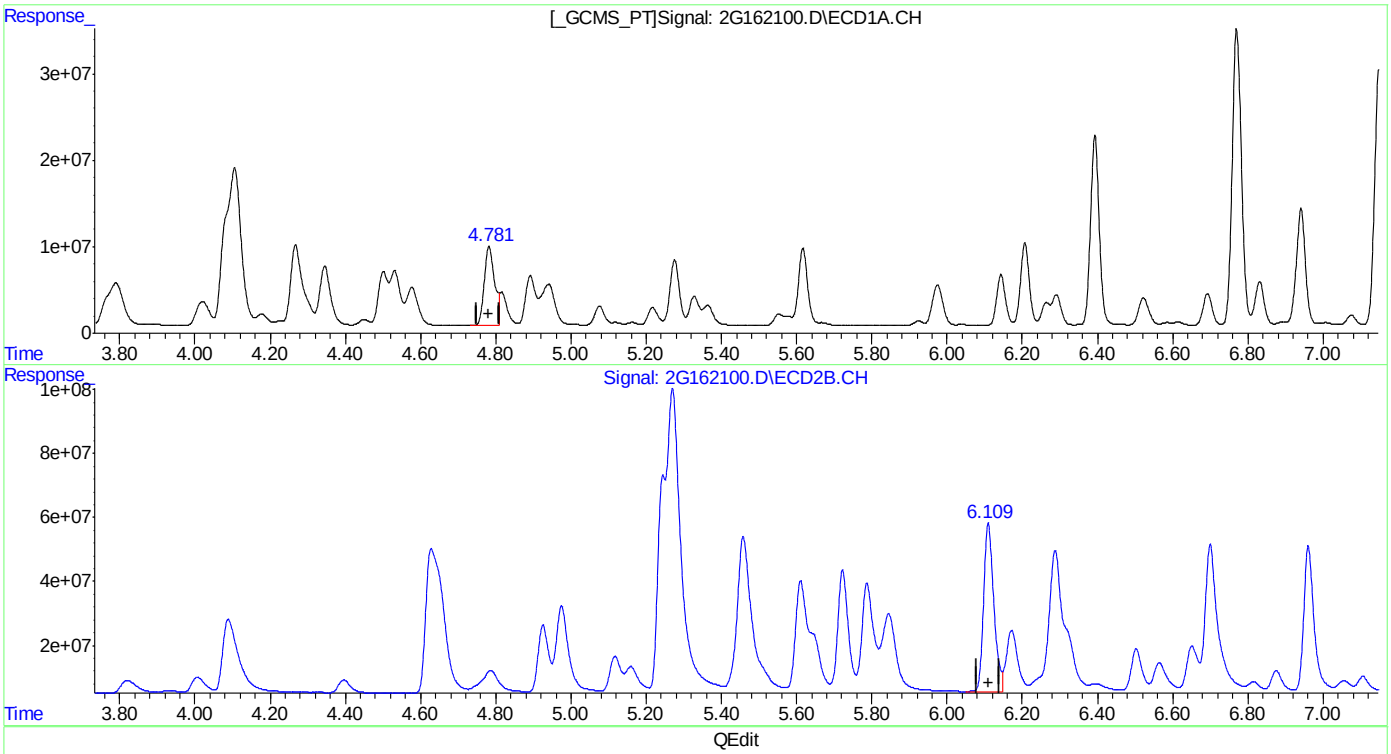
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(35) AR1016-E
4.782min 1217.083PPB
response 171253502

(35) AR1016-E #2
6.109min 1764.070PPB
response 1004609723

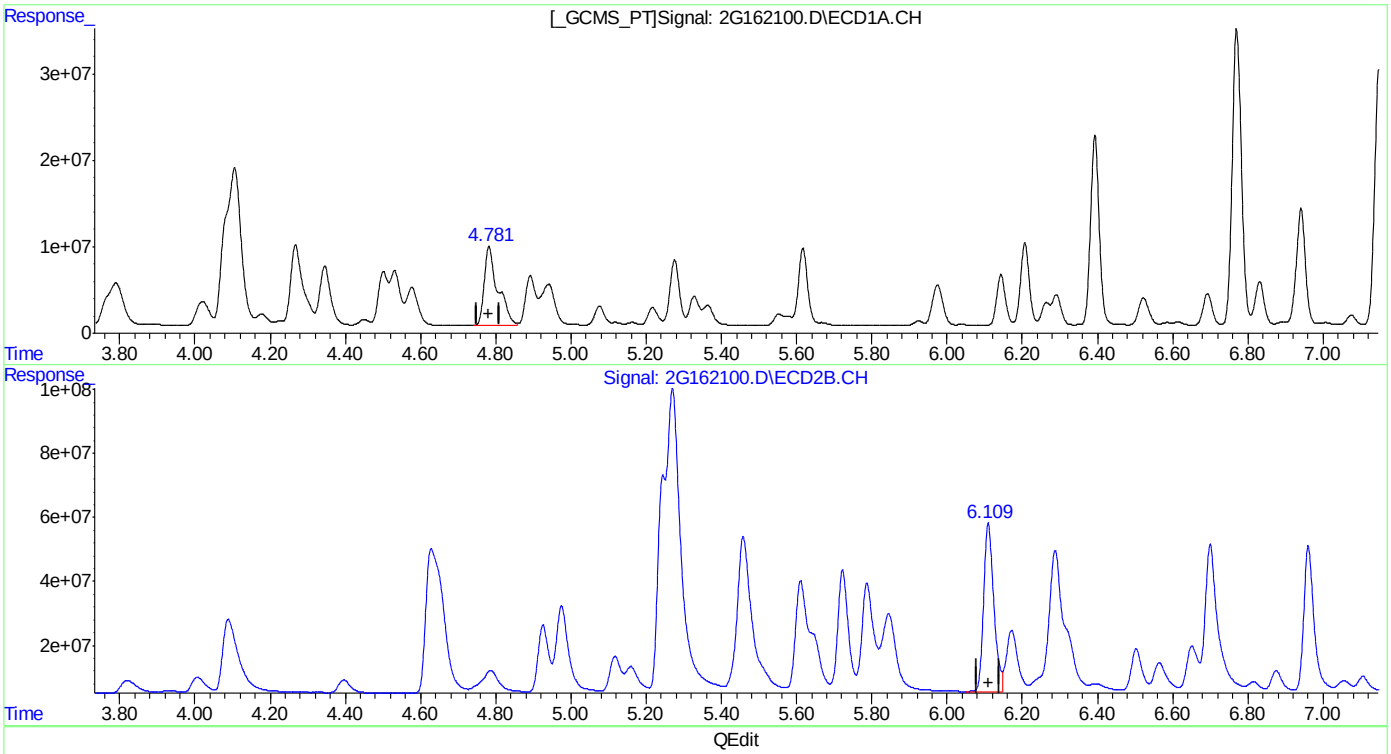
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(35) AR1016-E
4.781min 1627.184PPB m
response 228958036

(35) AR1016-E #2
6.109min 1764.070PPB
response 1004609723

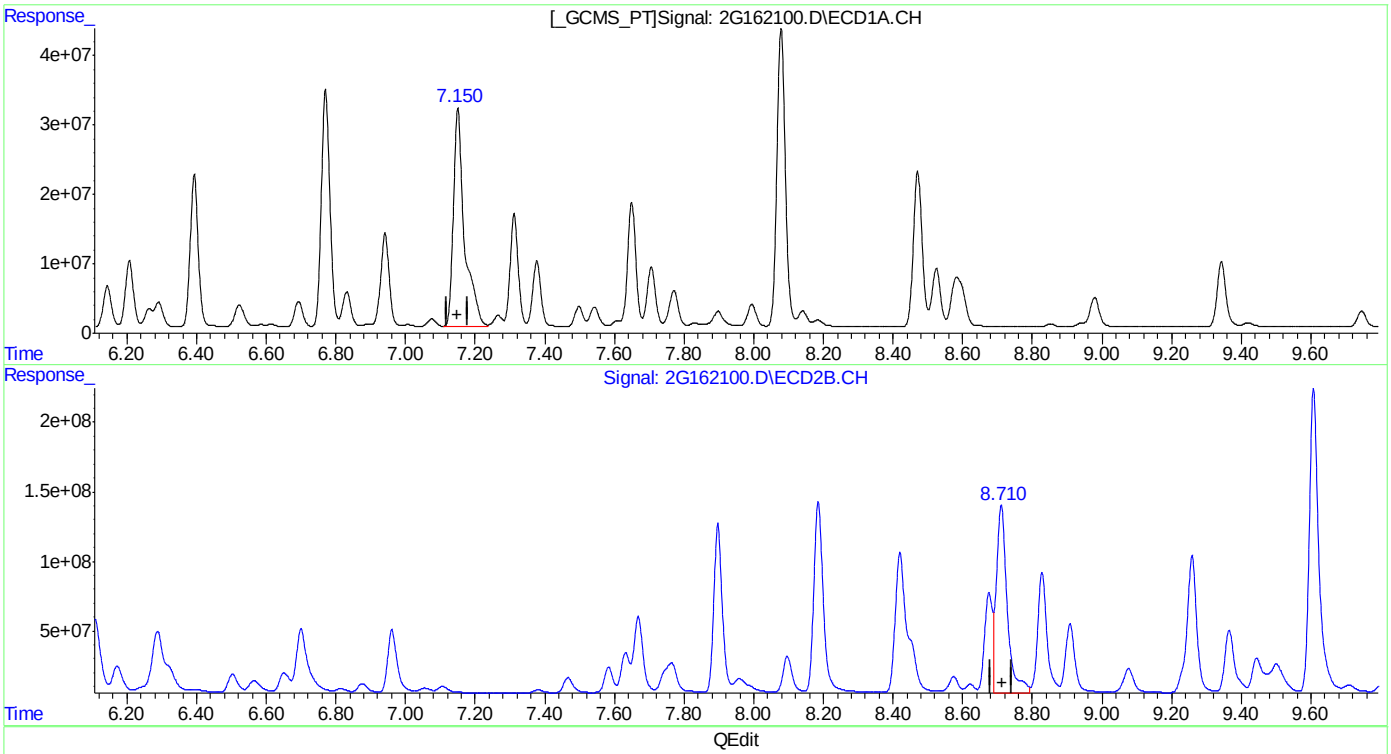
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:33 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.150min 1826.832PPB
response 694560748

(36) AR1260-A #2
8.711min 1587.197PPB
response 2955615106

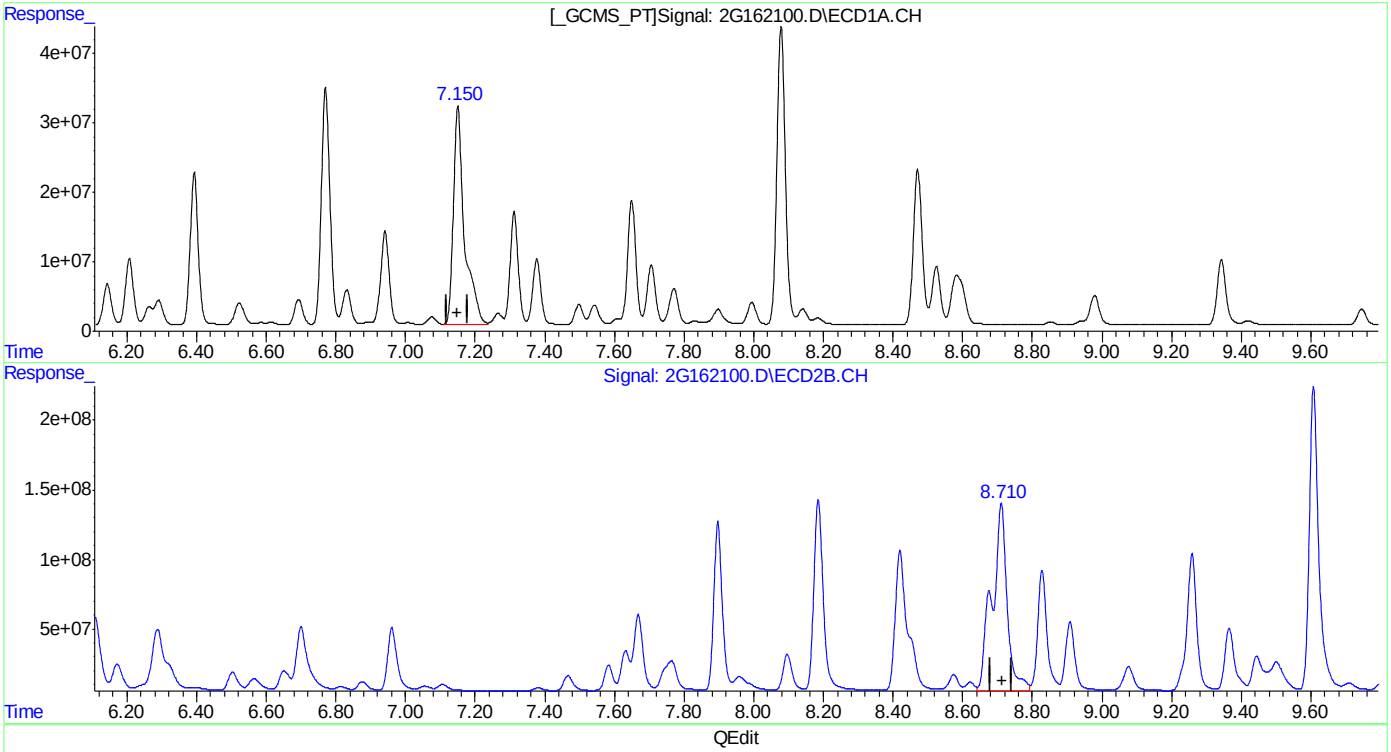
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:37 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.150min 1826.832PPB
response 694560748

(36) AR1260-A #2
8.710min 2193.943PPB m
response 4085472504

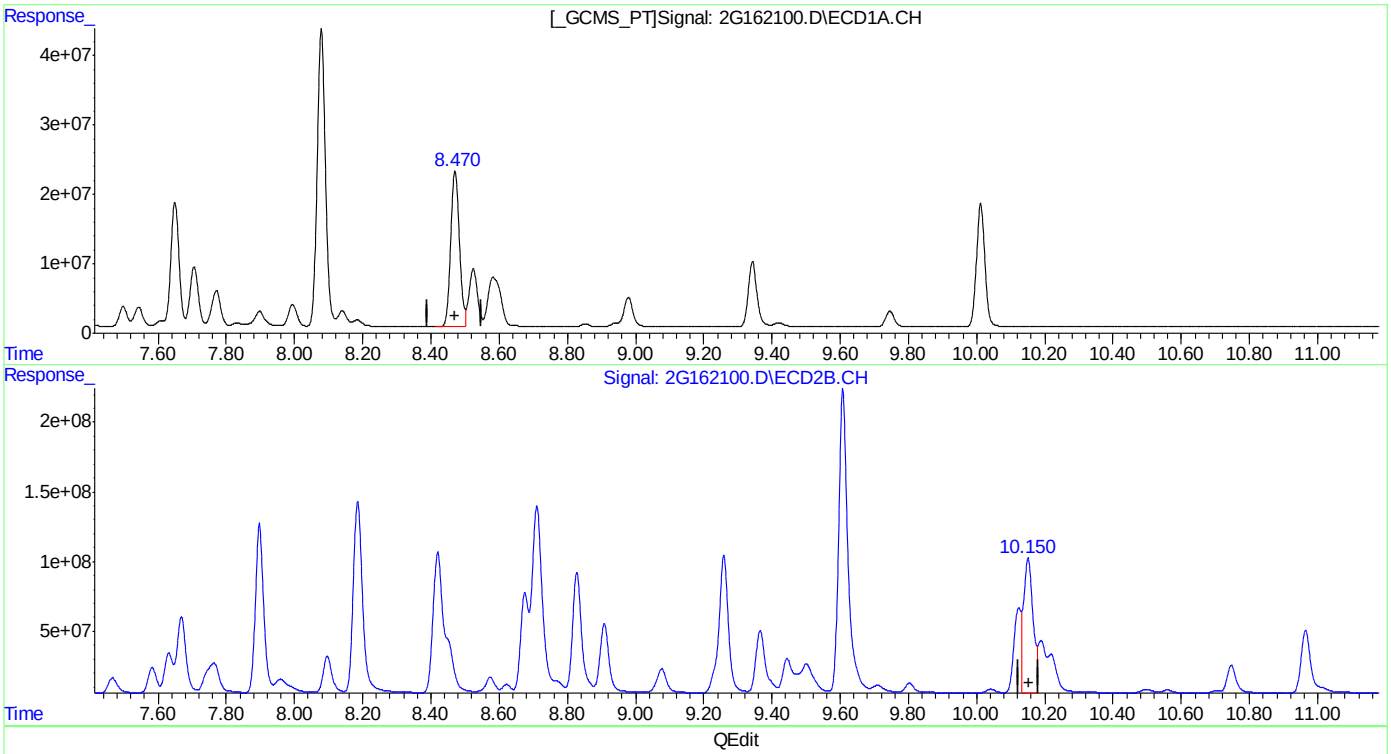
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:45 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(40) AR1260-E
8.470min 902.190PPB
response 392535672

(40) AR1260-E #2
10.151min 932.845PPB
response 1909314979

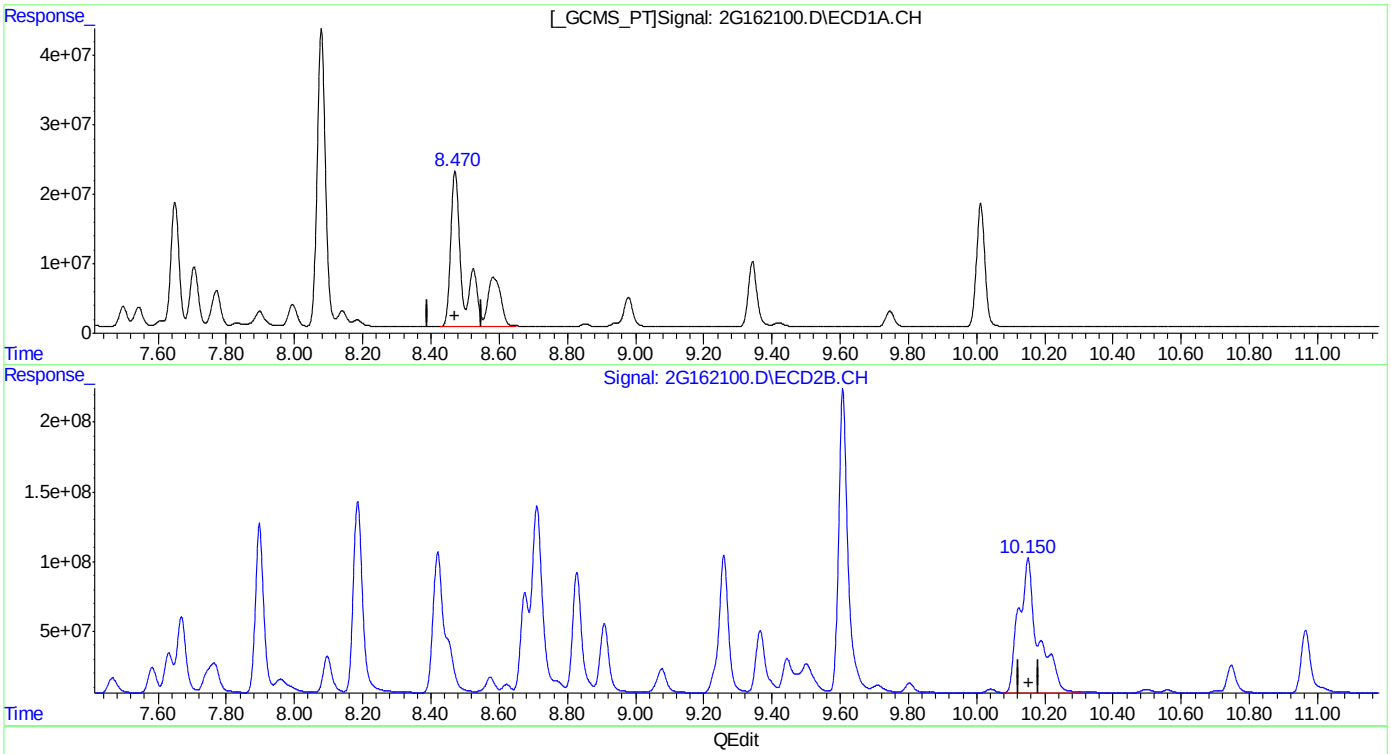
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:34:51 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162100.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:19 pm
Operator : tianweir
Sample : ic4311-2000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:34:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(40) AR1260-E
8.470min 1659.737PPB m
response 722138384

(40) AR1260-E #2
10.150min 1889.312PPB m
response 3866977621

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:51:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.780	3.430	454.2E6	2825.0E6	127.609	126.507
	Spiked Amount 40.000			Recovery	=	319.02%	316.27%
51) S	Decachlor...	10.012	11.807	467.6E6	2260.6E6	123.371	132.472
	Spiked Amount 40.000			Recovery	=	308.43%	331.18%
	Target Compounds						
31)	AR1016-A	3.154	4.088	213.2E6	1079.0E6	2920.892m	3078.922
32)	AR1016-B	3.558	4.629	374.2E6	2164.2E6	3145.582	2856.820
33)	AR1016-C	4.105	5.268	856.1E6	5162.9E6	3078.179	3140.786
34)	AR1016-D	4.268	5.457	341.9E6	2126.9E6	3104.332	3163.789
35)	AR1016-E	4.782	6.109	348.3E6	1537.2E6	3038.759	3205.970
36)	AR1260-A	7.149	8.708	1069.8E6	6243.4E6	3385.833	3502.573m
37)	AR1260-B	7.311	8.827	404.6E6	2447.4E6	2923.094	3045.990
38)	AR1260-C	7.649	9.257	458.0E6	3017.1E6	3056.095	3297.017
39)	AR1260-D	8.078	9.606	1113.6E6	6341.4E6	3124.355	3182.969
40)	AR1260-E	8.468	10.150	1100.5E6	5911.5E6	3048.503m	3181.045m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

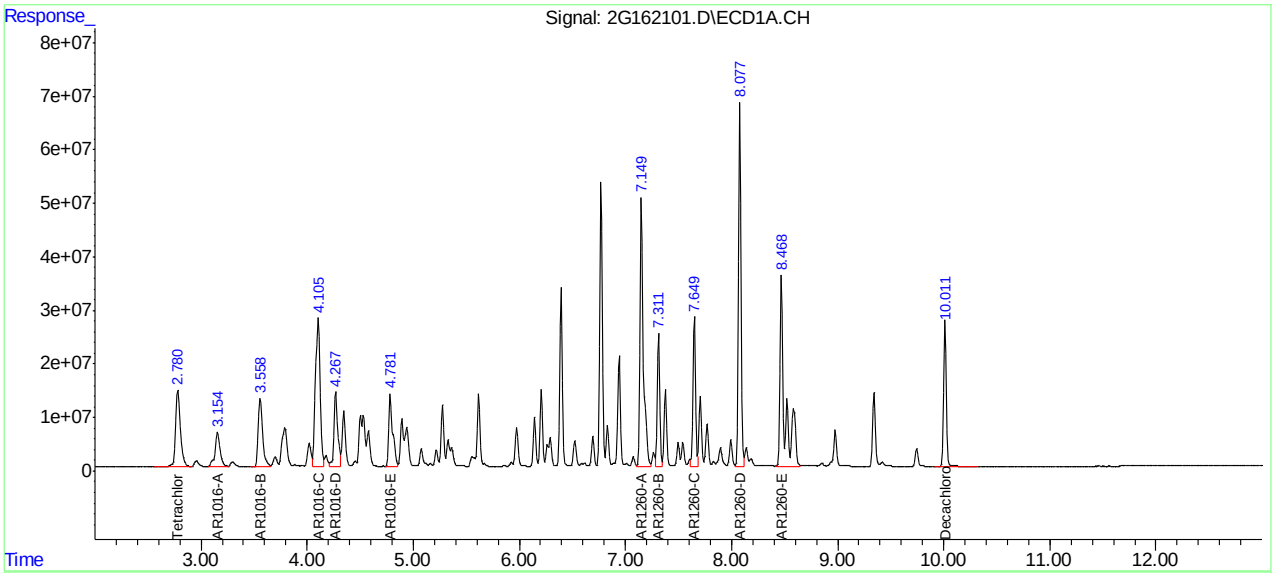
11.6.5 11

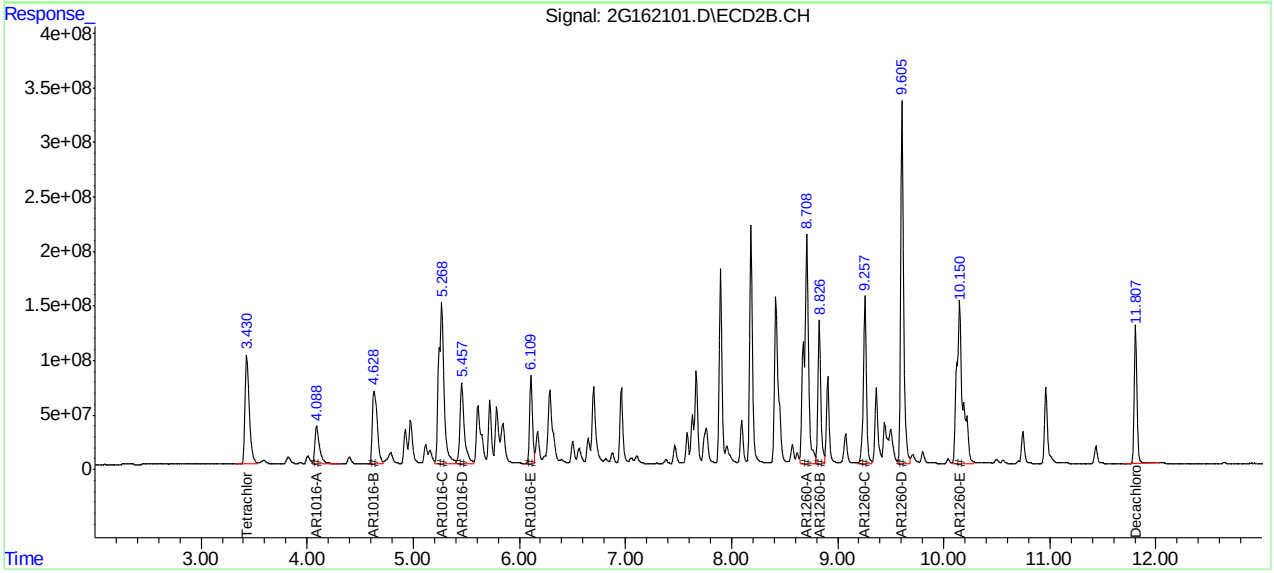
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:51:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162101.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:35	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

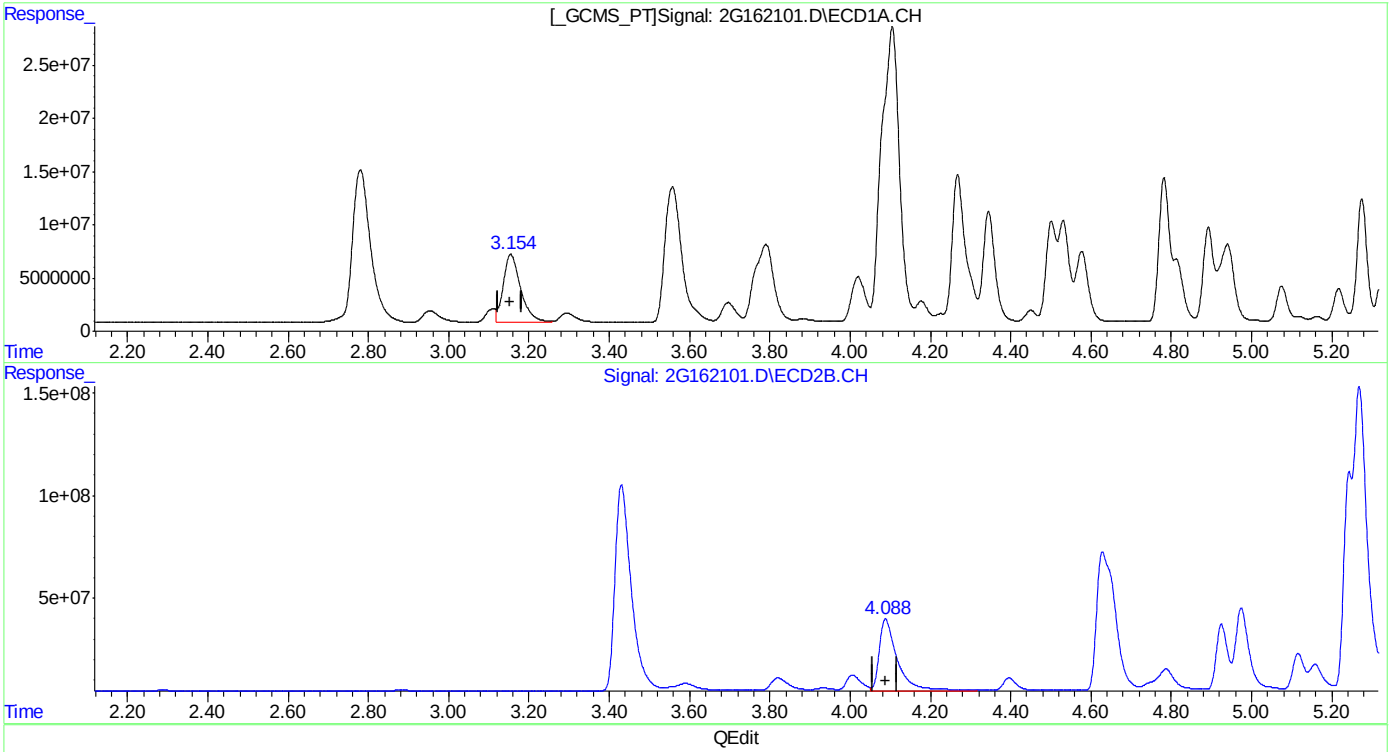
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.15	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 2622.894PPB
response 191409629

(31) AR1016-A #2
4.088min 3078.922PPB
response 1078973022

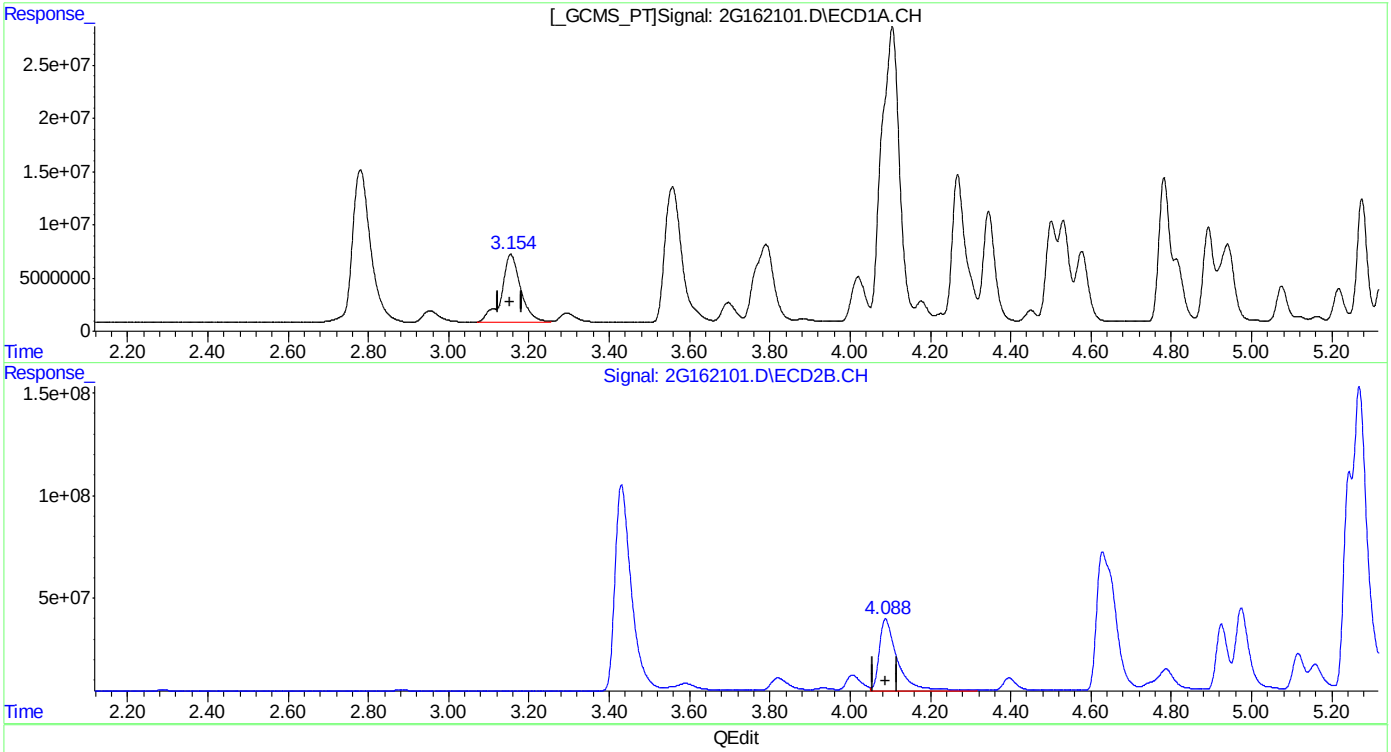
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:50:36 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 2920.892PPB m
response 213156448

(31) AR1016-A #2
4.088min 3078.922PPB
response 1078973022

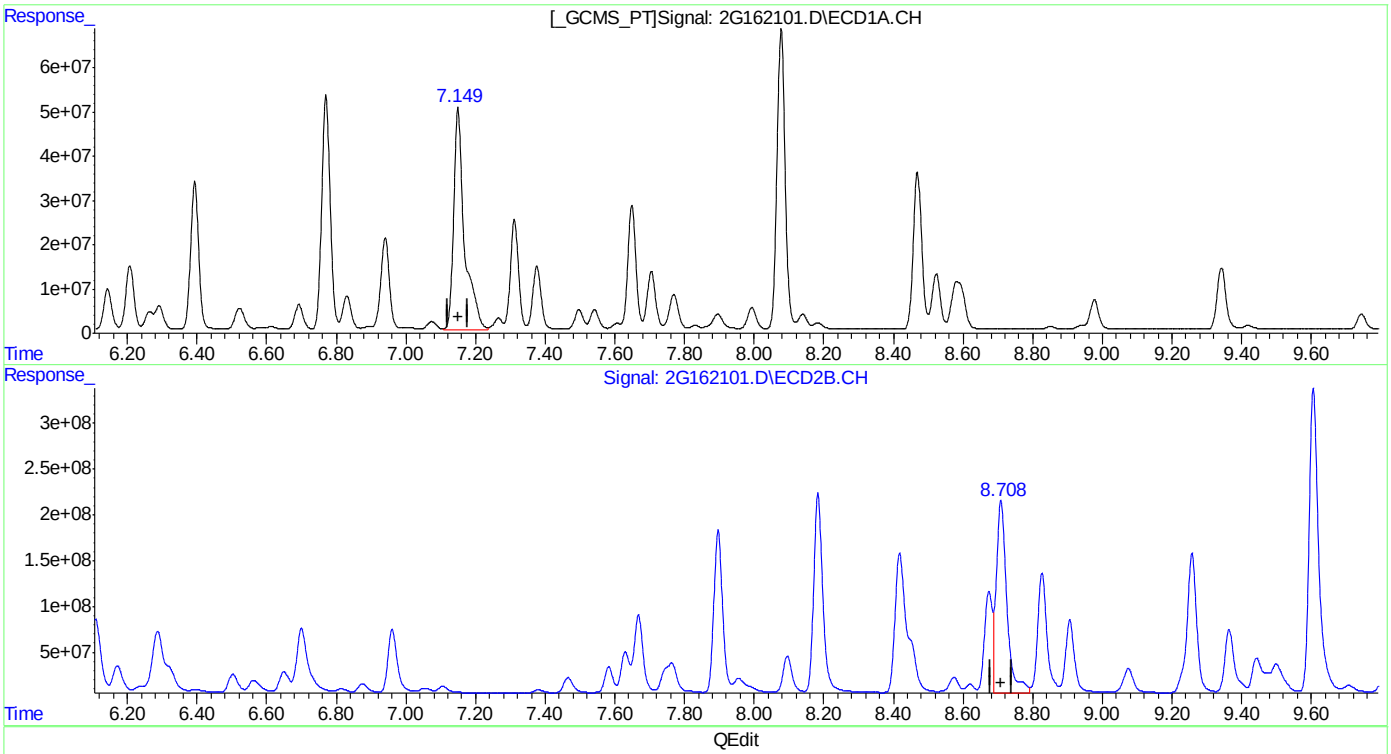
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:50:42 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.149min 3385.833PPB
response 1069799181

(36) AR1260-A #2
8.709min 2533.443PPB
response 4515883739

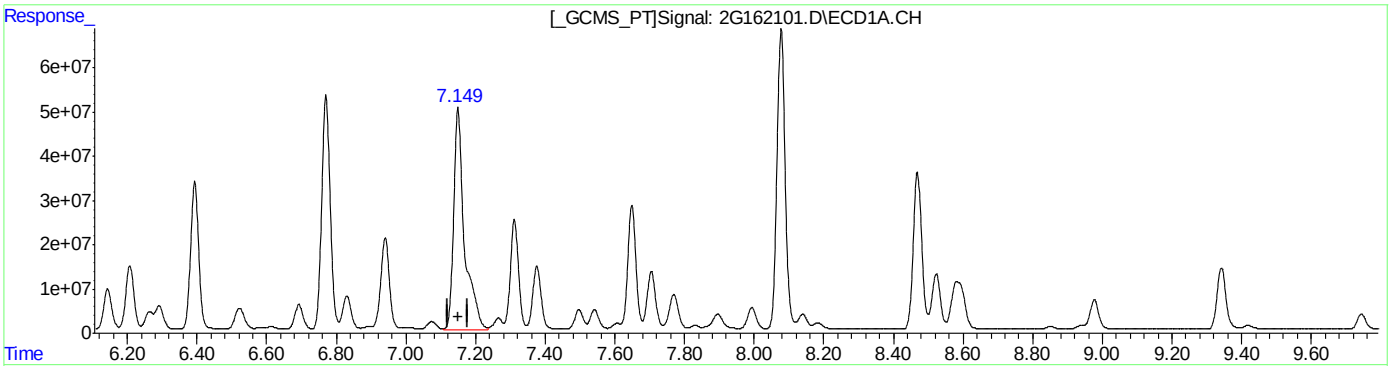
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:50:49 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.149min 3385.833PPB
response 1069799181

(36) AR1260-A #2
8.708min 3502.573PPB m
response 6243366528

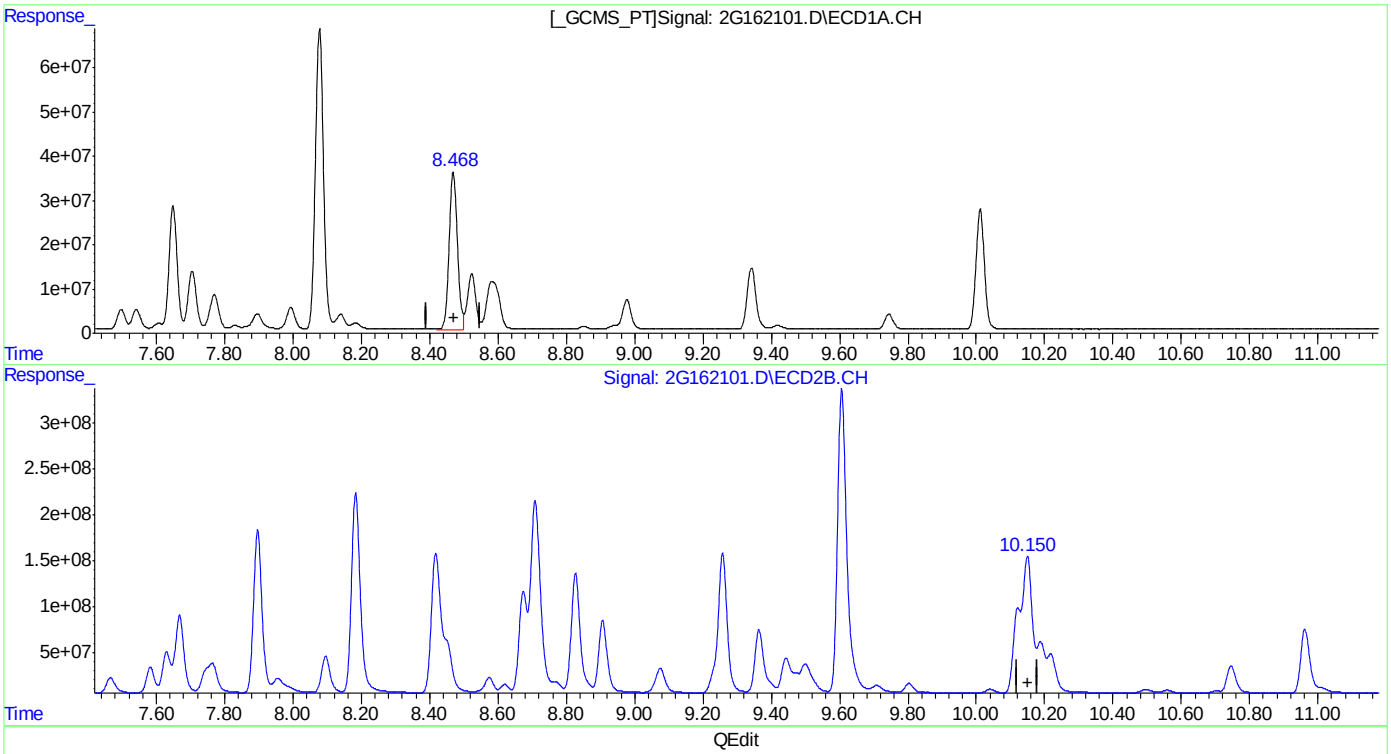
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:50:58 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(40) AR1260-E
8.469min 1680.775PPB
response 606744282

(40) AR1260-E #2
10.150min 2285.710PPB
response 4247666513

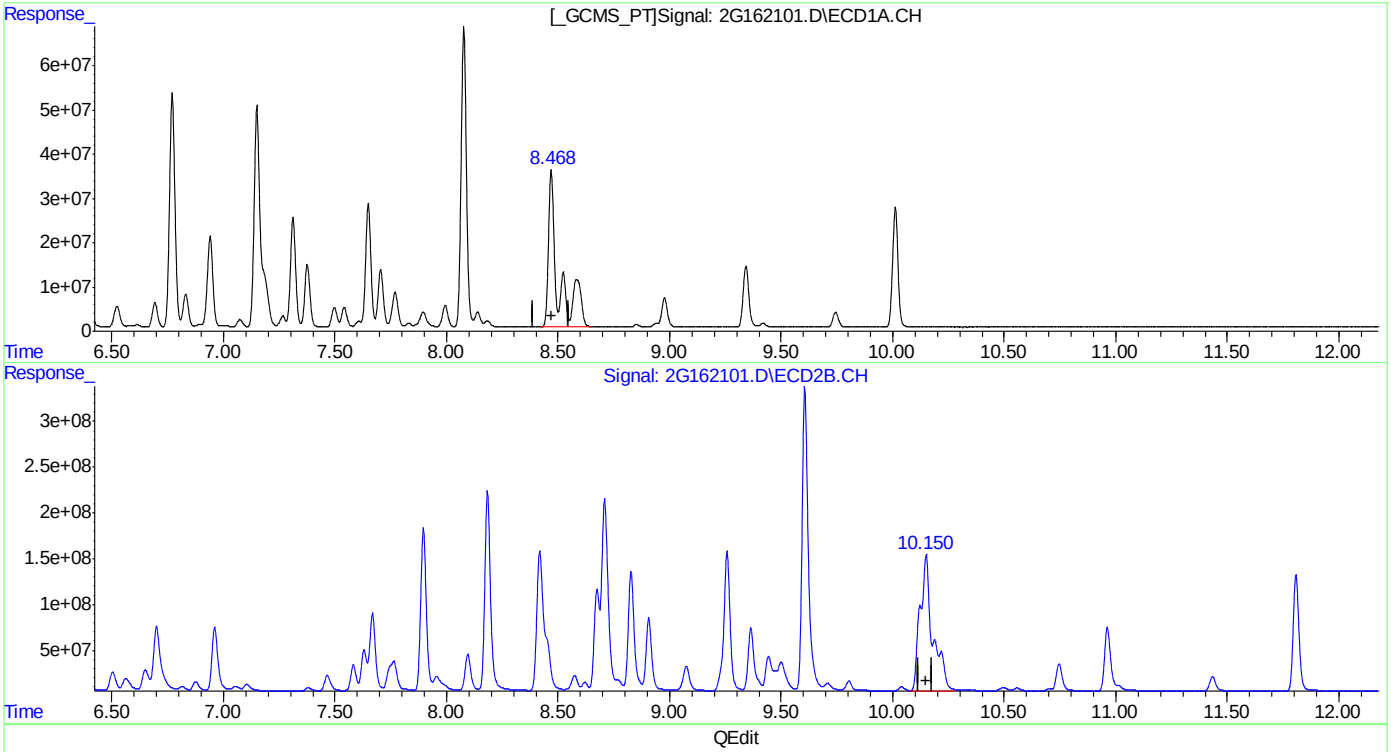
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162101.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:35 pm
Operator : tianweir
Sample : ic4311-3000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:50:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:46:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(40) AR1260-E
8.468min 3048.503PPB m
response 1100481096

(40) AR1260-E #2
10.150min 3181.045PPB m
response 5911517860

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 13:51:30 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1)	S Tetrachlo...	2.779	3.431	163.8E6	987.2E6	47.199	46.623
	Spiked Amount 40.000			Recovery	=	118.00%	116.56%
51)	S Decachlor...	10.013	11.809	165.0E6	806.7E6	44.682	46.281
	Spiked Amount 40.000			Recovery	=	111.71%	115.70%
	Target Compounds						
2)	AR1221-A	2.282	2.875	28967496	140.9E6	1023.276	1085.901
3)	AR1221-B	2.954	3.821	42022816	250.7E6	983.648	970.364
4)	AR1221-C	3.153	4.091	128.8E6	655.8E6	950.947m	1092.099
5)	AR1221-D	3.558	4.650	14656903	122.2E6	1190.489	1041.062
6)	AR1221-E	3.699	4.770	14363624	88492068	1222.278	1236.269
24)	AR1254-A	5.275	6.700	123.4E6	992.5E6	961.679	1070.842
25)	AR1254-B	5.616	6.960	258.8E6	983.9E6	1032.998m	1051.674
26)	AR1254-C	5.981	7.464	137.0E6	797.7E6	999.447	1078.993
27)	AR1254-D	6.143	7.630	245.9E6	1634.3E6	996.318	1197.753
28)	AR1254-E	6.519	7.955	182.5E6	1088.9E6	1178.826	1169.607
29)	AR1254-F	6.772	8.419	171.2E6	1181.2E6	1099.087	1059.697m
30)	AR1254-G	7.152	8.714	251.8E6	1510.8E6	1013.161	1105.727

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

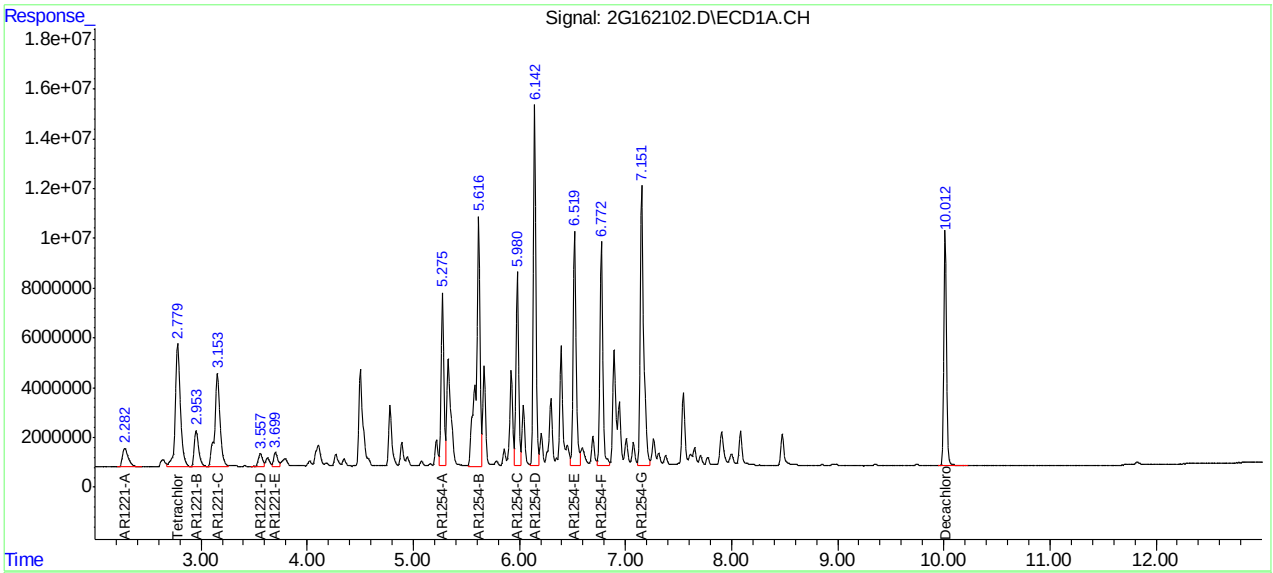
11.6.6 11

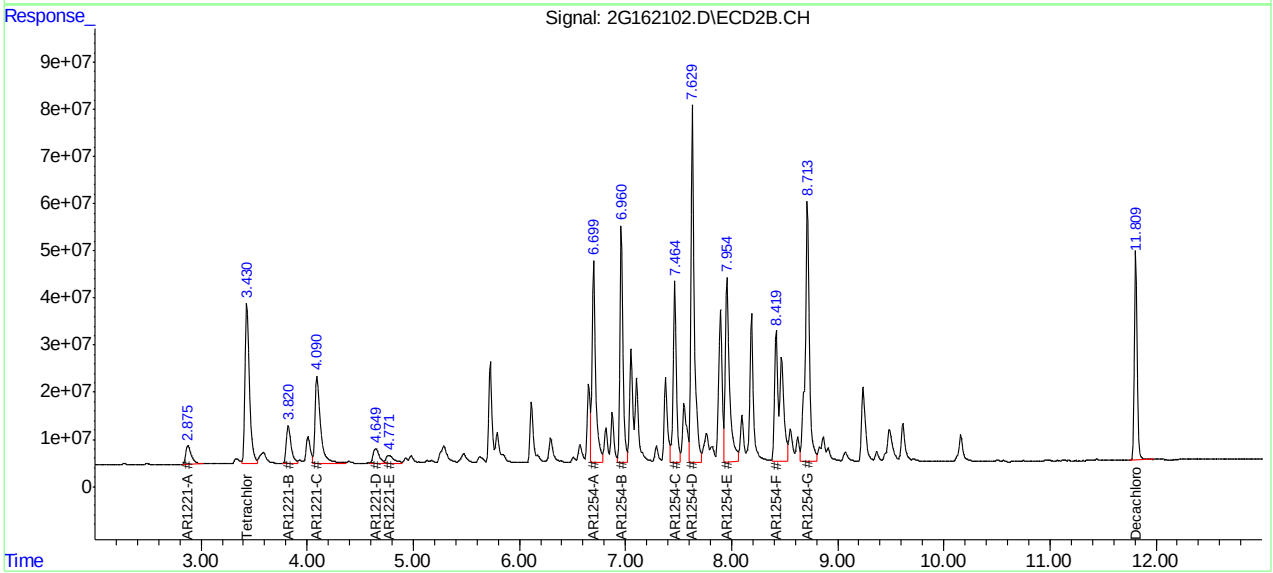
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162102.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 13:52	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

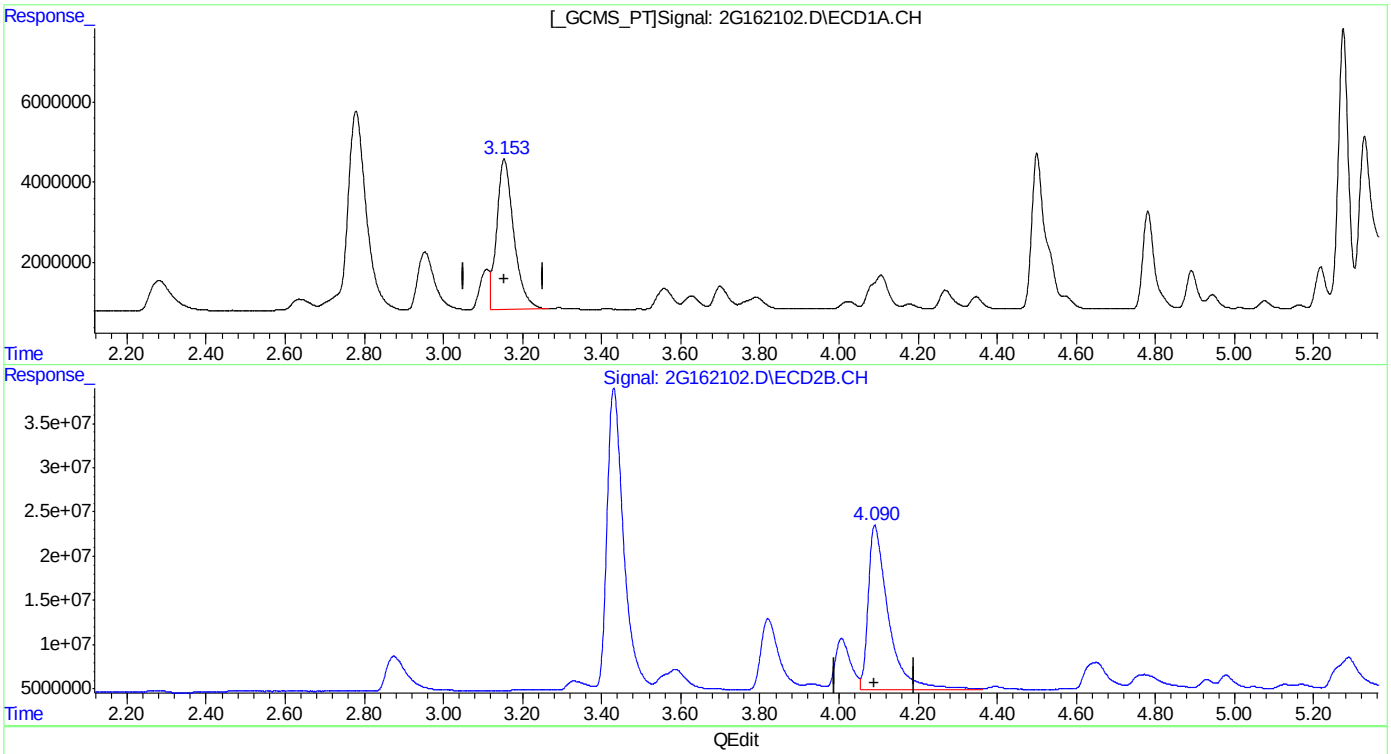
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-C		1	3.15	Split peak
AR1254-B		1	5.62	Split peak
AR1254-F		2	8.42	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.154min 827.639PPB
response 112094551

(4) AR1221-C #2
4.091min 1092.099PPB
response 655831170

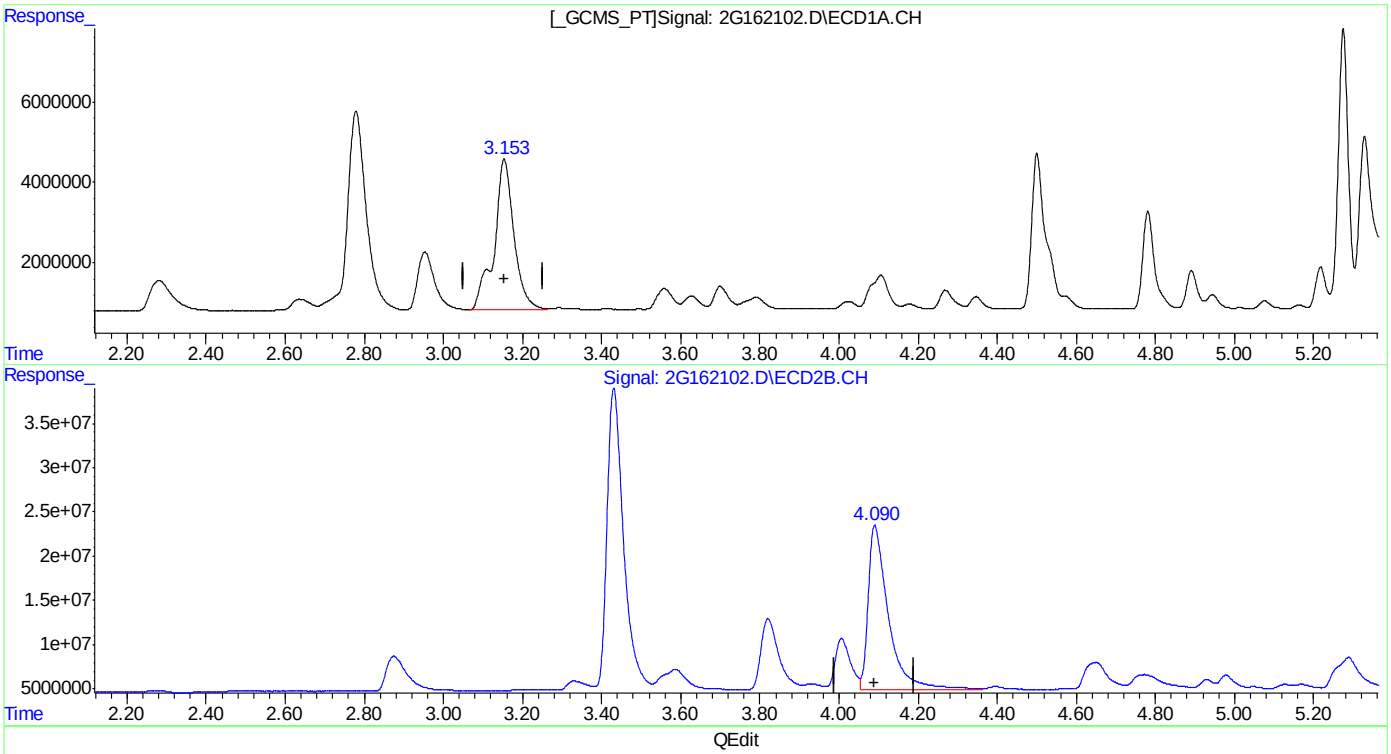
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.153min 950.947PPB m
response 128795146

(4) AR1221-C #2
4.091min 1092.099PPB
response 655831170

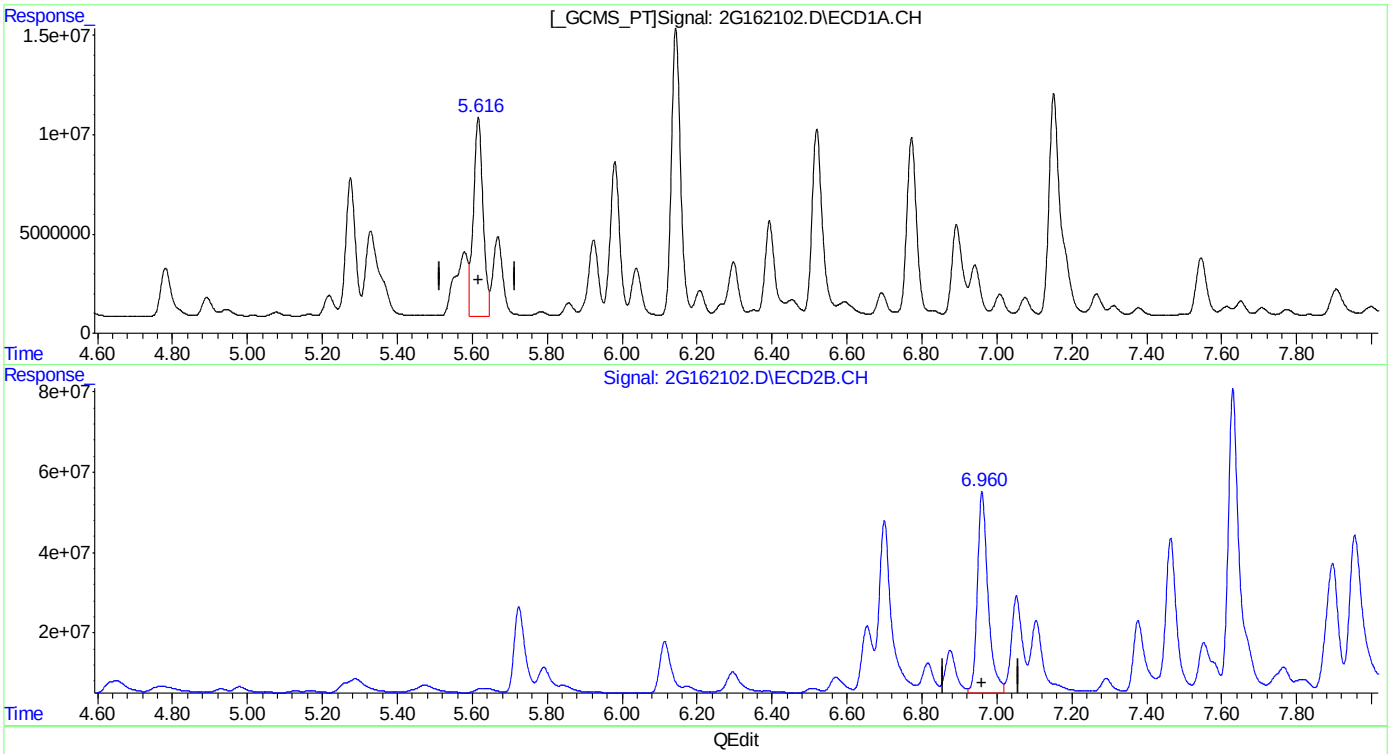
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:23:22 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(25) AR1254-B
5.616min 709.159PPB
response 177635290

(25) AR1254-B #2
6.960min 1051.674PPB
response 983915450

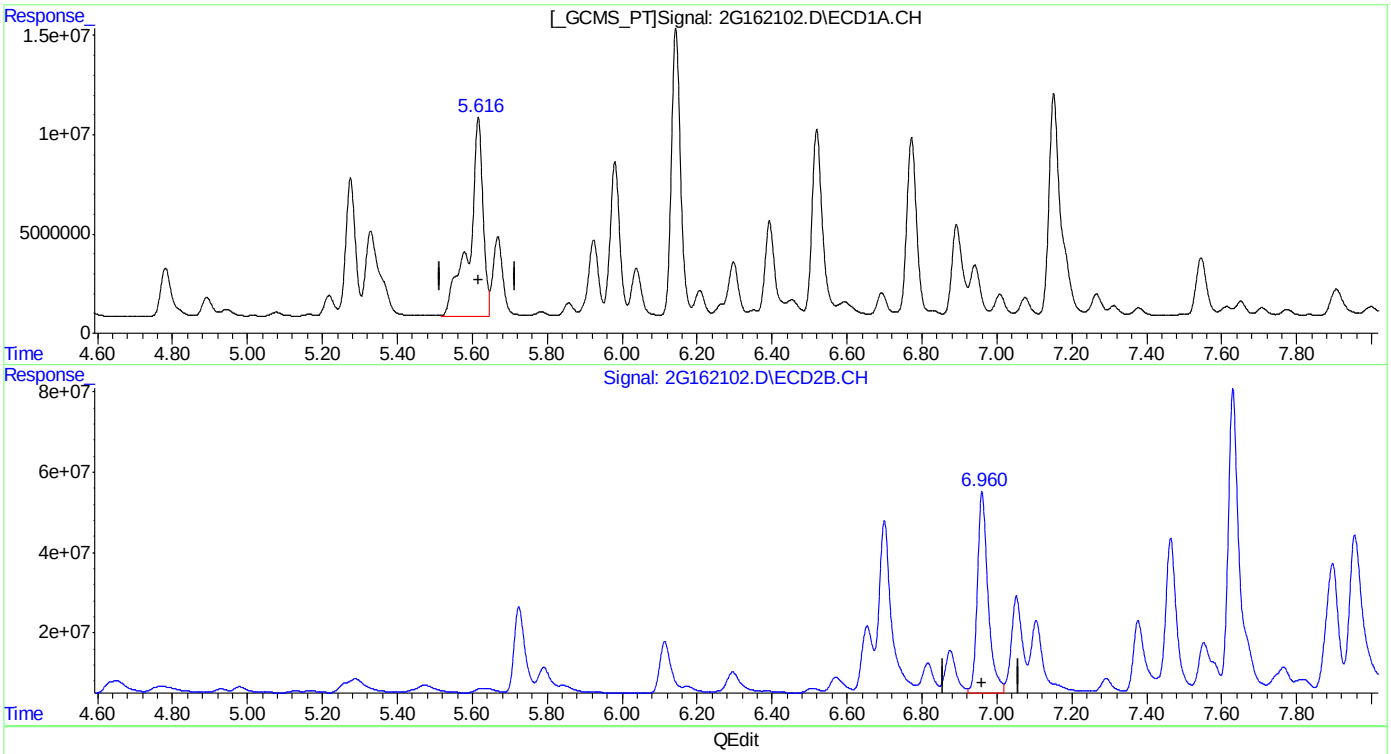
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(25) AR1254-B
5.616min 1032.998PPB m
response 258752851

(25) AR1254-B #2
6.960min 1051.674PPB
response 983915450

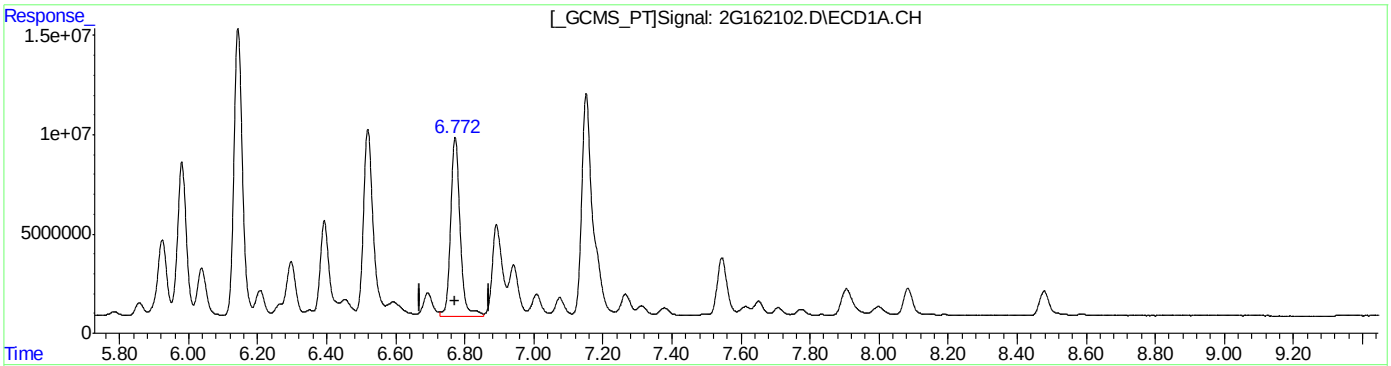
(+) = Expected Retention Time

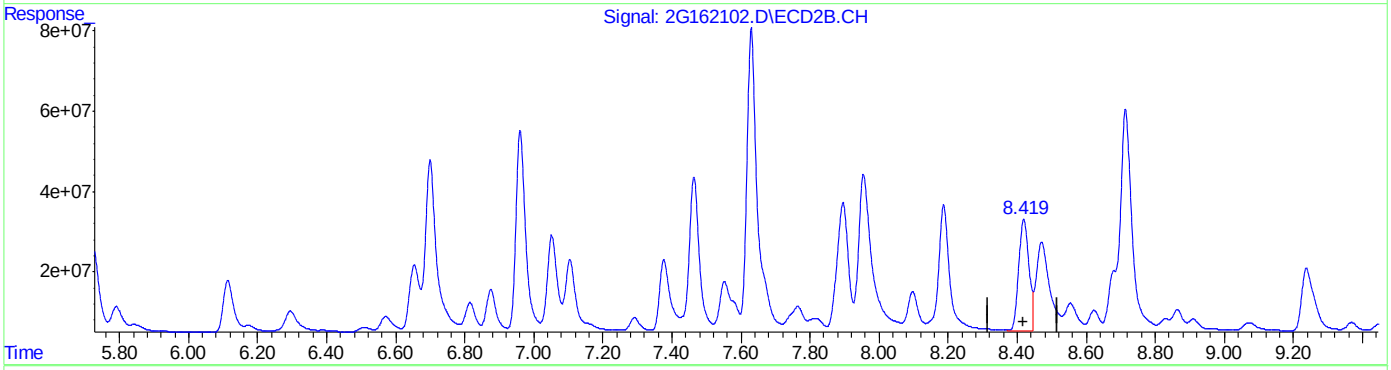
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(29) AR1254-F
6.772min 1099.087PPB
response 171196421

(29) AR1254-F #2
8.419min 520.534PPB
response 580209378

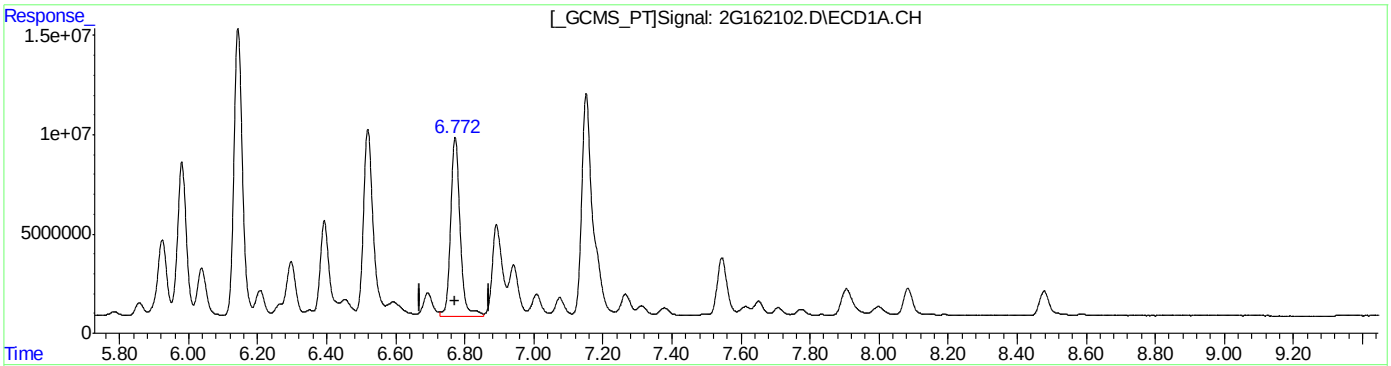
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:23:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.772min 1099.087PPB
response 171196421

(29) AR1254-F #2
8.419min 1059.697PPB m
response 1181183477

(+) = Expected Retention Time

2G162102A.D

Manual Integrations APPROVED (compounds with "m" flag)

Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:25:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.777	3.432	7705780	47182156	2.221	2.228
	Spiked Amount 40.000			Recovery	=	5.55%	5.57%
51) S	Decachlor...	10.016	11.810	9394071	44386432	2.544	2.546m
	Spiked Amount 40.000			Recovery	=	6.36%	6.37%
	Target Compounds						
31)	AR1016-A	3.156	4.101	4725440	22318435	67.432	67.210
32)	AR1016-B	3.557	4.637	8425348	50396309	69.113	70.606
33)	AR1016-C	4.106	5.292f	16305396	93502826	61.928	59.389
34)	AR1016-D	4.269	5.476f	6801446	44893365	63.529	68.043
35)	AR1016-E	4.782	6.117	7118301	28801035	64.212	61.534
36)	AR1260-A	7.155	8.722	18795761	111.1E6	60.840	61.504m
37)	AR1260-B	7.315	8.832	8011237	50431926	60.941	64.703
38)	AR1260-C	7.654	9.264	8382243	56197808	57.713	60.728
39)	AR1260-D	8.088	9.620	18135811	117.3E6	53.709	60.365
40)	AR1260-E	8.483f	10.162	19653146	110.9E6	56.372m	60.092m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

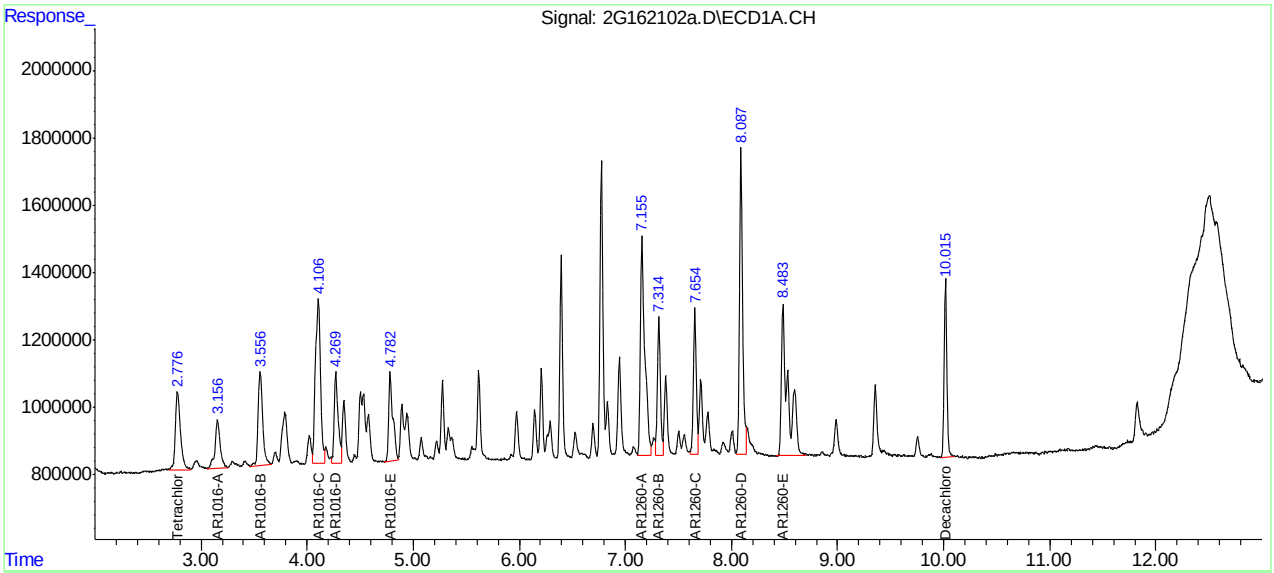
11.6.7 11

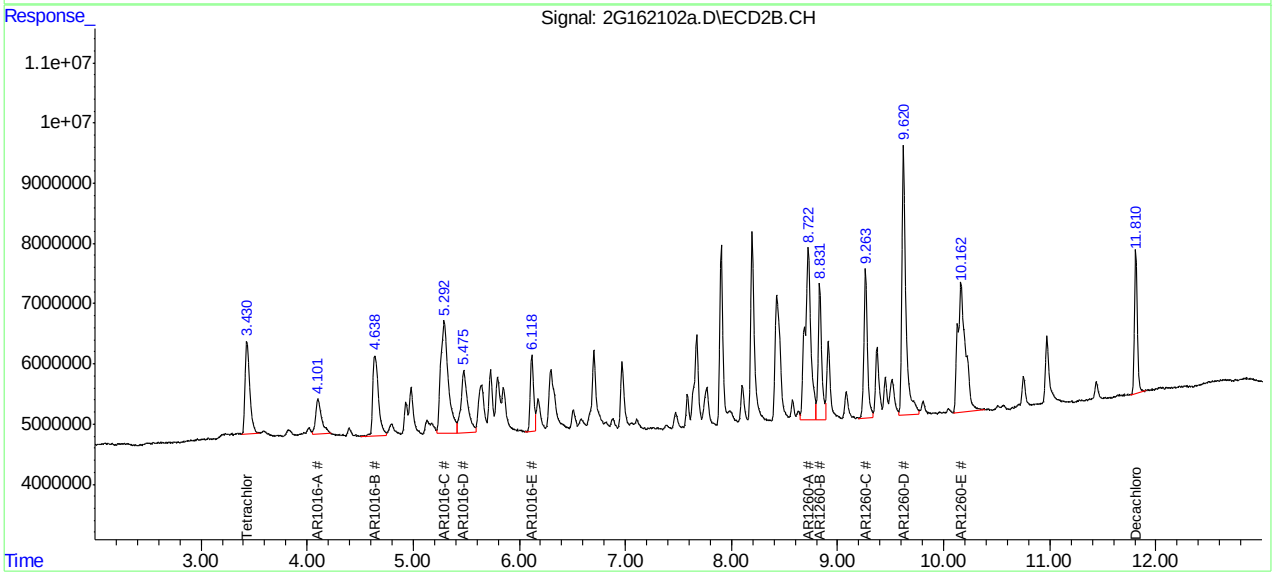
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:25:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162102A.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 14:09	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

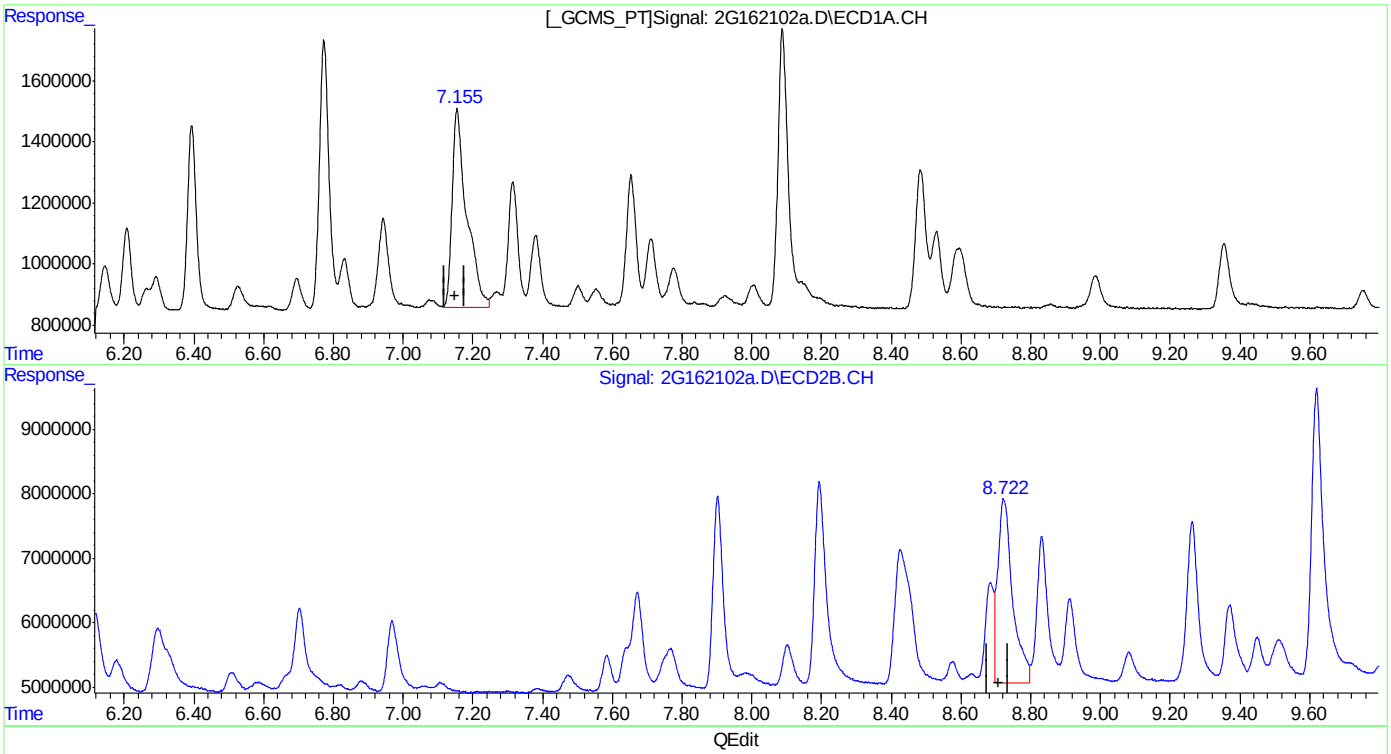
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	8.48	Split peak
AR1260-A		2	8.72	Split peak
AR1260-E		2	10.16	Split peak
Decachlorobiphenyl	2051-24-3	2	11.81	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.155min 60.840PPB
response 18795761

(36) AR1260-A #2
8.723min 47.426PPB
response 85684677

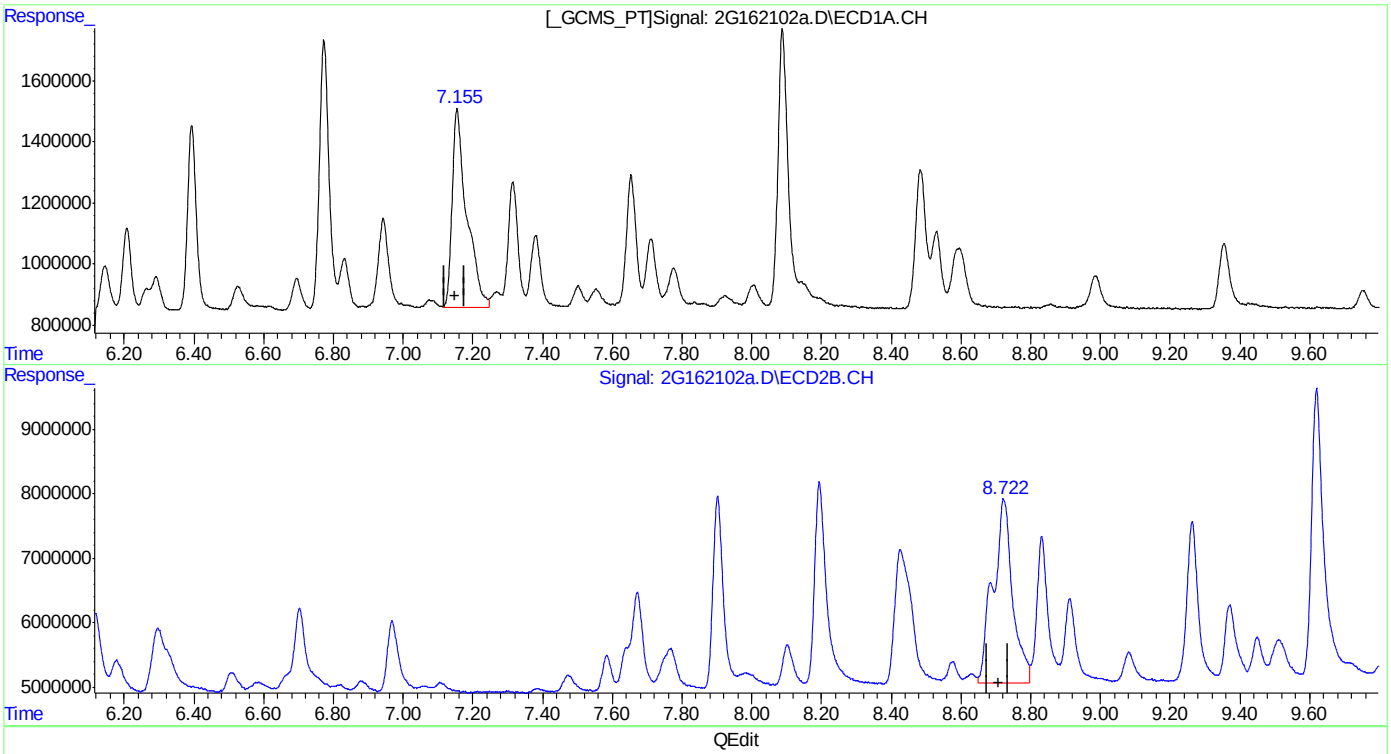
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:24:41 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.155min 60.840PPB
response 18795761

(36) AR1260-A #2
8.722min 61.504PPB m
response 111120316

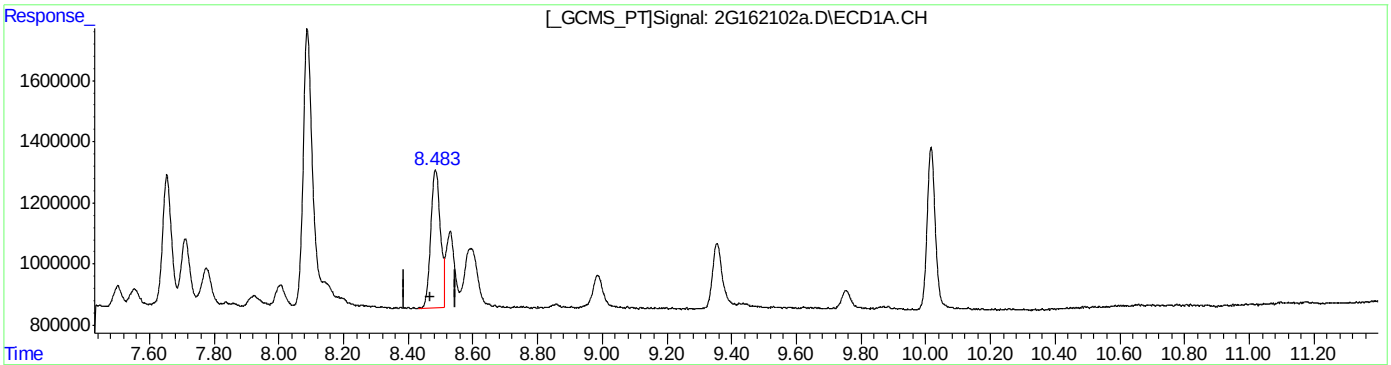
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:24:48 2018 RPT1

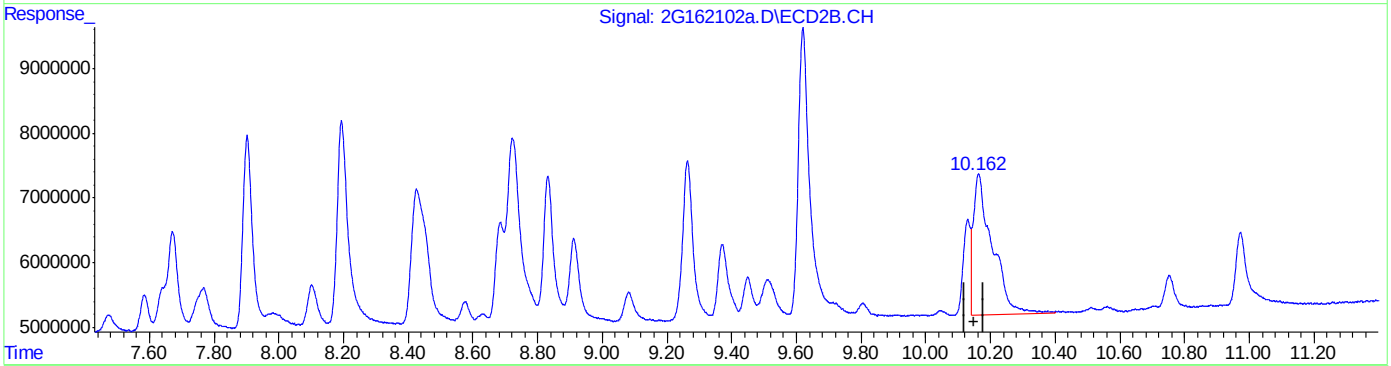
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.484min 26.587PPB
response 9269256

(40) AR1260-E #2
10.164min 48.556PPB
response 89641017

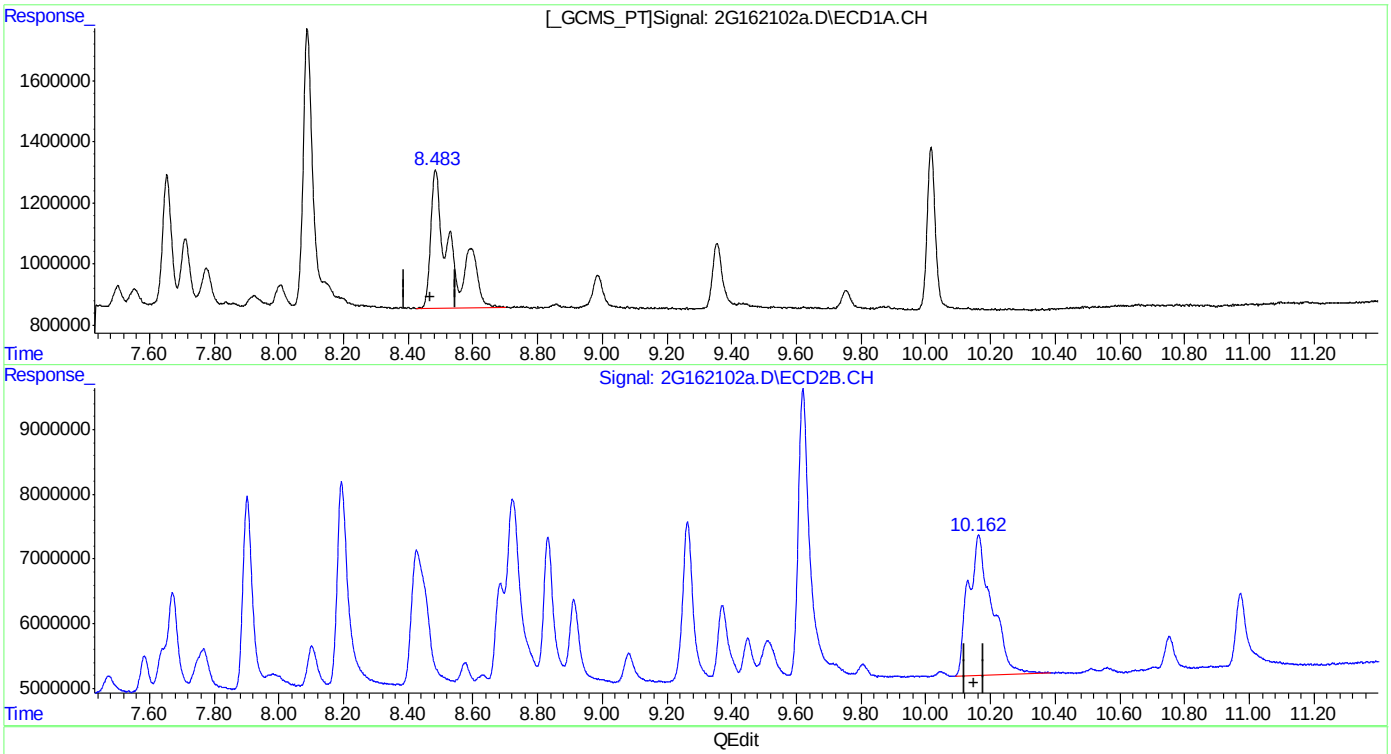
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(40) AR1260-E
8.483min 56.372PPB m
response 19653146

(40) AR1260-E #2
10.162min 60.092PPB m
response 110937248

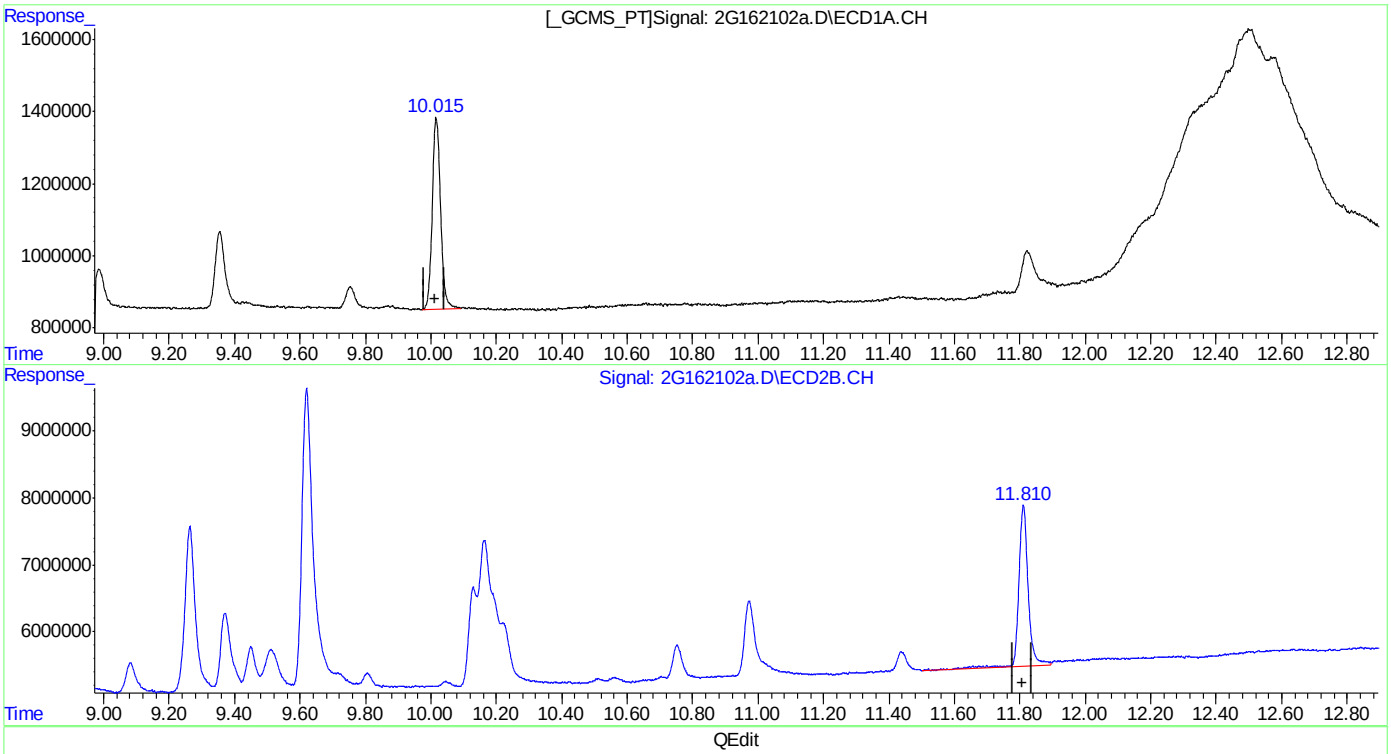
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:25:02 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(51) Decachlorobiphenyl (S)
10.016min 2.544ppb
response 9394071

(51) Decachlorobiphenyl #2 (S)
11.811min 2.825ppb
response 49237177

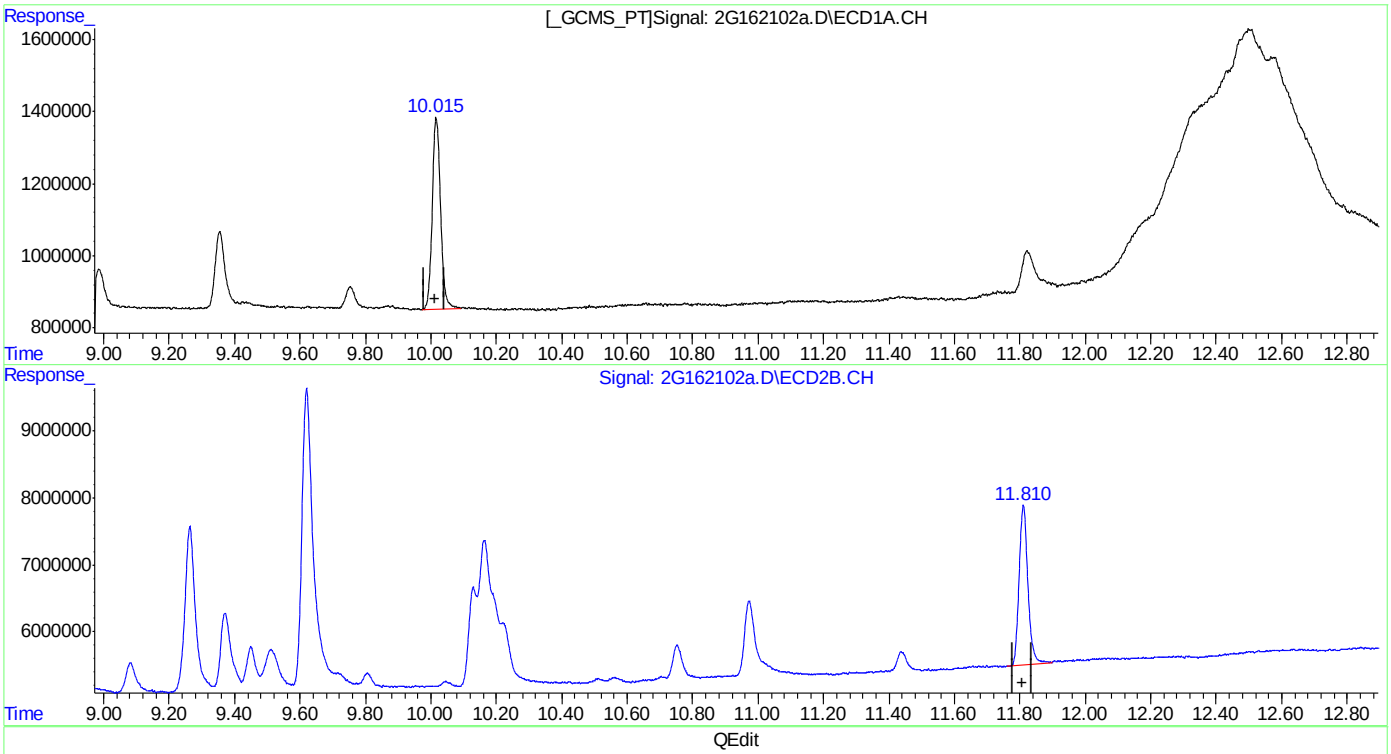
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102a.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:09 pm
Operator : tianweir
Sample : ic4311-50
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(51) Decachlorobiphenyl (S)
10.016min 2.544ppb
response 9394071

(51) Decachlorobiphenyl #2 (S)
11.810min 2.546ppb m
response 44386432

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1)	S Tetrachlo...	2.780	3.431	169.1E6	1049.9E6	9.839	9.841	
	Spiked Amount 40.000			Recovery	=	24.60%	24.60%	
51)	S Decachlor...	10.014	11.809	173.1E6	864.6E6	9.763	9.860	
	Spiked Amount 40.000			Recovery	=	24.41%	24.65%	
	Target Compounds							
7)	AR1232-A	3.155	4.093	97343092	502.0E6	807.139m	801.687	
8)	AR1232-B	3.559	4.634	66842636	393.5E6	814.432	795.791	
9)	AR1232-C	4.109	5.281	130.5E6	815.2E6	748.996	817.807	
10)	AR1232-D	4.271	5.467	54473697	361.5E6	844.210	954.940	
11)	AR1232-E	4.785	6.115	51489431	217.3E6	836.532	879.986	
41)	AR1262-A	6.772	8.187	193.5E6	1044.2E6	608.178	987.107	#
42)	AR1262-B	7.314	8.828	242.4E6	1428.2E6	818.303	912.354	
43)	AR1262-C	7.651	9.260	227.0E6	1336.0E6	936.108	1081.334	
44)	AR1262-D	8.081	9.610	485.4E6	2732.2E6	759.581	918.956	
45)	AR1262-E	8.525	10.123	558.8E6	3034.4E6	795.650m	942.420m	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

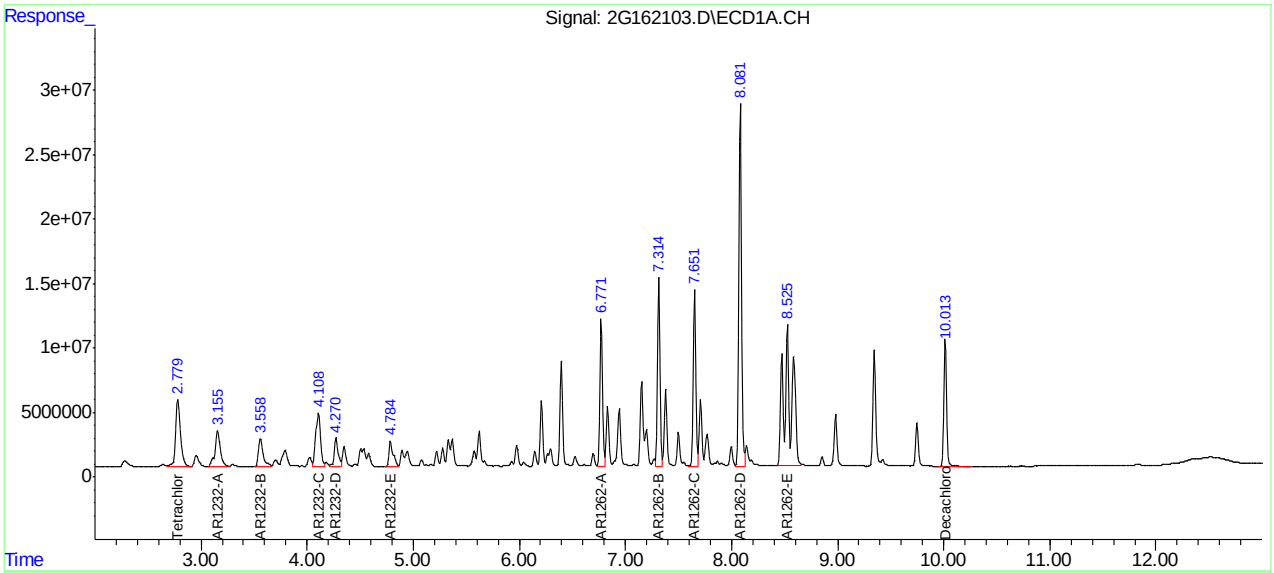
11.6.8 11

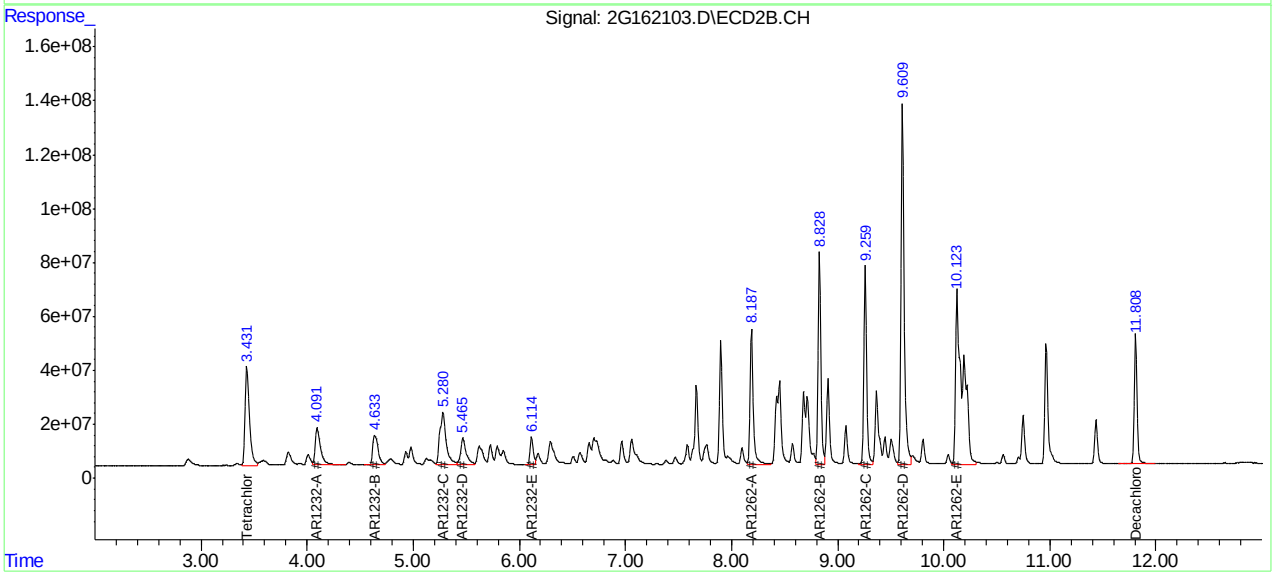
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162103.D	**Analyst approved:**	04/19/18 14:54 Rebecca Krug
Injection Time:	04/19/18 14:27	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

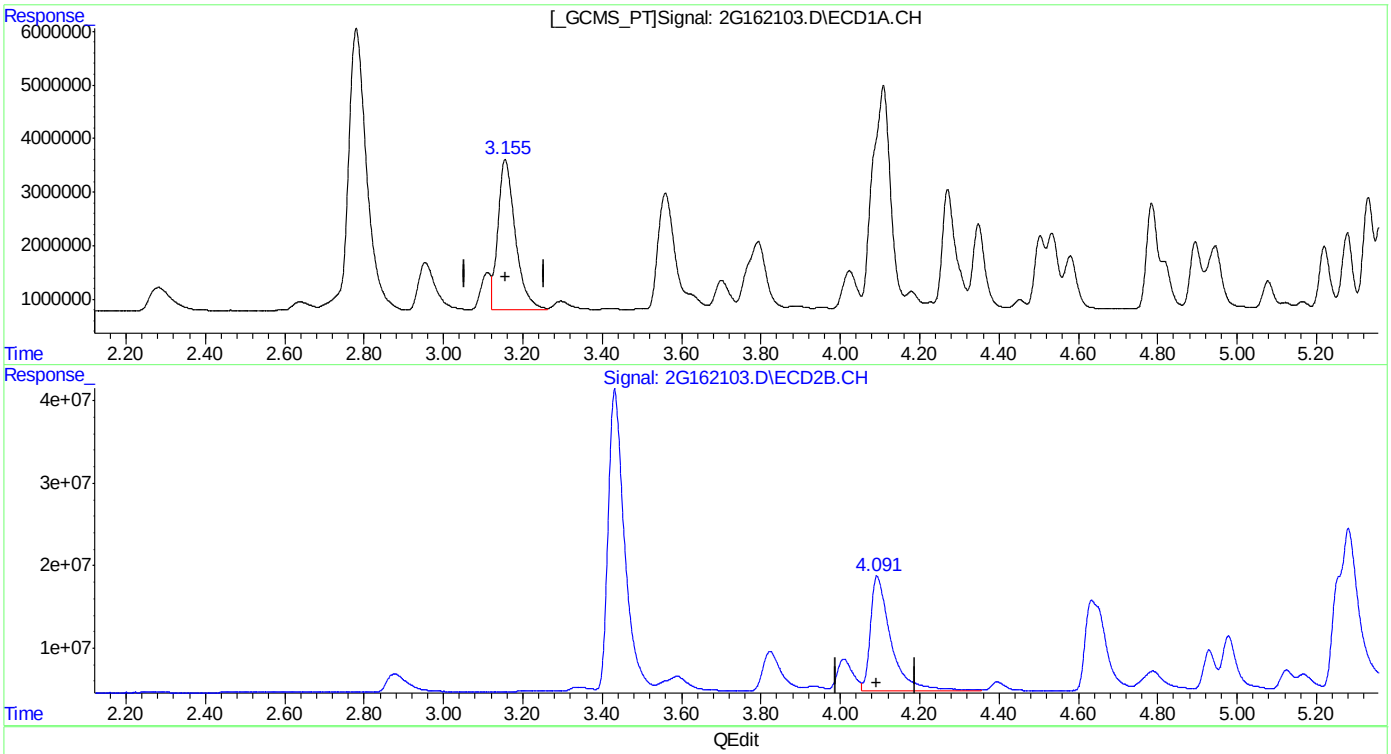
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1232-A		1	3.16	Split peak
AR1262-E		1	8.53	Split peak
AR1262-E		2	10.12	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(7) AR1232-A
3.155min 706.063PPB
response 85153150

(7) AR1232-A #2
4.093min 801.687PPB
response 501961094

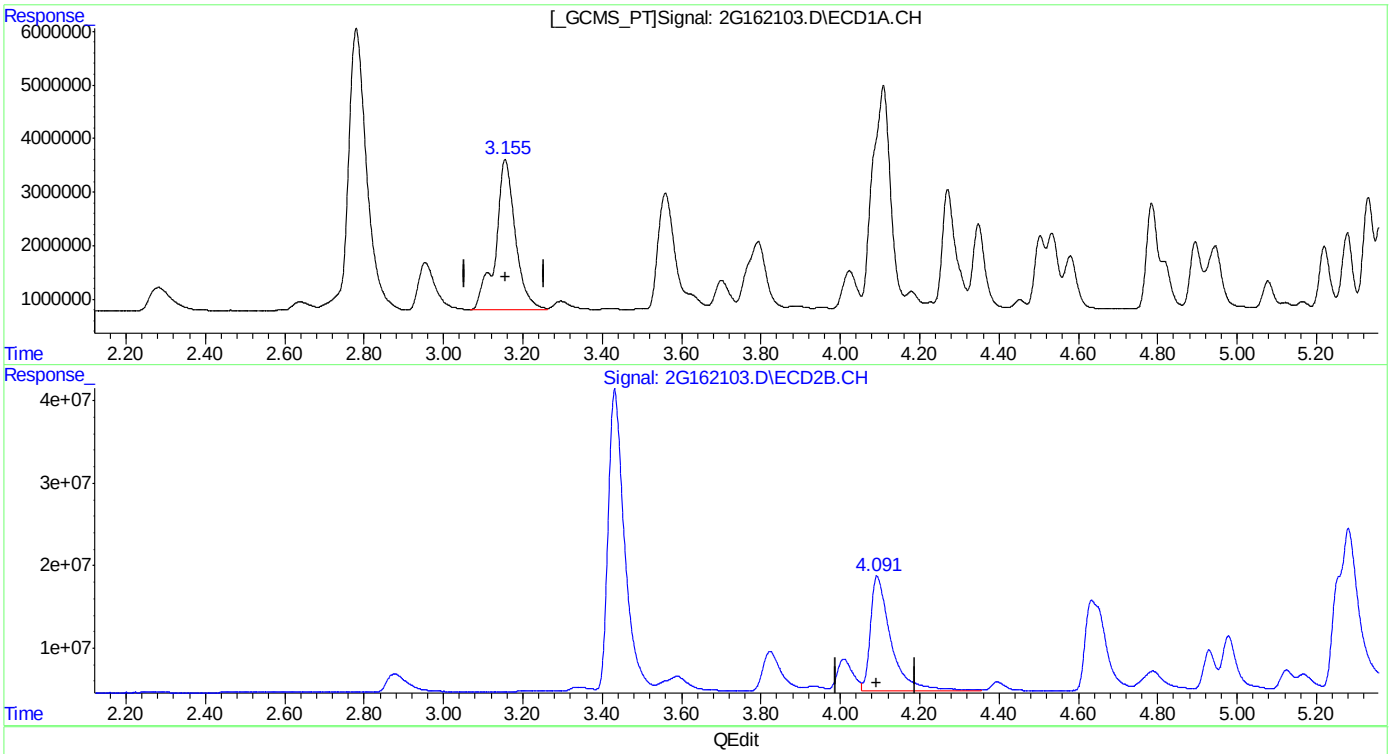
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(7) AR1232-A
3.155min 807.139PPB m
response 97343092

(7) AR1232-A #2
4.093min 801.687PPB
response 501961094

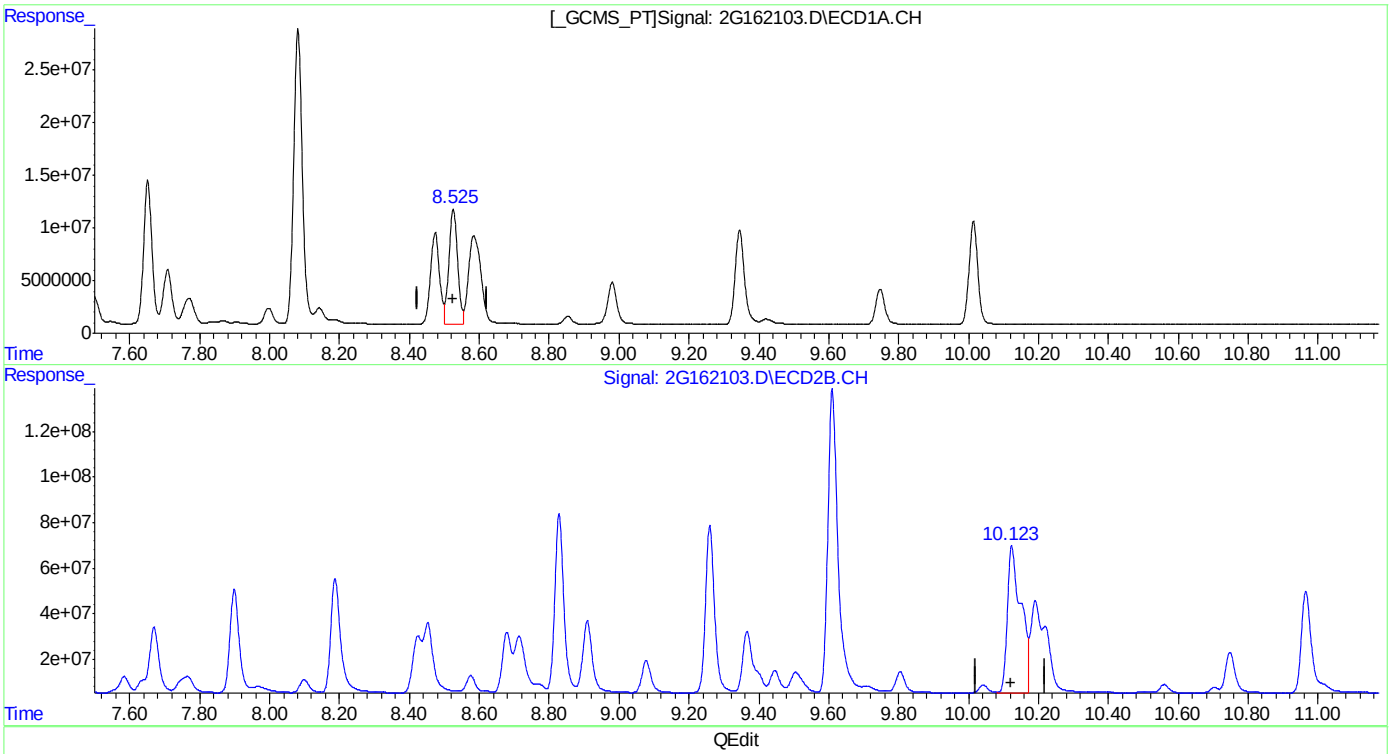
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(45) AR1262-E
8.526min 274.213PPB
response 192578186

(45) AR1262-E #2
10.124min 545.743PPB
response 1757206907

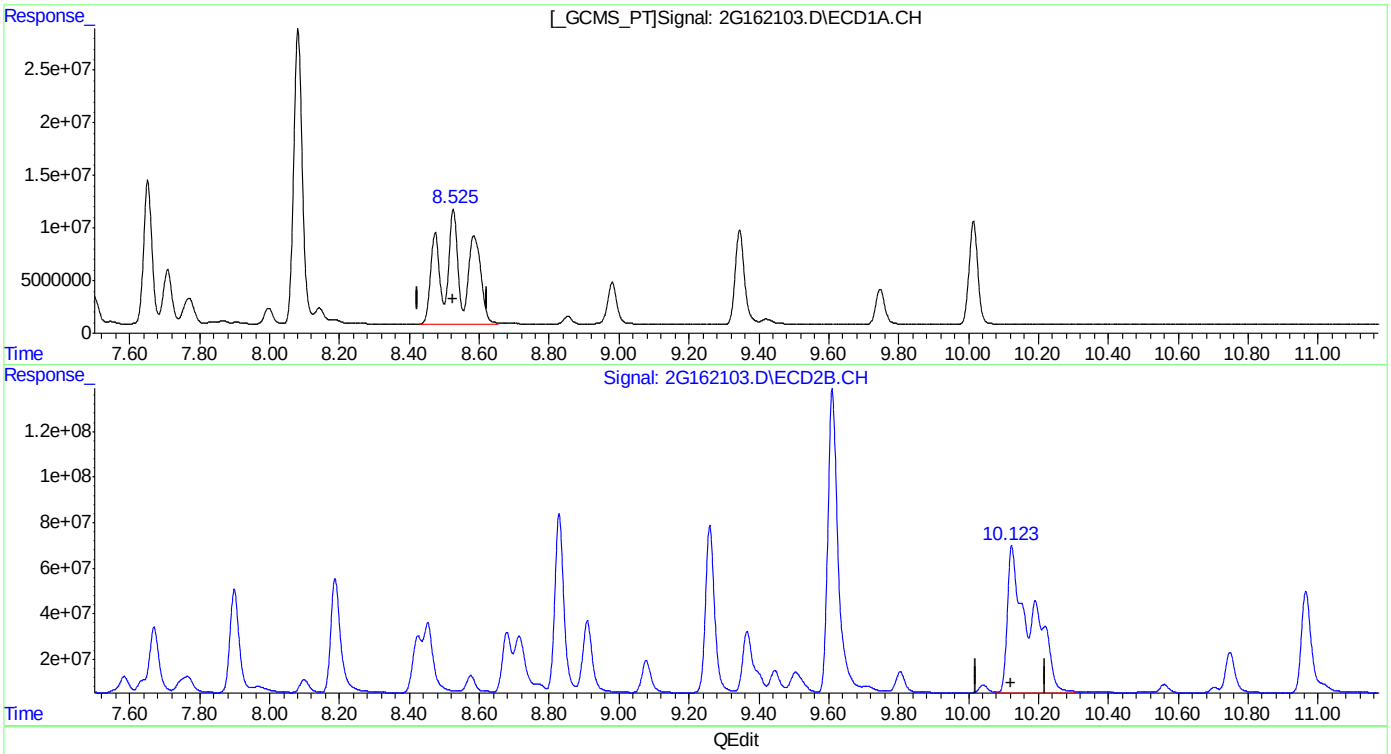
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:52:36 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(45) AR1262-E
8.525min 795.650PPB m
response 558779236

(45) AR1262-E #2
10.123min 942.420PPB m
response 3034443708

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 14:52:46 2018 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162104.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:44 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:35:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:34:50 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
1) S	Tetrachlo...	2.779	3.432	164.4E6	1042.8E6	9.788	9.829	
	Spiked Amount 40.000			Recovery	=	24.47%	24.57%	
51) S	Decachlor...	10.010	11.807	482.0E6	2362.8E6	11.088	11.117	
	Spiked Amount 40.000			Recovery	=	27.72%	27.79%	
	Target Compounds							
12)	AR1242-A	3.557	4.630	119.8E6	705.4E6	833.841	769.896	
13)	AR1242-B	4.106	5.276	252.5E6	1547.7E6	766.774	823.562	
14)	AR1242-C	4.268	5.463	105.4E6	666.8E6	881.574	956.816	
15)	AR1242-D	4.782	6.113	109.0E6	456.4E6	869.789	894.747	
16)	AR1242-E	5.364	6.725	92980758	634.3E6	872.039	977.929	
46)	AR1268-A	8.523	10.121	575.4E6	3085.9E6	840.878	938.864	
47)	AR1268-B	8.578	10.189	567.3E6	3099.0E6	712.876	817.926	
48)	AR1268-C	8.851	10.557	473.0E6	2498.5E6	752.872	873.269	
49)	AR1268-D	9.340	10.962	199.2E6	1037.7E6	826.458	946.346	
50)	AR1268-E	9.742	11.430	1615.1E6	8238.1E6	809.035	1044.134	#

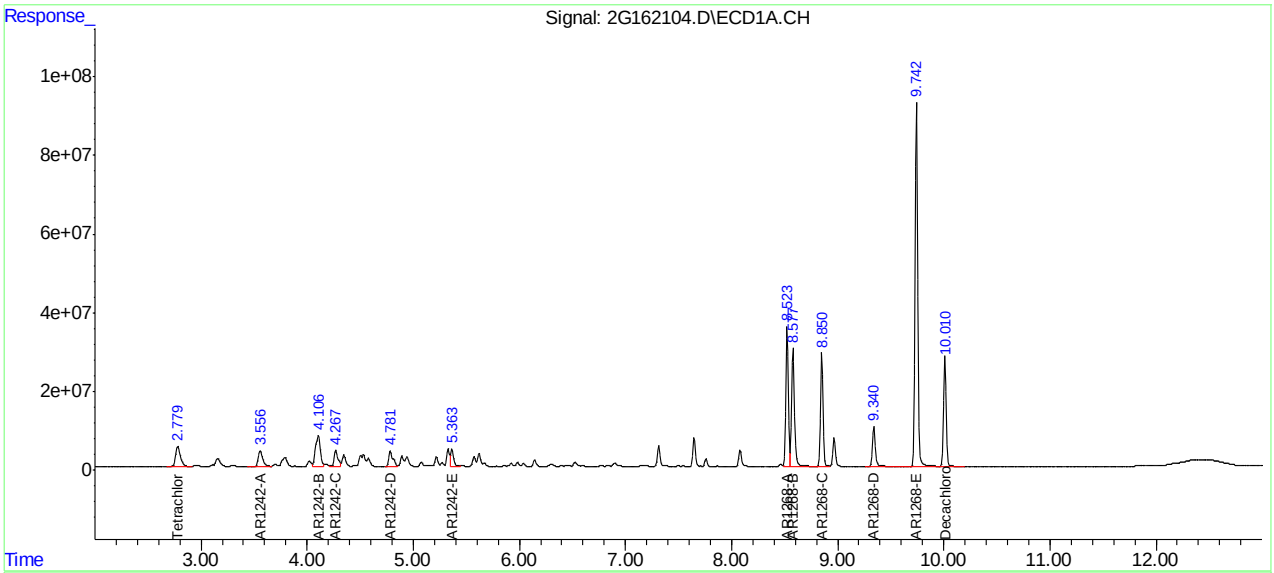
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

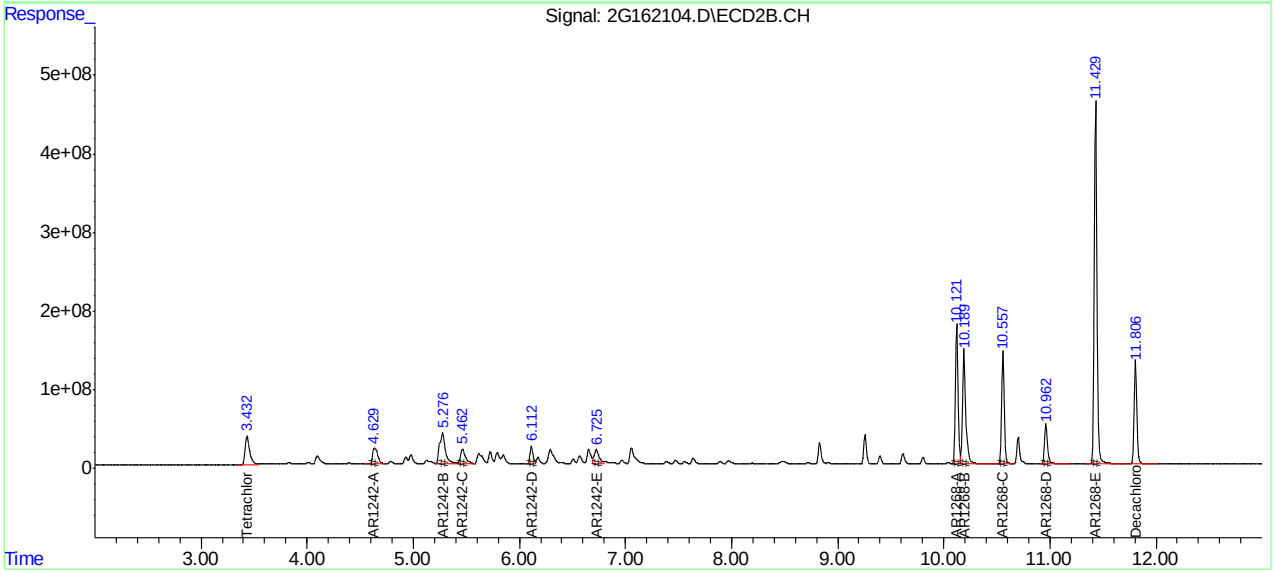
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162104.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:44 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:35:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:34:50 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.778	3.432	160.3E6	1054.2E6	9.743	9.848
	Spiked Amount 40.000			Recovery	=	24.36%	24.62%
51) S	Decachlor...	10.014	11.810	174.1E6	851.3E6	9.773	9.833
	Spiked Amount 40.000			Recovery	=	24.43%	24.58%
	Target Compounds						
17)	AR1248-A	3.555	4.632	59173660	362.7E6	826.748	812.103
18)	AR1248-B	4.105	5.281	154.4E6	954.8E6	820.696	837.930m
19)	AR1248-C	4.501	5.724	165.2E6	569.7E6	812.299m	907.464
20)	AR1248-D	4.782	6.112	159.8E6	727.1E6	860.353	930.188
21)	AR1248-E	4.892	6.291	142.1E6	879.9E6	855.462m	1021.118
22)	AR1248-F	5.364	6.722	140.2E6	1097.1E6	782.480	1016.890 #
23)	AR1248-G	5.620	7.053	157.2E6	1220.2E6	600.449m	1102.458m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

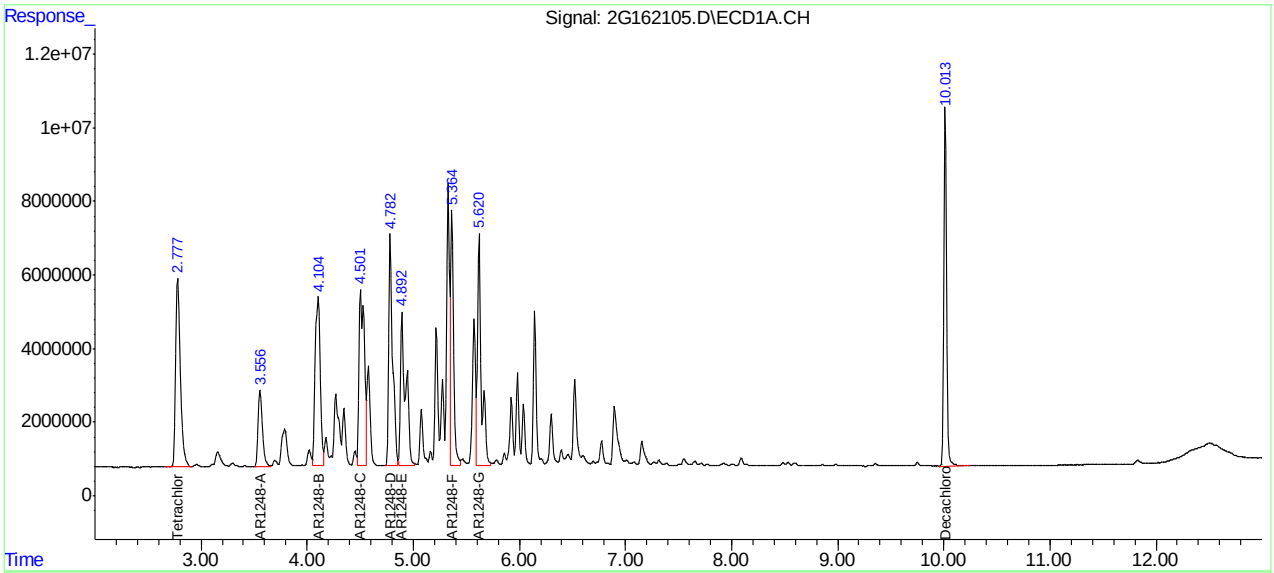
11.6.10 11

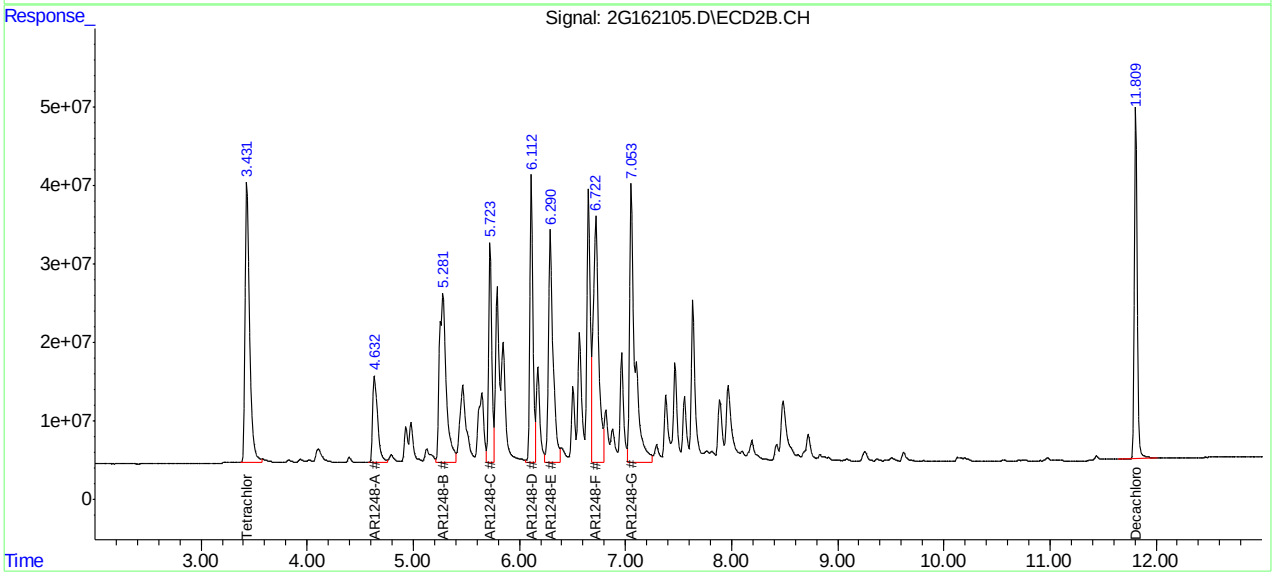
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-IC4311	**Method:**	SW846 8082A
Lab FileID:	2G162105.D	**Analyst approved:**	04/19/18 15:39 Rebecca Krug
Injection Time:	04/19/18 15:00	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

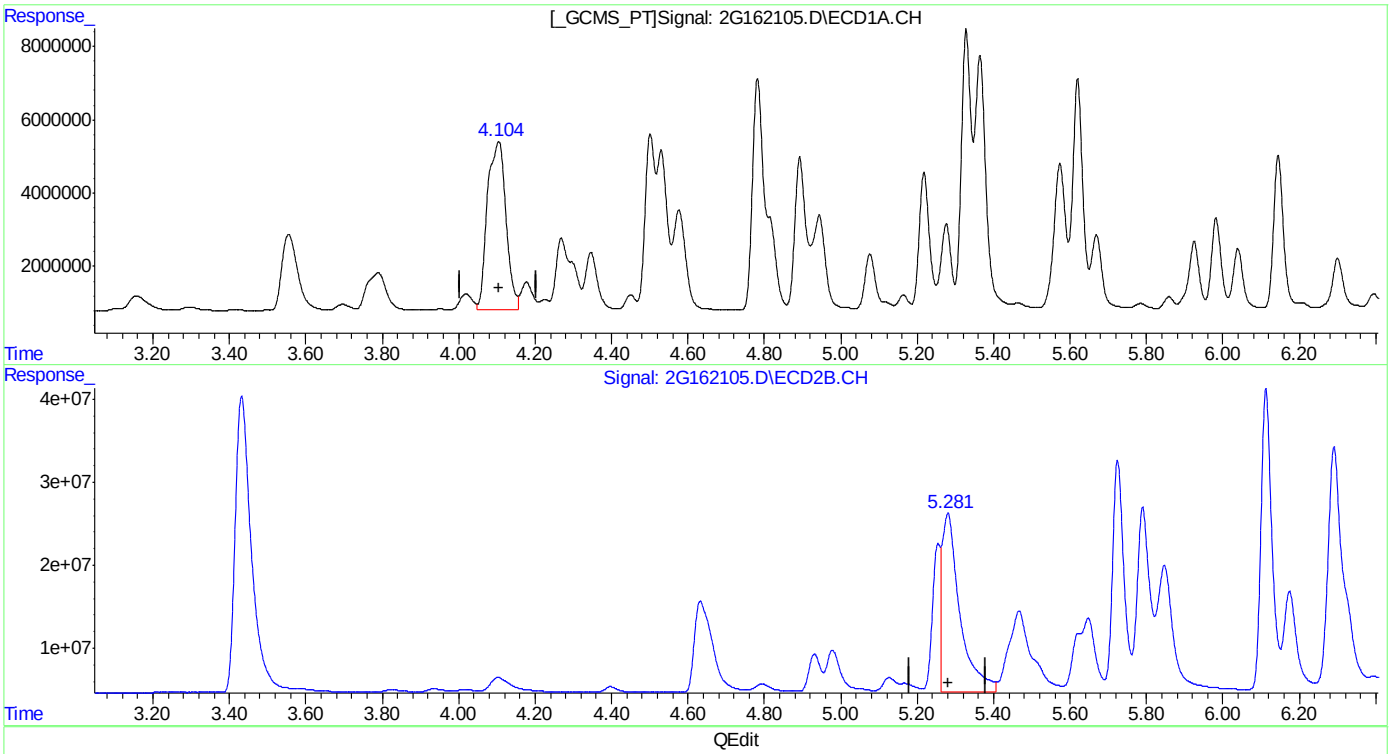
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	4.50	Split peak
AR1248-E		1	4.89	Split peak
AR1248-B		2	5.28	Split peak
Ar1248-G		1	5.62	Split peak
Ar1248-G		2	7.05	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(18) AR1248-B
4.105min 820.696PPB
response 154397514

(18) AR1248-B #2
5.281min 621.062PPB
response 707673669

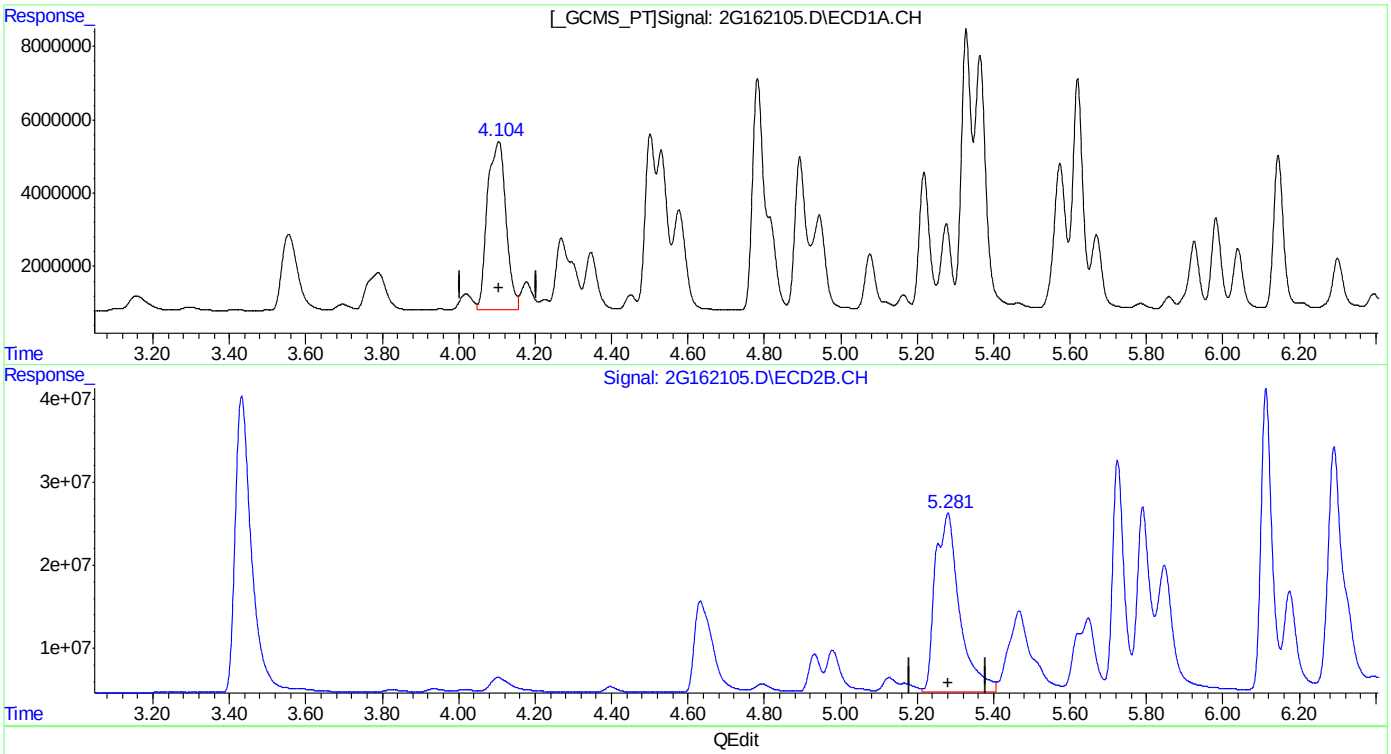
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(18) AR1248-B
4.105min 820.696PPB
response 154397514

(18) AR1248-B #2
5.281min 837.930PPB m
response 954786244

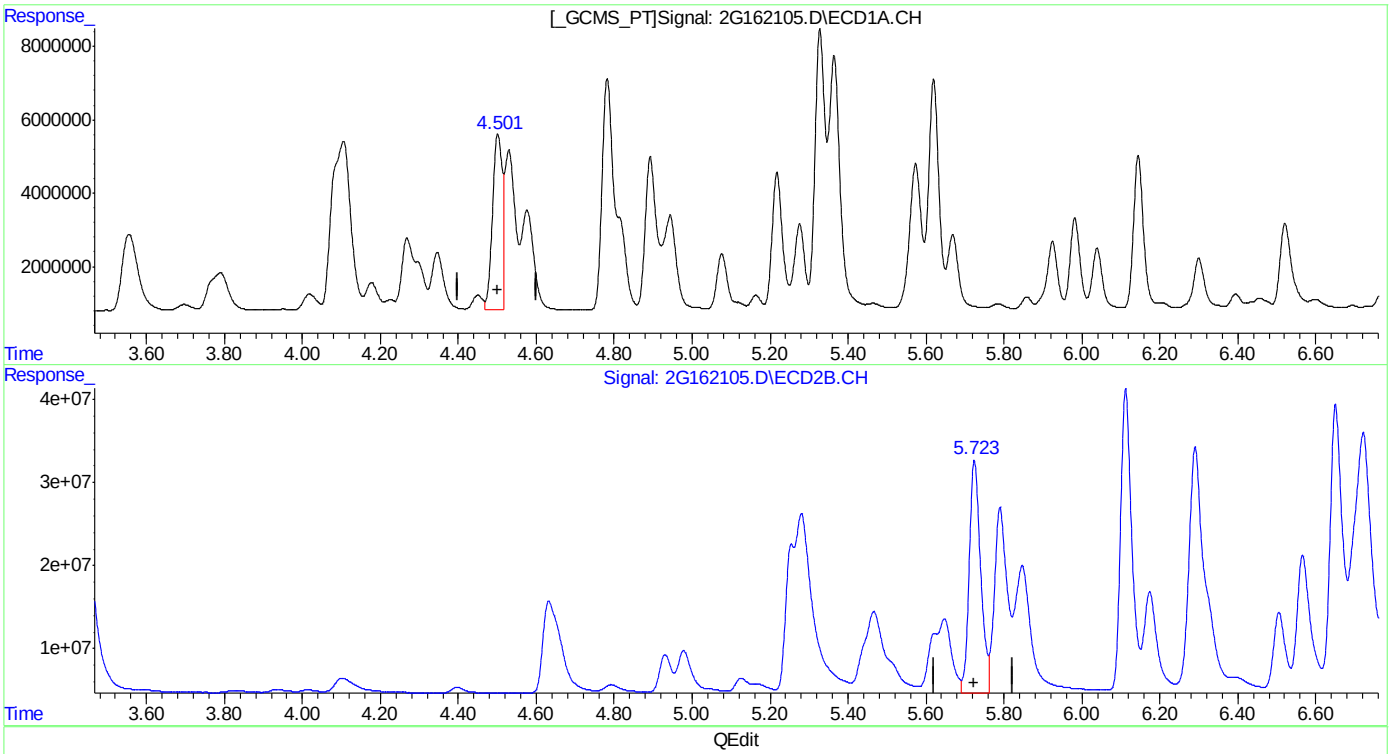
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(19) AR1248-C
4.501min 415.086PPB
response 84420896

(19) AR1248-C #2
5.724min 907.464PPB
response 569681418

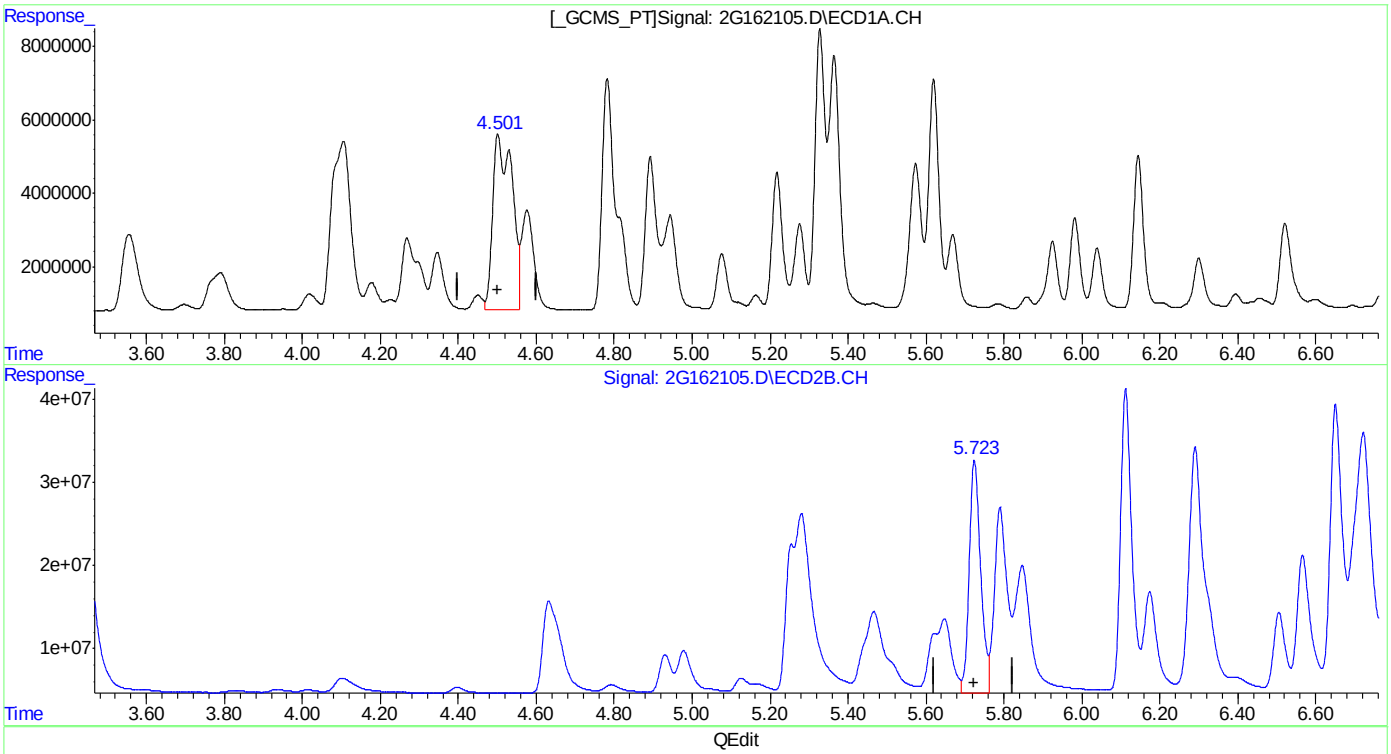
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(19) AR1248-C
4.501min 812.299PPB m
response 165206685

(19) AR1248-C #2
5.724min 907.464PPB
response 569681418

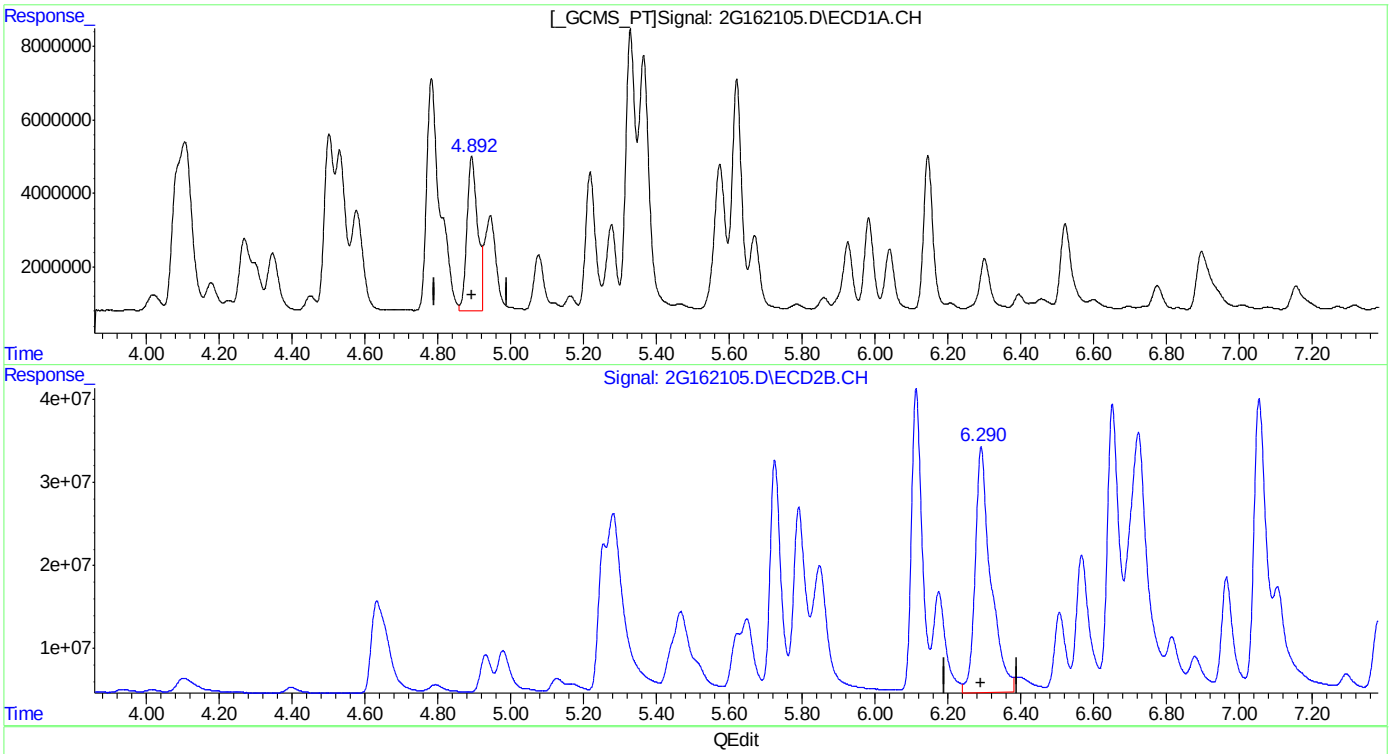
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(21) AR1248-E
4.893min 501.078PPB
response 83213803

(21) AR1248-E #2
6.291min 1021.118PPB
response 879893668

(+) = Expected Retention Time

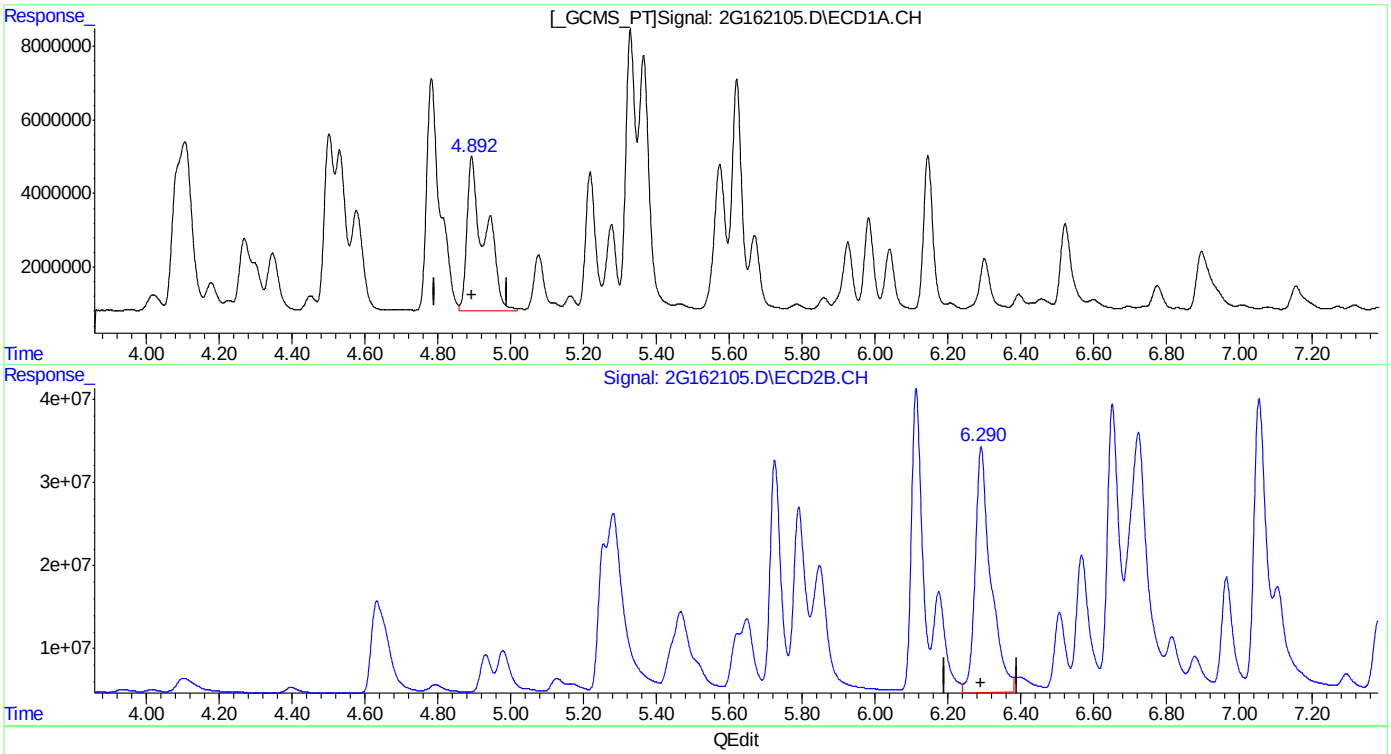
11.6.10.6

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(21) AR1248-E
4.892min 855.462PPB m
response 142066418

(21) AR1248-E #2
6.291min 1021.118PPB
response 879893668

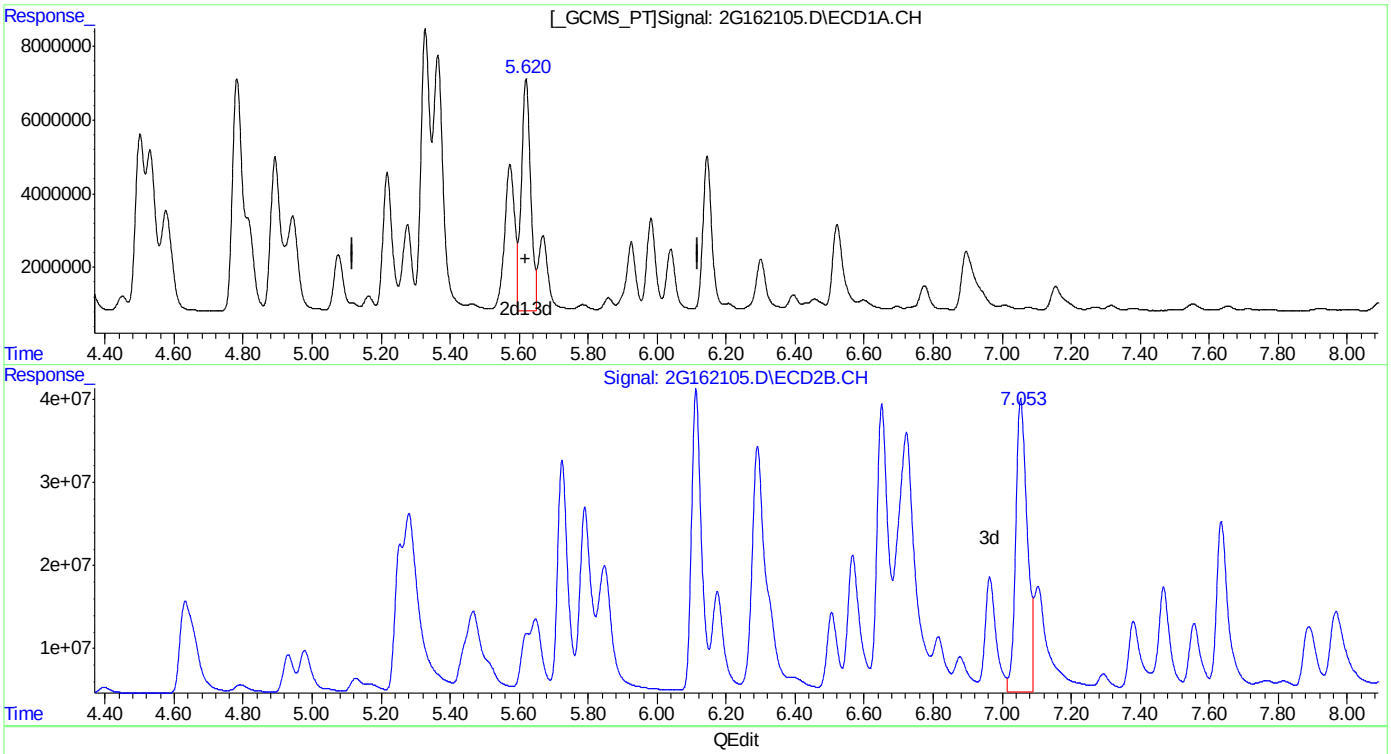
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(23) AR1248-G
5.620min 448.393
response 117406237

(23) AR1248-G #2
7.054min 746.941
response 826706821

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:37:58 2018 RPT1

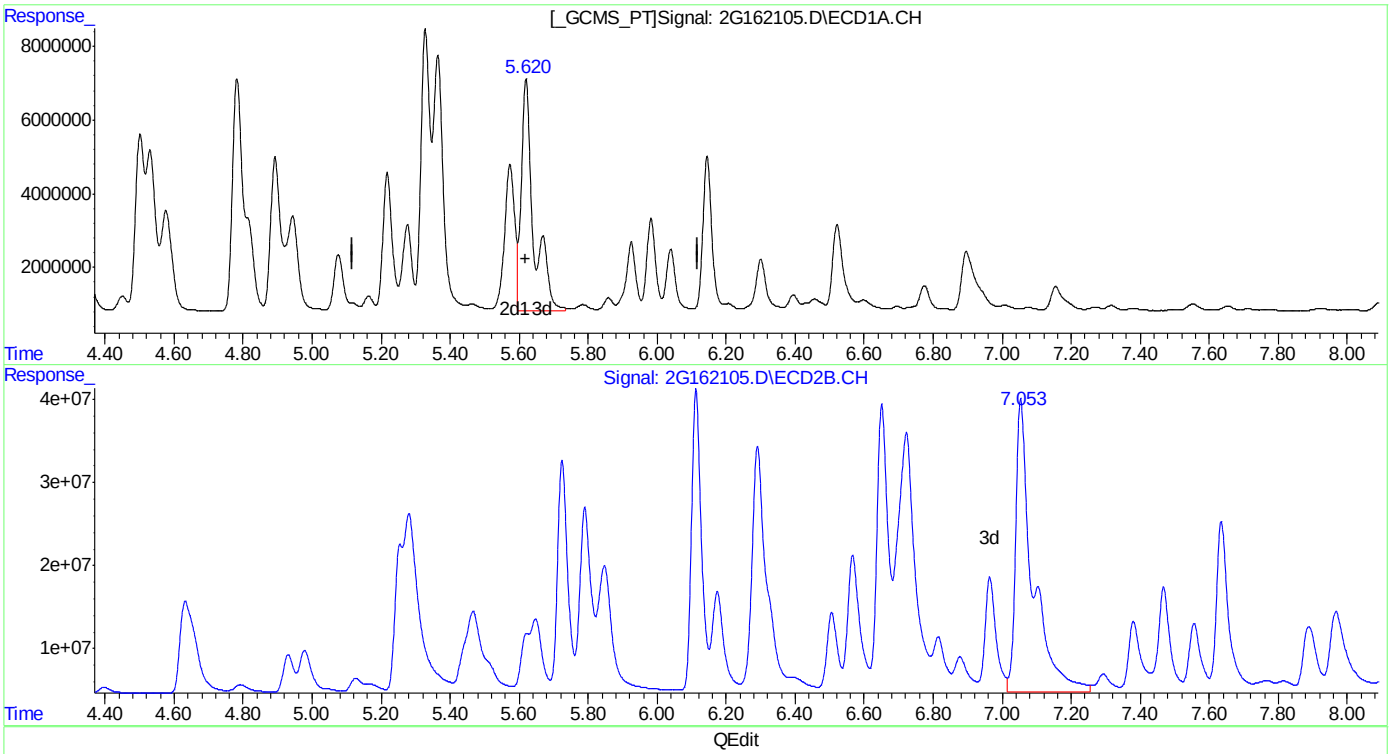
11.6.10.8
11

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(23) AR1248-G
5.620min 600.449 m
response 157220035

(23) AR1248-G #2
7.053min 1102.458 m
response 1220188241

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:43:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.778	3.432	159.0E6	1008.0E6	43.317	44.054
	Spiked Amount 40.000			Recovery	=	108.29%	110.14%
51) S	Decachlor...	10.012	11.809	160.3E6	748.7E6	39.512	39.200
	Spiked Amount 40.000			Recovery	=	98.78%	98.00%
	Target Compounds						
31)	AR1016-A	3.154	4.095	76685525	415.7E6	984.499m	1109.784
32)	AR1016-B	3.557	4.631	141.9E6	845.4E6	1043.301	1055.279
33)	AR1016-C	4.107	5.276	305.7E6	1899.1E6	1054.364	1095.395
34)	AR1016-D	4.268	5.463	126.3E6	823.4E6	1068.073	1094.620
35)	AR1016-E	4.782	6.113	124.4E6	544.0E6	1019.904	1060.291
36)	AR1260-A	7.151	8.713	344.4E6	2060.4E6	1010.285	1030.370m
37)	AR1260-B	7.312	8.829	147.9E6	904.9E6	1023.613	1034.883
38)	AR1260-C	7.650	9.260	170.1E6	1070.9E6	1068.306	1047.844
39)	AR1260-D	8.080	9.611	387.2E6	2253.5E6	1054.515	1049.838
40)	AR1260-E	8.472	10.153	394.8E6	2121.6E6	1042.160m	1040.922m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

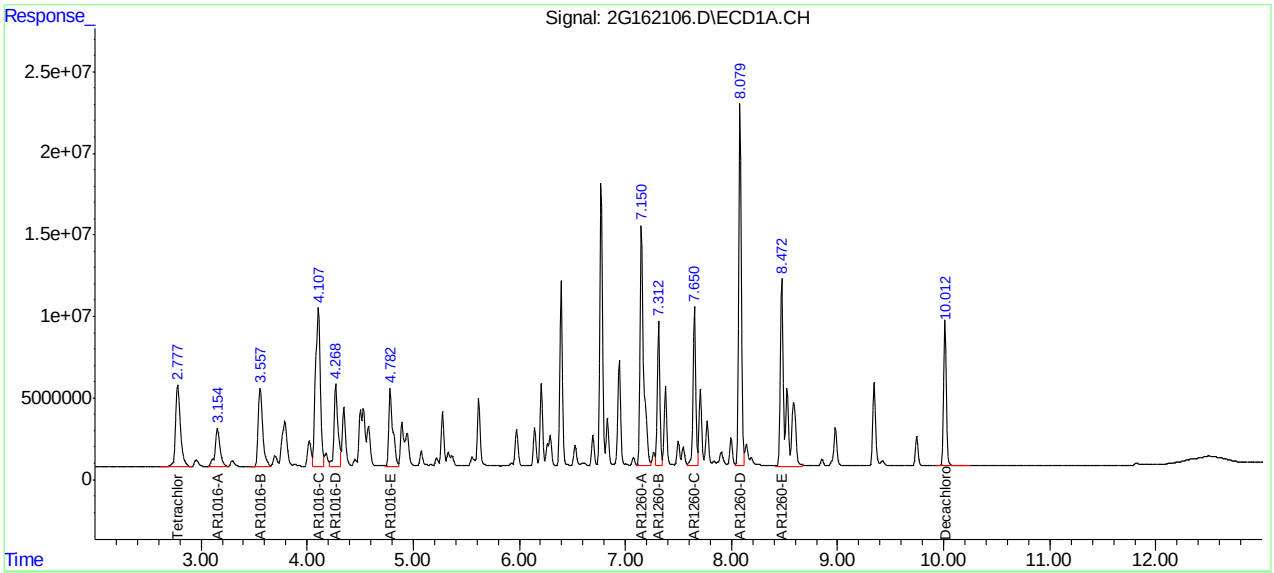
11.6.11
11

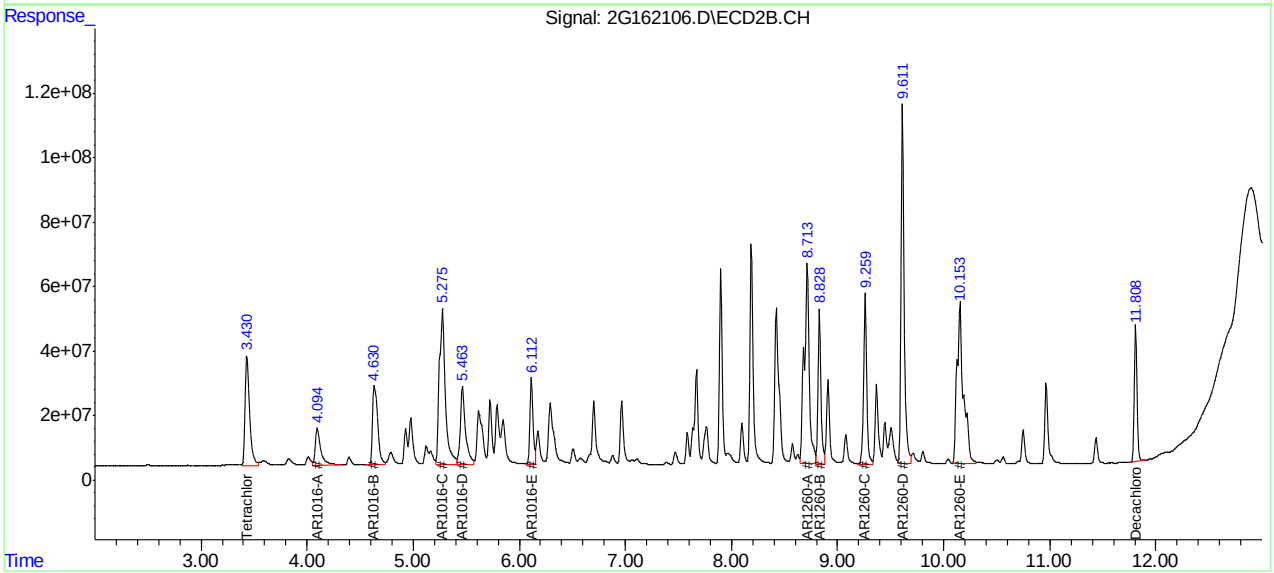
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:43:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162106.D	**Analyst approved:**	04/19/18 15:45 Rebecca Krug
Injection Time:	04/19/18 15:17	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

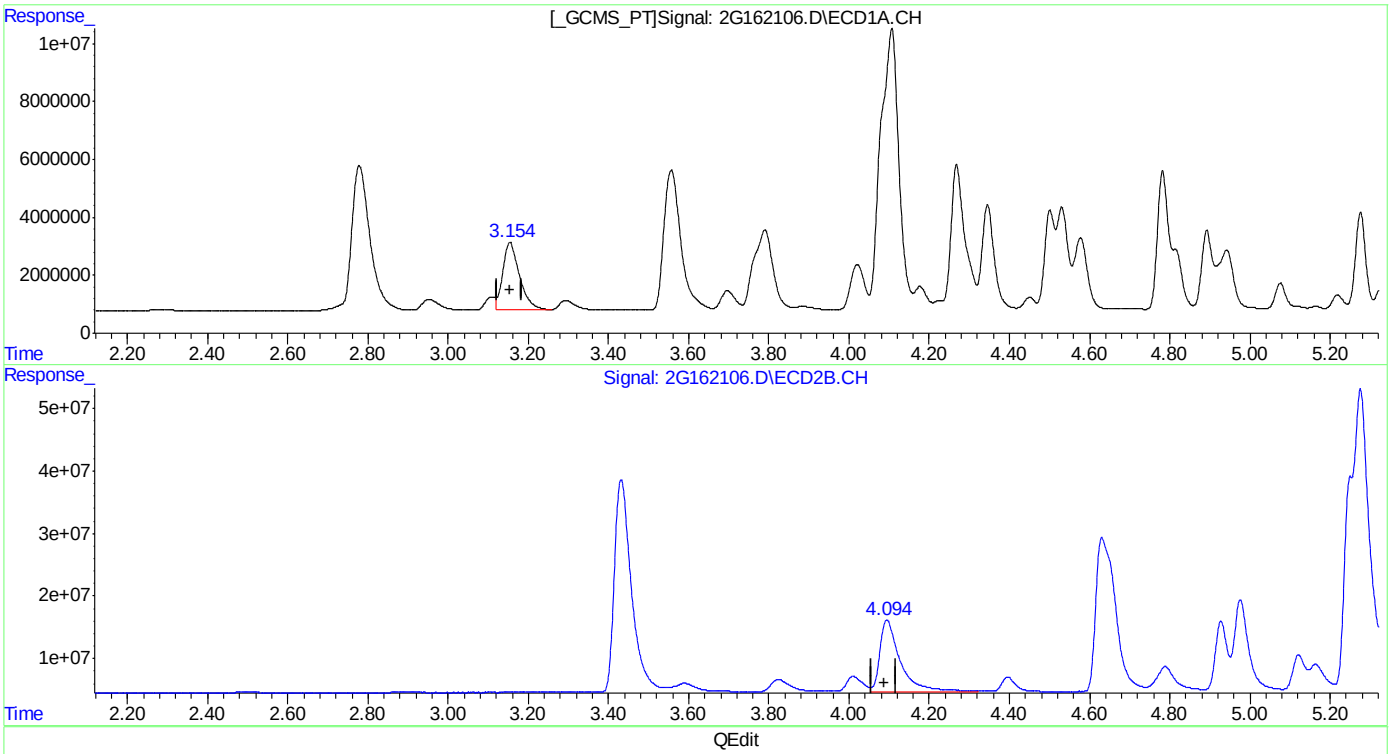
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.15	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.71	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 882.944PPB
response 68775101

(31) AR1016-A #2
4.095min 1109.784PPB
response 415731305

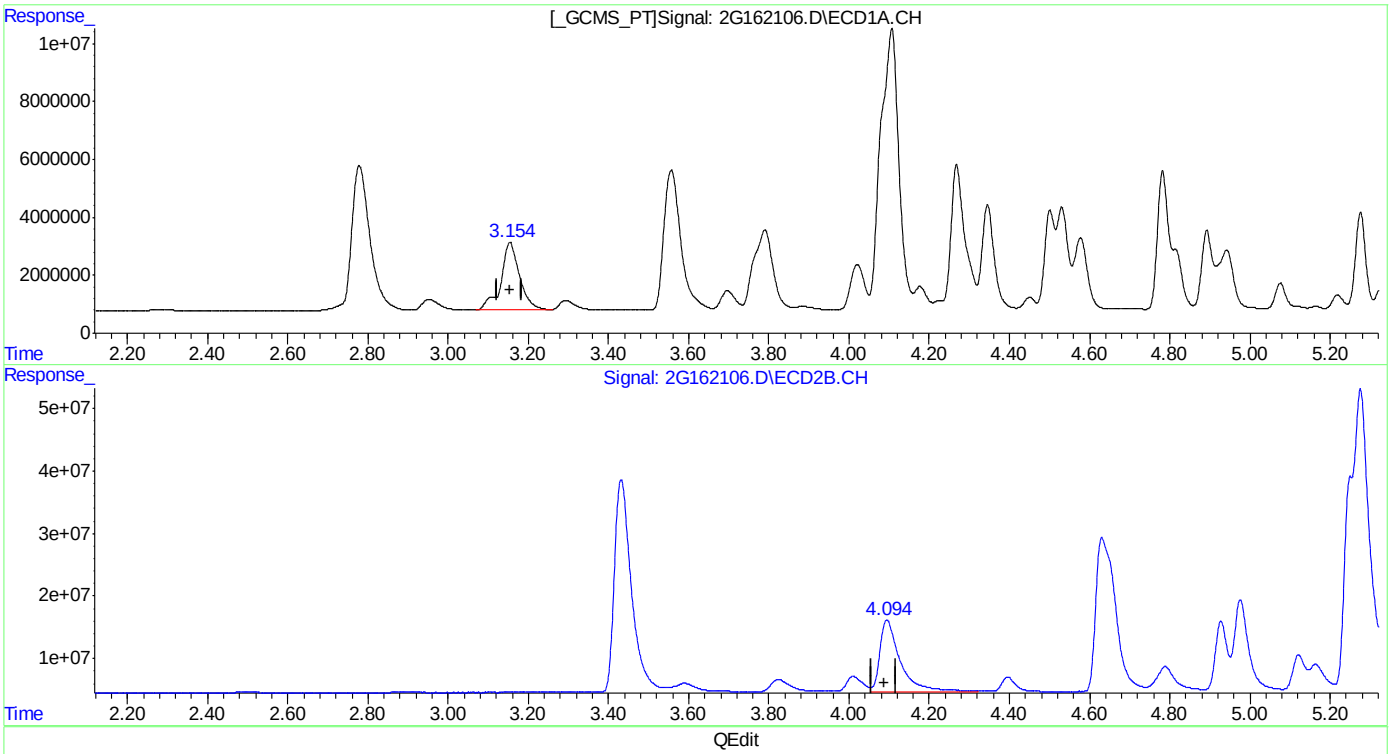
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.154min 984.499PPB m
response 76685525

(31) AR1016-A #2
4.095min 1109.784PPB
response 415731305

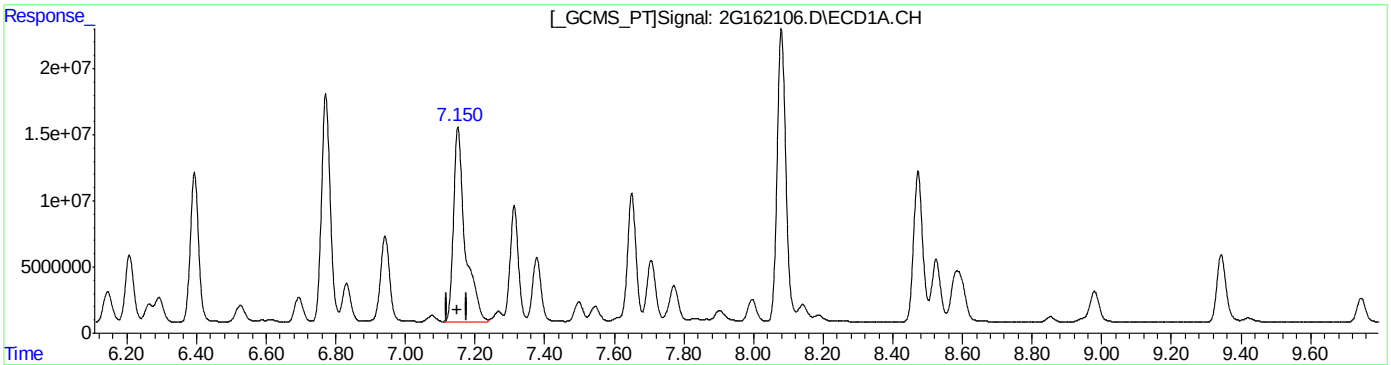
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 1010.285PPB
response 344355330

(36) AR1260-A #2
8.713min 747.301PPB
response 1494370201

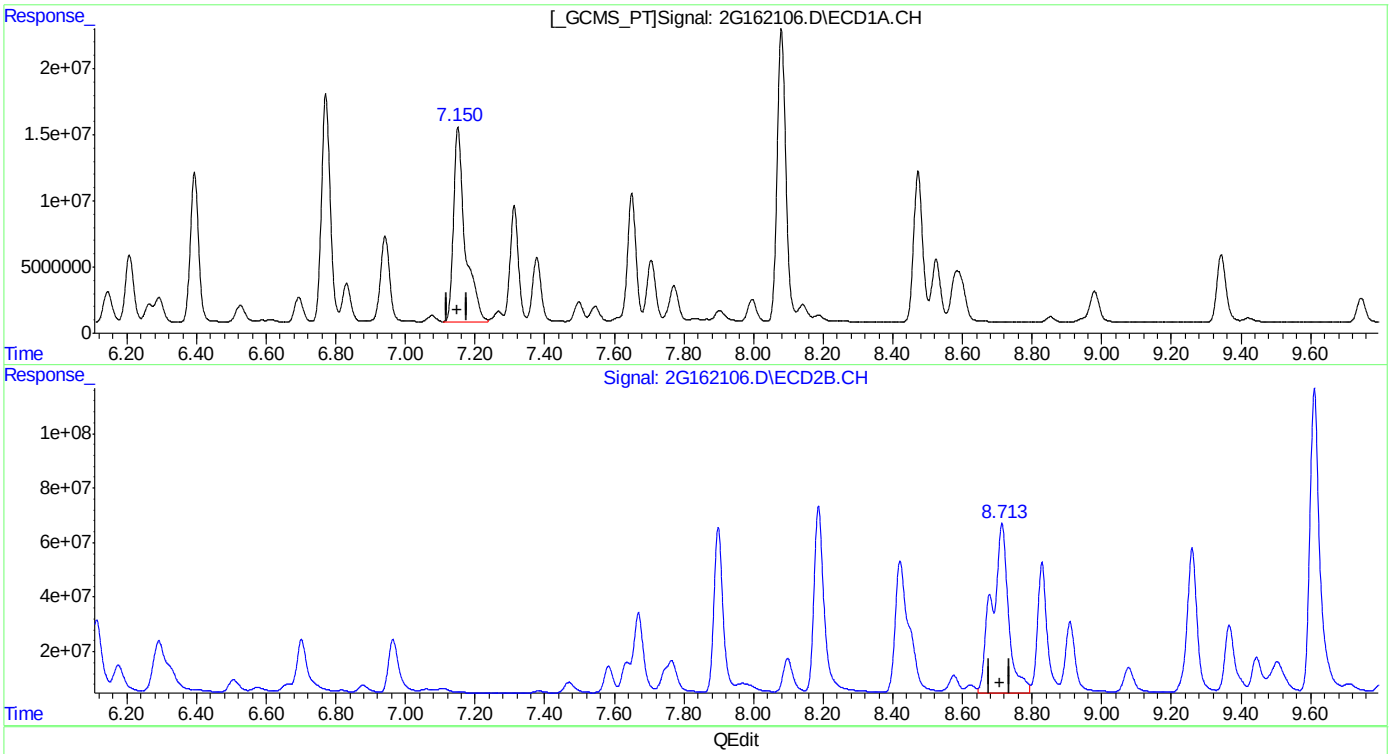
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.151min 1010.285PPB
response 344355330

(36) AR1260-A #2
8.713min 1030.370PPB m
response 2060420586

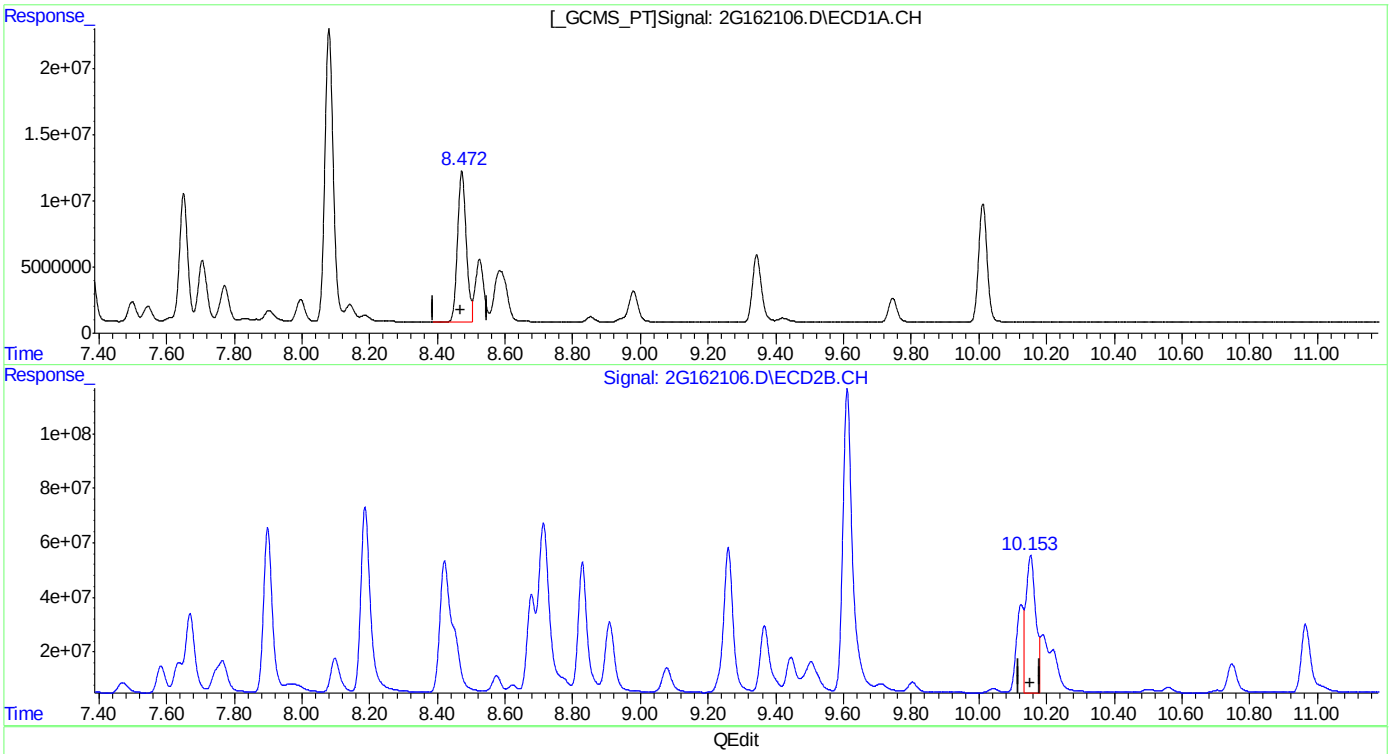
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:42:40 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(40) AR1260-E
8.472min 544.539PPB
response 206264619

(40) AR1260-E #2
10.153min 504.699PPB
response 1028663455

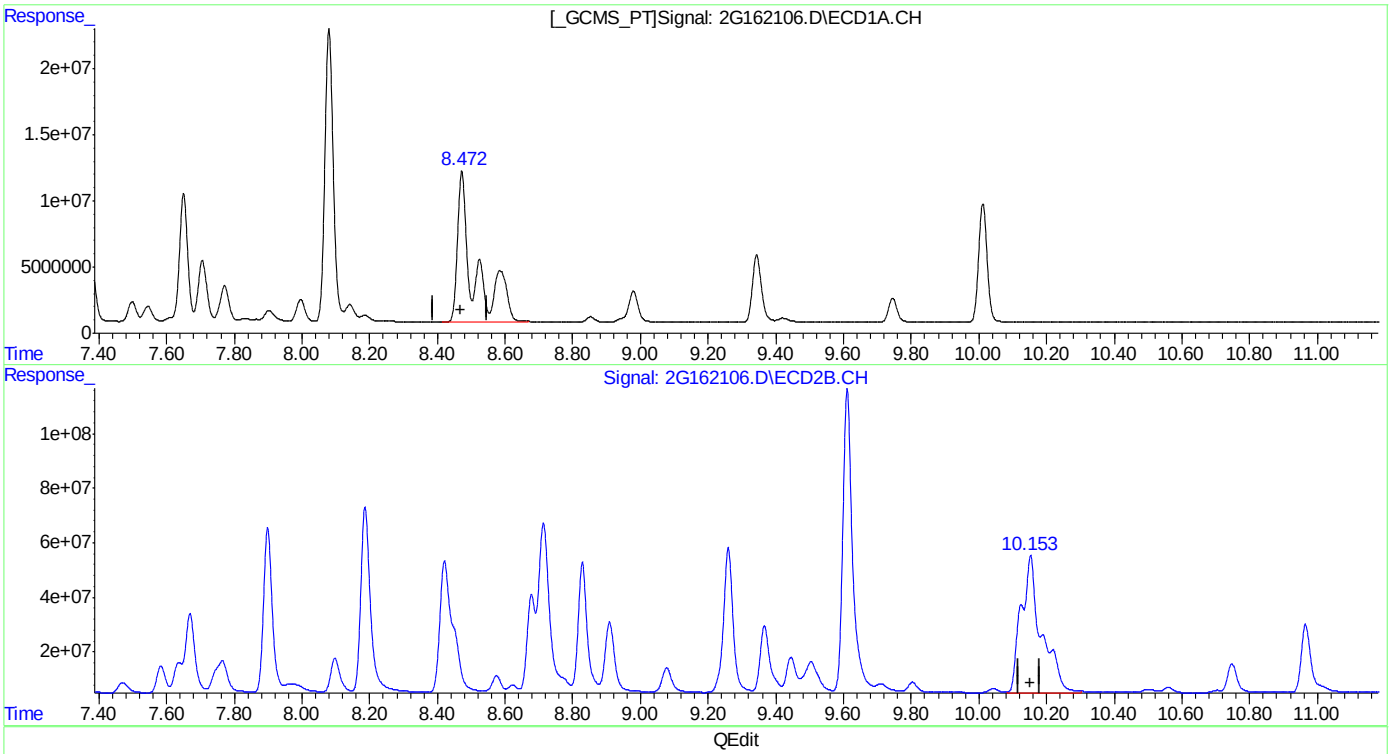
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162106.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:42:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.472min 1042.160PPB m
response 394757340

(40) AR1260-E #2
10.153min 1040.922PPB m
response 2121578641

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 15:42:57 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.779	3.431	153.3E6	920.0E6	41.757	40.204
	Spiked Amount 40.000			Recovery	=	104.39%	100.51%
51) S	Decachlor...	10.014	11.809	140.0E6	673.0E6	34.519	35.236m
	Spiked Amount 40.000			Recovery	=	86.30%	88.09%
	Target Compounds						
2)	AR1221-A	2.279	2.875	30230560	146.0E6	1043.603	1036.235
3)	AR1221-B	2.954	3.822	40285056	252.3E6	958.647	1006.331
4)	AR1221-C	3.154	4.092	122.7E6	636.2E6	952.714m	970.047
5)	AR1221-D	3.559	4.652	11965333	105.9E6	816.362	866.763
6)	AR1221-E	3.701	4.775	14535418	89521998	1011.960	1011.639
24)	AR1254-A	5.275	6.700	129.5E6	1052.0E6	1049.498	1059.947
25)	AR1254-B	5.616	6.961	268.8E6	1037.4E6	1038.943m	1054.345
26)	AR1254-C	5.981	7.465	143.6E6	839.2E6	1048.265	1052.001
27)	AR1254-D	6.144	7.630	257.6E6	1719.0E6	1047.563	1051.825
28)	AR1254-E	6.519	7.958	189.8E6	1135.8E6	1040.097	1043.025
29)	AR1254-F	6.772	8.419	179.8E6	1231.4E6	1050.190	1042.487m
30)	AR1254-G	7.152	8.715	263.4E6	1614.8E6	1046.353	1068.898

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

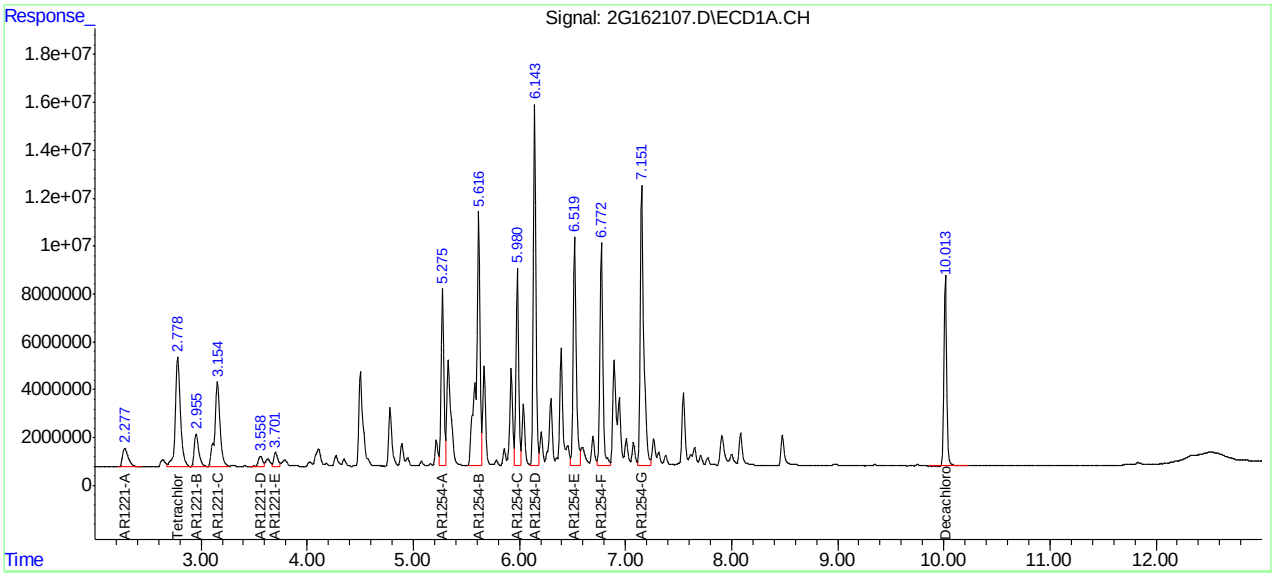
11.6.12 11

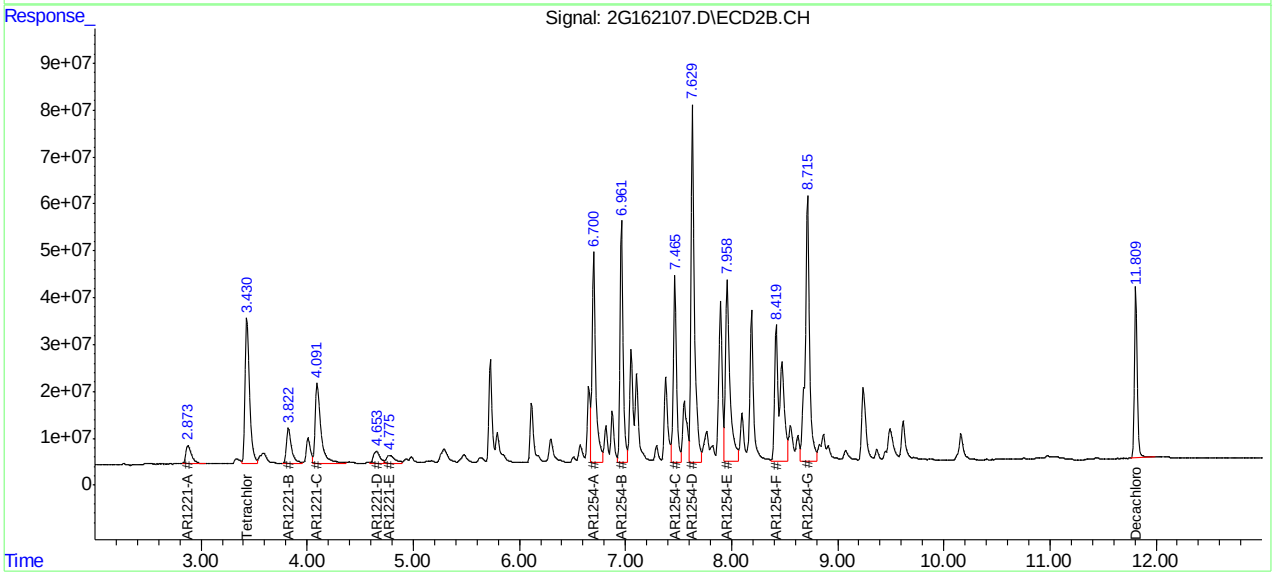
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162107.D	**Analyst approved:**	04/19/18 16:16 Rebecca Krug
Injection Time:	04/19/18 15:34	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

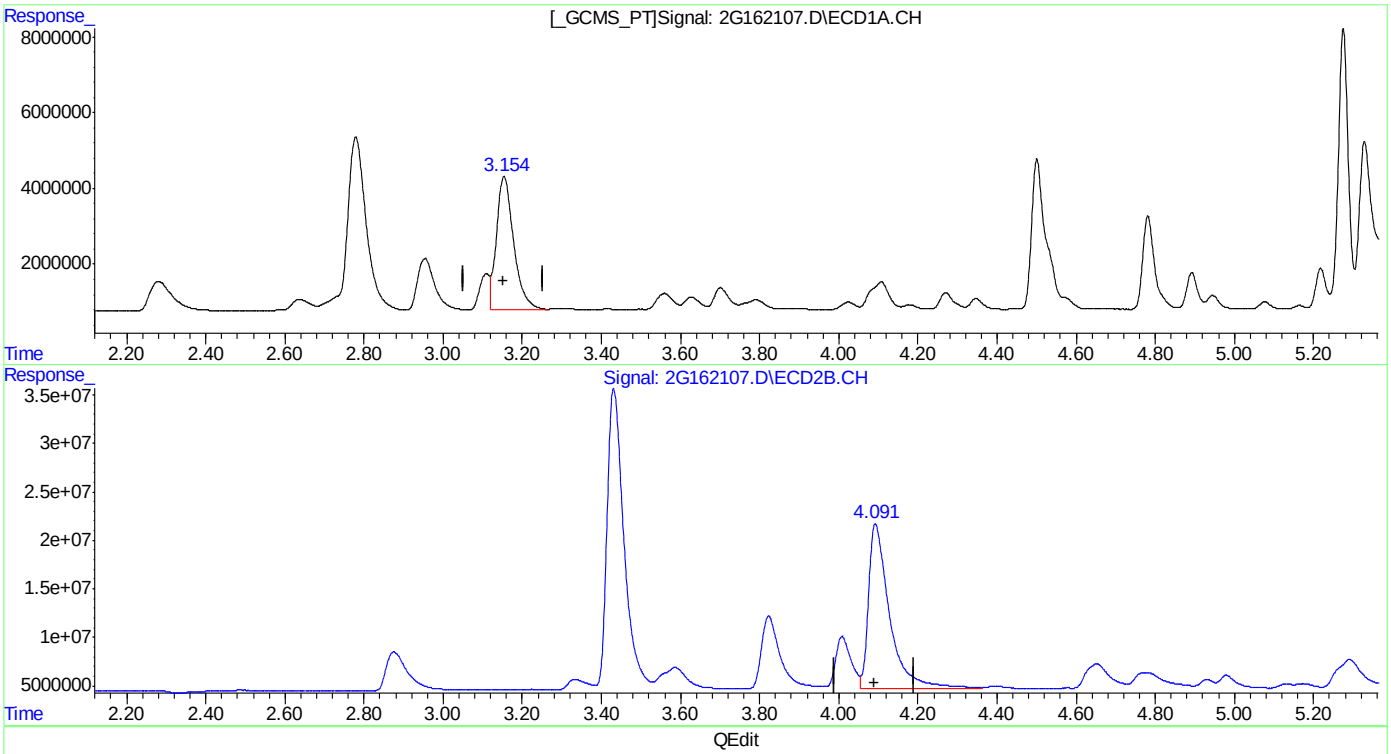
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-C		1	3.15	Split peak
AR1254-B		1	5.62	Split peak
AR1254-F		2	8.42	Split peak
Decachlorobiphenyl	2051-24-3	2	11.81	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.154min 823.443PPB
response 106055438

(4) AR1221-C #2
4.092min 970.047PPB
response 636187286

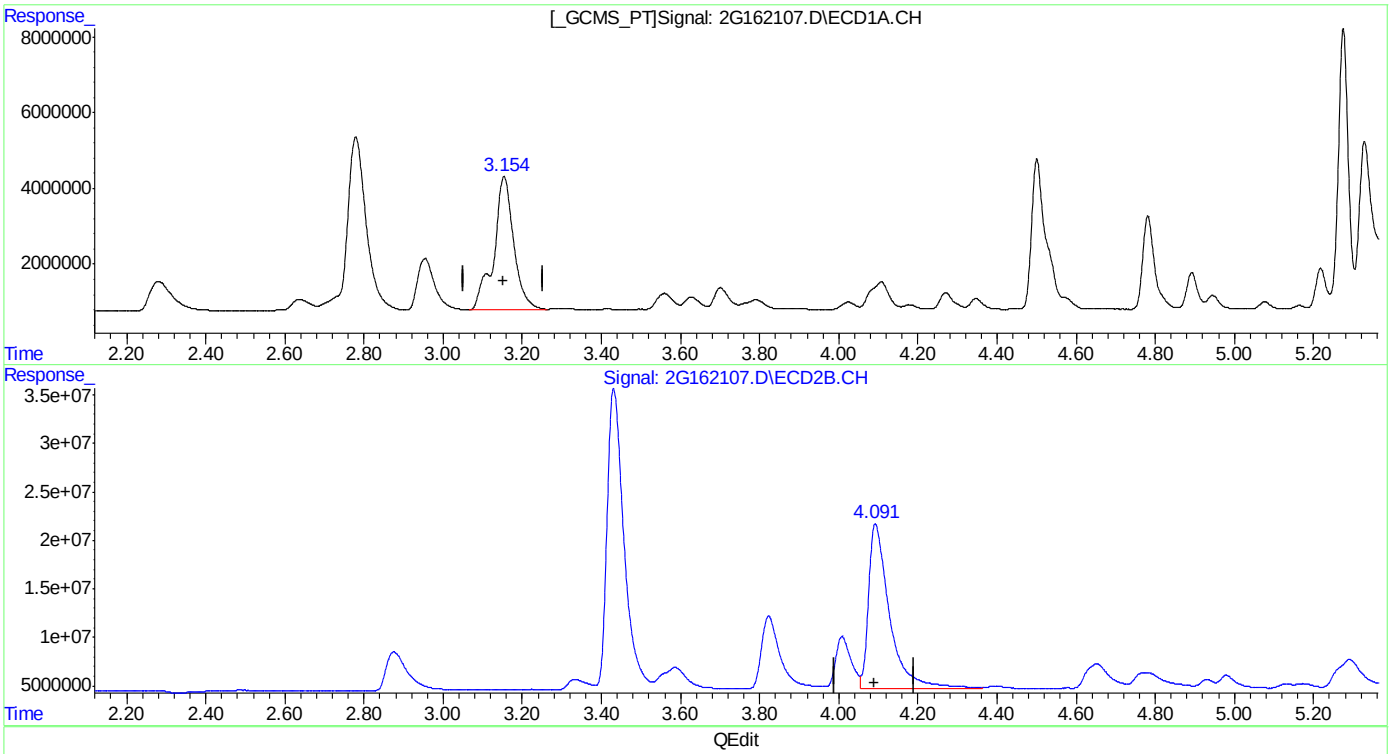
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(4) AR1221-C
3.154min 952.714PPB m
response 122704980

(4) AR1221-C #2
4.092min 970.047PPB
response 636187286

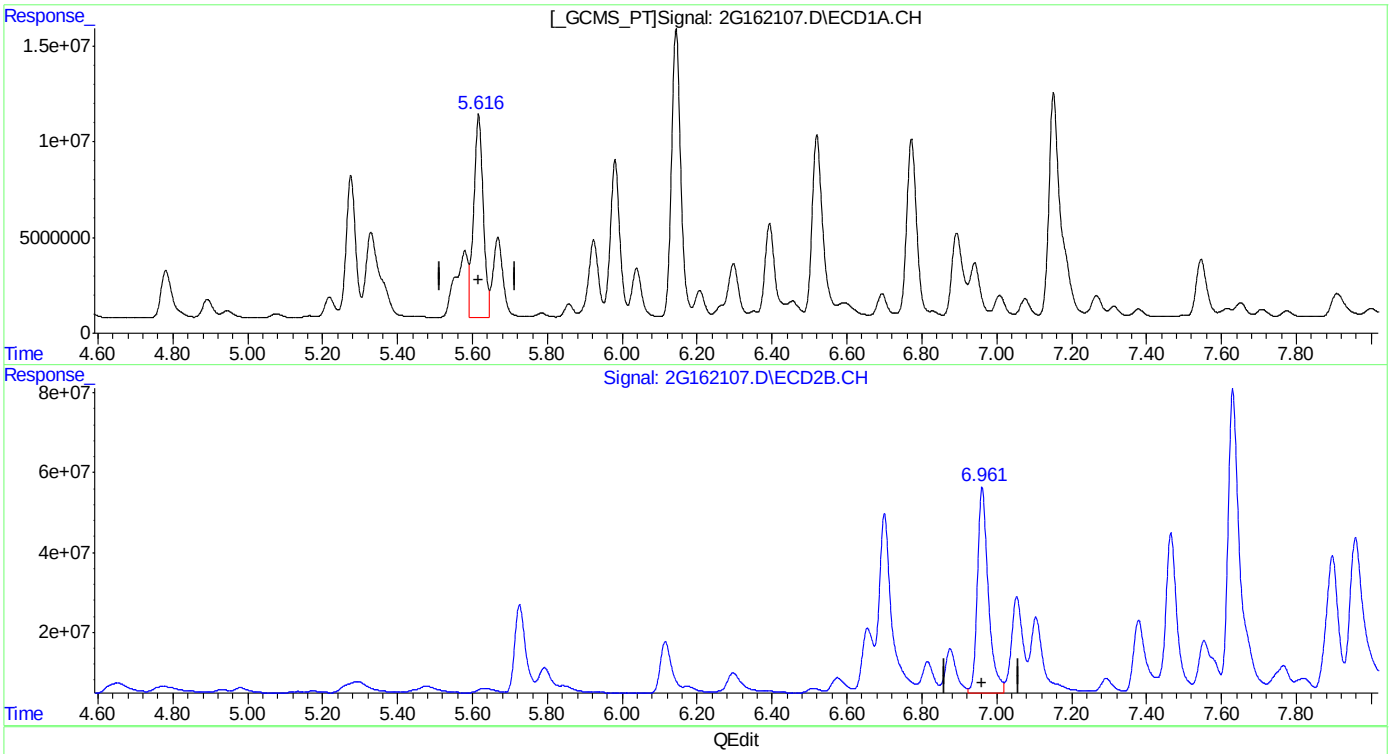
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(25) AR1254-B
5.616min 725.809PPB
response 187805126

(25) AR1254-B #2
6.961min 1054.345PPB
response 1037386452

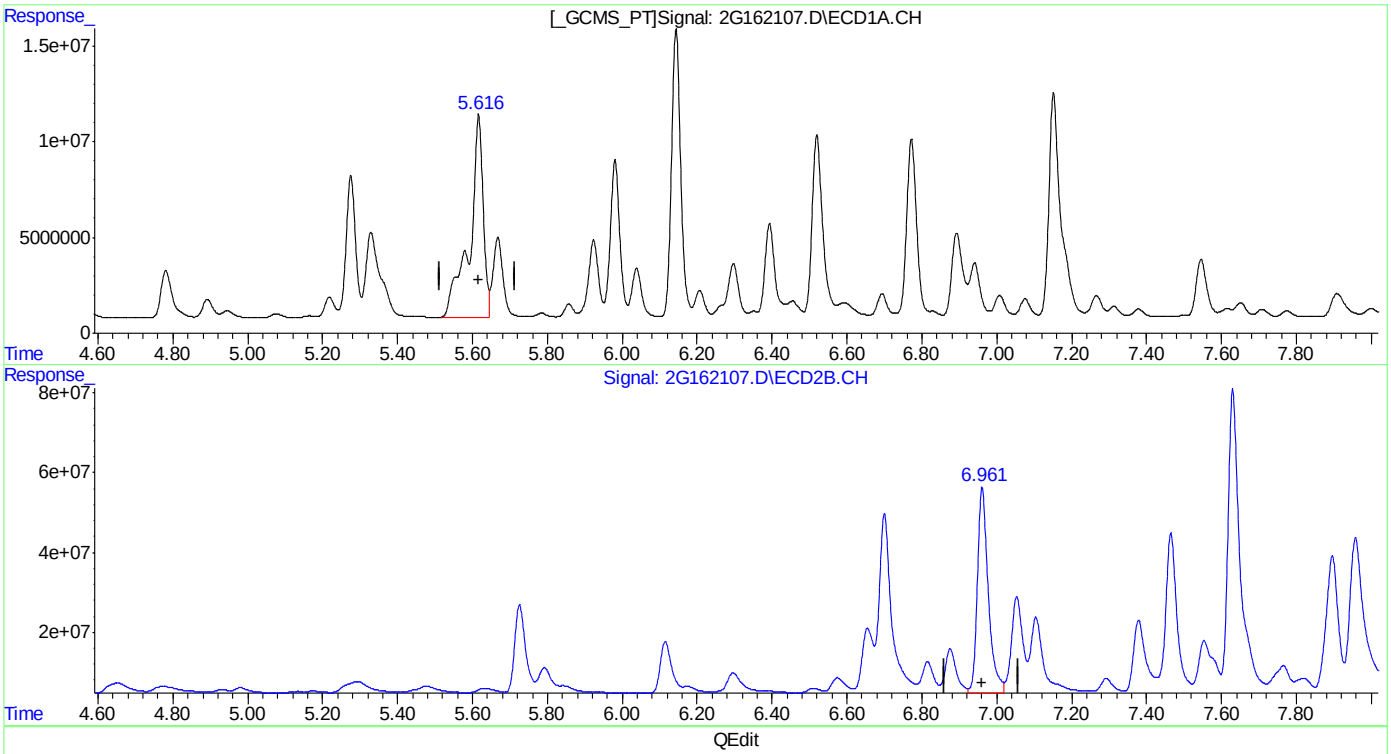
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:13:54 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(25) AR1254-B
5.616min 1038.943PPB m
response 268829390

(25) AR1254-B #2
6.961min 1054.345PPB
response 1037386452

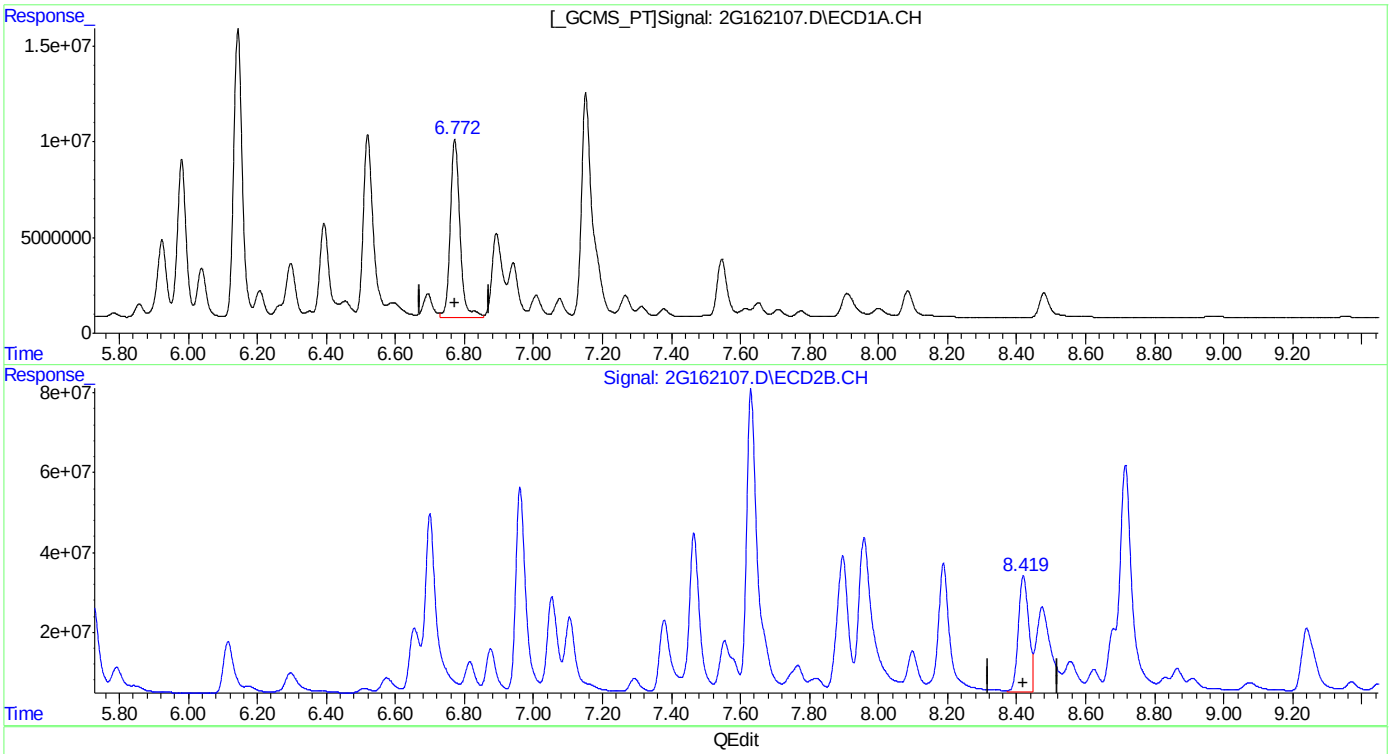
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.772min 1050.190PPB
response 179788782

(29) AR1254-F #2
8.420min 520.166PPB
response 614411351

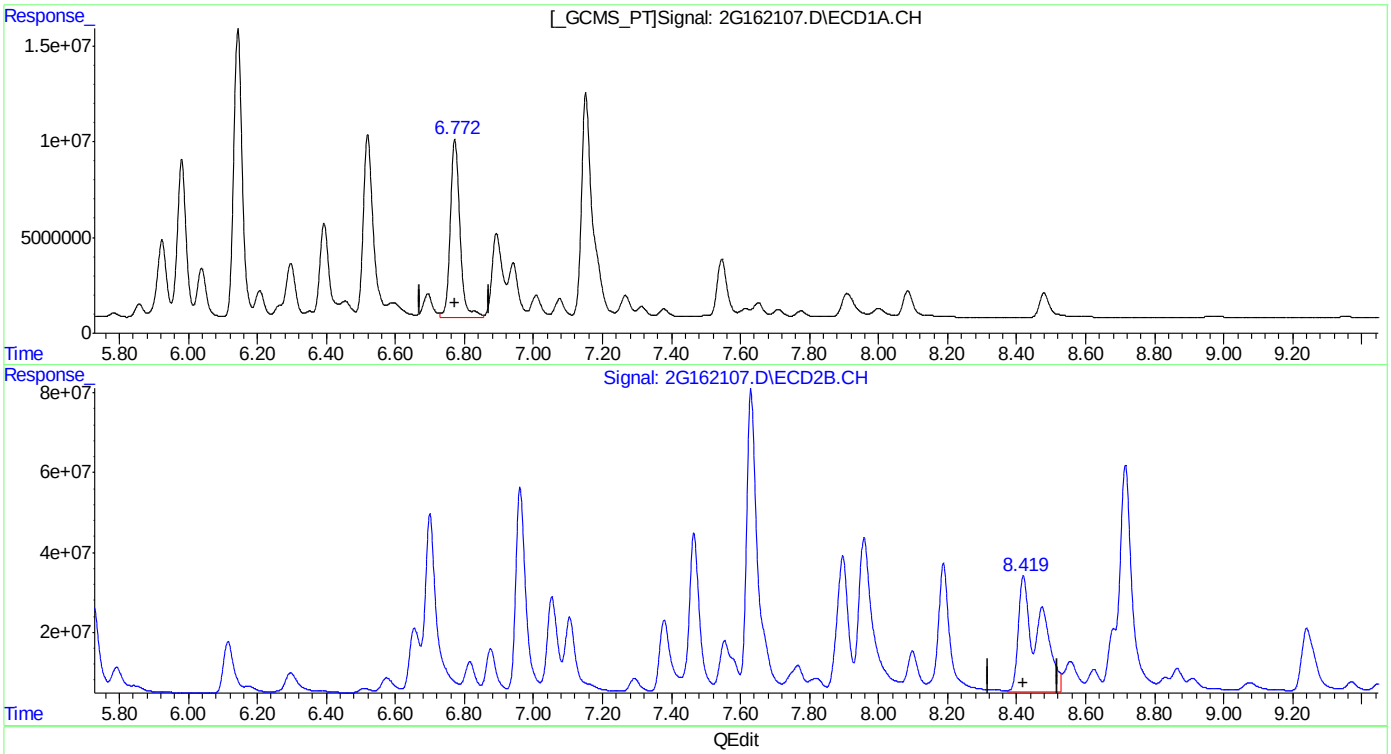
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(29) AR1254-F
6.772min 1050.190PPB
response 179788782

(29) AR1254-F #2
8.419min 1042.487PPB m
response 1231368568

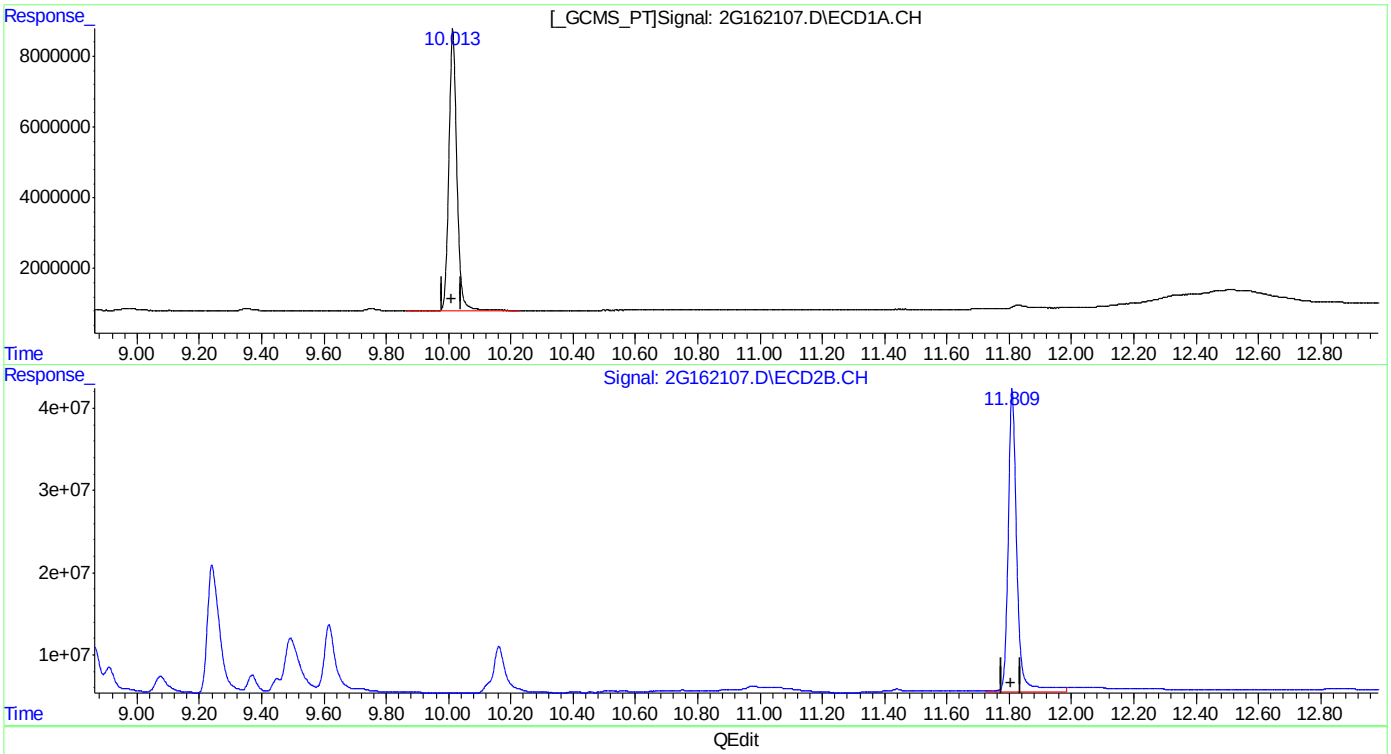
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(51) Decachlorobiphenyl (S)
10.014min 34.519ppb
response 140003082

(51) Decachlorobiphenyl #2 (S)
11.809min 37.606ppb
response 718253484

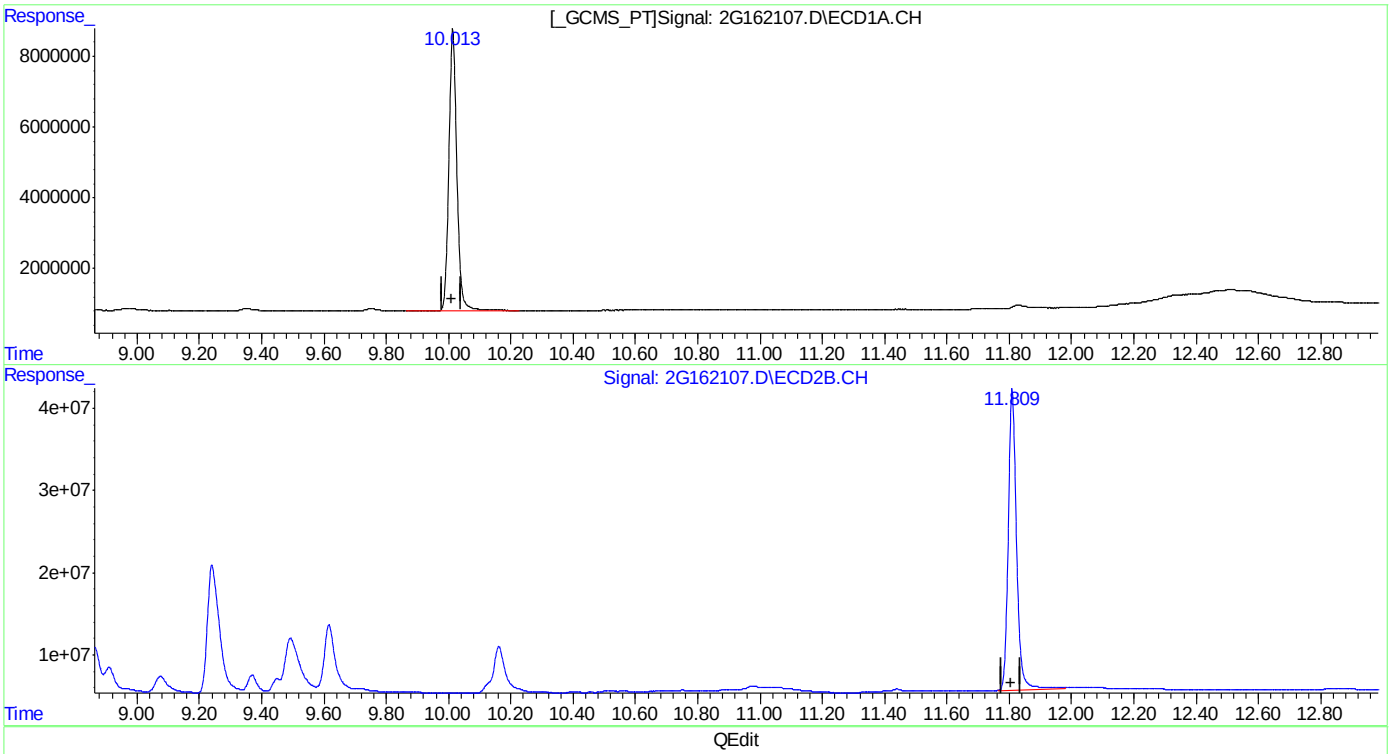
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162107.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:13:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(51) Decachlorobiphenyl (S)
10.014min 34.519ppb
response 140003082

(51) Decachlorobiphenyl #2 (S)
11.809min 35.236ppb m
response 672981588

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:15:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.781	3.433	170.6E6	1052.0E6	46.480	45.976
	Spiked Amount 40.000			Recovery	=	116.20%	114.94%
51) S	Decachlor...	10.013	11.810	170.8E6	815.2E6	42.102	42.680
	Spiked Amount 40.000			Recovery	=	105.25%	106.70%
	Target Compounds						
7)	AR1232-A	3.154	4.095	98365261	512.2E6	1010.501m	1020.405
8)	AR1232-B	3.559	4.636	68498112	401.6E6	1024.767	1020.600
9)	AR1232-C	4.108	5.283	135.9E6	827.1E6	1041.459	1014.523
10)	AR1232-D	4.269	5.470	56766203	372.0E6	1042.085	1028.928
11)	AR1232-E	4.784	6.116	53116179	220.0E6	1031.594	1012.367
41)	AR1262-A	6.771	8.188	203.7E6	1084.4E6	1052.988	1038.504
42)	AR1262-B	7.313	8.829	258.5E6	1494.9E6	1066.632	1046.686
43)	AR1262-C	7.651	9.260	238.6E6	1393.4E6	1051.048	1042.970
44)	AR1262-D	8.080	9.611	514.2E6	2841.1E6	1059.463	1039.845
45)	AR1262-E	8.525	10.124	598.9E6	3168.8E6	1071.837m	1044.277m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

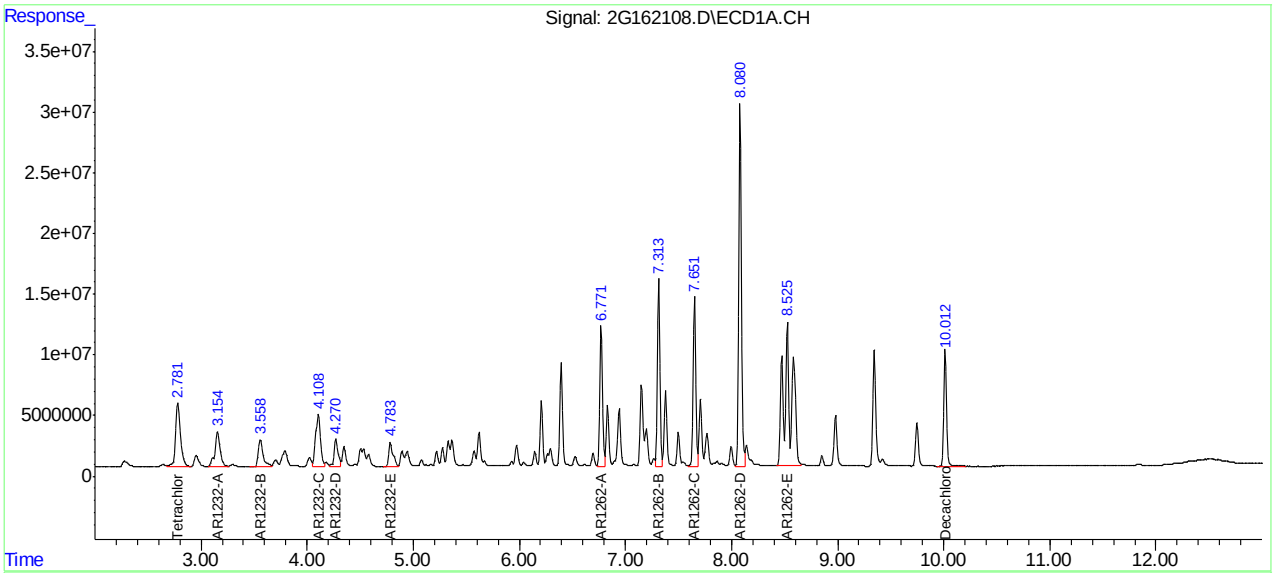
11.6.13 11

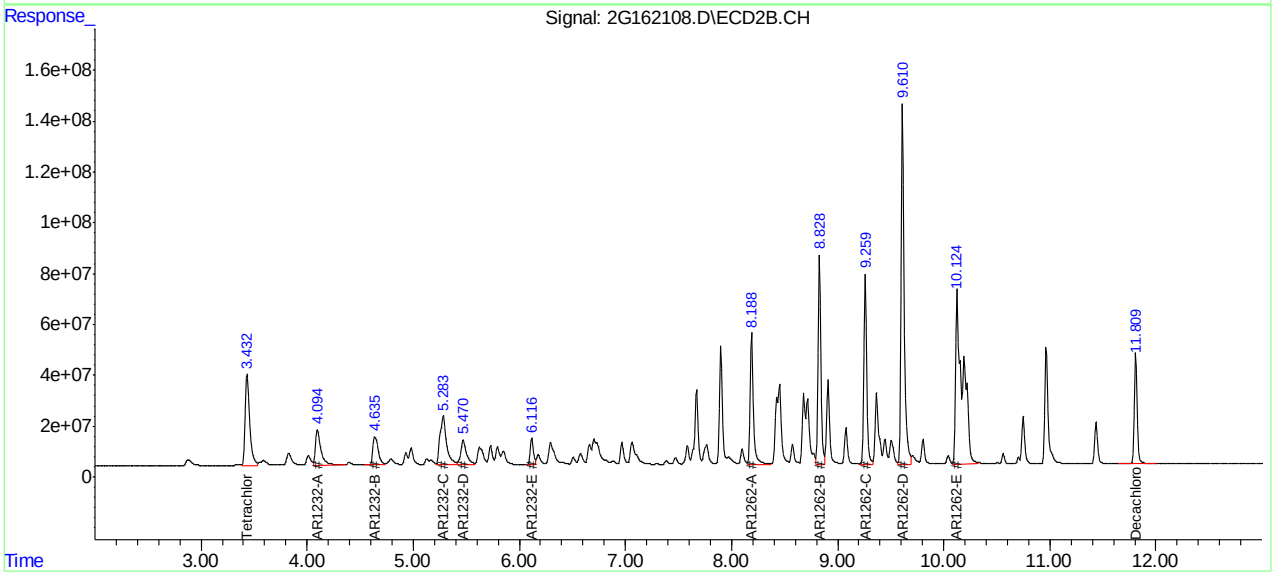
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:15:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





JC66384

Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162108.D	**Analyst approved:**	04/19/18 16:16 Rebecca Krug
Injection Time:	04/19/18 15:51	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

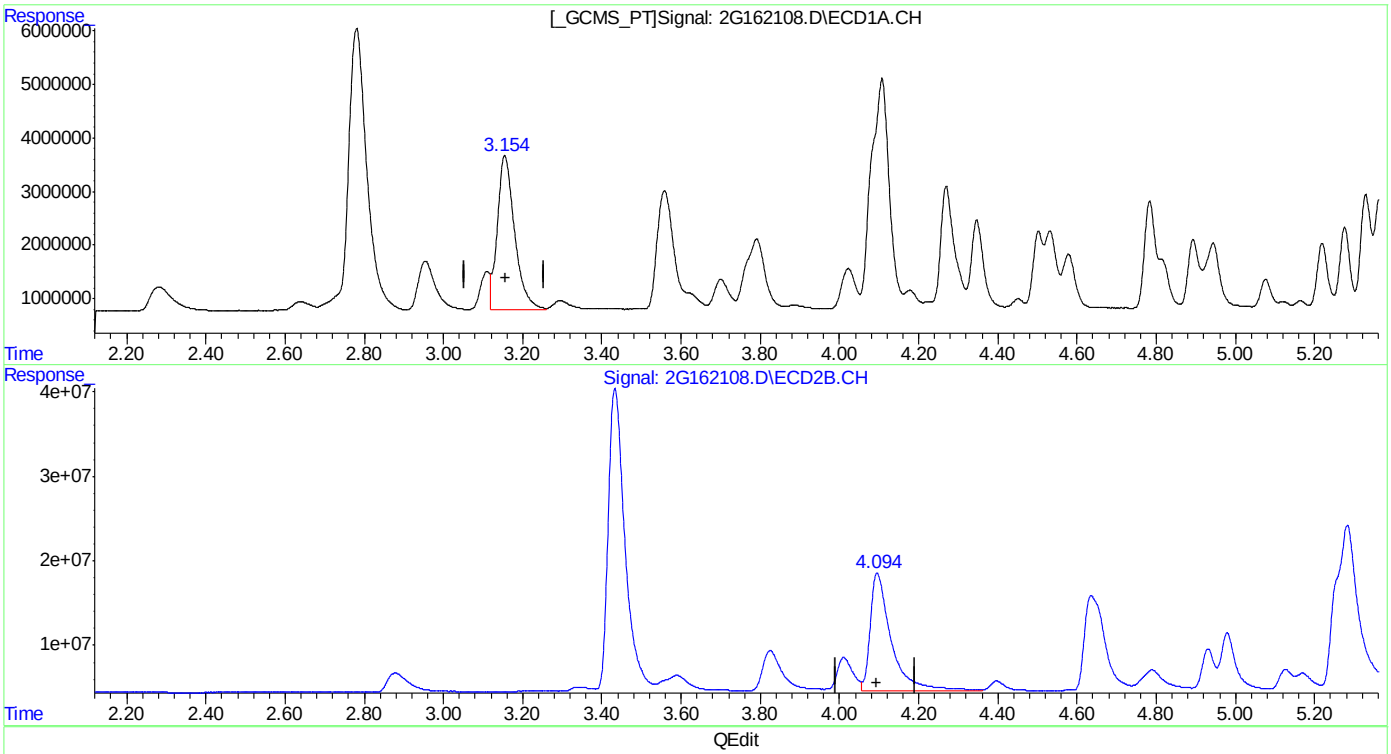
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1232-A		1	3.15	Split peak
AR1262-E		1	8.53	Split peak
AR1262-E		2	10.12	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(7) AR1232-A
3.155min 889.288PPB
response 86566070

(7) AR1232-A #2
4.095min 1020.405PPB
response 512203545

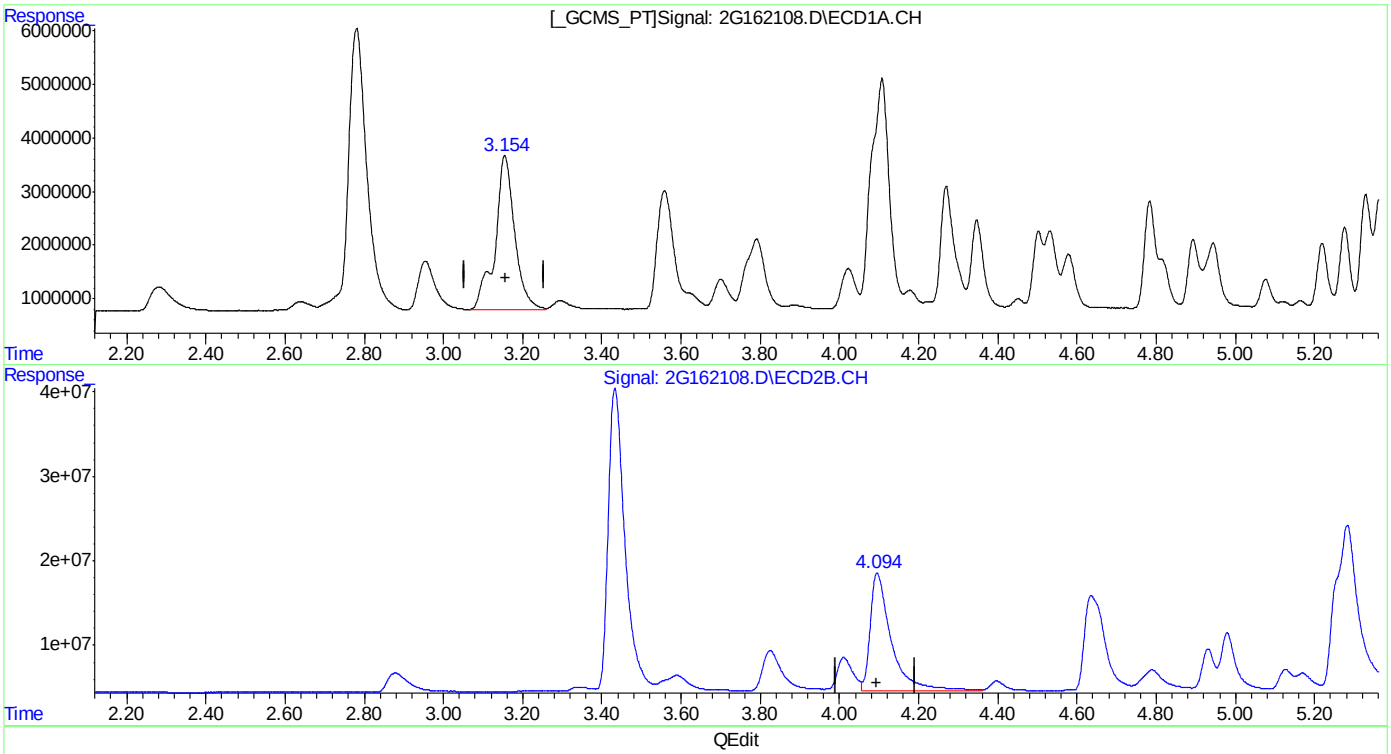
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(7) AR1232-A
3.154min 1010.501PPB m
response 98365261

(7) AR1232-A #2
4.095min 1020.405PPB
response 512203545

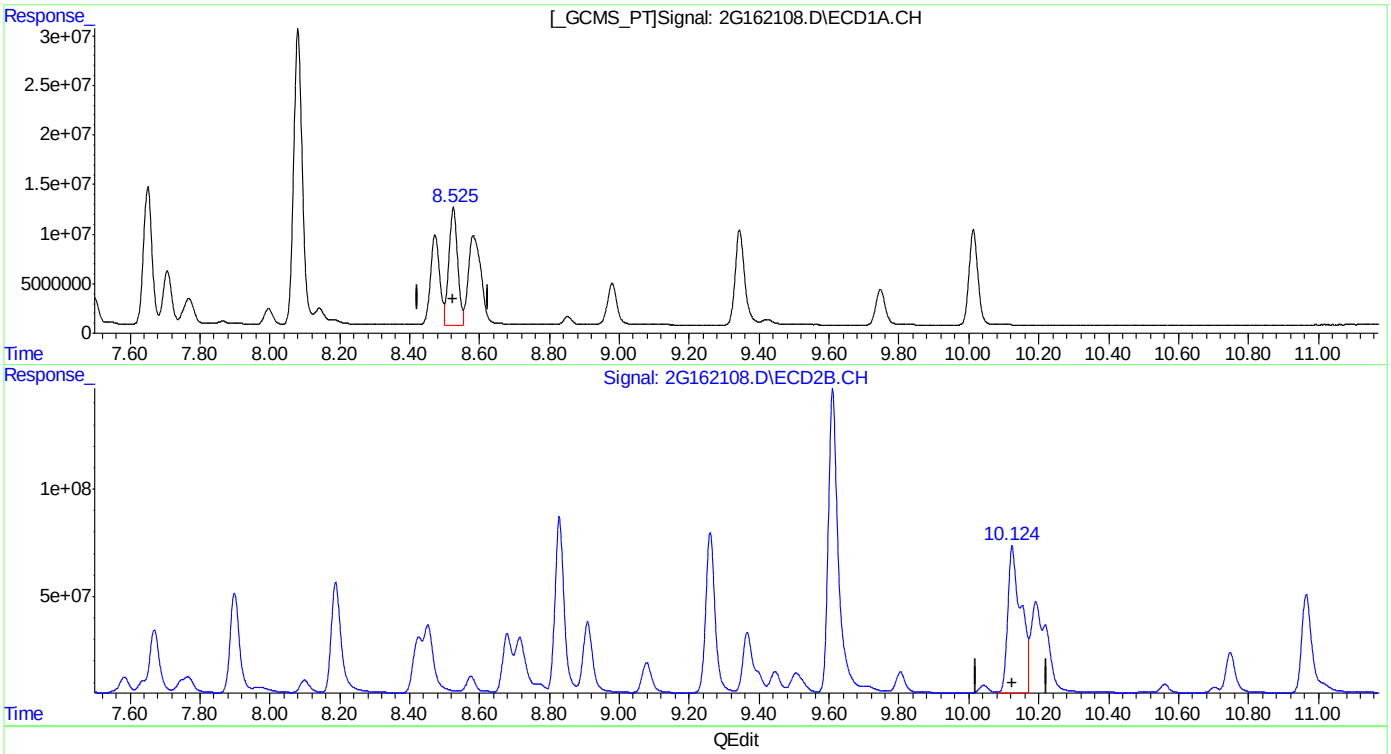
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(45) AR1262-E
8.525min 372.421PPB
response 208100944

(45) AR1262-E #2
10.124min 596.212PPB
response 1809171074

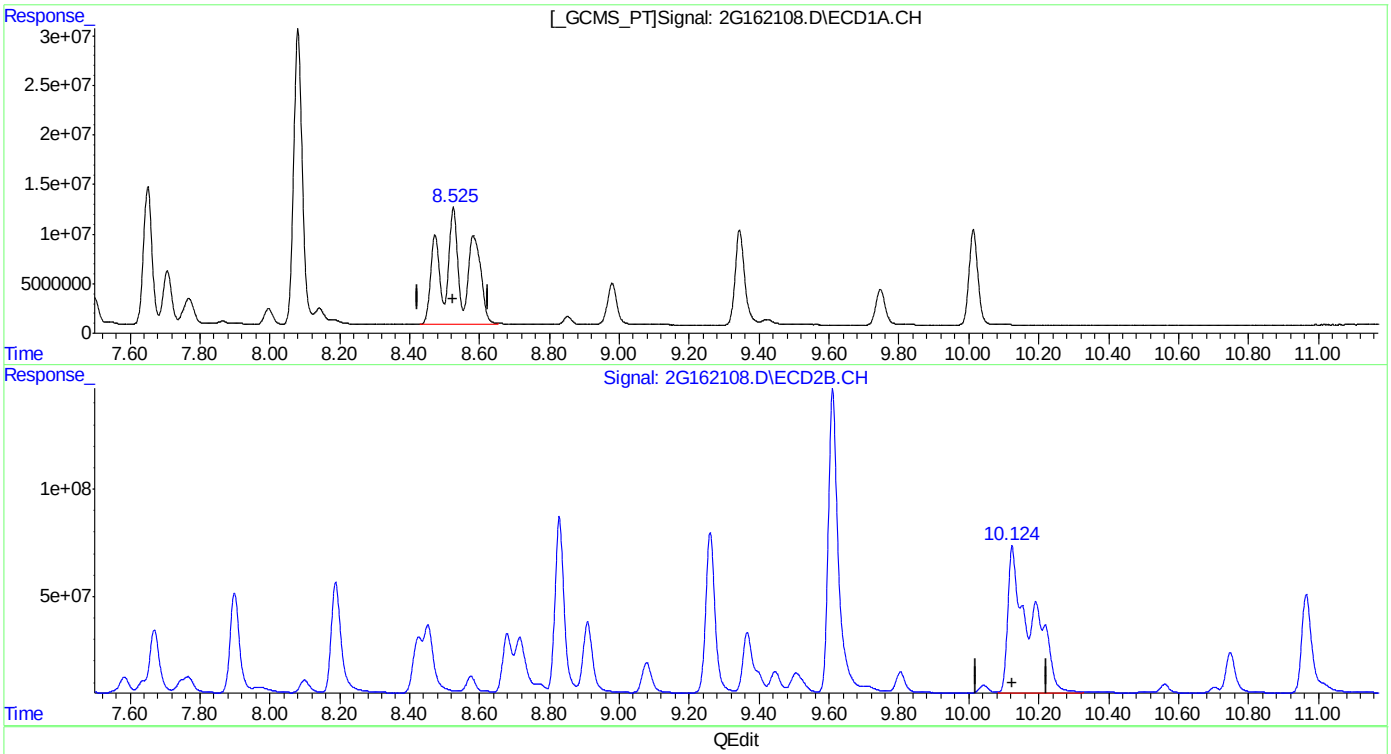
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162108.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:14:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(45) AR1262-E
8.525min 1071.837PPB m
response 598920161

(45) AR1262-E #2
10.124min 1044.277PPB m
response 3168798686

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162109.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:22:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.779	3.433	170.1E6	1071.4E6	46.334	46.824
	Spiked Amount 40.000			Recovery	=	115.83%	117.06%
51) S	Decachlor...	10.011	11.808	484.9E6	2297.4E6	119.548	120.287
	Spiked Amount 40.000			Recovery	=	298.87%	300.72%
	Target Compounds						
12)	AR1242-A	3.557	4.632	114.9E6	679.7E6	959.253	963.525
13)	AR1242-B	4.107	5.279	244.9E6	1499.1E6	969.788	968.618
14)	AR1242-C	4.269	5.466	101.8E6	667.6E6	965.352	1001.218
15)	AR1242-D	4.783	6.115	102.5E6	438.9E6	940.947	961.639
16)	AR1242-E	5.365	6.729	87846237	601.3E6	944.779	947.908
46)	AR1268-A	8.524	10.124	581.9E6	3010.5E6	1011.408	975.558
47)	AR1268-B	8.579	10.191	583.9E6	3067.7E6	1029.222	989.902
48)	AR1268-C	8.851	10.558	487.0E6	2443.7E6	1029.490	978.062
49)	AR1268-D	9.342	10.964	204.7E6	1041.8E6	1027.571	1004.017
50)	AR1268-E	9.744	11.432	1646.4E6	7834.9E6	1019.371	951.057

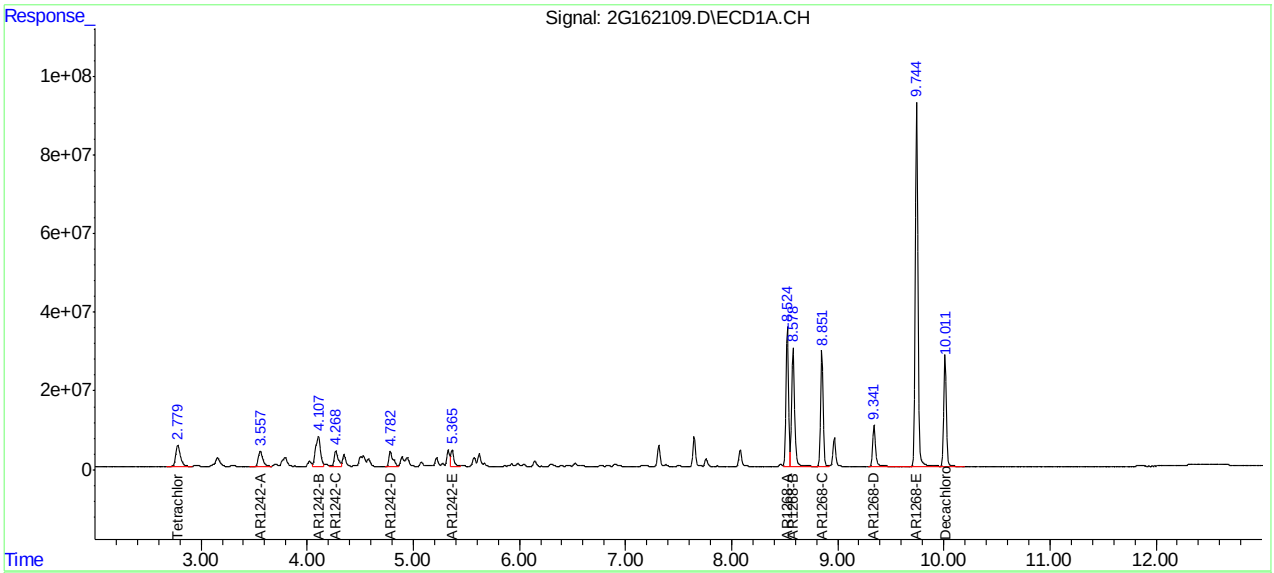
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

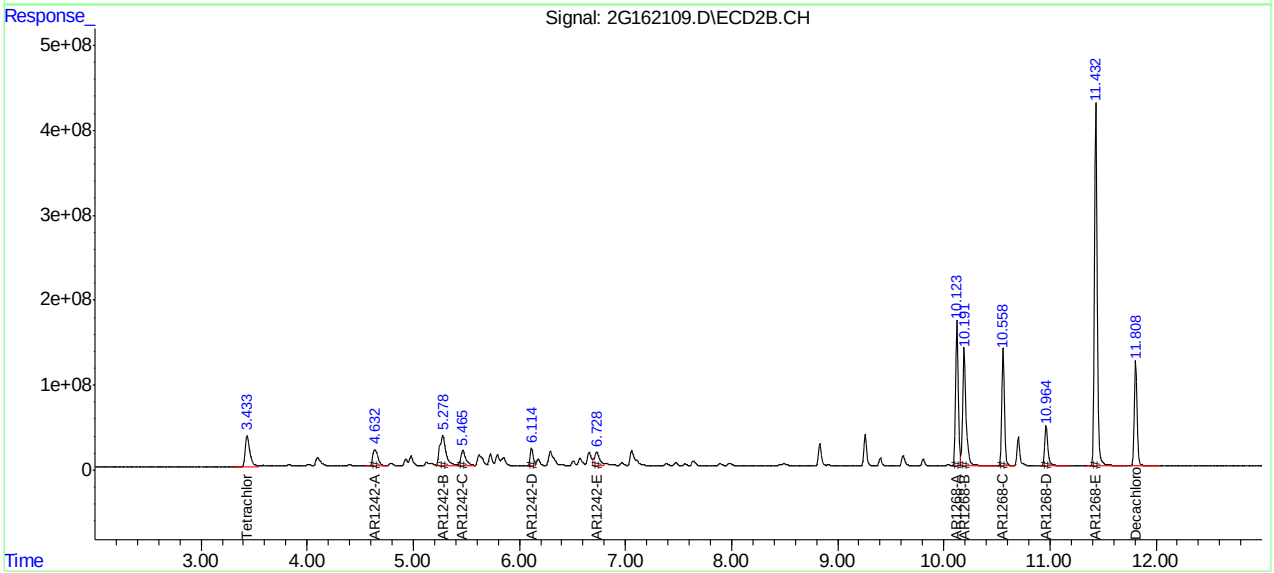
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162109.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:22:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





11.6.14

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 04/20/18 09:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:40:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1)	S Tetrachlo...	2.780	3.432	166.8E6	1120.3E6	45.447	48.962
	Spiked Amount 40.000			Recovery	= 113.62%	122.41%	
51)	S Decachlor...	10.014	11.809	181.0E6	849.3E6	44.625	44.465m
	Spiked Amount 40.000			Recovery	= 111.56%	111.16%	
	Target Compounds						
17)	AR1248-A	3.555	4.633	55493048	338.8E6	937.800	933.925
18)	AR1248-B	4.106	5.282	154.8E6	932.7E6	1002.483	976.877m
19)	AR1248-C	4.502	5.726	165.4E6	573.0E6	1001.355m	1005.821
20)	AR1248-D	4.783	6.113	164.0E6	735.7E6	1025.894	1011.756
21)	AR1248-E	4.892	6.291	146.3E6	914.0E6	1030.010m	1038.805
22)	AR1248-F	5.364	6.722	154.2E6	1158.1E6	1099.867	1055.670
23)	AR1248-G	5.620	7.055	169.0E6	1306.3E6	1074.742m	1070.589m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

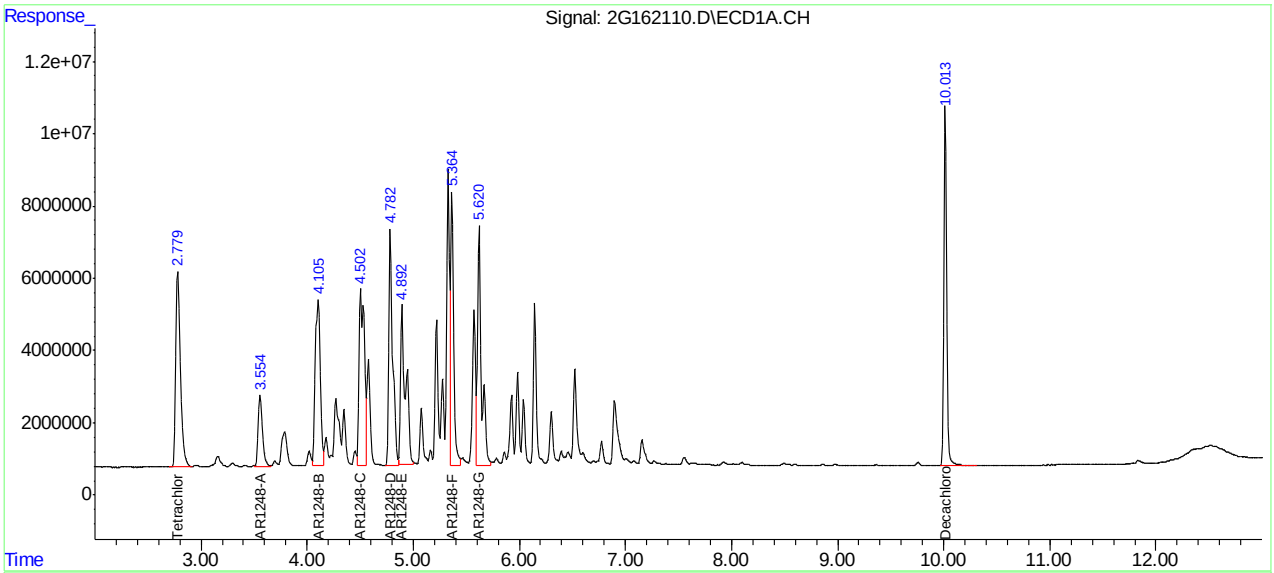
11.6.15 11

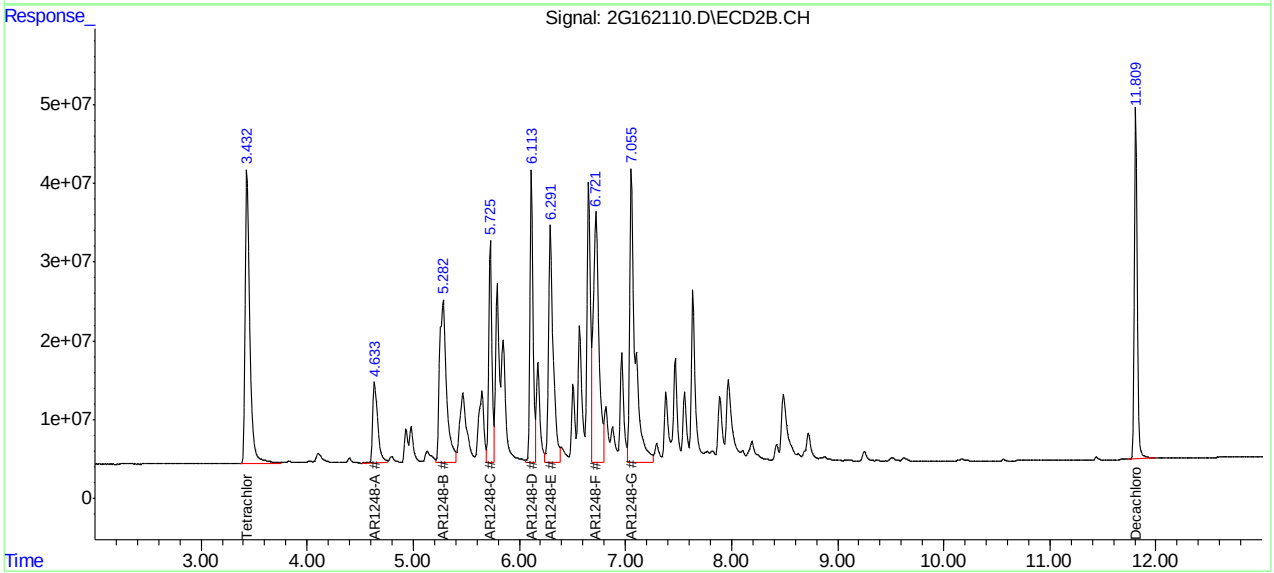
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:40:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4311-ICV4311	**Method:**	SW846 8082A
Lab FileID:	2G162110.D	**Analyst approved:**	04/19/18 16:41 Rebecca Krug
Injection Time:	04/19/18 16:25	**Supervisor approved:**	04/20/18 09:13 Gwendolyn Burns

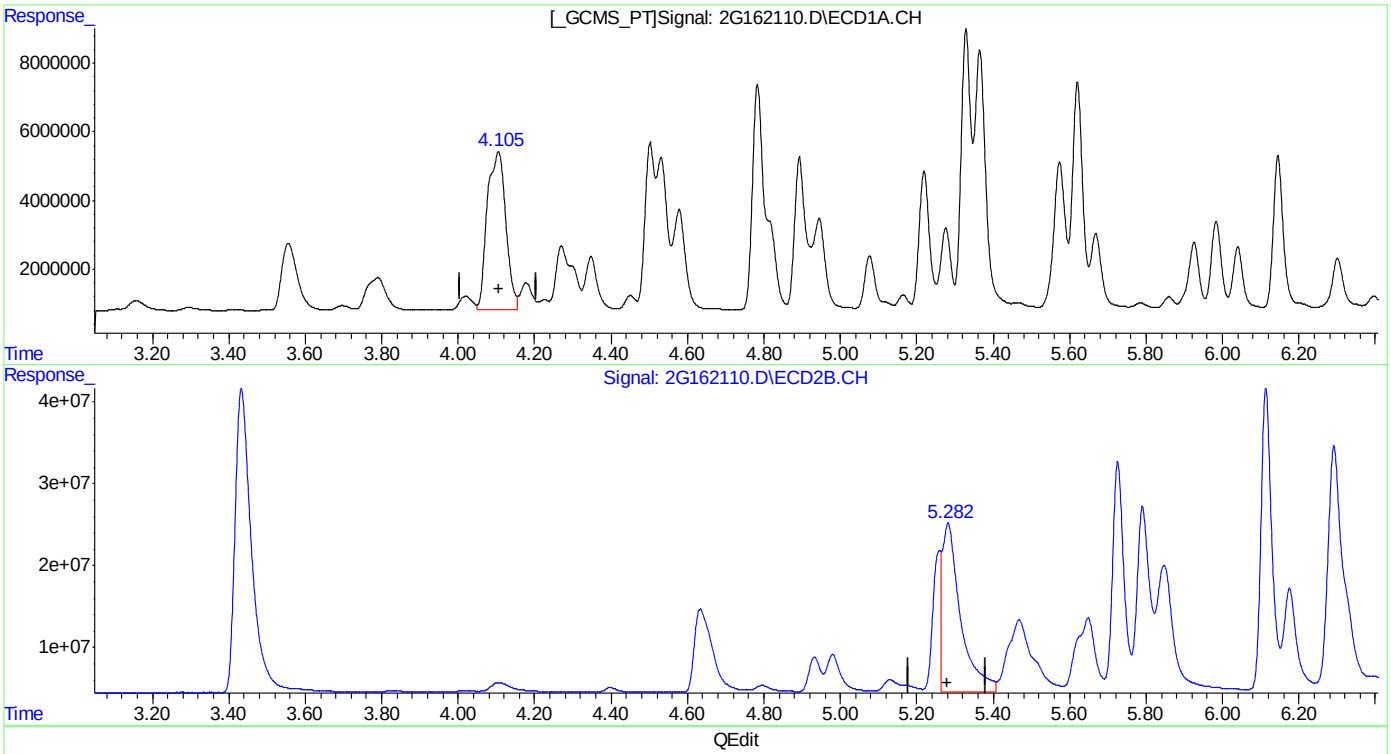
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	4.50	Split peak
AR1248-E		1	4.89	Split peak
AR1248-B		2	5.28	Split peak
Ar1248-G		1	5.62	Split peak
Ar1248-G		2	7.05	Split peak
Decachlorobiphenyl	2051-24-3	2	11.81	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(18) AR1248-B
4.106min 1002.483PPB
response 154780930

(18) AR1248-B #2
5.282min 717.865PPB
response 685407759

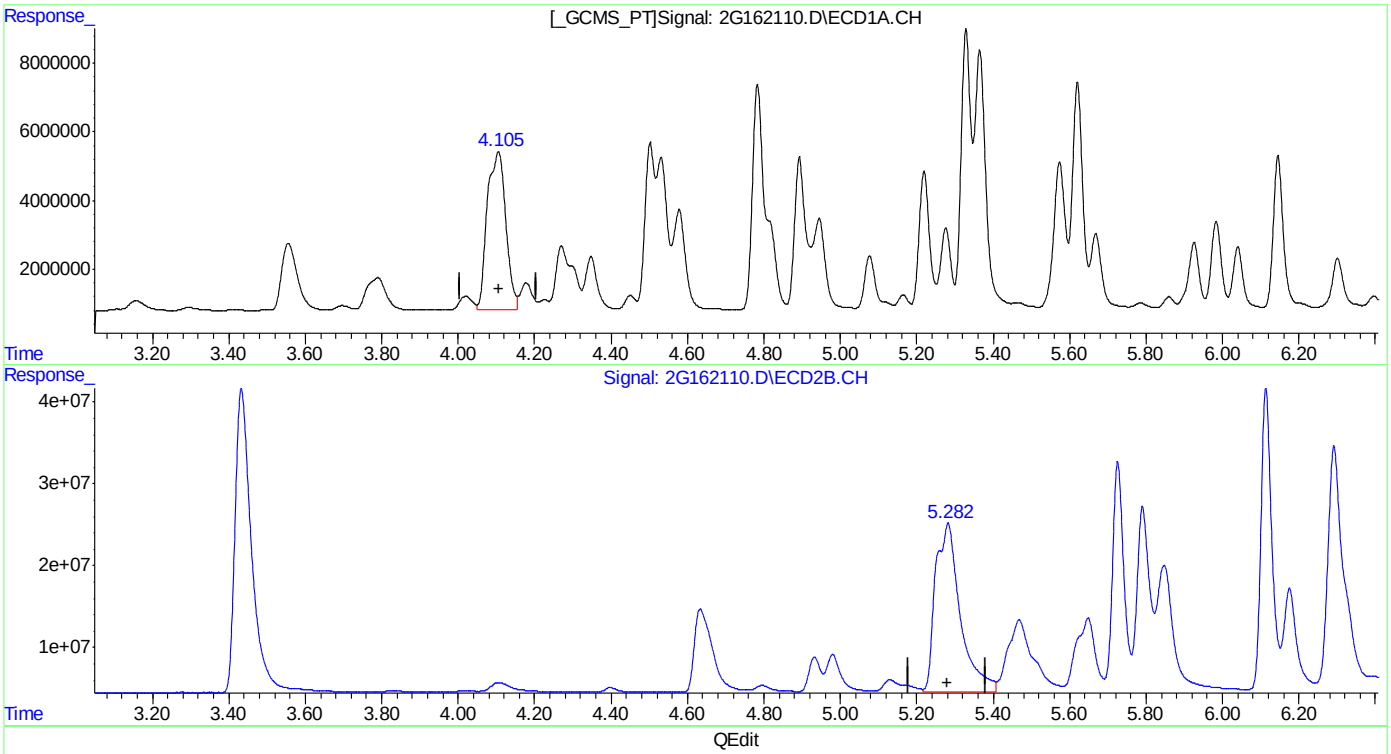
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:39:50 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(18) AR1248-B
4.106min 1002.483PPB
response 154780930

(18) AR1248-B #2
5.282min 976.877PPB m
response 932708612

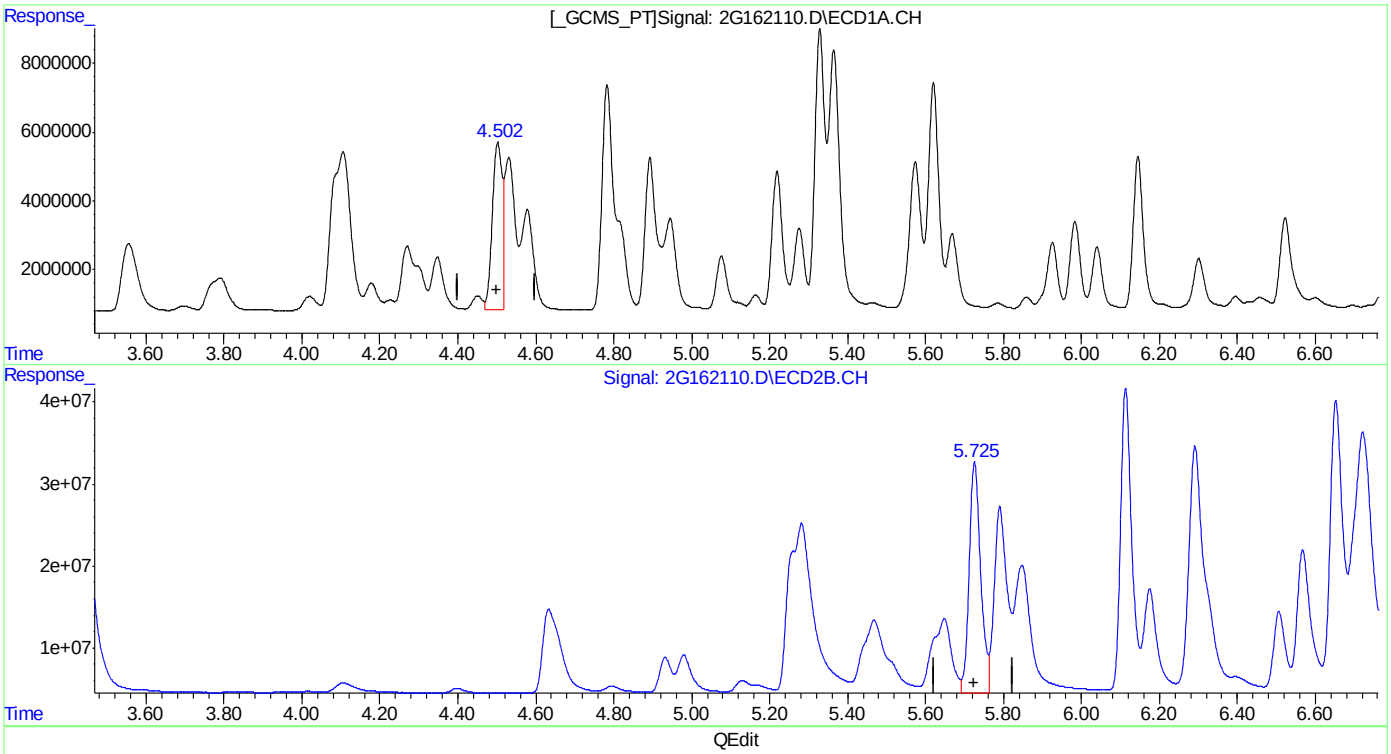
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(19) AR1248-C
4.502min 511.510PPB
response 84504842

(19) AR1248-C #2
5.726min 1005.821PPB
response 572997262

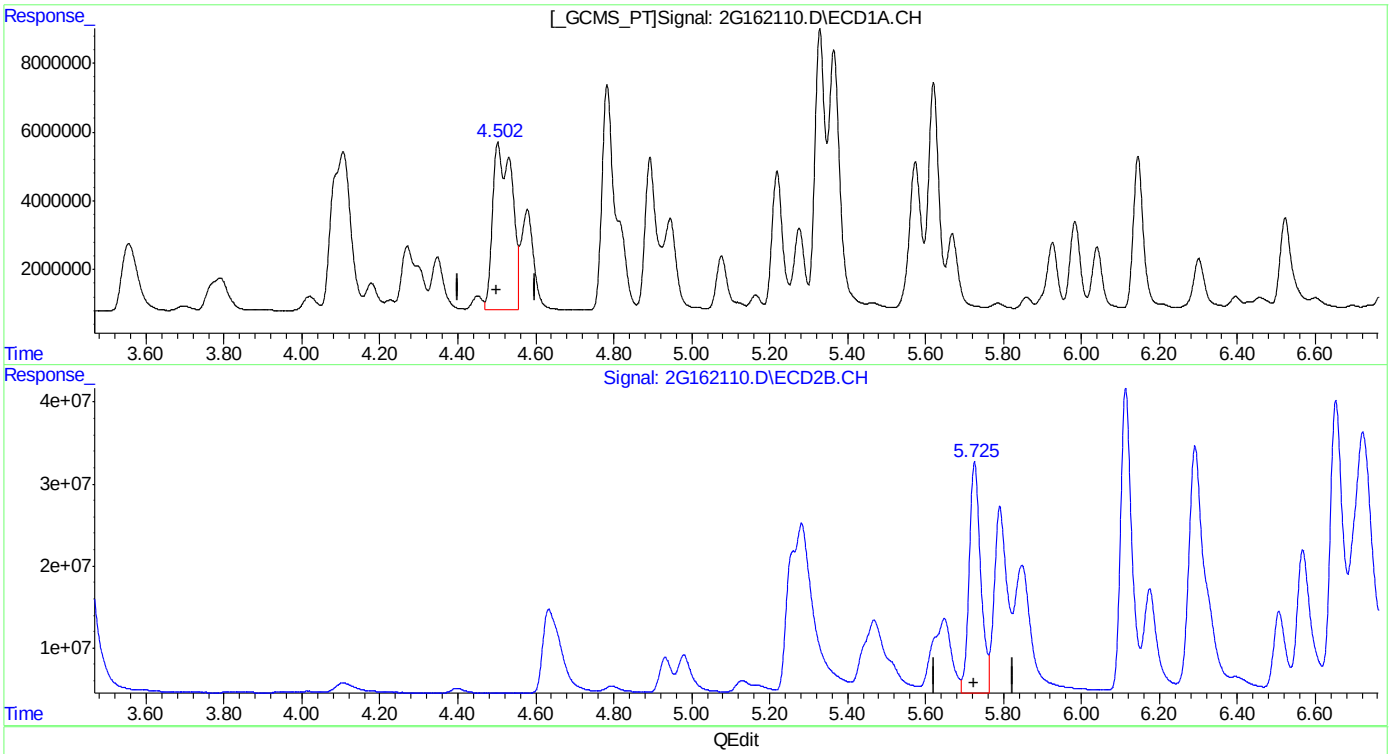
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(19) AR1248-C
4.502min 1001.355PPB m
response 165430599

(19) AR1248-C #2
5.726min 1005.821PPB
response 572997262

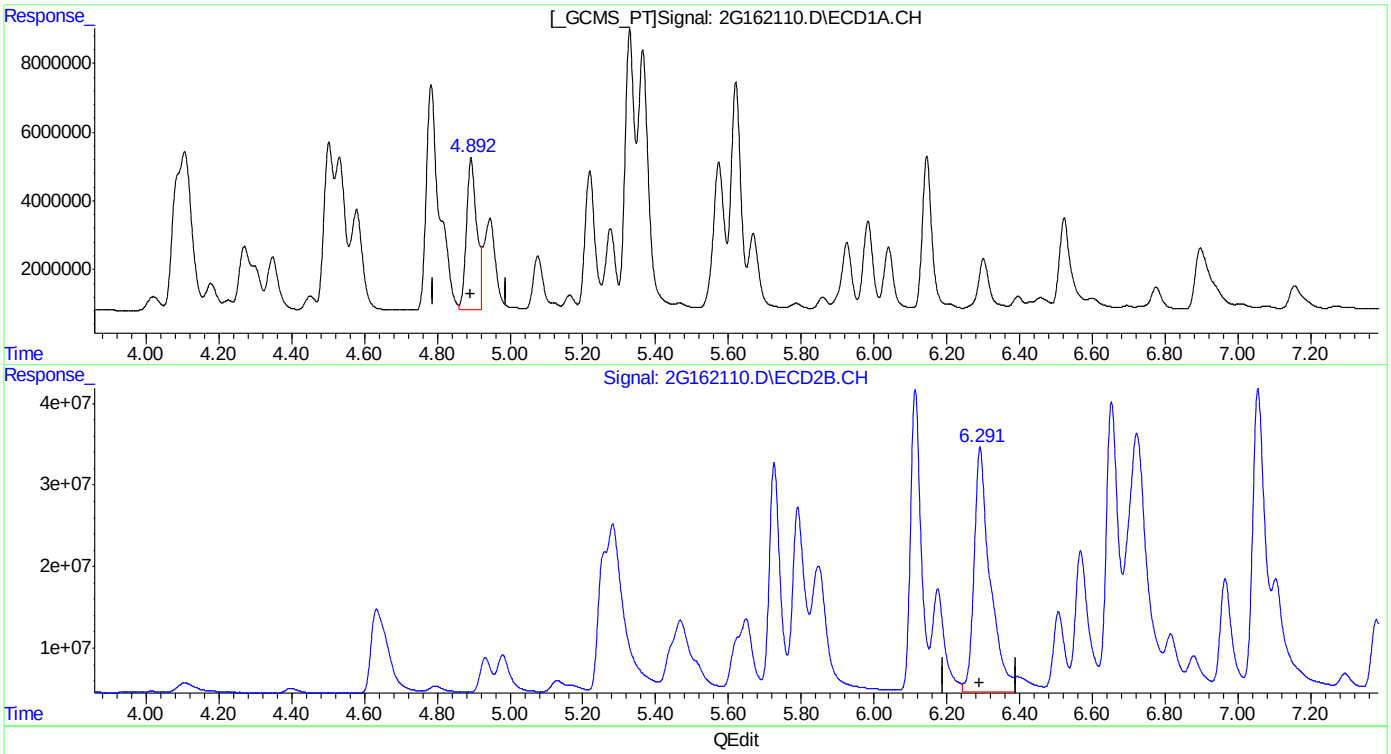
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(21) AR1248-E
4.893min 621.051PPB
response 88230545

(21) AR1248-E #2
6.291min 1038.805PPB
response 914038075

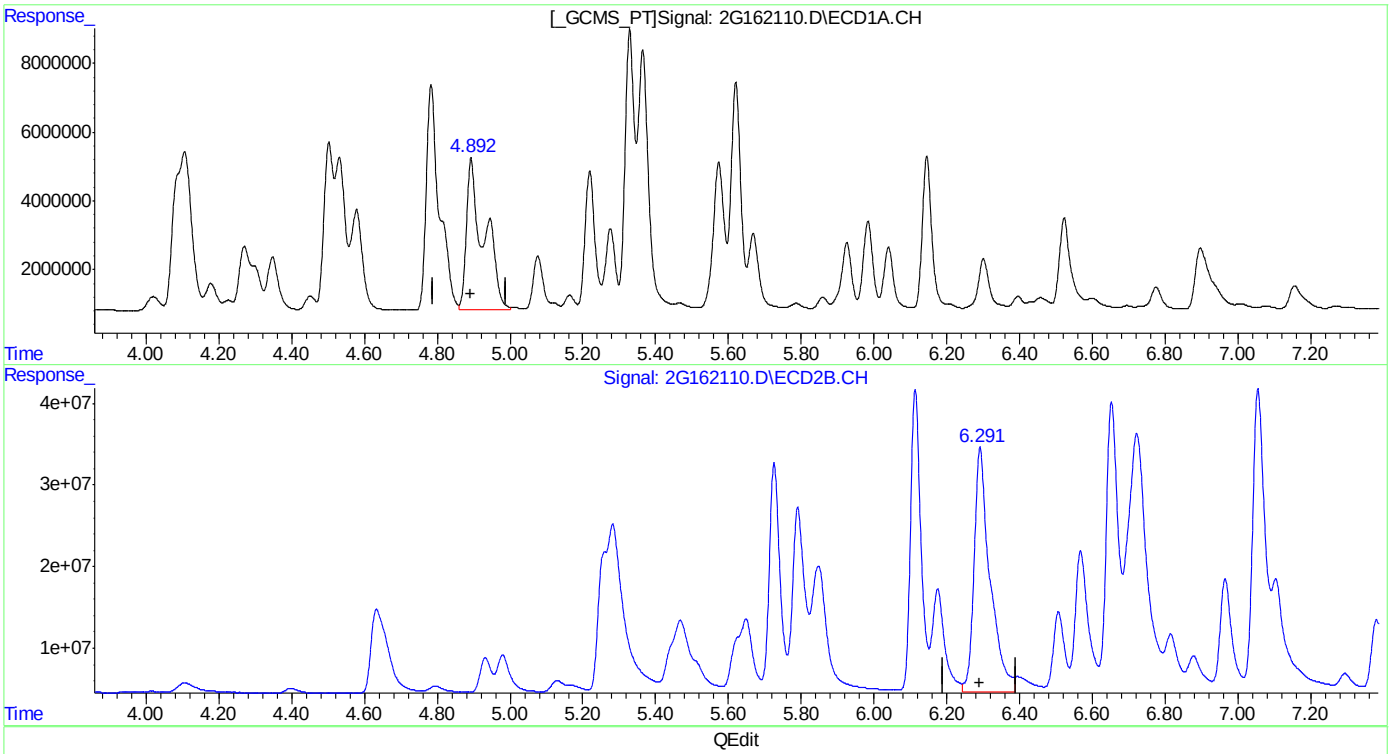
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(21) AR1248-E
4.892min 1030.010PPB m
response 146329784

(21) AR1248-E #2
6.291min 1038.805PPB
response 914038075

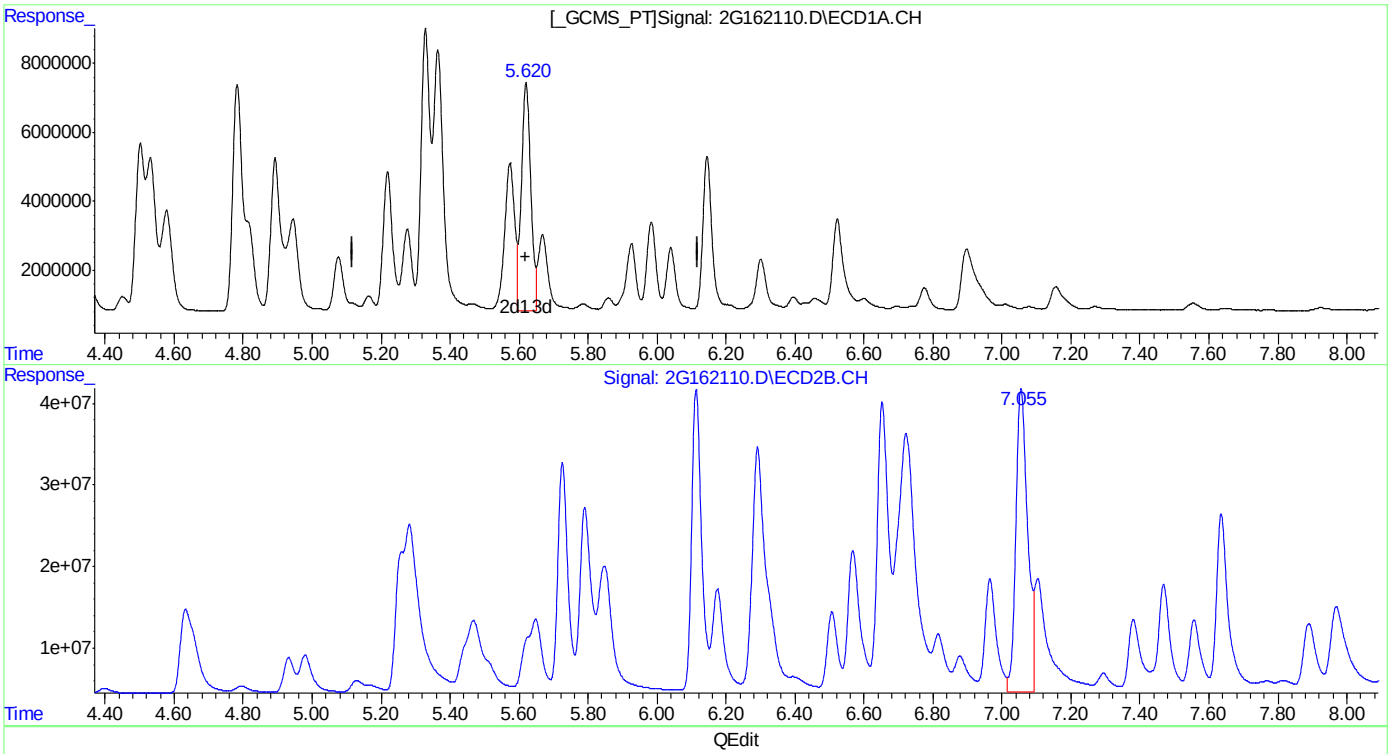
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(23) AR1248-G
5.621min 791.749
response 124478866

(23) AR1248-G #2
7.055min 715.412
response 872937026

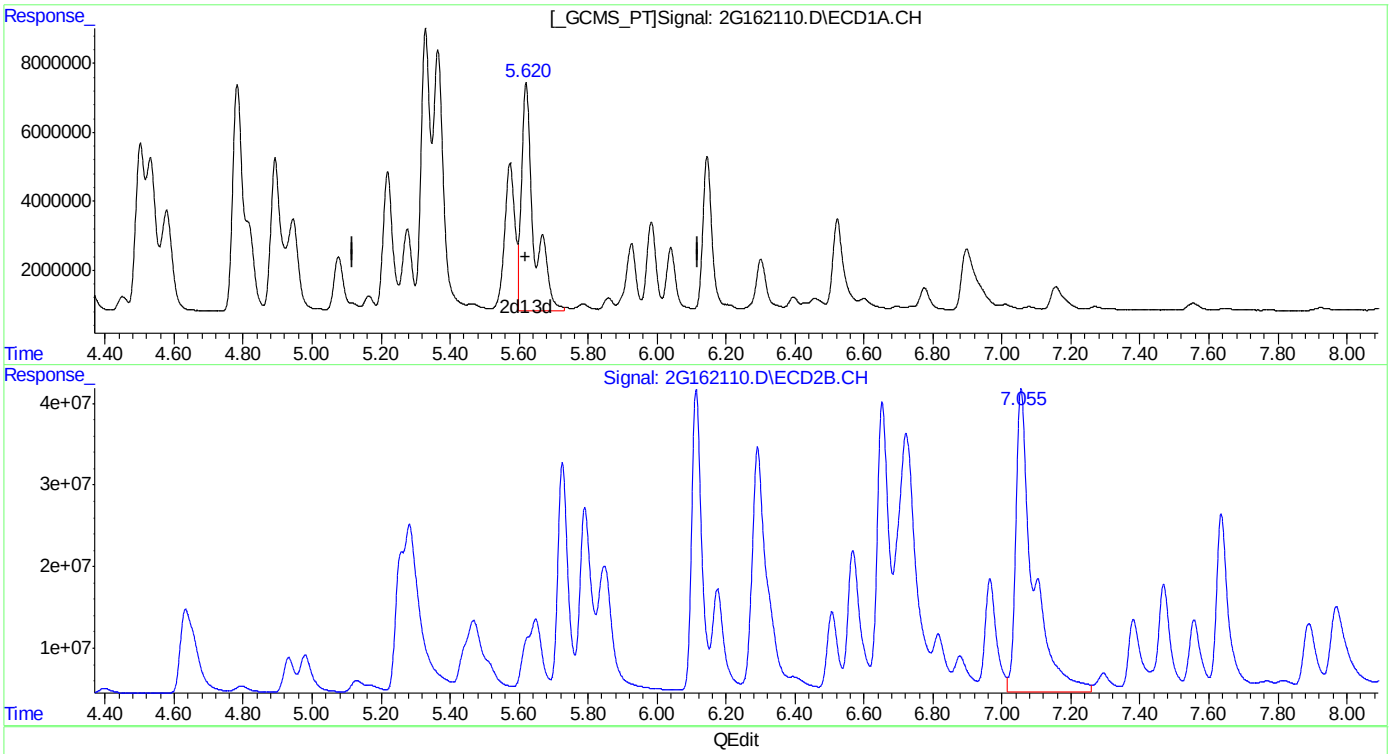
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(23) AR1248-G
5.620min 1074.742 m
response 168970983

(23) AR1248-G #2
7.055min 1070.589 m
response 1306320019

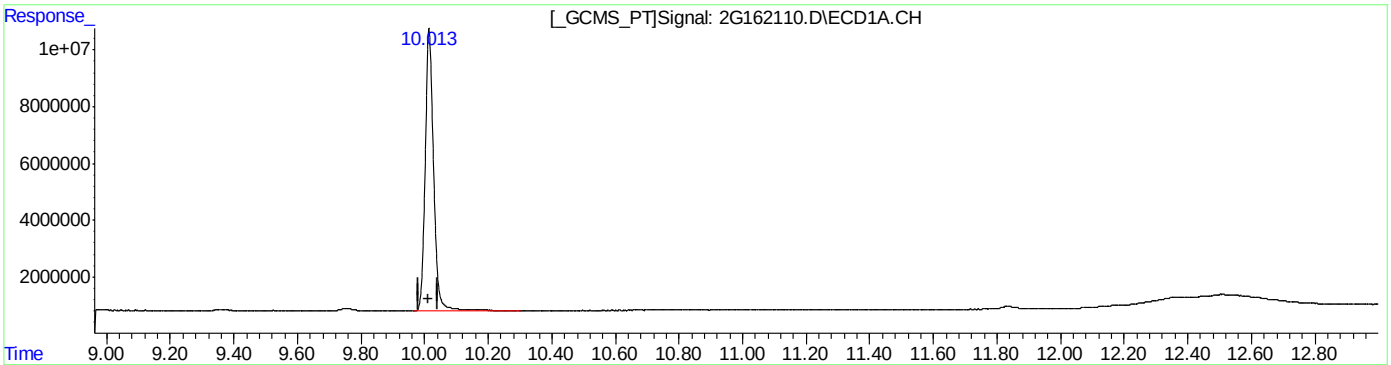
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:40:46 2018 RPT1

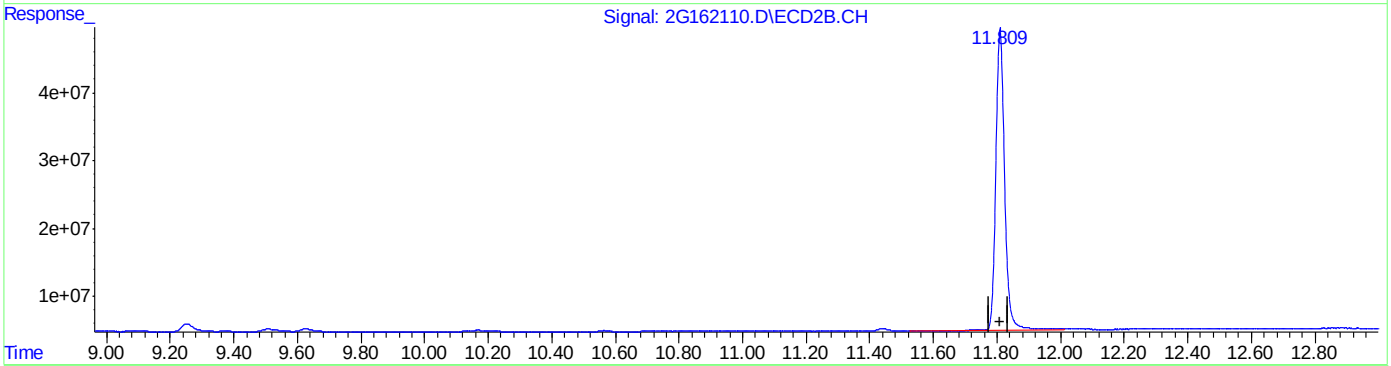
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(51) Decachlorobiphenyl (S)
10.014min 44.625ppb
response 180988260

(51) Decachlorobiphenyl #2 (S)
11.810min 45.408ppb
response 867272515

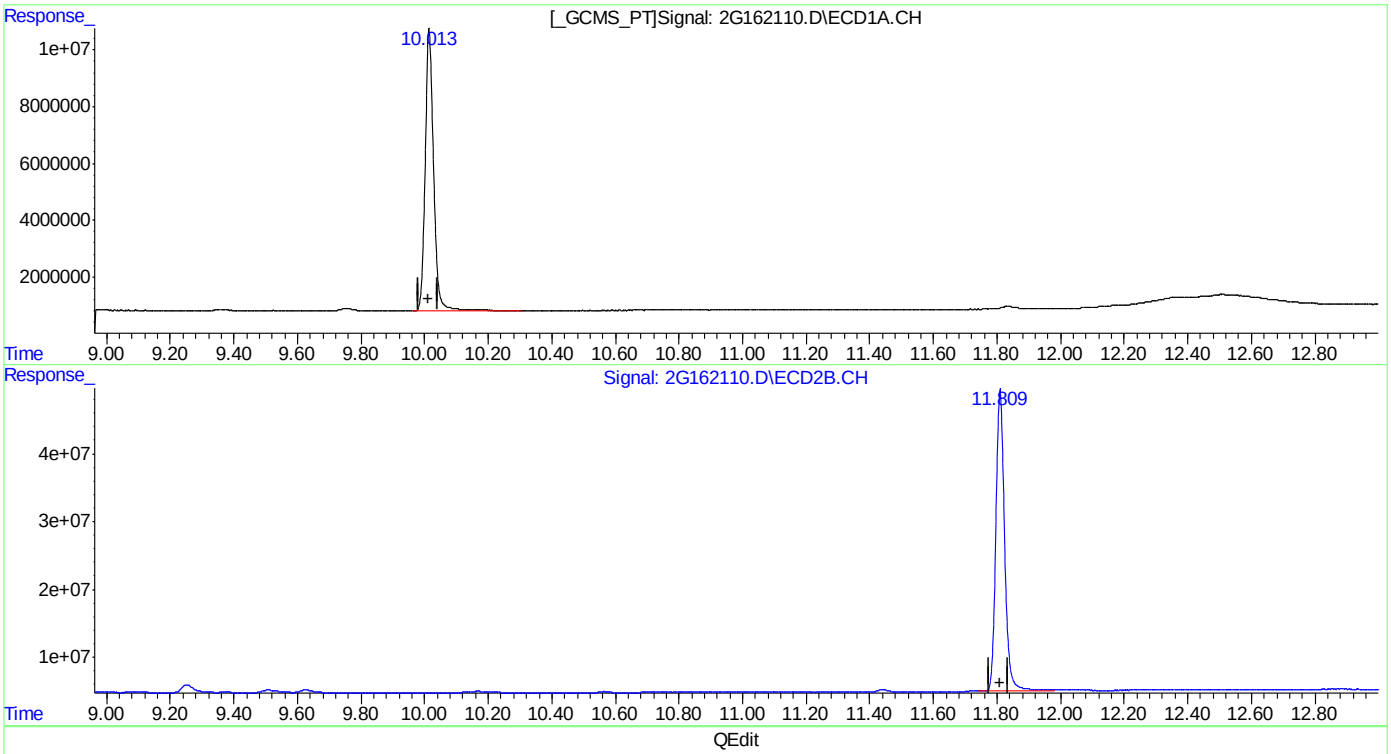
(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:40:53 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162110.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm
Operator : tianweir
Sample : icv4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 16:39:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:41:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(51) Decachlorobiphenyl (S)
10.014min 44.625ppb
response 180988260

(51) Decachlorobiphenyl #2 (S)
11.809min 44.465ppb m
response 849257237

(+) = Expected Retention Time
2PCB4311.M Thu Apr 19 16:40:57 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 06:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:14:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.772	3.425	162.7E6	971.4E6	44.340	42.450
	Spiked Amount 40.000			Recovery	= 110.85%	106.13%	
51) S	Decachlor...	9.957	11.766	142.7E6	776.1E6	35.181	40.633
	Spiked Amount 40.000			Recovery	= 87.95%	101.58%	
	Target Compounds						
31)	AR1016-A	3.142f	4.091	81086782	403.1E6	1041.003	1076.050
32)	AR1016-B	3.537f	4.612	143.0E6	810.7E6	1051.306	1012.024
33)	AR1016-C	4.083	5.265	276.4E6	1586.6E6	953.295	915.163
34)	AR1016-D	4.243	5.449	118.0E6	870.7E6	998.212	1157.412
35)	AR1016-E	4.749f	6.086	124.4E6	519.4E6	1020.341	1012.334
36)	AR1260-A	7.112	8.686	293.3E6	1791.7E6	860.526	896.010m
37)	AR1260-B	7.265f	8.792	161.4E6	1039.1E6	1117.525	1188.452m
38)	AR1260-C	7.602	9.224	161.2E6	1118.9E6	1012.066	1094.808
39)	AR1260-D	8.035	9.580	383.9E6	2459.3E6	1045.658m	1145.734
40)	AR1260-E	8.471f	10.122	371.1E6	2276.1E6	979.682m	1116.732m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

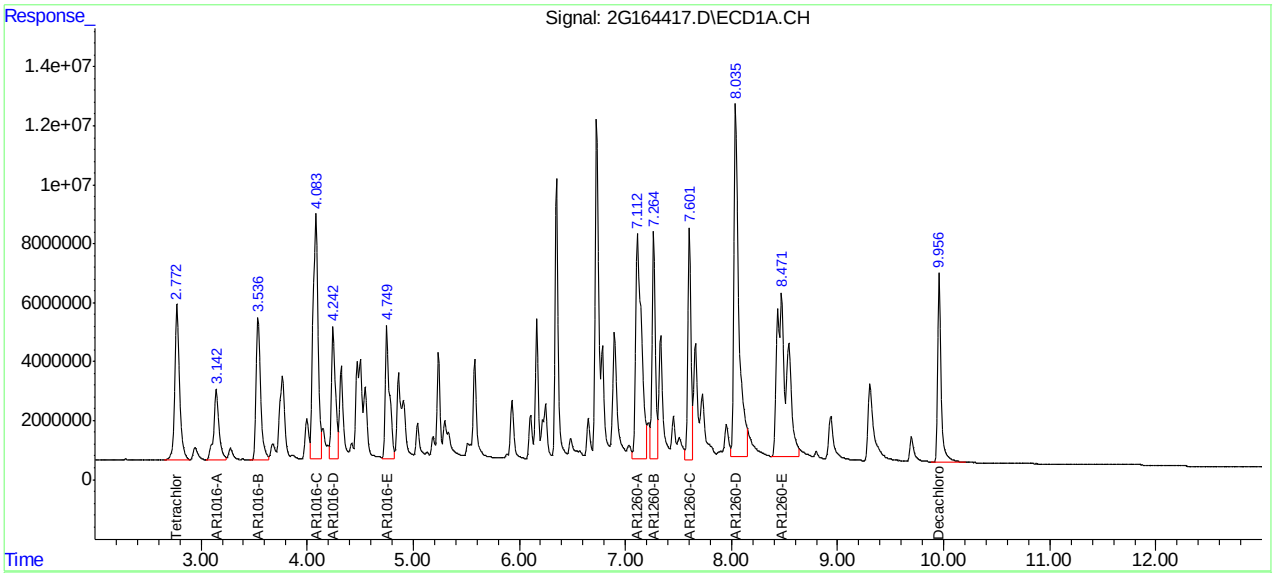
11.6.16
11

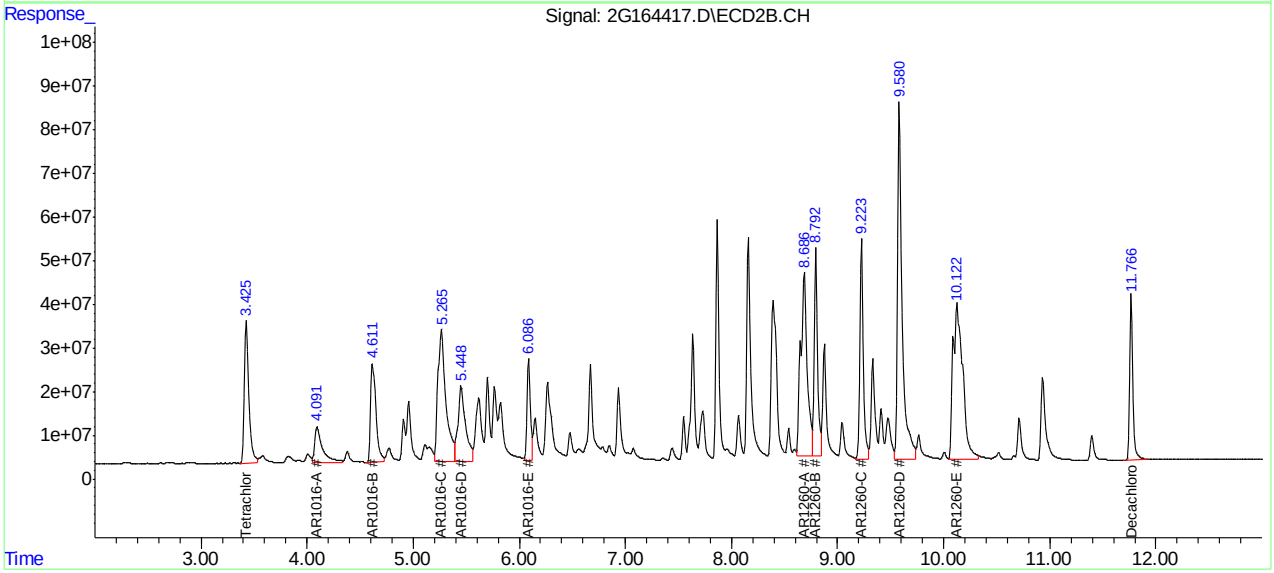
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:14:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4347-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164417.D	**Analyst approved:**	05/28/18 20:01 Edouard Adrian Lee
Injection Time:	05/27/18 21:54	**Supervisor approved:**	05/29/18 06:39 Gwendolyn Burns

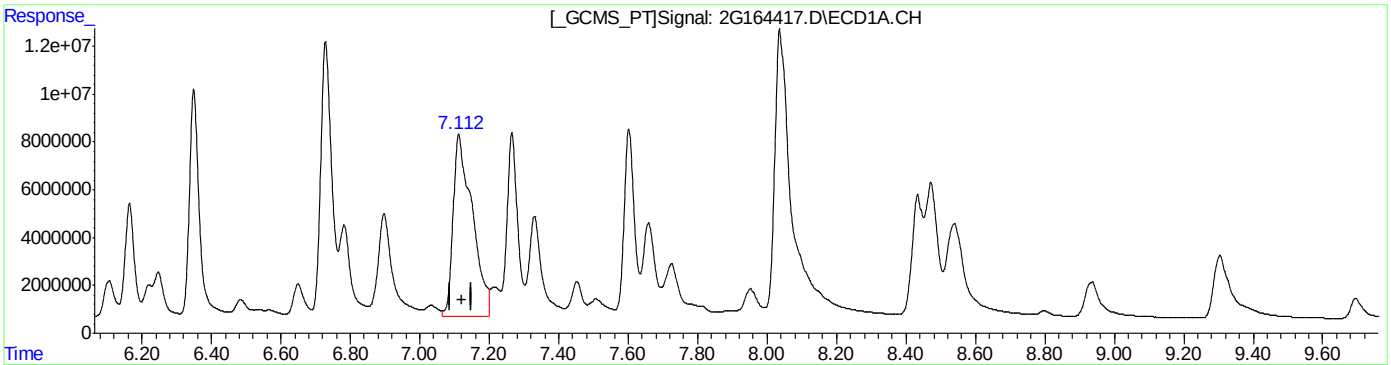
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	8.04	Split peak
AR1260-E		1	8.47	Split peak
AR1260-A		2	8.69	Split peak
AR1260-B		2	8.79	Split peak
AR1260-E		2	10.12	Split peak

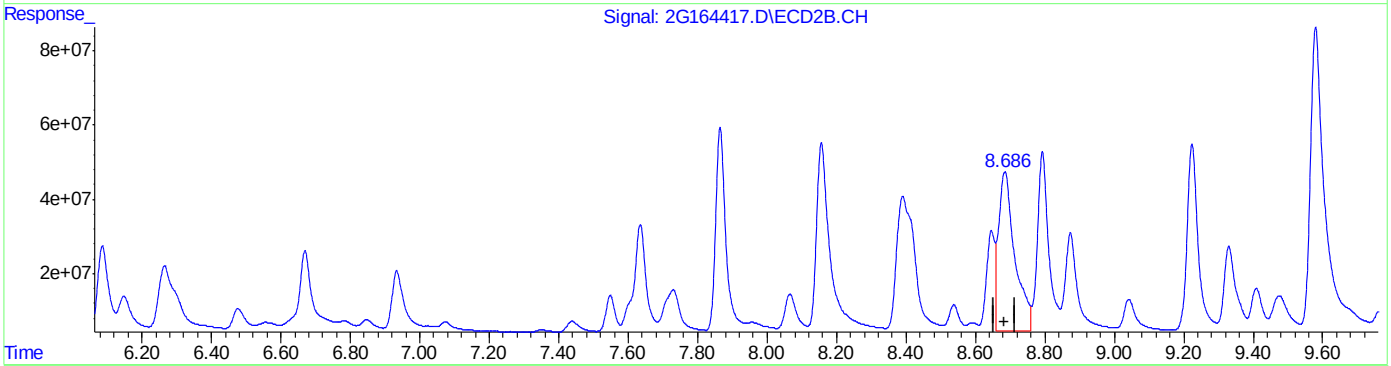
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.112min 860.526PPB
response 293309991

(36) AR1260-A #2
8.685min 707.386PPB
response 1414553017

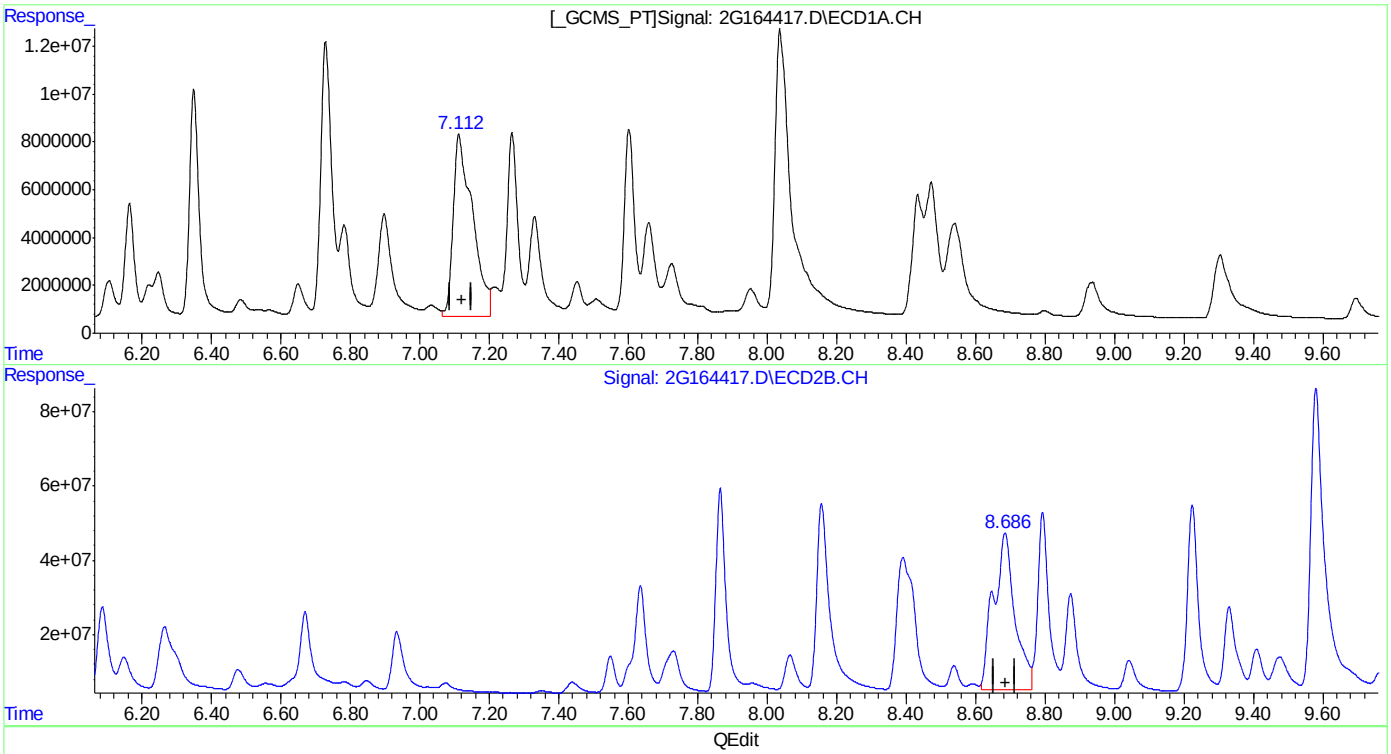
(+) = Expected Retention Time
2PCB4311.M Sun May 27 22:12:29 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(36) AR1260-A
7.112min 860.526PPB
response 293309991

(36) AR1260-A #2
8.686min 896.010PPB m
response 1791743336

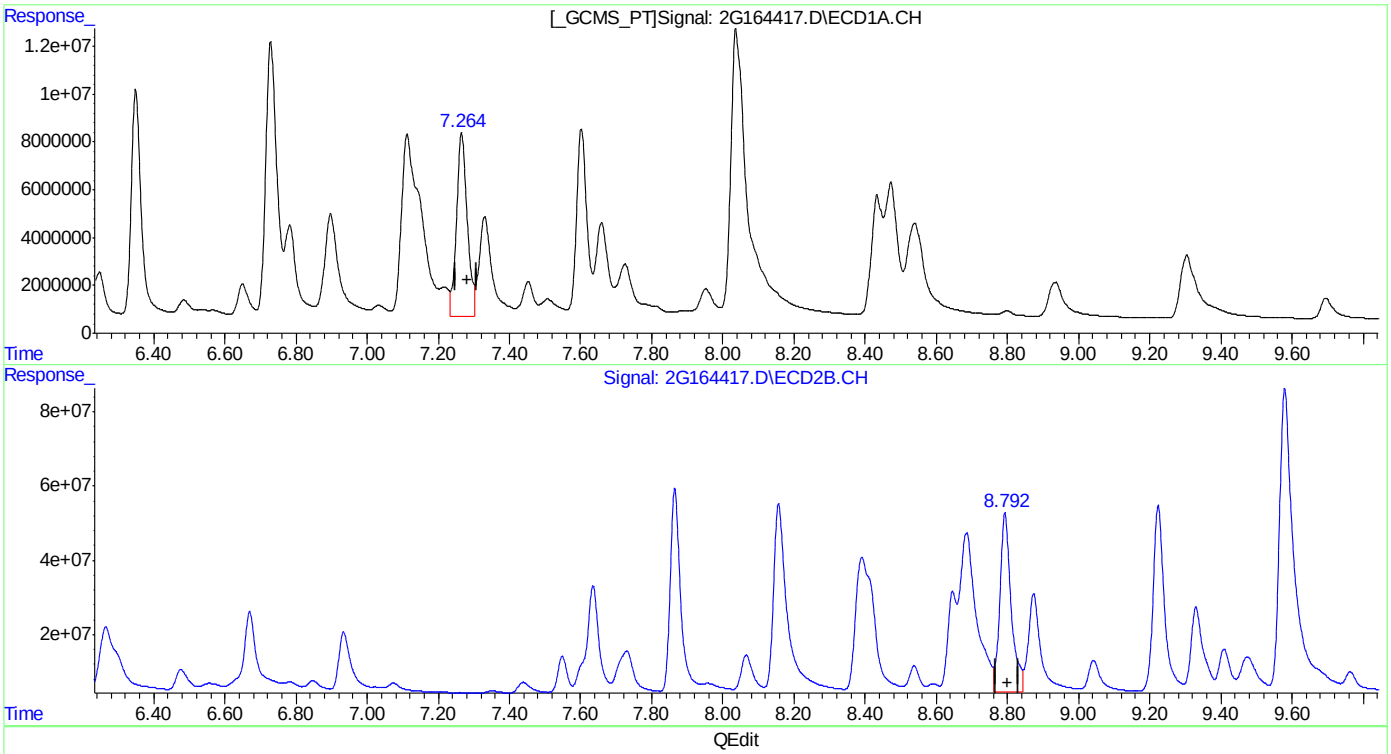
(+) = Expected Retention Time
2PCB4311.M Sun May 27 22:13:11 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(37) AR1260-B
7.265min 1117.525PPB
response 161419282

(37) AR1260-B #2
8.793min 1233.802PPB
response 1078780951

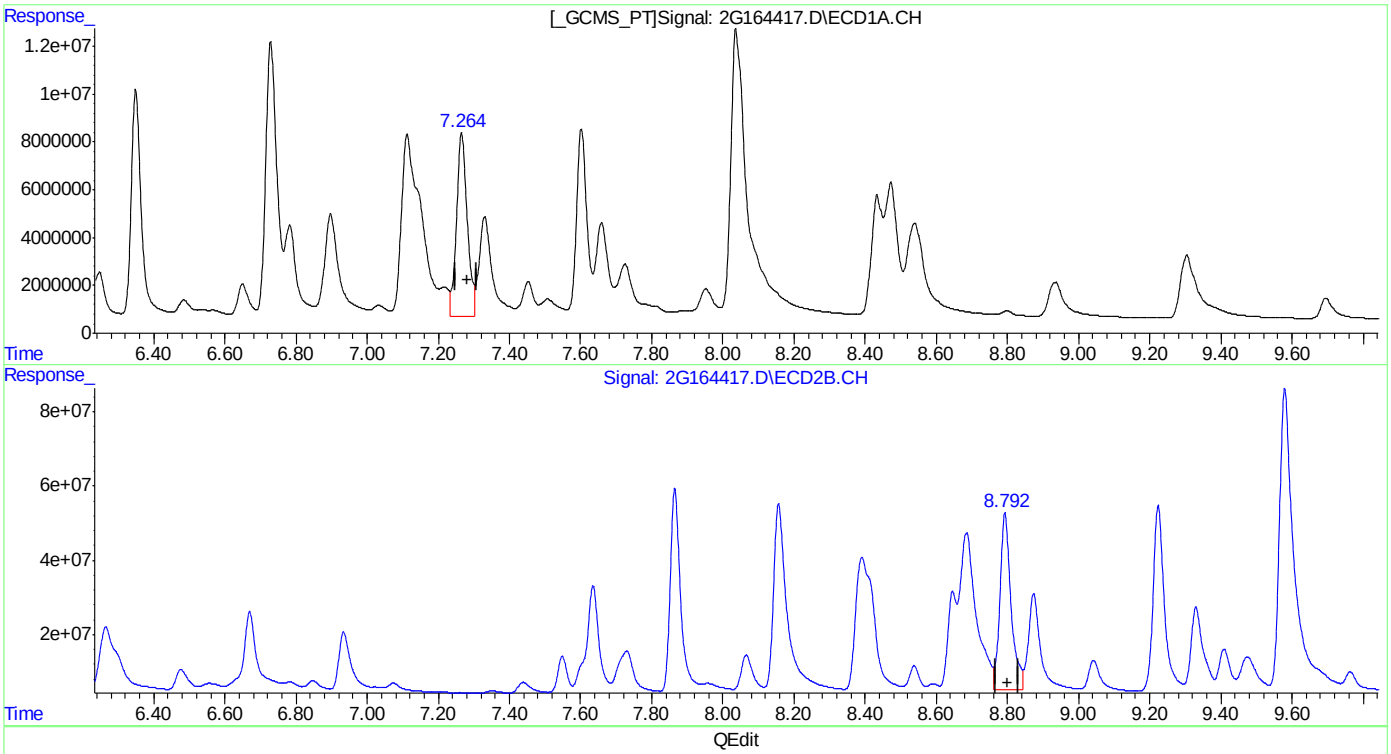
(+) = Expected Retention Time
2PCB4311.M Sun May 27 22:13:17 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(37) AR1260-B
7.265min 1117.525PPB
response 161419282

(37) AR1260-B #2
8.792min 1188.452PPB m
response 1039128870

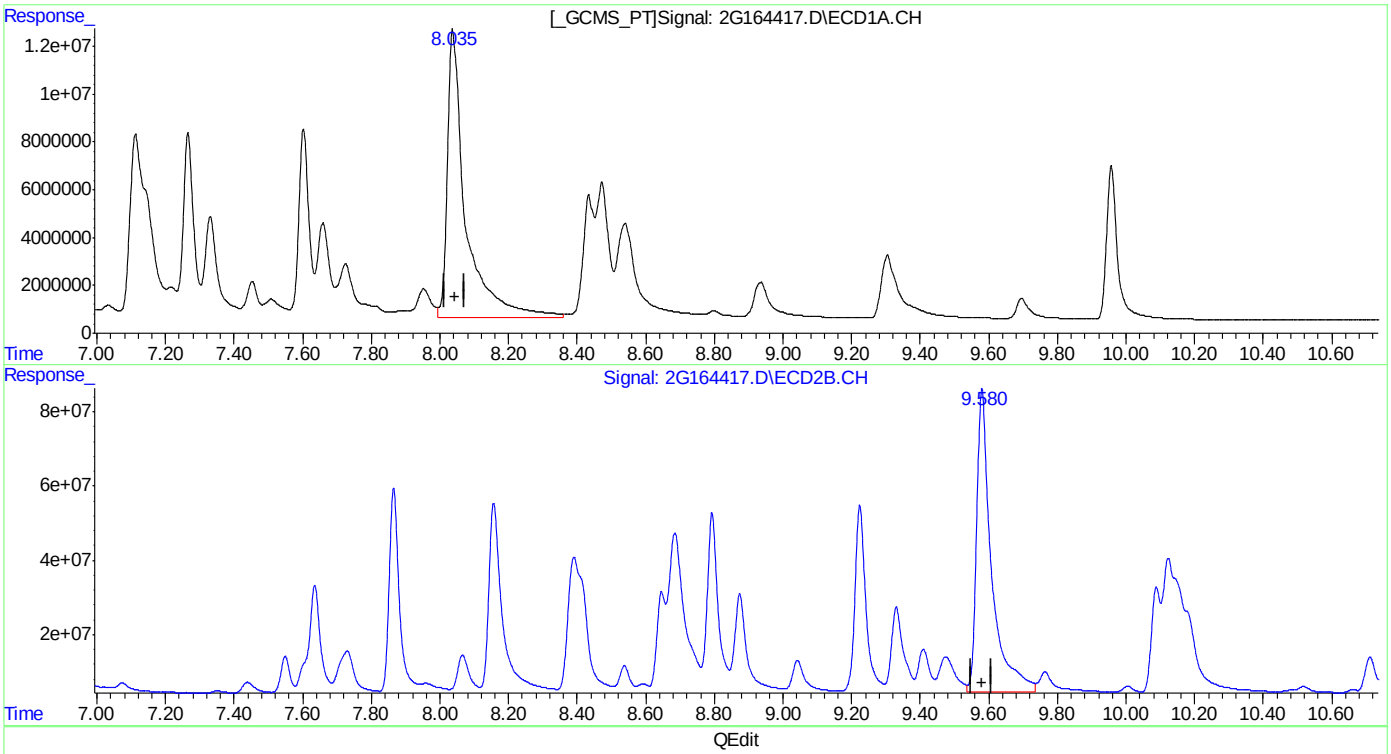
(+) = Expected Retention Time
2PCB4311.M Sun May 27 22:13:34 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.037min 1203.077PPB
response 441704707

(39) AR1260-D #2
9.580min 1145.734PPB
response 2459313148

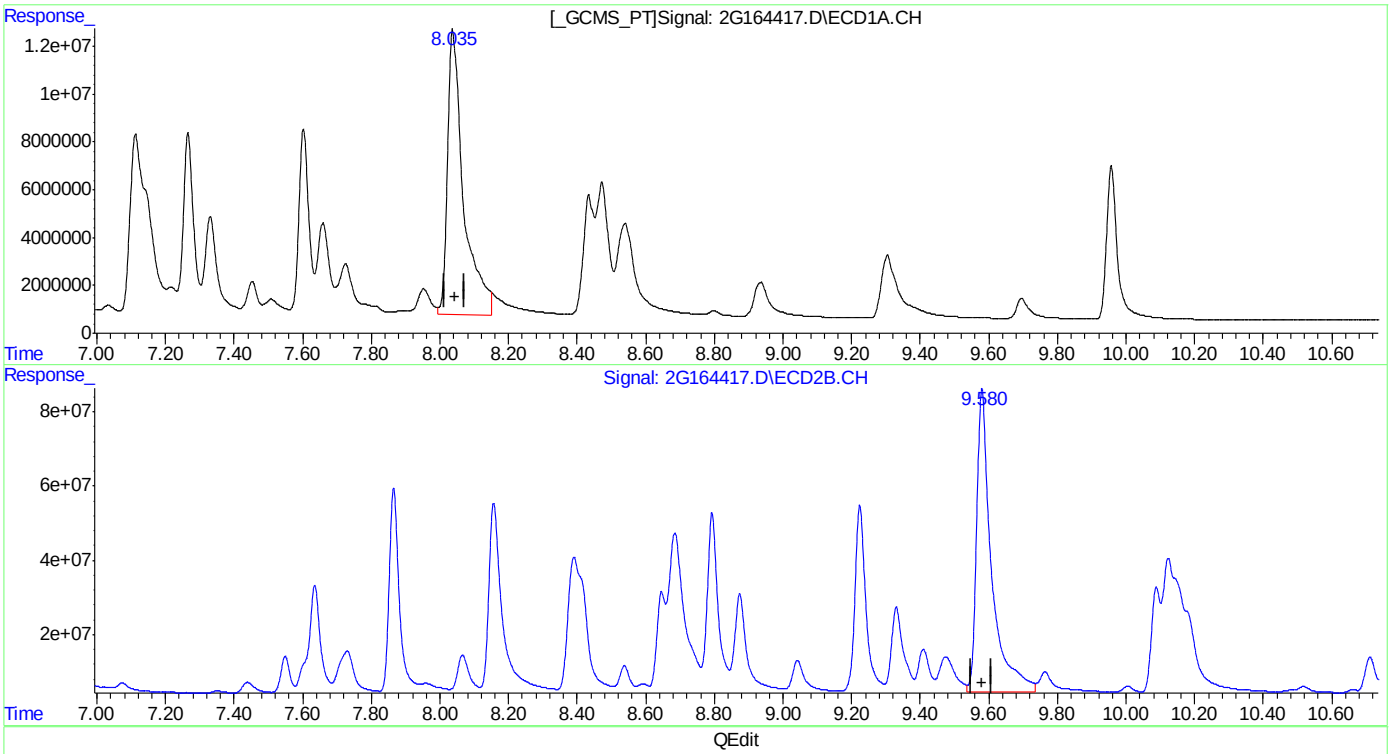
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.035min 1045.658PPB m
response 383908822

(39) AR1260-D #2
9.580min 1145.734PPB
response 2459313148

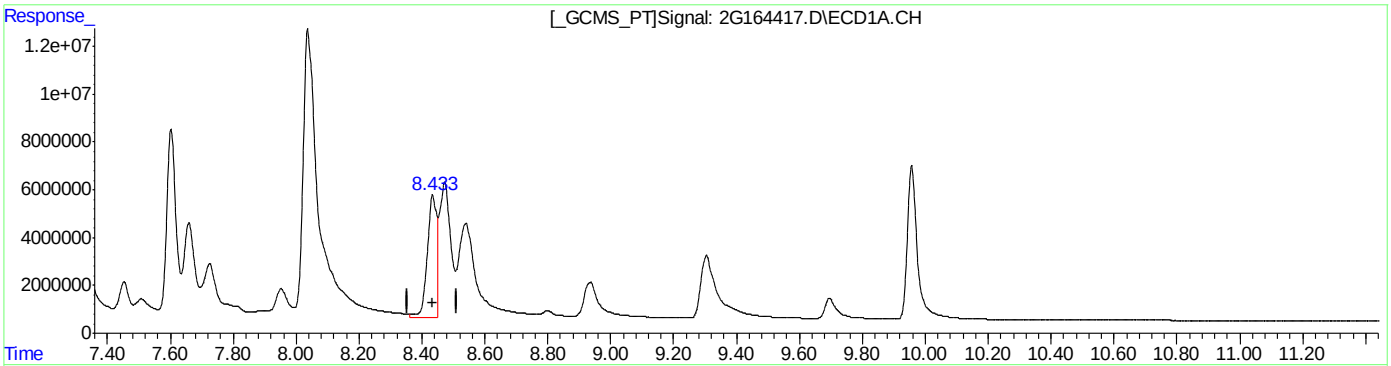
(+) = Expected Retention Time

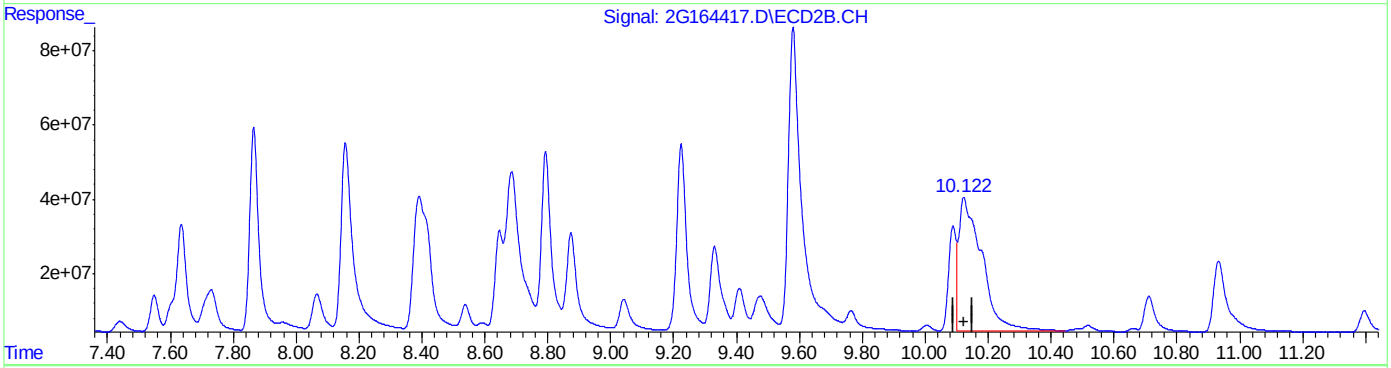
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.434min 284.804PPB
response 107880273

(40) AR1260-E #2
10.123min 891.899PPB
response 1817843619

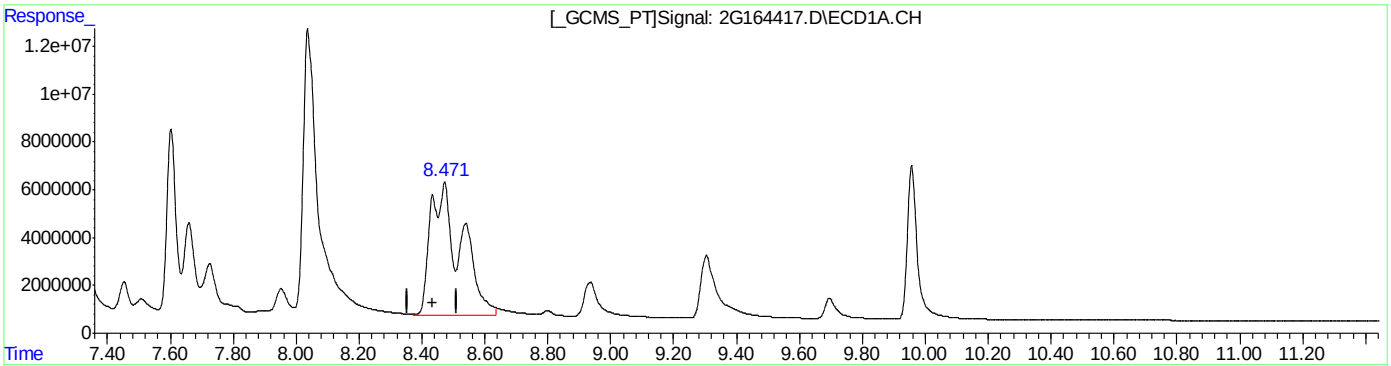
(+) = Expected Retention Time

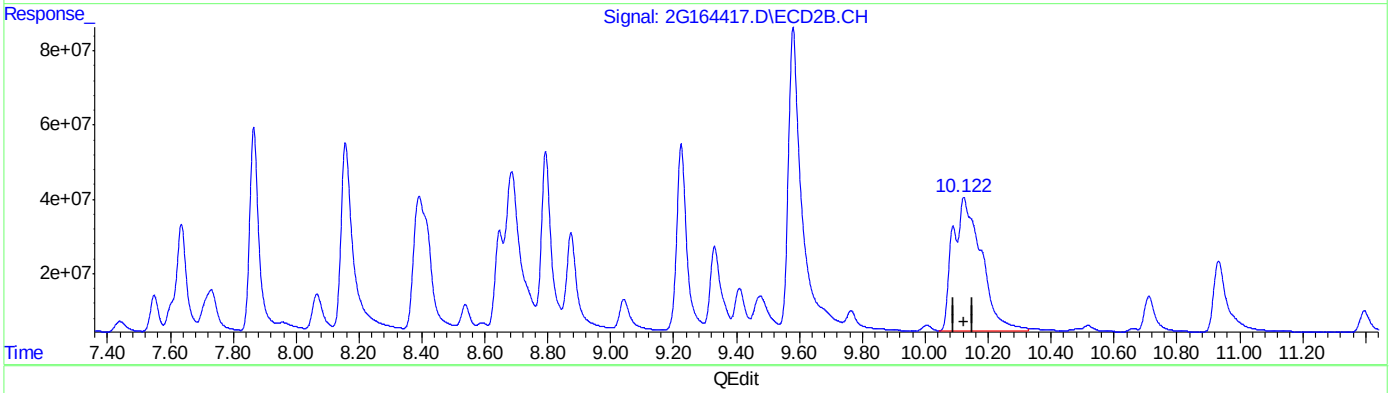
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 May 2018 9:54 pm
Operator : edouarda
Sample : cc4311-1000
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 27 22:11:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.471min 979.682PPB m
response 371091538

(40) AR1260-E #2
10.122min 1116.732PPB m
response 2276091131

(+) = Expected Retention Time
2PCB4311.M Sun May 27 22:14:31 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 06:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:51:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.775	3.425	82134109	477.1E6	22.377	20.850
	Spiked Amount 40.000			Recovery	=	55.94%	52.13%
51) S	Decachlor...	9.961	11.766	73542429	391.4E6	18.133	20.495
	Spiked Amount 40.000			Recovery	=	45.33%	51.24%
	Target Compounds						
31)	AR1016-A	3.145	4.096	43619414	207.8E6	559.992	554.589
32)	AR1016-B	3.540	4.614	74867764	418.8E6	550.264	522.768
33)	AR1016-C	4.087	5.272	137.5E6	744.8E6	474.179	429.601m
34)	AR1016-D	4.247	5.453	60544015	442.7E6	512.067	588.433m
35)	AR1016-E	4.754	6.088	63064988	261.1E6	517.205	508.977
36)	AR1260-A	7.112	8.685	147.1E6	899.7E6	431.575	449.944m
37)	AR1260-B	7.268	8.794	81602894	522.7E6	564.946	597.846m
38)	AR1260-C	7.608	9.224	81584363	553.2E6	512.370	541.316
39)	AR1260-D	8.040	9.580	167.5E6	1189.4E6	456.182m	554.131
40)	AR1260-E	8.436	10.122	189.5E6	1149.7E6	500.387m	564.082m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

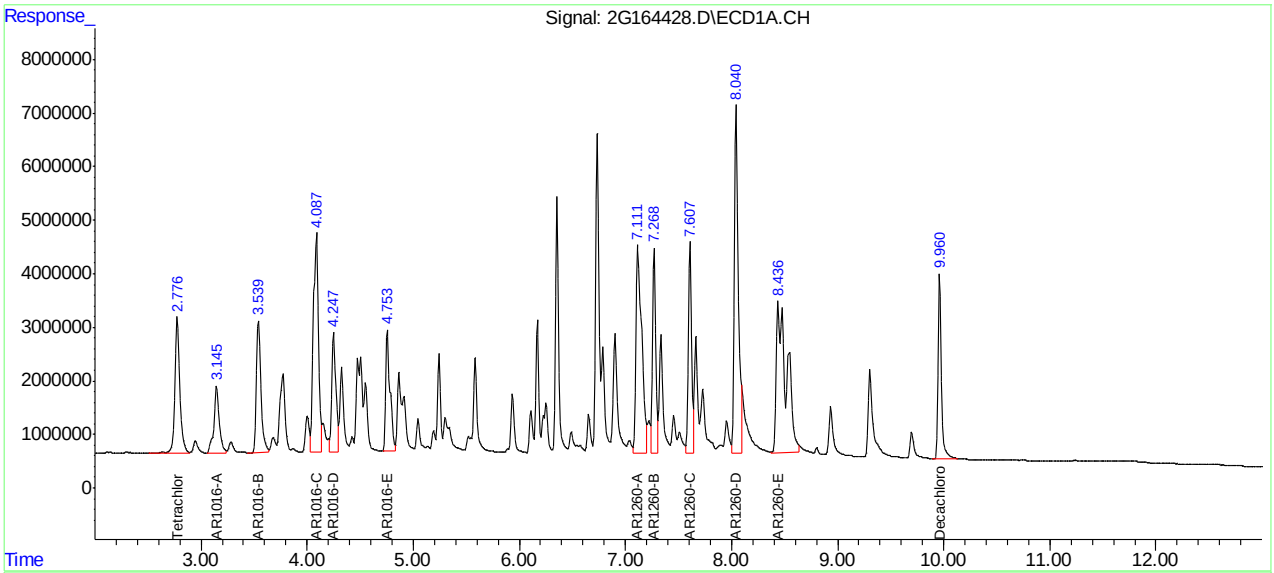
11.6.17 11

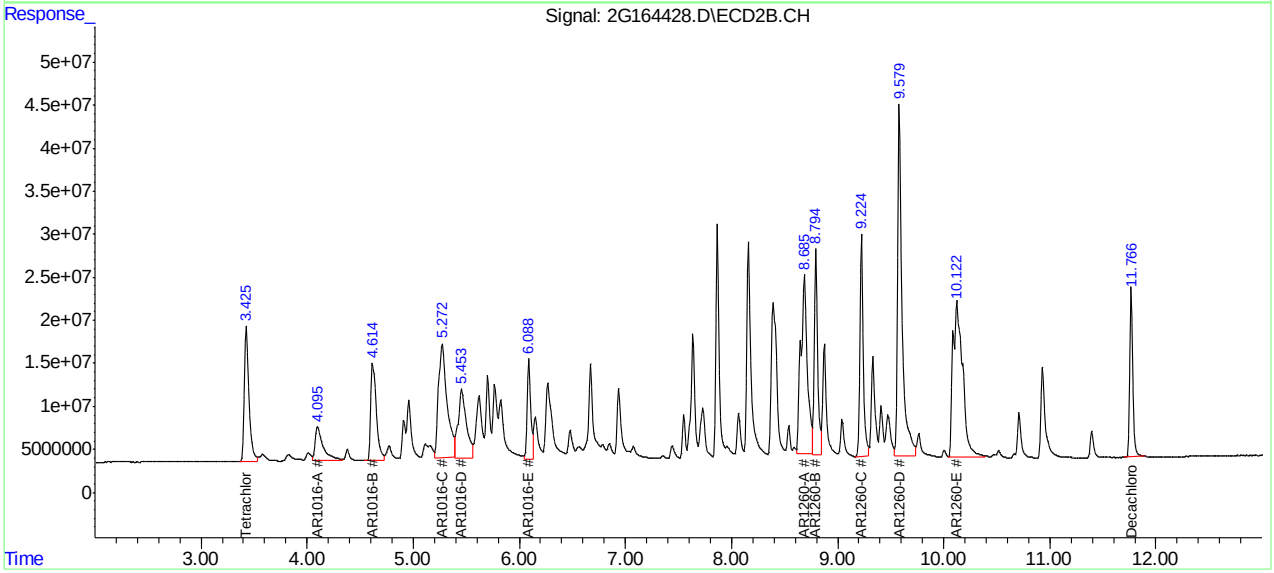
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:51:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





JC66384

Manual Integration Approval Summary

Sample Number: G2G4347-CC4311 **Method:** SW846 8082A
Lab FileID: 2G164428.D **Analyst approved:** 05/28/18 20:01 Edouard Adrian Lee
Injection Time: 05/28/18 01:00 **Supervisor approved:** 05/29/18 06:43 Gwendolyn Burns

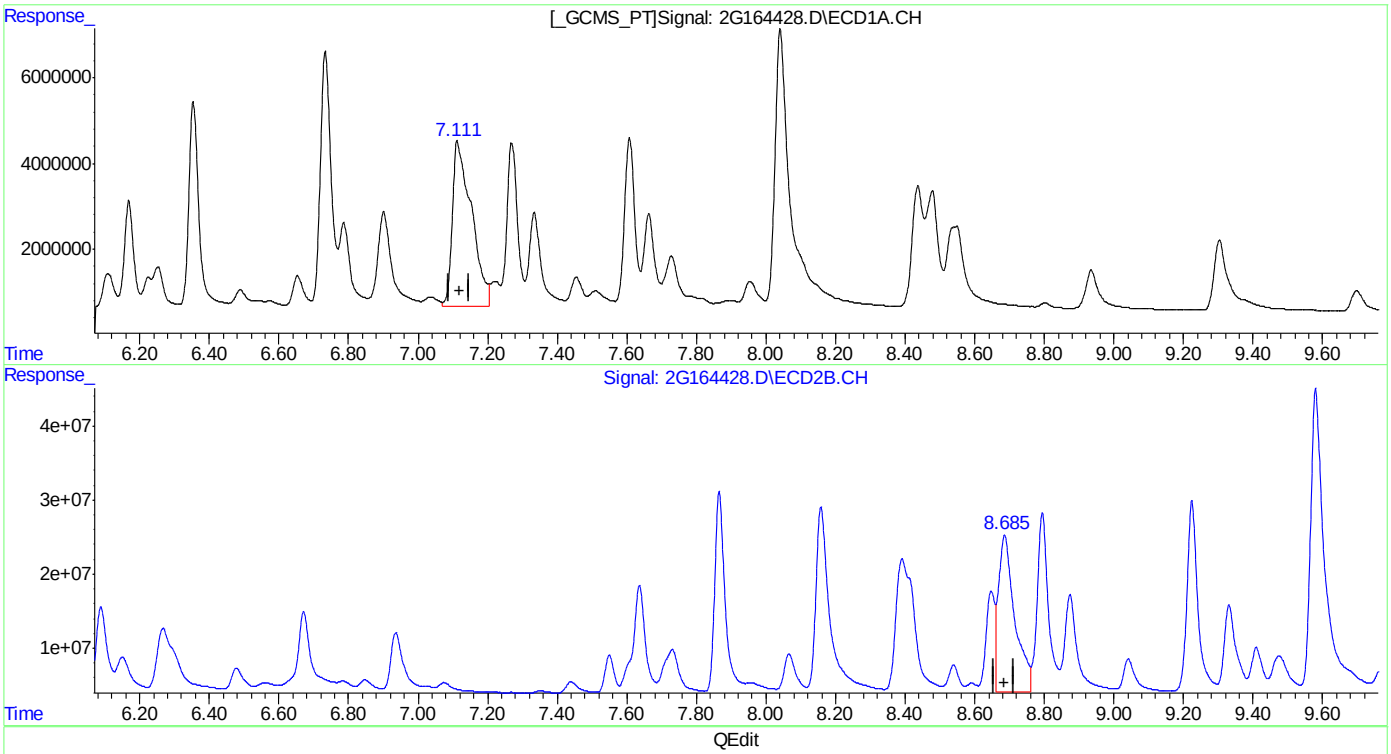
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-C		2	5.27	Split peak
AR1016-D		2	5.45	Split peak
AR1260-D		1	8.04	Split peak
AR1260-E		1	8.44	Split peak
AR1260-A		2	8.69	Split peak
AR1260-B		2	8.79	Split peak
AR1260-E		2	10.12	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:48:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.112min 431.575PPB
response 147102164

(36) AR1260-A #2
8.686min 345.994PPB
response 691880625

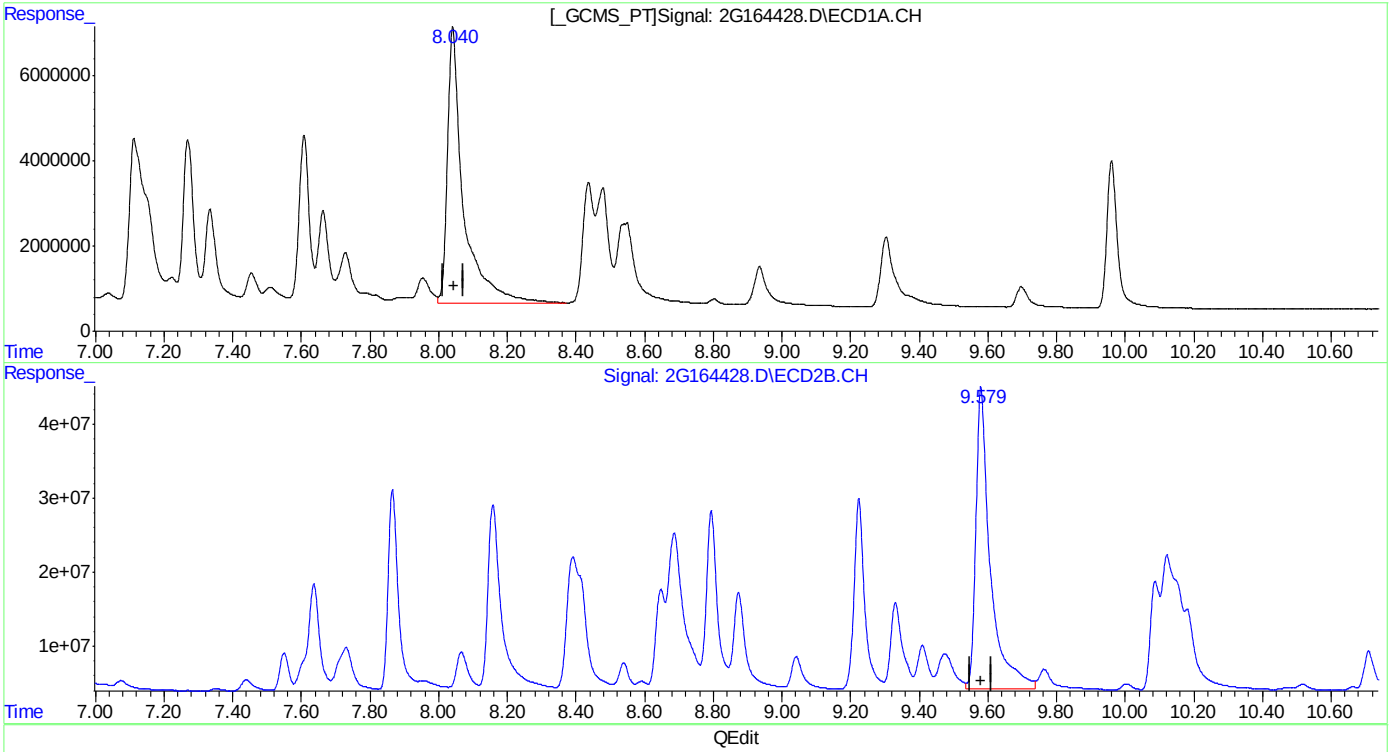
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:48:30 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:48:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.041min 575.176PPB
response 211173563

(39) AR1260-D #2
9.580min 554.131PPB
response 1189439391

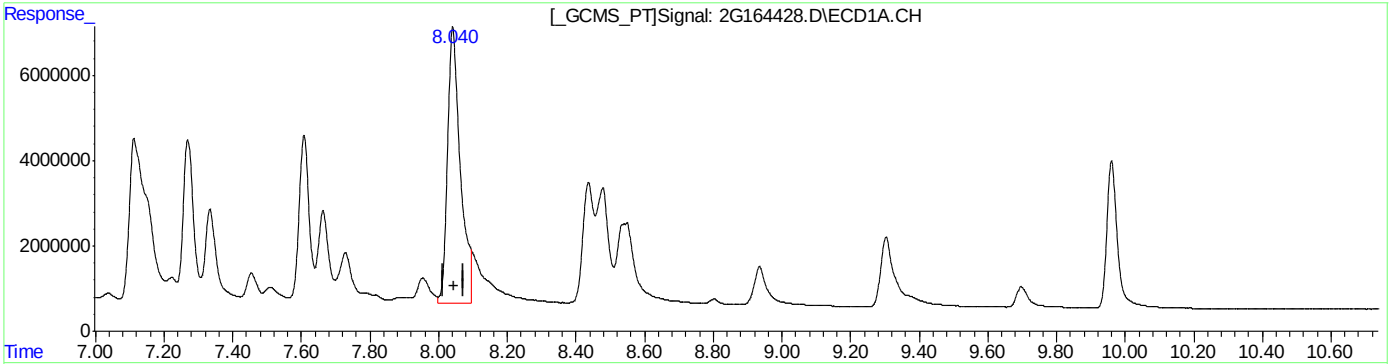
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:48:45 2018 RPT1

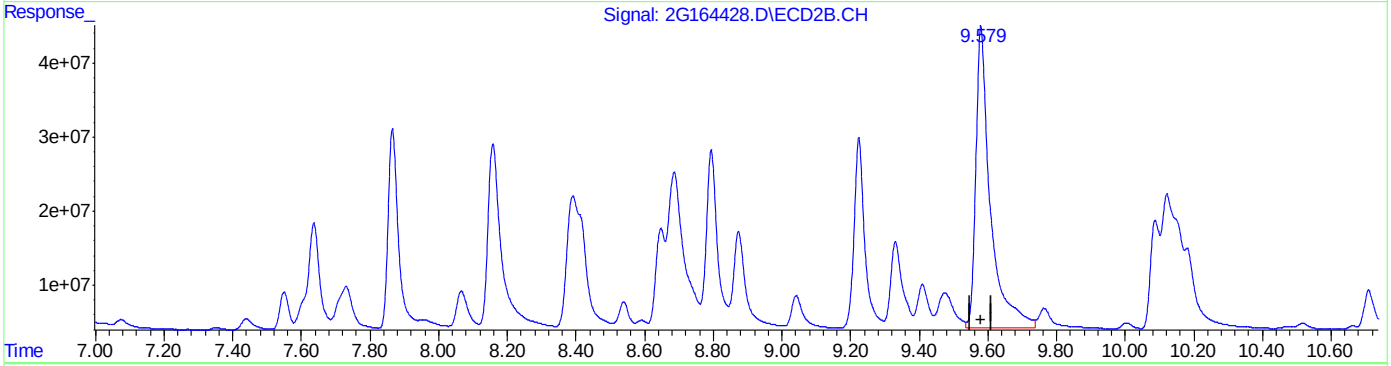
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:48:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.040min 456.182PPB m
response 167485416

(39) AR1260-D #2
9.580min 554.131PPB
response 1189439391

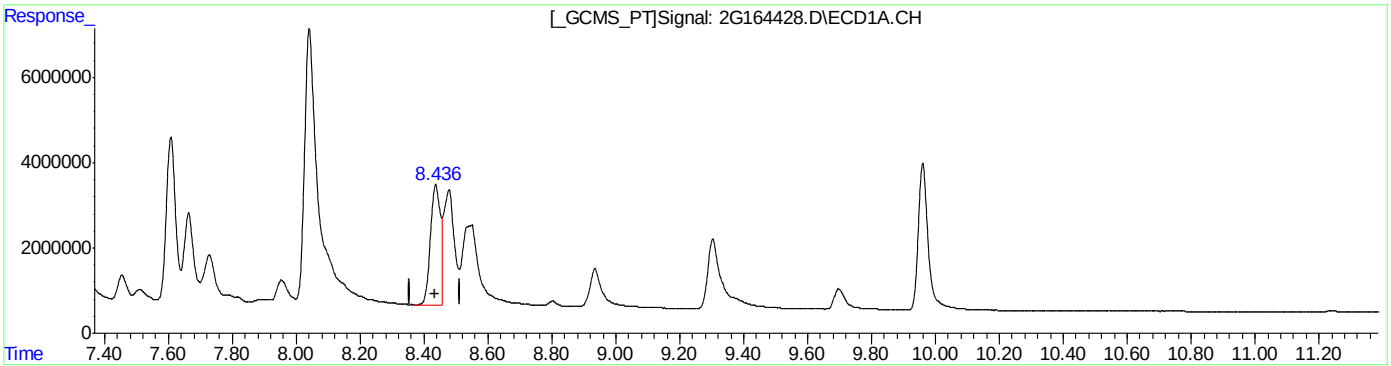
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:48:53 2018 RPT1

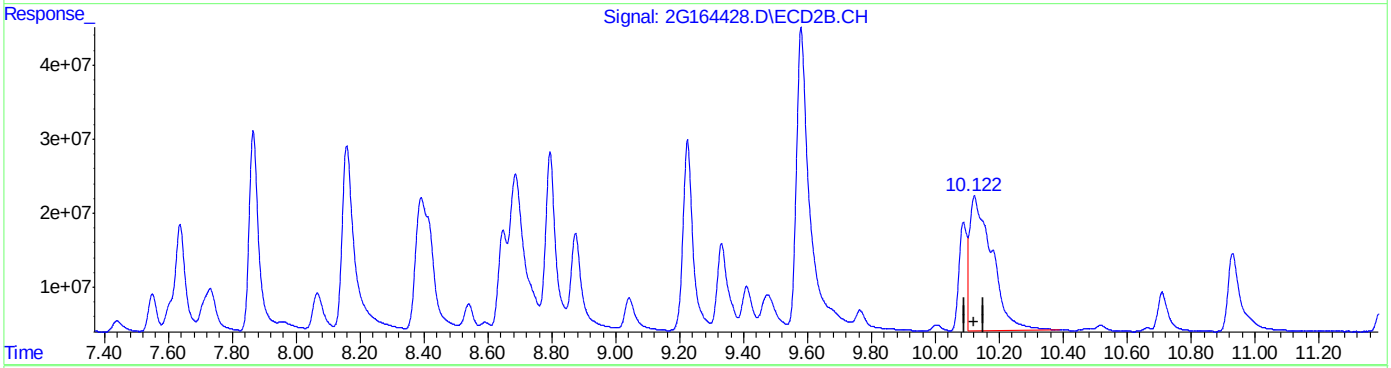
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:48:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.437min 159.214PPB
response 60308152

(40) AR1260-E #2
10.122min 435.225PPB
response 887063527

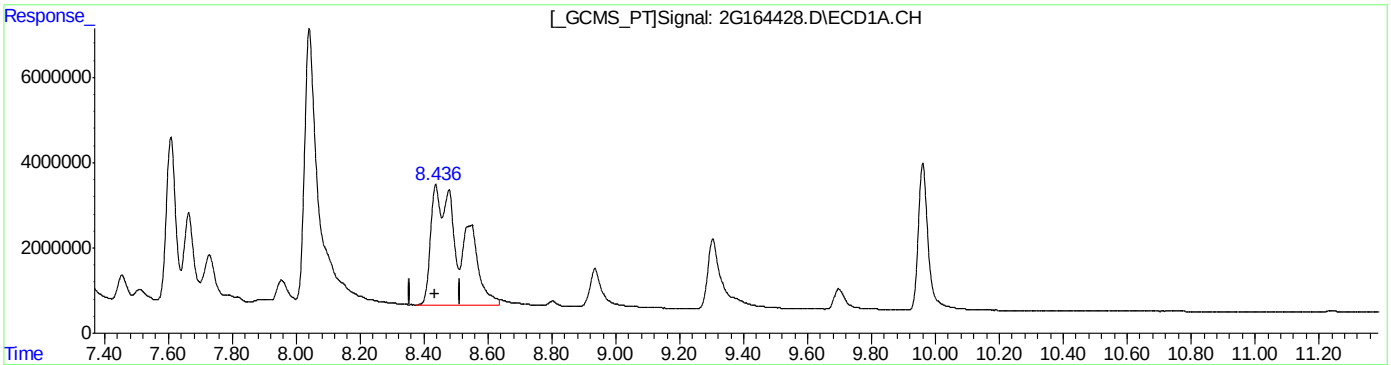
(+) = Expected Retention Time

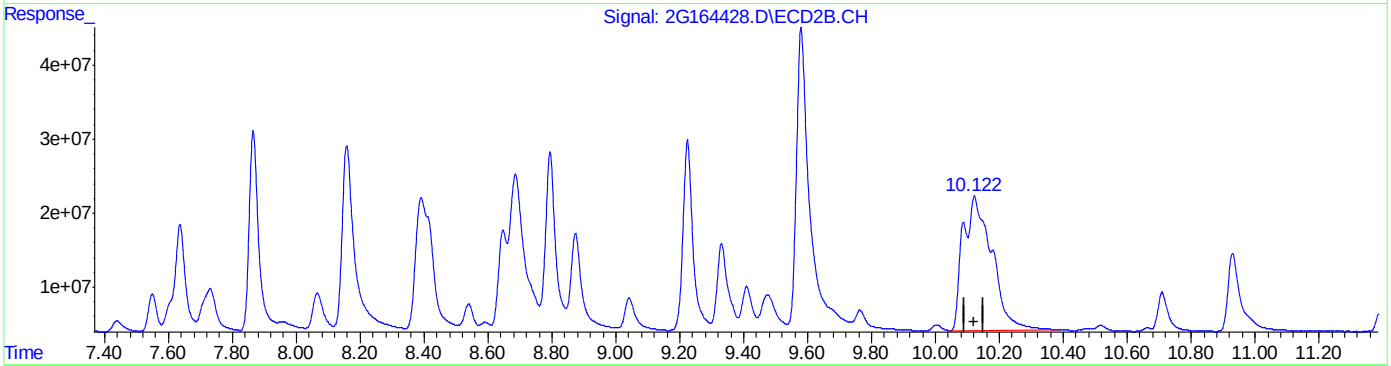
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:48:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.436min 500.387PPB m
response 189540239

(40) AR1260-E #2
10.122min 564.082PPB m
response 1149695788

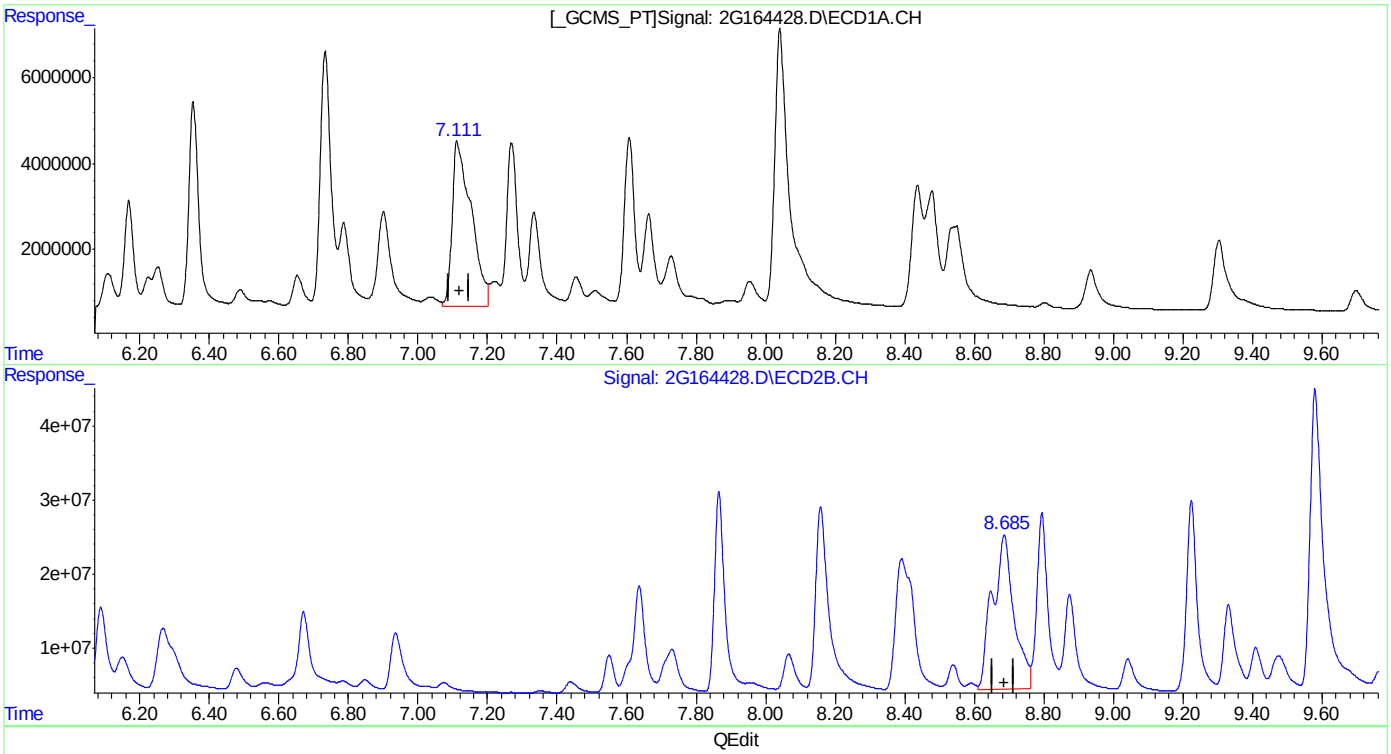
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:49:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.112min 431.575PPB
response 147102164

(36) AR1260-A #2
8.685min 449.944PPB m
response 899748203

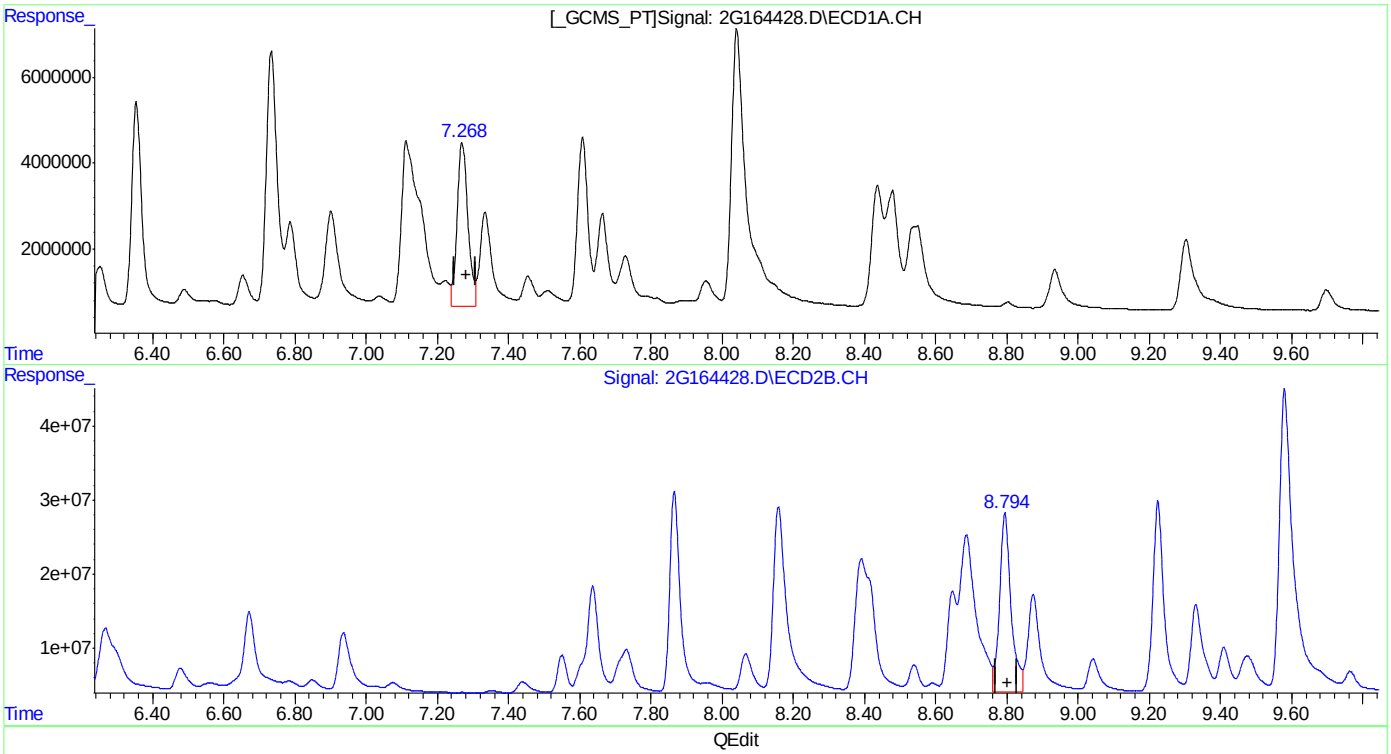
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:49:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(37) AR1260-B
7.268min 564.946PPB
response 81602894

(37) AR1260-B #2
8.794min 615.167PPB
response 537874755

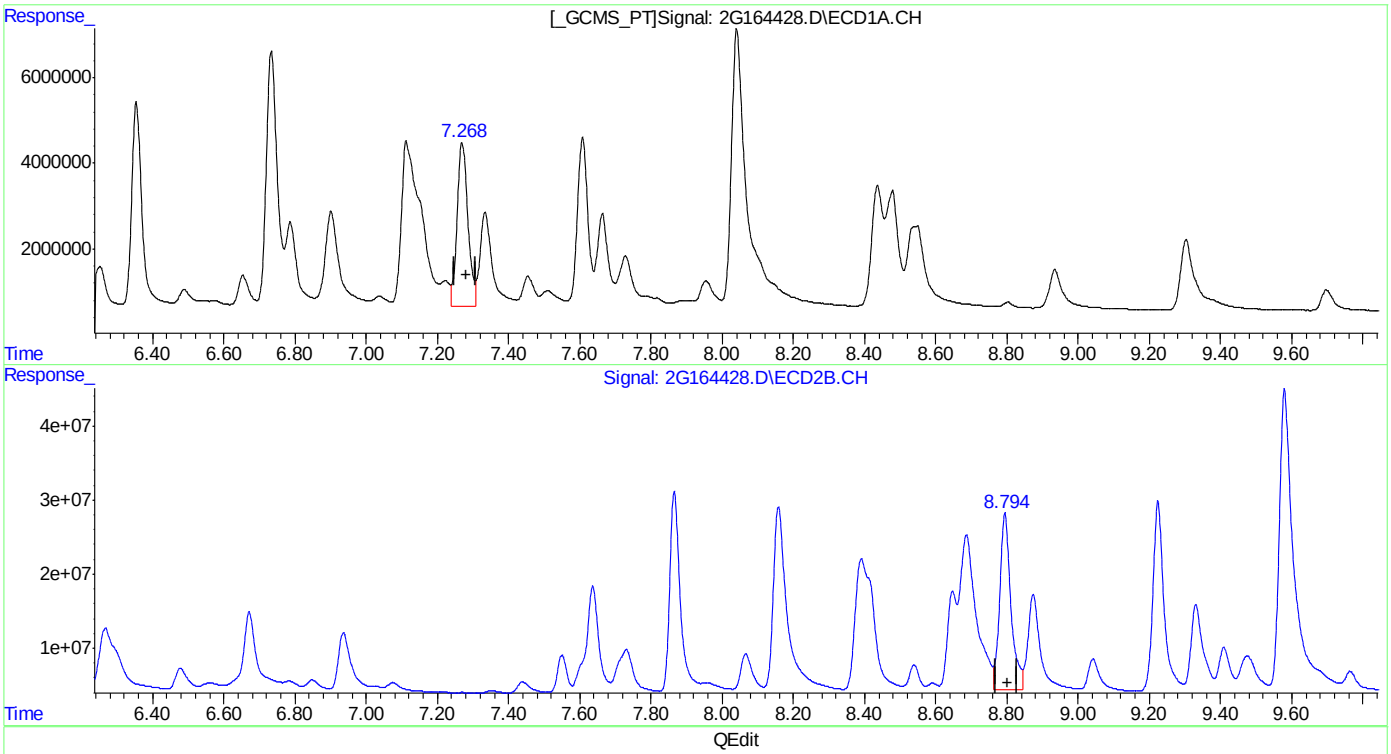
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:49:51 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:49:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(37) AR1260-B
7.268min 564.946PPB
response 81602894

(37) AR1260-B #2
8.794min 597.846PPB m
response 522729644

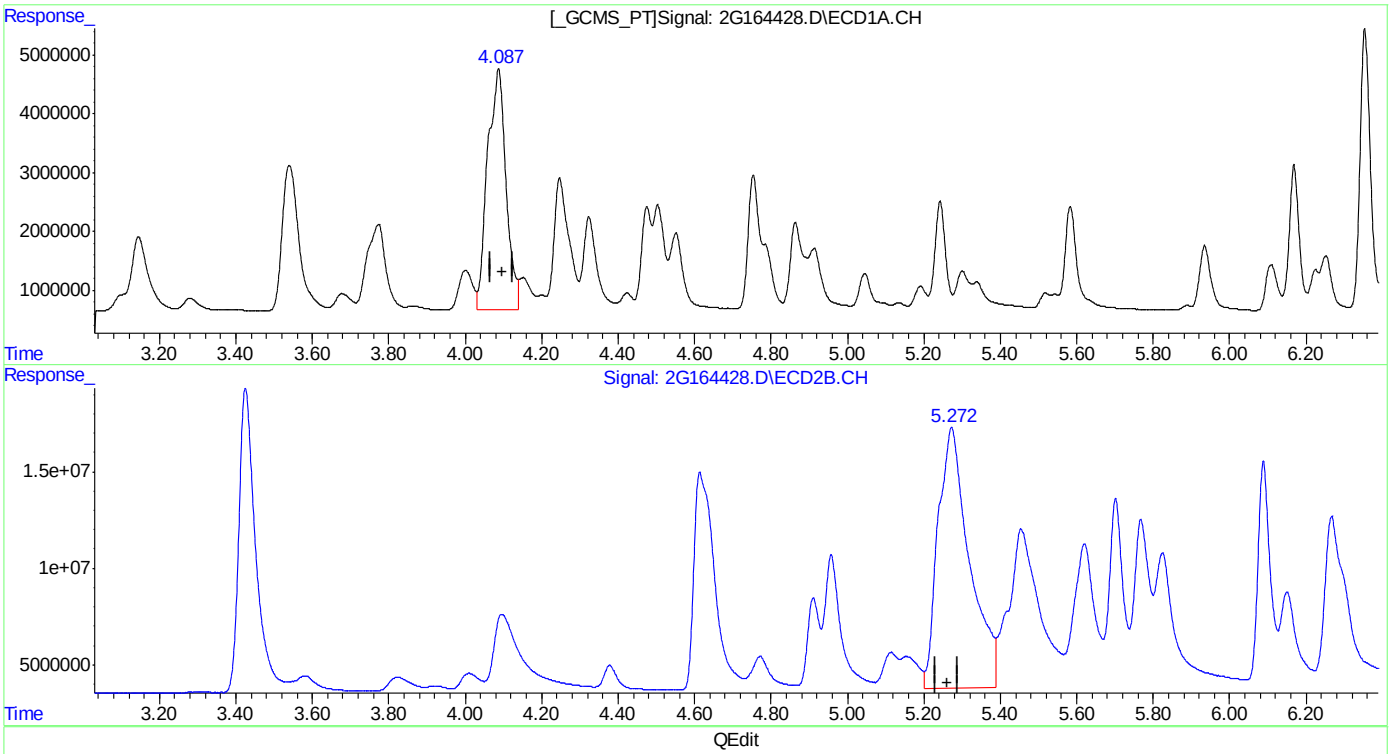
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:50:04 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:50:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.087min 474.179PPB
response 137495216

(33) AR1016-C #2
5.273min 445.464PPB
response 772294972

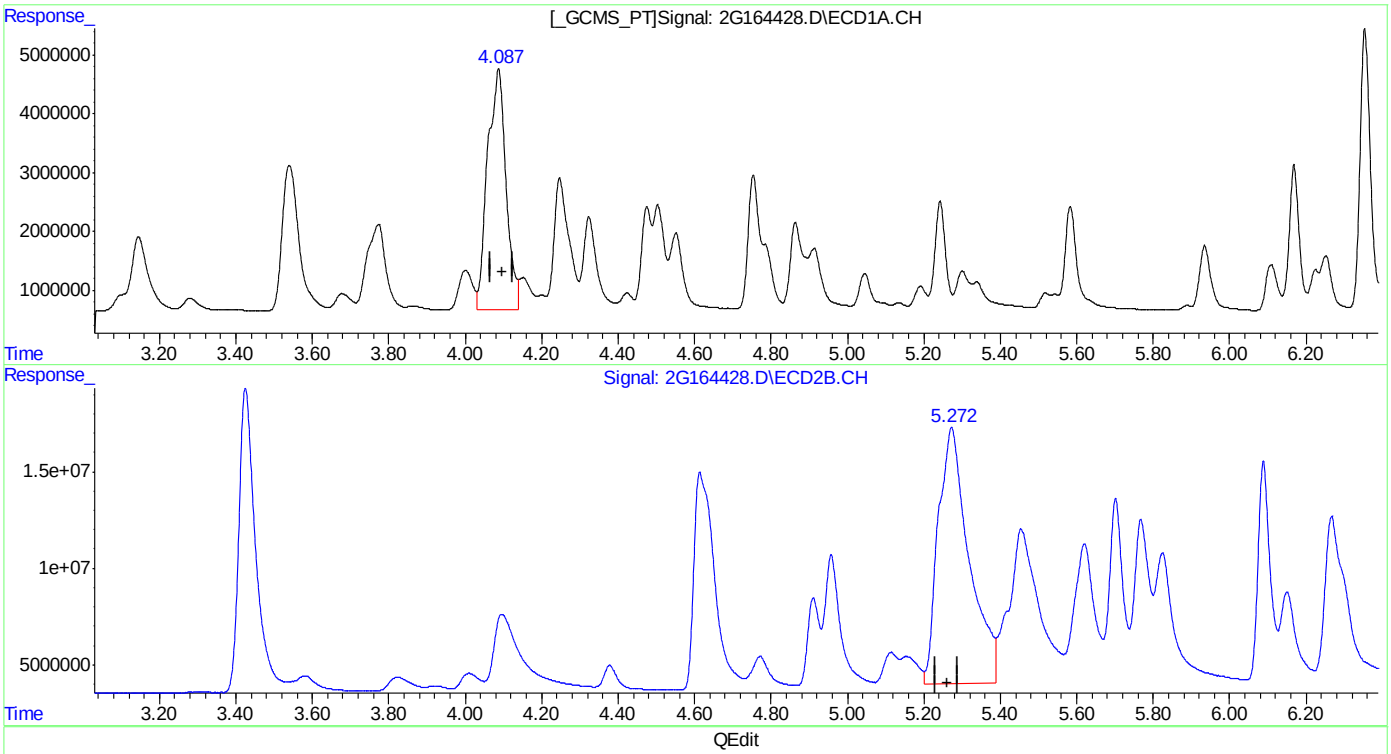
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:50:35 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:50:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(33) AR1016-C
4.087min 474.179PPB
response 137495216

(33) AR1016-C #2
5.272min 429.601PPB m
response 744794180

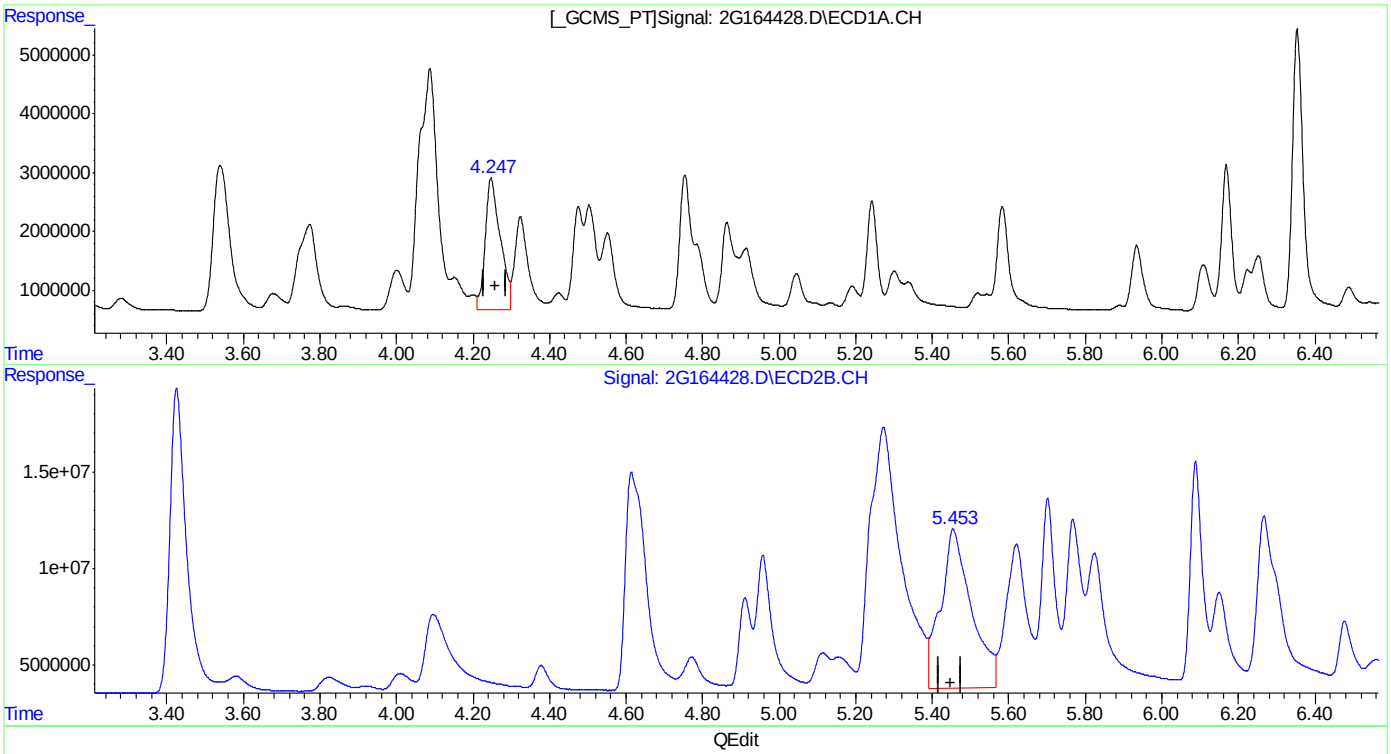
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:50:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(34) AR1016-D
4.247min 512.067PPB
response 60544015

(34) AR1016-D #2
5.454min 611.624PPB
response 460106432

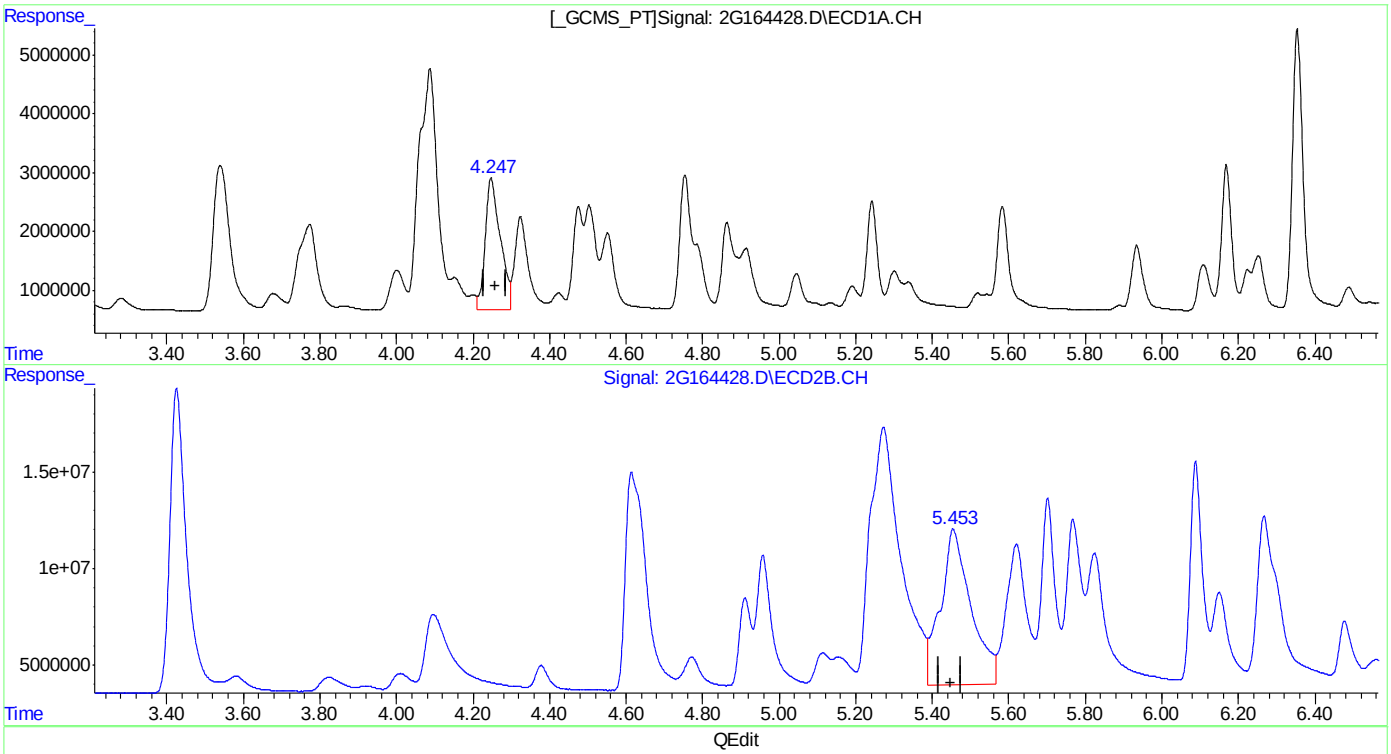
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:50:58 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164428.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 1:00 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12249,G2G4347,15.0,,,10,1
ALS Vial : 70 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:50:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(34) AR1016-D
4.247min 512.067PPB
response 60544015

(34) AR1016-D #2
5.453min 588.433PPB m
response 442660091

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
05/29/18 06:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:40:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.775	3.422	163.6E6	984.5E6	44.570	43.024
	Spiked Amount 40.000			Recovery	=	111.43%	107.56%
51) S	Decachlor...	9.957	11.764	129.9E6	632.2E6	32.035m	33.100
	Spiked Amount 40.000			Recovery	=	80.09%	82.75%
	Target Compounds						
31)	AR1016-A	3.144	4.081	82333122	412.3E6	1057.004	1100.740
32)	AR1016-B	3.540	4.610	143.9E6	812.7E6	1057.528	1014.495
33)	AR1016-C	4.086	5.255	289.6E6	1728.2E6	998.912	996.839
34)	AR1016-D	4.245	5.440	125.4E6	822.9E6	1060.447	1093.848
35)	AR1016-E	4.754	6.082	125.8E6	531.7E6	1031.904	1036.296
36)	AR1260-A	7.110	8.677	308.1E6	1823.5E6	903.884	911.909m
37)	AR1260-B	7.268	8.790	156.1E6	947.0E6	1080.971	1083.086
38)	AR1260-C	7.603	9.221	164.4E6	1031.1E6	1032.506	1008.881
39)	AR1260-D	8.035	9.572	345.5E6	2067.9E6	941.025m	963.403
40)	AR1260-E	8.429	10.114	367.8E6	2016.7E6	970.905m	989.471m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

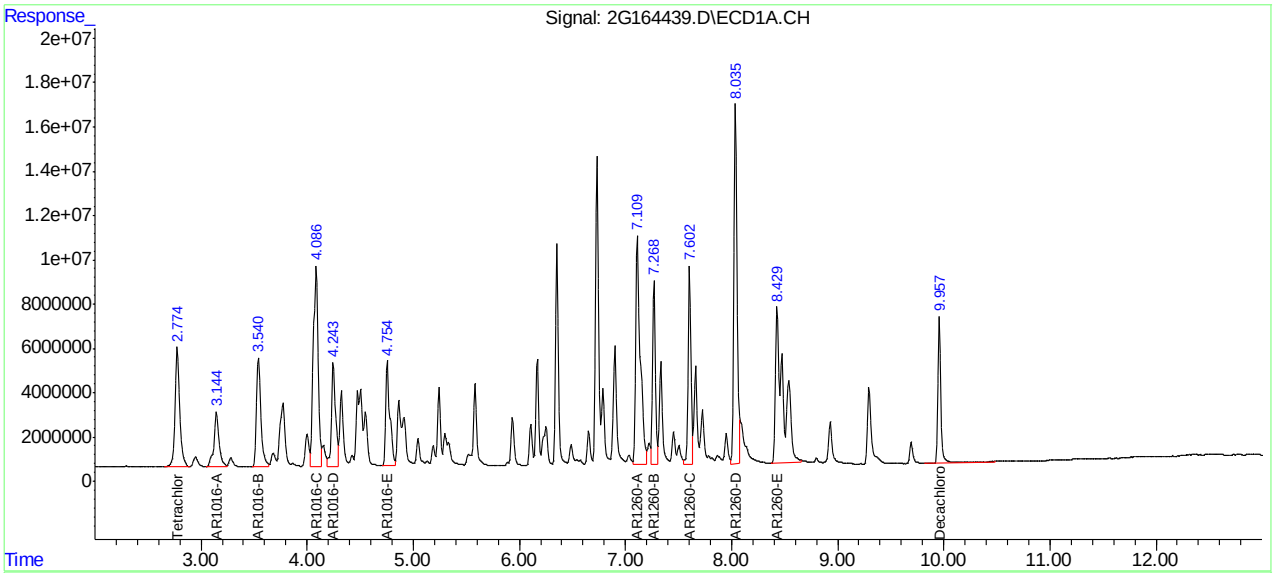
11.6.18 11

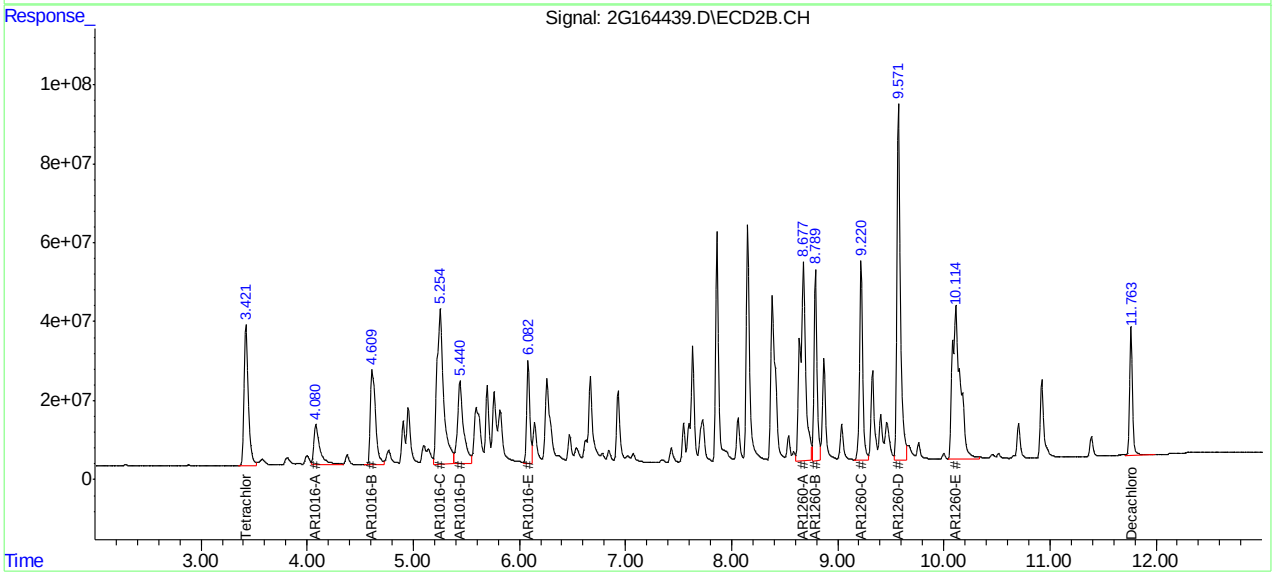
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:40:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number: G2G4347-CC4311 **Method:** SW846 8082A
Lab FileID: 2G164439.D **Analyst approved:** 05/28/18 20:01 Edouard Adrian Lee
Injection Time: 05/28/18 04:06 **Supervisor approved:** 05/29/18 06:43 Gwendolyn Burns

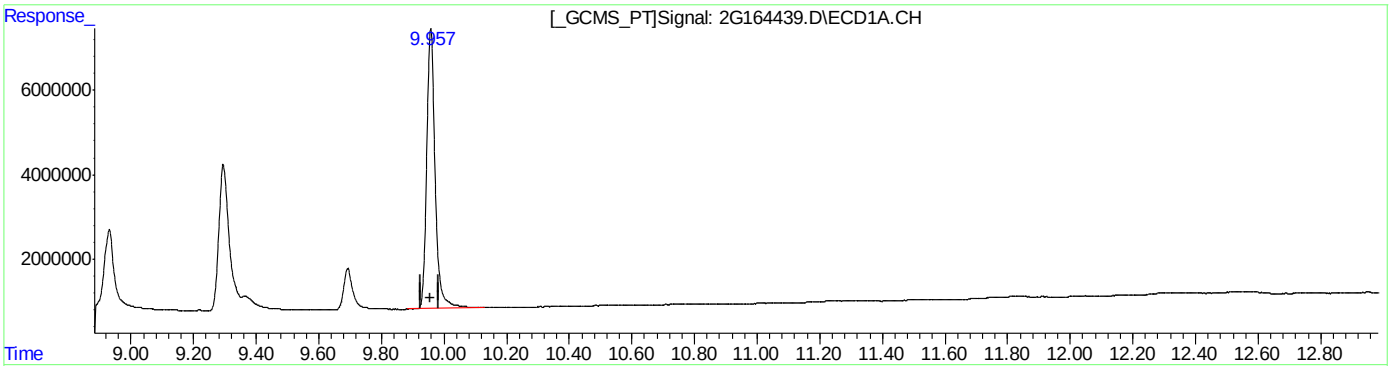
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	8.03	Split peak
AR1260-E		1	8.43	Split peak
AR1260-A		2	8.68	Split peak
Decachlorobiphenyl	2051-24-3	1	9.96	Poorly defined baseline
AR1260-E		2	10.11	Split peak

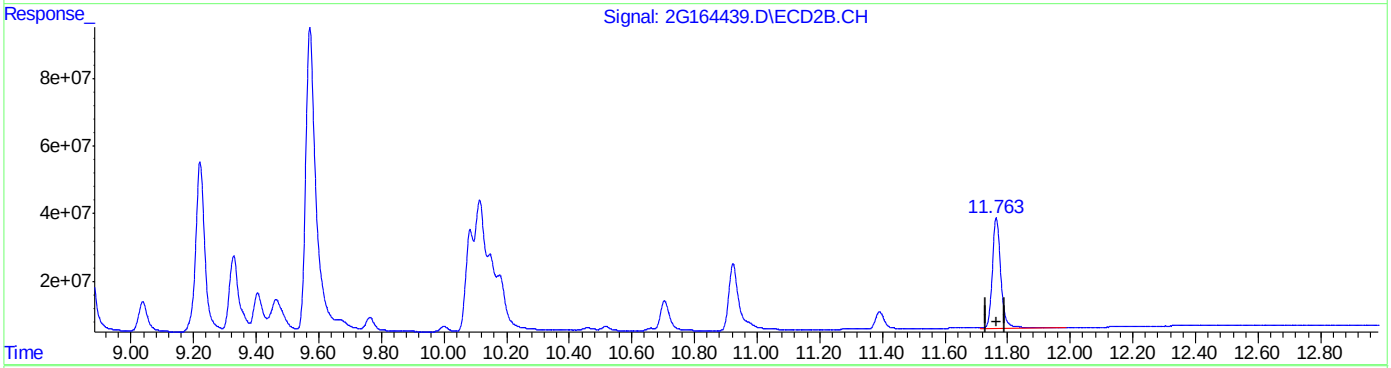
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(51) Decachlorobiphenyl (S)
9.958min 30.615ppb
response 124167104

(51) Decachlorobiphenyl #2 (S)
11.764min 33.100ppb
response 632190241

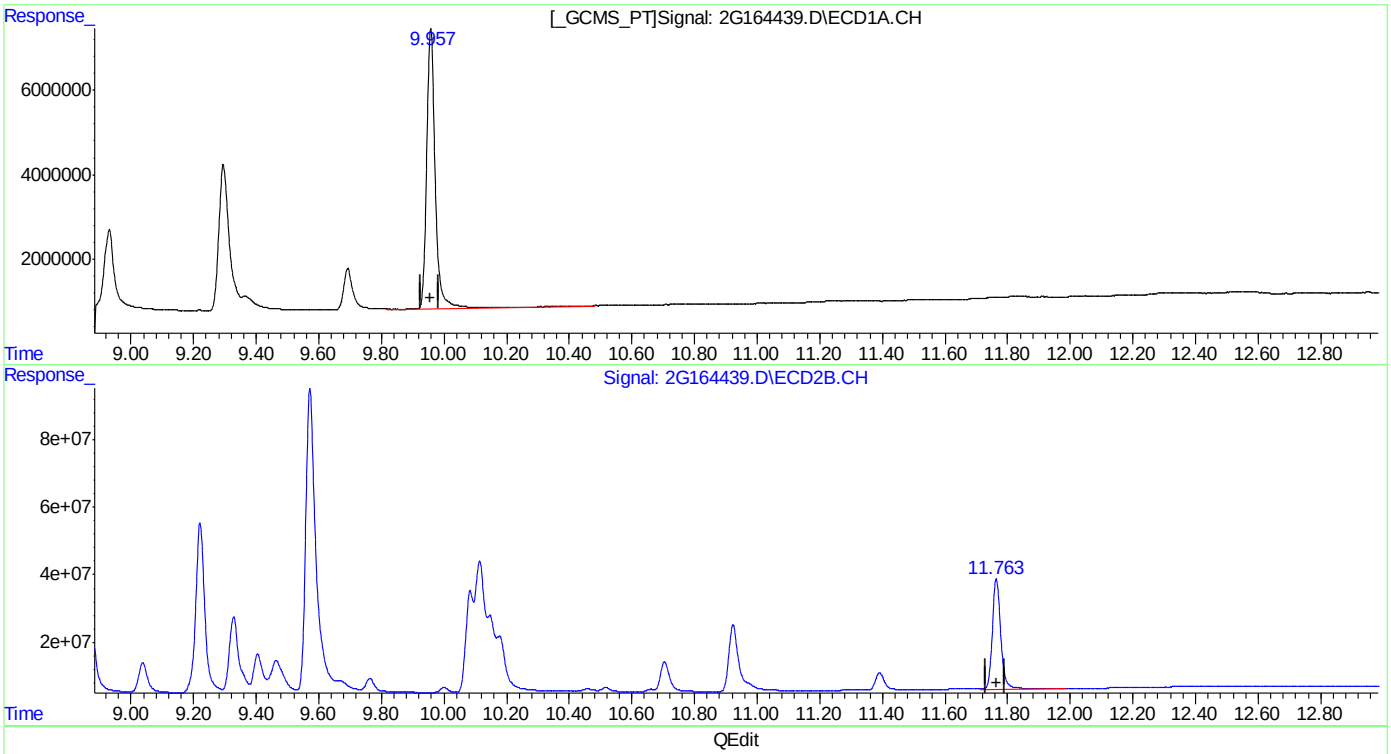
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:38:27 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(51) Decachlorobiphenyl (S)
9.957min 32.035ppb m
response 129926142

(51) Decachlorobiphenyl #2 (S)
11.764min 33.100ppb
response 632190241

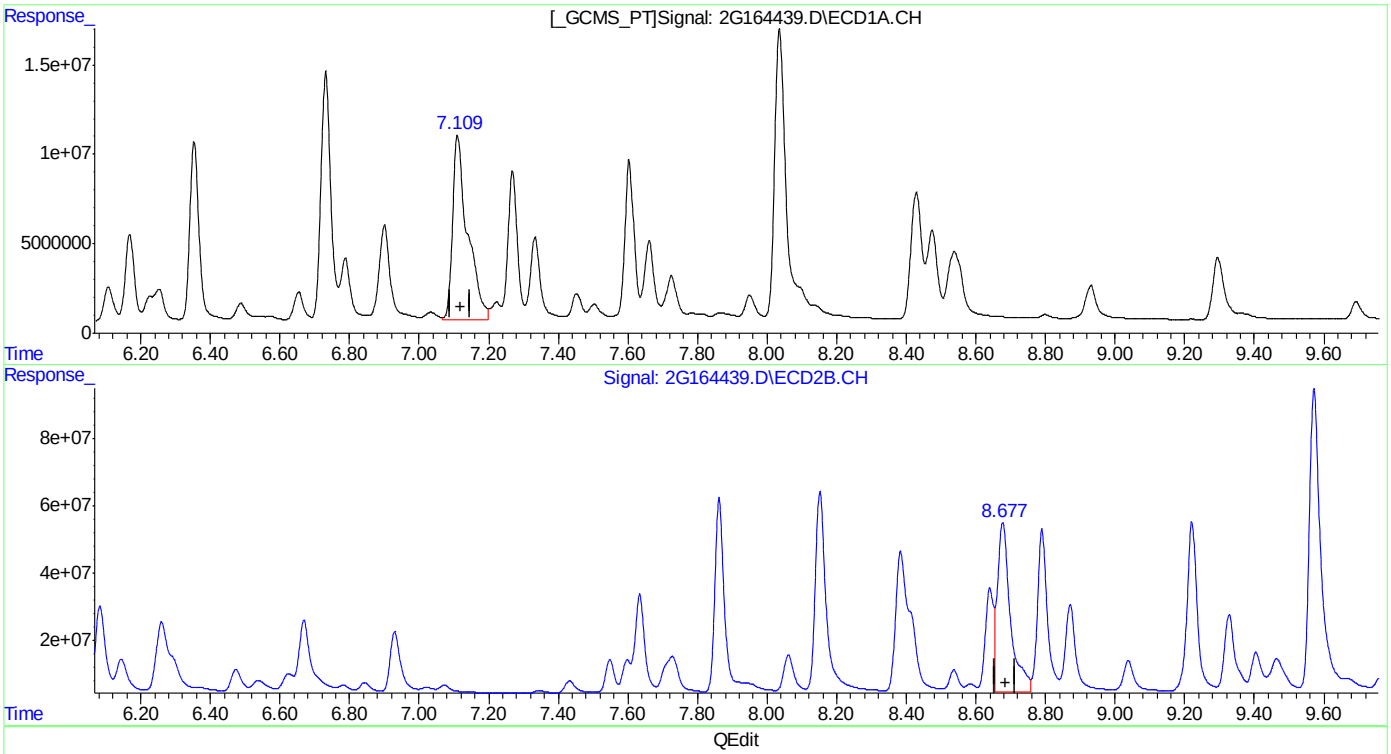
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:39:01 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.110min 903.884PPB
response 308088379

(36) AR1260-A #2
8.677min 662.038PPB
response 1323871398

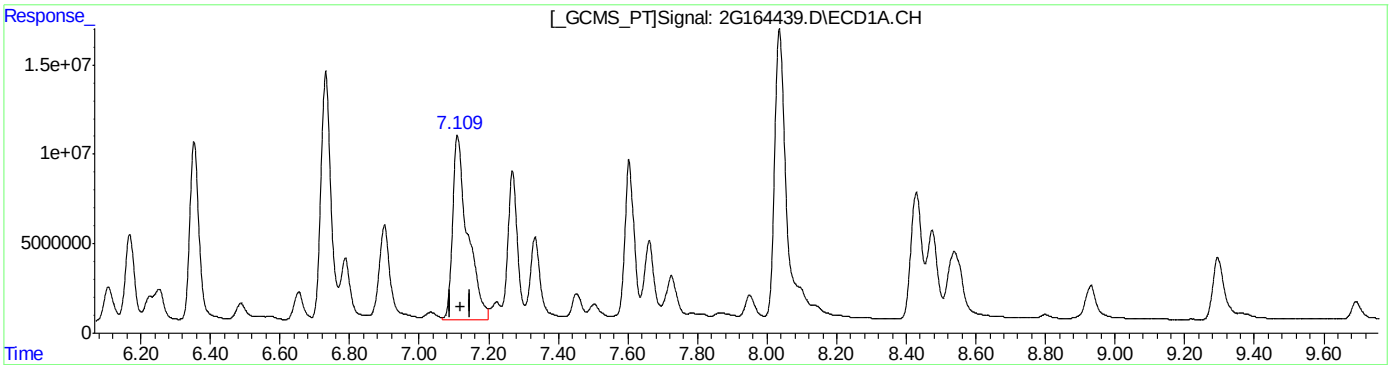
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:39:30 2018 RPT1

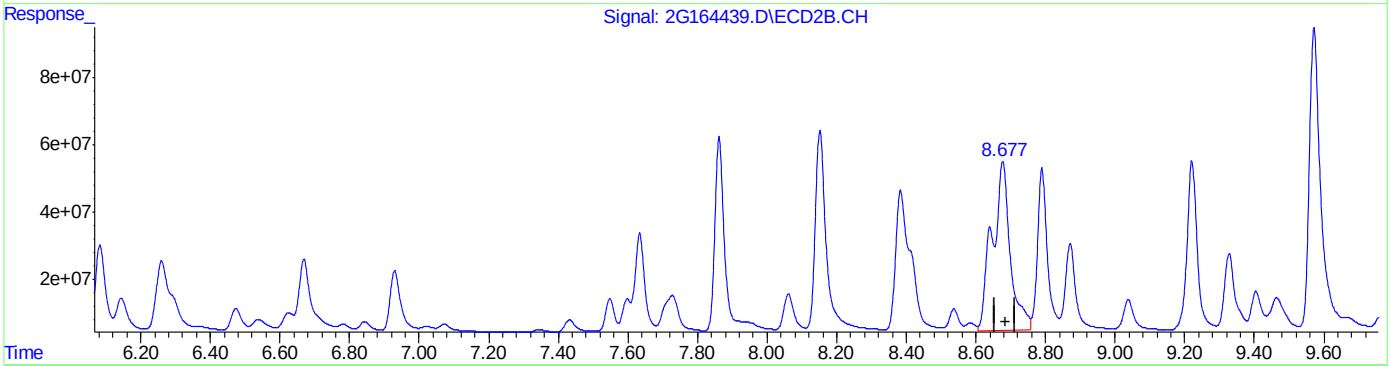
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.110min 903.884PPB
response 308088379

(36) AR1260-A #2
8.677min 911.909PPB m
response 1823535249

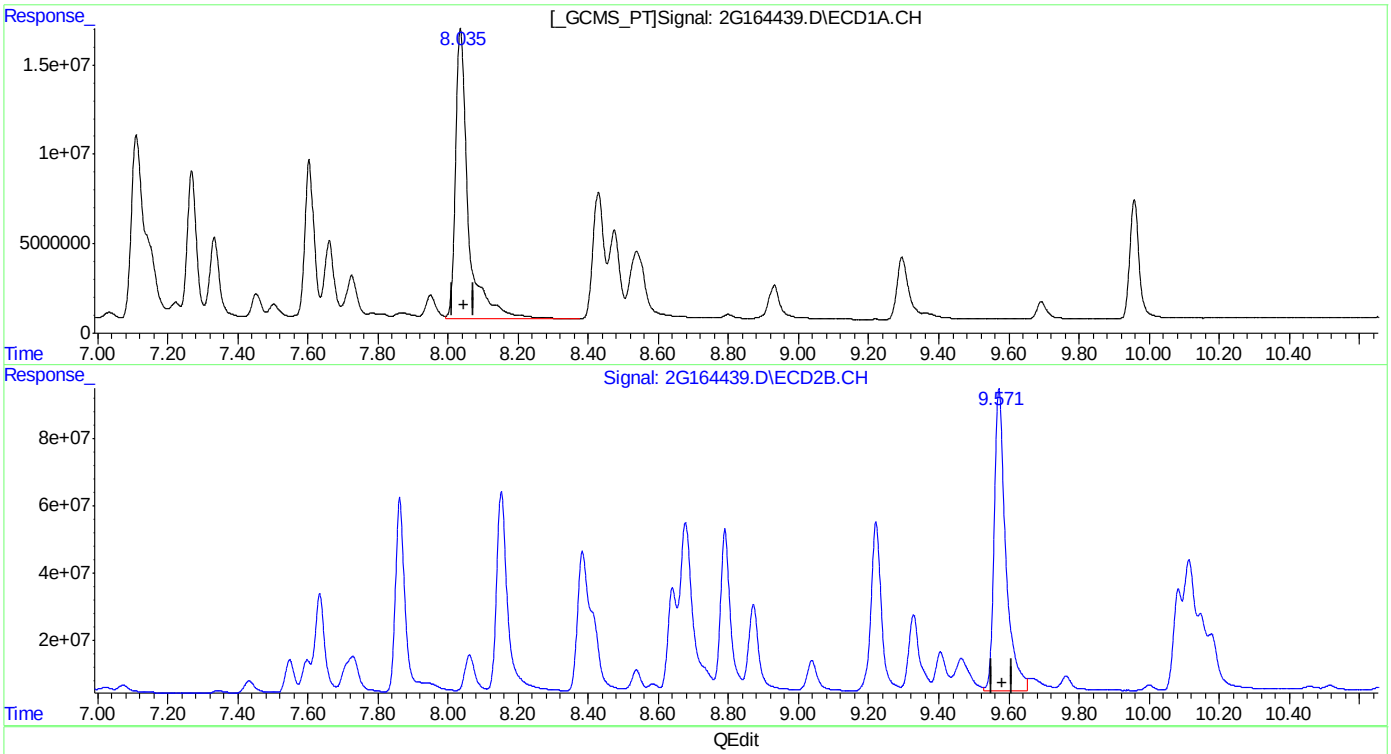
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:39:40 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.035min 1124.925PPB
response 413011355

(39) AR1260-D #2
9.572min 963.403PPB
response 2067941158

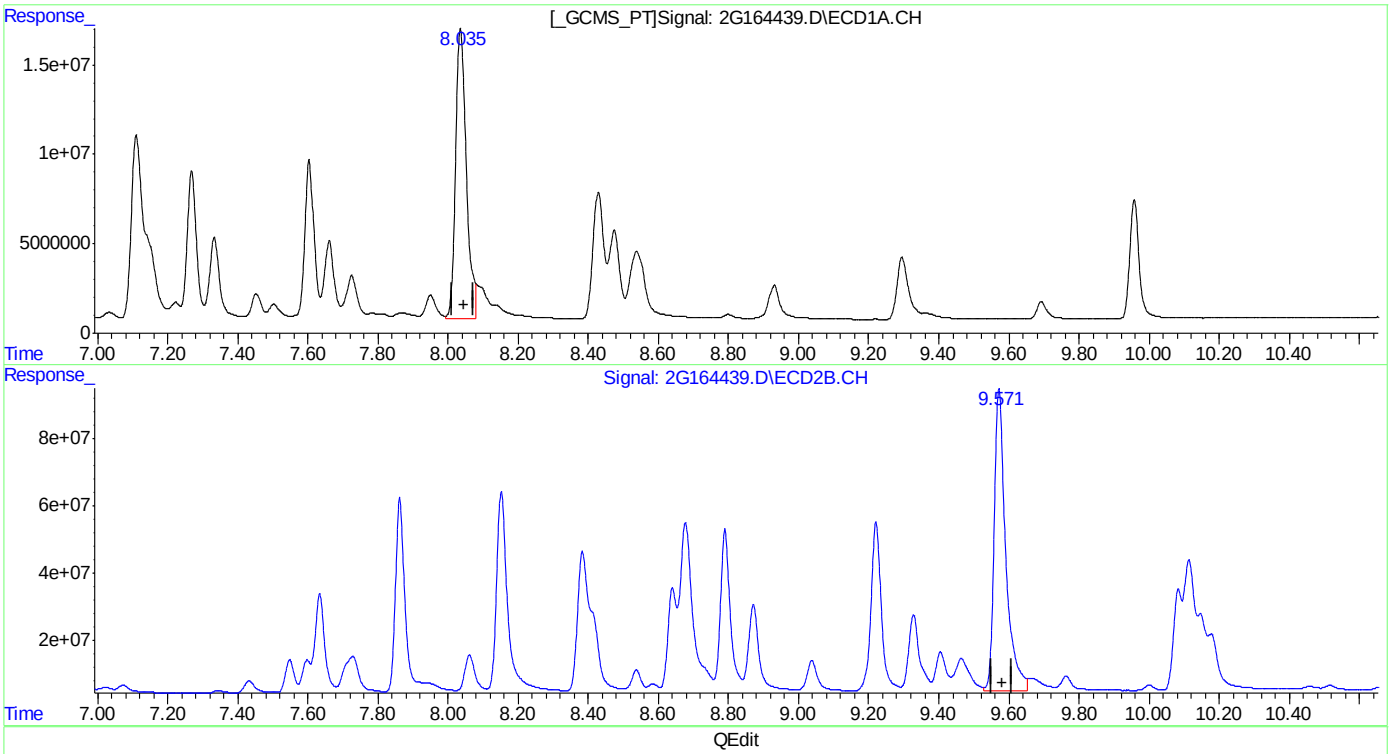
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:39:49 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.035min 941.025PPB m
response 345493522

(39) AR1260-D #2
9.572min 963.403PPB
response 2067941158

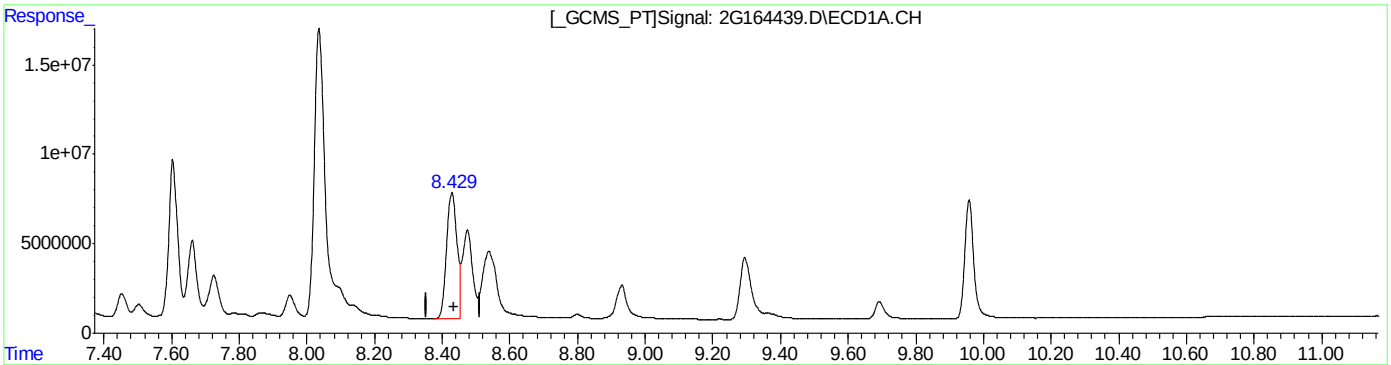
(+) = Expected Retention Time

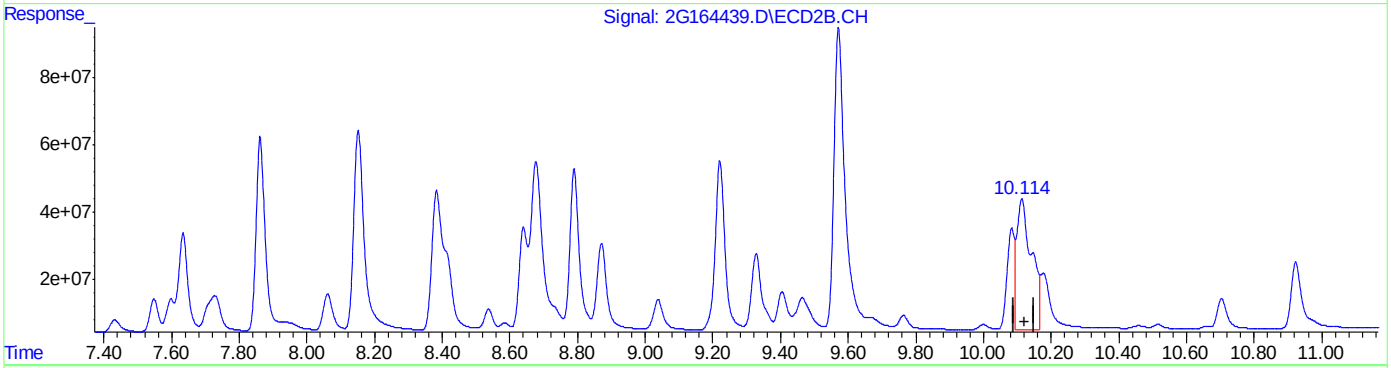
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.429min 398.558PPB
response 150968964

(40) AR1260-E #2
10.114min 578.065PPB
response 1178194987

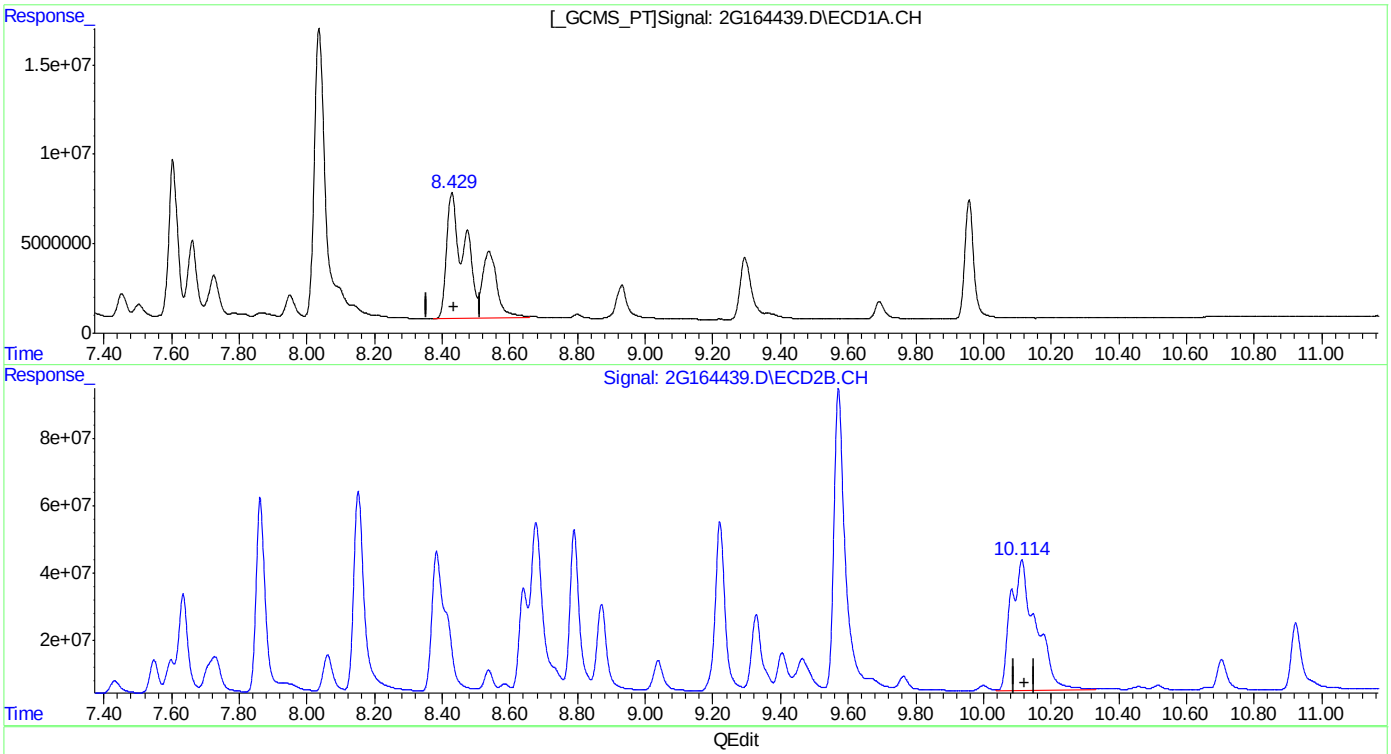
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164439.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 4:06 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12272,G2G4347,1000,,,5,1
ALS Vial : 78 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:38:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.429min 970.905PPB m
response 367766862

(40) AR1260-E #2
10.114min 989.471PPB m
response 2016712577

(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:40:17 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 06:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:54:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.774	3.422	82518868	503.7E6	22.482	22.015
	Spiked Amount 40.000			Recovery	=	56.20%	55.04%
51) S	Decachlor...	9.959	11.764	65602961	322.5E6	16.175	16.883
	Spiked Amount 40.000			Recovery	=	40.44%	42.21%
	Target Compounds						
31)	AR1016-A	3.145	4.084	44600147	210.5E6	572.583	561.963
32)	AR1016-B	3.541	4.611	76946834	433.5E6	565.545	541.085
33)	AR1016-C	4.086	5.260	146.0E6	872.3E6	503.366	503.174
34)	AR1016-D	4.245	5.443	62734641	442.6E6	530.595	588.339
35)	AR1016-E	4.753	6.084	65257191	273.4E6	535.184m	532.903
36)	AR1260-A	7.111	8.679	149.9E6	937.4E6	439.895	468.789m
37)	AR1260-B	7.270	8.791	77837462	497.8E6	538.878	569.287
38)	AR1260-C	7.606	9.222	78260898	531.4E6	491.498	519.981
39)	AR1260-D	8.037	9.574	186.8E6	1111.1E6	508.697m	517.626
40)	AR1260-E	8.428	10.116	186.4E6	1040.3E6	492.038m	510.385m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

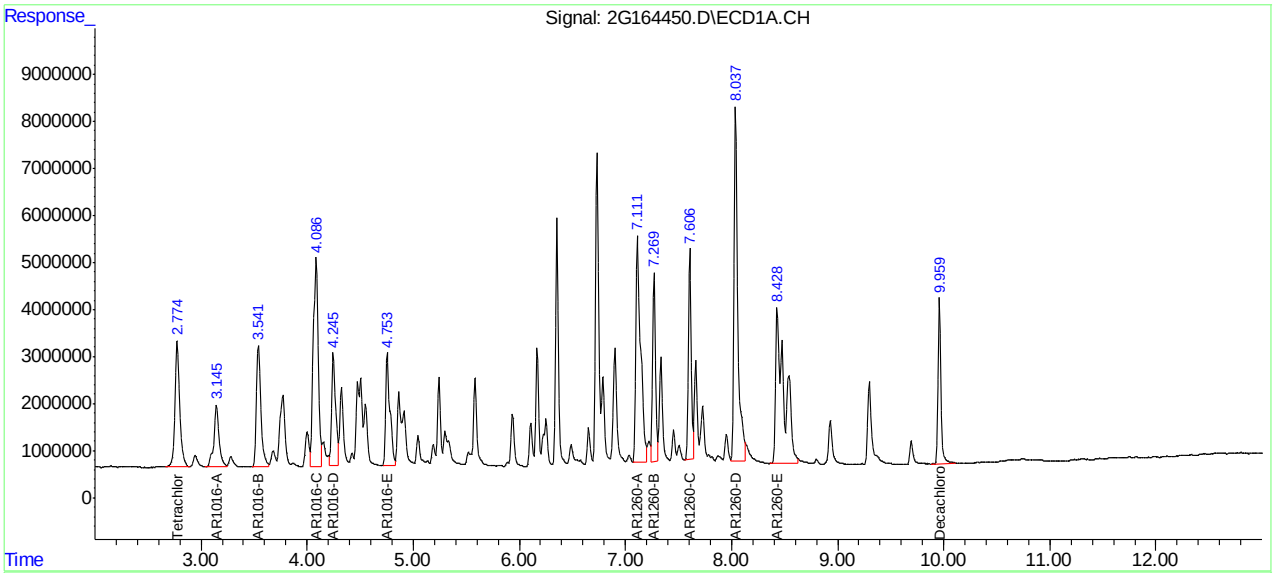
11.6.19 11

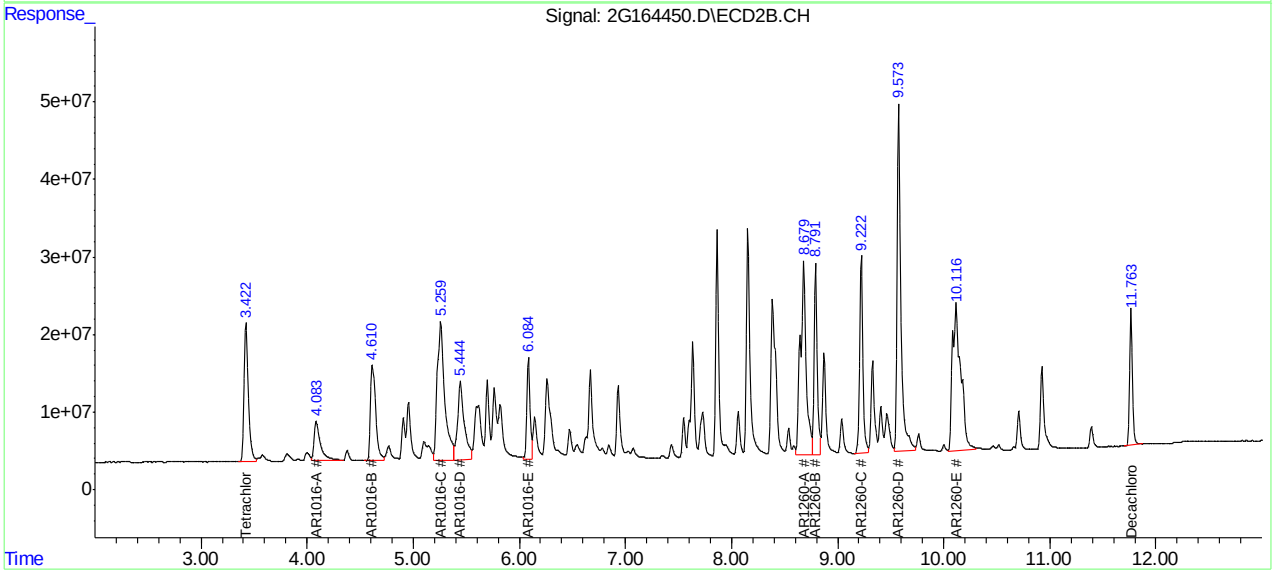
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:54:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





JC66384

Manual Integration Approval Summary

Sample Number:	G2G4347-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164450.D	**Analyst approved:**	05/28/18 20:01 Edouard Adrian Lee
Injection Time:	05/28/18 07:13	**Supervisor approved:**	05/29/18 06:49 Gwendolyn Burns

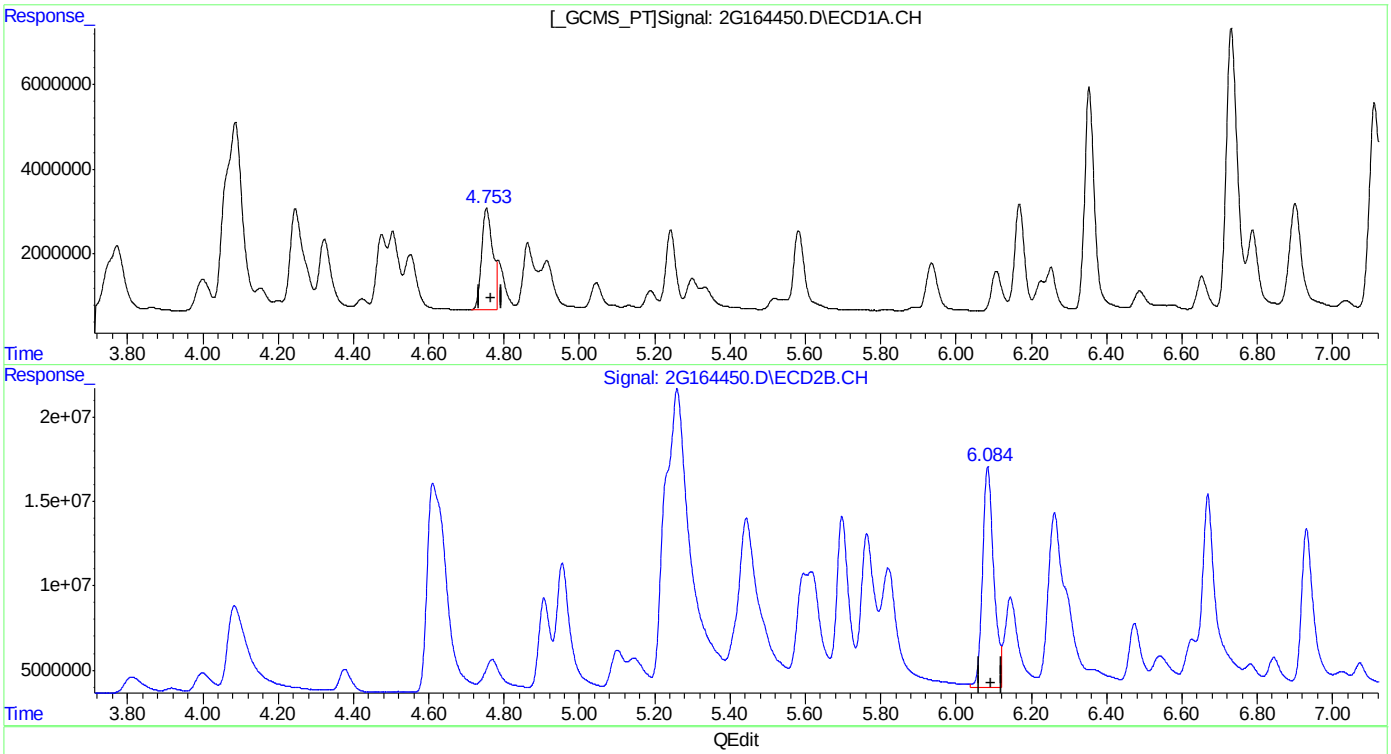
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-E		1	4.75	Split peak
AR1260-D		1	8.04	Split peak
AR1260-E		1	8.43	Split peak
AR1260-A		2	8.68	Split peak
AR1260-E		2	10.12	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.753min 393.580PPB
response 47990817

(35) AR1016-E #2
6.084min 532.903PPB
response 273421588

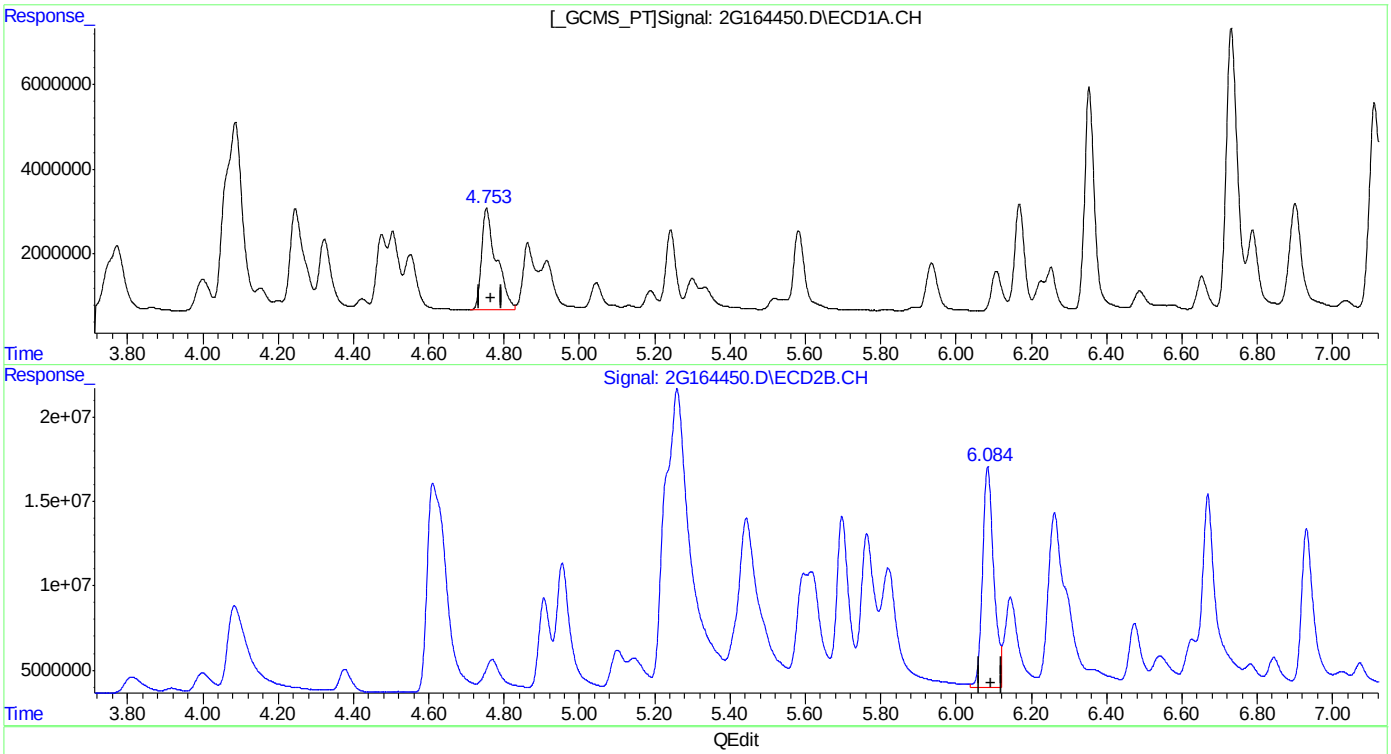
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(35) AR1016-E
4.753min 535.184PPB m
response 65257191

(35) AR1016-E #2
6.084min 532.903PPB
response 273421588

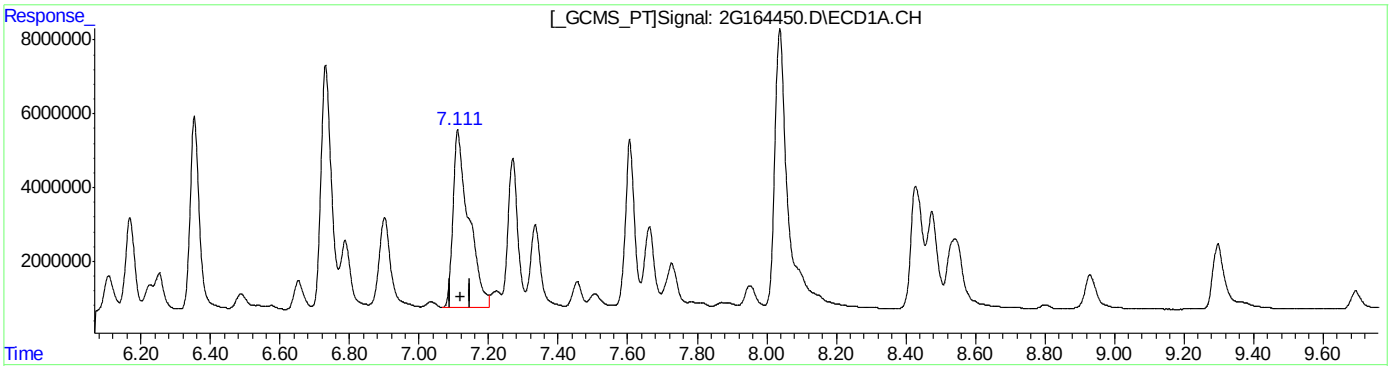
(+) = Expected Retention Time

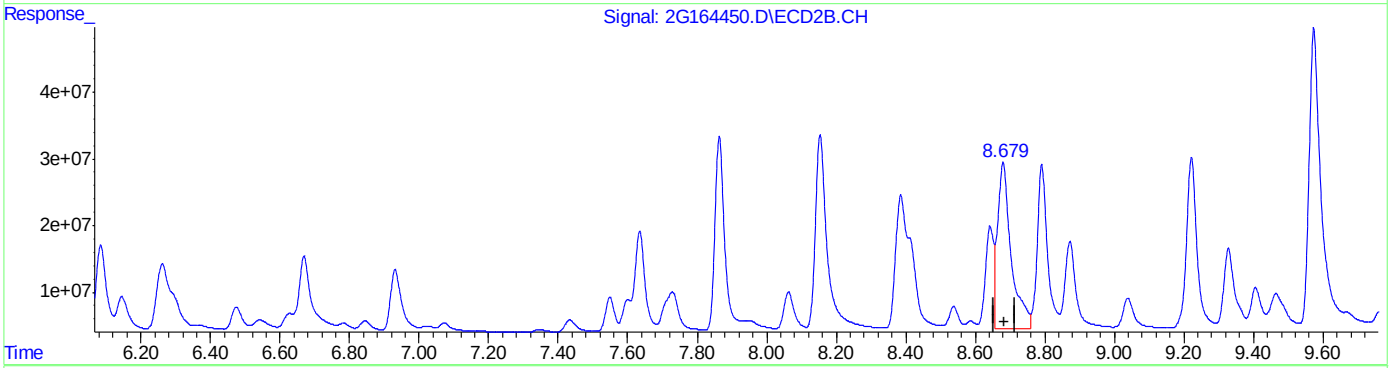
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(36) AR1260-A
7.111min 439.895PPB
response 149937849

(36) AR1260-A #2
8.680min 343.847PPB
response 687587803

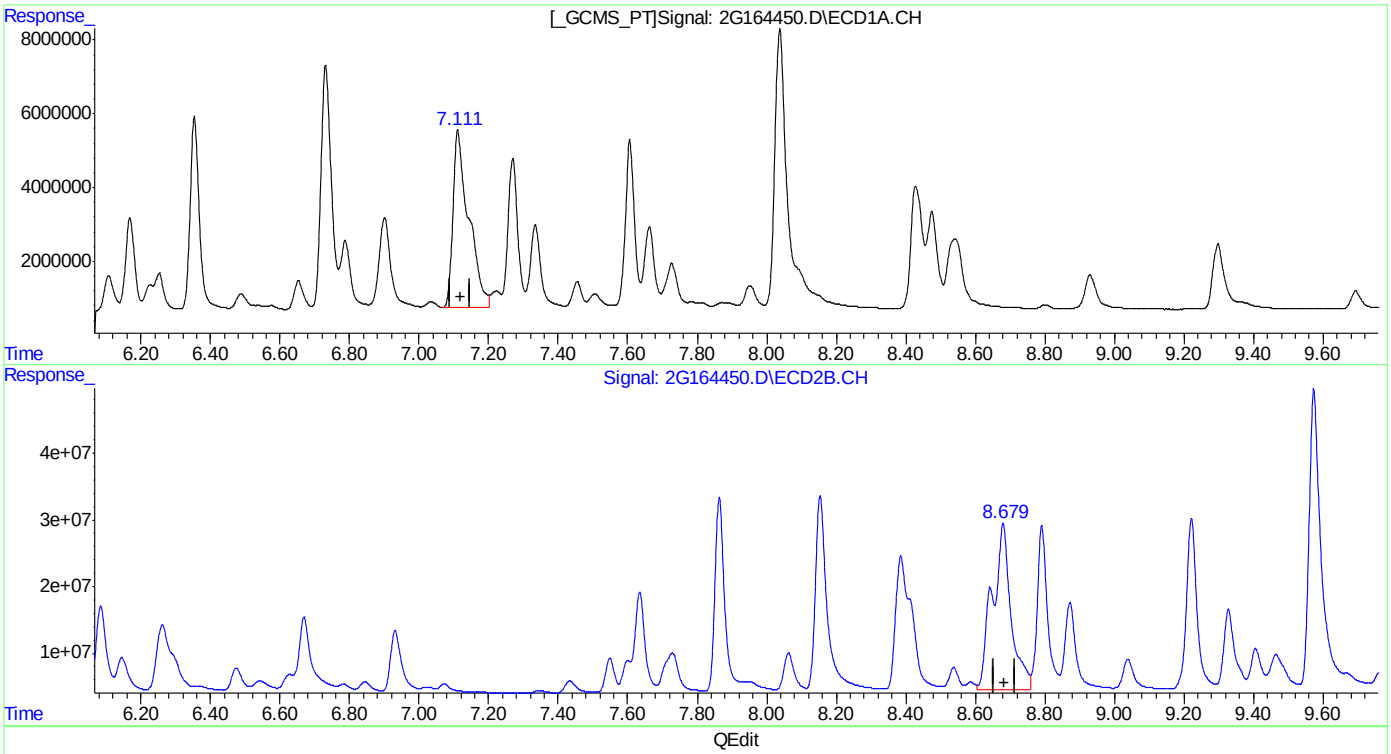
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:53:32 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.111min 439.895PPB
response 149937849

(36) AR1260-A #2
8.679min 468.789PPB m
response 937432941

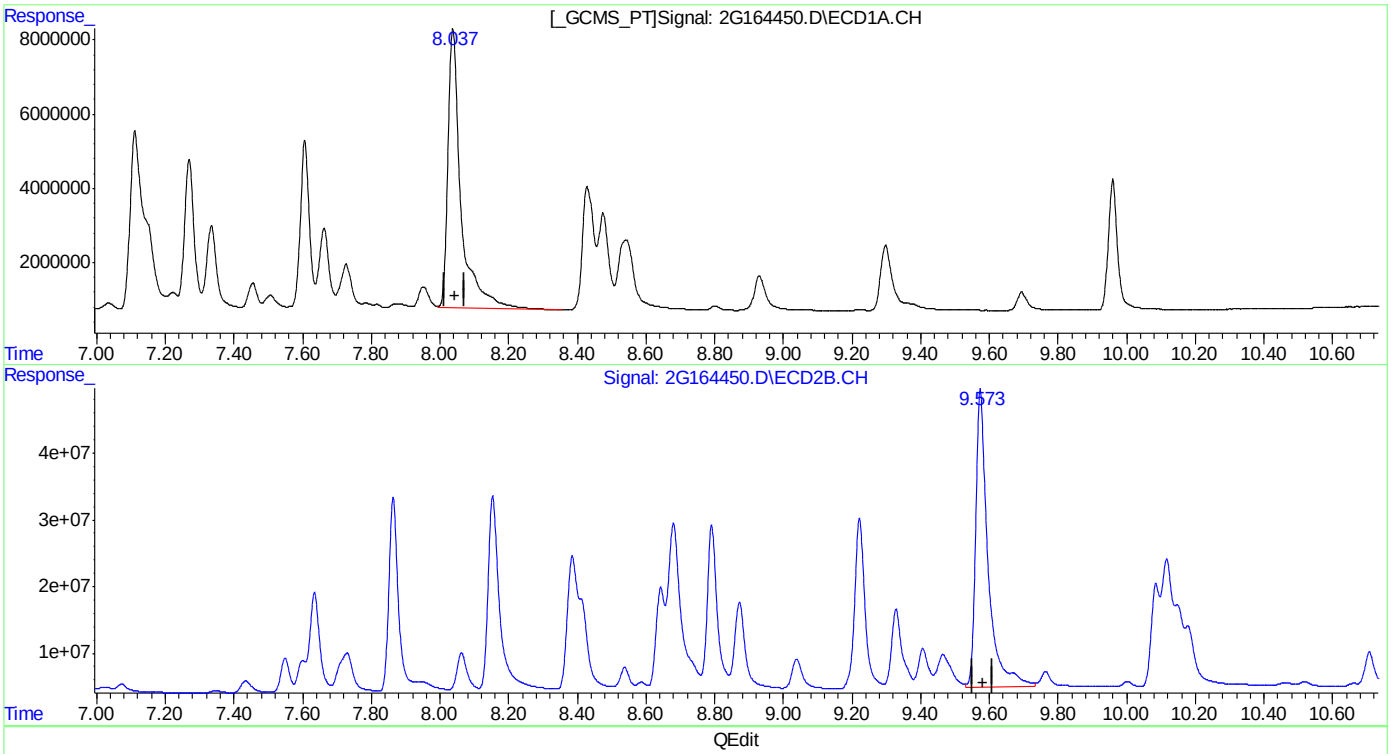
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:53:39 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.038min 544.191PPB
response 199797467

(39) AR1260-D #2
9.574min 517.626PPB
response 1111081689

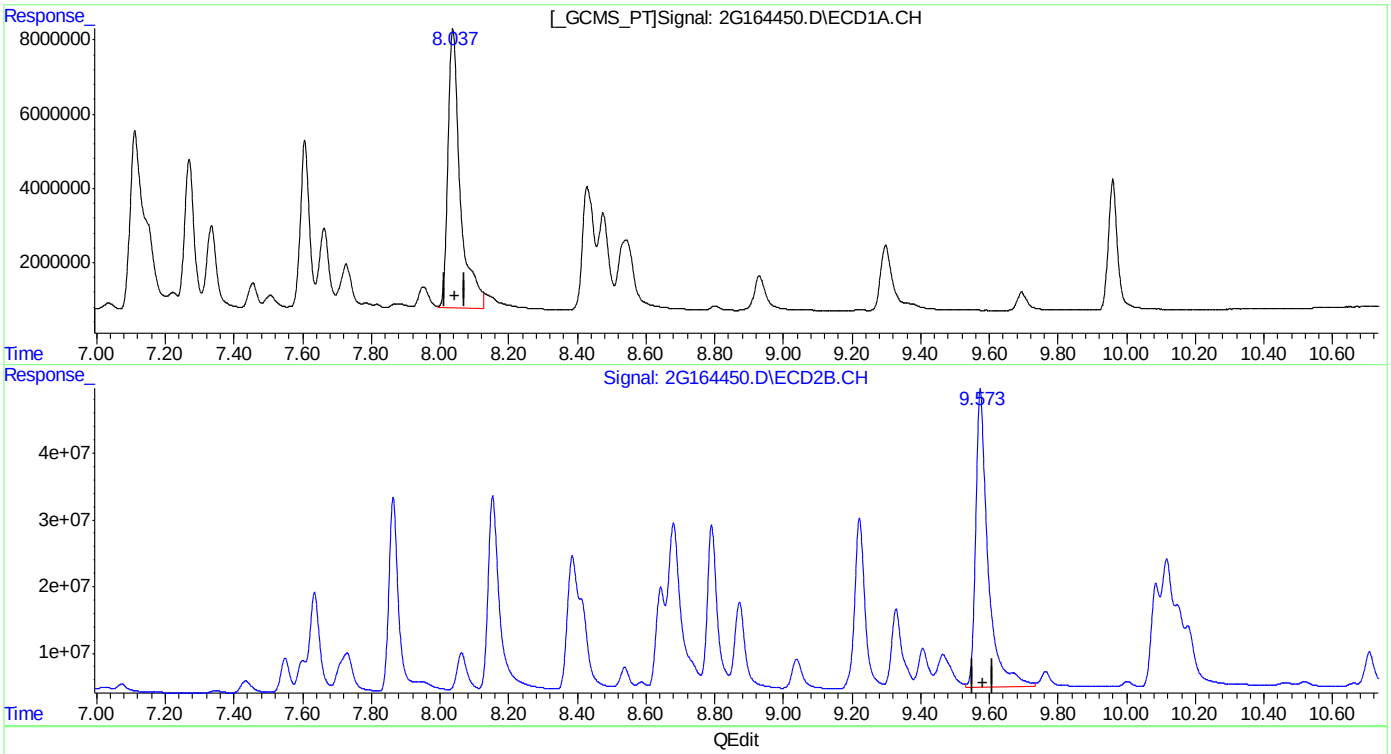
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.037min 508.697PPB m
response 186766102

(39) AR1260-D #2
9.574min 517.626PPB
response 1111081689

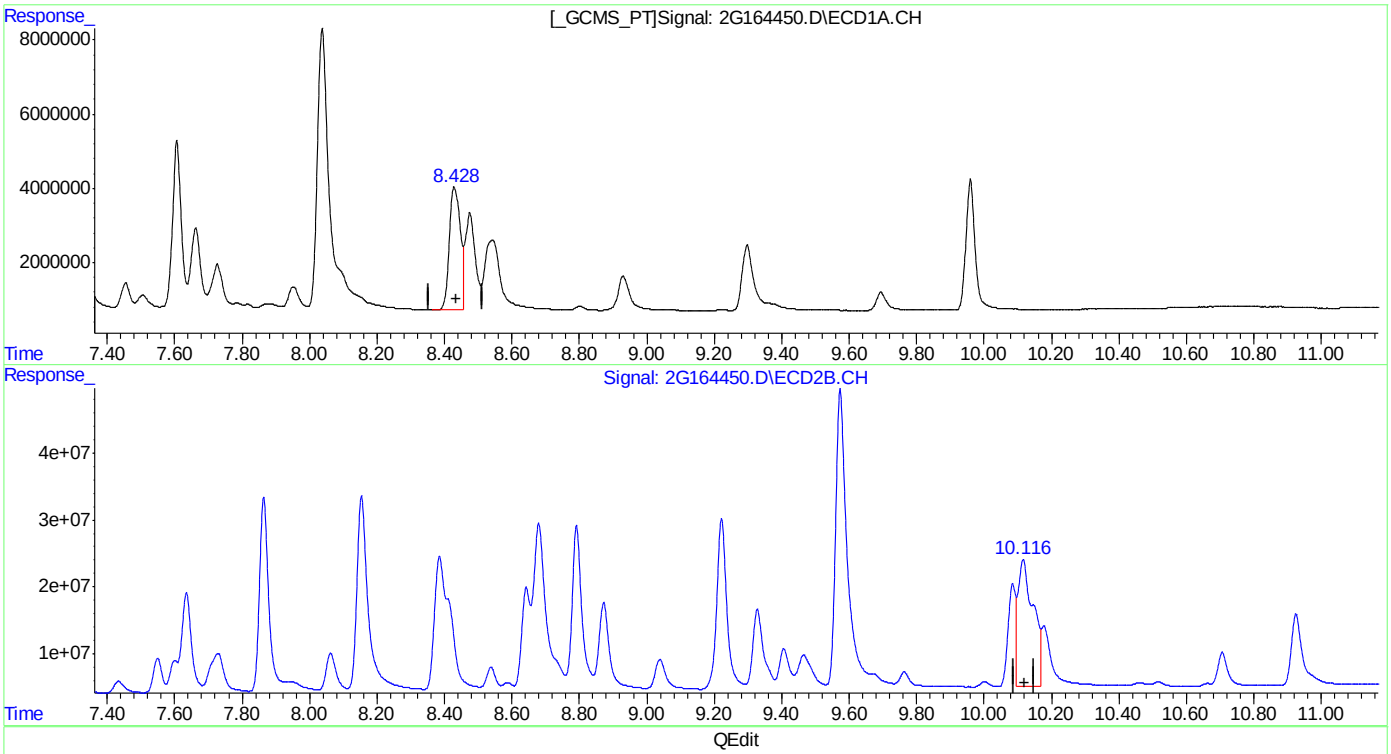
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:53:54 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.429min 194.548PPB
response 73692274

(40) AR1260-E #2
10.116min 293.809PPB
response 598833373

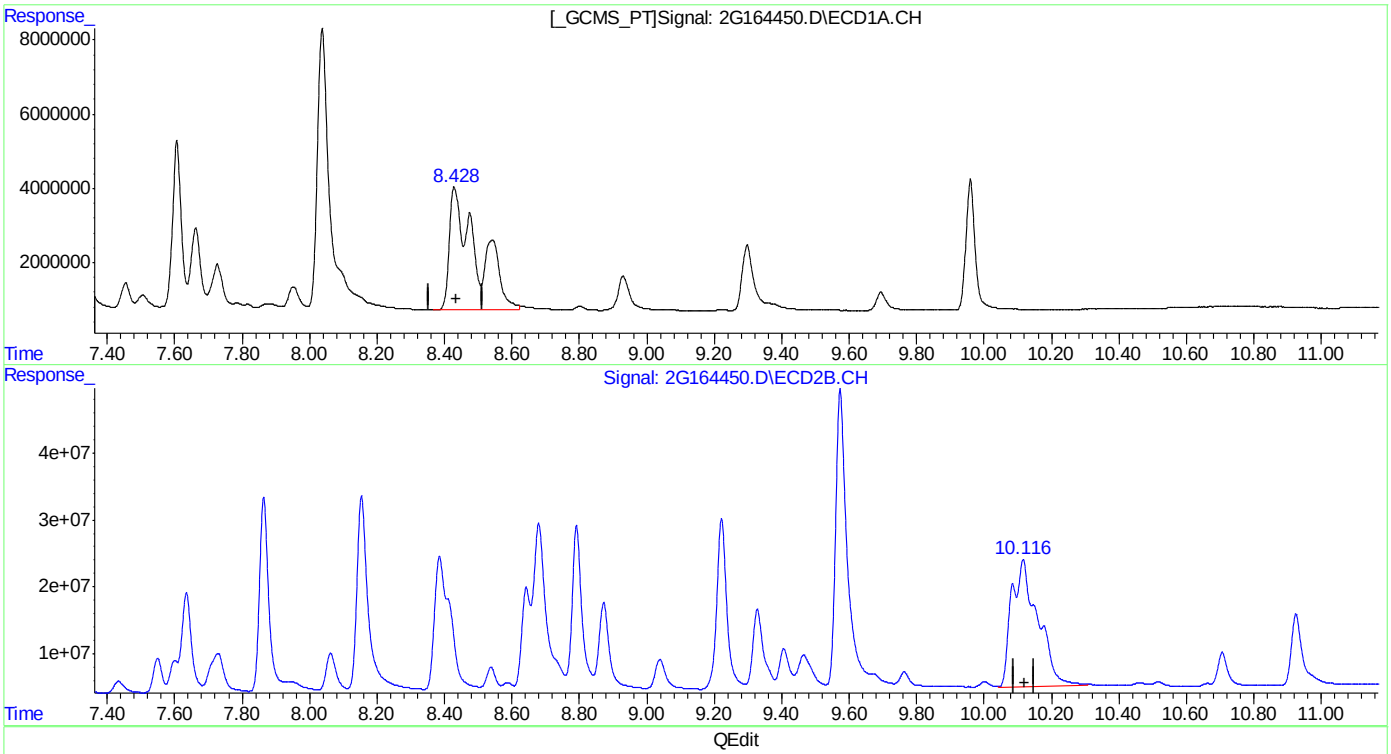
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164450.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 7:13 am
Operator : edouarda
Sample : cc4311-500
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 86 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:52:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.428min 492.038PPB m
response 186378011

(40) AR1260-E #2
10.116min 510.385PPB m
response 1040251417

(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:54:10 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 06:50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:27:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.775	3.423	167.3E6	1006.3E6	45.573	43.978
	Spiked Amount 40.000			Recovery	=	113.93%	109.95%
51) S	Decachlor...	9.958	11.764	127.6E6	613.1E6	31.470	32.098
	Spiked Amount 40.000			Recovery	=	78.67%	80.25%
	Target Compounds						
31)	AR1016-A	3.147	4.082	84104493	420.7E6	1079.745	1123.092
32)	AR1016-B	3.540	4.611	146.9E6	834.2E6	1080.055	1041.307
33)	AR1016-C	4.086	5.255	295.7E6	1779.3E6	1019.755	1026.284
34)	AR1016-D	4.246	5.440	129.0E6	850.7E6	1090.717	1130.779
35)	AR1016-E	4.754	6.083	129.5E6	548.6E6	1062.007	1069.283
36)	AR1260-A	7.110	8.678	318.4E6	1906.8E6	934.218	953.547m
37)	AR1260-B	7.268	8.791	161.9E6	989.0E6	1120.713	1131.136
38)	AR1260-C	7.605	9.221	170.7E6	1068.0E6	1072.190	1045.007
39)	AR1260-D	8.035	9.572	359.2E6	2149.8E6	978.416m	1001.540
40)	AR1260-E	8.426	10.113	375.6E6	2058.4E6	991.604m	1009.927m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

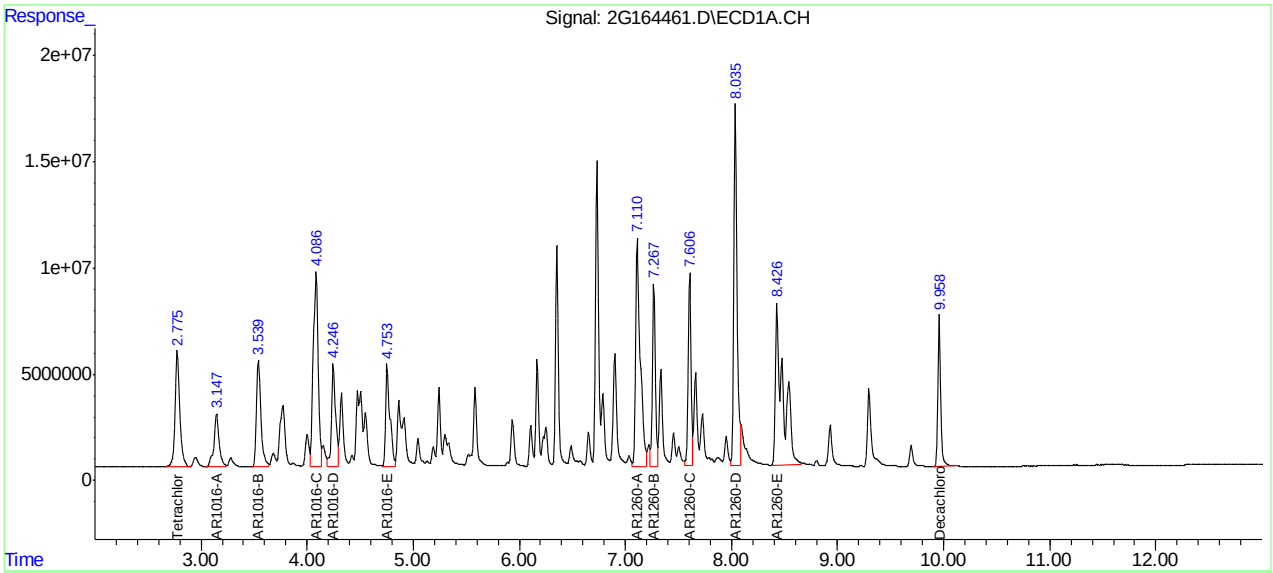
11.6.20 11

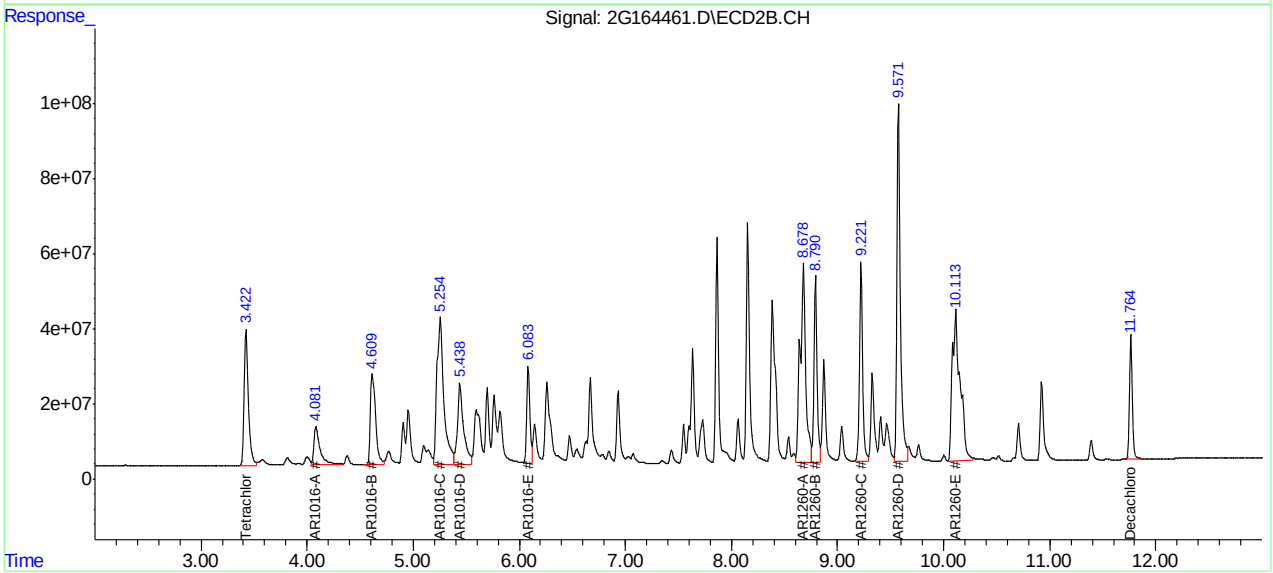
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:27:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Manual Integration Approval Summary

Sample Number:	G2G4347-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164461.D	**Analyst approved:**	05/28/18 20:01 Edouard Adrian Lee
Injection Time:	05/28/18 10:20	**Supervisor approved:**	05/29/18 06:50 Gwendolyn Burns

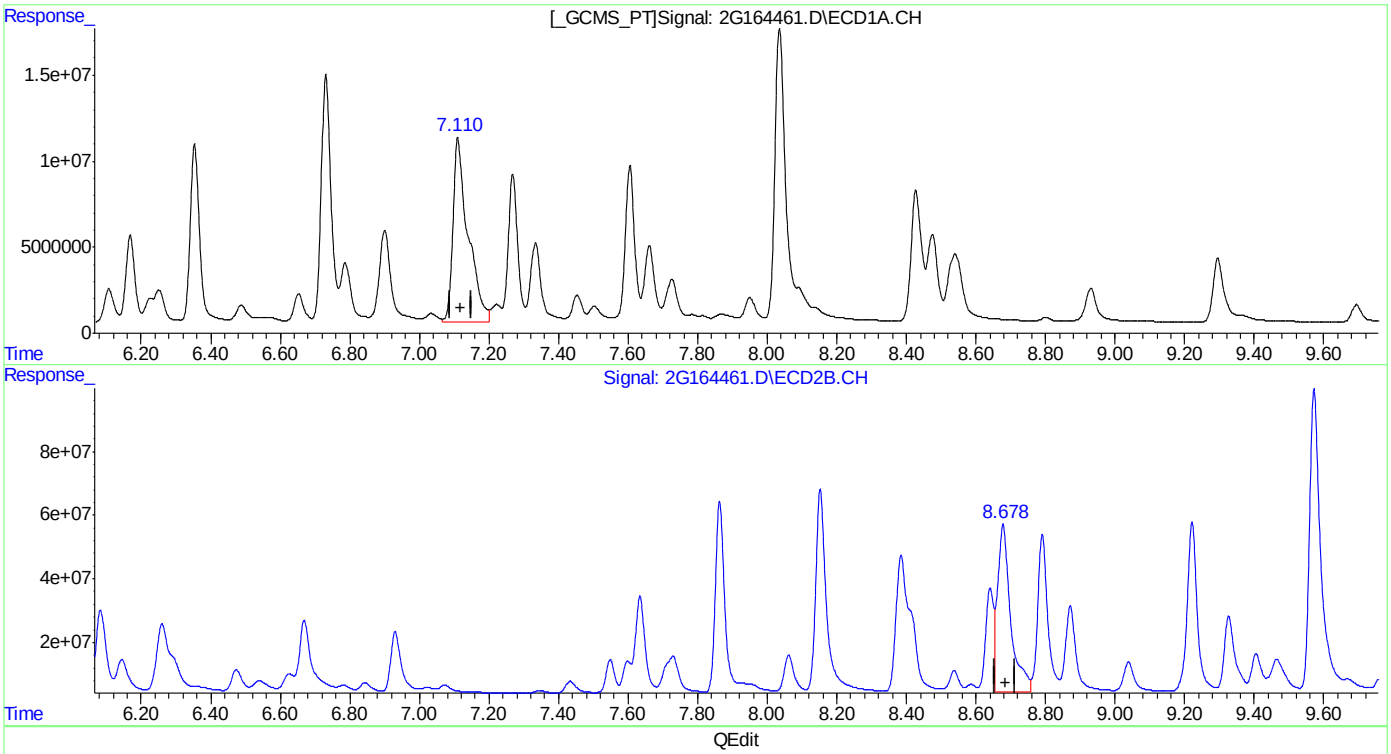
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-D		1	8.03	Split peak
AR1260-E		1	8.43	Split peak
AR1260-A		2	8.68	Split peak
AR1260-E		2	10.11	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:26:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.110min 934.218PPB
response 318427717

(36) AR1260-A #2
8.678min 691.629PPB
response 1383044232

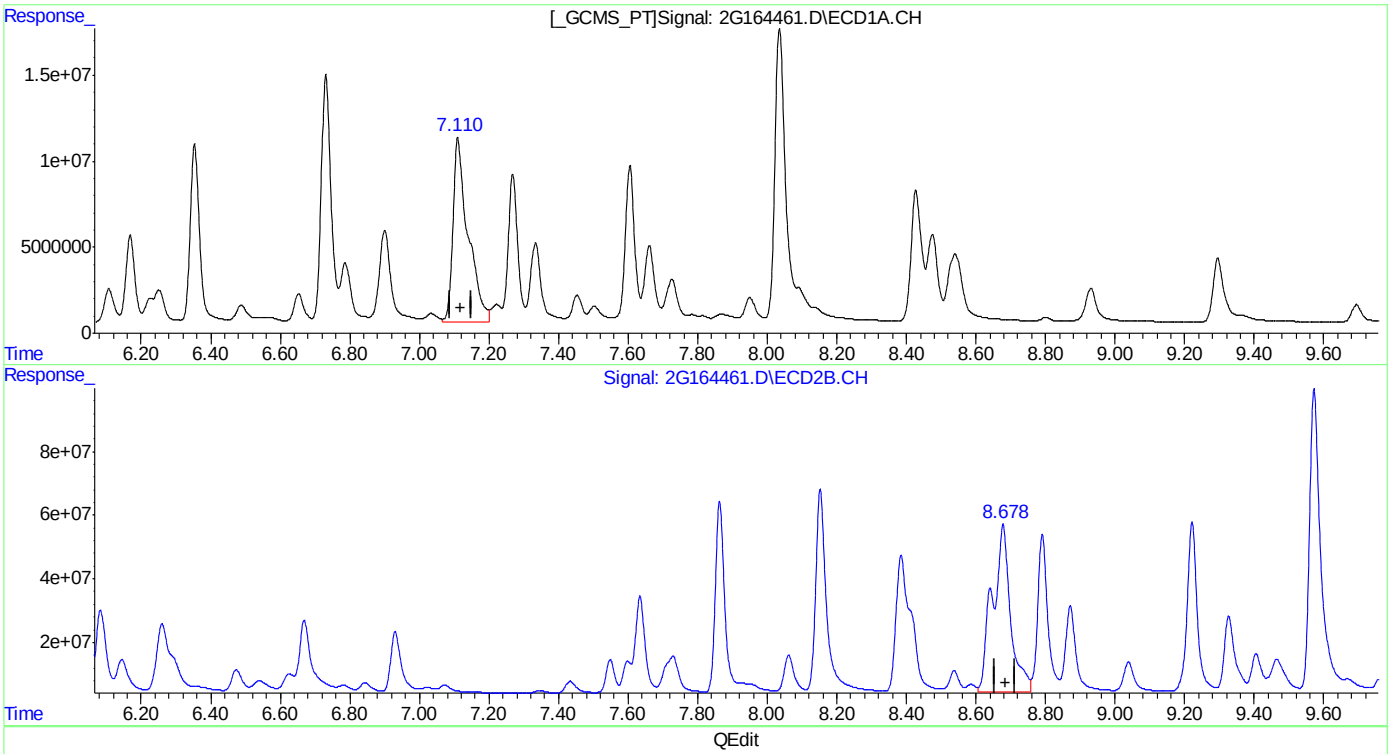
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:27:05 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:26:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.110min 934.218PPB
response 318427717

(36) AR1260-A #2
8.678min 953.547PPB m
response 1906798589

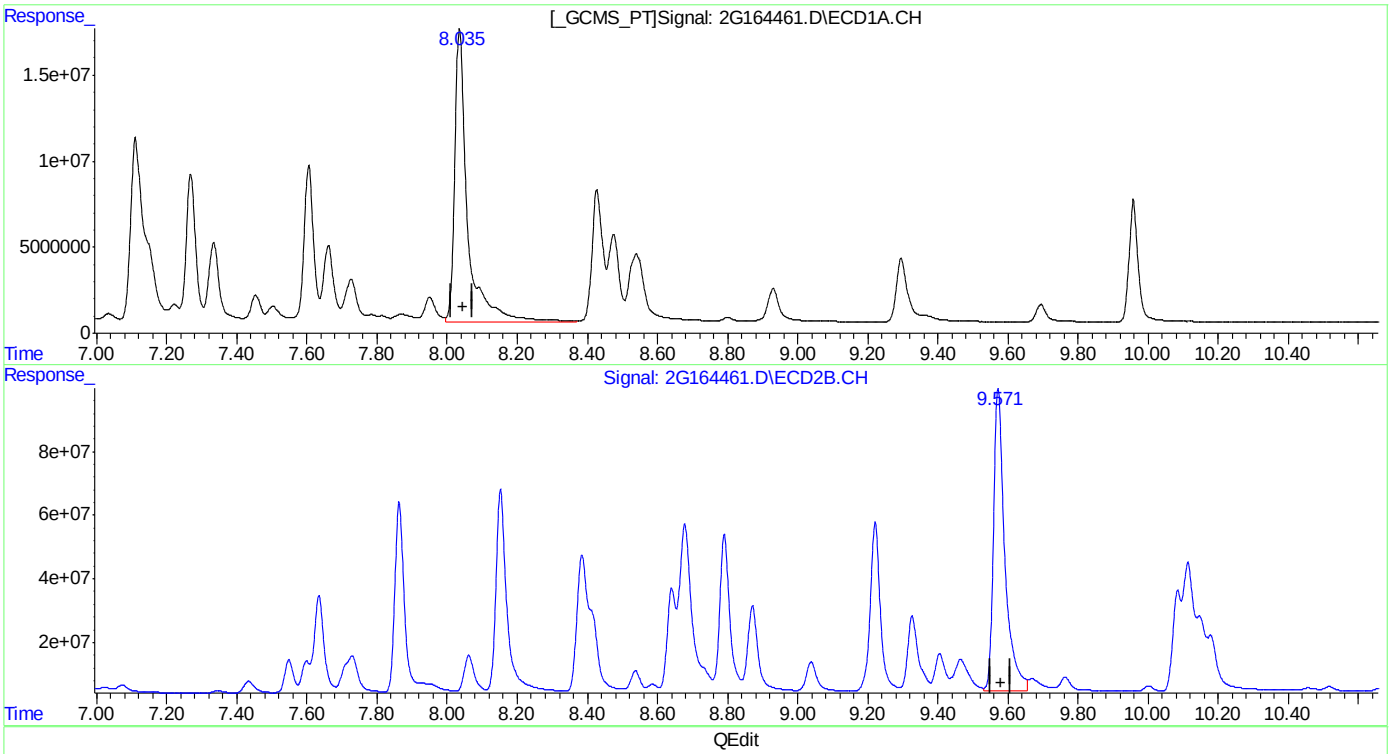
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:27:14 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:26:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(39) AR1260-D
8.035min 1180.987PPB
response 433594328

(39) AR1260-D #2
9.572min 1001.540PPB
response 2149803088

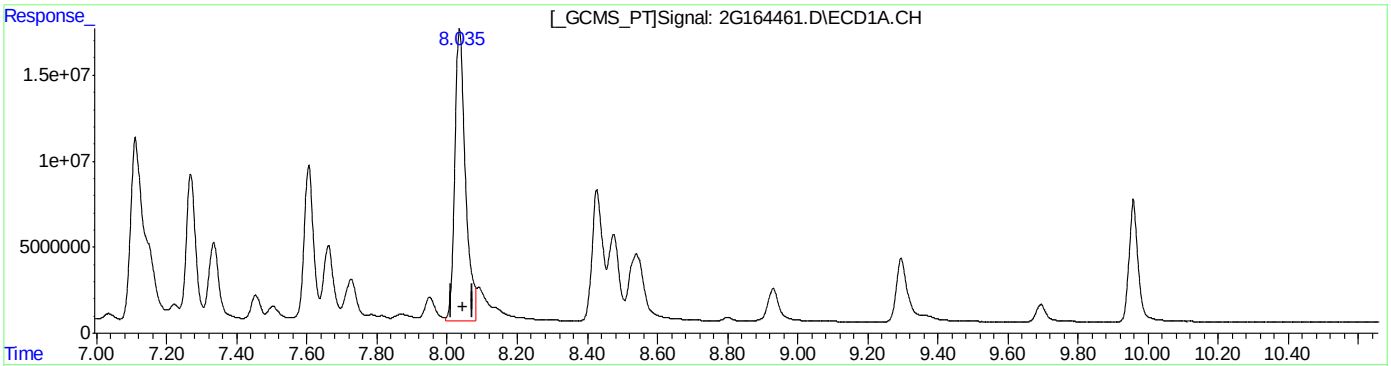
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:27:21 2018 RPT1

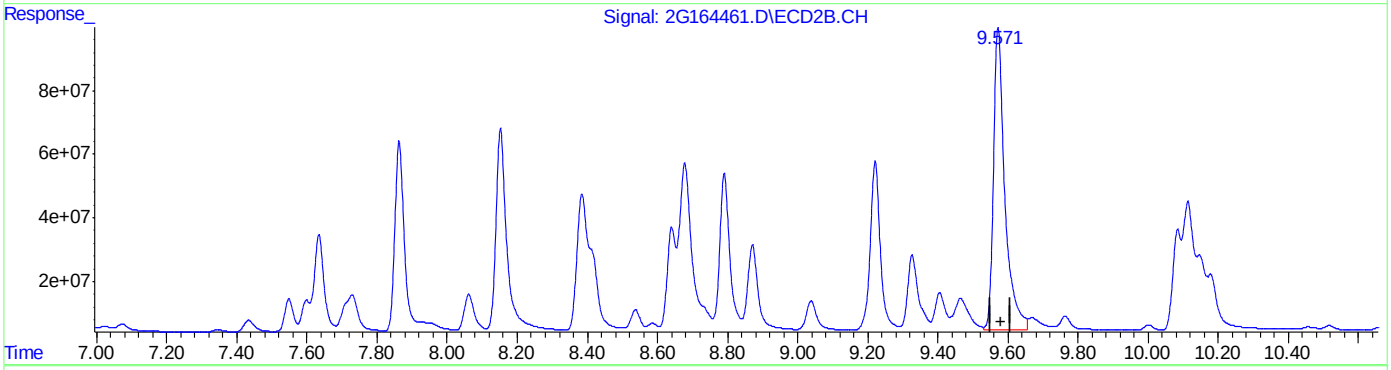
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:26:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(39) AR1260-D
8.035min 978.416PPB m
response 359221177

(39) AR1260-D #2
9.572min 1001.540PPB
response 2149803088

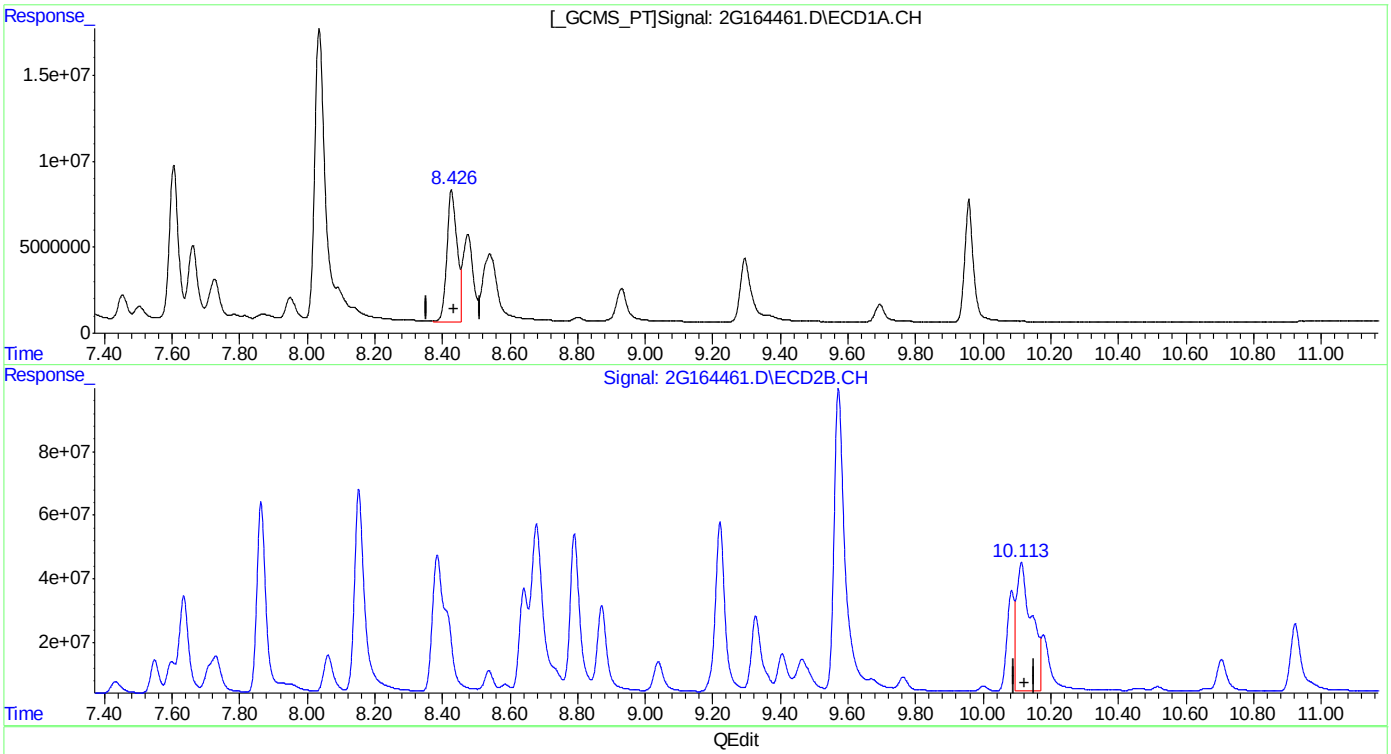
(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:27:30 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:26:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.427min 416.115PPB
response 157619273

(40) AR1260-E #2
10.114min 604.310PPB
response 1231687565

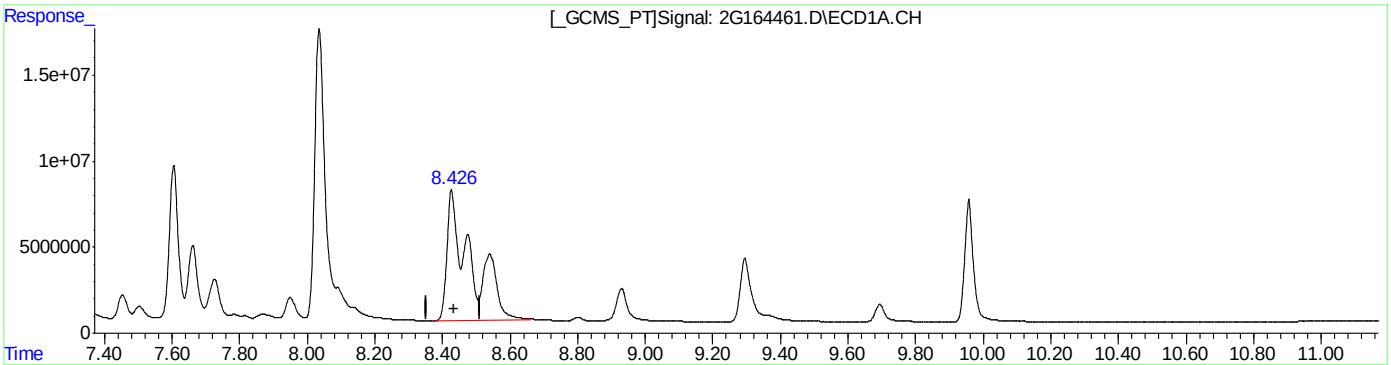
(+) = Expected Retention Time

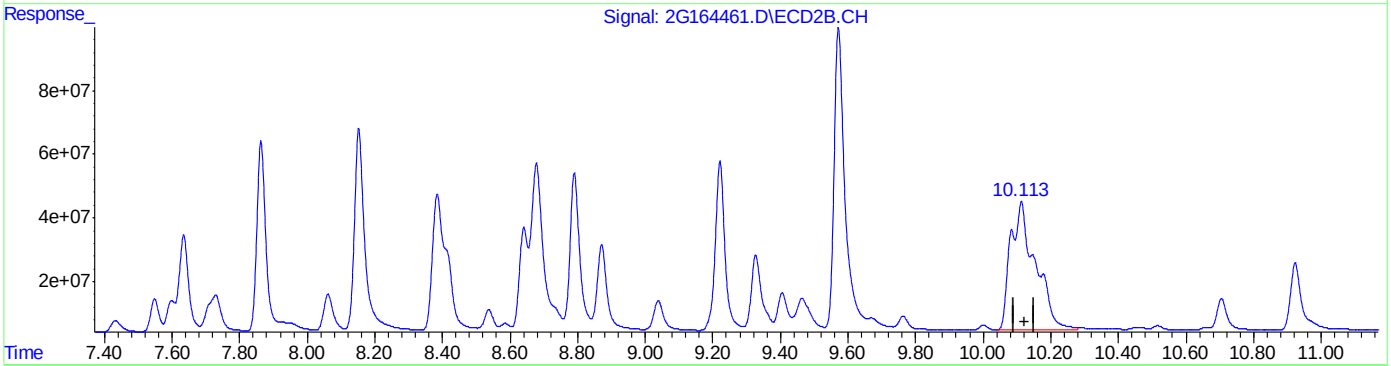
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4347\
Data File : 2G164461.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 May 2018 10:20 am
Operator : edouarda
Sample : cc4311-1000
Misc : OP12244,G2G4347,15.0,,,10,1
ALS Vial : 94 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 28 19:26:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Fri May 25 17:33:47 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.426min 991.604PPB m
response 375607412

(40) AR1260-E #2
10.113min 1009.927PPB m
response 2058405378

(+) = Expected Retention Time
2PCB4311.M Mon May 28 19:27:47 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 16:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164516.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 9:00 am
Operator : tianweir
Sample : cc4311-1000
Misc : OP12273,G2G4348,300,,,2,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 09:36:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1)	S Tetrachlo...	2.781	3.429	155.1E6	925.9E6	42.263	40.464
	Spiked Amount 40.000			Recovery	=	105.66%	101.16%
51)	S Decachlor...	9.970	11.773	138.7E6	700.4E6	34.194	36.670
	Spiked Amount 40.000			Recovery	=	85.49%	91.68%
	Target Compounds						
31)	AR1016-A	3.151	4.090	78167436	393.0E6	1003.524	1049.175
32)	AR1016-B	3.545	4.619	137.7E6	779.9E6	1011.960	973.559
33)	AR1016-C	4.089	5.264	260.5E6	1588.2E6	898.309	916.074
34)	AR1016-D	4.252	5.449	112.7E6	810.6E6	953.451	1077.587
35)	AR1016-E	4.756	6.089	115.8E6	479.6E6	950.014	934.742
36)	AR1260-A	7.156	8.696	268.9E6	1651.5E6	789.047	825.858m
37)	AR1260-B	7.277	8.799	159.3E6	1006.1E6	1103.091	1150.635
38)	AR1260-C	7.619	9.231	139.4E6	1004.4E6	875.773	982.803
39)	AR1260-D	8.067	9.593	418.5E6	2241.6E6	1139.934	1044.292
40)	AR1260-E	8.488	10.154	378.0E6	2137.3E6	997.949m	1048.645m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

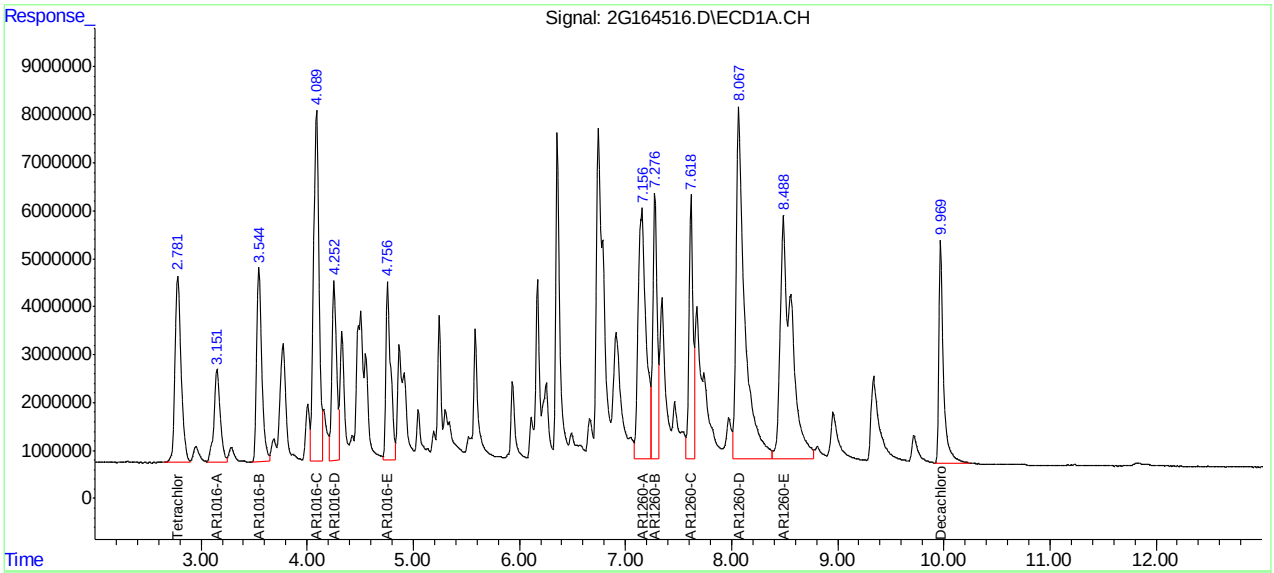
11.6.21
11

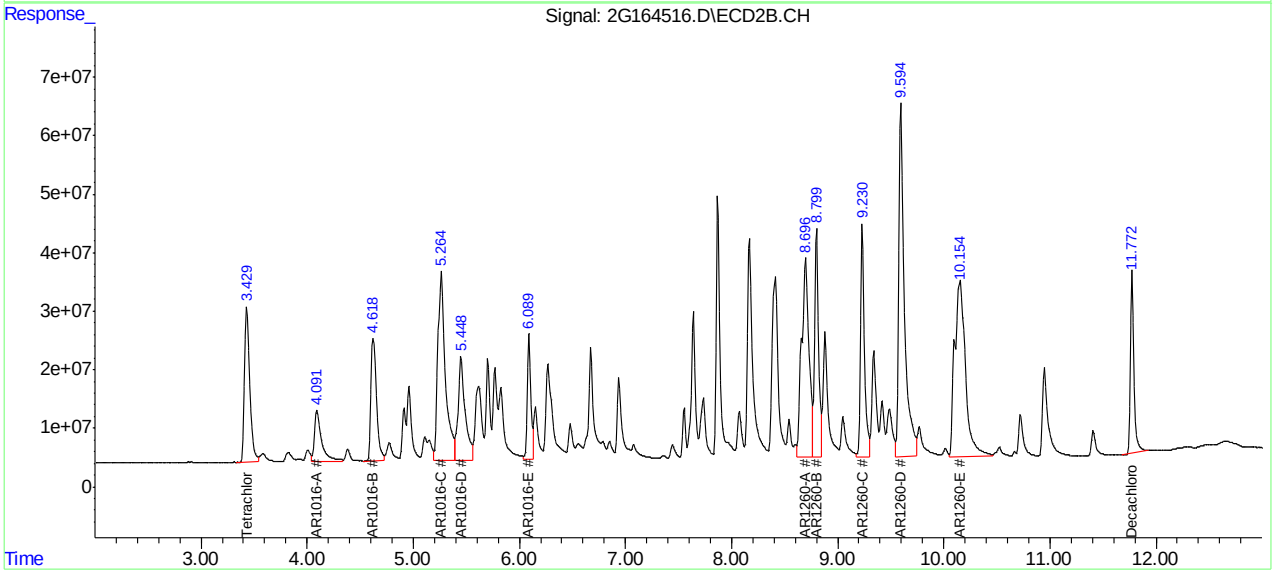
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164516.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 9:00 am
Operator : tianweir
Sample : cc4311-1000
Misc : OP12273,G2G4348,300,,,2,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 09:36:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





JC66384

Manual Integration Approval Summary

Sample Number:	G2G4348-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164516.D	**Analyst approved:**	05/29/18 13:01 Tianwei Ruan
Injection Time:	05/29/18 09:00	**Supervisor approved:**	05/29/18 16:54 Gwendolyn Burns

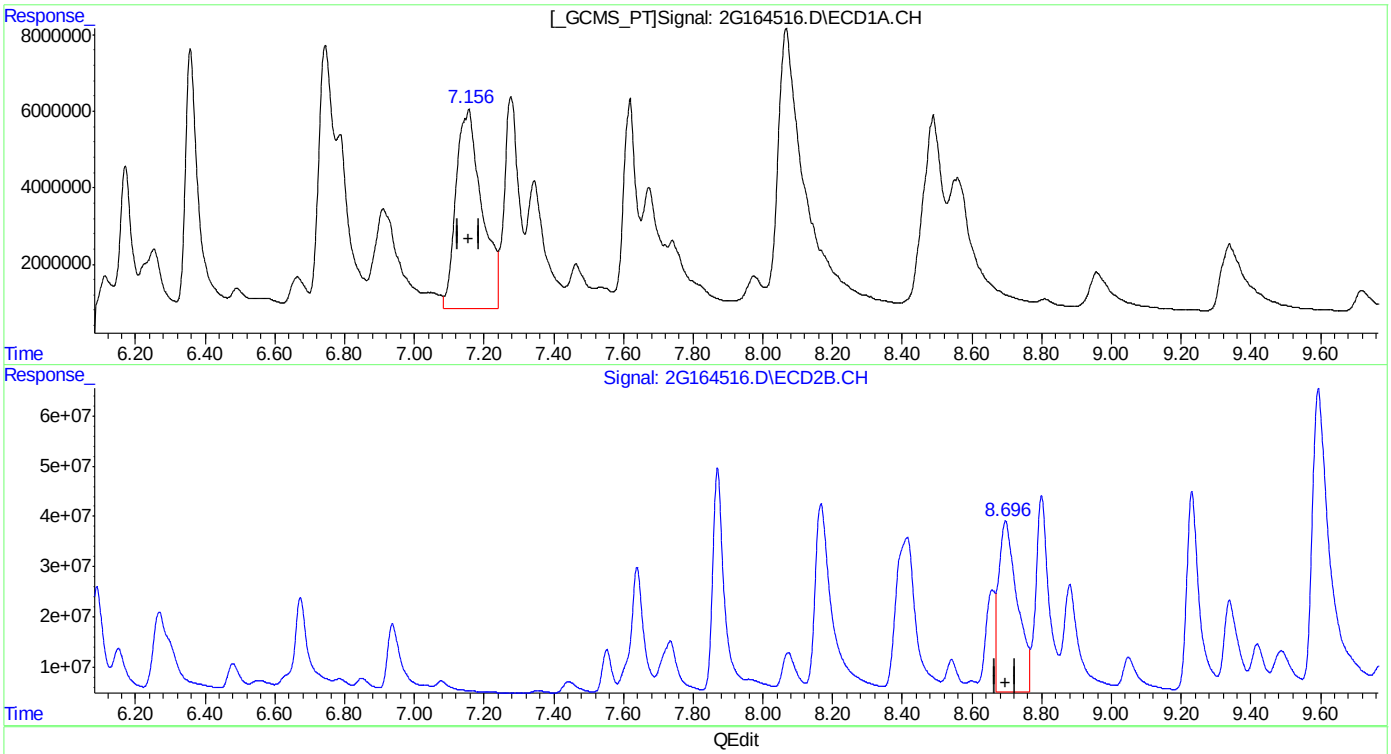
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	8.49	Split peak
AR1260-A		2	8.70	Split peak
AR1260-E		2	10.15	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164516.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 9:00 am
Operator : tianweir
Sample : cc4311-1000
Misc : OP12273,G2G4348,300,,,2,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 09:35:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.156min 789.047PPB
response 268946375

(36) AR1260-A #2
8.696min 638.238PPB
response 1276277733

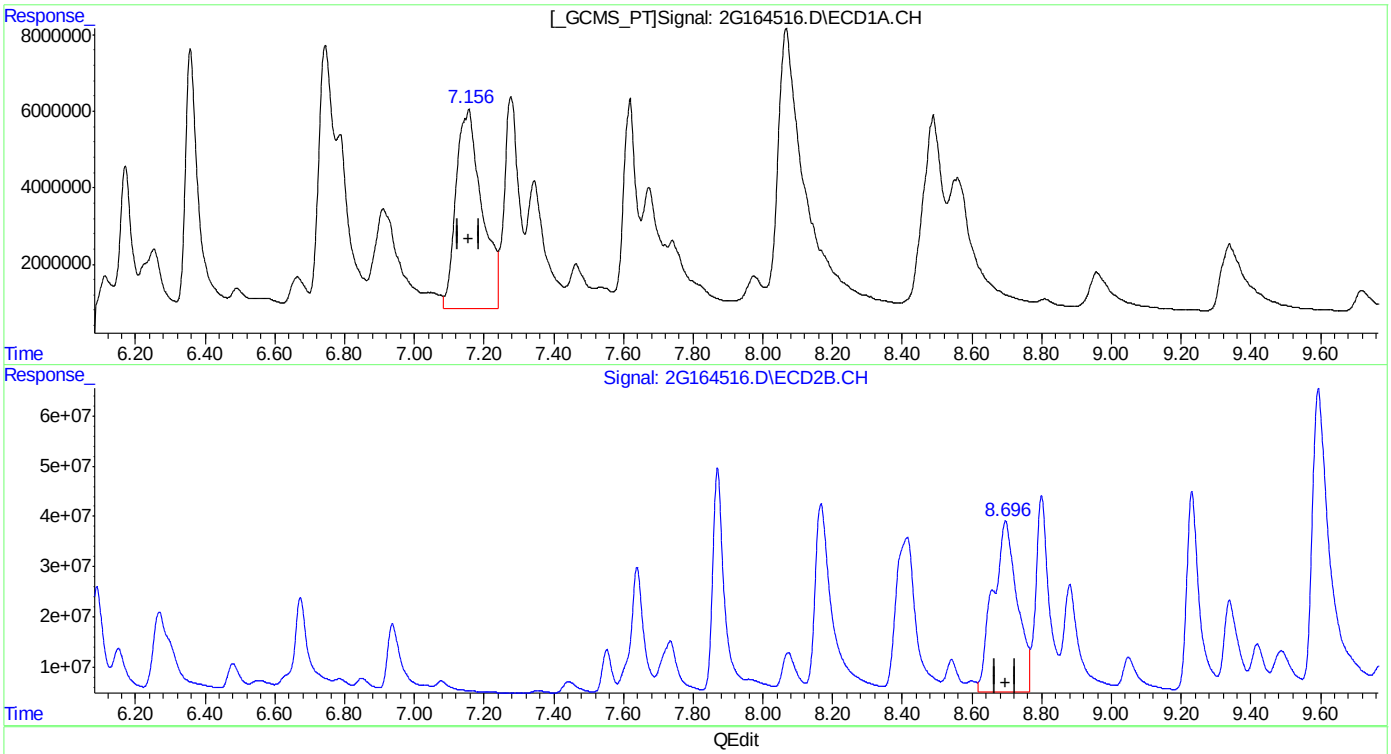
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164516.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 9:00 am
Operator : tianweir
Sample : cc4311-1000
Misc : OP12273,G2G4348,300,,,2,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 09:35:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.156min 789.047PPB
response 268946375

(36) AR1260-A #2
8.696min 825.858PPB m
response 1651459574

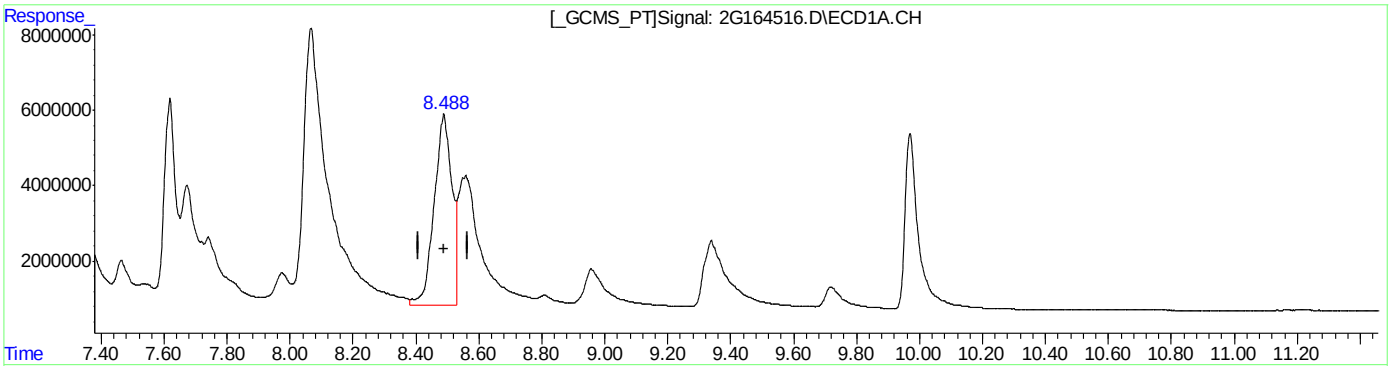
(+) = Expected Retention Time
2PCB4311.M Tue May 29 09:36:03 2018 RPT1

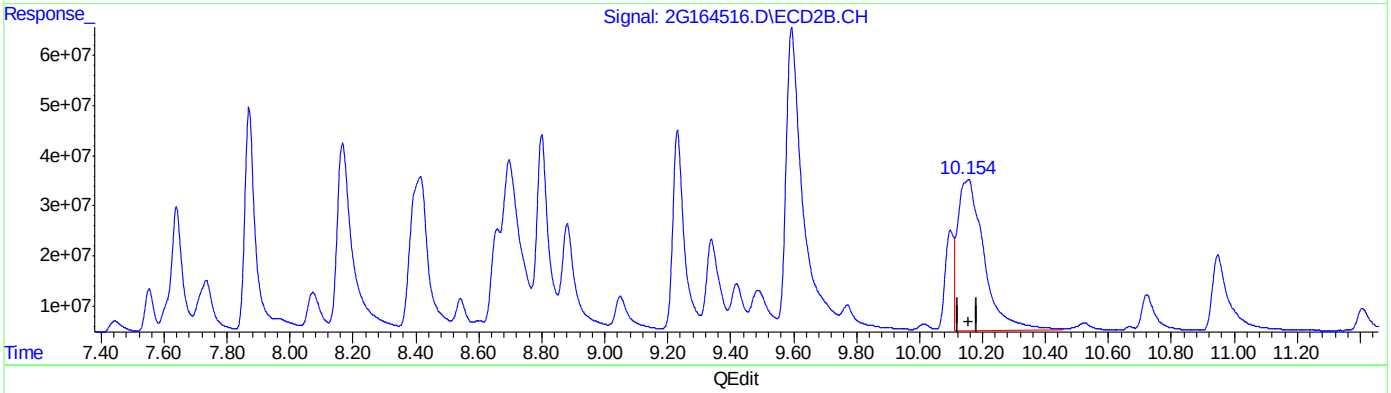
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164516.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 9:00 am
Operator : tianweir
Sample : cc4311-1000
Misc : OP12273,G2G4348,300,,,2,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 09:35:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.489min 518.911PPB
response 196557122

(40) AR1260-E #2
10.155min 850.989PPB
response 1734461772

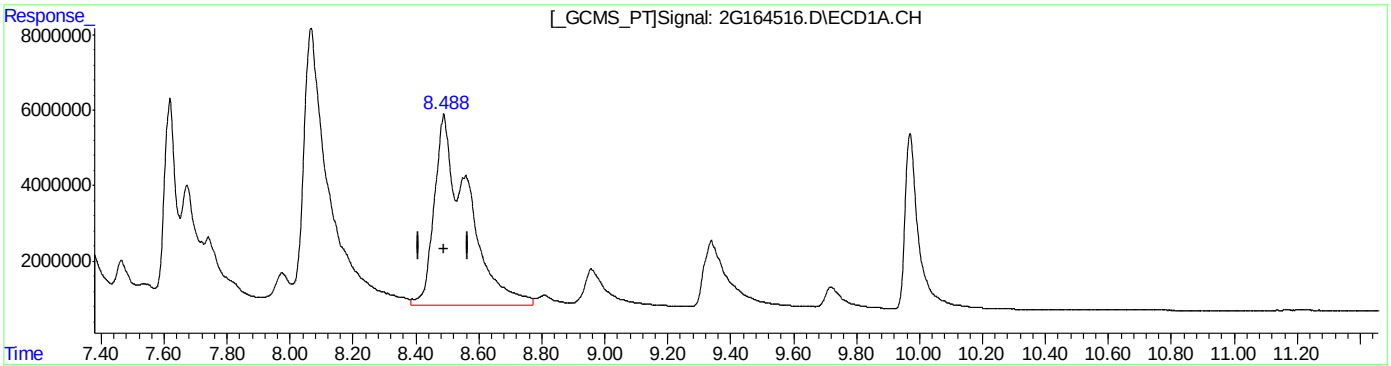
(+) = Expected Retention Time
2PCB4311.M Tue May 29 09:36:11 2018 RPT1

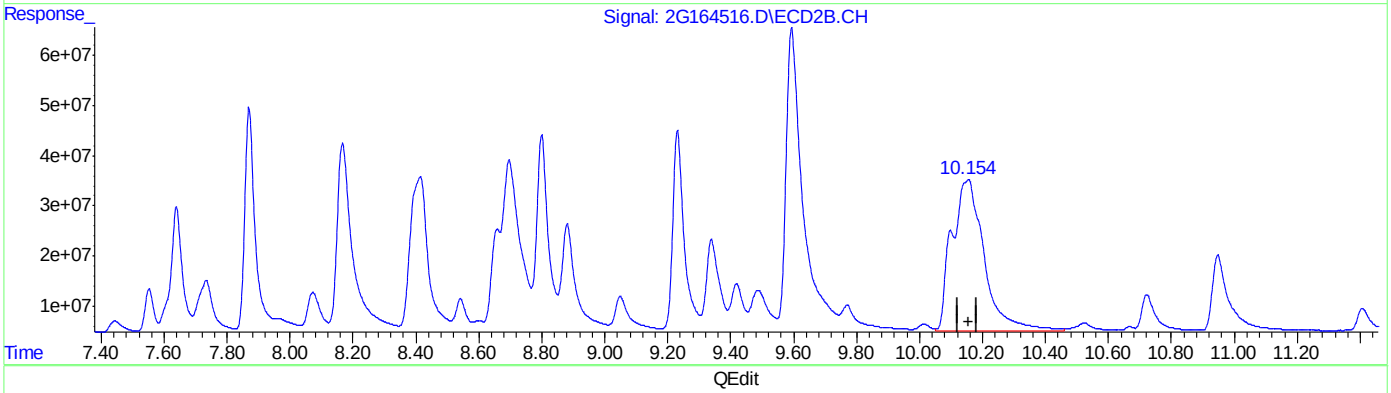
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164516.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 9:00 am
Operator : tianweir
Sample : cc4311-1000
Misc : OP12273,G2G4348,300,,,2,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 09:35:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.488min 997.949PPB m
response 378010648

(40) AR1260-E #2
10.154min 1048.645PPB m
response 2137319095

(+) = Expected Retention Time
2PCB4311.M Tue May 29 09:36:20 2018 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 16:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:57:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.789	3.435	76746612	484.5E6	20.909	21.175
	Spiked Amount 40.000			Recovery	=	52.27%	52.94%
51) S	Decachlor...	9.970	11.772	71093029	317.5E6	17.529	16.623
	Spiked Amount 40.000			Recovery	=	43.82%	41.56%
	Target Compounds						
31)	AR1016-A	3.159	4.097	40553872	217.1E6	520.636	579.577
32)	AR1016-B	3.551	4.623	70054949	425.1E6	514.891	530.691
33)	AR1016-C	4.096	5.271	128.8E6	827.8E6	444.070	477.496
34)	AR1016-D	4.259	5.453	57616679	437.0E6	487.308	580.973
35)	AR1016-E	4.764	6.093	59216423	256.0E6	485.642	498.859
36)	AR1260-A	7.133f	8.695	142.7E6	845.5E6	418.579	422.832m
37)	AR1260-B	7.278	8.801	79668110	498.3E6	551.552	569.956
38)	AR1260-C	7.616	9.232	72995258	496.9E6	458.428m	486.229
39)	AR1260-D	8.057	9.589	202.8E6	1057.8E6	552.418	492.788
40)	AR1260-E	8.483	10.135f	183.8E6	1013.6E6	485.117m	497.287m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

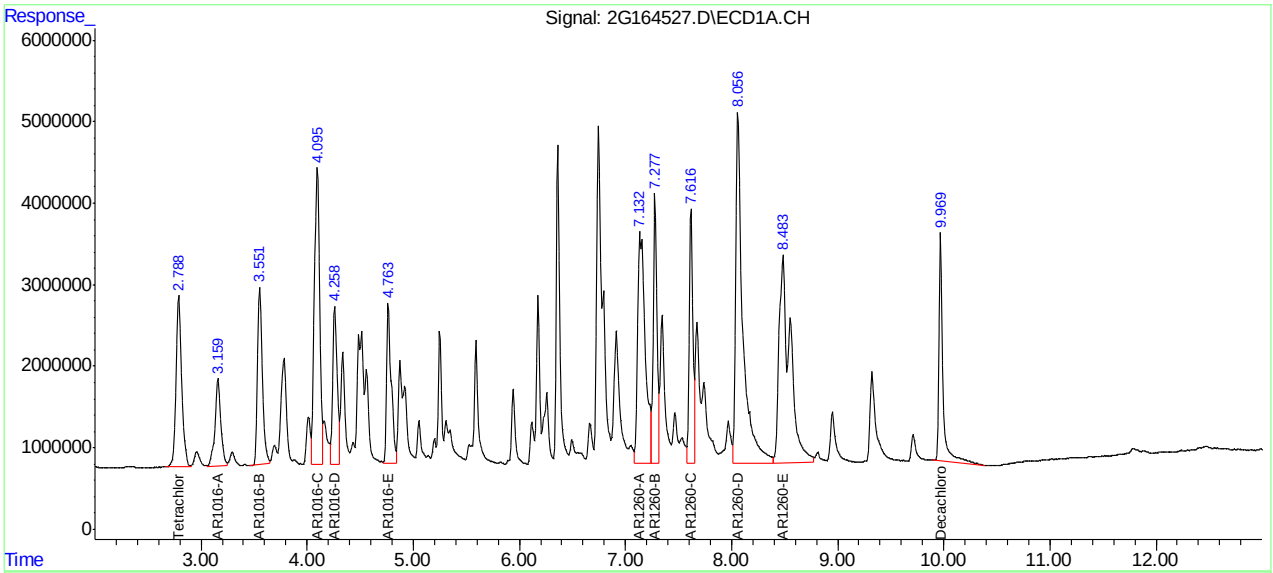
11.6.22 11

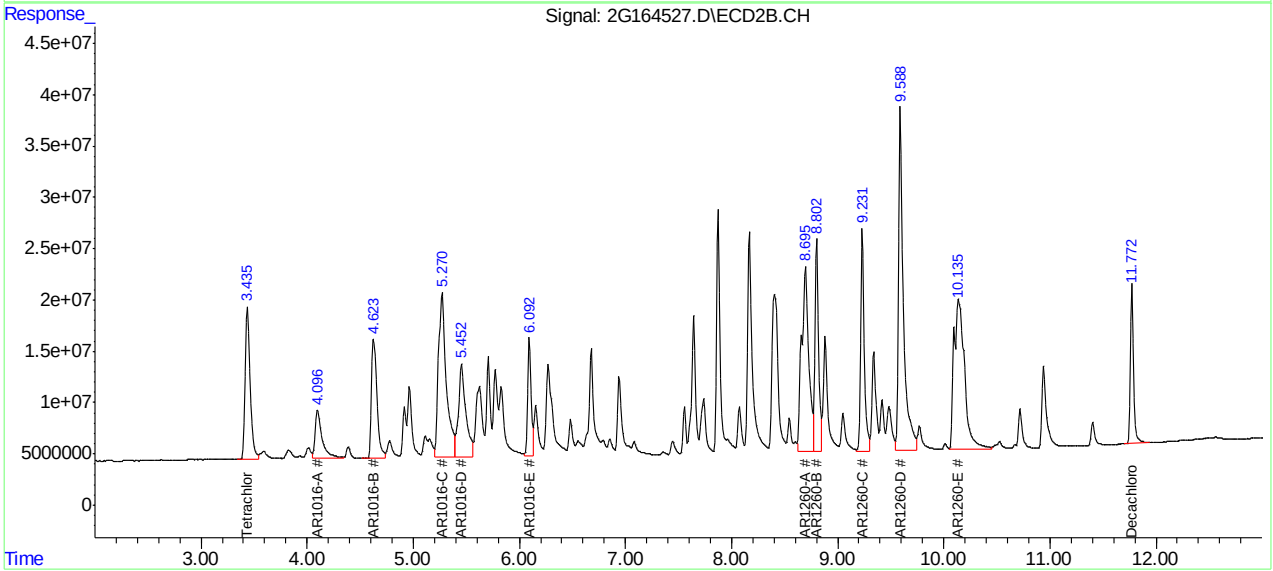
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:57:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





11.6.22

Manual Integration Approval Summary

Sample Number:	G2G4348-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164527.D	**Analyst approved:**	05/29/18 13:01 Tianwei Ruan
Injection Time:	05/29/18 12:37	**Supervisor approved:**	05/29/18 16:54 Gwendolyn Burns

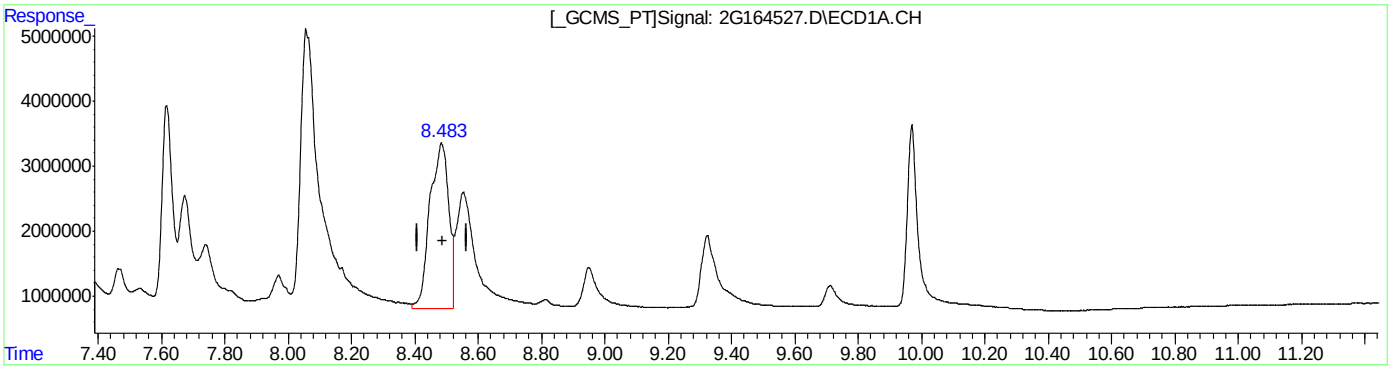
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-C		1	7.62	Split peak
AR1260-E		1	8.48	Split peak
AR1260-A		2	8.69	Split peak
AR1260-E		2	10.13	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:56:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.484min 276.457PPB
response 104718600

(40) AR1260-E #2
10.136min 392.472PPB
response 799925292

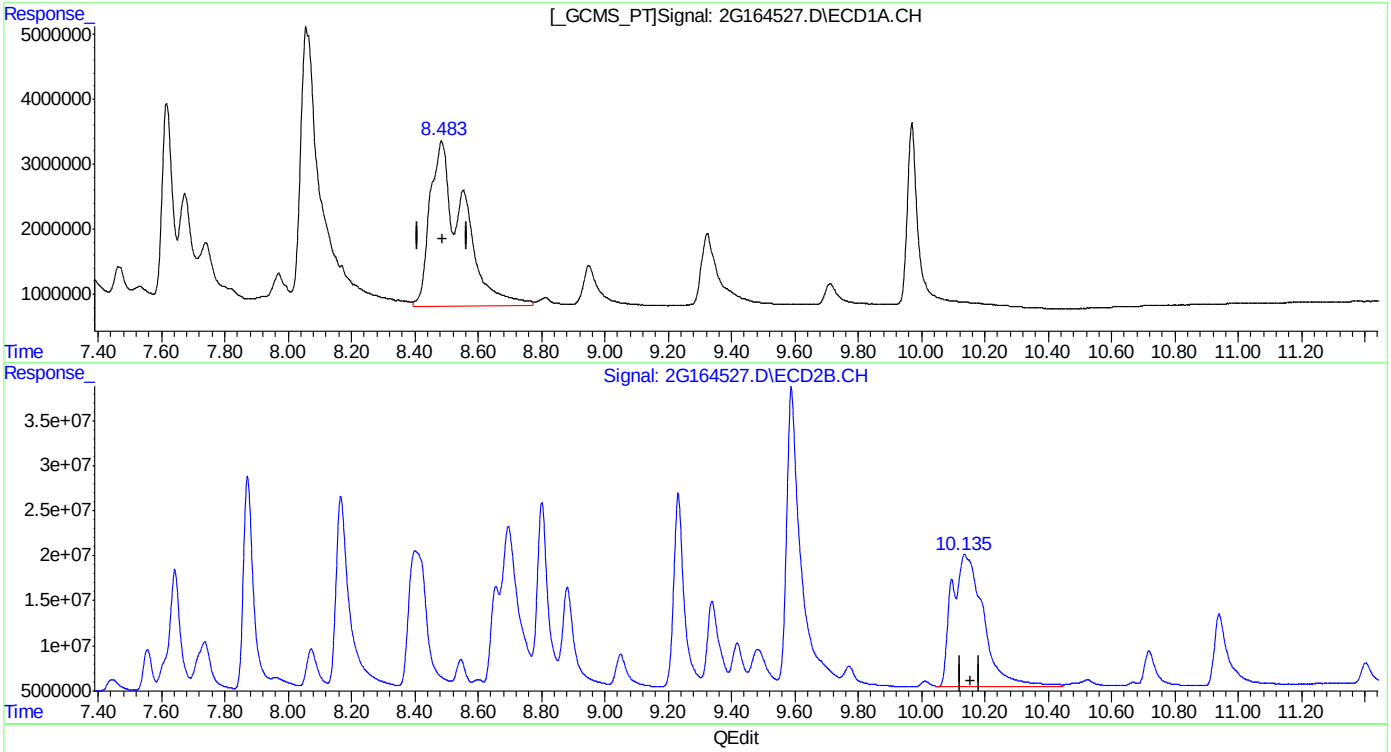
(+) = Expected Retention Time
2PCB4311.M Tue May 29 12:57:02 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:56:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(40) AR1260-E
8.483min 485.117PPB m
response 183756128

(40) AR1260-E #2
10.135min 497.287PPB m
response 1013555811

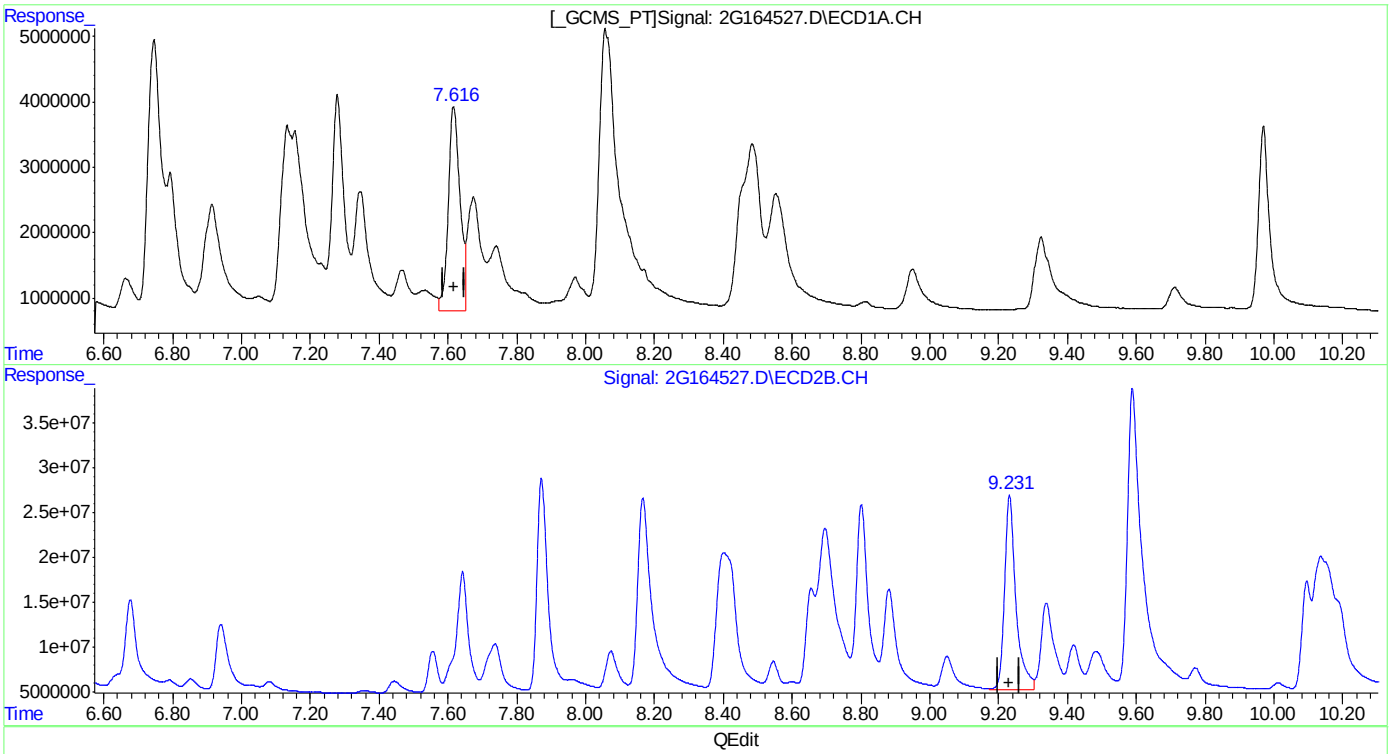
(+) = Expected Retention Time
2PCB4311.M Tue May 29 12:57:09 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:56:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(38) AR1260-C
7.616min 458.737PPB
response 73044442

(38) AR1260-C #2
9.232min 486.229PPB
response 496937820

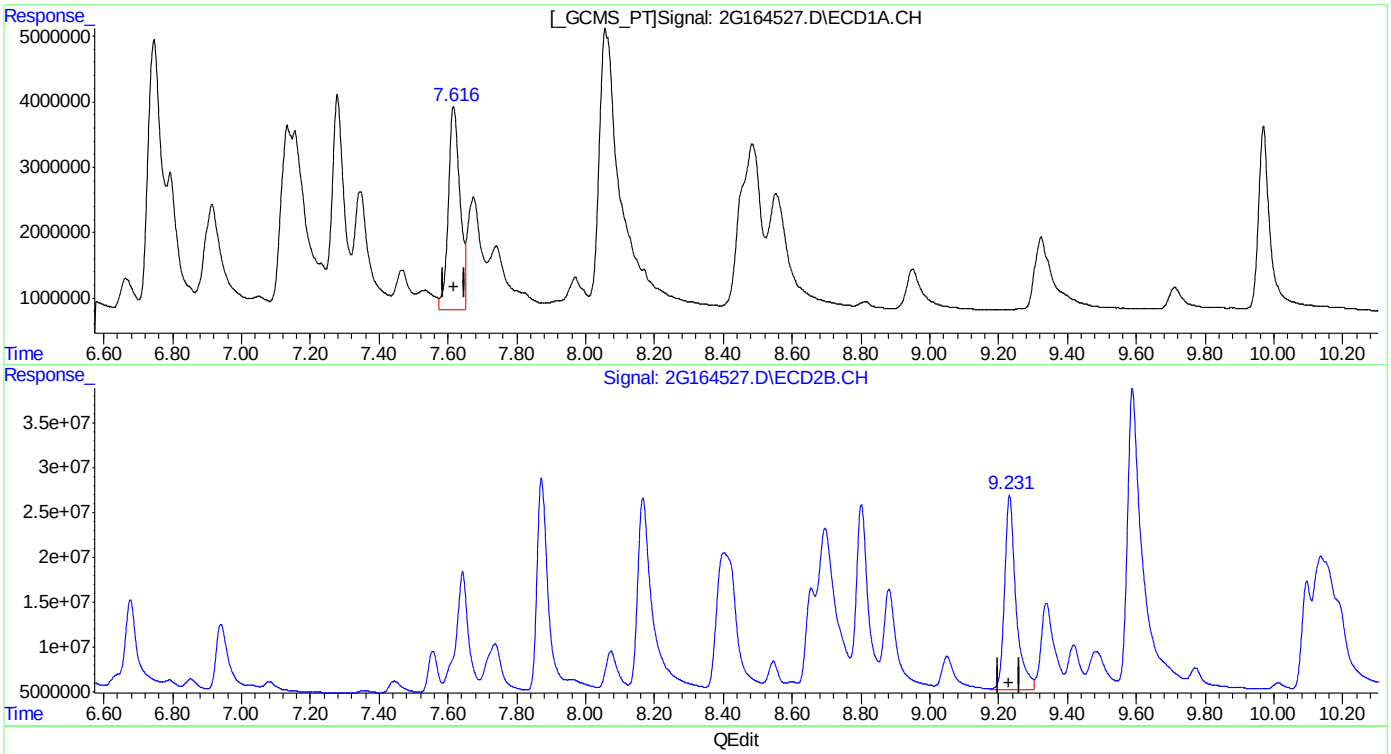
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:56:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



(38) AR1260-C
7.616min 458.428PPB m
response 72995258

(38) AR1260-C #2
9.232min 486.229PPB
response 496937820

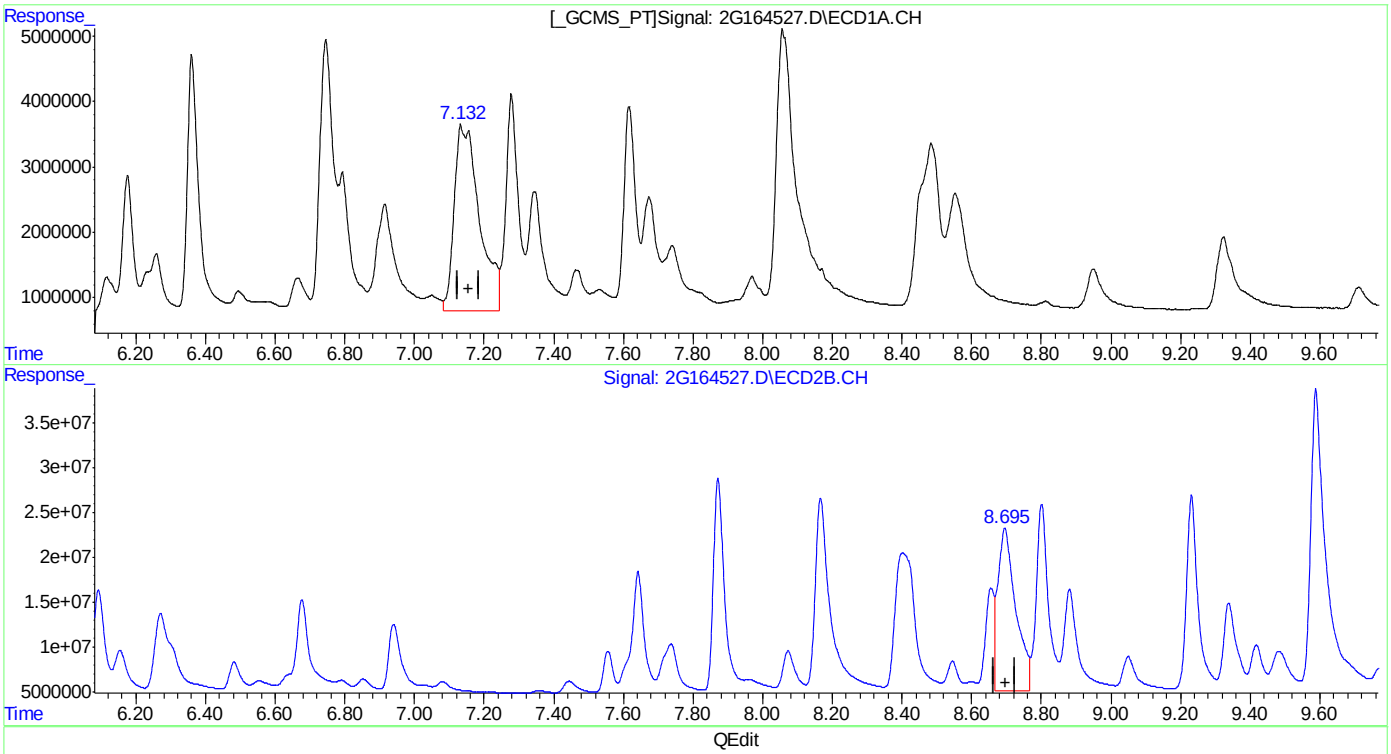
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:56:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.133min 418.579PPB
response 142672354

(36) AR1260-A #2
8.696min 325.440PPB
response 650780118

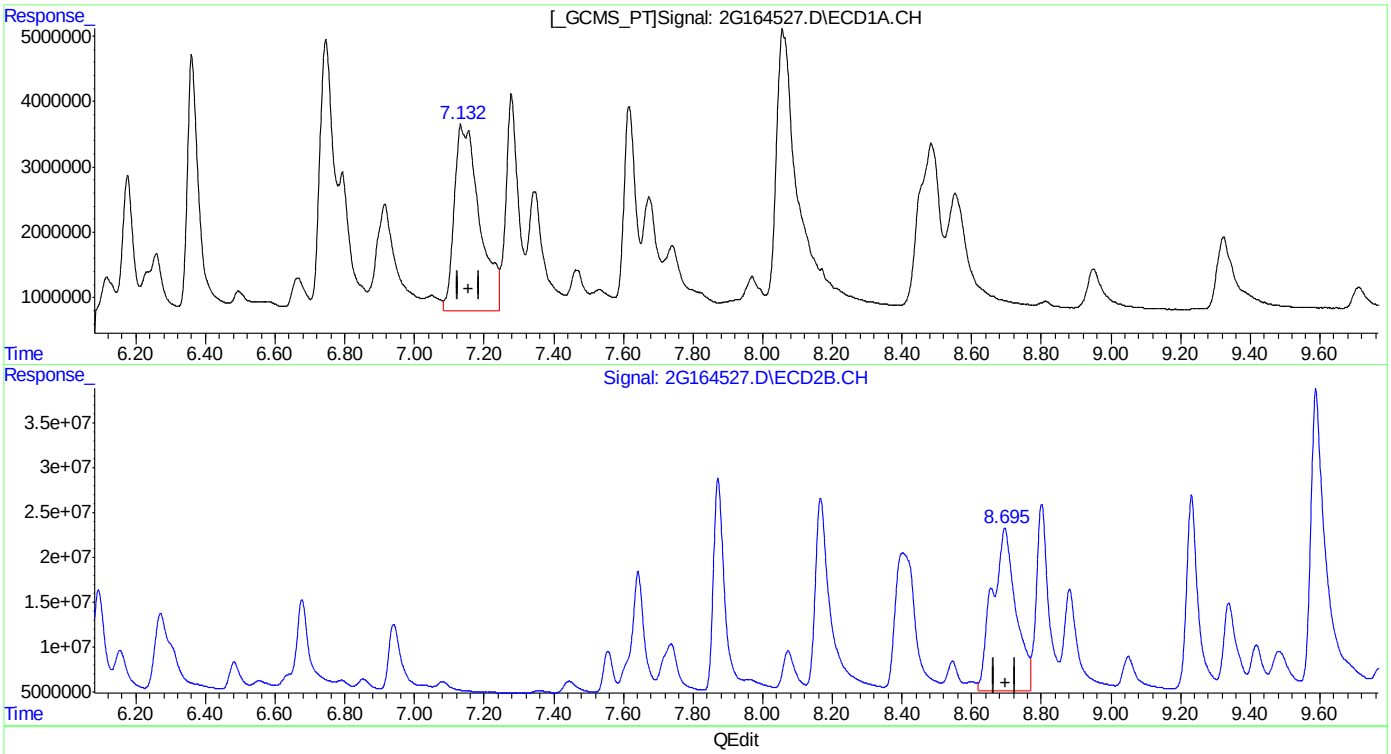
(+) = Expected Retention Time
2PCB4311.M Tue May 29 12:57:24 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164527.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 12:37 pm
Operator : tianweir
Sample : cc4311-500
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 12:56:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.133min 418.579PPB
response 142672354

(36) AR1260-A #2
8.695min 422.832PPB m
response 845533297

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/29/18 16:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:51:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
1) S	Tetrachlo...	2.759f	3.413f	150.7E6	930.6E6	41.071	40.669
	Spiked Amount 40.000			Recovery	=	102.68%	101.67%
51) S	Decachlor...	9.974	11.774	143.7E6	751.3E6	35.434	39.334
	Spiked Amount 40.000			Recovery	=	88.58%	98.34%
	Target Compounds						
31)	AR1016-A	3.132f	4.074f	74510955	396.9E6	956.582m	1059.533
32)	AR1016-B	3.530	4.608	131.8E6	785.0E6	969.000	979.935
33)	AR1016-C	4.079	5.255	283.3E6	1665.9E6	977.077	960.889
34)	AR1016-D	4.240	5.441	109.4E6	766.2E6	924.987	1018.542
35)	AR1016-E	4.750	6.085	112.3E6	484.0E6	921.234	943.240
36)	AR1260-A	7.138f	8.692	284.2E6	1711.1E6	833.856	855.704m
37)	AR1260-B	7.278	8.800	152.0E6	940.5E6	1052.474	1075.648
38)	AR1260-C	7.617	9.231	141.8E6	993.2E6	890.665	971.814
39)	AR1260-D	8.061	9.590	416.0E6	2208.9E6	1133.180	1029.071
40)	AR1260-E	8.484	10.133f	372.3E6	2090.6E6	982.850m	1025.703m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

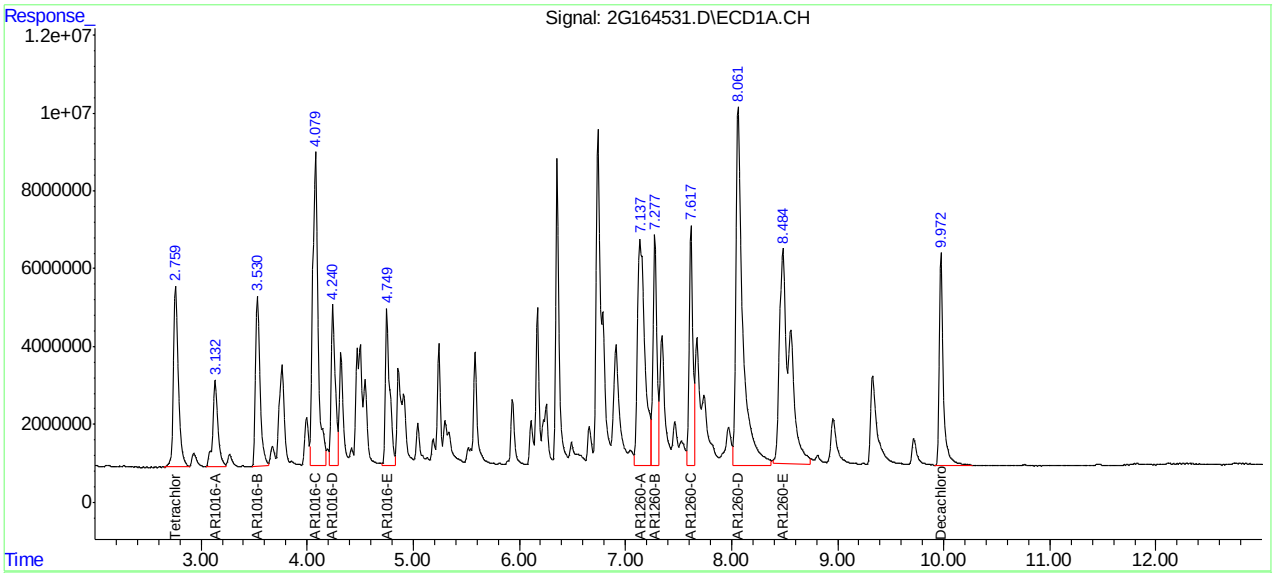
11.6.23 11

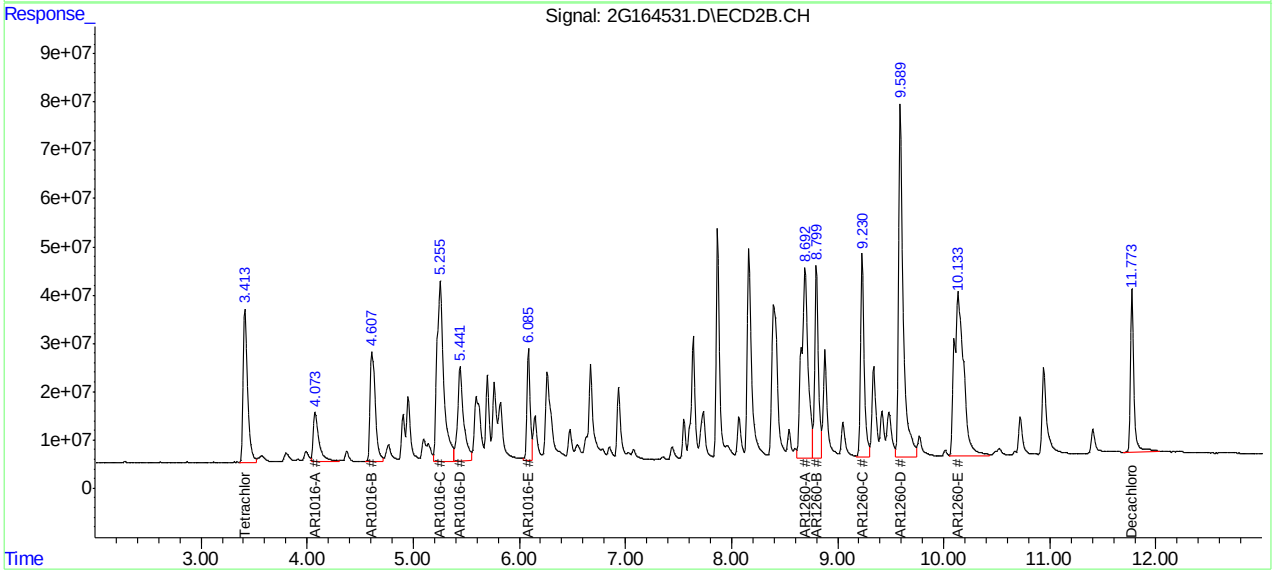
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:51:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





JC66384

11.6.23 11

Manual Integration Approval Summary

Sample Number:	G2G4348-CC4311	**Method:**	SW846 8082A
Lab FileID:	2G164531.D	**Analyst approved:**	05/29/18 15:57 Tianwei Ruan
Injection Time:	05/29/18 15:31	**Supervisor approved:**	05/29/18 16:54 Gwendolyn Burns

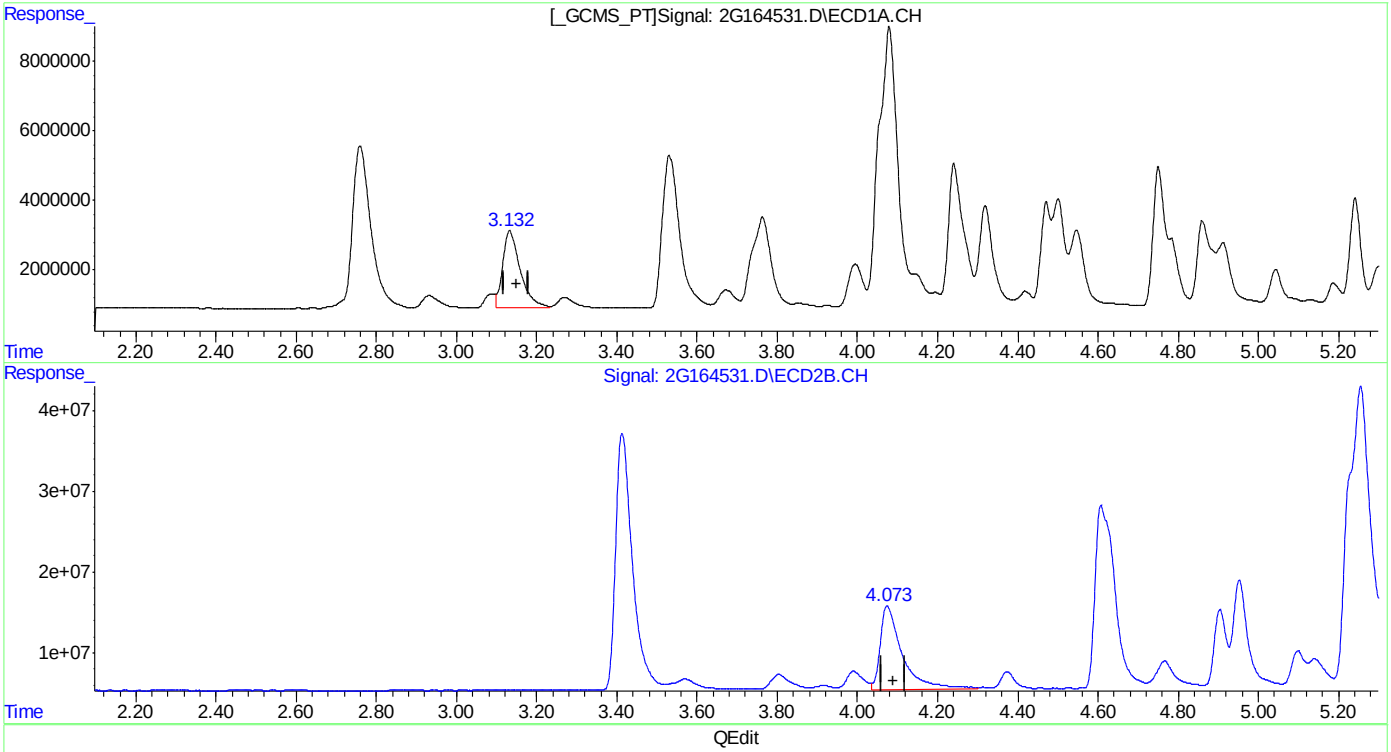
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		1	3.13	Split peak
AR1260-E		1	8.48	Split peak
AR1260-A		2	8.69	Split peak
AR1260-E		2	10.13	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:50:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.132min 867.781PPB
response 67594003

(31) AR1016-A #2
4.074min 1059.533PPB
response 396906678

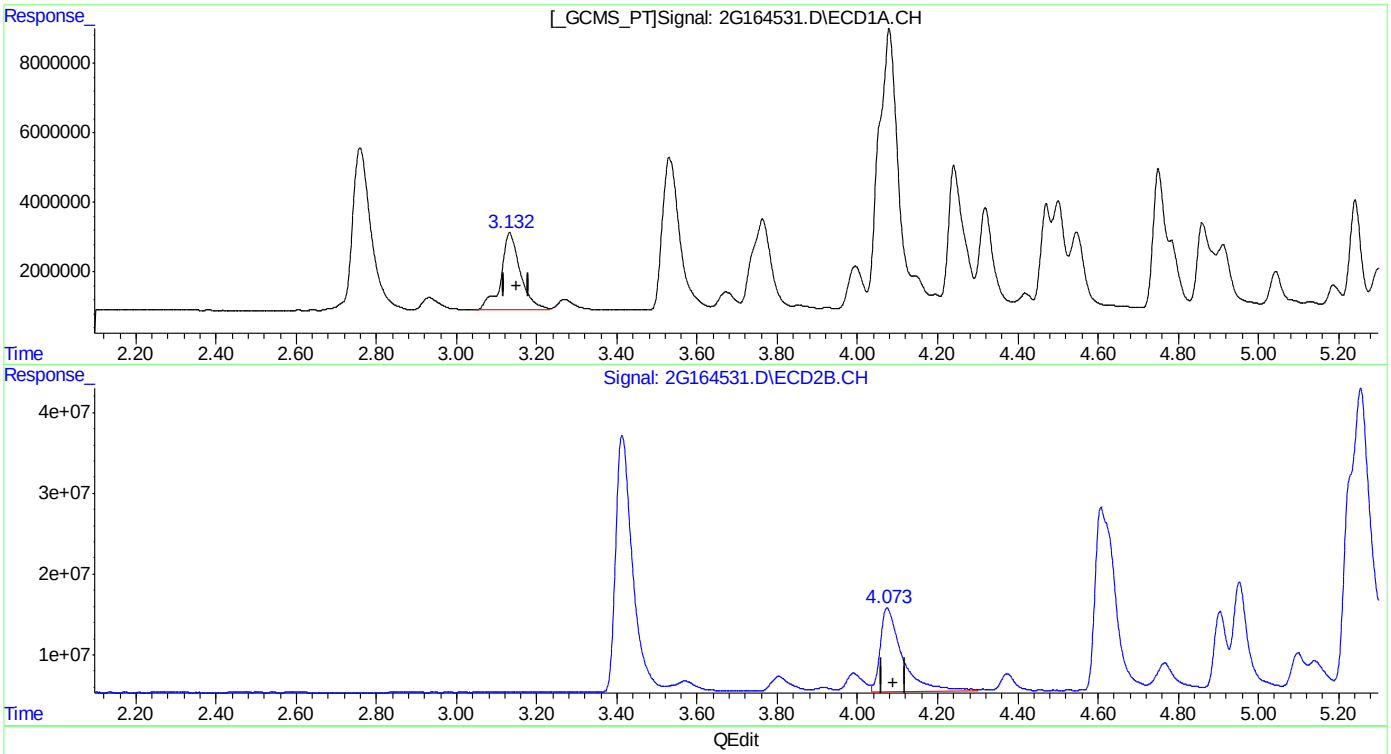
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:50:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(31) AR1016-A
3.132min 956.582PPB m
response 74510955

(31) AR1016-A #2
4.074min 1059.533PPB
response 396906678

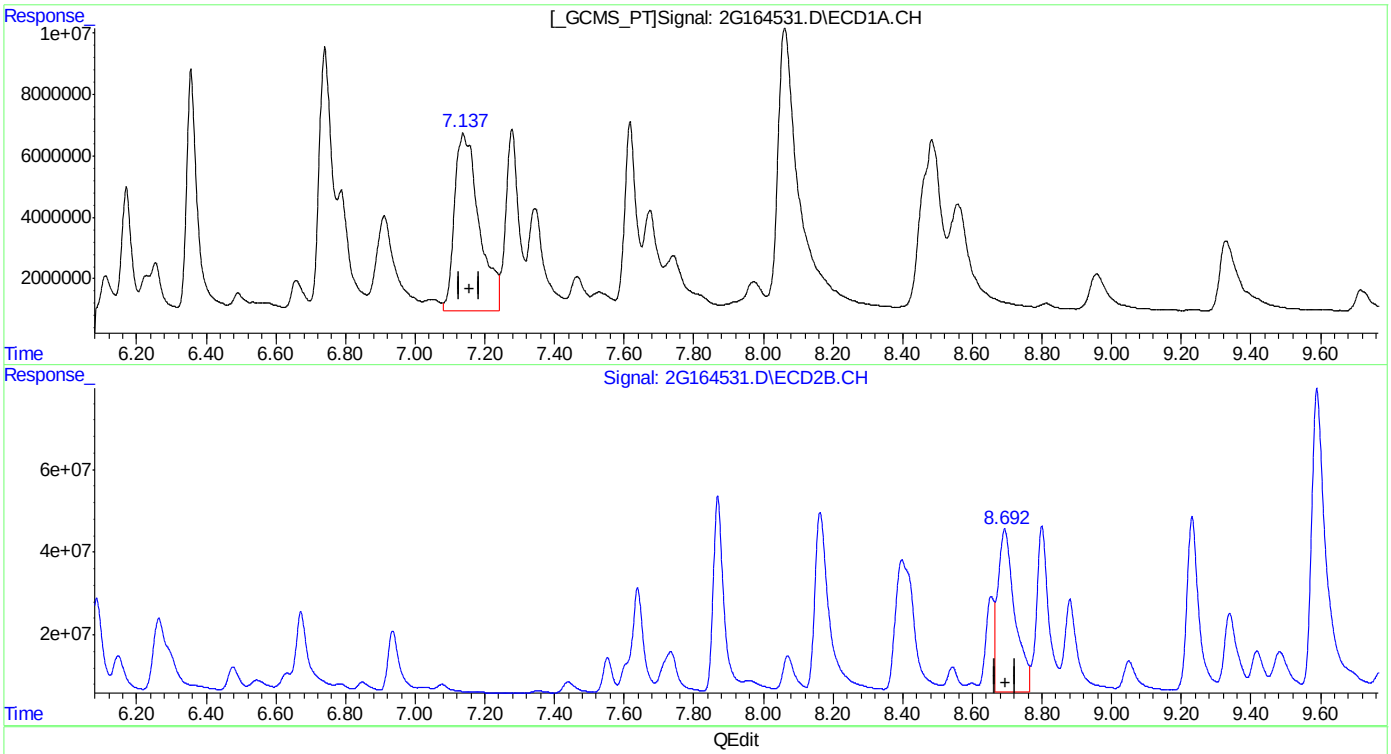
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:50:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.138min 833.856PPB
response 284219527

(36) AR1260-A #2
8.693min 667.434PPB
response 1334661002

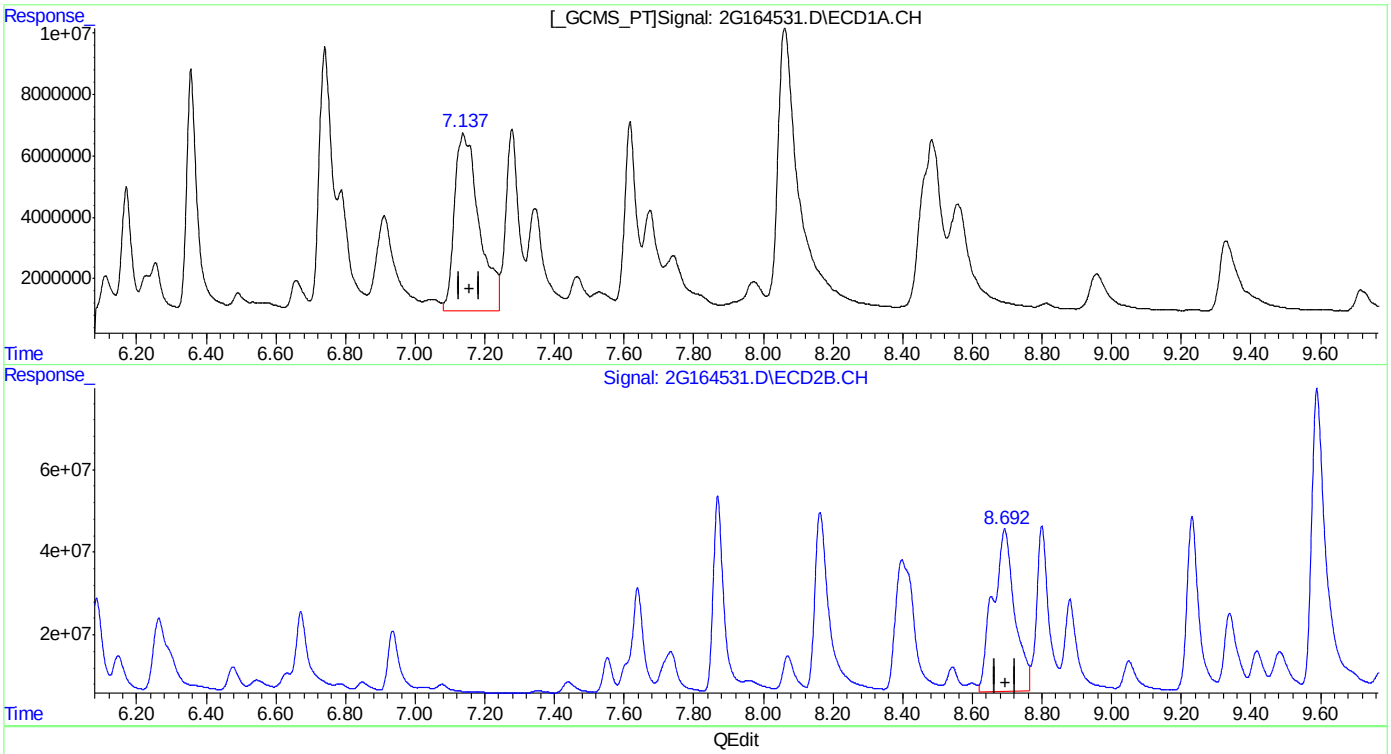
(+) = Expected Retention Time
2PCB4311.M Tue May 29 15:50:40 2018 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:50:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



QEdit

(36) AR1260-A
7.138min 833.856PPB
response 284219527

(36) AR1260-A #2
8.692min 855.704PPB m
response 1711142740

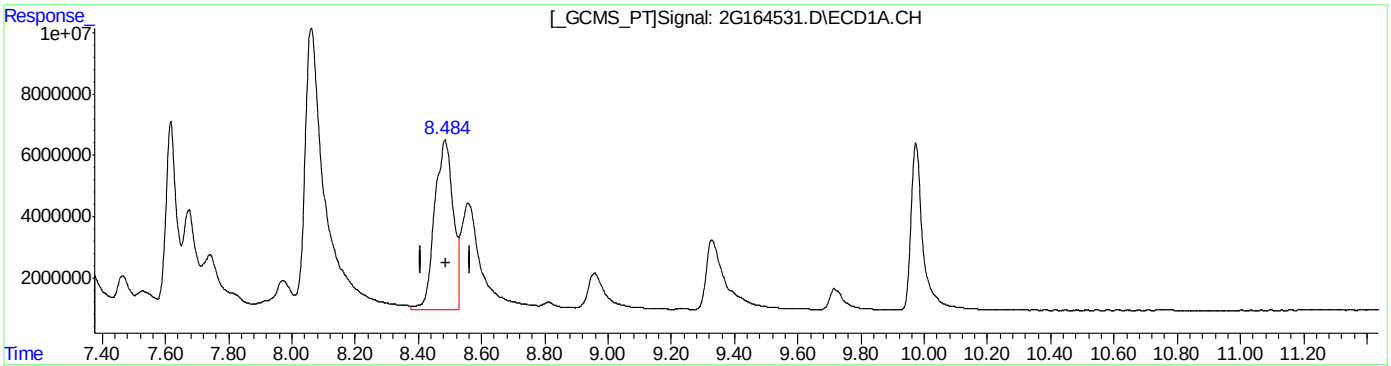
(+) = Expected Retention Time
2PCB4311.M Tue May 29 15:50:45 2018 RPT1

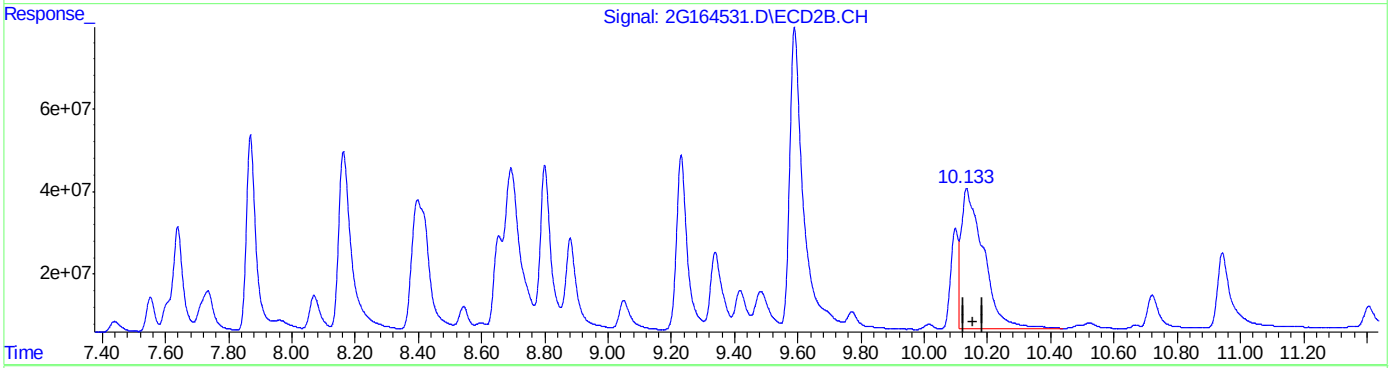
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:50:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.484min 592.786PPB
response 224539833

(40) AR1260-E #2
10.134min 824.820PPB
response 1681125285

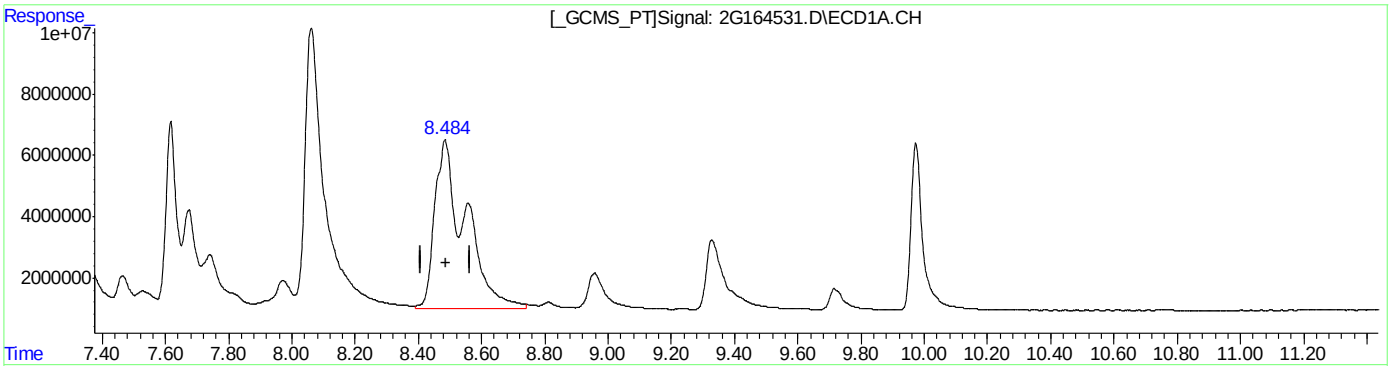
(+) = Expected Retention Time

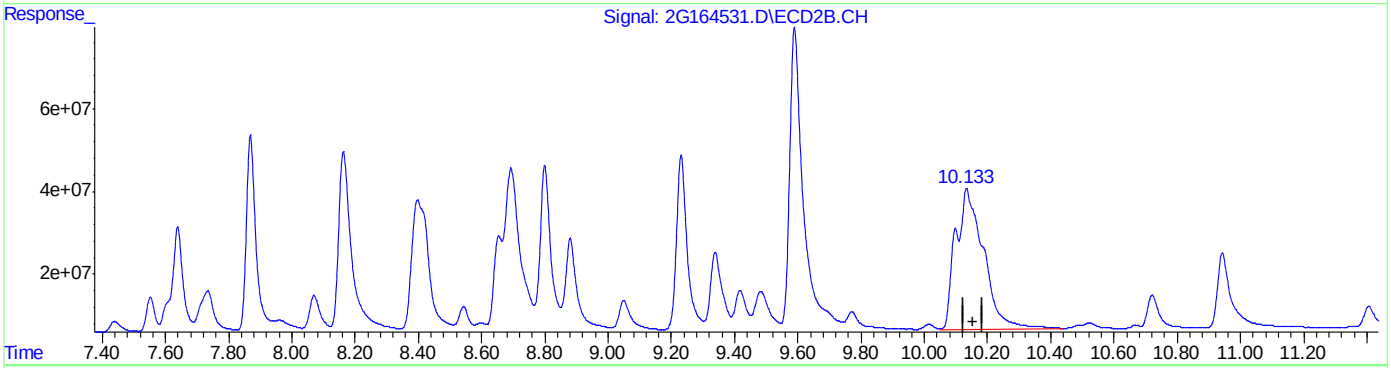
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2G4348\
Data File : 2G164531.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 May 2018 3:31 pm
Operator : tianweir
Sample : cc4311-1000
Misc : OP12244,G2G4348,15.0,,,10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 29 15:50:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Tue May 29 09:35:23 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





QEdit

(40) AR1260-E
8.484min 982.850PPB m
response 372291210

(40) AR1260-E #2
10.133min 1025.703PPB m
response 2090558562

(+) = Expected Retention Time

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:24:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.943	2.147	334.6E6	212.6E6	50.000	50.000
27)	I 1-bromo-2...	1.943	2.147	334.6E6	212.6E6	50.000	50.000
33)	I 1-bromo-2...	1.943	2.147	334.6E6	212.6E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530f	2.932	7250563	4173542	1.095	1.012
	Spiked Amount 40.000	Range 30 - 150		Recovery =		2.74%#	2.53%#
26)	SA Decachlor...	9.841	11.722f	8701532	4796545	1.380m	1.337
	Spiked Amount 40.000			Recovery =		3.45%	3.34%
	Target Compounds						
3)	hexachlor...	2.857	3.415	8505661	5523975	1.070	1.055
4)	A alpha-BHC	2.997	3.562	8791650	4874874	1.831	2.173
5)	MA gamma-BHC	3.288	3.971	9465075	4831145	1.797	1.926
6)	MA Heptachlor	3.777	4.527	8734295	5198954	1.115	1.035
7)	B beta-BHC	3.360	4.052	4318811	2569784	1.160	1.128
8)	B delta-BHC	3.542	4.430	7245572	4722215	2.224	2.445
9)	MB Aldrin	4.107	4.961	8177217	4465092	1.058	1.945 #
11)	B Heptachlo...	4.814	5.760	7500595	4380492	1.086	1.043
12)	B gamma-Chl...	4.976	6.038	7087856	3867677	1.045	0.940m
13)	B alpha-Chl...	5.146	6.256	8190133	3993779	1.179	0.992m
14)	A Endosulfan I	5.323	6.351	7479806	4222041	1.132	1.101
15)	B 4,4'-DDE	5.256	6.521	7329274	3841496	1.072	2.056 #
16)	MA Dieldrin	5.643	6.775	7656157	4158230	1.694	1.995
17)	MA Endrin	5.965	7.270	7051232	4837328	1.108	1.247
18)	A 4,4'-DDD	6.086	7.453	6016212	3788716	1.049	1.131
19)	B Endosulfa...	6.282	7.615	9411333	5624250	1.465	1.478
20)	MA 4,4'-DDT	6.504	7.980	5644746	3301023	2.372	2.472m
21)	B Endrin Al...	6.909	8.178	6326313	3602921	1.189	1.191
22)	B Endosulfa...	7.590	8.643	6192811	3554588	1.204	1.195
23)	A Methoxychlor	7.286	9.216	3696772	1831536	1.238m	1.075m
24)	Mirex	7.438	9.522	7027302	3765077	1.351	1.224
25)	B Endrin Ke...	8.030	9.589	7266165	6169547	1.165	1.539 #
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

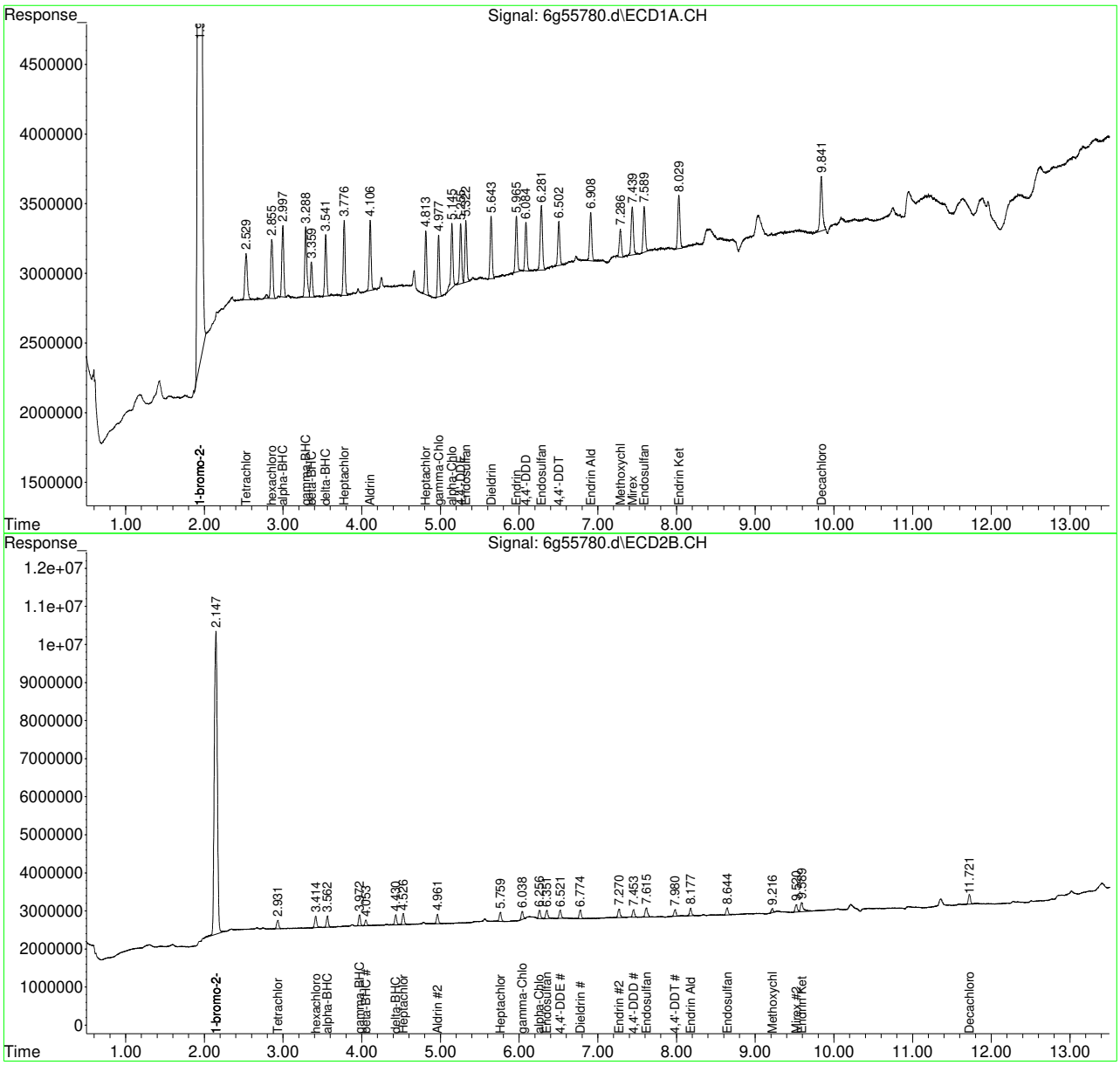
11.6.24 11

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:24:48 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integration Approval Summary

Sample Number: G6G1671-IC1671
Lab FileID: 6G55780.D
Injection Time: 04/30/18 11:25
Method: EPA 608
Analyst approved: 04/30/18 17:28 Rebecca Krug
Supervisor approved: 05/01/18 08:39 Gwendolyn Burns

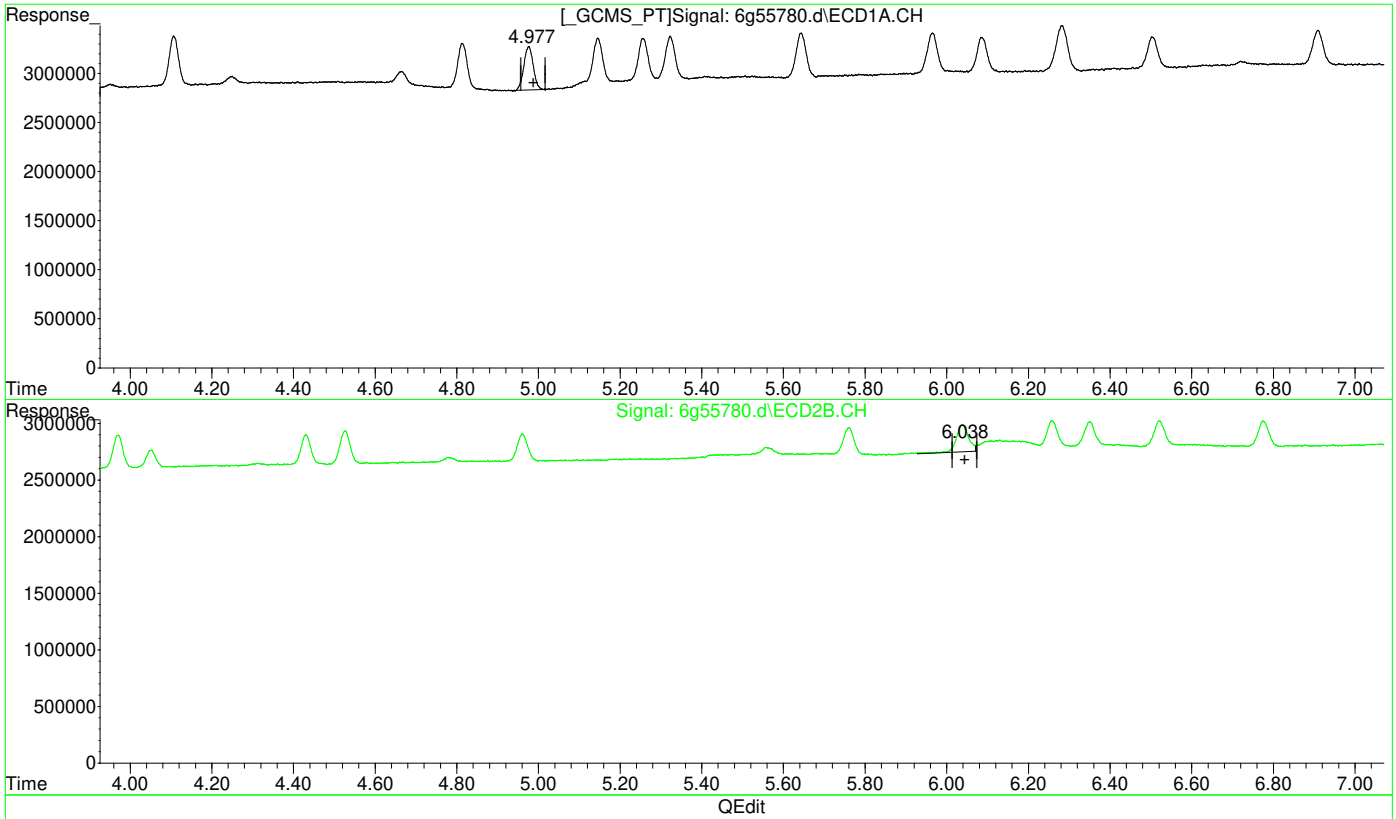
Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-Chlordane	5103-74-2	2	6.04	Poorly defined baseline
alpha-Chlordane	5103-71-9	2	6.26	Poorly defined baseline
Methoxychlor	72-43-5	1	7.29	Poorly defined baseline
4,4'-DDT	50-29-3	2	7.98	Poorly defined baseline
Methoxychlor	72-43-5	2	9.22	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.84	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(12) gamma-Chlordane (B)

4.976min 1.045 PPB

response 7087856

(12) gamma-Chlordane #2 (B)

6.038min 1.225 PPB

response 5036393

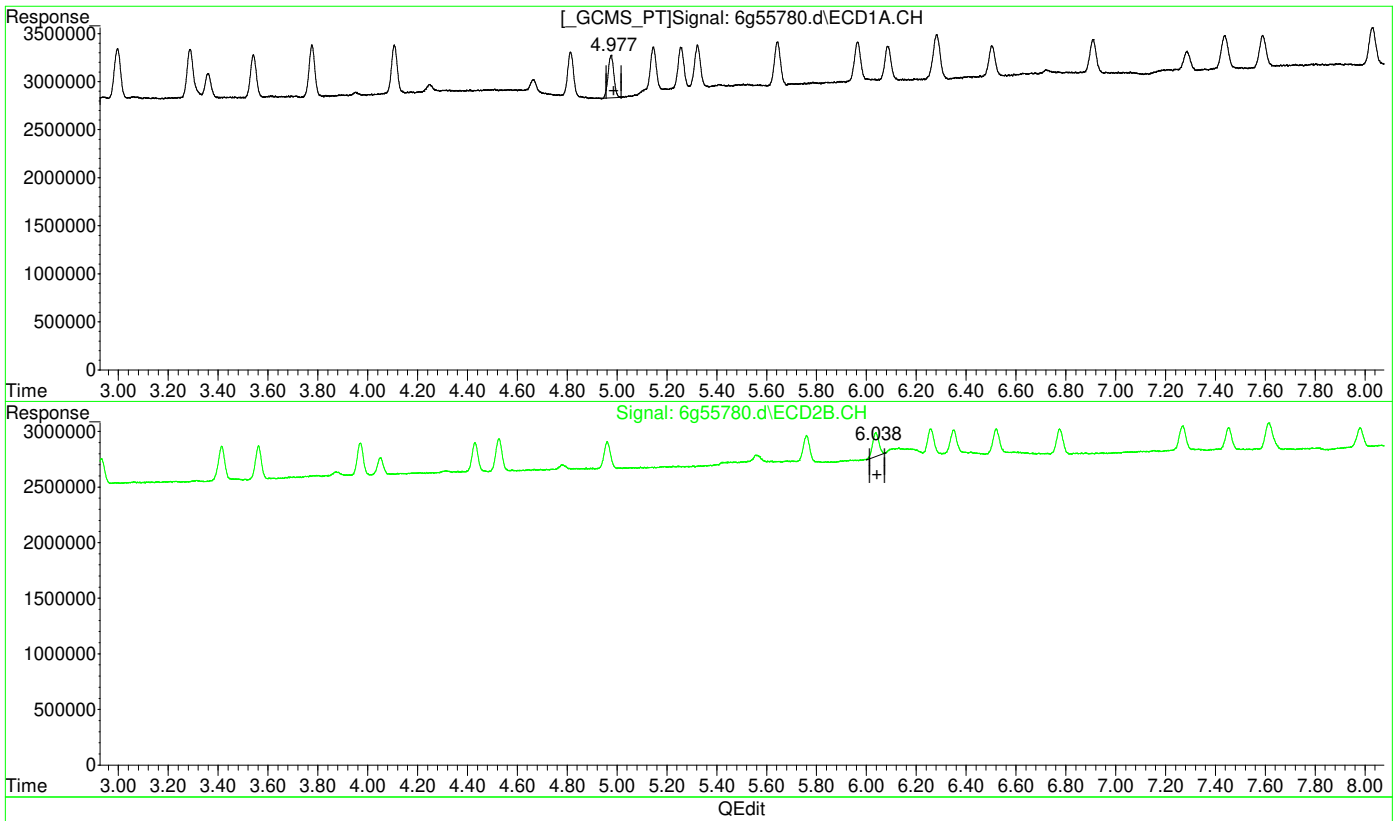
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(12) gamma-Chlordane (B)

4.976min 1.045 PPB

response 7087856

(12) gamma-Chlordane #2 (B)

6.038min 0.940 PPB m

response 3867677

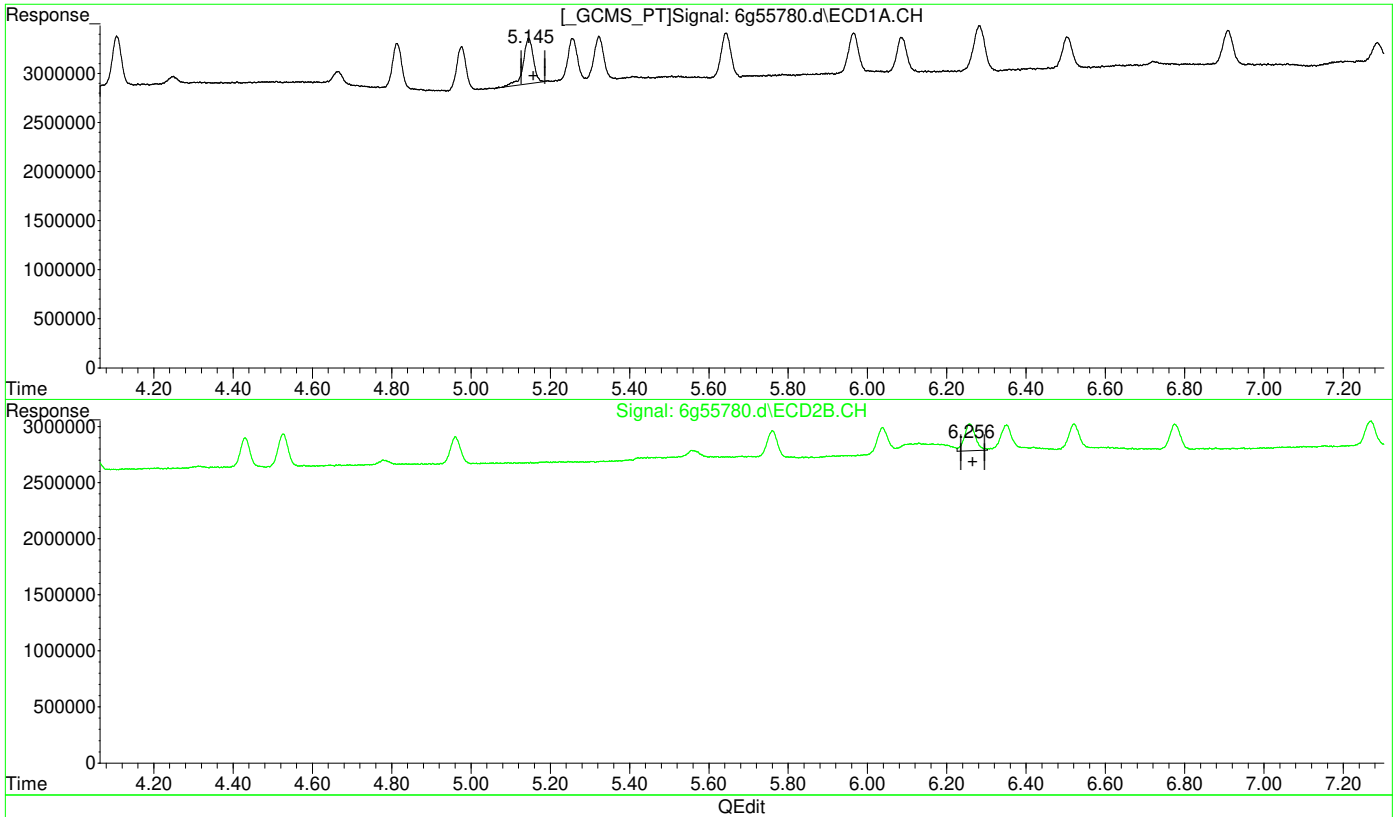
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:23:53 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(13) alpha-Chlordane (B)

5.146min 1.179 PPB

response 8190133

(13) alpha-Chlordane #2 (B)

6.258min 1.156 PPB

response 4654642

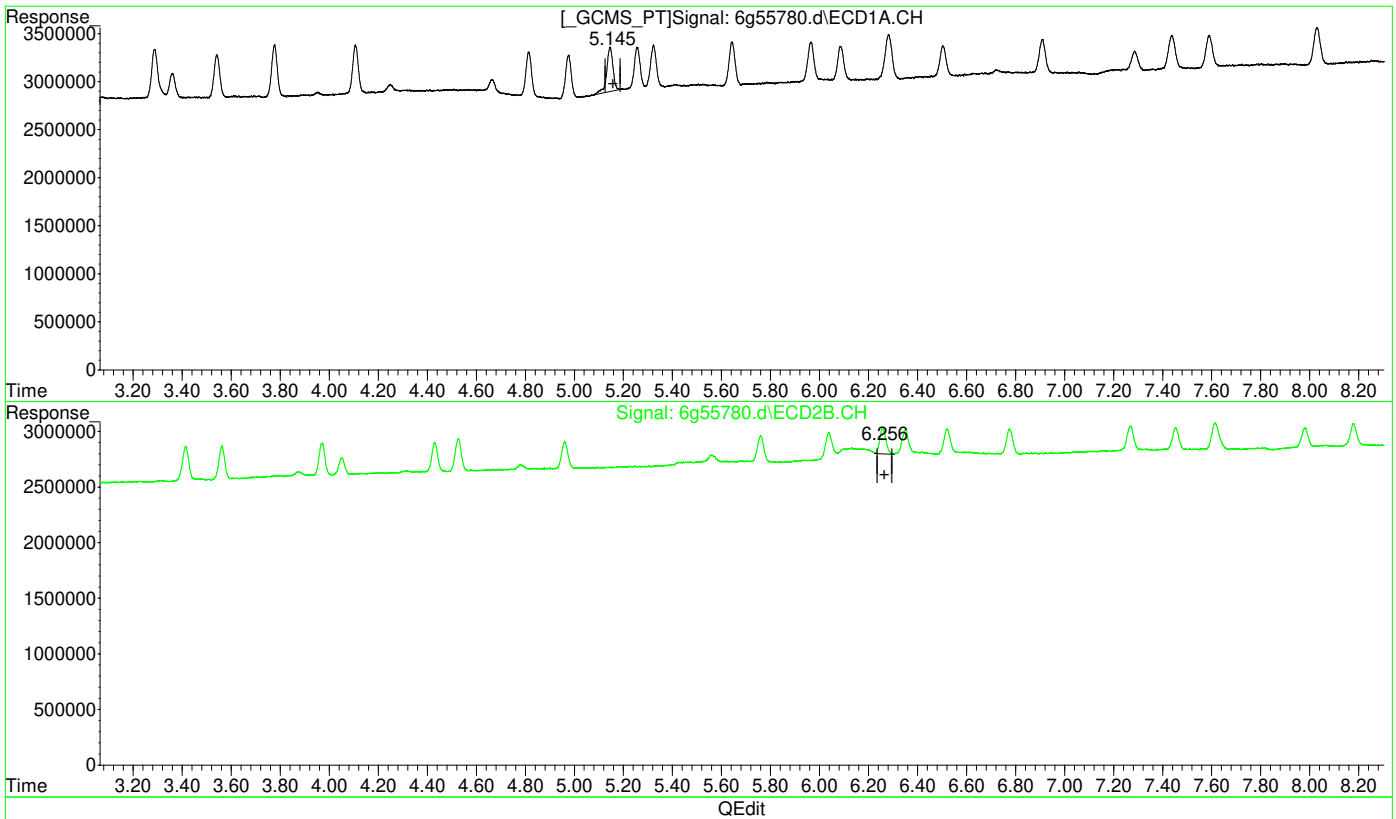
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:23:57 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(13) alpha-Chlordane (B)

5.146min 1.179 PPB

response 8190133

(13) alpha-Chlordane #2 (B)

6.256min 0.992 PPB m

response 3993779

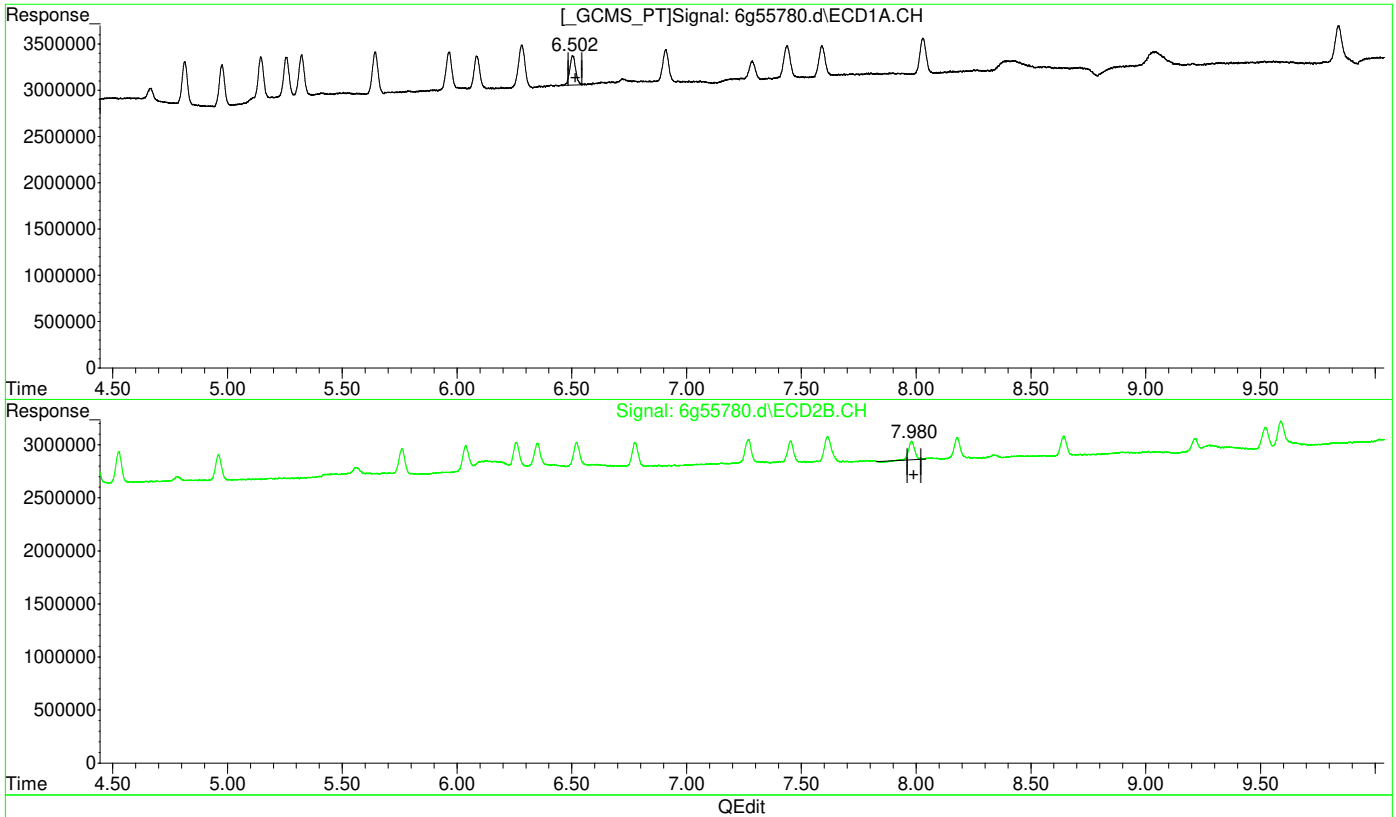
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:24:04 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(20) 4,4'-DDT (MA)

6.504min 2.372 PPB

response 5644746

(20) 4,4'-DDT #2 (MA)

7.981min 2.434 PPB

response 3163250

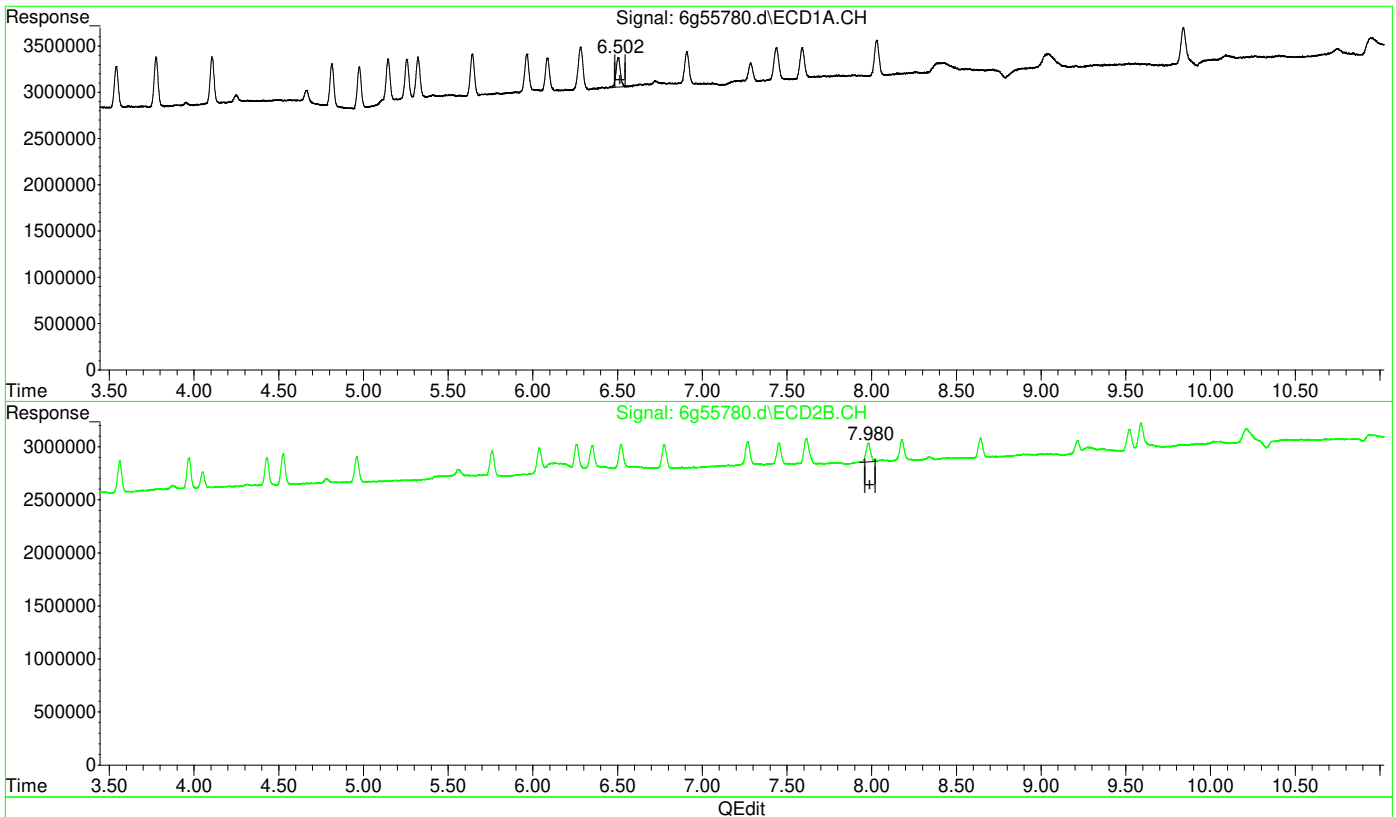
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:24:18 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(20) 4,4'-DDT (MA)

6.504min 2.372 PPB

response 5644746

(20) 4,4'-DDT #2 (MA)

7.980min 2.472 PPB m

response 3301023

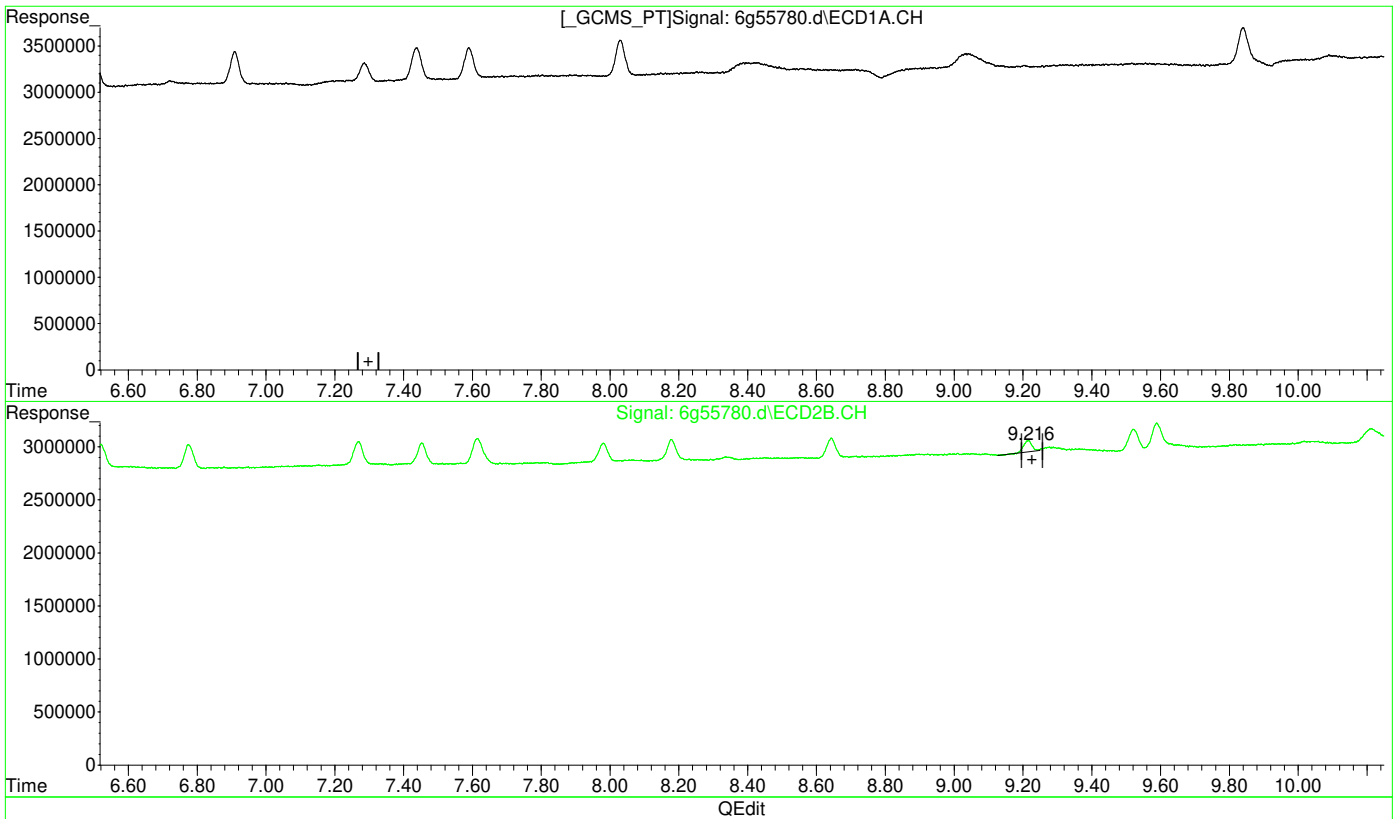
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:24:24 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(23) Methoxychlor (A)

0.000min 0.000 PPB

response 0

(23) Methoxychlor #2 (A)

9.216min 1.067 PPB

response 1816913

(+) = Expected Retention Time

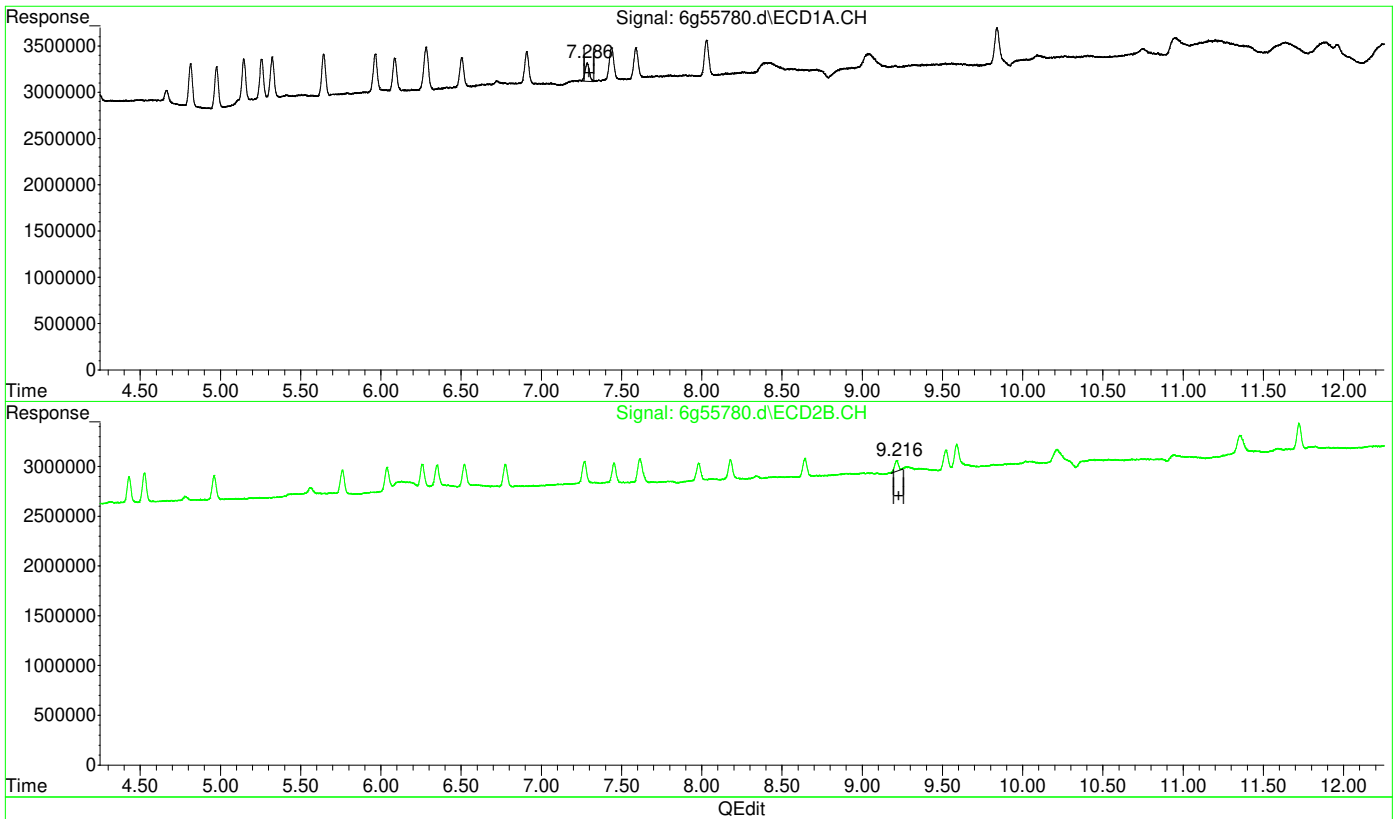
6PST1671.M Mon Apr 30 17:24:29 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(23) Methoxychlor (A)

7.286min 1.238 PPB m

response 3696772

(23) Methoxychlor #2 (A)

9.216min 1.075 PPB m

response 1831536

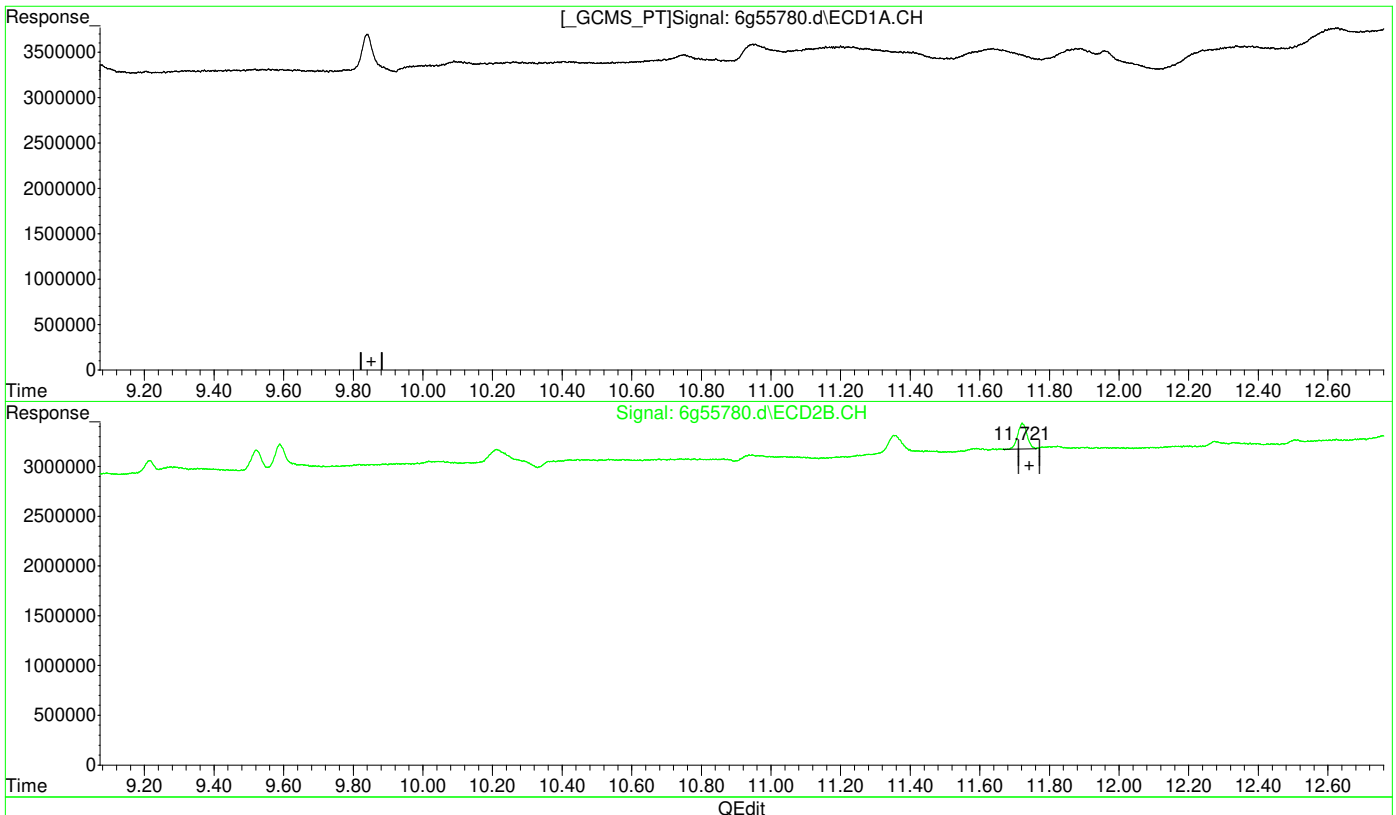
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:24:40 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(26) Decachlorobiphenyl (SA)

0.000min 0.000 PPB

response 0

(26) Decachlorobiphenyl #2 (SA)

11.722min 1.337 PPB

response 4796545

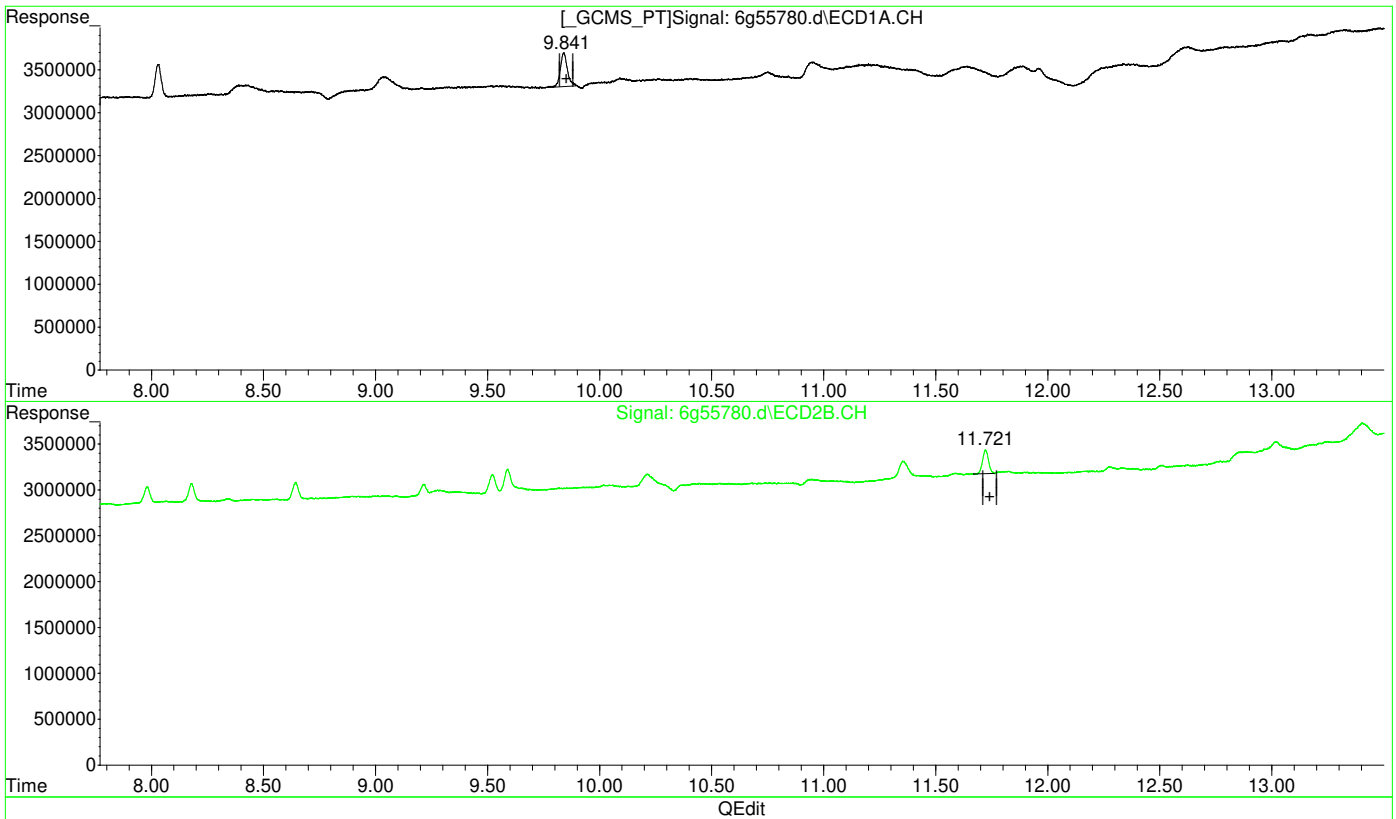
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:24:45 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:25:24
Operator : dharas
Sample : ic1671-1
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:23:25 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(26) Decachlorobiphenyl (SA)

9.841min 1.380 PPB m

response 8701532

(26) Decachlorobiphenyl #2 (SA)

11.722min 1.337 PPB

response 4796545

(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:24:50 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
		Internal Standards							
1)	I	1-bromo-2...	1.943	2.147	387.0E6	241.1E6	50.000	50.000	
27)	I	1-bromo-2...	1.943	2.147	387.0E6	241.1E6	50.000	50.000	
33)	I	1-bromo-2...	1.943	2.147	387.0E6	241.1E6	50.000	50.000	
		System Monitoring Compounds							
2)	SAB	Tetrachlo...	2.530f	2.932	14602253	8507501	1.906	1.820	
		Spiked Amount 40.000	Range 30 - 150		Recovery =		4.76%#	4.55%#	
26)	SA	Decachlor...	9.839	11.723f	16338027	9180560	2.240	2.257	
		Spiked Amount 40.000			Recovery =		5.60%	5.64%	
		Target Compounds							
3)		hexachlor...	2.856	3.415	16294686	11301352	1.772	1.903	
4)	A	alpha-BHC	2.996	3.563	17999726	10077842	2.494	2.814	
5)	MA	gamma-BHC	3.287	3.971	17825012	9866951	2.447	2.607	
6)	MA	Heptachlor	3.775	4.526	17160198	10577603	1.894	1.858	
7)	B	beta-BHC	3.359	4.052	8774543	4960670	2.037	1.921	
8)	B	delta-BHC	3.542	4.430	14887658	8880069	2.893	3.038	
9)	MB	Aldrin	4.106	4.961	16201073	8859319	1.812	2.611	#
10)		alachlor	4.245	4.781	2244634	1308957	1.959m	1.890	
11)	B	Heptachlo...	4.813	5.760	15342403	9140408	1.920	1.921	
12)	B	gamma-Chl...	4.975	6.038	14743634	8692586	1.879	1.864	
13)	B	alpha-Chl...	5.145	6.258	16078851	7974896	2.000	1.747	
14)	A	Endosulfan I	5.322	6.350	14907968	8139344	1.950	1.873	
15)	B	4,4'-DDE	5.255	6.521	14410408	7734247	1.822	2.705	#
16)	MA	Dieldrin	5.642	6.775	15434484	8796328	2.402	2.759	
17)	MA	Endrin	5.964	7.269	14135074	8494069	1.921	1.931	
18)	A	4,4'-DDD	6.085	7.453	12192826	7046507	1.838	1.855	
19)	B	Endosulfa...	6.282	7.614	16624747	9482240	2.238	2.198	
20)	MA	4,4'-DDT	6.503	7.980	11618446	6780069	3.125	3.215	
21)	B	Endrin Al...	6.907	8.178	12752377	6955696	2.072	2.028	
22)	B	Endosulfa...	7.589	8.643	12398444	6754107	2.085	2.003	
23)	A	Methoxychlor	7.286	9.211f	7461816	4108135	2.161	2.127m	
24)		Mirex	7.436	9.520f	13279056	7099768	2.208	2.036	
25)	B	Endrin Ke...	8.027	9.588	14410690	9463333	1.998	2.082	
		Sum Toxaphene			0	0	N.D.	N.D.	
		Average Toxaphene					0.000	0.000	

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

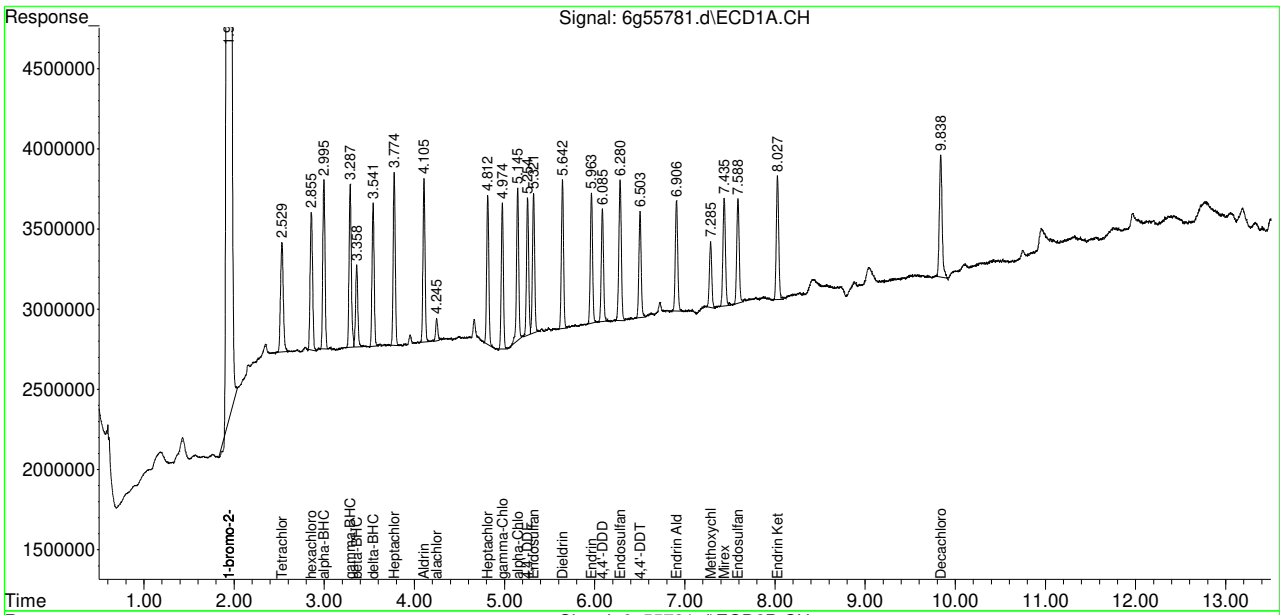
11.6.25 11

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integration Approval Summary

Sample Number:	G6G1671-IC1671	**Method:**	EPA 608
Lab FileID:	6G55781.D	**Analyst approved:**	04/30/18 17:28 Rebecca Krug
Injection Time:	04/30/18 11:43	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

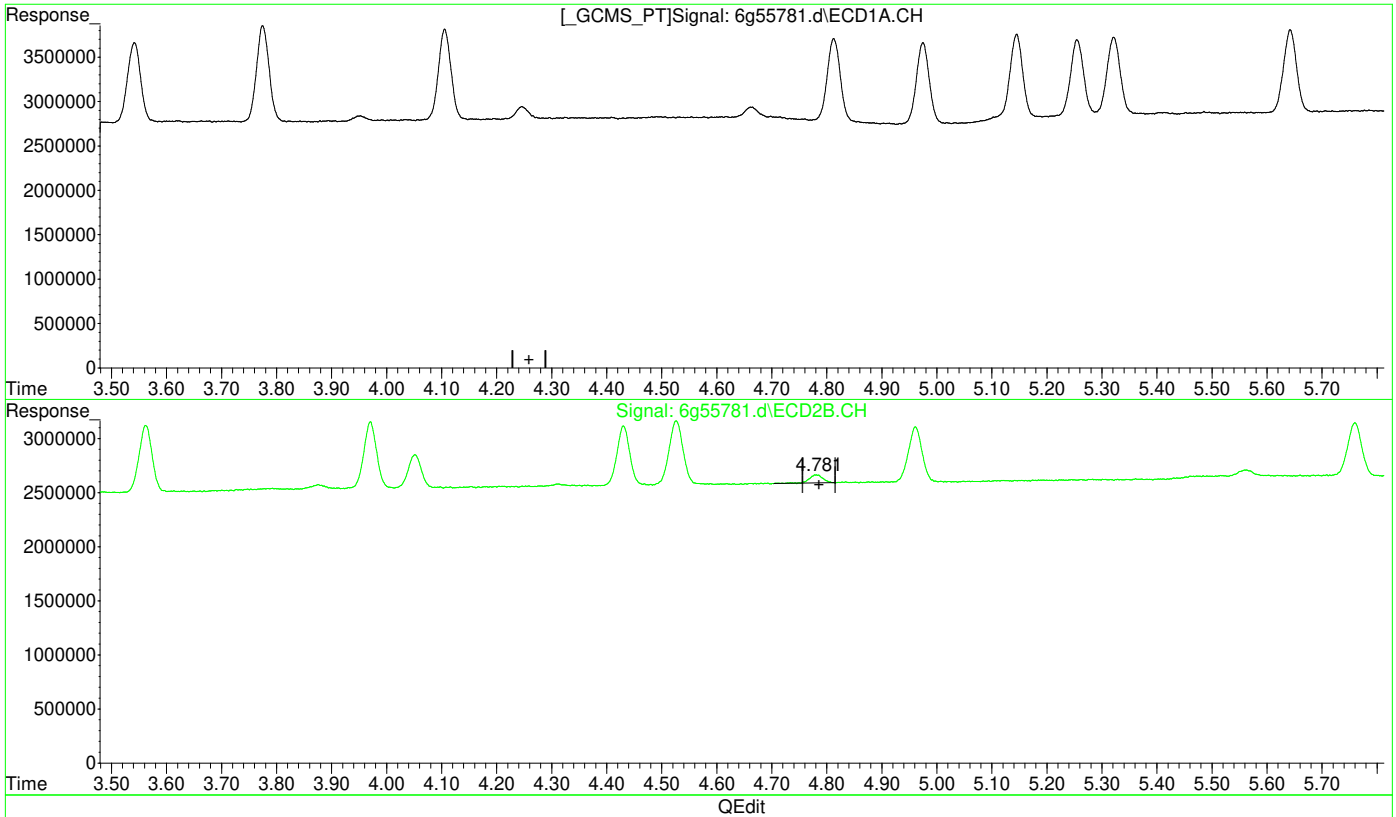
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.21	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(10) alachlor

0.000min 0.000 PPB

response 0

(10) alachlor #2

4.781min 1.890 PPB

response 1308957

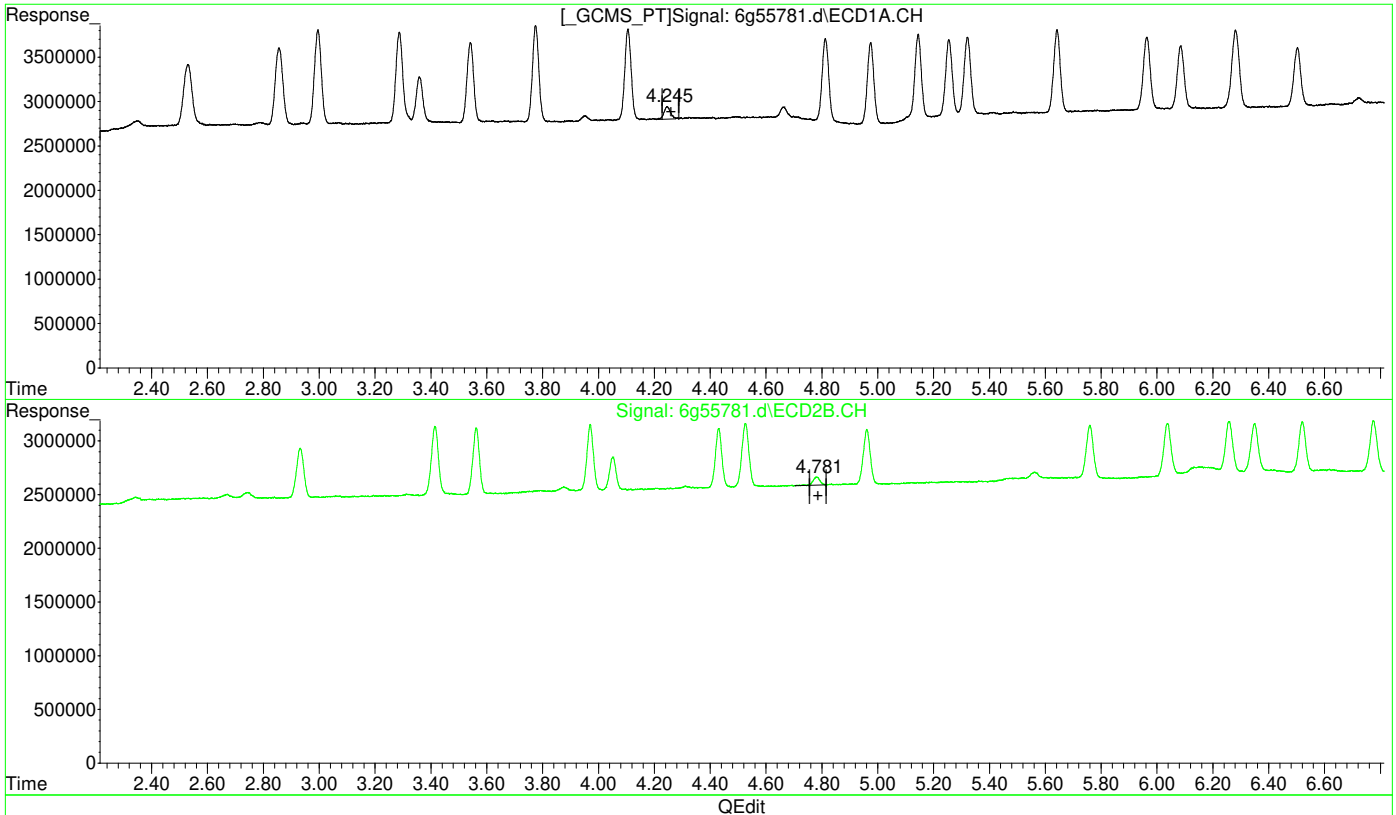
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:20:14 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(10) alachlor

4.245min 1.959 PPB m

response 2244634

(10) alachlor #2

4.781min 1.890 PPB

response 1308957

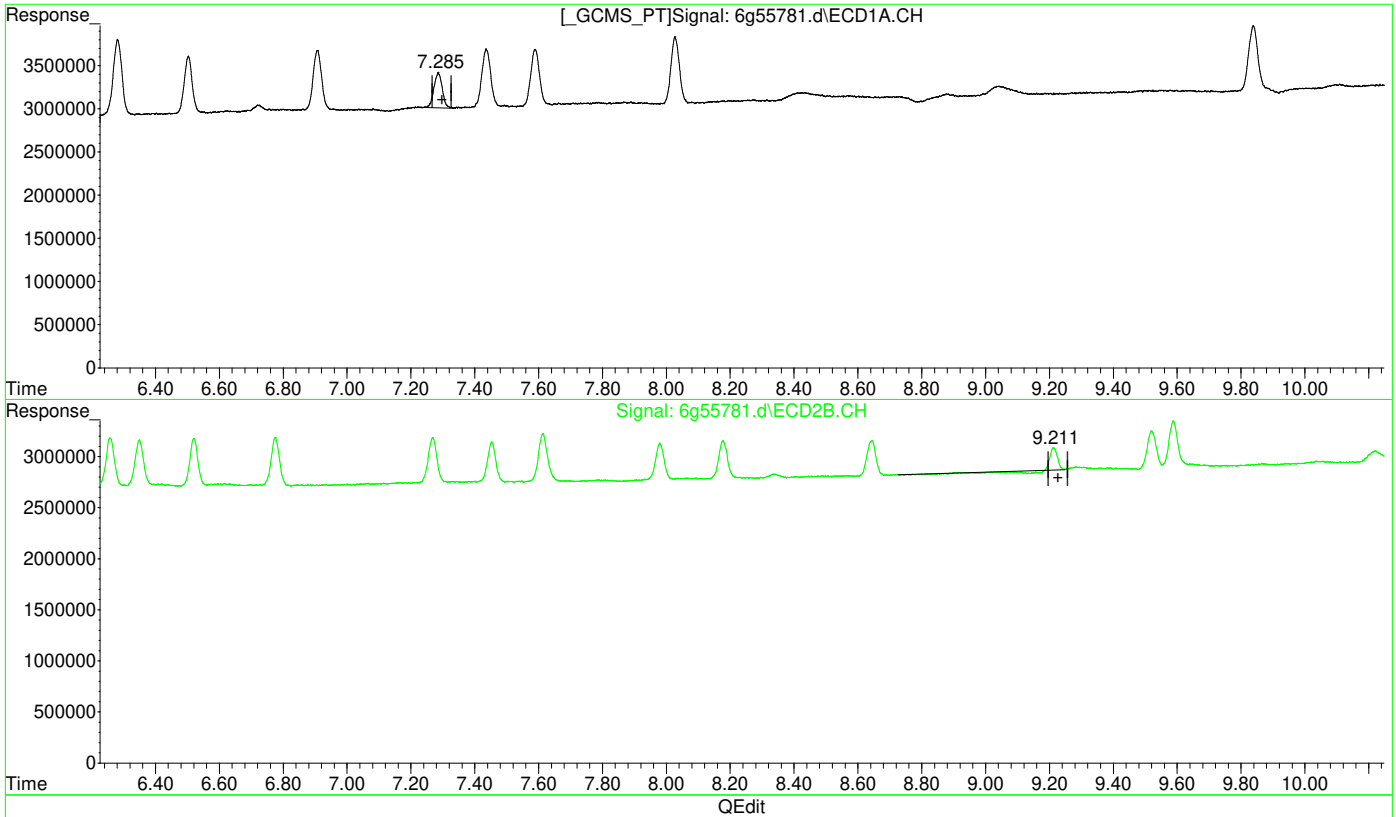
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:20:22 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(23) Methoxychlor (A)

7.286min 2.161 PPB

response 7461816

(23) Methoxychlor #2 (A)

9.213min 0.820 PPB

response 1582778

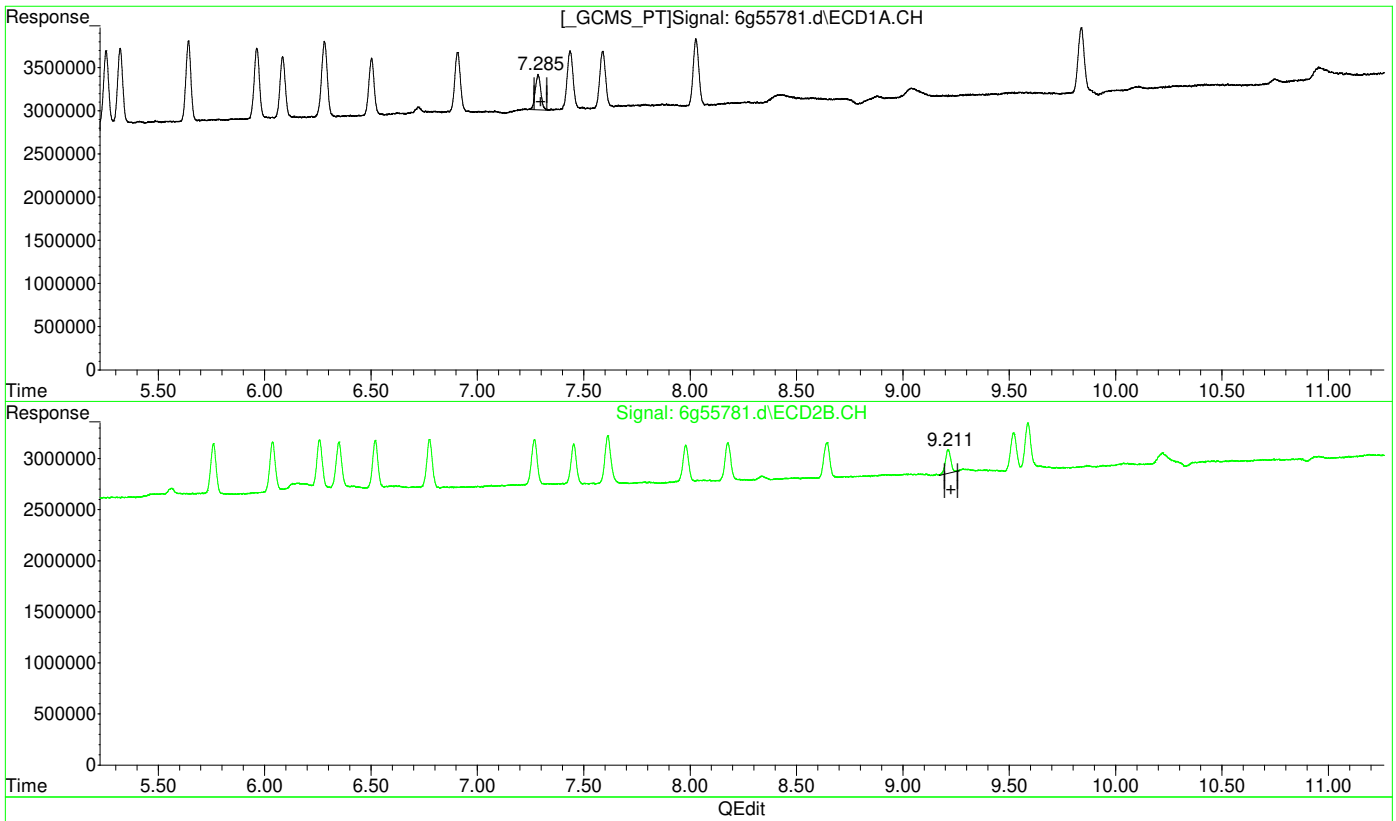
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:20:34 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55781.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 11:43:10
Operator : dharas
Sample : ic1671-2
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:20:00 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(23) Methoxychlor (A)

7.286min 2.161 PPB

response 7461816

(23) Methoxychlor #2 (A)

9.211min 2.127 PPB m

response 4108135

(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:20:40 2018

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:01:04
Operator : dharas
Sample : ic1671-5
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:53 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.941	2.146	391.8E6	245.7E6	50.000	50.000
27)	I	1-bromo-2...	1.941	2.146	391.8E6	245.7E6	50.000	50.000
33)	I	1-bromo-2...	1.941	2.146	391.8E6	245.7E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.529f	2.932	36692553	21567937	4.732	4.526
		Spiked Amount 40.000	Range 30 - 150		Recovery =		11.83%#	11.32%#
26)	SA	Decachlor...	9.837	11.722f	38515506	22696529	5.217	5.474
		Spiked Amount 40.000			Recovery =		13.04%	13.69%
		Target Compounds						
3)		hexachlor...	2.856f	3.414	40039008	27524590	4.301	4.546
4)	A	alpha-BHC	2.995f	3.562	46372720	26372740	4.848	5.035
5)	MA	gamma-BHC	3.287	3.971	44366106	25338460	4.903	4.930
6)	MA	Heptachlor	3.775	4.526	43060808	26855824	4.694	4.627
7)	B	beta-BHC	3.358	4.051	21939549	12603643	5.030	4.787
8)	B	delta-BHC	3.541	4.430	37980998	22676292	5.218	5.287
9)	MB	Aldrin	4.106	4.960	41208200	23078938	4.553	5.030
10)		alachlor	4.247	4.779	5675895	3729328	4.892	5.283
11)	B	Heptachlo...	4.813	5.759	39915152	23422377	4.934	4.828
12)	B	gamma-Chl...	4.974	6.037	37751508	23381751	4.751	4.919
13)	B	alpha-Chl...	5.145	6.259	39936526	23006245	4.908	4.942
14)	A	Endosulfan I	5.321	6.350	36980626	21912385	4.777	4.945
15)	B	4,4'-DDE	5.256	6.520	36612488	20625296	4.572	5.106
16)	MA	Dieldrin	5.642	6.775	38902287	21711765	4.877	5.101
17)	MA	Endrin	5.963	7.268	37334160	21438153	5.012	4.782
18)	A	4,4'-DDD	6.085	7.453	31218421	18083448	4.648	4.670
19)	B	Endosulfa...	6.283	7.613	38002443	22119932	5.052	5.029
20)	MA	4,4'-DDT	6.502	7.979	28888141	16458168	5.628	5.503
21)	B	Endrin Al...	6.907	8.178	31478562	17270913	5.051	4.938
22)	B	Endosulfa...	7.589	8.642	30972100	16884248	5.143	4.912
23)	A	Methoxychlor	7.284	9.211f	20208435	10399649	5.781	5.283m
24)		Mirex	7.436	9.520f	32654704	18026150	5.362	5.070
25)	B	Endrin Ke...	8.029	9.587	36218258	21602414	4.959	4.661
		Sum Toxaphene			0	0	N.D.	N.D.
		Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

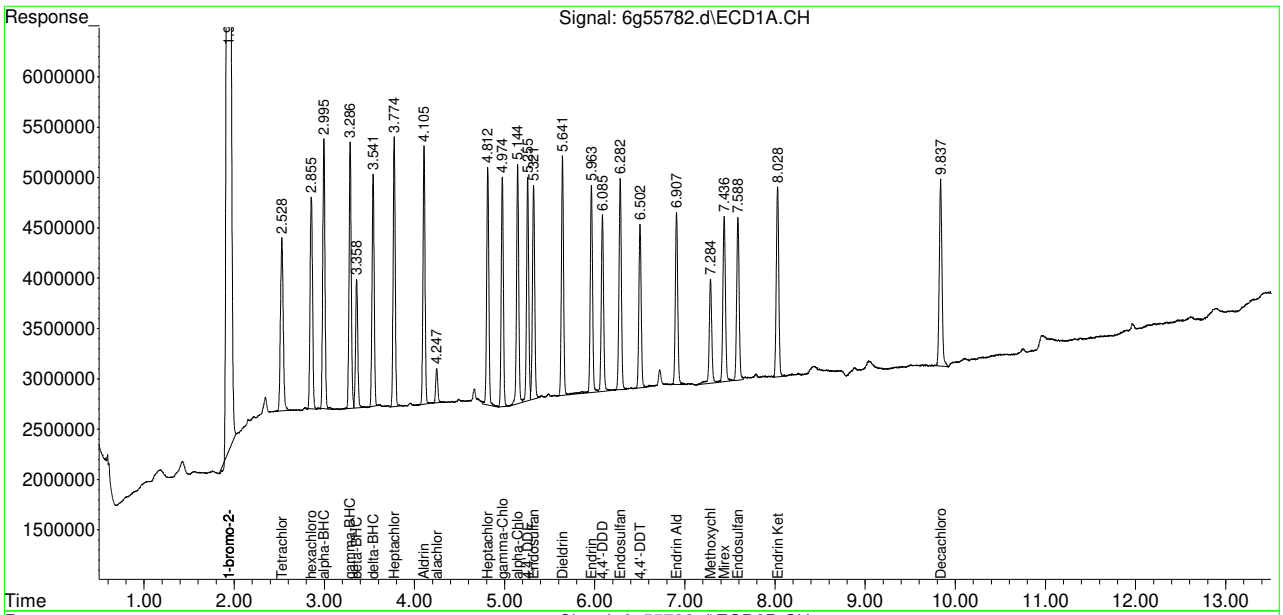
11.6.26 11

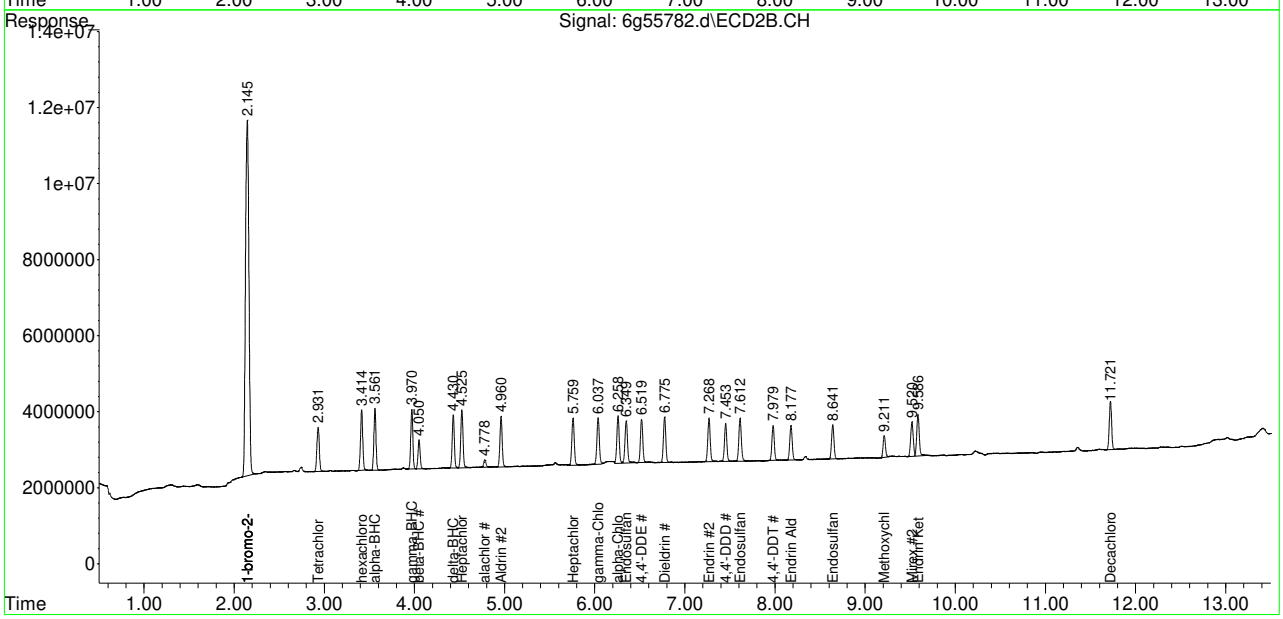
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:01:04
Operator : dharas
Sample : ic1671-5
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:53 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-IC1671	**Method:**	EPA 608
Lab FileID:	6G55782.D	**Analyst approved:**	04/30/18 17:28 Rebecca Krug
Injection Time:	04/30/18 12:01	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

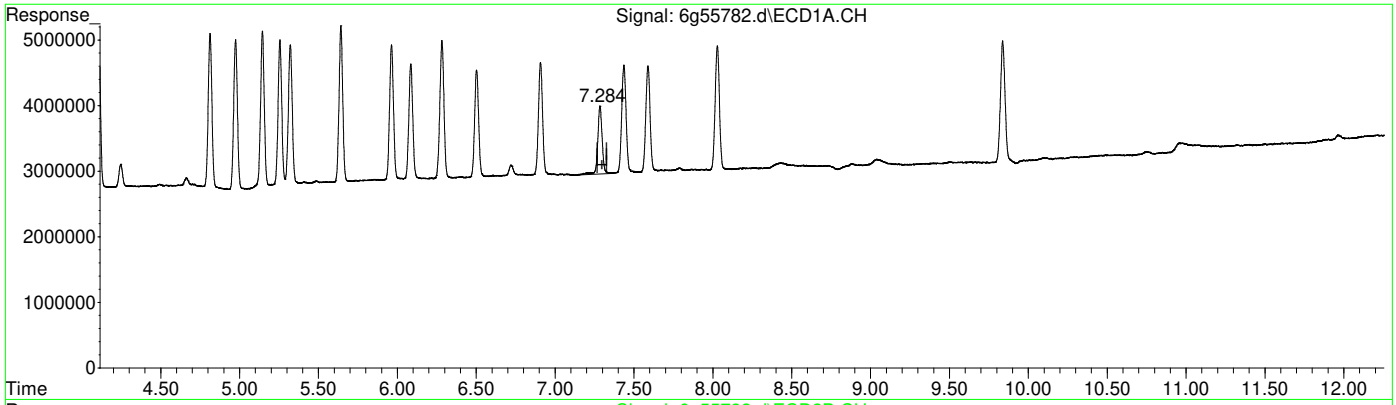
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.21	Poorly defined baseline

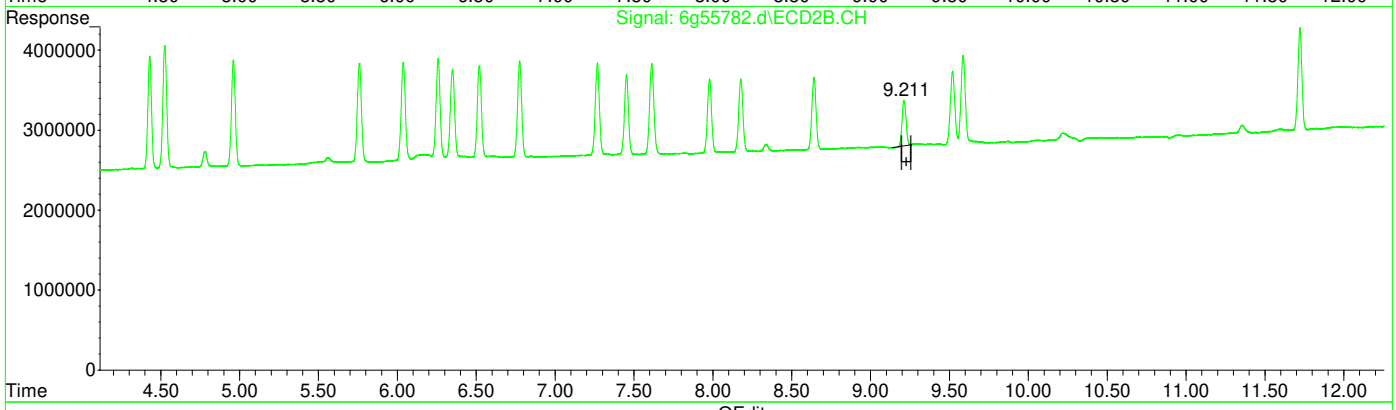
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:01:04
Operator : dharas
Sample : ic1671-5
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:18 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(23) Methoxychlor (A)

7.284min 5.781 PPB

response 20208435

(23) Methoxychlor #2 (A)

9.212min 5.091 PPB

response 10022539

(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:18:49 2018

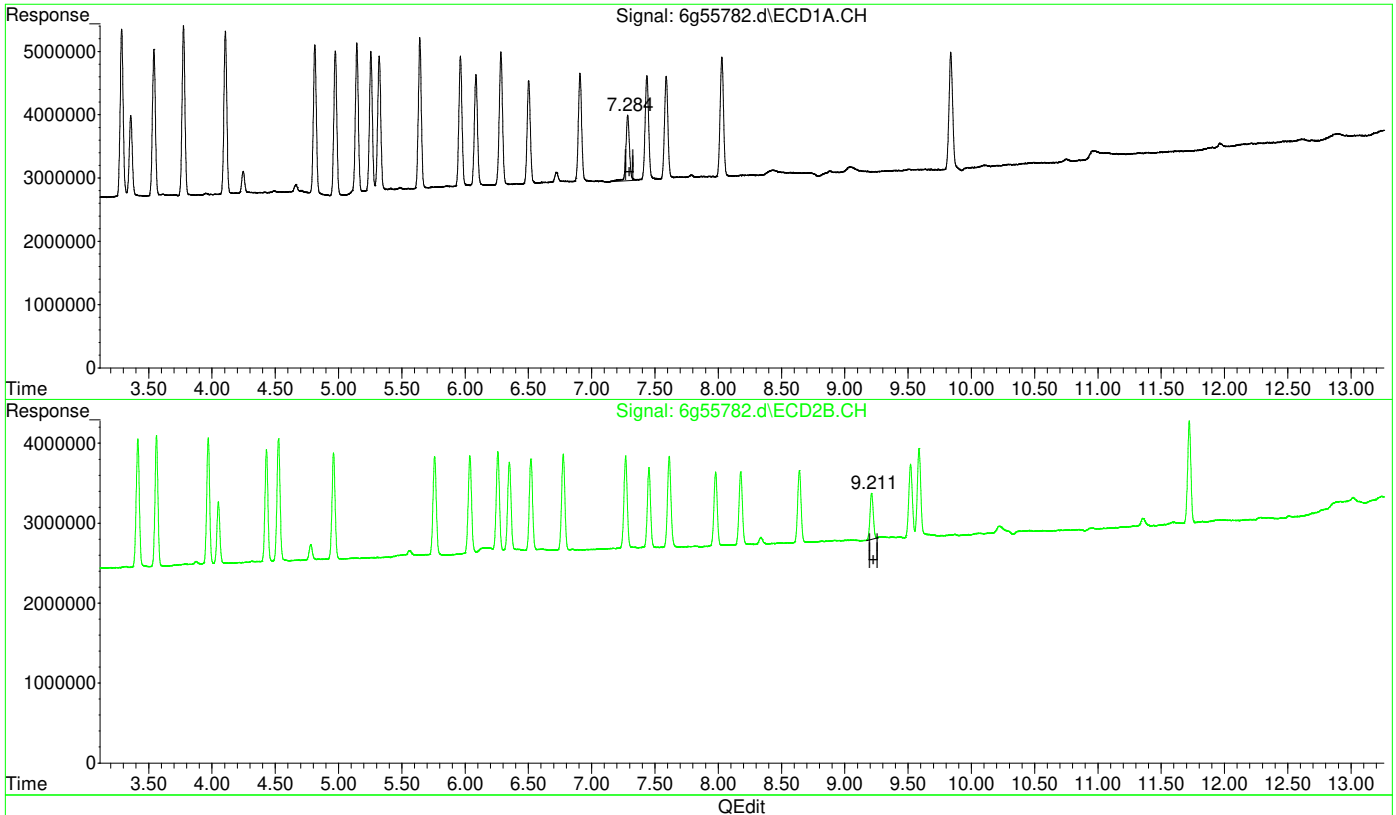
11.6.26.2

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55782.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:01:04
Operator : dharas
Sample : ic1671-5
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:18:18 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



QEdit

(23) Methoxychlor (A)

7.284min 5.781 PPB

response 20208435

(23) Methoxychlor #2 (A)

9.211min 5.283 PPB m

response 10399649

(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:18:56 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55783.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:18:49
Operator : dharas
Sample : ic1671-10
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:35:55 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.940	2.146	404.5E6	249.9E6	50.000	50.000
27)	I	1-bromo-2...	1.940	2.146	404.5E6	249.9E6	50.000	50.000
33)	I	1-bromo-2...	1.940	2.146	404.5E6	249.9E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.529	2.932	73901804	44215088	9.232	9.125
		Spiked Amount 40.000	Range 30 - 150		Recovery =		23.08%#	22.81%#
26)	SA	Decachlor...	9.838	11.722	75160701	45369722	9.862	10.762
		Spiked Amount 40.000			Recovery =		24.65%	26.91%
		Target Compounds						
3)		hexachlor...	2.856	3.414	83583448	56450905	8.697	9.170
4)	A	alpha-BHC	2.995	3.562	97743211	56386816	8.888	9.048
5)	MA	gamma-BHC	3.286	3.971	91967233	53241053	9.077	9.038
6)	MA	Heptachlor	3.775	4.526	88871146	54807268	9.385	9.287
7)	B	beta-BHC	3.358	4.051	42930797	25495592	9.534	9.523
8)	B	delta-BHC	3.541	4.431	81098685	48187824	9.336	9.368
9)	MB	Aldrin	4.106	4.961	85738730	47824862	9.178	9.155
10)		alachlor	4.246	4.781	11358176	6912789	9.483	9.631
11)	B	Heptachlo...	4.812	5.759	80177320	47082321	9.601	9.544
12)	B	gamma-Chl...	4.974	6.037	78967366	46348408	9.627	9.590
13)	B	alpha-Chl...	5.145	6.259	79424311	44755949	9.455	9.456
14)	A	Endosulfan I	5.322	6.350	74776476	42208976	9.358	9.368
15)	B	4,4'-DDE	5.256	6.521	74569596	43119328	9.021	9.210
16)	MA	Dieldrin	5.643	6.776	80375482	45183086	9.019	9.277
17)	MA	Endrin	5.963	7.268	72713977	44101387	9.455	9.674
18)	A	4,4'-DDD	6.085	7.453	62571806	36612176	9.025	9.300
19)	B	Endosulfa...	6.283	7.613	75504798	43757412	9.724	9.784
20)	MA	4,4'-DDT	6.502	7.980	60076136	35387734	9.912	9.902
21)	B	Endrin Al...	6.907	8.178	62320964	34812334	9.687	9.789
22)	B	Endosulfa...	7.589	8.642	61328622	34742417	9.866	9.940
23)	A	Methoxychlor	7.284	9.214	37029064	21442540	10.261	10.712
24)		Mirex	7.436	9.520	64055523	36503944	10.190	10.097
25)	B	Endrin Ke...	8.027	9.587	73780467	42480086	9.786	9.015
		Sum Toxaphene			0	0	N.D.	N.D.
Average		Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

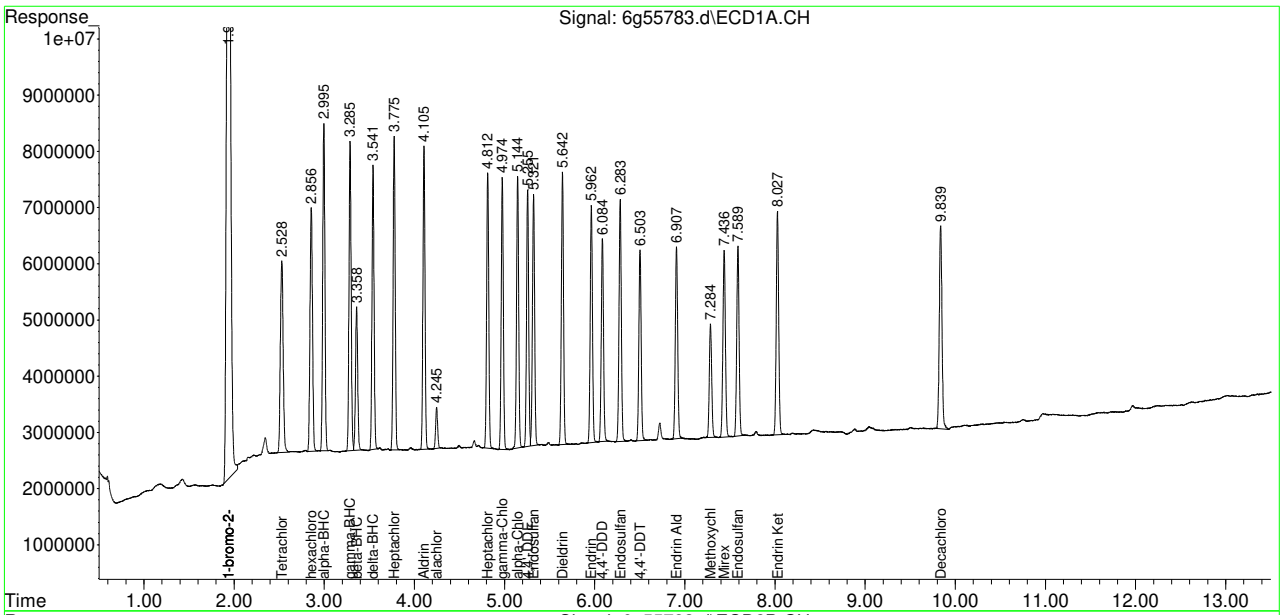
11.6.27 11

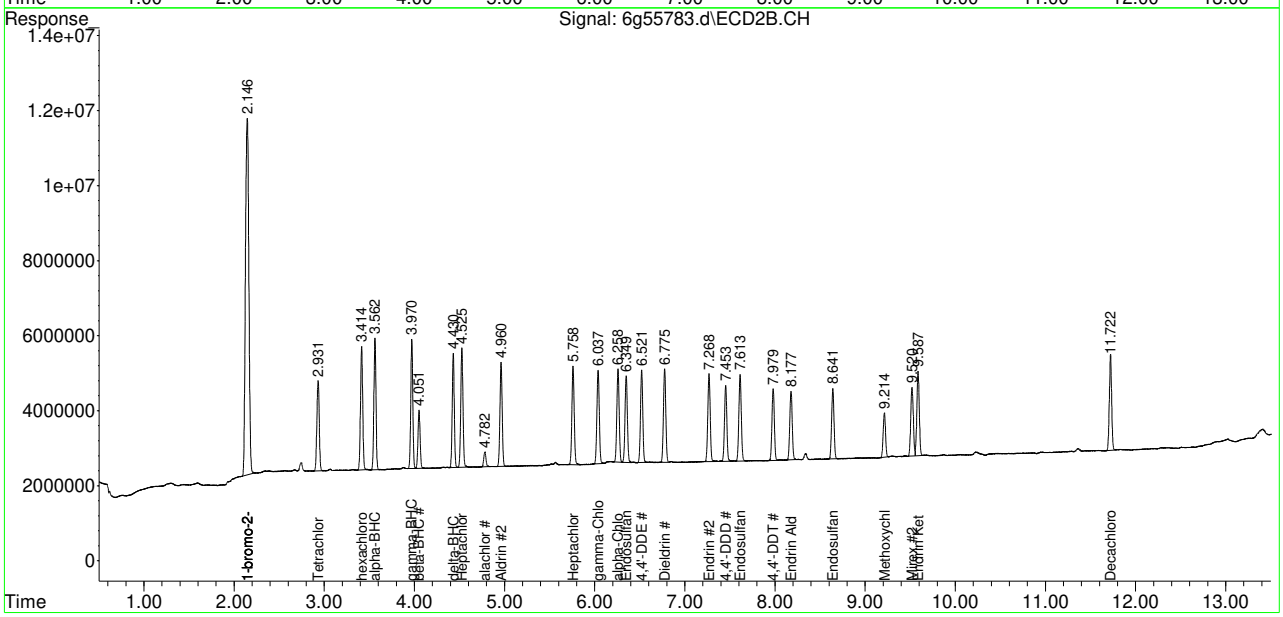
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55783.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:18:49
Operator : dharas
Sample : ic1671-10
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:35:55 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55784.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:36:33
Operator : dharas
Sample : icc1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:52:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
27)	I 1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
33)	I 1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530	2.932	189.1E6	114.8E6	23.658	23.388
	Spiked Amount 40.000	Range 30 - 150		Recovery =		59.15%	58.47%
26)	SA Decachlor...	9.838	11.722	184.6E6	109.7E6	24.257	25.672
	Spiked Amount 40.000			Recovery =		60.64%	64.18%
	Target Compounds						
3)	hexachlor...	2.857	3.415	210.3E6	141.6E6	21.917	22.707
4)	A alpha-BHC	2.996	3.563	270.6E6	157.3E6	22.926	22.462
5)	MA gamma-BHC	3.287	3.971	249.6E6	145.6E6	23.359	22.563
6)	MA Heptachlor	3.776	4.526	236.7E6	146.0E6	25.037	24.415
7)	B beta-BHC	3.359	4.051	109.6E6	65204342	24.369	24.037
8)	B delta-BHC	3.542	4.431	226.7E6	133.1E6	23.687	22.873
9)	MB Aldrin	4.107	4.962	232.3E6	129.4E6	24.904	22.686
10)	alachlor	4.246	4.780	28340673	17039946	23.696	23.431
11)	B Heptachlo...	4.813	5.760	214.1E6	124.0E6	25.673	24.804
12)	B gamma-Chl...	4.975	6.037	212.2E6	123.6E6	25.903	25.235
13)	B alpha-Chl...	5.145	6.257	210.1E6	122.8E6	25.048	25.615
14)	A Endosulfan I	5.322	6.349	197.6E6	111.7E6	24.765	24.460
15)	B 4,4'-DDE	5.256	6.521	203.7E6	116.9E6	24.678	22.598
16)	MA Dieldrin	5.642	6.775	217.8E6	121.4E6	23.209	22.770
17)	MA Endrin	5.964	7.268	194.6E6	115.1E6	25.344	24.911
18)	A 4,4'-DDD	6.085	7.452	168.7E6	96890160	24.374	24.290
19)	B Endosulfa...	6.283	7.612	194.5E6	112.1E6	25.092	24.729
20)	MA 4,4'-DDT	6.503	7.980	162.0E6	96232017	24.375	23.954
21)	B Endrin Al...	6.907	8.177	160.7E6	89850605	25.017	24.937
22)	B Endosulfa...	7.588	8.641	159.9E6	90465081	25.757	25.546
23)	A Methoxychlor	7.285	9.213	94604672	55394201	26.255	27.313
24)	Mirex	7.436	9.520	156.3E6	89970523	24.892	24.562
25)	B Endrin Ke...	8.028	9.587	193.0E6	111.2E6	25.635	23.298
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

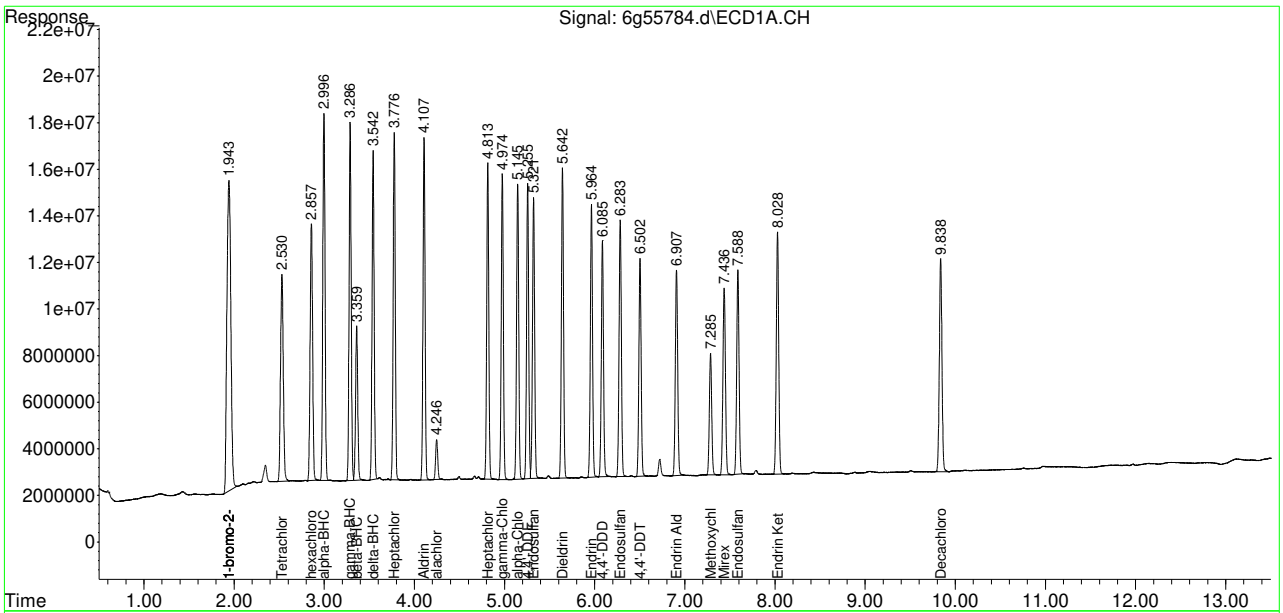
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

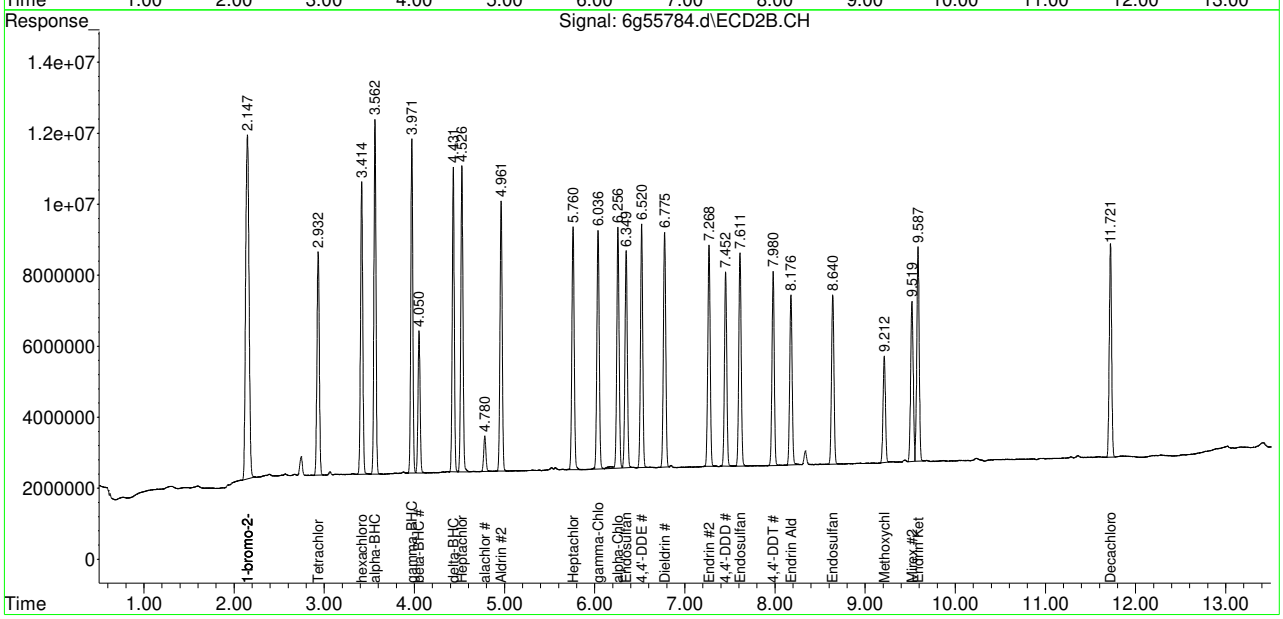
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55784.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:36:33
Operator : dharas
Sample : icc1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:52:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55785.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:54:20
Operator : dharas
Sample : ic1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 13:12:04 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.941	2.146	402.8E6	253.8E6	50.000	50.000
27)	I	1-bromo-2...	1.941	2.146	402.8E6	253.8E6	50.000	50.000
33)	I	1-bromo-2...	1.941	2.146	402.8E6	253.8E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.530	2.931	391.8E6	239.9E6	49.148	48.749
		Spiked Amount 40.000	Range 30 - 150		Recovery = 122.87%		121.87%	
26)	SA	Decachlor...	9.840	11.721	371.4E6	222.1E6	48.928	51.861
		Spiked Amount 40.000			Recovery = 122.32%		129.65%	
		Target Compounds						
3)		hexachlor...	2.856	3.414	434.6E6	290.9E6	45.401	46.527
4)	A	alpha-BHC	2.996	3.562	587.6E6	345.1E6	48.765	47.500
5)	MA	gamma-BHC	3.287	3.970	533.9E6	315.2E6	49.227	47.485
6)	MA	Heptachlor	3.776	4.527	503.3E6	310.9E6	53.366	51.869
7)	B	beta-BHC	3.359	4.051	225.1E6	133.9E6	50.183	49.230
8)	B	delta-BHC	3.541	4.431	494.7E6	294.3E6	50.196	48.598
9)	MB	Aldrin	4.107	4.961	498.8E6	279.4E6	53.611	47.644
10)		alachlor	4.247	4.781	57187264	34245986	47.938	46.978
11)	B	Heptachlo...	4.813	5.760	452.8E6	262.5E6	54.440	52.385
12)	B	gamma-Chl...	4.975	6.038	455.0E6	262.9E6	55.687	53.553
13)	B	alpha-Chl...	5.145	6.259	444.4E6	256.8E6	53.120	53.422
14)	A	Endosulfan I	5.322	6.349	418.7E6	236.5E6	52.609	51.678
15)	B	4,4'-DDE	5.256	6.521	441.6E6	253.1E6	53.639	47.405
16)	MA	Dieldrin	5.643	6.776	469.2E6	262.4E6	49.262	47.805
17)	MA	Endrin	5.964	7.269	416.3E6	247.8E6	54.354	53.518
18)	A	4,4'-DDD	6.087	7.453	362.6E6	208.2E6	52.511	52.062
19)	B	Endosulfa...	6.283	7.612	407.7E6	234.9E6	52.717	51.725
20)	MA	4,4'-DDT	6.504	7.980	350.7E6	208.2E6	51.254	49.897
21)	B	Endrin Al...	6.908	8.178	336.7E6	186.3E6	52.552	51.588
22)	B	Endosulfa...	7.590	8.642	335.6E6	189.5E6	54.205	53.382
23)	A	Methoxychlor	7.286	9.214	193.5E6	114.0E6	53.826	56.087
24)		Mirex	7.438	9.520	316.3E6	180.6E6	50.526	49.181
25)	B	Endrin Ke...	8.029	9.588	405.4E6	232.3E6	53.994	48.542
		Sum Toxaphene			0	0	N.D.	N.D.
Average		Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

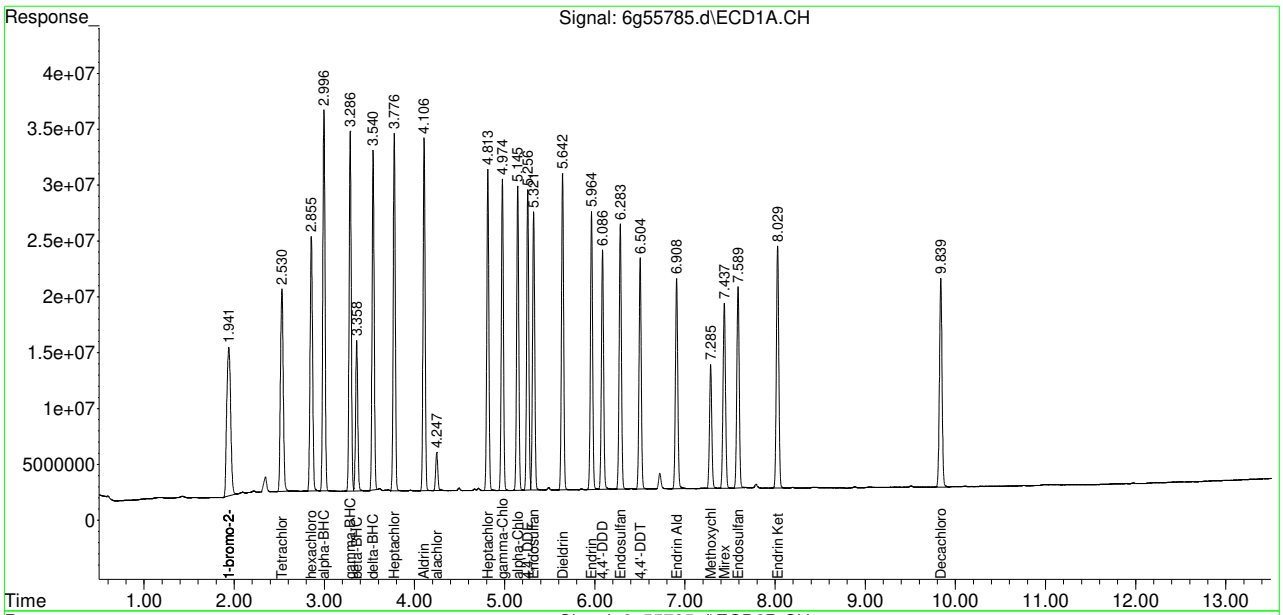
11.6.29 11

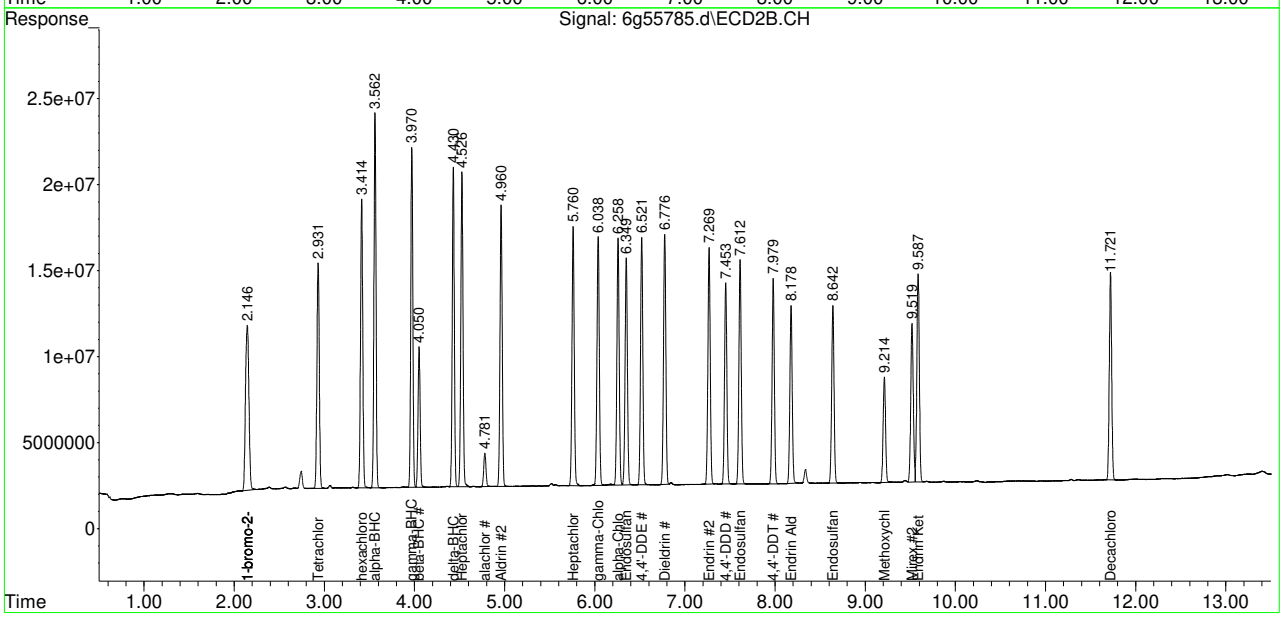
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55785.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:54:20
Operator : dharas
Sample : ic1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 13:12:04 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55786.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:12:12
Operator : dharas
Sample : ic1671-75
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:16:15 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.940	2.147	402.4E6	252.3E6	50.000	50.000
27)	I	1-bromo-2...	1.940	2.147	402.4E6	252.3E6	50.000	50.000
33)	I	1-bromo-2...	1.940	2.147	402.4E6	252.3E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.530	2.932	592.5E6	366.2E6	74.391	74.839
		Spiked Amount 40.000	Range 30 - 150		Recovery = 185.98%#		187.10%#	
26)	SA	Decachlor...	9.838	11.721	560.5E6	335.1E6	73.925	78.714
		Spiked Amount 40.000			Recovery = 184.81%		196.79%	
		Target Compounds						
3)		hexachlor...	2.856	3.414	660.9E6	440.8E6	69.121	70.903
4)	A	alpha-BHC	2.996	3.562	915.2E6	541.2E6	75.486	74.117
5)	MA	gamma-BHC	3.287	3.971	829.6E6	491.4E6	76.153	73.841
6)	MA	Heptachlor	3.776	4.526	770.2E6	479.7E6	81.759	80.487
7)	B	beta-BHC	3.359	4.051	342.7E6	203.1E6	76.501	75.126
8)	B	delta-BHC	3.542	4.431	771.7E6	463.5E6	77.628	76.076
9)	MB	Aldrin	4.107	4.961	769.0E6	434.3E6	82.738	73.878
10)		alachlor	4.247	4.781	84755002	50870076	71.125	70.179
11)	B	Heptachlo...	4.814	5.760	696.9E6	403.1E6	83.881	80.918
12)	B	gamma-Chl...	4.975	6.037	708.7E6	406.4E6	86.840	83.258
13)	B	alpha-Chl...	5.145	6.258	687.6E6	390.7E6	82.275	81.734
14)	A	Endosulfan I	5.322	6.349	644.6E6	361.6E6	81.083	79.461
15)	B	4,4'-DDE	5.256	6.520	688.1E6	395.0E6	83.668	73.707
16)	MA	Dieldrin	5.643	6.777	728.1E6	408.2E6	76.107	74.152
17)	MA	Endrin	5.964	7.268	644.5E6	386.0E6	84.236	83.833
18)	A	4,4'-DDD	6.086	7.453	563.8E6	324.8E6	81.731	81.705
19)	B	Endosulfa...	6.284	7.612	627.2E6	360.1E6	81.195	79.731
20)	MA	4,4'-DDT	6.502	7.980	551.7E6	326.6E6	79.922	77.811
21)	B	Endrin Al...	6.908	8.178	516.4E6	285.9E6	80.669	79.599
22)	B	Endosulfa...	7.589	8.642	517.8E6	292.8E6	83.719	82.961
23)	A	Methoxychlor	7.285	9.212	294.2E6	174.1E6	81.939	86.110
24)		Mirex	7.437	9.521	481.6E6	274.2E6	77.010	75.113
25)	B	Endrin Ke...	8.029	9.587	621.3E6	360.6E6	82.828	75.787
		Sum Toxaphene			0	0	N.D.	N.D.
Average		Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

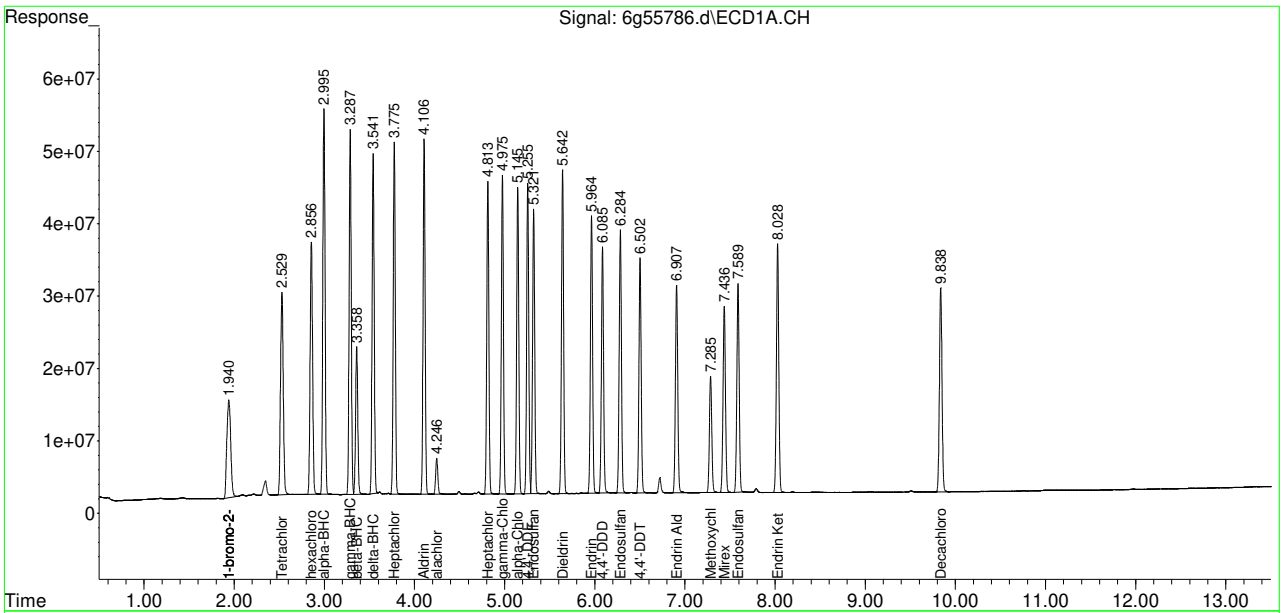
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

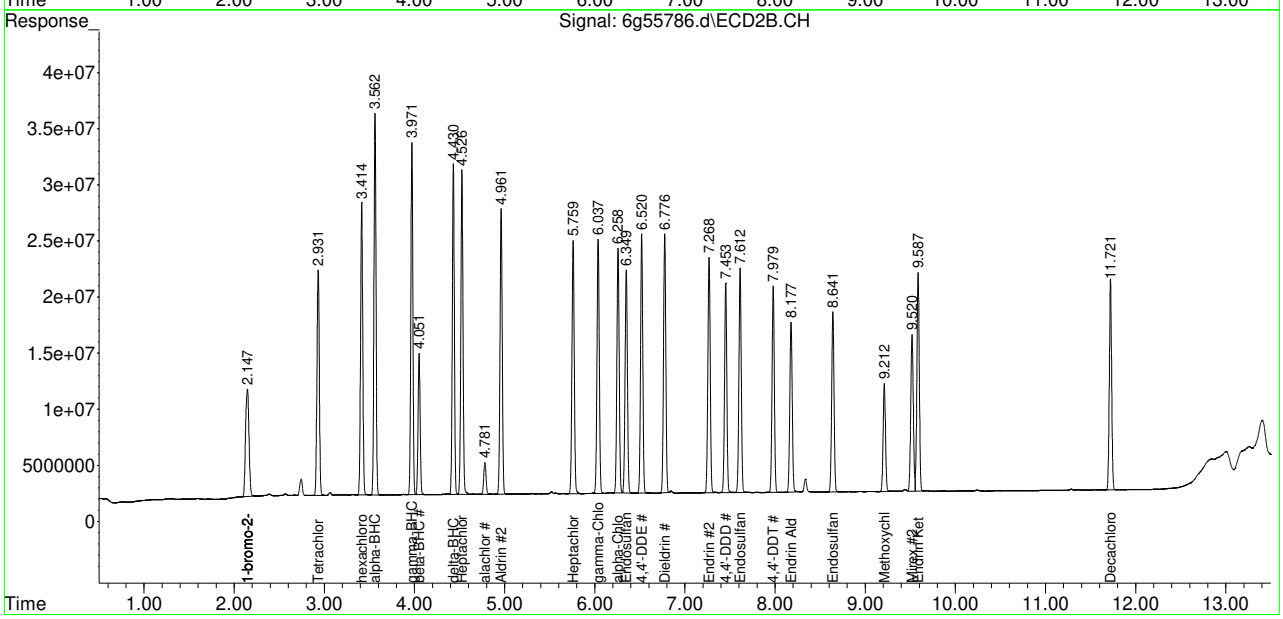
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55786.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:12:12
Operator : dharas
Sample : ic1671-75
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:16:15 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:29:59
Operator : dharas
Sample : ic1671-100
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:17:03 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		Internal Standards						
1)	I	1-bromo-2...	1.944	2.148	417.0E6	251.5E6	50.000	50.000
27)	I	1-bromo-2...	1.944	2.148	417.0E6	251.5E6	50.000	50.000
33)	I	1-bromo-2...	1.944	2.148	417.0E6	251.5E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachlo...	2.531	2.932	840.0E6	505.2E6	101.779	103.596
		Spiked Amount 40.000	Range 30 - 150		Recovery =		254.45%#	258.99%#
26)	SA	Decachlor...	9.838	11.721	743.8E6	449.1E6	94.654	105.868
		Spiked Amount 40.000			Recovery =		236.63%	264.67%
		Target Compounds						
3)		hexachlor...	2.857	3.415	904.5E6	599.5E6	91.284	96.768
4)	A	alpha-BHC	2.997	3.563	1270.8E6	749.4E6	100.818	102.449
5)	MA	gamma-BHC	3.287	3.970	1141.2E6	680.0E6	100.835	102.121
6)	MA	Heptachlor	3.776	4.526	1059.3E6	655.4E6	108.497	110.370
7)	B	beta-BHC	3.359	4.051	467.5E6	276.4E6	100.694	102.576
8)	B	delta-BHC	3.542	4.431	1078.7E6	643.2E6	104.231	105.336
9)	MB	Aldrin	4.107	4.961	1055.1E6	598.7E6	109.536	101.807
10)		alachlor	4.247	4.781	111.8E6	66988013	90.544	92.743
11)	B	Heptachlo...	4.813	5.760	954.9E6	552.4E6	110.900	111.262
12)	B	gamma-Chl...	4.975	6.037	979.2E6	559.4E6	115.774	115.025
13)	B	alpha-Chl...	5.145	6.258	947.3E6	536.2E6	109.370	112.575
14)	A	Endosulfan I	5.322	6.349	882.2E6	499.7E6	107.072	110.216
15)	B	4,4'-DDE	5.256	6.520	950.7E6	545.5E6	111.548	101.681
16)	MA	Dieldrin	5.642	6.776	990.4E6	565.3E6	99.668	102.626
17)	MA	Endrin	5.963	7.268	874.7E6	528.2E6	110.318	115.143
18)	A	4,4'-DDD	6.086	7.453	767.0E6	447.3E6	107.297	112.896
19)	B	Endosulfa...	6.284	7.612	848.5E6	492.0E6	105.985	109.316
20)	MA	4,4'-DDT	6.502	7.980	753.3E6	452.9E6	104.858	107.686
21)	B	Endrin Al...	6.907	8.177	694.6E6	389.2E6	104.710	108.743
22)	B	Endosulfa...	7.588	8.641	701.2E6	400.2E6	109.403	113.776
23)	A	Methoxychlor	7.285	9.212	394.1E6	234.8E6	105.937	116.540
24)		Mirex	7.436	9.520	644.4E6	369.5E6	99.428	101.555
25)	B	Endrin Ke...	8.028	9.586	838.0E6	490.4E6	107.799	103.418
		Sum Toxaphene			0	0	N.D.	N.D.
Average		Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

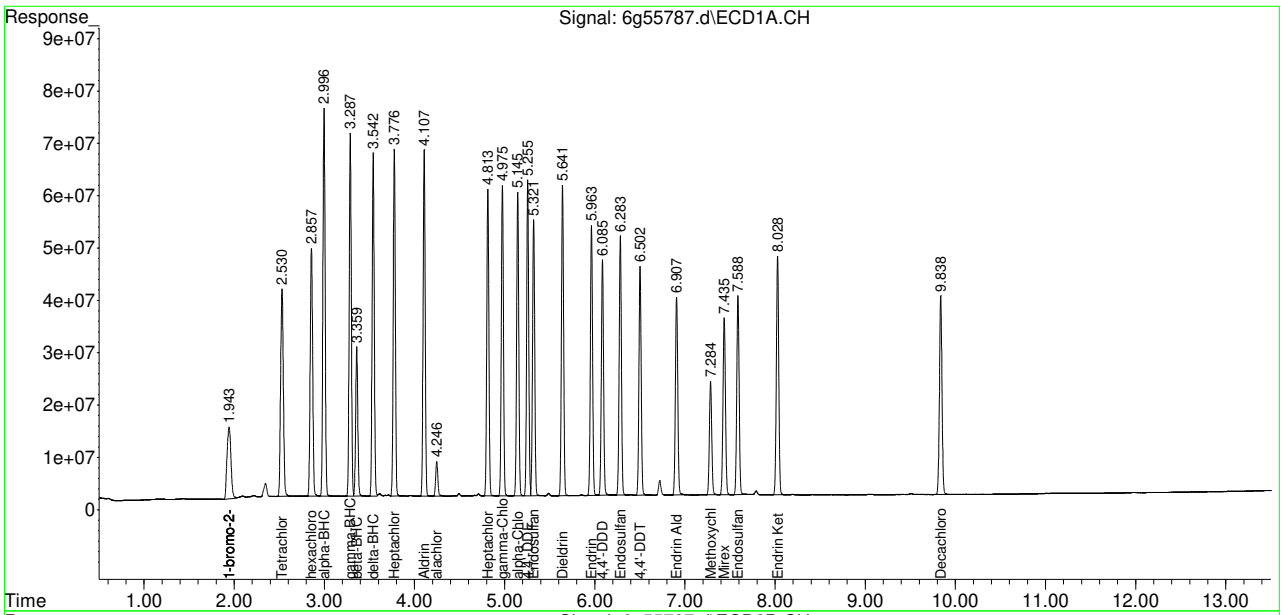
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

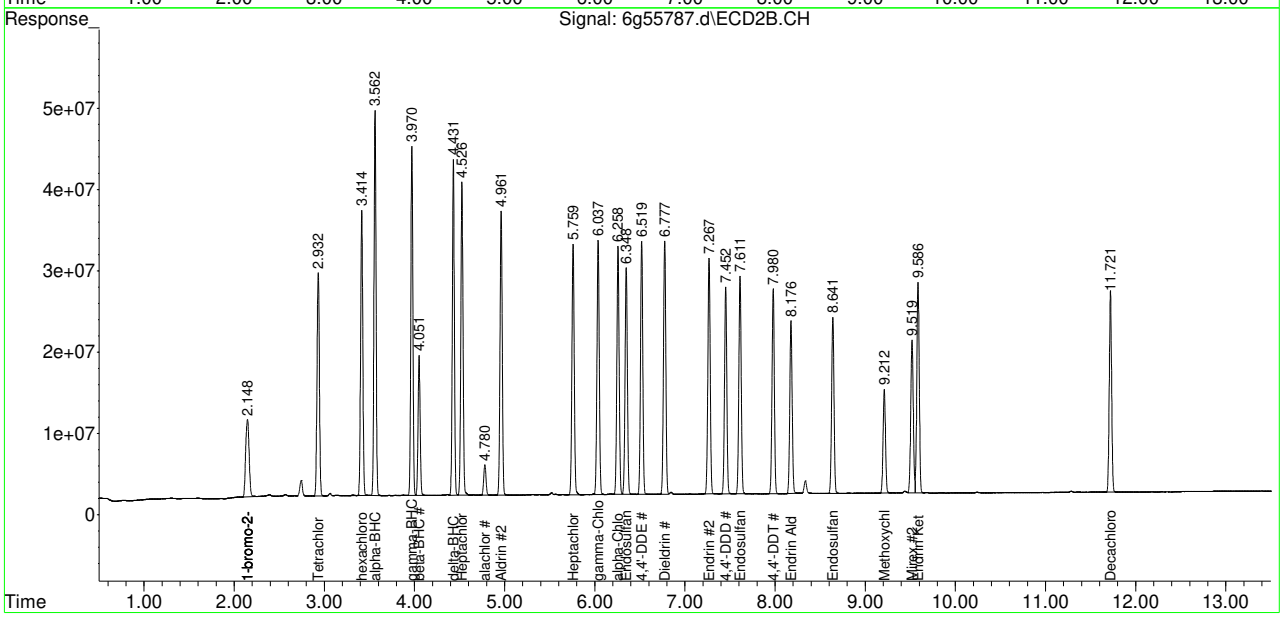
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55787.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:29:59
Operator : dharas
Sample : ic1671-100
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 15:17:03 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
27)	I 1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
33)	I 1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.531f	2.933	389.1E6	228.0E6	47.992	46.540
	Spiked Amount 40.000	Range 30 - 150		Recovery = 119.98%		116.35%	
26)	SA Decachlor...	9.838	11.722f	351.2E6	206.2E6	45.509	48.373
	Spiked Amount 40.000			Recovery = 113.77%		120.93%	
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
34)	Chlordane...	3.776	4.526	220.7E6	136.8E6	497.720	487.961
35)	Chlordane...	4.250	5.150	183.3E6	100.4E6	481.316	486.126
36)	Chlordane...	4.975	6.037	592.7E6	319.3E6	506.778	487.790
37)	Chlordane...	5.139	6.258	932.0E6	520.1E6	496.185	488.099m
38)	Chlordane...	6.024	7.396	105.2E6	54285316	450.659	528.699
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

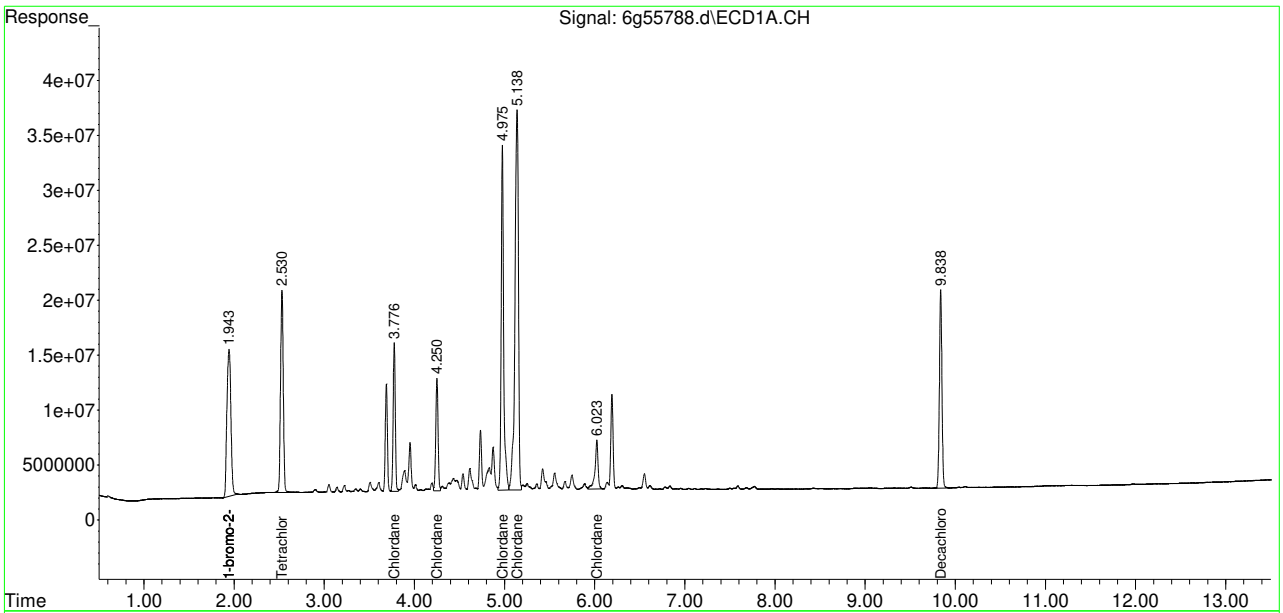
11.6.32
11

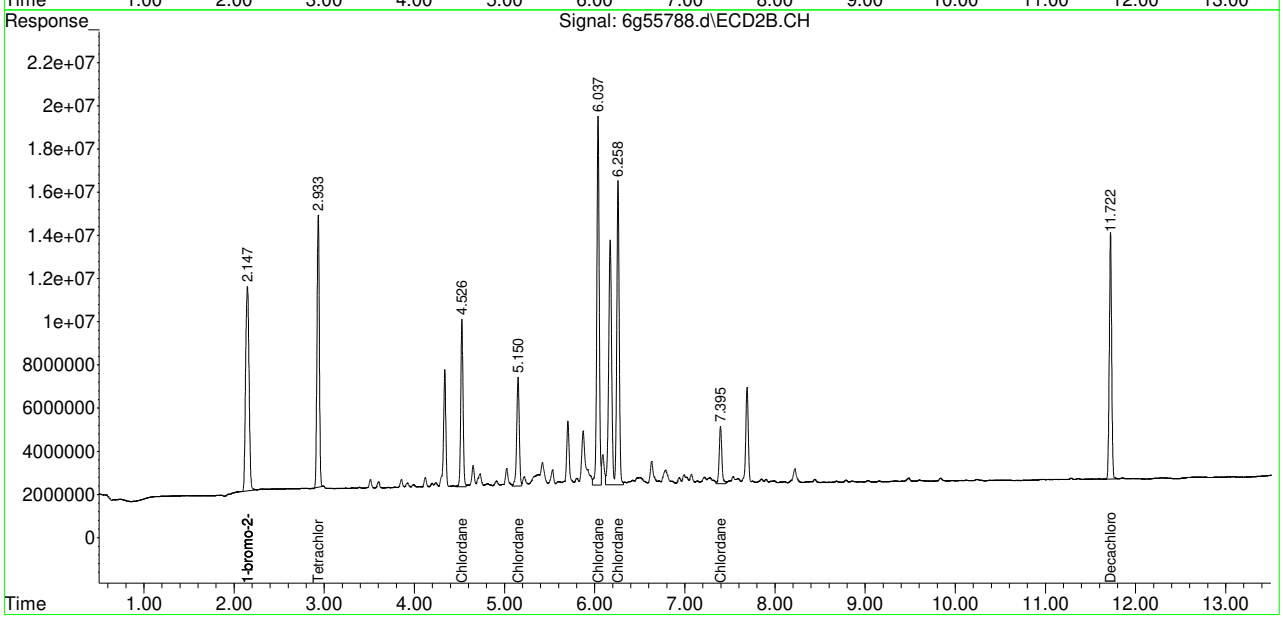
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-IC1671	**Method:**	EPA 608
Lab FileID:	6G55788.D	**Analyst approved:**	04/30/18 17:28 Rebecca Krug
Injection Time:	04/30/18 13:47	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

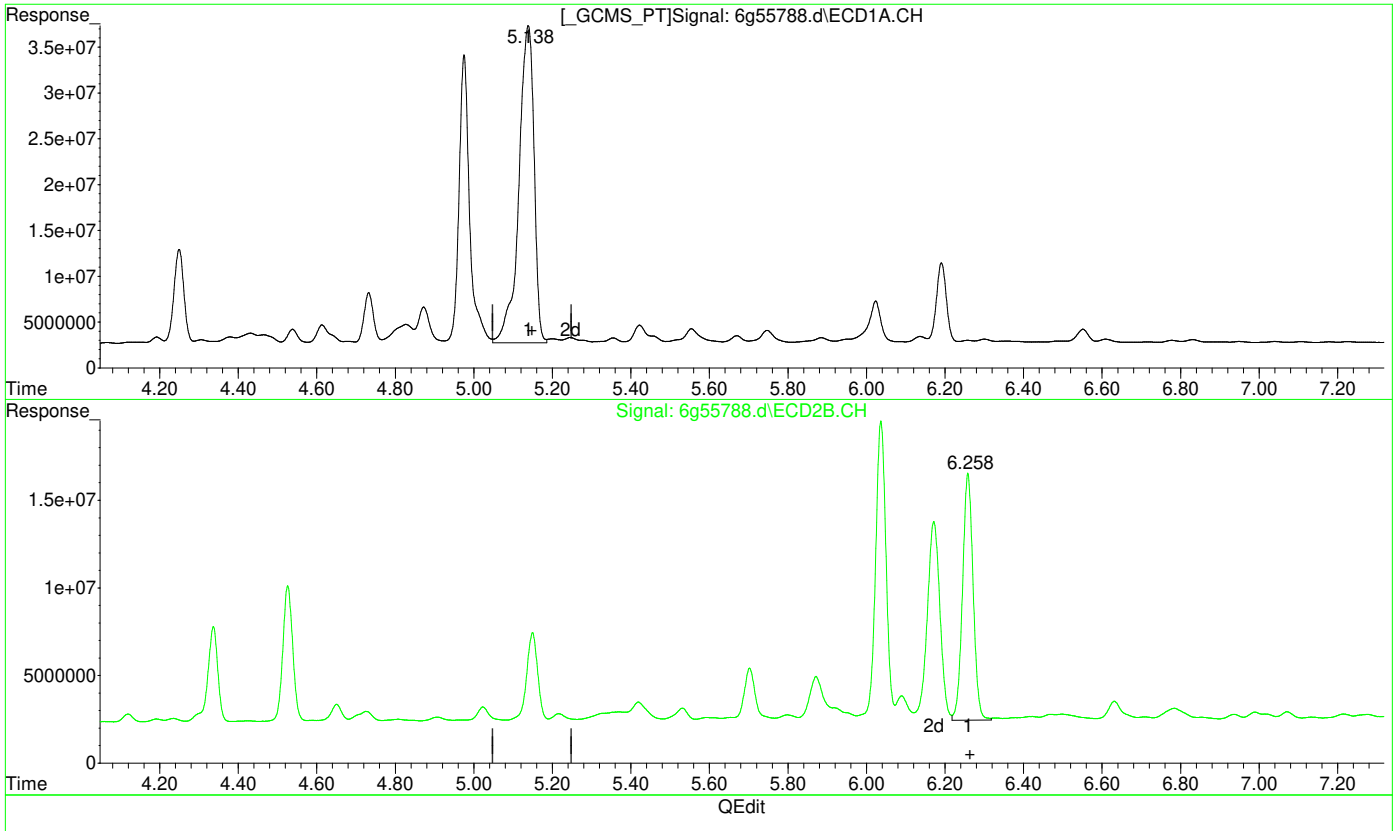
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.26	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(37) Chlordane {D}

5.139min 496.185 PPB

response 931959641

(37) Chlordane {D} #2

6.258min 247.455 PPB

response 263691638

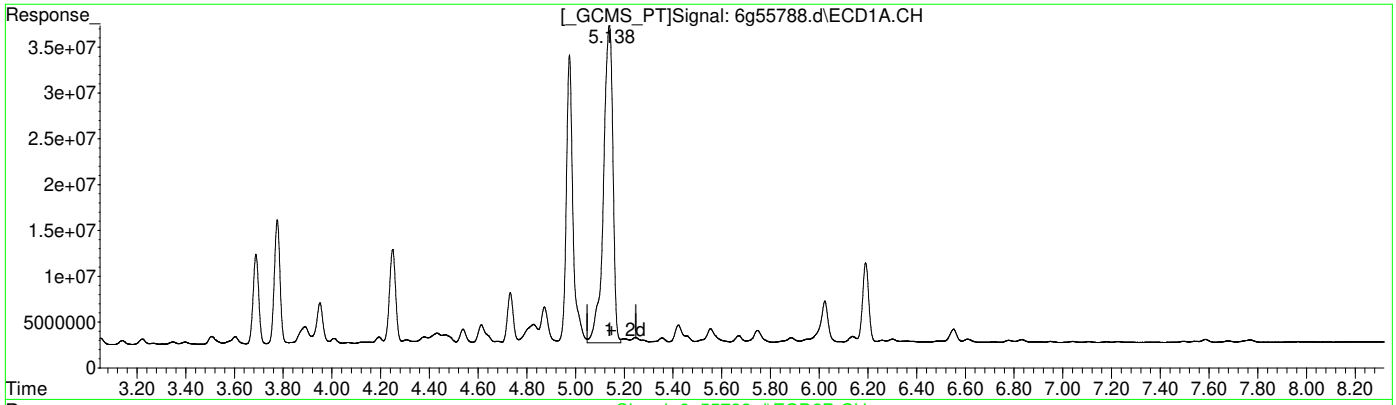
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:25:39 2018

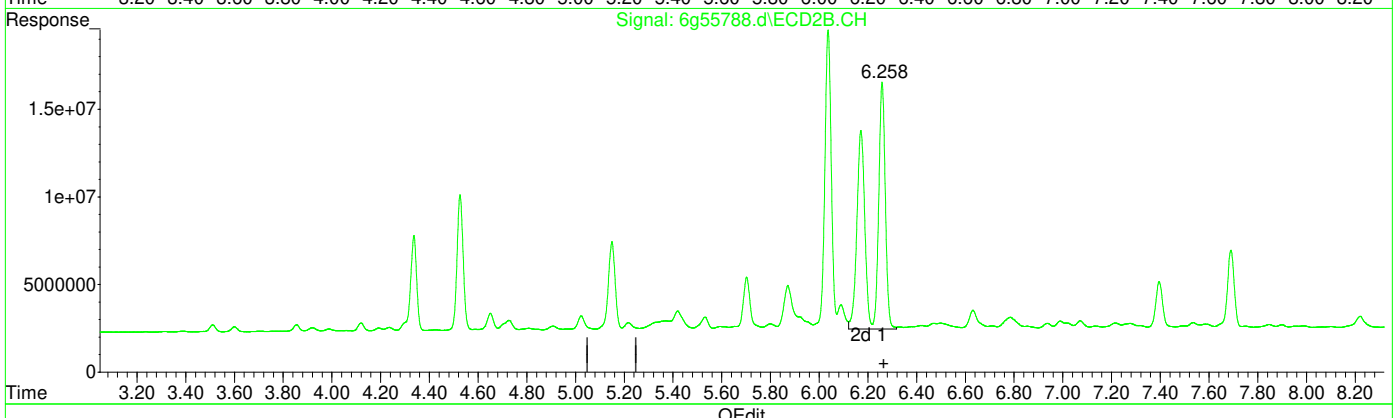
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(37) Chlordane {D}

5.139min 496.185 PPB

response 931959641

(37) Chlordane {D} #2

6.258min 488.099 PPB m

response 520124161

(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:25:51 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55789.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:05:32
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:26:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
27)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
33)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.528f	2.931	385.1E6	233.3E6	48.334	48.108
	Spiked Amount 40.000	Range 30 - 150		Recovery = 120.84%		120.27%	
26)	SA Decachlor...	9.837	11.722f	358.9E6	213.2E6	47.319	50.528
	Spiked Amount 40.000			Recovery = 118.30%		126.32%	
	Target Compounds						
28)	L8 Toxaphene{A}	5.652	6.741	63726000	48141894	470.271	486.445
29)	L8 Toxaphene{B}	6.272	7.583	164.9E6	62990732	478.558	515.469
30)	L8 Toxaphene{C}	6.447	7.744	133.5E6	117.7E6	480.051	512.531
31)	L8 Toxaphene{D}	6.787	8.178	104.7E6	65399372	492.281	529.767
32)	L8 Toxaphene{E}	7.434	9.066	107.3E6	58569705	475.346	551.126
	Sum Toxaphene			574.1E6	352.8E6	2396.507	2595.337
Average Toxaphene						479.301	519.067

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

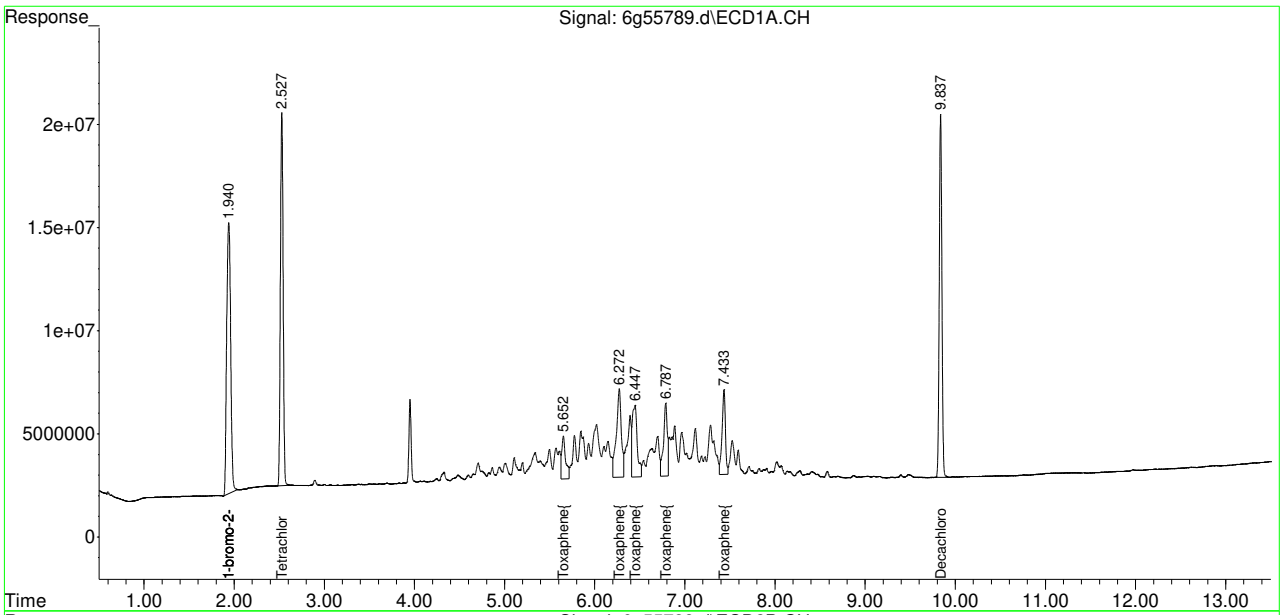
11.6.33 11

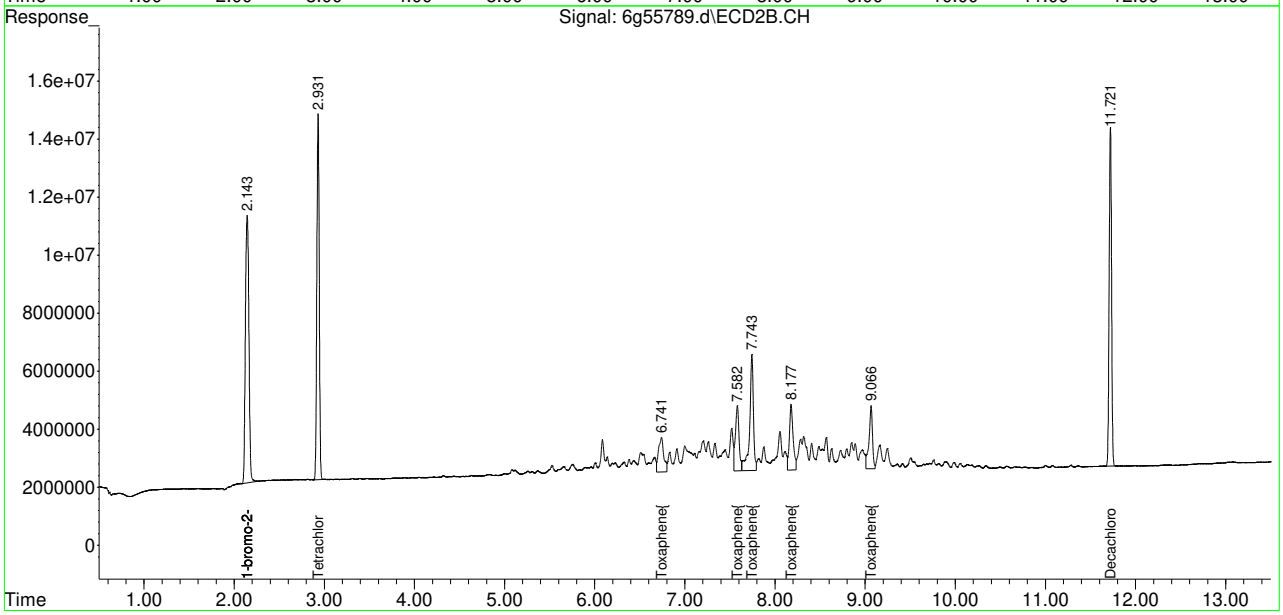
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55789.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:05:32
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:26:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55790.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:23:25
Operator : dharas
Sample : icv1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:35:31 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.944	2.148	411.1E6	251.8E6	50.000	50.000
27)	I 1-bromo-2...	1.944	2.148	411.1E6	251.8E6	50.000	50.000
33)	I 1-bromo-2...	1.944	2.148	411.1E6	251.8E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.531f	2.932	207.5E6	122.5E6	25.973	26.117
	Spiked Amount 40.000	Range 30 - 150		Recovery =		64.93%	65.29%
26)	SA Decachlor...	9.838	11.721f	210.6E6	125.7E6	25.863	26.862
	Spiked Amount 40.000			Recovery =		64.66%	67.16%
	Target Compounds						
4)	A alpha-BHC	2.997	3.562	322.9E6	183.7E6	29.343	29.437
5)	MA gamma-BHC	3.288	3.970	293.2E6	168.3E6	28.137	28.750
6)	MA Heptachlor	3.776	4.526	279.9E6	168.9E6	28.431	28.370
7)	B beta-BHC	3.359	4.051	129.1E6	74696741	27.709	27.787
8)	B delta-BHC	3.542	4.431	274.2E6	157.4E6	29.848	28.968
9)	MB Aldrin	4.107	4.962	272.6E6	148.5E6	28.503	28.338
11)	B Heptachlo...	4.813	5.760	253.5E6	143.9E6	28.660	28.405
12)	B gamma-Chl...	4.975	6.038	259.3E6	146.5E6	29.751	29.502
13)	B alpha-Chl...	5.145	6.258	252.7E6	141.2E6	28.321	29.223
14)	A Endosulfan I	5.321	6.348	242.4E6	134.3E6	29.149	29.076
15)	B 4,4'-DDE	5.256	6.520	246.2E6	138.1E6	28.978	29.423
16)	MA Dieldrin	5.643	6.775	260.9E6	143.1E6	28.964	28.865
17)	MA Endrin	5.963	7.267	236.9E6	138.6E6	29.058	28.480
18)	A 4,4'-DDD	6.086	7.452	205.3E6	116.2E6	29.174	28.741
19)	B Endosulfa...	6.283	7.613	227.5E6	128.6E6	26.309	26.115
20)	MA 4,4'-DDT	6.503	7.979	191.2E6	111.7E6	28.341	28.613
21)	B Endrin Al...	6.908	8.178	192.6E6	106.1E6	28.129	28.381
22)	B Endosulfa...	7.589	8.641	197.7E6	110.2E6	29.161	29.415
23)	A Methoxychlor	7.285	9.212f	109.9E6	64907034	27.300	29.272
24)	Mirex	7.437	9.519f	182.1E6	103.7E6	26.588	27.613
25)	B Endrin Ke...	8.028	9.587f	227.6E6	129.5E6	28.221	26.092
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

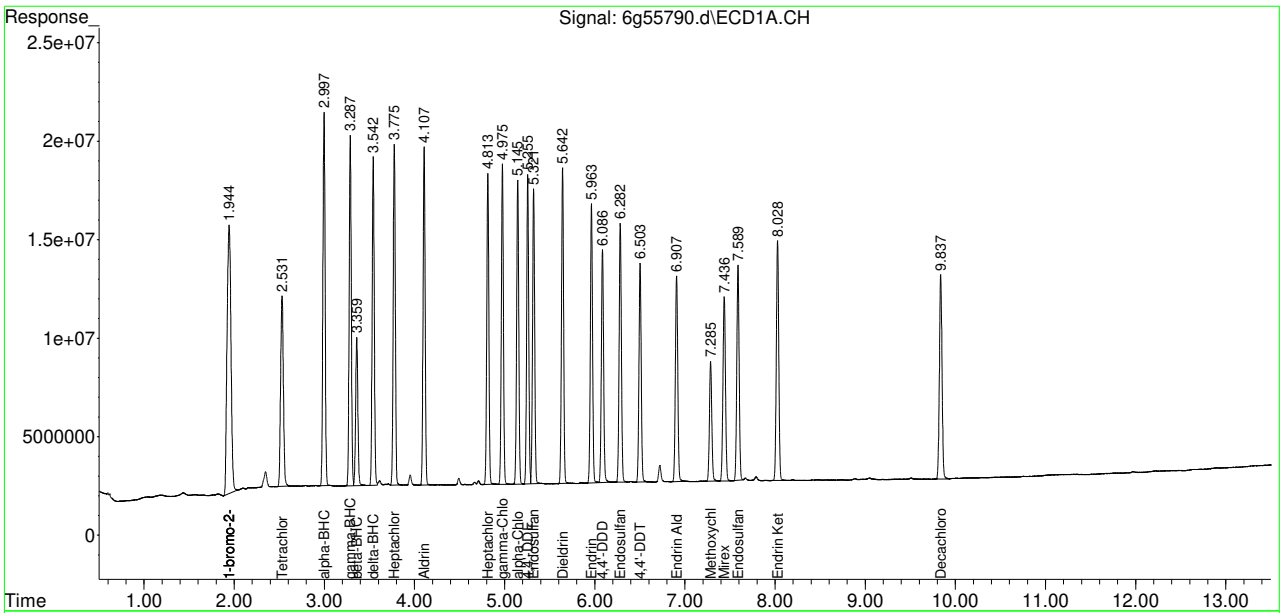
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

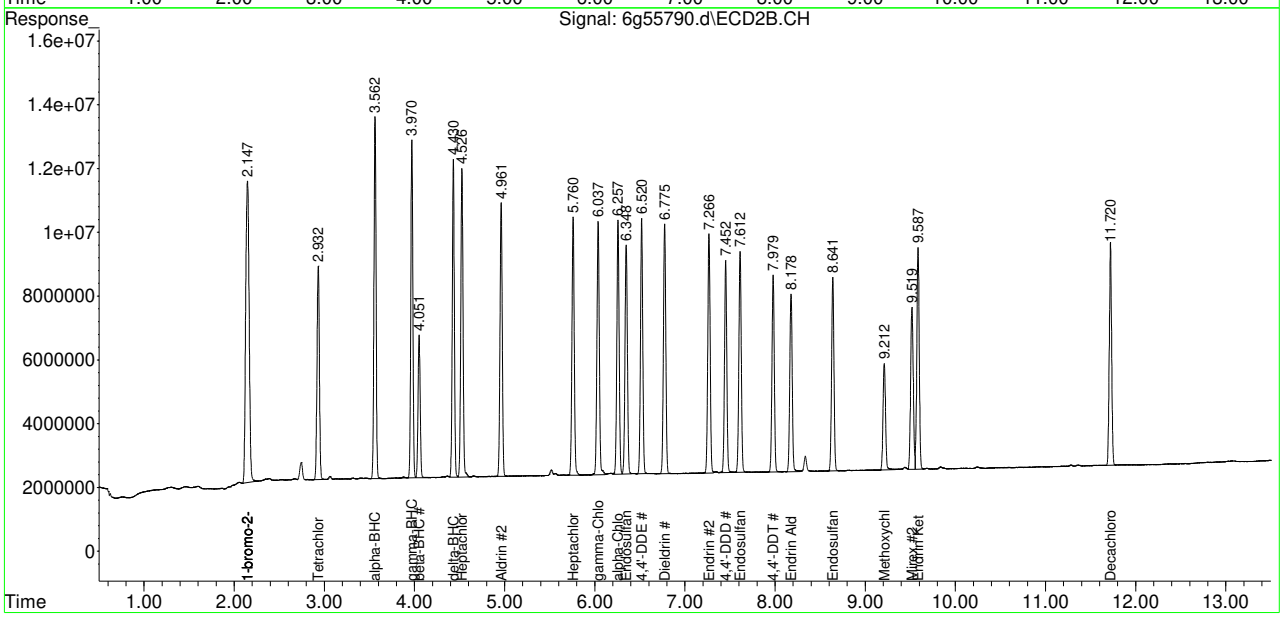
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55790.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:23:25
Operator : dharas
Sample : icv1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:35:31 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/01/18 08:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:41:11
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.942	2.146	407.7E6	250.4E6	50.000	50.000
27)	I 1-bromo-2...	1.942	2.146	407.7E6	250.4E6	50.000	50.000
33)	I 1-bromo-2...	1.942	2.146	407.7E6	250.4E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530f	2.931	411.0E6	218.2E6	51.869	46.771
	Spiked Amount 40.000	Range 30 - 150		Recovery = 129.67%		116.93%	
26)	SA Decachlor...	9.837	11.720f	363.7E6	218.5E6	45.037	46.960
	Spiked Amount 40.000			Recovery = 112.59%		117.40%	
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
34)	Chlordane...	3.775	4.526	257.4E6	159.1E6	585.844	586.613
35)	Chlordane...	4.249	5.149	160.5E6	89465464	439.833	449.292
36)	Chlordane...	4.974	6.036	589.8E6	319.4E6	499.827	504.498
37)	Chlordane...	5.137	6.257	938.1E6	520.9E6	505.638	505.179m
38)	Chlordane...	6.022	7.396	115.3E6	58460674	550.893	543.198

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

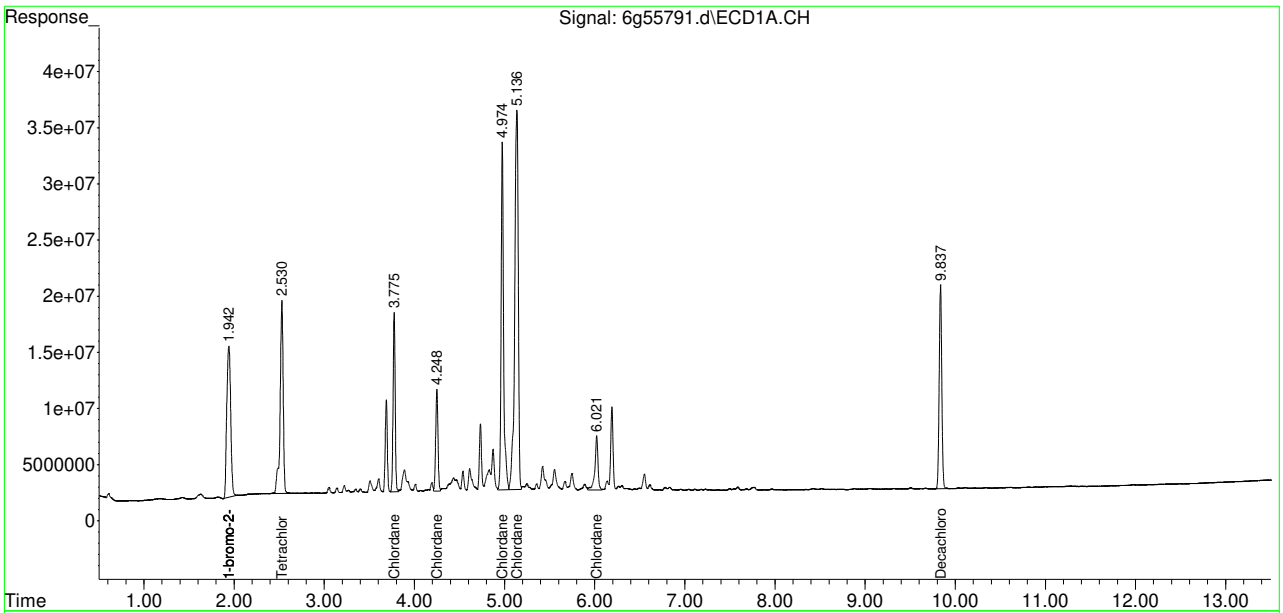
11.6.35 11

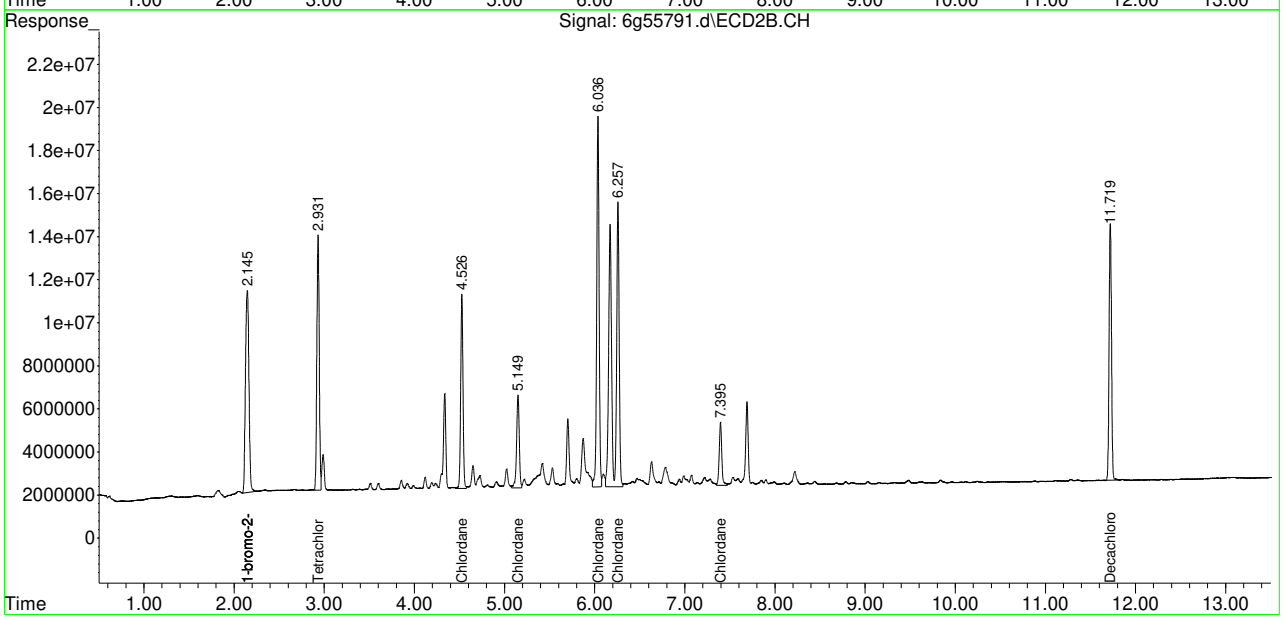
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:41:11
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:45 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G6G1671-ICV1671	**Method:**	EPA 608
Lab FileID:	6G55791.D	**Analyst approved:**	04/30/18 17:41 Rebecca Krug
Injection Time:	04/30/18 14:41	**Supervisor approved:**	05/01/18 08:39 Gwendolyn Burns

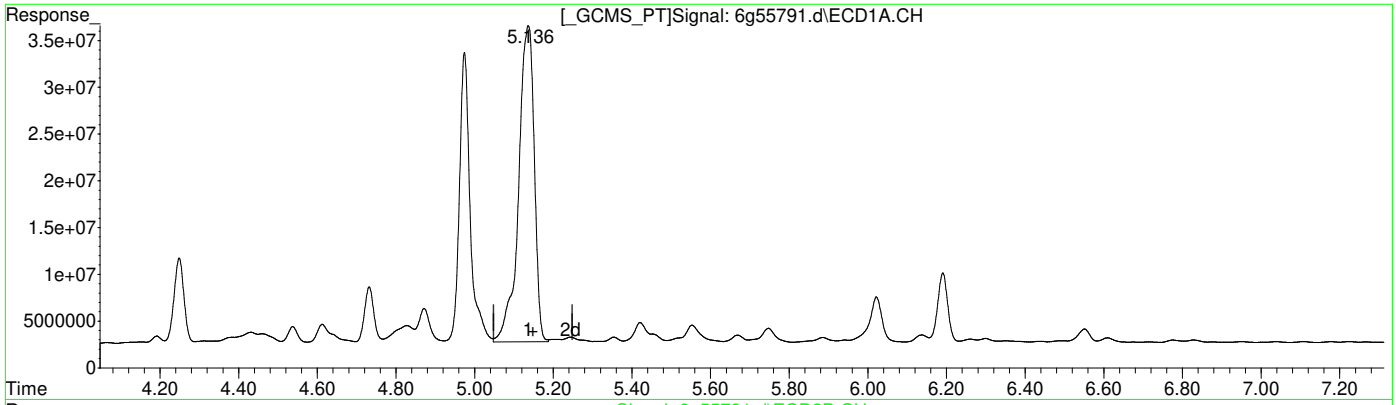
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.26	Split peak

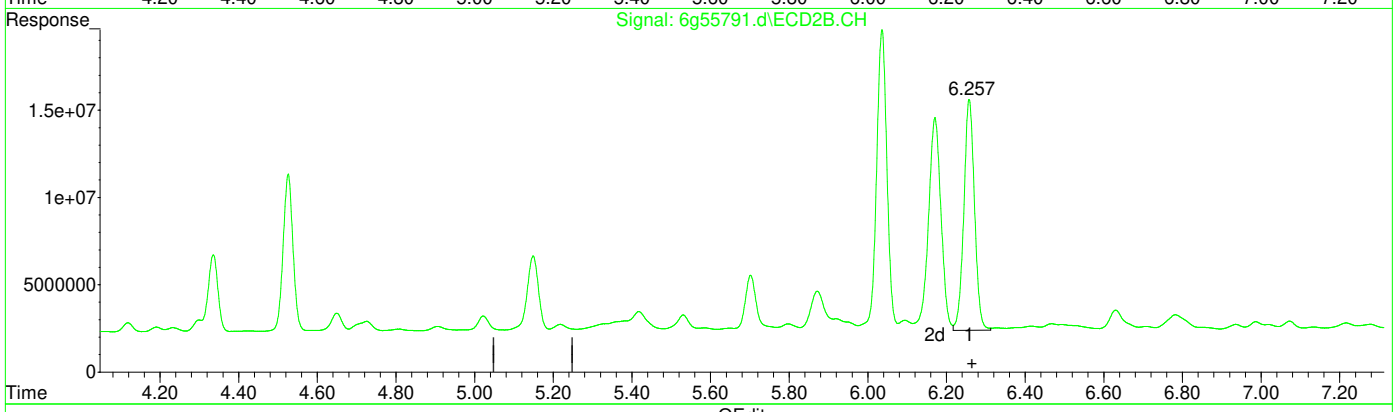
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:41:11
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





QEdit

(37) Chlordane {D}

5.137min 505.638 PPB

response 938058658

(37) Chlordane {D} #2

6.258min 242.281 PPB

response 249833522

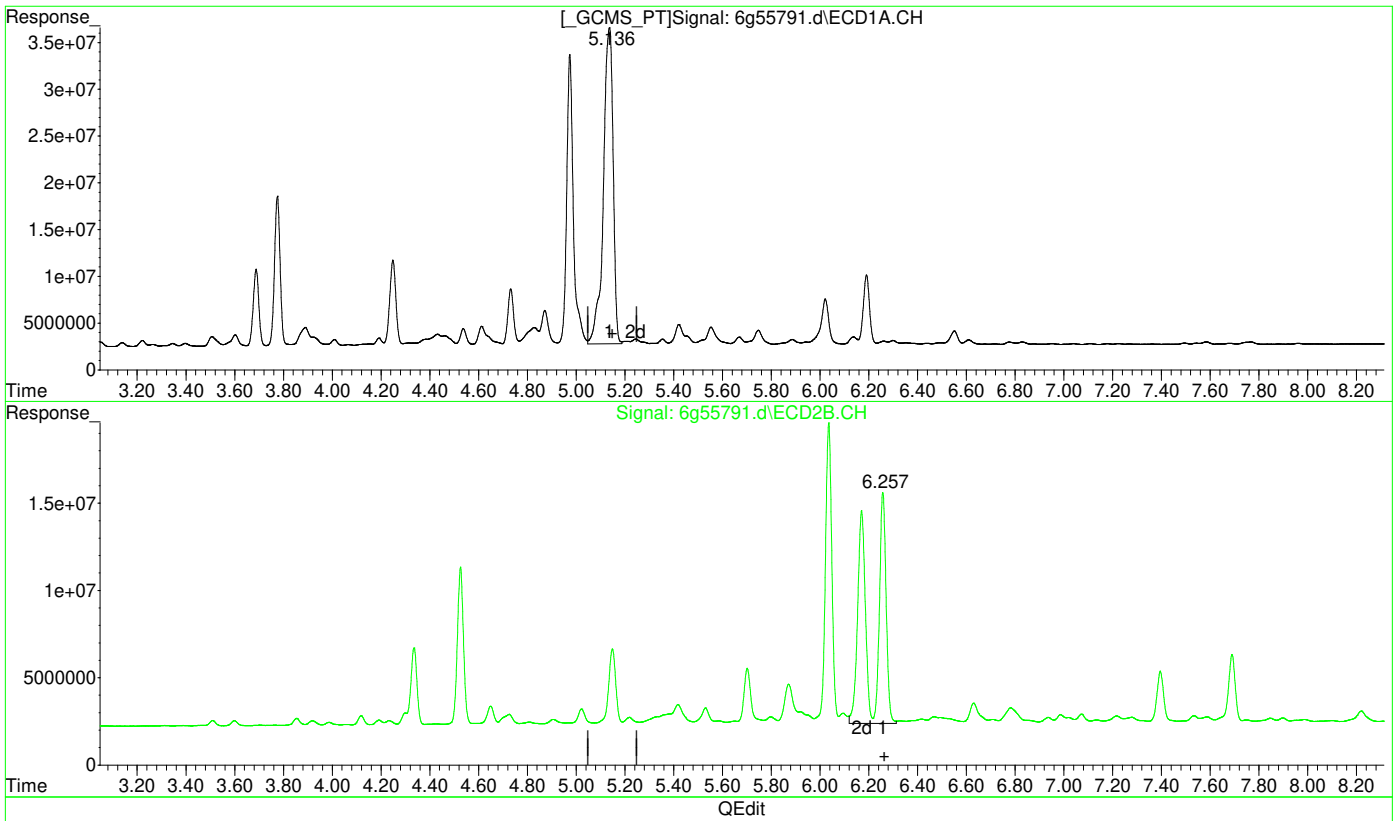
(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:36:36 2018

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55791.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:41:11
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:36:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(37) Chlordane {D}

5.137min 505.638 PPB

response 938058658

(37) Chlordane {D} #2

6.257min 505.179 PPB m

response 520925906

(+) = Expected Retention Time
6PST1671.M Mon Apr 30 17:36:48 2018

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55792.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:58:58 (#1); 30-Apr-18, 14:58:59 (#2)
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.941	2.147	408.9E6	251.5E6	50.000	50.000
27)	I 1-bromo-2...	1.941	2.147	408.9E6	251.5E6	50.000	50.000
33)	I 1-bromo-2...	1.941	2.147	408.9E6	251.5E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.530f	2.932	369.1E6	222.1E6	46.431	47.419
	Spiked Amount 40.000	Range 30 - 150		Recovery = 116.08%		118.55%	
26)	SA Decachlor...	9.838	11.721f	372.5E6	218.4E6	45.973	46.754
	Spiked Amount 40.000			Recovery = 114.93%		116.88%	
	Target Compounds						
28)	L8 Toxaphene{A}	5.651	6.742	68187525	51807953	526.609	535.174
29)	L8 Toxaphene{B}	6.273	7.584	178.6E6	64306737	532.864	507.694
30)	L8 Toxaphene{C}	6.451	7.745	142.5E6	114.9E6	525.467	485.546
31)	L8 Toxaphene{D}	6.788	8.180	107.9E6	67815668	507.287	515.678
32)	L8 Toxaphene{E}	7.434	9.067	118.3E6	59104825	542.622	501.848
	Sum Toxaphene			615.4E6	357.9E6	2634.849	2545.939
Average Toxaphene						526.970	509.188

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

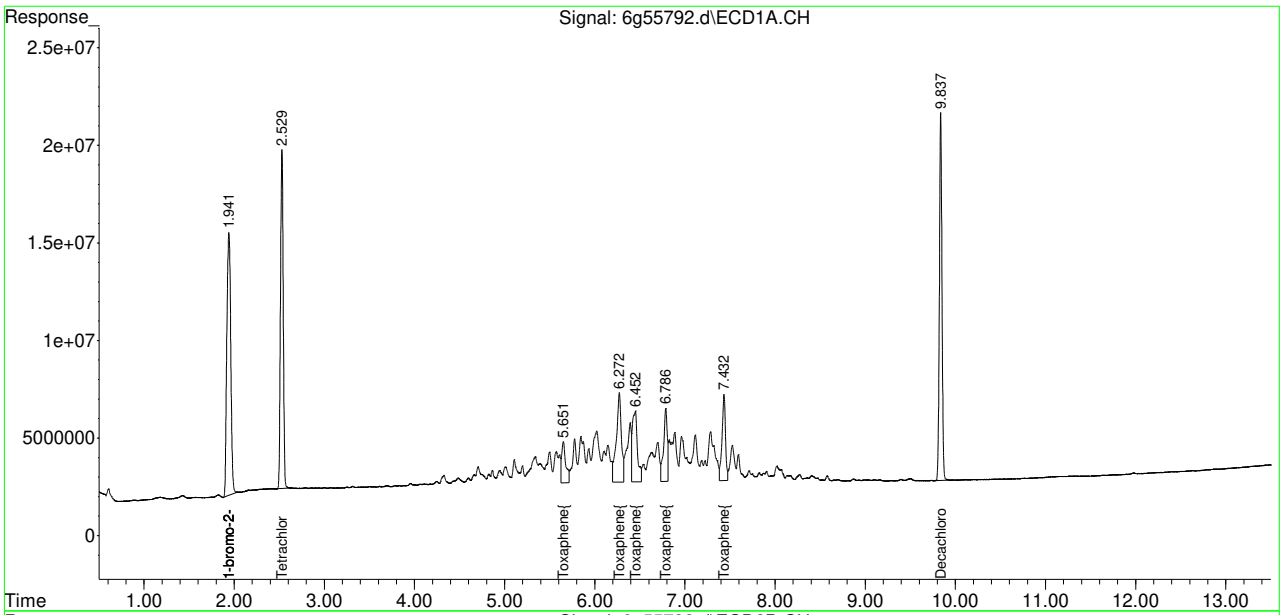
11.6.36 11

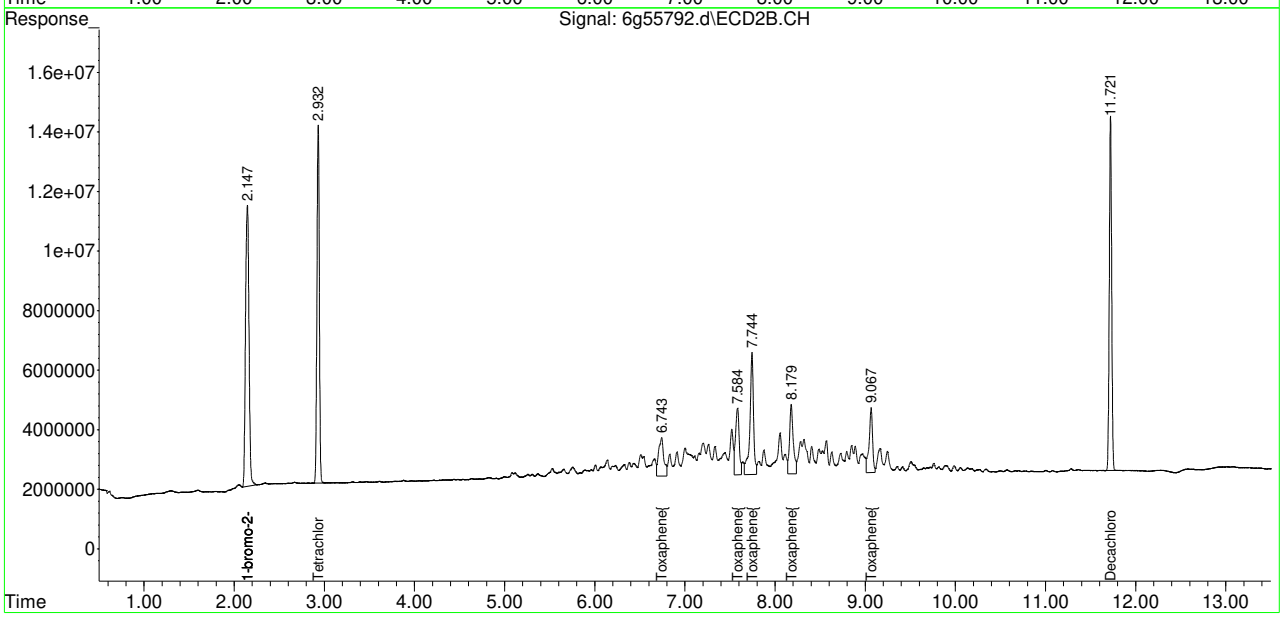
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55792.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:58:58 (#1); 30-Apr-18, 14:58:59 (#2)
Operator : dharas
Sample : icv1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:19 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55793.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 15:16:44
Operator : dharas
Sample : icv1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:44 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.944	2.147	404.4E6	249.7E6	50.000	50.000
27)	I 1-bromo-2...	1.944	2.147	404.4E6	249.7E6	50.000	50.000
33)	I 1-bromo-2...	1.944	2.147	404.4E6	249.7E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
10)	alachlor	4.247	4.781	62483950	37384080	55.052	54.288
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

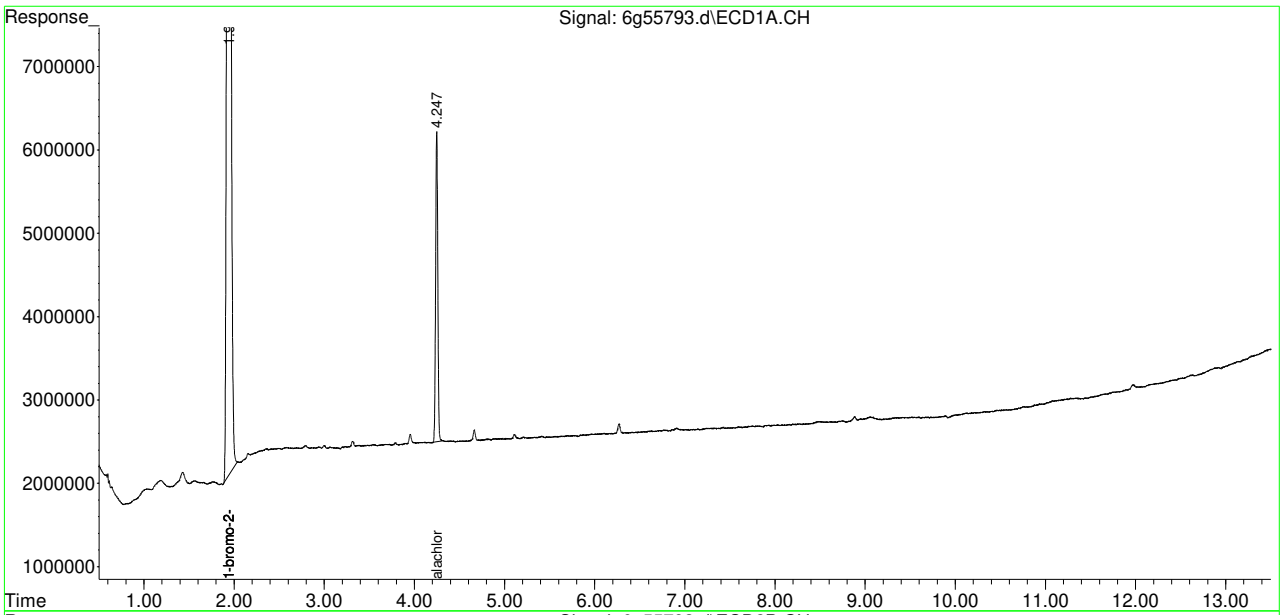
11.6.37 11

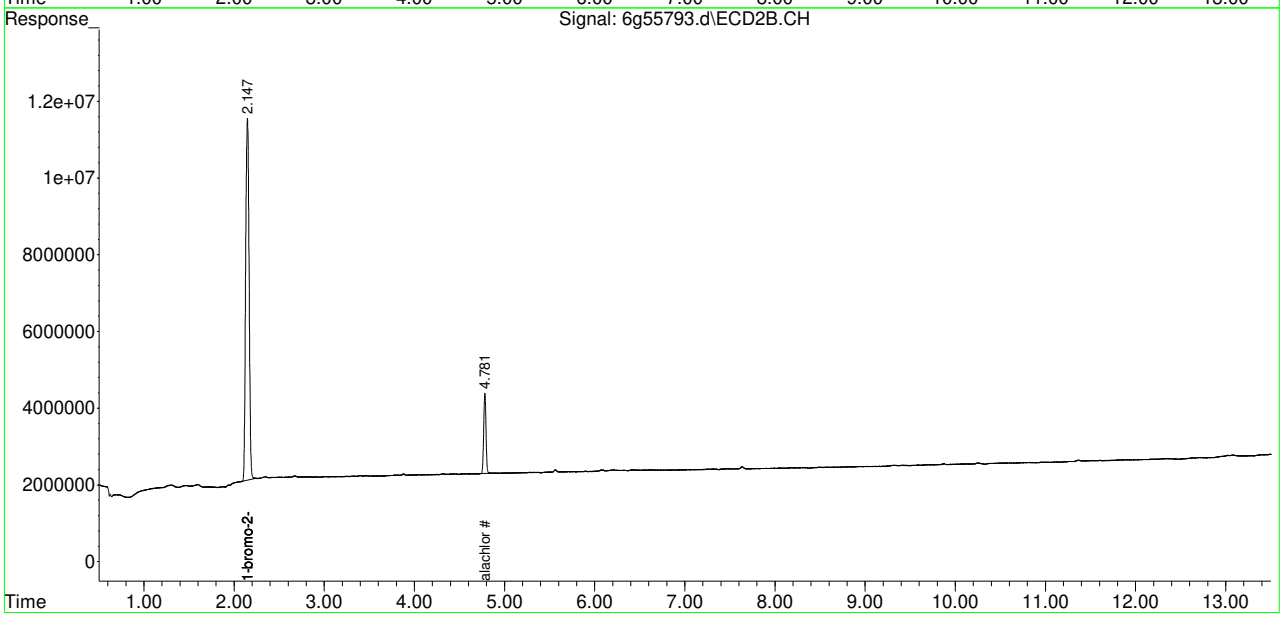
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55793.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 15:16:44
Operator : dharas
Sample : icv1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:37:44 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55794.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 15:34:38
Operator : dharas
Sample : icv1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:38:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.942	2.147	413.6E6	254.0E6	50.000	50.000
27)	I 1-bromo-2...	1.942	2.147	413.6E6	254.0E6	50.000	50.000
33)	I 1-bromo-2...	1.942	2.147	413.6E6	254.0E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
3)	hexachlor...	2.856	3.414	444.9E6	289.2E6	49.576	48.749
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	SemiQuant Compounds - Not Calibrated on this Instrument						

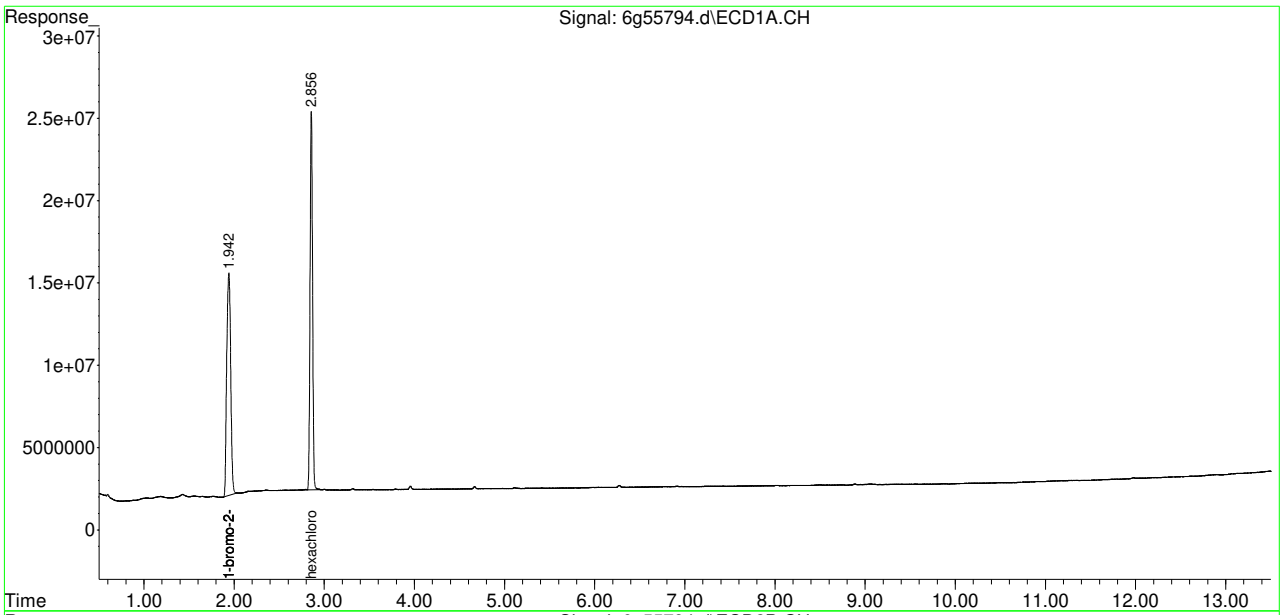
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

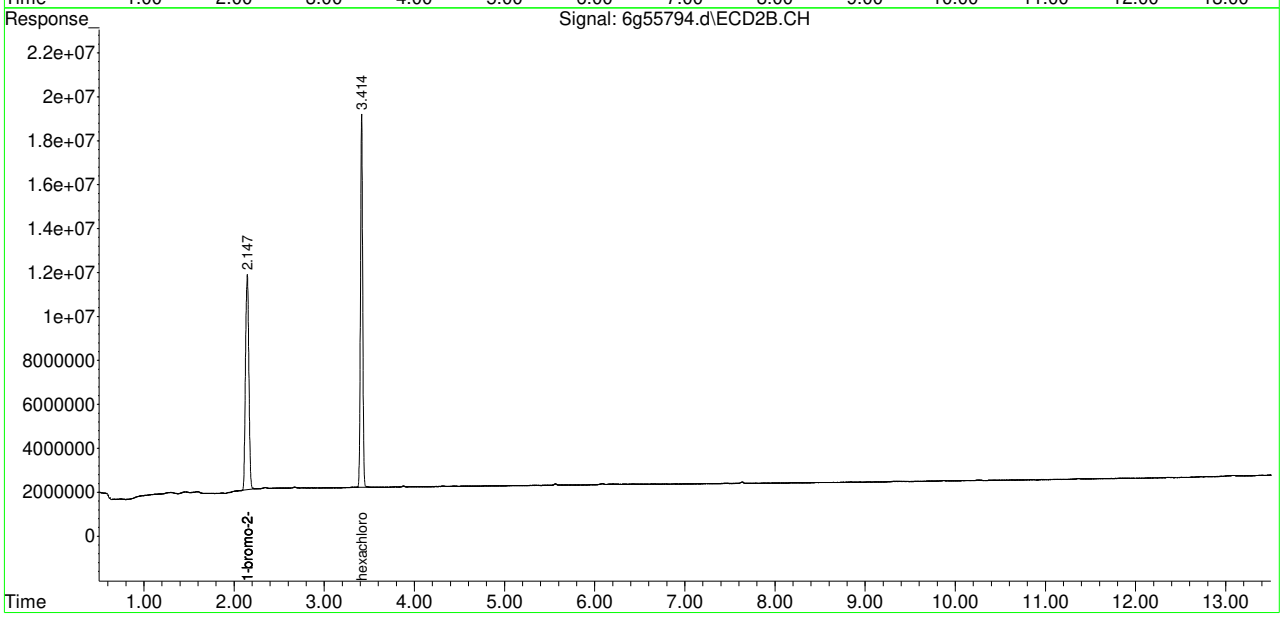
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55794.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 15:34:38
Operator : dharas
Sample : icv1671-50
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:38:08 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56619.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:48:46
Operator : dharas
Sample : cc1671-50
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 26 09:27:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.937	2.140	317.8E6	254.1E6	50.000	50.000
27)	I 1-bromo-2...	1.937	2.140	317.8E6	254.1E6	50.000	50.000
33)	I 1-bromo-2...	1.937	2.140	317.8E6	254.1E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.524	2.922	299.1E6	235.6E6	48.419	49.778
	Spiked Amount 40.000 Range 30 - 150 Recovery = 121.05% 124.45%						
26)	SA Decachlor...	9.806f	11.705f	285.9E6	221.8E6	45.403	46.977
	Spiked Amount 40.000 Recovery = 113.51% 117.44%						
	Target Compounds						
3)	hexachlor...	2.849	3.404	337.9E6	299.9E6	48.999	50.528
4)	A alpha-BHC	2.987	3.551	454.8E6	343.4E6	53.449	54.515
5)	MA gamma-BHC	3.276	3.958	402.9E6	310.9E6	50.014	52.629
6)	MA Heptachlor	3.762	4.510	400.7E6	309.1E6	52.635	51.441
7)	B beta-BHC	3.349	4.040	169.0E6	131.0E6	46.921	48.274
8)	B delta-BHC	3.531	4.418	362.9E6	283.6E6	51.089	51.716
9)	MB Aldrin	4.092f	4.945	383.4E6	272.8E6	51.832	51.579
10)	alachlor	4.229f	4.765	46023438	35195141	51.587	50.227
11)	B Heptachlo...	4.794f	5.741	323.9E6	254.8E6	47.370	49.812
12)	B gamma-Chl...	4.956f	6.019	326.2E6	254.8E6	48.411	50.847
13)	B alpha-Chl...	5.124f	6.239	329.8E6	244.5E6	47.801	50.115
14)	A Endosulfan I	5.300f	6.330	319.5E6	227.5E6	49.688	48.815
15)	B 4,4'-DDE	5.235f	6.502	326.0E6	245.5E6	49.618	51.814
16)	MA Dieldrin	5.619f	6.756	352.2E6	255.3E6	50.573	51.041
17)	MA Endrin	5.939f	7.247	336.3E6	246.6E6	53.350	50.224
18)	A 4,4'-DDD	6.063f	7.436	271.5E6	201.6E6	49.908	49.408
19)	B Endosulfa...	6.258f	7.593	310.9E6	230.6E6	46.496	46.408
20)	MA 4,4'-DDT	6.479f	7.961	274.7E6	202.0E6	52.663	51.268
21)	B Endrin Al...	6.879f	8.158	259.1E6	183.2E6	48.945	48.542
22)	B Endosulfa...	7.558f	8.623	273.4E6	198.2E6	52.136	52.452
23)	A Methoxychlor	7.260f	9.195	157.8E6	111.5E6	50.695	49.838
24)	Mirex	7.409f	9.499	245.4E6	180.1E6	46.352	47.504
25)	B Endrin Ke...	7.997f	9.567f	320.9E6	232.7E6	51.441	46.454
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

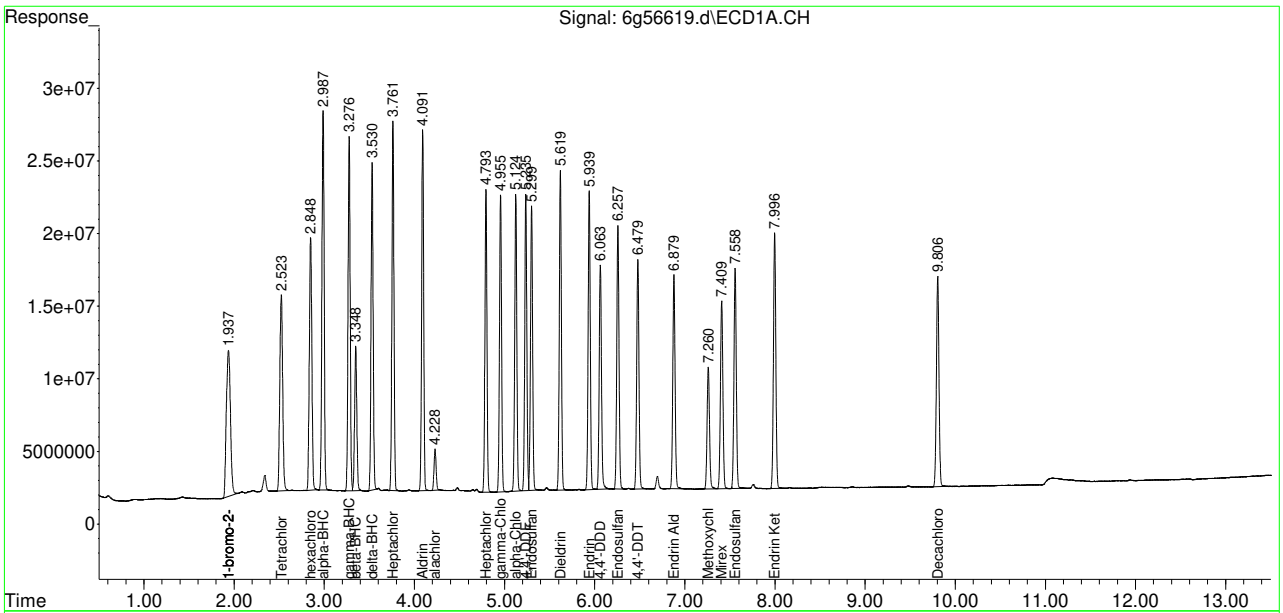
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

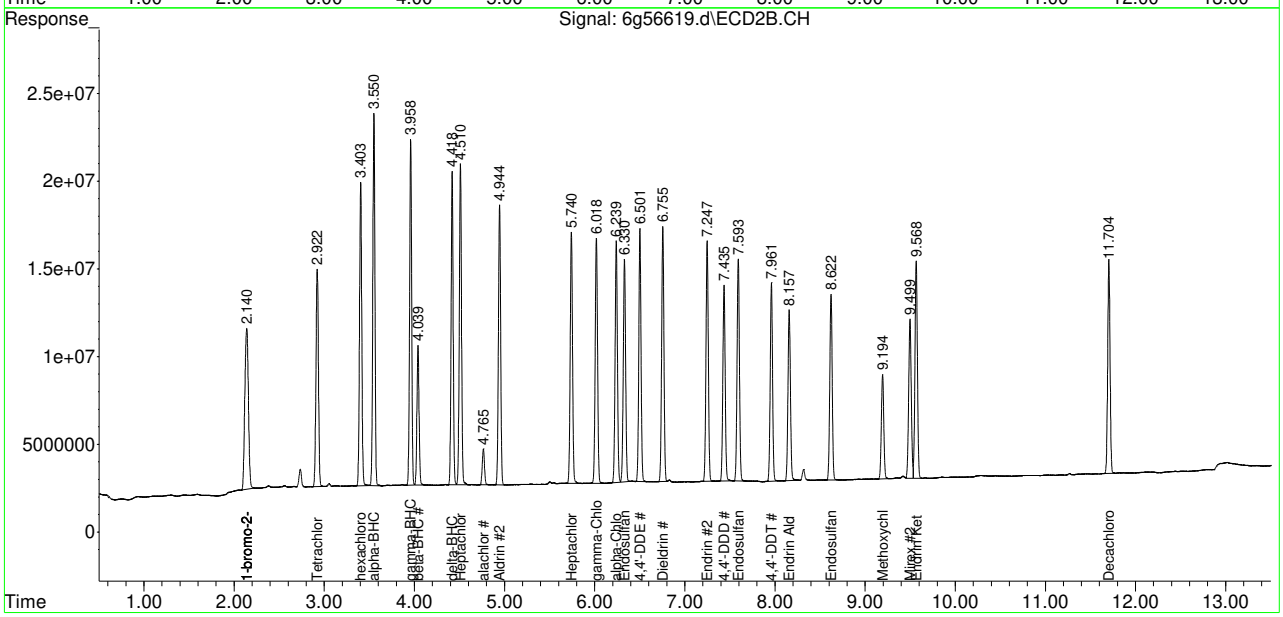
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56619.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 08:48:46
Operator : dharas
Sample : cc1671-50
Misc : OP12276,g6g1691,16.0,,,10,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 26 09:27:02 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56640.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 15:24:16
Operator : dharas
Sample : cc1671-25
Misc : OP12247,g6g1691,15.2,,,10,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 28 21:17:26 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Sat May 26 10:47:22 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.945	2.146	383.8E6	288.3E6	50.000	50.000
27)	I 1-bromo-2...	1.945	2.146	383.8E6	288.3E6	50.000	50.000
33)	I 1-bromo-2...	1.945	2.146	383.8E6	288.3E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.533	2.929	193.1E6	140.8E6	25.885	26.219
	Spiked Amount 40.000	Range 30 - 150		Recovery =		64.71%	65.55%
26)	SA Decachlor...	9.808	11.707	157.2E6	112.1E6	20.670	20.928
	Spiked Amount 40.000			Recovery =		51.68%	52.32%
	Target Compounds						
3)	hexachlor...	2.856	3.410	217.8E6	185.3E6	26.159	27.526
4)	A alpha-BHC	2.993	3.555	262.8E6	188.0E6	25.581	26.308
5)	MA gamma-BHC	3.281	3.961	243.1E6	173.4E6	24.993	25.880
6)	MA Heptachlor	3.766	4.514	224.5E6	168.2E6	24.429	24.678
7)	B beta-BHC	3.355	4.044	106.8E6	77584205	24.560	25.206
8)	B delta-BHC	3.536	4.422	214.1E6	157.7E6	24.959	25.346
9)	MB Aldrin	4.095	4.948	223.8E6	157.6E6	25.060	26.266
10)	alachlor	4.232	4.767	29003698	22095896	26.923	27.795
11)	B Heptachlo...	4.796	5.743	205.9E6	150.9E6	24.929	26.014
12)	B gamma-Chl...	4.958	6.020	203.5E6	151.4E6	25.017	26.627
13)	B alpha-Chl...	5.127	6.241	200.4E6	145.2E6	24.052	26.237
14)	A Endosulfan I	5.303	6.332	189.3E6	133.9E6	24.375	25.325
15)	B 4,4'-DDE	5.238	6.504	189.4E6	139.8E6	23.872	26.008
16)	MA Dieldrin	5.622	6.758	207.8E6	146.9E6	24.709	25.884
17)	MA Endrin	5.941	7.250	189.9E6	138.2E6	24.955	24.803
18)	A 4,4'-DDD	6.065	7.437	169.5E6	122.4E6	25.796	26.433
19)	B Endosulfa...	6.260	7.595	179.2E6	132.1E6	22.194	23.438
20)	MA 4,4'-DDT	6.480	7.962	126.1E6	89760005	20.018	20.083
21)	B Endrin Al...	6.881	8.160	147.0E6	104.0E6	22.992	24.296
22)	B Endosulfa...	7.560	8.623	138.8E6	103.0E6	21.928	24.023
23)	A Methoxychlor	7.262	9.195	76446486	53680727	20.342	21.143
24)	Mirex	7.412	9.500	135.4E6	101.7E6	21.183	23.657
25)	B Endrin Ke...	7.999	9.568	168.9E6	121.1E6	22.426	21.314
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

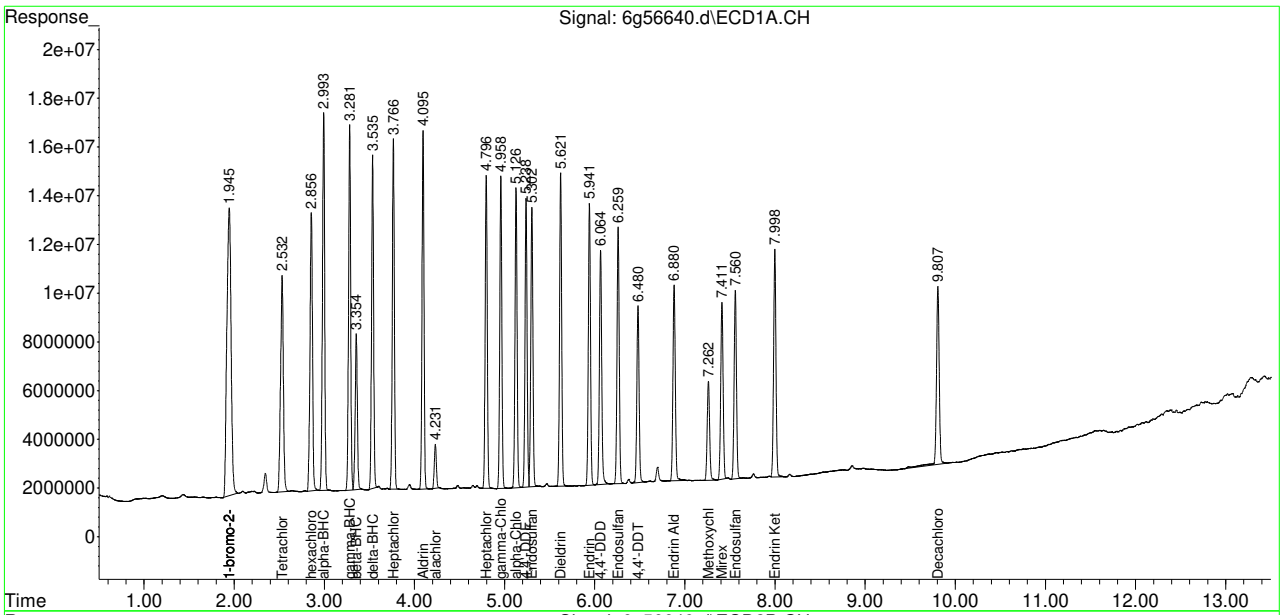
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

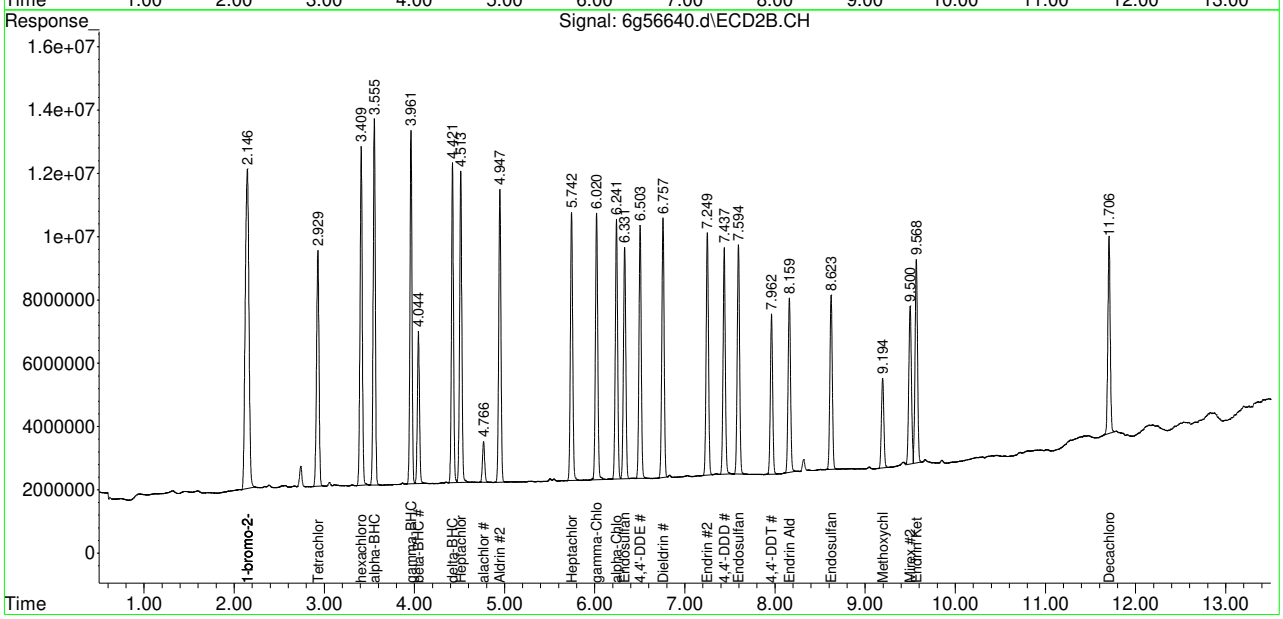
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1691\
Data File : 6g56640.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 26-May-18, 15:24:16
Operator : dharas
Sample : cc1671-25
Misc : OP12247,g6g1691,15.2,,,10,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 28 21:17:26 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Sat May 26 10:47:22 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56744.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 11:06:03
Operator : christp
Sample : cc1671-25
Misc : OP12330,g6g1694,30,,,2,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 11:24:24 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.948	2.147	391.4E6	288.8E6	50.000	50.000
27)	I 1-bromo-2...	1.948	2.147	391.4E6	288.8E6	50.000	50.000
33)	I 1-bromo-2...	1.948	2.147	391.4E6	288.8E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.529	2.927	187.9E6	134.3E6	24.702	24.961
	Spiked Amount 40.000	Range 30 - 150		Recovery =		61.76%	62.40%
26)	SA Decachlor...	9.808	11.705	174.5E6	134.5E6	22.506	25.058
	Spiked Amount 40.000			Recovery =		56.27%	62.64%
	Target Compounds						
3)	hexachlor...	2.854	3.407	205.4E6	170.3E6	24.183	25.238
4)	A alpha-BHC	2.991	3.552	257.7E6	180.2E6	24.591	25.165
5)	MA gamma-BHC	3.280	3.959	240.4E6	167.6E6	24.232	24.964
6)	MA Heptachlor	3.765	4.511	235.2E6	169.8E6	25.089	24.861
7)	B beta-BHC	3.353	4.042	108.3E6	74821392	24.417	24.265
8)	B delta-BHC	3.535	4.420	206.3E6	145.8E6	23.579	23.389
9)	MB Aldrin	4.094	4.945	223.5E6	153.5E6	24.541	25.537
10)	alachlor	4.232	4.765	31389060	21523588	28.570	27.026
11)	B Heptachlo...	4.795	5.740	212.9E6	147.2E6	25.279	25.322
12)	B gamma-Chl...	4.957	6.019	209.6E6	146.4E6	25.258	25.709
13)	B alpha-Chl...	5.126	6.238	201.4E6	143.2E6	23.709	25.831
14)	A Endosulfan I	5.302	6.329	196.1E6	132.2E6	24.762	24.954
15)	B 4,4'-DDE	5.238	6.502	182.3E6	136.3E6	22.529	25.315
16)	MA Dieldrin	5.621	6.754	212.5E6	144.2E6	24.771	25.364
17)	MA Endrin	5.941	7.247	194.1E6	135.3E6	25.011	24.239
18)	A 4,4'-DDD	6.068	7.437	149.7E6	104.2E6	22.342	22.477
19)	B Endosulfa...	6.259	7.592	187.3E6	129.7E6	22.745	22.965
20)	MA 4,4'-DDT	6.481	7.959	155.8E6	106.1E6	24.250	23.692
21)	B Endrin Al...	6.881	8.156	157.6E6	105.3E6	24.175	24.549
22)	B Endosulfa...	7.559	8.620	147.2E6	99705849	22.798	23.211
23)	A Methoxychlor	7.267	9.196	92969014	60727598	24.257	23.876
24)	Mirex	7.410	9.496	161.4E6	108.9E6	24.748	25.283
25)	B Endrin Ke...	7.998	9.566	177.1E6	118.3E6	23.053	20.778
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

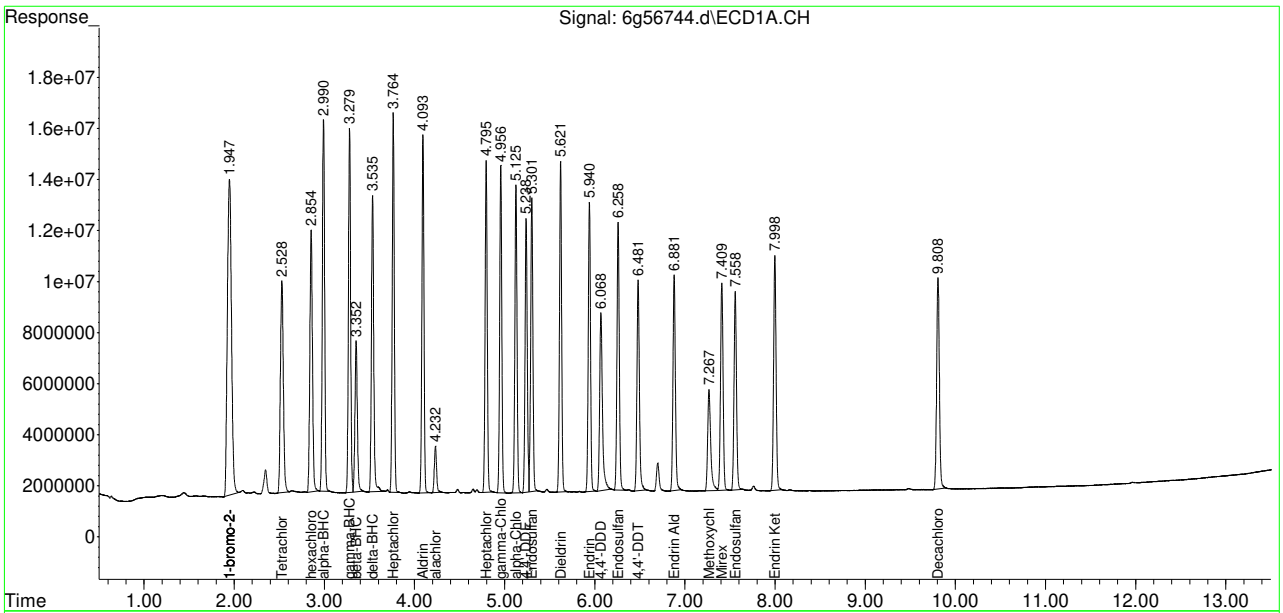
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

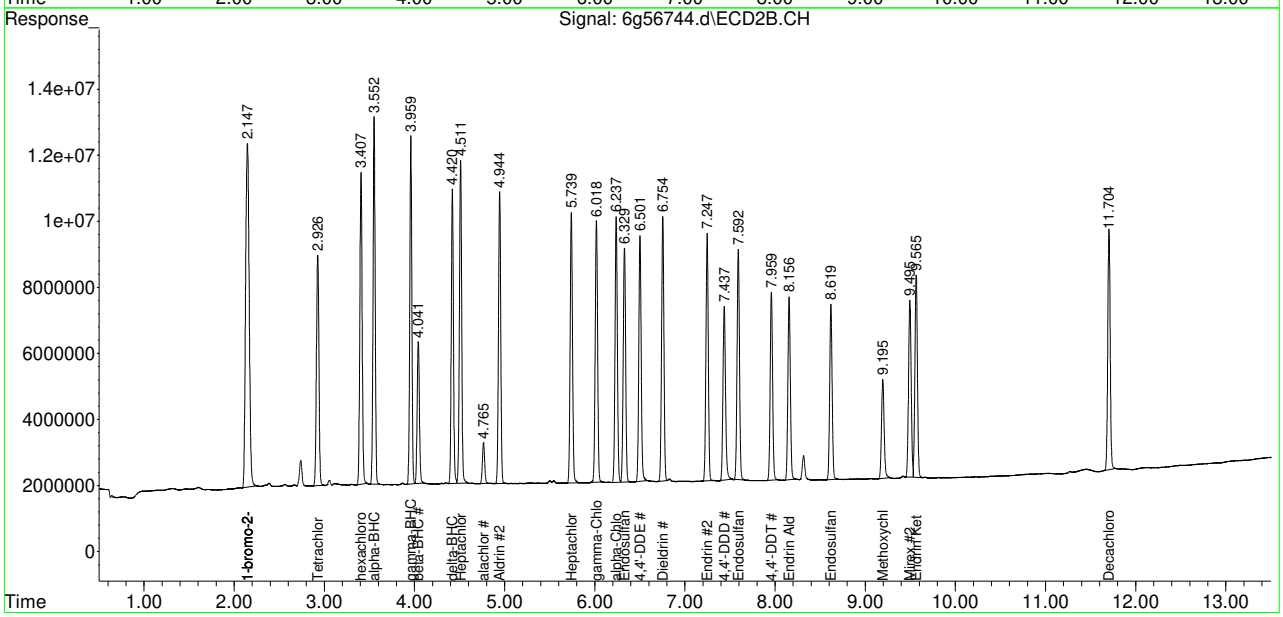
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56744.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 11:06:03
Operator : christp
Sample : cc1671-25
Misc : OP12330,g6g1694,30,,,2,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 30 11:24:24 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Tue May 29 10:49:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56758.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 23:44:29
Operator : christp
Sample : cc1671-25
Misc : OP12359,g6g1694,15.0,,,10,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 00:00:05 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.946	2.145	369.4E6	284.0E6	50.000	50.000
27)	I 1-bromo-2...	1.946	2.145	369.4E6	284.0E6	50.000	50.000
33)	I 1-bromo-2...	1.946	2.145	369.4E6	284.0E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.529	2.926	172.5E6	127.1E6	24.019	24.022
	Spiked Amount 40.000	Range 30 - 150		Recovery =		60.05%	60.05%
26)	SA Decachlor...	9.805	11.702	155.9E6	115.6E6	21.309	21.905
	Spiked Amount 40.000			Recovery =		53.27%	54.76%
	Target Compounds						
3)	hexachlor...	2.853	3.406	186.5E6	161.2E6	23.264	24.303
4)	A alpha-BHC	2.990	3.552	234.2E6	169.9E6	23.685	24.137
5)	MA gamma-BHC	3.279	3.959	213.8E6	156.6E6	22.833	23.722
6)	MA Heptachlor	3.764	4.511	219.3E6	160.6E6	24.792	23.913
7)	B beta-BHC	3.353	4.042	95022744	70126973	22.702	23.126
8)	B delta-BHC	3.534	4.419	172.9E6	125.7E6	20.939	20.499
9)	MB Aldrin	4.094	4.944	206.0E6	141.6E6	23.961	23.947
10)	alachlor	4.231	4.765	26725932	19082842	25.776	24.365
11)	B Heptachlo...	4.795	5.740	178.5E6	133.6E6	22.455	23.377
12)	B gamma-Chl...	4.957	6.017	177.2E6	133.1E6	22.627	23.767
13)	B alpha-Chl...	5.126	6.237	180.9E6	130.5E6	22.559	23.932
14)	A Endosulfan I	5.300	6.329	174.4E6	120.7E6	23.331	23.179
15)	B 4,4'-DDE	5.237	6.500	178.7E6	129.5E6	23.409	24.461
16)	MA Dieldrin	5.620	6.754	190.9E6	132.5E6	23.580	23.702
17)	MA Endrin	5.940	7.245	181.3E6	127.6E6	24.749	23.253
18)	A 4,4'-DDD	6.064	7.434	145.6E6	103.2E6	23.034	22.618
19)	B Endosulfa...	6.258	7.591	169.2E6	120.7E6	21.770	21.734
20)	MA 4,4'-DDT	6.479	7.958	138.8E6	95250984	22.905	21.632
21)	B Endrin Al...	6.879	8.156	141.5E6	95686685	22.988	22.682
22)	B Endosulfa...	7.558	8.619	128.0E6	89057513	21.011	21.081
23)	A Methoxychlor	7.261	9.191	83786840	55748350	23.165	22.288
24)	Mirex	7.409	9.496	137.1E6	93887571	22.281	22.158
25)	B Endrin Ke...	7.997	9.565	163.9E6	112.3E6	22.611	20.064
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

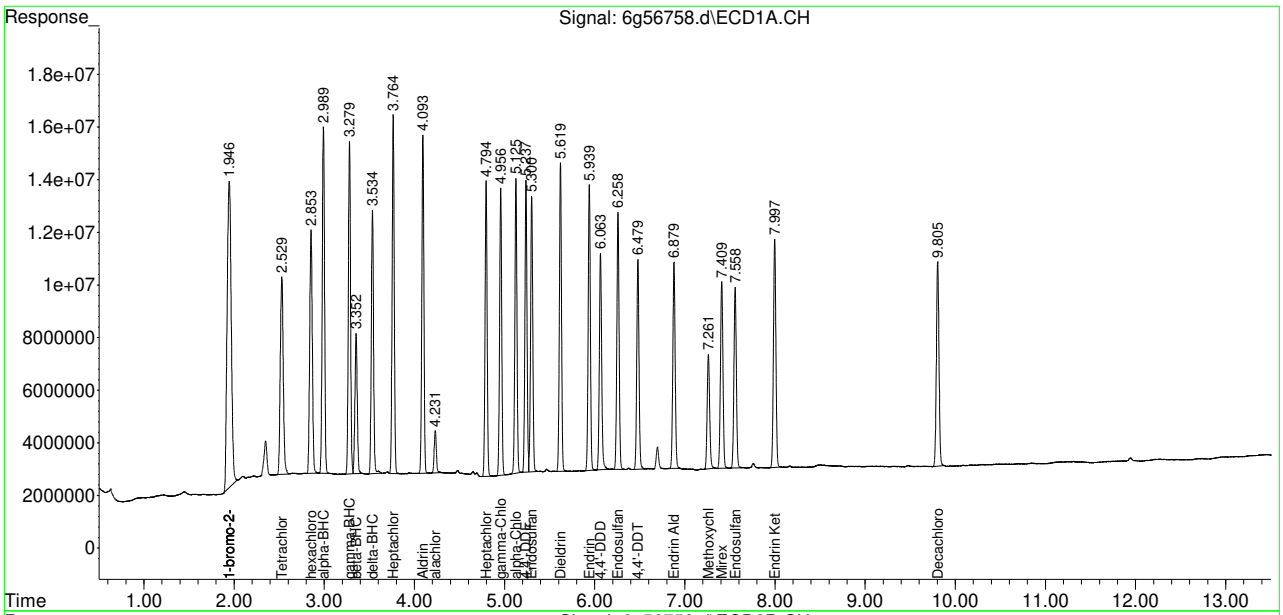
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

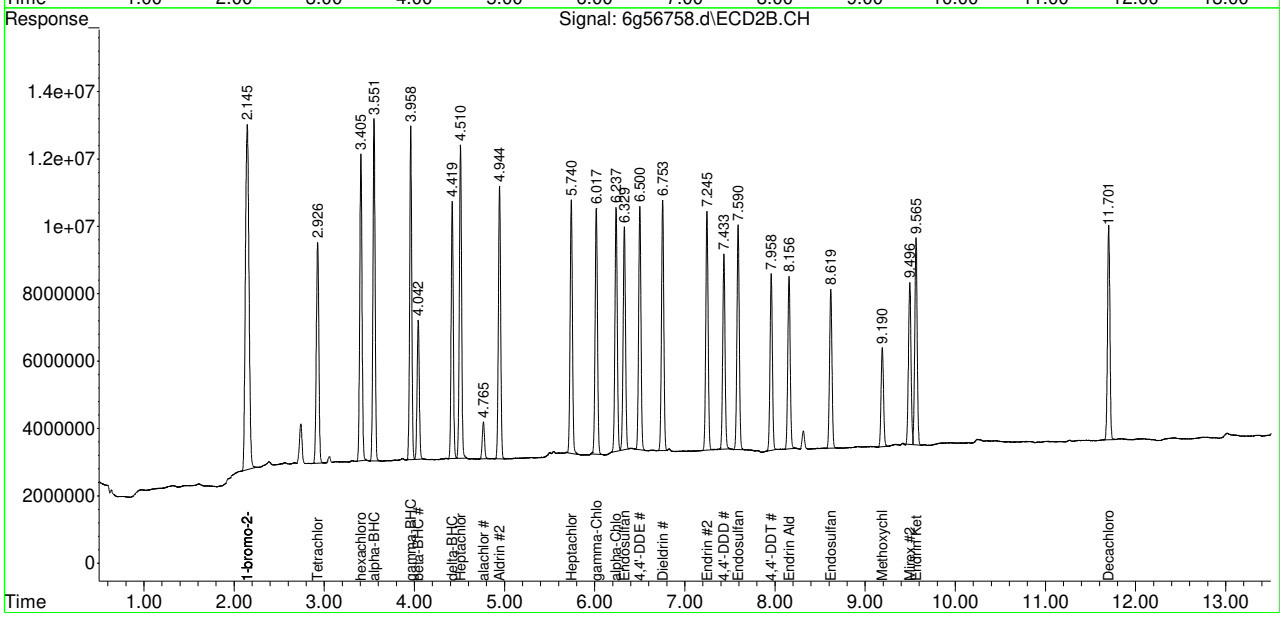
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1694\
Data File : 6g56758.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-May-18, 23:44:29
Operator : christp
Sample : cc1671-25
Misc : OP12359,g6g1694,15.0,,,10,1
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 00:00:05 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:20:58
Operator : minam
Sample : cc1671-50
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:38:16 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.935	2.138	359.7E6	270.8E6	50.000	50.000
27)	I 1-bromo-2...	1.935	2.138	359.7E6	270.8E6	50.000	50.000
33)	I 1-bromo-2...	1.935	2.138	359.7E6	270.8E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.522	2.922	342.6E6	253.2E6	48.992	50.200
	Spiked Amount 40.000 Range 30 - 150 Recovery = 122.48% 125.50%						
26)	SA Decachlor...	9.805	11.701	310.3E6	235.1E6	43.540	46.716
	Spiked Amount 40.000 Recovery = 108.85% 116.79%						
	Target Compounds						
3)	hexachlor...	2.848	3.403	370.2E6	312.8E6	47.429	49.444
4)	A alpha-BHC	2.986	3.549	489.8E6	356.4E6	50.861	53.090
5)	MA gamma-BHC	3.275	3.957	414.3E6	318.8E6	45.439	50.635
6)	MA Heptachlor	3.762	4.509	416.6E6	309.3E6	48.363	48.295
7)	B beta-BHC	3.349	4.039	177.1E6	134.4E6	43.447	46.489
8)	B delta-BHC	3.531	4.418	365.4E6	272.3E6	45.452	46.582
9)	MB Aldrin	4.092	4.942	408.5E6	270.7E6	48.799	48.015
10)	alachlor	4.230	4.764	51317789	34735727	50.824	46.512
11)	B Heptachlo...	4.794	5.739	351.2E6	254.2E6	45.376	46.644
12)	B gamma-Chl...	4.955	6.016	351.1E6	256.0E6	46.034	47.936
13)	B alpha-Chl...	5.124	6.236	353.0E6	247.0E6	45.210	47.510
14)	A Endosulfan I	5.300	6.327	343.4E6	232.7E6	47.180	46.840
15)	B 4,4'-DDE	5.236	6.500	343.6E6	248.3E6	46.210	49.179
16)	MA Dieldrin	5.619	6.753	380.5E6	260.5E6	48.271	48.862
17)	MA Endrin	5.939	7.245	361.4E6	252.3E6	50.662	48.209
18)	A 4,4'-DDD	6.064	7.433	289.3E6	203.1E6	46.980	46.692
19)	B Endosulfa...	6.258	7.590	333.8E6	234.8E6	44.111	44.327
20)	MA 4,4'-DDT	6.479	7.958	274.2E6	187.1E6	46.450	44.555
21)	B Endrin Al...	6.879	8.155	275.6E6	185.2E6	45.986	46.044
22)	B Endosulfa...	7.558	8.618	274.3E6	189.7E6	46.224	47.093
23)	A Methoxychlor	7.262	9.192	160.0E6	107.7E6	45.435	45.149
24)	Mirex	7.407	9.494	264.8E6	186.7E6	44.187	46.217
25)	B Endrin Ke...	7.996	9.563	313.8E6	215.1E6	44.458	40.302
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

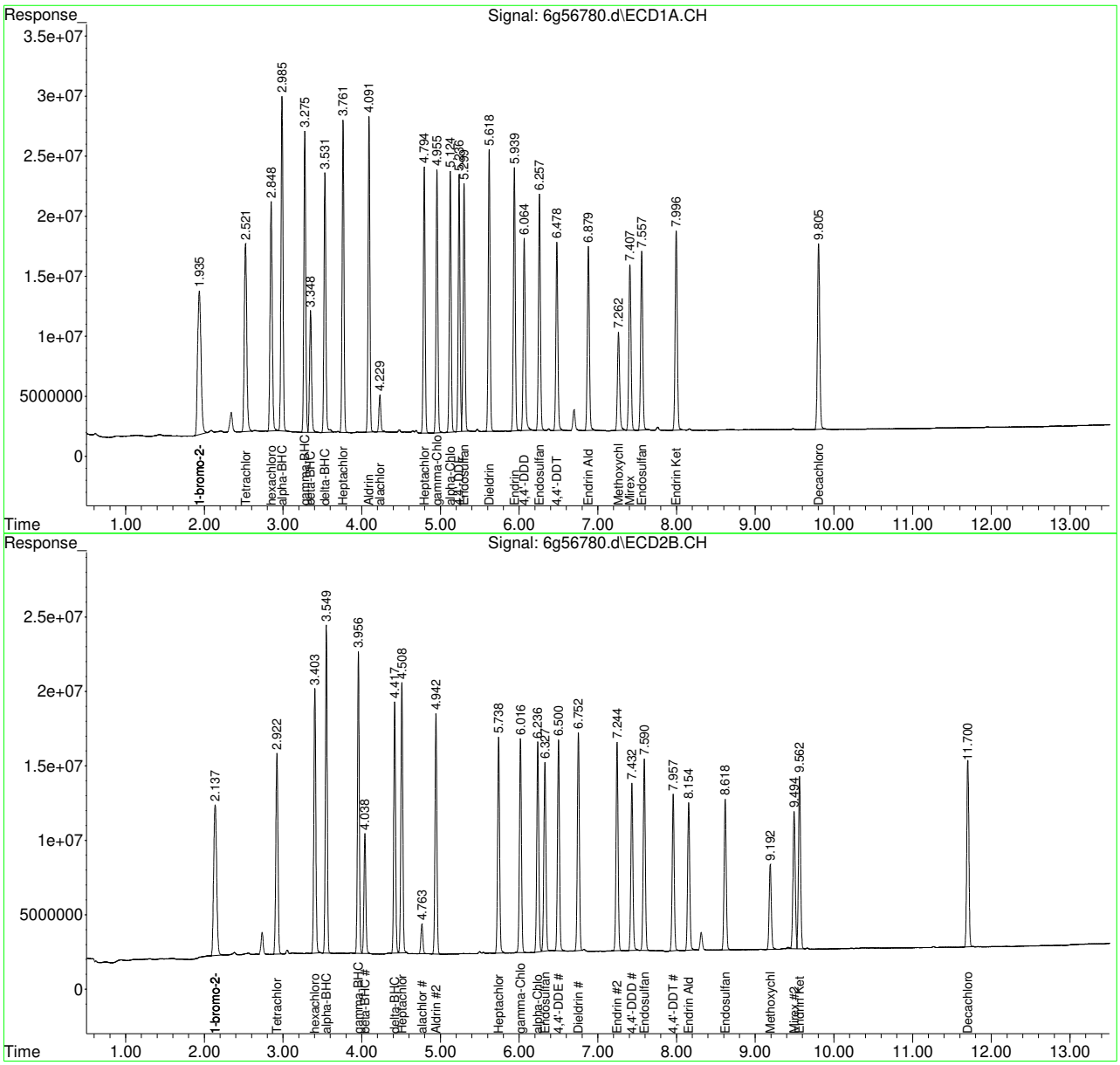
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1695\
Data File : 6g56780.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31-May-18, 10:20:58
Operator : minam
Sample : cc1671-50
Misc : OP12372,g6g1695,300,,,2,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 31 10:38:16 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Wed May 30 16:51:15 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1696\
Data File : 6g56794.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01-Jun-18, 00:52:15
Operator : christp
Sample : cc1671-50
Misc : OP12414,g6g1696,15.4,,,10,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 01 10:57:41 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Fri Jun 01 10:56:30 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1)	I 1-bromo-2...	1.942	2.144	411.9E6	302.5E6	50.000	50.000
27)	I 1-bromo-2...	1.942	2.144	411.9E6	302.5E6	50.000	50.000
33)	I 1-bromo-2...	1.942	2.144	411.9E6	302.5E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	2.527	2.924	393.7E6	283.2E6	49.163	50.277
	Spiked Amount 40.000 Range 30 - 150 Recovery = 122.91% 125.69%						
26)	SA Decachlor...	9.806	11.702	361.2E6	275.7E6	44.252	49.071
	Spiked Amount 40.000 Recovery = 110.63% 122.68%						
	Target Compounds						
3)	hexachlor...	2.851	3.404	431.0E6	351.9E6	48.216	49.811
4)	A alpha-BHC	2.988	3.550	583.6E6	408.2E6	52.921	54.452
5)	MA gamma-BHC	3.277	3.957	532.9E6	371.4E6	51.034	52.825
6)	MA Heptachlor	3.763	4.509	528.0E6	374.5E6	53.522	52.373
7)	B beta-BHC	3.350	4.040	224.7E6	155.8E6	48.133	48.251
8)	B delta-BHC	3.532	4.417	461.4E6	324.5E6	50.119	49.705
9)	MB Aldrin	4.092	4.942	506.6E6	340.7E6	52.845	54.123
10)	alachlor	4.230	4.763	59480116	41278332	51.440	49.494
11)	B Heptachlo...	4.793	5.738	467.7E6	318.1E6	52.775	52.260
12)	B gamma-Chl...	4.955	6.016	457.5E6	320.2E6	52.385	53.686
13)	B alpha-Chl...	5.124	6.236	441.5E6	308.2E6	49.373	53.091
14)	A Endosulfan I	5.299	6.327	431.5E6	284.6E6	51.775	51.305
15)	B 4,4'-DDE	5.236	6.499	424.4E6	306.9E6	49.843	54.424
16)	MA Dieldrin	5.618	6.752	474.7E6	319.8E6	52.587	53.711
17)	MA Endrin	5.938	7.244	442.0E6	304.3E6	54.105	52.071
18)	A 4,4'-DDD	6.066	7.433	344.3E6	239.2E6	48.827	49.248
19)	B Endosulfa...	6.257	7.588	405.2E6	280.0E6	46.750	47.347
20)	MA 4,4'-DDT	6.479	7.958	352.5E6	240.3E6	52.137	51.252
21)	B Endrin Al...	6.878	8.154	335.9E6	222.4E6	48.955	49.508
22)	B Endosulfa...	7.557	8.618	318.6E6	215.5E6	46.887	47.895
23)	A Methoxychlor	7.263	9.192	196.1E6	129.8E6	48.610	48.729
24)	Mirex	7.408	9.493	326.7E6	224.2E6	47.613	49.691
25)	B Endrin Ke...	7.995	9.563	388.5E6	261.5E6	48.054	43.872
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

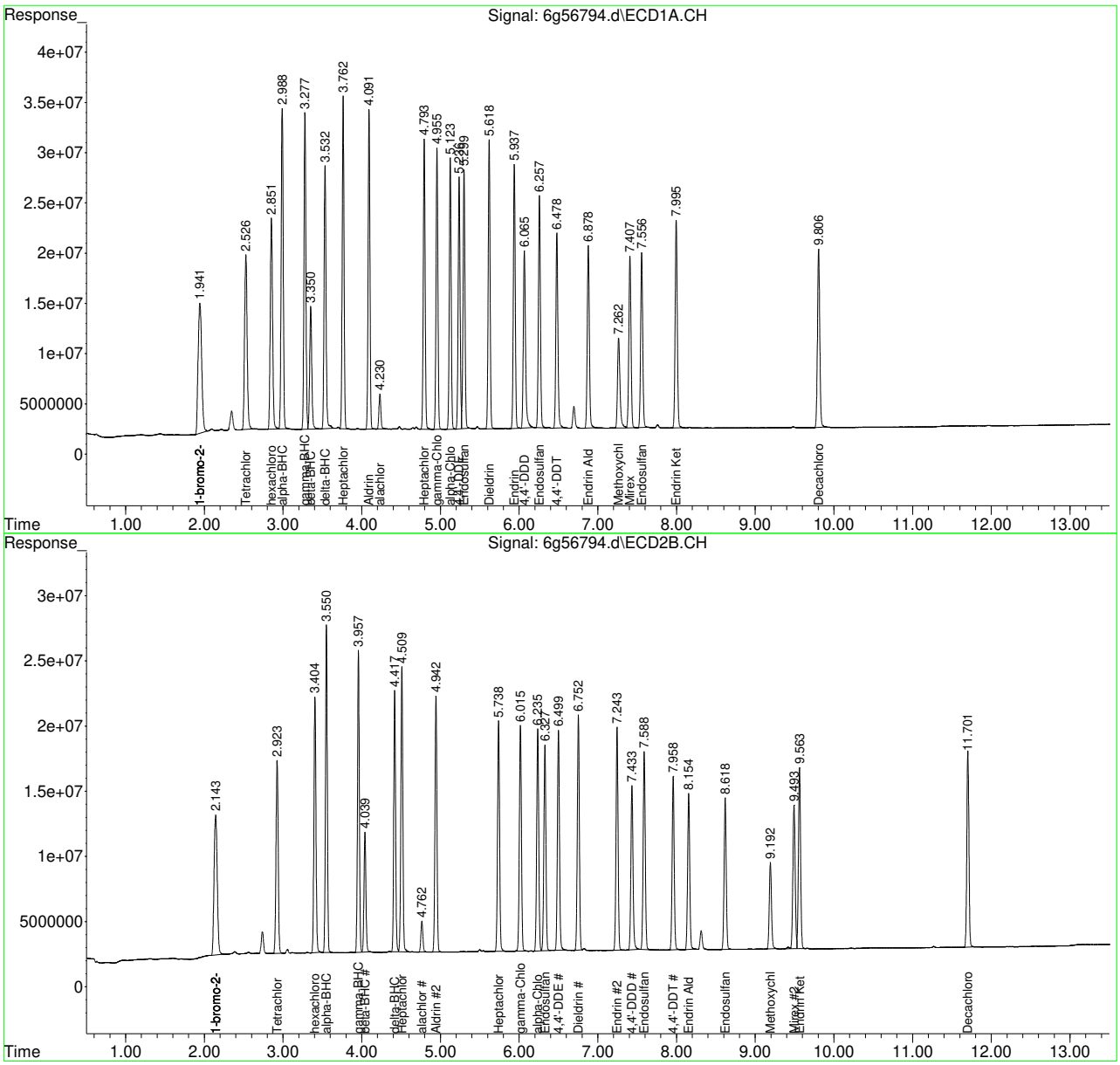
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1696\
Data File : 6g56794.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01-Jun-18, 00:52:15
Operator : christp
Sample : cc1671-50
Misc : OP12414,g6g1696,15.4,,,10,1
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 01 10:57:41 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Fri Jun 01 10:56:30 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4311

Print Analyst Name: [illegible] Ruan

Date: 4/19/18

Analyst Signature: JR

Columns: ZBCLP1/ZBCLP2

Method 8082

Initial Cal. Method G2G4311

Injection Volume: 1.0uL

Date Archived:

Standard Data

	Lot #	Description	Conc.
SV	[illegible]	AR1221/1254	1000ppb
	-21	AR1232/1262	1000ppb
	-22	AR1242/1268	1000ppb
	-23	AR1248	1000ppb
	[illegible]	hexane(filled)	—

Standard Data

	Lot #	Description	Conc.
SV	[illegible]	AR1016/1260	50ppb
	[illegible]		250ppb
SV	[illegible]		500ppb
SV	18-2432-045		1000ppb
SV	17-2285-110		2000ppb
	-BF	↓	3000ppb
SV	18-2432-05	1B	20 ppb

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature]

Date: 4/20/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	20/162095	IB				2			/	OK	
	096	IC4311-50	1016/1260	1st		3			/	NG	partial injection? RR
	097	-250	↓	↓		4			/	OK	
	098	-500				5			/	OK	
	099	IC4311-1000				6			/	OK	
	100	IC4311-2000				7			/	OK	
	101	-3000	↓			8			/	OK	
	102	-1000	1221/1254			9			/	OK	
	102A	-50	1016/1260						/	OK	
	103	-1000	1232/1262			10			/	OK	
	104	-1000	1242/1268			11			/	OK	
	105	-1000	1248	↓		12			/	OK	
	106	ICV4311-1000	1016/1260	2nd		13			/	OK	@SV-17-2362-13
	107	-1000	1221/1254 TR 4/20			14			/	OK	@SV-17-2362-12
	108	-1000	1232/1262			15			/	OK	@SV-17-2362-14
	109	-1000	1242/1268			16			/	OK	@SV-17-2362-15
	110	-1000	1248	↓		17			/	OK	@SV-17-2362-16
	111	Surr Mix				18			/	OK	@SV-17-2285-110@50ppb

[illegible] for soil, other [illegible] to exception log.

[illegible] and reason ap[illegible]

OR0[illegible]

Date: 5/2/[illegible]

SGS JC66384

11.7.1 11

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4347

Print Analyst Name: Tianwei Ruan

Date: 5/27/18

Analyst Signature: TR

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
SV18-2432-78A	AR1016/1260	500 ppb
78B	"	1000 ppb
09	1B	20 ppb
-8		
180405	hexane (fisher)	—

Columns: ZBCLPI/ZBCLPII

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 nL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/29/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	2G164397	OP12249-MB1	12249	8082	S	43			/	ok	
	398	-BS1				44			/	ok	
	399	Jc66417-2				45			/	ok	
	400	OP12249-MS				46			/	ok	
	401	-MSD				47			/	ok	
	402	Jc66417-3				48			/	ok	
	403	-4				49			/	ok	
	404	-5				50			/	ok	
	405	hexane				100				ok	
	406	CC4311-500				51			/	OK	
	407	1B				2			/	OK	
	408	OP12219-MB11	12219	8082	W	52			/	ok	
	409	-BS11				53			/	ok	
	410	-BSD11				54			/	ok	
	411	Jc66326-1				55			/	ok	
	412	-2				56			/	ok	
	413	-1F				57			/	ok	
	414	-2F				58			/	ok	
	415	Jc66084-4				59			/	ok	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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JC66384

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4347

Date: 5/27/18

Print Analyst Name: Tianwei Kuan

Analyst Signature: TK

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18243078A	AR1016/1260	500ppb
78B	"	1000ppb
05	1B	20 ppb
180405	hexane (fisher)	—

Columns: ZBCLP I / ZBCLP II

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 nL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: SEJ

Date: 5/27/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
2	JG164416	JC66533-1 ~~hexane~~ TR 5/27	12207			60 ~~100~~	TR 5/27 10		/	ok	
	417 ~~418~~ CAL 5/27/18	CC4311-1000				61			/	OK	
	418	1B				2			/	OK	
	419	OP12244-MB1	12244	8082	S	62			/	ok	
	420	-BS1				63			/	ok	
	421	-BSD				64			/	ok	
	422	OP12272-MB1	12272	DOD 8082	W	65			/	ok	
	423	-BS1				66			/	ok	
	424	-BSD				67			/	ok	
	425	OP12249-MB1	12249	DOD 8082	S	68			/	not using ~~ok~~	Run already taken from 1st run
	426	-BS1				69			/	not using ~~ok~~	
	427	hexane				100				OK	
	428	CC4311-500				70			/	OK	
	429	1B				2			/	OK	
	430	JC66417-2	12249	DOD 8082	S	71			/	not using ~~ok~~	Run already taken from 1st run
	431	OP12249-MS				72			/	not using ~~ok~~	
	432	-MSD				73			/	not using ~~ok~~	
	433	JC66417-3				74			/	not using ~~ok~~	
	434	-4				75			/	not using ~~ok~~	

X = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

nple volume/weight refer to extraction log.

strikeouts must be initialed, dated, and reason applied if not transcription error

m: OR016-09

. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4347

Print Analyst Name: EDWARD ADRIAN LEE

Date: 5/27/2018

Analyst Signature: EAL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 1824362-AA	Aroclor 1260	500ppb
-286	Aroclor 1660	1000ppb
-05	IS	80ppb
1820403	hexane (Fisher)	—

Columns: 7 ZB-5ms / ZB-CLPesticide

Method 8082

Initial Cal. Method L2G4311

Injection Volume: 1.0uL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/29/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	26114 435	JC66417-5	12244	8082	S	76			/	not using	Run already
	436	JC66602-7	12272	8082	W	77			/	ok	
	437/438	hexane				100				ok	
	439	CL4311-1000				78			/	OK	
	440	IS				2			/	OK	
	441	JC66602-8	12272	8082	W	79			/	ok	
	442	-9				80			/	ok	
	443	-10				81			/	ok	
	444	-11				82			/	ok	
	445	JC66584-1	12244	8082	S	83			/	ok	
	446	OPIL244-MB				84			/	ok	
	447	-MSD				85			/	ok	
	448/449	hexane				100				OK	
	450	CL4311-500				86			/	OK	
	451	IS				2			/	OK	
	452	JC66384-2	12244	8082	S	87				not using	need TBA cleanup
	453	-4				88			/	ok	
	454	JC66405-1				89			/	ok	
	455	-2				90			/	ok	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4347

Print Analyst Name: EDWARD ADRIAN LEE

Date: 5/27/2018

Analyst Signature: EAL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
IR-2412-778	Aroclor 1260	500ppb
-788	Aroclor 1260	1000ppb
-05	IS	20ppb
120405	hexane (Fisher)	—

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method ZBCB4311

Injection Volume: 1.0mL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/29/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	2464 456	JC66405-3	112444	8082	S	91			/	ok	
	457	JC66409-1				92			/	ok	
	458	-2				93			/	ok	
	459/460	hexane				100				OK	
	461	CC4311-1000				94			/	ok	PCB ↓ 1ST
	462	IS				2			/	OK	
	463	JC66410-1	112444	8082	S	95			/	ok	
	464	-2				96			/	ok	
	465	-3				97			/	ok	RR 1:10
	466	-4				98				not using	need TBA CLEAN up
	467	-5				99			/	ok	
	468	JC66443-1				1			/	ok	
	469	-2				3			/	ok	
	470/471	hexane				100				OK	
	472	CC4311-500				4			/	ok	DCB ↓ both
	473	IS				2			/	OK	
	474	JC66443-3	112444	8082	S	5				not using	RR better BCL
	475	JC66528-2				6				not using	↓
	476	-4				7				not using	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4247

Print Analyst Name: EDOUARD ADRIAN LEE

Date: 5/27/2018

Analyst Signature: EAL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SC 12432-72A	Ar1016/1260	500ppb
-78B	Ar1016/1260	1000ppb
-05	1B	20ppb
-33	TBAI	
180405	hexane (fisher)	—

Columns: ZBCLP I / ZB CLP II

Method 8082

Initial Cal. Method 2PCB 4311

Injection Volume: 1.0 mL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: SE

Date: 5/29/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	26164 477	SC66528-6	12244	8082	S	8				not using	RR better BCL
	478	-8				9				not using	↓
	479	SC66651-1	12273	LVI 8082	W	10				not using	
	480	-2				11				not using	
	481/482	hexane				100				OK	
	483	CC4311-1000				11			/	OK	DCB↓ 1st
	484	1B				2			/	OK	
	485	OP12273-MSD	12273	LVI 8082	W	13			/	ok	
	486	-BSI				14			/	ok	
	487	SC66651-3				15			/	ok	
	488	OP12273-MS				16			/	ok	
	489	-MSD				17			/	ok	
	490	SC66651-4				18			/	ok	
	491	-5				19			/	ok	
	492/493	hexane				100				OK	
	494	CC4311-500				20			/	ok	
	495	1B				2			/	ok	
	496	SC66633-8	12309	8082	S	21			/		HAD TBA Cleanup
	497	OP12309-MS				22			/	OK	↓

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4347

Print Analyst Name: Edward Morgan Lee

Date: 5/27/2018

Analyst Signature: EML

Columns: ZBCAP5 / ZBCAP5

Method 8082

Initial Cal. Method 2RB4311

Injection Volume: 1.0uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
182464	Aroclor 1660	1700ppb
-768	Aroclor 1660	1000ppb
-05	1B	200ppb
-73	7515B3	
182465	hexane (blank)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	24164 498	OP12709-MD	12309	8082	S	23				OK	HADTSA Cleanup
	499	-MS				24				OK	↓
	500	-BS1 [illegible]				25				OK	
	501/502	hexane				100				OK	
	503	cc4311-1000				26				OK	
	504	1B				2				OK	
	505	5c66443-3	12244	8082	S	5				OK	
	506	5c66528-2				6				OK	
	507	-4				7				OK	
	508	-6				8				OK	
	509	-8				9				OK	
	510	5c66637-1	12273	LCS 8082	W	10				OK	
	511	-2				11				OK	
	512/513	hexane				100				OK	
	514	cc4311-500				27				OK	
	515	1B				2				OK	
											TR 5/27/18

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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Form: OR016-09

Rev. Date: 5/25/17

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4348

Print Analyst Name: Tianwei Ruan

Analyst Signature: TR

Date: 5/28/18

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 ML

Date Archived:

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
18234578A	AR1016/1260	500ppb
78B	↓	1000ppb
05	IB	20ppb
-33	TBAS	—
180405	hexane (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	2G164516	cc4311-1000				28				OK	1260A ↓ISP
	517	IB				2				OK	
	518	OP12244-MB1	12244			29				OK	HAD TBA Clean Up
	519	-BS1				30				OK	
	520	-BSD				31				OK	
	521	-MS				32				OK	
	522	-MSD				33				OK	
	523	JC66384-2				34				OK	
	524	JC66410-4				35				OK	
	525	JC66410-3				36	10			OK	
	526	hexane				100				OK	
	527	cc4311-500				37				OK	
	528	IB				2				OK	
	529/530	hexane				100				OK	
	531	cc4311-1000				28				OK	
	532	IB				2				OK	
	533	JC66533-1	12207	8082	W	38				OK	
	534	JC66058-48	12143	8082	W	39	10			OK	
	535	cc4311-500				40				NG	1260A ↓Both

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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Form: OR016-09

Rev. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G2G4348

Print Analyst Name: Tranwei Ruan

Date: 5/28/18

Analyst Signature: TR

Standard Data			Standard Data		
Lot #	Description	Conc.	Lot #	Description	Conc.
			BV 182432 78/18	AR1016 11260	500ppb
			-78B	↓	1000ppb
			-05	1B	20ppb
			186005	hexane (fisher)	—

Columns: ZBCLP1/ZBCLP2

Method 8082

Initial Cal. Method 2PCB4311

Injection Volume: 1.0 ml

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/1/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G2G4536	1B				2			/	OK	
	537/538	hexane		TR 5/28		~~74~~ 100				O/C	
	539	CC4311-1000				41			/	OK	1260 A ↓ 1st
	540	1B				2			/	OK	
	541	JC665334	12207	8082	W	438			/	OK	CF ↓
	542	JC66258-48	12143	8082	W	39	10		/	OK	↓
	543/544	hexane				100				O/C	
	545	CC4311-500				42			/	OK	1260 A ↓ 1st 1260 A ↑ 2nd
	546	1B				2			/	OK	
											5/30/18 CAP

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G 1671

Print Analyst Name: Dhara Saporia

Date: 04/30/18

Analyst Signature: DK

Standard Data

Lot #	Description	Conc.
SV 18-2432-20	Pest Mix	1ppb
-21	Pest Mix	2ppb
-22	Pest Mix	5ppb
-23	Pest Mix	10ppb
-24	Pest Mix	25ppb
-25	Pest Mix	50ppb
-26	Pest Mix	75ppb

Standard Data

Lot #	Description	Conc.
SV 18-2432-27	Pest Mix	100ppb
SV 17-2362-135	Chlordane	500ppb
-125	Toxaphene	500ppb
SV 17-2362-87	PEM	10-250ppb
SV 18-2432-05	IB	20ppb
-08	Pest ISTD	5ppm
180405	hexane (Fisher)	—

Columns: 2ACCPI / 2ACCPII

Method: 608, 8081

Initial Cal. Method: GPST 1671

Injection Volume: 1.0 uL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/5/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6255778	dblt				1				OK	
	779	IB				2				OK	
	780	IC 1671-1	Pest mix	1st source		3				OK	
	781	-2				4				OK	
	782	-5				5				OK	
	783	-10				6				OK	
	784	IC 1671-25				7				OK	
	785	IC 1671-50				8				OK	
	786	-75				9				OK	
	787	-100				10				OK	
	788	-500	CHL			11				OK	
	789	-500	TOX			12				OK	
	790	ICV 1671-25	Pest	2nd source		13	10			OK	SV 17-2362-178 @ 250ppb
	791	-500	CHL			14				OK	SV 18-2432-19 @ 500ppb
	792	-500	TOX			15				OK	SV 18-2432-18 @ 500ppb
	793	-50	Alachlor			16	20			OK	SV 17-2285-141 @ 1000ppb
	794	-50	Hexa			17	20			OK	SV 17-2285-142 @ 1000ppb

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
Strikeouts must be initialed, dated, and reason applied if not transcription error

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RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC6G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	6G55784.D	04/30/18 12:36	G6G1671-ICC1671	DHARAS
Std#2	6G55796.D	04/30/18 22:36	G6G1672-CC1671	CHRISTP
Std#3	6G55817.D	05/01/18 05:27	G6G1672-CC1671	CHRISTP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
Endosulfan-I	2	REG	6.35	6.35	6.35	6.35	0.000	+ /- 0.030 [a]
4,4'-DDE	2	REG	6.52	6.52	6.52	6.52	0.000	+ /- 0.030 [a]
Dieldrin	2	REG	6.78	6.78	6.77	6.78	0.006	+ /- 0.030 [a]
Endrin	2	REG	7.27	7.27	7.27	7.27	0.000	+ /- 0.030 [a]
4,4'-DDD	2	REG	7.45	7.45	7.45	7.45	0.000	+ /- 0.030 [a]
Endosulfan-II	2	REG	7.61	7.61	7.61	7.61	0.000	+ /- 0.030 [a]
4,4'-DDT	2	REG	7.98	7.98	7.98	7.98	0.000	+ /- 0.030 [a]
Endrin aldehyde	2	REG	8.18	8.18	8.18	8.18	0.000	+ /- 0.030 [a]
Endosulfan sulfate	2	REG	8.64	8.64	8.64	8.64	0.000	+ /- 0.030 [a]
Methoxychlor	2	REG	9.21	9.21	9.21	9.21	0.000	+ /- 0.030 [a]
Mirex	2	REG	9.52	9.52	9.52	9.52	0.000	+ /- 0.030 [a]
Endrin ketone	2	REG	9.59	9.59	9.58	9.59	0.006	+ /- 0.030 [a]

(a) Default minimum StdDev of .01 minutes employed.

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC6G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	6G55784.D	04/30/18 12:36	G6G1671-ICC1671	DHARAS
Std#2	6G55796.D	04/30/18 22:36	G6G1672-CC1671	CHRISTP
Std#3	6G55817.D	05/01/18 05:27	G6G1672-CC1671	CHRISTP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
1-Bromo-2-nitrobenzene	1	ISTD	1.94	1.94	1.94	1.94	0.000	+ /- 0.030 [a]
1-Bromo-2-nitrobenzene	2	ISTD	2.15	2.14	2.15	2.15	0.006	+ /- 0.030 [a]
Tetrachloro-m-xylene	1	SURR	2.53	2.53	2.53	2.53	0.000	+ /- 0.030 [a]
Decachlorobiphenyl	1	SURR	9.84	9.84	9.84	9.84	0.000	+ /- 0.030 [a]
Tetrachloro-m-xylene	2	SURR	2.93	2.93	2.93	2.93	0.000	+ /- 0.030 [a]
Decachlorobiphenyl	2	SURR	11.72	11.72	11.72	11.72	0.000	+ /- 0.030 [a]
Hexachlorobenzene	1	REG			2.86	NOT ENOUGH POINTS		
alpha-BHC	1	REG	3.00	3.00	3.00	3.00	0.000	+ /- 0.030 [a]
gamma-BHC (Lindane)	1	REG	3.29	3.29	3.29	3.29	0.000	+ /- 0.030 [a]
beta-BHC	1	REG	3.36	3.36	3.36	3.36	0.000	+ /- 0.030 [a]
delta-BHC	1	REG	3.54	3.54	3.54	3.54	0.000	+ /- 0.030 [a]
Heptachlor	1	REG	3.78	3.78	3.78	3.78	0.000	+ /- 0.030 [a]
Aldrin	1	REG	4.11	4.11	4.11	4.11	0.000	+ /- 0.030 [a]
Alachlor	1	REG			4.25	NOT ENOUGH POINTS		
Heptachlor epoxide	1	REG	4.81	4.82	4.81	4.81	0.006	+ /- 0.030 [a]
gamma-Chlordane	1	REG	4.97	4.98	4.98	4.98	0.006	+ /- 0.030 [a]
alpha-Chlordane	1	REG	5.15	5.15	5.15	5.15	0.000	+ /- 0.030 [a]
4,4'-DDE	1	REG	5.26	5.26	5.26	5.26	0.000	+ /- 0.030 [a]
Endosulfan-I	1	REG	5.32	5.32	5.32	5.32	0.000	+ /- 0.030 [a]
Dieldrin	1	REG	5.64	5.65	5.64	5.64	0.006	+ /- 0.030 [a]
Endrin	1	REG	5.96	5.97	5.96	5.96	0.006	+ /- 0.030 [a]
4,4'-DDD	1	REG	6.09	6.09	6.08	6.09	0.006	+ /- 0.030 [a]
Endosulfan-II	1	REG	6.28	6.29	6.28	6.28	0.006	+ /- 0.030 [a]
4,4'-DDT	1	REG	6.50	6.51	6.50	6.50	0.006	+ /- 0.030 [a]
Endrin aldehyde	1	REG	6.91	6.91	6.91	6.91	0.000	+ /- 0.030 [a]
Methoxychlor	1	REG	7.29	7.29	7.28	7.29	0.006	+ /- 0.030 [a]
Mirex	1	REG	7.44	7.44	7.44	7.44	0.000	+ /- 0.030 [a]
Endosulfan sulfate	1	REG	7.59	7.59	7.59	7.59	0.000	+ /- 0.030 [a]
Endrin ketone	1	REG	8.03	8.03	8.03	8.03	0.000	+ /- 0.030 [a]
Hexachlorobenzene	2	REG			3.42	NOT ENOUGH POINTS		
alpha-BHC	2	REG	3.56	3.56	3.56	3.56	0.000	+ /- 0.030 [a]
gamma-BHC (Lindane)	2	REG	3.97	3.97	3.97	3.97	0.000	+ /- 0.030 [a]
beta-BHC	2	REG	4.05	4.05	4.05	4.05	0.000	+ /- 0.030 [a]
delta-BHC	2	REG	4.43	4.43	4.43	4.43	0.000	+ /- 0.030 [a]
Heptachlor	2	REG	4.53	4.53	4.53	4.53	0.000	+ /- 0.030 [a]
Alachlor	2	REG			4.78	NOT ENOUGH POINTS		
Aldrin	2	REG	4.96	4.96	4.96	4.96	0.000	+ /- 0.030 [a]
Heptachlor epoxide	2	REG	5.76	5.76	5.76	5.76	0.000	+ /- 0.030 [a]
gamma-Chlordane	2	REG	6.04	6.04	6.04	6.04	0.000	+ /- 0.030 [a]
alpha-Chlordane	2	REG	6.26	6.26	6.26	6.26	0.000	+ /- 0.030 [a]

SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G 1691

Print Analyst Name: Dhara Saporia

Date: 5/26/18

Analyst Signature: DK

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU 1K2432-05	IB	20 PPB
-08	Pest ISTD	5 PPM
-82A	Pest mix	25 PPB
-82B	Pest mix	50 PPB
-85	PEM	50-250 PPB
180405	Hexane (HPLC)	–

Columns: 2BCCPI / 2BCCPII

Method 8081

Initial Cal. Method GPST1671

Injection Volume: 1.0 uL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/5/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6256618	dclt				1		/	/	OK	
	619	CC1671-50				4		/	/	OK	
	620	IB				3		/	/	OK	
	621	OP12247-MD1	12247	8081 TCL	S	25		/	/	OK	
	622	-BS1				26		/	/	OK	
	623	-BSD				27		/	/	OK	
	624	JC66384-1				28				Not using	NEED TBA
	625	-2				29				Not using	NEED TBA
	626	OP12247-MS				30				Not using	
	627	-MSD				31				Not using	NEED TBA
	628	JC66384-4				32		/	/	OK	
	629	JC66405-1				33		/	/	OK	
	630	-2				34		/	/	OK	
	631	-3				35		/	/	OK	
	632	JC66409-1				36		/	/	OK	
	633	-2				37		/	/	OK	
	634	JC66410-1				38		/	/	OK	
	635	-2				39		/	/	OK	
	636	-3				40		/	/	OK	TT 1.5 RPD

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1691

Print Analyst Name: Dhara Saporia

Date: 5/26/18

Analyst Signature: DK

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 182432-05	IB	20 PPB
-08	Pest ISTD	5 PPM
-82A	Pest mix	25 PPB
-82B	Pest mix	50 PPB
-85	PEM	50-250 PPB
180405	Hexane (HPLC)	-

Columns: 2BCLPI / 2BCLPII

Method 8081

Initial Cal. Method GPST1671

Injection Volume: 1.0 ul

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/5/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6256637	JC66410-5	12247	8011 TCL	S	41		/	/	OK	
	638	JC66443-1				42		/	/	OK	
	639	Hexane				100		/	/	OK	
	640	CC1671-25				2			/	OK	
	641	IB				3		/	/	OK	
	642	JC66443-2				43		/	/	OK	
	643	-3				44		/	/	OK	
	644	JC66528-2				45		/	/	OK	
	645	-4				46		/	/	OK	
	646	-6				47		/	/	OK	
	647	-8				48		/	/	OK	
	648	JC66410-4				49		/	/	OK	
	649	Hexane				100		/	/	OK	
	650	Hexane				100		/	/	OK	

5/28/18 [initials]

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1694

Print Analyst Name: CHRISTINE PHILLIPS

Date: 5/30/18

Analyst Signature: CNP

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method 6PST1671

Injection Volume: 1.0 µl

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2342-05	IB	20ppb
-08	PEST ISTD	5ppm
-82A	PEST MIX	25ppb
-82B	PEST MIX	50ppb
-85	PEM	50.25ppb
180405	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6-4-18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G6G56722	ddt				1			/	OK	3:15 am.
	723	cc1671-50				4			/	OK	
	724	IB				3			/	OK	
	725	OP12329-MB1	12329	8081(lcl/pw)		39		/	/	OK	OP12330, OP12331
	726	-BS1				40		/	/	OK	↓
	727	jc66319-3				41		/	/	OK	
	728	OP12329-LS1				42		/	/	OK	MS
	729	-MSD				43		/	/	OK	
	730	jc66781-1	12330			44		/	/	OK	
	731	OP12330-LS10				45		/	/	OK	MS
	732	-MSD				46		/	/	OK	
	733	jc66782-1				47		/	/	OK	
	734	jc66409-1A	12331			48		/	/	OK	
	735	OP12331-LS3				49		/	/	OK	
	736	-MSD				50		/	/	OK	
	737	jc66409-2A				51		/	/	OK	
	738	jc66410-1A				52		/	/	OK	
	739	-2A				53		/	/	OK	
	740	-3A				54		/	/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1694

Print Analyst Name: CHRISTINE PALMER

Date: 5/30/18

Analyst Signature: CMP

Columns: ZB CLPI / ZB CLPII

Method 8081

Initial Cal. Method 6PST1671

Injection Volume: 1.0 ul

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2432-05	1B	20ppb
-08	PEST ISTD	5ppm
-82A	PEST MIX	25ppb
-82B	PEST MIX	50ppb
-85	PEM	50.25ppb
180405	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G6G56741	OP12331-LB1	12331	8081ALLP	W	55		/	/	OK	
	742	OP12329-LB6	12329			56		/	/	OK	
	743	OP12330-LB15	12330			57		/	/	OK	
	744	CC1671-25				2		/	/	OK	
	745	1B				3		/	/	OK	
	746	jc66410-4A	12331			58		/	/	OK	
	747	-5A				59		/	/	OK	
	748	jcG6443-3	12247	8081 ALP		60	5	/	/	OK	
	749	jcG6384-1				61		/	/	OK	Had TBA
	750	-2				62		/	/	OK	
	751	OP12247-ms				63		/	/	OK	
	752	-msd				64				NOT USING	
	753	ddt				1				NOT USING	
	754	CC1671-50				4				NOT USING	
	755	ib				3				NOT USING	
	756	OP12359-mb1				65				NOT USING	
	757	ddt				1		/	/	OK	
	758	CC1671-25				2		/	/	OK	
	759	1B				3		/	/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1694

Print Analyst Name: CHRISTINE PHILLIPS

Date: 5/31/18

Analyst Signature: CNP

Columns: ZB CLP I / ZB CLP II

Method 8081

Initial Cal. Method L6 PST 1671

Injection Volume: 1.0 ul

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 16-2432-05	VB	20ppb
-08	PEST ISTD	5ppm
-82A	PEST MIX	25ppb
-82B	PEST MIX	50ppb
-85	PEM	50-250ppb
180405	HEXANE(FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G6G56760	OP12372-MB1	12372	8081Tcl	W	66		/	/	OK	
	761	-BS1				67		/	/	OK	
	762	jc666845.6				68		/	/	OK	
	763	OP12372-MS				69		/	/	OK	
	764	-MSD				70		/	/	OK	
	765	jc666736.1				71		/	/	OK	
	766	.2				72		/	/	OK	
	767	.3				73		/	/	OK	
	768	.4				74		/	/	OK	
	769	.5				75		/	/	OK	
	770	jc666845.1				76		/	/	OK	
	771	.2				77		/	/	OK	
	772	.3				78		/	/	OK	
	773	.4				79		/	/	OK	
	774	.5				80		/	/	OK	
	775	.7				81		/	/	OK	
	776	.8				82		/	/	OK	
	777	.9				83		/	/	OK	
	778	jc666927.1				84		/	/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1695

Print Analyst Name: Dharmistha Mehta.

Date: 5/31/18

Analyst Signature: DM.

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
18-2432-05	IB	20 ppb
.08	PEST ISTD	5 ppm
.82A	PEST MIX	25 ppb
.82B	PEST MIX	50 ppb
.85	PEM	50-250 ppb
180405	Hexane (Fisher)	—

Columns: 2BCLPI / 2BCLPII

Method 8081

Initial Cal. Method GPST1671

Injection Volume: 1.0 ml.

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6956779	ddt				1		/	/	OK	
	780	cc1671-50				4		/	/	OK	
	781	ib				3		/	/	OK	
	782	op12414-mb1	12414	8081 tcl	S	85		/	/	OK	
	783	-bs1				86		/	/	OK	
	784	jcc6812-1				87		/	/	OK	
	785	op12414-ms				88		/	/	OK	
	786	-msd				89		/	/	OK	
	787	op12247-msd	12247	8081 tcl	S	964		/	/	OK	Had TBA
	788	jcc6812-2				90		/	/	OK	
	789	-3				91		/	/	OK	
	790	ddt				1				UG	
	791	cc1671-25				2				NOT RUN	
	792	IB				3				NOT RUN	
											6/1/18 [illegible]

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

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Rev. Date: 5/25/17

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1696

Print Analyst Name: CHRISTINE PHILLIPS

Date: 6/1/18

Analyst Signature: CLP

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method 6PST1671

Injection Volume: 1.0 µl

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2432-05	1B	20ppb
-08	PEST ISD	5ppm
-82A	PEST MIX	25ppb
-82B	PEST MIX	500ppb
-85	PEM	50-250ppb
180405	HEXANE (FISHER)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G66S793	dclt				1		/	/	OK	
	794	CC1671-SD				4		/	/	OK	
	795	1B				3		/	/	OK	
	796	OP12424-MB1	12424	8081Tcl	W	5		/	/	OK	
	797	jc166432-1Q				6		/	/	OK	
	798	jc66433-1Q				7		/	/	OK	
	799	jc66434-1Q				8		/	/	OK	
	800	jc66436-1Q				9		/	/	OK	
	801	OP12409-MB1	12409	8081Tcl(W)		10		/	/	OK	OP12330-2, OP12376-2
	802	-BS1				11		/	/	OK	↓
	803	jc659169-1	12326			12		/	/	OK	
	804	jc66828-1A	12330			13		/	/	OK	
	805	-2A				14		/	/	OK	
	806	jc66596-1A	12409			15		/	/	OK	
	807	OP12409-LS1				16		/	/	OK	MS
	808	-MSD				17		/	/	OK	
	809	jc66596-2A				18		/	/	OK	
	810	-3A				19		/	/	OK	
	811	jc166835-1A	12330			20		/	/	OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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SGS

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1696

Print Analyst Name: CHRISTINE PHILLIPS

Date: 6/1/18

Analyst Signature: CAP

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 18-2432-05	IB	20ppb
08	PEST ISTD	5ppm
82A	PEST MIX	25ppb
82B	PEST MIX	50ppb
85	PEM	50-250ppb
180405	HEXANE (FISHER)	—

Columns: 2BCLPI / 2BCLPII

Method 8081

Initial Cal. Method 6P5T1671

Injection Volume: 1.0 ml

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	6G5T0812	jC66873-1A	12330	8081 tclp	W	21		/	/	OK	
	813	OP12330-LB16				22		/	/	OK	
	814	OP12409-LB8	12409			23		/	/	OK	
	815	CC1671-25				2			/	OK	
	816	IB				3			/	OK	
	817	jC66873-2A	12330			24			/	OK	
	818	OP~~12449~~ 12419 mb11	~~12449~~ 12419 CAP 6/4/18	8081 11	W	25		/	/	OK	
	819	-bs11				26		/	/	OK	
	820	-bsd11				27		/	/	OK	
	821	jC66164-17				28		/	/	OK	
	822	-21				29		/	/	OK	
	823	ddt				1			/	NG	ENDRIN ↑
	824	CC1671-50				4				NOT USING	
	825	ib				3				NOT USING	
	826	OP12455-mb1	12455	8081 tclp	S	5				NOT USING	RR W/PASSING DDT
	827	-bs1				6				NOT USING	
	828	-lb15				7				NOT USING	
	829	-ms				8				NOT USING	
	830	-msd				9				NOT USING	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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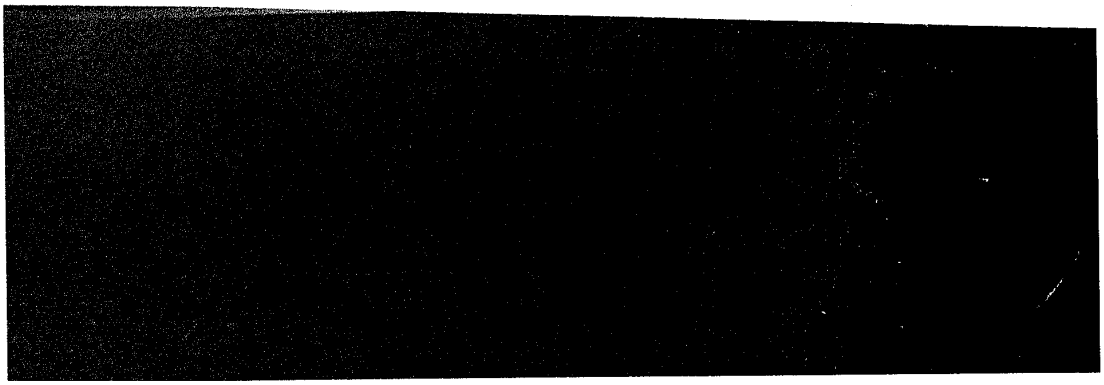

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JC66384

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G-G-1696

Print Analyst Name: Dharmistha mehta

Date: 6/1/18

Analyst Signature: DM

Columns: 2BCLPT / 2BCLPII

Method 8081

Initial Cal. Method GPST1671

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
8.748.6	TB	20 ppb
68	PEST SSID	5 ppm
28A	PEST MIX	25 ppb
28B	PEST MIX	20 ppb
85	PEM	20.25ppb
180605	Hexane (Cl)Hex	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G656831	jcc6740-1				10				NOT USING	RRW/PASSING DDT
	832	op12434-mb1	12434	8081 PCI	S	11				NOT USING	NEED RRW ICAL & TOL CHECKS = DOD
	833	-bs1				12				NOT USING	
	834	jc66660-2				13				NOT USING	
	835	op12434-ms				14				NOT USING	
	836	-msd				15				NOT USING	
	837	jc66660-1				16				NOT USING	

6/1/18 DM

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G6G1696

Print Analyst Name: Dharmishta Mehta

Date: 6/1/18

Analyst Signature: DM

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
18-2432-6	TB	20 ppb
.08	PEST ISTD	5 ppm
.82A	PEST MIX	25 ppb
.82B	PEST MIX	50 ppb
.85	DEM	50-250 ppb
180405	Hexane washed	—

Columns: 2BCLPI / 2BCLPII

Method 8081

Initial Cal. Method GPST1671

Injection Volume: 1.0 µl

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 6/4/18

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	GGS6 831	jc66740-1				10				NOT USING	RRW/PASSING DDT
	832	op12434-mb1	12434	SC81 +C1	S	11				NOT USING	MED RRW/CIR & TOX CHECKS = DOD
	833	-bs1				12				NOT USING	
	834	jc66660-2				13				NOT USING	
	835	op12434-ms				14				NOT USING	
	836	-msd				15				NOT USING	
	837	jc66660-1				16				NOT USING	

DM 6/1/18

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09

Rev. Date: 5/25/17

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11.7.8

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LOGBOOK ID: 8-2225

Pest / PCB Extraction Log - Soils

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Microwave SW3546 ✓ Sonication SW3550C _____
Waste Dilution SW3580A _____ Soxhlet SW3540 _____

Date Started: 5/25/18 Time Started: 7:20 am
Date Finished: 5/25/18 Time Finished: 6:00PM

BATCH # GC 12244	RACK# PCB-17
Weighed by:	RK
Extracted by:	SA
Concentrated by:	KT
Final Vol. Top-up:	KT
Vialed by:	LL
Supervisor Review:	5/25/18

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	1,4	65	—	—	ok
Buchi Chiller	B1,B4	11	—	—	ok
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)	2	35.4	40.1	35.5	10
Balance	B-30	N/A	N/A	N/A	N/A

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB Of	182158104	400	1.0
PPCB LL			
WITNESS SIGN: SM		SPIKE SIGN: SA	

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST C			
PEST LL			
PCB Of	182158 30	2 PPM	1.0
PCB LL			
WITNESS SIGN: SM		SPIKE SIGN: SA	

SOLVENT	LOT #	BRAND	AMT (mL)
2:1 HEXANE/ ACETONE	180448 / 186405	FISHER	30.0
1:1 METH CHLOR/ ACETONE			
HEXANE			

REAGENT	LOT #	BAKE BATCH #	BRAND
HYDROMATRIX	6400661	5.11.18A	AGILENT
SODIUM SULFATE	181892	5-23.18A	FISHER
FILTER PAPER	12145061		FISHER
FLORISIL			
1:1 SULFURIC ACID	2707833		RICCA
COPPER	0P18215811		ALDRICH
PERMANG(KMnO4)			
HYDROXYLAMINE			

MATRIX	LOT #	BAKE BATCH #	BRAND
SAND	7GW1707202A	3.5.18	FISHER

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS
Rx Reason:
Spiking:
Weights/Volumes:
Required MS/MSD:
Final Volume:
Other: HT5/30 DD5/31

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Wet Wt. (g) Oil (g) Liq (mL)	Decant Y	Decant N	Sonicator ID	Microwave ID	Final Extract Color	Final Extract Vol (mL)	Extract Cleanup H2SO4	Florisil	Cu	KMnO4	GPC	Comment
	MB1	PCB		sand	15.0				13	clear	10.0						
	BS1			sand	15.0				13	clear	10.0						
JCld6384-1	MS		1	soil	15.6				13	brown	10.0						
1	MSD		1	soil	15.6				13	brown	10.0						
	BS	D		sand	15.0				13	clear	10.0						
	MS																
	MSD																
1	JCld6384-1	PCB	1	soil	15.2		-		13	brown	10.0						
2	-2		1	clay BK crystals	16.3		-		13	yellow	10.0						
3	-4		1	white sludge	16.3		-		13	brown	10.0						
4	JCld6405-1		1	soil	15.9		-		13	brown	10.0						
5	-2		1	soil	15.1		-		13	brown	10.0						
6	-3		1	soil	16.0		-		13	yellow	10.0						
7	JCld6409-1		2	clay	15.1		-		13	clear	10.0						
8	-2		3	clay	15.0		-		13	clear	10.0						
9	JCld6410-1		1	clay	16.1		-		13	l.yellow	10.0						
10	-2		3	clay	15.1		-		13	l.yellow	10.0						
11	-3		3	soil	15.3		-		13	brown	10.0						
12	-4		1	soil	16.3		-		13	brown	10.0						
13	-5		3	clay	15.3		-		13	l.yellow	10.0						
14	JCld6443-1		1	soil	15.2		-		13	yellow	10.0						
15	-2		1	soil	15.1		-		13	brown	10.0						
16	-3		1	mud	17.0		-		13	yellow	10.0						
17	JCld6578-2		2	clay	15.9		-		13	yellow	10.0						
18	-4		1	clay	16.0		-		13	yellow	10.0						
19	-6		2	clay	16.2		-		13	brown	10.0						
20	-8		1	clay	15.2		-		13	yellow	10.0						

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SGS
Form: OP018A-09
Rev Date: 8/2/17

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[redacted]

8-2225

LOGBOOK ID:

Pest / PCB Extraction Log - Soils

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Microwave SW3546 ✓ Sonication SW3550C _____
Waste Dilution SW3580A _____ Soxhlet SW3540 _____

Date Started: 5/25/18 Time Started: 7:20am
Date Finished: 5/25/18 Time Finished: 20:00pm

BATCH # GC 12247	RACK# PEST-4
Weighed by:	RC
Extracted by:	SA
Concentrated by:	NT
Final Vol. Top-up:	NT
Vialed by:	LL. RC.
Supervisor Review:	5/25/18

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:

Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other: HT 5/30 DD 5/31

Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Wet Wt. (g) Oil (g) Liq (mL)	Decant Y	Decant N	Sonicator ID	Microwave ID	Final Extract Color	Final Extract Vol (mL)	Extract Cleanup H2SO4	Florisil	Cu	KMnO4	GPC	Comment
MB1	Pest		sand	15.0		✓		17	clear	10.0	✓	✓	✓			
BS1			sand	15.0		✓		17	clear	10.0	✓	✓	✓			
JC1d6384-2 MS		1	clay	16.0		✓		17	yellow	10.0	✓	✓	✓			
MSD		1	clay	16.0		✓		17	yellow	10.0	✓	✓	✓			
BSD			sand	15.0		✓		17	clear	10.0		✓	✓			
MS																
MSD																
JC1d6384-1	Pest	1	soil	15.5		-		17	yellow	10.0	✓	✓	✓			
-2		1	clay	16.3		✓		17	yellow	10.0	✓	✓	✓			
-4		1	white sludge	16.3		✓		17	yellow	10.0	✓	✓	✓			
JC1d6405-1		1	soil	15.9		✓		17	yellow	10.0	✓	✓	✓			
-2		1	soil	15.1		✓		17	yellow	10.0	✓	✓	✓			
-3		1	clay	16.0		✓		17	yellow	10.0	✓	✓	✓			
JC1d6409-1		2	clay	15.1		✓		17	clear	10.0	✓	✓	✓			
-2		3	clay	15.0		✓		17	clear	10.0	✓	✓	✓			
JC1d6410-1		1	soil	16.1		✓		17	clear	10.0	NT	✓	✓			
-2		3	clay	15.1		✓		17	clear	10.0	✓	✓	✓			
-3		3	soil	15.3		✓		17	yellow	10.0		✓	✓			
-4		1	soil	16.3		✓		17	brown	10.0		✓	✓			
-5		3	clay	15.3		✓		17	clear	10.0		✓	✓			
JC1d6443-1		1	soil	15.2		✓		17	yellow	10.0		✓	✓			
-2		1	soil	15.1		✓		17	yellow	10.0		✓	✓			
-3		1	mud	17.0		✓		17	yellow	10.0		✓	✓			
JC1d6528-2		2	clay	15.9		✓		17	clear	10.0		✓	✓			
-4		1	clay	16.0		✓		17	yellow	10.0		✓	✓			
-6		2	clay	16.2		✓		17	yellow	10.0		✓	✓			
-8		1	clay	15.2		✓		17	yellow	10.0		✓	✓			

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	1, 4	65	—	—	ok
Buchi Chiller	B;34	11	—	—	ok
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)	2	353	+0.1	35.4	10
Balance	R-30	N/A	N/A	N/A	N/A

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB Op	182158104	400	1.0
PPCB LL			
WITNESS SIGN: SM		SPIKE SIGN: SA	

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST Op	182158113C	250 ppb	1.0
PEST LL			
PCB			
PCB LL			
WITNESS SIGN: SM		SPIKE SIGN: SA	

SOLVENT	LOT #	BRAND	AMT (mL)
2:1 HEXANE/ ACETONE	180448 / 180405	FISHER	30.0
1:1 METH CHLOR/ ACETONE			
HEXANE			

REAGENT	LOT #	BAKE BATCH #	BRAND
HYDROMATRIX	6400661	5.11.18A	AGILENT
SODIUM SULFATE	181892	5.23.18A	FISHER
FILTER PAPER	12145061		FISHER
FLORISIL	517-004427		PHENOMENEX
1:1 SULFURIC ACID			
COPPER	CP1822153/11		ALDRICH
PERMANG(KMnO4)			
HYDROXYLAMINE			

MATRIX	LOT #	BAKE BATCH #	BRAND
SAND	7GK-757202A	3.5.18	FISHER

[redacted]

SGS
Form: OP018A-09
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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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
Analyst: JA Run ID: MA44439
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:35	MA44439-STD1	1		B=1.1931E-004 C=2.1022E-002 R=0.9999383
08:37	MA44439-STD2	1		STDB
08:38	MA44439-STD3	1		STDC
08:39	MA44439-STD4	1		STDD
08:41	MA44439-STD5	1		STDE
08:42	MA44439-STD6	1		STDF
08:45	MA44439-ICV1	1		
08:47	MA44439-ICB1	1		
08:48	MA44439-CCV1	1		
08:50	MA44439-CCB1	1		
08:51	MA44439-CRI1	1		
08:53	ZZZZZZ	1		
08:56	MP7119-MB2	1		
08:57	MP7119-B2	1		
08:59	ZZZZZZ	1		
09:00	ZZZZZZ	1		
09:02	MP7226-MB1	1		
09:03	MP7226-B1	1		
09:05	MA44439-CCV2	1		
09:06	MA44439-CCB2	1		
09:08	MP7226-S1	1		%Sol
09:09	ZZZZZZ	1		
09:11	JC66322-4	1		(sample used for QC only; not part of login JC66384)
09:13	MP7226-S2	1		%Sol
09:15	ZZZZZZ	1		
09:16	ZZZZZZ	1		
09:18	ZZZZZZ	1		
09:20	ZZZZZZ	1		
09:21	MA44439-CCV3	1		
09:23	MA44439-CCB3	1		
09:24	ZZZZZZ	1		
09:26	ZZZZZZ	1		
09:27	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
Analyst: JA Run ID: MA44439
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:29	ZZZZZZ	1		
09:30	ZZZZZZ	1		
09:32	ZZZZZZ	1		
09:33	ZZZZZZ	1		
09:34	ZZZZZZ	5		
09:36	ZZZZZZ	5		
09:40	MA44439-CCV4	1		
09:41	MA44439-CCB4	1		
10:21	MA44439-CCV5	1		
10:22	MA44439-CCB5	1		
10:24	ZZZZZZ	1		
10:25	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:28	ZZZZZZ	1		
10:30	ZZZZZZ	1		
10:32	ZZZZZZ	1		
10:33	MP7227-MB1	1		
10:34	MP7227-B1	1		
10:35	MA44439-CCV6	1		
10:37	MA44439-CCB6	1		
10:39	MP7227-S1	1		%Sol
10:40	MP7227-S2	1		%Sol
10:43	JC66357-1	1		(sample used for QC only; not part of login JC66384)
10:44	ZZZZZZ	1		
10:45	ZZZZZZ	1		
10:47	ZZZZZZ	1		
10:48	ZZZZZZ	1		
10:50	ZZZZZZ	1		
10:51	JC66384-1	1		%Sol
10:52	MA44439-CCV7	1		
10:54	MA44439-CCB7	1		
10:55	JC66384-2	1		%Sol
10:57	JC66384-4	1		%Sol
---------->	Last reportable sample/prep for job JC66384			

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
Analyst: JA Run ID: MA44439
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:58	ZZZZZZ	1		
10:59	ZZZZZZ	1		
11:01	MA44439-CRI2	1		
11:03	MA44439-CCV8	1		
11:04	MA44439-CCB8	1		
---------->	Last reportable CCB for job JC66384			
12:37	MA44439-CCV9	1		
12:38	MA44439-CCB9	1		
12:40	ZZZZZZ	1		
12:43	MA44439-CCV10	1		
12:44	MA44439-CCB10	1		

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time:			08:47		08:50		09:06		09:23	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	-0.0197	<0.20	-0.00360	<0.20	0.00730	<0.20	0.00290	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time:			09:41		10:22		10:37		10:54	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	0.0134	<0.20	0.00780	<0.20	0.00100	<0.20	0.00370	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time:			11:04	
Sample ID:			CCB8	
Metal	RL	IDL	raw	final
Mercury	0.20	.038	0.00250	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		08:45			08:48			09:05	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.98	99.3	2.5	2.56	102.4	2.5	2.66	106.4

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		09:21			09:40			10:21	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.58	103.2	2.5	2.72	108.8	2.5	2.64	105.6

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		10:35			10:52			11:03	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.60	104.0	2.5	2.54	101.6	2.5	2.62	104.8

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 70 to 130 % Recovery Run ID: MA44439 Units: ug/l

Time:			08:51		11:01	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.200	100.0	0.216	108.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:04	MA44471-STD1	1		STDA
21:07	MA44471-STD2	1		STDB
21:10	ZZZZZZ	1		
21:13	ZZZZZZ	1		
21:19	MA44471-ICV1	1		
21:22	MA44471-ICB1	1		
21:25	MA44471-CCV1	1		
21:28	MA44471-CCB1	1		
21:31	MA44471-CRI1	1		
21:34	MA44471-CRID1	1		
21:37	MA44471-ICSA1	1		
21:40	MA44471-ICSAB1	1		
21:43	MA44471-HSTD1	1		
21:46	MA44471-HSTD2	1		
21:49	ZZZZZZ	1		
21:52	ZZZZZZ	1		
21:56	ZZZZZZ	1		
21:59	MA44471-CCV2	1		
22:01	MA44471-CCB2	1		
22:04	ZZZZZZ	1		
22:08	MA44471-CCV3	1		
22:11	MA44471-CCB3	1		
22:14	MP7256-MB1	1		
22:17	MP7256-B1	1		
22:20	MP7256-S1	10		Rerun straight and on higher dilution for S
22:23	MP7256-S2	10		rerun straight
22:26	MP7256-D1	10		rerun straight only
22:29	TD21206-1	10		(sample used for QC only; not part of login JC66384)
22:32	MP7256-SD1	50		rerun straight only
22:35	ZZZZZZ	1		
22:37	ZZZZZZ	1		
22:40	MA44471-CCV4	1		
22:43	MA44471-CCB4	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:46	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:55	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:01	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:07	ZZZZZZ	1		
23:10	ZZZZZZ	1		
23:13	MA44471-CCV5	1		
23:16	MA44471-CCB5	1		
23:19	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:28	ZZZZZZ	5		
23:31	ZZZZZZ	3		
23:34	ZZZZZZ	10		
23:37	ZZZZZZ	10		
23:39	MP7257-B1	1		
23:42	MP7257-MB1	1		
23:45	MA44471-CCV6	1		
23:49	MA44471-CCB6	1		
23:52	MP7257-S1	1		
23:55	MP7257-S2	1		
23:58	JC66366-4	1		(sample used for QC only; not part of login JC66384)
00:01	MP7257-SD1	5		
00:04	ZZZZZZ	1		
00:07	ZZZZZZ	1		
00:10	ZZZZZZ	1		
00:13	ZZZZZZ	1		
00:16	ZZZZZZ	1		
00:19	MA44471-CCV7	1		
00:21	MA44471-CCB7	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:25	MA44471-CRI2	1		
00:28	MA44471-CRID2	1		
00:31	MA44471-ICSA2	1		
00:36	MA44471-ICSAB2	1		
00:39	MA44471-CCV8	1		
00:42	MA44471-CCB8	1		
00:46	ZZZZZZ	1		
00:49	ZZZZZZ	1		
00:52	ZZZZZZ	1		
00:55	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:01	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:07	ZZZZZZ	1		
01:10	ZZZZZZ	1		
01:13	ZZZZZZ	1		
01:16	MA44471-CCV9	1		
01:19	MA44471-CCB9	1		
01:22	ZZZZZZ	1		
01:26	ZZZZZZ	1		
01:29	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:38	ZZZZZZ	1		
01:41	ZZZZZZ	1		
01:44	ZZZZZZ	1		
01:47	ZZZZZZ	1		
01:50	MA44471-CCV10	1		
01:52	MA44471-CCB10	1		
01:55	JC66384-1	1		
01:58	JC66384-2	1		
02:01	JC66384-4	1		Ca and MG high
---------->	Last reportable sample/prep for job JC66384			
02:04	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:07	ZZZZZZ	1		
02:10	MP7252-B1	1		
02:13	MP7252-MB1	1		
02:16	MP7252-S1	1		
02:19	MP7252-S2	1		
02:22	MA44471-CCV11	1		
02:25	MA44471-CCB11	1		
02:28	JC66043-1	1		(sample used for QC only; not part of login JC66384)
02:31	MP7252-SD1	5		
02:34	ZZZZZZ	1		
02:37	ZZZZZZ	1		
02:40	ZZZZZZ	1		
02:43	ZZZZZZ	1		
02:47	ZZZZZZ	1		
02:50	ZZZZZZ	1		
02:53	ZZZZZZ	1		
02:56	MA44471-CCV12	1		
02:59	MA44471-CCB12	1		
03:02	ZZZZZZ	1		
03:05	ZZZZZZ	1		
03:08	ZZZZZZ	1		
03:11	ZZZZZZ	1		
03:14	ZZZZZZ	1		
03:17	ZZZZZZ	1		
03:20	ZZZZZZ	1		
03:23	ZZZZZZ	1		
03:26	ZZZZZZ	1		
03:29	MA44471-CCV13	1		
03:32	MA44471-CCB13	1		
03:35	ZZZZZZ	1		
03:38	ZZZZZZ	1		
03:41	ZZZZZZ	1		
03:44	MP7254-B1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:47	MP7254-MB1	1		
03:50	MP7254-S1	1		high rsd
03:53	MP7254-S2	1		high rsd
03:56	JC66445-1	1		(sample used for QC only; not part of login JC66384)
03:59	MP7254-SD1	5		
04:02	MA44471-CCV14	1		
04:04	MA44471-CCB14	1		
04:08	ZZZZZZ	1		
04:11	ZZZZZZ	1		
04:13	ZZZZZZ	1		
04:16	ZZZZZZ	1		
04:19	ZZZZZZ	1		
04:22	ZZZZZZ	1		
04:26	ZZZZZZ	1		
04:29	ZZZZZZ	1		
04:32	ZZZZZZ	1		
04:35	ZZZZZZ	1		
04:38	MA44471-CCV15	1		
04:41	MA44471-CCB15	1		
04:44	ZZZZZZ	1		
04:47	ZZZZZZ	1		
04:50	ZZZZZZ	1		
04:53	ZZZZZZ	1		
04:56	ZZZZZZ	1		
04:59	ZZZZZZ	1		
05:02	ZZZZZZ	1		
05:05	ZZZZZZ	1		
05:08	ZZZZZZ	1		
05:11	MA44471-CCV16	1		
05:14	MA44471-CCB16	1		
05:17	MA44471-CRID3	1		
05:20	MA44471-CRI3	1		
05:23	MA44471-CCV17	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:26	MA44471-CCB17	1		

----------> Last reportable CCB for job JC66384
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:04	MA44471-STD1	6093 R	148670 R	23430 R	9534 R
21:07	MA44471-STD2	5807	140220	22626	8875
21:10	ZZZZZZ	5943	143510	22885	9062
21:13	ZZZZZZ	6138	150030	23268	9605
21:19	MA44471-ICV1	6113	147190	23743	9286
21:22	MA44471-ICB1	6186	150900	23814	9685
21:25	MA44471-CCV1	6109	148350	23729	9286
21:28	MA44471-CCB1	6255	153060	24119	9756
21:31	MA44471-CRI1	6216	151910	23695	9655
21:34	MA44471-CRID1	6272	154520	24043	9792
21:37	MA44471-ICSA1	5663	136410	23128	8524
21:40	MA44471-ICSAB1	5798	138350	23017	8718
21:43	MA44471-HSTD1	6257	152100	23923	9856
21:46	MA44471-HSTD2	5794	138680	22702	8608
21:49	ZZZZZZ	6172	149880	23417	9828
21:52	ZZZZZZ	6121	153220	23464	9720
21:56	ZZZZZZ	6364	154330	23920	9924
21:59	MA44471-CCV2	6175	148500	23562	9365
22:01	MA44471-CCB2	No results reported for the elements associated with this internal standard.			
22:04	ZZZZZZ	6429	157490	24407	9949
22:08	MA44471-CCV3	6114	147570	23174	9277
22:11	MA44471-CCB3	6217	151470	22842	9689
22:14	MP7256-MB1	6322	154380	23673	9818
22:17	MP7256-B1	6247	152490	23768	9509
22:20	MP7256-S1	6299	153230	23657	9799
22:23	MP7256-S2	6250	152740	23574	9716
22:26	MP7256-D1	6236	151940	23359	9757
22:29	TD21206-1	6190	149110	23354	9675
22:32	MP7256-SD1	6278	152290	23659	9763
22:35	ZZZZZZ	6765	161480	25623	9577
22:37	ZZZZZZ	6348	153900	24214	9500
22:40	MA44471-CCV4	6065	145610	22941	9215
22:43	MA44471-CCB4	6295	152320	23473	9794

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:46	ZZZZZZ	6236	151010	23692	9531
22:49	ZZZZZZ	6424	153320	24198	9557
22:52	ZZZZZZ	6332	153710	23789	9527
22:55	ZZZZZZ	6315	152280	23146	9454
22:58	ZZZZZZ	6377	152460	24363	9385
23:01	ZZZZZZ	6813	162580	25868	9543
23:04	ZZZZZZ	6496	155840	24493	9495
23:07	ZZZZZZ	6695	159610	25121	9485
23:10	ZZZZZZ	6335	150690	23620	9590
23:13	MA44471-CCV5	6090	146490	23192	9250
23:16	MA44471-CCB5	6302	153020	23436	9806
23:19	ZZZZZZ	6482	154700	24431	9616
23:22	ZZZZZZ	6486	154950	24325	9553
23:25	ZZZZZZ	6318	151930	24002	9534
23:28	ZZZZZZ	6321	153780	23746	9937
23:31	ZZZZZZ	6041	145360	22955	9114
23:34	ZZZZZZ	6275	152560	23580	9838
23:37	ZZZZZZ	6187	151230	22375	9713
23:39	MP7257-B1	6122	147630	23095	9336
23:42	MP7257-MB1	6288	152270	23279	9742
23:45	MA44471-CCV6	6106	146410	22879	9252
23:49	MA44471-CCB6	6207	150520	23003	9659
23:52	MP7257-S1	6210	148880	23556	9308
23:55	MP7257-S2	6163	147570	23372	9269
23:58	JC66366-4	6347	151540	23656	9548
00:01	MP7257-SD1	6282	151630	23321	9604
00:04	ZZZZZZ	6249	151320	23545	9528
00:07	ZZZZZZ	6372	151890	23637	9502
00:10	ZZZZZZ	6540	156810	25051	9684
00:13	ZZZZZZ	6485	154560	24402	9549
00:16	ZZZZZZ	6153	149010	23365	9276
00:19	MA44471-CCV7	6295	150380	23784	9471
00:21	MA44471-CCB7	6455	155830	23955	9953

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:25	MA44471-CRI2	6482	156550	24072	9932
00:28	MA44471-CRID2	6523	157350	24265	10034
00:31	MA44471-ICSA2	5762	135970	22122	8596
00:36	MA44471-ICSAB2	5746	136900	22585	8580
00:39	MA44471-CCV8	6281	152620	23808	9438
00:42	MA44471-CCB8	6464	157450	23997	9962
00:46	ZZZZZZ	6450	147850	24695	9411
00:49	ZZZZZZ	6078	147260	23546	9136
00:52	ZZZZZZ	6033	145770	23286	9014
00:55	ZZZZZZ	6419	155520	24134	9904
00:58	ZZZZZZ	6444	155980	24151	9928
01:01	ZZZZZZ	6454	156260	24016	9943
01:04	ZZZZZZ	6440	157370	23993	9930
01:07	ZZZZZZ	6452	999999 !	23403	9980
01:10	ZZZZZZ	6467	156470	24162	10009
01:13	ZZZZZZ	6454	157130	24016	9994
01:16	MA44471-CCV9	6243	151590	23679	9383
01:19	MA44471-CCB9	6487	158340	24130	10004
01:22	ZZZZZZ	6193	150220	23627	9671
01:26	ZZZZZZ	6637	159840	25397	9797
01:29	ZZZZZZ	6688	162150	25408	9993
01:31	ZZZZZZ	6379	153860	24126	10044
01:34	ZZZZZZ	6510	156590	24783	9665
01:38	ZZZZZZ	6558	157710	24556	9644
01:41	ZZZZZZ	6079	143530	21692	9117
01:44	ZZZZZZ	5855	138890	21178	8855
01:47	ZZZZZZ	6119	144900	22351	9134
01:50	MA44471-CCV10	6013	141910	21577	9063
01:52	MA44471-CCB10	6126	146430	22123	9458
01:55	JC66384-1	6190	146190	22943	9156
01:58	JC66384-2	6796	161250	25657	9584
02:01	JC66384-4	5734	139960	23412	8354
02:04	ZZZZZZ	6081	144650	24291	8689

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
02:07	ZZZZZZ	6438	156160	24388	9886
02:10	MP7252-B1	6267	150500	24010	9447
02:13	MP7252-MB1	6345	155310	24066	9740
02:16	MP7252-S1	6270	150160	24524	8772
02:19	MP7252-S2	6238	149170	24510	8734
02:22	MA44471-CCV11	6218	150590	23800	9336
02:25	MA44471-CCB11	6404	156120	24374	9852
02:28	JC66043-1	6302	150310	24729	8848
02:31	MP7252-SD1	6321	152920	24065	9453
02:34	ZZZZZZ	6311	152780	24158	9634
02:37	ZZZZZZ	6033	144000	23383	9006
02:40	ZZZZZZ	5671	130470	22833	8112
02:43	ZZZZZZ	5374	125620	22089	7674
02:47	ZZZZZZ	6004	143390	23309	8859
02:50	ZZZZZZ	6128	146250	24000	8621
02:53	ZZZZZZ	6252	150410	24247	9279
02:56	MA44471-CCV12	6289	999999 !a	24196	9449
02:59	MA44471-CCB12	6478	157880	24578	9977
03:02	ZZZZZZ	6157	148310	24423	9113
03:05	ZZZZZZ	6424	154460	24261	9622
03:08	ZZZZZZ	6398	154770	24804	9577
03:11	ZZZZZZ	6199	147790	24348	9170
03:14	ZZZZZZ	6098	146310	23981	8983
03:17	ZZZZZZ	6456	158670	25036	9967
03:20	ZZZZZZ	6440	159160	999999 !	9968
03:23	ZZZZZZ	6428	158890	24922	9939
03:26	ZZZZZZ	6446	158170	25195	9973
03:29	MA44471-CCV13	6343	153710	24865	9557
03:32	MA44471-CCB13	6503	159180	24934	10075
03:35	ZZZZZZ	6586	159380	25712	9980
03:38	ZZZZZZ	6460	158370	25142	9995
03:41	ZZZZZZ	6294	156480	24679	9824
03:44	MP7254-B1	6367	155570	25129	9678

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:47	MP7254-MB1	6498	160870	25489	10062
03:50	MP7254-S1	6240	999999 !a	24782	9433
03:53	MP7254-S2	6256	154470	25069	9451
03:56	JC66445-1	6357	155170	25155	9676
03:59	MP7254-SD1	6480	160700	25504	9992
04:02	MA44471-CCV14	6358	154970	25268	9600
04:04	MA44471-CCB14	6548	161220	25529	10131
04:08	ZZZZZZ	6560	161580	26053	10040
04:11	ZZZZZZ	6339	157670	25043	9678
04:13	ZZZZZZ	6342	157370	25421	9700
04:16	ZZZZZZ	6385	157100	25389	9755
04:19	ZZZZZZ	6372	156730	25342	9717
04:22	ZZZZZZ	6403	158190	25358	9791
04:26	ZZZZZZ	6431	157760	25560	9909
04:29	ZZZZZZ	6356	156380	25461	9682
04:32	ZZZZZZ	6325	155730	25181	9646
04:35	ZZZZZZ	6524	160420	25654	10017
04:38	MA44471-CCV15	6360	156100	25000	9588
04:41	MA44471-CCB15	6531	153930	25019	10109
04:44	ZZZZZZ	6325	156540	24928	9639
04:47	ZZZZZZ	6276	152350	24984	9450
04:50	ZZZZZZ	6349	155950	25117	9622
04:53	ZZZZZZ	6323	154650	24789	9613
04:56	ZZZZZZ	6487	160330	25053	10023
04:59	ZZZZZZ	6375	156180	25013	9706
05:02	ZZZZZZ	6325	153110	24644	9482
05:05	ZZZZZZ	6503	160970	24805	10024
05:08	ZZZZZZ	6224	150550	23852	9482
05:11	MA44471-CCV16	6227	149970	23424	9362
05:14	MA44471-CCB16	6363	155450	23746	9814
05:17	MA44471-CRID3	6421	155210	23827	9882
05:20	MA44471-CRI3	6335	153870	23806	9721
05:23	MA44471-CCV17	6250	150290	23200	9372

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44471
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
05:26	MA44471-CCB17	6391	154930	23635	9832

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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time: / Sample ID:			21:22 ICB1		21:28 CCB1		22:11 CCB3		22:43 CCB4	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	0.300	<200	-3.30	<200	-1.90	<200	-10.6	<200
Antimony	6.0	2.4	0.100	<6.0	-0.200	<6.0	0.600	<6.0	0.700	<6.0
Arsenic	3.0	1.2	0.800	<3.0	0.900	<3.0	1.00	<3.0	0.200	<3.0
Barium	200	.6	-0.100	<200	0.100	<200	0.00	<200	0.300	<200
Beryllium	1.0	.2	0.00	<1.0	0.00	<1.0	0.00	<1.0	0.00	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.00	<3.0	-0.100	<3.0	-0.300	<3.0	-0.100	<3.0
Calcium	5000	5.5	-7.00	<5000	-6.00	<5000	-6.60	<5000	-7.20	<5000
Chromium	10	.7	-0.300	<10	-0.200	<10	0.00	<10	0.00	<10
Cobalt	50	.4	0.00	<50	-0.100	<50	0.100	<50	0.00	<50
Copper	10	1.1	0.00	<10	-0.200	<10	-0.200	<10	0.700	<10
Iron	100	3.5	0.300	<100	-3.80	<100	0.900	<100	-0.800	<100
Lead	3.0	2.2	1.20	<3.0	-0.100	<3.0	0.500	<3.0	0.00	<3.0
Lithium	50	3.4								
Magnesium	5000	25	14.5	<5000	17.8	<5000	22.6	<5000	0.300	<5000
Manganese	15	.14	-0.100	<15	0.00	<15	0.00	<15	0.00	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.300	<10	-0.200	<10	-0.300	<10	0.200	<10
Phosphorus	50	2								
Potassium	10000	60	-30.1	<10000	19.6	<10000	0.900	<10000	-42.4	<10000
Selenium	10	3.7	-1.80	<10	-1.90	<10	-1.50	<10	-2.00	<10
Silicon	200	1.8								
Silver	10	.7	-0.100	<10	0.100	<10	-0.500	<10	-0.300	<10
Sodium	10000	35	-9.40	<10000	-12.5	<10000	-21.5	<10000	-15.8	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	-0.100	<2.0	-0.700	<2.0	0.700	<2.0	0.100	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.100	<50	-0.200	<50	0.00	<50	0.600	<50
Zinc	20	.2	-0.600	<20	-0.600	<20	-0.700	<20	-0.600	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time:			21:22		21:28		22:11		22:43	
Sample ID:			ICB1		CCB1		CCB3		CCB4	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time: / Sample ID:			23:16 CCB5		23:49 CCB6		00:21 CCB7		00:42 CCB8	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	20.7	<200	-3.60	<200	10.5	<200	16.9	<200
Antimony	6.0	2.4	0.00	<6.0	0.500	<6.0	0.100	<6.0	0.400	<6.0
Arsenic	3.0	1.2	-0.100	<3.0	0.900	<3.0	0.00	<3.0	0.800	<3.0
Barium	200	.6	0.300	<200	0.600	<200	0.300	<200	0.500	<200
Beryllium	1.0	.2	0.00	<1.0	0.00	<1.0	-0.100	<1.0	-0.200	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.200	<3.0	-0.100	<3.0	0.00	<3.0	0.200	<3.0
Calcium	5000	5.5	25.3	<5000	25.4	<5000	21.1	<5000	22.5	<5000
Chromium	10	.7	-0.400	<10	-0.400	<10	-0.100	<10	-0.100	<10
Cobalt	50	.4	-0.200	<50	-0.200	<50	-0.100	<50	-0.300	<50
Copper	10	1.1	0.400	<10	0.00	<10	-0.100	<10	-0.500	<10
Iron	100	3.5	3.40	<100	4.00	<100	5.40	<100	5.70	<100
Lead	3.0	2.2	0.500	<3.0	0.400	<3.0	0.600	<3.0	0.600	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-2.60	<5000	33.7	<5000	23.2	<5000	27.1	<5000
Manganese	15	.14	0.400	<15	0.400	<15	0.300	<15	0.300	<15
Molybdenum	20	.4								
Nickel	10	.5	0.00	<10	-0.100	<10	0.100	<10	0.100	<10
Phosphorus	50	2								
Potassium	10000	60	-27.7	<10000	31.9	<10000	-8.40	<10000	52.7	<10000
Selenium	10	3.7	-1.00	<10	-1.90	<10	0.500	<10	-2.90	<10
Silicon	200	1.8								
Silver	10	.7	0.300	<10	-0.400	<10	-0.600	<10	-0.200	<10
Sodium	10000	35	-4.60	<10000	12.1	<10000	8.80	<10000	-1.50	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	0.00	<2.0	-0.800	<2.0	0.300	<2.0	1.10	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.100	<50	0.00	<50	-0.300	<50	-0.300	<50
Zinc	20	.2	6.20	<20	6.10	<20	6.10	<20	6.00	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time: / Sample ID:			23:16 CCB5		23:49 CCB6		00:21 CCB7		00:42 CCB8	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time: / Sample ID:			01:19 CCB9		01:52 CCB10		02:25 CCB11		02:59 CCB12	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	9.50	<200	6.10	<200	-1.20	<200	15.9	<200
Antimony	6.0	2.4	-0.700	<6.0	0.700	<6.0	0.500	<6.0	1.20	<6.0
Arsenic	3.0	1.2	1.20	<3.0	0.00	<3.0	1.30	<3.0	-0.300	<3.0
Barium	200	.6	0.500	<200	0.700	<200	0.300	<200	-0.300	<200
Beryllium	1.0	.2	0.00	<1.0	-0.100	<1.0	0.100	<1.0	-0.100	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.100	<3.0	0.00	<3.0	0.00	<3.0	-0.100	<3.0
Calcium	5000	5.5	-10.2	<5000	23.0	<5000	-9.60	<5000	24.9	<5000
Chromium	10	.7	-0.100	<10	-0.300	<10	-0.200	<10	-0.300	<10
Cobalt	50	.4	-0.400	<50	-0.100	<50	-0.100	<50	-0.200	<50
Copper	10	1.1	-0.100	<10	0.100	<10	-0.100	<10	-0.200	<10
Iron	100	3.5	-0.200	<100	5.70	<100	2.40	<100	7.20	<100
Lead	3.0	2.2	0.200	<3.0	1.10	<3.0	0.600	<3.0	0.100	<3.0
Lithium	50	3.4								
Magnesium	5000	25	19.4	<5000	12.6	<5000	26.1	<5000	32.7	<5000
Manganese	15	.14	0.00	<15	0.300	<15	0.100	<15	0.300	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.200	<10	0.100	<10	-0.100	<10	0.100	<10
Phosphorus	50	2								
Potassium	10000	60	63.9	<10000	-30.5	<10000	46.9	<10000	169	<10000
Selenium	10	3.7	-0.800	<10	0.800	<10	-0.700	<10	-2.00	<10
Silicon	200	1.8								
Silver	10	.7	-0.600	<10	-1.20	<10	-0.100	<10	-0.300	<10
Sodium	10000	35	-7.20	<10000	-26.4	<10000	45.1	<10000	217	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	-0.300	<2.0	-0.500	<2.0	-0.100	<2.0	-0.400	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.200	<50	-0.300	<50	0.00	<50	-0.200	<50
Zinc	20	.2	-0.500	<20	6.30	<20	-0.400	<20	6.40	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time: / Sample ID:	RL	IDL	01:19 CCB9 raw	final	01:52 CCB10 raw	final	02:25 CCB11 raw	final	02:59 CCB12 raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time:			03:32		04:04		04:41		05:14	
Sample ID:			CCB13		CCB14		CCB15		CCB16	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	6.90	<200	5.00	<200	2.10	<200	-2.90	<200
Antimony	6.0	2.4	1.00	<6.0	1.60	<6.0	1.10	<6.0	1.20	<6.0
Arsenic	3.0	1.2	1.20	<3.0	1.50	<3.0	0.800	<3.0	0.100	<3.0
Barium	200	.6	0.200	<200	-0.100	<200	0.00	<200	0.100	<200
Beryllium	1.0	.2	0.00	<1.0	0.00	<1.0	0.00	<1.0	0.00	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.100	<3.0	-0.100	<3.0	-0.100	<3.0	-0.100	<3.0
Calcium	5000	5.5	7.50	<5000	11.2	<5000	11.0	<5000	8.20	<5000
Chromium	10	.7	0.00	<10	-0.100	<10	-0.100	<10	0.200	<10
Cobalt	50	.4	-0.100	<50	-0.200	<50	-0.200	<50	-0.200	<50
Copper	10	1.1	-0.100	<10	0.200	<10	0.300	<10	0.00	<10
Iron	100	3.5	5.40	<100	4.50	<100	4.60	<100	7.10	<100
Lead	3.0	2.2	-0.100	<3.0	0.100	<3.0	0.500	<3.0	0.600	<3.0
Lithium	50	3.4								
Magnesium	5000	25	12.1	<5000	11.5	<5000	15.4	<5000	16.1	<5000
Manganese	15	.14	0.200	<15	0.200	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	-0.100	<10	-0.100	<10	0.400	<10
Phosphorus	50	2								
Potassium	10000	60	38.7	<10000	53.9	<10000	27.4	<10000	44.8	<10000
Selenium	10	3.7	-0.800	<10	0.300	<10	-0.600	<10	0.900	<10
Silicon	200	1.8								
Silver	10	.7	0.200	<10	-0.200	<10	0.300	<10	0.00	<10
Sodium	10000	35	102	<10000	69.2	<10000	70.6	<10000	75.9	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	0.600	<2.0	-0.700	<2.0	-0.500	<2.0	-0.200	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.100	<50	-0.200	<50	0.100	<50	-0.100	<50
Zinc	20	.2	1.80	<20	1.80	<20	1.80	<20	1.70	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time:			03:32		04:04		04:41		05:14	
Sample ID:			CCB13		CCB14		CCB15		CCB16	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time:			05:26	
Sample ID:			CCB17	
Metal	RL	IDL	raw	final
Aluminum	200	19	4.10	<200
Antimony	6.0	2.4	1.20	<6.0
Arsenic	3.0	1.2	-0.200	<3.0
Barium	200	.6	0.200	<200
Beryllium	1.0	.2	0.00	<1.0
Bismuth	20	3.2		
Boron	100	1.5		
Cadmium	3.0	.4	-0.200	<3.0
Calcium	5000	5.5	7.60	<5000
Chromium	10	.7	-0.400	<10
Cobalt	50	.4	-0.300	<50
Copper	10	1.1	-0.500	<10
Iron	100	3.5	5.30	<100
Lead	3.0	2.2	1.00	<3.0
Lithium	50	3.4		
Magnesium	5000	25	20.1	<5000
Manganese	15	.14	0.00	<15
Molybdenum	20	.4		
Nickel	10	.5	-0.600	<10
Phosphorus	50	2		
Potassium	10000	60	57.9	<10000
Selenium	10	3.7	0.200	<10
Silicon	200	1.8		
Silver	10	.7	-0.100	<10
Sodium	10000	35	56.8	<10000
Strontium	10	.2		
Sulfur	50	3.1	anr	
Thallium	2.0	1.8	-0.300	<2.0
Tin	10	.9		
Titanium	10	.7		
Tungsten	50	2.2		
Vanadium	50	.8	-0.100	<50
Zinc	20	.2	1.70	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44471 Units: ug/l

Time:			05:26	
Sample ID:			CCB17	
Metal	RL	IDL	raw	final
Zirconium	10	.3		

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		21:19			21:25			21:59	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39300	98.3	40000	39500	98.8	40000	39400	98.5
Antimony	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Arsenic	2000	2000	100.0	2000	1980	99.0	2000	2010	100.5
Barium	2000	1970	98.5	2000	2000	100.0	2000	1980	99.0
Beryllium	2000	1990	99.5	2000	2000	100.0	2000	1970	98.5
Bismuth									
Boron									
Cadmium	2000	1940	97.0	2000	1960	98.0	2000	1970	98.5
Calcium	40000	39000	97.5	40000	40000	100.0	40000	39700	99.3
Chromium	2000	1930	96.5	2000	1970	98.5	2000	1990	99.5
Cobalt	2000	2010	100.5	2000	2000	100.0	2000	2010	100.5
Copper	2000	1930	96.5	2000	1950	97.5	2000	1960	98.0
Iron	40000	38700	96.8	40000	40000	100.0	40000	39900	99.8
Lead	2000	1980	99.0	2000	2000	100.0	2000	2030	101.5
Lithium									
Magnesium	40000	39200	98.0	40000	40000	100.0	40000	40000	100.0
Manganese	2000	2020	101.0	2000	2030	101.5	2000	2050	102.5
Molybdenum									
Nickel	2000	1970	98.5	2000	2010	100.5	2000	2030	101.5
Phosphorus									
Potassium	40000	39100	97.8	40000	39700	99.3	40000	39500	98.8
Selenium	2000	2000	100.0	2000	1970	98.5	2000	1980	99.0
Silicon									
Silver	250	249	99.6	250	247	98.8	250	248	99.2
Sodium	40000	40200	100.5	40000	40000	100.0	40000	40000	100.0
Strontium									
Sulfur	anr								
Thallium	2000	1980	99.0	2000	2000	100.0	2000	2010	100.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1970	98.5	2000	1970	98.5	2000	1990	99.5
Zinc	2000	1960	98.0	2000	1990	99.5	2000	2010	100.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		21:19			21:25			21:59	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		22:08			22:40			23:13	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40100	100.3	40000	39800	99.5	40000	39100	97.8
Antimony	2000	2000	100.0	2000	2000	100.0	2000	1980	99.0
Arsenic	2000	2010	100.5	2000	2010	100.5	2000	1990	99.5
Barium	2000	2000	100.0	2000	1990	99.5	2000	1980	99.0
Beryllium	2000	2010	100.5	2000	1990	99.5	2000	1970	98.5
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1970	98.5	2000	1960	98.0
Calcium	40000	40400	101.0	40000	40100	100.3	40000	39300	98.3
Chromium	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Cobalt	2000	2020	101.0	2000	2010	100.5	2000	1990	99.5
Copper	2000	1960	98.0	2000	1960	98.0	2000	1950	97.5
Iron	40000	40500	101.3	40000	40200	100.5	40000	39500	98.8
Lead	2000	2030	101.5	2000	2030	101.5	2000	2020	101.0
Lithium									
Magnesium	40000	40600	101.5	40000	40400	101.0	40000	39500	98.8
Manganese	2000	2050	102.5	2000	2050	102.5	2000	2050	102.5
Molybdenum									
Nickel	2000	2030	101.5	2000	2020	101.0	2000	2010	100.5
Phosphorus									
Potassium	40000	40100	100.3	40000	40100	100.3	40000	39100	97.8
Selenium	2000	1980	99.0	2000	1980	99.0	2000	1960	98.0
Silicon									
Silver	250	248	99.2	250	249	99.6	250	247	98.8
Sodium	40000	40400	101.0	40000	40400	101.0	40000	39700	99.3
Strontium									
Sulfur	anr								
Thallium	2000	2010	100.5	2000	2010	100.5	2000	2000	100.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1980	99.0	2000	1990	99.5	2000	1970	98.5
Zinc	2000	2010	100.5	2000	2020	101.0	2000	2000	100.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		22:08			22:40			23:13	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		23:45			00:19			00:39	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38700	96.8	40000	38000	95.0	40000	38200	95.5
Antimony	2000	1940	97.0	2000	1890	94.5	2000	1890	94.5
Arsenic	2000	1950	97.5	2000	1910	95.5	2000	1910	95.5
Barium	2000	1960	98.0	2000	1920	96.0	2000	1920	96.0
Beryllium	2000	1940	97.0	2000	1910	95.5	2000	1920	96.0
Bismuth									
Boron									
Cadmium	2000	1920	96.0	2000	1870	93.5	2000	1870	93.5
Calcium	40000	38700	96.8	40000	38000	95.0	40000	38200	95.5
Chromium	2000	1960	98.0	2000	1930	96.5	2000	1910	95.5
Cobalt	2000	1960	98.0	2000	1940	97.0	2000	1930	96.5
Copper	2000	1910	95.5	2000	1880	94.0	2000	1850	92.5
Iron	40000	39000	97.5	40000	38300	95.8	40000	38500	96.3
Lead	2000	1990	99.5	2000	1950	97.5	2000	1950	97.5
Lithium									
Magnesium	40000	39200	98.0	40000	38300	95.8	40000	38400	96.0
Manganese	2000	2000	100.0	2000	1980	99.0	2000	1940	97.0
Molybdenum									
Nickel	2000	1980	99.0	2000	1960	98.0	2000	1960	98.0
Phosphorus									
Potassium	40000	38800	97.0	40000	38000	95.0	40000	38100	95.3
Selenium	2000	1920	96.0	2000	1870	93.5	2000	1870	93.5
Silicon									
Silver	250	242	96.8	250	237	94.8	250	234	93.6
Sodium	40000	39400	98.5	40000	38500	96.3	40000	38500	96.3
Strontium									
Sulfur	anr								
Thallium	2000	1980	99.0	2000	1930	96.5	2000	1940	97.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1930	96.5	2000	1910	95.5	2000	1880	94.0
Zinc	2000	1970	98.5	2000	1940	97.0	2000	1940	97.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		23:45			00:19			00:39	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		01:16			01:50			02:22	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40100	100.3	40000	39700	99.3	40000	40500	101.3
Antimony	2000	2000	100.0	2000	1920	96.0	2000	2010	100.5
Arsenic	2000	2010	100.5	2000	1960	98.0	2000	2040	102.0
Barium	2000	2020	101.0	2000	1990	99.5	2000	2030	101.5
Beryllium	2000	1990	99.5	2000	1970	98.5	2000	2010	100.5
Bismuth									
Boron									
Cadmium	2000	1960	98.0	2000	1900	95.0	2000	1970	98.5
Calcium	40000	40000	100.0	40000	39400	98.5	40000	40300	100.8
Chromium	2000	1970	98.5	2000	1990	99.5	2000	2010	100.5
Cobalt	2000	2010	100.5	2000	1960	98.0	2000	2040	102.0
Copper	2000	1940	97.0	2000	1900	95.0	2000	1960	98.0
Iron	40000	40400	101.0	40000	39900	99.8	40000	40600	101.5
Lead	2000	2040	102.0	2000	2000	100.0	2000	2060	103.0
Lithium									
Magnesium	40000	40200	100.5	40000	40000	100.0	40000	40400	101.0
Manganese	2000	2010	100.5	2000	2020	101.0	2000	2050	102.5
Molybdenum									
Nickel	2000	2040	102.0	2000	1990	99.5	2000	2060	103.0
Phosphorus									
Potassium	40000	40600	101.5	40000	39600	99.0	40000	40400	101.0
Selenium	2000	1960	98.0	2000	1890	94.5	2000	1980	99.0
Silicon									
Silver	250	246	98.4	250	241	96.4	250	248	99.2
Sodium	40000	40900	102.3	40000	40100	100.3	40000	40800	102.0
Strontium									
Sulfur	anr								
Thallium	2000	2020	101.0	2000	1970	98.5	2000	2030	101.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1940	97.0	2000	1940	97.0	2000	1990	99.5
Zinc	2000	2010	100.5	2000	2000	100.0	2000	2040	102.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		01:16			01:50			02:22	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		02:56			03:29			04:02	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40100	100.3	40000	40000	100.0	40000	39300	98.3
Antimony	2000	2030	101.5	2000	2030	101.5	2000	2010	100.5
Arsenic	2000	2040	102.0	2000	2030	101.5	2000	2010	100.5
Barium	2000	2050	102.5	2000	2040	102.0	2000	2000	100.0
Beryllium	2000	2010	100.5	2000	2020	101.0	2000	1980	99.0
Bismuth									
Boron									
Cadmium	2000	2000	100.0	2000	1990	99.5	2000	1980	99.0
Calcium	40000	40000	100.0	40000	40300	100.8	40000	39500	98.8
Chromium	2000	2190	109.5	2000	2030	101.5	2000	2000	100.0
Cobalt	2000	2060	103.0	2000	2070	103.5	2000	2040	102.0
Copper	2000	2160	108.0	2000	2000	100.0	2000	1970	98.5
Iron	40000	40300	100.8	40000	40200	100.5	40000	39400	98.5
Lead	2000	2070	103.5	2000	2070	103.5	2000	2040	102.0
Lithium									
Magnesium	40000	40100	100.3	40000	40100	100.3	40000	39300	98.3
Manganese	2000	2240	112.0*(a	2000	2090	104.5	2000	2050	102.5
Molybdenum									
Nickel	2000	2080	104.0	2000	2070	103.5	2000	2050	102.5
Phosphorus									
Potassium	40000	39900	99.8	40000	40000	100.0	40000	38800	97.0
Selenium	2000	2000	100.0	2000	2030	101.5	2000	2010	100.5
Silicon									
Silver	250	269	107.6	250	252	100.8	250	248	99.2
Sodium	40000	40300	100.8	40000	40200	100.5	40000	39200	98.0
Strontium									
Sulfur	anr								
Thallium	2000	2010	100.5	2000	2060	103.0	2000	2040	102.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2160	108.0	2000	2030	101.5	2000	1990	99.5
Zinc	2000	2040	102.0	2000	2040	102.0	2000	2010	100.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		02:56			03:29			04:02	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		04:38			05:11			05:23	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39400	98.5	40000	39600	99.0	40000	39700	99.3
Antimony	2000	2000	100.0	2000	1970	98.5	2000	1950	97.5
Arsenic	2000	1990	99.5	2000	1990	99.5	2000	1960	98.0
Barium	2000	1990	99.5	2000	2010	100.5	2000	2020	101.0
Beryllium	2000	1990	99.5	2000	1980	99.0	2000	1980	99.0
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1950	97.5	2000	1920	96.0
Calcium	40000	39600	99.0	40000	39300	98.3	40000	39300	98.3
Chromium	2000	1980	99.0	2000	1980	99.0	2000	1950	97.5
Cobalt	2000	2030	101.5	2000	2000	100.0	2000	1970	98.5
Copper	2000	1950	97.5	2000	1950	97.5	2000	1920	96.0
Iron	40000	39400	98.5	40000	39500	98.8	40000	39700	99.3
Lead	2000	2030	101.5	2000	2020	101.0	2000	2000	100.0
Lithium									
Magnesium	40000	39300	98.3	40000	39400	98.5	40000	39400	98.5
Manganese	2000	2030	101.5	2000	2030	101.5	2000	2000	100.0
Molybdenum									
Nickel	2000	2040	102.0	2000	2020	101.0	2000	2000	100.0
Phosphorus									
Potassium	40000	39200	98.0	40000	39600	99.0	40000	39500	98.8
Selenium	2000	1990	99.5	2000	1930	96.5	2000	1890	94.5
Silicon									
Silver	250	246	98.4	250	246	98.4	250	242	96.8
Sodium	40000	39300	98.3	40000	40200	100.5	40000	40300	100.8
Strontium									
Sulfur	anr								
Thallium	2000	2030	101.5	2000	2010	100.5	2000	1980	99.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1970	98.5	2000	1960	98.0	2000	1930	96.5
Zinc	2000	2000	100.0	2000	1990	99.5	2000	1960	98.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		04:38			05:11			05:23	
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		21:43			21:46	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	312000	104.0
Antimony	5000	5040	100.8			
Arsenic	5000	4980	99.6			
Barium	5000	4950	99.0			
Beryllium	5000	4840	96.8			
Bismuth						
Boron						
Cadmium	5000	4980	99.6			
Calcium				150000	152000	101.3
Chromium	5000	5060	101.2			
Cobalt	5000	5050	101.0			
Copper	5000	5050	101.0			
Iron				150000	152000	101.3
Lead	5000	5120	102.4			
Lithium						
Magnesium				300000	313000	104.3
Manganese	5000	5100	102.0			
Molybdenum						
Nickel	5000	5080	101.6			
Phosphorus						
Potassium				150000	156000	104.0
Selenium	5000	4970	99.4			
Silicon						
Silver	625	621	99.4			
Sodium				150000	155000	103.3
Strontium						
Sulfur	anr					
Thallium	5000	5100	102.0			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5010	100.2			
Zinc	5000	5170	103.4			

HIGH STANDARD CHECK SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44471 Units: ug/l

Time:		21:43			21:46	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44471 Units: ug/l

Time:				21:31		21:34		00:25	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	200	100.0	99.4	99.4	183	91.5
Antimony	6.0	20	3.0	6.20	103.3			6.80	113.3
Arsenic	8.0	20	3.0	7.80	97.5	3.30	110.0	7.80	97.5
Barium	200		4.0	203	101.5	4.20	105.0	194	97.0
Beryllium	2.0		1.0	1.90	95.0	1.00	100.0	1.80	90.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.00	100.0	0.900	90.0	2.70	90.0
Calcium	5000	2000	1000	5170	103.4	1070	107.0	4880	97.6
Chromium	10		2.0	10.0	100.0	1.70	85.0	9.60	96.0
Cobalt	50		3.0	51.2	102.4	3.20	106.7	48.9	97.8
Copper	10		2.0	10.1	101.0			9.00	90.0
Iron	100	500		102	102.0			96.7	96.7
Lead	3.0	20	2.5	3.30	110.0			3.10	103.3
Lithium	50								
Magnesium	5000	2000	100	5280	105.6			5050	101.0
Manganese	15		3.0	16.1	107.3	3.20	106.7	15.4	102.7
Molybdenum	20								
Nickel	10		4.0	10.8	108.0	3.90	97.5	9.80	98.0
Phosphorus	50								
Potassium	5000		2000	5150	103.0	2160	108.0	4880	97.6
Selenium	10	20	5.0	11.3	113.0			8.70	87.0
Silicon	200								
Silver	5.0		2.0	3.80	76.0			3.70	74.0
Sodium	5000		1000	5190	103.8	1090	109.0	5000	100.0
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	10.7	107.0	1.30U	0.0* (a)	9.30	93.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	50.3	100.6	2.10	105.0	48.7	97.4
Zinc	20		10	20.4	102.0	10.6	106.0	19.6	98.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44471 Units: ug/l

Time:				21:31		21:34		00:25	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44471 Units: ug/l

Time:				00:28		05:17		05:20	
Sample ID:	CRI	CRIA	CRID	CRID2		CRID3		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	102	102.0	108	108.0	204	102.0
Antimony	6.0	20	3.0					5.30	88.3
Arsenic	8.0	20	3.0	2.70	90.0	2.70	90.0	9.40	117.5
Barium	200		4.0	4.20	105.0	4.60	115.0	203	101.5
Beryllium	2.0		1.0	0.900	90.0	0.900	90.0	1.80	90.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	0.900	90.0	1.00	100.0	2.90	96.7
Calcium	5000	2000	1000	1000	100.0	1040	104.0	5020	100.4
Chromium	10		2.0	1.70	85.0	1.60	80.0	9.80	98.0
Cobalt	50		3.0	2.70	90.0	3.00	100.0	50.7	101.4
Copper	10		2.0					9.10	91.0
Iron	100	500						101	101.0
Lead	3.0	20	2.5					3.70	123.3
Lithium	50								
Magnesium	5000	2000	100	123	123.0	115	115.0	5150	103.0
Manganese	15		3.0	3.10	103.3	3.20	106.7	16.0	106.7
Molybdenum	20								
Nickel	10		4.0	4.30	107.5	4.20	105.0	10.1	101.0
Phosphorus	50								
Potassium	5000		2000	2030	101.5	2110	105.5	5100	102.0
Selenium	10	20	5.0	4.80	96.0			9.80	98.0
Silicon	200								
Silver	5.0		2.0					3.50	70.0
Sodium	5000		1000	1030	103.0	1130	113.0	5250	105.0
Strontium	10								
Sulfur	50								
Thallium	10		2.0	2.60	130.0	2.60	130.0	9.50	95.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	1.60	80.0	2.20	110.0	49.8	99.6
Zinc	20		10	10.3	103.0	10.5	105.0	20.4	102.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44471 Units: ug/l

Time:				00:28		05:17		05:20	
Sample ID:	CRI	CRIA	CRID	CRID2		CRID3		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44471 Units: ug/l

Time:			21:37		21:40		00:31		00:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	508000	101.6	493000	98.6	516000	103.2	510000	102.0
Antimony		1000	5.60		1020	102.0	0.100		1050	105.0
Arsenic		1000	-1.30		1050	105.0	0.600		1090	109.0
Barium		500	1.50		493	98.6	1.80		508	101.6
Beryllium		500	-0.100		481	96.2	0.00		489	97.8
Bismuth		500	9.80		506	101.2	5.60		519	103.8
Boron		500	1.10		501	100.2	0.400		515	103.0
Cadmium		1000	0.200		995	99.5	-0.200		1010	101.0
Calcium	400000	400000	395000	98.8	389000	97.3	407000	101.8	392000	98.0
Chromium		500	0.500		475	95.0	0.00		490	98.0
Cobalt		500	-0.100		487	97.4	-0.900		498	99.6
Copper		500	0.00		491	98.2	0.900		501	100.2
Iron	200000	200000	200000	100.0	195000	97.5	202000	101.0	200000	100.0
Lead		1000	0.800		967	96.7	3.20		999	99.9
Lithium		500	4.30		508	101.6	3.40		510	102.0
Magnesium	500000	500000	508000	101.6	493000	98.6	513000	102.6	502000	100.4
Manganese		500	-0.100		499	99.8	-0.200		510	102.0
Molybdenum		500	0.100		482	96.4	0.600		488	97.6
Nickel		1000	-0.600		962	96.2	0.400		994	99.4
Phosphorus		500	9.20		501	100.2	7.90		513	102.6
Potassium			116		147		88.9		61.0	
Selenium		1000	-0.300		976	97.6	1.00		989	98.9
Silicon		500	13.5		504	100.8	12.4		520	104.0
Silver		1000	2.60		1030	103.0	1.80		1050	105.0
Sodium			-23.5		-16.1		-42.9		-24.2	
Strontium		500	-2.80		491	98.2	-3.10		498	99.6
Sulfur		500	-14.8		486	97.2	-20.4		502	100.4
Thallium		1000	0.500		966	96.6	2.40		987	98.7
Tin		500	-4.70		468	93.6	-4.60		478	95.6
Titanium		500	-3.10		491	98.2	-2.50		504	100.8
Tungsten		500	1.50		485	97.0	0.100		498	99.6
Vanadium		500	2.40		491	98.2	2.80		500	100.0
Zinc		1000	4.60		949	94.9	4.40		979	97.9

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44471 Units: ug/l

Time:			21:37		21:40		00:31		00:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	-2.60		481	96.2	-2.60		491	98.2

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44478
Parameters: Ca,Mg,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:41	MA44478-STD1	1		STDA
11:44	MA44478-STD2	1		STDB
11:47	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:53	MA44478-ICV1	1		
11:56	MA44478-ICB1	1		
11:59	MA44478-CCV1	1		
12:02	MA44478-CCB1	1		
12:05	MA44478-CRI1	1		
12:08	MA44478-CRID1	1		
12:11	MA44478-ICSA1	1		
12:14	MA44478-ICSAB1	1		
12:17	MA44478-HSTD1	1		
12:20	ZZZZZZ	1		
12:23	MA44478-HSTD2	1		
12:26	ZZZZZZ	1		
12:29	MA44478-CCV2	1		
12:32	MA44478-CCB2	1		
12:35	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:47	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:59	MA44478-CCV3	1		
13:02	MA44478-CCB3	1		
13:05	MP7239-S1	1		
13:08	MP7239-S2	1		
13:11	MP7239-S1	5		
13:15	MP7239-S2	5		
13:18	MP7239-D1	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44478
Parameters: Ca,Mg,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:21	TD21085-1	5		(sample used for QC only; not part of login JC66384)
13:24	MP7239-SD1	25		
13:27	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:32	MA44478-CCV4	1		
13:35	MA44478-CCB4	1		
13:38	MP7239-S1	25		
13:41	MP7239-S2	25		
13:44	MP7239-D1	25		
13:47	TD21085-1	25		(sample used for QC only; not part of login JC66384)
13:50	MP7239-SD1	125		
13:53	MP7239-PS1	1		
13:56	MP7239-PS1	5		
13:59	ZZZZZZ	1		
14:02	ZZZZZZ	2		
14:05	MA44478-CCV5	1		
14:08	MA44478-CCB5	1		
14:11	ZZZZZZ	2		
14:14	ZZZZZZ	3		
14:16	ZZZZZZ	1		
14:19	ZZZZZZ	2		
14:22	ZZZZZZ	2		
14:25	JC66384-4	5		
---------->	Last reportable sample/prep for job JC66384			
14:28	ZZZZZZ	5		
14:31	ZZZZZZ	1		
14:34	ZZZZZZ	1		
14:38	MA44478-CCV6	1		
14:40	MA44478-CCB6	1		
14:43	ZZZZZZ	1		
14:46	MA44478-CRI2	1		
14:49	MA44478-CRID2	1		
14:53	MA44478-ICSA2	1		
14:56	MA44478-ICSAB2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44478
Parameters: Ca,Mg,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:59	MA44478-CCV7	1		
15:02	MA44478-CCB7	1		

----------> Last reportable CCB for job JC66384
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44478
Parameters: Ca,Mg,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:41	MA44478-STD1	6413 R	154610 R	23203 R	9930 R
11:44	MA44478-STD2	6130	146320	22900	9263
11:47	ZZZZZZ	6262	149340	23134	9455
11:50	ZZZZZZ	6401	154530	23337	9910
11:53	MA44478-ICV1	6312	150020	23285	9519
11:56	MA44478-ICB1	6472	154420	23407	9997
11:59	MA44478-CCV1	6275	150900	23251	9466
12:02	MA44478-CCB1	6433	155820	23252	9935
12:05	MA44478-CRI1	6430	154800	23310	9882
12:08	MA44478-CRID1	6423	155970	23440	9913
12:11	MA44478-ICSA1	5904	140370	22713	8811
12:14	MA44478-ICSAB1	6105	144810	23393	9071
12:17	MA44478-HSTD1	6391	156180	23426	9937
12:20	ZZZZZZ	999999 !	300350 !	33863 !	999999 !
12:23	MA44478-HSTD2	6025	142440	22855	8860
12:26	ZZZZZZ	6339	152270	23158	9951
12:29	MA44478-CCV2	6279	150250	23122	9457
12:32	MA44478-CCB2	6412	155560	23390	9895
12:35	ZZZZZZ	6325	156230	23610	9925
12:38	ZZZZZZ	6495	157120	23585	10007
12:41	ZZZZZZ	6559	159420	24059	10078
12:44	ZZZZZZ	6425	155520	24009	9710
12:47	ZZZZZZ	6545	158930	23940	10051
12:50	ZZZZZZ	6494	157230	23966	9943
12:53	ZZZZZZ	6459	155750	23519	9944
12:56	ZZZZZZ	6460	155430	23625	9902
12:59	MA44478-CCV3	6333	151150	23399	9513
13:02	MA44478-CCB3	6502	158180	23688	9999
13:05	MP7239-S1	6008	147290	23626	10443
13:08	MP7239-S2	6127	146620	23565	10666
13:11	MP7239-S1	6512	156890	24172	10224
13:15	MP7239-S2	6512	155450	24293	10234
13:18	MP7239-D1	6536	156610	24442	10293

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44478
Parameters: Ca,Mg,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:21	TD21085-1	6522	158080	24141	10215
13:24	MP7239-SD1	6551	156870	23804	10087
13:27	ZZZZZZ	6608	159810	24053	10132
13:30	ZZZZZZ	6361	154690	23492	9623
13:32	MA44478-CCV4	6342	152470	23578	9532
13:35	MA44478-CCB4	6507	157360	23633	10011
13:38	MP7239-S1	6527	157170	23818	10047
13:41	MP7239-S2	6524	158270	23755	10044
13:44	MP7239-D1	6543	157540	23830	10113
13:47	TD21085-1	6550	158590	24007	10091
13:50	MP7239-SD1	6537	157100	23692	10040
13:53	MP7239-PS1	6098	148320	23904	10099
13:56	MP7239-PS1	6456	155900	23832	9966
13:59	ZZZZZZ	6592	158600	24192	9940
14:02	ZZZZZZ	6574	158920	24030	10042
14:05	MA44478-CCV5	6340	152000	23309	9526
14:08	MA44478-CCB5	6524	158010	23476	10029
14:11	ZZZZZZ	6588	158310	24026	9868
14:14	ZZZZZZ	6524	157350	23963	9979
14:16	ZZZZZZ	6675	160720	25063	9888
14:19	ZZZZZZ	6639	159380	24575	9943
14:22	ZZZZZZ	6538	157610	24181	10121
14:25	JC66384-4	6209	149770	23220	9295
14:28	ZZZZZZ	6384	154140	23697	9532
14:31	ZZZZZZ	6521	156290	23493	10002
14:34	ZZZZZZ	6505	156200	23542	9979
14:38	MA44478-CCV6	6316	152110	23226	9492
14:40	MA44478-CCB6	6554	155740	23566	10065
14:43	ZZZZZZ	6530	159100	23832	9997
14:46	MA44478-CRI2	6503	156510	23347	9943
14:49	MA44478-CRID2	6527	156640	23424	10014
14:53	MA44478-ICSA2	5944	140830	22730	8837
14:56	MA44478-ICSAB2	5936	141380	22741	8825

INTERNAL STANDARD SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: ND Run ID: MA44478
Parameters: Ca,Mg,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:59	MA44478-CCV7	6329	151880	23215	9502
15:02	MA44478-CCB7	6490	157160	23390	9955

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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44478 Units: ug/l

Time:			11:56		12:02		12:32		13:02	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	1.30	<5000	4.00	<5000	3.10	<5000	2.60	<5000
Chromium	10	.7	anr							
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	9.70	<5000	23.0	<5000	39.3	<5000	15.8	<5000
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	-0.400	<10	-0.400	<10	0.200	<10	-0.400	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44478 Units: ug/l

Time: / Sample ID:			11:56 ICB1		12:02 CCB1		12:32 CCB2		13:02 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44478 Units: ug/l

Time: / Sample ID:			13:35 CCB4		14:08 CCB5		14:40 CCB6		15:02 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	2.10	<5000	2.90	<5000	4.50	<5000	2.10	<5000
Chromium	10	.7	anr							
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	17.1	<5000	8.20	<5000	28.1	<5000	30.8	<5000
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	0.300	<10	-0.300	<10	-0.400	<10	-0.200	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44478 Units: ug/l

Time:			13:35		14:08		14:40		15:02	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		11:53			11:59			12:29	
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	40000	38900	97.3	40000	39800	99.5	40000	40300	100.8
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	40000	39500	98.8	40000	40100	100.3	40000	40500	101.3
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	250	258	103.2	250	245	98.0	250	248	99.2
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		11:53			11:59			12:29	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		12:59			13:32			14:05	
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	40000	40100	100.3	40000	39600	99.0	40000	39300	98.3
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	40000	40300	100.8	40000	39900	99.8	40000	39600	99.0
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	250	249	99.6	250	248	99.2	250	243	97.2
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		12:59			13:32			14:05	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		14:38			14:59	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium	40000	39200	98.0	40000	39400	98.5
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	40000	39500	98.8	40000	39800	99.5
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	anr					
Silicon						
Silver	250	242	96.8	250	241	96.4
Sodium	anr					
Strontium						
Sulfur	anr					
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		14:38			14:59	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		12:17			12:23	
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				150000	149000	99.3
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium				300000	307000	102.3
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	625	629	100.6			
Sodium						
Strontium						
Sulfur	anr					
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44478 Units: ug/l

Time:		12:17			12:23	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44478 Units: ug/l

Time:				12:05		12:08		14:46	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	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						
Cadmium	3.0		1.0	anr					
Calcium	5000	2000	1000	5130	102.6	1090	109.0	5090	101.8
Chromium	10		2.0	anr					
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	anr					
Lithium	50								
Magnesium	5000	2000	100	5280	105.6	126	126.0	5230	104.6
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	3.90	78.0	0.300U	0.0* (a)	4.50	90.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44478 Units: ug/l

Time:				12:05		12:08		14:46	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium	10								

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44478 Units: ug/l

Time:				14:49	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	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		
Cadmium	3.0		1.0	anr	
Calcium	5000	2000	1000	1050	105.0
Chromium	10		2.0	anr	
Cobalt	50		3.0	anr	
Copper	10		2.0	anr	
Iron	100	500			
Lead	3.0	20	2.5	anr	
Lithium	50				
Magnesium	5000	2000	100	122	122.0
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	-0.400U	0.0* (a)
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50				
Thallium	10		2.0	anr	
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	anr	

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44478 Units: ug/l

Time:				14:49	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec
Zirconium	10				

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44478 Units: ug/l

Time:			12:11		12:14		14:53		14:56	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	508000	101.6	483000	96.6	495000	99.0	502000	100.4
Antimony		1000	7.00		996	99.6	5.30		1030	103.0
Arsenic		1000	1.70		1020	102.0	0.400		1060	106.0
Barium		500	1.40		486	97.2	1.40		502	100.4
Beryllium		500	0.100		469	93.8	0.100		479	95.8
Bismuth		500	6.40		493	98.6	6.10		514	102.8
Boron		500	-0.700		491	98.2	-2.40		505	101.0
Cadmium		1000	0.100		974	97.4	0.200		1010	101.0
Calcium	400000	400000	402000	100.5	373000	93.3	393000	98.3	380000	95.0
Chromium		500	1.20		467	93.4	0.800		482	96.4
Cobalt		500	0.200		477	95.4	0.100		493	98.6
Copper		500	-0.800		483	96.6	0.400		498	99.6
Iron	200000	200000	197000	98.5	191000	95.5	197000	98.5	195000	97.5
Lead		1000	3.80		944	94.4	2.70		973	97.3
Lithium		500	4.10		499	99.8	1.60		512	102.4
Magnesium	500000	500000	500000	100.0	481000	96.2	502000	100.4	493000	98.6
Manganese		500	-0.500		485	97.0	-0.500		501	100.2
Molybdenum		500	0.400		472	94.4	0.400		489	97.8
Nickel		1000	0.200		942	94.2	0.300		976	97.6
Phosphorus		500	3.00		484	96.8	4.40		506	101.2
Potassium			139		124		57.3		72.9	
Selenium		1000	6.00		958	95.8	4.60		992	99.2
Silicon		500	13.2		491	98.2	15.2		508	101.6
Silver		1000	0.300		1010	101.0	-0.100		1040	104.0
Sodium			-12.2		8.70		-34.4		-1.20	
Strontium		500	-3.00		483	96.6	-2.50		497	99.4
Sulfur		500	-18.7		479	95.8	-15.3		491	98.2
Thallium		1000	3.00		938	93.8	-0.100		970	97.0
Tin		500	-5.60		455	91.0	-5.60		467	93.4
Titanium		500	-2.60		483	96.6	-2.00		500	100.0
Tungsten		500	5.10		477	95.4	3.90		489	97.8
Vanadium		500	3.10		482	96.4	3.20		497	99.4
Zinc		1000	4.80		923	92.3	5.00		954	95.4

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: SC052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44478 Units: ug/l

Time:			12:11		12:14		14:53		14:56	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	-2.50		472	94.4	-2.80		487	97.4

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7227 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/18/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0063	.015	-0.0017	<0.033

Associated samples MP7227: JC66384-1, JC66384-2, JC66384-4

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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7227
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/18/18

Metal	JC66357-1 Original	MS	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.0	0.40	0.378	105.8	80-120

Associated samples MP7227: JC66384-1, JC66384-2, JC66384-4

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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7227 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/18/18

Metal	JC66357-1 Original	MSD	Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.42	0.369	113.8	4.9	20

Associated samples MP7227: JC66384-1, JC66384-2, JC66384-4

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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7227
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/18/18

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.37	0.333	111.1	80-120

Associated samples MP7227: JC66384-1, JC66384-2, JC66384-4

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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/21/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	1.9	5.2	0.31	<50
Antimony	2.0	.24	.37	0.26	<2.0
Arsenic	2.0	.12	.25	-0.040	<2.0
Barium	20	.06	.17	0.070	<20
Beryllium	0.20	.02	.049	-0.020	<0.20
Bismuth	2.0	.32	.49		
Boron	10	.15	1.3		
Cadmium	0.50	.04	.057	-0.020	<0.50
Calcium	500	.55	42	8.6	<500
Chromium	1.0	.07	.18	0.040	<1.0
Cobalt	5.0	.04	.07	0.0	<5.0
Copper	2.5	.11	.4	0.11	<2.5
Iron	50	.35	4.6	1.7	<50
Lead	2.0	.22	.34	0.090	<2.0
Lithium	5.0	.34	1.2		
Magnesium	500	2.5	13	4.1	<500
Manganese	1.5	.014	.087	0.020	<1.5
Molybdenum	2.0	.04	.15		
Nickel	4.0	.05	.25	-0.010	<4.0
Phosphorus	10	.2	4.1		
Potassium	1000	6	30	8.0	<1000
Selenium	2.0	.37	.65	-0.25	<2.0
Silicon	20	.18	2.6		
Silver	0.50	.07	.29	-0.040	<0.50
Sodium	1000	3.5	14	6.9	<1000
Strontium	5.0	.02	.96		
Sulfur	10	.31	2.9		
Thallium	1.0	.18	.4	-0.080	<1.0
Tin	10	.09	2.6		
Titanium	1.0	.07	.27		
Tungsten	5.0	.22	1.2		
Vanadium	5.0	.08	.088	0.010	<5.0
Zinc	5.0	.02	3.8	0.39	<5.0

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257 Methods: SW846 6010C
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/21/18

Metal	RL	IDL	MDL	MB raw	final
Zirconium	2.0	.03	.25		

Associated samples MP7257: JC66384-1, JC66384-2, JC66384-4

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: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/21/18

Metal	JC66366-4 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	14600	21000	2800	228.9(a)	75-125
Antimony	0.0	139	224	62.1N(b)	75-125
Arsenic	7.5	210	224	90.5	75-125
Barium	58.0	275	224	97.0	75-125
Beryllium	0.80	204	224	90.8	75-125
Bismuth					
Boron					
Cadmium	0.0	201	224	89.9	75-125
Calcium	772	3210	2800	87.2	75-125
Chromium	17.2	221	224	91.1	75-125
Cobalt	13.2	218	224	91.5	75-125
Copper	22.7	228	224	91.8	75-125
Iron	29800	29900	2800	3.6 (a)	75-125
Lead	16.4	221	224	91.5	75-125
Lithium					
Magnesium	2840	5450	2800	93.3	75-125
Manganese	625	840	224	96.1	75-125
Molybdenum					
Nickel	22.1	229	224	92.5	75-125
Phosphorus					
Potassium	1330	4600	2800	116.9	75-125
Selenium	0.0	195	224	87.2	75-125
Silicon					
Silver	0.0	25.0	28	89.4	75-125
Sodium	45.2	2660	2800	93.5	75-125
Strontium					
Sulfur					
Thallium	0.55	204	224	90.9	75-125
Tin					
Titanium					
Tungsten					
Vanadium	21.9	226	224	91.2	75-125
Zinc	67.9	264	224	87.7	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257 Methods: SW846 6010C
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/21/18

Metal	JC66366-4 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP7257: JC66384-1, JC66384-2, JC66384-4

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
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/21/18

Metal	JC66366-4 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	14600	20000	2850	189.4(a)	4.9	20
Antimony	0.0	135	228	59.2N(b)	2.9	20
Arsenic	7.5	207	228	87.4	1.4	20
Barium	58.0	268	228	92.1	2.6	20
Beryllium	0.80	201	228	87.8	1.5	20
Bismuth						
Boron						
Cadmium	0.0	199	228	87.2	1.0	20
Calcium	772	3150	2850	83.4	1.9	20
Chromium	17.2	218	228	88.0	1.4	20
Cobalt	13.2	214	228	88.0	1.9	20
Copper	22.7	223	228	87.8	2.2	20
Iron	29800	28200	2850	-56.1(a)	5.9	20
Lead	16.4	219	228	88.8	0.9	20
Lithium						
Magnesium	2840	5380	2850	89.1	1.3	20
Manganese	625	750	228	54.8N(b)	11.3	20
Molybdenum						
Nickel	22.1	225	228	88.9	1.8	20
Phosphorus						
Potassium	1330	4420	2850	108.4	4.0	20
Selenium	0.0	193	228	84.6	1.0	20
Silicon						
Silver	0.0	24.4	28.5	85.6	2.4	20
Sodium	45.2	2620	2850	90.3	1.5	20
Strontium						
Sulfur						
Thallium	0.55	202	228	88.3	1.0	20
Tin						
Titanium						
Tungsten						
Vanadium	21.9	222	228	87.7	1.8	20
Zinc	67.9	261	228	84.6	1.1	20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257 Methods: SW846 6010C
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/21/18

Metal	JC66366-4 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP7257: JC66384-1, JC66384-2, JC66384-4

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
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/21/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	2610	2600	100.2	80-120
Antimony	209	208	100.3	80-120
Arsenic	211	208	101.3	80-120
Barium	211	208	101.3	80-120
Beryllium	210	208	100.8	80-120
Bismuth				
Boron				
Cadmium	206	208	98.9	80-120
Calcium	2640	2600	101.4	80-120
Chromium	211	208	101.3	80-120
Cobalt	212	208	101.8	80-120
Copper	208	208	99.8	80-120
Iron	2640	2600	101.4	80-120
Lead	214	208	102.7	80-120
Lithium				
Magnesium	2650	2600	101.8	80-120
Manganese	217	208	104.2	80-120
Molybdenum				
Nickel	213	208	102.2	80-120
Phosphorus				
Potassium	2610	2600	100.2	80-120
Selenium	202	208	97.0	80-120
Silicon				
Silver	25.1	26	96.4	80-120
Sodium	2680	2600	102.9	80-120
Strontium				
Sulfur				
Thallium	212	208	101.8	80-120
Tin				
Titanium				
Tungsten				
Vanadium	209	208	100.3	80-120
Zinc	213	208	102.2	80-120

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/21/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP7257: JC66384-1, JC66384-2, JC66384-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/21/18

Metal	JC66366-4 Original	SDL 1:5	%DIF	QC Limits
Aluminum	125000	123000	1.7	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	64.4	63.2	1.9	0-10
Barium	499	495	0.7	0-10
Beryllium	6.90	6.20	10.1 (a)	0-10
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium	6630	6570	0.9	0-10
Chromium	148	147	0.1	0-10
Cobalt	113	113	0.6	0-10
Copper	195	191	2.0	0-10
Iron	256000	260000	1.3	0-10
Lead	141	143	1.5	0-10
Lithium				
Magnesium	24400	24300	0.5	0-10
Manganese	5370	5550	3.4	0-10
Molybdenum				
Nickel	190	186	2.1	0-10
Phosphorus				
Potassium	11500	11200	2.4	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	388	276	28.9 (a)	0-10
Strontium				
Sulfur				
Thallium	4.70	0.00	100.0(a)	0-10
Tin				
Titanium				
Tungsten				
Vanadium	188	187	0.5	0-10
Zinc	583	585	0.3	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

QC Batch ID: MP7257
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/21/18

Metal	JC66366-4 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP7257: JC66384-1, JC66384-2, JC66384-4

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: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG7 **Effective Date:** 05/08/18

Analyte	IDL ug/l
Mercury	.03769

The above applies to the following instrument runs:
MA44439

Instrument Detection Limits

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE3 **Effective Date:** 03/16/18

Analyte	IDL ug/l
Aluminum	18.9
Antimony	2.4
Arsenic	1.2
Barium	.6
Beryllium	.2
Bismuth	3.2
Boron	1.5
Cadmium	.4
Calcium	5.5
Chromium	.7
Cobalt	.4
Copper	1.1
Iron	3.5
Lead	2.2
Lithium	3.4
Magnesium	24.5
Manganese	.14
Molybdenum	.4
Nickel	.5
Phosphorus	2
Potassium	59.5
Selenium	3.7
Silicon	1.8
Silver	.7
Sodium	34.5
Sulfur	3.1
Strontium	.2
Thallium	1.8
Tin	.9
Titanium	.7
Tungsten	2.2
Vanadium	.8
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA44471,MA44478

Instrument Linear Ranges

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: LEEMANHG7 **Effective Date:** 03/10/17

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA44439

Instrument Linear Ranges

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Instrument ID: SSTRACE3 **Effective Date:** 12/09/15

Analyte	Linear Range ug/l
Aluminum	600000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Bismuth	10000
Boron	10000
Cadmium	10000
Calcium	300000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	300000
Lead	10000
Lithium	10000
Magnesium	600000
Manganese	10000
Molybdenum	10000
Nickel	10000
Palladium	10000
Potassium	300000
Selenium	10000
Silicon	50000
Silver	1250
Sodium	300000
Sulfur	100000
Strontium	10000
Thallium	10000
Tin	10000
Titanium	10000
Tungsten	10000
Vanadium	10000
Zinc	10000
Zirconium	10000

The above applies to the following instrument runs:
MA44471,MA44478

Metals Analysis

Raw Data

MA44439

Method: ACCUTEST Operator: Admin Date of Analysis: 18 May 2018 08:05:29

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	18 May 2018 08:35:49	Std	ug/l	-	-8	1.000	1.000
STDB - 1	18 May 2018 08:37:07	Std	ug/l	-	1588	1.000	1.000
STDC - 1	18 May 2018 08:38:25	Std	ug/l	-	3973	1.000	1.000
STDD - 1	18 May 2018 08:39:46	Std	ug/l	-	7873	1.000	1.000
STDE - 1	18 May 2018 08:41:10	Std	ug/l	-	20885	1.000	1.000
STDF - 1	18 May 2018 08:42:39	Std	ug/l	-	41739	1.000	1.000
ICV - 1	18 May 2018 08:45:04	SMPL	ug/l	2.9760	24766	1.000	1.000
ICB - 1	18 May 2018 08:47:34	SMPL	ug/l	-0.0197	-341	1.000	1.000
CCV - 1	18 May 2018 08:48:53	CK STND	ug/l	102.3% 2.5563	21249	1.000	1.000
CCB - 1	18 May 2018 08:50:12	CK STND	ug/l	-0.0036	-206	1.000	1.000
CRI - 1	18 May 2018 08:51:47	SMPL	ug/l	0.2000	1500	1.000	1.000
MISSEDCUPCONF - 1	18 May 2018 08:53:39	SMPL	ug/l	0.0210	0	1.000	1.000
MP7119-MB2 - 1	18 May 2018 08:56:18	SMPL	ug/l	0.0344	112	1.000	1.000
MP7119-B2 - 1	18 May 2018 08:57:35	SMPL	ug/l	2.2199	18429	1.000	1.000
MISSEDCUPCONF - 1	18 May 2018 08:59:11	SMPL	ug/l	0.0210	0	1.000	1.000
JC63808-28A - 1	18 May 2018 09:00:42	SMPL	ug/l	0.1164	799	1.000	1.000
MP7226-MB1 - 1	18 May 2018 09:02:35	SMPL	ug/l	0.0233	19	1.000	1.000
MP7226-B1 - 1	18 May 2018 09:03:51	SMPL	ug/l	2.1391	17752	1.000	1.000
CCV - 1	18 May 2018 09:05:18	CK STND	ug/l	106.5% 2.6622	22136	1.000	1.000
CCB - 1	18 May 2018 09:06:43	CK STND	ug/l	0.0073	-115	1.000	1.000
MP7226-S1 - 1	18 May 2018 09:08:18	SMPL	ug/l	4.3592	36359	1.000	1.000
MP7226-S2CONF - 1	18 May 2018 09:09:36	SMPL	ug/l	3.8100	31756	1.000	1.000
JC66322-4 - 1	18 May 2018 09:11:16	SMPL	ug/l	2.4516	20371	1.000	1.000
MP7226-S2 - 1	18 May 2018 09:13:49	SMPL	ug/l	4.2376	35340	1.000	1.000
JC66322-3 - 1	18 May 2018 09:15:05	SMPL	ug/l	1.1797	9711	1.000	1.000
JC66322-6 - 1	18 May 2018 09:16:48	SMPL	ug/l	8.1228	67903	1.000	1.000
JC66322-9 - 1	18 May 2018 09:18:21	SMPL	ug/l	0.8841	7234	1.000	1.000
JC66313-1 - 1	18 May 2018 09:20:08	SMPL	ug/l	0.7559	6159	1.000	1.000
CCV - 1	18 May 2018 09:21:40	CK STND	ug/l	103.2% 2.5800	21447	1.000	1.000
CCB - 1	18 May 2018 09:23:08	CK STND	ug/l	0.0029	-152	1.000	1.000
JC66313-2 - 1	18 May 2018 09:24:43	SMPL	ug/l	2.0027	16609	1.000	1.000
JC66313-3 - 1	18 May 2018 09:26:00	SMPL	ug/l	1.0241	8407	1.000	1.000
JC66313-4 - 1	18 May 2018 09:27:36	SMPL	ug/l	0.9440	7736	1.000	1.000
JC66314-1 - 1	18 May 2018 09:29:07	SMPL	ug/l	0.3139	2455	1.000	1.000
JC66314-2 - 1	18 May 2018 09:30:38	SMPL	ug/l	0.1757	1296	1.000	1.000
JC66314-3 - 1	18 May 2018 09:32:00	SMPL	ug/l	0.1887	1405	1.000	1.000
JC66318-1 - 1	18 May 2018 09:33:20	SMPL	ug/l	13.3433	111657	1.000	1.000
JC66322-6 - 1	18 May 2018 09:34:41	SMPL	ug/l	9.1587	15176	1.000	5.000
JC66318-1 - 1	18 May 2018 09:36:31	SMPL	ug/l	13.4254	22328	1.000	5.000
CCV - 1	18 May 2018 09:40:22	CK STND	ug/l	108.6% 2.7154	22582	1.000	1.000
CCB - 1	18 May 2018 09:41:38	CK STND	ug/l	0.0134	-64	1.000	1.000
CCV - 1	18 May 2018 10:21:43	CK STND	ug/l	105.7% 2.6424	21970	1.000	1.000
CCB - 1	18 May 2018 10:22:58	CK STND	ug/l	0.0078	-111	1.000	1.000
JC66346-2 - 1	18 May 2018 10:24:32	SMPL	ug/l	0.6456	5235	1.000	1.000
JC66346-3 - 1	18 May 2018 10:25:50	SMPL	ug/l	3.0799	25637	1.000	1.000
JC66348-6 - 1	18 May 2018 10:27:18	SMPL	ug/l	2.6640	22151	1.000	1.000
JC66348-7 - 1	18 May 2018 10:28:55	SMPL	ug/l	1.1200	9211	1.000	1.000
JC66348-8 - 1	18 May 2018 10:30:30	SMPL	ug/l	0.0320	92	1.000	1.000
JC66385-2 - 1	18 May 2018 10:32:00	SMPL	ug/l	0.2415	1848	1.000	1.000
MP7227-MB1 - 1	18 May 2018 10:33:18	SMPL	ug/l	-0.0102	-262	1.000	1.000
MP7227-B1 - 1	18 May 2018 10:34:41	SMPL	ug/l	2.2124	18366	1.000	1.000
CCV - 1	18 May 2018 10:35:58	CK STND	ug/l	104.2% 2.6047	21654	1.000	1.000
CCB - 1	18 May 2018 10:37:31	CK STND	ug/l	0.0010	-168	1.000	1.000
MP7227-S1 - 1	18 May 2018 10:39:04	SMPL	ug/l	2.1385	17747	1.000	1.000
MP7227-S2 - 1	18 May 2018 10:40:21	SMPL	ug/l	2.2617	18780	1.000	1.000
JC66357-1 - 1	18 May 2018 10:43:20	SMPL	ug/l	0.0250	33	1.000	1.000
JC66368-5 - 1	18 May 2018 10:44:40	SMPL	ug/l	0.0530	268	1.000	1.000
JC66368-15 - 1	18 May 2018 10:45:59	SMPL	ug/l	0.1999	1499	1.000	1.000
JC66368-16 - 1	18 May 2018 10:47:19	SMPL	ug/l	0.3909	3100	1.000	1.000
JC66380-1 - 1	18 May 2018 10:48:41	SMPL	ug/l	0.1022	680	1.000	1.000
JC66380-2 - 1	18 May 2018 10:50:05	SMPL	ug/l	0.0431	185	1.000	1.000
JC66384-1 - 1	18 May 2018 10:51:24	SMPL	ug/l	1.6404	13572	1.000	1.000
CCV - 1	18 May 2018 10:52:43	CK STND	ug/l	101.4% 2.5359	21078	1.000	1.000
CCB - 1	18 May 2018 10:54:15	CK STND	ug/l	0.0037	-145	1.000	1.000
JC66384-2 - 1	18 May 2018 10:55:48	SMPL	ug/l	0.8495	6944	1.000	1.000
JC66384-4 - 1	18 May 2018 10:57:05	SMPL	ug/l	0.3040	2372	1.000	1.000
JC66378-3 - 1	18 May 2018 10:58:35	SMPL	ug/l	0.4420	3528	1.000	1.000
JC66346-1 - 1	18 May 2018 10:59:56	SMPL	ug/l	0.4936	3961	1.000	1.000
CRI - 1	18 May 2018 11:01:58	SMPL	ug/l	0.2156	1631	1.000	1.000

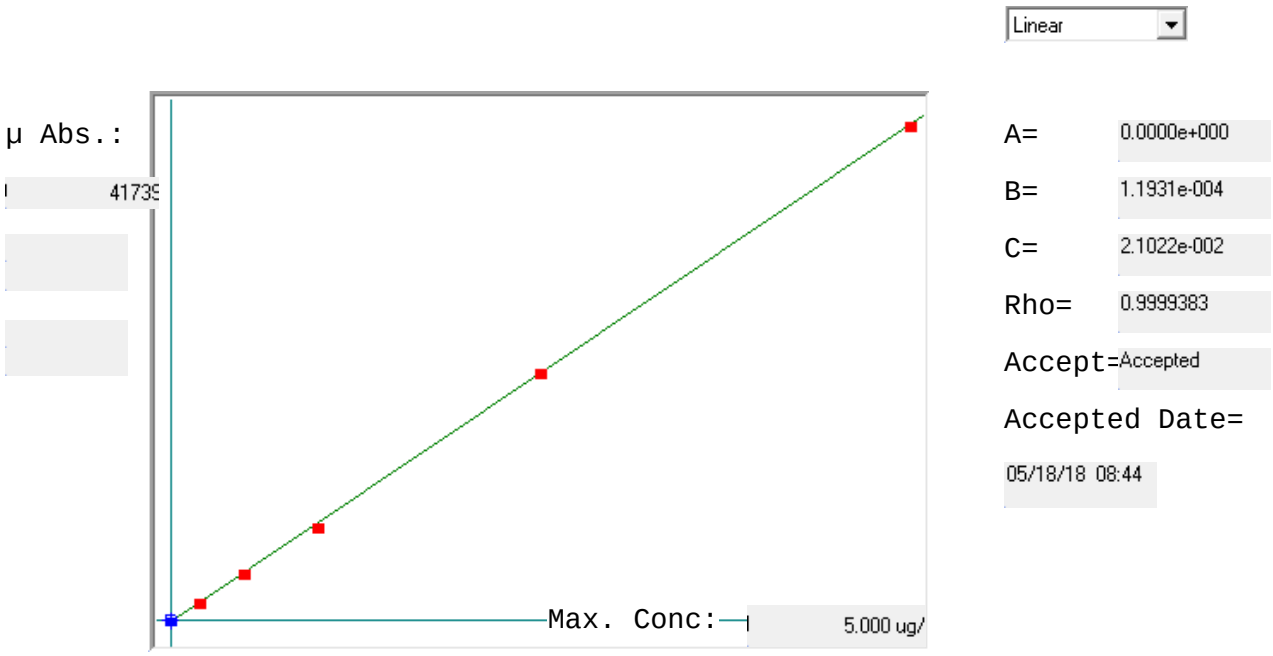
Page : 1

MA44439

Method: ACCUTEST Operator: Admin Date of Analysis: 18 May 2018 08:05:29

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
CCV - 1	18 May 2018 11:03:36	CK STND	ug/l	104.6% 2.6158	21747	1.000	1.000
CCB - 1	18 May 2018 11:04:52	CK STND	ug/l	0.0025	-155	1.000	1.000
CCV - 1	18 May 2018 12:37:32	CK STND	ug/l	107.1% 2.6783	22271	1.000	1.000
CCB - 1	18 May 2018 12:38:49	CK STND	ug/l	0.0091	-100	1.000	1.000
JC66402-1 - 1	18 May 2018 12:40:22	SMPL	ug/l	0.2304	1755	1.000	1.000
CCV - 1	18 May 2018 12:43:35	CK STND	ug/l	103.7% 2.5921	21549	1.000	1.000
CCB - 1	18 May 2018 12:44:53	CK STND	ug/l	0.0005	-172	1.000	1.000

ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.020	0.020	-8	0.000	-8				
STDB	0.200	0.210	0.010	1588	0.0 %	1588				
STDC	0.500	0.495	-0.005	3973	0.0 %	3973				
STDD	1.000	0.960	-0.040	7873	0.0 %	7873				
STDE	2.500	2.513	0.013	20885	0.0 %	20885				
STDF	5.000	5.001	0.001	41739	0.0 %	41739				

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/21/2018 21:04:29 Type: Cal
Method: Accutest XPress(v324) 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	**.0040**	**-.0002**	**.0004**	**.0003**	**-.0001**	**.0036**	**.0001**	**.0001**	**-.0004**
Stddev	.0002	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000
%RSD	5.363	80.42	25.28	31.25	20.63	.5181	14.53	2.793	3.682
#1	.0041	-.0002	.0004	.0002	-.0001	.0036	.0001	.0001	-.0004
#2	.0038	-.0001	.0003	.0004	-.0001	.0037	.0001	.0001	-.0004

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	**.0001**	**.0006**	**-.0003**	**-.0003**	**-.0000**	**-.0001**	**.0002**	**-.0008**	**.0051**
Stddev	.0000	.0001	.0001	.0001	.0000	.0002	.0001	.0001	.0003
%RSD	16.23	11.25	31.86	25.46	11.33	214.0	35.58	11.92	4.895
#1	.0001	.0005	-.0002	-.0003	-.0000	-.0002	.0001	-.0008	.0053
#2	.0002	.0006	-.0003	-.0002	-.0000	.0000	.0002	-.0007	.0050

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**	**-.0002**	**-.0041**	**-.0054**	**.0004**	**-.0008**	**.0028**	**.0002**	**.0004**
Stddev	.0001	.0001	.0003	.0003	.0001	.0000	.0001	.0000	.0001
%RSD	73.60	24.30	7.975	5.475	22.74	3.360	2.468	19.85	27.82
#1	.0002	-.0003	-.0039	-.0052	.0005	-.0008	.0028	.0002	.0005
#2	.0001	-.0002	-.0043	-.0056	.0003	-.0008	.0029	.0003	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**.0010**	**-.0006**	**-.0029**	**.0002**	**.0004**	**-.0055**
Stddev	.0000	.0004	.0001	.0001	.0001	.0002	.0002
%RSD	2953.	39.04	17.96	3.048	26.83	54.03	3.237
#1	.0000	.0007	-.0007	-.0029	.0002	.0006	-.0057
#2	-.0000	.0013	-.0006	-.0028	.0003	.0003	-.0054

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/21/2018 21:04:29 Type: Cal
Method: Accutest XPress(v324) 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	**148670.**	**23430.**	**6092.8**	**9534.2**
Stddev	1218.	408.	14.4	17.7
%RSD	.81955	1.7427	.23573	.18578
#1	147810.	23141.	6102.9	9546.8
#2	149530.	23719.	6082.6	9521.7

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/21/2018 21:07:31 Type: Cal
Method: Accutest XPress(v324) 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	**6.042**	**7.489**	**3.682**	**2.161**	**.4092**	**.7559**	**2.444**	**1.716**	**.0556**
Stddev	.018	.005	.033	.017	.0066	.0109	.043	.014	.0010
%RSD	.3052	.0723	.8981	.7913	1.621	1.442	1.765	.8345	1.725
#1	6.055	7.492	3.659	2.149	.4045	.7482	2.414	1.706	.0550
#2	6.029	7.485	3.706	2.173	.4139	.7636	2.475	1.726	.0563

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	**.6236**	**4.812**	**.4023**	**.2617**	**.7196**	**.2946**	**.4995**	**2.363**	**5.208**
Stddev	.0086	.039	.0035	.0020	.0068	.0028	.0044	.001	.003
%RSD	1.376	.8131	.8623	.7567	.9447	.9473	.8842	.0413	.0659
#1	.6175	4.784	.3998	.2603	.7148	.2927	.4964	2.364	5.210
#2	.6297	4.840	.4047	.2631	.7244	.2966	.5026	2.362	5.205

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	**3.413**	**.5542**	**1.092**	**4.703**	**.8294**	**2.531**	**1.683**	**.7757**	**9.975**
Stddev	.005	.0008	.004	.010	.0082	.020	.015	.0057	.017
%RSD	.1546	.1465	.3849	.2152	.9851	.8013	.9037	.7360	.1702
#1	3.417	.5548	1.089	4.710	.8236	2.517	1.673	.7716	9.987
#2	3.409	.5536	1.095	4.696	.8352	2.545	1.694	.7797	9.963

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5195**	**1.185**	**1.509**	**.1949**	**.5296**	**1.358**	**.4624**
Stddev	.0069	.010	.021	.0023	.0053	.001	.0040
%RSD	1.325	.8093	1.373	1.170	.9919	.0987	.8721
#1	.5146	1.178	1.494	.1932	.5259	1.359	.4596
#2	.5243	1.192	1.524	.1965	.5333	1.357	.4653

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/21/2018 21:07:31 Type: Cal
Method: Accutest XPress(v324) 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	**140220.**	**22626.**	**5806.9**	**8875.1**
Stddev	1685.	60.	3.0	5.2
%RSD	1.2016	.26702	.05132	.05877
#1	141410.	22583.	5804.8	8871.4
#2	139030.	22669.	5809.0	8878.8

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 5/21/2018 21:10:27 Type: QC
Method: Accutest XPress(v324) 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**	**2.012**	**1.997**	**2.028**	**2.023**	**1.997**	**2.080**	**2.034**	**.2535**
Stddev	.016	.016	.014	.014	.005	.000	.012	.013	.0001
%RSD	.8152	.7966	.7044	.6884	.2529	.0207	.5728	.6351	.0283
#1	1.991	2.001	1.987	2.018	2.026	1.998	2.088	2.025	.2536
#2	2.014	2.023	2.007	2.037	2.019	1.997	2.071	2.043	.2535
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	**2.017**	**2.028**	**2.015**	**2.031**	**2.030**	**1.994**	**2.024**	**39.86**	**40.32**
Stddev	.008	.012	.017	.018	.019	.012	.015	.38	.39
%RSD	.4061	.6108	.8641	.8996	.9303	.5826	.7184	.9457	.9757
#1	2.023	2.019	2.003	2.019	2.016	1.986	2.014	39.59	40.04
#2	2.012	2.037	2.027	2.044	2.043	2.002	2.034	40.13	40.60
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**	**40.42**	**40.20**	**40.40**	**2.018**	**2.028**	**5.089**	**2.046**	**2.003**
Stddev	.32	.42	.51	.38	.015	.015	.041	.015	.018
%RSD	.7972	1.050	1.277	.9358	.7318	.7479	.8043	.7072	.8898
#1	40.04	40.12	39.84	40.13	2.008	2.017	5.060	2.036	1.990
#2	40.49	40.72	40.56	40.66	2.029	2.038	5.118	2.056	2.015
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: 5/21/2018 21:10:27 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.031**	**2.008**	**2.034**	**1.970**	**2.034**	**2.017**	**1.998**
Stddev	.012	.014	.005	.018	.016	.017	.013
%RSD	.5742	.6976	.2488	.8938	.8062	.8269	.6546
#1	2.039	1.998	2.038	1.958	2.022	2.005	1.989
#2	2.022	2.018	2.031	1.983	2.045	2.029	2.007
Check ?	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	**143510.**	**22885.**	**5943.2**	**9061.6**
Stddev	1026.	189.	19.5	30.3
%RSD	.71456	.82578	.32743	.33461
#1	142780.	23018.	5929.5	9040.1
#2	144230.	22751.	5957.0	9083.0

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 5/21/2018 21:13:17 Type: QC
Method: Accutest XPress(v324) 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**	**.0000**	**-.0003**	**-.0001**	**.0001**	**.0000**	**-.0000**	**-.0004**	**.0000**
Stddev	.0003	.0001	.0003	.0000	.0001	.0005	.0001	.0003	.0001
%RSD	64.74	387.3	106.6	32.94	177.6	1256.	117.6	70.90	341.4
#1	.0007	.0001	-.0005	-.0001	-.0000	-.0003	-.0001	-.0002	.0001
#2	.0003	-.0001	-.0001	-.0000	.0002	.0004	-.0000	-.0006	-.0000
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**	**-.0008**	**.0001**	**.0004**	**.0000**	**-.0022**	**.0001**	**.0001**	**-.0111**
Stddev	.0002	.0001	.0011	.0016	.0005	.0012	.0001	.0040	.0009
%RSD	103.8	13.56	966.0	428.8	1223.	55.06	66.26	4504.	8.336
#1	-.0003	-.0009	-.0006	.0015	-.0003	-.0013	.0000	-.0027	-.0104
#2	-.0000	-.0007	.0009	-.0008	.0004	-.0030	.0001	.0029	-.0117
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**	**-.0025**	**-.0283**	**-.0104**	**.0058**	**.0004**	**-.0023**	**.0002**	**-.0000**
Stddev	.0008	.0029	.0249	.0023	.0011	.0000	.0016	.0006	.0001
%RSD	49.04	112.1	88.03	22.45	19.05	3.554	69.21	294.0	280.5
#1	-.0021	-.0005	-.0107	-.0121	.0066	.0004	-.0034	-.0002	-.0001
#2	-.0010	-.0046	-.0459	-.0088	.0050	.0004	-.0012	.0006	.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: 5/21/2018 21:13:17 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0012**	**.0001**	**.0017**	**-.0004**	**.0016**	**.0014**
Stddev	.0004	.0002	.0001	.0025	.0003	.0037	.0008
%RSD	150.2	20.25	84.71	143.4	69.27	223.4	52.41
#1	-.0005	-.0013	.0000	-.0000	-.0002	-.0010	.0020
#2	.0000	-.0010	.0002	.0035	-.0006	.0042	.0009
Check ?	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	**150030.**	**23268.**	**6138.0**	**9604.8**
Stddev	986.	118.	11.9	16.3
%RSD	.65746	.50817	.19419	.17011
#1	150730.	23184.	6146.5	9616.4
#2	149340.	23351.	6129.6	9593.2

Zoom In Zoom Out

Sample Name: icv Acquired: 5/21/2018 21:19:33 Type: QC
Method: Accutest XPress(v324) 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	**1.967**	**1.989**	**1.938**	**2.007**	**1.933**	**1.927**	**2.022**	**1.968**	**.2490**
Stddev	.009	.005	.009	.009	.012	.010	.009	.009	.0015
%RSD	.4493	.2466	.4742	.4318	.5997	.5179	.4357	.4404	.6181
#1	1.961	1.985	1.931	2.001	1.941	1.934	2.028	1.962	.2501
#2	1.973	1.992	1.944	2.013	1.924	1.920	2.015	1.974	.2479
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	**1.969**	**1.956**	**2.000**	**1.976**	**1.982**	**1.999**	**1.992**	**39.31**	**39.03**
Stddev	.007	.009	.016	.010	.011	.011	.010	.11	.15
%RSD	.3619	.4522	.7884	.4897	.5507	.5524	.5103	.2908	.3782
#1	1.974	1.950	1.989	1.969	1.974	1.991	1.985	39.23	38.92
#2	1.964	1.962	2.011	1.983	1.989	2.006	1.999	39.39	39.13
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	**38.74**	**39.20**	**39.06**	**40.24**	**1.991**	**1.965**	**5.026**	**1.964**	**1.968**
Stddev	.13	.24	.35	.24	.008	.007	.026	.009	.009
%RSD	.3303	.6074	.8969	.5853	.3958	.3479	.5107	.4690	.4761
#1	38.65	39.03	38.81	40.08	1.986	1.961	5.008	1.957	1.961
#2	38.83	39.37	39.31	40.41	1.997	1.970	5.044	1.970	1.974
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 Acquired: 5/21/2018 21:19:33 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.989**	**2.009**	**1.978**	**1.947**	**1.972**	**1.962**	**1.955**
Stddev	.011	.003	.009	.004	.010	.018	.012
%RSD	.5744	.1318	.4597	.2311	.5270	.9147	.5974
#1	1.997	2.007	1.984	1.944	1.965	1.950	1.947
#2	1.981	2.011	1.971	1.950	1.980	1.975	1.964
Check ?	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	**147190.**	**23743.**	**6112.5**	**9286.4**
Stddev	556.	116.	20.0	35.1
%RSD	.37753	.49059	.32742	.37767
#1	146800.	23825.	6098.4	9261.6
#2	147580.	23660.	6126.7	9311.2

Zoom In Zoom Out

Sample Name: icb Acquired: 5/21/2018 21:22:24 Type: QC
Method: Accutest XPress(v324) 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**	**-.0003**	**.0000**	**-.0001**	**-.0003**	**-.0001**
Stddev	.0002	.0001	.0002	.0003	.0002	.0003	.0000	.0001	.0000
%RSD	210.2	299.9	436.0	1498.	60.51	1204.	68.27	39.94	90.49
#1	-.0002	.0000	.0002	.0003	-.0005	.0003	-.0001	-.0002	-.0001
#2	.0000	-.0001	-.0001	-.0002	-.0002	-.0002	-.0000	-.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0006**	**.0008**	**-.0001**	**.0012**	**-.0018**	**.0001**	**.0003**	**-.0070**
Stddev	.0000	.0000	.0003	.0003	.0013	.0019	.0010	.0058	.0014
%RSD	10.92	4.233	41.77	351.2	105.6	102.6	1558.	1872.	20.19
#1	.0001	-.0006	.0006	.0001	.0021	-.0005	.0007	.0044	-.0080
#2	.0002	-.0006	.0010	-.0003	.0003	-.0031	-.0006	-.0038	-.0060
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	**.0003**	**.0145**	**-.0301**	**-.0094**	**.0038**	**.0004**	**-.0038**	**-.0005**	**.0000**
Stddev	.0011	.0145	.0489	.0069	.0010	.0004	.0004	.0007	.0002
%RSD	383.4	99.87	162.5	73.14	26.91	119.3	10.24	147.7	1130.
#1	.0010	.0248	-.0647	-.0142	.0045	.0006	-.0041	-.0010	.0001
#2	-.0005	.0043	.0045	-.0045	.0031	.0001	-.0035	.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: icb Acquired: 5/21/2018 21:22:24 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	F **.0058**	**.0006**	**-.0004**	**-.0017**	F **.0053**	**.0010**
Stddev	.0001	.0007	.0001	.0015	.0012	.0027	.0002
%RSD	74.19	12.27	11.94	394.9	71.26	50.61	22.02
#1	-.0003	.0053	.0006	-.0015	-.0025	.0072	.0012
#2	-.0001	.0063	.0005	.0007	-.0008	.0034	.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		.0050				.0040	
Low Limit		-.0050				-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150900.**	**23814.**	**6186.1**	**9684.6**
Stddev	719.	35.	14.3	16.4
%RSD	.47664	.14572	.23080	.16938
#1	150390.	23838.	6196.2	9696.2
#2	151410.	23789.	6176.0	9673.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/21/2018 21:25:27 Type: QC
Method: Accutest XPress(v324) 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	**1.995**	**1.997**	**1.961**	**2.000**	**1.972**	**1.946**	**2.032**	**2.006**	**.2474**
Stddev	.010	.008	.009	.012	.009	.007	.004	.011	.0009
%RSD	.5183	.3925	.4386	.5797	.4528	.3781	.1972	.5509	.3525
#1	2.002	2.002	1.955	1.992	1.978	1.951	2.035	1.998	.2480
#2	1.988	1.991	1.967	2.008	1.966	1.941	2.029	2.013	.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	**1.974**	**1.985**	**1.981**	**2.003**	**2.002**	**1.965**	**1.993**	**39.53**	**39.95**
Stddev	.006	.006	.008	.010	.013	.011	.009	.17	.13
%RSD	.3114	.3041	.3975	.5137	.6688	.5758	.4515	.4317	.3253
#1	1.978	1.981	1.976	1.996	1.992	1.957	1.987	39.66	40.04
#2	1.969	1.989	1.987	2.010	2.011	1.973	1.999	39.41	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	**39.96**	**40.03**	**39.68**	**40.03**	**1.979**	**1.996**	**5.005**	**2.007**	**1.994**
Stddev	.17	.11	.01	.08	.011	.007	.027	.002	.008
%RSD	.4207	.2788	.0138	.2057	.5455	.3354	.5307	.0806	.4116
#1	40.08	40.11	39.67	40.09	1.971	1.992	4.986	2.006	1.999
#2	39.84	39.95	39.68	39.97	1.987	2.001	5.024	2.008	1.988
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: 5/21/2018 21:25:27 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**1.980**	**1.993**	**1.944**	**2.005**	**2.002**	**1.962**
Stddev	.004	.006	.005	.015	.011	.007	.002
%RSD	.1969	.2900	.2777	.7899	.5464	.3572	.1116
#1	1.994	1.976	1.997	1.933	1.997	2.007	1.961
#2	1.988	1.985	1.990	1.954	2.013	1.997	1.964
Check ?	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	**148350.**	**23729.**	**6108.5**	**9286.2**
Stddev	537.	.	40.6	45.6
%RSD	.36222	.00013	.66496	.49079
#1	147970.	23729.	6079.8	9254.0
#2	148730.	23729.	6137.2	9318.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/21/2018 21:28:17 Type: QC
Method: Accutest XPress(v324) 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**	**-.0001**	**-.0002**	**-.0002**	**-.0000**	**-.0002**	**.0001**
Stddev	.0004	.0000	.0002	.0002	.0000	.0002	.0000	.0001	.0002
%RSD	739.7	19.89	235.3	184.4	18.13	158.6	189.1	43.49	176.3
#1	-.0002	-.0000	-.0003	.0000	-.0003	.0000	.0000	-.0002	.0002
#2	.0003	-.0001	.0001	-.0003	-.0002	-.0003	-.0001	-.0001	-.0000
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**	**-.0006**	**.0009**	**-.0007**	**-.0001**	**-.0019**	**-.0002**	**-.0033**	**-.0060**
Stddev	.0001	.0002	.0002	.0003	.0006	.0001	.0006	.0069	.0019
%RSD	79.44	25.44	21.27	43.04	708.6	3.263	290.5	208.8	31.43
#1	-.0001	-.0005	.0007	-.0009	-.0005	-.0019	-.0007	-.0082	-.0047
#2	-.0003	-.0007	.0010	-.0005	.0003	-.0020	.0002	.0016	-.0074
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**	**.0178**	**.0196**	**-.0125**	**.0043**	**.0002**	**-.0017**	**.0005**	**.0001**
Stddev	.0021	.0072	.0005	.0163	.0002	.0000	.0012	.0008	.0001
%RSD	55.50	40.57	2.578	130.5	4.568	3.522	72.10	157.8	57.59
#1	-.0023	.0127	.0200	-.0010	.0041	.0002	-.0008	-.0001	.0001
#2	-.0053	.0229	.0193	-.0240	.0044	.0002	-.0026	.0010	.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: 5/21/2018 21:28:17 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0013**	**.0005**	**.0014**	**-.0013**	**.0027**	**.0009**
Stddev	.0003	.0006	.0001	.0023	.0001	.0000	.0008
%RSD	282.8	45.87	14.02	158.9	3.906	1.017	81.17
#1	.0001	.0008	.0005	.0031	-.0013	.0027	.0004
#2	-.0003	.0017	.0006	-.0002	-.0014	.0028	.0015
Check ?	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	**153060.**	**24119.**	**6255.1**	**9755.5**
Stddev	826.	80.	20.4	33.8
%RSD	.53975	.33016	.32540	.34644
#1	152470.	24063.	6269.5	9779.4
#2	153640.	24175.	6240.7	9731.6

Zoom In Zoom Out

Sample Name: CRI Acquired: 5/21/2018 21:31:21 Type: QC
Method: Accutest XPress(v324) 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	**.2026**	**.0019**	**.0030**	**.0512**	**.0100**	**.0101**	**.0161**	**.0108**
Stddev	.0025	.0000	.0001	.0002	.0003	.0001	.0002	.0004
%RSD	1.212	1.298	2.570	.3208	3.085	.6992	1.141	3.502
#1	.2008	.0019	.0030	.0511	.0102	.0101	.0162	.0110
#2	.2043	.0019	.0029	.0513	.0098	.0100	.0159	.0105
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	W **.0038**	**.0503**	**.0204**	**.0078**	**.0107**	**.0033**	**.0113**	**.0062**
Stddev	.0002	.0010	.0002	.0011	.0009	.0003	.0014	.0002
%RSD	4.236	1.968	.8949	14.27	8.148	7.738	12.62	2.730
#1	.0037	.0510	.0206	.0070	.0113	.0035	.0103	.0060
#2	.0039	.0496	.0203	.0086	.0101	.0031	.0124	.0063
Check ?	Chk Warn	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	**.1995**	**5.166**	**.1016**	**5.279**	**5.148**	**5.189**	**.1022**	**.0208**
Stddev	.0105	.046	.0031	.073	.159	.057	.0004	.0002
%RSD	5.248	.8948	3.086	1.392	3.097	1.105	.3960	.9920
#1	.1921	5.133	.0994	5.227	5.035	5.148	.1019	.0206
#2	.2069	5.199	.1038	5.331	5.260	5.229	.1025	.0209
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: 5/21/2018 21:31:21 Type: QC
Method: Accutest XPress(v324) 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	**.2141**	**.0096**	**.0100**	**.0099**	**.0517**	**.0116**	**.0544**	**.0227**
Stddev	.0010	.0002	.0000	.0001	.0003	.0000	.0009	.0007
%RSD	.4536	1.919	.4030	1.230	.6319	.4048	1.617	3.099
#1	.2134	.0097	.0100	.0098	.0519	.0116	.0550	.0232
#2	.2148	.0094	.0101	.0100	.0514	.0115	.0538	.0222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0575**	**.0504**
Stddev	.0038	.0001
%RSD	6.637	.2960
#1	.0548	.0503
#2	.0602	.0506
Check ?	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	**151910.**	**23695.**	**6215.8**	**9654.5**
Stddev	1212.	109.	37.7	54.3
%RSD	.79779	.45844	.60587	.56238
#1	151050.	23772.	6189.2	9616.1
#2	152760.	23618.	6242.4	9692.9

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/21/2018 21:34:22 Type: QC
Method: Accutest XPress(v324) 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**	**.0010**	**.0009**	**.0032**	**.0017**	F **-.0001**	**.0032**	**.0039**
Stddev	.0002	.0001	.0000	.0000	.0003	.0002	.0001	.0001
%RSD	4.341	6.237	1.615	.0884	17.54	239.9	2.314	3.124
#1	.0043	.0009	.0009	.0031	.0019	-.0003	.0031	.0038
#2	.0040	.0010	.0009	.0032	.0015	.0001	.0032	.0040
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 **.0000**	**.0021**	**.0106**	**.0033**	F **.0013**	F **.0007**	F **.0024**	F **.0008**
Stddev	.0006	.0003	.0002	.0008	.0017	.0004	.0026	.0027
%RSD	1450.	12.01	1.618	24.12	131.9	53.90	106.2	334.3
#1	-.0004	.0023	.0104	.0038	.0001	.0005	.0006	-.0011
#2	.0004	.0019	.0107	.0027	.0024	.0010	.0042	.0027
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%				-30.00%	-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	**.0994**	**1.068**	**-.0016**	F **.1346**	**2.164**	**1.092**	**.0025**	**.0005**
Stddev	.0240	.001	.0015	.0093	.008	.011	.0000	.0002
%RSD	24.19	.0902	93.80	6.924	.3643	1.031	.5776	46.71
#1	.0824	1.069	-.0027	.1412	2.158	1.100	.0025	.0003
#2	.1164	1.067	-.0005	.1280	2.169	1.084	.0026	.0006
Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	None	None
Value				.1000				
Range				30.00%				

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/21/2018 21:34:22 Type: QC
Method: Accutest XPress(v324) 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	**.0095**	**-.0001**	**-.0000**	**-.0004**	**.0006**	**.0002**	**.0022**	**.0009**
Stddev	.0009	.0005	.0000	.0002	.0007	.0001	.0005	.0009
%RSD	9.329	718.6	33.76	47.44	118.8	71.11	25.21	97.75
#1	.0088	-.0004	-.0001	-.0006	.0001	.0003	.0025	.0003
#2	.0101	.0003	-.0000	-.0003	.0011	.0001	.0018	.0015
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0017**	**.0021**
Stddev	.0001	.0003
%RSD	8.406	15.96
#1	.0018	.0024
#2	.0016	.0019
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**154520.**	**24043.**	**6271.9**	**9791.9**
Stddev	312.	76.	23.5	44.0
%RSD	.20168	.31440	.37513	.44968
#1	154300.	23990.	6255.3	9760.8
#2	154740.	24097.	6288.6	9823.0

Zoom In Zoom Out

Sample Name: ICSA Acquired: 5/21/2018 21:37:25 Type: QC
Method: Accutest XPress(v324) 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	**.0015**	**-.0001**	**.0002**	**-.0001**	**.0005**	**-.0000**	**-.0001**	**-.0006**	**.0026**
Stddev	.0001	.0001	.0001	.0001	.0000	.0003	.0000	.0001	.0002
%RSD	7.576	81.11	56.40	99.98	5.772	824.4	25.84	21.85	8.684
#1	.0016	-.0001	.0002	-.0002	.0005	.0002	-.0002	-.0007	.0028
#2	.0014	-.0000	.0001	-.0000	.0005	-.0002	-.0001	-.0005	.0024
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	**.0024**	**.0046**	**-.0013**	**.0005**	**.0008**	**-.0003**	**.0056**	**507.6**	**394.6**
Stddev	.0001	.0001	.0015	.0010	.0017	.0032	.0022	3.2	4.4
%RSD	3.114	1.418	123.4	199.1	220.3	1197.	39.77	.6235	1.124
#1	.0023	.0046	-.0002	-.0002	.0020	-.0025	.0040	505.4	397.7
#2	.0024	.0047	-.0023	.0013	-.0004	.0020	.0072	509.8	391.4
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	**200.0**	**508.2**	**.1157**	**-.0235**	**.0011**	**.0001**	**.0135**	**-.0047**	**-.0028**
Stddev	.5	1.2	.0502	.0037	.0007	.0010	.0003	.0002	.0003
%RSD	.2274	.2456	43.38	15.52	68.46	821.7	1.991	3.622	9.398
#1	200.3	509.0	.1512	-.0261	.0005	-.0006	.0134	-.0046	-.0030
#2	199.6	507.3	.0802	-.0209	.0016	.0008	.0137	-.0048	-.0026
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: 5/21/2018 21:37:25 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0031**	**.0015**	**-.0026**	**-.0148**	**.0098**	**.0043**	**.0092**
Stddev	.0001	.0011	.0001	.0034	.0016	.0029	.0001
%RSD	3.955	70.11	4.612	23.12	16.70	67.96	.5974
#1	-.0030	.0008	-.0026	-.0172	.0109	.0063	.0092
#2	-.0032	.0023	-.0025	-.0124	.0086	.0022	.0093
Check ?	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	**136410.**	**23128.**	**5662.9**	**8524.2**
Stddev	9.	65.	7.6	12.5
%RSD	.00632	.27917	.13503	.14709
#1	136410.	23082.	5657.5	8515.4
#2	136420.	23174.	5668.3	8533.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/21/2018 21:40:31 Type: QC
Method: Accutest XPress(v324) 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	**.4928**	**.4806**	**.9954**	**.4874**	**.4752**	**.4906**	**.4985**	**.9621**	**1.026**
Stddev	.0008	.0022	.0054	.0030	.0029	.0031	.0029	.0052	.007
%RSD	.1705	.4629	.5431	.6238	.6145	.6331	.5733	.5405	.6557
#1	.4922	.4790	.9916	.4852	.4732	.4884	.4964	.9584	1.021
#2	.4933	.4822	.9993	.4895	.4773	.4928	.5005	.9658	1.031
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	**.4906**	**.9494**	**1.046**	**.9660**	**.9674**	**.9764**	**1.022**	**493.0**	**388.5**
Stddev	.0026	.0038	.004	.0108	.0021	.0045	.002	3.2	5.2
%RSD	.5366	.3950	.3311	1.114	.2218	.4609	.2378	.6417	1.347
#1	.4887	.9468	1.043	.9583	.9659	.9732	1.020	490.7	392.2
#2	.4925	.9521	1.048	.9736	.9689	.9796	1.024	495.2	384.8
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	**195.3**	**493.2**	**.1473**	**-.0161**	**.5010**	**.4815**	**.5035**	**.4684**	**.4907**
Stddev	.7	1.7	.0224	.0030	.0039	.0030	.0018	.0001	.0019
%RSD	.3605	.3524	15.18	18.89	.7734	.6326	.3608	.0292	.3777
#1	194.8	492.0	.1631	-.0140	.4983	.4794	.5022	.4685	.4893
#2	195.8	494.5	.1315	-.0183	.5038	.4837	.5048	.4683	.4920
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: 5/21/2018 21:40:31 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4905**	**.4849**	**.4812**	**.4856**	**.5055**	**.5083**	**.5005**
Stddev	.0010	.0033	.0021	.0080	.0045	.0054	.0031
%RSD	.2027	.6713	.4462	1.656	.8832	1.068	.6273
#1	.4898	.4826	.4797	.4800	.5023	.5044	.4983
#2	.4912	.4873	.4827	.4913	.5086	.5121	.5027
Check ?	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	**138350.**	**23017.**	**5798.2**	**8718.0**
Stddev	375.	89.	40.6	53.0
%RSD	.27083	.38488	.70090	.60816
#1	138610.	23079.	5769.4	8680.5
#2	138080.	22954.	5826.9	8755.5

Zoom In Zoom Out

Sample Name: HSTD 2 Acquired: 5/21/2018 21:43:33 Type: QC
Method: Accutest XPress(v324) 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	**4.946**	**4.844**	**4.981**	**5.047**	**5.060**	**5.054**	**5.104**	**5.077**	**.6208**
Stddev	.013	.045	.043	.030	.004	.017	.039	.029	.0036
%RSD	.2656	.9253	.8577	.6009	.0721	.3277	.7651	.5802	.5871
#1	4.937	4.812	4.951	5.025	5.058	5.042	5.132	5.056	.6182
#2	4.955	4.876	5.011	5.068	5.063	5.065	5.077	5.098	.6234
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	**5.005**	**5.165**	**4.984**	**5.095**	**5.118**	**4.973**	**5.042**	**-.0205**	**-.1225**
Stddev	.018	.039	.041	.027	.029	.042	.045	.0067	.0007
%RSD	.3577	.7553	.8200	.5367	.5695	.8465	.8884	32.74	.6118
#1	4.992	5.137	4.955	5.075	5.097	4.944	5.010	-.0253	-.1219
#2	5.018	5.193	5.013	5.114	5.139	5.003	5.073	-.0158	-.1230
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	**-.0165**	**.0228**	**.3288**	**.0336**	**4.961**	**5.042**	**24.96**	**5.169**	**4.882**
Stddev	.0016	.0055	.0285	.0046	.037	.040	.24	.044	.014
%RSD	9.826	24.31	8.656	13.78	.7489	.8022	.9591	.8454	.2910
#1	-.0153	.0188	.3490	.0369	4.935	5.013	24.80	5.138	4.892
#2	-.0176	.0267	.3087	.0304	4.987	5.071	25.13	5.200	4.872
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD 2 Acquired: 5/21/2018 21:43:33 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.057**	**5.101**	**4.952**	**48.75**	**5.088**	**5.038**	**4.931**
Stddev	.016	.042	.014	.38	.044	.018	.043
%RSD	.3177	.8294	.2897	.7707	.8614	.3625	.8779
#1	5.045	5.071	4.942	48.48	5.057	5.026	4.900
#2	5.068	5.130	4.962	49.01	5.119	5.051	4.961
Check ?	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	**152100.**	**23923.**	**6256.9**	**9856.0**
Stddev	365.	100.	10.6	2.3
%RSD	.23983	.41661	.16924	.02373
#1	151840.	23994.	6264.4	9854.4
#2	152360.	23853.	6249.4	9857.7

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/21/2018 21:46:46 Type: QC
Method: Accutest XPress(v324) 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	**.0017**	**.0001**	**-.0000**	**-.0002**	**.0005**	**.0012**	**.0003**	**-.0008**	**.0030**
Stddev	.0002	.0000	.0000	.0004	.0002	.0004	.0001	.0005	.0004
%RSD	13.21	16.67	3535.	144.7	37.79	33.41	52.92	67.57	11.84
#1	.0015	.0001	-.0000	-.0005	.0007	.0009	.0004	-.0011	.0033
#2	.0018	.0001	.0000	.0000	.0004	.0014	.0002	-.0004	.0028
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	**.0013**	**.0025**	**.0003**	**.0041**	**.0012**	**-.0016**	**.0010**	**312.1**	**151.7**
Stddev	.0002	.0003	.0008	.0013	.0018	.0025	.0023	3.6	.7
%RSD	18.52	10.34	297.0	32.41	150.4	153.9	241.3	1.141	.4837
#1	.0012	.0023	-.0003	.0031	.0025	-.0034	.0026	314.7	152.2
#2	.0015	.0027	.0008	.0050	-.0001	.0001	-.0007	309.6	151.2
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	**152.4**	**313.0**	**156.3**	**155.4**	**.0066**	**.0008**	**.0096**	**-.0029**	**-.0011**
Stddev	.1	.7	1.2	.9	.0002	.0006	.0045	.0012	.0000
%RSD	.0550	.2146	.7500	.5665	3.024	68.73	46.90	41.80	.1548
#1	152.4	312.5	155.5	154.8	.0068	.0004	.0128	-.0020	-.0011
#2	152.5	313.5	157.2	156.0	.0065	.0013	.0064	-.0038	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/21/2018 21:46:46 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0015**	**.0006**	**-.0015**	**-.0091**	**.0048**	**.0087**	**.0051**
Stddev	.0003	.0008	.0000	.0025	.0021	.0031	.0005
%RSD	23.18	143.2	.8421	27.20	42.75	35.62	10.12
#1	-.0012	-.0000	-.0015	-.0074	.0063	.0065	.0048
#2	-.0017	.0011	-.0015	-.0109	.0034	.0109	.0055
Check ?	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	**138680.**	**22702.**	**5793.7**	**8607.7**
Stddev	794.	64.	14.2	31.0
%RSD	.57221	.28304	.24447	.36010
#1	139250.	22747.	5803.7	8629.6
#2	138120.	22657.	5783.7	8585.8

Zoom In Zoom Out

Sample Name: FECONF Acquired: 5/21/2018 21:49:52 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0003**	**-.0001**	**-.0005**	**-.0003**	**.0001**	**-.0019**	**.0018**	**-.0002**
Stddev	.0000	.0001	.0003	.0000	.0004	.0009	.0005	.0004
%RSD	.6661	89.13	45.98	14.85	256.7	48.43	28.03	183.1
#1	.0003	-.0000	-.0007	-.0002	.0004	-.0025	.0015	-.0005
#2	.0003	-.0002	-.0004	-.0003	-.0001	-.0012	.0022	.0001

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0016**	**.0017**	**.0019**	**-.0026**	**.0015**	**.0007**	**-.0077**	F **-.0038**
Stddev	.0019	.0003	.0001	.0006	.0007	.0021	.0047	.0003
%RSD	122.9	15.43	7.749	21.43	48.19	297.1	60.86	7.466
#1	.0002	.0019	.0020	-.0030	.0010	.0022	-.0111	-.0036
#2	.0030	.0015	.0018	-.0022	.0020	-.0008	-.0044	-.0040

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0069**	**.0213**	**215.9**	**-.0092**	**.0378**	**.0076**	**.0037**	**.0004**
Stddev	.0025	.0040	5.2	.0085	.0611	.0126	.0003	.0001
%RSD	36.13	18.90	2.401	93.08	161.7	165.8	9.102	26.14
#1	.0086	.0242	212.2	-.0031	-.0054	-.0013	.0039	.0003
#2	.0051	.0185	219.5	-.0152	.0809	.0165	.0034	.0005

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0002**	**.0004**	**-.0000**	**-.0002**	**-.0016**	**-.0026**	**-.0025**	**.0131**
Stddev	.0006	.0002	.0002	.0005	.0014	.0005	.0003	.0038
%RSD	261.5	60.46	993.2	235.2	85.64	18.37	10.32	28.85
#1	.0002	.0005	.0001	.0001	-.0026	-.0030	-.0023	.0104
#2	-.0007	.0002	-.0001	-.0005	-.0006	-.0023	-.0027	.0157

Elem	Li6707	P_1774
Avg	**.0030**	**.0015**
Stddev	.0021	.0008
%RSD	70.91	56.66
#1	.0015	.0021
#2	.0045	.0009

Zoom In Zoom Out

Sample Name: FECONF Acquired: 5/21/2018 21:49:52 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**149880.**	**23417.**	**6171.9**	**9828.4**
Stddev	357.	189.	16.8	16.6
%RSD	.23850	.80611	.27217	.16890
#1	149620.	23550.	6183.8	9840.1
#2	150130.	23283.	6160.1	9816.6

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 5/21/2018 21:52:59 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0002**	**-.0001**	**-.0001**	**-.0008**	F **11.02**	**-.0000**	**-.0014**	**-.0004**	**-.0005**
Stddev	.0001	.0001	.0000	.0000	.03	.0001	.0000	.0001	.0001
%RSD	75.47	64.46	55.55	4.513	.2296	252.1	.2443	17.66	14.40
#1	.0002	-.0001	-.0001	-.0008	11.04	.0000	-.0014	-.0004	-.0005
#2	.0001	-.0002	-.0000	-.0008	11.00	-.0001	-.0014	-.0003	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0049**	**.0018**	**-.0001**	**-.0013**	**-.0002**	**-.0030**	**.0046**	**.0041**	**.0048**
Stddev	.0004	.0002	.0007	.0007	.0000	.0028	.0036	.0065	.0021
%RSD	7.948	10.25	497.9	54.36	6.016	92.29	78.43	157.5	43.57
#1	.0051	.0019	.0004	-.0017	-.0002	-.0050	.0021	.0087	.0063
#2	.0046	.0016	-.0006	-.0008	-.0002	-.0011	.0072	-.0005	.0033

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0173**	**.0392**	**.0025**	**-.0145**	**.0042**	**.0009**	**.0042**	**.0045**	**.0001**
Stddev	.0008	.0090	.0505	.0035	.0001	.0000	.0008	.0003	.0000
%RSD	4.904	22.98	2028.	23.90	2.307	4.804	17.94	6.347	15.36
#1	-.0179	.0328	-.0332	-.0121	.0042	.0008	.0048	.0043	.0001
#2	-.0167	.0456	.0382	-.0170	.0043	.0009	.0037	.0047	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0030**	**.0047**	**.0027**	**-.0016**	**.0162**	**.0063**	**-.0008**
Stddev	.0003	.0021	.0000	.0014	.0002	.0010	.0015
%RSD	10.57	45.00	.3460	91.10	1.364	15.91	184.4
#1	-.0033	.0032	.0027	-.0006	.0161	.0056	.0003
#2	-.0028	.0062	.0027	-.0026	.0164	.0070	-.0019

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153220.**	**23464.**	**6121.1**	**9719.7**
Stddev	637.	56.	10.3	17.2
%RSD	.41590	.23901	.16832	.17725
#1	152760.	23424.	6113.8	9707.6
#2	153670.	23503.	6128.4	9731.9

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 5/21/2018 21:56:01 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0001**	**-.0001**	**-.0000**	**-.0001**	**-.0002**	**.0000**	**-.0000**	**-.0000**	**-.0000**
Stddev	.0003	.0000	.0002	.0000	.0001	.0005	.0000	.0002	.0001
%RSD	293.5	19.73	501.2	54.02	46.02	1546.	149.6	717.1	252.1
#1	.0003	-.0001	.0001	-.0001	-.0001	-.0003	.0000	-.0002	-.0001
#2	-.0001	-.0000	-.0002	-.0001	-.0002	.0004	-.0001	.0001	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**-.0008**	**5.025**	**.0002**	**.0027**	**-.0019**	**.0016**	**-.0007**	**-.0584**
Stddev	.0003	.0000	.039	.0010	.0005	.0005	.0000	.0187	.0002
%RSD	291.4	.6271	.7812	567.4	20.50	24.04	1.521	2644.	.2764
#1	-.0001	-.0008	4.998	-.0005	.0030	-.0016	.0016	.0125	-.0585
#2	.0003	-.0008	5.053	.0009	.0023	-.0022	.0016	-.0139	-.0583

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0032**	**-.0021**	**-.0322**	**-.0128**	**.0026**	**-.0001**	**-.0026**	**-.0009**	**.0001**
Stddev	.0022	.0071	.0539	.0139	.0004	.0003	.0010	.0003	.0000
%RSD	67.90	340.9	167.2	108.6	14.17	379.3	37.26	29.40	22.18
#1	-.0047	-.0071	.0059	-.0030	.0024	-.0003	-.0033	-.0007	.0001
#2	-.0017	.0029	-.0704	-.0227	.0029	.0001	-.0019	-.0011	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**-.0008**	**.0000**	**.0039**	**-.0003**	**.0035**	**-.0000**
Stddev	.0001	.0008	.0000	.0024	.0019	.0008	.0001
%RSD	35.23	91.13	213.2	61.30	676.5	22.98	212.2
#1	-.0003	-.0003	.0000	.0022	.0010	.0041	.0000
#2	-.0002	-.0014	-.0000	.0056	-.0016	.0030	-.0001

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154330.**	**23920.**	**6364.3**	**9923.9**
Stddev	1018.	131.	7.8	8.7
%RSD	.65985	.54558	.12306	.08786
#1	153610.	23827.	6358.7	9917.7
#2	155050.	24012.	6369.8	9930.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/21/2018 21:59:04 Type: QC
Method: Accutest XPress(v324) 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	**1.983**	**1.973**	**1.967**	**2.013**	**1.992**	**1.958**	**2.049**	**2.026**	**.2481**
Stddev	.006	.006	.012	.012	.015	.009	.007	.013	.0015
%RSD	.2897	.3020	.5876	.5945	.7680	.4557	.3313	.6163	.6049
#1	1.987	1.977	1.959	2.005	2.003	1.964	2.054	2.017	.2492
#2	1.979	1.969	1.975	2.021	1.981	1.951	2.044	2.035	.2471
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	**1.986**	**2.010**	**2.008**	**2.012**	**2.027**	**1.982**	**2.000**	**39.43**	**39.70**
Stddev	.009	.013	.015	.017	.012	.011	.012	.19	.14
%RSD	.4493	.6263	.7618	.8193	.5844	.5403	.6194	.4698	.3540
#1	1.992	2.001	1.997	2.000	2.018	1.975	1.991	39.56	39.79
#2	1.979	2.019	2.019	2.024	2.035	1.990	2.008	39.30	39.60
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**	**40.03**	**39.53**	**39.99**	**1.994**	**1.996**	**5.038**	**2.024**	**1.971**
Stddev	.16	.16	.05	.03	.014	.012	.039	.013	.005
%RSD	.3900	.4094	.1145	.0859	.6818	.5999	.7640	.6223	.2416
#1	39.97	40.15	39.50	40.01	1.984	1.987	5.010	2.015	1.975
#2	39.75	39.91	39.56	39.96	2.004	2.004	5.065	2.033	1.968
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: 5/21/2018 21:59:04 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.009**	**1.989**	**2.001**	**1.966**	**2.014**	**1.970**	**1.978**
Stddev	.005	.017	.008	.024	.017	.001	.013
%RSD	.2271	.8396	.4213	1.216	.8461	.0237	.6697
#1	2.012	1.977	2.007	1.949	2.001	1.970	1.969
#2	2.006	2.001	1.995	1.983	2.026	1.969	1.988
Check ?	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	**148500.**	**23562.**	**6175.0**	**9365.4**
Stddev	922.	155.	7.6	12.0
%RSD	.62109	.65809	.12267	.12821
#1	147850.	23452.	6169.6	9356.9
#2	149160.	23671.	6180.3	9373.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/21/2018 22:01:53 Type: QC
Method: Accutest XPress(v324) 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	k **.0002**	k **-.0000**	k **.0000**	k **.0000**	s **.0001**	sF **-.0044**	s **-.0000**	k **-.0003**
Stddev	.0003	.0001	.0001	.0001	.0006	.0070	.0000	.0003
%RSD	166.8	991.4	220.0	311.1	474.5	158.9	2.794	97.34
#1	k .0004	k -.0001	k -.0000	k .0001	s .0006	s -.0094	s -.0000	k -.0001
#2	-.0000	.0001	.0001	-.0001	-.0003	.0005	-.0000	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0024		
Low Limit						-.0024		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s **.0008**	s **-.0003**	k **-.0007**	k **.0007**	k **.0003**	k **-.0011**	k **-.0028**	k **.0005**
Stddev	.0017	.0004	.0000	.0004	.0007	.0006	.0004	.0002
%RSD	215.4	152.3	4.374	53.19	294.5	53.38	14.13	40.02
#1	s .0020	s -.0005	k -.0007	k .0005	k .0008	k -.0007	k -.0031	k .0004
#2	-.0004	.0000	-.0008	.0010	-.0003	-.0015	-.0026	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k **-.0075**	k **-.0065**	k **.0027**	k **.0200**	k **.0315**	k **-.0110**	k **.0046**	k **.0002**
Stddev	.0171	.0015	.0002	.0001	.0407	.0037	.0011	.0001
%RSD	228.1	22.81	7.595	.4406	129.1	33.65	23.47	46.32
#1	k .0046	k -.0054	k .0028	k .0199	k .0603	k -.0084	k .0053	k .0002
#2	-.0196	-.0075	.0025	.0200	.0028	-.0137	.0038	.0003
Check ?	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: 5/21/2018 22:01:53 Type: QC
Method: Accutest XPress(v324) 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	k **-.0029**	k **.0003**	k **.0001**	s **-.0002**	k **-.0005**	s **.0005**	k **-.0013**	k **-.0007**
Stddev	.0002	.0001	.0001	.0003	.0012	.0006	.0013	.0002
%RSD	6.194	41.99	71.39	177.6	244.9	103.8	103.6	26.96
#1	k -.0030	k .0002	k .0001	s .0000	k -.0013	s .0009	k -.0003	k -.0006
#2	-.0027	.0004	.0000	-.0004	.0003	.0001	-.0022	-.0008
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
Units	ppm	ppm
Avg	k **.0039**	k **.0005**
Stddev	.0010	.0003
%RSD	25.29	53.62
#1	k .0046	k .0007
#2	.0032	.0003
Check ?	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	^ *****	**23891.**	**6311.1**	**9826.1**
Stddev	-----	550.	16.7	29.1
%RSD	-----	2.3028	.26480	.29649
#1	^ -----	23502.	6322.9	9846.7
#2	152640.	24280.	6299.3	9805.5

Zoom In Zoom Out

Sample Name: mp7256-mb1conf Acquired: 5/21/2018 22:04:54 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: SOIL

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.0006**	**-.0000**	**.0000**	**.0000**	**.0006**	**.0005**	**.0003**	**.0005**	**-.0000**
Stddev	.0000	.0000	.0001	.0001	.0001	.0002	.0000	.0002	.0003
%RSD	1.600	62.30	389.7	428.5	12.09	48.37	8.762	41.40	15460.
#1	.0006	-.0001	.0001	-.0001	.0007	.0006	.0003	.0006	-.0002
#2	.0006	-.0000	-.0001	.0001	.0006	.0003	.0004	.0003	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0025**	**.0020**	**-.0005**	**.0013**	**-.0007**	**.0006**	**-.0000**	**.0831**
Stddev	.0005	.0001	.0005	.0005	.0005	.0016	.0017	.0039	.0011
%RSD	144.1	2.651	26.31	104.5	38.53	215.4	279.3	12380.	1.326
#1	.0000	.0026	.0024	-.0008	.0017	.0004	.0018	-.0028	.0823
#2	-.0007	.0025	.0016	-.0001	.0010	-.0019	-.0006	.0027	.0839

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0134**	**.0236**	**.0796**	**.0815**	**.0047**	**.0010**	**.0398**	**.0300**	**.0008**
Stddev	.0007	.0016	.0077	.0112	.0012	.0002	.0002	.0003	.0000
%RSD	5.434	6.799	9.664	13.80	26.00	25.86	.5467	1.127	.4835
#1	.0140	.0247	.0742	.0735	.0056	.0011	.0397	.0298	.0008
#2	.0129	.0225	.0851	.0894	.0039	.0008	.0400	.0303	.0008

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0013**	**.0006**	**.0080**	**-.0023**	**.0012**	**.0302**
Stddev	.0003	.0003	.0001	.0015	.0012	.0007	.0009
%RSD	181.3	23.08	23.30	19.04	52.38	54.75	2.851
#1	-.0000	.0011	.0005	.0069	-.0014	.0007	.0296
#2	.0004	.0015	.0007	.0091	-.0031	.0017	.0308

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157490.**	**24407.**	**6429.3**	**9948.8**
Stddev	24.	29.	21.6	20.3
%RSD	.01511	.11842	.33612	.20453
#1	157470.	24428.	6444.6	9963.2
#2	157510.	24387.	6414.0	9934.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/21/2018 22:08:41 Type: QC
Method: Accutest XPress(v324) 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**	**2.008**	**1.969**	**2.015**	**1.995**	**1.955**	**2.045**	**2.025**	**.2483**
Stddev	.028	.025	.015	.009	.019	.019	.021	.012	.0017
%RSD	1.374	1.256	.7501	.4267	.9330	.9814	1.020	.5782	.6688
#1	1.984	1.990	1.958	2.009	1.981	1.942	2.031	2.017	.2471
#2	2.023	2.026	1.979	2.021	2.008	1.969	2.060	2.033	.2494
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	**1.982**	**2.014**	**2.008**	**2.008**	**2.025**	**1.982**	**2.003**	**40.09**	**40.38**
Stddev	.020	.012	.015	.011	.012	.016	.013	.50	.51
%RSD	.9975	.5996	.7305	.5534	.5774	.8126	.6494	1.259	1.265
#1	1.968	2.005	1.998	2.000	2.017	1.970	1.994	39.73	40.02
#2	1.996	2.022	2.019	2.016	2.034	1.993	2.012	40.44	40.74
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**	**40.56**	**40.09**	**40.39**	**1.995**	**1.998**	**5.040**	**2.026**	**1.996**
Stddev	.53	.61	.79	.63	.021	.014	.043	.013	.026
%RSD	1.315	1.501	1.979	1.557	1.068	.6775	.8621	.6510	1.303
#1	40.09	40.13	39.53	39.95	1.980	1.989	5.009	2.016	1.978
#2	40.84	40.99	40.65	40.84	2.010	2.008	5.070	2.035	2.014
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: 5/21/2018 22:08:41 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.002**	**1.991**	**1.998**	**1.972**	**2.013**	**1.998**	**1.982**
Stddev	.017	.018	.020	.015	.014	.027	.018
%RSD	.8696	.8885	.9864	.7815	.6703	1.349	.9289
#1	1.990	1.979	1.984	1.961	2.004	1.979	1.969
#2	2.014	2.004	2.012	1.983	2.023	2.017	1.995
Check ?	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	**147570.**	**23174.**	**6114.4**	**9276.6**
Stddev	938.	307.	4.0	14.7
%RSD	.63594	1.3237	.06500	.15813
#1	148240.	23391.	6111.6	9266.2
#2	146910.	22957.	6117.2	9287.0

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/21/2018 22:11:31 Type: QC
Method: Accutest XPress(v324) 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**	**-.0003**	**.0001**	**-.0000**	**-.0002**	**-.0000**	**-.0003**	**-.0005**
Stddev	.0001	.0000	.0001	.0000	.0001	.0004	.0000	.0004	.0001
%RSD	411.6	85.93	44.28	52.21	1642.	247.3	65.45	155.2	11.56
#1	-.0001	-.0001	-.0003	.0001	-.0001	.0001	-.0000	.0000	-.0005
#2	.0001	-.0000	-.0002	.0001	.0001	-.0004	-.0001	-.0005	-.0006
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	**.0000**	**-.0007**	**.0010**	**.0007**	**.0005**	**-.0015**	**.0006**	**-.0019**	**-.0066**
Stddev	.0002	.0001	.0002	.0002	.0003	.0005	.0006	.0074	.0034
%RSD	422.9	11.49	25.53	30.87	65.89	35.29	102.1	394.5	51.13
#1	-.0001	-.0006	.0011	.0006	.0008	-.0011	.0010	.0034	-.0042
#2	.0002	-.0007	.0008	.0009	.0003	-.0018	.0002	-.0071	-.0089
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	**.0009**	**.0226**	**.0009**	**-.0215**	**.0048**	**.0002**	**-.0035**	**.0006**	**.0000**
Stddev	.0056	.0117	.0146	.0176	.0003	.0000	.0017	.0000	.0001
%RSD	589.1	51.75	1567.	81.82	5.962	15.83	47.47	5.050	387.4
#1	-.0030	.0143	-.0094	-.0091	.0050	.0002	-.0023	.0005	.0001
#2	.0049	.0309	.0112	-.0340	.0046	.0002	-.0047	.0006	-.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: ccb Acquired: 5/21/2018 22:11:31 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0003**	**.0001**	**-.0017**	**-.0024**	F **.0043**	**.0007**
Stddev	.0001	.0001	.0000	.0016	.0000	.0017	.0007
%RSD	66.34	35.32	31.57	97.18	1.708	39.59	86.86
#1	-.0001	-.0003	.0002	-.0028	-.0024	.0031	.0012
#2	-.0003	-.0004	.0001	-.0005	-.0025	.0055	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151470.**	**22842.**	**6216.9**	**9688.6**
Stddev	448.	157.	23.5	23.7
%RSD	.29588	.68812	.37864	.24421
#1	151790.	22730.	6200.3	9671.9
#2	151160.	22953.	6233.6	9705.4

Zoom In Zoom Out

Sample Name: mp7256-mb1 2 Acquired: 5/21/2018 22:14:33 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0004**	**.0001**	**.0003**	**.0001**	**.0005**	**.0007**	**.0003**	**.0001**	**-.0000**
Stddev	.0000	.0000	.0002	.0001	.0001	.0002	.0000	.0005	.0001
%RSD	9.228	18.74	73.12	88.77	18.42	26.67	.2654	973.3	1322.
#1	.0004	.0001	.0001	.0000	.0005	.0006	.0003	.0004	.0001
#2	.0004	.0001	.0004	.0002	.0004	.0008	.0003	-.0003	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0020**	**.0004**	**-.0003**	**.0006**	**-.0005**	**.0003**	**.0077**	**.0810**
Stddev	.0006	.0000	.0011	.0004	.0003	.0026	.0008	.0165	.0019
%RSD	1496.	.2888	255.5	120.9	50.21	475.3	251.9	212.4	2.367
#1	.0004	.0020	-.0003	-.0006	.0004	.0013	-.0003	-.0039	.0796
#2	-.0005	.0020	.0012	-.0000	.0007	-.0024	.0009	.0194	.0823

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0145**	**.0508**	**.0396**	**.0759**	**.0045**	**.0007**	**.0363**	**.0308**	**.0007**
Stddev	.0006	.0262	.0340	.0090	.0001	.0004	.0018	.0003	.0000
%RSD	3.878	51.49	86.01	11.80	2.600	63.93	5.050	.9033	6.824
#1	.0141	.0323	.0155	.0695	.0045	.0004	.0350	.0310	.0007
#2	.0149	.0693	.0636	.0822	.0044	.0010	.0376	.0307	.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0005**	**.0004**	**.0050**	**.0004**	**.0040**	**.0302**
Stddev	.0006	.0008	.0000	.0025	.0013	.0011	.0004
%RSD	115.1	159.6	2.664	49.59	291.2	27.07	1.391
#1	.0009	-.0001	.0004	.0033	-.0005	.0033	.0300
#2	.0001	.0011	.0005	.0068	.0014	.0048	.0305

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154380.**	**23673.**	**6322.0**	**9817.7**
Stddev	510.	338.	9.6	14.4
%RSD	.33005	1.4259	.15188	.14668
#1	154020.	23911.	6315.2	9807.5
#2	154740.	23434.	6328.8	9827.9

Zoom In Zoom Out

Sample Name: mp7256-b1 Acquired: 5/21/2018 22:17:35 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.043**	**2.039**	**1.986**	**2.044**	**2.021**	**2.010**	**2.082**	**2.053**	**.2405**
Stddev	.014	.009	.012	.012	.004	.010	.003	.010	.0001
%RSD	.6757	.4181	.6173	.6053	.1967	.4822	.1583	.5021	.0297
#1	2.053	2.045	1.978	2.035	2.024	2.016	2.084	2.045	.2404
#2	2.033	2.033	1.995	2.053	2.019	2.003	2.079	2.060	.2405

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.014**	**2.044**	**2.023**	**2.055**	**2.060**	**1.955**	**2.011**	**25.02**	**25.43**
Stddev	.004	.014	.015	.011	.019	.016	.011	.08	.11
%RSD	.2225	.6982	.7176	.5120	.9098	.8147	.5691	.3149	.4236
#1	2.017	2.034	2.013	2.048	2.046	1.944	2.003	25.07	25.51
#2	2.011	2.054	2.033	2.062	2.073	1.966	2.019	24.96	25.36

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.38**	**25.51**	**25.10**	**25.63**	**1.970**	**2.052**	**.0576**	**2.102**	**2.028**
Stddev	.11	.17	.05	.10	.016	.010	.0030	.012	.010
%RSD	.4143	.6477	.1875	.3775	.8165	.4983	5.211	.5798	.5070
#1	25.46	25.63	25.13	25.69	1.958	2.044	.0555	2.094	2.035
#2	25.31	25.39	25.07	25.56	1.981	2.059	.0598	2.111	2.021

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.059**	**2.039**	**2.050**	**1.940**	**.0152**	**.0060**	**2.002**
Stddev	.006	.009	.006	.017	.0014	.0023	.016
%RSD	.2784	.4431	.2797	.8825	9.078	38.47	.8140
#1	2.063	2.033	2.054	1.928	.0162	.0044	1.990
#2	2.055	2.046	2.046	1.952	.0142	.0076	2.014

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152490.**	**23768.**	**6246.8**	**9508.5**
Stddev	244.	42.	15.4	24.1
%RSD	.15979	.17872	.24732	.25330
#1	152310.	23738.	6235.9	9491.4
#2	152660.	23798.	6257.7	9525.5

Zoom In Zoom Out

Sample Name: mp7256-s1 Acquired: 5/21/2018 22:20:22 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.535**	**1.825**	**1.836**	**1.879**	**2.142**	**2.150**	**7.783**	**2.097**	**.2160**
Stddev	.030	.024	.015	.016	.013	.006	.054	.015	.0013
%RSD	1.193	1.311	.8039	.8359	.5826	.2724	.6914	.6923	.5929
#1	2.513	1.808	1.826	1.867	2.133	2.146	7.745	2.086	.2169
#2	2.556	1.842	1.847	1.890	2.151	2.154	7.821	2.107	.2151

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.903**	**3.431**	**1.865**	**1.864**	**2.705**	**1.800**	**1.858**	**24.19**	**29.73**
Stddev	.010	.030	.020	.030	.006	.008	.007	.27	.37
%RSD	.5268	.8644	1.061	1.620	.2160	.4594	.3761	1.119	1.258
#1	1.896	3.410	1.851	1.843	2.701	1.795	1.863	23.99	29.47
#2	1.911	3.452	1.879	1.885	2.709	1.806	1.853	24.38	30.00

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**471.8**	**24.65**	**22.99**	**37.05**	**3.571**	**1.928**	**5.781**	**2.005**	**1.932**
Stddev	5.9	.33	.06	.38	.018	.009	.027	.025	.021
%RSD	1.241	1.329	.2742	1.018	.4945	.4663	.4602	1.237	1.114
#1	467.6	24.42	22.95	36.79	3.558	1.922	5.800	1.987	1.917
#2	475.9	24.88	23.04	37.32	3.583	1.935	5.762	2.022	1.947

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.050**	**1.825**	**1.808**	F **1151.**	**.0306**	**.0741**	**5.121**
Stddev	.014	.029	.013	9.	.0135	.0032	.070
%RSD	.6721	1.588	.7269	.7875	44.20	4.302	1.368
#1	2.040	1.804	1.798	1145.	.0402	.0719	5.071
#2	2.060	1.845	1.817	1157.	.0211	.0764	5.170

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153230.**	**23657.**	**6298.8**	**9798.5**
Stddev	561.	340.	9.5	16.6
%RSD	.36606	1.4362	.15073	.16955
#1	153630.	23897.	6305.5	9810.2
#2	152840.	23417.	6292.1	9786.7

Zoom In Zoom Out

Sample Name: mp7256-s2 Acquired: 5/21/2018 22:23:14 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.599**	**1.866**	**1.877**	**1.930**	**2.191**	**2.198**	**7.987**	**2.227**	**.2256**
Stddev	.002	.004	.018	.014	.005	.008	.031	.013	.0051
%RSD	.0710	.1858	.9392	.7339	.2453	.3475	.3833	.5742	2.251
#1	2.597	1.864	1.864	1.920	2.195	2.203	8.008	2.218	.2220
#2	2.600	1.869	1.889	1.940	2.187	2.192	7.965	2.236	.2292

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.951**	**3.449**	**1.919**	**1.915**	**2.795**	**1.831**	**1.905**	**24.51**	**30.53**
Stddev	.007	.027	.018	.030	.036	.074	.020	.26	.13
%RSD	.3712	.7925	.9525	1.548	1.305	4.057	1.029	1.064	.4128
#1	1.956	3.430	1.906	1.894	2.769	1.779	1.891	24.33	30.44
#2	1.946	3.469	1.932	1.936	2.821	1.884	1.919	24.70	30.62

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**485.7**	**25.53**	**24.05**	**38.02**	**3.690**	**1.975**	**6.643**	**2.050**	**1.981**
Stddev	1.1	.15	.52	.33	.027	.013	.053	.024	.005
%RSD	.2329	.6023	2.177	.8805	.7247	.6721	.8060	1.164	.2374
#1	484.9	25.42	23.68	37.78	3.671	1.965	6.605	2.033	1.977
#2	486.5	25.64	24.42	38.26	3.709	1.984	6.681	2.067	1.984

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.126**	**1.858**	**1.857**	**592.3**	**.0315**	**.0853**	**5.259**
Stddev	.002	.005	.009	4.7	.0206	.0240	.030
%RSD	.0979	.2866	.4745	.7977	65.26	28.11	.5681
#1	2.127	1.854	1.863	589.0	.0170	.0683	5.238
#2	2.124	1.862	1.850	595.7	.0461	.1022	5.281

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152740.**	**23574.**	**6249.6**	**9716.1**
Stddev	825.	25.	17.4	22.0
%RSD	.54045	.10549	.27870	.22677
#1	152150.	23592.	6237.3	9700.5
#2	153320.	23556.	6262.0	9731.7

Zoom In Zoom Out

Sample Name: mp7256-d1 Acquired: 5/21/2018 22:26:06 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.7190**	**-.0009**	**-.0016**	**.0185**	**.2822**	**.4023**	**6.371**	**.2259**	**.0090**
Stddev	.0036	.0004	.0050	.0002	.0022	.0007	.046	.0036	.0046
%RSD	.4975	40.77	324.0	1.013	.7779	.1821	.7281	1.583	50.98
#1	.7215	-.0012	-.0051	.0187	.2807	.4018	6.338	.2234	.0058
#2	.7165	-.0006	.0020	.0184	.2838	.4028	6.404	.2284	.0123

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0884**	**1.589**	**.0450**	**.0065**	**.8594**	**-.0024**	**.0128**	**.8075**	**7.003**
Stddev	.0036	.002	.0046	.0106	.0080	.0164	.0010	.0780	.023
%RSD	4.119	.1512	10.12	164.1	.9342	693.3	7.656	9.658	.3289
#1	.0858	1.587	.0418	.0140	.8538	.0093	.0135	.7524	7.020
#2	.0909	1.591	.0483	-.0010	.8651	-.0140	.0122	.8627	6.987

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**489.2**	**1.026**	**.4608**	**14.83**	**1.958**	**.0974**	**4.322**	**.1271**	**.1038**
Stddev	2.1	.233	.2582	.06	.015	.0000	.017	.0034	.0012
%RSD	.4349	22.75	56.03	.3866	.7470	.0199	.3870	2.666	1.110
#1	490.7	.8612	.6433	14.79	1.948	.0974	4.310	.1247	.1046
#2	487.7	1.191	.2782	14.87	1.969	.0974	4.334	.1295	.1030

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.2039**	**-.0038**	**.0292**	**859.9**	**.0197**	**.0676**	**3.560**
Stddev	.0022	.0123	.0016	2.3	.0006	.0038	.002
%RSD	1.092	321.5	5.419	.2702	3.002	5.647	.0459
#1	.2054	.0049	.0303	858.2	.0192	.0703	3.561
#2	.2023	-.0125	.0281	861.5	.0201	.0649	3.559

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151940.**	**23359.**	**6236.0**	**9756.9**
Stddev	677.	52.	56.5	75.3
%RSD	.44587	.22135	.90623	.77132
#1	152410.	23323.	6196.0	9703.7
#2	151460.	23396.	6275.9	9810.1

Zoom In Zoom Out

Sample Name: td21206-1 Acquired: 5/21/2018 22:29:04 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.7002**	**-.0017**	**.0004**	**.0143**	**.2679**	**.3627**	**5.631**	**.2202**	**-.0008**
Stddev	.0187	.0008	.0031	.0018	.0040	.0040	.062	.0001	.0025
%RSD	2.670	49.25	683.6	12.33	1.506	1.097	1.094	.0414	292.8
#1	.6870	-.0011	.0026	.0155	.2651	.3599	5.588	.2201	.0009
#2	.7134	-.0023	-.0017	.0130	.2708	.3655	5.675	.2203	-.0026

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0739**	**1.355**	**.0377**	**.0000**	**.8086**	**.0150**	**.0167**	**1.023**	**6.626**
Stddev	.0024	.008	.0158	.0031	.0284	.0382	.0110	.019	.094
%RSD	3.220	.5930	41.97	38250.	3.512	254.3	65.48	1.836	1.420
#1	.0722	1.349	.0489	-.0022	.7885	.0421	.0245	1.036	6.560
#2	.0756	1.361	.0265	.0022	.8287	-.0120	.0090	1.010	6.693

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**428.1**	**.8683**	**.6136**	**12.49**	**1.670**	**.0891**	**5.180**	**.1219**	**.0990**
Stddev	6.9	.3399	.5281	.19	.004	.0007	.040	.0016	.0016
%RSD	1.619	39.14	86.08	1.493	.2504	.7580	.7654	1.353	1.644
#1	423.2	1.109	.9870	12.36	1.667	.0887	5.152	.1207	.0979
#2	433.0	.6280	.2401	12.62	1.673	.0896	5.208	.1230	.1002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.2275**	**.0019**	**.0237**	**822.9**	**.0204**	**.0992**	**3.039**
Stddev	.0059	.0091	.0031	4.5	.0306	.0276	.015
%RSD	2.589	486.0	12.90	.5465	150.4	27.82	.4898
#1	.2233	-.0046	.0215	819.7	-.0013	.0797	3.029
#2	.2316	.0083	.0258	826.1	.0420	.1187	3.050

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**149110.**	**23354.**	**6190.1**	**9674.6**
Stddev	532.	248.	44.4	55.8
%RSD	.35660	1.0613	.71744	.57634
#1	149480.	23529.	6158.7	9635.2
#2	148730.	23179.	6221.5	9714.0

Zoom In Zoom Out

Sample Name: mp7256-sd1 Acquired: 5/21/2018 22:32:03 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.7022**	**-.0043**	**-.0089**	**.0168**	**.2654**	**.3671**	**5.515**	**.2283**	**.0124**
Stddev	.0016	.0034	.0003	.0057	.0043	.0209	.056	.0313	.0181
%RSD	.2215	78.79	3.398	34.25	1.628	5.690	1.008	13.69	145.5
#1	.7033	-.0019	-.0091	.0127	.2685	.3819	5.554	.2062	.0252
#2	.7011	-.0066	-.0087	.0208	.2624	.3523	5.476	.2504	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0740**	**1.367**	**.0106**	**.0105**	**.8359**	**-.0586**	**.0740**	**.8374**	**6.675**
Stddev	.0001	.018	.0219	.0079	.0261	.1303	.0941	1.084	.007
%RSD	.0996	1.318	206.2	74.64	3.121	222.2	127.1	129.4	.1125
#1	.0740	1.355	-.0049	.0161	.8174	-.1508	.1405	1.604	6.670
#2	.0741	1.380	.0261	.0050	.8543	.0335	.0075	.0711	6.680

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**417.5**	**1.832**	**-.1456**	**11.47**	**1.772**	**.0831**	**4.944**	**.0995**	**.0958**
Stddev	4.9	.545	.6127	.54	.034	.0101	.009	.0495	.0009
%RSD	1.185	29.74	420.9	4.694	1.905	12.19	.1899	49.72	.9476
#1	421.0	2.218	-.5788	11.09	1.748	.0759	4.950	.1345	.0951
#2	414.0	1.447	.2877	11.85	1.796	.0902	4.937	.0645	.0964

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.2263**	**-.0209**	**.0371**	**812.0**	**.0275**	**.2754**	**3.019**
Stddev	.0060	.0285	.0059	9.9	.0653	.1314	.043
%RSD	2.650	136.4	16.03	1.218	237.4	47.71	1.441
#1	.2221	-.0007	.0413	805.0	-.0187	.3683	2.989
#2	.2306	-.0411	.0329	819.0	.0737	.1825	3.050

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152290.**	**23659.**	**6277.5**	**9762.8**
Stddev	1511.	369.	17.9	23.3
%RSD	.99225	1.5594	.28442	.23915
#1	151230.	23399.	6290.1	9779.3
#2	153360.	23920.	6264.9	9746.2

Zoom In Zoom Out

Sample Name: jc65333-7r Acquired: 5/21/2018 22:35:03 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2880**	**.0046**	**.0004**	**.0232**	**.1308**	**.0723**	**1.162**	**.0597**	**.0015**
Stddev	.0021	.0000	.0001	.0001	.0004	.0005	.003	.0007	.0005
%RSD	.7306	.6871	18.86	.2337	.3396	.7170	.2807	1.165	31.71
#1	.2895	.0046	.0005	.0232	.1311	.0726	1.164	.0592	.0018
#2	.2865	.0045	.0004	.0231	.1305	.0719	1.160	.0602	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1669**	**.5057**	**.0354**	**.0002**	**.5518**	**.0000**	**-.0019**	**105.3**	**4.888**
Stddev	.0016	.0010	.0012	.0002	.0025	.0010	.0016	.7	.024
%RSD	.9644	.1971	3.321	94.99	.4444	5025.	82.67	.6630	.4914
#1	.1680	.5050	.0346	.0001	.5500	-.0007	-.0008	105.8	4.905
#2	.1657	.5064	.0362	.0004	.5535	.0007	-.0030	104.8	4.871

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**93.73**	**10.19**	**4.053**	**2.662**	**.0251**	**.0053**	**2.242**	**.0250**	**.0479**
Stddev	.56	.05	.003	.002	.0002	.0001	.002	.0007	.0003
%RSD	.5962	.5339	.0784	.0867	.6525	2.698	.0812	2.842	.6794
#1	94.13	10.23	4.056	2.664	.0252	.0054	2.241	.0245	.0481
#2	93.34	10.15	4.051	2.661	.0250	.0052	2.244	.0255	.0477

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.118**	**.0019**	**.0123**	**1.229**	**.0130**	**.0698**	**2.322**
Stddev	.008	.0004	.0001	.003	.0003	.0036	.007
%RSD	.3946	21.31	.8741	.2550	2.051	5.183	.3019
#1	2.124	.0016	.0124	1.226	.0132	.0724	2.317
#2	2.112	.0022	.0122	1.231	.0128	.0673	2.327

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161480.**	**25623.**	**6764.9**	**9577.0**
Stddev	327.	68.	47.6	61.5
%RSD	.20272	.26683	.70344	.64166
#1	161250.	25575.	6731.3	9533.5
#2	161710.	25672.	6798.6	9620.4

Zoom In Zoom Out

Sample Name: jc65333-26r Acquired: 5/21/2018 22:37:58 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1831**	**.0021**	**.0009**	**.0126**	**.1112**	**.0806**	**.9026**	**.0434**	**.0007**
Stddev	.0006	.0000	.0001	.0001	.0007	.0002	.0015	.0000	.0004
%RSD	.3508	1.731	14.66	.9461	.6620	.2347	.1711	.0904	56.53
#1	.1836	.0021	.0008	.0125	.1117	.0808	.9016	.0434	.0010
#2	.1827	.0021	.0009	.0127	.1107	.0805	.9037	.0434	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1217**	**.3727**	**.0238**	**-.0001**	**.6127**	**-.0014**	**.0012**	**61.25**	**5.828**
Stddev	.0004	.0024	.0007	.0003	.0034	.0009	.0000	.26	.034
%RSD	.3036	.6559	2.965	229.3	.5589	67.76	4.087	.4234	.5794
#1	.1220	.3709	.0243	.0001	.6103	-.0007	.0012	61.43	5.852
#2	.1215	.3744	.0233	-.0004	.6151	-.0020	.0011	61.06	5.804

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**78.81**	**5.308**	**3.145**	**1.231**	**.0221**	**.0043**	**3.412**	**.0266**	**.0475**
Stddev	.36	.019	.057	.028	.0006	.0003	.035	.0001	.0003
%RSD	.4517	.3541	1.795	2.302	2.529	8.042	1.035	.5555	.6515
#1	79.06	5.322	3.106	1.251	.0224	.0041	3.387	.0267	.0477
#2	78.56	5.295	3.185	1.211	.0217	.0045	3.437	.0264	.0473

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.590**	**.0007**	**.0172**	**.7310**	**.0130**	**.0387**	**1.445**
Stddev	.004	.0009	.0006	.0056	.0003	.0003	.011
%RSD	.2364	114.6	3.493	.7656	2.289	.8034	.7318
#1	1.588	.0014	.0168	.7271	.0128	.0389	1.437
#2	1.593	.0001	.0176	.7350	.0132	.0385	1.452

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153900.**	**24214.**	**6348.4**	**9499.5**
Stddev	340.	63.	40.2	42.3
%RSD	.22123	.25893	.63313	.44557
#1	153660.	24170.	6319.9	9469.6
#2	154140.	24259.	6376.8	9529.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/21/2018 22:40:56 Type: QC
Method: Accutest XPress(v324) 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	**1.992**	**1.987**	**1.972**	**2.010**	**2.002**	**1.961**	**2.051**	**2.024**	**.2492**
Stddev	.021	.026	.019	.017	.003	.008	.003	.020	.0006
%RSD	1.053	1.321	.9547	.8616	.1353	.4063	.1291	.9652	.2240
#1	1.977	1.968	1.959	1.998	2.000	1.956	2.049	2.010	.2488
#2	2.007	2.005	1.986	2.022	2.004	1.967	2.053	2.038	.2496
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	**1.986**	**2.019**	**2.007**	**2.012**	**2.025**	**1.981**	**2.004**	**39.78**	**40.05**
Stddev	.003	.018	.024	.021	.023	.019	.015	.54	.55
%RSD	.1382	.9050	1.188	1.068	1.114	.9717	.7510	1.359	1.369
#1	1.984	2.006	1.990	1.996	2.009	1.967	1.994	39.40	39.67
#2	1.988	2.032	2.024	2.027	2.041	1.994	2.015	40.16	40.44
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	**40.16**	**40.35**	**40.07**	**40.38**	**1.996**	**1.996**	**5.035**	**2.028**	**1.981**
Stddev	.47	.47	.83	.58	.026	.017	.055	.019	.024
%RSD	1.174	1.170	2.062	1.443	1.329	.8632	1.092	.9292	1.201
#1	39.83	40.02	39.48	39.97	1.978	1.984	4.996	2.014	1.964
#2	40.49	40.69	40.65	40.79	2.015	2.008	5.074	2.041	1.997
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: 5/21/2018 22:40:56 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**1.994**	**2.001**	**1.965**	**2.016**	**1.991**	**1.978**
Stddev	.004	.021	.001	.026	.025	.025	.021
%RSD	.1924	1.069	.0349	1.322	1.217	1.243	1.059
#1	2.004	1.979	2.001	1.947	1.999	1.973	1.963
#2	2.010	2.009	2.002	1.983	2.034	2.008	1.993
Check ?	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	**145610.**	**22941.**	**6065.1**	**9215.0**
Stddev	149.	392.	.5	1.0
%RSD	.10259	1.7091	.00774	.01079
#1	145510.	23219.	6064.7	9215.7
#2	145720.	22664.	6065.4	9214.3

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/21/2018 22:43:46 Type: QC
Method: Accutest XPress(v324) 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**	**-.0000**	**.0007**	**.0000**	**.0002**	**-.0003**
Stddev	.0001	.0001	.0001	.0002	.0002	.0004	.0001	.0000	.0003
%RSD	36.92	4022.	79.56	1113.	1278.	52.69	223.4	1.922	99.65
#1	.0003	.0001	-.0002	.0001	-.0002	.0010	.0001	.0002	-.0006
#2	.0002	-.0001	-.0000	-.0001	.0002	.0004	-.0000	.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0006**	**.0002**	**.0001**	**.0000**	**-.0020**	**.0007**	**-.0106**	**-.0072**
Stddev	.0002	.0000	.0014	.0005	.0007	.0021	.0014	.0071	.0009
%RSD	41.24	3.670	808.5	501.8	3902.	106.2	185.0	66.93	12.33
#1	.0004	-.0006	.0011	.0005	-.0005	-.0034	.0017	-.0056	-.0079
#2	.0007	-.0005	-.0008	-.0003	.0005	-.0005	-.0002	-.0156	-.0066
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**	**.0003**	**-.0424**	**-.0158**	**.0043**	**.0004**	**-.0046**	**.0007**	**-.0000**
Stddev	.0015	.0003	.0441	.0087	.0010	.0001	.0008	.0008	.0001
%RSD	175.4	95.76	104.1	55.28	24.16	16.59	17.80	116.6	4178.
#1	.0002	.0005	-.0736	-.0096	.0051	.0005	-.0040	.0012	-.0001
#2	-.0019	.0001	-.0112	-.0220	.0036	.0004	-.0052	.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: 5/21/2018 22:43:46 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0023**	**.0002**	**.0009**	**.0001**	**.0034**	**.0021**
Stddev	.0003	.0006	.0002	.0002	.0008	.0013	.0008
%RSD	296.0	24.78	73.18	25.37	523.5	38.11	39.11
#1	-.0003	-.0019	.0004	.0010	.0007	.0043	.0015
#2	.0001	-.0027	.0001	.0007	-.0004	.0025	.0026
Check ?	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	**152320.**	**23473.**	**6294.7**	**9794.2**
Stddev	1839.	210.	8.1	2.8
%RSD	1.2074	.89376	.12867	.02833
#1	151020.	23622.	6288.9	9792.2
#2	153620.	23325.	6300.4	9796.1

Zoom In Zoom Out

Sample Name: jc65333-31r Acquired: 5/21/2018 22:46:49 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0943**	**.0011**	**.0004**	**.0412**	**.1837**	**.3317**	**1.253**	**.1231**	**.0030**
Stddev	.0019	.0000	.0002	.0004	.0002	.0011	.002	.0006	.0004
%RSD	2.035	2.960	34.25	.9927	.0974	.3461	.1939	.4559	14.16
#1	.0930	.0012	.0006	.0409	.1838	.3309	1.251	.1227	.0027
#2	.0957	.0011	.0003	.0415	.1836	.3325	1.254	.1235	.0033

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1962**	**1.199**	**.0161**	**.0010**	**1.524**	**-.0013**	**.0007**	**57.78**	**33.94**
Stddev	.0005	.016	.0007	.0009	.019	.0023	.0019	1.25	.78
%RSD	.2652	1.300	4.133	96.74	1.219	181.6	266.7	2.155	2.310
#1	.1958	1.188	.0165	.0003	1.511	-.0029	.0021	56.90	33.39
#2	.1965	1.210	.0156	.0016	1.537	.0004	-.0006	58.66	34.50

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**143.9**	**25.21**	**3.125**	**5.345**	**.3255**	**.0214**	**3.083**	**.0346**	**.1186**
Stddev	3.0	.53	.051	.111	.0038	.0004	.042	.0006	.0025
%RSD	2.119	2.100	1.644	2.070	1.169	1.832	1.347	1.718	2.072
#1	141.7	24.84	3.089	5.267	.3228	.0211	3.054	.0350	.1169
#2	146.0	25.59	3.162	5.424	.3282	.0217	3.112	.0342	.1204

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.730**	**.0030**	**.0609**	**1.538**	**.0510**	**.0435**	**1.679**
Stddev	.012	.0021	.0002	.017	.0051	.0026	.021
%RSD	.2154	72.00	.3172	1.125	10.07	5.916	1.221
#1	5.721	.0015	.0607	1.526	.0547	.0417	1.664
#2	5.739	.0045	.0610	1.550	.0474	.0454	1.693

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151010.**	**23692.**	**6235.5**	**9531.0**
Stddev	14.	348.	11.7	10.9
%RSD	.00906	1.4707	.18713	.11412
#1	151000.	23939.	6243.7	9538.7
#2	151020.	23446.	6227.2	9523.3

Zoom In Zoom Out

Sample Name: jc66314-1 Acquired: 5/21/2018 22:49:44 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.5655**	**.0041**	**.0014**	**.0481**	**.1561**	**.1982**	**3.124**	**.1037**	**.0023**
Stddev	.0016	.0000	.0001	.0005	.0004	.0011	.016	.0003	.0010
%RSD	.2866	.6629	10.46	.9363	.2642	.5474	.5179	.3373	41.90
#1	.5644	.0041	.0015	.0478	.1564	.1974	3.135	.1034	.0030
#2	.5667	.0041	.0013	.0484	.1558	.1989	3.112	.1039	.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2681**	**.6644**	**.0698**	**.0032**	**.7022**	**-.0005**	**.0015**	**106.6**	**9.522**
Stddev	.0003	.0039	.0018	.0002	.0053	.0020	.0005	.1	.020
%RSD	.0958	.5941	2.616	6.591	.7604	396.5	33.29	.0680	.2050
#1	.2683	.6616	.0686	.0033	.6984	-.0019	.0019	106.7	9.536
#2	.2679	.6672	.0711	.0030	.7060	.0009	.0011	106.6	9.508

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**140.9**	**28.35**	**9.169**	**2.244**	**.0384**	**.0067**	**2.597**	**.0312**	**.0755**
Stddev	.0	.06	.076	.034	.0006	.0000	.016	.0000	.0002
%RSD	.0045	.2148	.8339	1.531	1.641	.7188	.6223	.0296	.2757
#1	140.9	28.40	9.115	2.220	.0389	.0066	2.586	.0312	.0754
#2	140.9	28.31	9.223	2.269	.0380	.0067	2.609	.0312	.0757

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.881**	**.0020**	**.0045**	**1.143**	**.0444**	**.1381**	**5.356**
Stddev	.006	.0011	.0000	.006	.0039	.0002	.039
%RSD	.1155	57.24	.1857	.4881	8.793	.1653	.7230
#1	4.885	.0028	.0045	1.139	.0472	.1382	5.328
#2	4.877	.0012	.0045	1.147	.0417	.1379	5.383

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153320.**	**24198.**	**6424.2**	**9556.6**
Stddev	690.	107.	7.7	15.1
%RSD	.45027	.44406	.12034	.15832
#1	152830.	24274.	6418.7	9545.9
#2	153810.	24122.	6429.6	9567.3

Zoom In Zoom Out

Sample Name: jc66314-2 Acquired: 5/21/2018 22:52:45 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2687**	**.0050**	**.0019**	**.0474**	**.0765**	**.1409**	**1.355**	**.0713**	**.0018**
Stddev	.0003	.0000	.0005	.0005	.0003	.0002	.006	.0012	.0005
%RSD	.1014	.9585	23.71	1.101	.4344	.1655	.4314	1.690	28.51
#1	.2689	.0051	.0022	.0471	.0768	.1411	1.360	.0704	.0021
#2	.2685	.0050	.0016	.0478	.0763	.1408	1.351	.0721	.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1575**	**.7156**	**.0269**	**.0009**	**.1195**	**-.0012**	**.0005**	**70.61**	**9.102**
Stddev	.0009	.0067	.0012	.0016	.0006	.0050	.0003	.05	.001
%RSD	.5905	.9371	4.502	177.8	.5061	414.9	71.21	.0743	.0051
#1	.1582	.7109	.0260	.0020	.1191	.0023	.0007	70.65	9.101
#2	.1569	.7203	.0277	-.0002	.1200	-.0047	.0002	70.58	9.102

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**98.97**	**26.49**	**13.59**	**1.581**	**.0080**	**.0044**	**2.255**	**.0264**	**.0528**
Stddev	.16	.02	.01	.014	.0001	.0005	.027	.0006	.0002
%RSD	.1647	.0714	.1104	.9093	1.571	11.89	1.180	2.149	.4264
#1	99.09	26.50	13.60	1.591	.0079	.0048	2.236	.0268	.0530
#2	98.86	26.47	13.57	1.571	.0080	.0041	2.274	.0260	.0527

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.961**	**.0219**	**.0284**	**.2277**	**.0418**	**.1566**	**2.547**
Stddev	.017	.0008	.0002	.0018	.0049	.0006	.027
%RSD	.3468	3.845	.7389	.7718	11.68	.3858	1.057
#1	4.973	.0213	.0285	.2264	.0452	.1562	2.528
#2	4.949	.0225	.0283	.2289	.0383	.1570	2.566

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153710.**	**23789.**	**6331.5**	**9526.8**
Stddev	1434.	43.	3.2	13.1
%RSD	.93266	.18214	.04996	.13718
#1	152690.	23820.	6329.3	9517.5
#2	154720.	23759.	6333.7	9536.0

Zoom In Zoom Out

Sample Name: jc66314-3 Acquired: 5/21/2018 22:55:40 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2007**	**.0058**	**.0001**	**.0550**	**.1292**	**.0902**	**1.694**	**.0877**	**.0036**
Stddev	.0107	.0004	.0001	.0014	.0006	.0012	.013	.0018	.0020
%RSD	5.341	6.115	76.25	2.457	.4697	1.355	.7609	2.088	57.03
#1	.2083	.0060	.0001	.0540	.1287	.0910	1.685	.0864	.0050
#2	.1931	.0055	.0002	.0559	.1296	.0893	1.703	.0890	.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2448**	**.5163**	**.0319**	**.0020**	**.0820**	**.0020**	**.0009**	**137.1**	**6.927**
Stddev	.0027	.0073	.0008	.0022	.0003	.0038	.0010	7.1	.358
%RSD	1.117	1.409	2.484	111.7	.3568	196.7	110.0	5.193	5.176
#1	.2429	.5111	.0325	.0035	.0817	.0047	.0002	142.1	7.181
#2	.2467	.5214	.0314	.0004	.0822	-.0008	.0016	132.1	6.674

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**158.0**	**26.78**	**7.754**	**1.556**	**.0127**	**.0086**	**2.429**	**.0233**	**.0957**
Stddev	8.1	1.36	.358	.072	.0003	.0004	.024	.0006	.0050
%RSD	5.145	5.089	4.618	4.618	2.574	4.592	1.005	2.467	5.261
#1	163.8	27.74	8.007	1.607	.0124	.0083	2.412	.0229	.0993
#2	152.3	25.82	7.500	1.505	.0129	.0088	2.446	.0237	.0922

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**7.631**	**.0147**	**.0198**	**.7671**	**.0642**	**.1540**	**2.758**
Stddev	.051	.0020	.0003	.0127	.0072	.0055	.037
%RSD	.6716	13.56	1.505	1.655	11.20	3.557	1.352
#1	7.595	.0133	.0196	.7581	.0693	.1579	2.732
#2	7.667	.0161	.0200	.7761	.0591	.1502	2.784

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152280.**	**23146.**	**6314.9**	**9453.8**
Stddev	320.	983.	29.4	49.5
%RSD	.21011	4.2456	.46588	.52327
#1	152500.	22451.	6335.7	9488.8
#2	152050.	23841.	6294.1	9418.8

Zoom In Zoom Out

Sample Name: jc66442-1 Acquired: 5/21/2018 22:58:35 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.9760**	**.0022**	**.0041**	**.0280**	**.0934**	**.1833**	**1.640**	**.0912**
Stddev	.0071	.0000	.0002	.0004	.0017	.0031	.026	.0004
%RSD	.7244	.6323	4.978	1.289	1.768	1.667	1.595	.4202
#1	.9810	.0022	.0042	.0277	.0923	.1812	1.622	.0909
#2	.9710	.0022	.0039	.0282	.0946	.1855	1.659	.0915

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0016**	**.2554**	**2.091**	**.0361**	**.0014**	W **9.741**	**-.0018**	**.0024**
Stddev	.0009	.0038	.014	.0004	.0008	.090	.0018	.0003
%RSD	58.82	1.488	.6673	1.215	56.03	.9253	97.26	11.71
#1	.0022	.2527	2.081	.0358	.0020	9.677	-.0006	.0022
#2	.0009	.2581	2.100	.0365	.0008	9.804	-.0030	.0026

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**48.27**	**140.1**	**79.28**	**11.35**	**6.999**	**2.809**	**.0745**	**.0059**
Stddev	.48	1.6	.75	.13	.034	.034	.0002	.0001
%RSD	.9843	1.150	.9442	1.131	.4788	1.207	.2477	1.372
#1	48.60	141.2	79.81	11.44	7.022	2.833	.0744	.0058
#2	47.93	139.0	78.75	11.26	6.975	2.785	.0746	.0060

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.676**	**.0675**	**.4405**	**1.936**	**.0039**	**.0429**	**4.909**	**.0169**
Stddev	.015	.0006	.0029	.028	.0005	.0006	.048	.0017
%RSD	.5724	.9244	.6672	1.430	13.07	1.306	.9705	9.982
#1	2.665	.0670	.4426	1.917	.0036	.0425	4.876	.0157
#2	2.687	.0679	.4384	1.956	.0043	.0432	4.943	.0181

Elem	Li6707	P_1774
Avg	**.0695**	F **19.12**
Stddev	.0021	.18
%RSD	3.082	.9460
#1	.0680	18.99
#2	.0711	19.25

Zoom In Zoom Out

Sample Name: jc66442-1 Acquired: 5/21/2018 22:58:35 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152460.**	**24363.**	**6377.1**	**9384.5**
Stddev	923.	226.	15.0	11.4
%RSD	.60525	.92766	.23497	.12167
#1	153110.	24203.	6366.5	9376.5
#2	151810.	24523.	6387.7	9392.6

Zoom In Zoom Out

Sample Name: jc66442-2 Acquired: 5/21/2018 23:01:33 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.027**	**.0080**	**.0007**	**.0697**	**.2024**	**.0481**	**1.797**	**.1528**
Stddev	.003	.0000	.0002	.0007	.0016	.0004	.012	.0005
%RSD	.1479	.1176	27.31	.9604	.7942	.8342	.6549	.3019
#1	2.024	.0080	.0008	.0692	.2035	.0484	1.805	.1525
#2	2.029	.0080	.0006	.0702	.2012	.0478	1.789	.1531

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0020**	**.3408**	**.7336**	**.0831**	**-.0020**	**.1665**	**-.0032**	F **-.0041**
Stddev	.0011	.0033	.0062	.0013	.0005	.0019	.0014	.0016
%RSD	53.77	.9736	.8490	1.531	25.97	1.157	43.84	38.94
#1	.0012	.3432	.7292	.0840	-.0016	.1652	-.0022	-.0030
#2	.0028	.3385	.7380	.0822	-.0023	.1679	-.0042	-.0053

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**151.6**	**17.75**	**203.2**	**23.09**	**8.816**	**1.340**	**.0396**	**.0242**
Stddev	.5	.09	.3	.09	.142	.011	.0007	.0004
%RSD	.3498	.5025	.1268	.3748	1.614	.8362	1.681	1.508
#1	151.2	17.68	203.4	23.02	8.715	1.332	.0391	.0240
#2	151.9	17.81	203.0	23.15	8.916	1.347	.0400	.0245

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**2.487**	**.0257**	**.0869**	**2.151**	**.0056**	**.1064**	**.5096**	**.0149**
Stddev	.028	.0005	.0002	.016	.0008	.0005	.0036	.0012
%RSD	1.139	2.025	.2862	.7538	14.30	.5133	.7082	8.035
#1	2.467	.0260	.0867	2.163	.0050	.1068	.5070	.0157
#2	2.507	.0253	.0871	2.140	.0062	.1060	.5121	.0140

Elem	Li6707	P_1774
Avg	**.3063**	**1.971**
Stddev	.0016	.018
%RSD	.5354	.8878
#1	.3052	1.958
#2	.3075	1.983

Zoom In Zoom Out

Sample Name: jc66442-2 Acquired: 5/21/2018 23:01:33 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162580.**	**25868.**	**6813.2**	**9543.0**
Stddev	793.	30.	4.2	16.2
%RSD	.48776	.11759	.06132	.16997
#1	162020.	25847.	6810.2	9531.6
#2	163140.	25890.	6816.1	9554.5

Zoom In Zoom Out

Sample Name: jc66442-3 Acquired: 5/21/2018 23:04:32 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.7640**	**.0057**	**.0064**	**.0425**	**.1201**	**.1116**	**5.674**	**.0714**	**.0014**
Stddev	.0072	.0000	.0000	.0009	.0012	.0004	.031	.0009	.0001
%RSD	.9427	.1782	.6224	2.090	.9807	.3373	.5487	1.208	8.419
#1	.7691	.0057	.0064	.0418	.1209	.1119	5.696	.0708	.0013
#2	.7589	.0057	.0065	.0431	.1193	.1113	5.652	.0720	.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2002**	**1.241**	**.0324**	**.0022**	**.1888**	**-.0021**	**-.0015**	**93.32**	**14.72**
Stddev	.0018	.015	.0012	.0013	.0027	.0024	.0024	.78	.12
%RSD	.8755	1.171	3.806	59.52	1.442	112.1	164.6	.8355	.8302
#1	.2014	1.231	.0333	.0013	.1869	-.0004	.0002	93.87	14.81
#2	.1989	1.251	.0316	.0032	.1907	-.0038	-.0032	92.76	14.63

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**106.1**	**16.06**	**5.060**	**2.560**	**.0243**	**.0060**	**2.292**	**.0281**	**.1286**
Stddev	.9	.13	.020	.001	.0013	.0000	.011	.0003	.0013
%RSD	.8260	.8080	.3963	.0510	5.502	.1847	.4846	1.073	1.002
#1	106.7	16.16	5.075	2.561	.0234	.0060	2.284	.0279	.1295
#2	105.5	15.97	5.046	2.560	.0253	.0060	2.300	.0283	.1277

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.398**	**.0008**	**.0128**	**.7912**	**.0137**	**.1354**	**2.368**
Stddev	.030	.0002	.0000	.0158	.0010	.0009	.029
%RSD	1.268	27.84	.0387	2.001	7.068	.6384	1.208
#1	2.420	.0007	.0128	.7800	.0144	.1360	2.348
#2	2.377	.0010	.0128	.8024	.0130	.1348	2.388

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155840.**	**24493.**	**6496.2**	**9495.3**
Stddev	1467.	25.	19.3	31.7
%RSD	.94141	.10162	.29755	.33338
#1	154800.	24475.	6509.8	9517.7
#2	156880.	24510.	6482.5	9472.9

Zoom In Zoom Out

Sample Name: jc66442-4 Acquired: 5/21/2018 23:07:33 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.464**	**.0054**	**.0018**	**.0391**	**.1884**	**.0780**	**1.817**	**.1280**
Stddev	.018	.0001	.0001	.0001	.0029	.0007	.027	.0009
%RSD	1.256	2.566	4.226	.3803	1.513	.9576	1.474	.7052
#1	1.451	.0053	.0019	.0390	.1864	.0775	1.798	.1274
#2	1.477	.0055	.0017	.0392	.1904	.0785	1.836	.1286

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0015**	**.1810**	**.7856**	**.0209**	**.0002**	**.1392**	**-.0036**	F **-.0036**
Stddev	.0000	.0024	.0046	.0010	.0007	.0003	.0034	.0009
%RSD	2.706	1.301	.5809	4.563	358.2	.1860	95.95	26.20
#1	.0015	.1793	.7824	.0202	.0007	.1390	-.0060	-.0042
#2	.0016	.1827	.7888	.0216	-.0003	.1394	-.0012	-.0029

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**127.7**	**28.45**	**113.3**	**24.05**	**10.85**	**2.671**	**.0388**	**.0042**
Stddev	1.8	.46	1.5	.31	.25	.047	.0014	.0000
%RSD	1.387	1.629	1.358	1.273	2.330	1.758	3.695	.2267
#1	126.4	28.12	112.2	23.83	10.67	2.638	.0378	.0042
#2	128.9	28.78	114.4	24.26	11.03	2.704	.0398	.0042

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**1.733**	**.0237**	**.1618**	**2.165**	**.0010**	**.0975**	**.7174**	**.0105**
Stddev	.005	.0007	.0019	.033	.0004	.0012	.0068	.0008
%RSD	.3003	2.757	1.188	1.528	45.21	1.248	.9437	7.182
#1	1.729	.0233	.1605	2.142	.0013	.0966	.7126	.0111
#2	1.737	.0242	.1632	2.189	.0007	.0983	.7222	.0100

Elem	Li6707	P_1774
Avg	**.2469**	**2.834**
Stddev	.0028	.024
%RSD	1.134	.8499
#1	.2449	2.817
#2	.2489	2.851

Zoom In Zoom Out

Sample Name: jc66442-4 Acquired: 5/21/2018 23:07:33 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159610.**	**25121.**	**6694.9**	**9485.2**
Stddev	1078.	154.	37.2	44.0
%RSD	.67543	.61441	.55625	.46364
#1	160380.	25231.	6668.5	9454.1
#2	158850.	25012.	6721.2	9516.3

Zoom In Zoom Out

Sample Name: jc66477-1 Acquired: 5/21/2018 23:10:28 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1084**	**.0037**	**.0007**	**.0170**	**.2443**	**.0712**	**.2333**	**.0670**	**.0021**
Stddev	.0005	.0001	.0002	.0001	.0027	.0002	.0015	.0009	.0006
%RSD	.4519	3.082	23.59	.7405	1.097	.2870	.6300	1.404	26.98
#1	.1087	.0038	.0009	.0171	.2462	.0714	.2343	.0663	.0017
#2	.1080	.0037	.0006	.0169	.2424	.0711	.2323	.0676	.0025

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2600**	**.5571**	**.0372**	**.0006**	**.0934**	**-.0044**	**-.0010**	**147.6**	**5.523**
Stddev	.0019	.0047	.0002	.0013	.0012	.0012	.0030	.6	.008
%RSD	.7462	.8368	.5805	204.5	1.287	27.29	306.6	.4348	.1457
#1	.2614	.5539	.0370	.0015	.0942	-.0052	-.0031	148.1	5.528
#2	.2586	.5604	.0373	-.0003	.0925	-.0035	.0011	147.2	5.517

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**151.3**	**5.100**	**11.14**	**.2485**	**.0547**	**.0069**	**2.484**	**.0257**	**.0665**
Stddev	.5	.028	.05	.0017	.0005	.0000	.012	.0002	.0002
%RSD	.3511	.5392	.4903	.6867	.8414	.1969	.4614	.6193	.2835
#1	151.7	5.120	11.10	.2473	.0543	.0069	2.475	.0258	.0666
#2	150.9	5.081	11.18	.2497	.0550	.0069	2.492	.0256	.0664

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.086**	**.0004**	**.1100**	**.7524**	**.0111**	**.0386**	**1.097**
Stddev	.006	.0018	.0009	.0085	.0027	.0003	.010
%RSD	.5711	414.4	.8476	1.131	24.38	.7056	.9408
#1	1.090	.0017	.1106	.7464	.0092	.0388	1.089
#2	1.082	-.0008	.1093	.7584	.0130	.0384	1.104

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**150690.**	**23620.**	**6335.0**	**9589.7**
Stddev	1685.	10.	32.7	34.6
%RSD	1.1180	.04135	.51657	.36128
#1	149500.	23614.	6311.8	9565.2
#2	151880.	23627.	6358.1	9614.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/21/2018 23:13:24 Type: QC
Method: Accutest XPress(v324) 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	**1.983**	**1.971**	**1.955**	**1.994**	**1.988**	**1.948**	**2.046**	**2.010**	**.2466**
Stddev	.008	.012	.013	.014	.007	.004	.004	.014	.0002
%RSD	.3817	.6184	.6602	.6939	.3576	.1929	.1847	.7039	.0884
#1	1.978	1.962	1.946	1.984	1.983	1.946	2.043	2.000	.2465
#2	1.989	1.979	1.964	2.004	1.993	1.951	2.048	2.020	.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	**1.974**	**2.001**	**1.985**	**2.004**	**2.017**	**1.958**	**1.976**	**39.12**	**39.25**
Stddev	.006	.014	.015	.019	.017	.015	.015	.21	.23
%RSD	.3221	.6806	.7687	.9280	.8507	.7434	.7503	.5432	.5754
#1	1.970	1.992	1.974	1.991	2.005	1.948	1.966	38.97	39.09
#2	1.979	2.011	1.996	2.017	2.029	1.968	1.987	39.27	39.41
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	**39.49**	**39.53**	**39.09**	**39.67**	**1.977**	**1.968**	**4.959**	**2.002**	**1.965**
Stddev	.20	.13	.45	.25	.015	.010	.039	.009	.010
%RSD	.5165	.3288	1.143	.6231	.7494	.4942	.7808	.4415	.5182
#1	39.35	39.44	38.78	39.49	1.966	1.961	4.931	1.996	1.957
#2	39.64	39.62	39.41	39.84	1.987	1.975	4.986	2.009	1.972
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: 5/21/2018 23:13:24 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.997**	**1.972**	**1.988**	**1.942**	**1.996**	**1.972**	**1.962**
Stddev	.000	.006	.004	.015	.007	.007	.017
%RSD	.0124	.3146	.2053	.7627	.3708	.3756	.8837
#1	1.997	1.968	1.985	1.932	1.991	1.967	1.950
#2	1.997	1.977	1.991	1.953	2.001	1.978	1.974
Check ?	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	**146490.**	**23192.**	**6089.9**	**9250.2**
Stddev	292.	86.	11.9	9.3
%RSD	.19924	.36992	.19600	.10089
#1	146690.	23252.	6081.5	9243.6
#2	146280.	23131.	6098.3	9256.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/21/2018 23:16:14 Type: QC
Method: Accutest XPress(v324) 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**	**-.0002**	**-.0004**	**.0004**	**.0004**	**.0000**	**.0003**
Stddev	.0002	.0001	.0001	.0000	.0005	.0000	.0000	.0006	.0002
%RSD	47.64	224.7	78.56	13.57	140.1	2.422	2.130	1162.	76.01
#1	.0002	.0000	-.0001	-.0002	-.0000	.0004	.0004	.0005	.0001
#2	.0004	-.0001	-.0003	-.0001	-.0008	.0004	.0004	-.0004	.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**	**.0062**	**-.0001**	**-.0000**	**.0005**	**-.0010**	**.0000**	**.0207**	**.0253**
Stddev	.0001	.0001	.0010	.0006	.0010	.0018	.0013	.0081	.0005
%RSD	80.54	1.722	713.5	5798.	185.9	173.7	17390.	39.29	1.867
#1	.0001	.0062	-.0009	-.0004	.0013	-.0023	.0009	.0265	.0256
#2	.0000	.0061	.0006	.0004	-.0002	.0002	-.0009	.0150	.0250
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	**.0034**	**-.0026**	**-.0277**	**-.0046**	**.0032**	**.0005**	**-.0035**	**.0005**	**.0000**
Stddev	.0034	.0099	.0072	.0059	.0003	.0000	.0001	.0000	.0001
%RSD	99.86	373.7	25.93	128.3	9.299	6.164	4.237	5.825	284.6
#1	.0010	.0043	-.0227	-.0087	.0034	.0005	-.0036	.0005	.0001
#2	.0058	-.0096	-.0328	-.0004	.0030	.0005	-.0034	.0005	-.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: ccb Acquired: 5/21/2018 23:16:14 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0012**	**.0001**	**.0019**	**-.0023**	F **.0075**	**.0025**
Stddev	.0001	.0017	.0001	.0008	.0004	.0019	.0002
%RSD	120.7	142.6	61.31	43.63	15.96	25.01	9.548
#1	-.0001	.0000	.0002	.0013	-.0025	.0089	.0027
#2	-.0000	-.0025	.0001	.0025	-.0020	.0062	.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153020.**	**23436.**	**6301.9**	**9805.9**
Stddev	627.	21.	25.6	37.9
%RSD	.40943	.09099	.40550	.38616
#1	153460.	23421.	6283.8	9779.1
#2	152580.	23452.	6319.9	9832.6

Zoom In Zoom Out

Sample Name: jc66477-2 Acquired: 5/21/2018 23:19:15 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0984**	**.0035**	**.0007**	**.0141**	**.2039**	**.0629**	**.1553**	**.0630**	**.0010**
Stddev	.0004	.0000	.0001	.0002	.0008	.0008	.0011	.0009	.0004
%RSD	.4407	.2168	10.40	1.499	.3844	1.349	.7324	1.382	37.47
#1	.0987	.0035	.0006	.0140	.2034	.0623	.1545	.0623	.0013
#2	.0981	.0035	.0007	.0143	.2045	.0635	.1561	.0636	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2107**	**.3227**	**.0280**	**.0012**	**.0922**	**-.0023**	**-.0001**	**156.9**	**3.731**
Stddev	.0013	.0024	.0000	.0028	.0014	.0005	.0005	.9	.022
%RSD	.6145	.7436	.1759	227.1	1.562	22.03	663.7	.6053	.5956
#1	.2098	.3210	.0280	-.0007	.0912	-.0019	-.0004	157.6	3.747
#2	.2117	.3244	.0280	.0032	.0932	-.0026	.0003	156.2	3.715

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**113.0**	**3.546**	**7.611**	**.1959**	**.0329**	**.0064**	**2.719**	**.0248**	**.0470**
Stddev	.7	.021	.079	.0109	.0003	.0006	.000	.0004	.0002
%RSD	.5948	.5897	1.035	5.562	1.000	10.08	.0109	1.682	.3445
#1	113.5	3.561	7.667	.1882	.0327	.0068	2.718	.0245	.0472
#2	112.6	3.532	7.555	.2036	.0331	.0059	2.719	.0251	.0469

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.9538**	**.0001**	**.0987**	**.9556**	**.0065**	**.0394**	**.8785**
Stddev	.0079	.0024	.0005	.0178	.0005	.0009	.0108
%RSD	.8249	4281.	.4937	1.867	8.172	2.271	1.228
#1	.9483	-.0016	.0983	.9430	.0061	.0400	.8709
#2	.9594	.0017	.0990	.9682	.0069	.0387	.8861

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154700.**	**24431.**	**6481.9**	**9615.9**
Stddev	938.	77.	8.8	12.4
%RSD	.60656	.31330	.13613	.12921
#1	155370.	24377.	6475.7	9607.1
#2	154040.	24485.	6488.1	9624.7

Zoom In Zoom Out

Sample Name: jc66477-3 Acquired: 5/21/2018 23:22:11 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1330**	**.0030**	**-.0001**	**.0157**	**.2338**	**.0714**	**.1906**	**.0693**	**.0017**
Stddev	.0017	.0001	.0000	.0002	.0027	.0013	.0030	.0016	.0001
%RSD	1.273	3.245	32.32	1.104	1.171	1.862	1.588	2.270	3.412
#1	.1318	.0029	-.0001	.0155	.2318	.0705	.1885	.0682	.0017
#2	.1342	.0031	-.0001	.0158	.2357	.0724	.1927	.0704	.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2539**	**.1713**	**.0375**	**-.0014**	**.1133**	**-.0026**	**-.0016**	**151.6**	**5.181**
Stddev	.0040	.0019	.0011	.0007	.0013	.0011	.0009	1.9	.066
%RSD	1.579	1.136	2.927	52.20	1.111	43.01	53.85	1.247	1.281
#1	.2511	.1699	.0367	-.0009	.1124	-.0034	-.0022	150.3	5.134
#2	.2567	.1726	.0382	-.0020	.1142	-.0018	-.0010	152.9	5.228

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**138.9**	**4.711**	**8.367**	**.2188**	**.0388**	**.0072**	**3.244**	**.0233**	**.0547**
Stddev	1.8	.069	.150	.0172	.0013	.0002	.027	.0002	.0008
%RSD	1.327	1.455	1.796	7.852	3.343	3.055	.8223	.8526	1.397
#1	137.6	4.663	8.261	.2309	.0379	.0070	3.225	.0231	.0542
#2	140.2	4.760	8.473	.2066	.0397	.0073	3.263	.0234	.0552

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.053**	**.0003**	**.1029**	**.9995**	**.0106**	**.0504**	**.9398**
Stddev	.018	.0022	.0016	.0196	.0022	.0020	.0119
%RSD	1.702	650.6	1.527	1.966	20.58	4.049	1.269
#1	1.040	-.0012	.1018	.9856	.0090	.0489	.9314
#2	1.066	.0019	.1040	1.013	.0121	.0518	.9482

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154950.**	**24325.**	**6486.3**	**9552.5**
Stddev	1533.	188.	2.2	4.5
%RSD	.98927	.77083	.03332	.04728
#1	156030.	24458.	6484.7	9555.7
#2	153860.	24192.	6487.8	9549.3

Zoom In Zoom Out

Sample Name: jc66477-4 Acquired: 5/21/2018 23:25:06 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0935**	**.0025**	**.0005**	**.0101**	**.1673**	**.0442**	**.1517**	**.0489**	**.0003**
Stddev	.0059	.0003	.0002	.0003	.0010	.0007	.0008	.0002	.0015
%RSD	6.274	10.06	38.68	2.516	.6123	1.552	.5362	.4136	564.3
#1	.0894	.0024	.0007	.0099	.1665	.0437	.1511	.0490	-.0008
#2	.0977	.0027	.0004	.0102	.1680	.0447	.1523	.0487	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1859**	**2.705**	**.0228**	**-.0005**	**.0732**	**-.0051**	**-.0002**	**122.1**	**3.680**
Stddev	.0005	.020	.0018	.0015	.0014	.0018	.0015	7.5	.229
%RSD	.2634	.7384	7.942	339.7	1.923	35.44	722.2	6.116	6.222
#1	.1856	2.691	.0241	-.0015	.0722	-.0064	-.0013	116.8	3.518
#2	.1863	2.719	.0215	.0006	.0742	-.0038	.0009	127.4	3.842

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**95.25**	**3.086**	**6.157**	**.2209**	**.0337**	**.0051**	**2.582**	**.0264**	**.0440**
Stddev	5.82	.189	.358	.0161	.0008	.0003	.018	.0006	.0026
%RSD	6.108	6.114	5.811	7.298	2.380	6.744	.7138	2.251	5.982
#1	91.14	2.952	5.904	.2095	.0342	.0048	2.569	.0260	.0422
#2	99.37	3.219	6.410	.2323	.0331	.0053	2.595	.0269	.0459

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.152**	**.0038**	**.0858**	**.2432**	**.0087**	**.0257**	**.8803**
Stddev	.001	.0003	.0004	.0016	.0015	.0018	.0065
%RSD	.0763	6.646	.4596	.6487	16.99	6.880	.7349
#1	1.153	.0036	.0855	.2421	.0098	.0245	.8757
#2	1.152	.0040	.0860	.2443	.0077	.0270	.8849

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151930.**	**24002.**	**6318.4**	**9533.9**
Stddev	305.	798.	28.2	45.8
%RSD	.20061	3.3234	.44685	.48069
#1	152150.	24567.	6338.4	9566.3
#2	151720.	23438.	6298.5	9501.5

Zoom In Zoom Out

Sample Name: td21208-1 Acquired: 5/21/2018 23:28:03 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0499**	**-.0014**	**-.0009**	**.0071**	**.1306**	**.1085**	**7.024**	**.1351**	**.0048**
Stddev	.0010	.0003	.0008	.0003	.0032	.0012	.064	.0015	.0002
%RSD	2.059	23.17	81.04	4.413	2.453	1.069	.9076	1.141	3.246
#1	.0492	-.0012	-.0015	.0073	.1284	.1093	6.979	.1340	.0049
#2	.0506	-.0017	-.0004	.0068	.1329	.1077	7.069	.1362	.0047

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0345**	**1.271**	**.0401**	**.0087**	**.0697**	**.0014**	**-.0050**	**.2764**	**2.283**
Stddev	.0015	.006	.0065	.0057	.0119	.0006	.0120	.0211	.016
%RSD	4.379	.4446	16.30	65.44	17.13	43.84	240.5	7.648	.6785
#1	.0334	1.267	.0447	.0128	.0613	.0018	-.0135	.2913	2.272
#2	.0356	1.275	.0355	.0047	.0782	.0010	.0035	.2614	2.294

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**649.9**	**.1398**	**.2687**	**3.949**	**4.665**	**.0293**	**2.758**	**.0451**	**.0098**
Stddev	3.5	.0532	.3105	.041	.020	.0011	.015	.0034	.0000
%RSD	.5330	38.08	115.5	1.041	.4276	3.824	.5356	7.480	.1360
#1	647.5	.1022	.4883	3.920	4.651	.0285	2.747	.0427	.0097
#2	652.4	.1775	.0492	3.978	4.679	.0301	2.768	.0475	.0098

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1452**	**.0011**	**.0227**	F **644.1**	**.0350**	**.0147**	**1.993**
Stddev	.0022	.0023	.0016	2.5	.0059	.0067	.012
%RSD	1.484	209.8	6.986	.3813	16.77	45.78	.6172
#1	.1437	-.0005	.0238	642.3	.0392	.0099	1.984
#2	.1467	.0027	.0216	645.8	.0309	.0194	2.002

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153780.**	**23746.**	**6321.4**	**9936.6**
Stddev	485.	193.	37.0	52.7
%RSD	.31550	.81108	.58553	.53082
#1	154120.	23882.	6295.2	9899.3
#2	153430.	23610.	6347.6	9973.9

Zoom In Zoom Out

Sample Name: td21250-1 Acquired: 5/21/2018 23:31:01 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0319**	**-.0001**	**.0005**	**.0010**	**.0398**	**.0337**	**.8235**	**.0228**
Stddev	.0005	.0001	.0010	.0001	.0000	.0019	.0011	.0007
%RSD	1.540	83.37	218.8	12.64	.0579	5.575	.1360	3.157
#1	.0315	-.0002	.0012	.0009	.0398	.0324	.8243	.0223
#2	.0322	-.0001	-.0002	.0010	.0398	.0351	.8227	.0233

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0026**	**.0047**	**.0862**	**.1481**	**.0015**	**.0100**	**.0144**	**-.0012**
Stddev	.0011	.0002	.0002	.0026	.0070	.0051	.0009	.0006
%RSD	43.02	3.665	.2728	1.783	453.2	51.62	6.179	47.00
#1	.0034	.0048	.0861	.1462	-.0034	.0063	.0150	-.0016
#2	.0018	.0046	.0864	.1499	.0065	.0136	.0138	-.0008

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0834**	**1.395**	**66.43**	**.4942**	**.9187**	**730.7**	**.1793**	**.0068**
Stddev	.0123	.012	.33	.0447	.0232	10.3	.0033	.0008
%RSD	14.75	.8464	.4977	9.047	2.522	1.411	1.861	11.67
#1	.0920	1.404	66.67	.4626	.9351	738.0	.1769	.0062
#2	.0747	1.387	66.20	.5259	.9023	723.4	.1816	.0073

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.8576**	**.0356**	**.0121**	**.0145**	**-.0039**	**.0094**	W **283.2**	**.0084**
Stddev	.0055	.0016	.0002	.0003	.0009	.0006	.3	.0053
%RSD	.6400	4.403	1.304	2.139	22.39	5.869	.1053	63.44
#1	.8615	.0345	.0122	.0143	-.0033	.0098	283.0	.0121
#2	.8537	.0367	.0120	.0147	-.0045	.0090	283.4	.0046

Elem	Li6707	P_1774
Avg	**.0208**	F **496.2**
Stddev	.0009	.4
%RSD	4.199	.0804
#1	.0215	495.9
#2	.0202	496.5

Zoom In Zoom Out

Sample Name: td21250-1 Acquired: 5/21/2018 23:31:01 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**145360.**	**22955.**	**6040.9**	**9113.5**
Stddev	693.	106.	18.6	26.5
%RSD	.47645	.46240	.30791	.29131
#1	144870.	22880.	6027.8	9094.7
#2	145850.	23030.	6054.1	9132.3

Zoom In Zoom Out

Sample Name: td21251-1 Acquired: 5/21/2018 23:34:05 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2212**	**-.0021**	**-.0028**	**.0224**	**.1524**	**.6242**	**14.59**	**.5120**	**.0095**
Stddev	.0002	.0008	.0010	.0001	.0027	.0045	.01	.0089	.0038
%RSD	.0950	37.36	35.34	.3174	1.804	.7212	.0832	1.740	40.06
#1	.2210	-.0026	-.0021	.0225	.1504	.6210	14.59	.5057	.0068
#2	.2213	-.0015	-.0035	.0224	.1543	.6274	14.58	.5183	.0122

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2249**	**.1995**	**.0248**	**.0114**	**.0592**	**.0061**	**-.0120**	**2.116**	**12.65**
Stddev	.0011	.0044	.0023	.0013	.0102	.0150	.0003	.074	.09
%RSD	.4676	2.193	9.313	11.12	17.18	246.7	2.412	3.489	.7351
#1	.2256	.1965	.0232	.0122	.0663	.0167	-.0122	2.168	12.71
#2	.2242	.2026	.0264	.0105	.0520	-.0045	-.0118	2.064	12.58

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**930.2**	**1.609**	**.3395**	**2.356**	**1.909**	**.0462**	**8.982**	**.0992**	**.0468**
Stddev	2.8	.058	.2803	.029	.018	.0004	.058	.0146	.0016
%RSD	.2967	3.577	82.56	1.239	.9699	.8949	.6492	14.76	3.380
#1	932.1	1.650	.5377	2.376	1.896	.0459	8.941	.0889	.0479
#2	928.2	1.568	.1413	2.335	1.922	.0465	9.024	.1096	.0456

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.3734**	**-.0113**	**.0150**	**829.9**	**.0458**	**.0540**	**1.687**
Stddev	.0017	.0026	.0001	13.1	.0017	.0104	.005
%RSD	.4573	23.17	.5615	1.581	3.638	19.35	.2733
#1	.3746	-.0094	.0150	820.6	.0469	.0614	1.690
#2	.3721	-.0131	.0151	839.1	.0446	.0466	1.683

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152560.**	**23580.**	**6274.5**	**9838.2**
Stddev	609.	14.	59.3	82.0
%RSD	.39933	.05768	.94581	.83400
#1	152130.	23571.	6316.4	9896.2
#2	152990.	23590.	6232.5	9780.1

Zoom In Zoom Out

Sample Name: td21253-1 Acquired: 5/21/2018 23:37:03 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**14.74**	**-.0025**	**.0051**	**.0962**	**1.756**	**2.662**	**23.92**	**1.758**	**.0363**
Stddev	.74	.0007	.0021	.0045	.009	.027	.15	.021	.0149
%RSD	4.989	28.59	41.95	4.640	.4997	1.014	.6135	1.184	40.98
#1	15.26	-.0020	.0036	.0931	1.750	2.681	24.02	1.743	.0468
#2	14.22	-.0030	.0066	.0994	1.762	2.643	23.81	1.773	.0258

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.5145**	**3.389**	**.3705**	**.0182**	**3.633**	**.0013**	**.0467**	**5.905**	**56.84**
Stddev	.0041	.028	.0052	.0229	.027	.0509	.0149	.366	2.65
%RSD	.7907	.8106	1.417	125.4	.7359	3934.	31.83	6.203	4.666
#1	.5174	3.370	.3668	.0344	3.614	.0373	.0362	6.164	58.71
#2	.5116	3.409	.3742	.0021	3.652	-.0347	.0572	5.646	54.96

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1536.**	**5.712**	**5.868**	**73.30**	**5.031**	**.4889**	**9.707**	**.9507**	**5.930**
Stddev	73.	.476	.011	3.54	.044	.0008	.117	.0168	.295
%RSD	4.778	8.341	.1790	4.828	.8732	.1626	1.210	1.765	4.976
#1	1588.	6.049	5.876	75.80	5.000	.4883	9.624	.9388	6.139
#2	1484.	5.375	5.861	70.80	5.063	.4894	9.791	.9626	5.722

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.274**	**.0444**	**.0860**	**691.5**	**.0870**	**1.555**	**9.928**
Stddev	.026	.0001	.0003	6.7	.0442	.073	.072
%RSD	.6187	.3064	.3207	.9694	50.86	4.668	.7230
#1	4.293	.0443	.0862	686.7	.0557	1.607	9.877
#2	4.256	.0445	.0858	696.2	.1183	1.504	9.978

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151230.**	**22375.**	**6186.5**	**9713.3**
Stddev	1768.	820.	7.2	.5
%RSD	1.1689	3.6652	.11633	.00554
#1	149980.	21795.	6191.6	9712.9
#2	152480.	22954.	6181.5	9713.7

Zoom In Zoom Out

Sample Name: mp7257-b1 2 Acquired: 5/21/2018 23:39:57 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: SOIL

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.028**	**2.017**	**1.978**	**2.032**	**2.024**	**1.999**	**2.084**	**2.047**	**.2405**
Stddev	.014	.010	.012	.011	.001	.003	.001	.012	.0004
%RSD	.7058	.4741	.5857	.5269	.0488	.1258	.0418	.5627	.1728
#1	2.017	2.010	1.969	2.024	2.023	2.001	2.084	2.039	.2402
#2	2.038	2.024	1.986	2.039	2.025	1.998	2.083	2.055	.2408

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.006**	**2.044**	**2.021**	**2.034**	**2.052**	**1.941**	**2.003**	**25.06**	**25.32**
Stddev	.000	.010	.012	.015	.015	.013	.009	.11	.13
%RSD	.0101	.4975	.6059	.7171	.7527	.6417	.4595	.4255	.5119
#1	2.005	2.036	2.012	2.024	2.041	1.932	1.996	24.99	25.23
#2	2.006	2.051	2.030	2.045	2.063	1.949	2.009	25.14	25.41

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.37**	**25.47**	**25.07**	**25.68**	**1.970**	**2.034**	**.0327**	**2.087**	**2.000**
Stddev	.13	.18	.19	.20	.013	.012	.0006	.009	.011
%RSD	.5161	.7005	.7436	.7905	.6590	.5824	1.700	.4397	.5252
#1	25.28	25.35	24.94	25.53	1.961	2.026	.0323	2.080	1.993
#2	25.46	25.60	25.20	25.82	1.979	2.042	.0331	2.093	2.008

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.068**	**1.929**	**2.047**	**.0318**	**.0215**	**.0036**	**1.983**
Stddev	.003	.010	.001	.0003	.0003	.0002	.014
%RSD	.1414	.5086	.0580	1.081	1.272	5.723	.6971
#1	2.070	1.922	2.048	.0315	.0217	.0038	1.973
#2	2.066	1.936	2.046	.0320	.0213	.0035	1.993

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**147630.**	**23095.**	**6121.8**	**9336.0**
Stddev	138.	18.	21.8	26.2
%RSD	.09338	.07777	.35630	.28078
#1	147720.	23108.	6106.4	9317.5
#2	147530.	23083.	6137.3	9354.6

Zoom In Zoom Out

Sample Name: mp7257-mb1 Acquired: 5/21/2018 23:42:45 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0007**	**-.0002**	**-.0002**	**-.0000**	**.0004**	**.0011**	**.0002**	**-.0001**	**-.0004**
Stddev	.0001	.0001	.0002	.0001	.0001	.0002	.0001	.0004	.0002
%RSD	22.66	59.09	114.2	232.4	27.46	22.41	43.75	707.2	45.63
#1	.0006	-.0002	-.0000	.0000	.0005	.0009	.0001	-.0004	-.0003
#2	.0008	-.0001	-.0003	-.0001	.0004	.0012	.0003	.0002	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0039**	**-.0004**	**-.0008**	**.0009**	**-.0025**	**.0026**	**.0031**	**.0856**
Stddev	.0001	.0001	.0013	.0008	.0003	.0025	.0001	.0053	.0016
%RSD	107.9	2.515	337.6	96.48	28.84	101.2	2.734	172.3	1.840
#1	.0000	.0039	.0005	-.0003	.0011	-.0042	.0026	-.0007	.0867
#2	.0001	.0038	-.0013	-.0013	.0007	-.0007	.0025	.0068	.0845

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0174**	**.0406**	**.0797**	**.0694**	**.0054**	**.0008**	**.0402**	**.0232**	**.0005**
Stddev	.0007	.0156	.0069	.0050	.0003	.0001	.0002	.0007	.0001
%RSD	3.854	38.33	8.626	7.175	5.882	15.18	.5856	3.239	10.84
#1	.0169	.0296	.0846	.0659	.0056	.0007	.0400	.0226	.0005
#2	.0178	.0516	.0749	.0729	.0051	.0008	.0404	.0237	.0005

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0010**	**.0005**	**.0061**	**-.0022**	**.0031**	**.0267**
Stddev	.0003	.0003	.0000	.0012	.0011	.0003	.0013
%RSD	93.45	28.91	2.334	19.95	47.75	10.95	4.907
#1	-.0001	.0008	.0005	.0069	-.0030	.0029	.0258
#2	-.0006	.0012	.0005	.0052	-.0015	.0034	.0277

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152270.**	**23279.**	**6287.7**	**9741.8**
Stddev	920.	127.	20.0	16.6
%RSD	.60445	.54666	.31801	.17058
#1	152920.	23189.	6273.6	9730.0
#2	151620.	23369.	6301.8	9753.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/21/2018 23:45:50 Type: QC
Method: Accutest XPress(v324) 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	**1.957**	**1.943**	**1.923**	**1.961**	**1.955**	**1.913**	**2.002**	**1.984**	**.2419**
Stddev	.015	.007	.012	.010	.007	.006	.005	.012	.0020
%RSD	.7778	.3847	.6349	.5192	.3812	.3371	.2371	.5859	.8367
#1	1.946	1.938	1.914	1.954	1.950	1.908	1.999	1.975	.2405
#2	1.968	1.949	1.932	1.969	1.960	1.917	2.006	1.992	.2433
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	**1.928**	**1.970**	**1.953**	**1.978**	**1.988**	**1.921**	**1.938**	**38.69**	**38.69**
Stddev	.008	.012	.016	.014	.013	.012	.014	.16	.20
%RSD	.4281	.5840	.8255	.7120	.6515	.6385	.7306	.4126	.5163
#1	1.922	1.962	1.942	1.968	1.979	1.912	1.928	38.58	38.55
#2	1.934	1.978	1.964	1.988	1.997	1.930	1.948	38.80	38.83
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	**39.04**	**39.19**	**38.83**	**39.37**	**1.948**	**1.925**	**4.867**	**1.965**	**1.931**
Stddev	.22	.24	.36	.38	.017	.011	.037	.014	.011
%RSD	.5521	.6034	.9328	.9640	.8870	.5639	.7593	.7099	.5904
#1	38.89	39.03	38.57	39.10	1.936	1.917	4.841	1.955	1.923
#2	39.19	39.36	39.09	39.64	1.961	1.932	4.894	1.975	1.939
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: 5/21/2018 23:45:50 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961**	**1.941**	**1.939**	**1.905**	**1.963**	**1.942**	**1.928**
Stddev	.003	.013	.006	.014	.010	.011	.012
%RSD	.1362	.6879	.3173	.7294	.4886	.5842	.6113
#1	1.959	1.932	1.935	1.895	1.957	1.934	1.920
#2	1.963	1.951	1.943	1.914	1.970	1.950	1.936
Check ?	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	**146410.**	**22879.**	**6105.5**	**9252.0**
Stddev	394.	46.	6.0	9.9
%RSD	.26896	.20151	.09787	.10701
#1	146690.	22912.	6101.2	9245.0
#2	146130.	22846.	6109.7	9259.0

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/21/2018 23:49:11 Type: QC
Method: Accutest XPress(v324) 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	**.0006**	**-.0000**	**-.0001**	**-.0002**	**-.0004**	**.0000**	**.0004**	**-.0001**	**-.0004**
Stddev	.0001	.0000	.0003	.0005	.0003	.0001	.0000	.0000	.0002
%RSD	14.17	33.91	401.3	240.4	66.64	411.4	9.465	23.30	44.25
#1	.0005	-.0000	-.0002	.0001	-.0002	.0001	.0004	-.0001	-.0006
#2	.0006	-.0000	.0001	-.0005	-.0006	-.0001	.0004	-.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0061**	**.0009**	**-.0008**	**.0004**	**-.0019**	**.0005**	**-.0036**	**.0254**
Stddev	.0001	.0001	.0005	.0005	.0015	.0005	.0017	.0039	.0001
%RSD	5938.	1.455	53.64	61.26	367.2	25.61	308.3	107.9	.3624
#1	.0000	.0061	.0006	-.0012	-.0007	-.0022	-.0006	-.0009	.0253
#2	-.0000	.0060	.0013	-.0005	.0015	-.0015	.0017	-.0064	.0254
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	**.0040**	**.0337**	**.0319**	**.0121**	**.0045**	**.0003**	**-.0039**	**-.0003**	**.0002**
Stddev	.0004	.0261	.0440	.0108	.0006	.0001	.0011	.0001	.0002
%RSD	10.39	77.44	137.9	89.42	14.30	19.98	28.81	31.99	114.1
#1	.0037	.0521	.0008	.0045	.0040	.0003	-.0031	-.0003	.0003
#2	.0043	.0152	.0630	.0198	.0049	.0003	-.0047	-.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: ccb Acquired: 5/21/2018 23:49:11 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0006**	**.0000**	**.0003**	**-.0006**	**.0039**	**.0061**
Stddev	.0003	.0011	.0000	.0000	.0004	.0028	.0002
%RSD	85.91	178.3	537.3	13.71	57.94	71.17	2.831
#1	-.0001	-.0014	-.0000	.0003	-.0004	.0019	.0063
#2	-.0006	.0002	.0000	.0003	-.0009	.0059	.0060
Check ?	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	**150520.**	**23003.**	**6206.7**	**9658.7**
Stddev	299.	104.	8.5	.7
%RSD	.19848	.45149	.13730	.00675
#1	150310.	23076.	6200.7	9658.3
#2	150730.	22929.	6212.7	9659.2

Zoom In Zoom Out

Sample Name: mp7257-s1 Acquired: 5/21/2018 23:52:13 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.459**	**1.827**	**1.793**	**1.948**	**1.979**	**2.040**	**7.510**	**2.049**	**.2238**
Stddev	.003	.004	.023	.021	.020	.023	.052	.021	.0017
%RSD	.1308	.1941	1.288	1.065	1.023	1.109	.6932	1.008	.7712
#1	2.461	1.830	1.777	1.934	1.964	2.024	7.473	2.035	.2226
#2	2.456	1.825	1.809	1.963	1.993	2.056	7.546	2.064	.2251

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.022**	**2.357**	**1.879**	**1.822**	**1.974**	**1.744**	**1.244**	**188.0**	**28.67**
Stddev	.021	.029	.025	.021	.018	.018	.018	.6	.07
%RSD	1.062	1.246	1.303	1.140	.9202	1.061	1.428	.3037	.2516
#1	2.007	2.337	1.861	1.807	1.961	1.731	1.231	188.4	28.72
#2	2.037	2.378	1.896	1.837	1.986	1.757	1.256	187.6	28.62

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**267.0**	**48.75**	**41.11**	**23.77**	**1.712**	**1.800**	**6.456**	**1.796**	**1.885**
Stddev	1.8	.06	.17	.09	.018	.022	.039	.022	.002
%RSD	.6701	.1231	.4243	.3606	1.068	1.227	.5993	1.215	.1196
#1	268.3	48.79	40.99	23.71	1.699	1.784	6.428	1.781	1.886
#2	265.8	48.70	41.24	23.83	1.725	1.815	6.483	1.812	1.883

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.179**	**1.432**	**1.928**	**.1925**	**.0260**	**.2079**	**5.281**
Stddev	.022	.014	.020	.0031	.0041	.0012	.071
%RSD	1.035	.9399	1.057	1.633	15.86	.5559	1.338
#1	2.163	1.422	1.913	.1903	.0231	.2070	5.231
#2	2.195	1.441	1.942	.1947	.0289	.2087	5.331

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**148880.**	**23556.**	**6209.8**	**9308.3**
Stddev	684.	130.	28.0	24.3
%RSD	.45955	.55217	.45016	.26137
#1	149370.	23464.	6229.5	9325.5
#2	148400.	23647.	6190.0	9291.1

Zoom In Zoom Out

Sample Name: mp7257-s2 Acquired: 5/21/2018 23:55:14 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.352**	**1.765**	**1.741**	**1.877**	**1.910**	**1.956**	**6.579**	**1.975**	**.2135**
Stddev	.023	.020	.020	.021	.006	.005	.024	.022	.0017
%RSD	.9660	1.121	1.161	1.139	.3095	.2498	.3610	1.094	.8167
#1	2.336	1.751	1.726	1.862	1.906	1.953	6.563	1.959	.2122
#2	2.368	1.779	1.755	1.893	1.914	1.960	6.596	1.990	.2147

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.944**	**2.287**	**1.815**	**1.767**	**1.916**	**1.688**	**1.186**	**175.1**	**27.61**
Stddev	.004	.025	.016	.018	.021	.021	.014	1.6	.31
%RSD	.1910	1.097	.8686	1.018	1.081	1.241	1.161	.9252	1.140
#1	1.942	2.269	1.804	1.755	1.901	1.673	1.176	174.0	27.38
#2	1.947	2.305	1.826	1.780	1.931	1.703	1.196	176.2	27.83

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**246.9**	**47.15**	**38.78**	**22.94**	**1.666**	**1.747**	**5.663**	**1.738**	**1.822**
Stddev	4.0	.44	.61	.27	.021	.020	.001	.019	.017
%RSD	1.617	.9394	1.564	1.164	1.258	1.135	.0099	1.086	.9115
#1	244.1	46.83	38.35	22.75	1.651	1.733	5.662	1.725	1.810
#2	249.7	47.46	39.21	23.13	1.681	1.761	5.663	1.751	1.834

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.124**	**1.403**	**1.850**	**.1785**	**.0281**	**.1945**	**4.917**
Stddev	.003	.016	.003	.0014	.0035	.0005	.057
%RSD	.1506	1.140	.1481	.7891	12.51	.2579	1.158
#1	2.122	1.392	1.848	.1775	.0306	.1941	4.877
#2	2.126	1.414	1.852	.1795	.0256	.1948	4.958

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**147570.**	**23372.**	**6162.8**	**9269.4**
Stddev	230.	119.	12.8	17.5
%RSD	.15611	.50778	.20719	.18917
#1	147730.	23456.	6171.9	9281.8
#2	147410.	23288.	6153.8	9257.0

Zoom In Zoom Out

Sample Name: jc66366-4 Acquired: 5/21/2018 23:58:14 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.4985**	**.0069**	**-.0002**	**.1132**	**.1476**	**.1953**	**5.367**	**.1895**
Stddev	.0021	.0001	.0002	.0010	.0006	.0011	.014	.0008
%RSD	.4274	.8500	106.2	.9260	.4158	.5490	.2640	.4378
#1	.5000	.0070	-.0003	.1125	.1472	.1945	5.357	.1889
#2	.4970	.0069	-.0000	.1140	.1480	.1960	5.377	.1901

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0006**	**.1883**	**.5831**	**.0644**	**.0047**	**.1412**	**-.0059**	F **-.0039**
Stddev	.0004	.0003	.0051	.0002	.0016	.0005	.0031	.0008
%RSD	62.02	.1776	.8759	.3876	34.62	.3398	52.42	20.83
#1	.0004	.1880	.5795	.0642	.0035	.1415	-.0037	-.0033
#2	.0009	.1885	.5867	.0645	.0058	.1408	-.0081	-.0044

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**125.4**	**6.634**	**256.4**	**24.40**	**11.45**	**.3882**	**.0208**	**.0064**
Stddev	.9	.050	2.0	.14	.06	.0099	.0001	.0001
%RSD	.7427	.7469	.7925	.5747	.5091	2.541	.5938	1.985
#1	126.0	6.670	255.0	24.50	11.49	.3952	.0207	.0063
#2	124.7	6.599	257.9	24.30	11.41	.3813	.0209	.0065

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.318**	**.0257**	**.0548**	**.6896**	**.0026**	**.0922**	**.1777**	**.0133**
Stddev	.015	.0003	.0002	.0045	.0010	.0001	.0015	.0005
%RSD	.4402	1.130	.2743	.6512	39.30	.1322	.8608	3.900
#1	3.308	.0259	.0549	.6864	.0033	.0921	.1766	.0136
#2	3.329	.0255	.0547	.6928	.0019	.0923	.1787	.0129

Elem	Li6707	P_1774
Avg	**.1992**	**3.893**
Stddev	.0004	.026
%RSD	.1900	.6792
#1	.1994	3.874
#2	.1989	3.911

Zoom In Zoom Out

Sample Name: jc66366-4 Acquired: 5/21/2018 23:58:14 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151540.**	**23656.**	**6346.5**	**9548.2**
Stddev	530.	149.	10.0	9.0
%RSD	.34941	.63010	.15828	.09386
#1	151170.	23551.	6339.4	9541.9
#2	151920.	23761.	6353.6	9554.6

Zoom In Zoom Out

Sample Name: mp7257-sd1 Acquired: 5/22/2018 0:01:21 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.4949**	**.0062**	**-.0000**	**.1125**	**.1474**	**.1913**	**5.551**	**.1856**	**-.0014**
Stddev	.0017	.0001	.0002	.0008	.0034	.0014	.018	.0022	.0003
%RSD	.3370	2.128	614.0	.6705	2.331	.7145	.3174	1.198	20.49
#1	.4937	.0063	-.0002	.1130	.1499	.1922	5.563	.1841	-.0016
#2	.4961	.0061	.0001	.1120	.1450	.1903	5.538	.1872	-.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1874**	**.5849**	**.0632**	**.0064**	**.1433**	**-.0194**	**-.0014**	**123.3**	**6.574**
Stddev	.0022	.0033	.0043	.0015	.0003	.0081	.0078	.7	.048
%RSD	1.152	.5660	6.883	23.86	.1983	42.00	578.7	.5852	.7219
#1	.1889	.5825	.0601	.0054	.1435	-.0136	.0042	123.8	6.607
#2	.1859	.5872	.0663	.0075	.1431	-.0251	-.0069	122.8	6.540

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**259.8**	**24.28**	**11.18**	**.2762**	**.0365**	**.0075**	**3.375**	**.0273**	**.0543**
Stddev	1.6	.17	.20	.0638	.0031	.0002	.041	.0025	.0003
%RSD	.6009	.7208	1.779	23.10	8.608	2.849	1.227	9.118	.5889
#1	260.9	24.40	11.04	.3214	.0343	.0073	3.346	.0256	.0540
#2	258.7	24.15	11.32	.2311	.0388	.0076	3.404	.0291	.0545

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.6806**	**-.0071**	**.0920**	**.1665**	**.0156**	**.2145**	**3.866**
Stddev	.0020	.0049	.0006	.0162	.0099	.0089	.034
%RSD	.2970	68.69	.6712	9.726	63.37	4.133	.8705
#1	.6820	-.0037	.0924	.1550	.0225	.2082	3.842
#2	.6792	-.0106	.0916	.1779	.0086	.2207	3.890

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151630.**	**23321.**	**6282.1**	**9604.1**
Stddev	1194.	217.	25.4	33.6
%RSD	.78710	.93095	.40509	.34985
#1	150780.	23167.	6264.1	9580.3
#2	152470.	23474.	6300.1	9627.8

Zoom In Zoom Out

Sample Name: jc66223-1 Acquired: 5/22/2018 0:04:19 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.7126**	**.0038**	**.0735**	**.0983**	**1.349**	**3.894**	**3.513**	**1.067**	**.0127**
Stddev	.0069	.0001	.0001	.0007	.014	.042	.008	.009	.0004
%RSD	.9645	1.726	.1404	.7352	1.067	1.073	.2279	.8090	3.481
#1	.7078	.0038	.0734	.0978	1.339	3.864	3.507	1.061	.0130
#2	.7175	.0039	.0736	.0988	1.359	3.923	3.519	1.073	.0124

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3212**	**7.579**	**.0427**	**.0020**	**2.558**	**-.0030**	**.0147**	**69.84**	**22.33**
Stddev	.0021	.063	.0004	.0001	.024	.0013	.0003	.34	.16
%RSD	.6442	.8301	.8486	6.120	.9264	42.44	2.273	.4839	.7310
#1	.3197	7.534	.0429	.0020	2.541	-.0038	.0149	69.60	22.21
#2	.3227	7.623	.0424	.0019	2.575	-.0021	.0144	70.08	22.44

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**203.7**	**25.59**	**14.13**	**1.346**	**.0140**	**.0215**	**2.590**	**.3083**	**.1044**
Stddev	.7	.11	.10	.022	.0007	.0003	.020	.0012	.0010
%RSD	.3438	.4336	.7050	1.627	5.221	1.518	.7882	.3933	.9301
#1	204.2	25.51	14.06	1.331	.0135	.0217	2.575	.3074	.1037
#2	203.2	25.67	14.20	1.362	.0145	.0213	2.604	.3091	.1051

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.614**	**.0709**	**.0145**	**2.516**	**.0603**	**.1143**	**4.961**
Stddev	.042	.0010	.0000	.020	.0017	.0016	.044
%RSD	.7478	1.439	.3303	.7777	2.817	1.362	.8794
#1	5.584	.0702	.0145	2.502	.0615	.1132	4.931
#2	5.643	.0716	.0146	2.530	.0591	.1154	4.992

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151320.**	**23545.**	**6249.0**	**9528.3**
Stddev	187.	29.	5.3	12.9
%RSD	.12333	.12348	.08408	.13539
#1	151450.	23524.	6252.7	9537.4
#2	151180.	23565.	6245.3	9519.1

Zoom In Zoom Out

Sample Name: jc66223-2 Acquired: 5/22/2018 0:07:21 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.5078**	**.0044**	**.0346**	**.0745**	**.1466**	**3.243**	**3.049**	**.2815**	**.0011**
Stddev	.0038	.0000	.0000	.0006	.0003	.003	.011	.0014	.0004
%RSD	.7411	.2284	.1369	.8312	.2349	.1035	.3437	.5141	37.66
#1	.5104	.0044	.0346	.0741	.1469	3.245	3.056	.2805	.0014
#2	.5051	.0044	.0347	.0750	.1464	3.240	3.041	.2825	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2174**	F **11.41**	**.0224**	**.0036**	**.1482**	**-.0052**	**.0022**	**101.4**	**9.449**
Stddev	.0001	.07	.0005	.0003	.0011	.0007	.0005	.7	.054
%RSD	.0453	.6078	2.333	8.965	.7744	12.58	21.77	.7098	.5696
#1	.2174	11.36	.0220	.0038	.1490	-.0047	.0025	101.9	9.487
#2	.2175	11.46	.0227	.0033	.1474	-.0056	.0018	100.9	9.411

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**158.7**	**32.81**	**19.96**	**.6232**	**.0088**	**.0104**	**2.005**	**.0215**	**.0608**
Stddev	1.0	.22	.05	.0122	.0001	.0004	.006	.0005	.0003
%RSD	.6559	.6554	.2555	1.965	.8716	3.957	.3096	2.415	.5345
#1	159.4	32.96	19.99	.6319	.0088	.0101	2.009	.0212	.0610
#2	157.9	32.65	19.92	.6146	.0087	.0107	2.000	.0219	.0606

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**7.461**	**.0134**	**.0027**	**.6349**	**.0804**	**.1928**	**3.407**
Stddev	.021	.0015	.0002	.0024	.0043	.0028	.017
%RSD	.2838	11.17	8.222	.3814	5.334	1.445	.4947
#1	7.476	.0124	.0028	.6332	.0834	.1908	3.396
#2	7.446	.0145	.0025	.6366	.0774	.1947	3.419

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**151890.**	**23637.**	**6372.2**	**9502.0**
Stddev	401.	233.	28.3	42.5
%RSD	.26403	.98402	.44379	.44776
#1	151610.	23473.	6352.2	9471.9
#2	152180.	23802.	6392.2	9532.0

Zoom In Zoom Out

Sample Name: jc66223-3 Acquired: 5/22/2018 0:10:22 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.4517**	**.0031**	**.0046**	**.0506**	**.1932**	**.6824**	**1.924**	**.1816**	**.0022**
Stddev	.0023	.0001	.0002	.0003	.0022	.0124	.030	.0000	.0003
%RSD	.5144	2.932	4.542	.5478	1.113	1.816	1.573	.0238	15.31
#1	.4501	.0031	.0048	.0507	.1917	.6736	1.902	.1816	.0019
#2	.4534	.0032	.0045	.0504	.1948	.6912	1.945	.1817	.0024

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2576**	**.9858**	**.0275**	**-.0001**	**.4982**	**.0012**	**.0018**	**66.21**	**124.7**
Stddev	.0045	.0015	.0011	.0009	.0032	.0006	.0005	.31	.7
%RSD	1.741	.1476	3.916	684.0	.6421	48.71	29.51	.4747	.5974
#1	.2545	.9848	.0282	-.0008	.4959	.0017	.0014	65.99	124.2
#2	.2608	.9868	.0267	.0005	.5004	.0008	.0021	66.43	125.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**123.4**	**30.59**	**15.97**	**1.166**	**.0349**	**.0097**	**3.042**	**.0533**	**.3822**
Stddev	.7	.33	.20	.004	.0002	.0004	.006	.0008	.0014
%RSD	.5775	1.076	1.226	.3719	.6160	3.649	.1936	1.469	.3638
#1	122.9	30.36	15.83	1.163	.0347	.0094	3.046	.0538	.3812
#2	123.9	30.83	16.11	1.169	.0350	.0099	3.038	.0527	.3832

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.492**	**.0064**	**.0236**	**3.763**	**.0622**	**.1051**	**3.226**
Stddev	.082	.0005	.0006	.018	.0061	.0021	.009
%RSD	1.492	8.148	2.672	.4712	9.844	2.028	.2841
#1	5.435	.0068	.0232	3.751	.0578	.1036	3.219
#2	5.550	.0061	.0241	3.776	.0665	.1066	3.232

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156810.**	**25051.**	**6539.7**	**9684.1**
Stddev	2264.	141.	47.9	68.3
%RSD	1.4440	.56205	.73287	.70538
#1	158410.	25151.	6505.8	9635.8
#2	155210.	24952.	6573.6	9732.4

Zoom In Zoom Out

Sample Name: jc66223-4 Acquired: 5/22/2018 0:13:18 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.3945**	**.0048**	**.0010**	**.0825**	**.1375**	**.1661**	**2.229**	**.1277**	**.0019**
Stddev	.0074	.0001	.0001	.0012	.0010	.0010	.026	.0024	.0002
%RSD	1.871	1.484	4.802	1.417	.7603	.6129	1.148	1.869	9.474
#1	.3893	.0047	.0010	.0817	.1368	.1654	2.211	.1260	.0018
#2	.3997	.0048	.0011	.0833	.1383	.1668	2.247	.1294	.0020

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2261**	**.5221**	**.0170**	**.0010**	**.0849**	**-.0028**	**.0013**	**103.9**	**8.346**
Stddev	.0025	.0044	.0003	.0010	.0014	.0009	.0022	1.9	.163
%RSD	1.093	.8441	1.554	103.4	1.610	32.82	161.1	1.840	1.953
#1	.2243	.5190	.0168	.0003	.0839	-.0021	-.0002	102.5	8.231
#2	.2278	.5252	.0172	.0017	.0859	-.0034	.0029	105.2	8.461

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**139.6**	**30.88**	**8.732**	**.7157**	**.0060**	**.0057**	**2.408**	**.0165**	**.0611**
Stddev	2.6	.61	.192	.0159	.0010	.0001	.020	.0001	.0012
%RSD	1.842	1.969	2.197	2.215	17.06	.9481	.8363	.6415	2.029
#1	137.8	30.45	8.597	.7045	.0053	.0057	2.394	.0165	.0602
#2	141.4	31.31	8.868	.7269	.0068	.0056	2.423	.0164	.0620

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**6.913**	**.0015**	**-.0004**	**5.673**	**.0769**	**.2030**	**3.906**
Stddev	.078	.0015	.0001	.053	.0021	.0025	.031
%RSD	1.126	100.4	29.26	.9381	2.755	1.233	.7920
#1	6.858	.0004	-.0003	5.635	.0784	.2012	3.884
#2	6.968	.0025	-.0005	5.710	.0754	.2048	3.927

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154560.**	**24402.**	**6484.5**	**9548.7**
Stddev	1306.	245.	10.1	2.8
%RSD	.84476	1.0036	.15535	.02955
#1	155480.	24575.	6477.4	9546.7
#2	153640.	24229.	6491.6	9550.7

Zoom In Zoom Out

Sample Name: jc66223-5 Acquired: 5/22/2018 0:16:13 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.3653**	**.0021**	**.0036**	**.0710**	**.1348**	**.5178**	**2.066**	**.1308**	**.0027**
Stddev	.0022	.0001	.0000	.0015	.0002	.0006	.009	.0021	.0002
%RSD	.6057	2.833	.4650	2.127	.1754	.1192	.4431	1.638	5.619
#1	.3669	.0022	.0036	.0700	.1347	.5173	2.059	.1293	.0028
#2	.3638	.0021	.0036	.0721	.1350	.5182	2.072	.1323	.0026

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3748**	**1.228**	**.0173**	**.0006**	**.3673**	**-.0008**	**.0021**	**58.51**	**34.96**
Stddev	.0015	.020	.0029	.0016	.0063	.0012	.0001	.29	.15
%RSD	.3889	1.586	16.70	269.8	1.707	141.1	3.475	.4911	.4328
#1	.3737	1.214	.0153	.0017	.3629	-.0016	.0021	58.72	35.07
#2	.3758	1.242	.0194	-.0005	.3718	-.0000	.0022	58.31	34.85

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**167.1**	**32.45**	**10.38**	**2.241**	**.0280**	**.0088**	**4.601**	**.0564**	**.1033**
Stddev	.8	.05	.07	.002	.0007	.0002	.065	.0002	.0005
%RSD	.4833	.1524	.6465	.0890	2.334	1.884	1.402	.3233	.4793
#1	167.7	32.48	10.43	2.240	.0275	.0089	4.555	.0565	.1036
#2	166.6	32.41	10.33	2.242	.0285	.0087	4.646	.0563	.1029

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**6.965**	**.0047**	**.0187**	**3.797**	**.0765**	**.0919**	**3.226**
Stddev	.031	.0003	.0000	.068	.0028	.0007	.053
%RSD	.4449	5.610	.2233	1.792	3.625	.7238	1.633
#1	6.943	.0045	.0187	3.749	.0785	.0924	3.189
#2	6.987	.0049	.0187	3.845	.0745	.0915	3.264

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**149010.**	**23365.**	**6152.9**	**9276.4**
Stddev	1109.	32.	37.3	40.5
%RSD	.74436	.13599	.60609	.43652
#1	149800.	23343.	6179.3	9305.0
#2	148230.	23388.	6126.6	9247.8

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 0:19:10 Type: QC
Method: Accutest XPress(v324) 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	**1.918**	**1.906**	**1.868**	**1.935**	**1.933**	**1.876**	**1.977**	**1.956**	**.2369**
Stddev	.013	.012	.007	.009	.009	.004	.005	.009	.0008
%RSD	.6998	.6036	.3523	.4620	.4506	.1924	.2442	.4858	.3225
#1	1.928	1.914	1.863	1.928	1.940	1.878	1.980	1.949	.2363
#2	1.909	1.898	1.873	1.941	1.927	1.873	1.973	1.962	.2374
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	**1.907**	**1.937**	**1.912**	**1.933**	**1.953**	**1.871**	**1.892**	**38.03**	**37.97**
Stddev	.004	.006	.007	.019	.012	.009	.007	.23	.23
%RSD	.2141	.3342	.3849	.9946	.5995	.4815	.3686	.6078	.6182
#1	1.910	1.932	1.907	1.919	1.945	1.864	1.887	38.19	38.14
#2	1.904	1.942	1.917	1.946	1.961	1.877	1.897	37.86	37.81
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	**38.34**	**38.32**	**38.00**	**38.45**	**1.903**	**1.887**	**4.762**	**1.921**	**1.894**
Stddev	.26	.16	.14	.18	.012	.006	.024	.003	.012
%RSD	.6824	.4104	.3765	.4773	.6337	.2987	.5018	.1401	.6395
#1	38.52	38.43	38.10	38.58	1.894	1.883	4.745	1.919	1.902
#2	38.15	38.21	37.90	38.32	1.912	1.891	4.779	1.923	1.885
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: 5/22/2018 0:19:10 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.937**	**1.906**	**1.915**	**1.863**	**1.904**	**1.894**	**1.883**
Stddev	.005	.008	.005	.010	.010	.014	.008
%RSD	.2648	.4046	.2482	.5607	.5330	.7207	.4351
#1	1.940	1.900	1.919	1.856	1.897	1.904	1.877
#2	1.933	1.911	1.912	1.871	1.911	1.884	1.889
Check ?	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	**150380.**	**23784.**	**6295.3**	**9471.1**
Stddev	718.	88.	39.1	43.8
%RSD	.47777	.36835	.62070	.46199
#1	149870.	23722.	6267.7	9440.1
#2	150890.	23846.	6323.0	9502.0

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 0:21:59 Type: QC
Method: Accutest XPress(v324) 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**	**.0000**	**-.0001**	**-.0001**	**-.0001**	**.0003**	**.0001**	**-.0006**
Stddev	.0000	.0001	.0001	.0001	.0004	.0002	.0000	.0005	.0000
%RSD	10.88	120.5	3091.	69.15	442.6	228.0	8.837	545.5	6.461
#1	.0002	-.0002	-.0001	-.0000	-.0003	-.0002	.0003	.0004	-.0005
#2	.0003	-.0000	.0001	-.0001	.0002	.0000	.0003	-.0003	-.0006
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	**-.0003**	**.0061**	**.0000**	**.0003**	**.0006**	**.0005**	**.0001**	**.0105**	**.0211**
Stddev	.0003	.0000	.0003	.0006	.0012	.0008	.0010	.0020	.0028
%RSD	96.52	.4310	2390.	188.5	190.0	162.0	761.0	18.60	13.18
#1	-.0006	.0061	.0003	.0007	.0015	.0011	-.0006	.0091	.0191
#2	-.0001	.0061	-.0002	-.0001	-.0002	-.0001	.0008	.0119	.0231
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	**.0054**	**.0232**	**-.0084**	**.0088**	**.0036**	**.0002**	**-.0029**	**.0001**	**.0001**
Stddev	.0020	.0043	.0365	.0067	.0003	.0002	.0001	.0003	.0001
%RSD	36.42	18.47	432.6	76.07	9.522	113.1	3.860	318.6	87.24
#1	.0040	.0202	.0174	.0136	.0033	.0000	-.0030	.0004	.0001
#2	.0068	.0263	-.0342	.0041	.0038	.0003	-.0029	-.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: 5/22/2018 0:21:59 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0001**	**.0003**	**.0044**	**.0027**	**.0029**	**.0029**
Stddev	.0002	.0001	.0000	.0008	.0008	.0015	.0003
%RSD	63.22	44.93	13.90	18.61	29.63	49.67	11.87
#1	-.0004	-.0001	.0003	.0050	.0033	.0019	.0031
#2	-.0001	-.0001	.0003	.0039	.0021	.0039	.0026
Check ?	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	**155830.**	**23955.**	**6454.9**	**9953.4**
Stddev	177.	350.	29.7	36.8
%RSD	.11380	1.4604	.46083	.37015
#1	155710.	24203.	6433.8	9927.3
#2	155960.	23708.	6475.9	9979.4

Zoom In Zoom Out

Sample Name: cri Acquired: 5/22/2018 0:25:02 Type: QC
Method: Accutest XPress(v324) 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	**.1941**	**.0018**	**.0027**	**.0489**	**.0096**	**.0090**	**.0154**	**.0098**
Stddev	.0000	.0001	.0000	.0005	.0000	.0002	.0000	.0005
%RSD	.0216	4.501	.0484	1.008	.3381	2.674	.0550	4.937
#1	.1941	.0018	.0027	.0486	.0097	.0092	.0154	.0101
#2	.1941	.0017	.0027	.0493	.0096	.0089	.0154	.0095
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	W **.0037**	**.0487**	**.0196**	**.0078**	**.0093**	**.0031**	**.0087**	**.0068**
Stddev	.0001	.0004	.0004	.0006	.0013	.0005	.0021	.0004
%RSD	1.461	.8682	1.802	7.996	13.74	16.50	24.16	6.008
#1	.0037	.0484	.0194	.0074	.0102	.0027	.0101	.0071
#2	.0036	.0490	.0199	.0082	.0084	.0034	.0072	.0065
Check ?	Chk Warn	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	**.1831**	**4.880**	**.0967**	**5.045**	**4.884**	**4.996**	**.0963**	**.0193**
Stddev	.0101	.019	.0012	.029	.034	.014	.0012	.0008
%RSD	5.544	.3974	1.290	.5750	.6859	.2842	1.209	3.893
#1	.1759	4.866	.0976	5.024	4.861	4.986	.0955	.0188
#2	.1902	4.893	.0959	5.065	4.908	5.006	.0972	.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: 5/22/2018 0:25:02 Type: QC
Method: Accutest XPress(v324) 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	**.2018**	**.0089**	**.0094**	**.0095**	**.0472**	**.0110**	**.0520**	**.0200**
Stddev	.0038	.0004	.0000	.0010	.0017	.0001	.0051	.0015
%RSD	1.874	4.350	.1039	10.46	3.570	.7693	9.752	7.538
#1	.1991	.0086	.0094	.0088	.0460	.0111	.0484	.0210
#2	.2045	.0091	.0094	.0102	.0484	.0110	.0556	.0189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0537**	**.0500**
Stddev	.0022	.0003
%RSD	4.144	.6664
#1	.0553	.0497
#2	.0521	.0502
Check ?	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	**156550.**	**24072.**	**6481.6**	**9932.4**
Stddev	387.	105.	9.8	27.8
%RSD	.24748	.43755	.15090	.28026
#1	156280.	24146.	6488.5	9952.1
#2	156830.	23998.	6474.7	9912.7

Zoom In Zoom Out

Sample Name: crid Acquired: 5/22/2018 0:28:02 Type: QC
Method: Accutest XPress(v324) 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**	**.0009**	**.0009**	**.0027**	**.0017**	F **-.0005**	**.0031**	**.0043**
Stddev	.0000	.0001	.0001	.0000	.0005	.0007	.0001	.0001
%RSD	.2361	8.608	11.49	1.236	28.39	139.4	2.424	2.836
#1	.0042	.0009	.0009	.0028	.0020	-.0000	.0031	.0042
#2	.0042	.0008	.0010	.0027	.0013	-.0009	.0032	.0044
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 **.0001**	**.0016**	**.0103**	**.0027**	**.0026**	F **.0003**	**.0048**	F **-.0009**
Stddev	.0002	.0003	.0002	.0013	.0015	.0007	.0027	.0005
%RSD	388.8	16.67	2.210	46.85	57.59	204.7	55.69	53.43
#1	-.0001	.0014	.0101	.0036	.0015	.0008	.0029	-.0006
#2	.0002	.0018	.0104	.0018	.0036	-.0002	.0067	-.0013
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value	.0020					.0025		.0030
Range	-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	**.1015**	**1.001**	**-.0023**	**.1232**	**2.034**	**1.031**	**.0020**	**-.0000**
Stddev	.0180	.004	.0002	.0175	.054	.004	.0005	.0002
%RSD	17.71	.4150	6.972	14.20	2.644	.3606	24.93	462.8
#1	.1142	1.004	-.0024	.1108	1.996	1.028	.0016	.0001
#2	.0888	.9982	-.0021	.1356	2.072	1.033	.0023	-.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 5/22/2018 0:28:02 Type: QC
Method: Accutest XPress(v324) 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	**.0074**	**-.0005**	**-.0000**	**-.0006**	**-.0009**	**.0002**	**.0008**	**-.0004**
Stddev	.0015	.0001	.0000	.0004	.0012	.0001	.0008	.0021
%RSD	20.10	16.51	281.5	58.15	137.0	73.77	103.5	521.6
#1	.0085	-.0005	.0000	-.0004	-.0000	.0003	.0013	-.0019
#2	.0063	-.0006	-.0000	-.0009	-.0018	.0001	.0002	.0011
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0018**	**.0037**
Stddev	.0002	.0005
%RSD	13.14	12.92
#1	.0017	.0033
#2	.0020	.0040
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157350.**	**24265.**	**6522.6**	**10034.**
Stddev	804.	147.	29.6	32.
%RSD	.51122	.60625	.45411	.31459
#1	157910.	24161.	6501.7	10011.
#2	156780.	24369.	6543.6	10056.

Zoom In Zoom Out

Sample Name: icsa Acquired: 5/22/2018 0:31:04 Type: QC
Method: Accutest XPress(v324) 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	**.0018**	**-.0000**	**-.0002**	**-.0009**	**.0000**	**.0009**	**-.0002**	**.0004**	**.0018**
Stddev	.0001	.0001	.0002	.0000	.0001	.0003	.0001	.0000	.0008
%RSD	4.357	163.8	130.0	5.104	398.0	35.54	64.28	1.587	43.76
#1	.0018	.0000	-.0000	-.0009	.0001	.0011	-.0001	.0004	.0024
#2	.0017	-.0001	-.0004	-.0010	-.0000	.0006	-.0003	.0005	.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	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.0044**	**.0006**	**.0024**	**.0032**	**.0010**	**.0001**	**515.5**	**407.4**
Stddev	.0002	.0004	.0002	.0014	.0048	.0001	.0010	.2	4.0
%RSD	5.524	10.000	24.13	57.20	149.2	5.933	922.5	.0430	.9862
#1	.0027	.0041	.0008	.0033	.0066	.0010	.0008	515.6	404.5
#2	.0029	.0047	.0005	.0014	-.0002	.0009	-.0006	515.3	410.2
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	**202.2**	**512.9**	**.0889**	**-.0429**	**.0004**	**.0006**	**.0124**	**-.0046**	**-.0031**
Stddev	.2	.1	.0398	.0037	.0010	.0005	.0018	.0001	.0001
%RSD	.1056	.0187	44.77	8.539	242.9	89.29	14.85	2.844	3.430
#1	202.3	512.8	.1171	-.0455	.0011	.0009	.0111	-.0047	-.0031
#2	202.0	513.0	.0608	-.0403	-.0003	.0002	.0137	-.0045	-.0030
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: 5/22/2018 0:31:04 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0025**	**.0001**	**-.0026**	**-.0204**	**.0056**	**.0034**	**.0079**
Stddev	.0007	.0034	.0002	.0008	.0013	.0018	.0004
%RSD	29.26	5844.	7.930	4.029	22.57	54.60	4.771
#1	-.0020	.0025	-.0024	-.0199	.0065	.0021	.0076
#2	-.0031	-.0023	-.0027	-.0210	.0047	.0047	.0082
Check ?	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	**135970.**	**22122.**	**5761.8**	**8595.8**
Stddev	983.	47.	40.0	40.8
%RSD	.72296	.21459	.69398	.47435
#1	136670.	22089.	5790.1	8624.7
#2	135280.	22156.	5733.5	8567.0

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/22/2018 0:36:29 Type: QC
Method: Accutest XPress(v324) 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	**.5079**	**.4888**	**1.014**	**.4984**	**.4896**	**.5013**	**.5100**	**.9942**	**1.050**
Stddev	.0045	.0037	.014	.0069	.0000	.0020	.0008	.0135	.002
%RSD	.8865	.7478	1.390	1.376	.0030	.4013	.1559	1.356	.1573
#1	.5047	.4862	1.004	.4935	.4896	.5027	.5105	.9846	1.049
#2	.5111	.4914	1.024	.5032	.4897	.4999	.5094	1.004	1.051
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	**.5000**	**.9785**	**1.085**	**.9866**	**.9994**	**.9890**	**1.045**	**509.6**	**392.2**
Stddev	.0012	.0116	.015	.0143	.0116	.0149	.013	.0	2.5
%RSD	.2378	1.189	1.365	1.452	1.158	1.509	1.275	.0024	.6288
#1	.5008	.9702	1.074	.9765	.9912	.9784	1.036	509.6	390.5
#2	.4992	.9867	1.095	.9967	1.008	.9995	1.055	509.6	393.9
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	**199.7**	**501.8**	**.0610**	**-.0242**	**.5152**	**.4884**	**.5201**	**.4776**	**.4980**
Stddev	1.3	3.7	.0325	.0001	.0061	.0058	.0077	.0056	.0043
%RSD	.6435	.7365	53.31	.4101	1.190	1.186	1.486	1.166	.8704
#1	198.8	499.2	.0840	-.0243	.5108	.4843	.5146	.4737	.4949
#2	200.7	504.4	.0380	-.0241	.5195	.4925	.5255	.4815	.5010
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: 5/22/2018 0:36:29 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5043**	**.4976**	**.4905**	**.5019**	**.5187**	**.5099**	**.5125**
Stddev	.0007	.0075	.0009	.0082	.0062	.0085	.0098
%RSD	.1343	1.509	.1883	1.636	1.196	1.676	1.904
#1	.5048	.4923	.4911	.4961	.5143	.5039	.5056
#2	.5038	.5029	.4898	.5077	.5231	.5160	.5194
Check ?	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	**136900.**	**22585.**	**5746.0**	**8579.9**
Stddev	440.	3.	5.3	7.9
%RSD	.32132	.01530	.09180	.09235
#1	136590.	22587.	5749.7	8585.5
#2	137210.	22582.	5742.2	8574.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 0:39:30 Type: QC
Method: Accutest XPress(v324) 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	**1.920**	**1.917**	**1.868**	**1.934**	**1.907**	**1.854**	**1.941**	**1.955**	**.2343**
Stddev	.010	.015	.023	.021	.008	.002	.006	.020	.0010
%RSD	.5340	.7587	1.209	1.086	.4258	.0895	.3196	1.002	.4191
#1	1.913	1.907	1.852	1.919	1.912	1.855	1.946	1.941	.2350
#2	1.927	1.928	1.884	1.949	1.901	1.852	1.937	1.969	.2336
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	**1.875**	**1.935**	**1.912**	**1.936**	**1.952**	**1.869**	**1.892**	**38.22**	**38.15**
Stddev	.008	.025	.026	.029	.022	.027	.028	.31	.34
%RSD	.4056	1.264	1.346	1.487	1.151	1.460	1.455	.8031	.8873
#1	1.880	1.918	1.894	1.916	1.936	1.850	1.873	38.00	37.91
#2	1.869	1.953	1.930	1.957	1.968	1.889	1.912	38.43	38.39
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	**38.45**	**38.40**	**38.09**	**38.48**	**1.899**	**1.884**	**4.760**	**1.918**	**1.899**
Stddev	.29	.29	.42	.29	.029	.022	.065	.019	.012
%RSD	.7445	.7611	1.110	.7452	1.530	1.173	1.361	.9898	.6220
#1	38.25	38.19	37.79	38.28	1.879	1.869	4.715	1.905	1.891
#2	38.65	38.61	38.39	38.68	1.920	1.900	4.806	1.932	1.907
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: 5/22/2018 0:39:30 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.904**	**1.903**	**1.893**	**1.867**	**1.908**	**1.887**	**1.881**
Stddev	.005	.018	.006	.030	.022	.011	.022
%RSD	.2901	.9408	.3355	1.590	1.138	.5702	1.197
#1	1.908	1.891	1.897	1.846	1.893	1.879	1.865
#2	1.900	1.916	1.888	1.888	1.923	1.894	1.896
Check ?	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	**152620.**	**23808.**	**6280.7**	**9438.2**
Stddev	1538.	243.	32.7	34.4
%RSD	1.0075	1.0214	.52107	.36439
#1	151530.	23980.	6303.9	9462.6
#2	153710.	23636.	6257.6	9413.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 0:42:19 Type: QC
Method: Accutest XPress(v324) 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**	**-.0002**	**.0002**	**-.0003**	**-.0001**	**-.0005**	**.0003**	**.0001**	**-.0002**
Stddev	.0002	.0000	.0000	.0005	.0002	.0005	.0000	.0001	.0005
%RSD	36.62	6.683	18.88	184.5	416.7	102.7	13.81	72.60	289.9
#1	.0006	-.0002	.0001	-.0006	.0001	-.0009	.0003	.0001	.0002
#2	.0003	-.0002	.0002	.0001	-.0002	-.0001	.0004	.0002	-.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	**-.0003**	**.0060**	**.0008**	**.0011**	**.0006**	**-.0029**	**.0004**	**.0169**	**.0225**
Stddev	.0001	.0001	.0001	.0004	.0012	.0027	.0004	.0045	.0019
%RSD	38.56	1.057	14.02	37.25	189.6	93.71	105.1	26.85	8.333
#1	-.0004	.0060	.0009	.0014	.0015	-.0048	.0001	.0201	.0238
#2	-.0002	.0059	.0007	.0008	-.0002	-.0010	.0006	.0137	.0212
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**	**.0271**	**.0527**	**-.0015**	**.0041**	**.0005**	**-.0050**	**.0007**	**.0003**
Stddev	.0029	.0124	.0047	.0097	.0009	.0002	.0003	.0001	.0001
%RSD	50.63	45.67	8.833	651.5	20.88	34.59	5.589	12.15	38.93
#1	.0036	.0359	.0559	-.0084	.0035	.0007	-.0052	.0007	.0004
#2	.0077	.0184	.0494	.0054	.0047	.0004	-.0048	.0008	.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: 5/22/2018 0:42:19 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0005**	**.0001**	**.0050**	**.0013**	**.0021**	**.0041**
Stddev	.0000	.0004	.0002	.0008	.0013	.0003	.0004
%RSD	4.443	76.22	297.7	16.80	103.5	12.27	10.29
#1	-.0001	-.0002	-.0001	.0056	.0022	.0020	.0038
#2	-.0001	-.0007	.0002	.0044	.0003	.0023	.0044
Check ?	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	**157450.**	**23997.**	**6463.7**	**9962.0**
Stddev	547.	183.	5.7	7.3
%RSD	.34750	.76339	.08844	.07306
#1	157840.	23868.	6459.7	9956.8
#2	157070.	24127.	6467.8	9967.1

Zoom In Zoom Out

Sample Name: alconf Acquired: 5/22/2018 0:46:24 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0002**	**-.0001**	**-.0002**	**-.0000**	**-.0006**	**.0001**	**-.0006**	**-.0005**	**.0003**
Stddev	.0003	.0000	.0000	.0002	.0008	.0002	.0000	.0003	.0010
%RSD	160.7	17.39	15.18	590.6	131.0	132.7	2.775	56.30	300.9
#1	.0004	-.0001	-.0002	.0001	-.0012	.0002	-.0006	-.0008	-.0004
#2	-.0000	-.0001	-.0002	-.0002	-.0000	.0000	-.0006	-.0003	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0004**	**.0035**	**.0011**	**.0025**	**-.0006**	**-.0031**	**.0054**	**505.5**	**.0269**
Stddev	.0002	.0002	.0006	.0013	.0026	.0030	.0015	6.9	.0040
%RSD	43.14	5.460	50.01	52.53	443.1	98.87	27.56	1.356	14.82
#1	-.0006	.0033	.0015	.0016	.0013	-.0009	.0043	510.3	.0297
#2	-.0003	.0036	.0007	.0034	-.0024	-.0052	.0064	500.6	.0241

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0106**	**.0057**	**-.0552**	**.0011**	**.0013**	**-.0003**	**-.0028**	**-.0028**	**.0001**
Stddev	.0041	.0037	.0739	.0088	.0002	.0001	.0001	.0008	.0002
%RSD	38.65	64.22	133.9	831.2	11.91	51.39	1.877	27.73	186.5
#1	.0135	.0031	-.1075	.0073	.0012	-.0004	-.0028	-.0034	.0002
#2	.0077	.0083	-.0030	-.0052	.0014	-.0002	-.0027	-.0023	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**-.0000**	**.0005**	**-.0059**	**-.0064**	**.0050**	**.0089**
Stddev	.0003	.0017	.0001	.0009	.0017	.0020	.0025
%RSD	204.2	3492.	24.22	14.68	26.06	39.61	28.67
#1	-.0001	-.0013	.0006	-.0065	-.0076	.0064	.0107
#2	.0004	.0012	.0004	-.0053	-.0052	.0036	.0071

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**147850.**	**24695.**	**6450.1**	**9411.4**
Stddev	371.	62.	8.1	.9
%RSD	.25101	.24997	.12548	.00915
#1	148110.	24651.	6444.4	9412.0
#2	147590.	24739.	6455.8	9410.8

Zoom In Zoom Out

Sample Name: caconf Acquired: 5/22/2018 0:49:27 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0007**	**-.0001**	**-.0001**	**-.0007**	**.0002**	**.0006**	**.0002**	**.0003**
Stddev	.0001	.0000	.0002	.0002	.0001	.0000	.0000	.0001
%RSD	14.13	32.91	194.8	28.17	27.49	5.061	7.351	42.47
#1	.0006	-.0000	-.0002	-.0008	.0002	.0007	.0002	.0004
#2	.0007	-.0001	.0000	-.0005	.0002	.0006	.0002	.0002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0004**	**-.0002**	**.0025**	**.0000**	F **-.0033**	**-.0007**	**.0014**	**.0014**
Stddev	.0000	.0005	.0003	.0003	.0001	.0015	.0009	.0009
%RSD	2.663	211.8	12.67	566.2	1.858	216.4	63.30	65.48
#1	.0005	-.0006	.0023	.0002	-.0032	-.0018	.0007	.0021
#2	.0004	.0001	.0027	-.0001	-.0033	.0004	.0020	.0008

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0097**	F **403.4**	**-.0057**	**.0135**	**.0890**	**-.0542**	**.0017**	**-.0001**
Stddev	.0003	1.9	.0017	.0012	.0772	.0057	.0002	.0003
%RSD	2.924	.4811	29.85	8.969	86.76	10.50	13.22	456.4
#1	.0095	402.0	-.0070	.0127	.0344	-.0582	.0018	-.0002
#2	.0099	404.7	-.0045	.0144	.1436	-.0502	.0015	.0001

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0003**	**-.0013**	**-.0038**	**-.0022**	**-.0004**	**.0001**	**-.0076**	**.0010**
Stddev	.0006	.0000	.0002	.0002	.0001	.0001	.0023	.0022
%RSD	184.1	.5732	4.011	10.50	29.11	76.36	30.53	215.1
#1	.0001	-.0013	-.0037	-.0020	-.0003	.0001	-.0059	-.0005
#2	-.0007	-.0013	-.0039	-.0023	-.0004	.0002	-.0092	.0026

Elem	Li6707	P_1774
Avg	**.0054**	**.0024**
Stddev	.0017	.0001
%RSD	31.54	5.081
#1	.0042	.0023
#2	.0066	.0024

Zoom In Zoom Out

Sample Name: caconf Acquired: 5/22/2018 0:49:27 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**147260.**	**23546.**	**6077.8**	**9135.5**
Stddev	324.	116.	.8	3.3
%RSD	.22029	.49345	.01254	.03603
#1	147490.	23464.	6077.3	9133.2
#2	147030.	23628.	6078.4	9137.8

Zoom In Zoom Out

Sample Name: mgconf Acquired: 5/22/2018 0:52:35 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0010**	**-.0001**	**.0003**	**-.0001**	**-.0006**	**.0003**	**.0014**	**-.0003**	**-.0004**
Stddev	.0000	.0001	.0003	.0001	.0002	.0001	.0001	.0002	.0001
%RSD	1.608	107.8	81.36	208.4	27.92	23.61	5.737	57.83	23.72
#1	.0010	-.0000	.0005	-.0001	-.0005	.0002	.0014	-.0002	-.0005
#2	.0010	-.0002	.0001	.0000	-.0007	.0003	.0015	-.0004	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.0064**	**.0003**	**.0011**	**-.0003**	**.0033**	**.0016**	**-.0031**	**.0961**
Stddev	.0001	.0001	.0010	.0017	.0024	.0025	.0006	.0008	.0009
%RSD	8.262	2.150	296.8	156.8	907.4	75.70	39.69	25.64	.9406
#1	.0010	.0063	.0010	-.0001	.0014	.0015	.0021	-.0037	.0955
#2	.0009	.0064	-.0004	.0023	-.0019	.0051	.0012	-.0026	.0968

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0004**	**494.8**	**.0136**	**.0184**	**.0018**	**.0003**	**-.0014**	**-.0002**	**.0002**
Stddev	.0002	3.4	.0047	.0077	.0006	.0003	.0007	.0003	.0000
%RSD	66.73	.6782	34.38	41.81	36.27	88.58	54.75	167.1	20.23
#1	.0005	497.2	.0103	.0130	.0022	.0005	-.0008	-.0004	.0002
#2	.0002	492.5	.0169	.0238	.0013	.0001	-.0019	.0000	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**-.0006**	**.0003**	**.0026**	**-.0015**	**.0035**	**.0073**
Stddev	.0001	.0013	.0001	.0003	.0013	.0031	.0000
%RSD	133.9	209.9	23.87	12.23	85.16	88.18	.5931
#1	.0000	.0003	.0003	.0029	-.0006	.0057	.0073
#2	.0002	-.0015	.0004	.0024	-.0024	.0013	.0073

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**145770.**	**23286.**	**6033.4**	**9014.2**
Stddev	1007.	340.	6.4	5.4
%RSD	.69062	1.4600	.10664	.05950
#1	146480.	23046.	6038.0	9017.9
#2	145060.	23526.	6028.9	9010.4

Zoom In Zoom Out

Sample Name: mnconf Acquired: 5/22/2018 0:55:36 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0004**	**-.0003**	**-.0007**	**-.0002**	**-.0013**	**.0009**	F **10.21**	**.0002**	**-.0001**
Stddev	.0000	.0000	.0001	.0004	.0002	.0003	.19	.0000	.0006
%RSD	9.935	3.319	7.463	179.3	13.71	37.37	1.840	15.02	517.5
#1	.0004	-.0003	-.0007	-.0006	-.0015	.0011	10.34	.0003	-.0005
#2	.0004	-.0003	-.0007	.0001	-.0012	.0007	10.07	.0002	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0009**	**.0085**	**.0006**	**.0029**	**.0014**	**.0009**	**-.0003**	**.0323**	**.1527**
Stddev	.0006	.0001	.0006	.0004	.0004	.0028	.0001	.0165	.0042
%RSD	66.10	1.059	96.99	12.45	25.62	307.6	23.95	50.97	2.740
#1	-.0005	.0085	.0011	.0032	.0012	.0029	-.0002	.0207	.1497
#2	-.0014	.0084	.0002	.0027	.0017	-.0011	-.0003	.0440	.1556

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0057**	**.0044**	**.2014**	**.0145**	**.0010**	**.0001**	**-.0025**	**.0004**	**.0001**
Stddev	.0016	.0042	.0600	.0107	.0006	.0002	.0005	.0001	.0001
%RSD	27.65	95.95	29.82	73.69	56.37	138.8	19.05	16.36	119.0
#1	.0046	.0074	.2438	.0069	.0006	.0000	-.0022	.0003	.0000
#2	.0068	.0014	.1589	.0220	.0014	.0002	-.0029	.0004	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0005**	**-.0017**	**.0003**	**.0073**	**-.0003**	**.0025**	**.0416**
Stddev	.0004	.0020	.0001	.0041	.0011	.0005	.0013
%RSD	67.71	118.7	23.88	55.94	308.5	19.23	3.020
#1	-.0008	-.0031	.0003	.0044	-.0011	.0021	.0425
#2	-.0003	-.0003	.0004	.0102	.0004	.0028	.0407

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155520.**	**24134.**	**6418.5**	**9903.7**
Stddev	1046.	468.	6.9	3.3
%RSD	.67278	1.9395	.10703	.03325
#1	154780.	24465.	6413.7	9901.4
#2	156260.	23803.	6423.4	9906.1

Zoom In Zoom Out

Sample Name: vconf Acquired: 5/22/2018 0:58:44 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0008**	**-.0000**	**-.0002**	**.0001**	**-.0005**	**-.0005**	**.0000**	**-.0004**	**.0021**
Stddev	.0000	.0004	.0000	.0002	.0001	.0002	.0000	.0001	.0003
%RSD	6.192	763.5	5.651	218.2	12.70	39.30	60.92	18.93	16.10
#1	.0008	-.0003	-.0002	-.0000	-.0005	-.0004	.0000	-.0005	.0018
#2	.0007	.0002	-.0002	.0002	-.0004	-.0007	.0000	-.0004	.0023

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	F **10.09**	**.0003**	**-.0001**	**.0000**	**-.0007**	**-.0014**	**.0081**	**-.0040**	**.0097**
Stddev	.04	.0001	.0000	.0033	.0008	.0005	.0015	.0117	.0006
%RSD	.4291	27.26	6.056	11740.	119.5	34.14	18.93	290.9	6.633
#1	10.06	.0004	-.0001	.0023	-.0012	-.0017	.0092	.0042	.0093
#2	10.12	.0003	-.0001	-.0023	-.0001	-.0011	.0070	-.0123	.0102

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0002**	**.0227**	**.0525**	**.0677**	**.0239**	**-.0015**	**.0257**	**.0008**	**-.0000**
Stddev	.0004	.0035	.0519	.0054	.0006	.0002	.0087	.0001	.0001
%RSD	145.3	15.41	98.76	8.040	2.591	10.28	33.77	12.45	333.5
#1	-.0000	.0252	.0158	.0715	.0235	-.0016	.0196	.0008	.0000
#2	.0005	.0202	.0892	.0638	.0243	-.0014	.0318	.0009	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0002**	**.0019**	**.0020**	**-.0004**	**.0118**	**.0040**	**-.0023**
Stddev	.0000	.0005	.0002	.0009	.0007	.0012	.0006
%RSD	22.89	27.14	10.25	214.3	5.936	30.20	26.06
#1	.0001	.0015	.0021	-.0011	.0113	.0048	-.0019
#2	.0002	.0022	.0018	.0002	.0123	.0031	-.0027

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155980.**	**24151.**	**6444.1**	**9928.1**
Stddev	295.	821.	27.7	52.6
%RSD	.18939	3.4008	.42971	.52985
#1	156190.	24732.	6463.7	9965.3
#2	155780.	23570.	6424.6	9890.9

Zoom In Zoom Out

Sample Name: siconf Acquired: 5/22/2018 1:01:46 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**-.0001**	**-.0003**	**-.0000**	**-.0001**	**.0002**	**-.0004**	**-.0001**	**-.0001**	**-.0006**
Stddev	.0002	.0000	.0001	.0002	.0001	.0004	.0000	.0002	.0001
%RSD	256.6	.4478	370.5	297.5	79.28	97.46	34.93	103.6	16.74
#1	.0001	-.0003	.0001	.0001	.0001	-.0006	-.0001	-.0003	-.0007
#2	-.0002	-.0003	-.0001	-.0003	.0003	-.0001	-.0001	-.0000	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**-.0002**	**-.0005**	**-.0012**	**-.0002**	**-.0008**	**.0003**	**-.0138**	**-.0102**
Stddev	.0003	.0000	.0013	.0004	.0010	.0000	.0009	.0044	.0018
%RSD	1049.	21.97	254.2	33.08	446.7	3.061	342.2	31.92	17.43
#1	.0002	-.0002	-.0014	-.0015	.0005	-.0008	.0009	-.0107	-.0090
#2	-.0002	-.0002	.0004	-.0009	-.0010	-.0007	-.0004	-.0169	-.0115

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0097**	**.0123**	**.0490**	**-.0079**	**.0044**	**.0001**	**10.34**	**-.0017**	**-.0004**
Stddev	.0016	.0049	.0502	.0120	.0005	.0002	.17	.0000	.0001
%RSD	16.78	39.96	102.5	152.4	11.79	149.4	1.612	.3524	28.02
#1	-.0109	.0157	.0135	.0006	.0040	-.0000	10.22	-.0017	-.0004
#2	-.0086	.0088	.0845	-.0164	.0048	.0003	10.46	-.0016	-.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0037**	**-.0058**	**-.0000**	**-.0013**	**.0034**	**.0028**
Stddev	.0002	.0004	.0001	.0000	.0014	.0004	.0002
%RSD	406.6	10.85	1.543	283.4	106.0	12.11	7.903
#1	-.0002	-.0040	-.0058	.0000	-.0003	.0037	.0027
#2	.0001	-.0035	-.0059	-.0000	-.0023	.0031	.0030

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156260.**	**24016.**	**6454.3**	**9943.0**
Stddev	453.	122.	22.0	28.5
%RSD	.29020	.50697	.34032	.28625
#1	156580.	23930.	6469.8	9963.1
#2	155940.	24102.	6438.7	9922.8

Zoom In Zoom Out

Sample Name: ticonf Acquired: 5/22/2018 1:04:48 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0002**	**.0001**	**-.0002**	**-.0007**	**-.0006**	**-.0009**	**.0000**	**-.0003**
Stddev	.0001	.0000	.0001	.0003	.0000	.0000	.0000	.0002
%RSD	28.72	50.52	26.22	41.92	7.478	5.403	.3119	47.74
#1	.0002	.0001	-.0003	-.0005	-.0007	-.0009	.0000	-.0002
#2	.0001	.0001	-.0002	-.0009	-.0006	-.0009	.0000	-.0005

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0003**	**-.0004**	**.0019**	**.0008**	**-.0008**	**.0034**	**-.0005**	**.0083**
Stddev	.0003	.0001	.0000	.0004	.0007	.0010	.0017	.0004
%RSD	99.22	11.76	1.592	44.82	85.20	29.88	364.5	4.429
#1	.0004	-.0004	.0019	.0011	-.0013	.0042	.0007	.0080
#2	.0001	-.0005	.0020	.0006	-.0003	.0027	-.0017	.0085

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0151**	**.0145**	**.0030**	**-.0175**	**.0141**	**-.0067**	**.0014**	**.0002**
Stddev	.0053	.0008	.0022	.0152	.0373	.0037	.0007	.0000
%RSD	35.38	5.740	73.00	86.74	264.1	54.51	49.68	19.29
#1	.0189	.0151	.0046	-.0068	.0405	-.0041	.0009	.0002
#2	.0113	.0139	.0015	-.0282	-.0123	-.0093	.0018	.0003

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0045**	**-.0048**	**-.0000**	W **9.925**	**-.0027**	**-.0038**	**-.0005**	**.0979**
Stddev	.0003	.0010	.0000	.112	.0005	.0001	.0025	.0042
%RSD	7.691	20.41	16.10	1.128	19.46	2.273	497.4	4.238
#1	-.0043	-.0055	-.0000	9.846	-.0031	-.0039	-.0023	.0950
#2	-.0047	-.0041	-.0000	10.00	-.0023	-.0037	.0013	.1009

Elem	Li6707	P_1774
Avg	**.0034**	**.0037**
Stddev	.0000	.0010
%RSD	1.260	26.11
#1	.0035	.0030
#2	.0034	.0044

Zoom In Zoom Out

Sample Name: ticonf Acquired: 5/22/2018 1:04:48 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157370.**	**23993.**	**6439.9**	**9929.6**
Stddev	1906.	191.	21.9	36.6
%RSD	1.2110	.79699	.33933	.36842
#1	158710.	23857.	6424.4	9903.8
#2	156020.	24128.	6455.3	9955.5

Zoom In Zoom Out

Sample Name: moconf Acquired: 5/22/2018 1:07:53 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0001**	**-.0002**	**-.0000**	**-.0048**	**-.0002**	**-.0053**	**-.0003**	**-.0005**
Stddev	.0005	.0003	.0002	.0072	.0005	.0091	.0001	.0003
%RSD	403.3	114.3	1278.	150.2	308.1	170.8	42.67	67.56
#1	-.0005	-.0004	.0002	-.0099	.0002	-.0118	-.0002	-.0003
#2	.0002	-.0000	-.0002	.0003	-.0005	.0011	-.0004	-.0008

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0024**	**-.0012**	**-.0028**	**.0150**	F **-.0428**	F **-.0032**	**-.0024**	**.0009**
Stddev	.0000	.0008	.0001	.0179	.0566	.0056	.0040	.0016
%RSD	1.579	65.53	2.104	119.8	132.3	172.6	167.8	178.4
#1	.0024	-.0017	-.0027	.0276	-.0829	-.0072	.0004	.0020
#2	.0024	-.0006	-.0028	.0023	-.0028	.0007	-.0052	-.0002

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.2244**	**-.0075**	**-.0040**	**-.0727**	**.0209**	**.0093**	**.1830**	W **9.912**
Stddev	.2725	.0007	.0013	.1264	.0232	.0091	.2663	.089
%RSD	121.4	9.627	31.82	173.9	111.1	98.12	145.5	.8966
#1	.4171	-.0070	-.0031	-.1620	.0373	.0028	.3713	9.849
#2	.0318	-.0081	-.0049	.0167	.0045	.0157	-.0053	9.975

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.1637**	**-.0007**	**-.0000**	**.0027**	**.0010**	**.0021**	**.0011**	**-.0004**
Stddev	.2147	.0001	.0001	.0013	.0014	.0031	.0033	.0019
%RSD	131.2	16.70	3728.	49.71	143.3	147.6	303.2	516.8
#1	.3155	-.0006	.0001	.0037	-.0000	.0043	.0035	.0010
#2	.0118	-.0008	-.0001	.0018	.0020	-.0001	-.0013	-.0017

Elem	Li6707	P_1774
Avg	**.0016**	**.0039**
Stddev	.0008	.0012
%RSD	52.49	29.96
#1	.0010	.0047
#2	.0022	.0030

Zoom In Zoom Out

Sample Name: moconf Acquired: 5/22/2018 1:07:53 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	*****	23403.	6452.4	9979.9
Stddev	-----	1264.	4.5	8.0
%RSD	-----	5.4026	.06909	.08037
#1	-----	24297.	6455.6	9974.2
#2	155790.	22509.	6449.3	9985.5

Zoom In Zoom Out

Sample Name: coconf Acquired: 5/22/2018 1:10:53 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**-.0001**	**-.0001**	**.0019**	F **10.33**	**-.0003**	**-.0010**	**-.0001**	**-.0002**	**-.0000**
Stddev	.0001	.0000	.0002	.08	.0003	.0004	.0000	.0003	.0006
%RSD	88.78	18.59	11.02	.7642	98.62	42.28	15.27	158.1	1268.
#1	-.0000	-.0001	.0017	10.27	-.0005	-.0013	-.0001	-.0004	.0004
#2	-.0001	-.0001	.0020	10.38	-.0001	-.0007	-.0001	.0000	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0015**	**-.0001**	**.0019**	**.0011**	**-.0037**	**-.0006**	**-.0052**	**.0372**
Stddev	.0001	.0001	.0008	.0006	.0013	.0016	.0004	.0085	.0015
%RSD	83.03	7.909	566.9	31.35	122.1	42.77	68.72	162.3	4.085
#1	-.0001	.0016	.0004	.0015	.0001	-.0049	-.0003	.0008	.0383
#2	-.0003	.0014	-.0007	.0023	.0020	-.0026	-.0008	-.0112	.0362

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0035**	**.0087**	**.0537**	**-.0047**	**-.0007**	**.0010**	**-.0076**	**.0011**	**.0001**
Stddev	.0024	.0106	.0296	.0080	.0004	.0002	.0003	.0002	.0001
%RSD	67.70	121.5	55.17	168.5	57.08	23.97	4.474	15.59	210.7
#1	-.0051	.0162	.0746	.0009	-.0004	.0012	-.0078	.0012	-.0000
#2	-.0018	.0012	.0327	-.0103	-.0009	.0009	-.0073	.0009	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0005**	**.0073**	**.0003**	**.0027**	**.0006**	**.0027**	**.0038**
Stddev	.0001	.0007	.0004	.0011	.0003	.0007	.0005
%RSD	11.57	9.163	130.6	41.67	52.38	24.32	12.57
#1	-.0006	.0069	.0006	.0035	.0008	.0031	.0035
#2	-.0005	.0078	.0000	.0019	.0004	.0022	.0042

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	156470.	24162.	6467.3	10009.
Stddev	592.	212.	27.1	36.
%RSD	.37810	.87618	.41894	.36333
#1	156060.	24312.	6448.2	9983.2
#2	156890.	24012.	6486.5	10035.

Zoom In Zoom Out

Sample Name: sconf Acquired: 5/22/2018 1:13:55 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0015**	**-.0002**	**-.0000**	**-.0002**	**-.0002**	**-.0004**	**-.0001**	**.0001**
Stddev	.0003	.0000	.0000	.0000	.0000	.0000	.0000	.0002
%RSD	22.11	21.28	64.47	20.45	9.504	13.99	23.73	171.1
#1	.0013	-.0002	-.0001	-.0002	-.0002	-.0004	-.0001	.0002
#2	.0018	-.0001	-.0000	-.0001	-.0002	-.0003	-.0001	-.0000

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0002**	**-.0001**	**-.0003**	**-.0008**	**-.0001**	**.0003**	**.0031**	**-.0001**
Stddev	.0005	.0001	.0000	.0019	.0002	.0008	.0007	.0009
%RSD	237.8	94.77	7.836	224.9	414.1	286.7	22.42	1029.
#1	-.0006	-.0002	-.0003	.0005	.0001	-.0003	.0026	-.0007
#2	.0002	-.0000	-.0003	-.0022	-.0002	.0008	.0036	.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0032**	**-.0083**	**-.0027**	**.0150**	**-.0057**	**-.0098**	**.0001**	**.0005**
Stddev	.0010	.0023	.0011	.0234	.0240	.0167	.0001	.0002
%RSD	30.05	27.54	40.84	156.1	418.3	170.8	175.2	42.03
#1	.0025	-.0099	-.0019	-.0016	-.0227	-.0216	.0002	.0006
#2	.0039	-.0067	-.0035	.0315	.0112	.0020	-.0000	.0003

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0027**	**-.0001**	**.0006**	**.0007**	**-.0011**	**.0035**	W **94.24**	**.0009**
Stddev	.0009	.0002	.0001	.0003	.0004	.0000	1.51	.0029
%RSD	32.06	191.6	15.10	44.85	34.72	1.178	1.607	327.2
#1	-.0033	-.0003	.0005	.0005	-.0008	.0035	93.17	.0030
#2	-.0021	.0000	.0007	.0009	-.0014	.0035	95.31	-.0012

Elem	Li6707	P_1774
Avg	**.0012**	**.0025**
Stddev	.0003	.0007
%RSD	21.25	27.35
#1	.0014	.0020
#2	.0010	.0029

Zoom In Zoom Out

Sample Name: sconf Acquired: 5/22/2018 1:13:55 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	157130.	24016.	6453.8	9994.1
Stddev	121.	419.	1.9	6.0
%RSD	.07675	1.7457	.02914	.06019
#1	157050.	24312.	6455.1	9989.9
#2	157220.	23719.	6452.5	9998.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 1:16:58 Type: QC
Method: Accutest XPress(v324) 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	**2.017**	**1.992**	**1.962**	**2.012**	**1.965**	**1.941**	**2.009**	**2.038**	**.2457**
Stddev	.008	.012	.017	.013	.018	.022	.020	.014	.0031
%RSD	.3832	.5837	.8571	.6616	.9215	1.154	.9889	.7040	1.263
#1	2.023	2.001	1.951	2.002	1.953	1.925	1.995	2.028	.2435
#2	2.012	1.984	1.974	2.021	1.978	1.957	2.023	2.048	.2479
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	**1.942**	**2.005**	**2.012**	**2.020**	**2.042**	**1.956**	**2.000**	**40.09**	**40.04**
Stddev	.020	.013	.020	.021	.016	.017	.016	.26	.21
%RSD	1.018	.6309	.9799	1.066	.7997	.8424	.7827	.6502	.5367
#1	1.928	1.996	1.998	2.005	2.031	1.944	1.989	40.28	40.20
#2	1.956	2.014	2.026	2.036	2.054	1.968	2.011	39.91	39.89
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	**40.35**	**40.21**	**40.63**	**40.91**	**1.996**	**1.970**	**5.024**	**2.007**	**1.982**
Stddev	.24	.27	.08	.12	.017	.014	.048	.012	.010
%RSD	.6065	.6755	.2073	.3038	.8630	.7332	.9499	.5762	.5136
#1	40.52	40.41	40.68	41.00	1.984	1.960	4.990	1.999	1.990
#2	40.18	40.02	40.57	40.82	2.008	1.980	5.058	2.015	1.975
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: 5/22/2018 1:16:58 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.987**	**1.998**	**1.963**	**1.964**	**2.020**	**1.987**	**1.960**
Stddev	.018	.016	.019	.021	.021	.004	.015
%RSD	.9282	.7756	.9886	1.083	1.062	.2004	.7481
#1	1.974	1.987	1.949	1.949	2.005	1.990	1.949
#2	2.000	2.009	1.977	1.979	2.035	1.985	1.970
Check ?	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	**151590.**	**23679.**	**6243.3**	**9382.8**
Stddev	800.	133.	32.2	50.4
%RSD	.52752	.56297	.51529	.53707
#1	152150.	23584.	6220.5	9347.1
#2	151020.	23773.	6266.0	9418.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 1:19:48 Type: QC
Method: Accutest XPress(v324) 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**	**.0000**	**-.0001**	**-.0004**	**-.0001**	**-.0001**	**.0000**	**-.0002**	**-.0006**
Stddev	.0002	.0000	.0000	.0000	.0001	.0006	.0000	.0001	.0000
%RSD	38.60	184.7	9.967	8.712	178.1	935.6	51.49	28.99	4.033
#1	.0004	-.0000	-.0001	-.0004	-.0001	-.0005	.0000	-.0003	-.0006
#2	.0007	.0000	-.0001	-.0003	.0000	.0003	.0000	-.0002	-.0006
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**	**-.0005**	**.0012**	**-.0003**	**.0002**	**-.0008**	**-.0007**	**.0095**	**-.0102**
Stddev	.0001	.0001	.0018	.0017	.0013	.0018	.0020	.0115	.0029
%RSD	57.96	16.21	149.4	615.4	543.4	237.7	293.3	121.5	28.82
#1	.0003	-.0006	-.0001	.0009	-.0007	.0005	.0007	.0176	-.0081
#2	.0001	-.0005	.0024	-.0015	.0011	-.0021	-.0021	.0013	-.0123
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	**-.0002**	**.0194**	**.0639**	**-.0072**	**.0022**	**.0002**	**-.0040**	**.0006**	**.0001**
Stddev	.0001	.0042	.0019	.0137	.0009	.0002	.0006	.0001	.0002
%RSD	69.10	21.52	3.012	191.2	39.88	91.08	16.06	11.45	184.8
#1	-.0001	.0165	.0653	-.0169	.0028	.0001	-.0036	.0006	-.0000
#2	-.0003	.0224	.0626	.0025	.0016	.0004	-.0045	.0007	.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: 5/22/2018 1:19:48 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0016**	**.0004**	**.0009**	**-.0012**	F **.0057**	**.0027**
Stddev	.0002	.0005	.0003	.0010	.0016	.0006	.0004
%RSD	68.99	28.55	71.07	110.1	139.2	10.93	14.80
#1	-.0005	-.0013	.0006	.0015	-.0023	.0053	.0030
#2	-.0002	-.0019	.0002	.0002	-.0000	.0062	.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**158340.**	**24130.**	**6486.5**	**10004.**
Stddev	2003.	7.	8.3	13.
%RSD	1.2647	.03027	.12732	.12777
#1	159750.	24125.	6492.3	10013.
#2	156920.	24135.	6480.7	9995.0

Zoom In Zoom Out

Sample Name: jc66223-6 Acquired: 5/22/2018 1:22:50 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.5740**	**.0052**	**.0156**	**.0962**	**.3376**	F **10.75**	**4.319**	**.5084**	**.0026**
Stddev	.0001	.0000	.0003	.0011	.0018	.01	.006	.0054	.0005
%RSD	.0227	.0413	1.933	1.187	.5348	.0968	.1441	1.067	19.81
#1	.5739	.0052	.0154	.0954	.3363	10.76	4.323	.5045	.0030
#2	.5741	.0052	.0158	.0970	.3389	10.74	4.314	.5122	.0022

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.5726**	**6.716**	**.1344**	**.0024**	**2.997**	**-.0058**	**.0185**	**67.19**	**22.89**
Stddev	.0035	.053	.0017	.0003	.028	.0007	.0009	.12	.03
%RSD	.6046	.7858	1.260	13.94	.9429	12.19	5.091	.1763	.1196
#1	.5702	6.679	.1332	.0021	2.977	-.0063	.0192	67.28	22.91
#2	.5750	6.753	.1356	.0026	3.017	-.0053	.0179	67.11	22.87

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	F **470.7**	**30.89**	**11.14**	**1.865**	**.0282**	**.0330**	**8.164**	**.1474**	**.2233**
Stddev	1.9	.04	.08	.009	.0002	.0001	.053	.0008	.0001
%RSD	.4109	.1335	.7502	.4845	.7611	.2050	.6537	.5736	.0336
#1	469.3	30.86	11.08	1.871	.0280	.0331	8.126	.1468	.2233
#2	472.1	30.92	11.20	1.858	.0283	.0330	8.202	.1480	.2234

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.724**	**.0196**	**.0318**	**6.206**	**.0792**	**.0900**	**4.636**
Stddev	.024	.0003	.0004	.045	.0025	.0003	.035
%RSD	.4108	1.437	1.201	.7208	3.205	.3205	.7591
#1	5.707	.0194	.0315	6.175	.0810	.0902	4.611
#2	5.741	.0198	.0321	6.238	.0774	.0898	4.661

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**150220.**	**23627.**	**6192.7**	**9670.8**
Stddev	277.	76.	11.6	10.7
%RSD	.18430	.32045	.18775	.11014
#1	150410.	23574.	6184.5	9663.2
#2	150020.	23681.	6201.0	9678.3

Zoom In Zoom Out

Sample Name: jc66223-7 Acquired: 5/22/2018 1:26:00 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2716**	**.0020**	**.0005**	**.0753**	**.1101**	**.4148**	**2.262**	**.1459**	**.0015**
Stddev	.0023	.0001	.0001	.0014	.0009	.0002	.006	.0019	.0007
%RSD	.8614	6.155	24.02	1.806	.8312	.0433	.2559	1.283	47.02
#1	.2732	.0020	.0005	.0743	.1108	.4147	2.266	.1446	.0020
#2	.2699	.0019	.0006	.0762	.1095	.4149	2.257	.1472	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.7784**	**.6104**	**.0123**	**.0003**	**.1225**	**-.0040**	**.0012**	**85.47**	**59.57**
Stddev	.0025	.0060	.0004	.0006	.0064	.0029	.0008	.76	.54
%RSD	.3266	.9820	3.642	184.6	5.222	74.00	67.79	.8838	.9007
#1	.7802	.6061	.0126	-.0001	.1180	-.0019	.0018	86.01	59.95
#2	.7766	.6146	.0120	.0007	.1270	-.0060	.0006	84.94	59.19

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**180.5**	**37.85**	**10.06**	**7.633**	**.0978**	**.0228**	**2.476**	**.0271**	**.1846**
Stddev	1.6	.37	.06	.047	.0020	.0000	.003	.0016	.0018
%RSD	.8732	.9713	.6383	.6128	2.003	.2057	.1024	5.784	.9585
#1	181.6	38.11	10.10	7.666	.0964	.0228	2.478	.0282	.1858
#2	179.4	37.59	10.01	7.600	.0992	.0228	2.474	.0260	.1833

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	F **10.02**	**.0079**	**.0762**	**14.34**	**.1164**	**.0980**	**2.814**
Stddev	.12	.0015	.0005	.17	.0106	.0010	.031
%RSD	1.218	19.19	.6440	1.207	9.134	.9931	1.117
#1	10.10	.0089	.0765	14.22	.1239	.0973	2.792
#2	9.930	.0068	.0758	14.47	.1089	.0987	2.837

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159840.**	**25397.**	**6636.9**	**9797.1**
Stddev	620.	210.	15.9	19.9
%RSD	.38781	.82574	.23987	.20263
#1	159410.	25248.	6625.6	9783.1
#2	160280.	25545.	6648.1	9811.1

Zoom In Zoom Out

Sample Name: jc66223-8 Acquired: 5/22/2018 1:29:00 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.4355**	**.0055**	**.0238**	**.0501**	**.0521**	**2.828**	**.6204**	**.1219**	**.0009**
Stddev	.0030	.0000	.0004	.0006	.0001	.015	.0033	.0014	.0005
%RSD	.6789	.3817	1.732	1.133	.1565	.5429	.5292	1.137	61.32
#1	.4334	.0055	.0235	.0497	.0521	2.817	.6181	.1209	.0005
#2	.4376	.0055	.0241	.0505	.0522	2.839	.6227	.1228	.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1353**	**1.804**	**.0529**	**.0006**	**.0958**	**-.0039**	**.0005**	**46.58**	**11.83**
Stddev	.0000	.020	.0019	.0000	.0001	.0040	.0004	.38	.11
%RSD	.0017	1.122	3.619	.8347	.1272	101.3	79.19	.8201	.8892
#1	.1353	1.789	.0515	.0006	.0957	-.0067	.0002	46.31	11.75
#2	.1353	1.818	.0542	.0006	.0959	-.0011	.0008	46.85	11.90

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**133.3**	**2.103**	**2.462**	**.7261**	**.0169**	**.0141**	**2.924**	**.0252**	**.3169**
Stddev	1.0	.020	.016	.0130	.0005	.0003	.006	.0013	.0030
%RSD	.7842	.9375	.6486	1.784	3.063	2.114	.2020	5.061	.9316
#1	132.5	2.089	2.450	.7170	.0172	.0139	2.920	.0243	.3148
#2	134.0	2.117	2.473	.7353	.0165	.0143	2.929	.0261	.3190

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.403**	**.0040**	**.0342**	**2.212**	**.0159**	**.0413**	**3.037**
Stddev	.009	.0006	.0003	.021	.0006	.0014	.041
%RSD	.6245	15.60	.7350	.9642	3.520	3.458	1.336
#1	1.397	.0044	.0340	2.197	.0155	.0403	3.008
#2	1.409	.0035	.0343	2.227	.0163	.0423	3.066

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**162150.**	**25408.**	**6688.0**	**9992.9**
Stddev	205.	91.	2.6	4.5
%RSD	.12663	.35858	.03897	.04511
#1	162010.	25473.	6686.2	9996.1
#2	162300.	25344.	6689.9	9989.7

Zoom In Zoom Out

Sample Name: jc66223-9 Acquired: 5/22/2018 1:31:54 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.4634**	**.0025**	**.0314**	**.0566**	**.1054**	**4.090**	**3.085**	**.1736**	**-.0025**
Stddev	.0016	.0000	.0004	.0005	.0001	.013	.012	.0009	.0004
%RSD	.3349	1.043	1.321	.8421	.0779	.3280	.3715	.5097	16.80
#1	.4644	.0025	.0311	.0562	.1054	4.081	3.077	.1730	-.0022
#2	.4623	.0025	.0316	.0569	.1055	4.100	3.093	.1742	-.0028

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1861**	**2.634**	**.0685**	**.0026**	**1.163**	**-.0099**	**.0022**	**30.16**	**12.03**
Stddev	.0006	.016	.0005	.0016	.008	.0002	.0015	.12	.05
%RSD	.3164	.6162	.7798	60.32	.6670	2.237	69.01	.3876	.3897
#1	.1857	2.623	.0681	.0015	1.158	-.0097	.0011	30.24	12.07
#2	.1866	2.646	.0689	.0037	1.169	-.0100	.0033	30.08	12.00

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	F **417.9**	**5.052**	**4.624**	**2.790**	**.0342**	**.0151**	**2.344**	**.2261**	**.1466**
Stddev	1.0	.017	.069	.012	.0004	.0004	.016	.0010	.0005
%RSD	.2414	.3450	1.487	.4136	1.149	2.482	.6694	.4408	.3732
#1	417.1	5.065	4.673	2.798	.0345	.0154	2.333	.2254	.1470
#2	418.6	5.040	4.575	2.782	.0339	.0148	2.355	.2268	.1463

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.599**	**.0116**	**.0425**	**5.261**	**.0506**	**.0543**	**4.093**
Stddev	.001	.0016	.0001	.044	.0011	.0003	.032
%RSD	.0253	13.63	.3316	.8427	2.196	.4919	.7707
#1	2.598	.0128	.0424	5.230	.0498	.0544	4.071
#2	2.599	.0105	.0425	5.292	.0514	.0541	4.115

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153860.**	**24126.**	**6378.6**	**10044.**
Stddev	181.	318.	22.4	30.
%RSD	.11760	1.3171	.35124	.29551
#1	153740.	23901.	6362.7	10023.
#2	153990.	24350.	6394.4	10065.

Zoom In Zoom Out

Sample Name: jc66366-1 Acquired: 5/22/2018 1:34:58 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**1.905**	**.0073**	**.0070**	**.1131**	**.2334**	**.8901**	**4.581**	**.2576**	**.0008**
Stddev	.015	.0000	.0001	.0026	.0027	.0136	.073	.0046	.0005
%RSD	.8051	.3127	1.568	2.321	1.149	1.532	1.591	1.779	65.65
#1	1.894	.0074	.0071	.1113	.2315	.8805	4.530	.2543	.0004
#2	1.915	.0073	.0070	.1150	.2353	.8998	4.633	.2608	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3702**	**2.834**	**.0981**	**.0042**	**4.386**	**-.0012**	**.0027**	**119.0**	**61.25**
Stddev	.0019	.052	.0001	.0009	.086	.0021	.0029	.6	.45
%RSD	.5186	1.828	.0826	21.18	1.972	175.0	105.3	.5334	.7343
#1	.3689	2.797	.0981	.0048	4.324	.0003	.0047	118.5	60.93
#2	.3716	2.871	.0980	.0035	4.447	-.0026	.0007	119.4	61.56

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**223.4**	**26.38**	**9.840**	**2.605**	**.0587**	**.0147**	**2.534**	**.1775**	**.3179**
Stddev	5.2	.21	.161	.022	.0007	.0000	.042	.0040	.0020
%RSD	2.344	.7869	1.636	.8524	1.218	.1651	1.646	2.235	.6272
#1	219.7	26.23	9.726	2.590	.0582	.0147	2.505	.1747	.3164
#2	227.1	26.53	9.954	2.621	.0592	.0147	2.564	.1803	.3193

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.457**	**.0064**	**.0141**	**2.501**	**.0267**	**.1922**	**8.226**
Stddev	.012	.0002	.0001	.045	.0025	.0029	.153
%RSD	.7982	2.744	.4291	1.819	9.475	1.526	1.864
#1	1.449	.0065	.0141	2.468	.0285	.1901	8.118
#2	1.466	.0063	.0142	2.533	.0249	.1943	8.335

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156590.**	**24783.**	**6510.3**	**9664.8**
Stddev	164.	109.	26.2	45.3
%RSD	.10492	.43956	.40242	.46846
#1	156710.	24860.	6528.8	9696.8
#2	156480.	24706.	6491.8	9632.8

Zoom In Zoom Out

Sample Name: jc66366-2 Acquired: 5/22/2018 1:38:01 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.6390**	**.0062**	**.0003**	**.0918**	**.1363**	**.1794**	**6.003**	**.1968**
Stddev	.0025	.0000	.0001	.0007	.0007	.0005	.008	.0015
%RSD	.3871	.3754	29.43	.7729	.4825	.2558	.1405	.7591
#1	.6372	.0062	.0003	.0913	.1359	.1797	6.009	.1958
#2	.6407	.0062	.0004	.0923	.1368	.1790	5.997	.1979

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0018**	**.1634**	**.5094**	**.0579**	**.0014**	**.1223**	**-.0088**	F **-.0051**
Stddev	.0008	.0002	.0029	.0010	.0012	.0025	.0022	.0011
%RSD	42.86	.1223	.5614	1.804	91.46	2.046	25.34	20.67
#1	-.0012	.1635	.5074	.0572	.0005	.1205	-.0073	-.0044
#2	-.0023	.1632	.5114	.0587	.0022	.1241	-.0104	-.0059

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**99.67**	**7.378**	**222.5**	**27.73**	**11.00**	**.5122**	**.0173**	**.0071**
Stddev	.66	.058	3.3	.25	.09	.0047	.0001	.0001
%RSD	.6591	.7902	1.469	.9076	.8056	.9229	.5268	1.059
#1	99.20	7.337	224.8	27.55	10.93	.5089	.0173	.0072
#2	100.1	7.419	220.2	27.91	11.06	.5156	.0174	.0071

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**3.322**	**.0248**	**.0609**	**.6917**	**.0004**	**.0714**	**.2054**	**.0119**
Stddev	.023	.0001	.0005	.0046	.0008	.0001	.0010	.0024
%RSD	.6868	.3127	.7891	.6660	214.4	.1215	.5095	20.49
#1	3.338	.0248	.0606	.6884	.0009	.0715	.2046	.0102
#2	3.306	.0249	.0613	.6950	-.0002	.0714	.2061	.0136

Elem	Li6707	P_1774
Avg	**.1922**	**2.825**
Stddev	.0028	.017
%RSD	1.454	.5843
#1	.1902	2.814
#2	.1942	2.837

Zoom In Zoom Out

Sample Name: jc66366-2 Acquired: 5/22/2018 1:38:01 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157710.**	**24556.**	**6557.5**	**9643.9**
Stddev	1126.	43.	37.7	36.1
%RSD	.71411	.17468	.57531	.37477
#1	156920.	24587.	6530.9	9618.4
#2	158510.	24526.	6584.2	9669.5

Zoom In Zoom Out

Sample Name: jc66366-3 Acquired: 5/22/2018 1:41:09 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**1.080**	**.0065**	**.0016**	**.1140**	**.1510**	**1.009**	**6.934**	**.1627**	**.0018**
Stddev	.025	.0002	.0002	.0008	.0014	.009	.016	.0018	.0025
%RSD	2.277	2.834	9.980	.6621	.9583	.8627	.2359	1.106	142.2
#1	1.097	.0066	.0017	.1135	.1499	1.003	6.922	.1614	.0035
#2	1.062	.0063	.0014	.1145	.1520	1.015	6.945	.1640	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2188**	**2.039**	**.0821**	**.0044**	**3.983**	**.0003**	**.0002**	**109.8**	**15.73**
Stddev	.0019	.009	.0016	.0016	.025	.0034	.0011	2.4	.33
%RSD	.8646	.4628	1.989	36.16	.6222	1119.	643.7	2.216	2.099
#1	.2174	2.032	.0810	.0033	3.966	.0027	-.0006	111.6	15.96
#2	.2201	2.046	.0833	.0055	4.001	-.0021	.0010	108.1	15.49

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**231.8**	**20.03**	**10.25**	**1.034**	**.0227**	**.0126**	**2.508**	**.2605**	**.1432**
Stddev	8.9	.42	.14	.025	.0019	.0002	.028	.0016	.0028
%RSD	3.852	2.119	1.352	2.430	8.322	1.858	1.132	.6016	1.936
#1	238.1	20.33	10.35	1.052	.0214	.0128	2.488	.2594	.1452
#2	225.5	19.73	10.15	1.017	.0241	.0124	2.528	.2616	.1412

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.9088**	**.0041**	**.0185**	**1.290**	**.0177**	**.1824**	**5.422**
Stddev	.0099	.0002	.0006	.013	.0018	.0063	.032
%RSD	1.093	5.177	3.179	1.032	10.46	3.446	.5830
#1	.9018	.0043	.0189	1.281	.0164	.1868	5.400
#2	.9158	.0040	.0181	1.300	.0190	.1779	5.445

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**143530.**	**21692.**	**6079.4**	**9117.4**
Stddev	157.	489.	29.6	41.2
%RSD	.10920	2.2531	.48763	.45179
#1	143420.	21347.	6058.4	9088.2
#2	143640.	22038.	6100.3	9146.5

Zoom In Zoom Out

Sample Name: jc66380-1 Acquired: 5/22/2018 1:44:11 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.3060**	**.0047**	**-.0006**	**.0659**	**.1793**	**.1236**	**1.210**	**.1481**	**.0005**
Stddev	.0040	.0000	.0003	.0006	.0037	.0013	.022	.0007	.0004
%RSD	1.319	.2807	52.90	.8689	2.088	1.013	1.849	.5062	77.23
#1	.3031	.0047	-.0008	.0655	.1766	.1227	1.194	.1476	.0002
#2	.3088	.0047	-.0004	.0663	.1819	.1245	1.226	.1486	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2765**	**.3768**	**.0478**	**.0008**	**.0940**	**-.0050**	**-.0007**	**129.9**	**7.850**
Stddev	.0047	.0026	.0010	.0007	.0018	.0016	.0015	1.3	.087
%RSD	1.709	.6871	2.019	88.51	1.966	31.26	195.9	.9748	1.112
#1	.2731	.3750	.0485	.0013	.0927	-.0061	.0003	129.0	7.789
#2	.2798	.3787	.0471	.0003	.0953	-.0039	-.0018	130.8	7.912

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**185.4**	**38.14**	**16.70**	**1.345**	**.0921**	**.0059**	**2.515**	**.0277**	**.0458**
Stddev	1.9	.52	.25	.026	.0006	.0005	.026	.0000	.0005
%RSD	1.050	1.355	1.510	1.946	.6562	8.773	1.048	.1516	1.142
#1	184.0	37.77	16.52	1.327	.0917	.0062	2.496	.0277	.0454
#2	186.8	38.50	16.88	1.364	.0926	.0055	2.534	.0276	.0462

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**3.002**	**.0006**	**.0683**	**.1865**	**.0389**	**.2262**	**1.149**
Stddev	.051	.0002	.0013	.0007	.0039	.0031	.006
%RSD	1.701	32.13	1.867	.3556	10.01	1.350	.5036
#1	2.965	.0007	.0674	.1861	.0362	.2241	1.145
#2	3.038	.0005	.0692	.1870	.0417	.2284	1.153

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**138890.**	**21178.**	**5855.4**	**8854.6**
Stddev	1324.	49.	11.2	3.5
%RSD	.95290	.23248	.19202	.03993
#1	139830.	21213.	5847.5	8852.1
#2	137960.	21143.	5863.4	8857.1

Zoom In Zoom Out

Sample Name: jc66380-2 Acquired: 5/22/2018 1:47:06 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2403**	**.0026**	**-.0002**	**.0368**	**.1145**	**.0687**	**.7981**	**.0964**	**-.0004**
Stddev	.0027	.0000	.0004	.0003	.0002	.0007	.0007	.0014	.0005
%RSD	1.140	.9791	160.7	.7261	.1449	1.001	.0875	1.443	106.7
#1	.2423	.0026	-.0005	.0366	.1144	.0692	.7976	.0954	-.0001
#2	.2384	.0026	.0000	.0369	.1146	.0683	.7986	.0974	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1251**	**.2223**	**.0084**	**.0013**	**.0596**	**-.0043**	**.0010**	**80.25**	**6.073**
Stddev	.0002	.0020	.0002	.0014	.0007	.0018	.0026	.72	.057
%RSD	.1514	.8863	2.822	108.5	1.209	41.25	261.6	.8970	.9403
#1	.1250	.2209	.0085	.0023	.0601	-.0031	-.0009	80.76	6.113
#2	.1252	.2237	.0082	.0003	.0591	-.0056	.0029	79.74	6.033

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**95.88**	**22.23**	**10.78**	**.6507**	**.0611**	**.0025**	**2.034**	**.0241**	**.0371**
Stddev	.95	.21	.01	.0005	.0002	.0000	.001	.0005	.0006
%RSD	.9859	.9273	.0761	.0780	.2460	1.498	.0584	1.949	1.517
#1	96.55	22.38	10.77	.6503	.0610	.0025	2.035	.0238	.0375
#2	95.21	22.09	10.78	.6511	.0612	.0025	2.033	.0244	.0367

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.173**	**.0003**	**.0458**	**.1230**	**.0283**	**.1293**	**.6507**
Stddev	.001	.0003	.0002	.0026	.0013	.0013	.0078
%RSD	.0634	107.2	.3743	2.108	4.531	.9691	1.203
#1	2.172	.0005	.0457	.1212	.0292	.1285	.6451
#2	2.174	.0001	.0460	.1248	.0274	.1302	.6562

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**144900.**	**22351.**	**6119.2**	**9133.7**
Stddev	122.	196.	13.1	16.1
%RSD	.08410	.87654	.21410	.17599
#1	144810.	22212.	6109.9	9122.3
#2	144990.	22489.	6128.4	9145.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 1:50:04 Type: QC
Method: Accutest XPress(v324) 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	**1.990**	**1.970**	**1.898**	**1.958**	**1.988**	**1.900**	**2.015**	**1.993**	**.2407**
Stddev	.075	.072	.014	.012	.034	.036	.037	.012	.0046
%RSD	3.762	3.635	.7327	.6010	1.694	1.877	1.859	.6171	1.903
#1	2.043	2.020	1.888	1.950	1.964	1.875	1.989	1.984	.2375
#2	1.937	1.919	1.908	1.967	2.012	1.925	2.042	2.002	.2440
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	**1.939**	**1.998**	**1.955**	**1.965**	**1.999**	**1.890**	**1.915**	**39.69**	**39.42**
Stddev	.035	.014	.017	.020	.017	.018	.013	1.42	1.40
%RSD	1.799	.7018	.8476	.9947	.8331	.9240	.6719	3.585	3.549
#1	1.914	1.988	1.944	1.951	1.987	1.878	1.906	40.70	40.41
#2	1.963	2.008	1.967	1.978	2.011	1.903	1.924	38.69	38.44
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	**39.93**	**40.01**	**39.59**	**40.14**	**1.933**	**1.902**	**4.831**	**1.957**	**1.953**
Stddev	1.46	1.50	1.24	1.42	.016	.013	.041	.009	.072
%RSD	3.668	3.755	3.134	3.543	.8228	.6669	.8519	.4702	3.705
#1	40.96	41.08	40.47	41.15	1.922	1.893	4.802	1.951	2.005
#2	38.89	38.95	38.71	39.14	1.944	1.911	4.860	1.964	1.902
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: 5/22/2018 1:50:04 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.979**	**1.951**	**1.946**	**1.890**	**1.935**	**1.944**	**1.913**
Stddev	.034	.015	.034	.011	.015	.075	.017
%RSD	1.720	.7675	1.733	.5927	.7552	3.842	.8961
#1	1.955	1.941	1.923	1.882	1.925	1.997	1.901
#2	2.003	1.962	1.970	1.898	1.946	1.891	1.925
Check ?	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	**141910.**	**21577.**	**6013.0**	**9063.0**
Stddev	2087.	558.	9.8	18.2
%RSD	1.4706	2.5883	.16241	.20127
#1	143380.	21183.	6006.1	9050.1
#2	140430.	21972.	6019.9	9075.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 1:52:54 Type: QC
Method: Accutest XPress(v324) 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**	**-.0001**	**.0000**	**-.0001**	**-.0003**	**.0001**	**.0003**	**.0001**	**-.0012**
Stddev	.0001	.0001	.0002	.0001	.0003	.0002	.0001	.0004	.0002
%RSD	10.73	151.6	964.9	75.43	117.8	200.3	34.15	724.3	16.06
#1	.0007	.0000	.0002	-.0002	-.0000	-.0000	.0003	.0003	-.0010
#2	.0008	-.0001	-.0001	-.0000	-.0005	.0002	.0004	-.0002	-.0013
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	**-.0003**	**.0063**	**-.0000**	**-.0005**	**.0011**	**.0008**	**.0007**	**.0061**	**.0230**
Stddev	.0005	.0002	.0001	.0020	.0000	.0008	.0016	.0005	.0017
%RSD	152.2	2.702	304.6	388.3	.7660	102.1	239.6	8.543	7.242
#1	-.0007	.0062	.0000	-.0019	.0011	.0013	.0018	.0057	.0242
#2	.0000	.0064	-.0001	.0009	.0011	.0002	-.0005	.0064	.0218
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**	**.0126**	**-.0305**	**-.0264**	**.0027**	**-.0000**	**-.0051**	**.0003**	**.0001**
Stddev	.0013	.0024	.0424	.0035	.0007	.0001	.0008	.0005	.0000
%RSD	22.62	19.22	139.0	13.43	26.52	4081.	15.12	175.8	80.75
#1	.0048	.0109	-.0605	-.0239	.0032	-.0001	-.0056	.0007	.0001
#2	.0067	.0143	-.0005	-.0289	.0022	.0001	-.0045	-.0001	.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: ccb Acquired: 5/22/2018 1:52:54 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0012**	**.0002**	**-.0031**	**-.0008**	**.0022**	**.0019**
Stddev	.0002	.0005	.0002	.0014	.0015	.0024	.0008
%RSD	41.80	40.02	103.6	45.51	199.0	110.9	43.19
#1	-.0003	-.0016	.0003	-.0040	.0003	.0039	.0013
#2	-.0005	-.0009	.0000	-.0021	-.0018	.0005	.0025
Check ?	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	**146430.**	**22123.**	**6125.8**	**9458.4**
Stddev	761.	159.	23.3	29.4
%RSD	.51937	.71840	.38014	.31102
#1	145890.	22011.	6109.3	9437.6
#2	146970.	22235.	6142.2	9479.2

Zoom In Zoom Out

Sample Name: jc66384-1 Acquired: 5/22/2018 1:55:56 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.9639**	**.0043**	**.0030**	**.0508**	**.1868**	**.2961**	**1.861**	**.1167**	**.0021**
Stddev	.0008	.0001	.0003	.0008	.0001	.0019	.005	.0011	.0003
%RSD	.0803	1.467	9.877	1.569	.0728	.6374	.2659	.9089	13.52
#1	.9633	.0043	.0028	.0502	.1867	.2947	1.857	.1159	.0023
#2	.9644	.0043	.0032	.0513	.1869	.2974	1.864	.1174	.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1901**	**1.383**	**.0443**	**.0014**	**1.871**	**.0002**	**.0011**	**78.90**	**131.4**
Stddev	.0001	.005	.0006	.0005	.013	.0021	.0016	.22	.4
%RSD	.0595	.3402	1.446	34.90	.7178	1035.	143.6	.2742	.2960
#1	.1900	1.380	.0447	.0017	1.861	.0017	.0023	78.74	131.1
#2	.1902	1.386	.0438	.0011	1.880	-.0013	-.0000	79.05	131.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**143.2**	**32.65**	**10.26**	**1.091**	**.0454**	**.0086**	**2.040**	**.0777**	**.6135**
Stddev	.2	.07	.09	.002	.0005	.0002	.016	.0007	.0017
%RSD	.1207	.2258	.8633	.1775	1.142	2.802	.8036	.8991	.2757
#1	143.1	32.60	10.20	1.090	.0458	.0088	2.028	.0772	.6123
#2	143.3	32.71	10.32	1.092	.0451	.0084	2.051	.0782	.6147

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.680**	**.0020**	**.0611**	**5.489**	**.0338**	**.1006**	**3.642**
Stddev	.010	.0003	.0003	.032	.0005	.0009	.021
%RSD	.3727	16.06	.4299	.5875	1.422	.8573	.5678
#1	2.673	.0018	.0609	5.466	.0334	.1012	3.627
#2	2.687	.0023	.0613	5.512	.0341	.1000	3.656

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**146190.**	**22943.**	**6189.8**	**9156.1**
Stddev	561.	104.	24.3	21.7
%RSD	.38346	.45388	.39209	.23752
#1	145790.	22869.	6172.6	9140.8
#2	146590.	23017.	6206.9	9171.5

Zoom In Zoom Out

Sample Name: jc66384-2 Acquired: 5/22/2018 1:58:50 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**1.169**	**.0079**	**.0004**	**.0915**	**.3225**	**.0687**	**2.356**	**.2091**	**.0005**
Stddev	.009	.0001	.0001	.0014	.0032	.0007	.016	.0027	.0002
%RSD	.7245	1.633	15.34	1.508	.9935	1.028	.6698	1.293	43.86
#1	1.175	.0080	.0004	.0905	.3248	.0692	2.367	.2072	.0006
#2	1.163	.0079	.0003	.0925	.3203	.0682	2.344	.2110	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3254**	**.4914**	**.0322**	**.0012**	**.3419**	**-.0046**	**-.0003**	**159.6**	**18.47**
Stddev	.0020	.0053	.0006	.0013	.0040	.0002	.0017	1.1	.14
%RSD	.6058	1.084	1.811	110.6	1.169	3.545	472.9	.6707	.7338
#1	.3267	.4876	.0318	.0021	.3390	-.0044	-.0015	160.4	18.56
#2	.3240	.4952	.0326	.0003	.3447	-.0047	.0008	158.9	18.37

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**182.8**	**39.10**	**12.44**	**2.180**	**.0465**	**.0051**	**1.848**	**.0232**	**.1477**
Stddev	2.4	.39	.06	.004	.0008	.0005	.008	.0000	.0009
%RSD	1.303	.9860	.4914	.1769	1.704	9.573	.4472	.0909	.5899
#1	184.5	39.37	12.48	2.183	.0460	.0054	1.842	.0232	.1483
#2	181.1	38.83	12.39	2.177	.0471	.0047	1.854	.0232	.1471

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.463**	**.0016**	**.1050**	**4.700**	**.0522**	**.2294**	**2.775**
Stddev	.029	.0021	.0008	.064	.0009	.0008	.031
%RSD	.6599	130.4	.7472	1.362	1.740	.3407	1.104
#1	4.484	.0001	.1055	4.655	.0528	.2288	2.753
#2	4.442	.0031	.1044	4.746	.0516	.2300	2.797

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161250.**	**25657.**	**6796.2**	**9583.6**
Stddev	1675.	324.	25.6	30.7
%RSD	1.0385	1.2642	.37615	.31990
#1	160060.	25428.	6778.2	9562.0
#2	162430.	25887.	6814.3	9605.3

Zoom In Zoom Out

Sample Name: jc66384-4 Acquired: 5/22/2018 2:01:47 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0725**	**.0008**	**-.0001**	**.0087**	**.0357**	**.0326**	**1.177**	**.0509**
Stddev	.0005	.0000	.0000	.0008	.0009	.0001	.010	.0006
%RSD	.6360	3.632	65.29	8.706	2.465	.3861	.8595	1.192
#1	.0729	.0008	-.0000	.0082	.0363	.0327	1.184	.0505
#2	.0722	.0007	-.0001	.0092	.0351	.0325	1.169	.0514

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0012**	**.0559**	**.0837**	**.0509**	F **-.0023**	**.1229**	**.0093**	**.0062**
Stddev	.0001	.0014	.0009	.0002	.0014	.0017	.0024	.0007
%RSD	8.148	2.589	1.128	.4223	60.20	1.349	25.49	11.80
#1	.0012	.0569	.0830	.0511	-.0033	.1218	.0110	.0057
#2	.0013	.0549	.0844	.0508	-.0013	.1241	.0076	.0067

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**7.816**	F **811.8**	**17.65**	F **711.0**	**.9767**	**.4847**	**.0430**	**.0032**
Stddev	.080	4.6	.17	5.0	.0380	.0038	.0009	.0001
%RSD	1.018	.5617	.9398	.7059	3.891	.7778	2.138	2.071
#1	7.872	815.0	17.77	714.5	.9498	.4874	.0436	.0032
#2	7.760	808.6	17.54	707.4	1.004	.4821	.0423	.0031

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**4.495**	**.1802**	**.1311**	**.3608**	**.0001**	**.0149**	**8.489**	**.0074**
Stddev	.022	.0026	.0011	.0039	.0016	.0001	.129	.0007
%RSD	.4852	1.436	.8752	1.091	1265.	.4260	1.523	8.821
#1	4.479	.1783	.1319	.3636	-.0010	.0150	8.397	.0070
#2	4.510	.1820	.1302	.3581	.0012	.0149	8.580	.0079

Elem	Li6707	P_1774
Avg	**.0141**	**.3727**
Stddev	.0015	.0063
%RSD	10.69	1.690
#1	.0131	.3682
#2	.0152	.3771

Zoom In Zoom Out

Sample Name: jc66384-4 Acquired: 5/22/2018 2:01:47 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**139960.**	**23412.**	**5734.3**	**8354.0**
Stddev	2313.	119.	23.8	26.9
%RSD	1.6529	.50966	.41506	.32173
#1	138320.	23327.	5751.1	8373.0
#2	141590.	23496.	5717.5	8335.0

Zoom In Zoom Out

Sample Name: jc66396-3 Acquired: 5/22/2018 2:04:49 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.7205**	**.0034**	**.0035**	**.0822**	**.8068**	**.1748**	**3.316**	**.4141**	**.0026**
Stddev	.0090	.0001	.0001	.0009	.0055	.0017	.039	.0041	.0007
%RSD	1.255	3.696	2.850	1.099	.6765	.9713	1.185	.9938	26.98
#1	.7142	.0033	.0035	.0815	.8029	.1736	3.288	.4112	.0021
#2	.7269	.0035	.0036	.0828	.8107	.1760	3.344	.4170	.0031

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1811**	**.4772**	**.0488**	**.0005**	**.2270**	**.0016**	**-.0009**	**73.70**	F **671.8**
Stddev	.0011	.0039	.0019	.0013	.0023	.0019	.0007	1.08	20.8
%RSD	.6317	.8210	3.940	249.0	1.017	119.5	77.74	1.460	3.092
#1	.1803	.4744	.0501	.0015	.2254	.0029	-.0014	72.94	657.1
#2	.1819	.4800	.0474	-.0004	.2286	.0002	-.0004	74.46	686.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**119.6**	**104.1**	**14.62**	**6.480**	**.1015**	**.0737**	**4.105**	**.0333**	**1.366**
Stddev	1.6	1.7	.30	.082	.0005	.0008	.014	.0013	.018
%RSD	1.332	1.609	2.069	1.265	.4579	1.044	.3354	3.789	1.340
#1	118.4	102.9	14.41	6.422	.1011	.0731	4.095	.0324	1.353
#2	120.7	105.2	14.84	6.538	.1018	.0742	4.114	.0342	1.379

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.814**	**.0546**	**.0524**	**12.90**	**.0284**	**.1235**	**3.806**
Stddev	.011	.0012	.0001	.12	.0010	.0032	.044
%RSD	.6129	2.162	.1497	.9588	3.563	2.598	1.168
#1	1.806	.0538	.0524	12.81	.0291	.1212	3.774
#2	1.821	.0554	.0525	12.98	.0277	.1257	3.837

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**144650.**	**24291.**	**6081.0**	**8688.8**
Stddev	306.	327.	5.3	.2
%RSD	.21185	1.3451	.08664	.00260
#1	144870.	24522.	6084.7	8688.6
#2	144430.	24060.	6077.2	8688.9

Zoom In Zoom Out

Sample Name: bconf Acquired: 5/22/2018 2:07:54 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**-.0000**	**-.0001**	**-.0001**	**-.0002**	**-.0001**	**-.0006**	**-.0000**	**-.0002**	**-.0007**
Stddev	.0001	.0000	.0000	.0002	.0002	.0003	.0000	.0004	.0003
%RSD	513.1	25.00	.9535	136.3	183.3	49.16	14.39	214.7	39.76
#1	-.0001	-.0001	-.0001	-.0003	.0000	-.0004	-.0000	-.0005	-.0005
#2	.0001	-.0001	-.0001	-.0000	-.0003	-.0009	-.0000	.0001	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0001**	**.0010**	**.0002**	**.0002**	**-.0025**	**.0009**	**-.0043**	**.0157**
Stddev	.0002	.0000	.0006	.0014	.0005	.0020	.0020	.0041	.0040
%RSD	151.5	56.52	62.14	642.7	270.9	80.88	216.2	96.38	25.65
#1	-.0003	.0001	.0015	.0012	.0005	-.0039	-.0005	-.0071	.0185
#2	.0000	.0001	.0006	-.0008	-.0002	-.0011	.0024	-.0014	.0128

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0006**	**.0182**	**-.0104**	**-.0059**	F **10.47**	**.0002**	**.0170**	**.0010**	**.0001**
Stddev	.0016	.0065	.0140	.0040	.12	.0001	.0009	.0011	.0001
%RSD	276.7	35.60	135.5	67.97	1.113	56.91	5.310	115.0	76.78
#1	.0005	.0228	-.0203	-.0031	10.38	.0001	.0164	.0002	.0000
#2	-.0017	.0136	-.0004	-.0087	10.55	.0003	.0177	.0018	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**-.0026**	**.0005**	**.0035**	**.0007**	**.0029**	**.0032**
Stddev	.0000	.0009	.0000	.0026	.0011	.0001	.0002
%RSD	25.01	36.90	9.860	73.49	160.3	2.282	5.752
#1	-.0000	-.0019	.0005	.0053	-.0001	.0029	.0034
#2	-.0000	-.0032	.0004	.0017	.0015	.0028	.0031

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156160.**	**24388.**	**6438.1**	**9885.9**
Stddev	147.	239.	20.2	34.0
%RSD	.09433	.98131	.31419	.34384
#1	156050.	24558.	6423.8	9861.8
#2	156260.	24219.	6452.4	9909.9

Zoom In Zoom Out

Sample Name: mp7252-b1 2 Acquired: 5/22/2018 2:10:55 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: water

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**2.115**	**2.107**	**2.015**	**2.098**	**2.087**	**2.045**	**2.132**	**2.124**	**.2462**
Stddev	.015	.018	.006	.004	.005	.003	.003	.005	.0005
%RSD	.6991	.8495	.3097	.1883	.2475	.1488	.1569	.2575	.2143
#1	2.126	2.119	2.011	2.095	2.091	2.048	2.134	2.120	.2466
#2	2.105	2.094	2.019	2.100	2.084	2.043	2.129	2.127	.2459

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.062**	**2.086**	**2.090**	**2.091**	**2.115**	**2.021**	**2.080**	**26.04**	**26.07**
Stddev	.003	.006	.009	.006	.007	.008	.007	.18	.18
%RSD	.1669	.2866	.4201	.2957	.3258	.3909	.3440	.6909	.6972
#1	2.064	2.082	2.084	2.087	2.110	2.016	2.075	26.17	26.20
#2	2.059	2.091	2.096	2.096	2.120	2.027	2.085	25.92	25.94

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.26**	**26.05**	**26.02**	**26.28**	**2.061**	**2.074**	**.0135**	**2.104**	**2.091**
Stddev	.24	.16	.02	.09	.006	.005	.0027	.002	.015
%RSD	.9122	.6207	.0639	.3559	.3106	.2511	20.39	.1135	.7089
#1	26.43	26.16	26.03	26.35	2.057	2.070	.0115	2.102	2.102
#2	26.09	25.94	26.01	26.21	2.066	2.077	.0154	2.106	2.081

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.112**	**2.051**	**2.099**	**.0239**	**.0232**	**.0017**	**2.029**
Stddev	.003	.002	.004	.0033	.0011	.0016	.008
%RSD	.1234	.0824	.2150	13.77	4.924	96.33	.4068
#1	2.114	2.049	2.102	.0262	.0240	.0005	2.023
#2	2.110	2.052	2.096	.0216	.0224	.0028	2.035

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**150500.**	**24010.**	**6267.2**	**9446.5**
Stddev	113.	40.	39.4	64.4
%RSD	.07530	.16568	.62945	.68225
#1	150420.	24039.	6239.3	9401.0
#2	150580.	23982.	6295.1	9492.1

Zoom In Zoom Out

Sample Name: mp7252-mb1 Acquired: 5/22/2018 2:13:45 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0006**	**-.0001**	**.0000**	**-.0003**	**.0002**	**.0002**	**.0001**	**-.0005**	**-.0005**
Stddev	.0002	.0000	.0002	.0002	.0000	.0003	.0000	.0002	.0000
%RSD	26.30	25.03	6540.	83.53	6.499	212.3	60.05	31.53	5.858
#1	.0007	-.0001	.0002	-.0001	.0002	.0004	.0000	-.0006	-.0005
#2	.0005	-.0001	-.0001	-.0004	.0003	-.0001	.0001	-.0004	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0037**	**-.0005**	**-.0000**	**.0010**	**-.0018**	**.0006**	**.0027**	**.1058**
Stddev	.0007	.0000	.0031	.0001	.0008	.0001	.0000	.0046	.0018
%RSD	684.6	.1771	603.1	456.8	80.78	7.548	.4150	171.9	1.705
#1	-.0006	.0037	.0017	-.0001	.0016	-.0019	.0006	.0059	.1071
#2	.0004	.0037	-.0027	.0001	.0004	-.0017	.0006	-.0006	.1045

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0014**	**.0324**	**.0061**	**.0894**	**.0137**	**.0002**	**.0079**	**-.0000**	**.0005**
Stddev	.0027	.0147	.0217	.0010	.0003	.0000	.0018	.0002	.0001
%RSD	188.1	45.58	353.0	1.089	2.128	29.52	23.15	814.6	12.63
#1	.0033	.0428	-.0092	.0887	.0139	.0001	.0066	-.0002	.0005
#2	-.0005	.0219	.0215	.0901	.0135	.0002	.0092	.0001	.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0001**	**.0008**	**.0433**	**-.0016**	**.0036**	**.0044**
Stddev	.0003	.0001	.0002	.0011	.0013	.0030	.0005
%RSD	472.6	96.09	30.97	2.652	81.47	82.19	10.94
#1	.0002	.0002	.0009	.0425	-.0007	.0057	.0048
#2	-.0003	.0000	.0006	.0441	-.0026	.0015	.0041

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155310.**	**24066.**	**6344.5**	**9739.7**
Stddev	1183.	330.	1.9	4.5
%RSD	.76162	1.3732	.02934	.04575
#1	156140.	23833.	6343.2	9742.8
#2	154470.	24300.	6345.8	9736.5

Zoom In Zoom Out

Sample Name: mp7252-s1 Acquired: 5/22/2018 2:16:47 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.051**	**1.969**	**1.935**	**2.151**	**1.943**	**1.923**	**3.553**	**2.146**	**.2367**
Stddev	.000	.001	.019	.021	.032	.029	.061	.021	.0048
%RSD	.0133	.0410	.9698	.9717	1.644	1.518	1.707	.9765	2.013
#1	2.051	1.969	1.922	2.137	1.920	1.902	3.510	2.132	.2333
#2	2.051	1.970	1.949	2.166	1.966	1.943	3.596	2.161	.2401

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.944**	**2.090**	**2.031**	**2.031**	**2.109**	**1.958**	**1.991**	**25.45**	**65.99**
Stddev	.035	.021	.024	.024	.022	.027	.020	.00	.07
%RSD	1.787	1.019	1.165	1.182	1.063	1.380	1.004	.0168	.1052
#1	1.919	2.075	2.014	2.014	2.094	1.939	1.977	25.45	65.95
#2	1.968	2.105	2.048	2.048	2.125	1.977	2.005	25.45	66.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.47**	**38.94**	**28.68**	F **472.5**	**1.988**	**1.957**	**6.399**	**1.966**	**2.162**
Stddev	.01	.06	.11	1.2	.022	.018	.069	.015	.001
%RSD	.0514	.1467	.3798	.2442	1.132	.9244	1.085	.7468	.0623
#1	24.48	38.98	28.60	471.7	1.973	1.944	6.350	1.955	2.163
#2	24.46	38.90	28.75	473.3	2.004	1.970	6.448	1.976	2.161

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.987**	**1.975**	**1.971**	**12.99**	**.0220**	**.0138**	**2.003**
Stddev	.036	.024	.034	.14	.0039	.0017	.022
%RSD	1.809	1.237	1.710	1.049	17.48	12.00	1.123
#1	1.962	1.958	1.947	12.90	.0193	.0126	1.987
#2	2.012	1.992	1.995	13.09	.0248	.0149	2.019

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**150160.**	**24524.**	**6269.8**	**8772.1**
Stddev	2340.	121.	9.0	17.0
%RSD	1.5580	.49257	.14310	.19415
#1	151820.	24438.	6276.2	8784.2
#2	148510.	24609.	6263.5	8760.1

Zoom In Zoom Out

Sample Name: mp7252-s2 Acquired: 5/22/2018 2:19:46 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.080**	**1.991**	**1.961**	**2.177**	**1.967**	**1.949**	**3.581**	**2.170**	**.2402**
Stddev	.007	.009	.004	.009	.009	.008	.007	.010	.0006
%RSD	.3205	.4367	.2290	.4064	.4787	.4023	.1983	.4746	.2552
#1	2.084	1.998	1.958	2.171	1.960	1.943	3.586	2.162	.2397
#2	2.075	1.985	1.964	2.183	1.973	1.954	3.576	2.177	.2406

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.972**	**2.114**	**2.054**	**2.058**	**2.136**	**1.983**	**2.016**	**25.75**	**66.80**
Stddev	.010	.007	.009	.015	.007	.007	.006	.16	.35
%RSD	.4915	.3318	.4442	.7262	.3348	.3673	.3174	.6318	.5179
#1	1.965	2.109	2.047	2.048	2.131	1.978	2.012	25.86	67.04
#2	1.979	2.119	2.060	2.069	2.141	1.988	2.021	25.63	66.55

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.74**	**39.46**	**29.31**	F **482.8**	**2.015**	**1.985**	**6.440**	**1.993**	**2.193**
Stddev	.09	.14	.01	4.8	.006	.005	.021	.005	.008
%RSD	.3776	.3560	.0275	.9954	.3239	.2743	.3262	.2475	.3705
#1	24.81	39.56	29.31	486.2	2.010	1.981	6.425	1.990	2.199
#2	24.68	39.36	29.32	479.4	2.019	1.989	6.455	1.996	2.187

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.021**	**2.005**	**2.002**	**13.13**	**.0206**	**.0180**	**2.026**
Stddev	.006	.009	.009	.04	.0008	.0006	.002
%RSD	.3079	.4740	.4450	.3054	3.764	3.189	.0785
#1	2.016	1.998	1.996	13.11	.0212	.0176	2.025
#2	2.025	2.011	2.008	13.16	.0201	.0184	2.027

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**149170.**	**24510.**	**6237.9**	**8734.2**
Stddev	197.	189.	24.8	16.2
%RSD	.13236	.77101	.39779	.18531
#1	149310.	24376.	6220.3	8722.8
#2	149030.	24643.	6255.4	8745.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/22/2018 2:22:47 Type: QC
Method: Accutest XPress(v324) 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	**2.026**	**2.005**	**1.970**	**2.038**	**2.007**	**1.960**	**2.050**	**2.063**	**.2478**
Stddev	.020	.017	.012	.013	.016	.013	.020	.013	.0018
%RSD	1.008	.8433	.6142	.6382	.8190	.6853	.9669	.6416	.7152
#1	2.041	2.017	1.962	2.028	2.018	1.970	2.064	2.053	.2490
#2	2.012	1.993	1.979	2.047	1.995	1.951	2.036	2.072	.2465
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	**1.990**	**2.035**	**2.037**	**2.025**	**2.059**	**1.984**	**2.011**	**40.45**	**40.30**
Stddev	.016	.014	.018	.018	.014	.016	.011	.42	.36
%RSD	.8172	.6638	.8920	.8644	.6692	.8118	.5408	1.050	.8840
#1	2.002	2.025	2.024	2.013	2.049	1.972	2.003	40.75	40.55
#2	1.979	2.044	2.050	2.038	2.068	1.995	2.018	40.15	40.05
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**	**40.37**	**40.41**	**40.75**	**2.026**	**1.992**	**5.068**	**2.030**	**1.999**
Stddev	.38	.37	.12	.28	.018	.009	.039	.010	.017
%RSD	.9276	.9116	.2916	.6907	.8680	.4732	.7751	.4998	.8596
#1	40.82	40.63	40.49	40.95	2.014	1.986	5.040	2.023	2.012
#2	40.29	40.11	40.33	40.55	2.039	1.999	5.096	2.037	1.987
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: 5/22/2018 2:22:47 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**2.017**	**2.010**	**1.982**	**2.022**	**1.987**	**1.989**
Stddev	.019	.011	.017	.015	.014	.017	.016
%RSD	.9436	.5201	.8483	.7529	.7019	.8760	.7780
#1	2.039	2.010	2.022	1.972	2.012	1.999	1.978
#2	2.012	2.025	1.998	1.993	2.032	1.975	2.000
Check ?	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	**150590.**	**23800.**	**6218.2**	**9335.8**
Stddev	1847.	271.	14.6	17.1
%RSD	1.2264	1.1376	.23475	.18316
#1	149280.	23608.	6207.9	9323.7
#2	151900.	23991.	6228.5	9347.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/22/2018 2:25:37 Type: QC
Method: Accutest XPress(v324) 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**	**.0000**	**-.0001**	**-.0002**	**-.0001**	**.0001**	**-.0001**	**-.0001**
Stddev	.0004	.0000	.0002	.0002	.0001	.0002	.0001	.0006	.0001
%RSD	120.7	26.29	9219.	171.4	56.99	147.4	106.6	580.7	175.3
#1	.0000	.0001	.0002	.0000	-.0001	.0000	.0000	.0003	-.0002
#2	.0006	.0001	-.0002	-.0002	-.0003	-.0003	.0001	-.0006	.0000
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	**.0000**	**-.0004**	**.0013**	**-.0001**	**.0006**	**-.0007**	**.0005**	**-.0012**	**-.0096**
Stddev	.0002	.0001	.0007	.0005	.0001	.0002	.0007	.0157	.0028
%RSD	705.9	17.94	54.84	518.9	26.33	33.48	139.1	1305.	29.36
#1	.0002	-.0003	.0008	-.0005	.0007	-.0008	.0011	.0099	-.0076
#2	-.0001	-.0004	.0018	.0003	.0005	-.0005	.0000	-.0123	-.0116
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**	**.0261**	**.0469**	**.0451**	**.0098**	**.0006**	**-.0043**	**-.0001**	**.0001**
Stddev	.0014	.0031	.0030	.0081	.0004	.0002	.0007	.0003	.0001
%RSD	56.61	11.86	6.491	18.04	4.146	27.76	16.89	442.2	110.6
#1	.0034	.0239	.0491	.0508	.0095	.0007	-.0049	.0001	.0000
#2	.0014	.0283	.0448	.0393	.0101	.0005	-.0038	-.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: 5/22/2018 2:25:37 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0009**	**.0005**	**.0005**	**.0002**	**.0036**	**.0023**
Stddev	.0005	.0004	.0003	.0006	.0021	.0012	.0002
%RSD	263.4	38.81	54.14	126.8	1014.	31.98	9.462
#1	.0002	-.0007	.0007	.0009	-.0012	.0044	.0021
#2	-.0006	-.0012	.0003	.0000	.0017	.0028	.0024
Check ?	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	**156120.**	**24374.**	**6404.3**	**9852.1**
Stddev	193.	34.	30.2	44.6
%RSD	.12382	.13867	.47120	.45236
#1	155980.	24398.	6383.0	9820.5
#2	156250.	24350.	6425.6	9883.6

Zoom In Zoom Out

Sample Name: jc66043-1 Acquired: 5/22/2018 2:28:39 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0984**	**.0033**	**.0008**	**.0463**	**.0007**	**.0080**	**1.641**	**.0210**	**-.0007**
Stddev	.0002	.0001	.0001	.0009	.0001	.0005	.003	.0002	.0001
%RSD	.2181	1.954	17.19	1.991	11.35	6.264	.1734	.8450	21.57
#1	.0986	.0033	.0007	.0456	.0007	.0083	1.644	.0211	-.0006
#2	.0983	.0032	.0009	.0469	.0006	.0076	1.639	.0209	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**.1110**	**.0021**	**.0018**	**.0004**	**-.0008**	**-.0007**	**1.174**	**41.82**
Stddev	.0002	.0013	.0009	.0007	.0000	.0018	.0012	.009	.18
%RSD	20.87	1.179	43.60	40.69	8.369	242.0	180.7	.7222	.4388
#1	.0010	.1101	.0015	.0013	.0004	-.0021	-.0015	1.180	41.95
#2	.0013	.1119	.0028	.0023	.0005	.0005	.0002	1.168	41.69

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1277**	**15.17**	**4.401**	**F 452.3**	**.0461**	**.0005**	**6.312**	**-.0018**	**.2345**
Stddev	.0045	.06	.074	4.2	.0005	.0001	.071	.0010	.0014
%RSD	3.545	.4112	1.692	.9231	1.028	28.89	1.122	54.32	.5883
#1	.1309	15.22	4.349	449.4	.0464	.0004	6.262	-.0025	.2355
#2	.1245	15.13	4.454	455.3	.0457	.0006	6.362	-.0011	.2335

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0049**	**-.0009**	**-.0018**	**13.15**	**-.0029**	**.0154**	**.0199**
Stddev	.0003	.0006	.0003	.15	.0001	.0011	.0014
%RSD	5.642	68.16	18.43	1.155	2.646	6.936	6.950
#1	.0051	-.0005	-.0016	13.04	-.0028	.0161	.0209
#2	.0047	-.0013	-.0021	13.26	-.0029	.0146	.0189

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**150310.**	**24729.**	**6301.5**	**8847.7**
Stddev	999.	88.	20.2	14.3
%RSD	.66463	.35761	.32037	.16109
#1	149610.	24667.	6287.2	8837.6
#2	151020.	24792.	6315.8	8857.8

Zoom In Zoom Out

Sample Name: mp7252-sd1 Acquired: 5/22/2018 2:31:43 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1029**	**.0026**	**.0007**	**.0440**	**-.0003**	**.0053**	**1.674**	**.0196**	**-.0007**
Stddev	.0021	.0005	.0003	.0009	.0033	.0005	.005	.0016	.0007
%RSD	2.065	18.03	37.18	2.005	992.5	10.14	.2856	8.245	104.8
#1	.1014	.0023	.0009	.0446	.0020	.0049	1.670	.0184	-.0002
#2	.1044	.0030	.0005	.0433	-.0027	.0057	1.677	.0207	-.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0013**	**.1308**	**-.0005**	**-.0005**	**.0075**	**-.0027**	**.0015**	**1.293**	**42.91**
Stddev	.0016	.0016	.0021	.0029	.0028	.0020	.0051	.010	.12
%RSD	129.3	1.188	463.2	581.9	37.00	72.84	334.3	.8077	.2797
#1	.0024	.1297	.0010	.0016	.0094	-.0013	-.0021	1.286	42.82
#2	.0001	.1319	-.0020	-.0026	.0055	-.0041	.0051	1.301	42.99

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1377**	**15.80**	**4.481**	**477.0**	**.0704**	**.0001**	**6.309**	**.0001**	**.2427**
Stddev	.0072	.00	.454	3.3	.0015	.0005	.097	.0035	.0018
%RSD	5.205	.0288	10.12	.6937	2.195	454.5	1.543	6320.	.7243
#1	.1428	15.79	4.802	474.7	.0693	-.0003	6.240	-.0024	.2415
#2	.1326	15.80	4.160	479.3	.0715	.0005	6.378	.0025	.2440

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0041**	**-.0062**	**.0011**	**12.88**	**-.0024**	**.0380**	**.0810**
Stddev	.0011	.0010	.0002	.20	.0105	.0108	.0007
%RSD	25.39	16.13	19.31	1.542	436.2	28.31	.8174
#1	.0049	-.0055	.0010	12.74	-.0099	.0456	.0814
#2	.0034	-.0069	.0013	13.02	.0050	.0304	.0805

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152920.**	**24065.**	**6320.5**	**9452.8**
Stddev	707.	11.	13.2	15.2
%RSD	.46231	.04371	.20839	.16067
#1	153420.	24058.	6329.8	9463.5
#2	152420.	24073.	6311.2	9442.1

Zoom In Zoom Out

Sample Name: jc66043-2 Acquired: 5/22/2018 2:34:43 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.6299**	**-.0000**	**.0000**	**.0028**	**.0005**	**.0003**	**2.067**	**.0093**	**-.0002**
Stddev	.0020	.0000	.0000	.0001	.0001	.0002	.008	.0003	.0003
%RSD	.3123	25.24	57.15	5.146	19.17	60.48	.3922	3.454	124.6
#1	.6313	-.0001	.0000	.0030	.0005	.0002	2.073	.0091	-.0000
#2	.6285	-.0000	.0000	.0027	.0006	.0004	2.062	.0095	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0011**	**.0101**	**.0002**	**-.0007**	**.0007**	**-.0019**	**-.0015**	**.0413**	**18.40**
Stddev	.0003	.0000	.0004	.0002	.0003	.0000	.0023	.0084	.06
%RSD	27.43	.3425	190.4	37.29	43.88	1.180	152.1	20.44	.3198
#1	.0009	.0101	-.0001	-.0008	.0005	-.0019	-.0031	.0354	18.44
#2	.0013	.0102	.0005	-.0005	.0009	-.0019	.0001	.0473	18.36

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.9701**	**9.418**	**8.748**	**17.92**	**.0219**	**.0046**	**13.52**	**-.0022**	**.1890**
Stddev	.0057	.037	.019	.05	.0000	.0001	.15	.0005	.0008
%RSD	.5857	.3909	.2150	.2747	.0841	1.264	1.074	20.36	.4254
#1	.9741	9.444	8.735	17.95	.0219	.0046	13.42	-.0026	.1896
#2	.9661	9.392	8.761	17.88	.0219	.0045	13.62	-.0019	.1885

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0003**	**.0005**	**-.0075**	**2.007**	**-.0035**	**.0237**	**.0344**
Stddev	.0001	.0006	.0000	.027	.0013	.0008	.0011
%RSD	46.29	127.7	.4360	1.342	37.15	3.369	3.150
#1	.0002	.0000	-.0074	1.988	-.0026	.0242	.0336
#2	.0003	.0009	-.0075	2.026	-.0045	.0231	.0351

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152780.**	**24158.**	**6311.3**	**9634.4**
Stddev	506.	157.	1.9	1.8
%RSD	.33152	.64827	.03075	.01883
#1	152420.	24047.	6312.7	9635.7
#2	153140.	24269.	6309.9	9633.1

Zoom In Zoom Out

Sample Name: jc66043-3 Acquired: 5/22/2018 2:37:42 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0816**	**.0004**	**.0004**	**.0240**	**.0005**	**.0028**	**.5493**	**.0166**	**-.0008**
Stddev	.0008	.0000	.0001	.0005	.0000	.0001	.0016	.0005	.0005
%RSD	.9728	9.147	31.00	2.117	2.327	1.838	.2946	2.844	58.71
#1	.0810	.0004	.0003	.0236	.0005	.0028	.5482	.0163	-.0005
#2	.0821	.0004	.0005	.0243	.0005	.0028	.5504	.0170	-.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0008**	**.0334**	**.0008**	**-.0000**	**.0009**	**-.0028**	**-.0017**	**.1328**	**27.51**
Stddev	.0000	.0007	.0004	.0000	.0004	.0034	.0003	.0071	.37
%RSD	.7098	2.069	53.54	398.6	46.02	120.5	18.08	5.352	1.337
#1	.0008	.0329	.0005	-.0000	.0006	-.0004	-.0015	.1378	27.25
#2	.0008	.0339	.0012	.0000	.0012	-.0052	-.0019	.1277	27.77

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0926**	**16.43**	**4.389**	**267.8**	**.0654**	**.0003**	**4.083**	**-.0013**	**.4411**
Stddev	.0006	.16	.112	2.6	.0001	.0003	.085	.0008	.0057
%RSD	.5943	.9459	2.554	.9633	.1230	83.92	2.071	62.62	1.283
#1	.0922	16.32	4.310	266.0	.0653	.0001	4.023	-.0007	.4371
#2	.0930	16.54	4.469	269.7	.0654	.0005	4.142	-.0019	.4451

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0006**	**-.0013**	**-.0019**	**14.72**	**-.0036**	**.0120**	**.0153**
Stddev	.0005	.0013	.0000	.32	.0006	.0002	.0001
%RSD	77.63	96.89	1.532	2.160	17.40	1.295	.8538
#1	.0009	-.0022	-.0019	14.50	-.0041	.0122	.0154
#2	.0003	-.0004	-.0019	14.95	-.0032	.0119	.0152

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**144000.**	**23383.**	**6033.1**	**9005.7**
Stddev	215.	230.	31.7	35.9
%RSD	.14934	.98331	.52586	.39870
#1	144160.	23546.	6055.5	9031.1
#2	143850.	23221.	6010.6	8980.3

Zoom In Zoom Out

Sample Name: jc66043-4 Acquired: 5/22/2018 2:40:46 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0911**	**-.0000**	**-.0002**	**.0001**	**.0025**	**.0044**	**.6030**	**.0027**
Stddev	.0005	.0000	.0000	.0003	.0006	.0005	.0039	.0004
%RSD	.5467	62.88	16.89	268.2	23.40	11.44	.6546	16.10
#1	.0914	-.0000	-.0002	-.0001	.0029	.0047	.6058	.0030
#2	.0907	-.0001	-.0003	.0004	.0021	.0040	.6002	.0024

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0003**	**.0050**	**.0121**	**.0022**	**-.0010**	**.0045**	**-.0032**	F **-.0033**
Stddev	.0003	.0002	.0001	.0005	.0025	.0016	.0022	.0015
%RSD	97.70	3.160	1.115	22.44	264.8	36.81	69.83	46.87
#1	-.0001	.0051	.0122	.0026	-.0028	.0056	-.0048	-.0044
#2	-.0005	.0049	.0120	.0019	.0008	.0033	-.0016	-.0022

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.3682**	**70.11**	**14.09**	**10.10**	**9.404**	F **1995.**	**.1752**	**.0006**
Stddev	.0158	.28	.08	.10	.383	7.	.0014	.0000
%RSD	4.284	.4017	.5585	.9628	4.071	.3744	.8178	2.029
#1	.3793	70.31	14.14	10.17	9.133	1990.	.1742	.0006
#2	.3570	69.91	14.03	10.03	9.675	2000.	.1762	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**21.58**	**-.0033**	**.3690**	**.0078**	**-.0038**	F **-.0111**	**9.129**	**-.0005**
Stddev	.22	.0004	.0016	.0000	.0002	.0001	.121	.0008
%RSD	1.016	12.74	.4285	.2911	6.539	1.269	1.328	164.2
#1	21.42	-.0036	.3701	.0079	-.0036	-.0110	9.043	.0001
#2	21.73	-.0030	.3679	.0078	-.0039	-.0112	9.215	-.0011

Elem	Li6707	P_1774
Avg	**.0472**	**.3941**
Stddev	.0024	.0052
%RSD	5.037	1.325
#1	.0455	.3904
#2	.0488	.3978

Zoom In Zoom Out

Sample Name: jc66043-4 Acquired: 5/22/2018 2:40:46 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**130470.**	**22833.**	**5670.8**	**8111.7**
Stddev	1007.	239.	.1	.1
%RSD	.77209	1.0475	.00209	.00146
#1	129760.	22664.	5670.9	8111.8
#2	131190.	23002.	5670.7	8111.6

Zoom In Zoom Out

Sample Name: jc66043-5 Acquired: 5/22/2018 2:43:50 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.5868**	**-.0000**	**.0008**	**.0023**	**.0010**	**.0044**	**1.030**	**.0025**	**.0004**
Stddev	.0051	.0000	.0000	.0002	.0004	.0001	.008	.0007	.0007
%RSD	.8766	77.77	4.377	8.435	36.88	1.175	.7567	25.60	198.7
#1	.5904	-.0000	.0007	.0022	.0008	.0044	1.025	.0030	.0009
#2	.5832	-.0000	.0008	.0025	.0013	.0044	1.036	.0021	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0014**	**.0041**	**.0060**	**-.0005**	**-.0006**	**-.0004**	**-.0001**	**.0287**	F **415.0**
Stddev	.0003	.0001	.0006	.0013	.0007	.0014	.0017	.0095	3.5
%RSD	21.94	1.679	9.294	264.5	115.0	356.1	1257.	33.11	.8551
#1	.0016	.0042	.0063	-.0014	-.0001	.0006	-.0013	.0354	417.5
#2	.0012	.0041	.0056	.0004	-.0011	-.0014	.0010	.0220	412.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.78**	**60.51**	**19.55**	F **2511.**	**.1522**	**.0008**	**8.995**	**-.0015**	**1.429**
Stddev	.24	.52	.17	69.	.0008	.0003	.067	.0006	.012
%RSD	.9655	.8525	.8829	2.738	.5318	34.19	.7466	40.16	.8050
#1	24.95	60.88	19.43	2559.	.1516	.0009	8.947	-.0020	1.437
#2	24.61	60.15	19.67	2462.	.1528	.0006	9.042	-.0011	1.421

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0016**	**.0014**	**-.0045**	**30.22**	**.0031**	**.0739**	**.6441**
Stddev	.0001	.0001	.0001	.19	.0025	.0007	.0062
%RSD	8.374	4.329	2.752	.6324	79.08	.9003	.9631
#1	-.0017	.0014	-.0044	30.08	.0014	.0734	.6397
#2	-.0015	.0015	-.0046	30.35	.0049	.0743	.6485

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**125620.**	**22089.**	**5373.8**	**7674.0**
Stddev	728.	273.	29.1	37.7
%RSD	.57986	1.2362	.54238	.49140
#1	126140.	21896.	5353.1	7647.3
#2	125110.	22282.	5394.4	7700.6

Zoom In Zoom Out

Sample Name: jc66043-6 Acquired: 5/22/2018 2:47:00 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2504**	**.0003**	**.0005**	**.0032**	**.0005**	**.0029**	**.4947**	**.0294**	**-.0003**
Stddev	.0004	.0001	.0001	.0000	.0003	.0001	.0017	.0001	.0005
%RSD	.1758	21.43	14.98	.4371	64.02	5.152	.3463	.4601	161.0
#1	.2507	.0003	.0006	.0033	.0007	.0028	.4935	.0295	-.0006
#2	.2501	.0004	.0005	.0032	.0003	.0030	.4959	.0293	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0010**	**.0359**	**.0018**	**-.0004**	**.0006**	**-.0017**	**-.0014**	**.2649**	**51.33**
Stddev	.0002	.0002	.0008	.0004	.0006	.0001	.0024	.0098	.09
%RSD	17.41	.5356	47.85	105.0	107.6	5.534	173.5	3.703	.1699
#1	.0009	.0358	.0023	-.0007	.0010	-.0017	-.0031	.2719	51.39
#2	.0011	.0361	.0012	-.0001	.0001	-.0018	.0003	.2580	51.27

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.6893**	**35.78**	**6.161**	F **319.5**	**.0793**	**-.0004**	**5.499**	**-.0020**	**.4153**
Stddev	.0061	.01	.028	1.2	.0003	.0003	.066	.0003	.0006
%RSD	.8818	.0212	.4545	.3656	.4352	59.95	1.195	13.05	.1399
#1	.6936	35.78	6.181	318.7	.0791	-.0006	5.453	-.0022	.4157
#2	.6850	35.77	6.141	320.3	.0796	-.0003	5.545	-.0018	.4149

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0058**	**-.0020**	**-.0027**	**12.05**	**-.0013**	**.0152**	**.0149**
Stddev	.0012	.0002	.0001	.16	.0017	.0019	.0006
%RSD	19.88	8.281	3.177	1.362	131.2	12.76	3.745
#1	.0050	-.0021	-.0027	11.93	-.0025	.0165	.0145
#2	.0066	-.0019	-.0026	12.16	-.0001	.0138	.0153

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**143390.**	**23309.**	**6004.0**	**8858.5**
Stddev	386.	159.	2.0	.4
%RSD	.26936	.68312	.03337	.00414
#1	143120.	23197.	6002.6	8858.8
#2	143660.	23422.	6005.4	8858.3

Zoom In Zoom Out

Sample Name: jc66043-7 Acquired: 5/22/2018 2:50:05 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1470**	**.0017**	**.0012**	**.0146**	**.0011**	**.0087**	**.4798**	**.0446**	**.0003**
Stddev	.0023	.0000	.0001	.0000	.0002	.0010	.0039	.0003	.0013
%RSD	1.596	.6745	7.454	.1170	17.51	11.10	.8192	.7381	482.5
#1	.1487	.0017	.0013	.0146	.0012	.0093	.4826	.0444	.0011
#2	.1454	.0017	.0012	.0146	.0010	.0080	.4771	.0449	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0009**	**.0727**	**.0020**	**.0001**	**.0014**	**.0001**	**.0009**	**.4555**	**94.75**
Stddev	.0001	.0010	.0013	.0024	.0014	.0009	.0007	.0008	2.19
%RSD	8.878	1.307	61.38	3130.	100.0	750.4	81.17	.1673	2.316
#1	.0010	.0720	.0012	.0018	.0024	.0008	.0014	.4561	96.30
#2	.0009	.0734	.0029	-.0016	.0004	-.0005	.0004	.4550	93.20

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2744**	**75.91**	**6.852**	**F 676.2**	**.0245**	**-.0003**	**5.290**	**-.0020**	**.7215**
Stddev	.0062	1.73	.111	20.2	.0003	.0004	.070	.0001	.0137
%RSD	2.277	2.283	1.615	2.988	1.085	110.4	1.326	3.516	1.898
#1	.2788	77.14	6.930	690.5	.0243	-.0006	5.240	-.0020	.7312
#2	.2700	74.69	6.774	661.9	.0247	-.0001	5.339	-.0021	.7118

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0015**	**-.0011**	**-.0015**	**15.89**	**-.0015**	**.0189**	**.0122**
Stddev	.0004	.0001	.0002	.24	.0002	.0016	.0002
%RSD	23.21	6.944	16.10	1.483	10.70	8.598	1.399
#1	.0013	-.0011	-.0017	15.73	-.0016	.0201	.0121
#2	.0018	-.0012	-.0013	16.06	-.0014	.0178	.0123

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**146250.**	**24000.**	**6128.2**	**8621.1**
Stddev	1679.	713.	2.0	7.1
%RSD	1.1481	2.9712	.03185	.08210
#1	145060.	23496.	6126.9	8626.1
#2	147440.	24504.	6129.6	8616.1

Zoom In Zoom Out

Sample Name: jc66043-8 Acquired: 5/22/2018 2:53:09 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0447**	**-.0000**	**.0002**	**.0007**	**.0060**	**.0084**	**.0314**	**.0027**	**-.0004**
Stddev	.0004	.0001	.0000	.0003	.0002	.0003	.0002	.0001	.0000
%RSD	.8446	3332.	3.065	38.01	3.451	3.460	.7754	3.049	5.437
#1	.0450	.0001	.0002	.0005	.0061	.0086	.0316	.0027	-.0004
#2	.0445	-.0001	.0002	.0009	.0058	.0082	.0312	.0028	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0102**	**.0157**	**.0031**	**-.0003**	**.0063**	**-.0008**	**-.0012**	**5.954**	**7.915**
Stddev	.0002	.0001	.0012	.0000	.0013	.0025	.0008	.075	.088
%RSD	1.534	.7076	40.56	5.719	21.08	324.7	69.36	1.261	1.118
#1	.0103	.0156	.0039	-.0003	.0054	.0010	-.0018	6.007	7.978
#2	.0101	.0158	.0022	-.0003	.0072	-.0026	-.0006	5.901	7.853

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.025**	**2.300**	**1.846**	**202.0**	**.0189**	**.0006**	**9.614**	**-.0016**	**.0476**
Stddev	.064	.035	.013	1.3	.0012	.0003	.076	.0000	.0006
%RSD	1.277	1.534	.6872	.6617	6.398	43.52	.7947	1.838	1.226
#1	5.070	2.325	1.855	203.0	.0181	.0008	9.560	-.0016	.0480
#2	4.979	2.275	1.837	201.1	.0198	.0004	9.668	-.0016	.0471

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.1212**	**-.0026**	**-.0006**	**2.432**	**.0008**	**.0105**	**.2659**
Stddev	.0009	.0011	.0003	.024	.0006	.0024	.0040
%RSD	.7439	41.58	53.85	.9822	77.13	23.02	1.495
#1	.1218	-.0018	-.0004	2.415	.0012	.0088	.2630
#2	.1205	-.0033	-.0008	2.448	.0003	.0122	.2687

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**150410.**	**24247.**	**6251.8**	**9279.2**
Stddev	2049.	211.	14.0	13.1
%RSD	1.3624	.86894	.22335	.14144
#1	148960.	24098.	6241.9	9269.9
#2	151860.	24396.	6261.7	9288.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 2:56:17 Type: QC
Method: Accutest XPress(v324) 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	k **2.045**	k **2.010**	k **2.003**	k **2.057**	s **2.185**	s **2.155**	sF **2.237**	k **2.080**
Stddev	.031	.034	.026	.012	.274	.262	.276	.012
%RSD	1.534	1.670	1.292	.6024	12.52	12.17	12.34	.5576
#1	2.023	1.987	1.984	2.048	1.991	1.969	2.042	2.072
#2	k 2.067	k 2.034	k 2.021	k 2.066	s 2.378	s 2.340	s 2.432	k 2.089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value							2.000	
Range							10.00%	

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s **.2687**	s **2.158**	k **2.037**	k **2.043**	k **2.008**	k **2.071**	k **2.000**	k **2.034**
Stddev	.0303	.256	.013	.019	.061	.011	.013	.019
%RSD	11.29	11.88	.6567	.9458	3.039	.5513	.6605	.9551
#1	.2472	1.977	2.027	2.030	2.052	2.063	1.991	2.020
#2	s .2902	s 2.340	k 2.046	k 2.057	k 1.965	k 2.079	k 2.010	k 2.048
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	k **40.08**	k **40.02**	k **40.34**	k **40.06**	k **39.88**	k **40.26**	k **2.063**	k **2.010**
Stddev	.69	.70	.59	.54	.72	.67	.069	.011
%RSD	1.722	1.741	1.472	1.360	1.797	1.655	3.350	.5296
#1	39.60	39.53	39.92	39.67	39.37	39.79	2.014	2.003
#2	k 40.57	k 40.51	k 40.76	k 40.44	k 40.38	k 40.73	k 2.112	k 2.018
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: ccv Acquired: 5/22/2018 2:56:17 Type: QC
Method: Accutest XPress(v324) 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	k **5.178**	k **2.039**	k **2.018**	sF **2.206**	k **2.021**	s **2.191**	k **1.962**	k **1.993**
Stddev	.157	.009	.033	.273	.001	.273	.047	.070
%RSD	3.031	.4240	1.645	12.37	.0480	12.45	2.374	3.520
#1	5.067	2.033	1.994	2.013	2.020	1.998	1.995	2.043
#2	k 5.289	k 2.045	k 2.041	s 2.399	k 2.021	s 2.384	k 1.929	k 1.943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				2.000				
Range				10.00%				

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	k **1.993**	k **2.001**
Stddev	.033	.004
%RSD	1.658	.2192
#1	1.970	1.998
#2	k 2.017	k 2.004
Check ?	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	^ *****	**24196.**	**6289.4**	**9448.6**
Stddev	-----	279.	10.5	9.6
%RSD	-----	1.1545	.16711	.10155
#1	154070.	24394.	6281.9	9441.8
#2	^ -----	23999.	6296.8	9455.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 2:59:07 Type: QC
Method: Accutest XPress(v324) 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**	**-.0002**	**-.0003**	**-.0002**	**.0003**	**.0001**	**-.0003**
Stddev	.0004	.0000	.0002	.0000	.0002	.0001	.0001	.0007	.0003
%RSD	133.8	36.66	288.0	14.78	64.72	37.02	14.49	572.9	95.61
#1	-.0000	-.0002	-.0002	-.0002	-.0002	-.0001	.0004	.0006	-.0005
#2	-.0005	-.0001	.0001	-.0002	-.0005	-.0002	.0003	-.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0064**	**-.0003**	**-.0004**	**.0001**	**-.0020**	**.0012**	**.0159**	**.0249**
Stddev	.0000	.0000	.0001	.0009	.0009	.0006	.0004	.0010	.0021
%RSD	2.245	.4203	41.65	241.3	598.5	31.98	36.61	6.197	8.621
#1	-.0002	.0064	-.0004	-.0010	-.0005	-.0024	.0015	.0152	.0234
#2	-.0002	.0064	-.0002	.0003	.0008	-.0015	.0009	.0166	.0264
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	**.0072**	**.0327**	**.1686**	**.2169**	**.0040**	**.0001**	**-.0038**	**.0002**	**.0001**
Stddev	.0002	.0133	.0170	.0007	.0003	.0003	.0001	.0002	.0000
%RSD	2.329	40.78	10.08	.3231	7.568	314.0	3.928	79.35	7.688
#1	.0073	.0421	.1806	.2164	.0038	-.0001	-.0039	.0003	.0001
#2	.0070	.0233	.1566	.2174	.0043	.0003	-.0037	.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: 5/22/2018 2:59:07 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0018**	**.0002**	**.0055**	**-.0011**	F **.0057**	**.0032**
Stddev	.0002	.0015	.0001	.0002	.0011	.0015	.0018
%RSD	212.0	86.18	49.03	4.052	99.47	26.42	55.55
#1	-.0001	-.0029	.0002	.0053	-.0003	.0046	.0019
#2	.0003	-.0007	.0003	.0057	-.0018	.0068	.0045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157880.**	**24578.**	**6477.5**	**9977.1**
Stddev	1051.	100.	6.1	7.0
%RSD	.66578	.40511	.09359	.06979
#1	157140.	24649.	6481.8	9982.0
#2	158620.	24508.	6473.2	9972.2

Zoom In Zoom Out

Sample Name: jc66043-9 Acquired: 5/22/2018 3:02:09 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0089**	**-.0001**	**-.0000**	**.0004**	**.0021**	**.0048**	**.0554**	**.0014**	**-.0003**
Stddev	.0004	.0000	.0003	.0004	.0005	.0002	.0000	.0001	.0002
%RSD	4.254	1.909	4092.	82.79	25.30	4.356	.0493	3.928	61.58
#1	.0086	-.0001	.0002	.0007	.0017	.0047	.0554	.0013	-.0004
#2	.0091	-.0001	-.0002	.0002	.0024	.0050	.0554	.0014	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0021**	**.0051**	**.0006**	**.0000**	**.0023**	**-.0015**	**-.0001**	**1.087**	**5.049**
Stddev	.0004	.0001	.0019	.0001	.0005	.0008	.0008	.020	.038
%RSD	20.24	1.368	320.7	170.0	21.67	51.98	509.4	1.821	.7525
#1	.0018	.0052	.0019	-.0000	.0019	-.0009	-.0007	1.073	5.022
#2	.0024	.0051	-.0007	.0001	.0026	-.0020	.0004	1.101	5.076

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.9256**	**.9972**	**1.206**	F **349.7**	**.0257**	**.0007**	**3.997**	**-.0008**	**.0339**
Stddev	.0064	.0046	.086	3.0	.0011	.0002	.053	.0000	.0001
%RSD	.6968	.4637	7.170	.8451	4.382	30.92	1.317	.4432	.2606
#1	.9211	.9939	1.145	347.6	.0249	.0009	3.959	-.0007	.0338
#2	.9302	1.000	1.267	351.8	.0265	.0006	4.034	-.0008	.0339

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0233**	**-.0001**	**-.0009**	**2.970**	**-.0008**	**.0086**	**.0627**
Stddev	.0003	.0009	.0001	.045	.0019	.0013	.0004
%RSD	1.278	1030.	9.233	1.520	248.0	15.44	.6787
#1	.0231	.0005	-.0008	2.939	.0006	.0077	.0631
#2	.0235	-.0007	-.0009	3.002	-.0021	.0096	.0624

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**148310.**	**24423.**	**6157.3**	**9113.1**
Stddev	258.	82.	16.4	24.7
%RSD	.17371	.33551	.26593	.27138
#1	148490.	24481.	6168.8	9130.6
#2	148130.	24365.	6145.7	9095.6

Zoom In Zoom Out

Sample Name: jc66043-10 Acquired: 5/22/2018 3:05:14 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0172**	**.0001**	**-.0001**	**.0006**	**.0047**	**.0108**	**.0184**	**.0022**	**-.0003**
Stddev	.0009	.0000	.0001	.0003	.0002	.0001	.0001	.0003	.0000
%RSD	5.025	55.90	136.3	40.58	3.751	.6302	.5415	13.06	17.00
#1	.0178	.0000	-.0001	.0004	.0046	.0109	.0185	.0024	-.0003
#2	.0166	.0001	-.0000	.0008	.0048	.0108	.0184	.0020	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0071**	**.0509**	**.0062**	**-.0007**	**.0028**	**-.0012**	**-.0001**	**3.261**	**4.177**
Stddev	.0004	.0012	.0001	.0003	.0011	.0024	.0004	.107	.132
%RSD	4.926	2.402	2.202	43.52	38.50	204.0	503.4	3.290	3.171
#1	.0069	.0501	.0063	-.0010	.0036	-.0029	-.0004	3.337	4.270
#2	.0074	.0518	.0061	-.0005	.0020	.0005	.0002	3.185	4.083

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.135**	**.9279**	**1.289**	**117.9**	**.0207**	**.0022**	**5.580**	**-.0012**	**.0255**
Stddev	.096	.0348	.049	3.4	.0007	.0001	.142	.0005	.0011
%RSD	3.067	3.754	3.785	2.924	3.176	4.186	2.550	44.05	4.286
#1	3.203	.9525	1.324	120.4	.0202	.0021	5.479	-.0008	.0263
#2	3.067	.9033	1.255	115.5	.0212	.0022	5.681	-.0016	.0247

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0738**	**-.0024**	**-.0012**	**1.518**	**-.0013**	**.0078**	**.2470**
Stddev	.0005	.0002	.0001	.038	.0002	.0010	.0063
%RSD	.6849	7.111	10.60	2.482	17.25	12.84	2.544
#1	.0741	-.0023	-.0011	1.491	-.0014	.0085	.2426
#2	.0734	-.0025	-.0013	1.545	-.0011	.0070	.2515

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154460.**	**24261.**	**6423.5**	**9622.0**
Stddev	1015.	668.	57.8	80.5
%RSD	.65683	2.7535	.90042	.83631
#1	153740.	23789.	6464.4	9678.9
#2	155170.	24733.	6382.6	9565.1

Zoom In Zoom Out

Sample Name: jc66043-11 Acquired: 5/22/2018 3:08:12 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0145**	**.0001**	**.0001**	**.0006**	**.0049**	**.0074**	**.0549**	**.0029**	**-.0003**
Stddev	.0001	.0000	.0002	.0001	.0000	.0003	.0001	.0004	.0006
%RSD	.4295	16.84	232.6	9.079	.8522	4.341	.1296	12.93	227.3
#1	.0144	.0001	.0002	.0006	.0049	.0071	.0548	.0032	-.0007
#2	.0145	.0000	-.0000	.0007	.0049	.0076	.0549	.0027	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0061**	**.0120**	**.0026**	**-.0012**	**.0054**	**-.0008**	**-.0017**	**3.440**	**1.204**
Stddev	.0002	.0001	.0005	.0001	.0009	.0014	.0006	.056	.011
%RSD	2.647	.8974	20.01	11.38	17.21	184.0	36.34	1.623	.8784
#1	.0062	.0119	.0029	-.0013	.0047	.0002	-.0012	3.401	1.197
#2	.0060	.0120	.0022	-.0011	.0060	-.0018	-.0021	3.480	1.212

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**3.188**	**.3946**	**1.104**	**117.5**	**.0156**	**.0013**	**5.935**	**-.0016**	**.0083**
Stddev	.030	.0254	.023	1.8	.0004	.0002	.059	.0002	.0000
%RSD	.9483	6.445	2.101	1.499	2.551	11.63	.9929	9.687	.5433
#1	3.166	.3766	1.087	116.3	.0153	.0014	5.894	-.0017	.0082
#2	3.209	.4126	1.120	118.8	.0158	.0012	5.977	-.0014	.0083

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0658**	**-.0025**	**-.0010**	**2.432**	**-.0011**	**.0063**	**.2078**
Stddev	.0008	.0028	.0002	.020	.0011	.0005	.0001
%RSD	1.276	111.9	16.19	.8365	100.7	7.863	.0577
#1	.0663	-.0045	-.0011	2.418	-.0018	.0067	.2079
#2	.0652	-.0005	-.0009	2.447	-.0003	.0060	.2077

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154770.**	**24804.**	**6398.1**	**9577.0**
Stddev	636.	229.	5.8	10.4
%RSD	.41095	.92455	.08999	.10857
#1	154320.	24966.	6394.1	9569.6
#2	155220.	24642.	6402.2	9584.3

Zoom In Zoom Out

Sample Name: jc66043-12 Acquired: 5/22/2018 3:11:12 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0959**	**-.0001**	**.0001**	**.0007**	**.0010**	**.0020**	**.0853**	**.0011**	**-.0005**
Stddev	.0012	.0000	.0000	.0000	.0010	.0001	.0003	.0001	.0000
%RSD	1.205	42.81	2.963	6.816	99.69	4.483	.3064	12.01	5.790
#1	.0951	-.0000	.0001	.0007	.0017	.0019	.0855	.0012	-.0006
#2	.0967	-.0001	.0001	.0007	.0003	.0020	.0851	.0010	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0005**	**.0053**	**.0001**	**.0002**	**.0002**	**-.0031**	**.0006**	**.3608**	**31.84**
Stddev	.0002	.0000	.0002	.0000	.0005	.0009	.0009	.0147	.33
%RSD	40.85	.0520	182.3	8.287	277.6	29.33	152.9	4.073	1.026
#1	.0003	.0053	-.0000	.0002	.0006	-.0037	-.0000	.3712	31.61
#2	.0006	.0053	.0003	.0002	-.0002	-.0024	.0013	.3504	32.07

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.3880**	**11.94**	**2.612**	F **310.0**	**.0253**	**.0004**	**3.061**	**-.0014**	**.1500**
Stddev	.0005	.12	.015	2.9	.0007	.0000	.029	.0006	.0014
%RSD	.1164	.9738	.5546	.9356	2.637	.0590	.9470	46.51	.9429
#1	.3877	11.86	2.601	307.9	.0248	.0004	3.041	-.0018	.1490
#2	.3884	12.02	2.622	312.0	.0258	.0004	3.082	-.0009	.1510

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0029**	**-.0015**	**-.0013**	**3.485**	**-.0010**	**.0099**	**.0238**
Stddev	.0001	.0018	.0001	.045	.0010	.0036	.0023
%RSD	1.857	124.6	4.092	1.281	100.0	36.59	9.472
#1	.0028	-.0002	-.0013	3.453	-.0003	.0073	.0222
#2	.0029	-.0028	-.0013	3.516	-.0017	.0125	.0254

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**147790.**	**24348.**	**6199.4**	**9169.7**
Stddev	765.	291.	27.2	32.1
%RSD	.51787	1.1951	.43919	.35002
#1	147250.	24553.	6180.1	9147.0
#2	148330.	24142.	6218.6	9192.4

Zoom In Zoom Out

Sample Name: jc66043-13 Acquired: 5/22/2018 3:14:18 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1820**	**.0001**	**-.0002**	**.0123**	**.0013**	**.0069**	**1.769**	**.0050**	**-.0001**
Stddev	.0020	.0000	.0001	.0004	.0001	.0002	.009	.0008	.0003
%RSD	1.074	13.90	55.07	3.486	4.671	2.527	.5157	16.53	410.4
#1	.1806	.0002	-.0003	.0120	.0013	.0071	1.776	.0056	.0001
#2	.1833	.0001	-.0001	.0126	.0013	.0068	1.763	.0044	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0026**	**.0520**	**.0162**	**-.0005**	**.0013**	**-.0032**	**.0005**	**.4241**	**42.74**
Stddev	.0002	.0004	.0010	.0002	.0000	.0002	.0021	.0244	.22
%RSD	8.953	.7436	5.972	41.62	3.211	7.733	388.5	5.746	.5217
#1	.0025	.0517	.0169	-.0007	.0013	-.0030	.0020	.4068	42.58
#2	.0028	.0522	.0155	-.0004	.0013	-.0034	-.0010	.4413	42.90

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.62**	**12.84**	**5.298**	F **512.3**	**.0591**	**.0010**	**3.439**	**-.0007**	**.2480**
Stddev	.13	.08	.048	7.5	.0000	.0000	.030	.0002	.0013
%RSD	.5555	.5922	.9072	1.472	.0758	.5626	.8808	33.99	.5244
#1	23.52	12.78	5.264	507.0	.0591	.0011	3.417	-.0009	.2471
#2	23.71	12.89	5.332	517.7	.0591	.0010	3.460	-.0005	.2489

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0067**	**-.0016**	**-.0015**	**13.63**	**-.0011**	**.0081**	**.1392**
Stddev	.0004	.0015	.0000	.17	.0011	.0004	.0017
%RSD	6.333	94.81	.0308	1.258	101.6	5.111	1.233
#1	.0064	-.0026	-.0015	13.51	-.0019	.0084	.1380
#2	.0070	-.0005	-.0015	13.75	-.0003	.0078	.1404

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**146310.**	**23981.**	**6098.3**	**8982.8**
Stddev	1036.	52.	21.4	24.3
%RSD	.70820	.21629	.35170	.27032
#1	145570.	24017.	6083.1	8965.6
#2	147040.	23944.	6113.4	9000.0

Zoom In Zoom Out

Sample Name: jc66043-14 Acquired: 5/22/2018 3:17:22 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0011**	**-.0001**	**-.0001**	**-.0001**	**.0003**	**.0006**	**.0001**	**.0018**	**-.0000**
Stddev	.0002	.0000	.0000	.0000	.0001	.0001	.0000	.0001	.0005
%RSD	14.45	16.12	7.256	3.157	20.93	10.86	9.907	7.346	137000.
#1	.0012	-.0001	-.0001	-.0001	.0003	.0007	.0001	.0017	-.0004
#2	.0010	-.0001	-.0001	-.0001	.0003	.0006	.0001	.0019	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0001**	**.0003**	**-.0012**	**.0003**	**-.0007**	**.0008**	**.0304**	**.1317**
Stddev	.0000	.0001	.0000	.0001	.0016	.0024	.0012	.0034	.0024
%RSD	23.66	154.0	14.24	11.39	587.2	354.8	147.6	11.32	1.797
#1	.0001	-.0000	.0003	-.0013	.0014	-.0023	.0017	.0280	.1333
#2	.0001	.0002	.0004	-.0011	-.0008	.0010	-.0000	.0328	.1300

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0017**	**.0470**	**.1352**	**.3761**	**.0019**	**.0003**	**.0881**	**-.0004**	**.0014**
Stddev	.0000	.0163	.0149	.0263	.0002	.0002	.0027	.0005	.0000
%RSD	2.030	34.78	11.02	6.993	10.27	62.58	3.103	127.1	.4832
#1	.0017	.0586	.1457	.3947	.0021	.0004	.0862	-.0008	.0014
#2	.0016	.0354	.1246	.3575	.0018	.0001	.0901	-.0000	.0014

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0002**	**-.0011**	**.0001**	**.0571**	**-.0022**	**.0061**	**.0021**
Stddev	.0001	.0007	.0001	.0003	.0006	.0011	.0002
%RSD	70.66	64.76	97.89	.5861	26.66	17.48	11.24
#1	-.0001	-.0006	.0000	.0573	-.0026	.0053	.0019
#2	-.0003	-.0016	.0002	.0569	-.0018	.0068	.0023

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158670.**	**25036.**	**6456.1**	**9966.6**
Stddev	688.	79.	61.5	83.5
%RSD	.43330	.31733	.95200	.83746
#1	158180.	25093.	6499.6	10026.
#2	159160.	24980.	6412.7	9907.6

Zoom In Zoom Out

Sample Name: jc66043-15 Acquired: 5/22/2018 3:20:23 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0003**	**.0001**	**.0001**	**-.0003**	**.0001**	**.0003**	**.0000**	**-.0003**	**-.0001**
Stddev	.0011	.0001	.0001	.0002	.0002	.0002	.0001	.0002	.0001
%RSD	406.3	176.6	119.0	59.38	204.7	54.92	846.7	74.90	107.7
#1	-.0005	-.0000	.0000	-.0005	-.0000	.0005	.0001	-.0001	-.0000
#2	.0010	.0001	.0002	-.0002	.0002	.0002	-.0000	-.0005	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0016**	**-.0008**	**-.0013**	**.0011**	**-.0009**	**.0011**	**.0279**	**.0152**
Stddev	.0002	.0000	.0007	.0015	.0016	.0006	.0007	.0088	.0269
%RSD	66.06	3.076	98.60	109.5	144.7	63.96	67.18	31.54	177.2
#1	-.0002	.0016	-.0013	-.0024	-.0000	-.0013	.0006	.0341	-.0038
#2	-.0004	.0016	-.0002	-.0003	.0022	-.0005	.0016	.0217	.0342

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0003**	**.0267**	**.0880**	**.1679**	**.0017**	**.0001**	**.0630**	**-.0001**	**.0005**
Stddev	.0007	.0109	.0837	.0143	.0008	.0002	.0022	.0003	.0002
%RSD	208.7	40.81	95.08	8.529	46.02	129.2	3.549	253.0	44.73
#1	.0002	.0344	.1472	.1578	.0011	.0000	.0614	-.0003	.0003
#2	-.0008	.0190	.0288	.1781	.0022	.0003	.0645	.0001	.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0002**	**.0004**	**.0406**	**-.0004**	**.0029**	**.0024**
Stddev	.0004	.0004	.0000	.0000	.0017	.0022	.0005
%RSD	123.0	250.5	12.74	.0568	425.7	76.09	20.63
#1	-.0006	-.0001	.0003	.0406	-.0016	.0045	.0020
#2	-.0000	.0004	.0004	.0405	.0008	.0013	.0027

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159160.**	*****	**6440.4**	**9967.7**
Stddev	2318.	-----	46.3	52.8
%RSD	1.4567	-----	.71848	.52945
#1	157520.	-----	6407.6	9930.4
#2	160790.	24632.	6473.1	10005.

Zoom In Zoom Out

Sample Name: jc66377-1 Acquired: 5/22/2018 3:23:25 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0004**	**-.0002**	**.0002**	**-.0004**	**.0002**	**.0017**	**.0002**	**.0027**	**-.0001**
Stddev	.0003	.0000	.0002	.0002	.0001	.0003	.0000	.0000	.0003
%RSD	91.53	7.075	89.71	39.49	37.45	17.31	22.34	1.807	270.6
#1	.0001	-.0001	.0001	-.0005	.0002	.0020	.0001	.0026	-.0003
#2	.0006	-.0002	.0003	-.0003	.0001	.0015	.0002	.0027	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0000**	**.0004**	**.0005**	**-.0002**	**.0001**	**.0044**	**.0033**	**.0245**	**.0966**
Stddev	.0000	.0001	.0005	.0001	.0002	.0016	.0002	.0140	.0008
%RSD	25.12	12.93	103.6	83.15	283.6	35.41	6.203	57.31	.8606
#1	-.0000	.0005	.0008	-.0003	-.0001	.0033	.0032	.0146	.0971
#2	-.0000	.0004	.0001	-.0001	.0002	.0055	.0034	.0344	.0960

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0141**	**.0383**	**.0373**	**.2517**	**.0056**	**.0005**	**.0701**	**-.0004**	**.0005**
Stddev	.0012	.0013	.0109	.0092	.0006	.0004	.0040	.0001	.0002
%RSD	8.816	3.465	29.30	3.674	10.07	82.01	5.666	15.91	34.15
#1	.0132	.0373	.0296	.2582	.0052	.0008	.0673	-.0005	.0006
#2	.0149	.0392	.0450	.2451	.0060	.0002	.0730	-.0004	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0000**	**.0007**	**.0019**	**12.16**	**-.0006**	**.0028**	**.0035**
Stddev	.0004	.0010	.0001	.20	.0016	.0006	.0004
%RSD	2027.	156.6	7.670	1.640	257.3	21.10	11.19
#1	-.0002	.0014	.0020	12.02	.0005	.0032	.0038
#2	.0003	-.0001	.0018	12.30	-.0018	.0024	.0032

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158890.**	**24922.**	**6428.1**	**9938.5**
Stddev	160.	3.	35.7	44.5
%RSD	.10084	.01394	.55575	.44791
#1	159000.	24925.	6453.3	9970.0
#2	158780.	24920.	6402.8	9907.0

Zoom In Zoom Out

Sample Name: jc66377-2 Acquired: 5/22/2018 3:26:27 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0004**	**-.0001**	**-.0001**	**-.0004**	**.0000**	**.0009**	**.0001**	**.0020**	**-.0000**
Stddev	.0000	.0000	.0001	.0003	.0001	.0002	.0001	.0002	.0003
%RSD	.9472	29.21	176.3	81.30	295.0	22.03	45.88	9.533	4077.
#1	.0004	-.0001	-.0002	-.0006	.0001	.0008	.0002	.0021	-.0002
#2	.0004	-.0001	.0000	-.0002	-.0000	.0010	.0001	.0019	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0016**	**-.0007**	**-.0008**	**.0011**	**.0049**	**.0015**	**.0080**	**.0432**
Stddev	.0002	.0000	.0007	.0001	.0002	.0011	.0014	.0067	.0025
%RSD	61.78	2.528	105.0	18.03	18.16	23.11	98.98	83.71	5.887
#1	-.0005	.0017	-.0002	-.0007	.0010	.0041	.0025	.0128	.0450
#2	-.0002	.0016	-.0012	-.0009	.0013	.0057	.0004	.0033	.0414

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0101**	**.0260**	**.0373**	**.1966**	**.0069**	**.0004**	**.0801**	**-.0003**	**.0002**
Stddev	.0024	.0037	.0030	.0091	.0006	.0002	.0003	.0003	.0001
%RSD	23.34	14.18	7.934	4.604	9.323	62.80	.4077	88.71	24.99
#1	.0117	.0234	.0352	.1902	.0065	.0005	.0804	-.0001	.0003
#2	.0084	.0286	.0394	.2030	.0074	.0002	.0799	-.0005	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**.0003**	**.0010**	**15.30**	**-.0001**	**.0019**	**.0024**
Stddev	.0005	.0009	.0001	.17	.0016	.0019	.0003
%RSD	140.1	305.6	6.805	1.118	1927.	101.8	14.27
#1	-.0006	-.0004	.0010	15.18	.0010	.0032	.0022
#2	-.0000	.0010	.0011	15.42	-.0012	.0005	.0027

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158170.**	**25195.**	**6445.6**	**9973.4**
Stddev	1654.	270.	19.5	38.5
%RSD	1.0457	1.0728	.30308	.38592
#1	157010.	25004.	6431.8	9946.1
#2	159340.	25386.	6459.4	10001.

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 3:29:29 Type: QC
Method: Accutest XPress(v324) 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	**2.042**	**2.018**	**1.994**	**2.065**	**2.027**	**2.000**	**2.089**	**2.072**	**.2519**
Stddev	.019	.020	.030	.033	.022	.022	.031	.031	.0035
%RSD	.9373	.9786	1.483	1.618	1.094	1.081	1.479	1.484	1.406
#1	2.028	2.004	1.973	2.041	2.011	1.984	2.067	2.051	.2494
#2	2.055	2.032	2.015	2.088	2.042	2.015	2.111	2.094	.2544
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**	**2.038**	**2.031**	**2.058**	**2.066**	**2.025**	**2.026**	**40.03**	**40.28**
Stddev	.029	.032	.036	.032	.034	.033	.032	.38	.42
%RSD	1.420	1.573	1.769	1.550	1.658	1.645	1.579	.9556	1.031
#1	2.005	2.015	2.005	2.035	2.042	2.001	2.004	39.76	39.99
#2	2.046	2.060	2.056	2.080	2.090	2.048	2.049	40.30	40.58
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	**40.23**	**40.13**	**39.99**	**40.22**	**2.018**	**2.030**	**5.101**	**2.051**	**2.039**
Stddev	.38	.40	.58	.44	.032	.030	.085	.026	.019
%RSD	.9352	1.001	1.451	1.083	1.566	1.488	1.675	1.284	.9486
#1	39.97	39.84	39.58	39.91	1.996	2.009	5.041	2.032	2.026
#2	40.50	40.41	40.41	40.53	2.040	2.051	5.162	2.069	2.053
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: 5/22/2018 3:29:29 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.042**	**2.013**	**2.041**	**2.019**	**2.034**	**2.000**	**2.024**
Stddev	.031	.029	.027	.038	.029	.023	.032
%RSD	1.503	1.431	1.311	1.873	1.447	1.147	1.591
#1	2.020	1.992	2.022	1.992	2.013	1.984	2.001
#2	2.063	2.033	2.060	2.046	2.055	2.016	2.047
Check ?	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	**153710.**	**24865.**	**6342.8**	**9556.5**
Stddev	1431.	106.	22.7	39.6
%RSD	.93117	.42764	.35819	.41455
#1	154720.	24940.	6358.9	9584.5
#2	152690.	24790.	6326.8	9528.5

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 3:32:18 Type: QC
Method: Accutest XPress(v324) 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**	**-.0001**	**-.0000**	**-.0001**	**.0002**	**-.0001**	**.0002**
Stddev	.0001	.0000	.0001	.0002	.0003	.0001	.0000	.0005	.0000
%RSD	46.39	3.639	195.5	253.8	1897.	131.2	13.62	431.0	18.97
#1	.0001	-.0000	-.0001	.0001	-.0002	-.0000	.0001	.0002	.0002
#2	.0003	-.0000	.0000	-.0002	.0002	-.0002	.0002	-.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**	**.0018**	**.0012**	**.0006**	**-.0001**	**-.0008**	**.0010**	**.0069**	**.0075**
Stddev	.0005	.0001	.0001	.0005	.0019	.0007	.0004	.0041	.0011
%RSD	831.3	2.893	9.418	91.69	2547.	92.34	35.05	59.18	14.06
#1	.0004	.0018	.0013	.0002	.0013	-.0003	.0008	.0098	.0067
#2	-.0003	.0018	.0011	.0010	-.0014	-.0013	.0013	.0040	.0082
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	**.0054**	**.0121**	**.0387**	**.1015**	**.0030**	**.0006**	**-.0061**	**.0008**	**.0001**
Stddev	.0012	.0076	.0080	.0016	.0003	.0002	.0014	.0007	.0000
%RSD	21.94	62.63	20.80	1.539	8.416	24.90	22.29	85.10	17.95
#1	.0062	.0068	.0444	.1026	.0032	.0005	-.0071	.0013	.0001
#2	.0045	.0175	.0330	.1004	.0028	.0007	-.0051	.0003	.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: ccb Acquired: 5/22/2018 3:32:18 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0015**	**.0005**	**.0070**	**.0017**	F **.0045**	**-.0001**
Stddev	.0003	.0008	.0000	.0023	.0015	.0023	.0002
%RSD	79.44	54.29	7.327	33.07	86.24	50.31	220.2
#1	-.0002	-.0009	.0005	.0086	.0028	.0029	-.0003
#2	-.0007	-.0021	.0005	.0053	.0007	.0062	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**159180.**	**24934.**	**6503.0**	**10075.**
Stddev	2821.	358.	56.2	84.
%RSD	1.7723	1.4342	.86419	.83309
#1	161180.	24681.	6463.2	10016.
#2	157190.	25186.	6542.7	10135.

Zoom In Zoom Out

Sample Name: jc66441-1 Acquired: 5/22/2018 3:35:22 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0445**	**-.0000**	**.0485**	**-.0001**	**.0090**	**.0117**	**.0031**	**.0052**	**.0002**
Stddev	.0000	.0000	.0005	.0002	.0001	.0000	.0000	.0006	.0001
%RSD	.0804	123.6	.9696	410.0	1.002	.3497	1.580	10.95	21.40
#1	.0445	-.0000	.0482	-.0002	.0089	.0117	.0030	.0048	.0003
#2	.0445	-.0001	.0489	.0001	.0090	.0117	.0031	.0056	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0005**	**.0412**	**.0010**	**.0006**	**.1422**	**.0017**	**.0031**	**86.05**	**.3025**
Stddev	.0002	.0005	.0004	.0006	.0029	.0001	.0005	.37	.0024
%RSD	32.68	1.210	36.99	96.80	2.010	6.083	15.47	.4348	.8094
#1	.0006	.0408	.0007	.0002	.1402	.0018	.0027	85.78	.3008
#2	.0004	.0416	.0012	.0010	.1442	.0017	.0034	86.31	.3043

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0738**	**.0770**	**.0690**	**.4554**	**.0868**	**.0012**	**.4222**	**.0518**	**.0030**
Stddev	.0036	.0227	.0046	.0034	.0005	.0002	.0029	.0007	.0000
%RSD	4.809	29.41	6.723	.7547	.5848	20.61	.6766	1.347	.9485
#1	.0763	.0930	.0657	.4578	.0864	.0010	.4201	.0513	.0030
#2	.0713	.0610	.0722	.4530	.0871	.0013	.4242	.0523	.0031

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0395**	**.0067**	**.0019**	**.4798**	**.1225**	**.0059**	**.0034**
Stddev	.0003	.0010	.0000	.0025	.0027	.0010	.0001
%RSD	.7262	15.56	.8749	.5111	2.179	16.96	1.556
#1	.0393	.0074	.0019	.4781	.1206	.0052	.0034
#2	.0397	.0059	.0019	.4816	.1243	.0067	.0035

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159380.**	**25712.**	**6586.2**	**9980.3**
Stddev	1898.	19.	.9	6.3
%RSD	1.1908	.07294	.01331	.06339
#1	160720.	25725.	6585.6	9984.8
#2	158040.	25698.	6586.8	9975.8

Zoom In Zoom Out

Sample Name: rinseblankconf Acquired: 5/22/2018 3:38:22 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**-.0001**	**-.0000**	**-.0001**	**-.0002**	**.0000**	**-.0001**	**.0000**	**-.0002**	**-.0003**
Stddev	.0001	.0000	.0001	.0003	.0001	.0009	.0000	.0001	.0002
%RSD	193.6	251.8	74.74	118.9	315.1	775.4	800.9	32.00	53.51
#1	-.0002	-.0000	-.0001	-.0000	-.0000	.0005	-.0000	-.0002	-.0004
#2	.0000	.0000	-.0002	-.0004	.0001	-.0007	.0000	-.0001	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0004**	**-.0004**	**-.0002**	**.0011**	**-.0002**	**-.0023**	**.0008**	**.0017**	**-.0096**
Stddev	.0001	.0000	.0007	.0004	.0004	.0007	.0009	.0051	.0031
%RSD	18.55	5.717	338.8	40.61	182.5	31.41	111.5	306.1	31.93
#1	.0005	-.0004	.0003	.0014	.0001	-.0029	.0015	.0053	-.0075
#2	.0004	-.0003	-.0007	.0008	-.0005	-.0018	.0002	-.0019	-.0118

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0017**	**.0136**	**.0279**	**.0800**	**.0015**	**.0002**	**-.0065**	**.0002**	**.0000**
Stddev	.0014	.0106	.0756	.0029	.0000	.0002	.0008	.0002	.0000
%RSD	81.24	77.85	270.9	3.655	1.488	121.7	12.52	104.8	163.7
#1	-.0026	.0061	-.0255	.0821	.0015	.0000	-.0071	.0003	.0001
#2	-.0007	.0211	.0813	.0779	.0015	.0003	-.0059	.0000	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0006**	**.0003**	**.0047**	**-.0003**	**.0050**	**.0000**
Stddev	.0002	.0013	.0002	.0009	.0046	.0000	.0005
%RSD	277.1	215.3	60.15	18.76	1364.	.1746	1993.
#1	-.0003	.0016	.0002	.0053	.0029	.0050	-.0003
#2	.0001	-.0003	.0004	.0041	-.0036	.0050	.0004

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158370.**	**25142.**	**6460.3**	**9994.7**
Stddev	1088.	247.	80.4	114.5
%RSD	.68700	.98291	1.2441	1.1453
#1	159140.	24967.	6517.1	10076.
#2	157600.	25317.	6403.4	9913.7

Zoom In Zoom Out

Sample Name: jc66441-2 Acquired: 5/22/2018 3:41:25 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0011**	**-.0001**	**.0381**	**-.0002**	**.0079**	**.0025**	**.0015**	**.0022**
Stddev	.0001	.0000	.0005	.0003	.0004	.0004	.0000	.0000
%RSD	10.14	43.38	1.343	162.6	5.573	16.51	2.277	.7175
#1	.0012	-.0001	.0378	.0000	.0076	.0022	.0014	.0022
#2	.0010	-.0001	.0385	-.0004	.0082	.0028	.0015	.0022

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0004**	**.0003**	**.0119**	**.0049**	F **-.0025**	**.0052**	**-.0011**	**.0151**
Stddev	.0000	.0005	.0000	.0004	.0013	.0001	.0018	.0010
%RSD	1.005	139.4	.1303	8.806	54.45	1.160	174.3	6.709
#1	-.0004	.0006	.0119	.0052	-.0015	.0051	.0002	.0144
#2	-.0004	.0000	.0120	.0046	-.0034	.0052	-.0024	.0158

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0535**	**1.515**	**.0196**	**.1911**	**.1895**	**10.07**	F **130.8**	**.0010**
Stddev	.0112	.017	.0017	.0090	.0202	.13	1.6	.0002
%RSD	20.96	1.147	8.764	4.729	10.68	1.325	1.205	19.27
#1	.0614	1.503	.0183	.1847	.2038	9.973	129.7	.0012
#2	.0455	1.527	.0208	.1975	.1752	10.16	132.0	.0009

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.3063**	**.0352**	**.0048**	**-.0003**	**-.0012**	**.0011**	**6.782**	**.0061**
Stddev	.0038	.0005	.0000	.0003	.0002	.0001	.084	.0003
%RSD	1.236	1.401	.5826	136.3	16.59	9.525	1.233	5.326
#1	.3037	.0348	.0048	-.0005	-.0013	.0012	6.723	.0058
#2	.3090	.0355	.0047	-.0000	-.0011	.0010	6.841	.0063

Elem	Li6707	P_1774
Avg	**.0037**	**.3466**
Stddev	.0007	.0054
%RSD	19.72	1.562
#1	.0032	.3427
#2	.0042	.3504

Zoom In Zoom Out

Sample Name: jc66441-2 Acquired: 5/22/2018 3:41:25 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156480.**	**24679.**	**6294.3**	**9824.1**
Stddev	2781.	199.	17.1	30.0
%RSD	1.7773	.80657	.27204	.30490
#1	158450.	24820.	6306.4	9845.3
#2	154520.	24538.	6282.2	9803.0

Zoom In Zoom Out

Sample Name: mp7254-b1 2 Acquired: 5/22/2018 3:44:24 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.086**	**2.084**	**2.043**	**2.112**	**2.070**	**2.063**	**2.132**	**2.113**	**.2457**
Stddev	.037	.035	.036	.035	.026	.023	.027	.036	.0033
%RSD	1.796	1.695	1.756	1.643	1.264	1.121	1.276	1.700	1.356
#1	2.060	2.059	2.018	2.087	2.052	2.047	2.112	2.088	.2433
#2	2.113	2.109	2.069	2.136	2.089	2.079	2.151	2.139	.2480

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.071**	**2.077**	**2.079**	**2.105**	**2.107**	**2.063**	**2.098**	**25.56**	**25.91**
Stddev	.026	.036	.037	.040	.040	.039	.034	.44	.45
%RSD	1.258	1.754	1.765	1.911	1.892	1.890	1.604	1.720	1.720
#1	2.053	2.051	2.053	2.076	2.079	2.035	2.074	25.25	25.59
#2	2.090	2.103	2.105	2.133	2.136	2.090	2.122	25.87	26.22

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**25.77**	**25.74**	**25.41**	**25.72**	**2.302**	**2.112**	**.0905**	**2.121**	**2.089**
Stddev	.44	.44	.41	.55	.028	.037	.0026	.034	.036
%RSD	1.691	1.728	1.626	2.134	1.231	1.755	2.921	1.610	1.745
#1	25.46	25.42	25.12	25.33	2.282	2.086	.0886	2.097	2.063
#2	26.08	26.05	25.70	26.11	2.322	2.139	.0924	2.145	2.114

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.095**	**2.029**	**2.103**	**.0488**	**.0110**	**.0046**	**2.064**
Stddev	.025	.038	.025	.0010	.0040	.0011	.037
%RSD	1.211	1.879	1.173	2.003	36.75	23.82	1.785
#1	2.077	2.002	2.086	.0481	.0081	.0054	2.038
#2	2.113	2.056	2.121	.0495	.0138	.0039	2.090

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155570.**	**25129.**	**6366.9**	**9677.8**
Stddev	1889.	369.	44.9	63.9
%RSD	1.2139	1.4674	.70499	.66047
#1	156910.	25389.	6398.6	9723.0
#2	154230.	24868.	6335.1	9632.6

Zoom In Zoom Out

Sample Name: mp7254-mb1 Acquired: 5/22/2018 3:47:14 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**-.0004**	**-.0000**	**-.0002**	**-.0004**	**.0001**	**.0004**	**.0000**	**-.0002**	**.0004**
Stddev	.0001	.0001	.0001	.0001	.0002	.0002	.0000	.0001	.0002
%RSD	37.43	299.4	36.89	16.85	231.6	45.77	18.82	30.15	44.34
#1	-.0003	.0000	-.0002	-.0004	.0002	.0005	.0000	-.0001	.0005
#2	-.0005	-.0001	-.0003	-.0003	-.0001	.0003	.0000	-.0002	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0002**	**-.0001**	**.0006**	**.0001**	**.0009**	**-.0013**	**.0030**	**.0064**	**.0097**
Stddev	.0001	.0002	.0005	.0005	.0013	.0035	.0011	.0074	.0022
%RSD	50.72	139.3	73.47	654.6	142.4	264.4	36.25	116.2	22.38
#1	.0001	-.0002	.0003	-.0003	-.0000	.0012	.0037	.0116	.0112
#2	.0003	-.0000	.0010	.0004	.0018	-.0038	.0022	.0011	.0081

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0001**	**.0189**	**.0260**	**.0857**	**.1596**	**.0004**	**.0065**	**-.0000**	**-.0000**
Stddev	.0019	.0248	.0688	.0052	.0072	.0000	.0014	.0002	.0001
%RSD	1414.	131.3	264.3	6.087	4.510	6.056	21.44	1412.	1270.
#1	-.0015	.0014	-.0226	.0820	.1647	.0004	.0055	-.0002	.0001
#2	.0012	.0364	.0746	.0894	.1546	.0004	.0074	.0001	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0007**	**.0006**	**.0072**	**-.0003**	**.0038**	**-.0000**
Stddev	.0000	.0003	.0001	.0010	.0006	.0011	.0003
%RSD	30.70	43.41	15.09	14.06	242.4	28.72	2192.
#1	-.0001	-.0009	.0005	.0065	-.0007	.0030	.0002
#2	-.0002	-.0005	.0007	.0080	.0002	.0046	-.0002

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160870.**	**25489.**	**6497.5**	**10062.**
Stddev	981.	276.	41.4	57.
%RSD	.60978	1.0825	.63657	.57114
#1	161570.	25293.	6526.7	10103.
#2	160180.	25684.	6468.2	10021.

Zoom In Zoom Out

Sample Name: mp7254-s1 Acquired: 5/22/2018 3:50:17 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**2.391**	**2.079**	**2.067**	**2.108**	**2.236**	**2.245**	**3.295**	**2.110**
Stddev	.011	.006	.017	.008	.299	.294	.451	.009
%RSD	.4597	.2854	.8080	.3919	13.40	13.10	13.67	.4422
#1	2.399	2.083	2.055	2.102	2.024	2.037	2.976	2.103
#2	2.383	2.074	2.078	2.114	2.447	2.453	3.613	2.116

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2692**	**2.251**	**2.066**	**2.113**	**2.027**	**2.107**	**2.077**	**2.121**
Stddev	.0314	.288	.008	.013	.069	.015	.002	.009
%RSD	11.68	12.79	.3896	.6038	3.380	.6933	.0742	.4378
#1	.2470	2.047	2.060	2.104	2.075	2.097	2.078	2.114
#2	.2915	2.454	2.071	2.122	1.978	2.117	2.076	2.127

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**25.49**	**90.31**	**49.70**	**31.49**	**29.26**	**71.30**	**2.622**	**2.121**
Stddev	.05	.32	.31	.29	.09	.27	.060	.005
%RSD	.1873	.3598	.6202	.9224	.3067	.3795	2.290	.2454
#1	25.52	90.54	49.92	31.69	29.32	71.50	2.579	2.117
#2	25.45	90.08	49.49	31.28	29.20	71.11	2.664	2.125

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**14.58**	**2.117**	**2.427**	**2.295**	**2.075**	**2.292**	**.1823**	F **-.0460**
Stddev	.17	.005	.009	.310	.006	.311	.0526	.0856
%RSD	1.166	.2171	.3582	13.51	.2895	13.55	28.87	186.0
#1	14.46	2.113	2.433	2.076	2.079	2.072	.2195	.0145
#2	14.70	2.120	2.420	2.514	2.071	2.511	.1451	-.1066

Elem	Li6707	P_1774
Avg	**.0281**	**2.684**
Stddev	.0008	.003
%RSD	2.876	.1164
#1	.0286	2.686
#2	.0275	2.682

Zoom In Zoom Out

Sample Name: mp7254-s1 Acquired: 5/22/2018 3:50:17 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	*****	**24782.**	**6239.5**	**9432.8**
Stddev	-----	297.	36.4	52.2
%RSD	-----	1.1993	.58345	.55312
#1	153350.	24572.	6213.7	9395.9
#2	-----	24992.	6265.2	9469.7

Zoom In Zoom Out

Sample Name: mp7254-s2 Acquired: 5/22/2018 3:53:12 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**2.411**	**2.095**	**2.070**	**2.124**	**2.037**	**2.059**	**3.018**	**2.126**	**.2493**
Stddev	.003	.005	.010	.010	.000	.005	.010	.009	.0008
%RSD	.1371	.2316	.4712	.4684	.0079	.2474	.3367	.4134	.3224
#1	2.414	2.098	2.064	2.117	2.037	2.055	3.025	2.120	.2487
#2	2.409	2.091	2.077	2.131	2.036	2.062	3.010	2.132	.2499

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.062**	**2.079**	**2.122**	**2.102**	**2.114**	**2.101**	**2.130**	**25.61**	**92.01**
Stddev	.004	.012	.013	.010	.011	.018	.009	.07	.22
%RSD	.2187	.5870	.6302	.4865	.5246	.8509	.4052	.2880	.2408
#1	2.059	2.070	2.113	2.094	2.106	2.088	2.124	25.67	92.16
#2	2.065	2.087	2.132	2.109	2.122	2.114	2.136	25.56	91.85

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**50.37**	**31.78**	**29.65**	**72.50**	**2.583**	**2.134**	**14.81**	**2.130**	**2.452**
Stddev	.13	.09	.06	.03	.009	.009	.06	.010	.006
%RSD	.2603	.2953	.1943	.0424	.3338	.4020	.4333	.4811	.2583
#1	50.46	31.85	29.60	72.48	2.577	2.128	14.76	2.123	2.456
#2	50.27	31.71	29.69	72.52	2.590	2.140	14.85	2.138	2.447

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.093**	**2.101**	**2.091**	**.2800**	**.0103**	**.0284**	**2.724**
Stddev	.002	.010	.003	.0023	.0013	.0002	.017
%RSD	.0858	.4578	.1619	.8189	13.05	.5822	.6400
#1	2.092	2.094	2.089	.2784	.0112	.0285	2.712
#2	2.095	2.107	2.094	.2817	.0093	.0283	2.737

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154470.**	**25069.**	**6256.4**	**9450.6**
Stddev	995.	44.	18.5	32.1
%RSD	.64437	.17530	.29550	.33947
#1	153770.	25038.	6243.3	9427.9
#2	155170.	25100.	6269.4	9473.3

Zoom In Zoom Out

Sample Name: jc66445-1 Acquired: 5/22/2018 3:56:07 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.2954**	**.0000**	**-.0001**	**-.0006**	**.0014**	**.0031**	**.9217**	**.0004**
Stddev	.0044	.0001	.0001	.0001	.0001	.0000	.0061	.0001
%RSD	1.485	915.2	69.09	13.40	9.219	1.421	.6652	38.32
#1	.2985	.0001	-.0002	-.0007	.0015	.0031	.9261	.0004
#2	.2923	-.0000	-.0001	-.0006	.0013	.0032	.9174	.0003

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0007**	**.0011**	**.0054**	**.0038**	**-.0007**	**.0039**	**-.0030**	F **-.0037**
Stddev	.0001	.0000	.0000	.0001	.0001	.0004	.0009	.0004
%RSD	7.780	1.101	.5722	3.598	13.64	10.65	31.25	10.39
#1	.0007	.0011	.0054	.0037	-.0006	.0041	-.0036	-.0034
#2	.0007	.0011	.0055	.0039	-.0007	.0036	-.0023	-.0040

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0400**	**63.78**	**23.93**	**6.280**	**3.883**	**44.99**	**.4685**	**.0005**
Stddev	.0030	.94	.39	.093	.070	.62	.0073	.0000
%RSD	7.451	1.470	1.628	1.479	1.798	1.388	1.565	6.752
#1	.0379	64.45	24.21	6.346	3.933	45.44	.4633	.0005
#2	.0421	63.12	23.66	6.214	3.834	44.55	.4737	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**14.20**	**-.0024**	**.3362**	**.0011**	**-.0024**	**-.0080**	**.2550**	**-.0009**
Stddev	.26	.0003	.0054	.0003	.0015	.0004	.0055	.0005
%RSD	1.830	10.51	1.595	26.58	64.55	4.587	2.156	47.83
#1	14.02	-.0022	.3400	.0009	-.0034	-.0077	.2511	-.0006
#2	14.38	-.0026	.3324	.0013	-.0013	-.0082	.2589	-.0013

Elem	Li6707	P_1774
Avg	**.0308**	**.5972**
Stddev	.0002	.0096
%RSD	.6761	1.600
#1	.0306	.5904
#2	.0309	.6039

Zoom In Zoom Out

Sample Name: jc66445-1 Acquired: 5/22/2018 3:56:07 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155170.**	**25155.**	**6357.4**	**9675.7**
Stddev	1799.	121.	24.7	40.4
%RSD	1.1592	.48155	.38808	.41745
#1	153900.	25069.	6374.8	9704.3
#2	156440.	25240.	6339.9	9647.1

Zoom In Zoom Out

Sample Name: mp7254-sd1 Acquired: 5/22/2018 3:59:06 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2995**	**-.0003**	**.0007**	**-.0002**	**.0011**	**.0052**	**.9301**	**.0001**	**.2812**
Stddev	.0076	.0002	.0007	.0003	.0006	.0007	.0091	.0008	.0034
%RSD	2.526	80.75	95.14	145.2	54.81	14.37	.9826	652.8	1.226
#1	.2941	-.0001	.0002	.0000	.0007	.0047	.9237	-.0004	.2787
#2	.3048	-.0004	.0012	-.0005	.0016	.0057	.9366	.0007	.2836

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0012**	**.0059**	**.0154**	**-.0055**	**.0027**	**.0302**	**.0320**	**.0407**	**64.24**
Stddev	.0033	.0002	.0031	.0075	.0003	.0022	.0033	.0345	1.02
%RSD	271.4	3.223	19.81	136.2	9.380	7.134	10.22	84.62	1.581
#1	-.0011	.0060	.0133	-.0002	.0026	.0287	.0297	.0651	63.52
#2	.0036	.0057	.0176	-.0108	.0029	.0317	.0343	.0164	64.95

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.31**	**6.425**	**4.116**	**45.87**	**.7056**	**.0285**	**14.18**	**.0367**	**.3405**
Stddev	.33	.218	.096	.84	.0085	.0004	.17	.0017	.0058
%RSD	1.338	3.387	2.342	1.838	1.201	1.509	1.186	4.703	1.711
#1	24.08	6.271	4.184	45.27	.7115	.0288	14.06	.0379	.3364
#2	24.54	6.579	4.048	46.46	.6996	.0282	14.30	.0355	.3446

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0027**	**.1101**	**.0003**	**.2418**	**-.0024**	**.0548**	**.5993**
Stddev	.0011	.0007	.0001	.0144	.0030	.0082	.0101
%RSD	41.74	.6356	27.76	5.938	127.2	14.97	1.678
#1	.0019	.1096	.0004	.2519	-.0045	.0606	.5922
#2	.0035	.1105	.0003	.2316	-.0002	.0490	.6064

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160700.**	**25504.**	**6479.6**	**9991.8**
Stddev	457.	574.	16.7	27.6
%RSD	.28441	2.2513	.25747	.27650
#1	161030.	25910.	6467.8	9972.3
#2	160380.	25098.	6491.4	10011.

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 4:02:09 Type: QC
Method: Accutest XPress(v324) 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**	**1.981**	**1.979**	**2.043**	**2.000**	**1.970**	**2.052**	**2.049**	**.2481**
Stddev	.017	.014	.026	.027	.002	.006	.001	.027	.0008
%RSD	.8281	.6963	1.340	1.335	.1110	.2850	.0253	1.299	.3129
#1	1.986	1.971	1.998	2.062	1.998	1.974	2.052	2.068	.2476
#2	2.009	1.991	1.961	2.024	2.001	1.966	2.052	2.030	.2487
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	**1.993**	**2.013**	**2.011**	**2.036**	**2.043**	**2.006**	**2.013**	**39.28**	**39.52**
Stddev	.001	.029	.024	.018	.027	.023	.029	.27	.25
%RSD	.0350	1.430	1.197	.9035	1.333	1.133	1.427	.6860	.6334
#1	1.994	2.033	2.028	2.049	2.062	2.022	2.033	39.09	39.34
#2	1.993	1.992	1.994	2.023	2.023	1.990	1.993	39.47	39.70
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	**39.39**	**39.25**	**38.82**	**39.21**	**2.047**	**2.018**	**5.058**	**2.034**	**2.001**
Stddev	.23	.25	.56	.36	.028	.028	.069	.031	.014
%RSD	.5885	.6276	1.455	.9255	1.366	1.396	1.359	1.517	.7090
#1	39.22	39.08	38.42	38.96	2.067	2.038	5.106	2.056	1.991
#2	39.55	39.43	39.22	39.47	2.027	1.998	5.009	2.013	2.011
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: 5/22/2018 4:02:09 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.005**	**1.995**	**2.013**	**1.993**	**2.023**	**1.956**	**2.009**
Stddev	.002	.033	.004	.023	.031	.018	.029
%RSD	.0979	1.665	.1832	1.150	1.546	.9173	1.432
#1	2.007	2.019	2.015	2.009	2.046	1.944	2.029
#2	2.004	1.972	2.010	1.977	2.001	1.969	1.989
Check ?	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	**154970.**	**25268.**	**6357.7**	**9600.0**
Stddev	251.	28.	120.2	166.4
%RSD	.16200	.11081	1.8911	1.7331
#1	154790.	25249.	6272.7	9482.4
#2	155150.	25288.	6442.7	9717.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 4:04:59 Type: QC
Method: Accutest XPress(v324) 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**	**.0002**	**.0002**	**-.0001**	**-.0002**
Stddev	.0002	.0001	.0000	.0001	.0002	.0003	.0000	.0002	.0002
%RSD	131.5	786.8	19.62	73.34	177.7	199.7	24.45	388.6	132.6
#1	-.0003	-.0001	-.0001	-.0001	.0000	-.0001	.0002	.0001	-.0004
#2	-.0000	.0001	-.0001	-.0003	-.0002	.0004	.0001	-.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0018**	**.0015**	**-.0007**	**.0001**	**.0003**	**.0016**	**.0050**	**.0112**
Stddev	.0004	.0000	.0000	.0003	.0003	.0008	.0006	.0034	.0016
%RSD	148.5	.8099	1.138	38.25	436.0	261.6	35.97	68.65	14.52
#1	.0000	.0018	.0015	-.0009	-.0001	-.0003	.0012	.0074	.0101
#2	-.0005	.0018	.0015	-.0005	.0003	.0009	.0020	.0026	.0124
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**	**.0115**	**.0539**	**.0692**	F **.0465**	**.0004**	**-.0064**	**.0004**	**.0001**
Stddev	.0038	.0091	.0559	.0001	.0029	.0001	.0003	.0004	.0001
%RSD	85.73	79.11	103.6	.1423	6.210	19.37	4.492	93.54	126.3
#1	.0018	.0051	.0934	.0693	.0485	.0004	-.0066	.0001	.0000
#2	.0072	.0179	.0144	.0692	.0444	.0005	-.0062	.0007	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0100				
Low Limit					-.0100				

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 4:04:59 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0016**	**.0005**	**.0074**	**.0001**	F **.0050**	**-.0006**
Stddev	.0004	.0000	.0000	.0012	.0018	.0038	.0002
%RSD	3017.	2.239	.8373	16.57	2094.	75.81	38.05
#1	.0003	-.0017	.0005	.0083	.0013	.0077	-.0004
#2	-.0002	-.0016	.0005	.0066	-.0012	.0023	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**161220.**	**25529.**	**6547.7**	**10131.**
Stddev	1389.	689.	21.9	22.
%RSD	.86160	2.6992	.33473	.21615
#1	162200.	26016.	6532.2	10116.
#2	160240.	25041.	6563.2	10147.

Zoom In Zoom Out

Sample Name: jc66225-1 Acquired: 5/22/2018 4:08:01 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1182**	**.0003**	**.0001**	**.0036**	**.0141**	**.0256**	**.2223**	**.0091**	**.0004**
Stddev	.0021	.0000	.0001	.0000	.0004	.0007	.0005	.0002	.0008
%RSD	1.742	13.25	76.76	.6116	2.922	2.738	.2119	2.233	211.7
#1	.1167	.0003	.0001	.0036	.0144	.0261	.2220	.0089	-.0002
#2	.1196	.0003	.0002	.0036	.0138	.0251	.2227	.0092	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0164**	**.0402**	**.0021**	**-.0018**	**.0042**	**-.0028**	**-.0006**	**5.721**	**14.67**
Stddev	.0002	.0005	.0002	.0024	.0003	.0011	.0016	.093	.24
%RSD	1.372	1.199	10.99	134.0	5.979	41.21	259.3	1.632	1.656
#1	.0162	.0399	.0023	-.0035	.0041	-.0036	.0005	5.655	14.49
#2	.0165	.0405	.0020	-.0001	.0044	-.0020	-.0017	5.787	14.84

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**7.765**	**4.205**	**4.184**	**7.074**	**.0588**	**.0027**	**12.95**	**-.0023**	**.0947**
Stddev	.111	.067	.102	.121	.0007	.0001	.18	.0005	.0013
%RSD	1.430	1.599	2.441	1.706	1.143	5.115	1.385	20.03	1.399
#1	7.686	4.157	4.112	6.989	.0583	.0026	12.82	-.0026	.0938
#2	7.843	4.252	4.256	7.159	.0592	.0028	13.07	-.0020	.0956

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.2359**	**-.0031**	**-.0050**	**1.232**	**-.0004**	**.0148**	**.1389**
Stddev	.0001	.0005	.0000	.013	.0013	.0015	.0024
%RSD	.0231	14.90	.8587	1.048	315.8	10.15	1.694
#1	.2359	-.0028	-.0050	1.223	-.0013	.0159	.1372
#2	.2359	-.0034	-.0051	1.242	.0005	.0138	.1406

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**161580.**	**26053.**	**6559.7**	**10040.**
Stddev	392.	456.	4.8	14.
%RSD	.24275	1.7483	.07280	.13763
#1	161310.	26375.	6563.1	10050.
#2	161860.	25731.	6556.3	10030.

Zoom In Zoom Out

Sample Name: jc66225-2 Acquired: 5/22/2018 4:11:00 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.5527**	**-.0000**	**-.0001**	**-.0001**	**.0023**	**.0036**	**.0203**	**.0004**	**.0003**
Stddev	.0125	.0001	.0003	.0003	.0001	.0001	.0006	.0005	.0005
%RSD	2.269	202.7	289.7	214.3	3.588	3.287	2.906	139.0	174.7
#1	.5616	.0000	.0001	-.0003	.0024	.0035	.0199	.0007	-.0001
#2	.5439	-.0001	-.0003	.0001	.0023	.0037	.0207	.0000	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0035**	**.1714**	**.0007**	**-.0018**	**.0005**	**.0002**	**.0013**	**.5674**	**87.56**
Stddev	.0005	.0026	.0006	.0003	.0001	.0011	.0005	.0085	2.06
%RSD	14.35	1.534	85.14	18.65	27.85	470.8	34.81	1.498	2.352
#1	.0031	.1695	.0003	-.0021	.0004	.0010	.0010	.5734	89.02
#2	.0038	.1732	.0011	-.0016	.0006	-.0006	.0016	.5614	86.11

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.6261**	**17.24**	**3.644**	**17.79**	**.0563**	**.0005**	**9.061**	**-.0025**	**.1993**
Stddev	.0168	.35	.097	.35	.0002	.0001	.155	.0005	.0045
%RSD	2.687	2.059	2.671	1.960	.2814	21.85	1.711	19.92	2.244
#1	.6380	17.49	3.713	18.04	.0564	.0006	8.951	-.0021	.2025
#2	.6142	16.99	3.576	17.55	.0562	.0004	9.170	-.0028	.1961

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0214**	**-.0011**	**-.0047**	**4.757**	**-.0008**	**.0069**	**.0836**
Stddev	.0011	.0014	.0003	.092	.0000	.0002	.0014
%RSD	4.996	123.6	5.602	1.939	2.471	3.389	1.719
#1	.0206	-.0001	-.0045	4.692	-.0008	.0068	.0825
#2	.0221	-.0021	-.0049	4.822	-.0009	.0071	.0846

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157670.**	**25043.**	**6339.3**	**9678.3**
Stddev	3968.	606.	17.1	37.8
%RSD	2.5166	2.4213	.26909	.39025
#1	160470.	24614.	6351.4	9705.0
#2	154860.	25472.	6327.2	9651.6

Zoom In Zoom Out

Sample Name: jc66225-3 Acquired: 5/22/2018 4:13:58 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.3175**	**.0000**	**-.0001**	**.0000**	**.0014**	**.0037**	**.5049**	**.0019**	**-.0000**
Stddev	.0022	.0000	.0003	.0001	.0003	.0002	.0015	.0003	.0006
%RSD	.6779	165.2	269.5	549.6	18.89	6.679	.2996	15.09	1819.
#1	.3159	-.0000	.0001	.0001	.0016	.0039	.5060	.0021	.0004
#2	.3190	.0000	-.0003	-.0001	.0012	.0035	.5038	.0017	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0022**	**1.600**	**.0010**	**-.0012**	**.0002**	**.0003**	**-.0008**	**.5563**	**75.10**
Stddev	.0002	.019	.0007	.0004	.0006	.0017	.0033	.0184	.26
%RSD	10.92	1.199	69.61	33.99	259.8	494.0	393.5	3.316	.3506
#1	.0024	1.587	.0005	-.0009	.0007	.0015	-.0031	.5433	74.92
#2	.0020	1.614	.0014	-.0015	-.0002	-.0009	.0015	.5694	75.29

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.5431**	**14.25**	**1.362**	**10.79**	**.0604**	**.0015**	**9.773**	**-.0023**	**.2308**
Stddev	.0010	.03	.016	.09	.0000	.0001	.102	.0003	.0009
%RSD	.1830	.2300	1.165	.8751	.0689	8.471	1.043	11.80	.3931
#1	.5438	14.22	1.374	10.72	.0604	.0014	9.701	-.0021	.2301
#2	.5424	14.27	1.351	10.86	.0604	.0016	9.845	-.0024	.2314

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0157**	**-.0005**	**-.0047**	**14.13**	**-.0014**	**.0156**	**.0287**
Stddev	.0001	.0004	.0002	.16	.0005	.0009	.0002
%RSD	.3359	73.48	4.775	1.158	36.29	5.718	.8070
#1	.0156	-.0002	-.0046	14.02	-.0018	.0150	.0285
#2	.0157	-.0007	-.0049	14.25	-.0011	.0163	.0288

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157370.**	**25421.**	**6341.5**	**9699.7**
Stddev	199.	80.	11.8	7.5
%RSD	.12673	.31533	.18557	.07759
#1	157230.	25478.	6349.8	9705.0
#2	157510.	25365.	6333.2	9694.3

Zoom In Zoom Out

Sample Name: jc66225-4 Acquired: 5/22/2018 4:16:57 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.3094**	**-.0002**	**-.0001**	**-.0007**	**.0009**	**.0006**	**.0029**	**-.0002**	**.0003**
Stddev	.0071	.0001	.0003	.0001	.0003	.0003	.0000	.0001	.0003
%RSD	2.302	28.72	406.6	15.21	27.83	47.71	1.683	29.74	113.4
#1	.3144	-.0002	-.0003	-.0008	.0007	.0008	.0028	-.0001	.0005
#2	.3043	-.0002	.0001	-.0006	.0011	.0004	.0029	-.0002	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0027**	**.0037**	**.0003**	**-.0007**	**-.0003**	**-.0025**	**-.0005**	**.1189**	**66.58**
Stddev	.0002	.0000	.0004	.0011	.0006	.0010	.0005	.0076	1.47
%RSD	5.951	.4084	132.9	156.7	166.3	40.60	97.40	6.433	2.213
#1	.0025	.0037	.0006	-.0015	-.0007	-.0032	-.0009	.1243	67.62
#2	.0028	.0037	.0000	.0001	.0001	-.0018	-.0002	.1134	65.54

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0798**	**14.44**	**.8884**	**18.37**	**.0751**	**.0002**	**8.156**	**-.0024**	**.1390**
Stddev	.0046	.37	.0096	.36	.0005	.0003	.103	.0004	.0031
%RSD	5.825	2.537	1.084	1.983	.6814	177.8	1.261	18.34	2.235
#1	.0831	14.70	.8952	18.63	.0748	.0004	8.083	-.0020	.1412
#2	.0765	14.18	.8816	18.11	.0755	-.0000	8.229	-.0027	.1368

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0028**	**-.0032**	**-.0047**	**4.798**	**-.0013**	**.0122**	**.0103**
Stddev	.0002	.0007	.0001	.058	.0010	.0005	.0011
%RSD	8.462	21.65	1.356	1.215	77.16	3.919	10.54
#1	.0030	-.0027	-.0046	4.757	-.0006	.0125	.0111
#2	.0027	-.0037	-.0047	4.839	-.0020	.0119	.0095

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157100.**	**25389.**	**6385.0**	**9754.9**
Stddev	1499.	555.	6.1	5.4
%RSD	.95401	2.1849	.09628	.05501
#1	158160.	24997.	6389.3	9758.7
#2	156040.	25782.	6380.7	9751.1

Zoom In Zoom Out

Sample Name: jc66225-5 Acquired: 5/22/2018 4:19:58 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.5408**	**.0000**	**-.0001**	**-.0001**	**.0024**	**.0035**	**.0208**	**.0009**	**.0007**
Stddev	.0062	.0000	.0000	.0001	.0001	.0006	.0003	.0000	.0001
%RSD	1.141	255.4	19.35	92.76	5.153	16.50	1.277	1.673	20.93
#1	.5365	.0000	-.0001	-.0002	.0025	.0039	.0210	.0009	.0006
#2	.5452	-.0000	-.0001	-.0000	.0023	.0031	.0207	.0009	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0035**	**.1691**	**.0005**	**-.0008**	**.0011**	**-.0003**	**-.0010**	**.6122**	**85.30**
Stddev	.0002	.0023	.0010	.0006	.0002	.0013	.0003	.0191	.57
%RSD	6.418	1.340	202.6	77.45	15.90	511.4	32.03	3.126	.6734
#1	.0033	.1675	.0012	-.0013	.0012	.0007	-.0012	.5987	84.89
#2	.0036	.1707	-.0002	-.0004	.0009	-.0012	-.0007	.6257	85.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.6498**	**16.85**	**3.556**	**17.38**	**.0439**	**.0008**	**9.047**	**-.0026**	**.1945**
Stddev	.0051	.14	.085	.21	.0006	.0000	.101	.0002	.0015
%RSD	.7871	.8476	2.376	1.204	1.470	4.959	1.118	6.327	.7508
#1	.6462	16.75	3.497	17.23	.0434	.0008	8.975	-.0025	.1934
#2	.6534	16.95	3.616	17.53	.0443	.0008	9.118	-.0027	.1955

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0232**	**-.0017**	**-.0040**	**4.602**	**-.0017**	**.0048**	**.0826**
Stddev	.0007	.0013	.0001	.053	.0011	.0041	.0021
%RSD	3.113	72.30	3.005	1.146	64.36	86.30	2.568
#1	.0227	-.0008	-.0039	4.564	-.0025	.0019	.0811
#2	.0237	-.0026	-.0040	4.639	-.0009	.0077	.0841

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156730.**	**25342.**	**6372.3**	**9716.5**
Stddev	1520.	215.	9.0	17.0
%RSD	.96983	.84730	.14130	.17521
#1	155650.	25493.	6378.6	9728.5
#2	157800.	25190.	6365.9	9704.4

Zoom In Zoom Out

Sample Name: jc66225-7 Acquired: 5/22/2018 4:22:57 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.3737**	**-.0001**	**-.0002**	**.0014**	**.0006**	**.0020**	**5.020**	**.0022**	**.0006**
Stddev	.0076	.0000	.0001	.0002	.0003	.0005	.079	.0003	.0001
%RSD	2.037	13.03	30.15	14.42	43.65	23.54	1.581	11.72	8.731
#1	.3683	-.0001	-.0002	.0016	.0008	.0023	4.964	.0020	.0006
#2	.3791	-.0001	-.0001	.0013	.0004	.0016	5.076	.0024	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0041**	**.4321**	**.0015**	**.0008**	**.0017**	**-.0008**	**-.0012**	**.3740**	**52.58**
Stddev	.0002	.0047	.0004	.0002	.0012	.0035	.0024	.0033	1.06
%RSD	3.723	1.099	27.94	24.54	72.85	425.6	201.8	.8731	2.025
#1	.0040	.4287	.0012	.0007	.0008	-.0033	.0005	.3763	51.83
#2	.0042	.4354	.0018	.0009	.0025	.0017	-.0029	.3716	53.33

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**5.854**	**8.105**	**3.405**	**33.01**	**.0350**	**.0010**	**5.384**	**-.0013**	**.1659**
Stddev	.109	.166	.082	.71	.0006	.0005	.054	.0004	.0033
%RSD	1.860	2.045	2.412	2.148	1.731	51.64	.9962	31.16	1.970
#1	5.777	7.988	3.347	32.51	.0346	.0006	5.346	-.0010	.1636
#2	5.931	8.222	3.463	33.51	.0355	.0013	5.422	-.0015	.1682

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0121**	**-.0017**	**-.0014**	**12.41**	**.0003**	**.0047**	**.1337**
Stddev	.0008	.0005	.0001	.11	.0013	.0012	.0019
%RSD	6.428	28.79	5.171	.8765	435.5	24.79	1.414
#1	.0115	-.0014	-.0015	12.33	-.0006	.0039	.1323
#2	.0126	-.0020	-.0014	12.49	.0012	.0055	.1350

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158190.**	**25358.**	**6402.6**	**9790.7**
Stddev	690.	412.	9.8	3.5
%RSD	.43594	1.6250	.15371	.03579
#1	158680.	25649.	6409.5	9793.1
#2	157700.	25067.	6395.6	9788.2

Zoom In Zoom Out

Sample Name: jc66225-1f Acquired: 5/22/2018 4:26:02 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1079**	**-.0001**	**-.0002**	**-.0002**	**.0030**	**.0028**	**.0057**	**.0004**	**.0003**
Stddev	.0000	.0001	.0003	.0001	.0004	.0002	.0001	.0004	.0000
%RSD	.0352	67.38	125.8	39.85	13.50	8.907	1.229	109.2	9.836
#1	.1079	-.0001	-.0000	-.0003	.0027	.0030	.0057	.0001	.0003
#2	.1079	-.0000	-.0004	-.0001	.0033	.0026	.0056	.0006	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0042**	**.0027**	**.0023**	**-.0005**	**.0006**	**-.0022**	**.0013**	**.1103**	**24.08**
Stddev	.0001	.0002	.0000	.0005	.0004	.0004	.0004	.0035	.14
%RSD	2.273	6.359	.1863	96.95	80.11	17.84	34.45	3.200	.5912
#1	.0042	.0026	.0023	-.0002	.0002	-.0025	.0016	.1078	23.98
#2	.0043	.0028	.0023	-.0009	.0009	-.0019	.0010	.1128	24.18

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1198**	**2.468**	**5.649**	**13.77**	**.0429**	**.0048**	**5.138**	**-.0013**	**.1711**
Stddev	.0013	.009	.079	.06	.0014	.0004	.046	.0000	.0007
%RSD	1.123	.3714	1.392	.4634	3.255	9.219	.8889	2.404	.4019
#1	.1208	2.461	5.593	13.72	.0419	.0045	5.106	-.0013	.1706
#2	.1189	2.474	5.705	13.81	.0439	.0051	5.170	-.0013	.1715

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0032**	**-.0010**	**-.0027**	**2.805**	**-.0017**	**.0070**	**.0497**
Stddev	.0000	.0006	.0002	.024	.0013	.0007	.0001
%RSD	1.052	64.91	8.097	.8391	76.00	10.30	.2969
#1	.0032	-.0015	-.0025	2.789	-.0008	.0075	.0498
#2	.0032	-.0005	-.0028	2.822	-.0026	.0065	.0496

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157760.**	**25560.**	**6430.6**	**9909.2**
Stddev	2122.	53.	32.9	60.6
%RSD	1.3451	.20676	.51157	.61120
#1	156260.	25597.	6407.4	9866.4
#2	159260.	25523.	6453.9	9952.0

Zoom In Zoom Out

Sample Name: jc66325-1 Acquired: 5/22/2018 4:29:03 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.5261**	**-.0001**	**-.0002**	**-.0004**	**.0006**	**.0012**	**3.515**	**.0017**	**.0007**
Stddev	.0034	.0001	.0001	.0001	.0001	.0002	.013	.0004	.0003
%RSD	.6464	77.32	55.26	23.54	10.07	17.74	.3605	21.86	49.94
#1	.5237	-.0000	-.0003	-.0004	.0005	.0011	3.506	.0020	.0004
#2	.5285	-.0001	-.0001	-.0003	.0006	.0014	3.524	.0014	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0014**	**.0017**	**.0036**	**-.0005**	**-.0007**	**-.0025**	**-.0008**	**-.0005**	**76.76**
Stddev	.0003	.0001	.0013	.0001	.0007	.0004	.0004	.0083	.70
%RSD	21.25	4.816	37.27	27.98	103.5	15.58	50.77	1832.	.9128
#1	.0012	.0016	.0027	-.0004	-.0002	-.0027	-.0005	-.0063	76.26
#2	.0016	.0018	.0046	-.0006	-.0012	-.0022	-.0011	.0054	77.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**14.08**	**13.57**	**22.53**	**21.72**	**.2008**	**.0005**	**8.707**	**-.0022**	**.3363**
Stddev	.11	.08	.26	.18	.0032	.0003	.132	.0006	.0027
%RSD	.7505	.6093	1.176	.8193	1.569	53.55	1.516	28.56	.7962
#1	14.01	13.52	22.34	21.59	.1985	.0007	8.614	-.0026	.3344
#2	14.16	13.63	22.71	21.84	.2030	.0003	8.800	-.0017	.3382

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0013**	**-.0027**	**-.0054**	**1.925**	**-.0007**	**.0147**	**.1684**
Stddev	.0002	.0021	.0000	.030	.0005	.0003	.0028
%RSD	12.33	76.78	.6648	1.558	83.26	2.323	1.652
#1	-.0012	-.0012	-.0054	1.903	-.0010	.0144	.1664
#2	-.0014	-.0042	-.0054	1.946	-.0003	.0149	.1704

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156380.**	**25461.**	**6356.4**	**9682.3**
Stddev	495.	150.	4.6	26.2
%RSD	.31679	.59022	.07278	.27080
#1	156030.	25567.	6359.6	9700.8
#2	156730.	25354.	6353.1	9663.7

Zoom In Zoom Out

Sample Name: jc66325-2 Acquired: 5/22/2018 4:32:08 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1091**	**-.0000**	**-.0004**	**.0001**	**.0048**	**.0016**	**5.950**	**.0029**	**.0008**
Stddev	.0009	.0001	.0001	.0002	.0003	.0005	.019	.0000	.0001
%RSD	.8441	344.2	25.80	236.5	5.448	31.12	.3268	.9227	18.51
#1	.1084	.0000	-.0004	.0002	.0046	.0019	5.937	.0029	.0007
#2	.1097	-.0001	-.0003	-.0001	.0049	.0012	5.964	.0028	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0019**	**.0014**	**.0009**	**-.0008**	**.0009**	**-.0003**	**-.0009**	**.0826**	**91.01**
Stddev	.0003	.0001	.0011	.0004	.0010	.0015	.0008	.0024	.70
%RSD	16.95	5.076	128.4	44.07	113.4	568.8	88.82	2.850	.7714
#1	.0021	.0014	.0001	-.0006	.0017	.0008	-.0003	.0843	90.52
#2	.0017	.0013	.0017	-.0011	.0002	-.0013	-.0015	.0809	91.51

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.541**	**12.44**	**34.08**	**16.27**	**.2185**	**.0009**	**7.008**	**-.0015**	**.3651**
Stddev	.016	.06	.34	.16	.0008	.0000	.031	.0003	.0028
%RSD	.6088	.4564	1.010	.9995	.3782	3.812	.4472	17.82	.7547
#1	2.530	12.40	33.84	16.15	.2179	.0009	6.986	-.0017	.3631
#2	2.552	12.48	34.33	16.38	.2191	.0009	7.030	-.0014	.3670

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0028**	**-.0034**	**12.32**	**-.0025**	**.0094**	**.1632**
Stddev	.0002	.0001	.0000	.07	.0012	.0023	.0000
%RSD	184.9	4.039	.3555	.5312	49.07	24.28	.0074
#1	.0000	-.0027	-.0034	12.27	-.0033	.0078	.1632
#2	-.0003	-.0029	-.0034	12.37	-.0016	.0110	.1632

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155730.**	**25181.**	**6324.9**	**9645.8**
Stddev	551.	150.	29.3	58.2
%RSD	.35375	.59524	.46393	.60299
#1	156120.	25287.	6304.1	9604.6
#2	155340.	25075.	6345.6	9686.9

Zoom In Zoom Out

Sample Name: jc66445-2 Acquired: 5/22/2018 4:35:13 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0407**	**-.0000**	**.0006**	**.0012**	**.0115**	**.0417**	**.0468**	**.0031**	**.0006**
Stddev	.0008	.0000	.0000	.0000	.0004	.0001	.0002	.0005	.0002
%RSD	1.890	228.5	1.036	2.038	3.852	.2332	.4015	15.98	32.43
#1	.0412	-.0000	.0006	.0012	.0112	.0416	.0466	.0034	.0008
#2	.0401	.0000	.0006	.0013	.0118	.0417	.0469	.0027	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0158**	**.0963**	**.0062**	**-.0003**	**.0594**	**-.0009**	**.0033**	**1.049**	**20.78**
Stddev	.0001	.0017	.0007	.0006	.0015	.0017	.0011	.025	.20
%RSD	.7562	1.744	10.92	220.3	2.470	193.7	33.29	2.414	.9552
#1	.0157	.0951	.0057	.0002	.0584	-.0021	.0025	1.067	20.92
#2	.0159	.0975	.0066	-.0008	.0604	.0003	.0041	1.031	20.64

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**2.317**	**3.886**	**1.216**	**14.27**	**.1297**	**.0039**	**8.015**	**.0022**	**.1447**
Stddev	.025	.053	.022	.16	.0023	.0002	.126	.0012	.0016
%RSD	1.083	1.355	1.825	1.124	1.800	5.109	1.570	54.72	1.080
#1	2.335	3.923	1.232	14.38	.1280	.0038	7.926	.0014	.1458
#2	2.299	3.848	1.200	14.15	.1313	.0041	8.104	.0031	.1436

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0383**	**-.0009**	**-.0039**	**4.534**	**-.0004**	**.0068**	**.1808**
Stddev	.0002	.0003	.0002	.064	.0012	.0019	.0034
%RSD	.5592	33.39	5.046	1.405	275.4	28.25	1.875
#1	.0384	-.0007	-.0038	4.488	-.0012	.0054	.1784
#2	.0381	-.0011	-.0040	4.579	.0004	.0081	.1832

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160420.**	**25654.**	**6524.3**	**10017.**
Stddev	623.	287.	16.5	26.
%RSD	.38832	1.1179	.25256	.26180
#1	160860.	25452.	6536.0	10035.
#2	159980.	25857.	6512.7	9998.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 4:38:14 Type: QC
Method: Accutest XPress(v324) 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	**1.990**	**1.989**	**1.968**	**2.034**	**1.981**	**1.953**	**2.026**	**2.038**	**.2462**
Stddev	.029	.025	.021	.021	.044	.049	.051	.020	.0065
%RSD	1.477	1.253	1.048	1.026	2.237	2.510	2.498	1.001	2.637
#1	1.970	1.971	1.954	2.019	1.950	1.918	1.991	2.024	.2417
#2	2.011	2.006	1.983	2.049	2.013	1.988	2.062	2.053	.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	**1.971**	**2.003**	**1.991**	**2.028**	**2.030**	**1.988**	**1.999**	**39.39**	**39.62**
Stddev	.049	.018	.024	.030	.025	.025	.027	.49	.50
%RSD	2.482	.8868	1.215	1.469	1.212	1.278	1.351	1.239	1.260
#1	1.936	1.990	1.974	2.006	2.012	1.970	1.980	39.05	39.26
#2	2.005	2.015	2.008	2.049	2.047	2.006	2.018	39.74	39.97
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	**39.39**	**39.33**	**39.18**	**39.32**	**1.997**	**2.004**	**5.026**	**2.017**	**1.999**
Stddev	.49	.50	.62	.70	.022	.021	.054	.017	.026
%RSD	1.238	1.269	1.589	1.788	1.091	1.038	1.077	.8240	1.290
#1	39.05	38.98	38.74	38.82	1.981	1.989	4.987	2.005	1.981
#2	39.74	39.69	39.62	39.81	2.012	2.019	5.064	2.028	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: 5/22/2018 4:38:14 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**1.981**	**1.985**	**1.981**	**2.006**	**1.956**	**1.995**
Stddev	.051	.022	.049	.025	.029	.035	.018
%RSD	2.558	1.126	2.483	1.258	1.421	1.784	.9269
#1	1.944	1.965	1.950	1.964	1.986	1.931	1.982
#2	2.016	1.997	2.020	1.999	2.026	1.981	2.008
Check ?	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	**156100.**	**25000.**	**6359.8**	**9587.7**
Stddev	3024.	197.	10.0	19.6
%RSD	1.9369	.78983	.15664	.20437
#1	158240.	25140.	6366.9	9601.6
#2	153960.	24861.	6352.8	9573.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 4:41:04 Type: QC
Method: Accutest XPress(v324) 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**	**-.0001**	**.0003**	**.0001**	**-.0001**	**.0003**
Stddev	.0003	.0001	.0003	.0003	.0002	.0005	.0000	.0001	.0007
%RSD	2756.	318.0	265.6	183.6	264.9	192.9	36.66	75.44	214.8
#1	-.0002	-.0001	.0001	.0001	.0001	-.0001	.0001	-.0002	.0008
#2	.0002	.0000	-.0003	-.0004	-.0002	.0006	.0002	-.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0018**	**.0008**	**-.0005**	**.0005**	**-.0006**	**.0011**	**.0021**	**.0110**
Stddev	.0003	.0001	.0008	.0007	.0001	.0016	.0013	.0121	.0022
%RSD	348.3	8.482	105.3	149.1	26.07	270.3	117.7	565.2	20.36
#1	-.0001	.0017	.0002	.0000	.0006	.0005	.0020	.0107	.0126
#2	.0003	.0019	.0013	-.0010	.0004	-.0017	.0002	-.0064	.0094
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	**.0046**	**.0154**	**.0274**	**.0706**	F **.0125**	**.0004**	**-.0054**	**.0002**	**.0000**
Stddev	.0012	.0037	.0189	.0074	.0001	.0004	.0009	.0002	.0001
%RSD	26.55	24.42	68.78	10.53	1.173	99.99	15.85	125.5	265.0
#1	.0038	.0180	.0408	.0653	.0126	.0007	-.0060	.0000	-.0000
#2	.0055	.0127	.0141	.0758	.0124	.0001	-.0048	.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0100				
Low Limit					-.0100				

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 4:41:04 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0017**	**.0006**	**.0056**	**-.0009**	F **.0042**	**.0003**
Stddev	.0000	.0015	.0001	.0003	.0002	.0006	.0002
%RSD	5.657	91.34	24.21	4.901	26.73	14.39	80.02
#1	-.0005	-.0006	.0005	.0054	-.0007	.0037	.0001
#2	-.0004	-.0028	.0007	.0058	-.0010	.0046	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153930.**	**25019.**	**6531.0**	**10109.**
Stddev	9346.	143.	55.8	87.
%RSD	6.0715	.57044	.85496	.86394
#1	160540.	24919.	6491.5	10047.
#2	147320.	25120.	6570.5	10170.

Zoom In Zoom Out

Sample Name: jc66445-3 Acquired: 5/22/2018 4:44:07 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1900**	**-.0001**	**.0003**	**.0038**	**.0061**	**.0125**	**.4710**	**.0027**	**.0004**
Stddev	.0024	.0001	.0002	.0002	.0001	.0001	.0041	.0002	.0000
%RSD	1.257	58.76	49.84	6.184	.8732	.5743	.8723	6.286	10.61
#1	.1883	-.0001	.0002	.0040	.0060	.0125	.4739	.0026	.0004
#2	.1917	-.0001	.0005	.0037	.0061	.0126	.4681	.0028	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0032**	**.0336**	**.0187**	**-.0017**	**.0268**	**-.0033**	**-.0000**	**.4988**	**57.64**
Stddev	.0001	.0004	.0009	.0006	.0005	.0014	.0000	.0000	.41
%RSD	3.064	1.119	4.697	38.30	2.030	13.79	3518.	.0030	.7167
#1	.0032	.0333	.0181	-.0021	.0264	-.0036	-.0010	.4989	57.34
#2	.0033	.0339	.0193	-.0012	.0272	-.0030	.0010	.4988	57.93

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**23.70**	**8.832**	**3.906**	**34.75**	**.2605**	**.0030**	**10.35**	**-.0012**	**.3701**
Stddev	.17	.050	.015	.44	.0034	.0000	.09	.0001	.0035
%RSD	.7272	.5706	.3876	1.259	1.287	1.484	.9049	7.655	.9411
#1	23.57	8.797	3.896	34.44	.2581	.0030	10.28	-.0013	.3676
#2	23.82	8.868	3.917	35.06	.2628	.0030	10.41	-.0012	.3725

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0216**	**-.0011**	**-.0056**	**.7901**	**-.0001**	**.0120**	**.4512**
Stddev	.0001	.0002	.0004	.0033	.0021	.0008	.0032
%RSD	.5447	15.86	7.041	.4140	2213.	6.285	.7167
#1	.0216	-.0010	-.0053	.7878	-.0016	.0125	.4489
#2	.0215	-.0013	-.0058	.7924	.0014	.0114	.4535

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156540.**	**24928.**	**6325.2**	**9639.0**
Stddev	1974.	226.	2.1	15.0
%RSD	1.2610	.90692	.03382	.15579
#1	155140.	25088.	6326.7	9649.6
#2	157930.	24768.	6323.7	9628.4

Zoom In Zoom Out

Sample Name: jc66445-4 Acquired: 5/22/2018 4:47:05 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0688**	**-.0001**	**-.0002**	**-.0004**	**.0021**	**.0017**	**1.119**	**.0002**
Stddev	.0004	.0000	.0002	.0002	.0004	.0003	.012	.0003
%RSD	.5754	35.19	79.20	36.70	17.37	17.78	1.096	162.9
#1	.0690	-.0001	-.0003	-.0003	.0024	.0020	1.127	-.0000
#2	.0685	-.0001	-.0001	-.0006	.0018	.0015	1.110	.0005

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0005**	**.0023**	**.0007**	**.0083**	**-.0015**	**.0033**	**-.0037**	**-.0017**
Stddev	.0000	.0003	.0001	.0003	.0016	.0006	.0016	.0015
%RSD	9.103	11.34	10.05	4.024	105.9	18.13	44.16	83.93
#1	.0006	.0021	.0008	.0085	-.0026	.0037	-.0025	-.0028
#2	.0005	.0025	.0007	.0081	-.0004	.0029	-.0049	-.0007

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0101**	**77.83**	**34.95**	**10.02**	**7.412**	**118.9**	**.4644**	**.0004**
Stddev	.0170	.40	.25	.04	.022	.6	.0098	.0003
%RSD	167.9	.5160	.7207	.4412	.2968	.4667	2.100	72.34
#1	-.0019	78.12	35.13	10.05	7.396	119.3	.4575	.0006
#2	.0221	77.55	34.77	9.992	7.427	118.5	.4713	.0002

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**17.53**	**-.0026**	**.4839**	**-.0003**	**-.0018**	F **-.0104**	**.4456**	**.0019**
Stddev	.33	.0003	.0030	.0001	.0007	.0002	.0098	.0006
%RSD	1.895	10.94	.6207	46.11	38.22	2.114	2.196	30.04
#1	17.30	-.0028	.4860	-.0004	-.0023	-.0102	.4386	.0023
#2	17.76	-.0024	.4818	-.0002	-.0013	-.0105	.4525	.0015

Elem	Li6707	P_1774
Avg	**.0391**	**1.120**
Stddev	.0002	.022
%RSD	.5399	1.962
#1	.0393	1.105
#2	.0390	1.136

Zoom In Zoom Out

Sample Name: jc66445-4 Acquired: 5/22/2018 4:47:05 Type: Unk
Method: Accutest XPress(v324) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152350.**	**24984.**	**6276.3**	**9450.4**
Stddev	1598.	226.	24.3	35.4
%RSD	1.0492	.90348	.38776	.37428
#1	151220.	24825.	6293.6	9475.4
#2	153480.	25144.	6259.1	9425.4

Zoom In Zoom Out

Sample Name: jc66445-5 Acquired: 5/22/2018 4:50:03 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1219**	**-.0000**	**.0003**	**-.0005**	**.0007**	**.0125**	**.1004**	**.0008**	**.0004**
Stddev	.0006	.0000	.0001	.0005	.0002	.0002	.0006	.0005	.0003
%RSD	.4837	160.8	19.29	102.1	31.79	1.870	.6261	58.20	72.47
#1	.1214	-.0001	.0003	-.0001	.0005	.0127	.1009	.0012	.0002
#2	.1223	.0000	.0002	-.0008	.0008	.0123	.1000	.0005	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0005**	**.0817**	**.0001**	**-.0016**	**.0030**	**.0002**	**-.0007**	**.0251**	**45.16**
Stddev	.0004	.0006	.0003	.0011	.0013	.0013	.0001	.0080	.07
%RSD	75.32	.7507	169.0	72.09	43.73	545.4	11.85	31.73	.1636
#1	.0002	.0813	-.0000	-.0024	.0039	-.0007	-.0008	.0195	45.10
#2	.0008	.0821	.0003	-.0008	.0021	.0011	-.0007	.0307	45.21

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1.337**	**6.466**	**4.774**	**78.76**	**.1962**	**.0012**	**9.069**	**-.0024**	**.2466**
Stddev	.001	.008	.025	.28	.0023	.0000	.073	.0001	.0002
%RSD	.0351	.1245	.5305	.3503	1.169	1.129	.8091	4.972	.0855
#1	1.337	6.460	4.791	78.57	.1945	.0011	9.017	-.0023	.2465
#2	1.337	6.471	4.756	78.96	.1978	.0012	9.121	-.0024	.2468

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0004**	**-.0026**	**-.0047**	**10.40**	**-.0018**	**.0166**	**.2277**
Stddev	.0005	.0005	.0001	.10	.0007	.0001	.0021
%RSD	144.9	20.04	1.870	.9696	37.05	.4090	.9176
#1	.0007	-.0030	-.0048	10.33	-.0013	.0166	.2262
#2	-.0000	-.0023	-.0046	10.47	-.0023	.0165	.2292

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155950.**	**25117.**	**6349.1**	**9622.3**
Stddev	2076.	107.	4.6	16.7
%RSD	1.3308	.42427	.07301	.17328
#1	154490.	25193.	6345.8	9610.5
#2	157420.	25042.	6352.4	9634.1

Zoom In Zoom Out

Sample Name: jc66445-6 Acquired: 5/22/2018 4:53:02 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.2011**	**-.0001**	**.0006**	**.0022**	**.0013**	**.0070**	**.4691**	**.0049**	**.0003**
Stddev	.0026	.0001	.0002	.0004	.0001	.0003	.0049	.0001	.0005
%RSD	1.307	85.01	29.20	17.47	8.398	3.636	1.047	2.909	157.9
#1	.2030	-.0000	.0005	.0019	.0012	.0071	.4726	.0050	-.0000
#2	.1993	-.0001	.0007	.0024	.0014	.0068	.4656	.0048	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0007**	**.0444**	**.0023**	**-.0013**	**.0013**	**-.0024**	**-.0020**	**.0307**	**83.09**
Stddev	.0002	.0004	.0014	.0012	.0019	.0012	.0000	.0025	1.04
%RSD	26.83	1.008	61.70	94.72	145.3	51.39	1.688	7.997	1.255
#1	.0009	.0441	.0033	-.0022	.0026	-.0015	-.0020	.0290	83.83
#2	.0006	.0447	.0013	-.0004	-.0000	-.0033	-.0019	.0325	82.35

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**15.88**	**7.661**	**7.037**	**49.84**	**.2249**	**.0005**	**16.56**	**-.0036**	**.4712**
Stddev	.22	.102	.065	.53	.0022	.0000	.21	.0003	.0065
%RSD	1.362	1.325	.9264	1.053	.9877	.3674	1.246	7.537	1.377
#1	16.03	7.733	7.083	50.21	.2234	.0006	16.41	-.0034	.4758
#2	15.72	7.589	6.991	49.47	.2265	.0005	16.71	-.0038	.4666

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0006**	**-.0026**	**-.0094**	**17.91**	**-.0008**	**.0554**	**.1888**
Stddev	.0000	.0006	.0001	.23	.0001	.0026	.0010
%RSD	1.748	22.21	1.423	1.277	13.68	4.703	.5508
#1	-.0006	-.0031	-.0093	17.75	-.0009	.0572	.1881
#2	-.0006	-.0022	-.0094	18.08	-.0008	.0535	.1895

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154650.**	**24789.**	**6323.3**	**9613.2**
Stddev	1167.	397.	17.4	20.6
%RSD	.75430	1.5996	.27511	.21475
#1	153820.	24509.	6311.0	9598.6
#2	155470.	25070.	6335.6	9627.8

Zoom In Zoom Out

Sample Name: jc66445-7 Acquired: 5/22/2018 4:56:00 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0001**	**-.0002**	**.0001**	**-.0001**	**.0001**	**.0003**	**.0003**	**-.0005**	**.0002**
Stddev	.0003	.0000	.0000	.0001	.0003	.0001	.0000	.0000	.0000
%RSD	262.9	2.836	65.98	59.08	221.9	19.21	13.85	1.237	17.18
#1	-.0001	-.0002	.0000	-.0001	-.0001	.0003	.0003	-.0005	.0002
#2	.0004	-.0002	.0001	-.0002	.0004	.0003	.0004	-.0005	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0002**	**.0018**	**-.0005**	**-.0006**	**.0002**	**.0008**	**.0008**	**.0908**	**.0496**
Stddev	.0004	.0000	.0003	.0002	.0002	.0001	.0002	.0078	.0018
%RSD	164.1	2.091	52.03	34.97	99.87	6.833	24.31	8.646	3.556
#1	.0000	.0018	-.0008	-.0007	.0001	.0007	.0010	.0963	.0508
#2	-.0005	.0018	-.0003	-.0004	.0004	.0008	.0007	.0852	.0483

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0046**	**.0268**	**.0138**	**.2062**	**.0074**	**.0001**	**.0059**	**-.0003**	**.0003**
Stddev	.0032	.0323	.0652	.0037	.0004	.0000	.0000	.0002	.0001
%RSD	70.72	120.4	472.0	1.796	5.752	22.65	.1976	79.16	15.39
#1	.0068	.0497	.0599	.2088	.0071	.0001	.0059	-.0004	.0004
#2	.0023	.0040	-.0323	.2036	.0077	.0001	.0059	-.0001	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**-.0012**	**.0005**	**.0325**	**-.0010**	**.0013**	**.0031**
Stddev	.0003	.0008	.0000	.0002	.0017	.0019	.0001
%RSD	97.19	67.35	1.765	.6356	171.8	138.1	2.316
#1	-.0001	-.0006	.0005	.0323	-.0021	.0026	.0032
#2	-.0005	-.0017	.0005	.0326	.0002	.0000	.0031

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160330.**	**25053.**	**6487.1**	**10023.**
Stddev	246.	200.	29.2	28.
%RSD	.15350	.79891	.44941	.28251
#1	160160.	24911.	6466.5	10003.
#2	160510.	25194.	6507.7	10043.

Zoom In Zoom Out

Sample Name: jc66474-1 Acquired: 5/22/2018 4:59:04 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1098**	**-.0001**	**.0002**	**.0012**	**.0001**	**.0053**	**.2125**	**.0037**	**.0003**
Stddev	.0011	.0001	.0001	.0004	.0001	.0003	.0010	.0001	.0001
%RSD	.9683	86.29	47.45	31.20	172.3	4.830	.4482	2.654	52.39
#1	.1090	-.0001	.0002	.0009	-.0000	.0051	.2132	.0037	.0002
#2	.1106	-.0000	.0003	.0014	.0002	.0055	.2119	.0036	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0344**	**.1408**	**.0006**	**.0018**	**-.0013**	**.0090**	**.2028**	**6.065**
Stddev	.0001	.0007	.0004	.0005	.0002	.0011	.0002	.0196	.069
%RSD	83.75	2.107	.2573	74.51	10.09	81.86	2.110	9.649	1.131
#1	.0001	.0339	.1405	.0003	.0019	-.0021	.0088	.1889	6.017
#2	.0002	.0349	.1410	.0009	.0017	-.0006	.0091	.2166	6.114

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.2957**	**2.410**	**1.977**	**63.31**	**.0246**	**.0005**	**3.143**	**-.0008**	**.0373**
Stddev	.0007	.007	.070	.63	.0004	.0000	.057	.0000	.0003
%RSD	.2399	.3077	3.541	.9924	1.567	.0447	1.806	2.093	.7714
#1	.2952	2.415	1.927	62.87	.0243	.0005	3.103	-.0008	.0371
#2	.2962	2.405	2.026	63.76	.0249	.0005	3.183	-.0009	.0375

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0005**	**.0013**	**-.0014**	**1.359**	**.0004**	**.0057**	**.0207**
Stddev	.0000	.0002	.0002	.024	.0021	.0014	.0021
%RSD	3.139	17.91	12.01	1.772	500.8	25.10	9.953
#1	.0005	.0011	-.0015	1.342	.0019	.0067	.0192
#2	.0006	.0015	-.0013	1.376	-.0011	.0047	.0221

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156180.**	**25013.**	**6375.0**	**9705.5**
Stddev	843.	277.	20.5	36.1
%RSD	.53997	1.1079	.32167	.37214
#1	155580.	25209.	6389.5	9731.1
#2	156780.	24817.	6360.5	9680.0

Zoom In Zoom Out

Sample Name: jc66474-2 Acquired: 5/22/2018 5:02:04 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.0643**	**-.0002**	**.0000**	**.0006**	**-.0000**	**.0014**	**.3628**	**.0043**	**-.0001**
Stddev	.0010	.0000	.0002	.0001	.0003	.0000	.0020	.0003	.0005
%RSD	1.526	21.99	428.7	20.65	725.6	2.908	.5582	6.859	586.1
#1	.0636	-.0001	.0002	.0007	-.0002	.0013	.3642	.0045	-.0005
#2	.0650	-.0002	-.0001	.0006	.0001	.0014	.3613	.0041	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0006**	**.0164**	**.0023**	**.0003**	**.0008**	**-.0019**	**.0028**	**.0203**	**5.615**
Stddev	.0003	.0002	.0002	.0005	.0012	.0010	.0002	.0024	.041
%RSD	43.24	1.266	7.679	155.7	151.4	53.08	8.412	12.00	.7315
#1	.0004	.0163	.0022	.0007	-.0001	-.0026	.0026	.0186	5.586
#2	.0008	.0166	.0025	-.0000	.0016	-.0012	.0030	.0220	5.644

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0740**	**2.420**	**2.220**	**185.2**	**.0240**	**.0014**	**1.234**	**-.0008**	**.0332**
Stddev	.0008	.017	.043	4.4	.0007	.0002	.012	.0001	.0003
%RSD	1.113	.7040	1.958	2.395	2.885	11.70	.9556	19.62	.8575
#1	.0746	2.408	2.189	182.1	.0245	.0015	1.226	-.0006	.0330
#2	.0734	2.432	2.251	188.4	.0235	.0013	1.243	-.0009	.0334

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**-.0018**	**-.0002**	**1.686**	**-.0016**	**.0071**	**.0064**
Stddev	.0003	.0002	.0001	.014	.0016	.0008	.0009
%RSD	374.8	9.573	69.10	.8178	99.00	11.18	14.81
#1	-.0003	-.0017	-.0003	1.676	-.0027	.0077	.0071
#2	.0001	-.0020	-.0001	1.696	-.0005	.0066	.0057

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**153110.**	**24644.**	**6324.8**	**9481.9**
Stddev	937.	118.	11.8	11.1
%RSD	.61203	.47716	.18727	.11684
#1	152450.	24727.	6316.5	9474.0
#2	153770.	24560.	6333.2	9489.7

Zoom In Zoom Out

Sample Name: jc66474-3 Acquired: 5/22/2018 5:05:12 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**-.0000**	**-.0001**	**-.0001**	**-.0003**	**-.0001**	**.0004**	**-.0000**	**-.0005**	**-.0004**
Stddev	.0002	.0001	.0001	.0000	.0003	.0006	.0000	.0002	.0000
%RSD	626.4	55.69	63.94	9.724	649.8	153.6	405.8	36.47	11.70
#1	-.0002	-.0001	-.0001	-.0002	-.0003	-.0000	-.0000	-.0003	-.0004
#2	.0001	-.0001	-.0002	-.0003	.0002	.0008	.0000	-.0006	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0003**	**.0008**	**-.0008**	**.0001**	**.0002**	**-.0008**	**.0006**	**.1085**	**.0187**
Stddev	.0001	.0000	.0002	.0003	.0005	.0007	.0022	.0078	.0028
%RSD	21.87	3.203	22.52	243.8	333.9	82.98	347.0	7.144	14.71
#1	-.0003	.0008	-.0006	-.0001	.0005	-.0003	-.0009	.1140	.0168
#2	-.0004	.0009	-.0009	.0003	-.0002	-.0013	.0022	.1030	.0206

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0056**	**.0336**	**.0821**	**.1008**	**.0066**	**.0002**	**.0047**	**.0014**	**.0001**
Stddev	.0005	.0037	.0065	.0104	.0001	.0001	.0007	.0010	.0000
%RSD	9.835	11.08	7.916	10.36	2.230	40.92	15.32	70.08	14.45
#1	.0060	.0309	.0867	.1082	.0067	.0002	.0041	.0021	.0001
#2	.0052	.0362	.0775	.0934	.0065	.0003	.0052	.0007	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0003**	**-.0005**	**.0003**	**.0132**	**-.0014**	**.0039**	**.0040**
Stddev	.0000	.0002	.0002	.0031	.0008	.0006	.0002
%RSD	14.28	35.77	73.48	23.59	56.14	16.30	4.082
#1	-.0003	-.0006	.0002	.0153	-.0019	.0043	.0042
#2	-.0003	-.0004	.0005	.0110	-.0008	.0034	.0039

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160970.**	**24805.**	**6502.9**	**10024.**
Stddev	2598.	127.	13.2	18.
%RSD	1.6139	.51225	.20254	.17940
#1	159130.	24715.	6493.6	10011.
#2	162800.	24895.	6512.2	10036.

Zoom In Zoom Out

Sample Name: jc66474-1f Acquired: 5/22/2018 5:08:15 Type: Unk
Method: Accutest XPress(v324) 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
Avg	**.1082**	**-.0001**	**.0002**	**.0011**	**-.0001**	**.0037**	**.2457**	**.0040**	**-.0005**
Stddev	.0001	.0000	.0001	.0004	.0002	.0003	.0015	.0003	.0003
%RSD	.1195	35.77	70.97	33.82	261.7	9.135	.6104	8.631	51.10
#1	.1081	-.0001	.0002	.0009	.0001	.0034	.2467	.0038	-.0007
#2	.1083	-.0001	.0001	.0014	-.0003	.0039	.2446	.0043	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0317**	**.1103**	**-.0012**	**.0006**	**-.0018**	**.0080**	**.0229**	**6.246**
Stddev	.0005	.0007	.0033	.0010	.0003	.0019	.0006	.0035	.005
%RSD	190.8	2.188	2.975	88.87	46.10	106.7	7.290	15.06	.0731
#1	-.0001	.0312	.1080	-.0004	.0004	-.0004	.0085	.0205	6.242
#2	.0006	.0322	.1126	-.0019	.0008	-.0031	.0076	.0253	6.249

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0731**	**2.431**	**1.999**	**71.26**	**.0243**	**.0003**	**2.931**	**-.0008**	**.0380**
Stddev	.0047	.008	.067	.10	.0001	.0002	.048	.0003	.0002
%RSD	6.396	.3438	3.342	.1459	.5733	48.17	1.623	35.24	.6563
#1	.0764	2.437	1.951	71.18	.0244	.0002	2.897	-.0006	.0381
#2	.0698	2.425	2.046	71.33	.0242	.0005	2.964	-.0010	.0378

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0004**	**-.0018**	**-.0016**	**1.363**	**-.0021**	**.0066**	**.0150**
Stddev	.0000	.0000	.0002	.020	.0019	.0004	.0001
%RSD	4.010	.5650	14.11	1.449	89.20	6.461	.3997
#1	-.0004	-.0018	-.0018	1.349	-.0035	.0063	.0150
#2	-.0004	-.0017	-.0014	1.377	-.0008	.0069	.0151

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**150550.**	**23852.**	**6223.8**	**9482.4**
Stddev	706.	6.	22.7	34.5
%RSD	.46899	.02388	.36476	.36407
#1	150050.	23848.	6239.9	9506.8
#2	151050.	23856.	6207.8	9458.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 5:11:16 Type: QC
Method: Accutest XPress(v324) 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	**2.011**	**1.977**	**1.946**	**1.998**	**1.975**	**1.948**	**2.027**	**2.021**	**.2460**
Stddev	.026	.026	.003	.003	.006	.007	.011	.002	.0010
%RSD	1.293	1.298	.1738	.1539	.3062	.3693	.5593	.0794	.4026
#1	1.993	1.958	1.944	1.996	1.980	1.953	2.035	2.020	.2467
#2	2.030	1.995	1.948	2.000	1.971	1.943	2.019	2.023	.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	**1.958**	**1.988**	**1.987**	**2.008**	**2.021**	**1.934**	**1.970**	**39.55**	**39.30**
Stddev	.009	.002	.003	.007	.005	.005	.002	.54	.54
%RSD	.4869	.1022	.1511	.3593	.2589	.2624	.1175	1.376	1.369
#1	1.965	1.987	1.985	2.003	2.018	1.930	1.968	39.17	38.92
#2	1.952	1.990	1.989	2.014	2.025	1.938	1.971	39.94	39.68
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	**39.54**	**39.39**	**39.61**	**40.17**	**1.980**	**1.951**	**4.938**	**1.979**	**1.978**
Stddev	.53	.51	.77	.65	.004	.002	.015	.001	.026
%RSD	1.351	1.290	1.944	1.613	.1796	.0858	.2998	.0708	1.306
#1	39.17	39.03	39.07	39.71	1.977	1.949	4.927	1.978	1.960
#2	39.92	39.75	40.16	40.63	1.982	1.952	4.948	1.980	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: 5/22/2018 5:11:16 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.998**	**1.978**	**1.976**	**1.930**	**1.993**	**1.975**	**1.951**
Stddev	.013	.006	.010	.005	.003	.026	.002
%RSD	.6314	.2824	.5129	.2763	.1343	1.335	.1115
#1	2.007	1.974	1.983	1.927	1.991	1.957	1.949
#2	1.989	1.982	1.969	1.934	1.995	1.994	1.953
Check ?	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	**149970.**	**23424.**	**6227.0**	**9362.3**
Stddev	194.	414.	38.2	54.5
%RSD	.12959	1.7670	.61400	.58187
#1	149830.	23717.	6200.0	9323.7
#2	150110.	23131.	6254.1	9400.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 5:14:06 Type: QC
Method: Accutest XPress(v324) 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**	**.0002**	**.0000**	**.0001**	**.0004**	**.0000**
Stddev	.0001	.0001	.0002	.0000	.0004	.0001	.0000	.0001	.0003
%RSD	74.14	619.5	157.5	16.97	189.5	210.8	6.763	15.04	1616.
#1	.0000	.0000	.0000	-.0002	.0004	-.0000	.0001	.0003	.0003
#2	.0001	-.0001	-.0002	-.0001	-.0001	.0001	.0001	.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0017**	**.0001**	**-.0002**	**.0006**	**.0009**	**.0012**	**-.0029**	**.0082**
Stddev	.0001	.0001	.0001	.0004	.0002	.0009	.0001	.0161	.0034
%RSD	190.2	4.366	146.8	158.5	41.74	106.9	5.854	561.1	41.18
#1	-.0001	.0018	-.0000	.0000	.0007	.0002	.0012	-.0143	.0106
#2	.0000	.0017	.0001	-.0005	.0004	.0015	.0013	.0085	.0058
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	**.0071**	**.0161**	**.0448**	**.0759**	**.0064**	**.0003**	**-.0053**	**.0009**	**.0002**
Stddev	.0017	.0108	.0265	.0058	.0001	.0002	.0023	.0007	.0001
%RSD	24.56	67.27	59.03	7.668	.8731	59.13	43.16	72.17	70.85
#1	.0059	.0238	.0261	.0800	.0065	.0005	-.0037	.0014	.0003
#2	.0083	.0084	.0635	.0718	.0064	.0002	-.0069	.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: 5/22/2018 5:14:06 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0019**	**.0003**	**.0003**	**-.0003**	F **.0064**	**.0033**
Stddev	.0007	.0014	.0001	.0009	.0021	.0036	.0006
%RSD	433.4	73.47	24.25	284.3	632.2	55.95	16.96
#1	.0007	-.0029	.0004	.0010	-.0018	.0039	.0029
#2	-.0003	-.0009	.0003	-.0003	.0012	.0089	.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155450.**	**23746.**	**6363.4**	**9813.5**
Stddev	818.	63.	37.5	42.7
%RSD	.52592	.26474	.58885	.43521
#1	154870.	23791.	6336.9	9783.3
#2	156020.	23702.	6389.9	9843.7

Zoom In Zoom Out

Sample Name: crid Acquired: 5/22/2018 5:17:09 Type: QC
Method: Accutest XPress(v324) 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	**.0046**	**.0009**	**.0010**	**.0030**	**.0016**	F **-.0002**	**.0032**	**.0042**
Stddev	.0003	.0000	.0000	.0001	.0004	.0002	.0001	.0003
%RSD	5.579	.9941	4.742	3.593	23.35	107.4	2.052	7.579
#1	.0048	.0009	.0010	.0029	.0018	-.0000	.0031	.0039
#2	.0044	.0009	.0010	.0030	.0013	-.0003	.0032	.0044
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**	**.0022**	**.0105**	**.0027**	**.0026**	F **.0001**	F **.0021**	F **.0001**
Stddev	.0002	.0001	.0002	.0016	.0012	.0006	.0003	.0012
%RSD	57.58	6.036	1.520	57.50	45.71	601.2	15.61	1262.
#1	-.0004	.0023	.0104	.0039	.0017	-.0003	.0024	.0009
#2	-.0002	.0021	.0106	.0016	.0034	.0005	.0019	-.0007
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail
Value	.0020					.0025	.0050	.0030
Range	-30.00%					-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	**.1075**	**1.037**	**-.0020**	**.1150**	**2.110**	**1.127**	**.0047**	**.0002**
Stddev	.0022	.002	.0009	.0382	.048	.001	.0009	.0001
%RSD	2.051	.1850	43.79	33.22	2.279	.0802	18.22	85.20
#1	.1060	1.035	-.0014	.0879	2.076	1.126	.0053	.0001
#2	.1091	1.038	-.0026	.1420	2.144	1.127	.0041	.0003
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 5/22/2018 5:17:09 Type: QC
Method: Accutest XPress(v324) 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	**.0055**	**-.0005**	**-.0000**	**-.0003**	**-.0012**	**.0002**	**.0009**	**.0009**
Stddev	.0006	.0007	.0000	.0003	.0004	.0001	.0016	.0007
%RSD	10.97	159.3	204.9	78.99	34.84	52.60	173.1	75.79
#1	.0051	.0001	-.0001	-.0005	-.0015	.0003	-.0002	.0014
#2	.0059	-.0010	.0000	-.0002	-.0009	.0001	.0021	.0004
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0022**	**.0036**
Stddev	.0013	.0015
%RSD	61.83	43.00
#1	.0012	.0025
#2	.0031	.0047
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155210.**	**23827.**	**6420.5**	**9882.1**
Stddev	726.	141.	42.7	45.4
%RSD	.46798	.59189	.66529	.45902
#1	154690.	23727.	6390.3	9850.0
#2	155720.	23927.	6450.7	9914.1

Zoom In Zoom Out

Sample Name: cri Acquired: 5/22/2018 5:20:12 Type: QC
Method: Accutest XPress(v324) 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	**.2028**	**.0018**	**.0029**	**.0507**	**.0098**	**.0091**	**.0160**	**.0101**
Stddev	.0030	.0001	.0000	.0008	.0003	.0004	.0001	.0001
%RSD	1.489	4.001	.6476	1.490	2.767	4.626	.5280	.6397
#1	.2049	.0018	.0029	.0502	.0096	.0094	.0159	.0100
#2	.2007	.0017	.0029	.0513	.0099	.0088	.0160	.0101
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	W **.0035**	**.0498**	**.0204**	**.0094**	**.0095**	W **.0037**	**.0098**	**.0053**
Stddev	.0005	.0000	.0002	.0006	.0007	.0002	.0011	.0006
%RSD	13.44	.0166	.9459	6.711	7.273	5.457	11.16	12.17
#1	.0032	.0498	.0203	.0098	.0100	.0039	.0106	.0058
#2	.0039	.0498	.0206	.0089	.0090	.0036	.0091	.0049
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value	.0050					.0030		
Range	-20.00%					20.00%		

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2039**	**5.022**	**.1014**	**5.149**	**5.101**	**5.250**	**.1036**	**.0197**
Stddev	.0078	.081	.0012	.080	.078	.067	.0014	.0003
%RSD	3.809	1.606	1.203	1.547	1.533	1.275	1.374	1.482
#1	.1984	5.079	.1023	5.206	5.157	5.297	.1026	.0195
#2	.2094	4.965	.1006	5.093	5.046	5.202	.1046	.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: 5/22/2018 5:20:12 Type: QC
Method: Accutest XPress(v324) 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	**.2035**	**.0092**	**.0098**	**.0095**	**.0474**	**.0115**	**.0530**	**.0217**
Stddev	.0021	.0003	.0001	.0003	.0007	.0001	.0011	.0005
%RSD	1.028	3.603	1.307	2.622	1.494	.9633	2.107	2.240
#1	.2020	.0090	.0099	.0097	.0469	.0114	.0538	.0214
#2	.2049	.0094	.0097	.0094	.0479	.0116	.0523	.0221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0530**	**.0509**
Stddev	.0009	.0006
%RSD	1.761	1.108
#1	.0537	.0505
#2	.0524	.0513
Check ?	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	**153870.**	**23806.**	**6334.8**	**9721.4**
Stddev	1480.	227.	22.9	14.0
%RSD	.96158	.95247	.36081	.14424
#1	154920.	23646.	6318.6	9711.5
#2	152830.	23966.	6350.9	9731.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 5:23:15 Type: QC
Method: Accutest XPress(v324) 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	**2.023**	**1.978**	**1.916**	**1.971**	**1.950**	**1.922**	**1.996**	**1.999**	**.2416**
Stddev	.018	.018	.029	.032	.015	.015	.022	.030	.0029
%RSD	.8627	.8957	1.510	1.636	.7435	.7892	1.101	1.525	1.193
#1	2.035	1.990	1.895	1.948	1.939	1.911	1.980	1.978	.2395
#2	2.011	1.965	1.936	1.993	1.960	1.932	2.011	2.021	.2436
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	**1.927**	**1.959**	**1.962**	**1.978**	**2.000**	**1.891**	**1.946**	**39.72**	**39.26**
Stddev	.021	.031	.033	.033	.033	.035	.033	.31	.35
%RSD	1.098	1.601	1.673	1.665	1.625	1.845	1.678	.7849	.8838
#1	1.912	1.936	1.939	1.954	1.977	1.866	1.923	39.94	39.50
#2	1.942	1.981	1.985	2.001	2.023	1.915	1.969	39.50	39.01
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	**39.73**	**39.39**	**39.54**	**40.31**	**1.952**	**1.913**	**4.868**	**1.948**	**1.976**
Stddev	.34	.43	.14	.34	.037	.026	.083	.023	.017
%RSD	.8508	1.090	.3461	.8349	1.891	1.343	1.709	1.172	.8456
#1	39.96	39.69	39.64	40.55	1.926	1.895	4.809	1.932	1.987
#2	39.49	39.08	39.44	40.07	1.979	1.931	4.926	1.964	1.964
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: 5/22/2018 5:23:15 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**1.955**	**1.947**	**1.896**	**1.968**	**1.966**	**1.914**
Stddev	.022	.027	.021	.028	.029	.013	.031
%RSD	1.097	1.385	1.067	1.453	1.498	.6494	1.613
#1	1.962	1.936	1.933	1.877	1.948	1.975	1.892
#2	1.993	1.974	1.962	1.916	1.989	1.957	1.935
Check ?	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	**150290.**	**23200.**	**6250.2**	**9372.2**
Stddev	183.	278.	34.3	58.0
%RSD	.12195	1.1965	.54864	.61882
#1	150420.	23004.	6274.4	9413.2
#2	150160.	23396.	6225.9	9331.2

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 5:26:04 Type: QC
Method: Accutest XPress(v324) 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**	**-.0002**	**-.0003**	**-.0004**	**-.0005**	**.0000**	**-.0006**	**-.0001**
Stddev	.0002	.0000	.0002	.0001	.0003	.0002	.0000	.0002	.0007
%RSD	97.95	120.5	84.74	25.91	67.08	47.43	61.90	27.70	723.7
#1	.0003	-.0000	-.0001	-.0004	-.0002	-.0003	.0000	-.0004	-.0006
#2	.0001	-.0000	-.0004	-.0003	-.0006	-.0007	.0001	-.0007	.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**	**.0017**	**-.0002**	**-.0003**	**.0010**	**.0002**	**.0012**	**.0041**	**.0076**
Stddev	.0001	.0000	.0007	.0013	.0007	.0010	.0008	.0076	.0057
%RSD	117.2	2.681	453.0	517.4	73.33	542.5	65.31	184.1	75.23
#1	-.0000	.0017	.0003	-.0012	.0005	-.0005	.0017	.0095	.0117
#2	-.0002	.0018	-.0006	.0007	.0014	.0009	.0006	-.0012	.0036
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	**.0053**	**.0201**	**.0579**	**.0568**	**.0068**	**.0003**	**-.0061**	**.0006**	**.0002**
Stddev	.0004	.0053	.0412	.0120	.0004	.0003	.0013	.0004	.0002
%RSD	7.339	26.07	71.05	21.05	5.417	92.98	21.80	69.80	94.53
#1	.0050	.0239	.0288	.0653	.0065	.0001	-.0071	.0003	.0003
#2	.0055	.0164	.0870	.0483	.0070	.0005	-.0052	.0009	.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: 5/22/2018 5:26:04 Type: QC
Method: Accutest XPress(v324) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**-.0023**	**.0004**	**.0015**	**-.0009**	**.0034**	**.0047**
Stddev	.0003	.0001	.0001	.0011	.0002	.0000	.0007
%RSD	51.09	5.479	33.55	71.24	19.43	1.171	13.69
#1	-.0004	-.0022	.0004	.0023	-.0010	.0034	.0043
#2	-.0008	-.0023	.0003	.0007	-.0008	.0035	.0052
Check ?	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	**154930.**	**23635.**	**6391.3**	**9832.0**
Stddev	1195.	123.	6.3	4.5
%RSD	.77123	.52094	.09898	.04584
#1	154090.	23722.	6386.9	9828.8
#2	155780.	23548.	6395.8	9835.2

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.000941	0.000000	No
Be 313.042 {108}	☒	6	V	0.001350	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000268	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	☒	11	As	0.011351	0.000000	No
			Ni	-0.000417	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001354	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.001000	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000024	0.000000	No
			Mo	-0.000972	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.001920	0.000000	No
			Ba	0.000238	0.000000	No
			W	-0.001840	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	8	Mn	0.000440	0.000000	No
			V	-0.000027	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000008	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	13	Cr	-0.000004	0.000000	No
			V	-0.000397	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000196	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.001082	0.000000	No
			Si	0.000016	0.000000	No
			Mn	-0.000087	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000002	0.000000	No
Mn 257.610 {131}	☒	4	Fe	-0.000098	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000026	0.000000	No
			Zn	-0.000013	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000220	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000152	0.000000	No
			Mo	-0.000188	-0.000003	No
			Ti	-0.000302	0.000000	No
			Fe	-0.000258	0.000000	No
			Zn	0.000044	0.000000	No
			Ca	-0.000003	0.000000	No
			Zr	0.006454	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000000	0.000000	No
			Ba	0.000071	0.000000	No
			Cr	0.000022	0.000000	No
			V	-0.002823	0.000000	No
			Al	-0.000002	0.000000	No
			W	-0.000010	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000304	0.000000	No
			Fe	0.000017	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.006000	0.000000	No
			Mn	-0.002097	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000006	0.000000	No
			Si	0.000015	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	0.000255	0.000000	No
			Cu	0.001248	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000364	0.000000	No
As 189.042 {478}	☒	17	Al	-0.000004	0.000000	No
			Fe	-0.000003	0.000000	No
			Ca	0.000002	0.000000	No
			Mo	0.002586	0.000000	No
			Cr	0.001770	0.000000	No
			Ba	0.000083	0.000000	No
			Sn	-0.000037	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000024	0.000000	No
			Zn	-0.000082	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.000000	0.000000	No
			Cu	0.000038	0.000000	No
			Co	-0.000453	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	-0.000080	0.000000	No
			S	0.000007	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000209	0.000000	No
			Mo	-0.008052	0.000000	No
			Al	-0.000006	0.000000	No
			Fe	-0.000049	0.000000	No
			V	-0.025500	0.000000	No
			Mn	0.001426	0.000000	No
			Si	0.000089	0.000000	No
			Ca	0.000003	0.000000	No
			Ti	-0.002030	0.000000	No
			Mg	-0.000002	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Co	0.004062	0.000000	No
				Sr	0.000010	0.000000	No
				B	-0.000003	0.000000	No
				Ba	0.000034	0.000000	No
				Zn	-0.000023	0.000000	No
				As	0.000068	0.000000	No
				W	-0.026645	0.000000	No
				Cu	-0.000049	0.000000	No
				Zr	0.000056	0.000000	No
				Pb	-0.000020	0.000000	No
				S	-0.000004	0.000000	No
				Sn	-0.000086	0.000000	No
				Li	0.000000	0.000000	No
				K	0.000000	0.000000	No
	Pb 220.353 {453}	☒	20	Al	-0.000167	0.000000	No
				Fe	0.000034	0.000000	No
				Ca	0.000003	0.000000	No
				Mn	0.000054	0.000000	No
				Mo	-0.000663	0.000000	No
				Cu	0.000654	0.000000	No
				Co	0.000064	0.000000	No
				Ti	-0.000246	0.000000	No
				Si	0.000133	0.000000	No
				Ba	-0.000022	0.000000	No
				Sb	-0.000200	0.000000	No
				Sr	-0.000033	0.000000	No
				W	0.006000	0.000000	No
				Mg	0.000002	0.000000	No
				Cd	0.000012	0.000000	No
				Cr	-0.000031	0.000000	No
				Zr	-0.000382	0.000000	No
				Ni	-0.000003	0.000000	No
				S	0.000004	0.000000	No
				Zn	-0.000106	0.000000	No
	Se 196.090 {472}	☒	22	Al	-0.000000	0.000000	No
				Ca	-0.000008	0.000000	No
				Mn	0.000594	0.000000	No
				Mo	0.000050	0.000000	No
				Fe	-0.000290	0.000000	No
				Co	-0.000182	0.000000	No
				Sr	-0.000011	0.000000	No
				Cu	-0.000087	0.000000	No
				W	0.000000	0.000000	No
				Si	0.000054	0.000000	No
				Be	-0.000143	0.000000	No
				Zn	0.000050	0.000000	No
				B	0.000028	0.000000	No
				Ti	-0.000120	0.000000	No
				Cd	0.000090	0.000000	No
				Zr	0.000108	0.000000	No
				Ba	-0.000046	0.000000	No
				Mg	-0.000006	0.000000	No
				Pb	-0.000011	0.000000	No
				Ni	-0.000100	0.000000	No
				Cr	-0.000024	0.000000	No
				S	-0.000032	0.000000	No
	Sb 206.833 {463}	☒	17	Fe	0.000028	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Al	-0.000009	0.000000	No
			Ca	-0.000001	0.000000	No
			Ni	-0.000616	0.000000	No
			Cr	0.020310	0.000000	No
			V	-0.003578	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000191	0.000000	No
			Ti	0.000152	0.000000	No
			Sn	-0.011300	0.000000	No
			Mg	-0.000007	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	0.000049	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000131	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.044851	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000012	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	-0.000822	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.002602	0.000000	No
			Cr	0.002280	0.000000	No
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	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}	☒	3	Mo	-0.020250	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.015570	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	-0.000850	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	-0.010000	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.038137	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.031190	0.000000	No
			V	0.034576	0.000000	No
			Ti	0.002619	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	0.003000	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.002242	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000043	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001070	0.000000	No
			Si	0.000035	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}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	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	0.009921	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	-0.002570	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.001000	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.002600	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
			Ti	0.000400	0.000000	No
			Fe	-0.000055	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Si	0.000615	0.000000	No
				S	-0.000030	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	0.000477	0.000000	No
				Al	-0.000095	0.000000	No
				Fe	-0.000018	0.000000	No
				Mn	0.004620	0.000000	No
				W	-0.045000	0.000000	No
				Ca	0.000056	0.000000	No
				Mg	0.000071	0.000000	No
	Bi 223.061 {451}	☒	6	Ti	-0.055180	0.000000	No
				V	-0.001680	0.000000	No
				Co	-0.002380	0.000000	No
				Ca	-0.000002	0.000000	No
				Mg	-0.000000	0.000000	No
				Fe	0.000123	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000003	0.000000	No
				Fe	0.000004	0.000000	No
	P 177.495 {490}	☒	1	Mn	-0.006184	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}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.003971	1.508119	0.000000	1.000000
	Be 313.042 {108}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000153	1.870098	0.000000	1.000000
	Cd 228.802 {448}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000376	0.912458	0.000000	1.000000
	Co 228.616 {448}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000309	0.540495	0.000000	1.000000
	Cr 267.716 {126}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000097	0.102292	0.000000	1.000000
	Cu 324.754 {104}2	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.003642	0.189008	0.000000	1.000000
	Mn 257.610 {131}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000074	0.612269	0.000000	1.000000
	Ni 231.604 {446}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000144	0.428610	0.000000	1.000000
	Ag 328.068 {103}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000427	0.113845	0.000000	1.000000
	V 292.402 {115}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000139	0.157036	0.000000	1.000000
	Zn 206.200 {464}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000585	1.201532	0.000000	1.000000
	As 189.042 {478}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000258	0.100281	0.000000	1.000000
	Tl 190.856 {477}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000251	0.069469	0.000000	1.000000
	Pb 220.353 {453}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000041	0.179389	0.000000	1.000000
	Se 196.090 {472}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000081	0.074111	0.000000	1.000000
	Sb 206.833 {463}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000158	0.124202	0.000000	1.000000
	Al 396.152 { 85}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000755	0.029469	0.000000	1.000000
	Ca 317.933 {106}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.005146	0.064936	0.000000	1.000000
	Fe 259.940 {130}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000148	0.042654	0.000000	1.000000
	Mg 279.079 {121}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000219	0.006941	0.000000	1.000000
	K 766.490 { 44}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.004098	0.013747	0.000000	1.000000
	Na 589.592 { 57}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.005407	0.058887	0.000000	1.000000
	B 208.959 {462}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000414	0.199634	0.000000	1.000000
	Mo 202.030 {467}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000814	0.633135	0.000000	1.000000
	Si 212.412 {459}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.002806	0.162557	0.000000	1.000000
	Sn 189.989 {478}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000223	0.194041	0.000000	1.000000
	Sr 407.771 { 83}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000440	2.491418	0.000000	1.000000
	Ti 334.904 {101}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000001	0.129692	0.000000	1.000000
	Y 360.073 { 94}*	5/22/2018 8:37:59	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	5/22/2018 8:37:59	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	5/22/2018 8:37:59	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	5/22/2018 8:37:59	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000982	0.297902	0.000000	1.000000
	Zr 339.198 { 99}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.000631	0.376940	0.000000	1.000000
	S 182.034 {485}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	-0.002860	0.051469	0.000000	1.000000
	Bi 223.061 {451}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000231	0.140323	0.000000	1.000000
	Li 670.784 { 50}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	None	0.000423	0.339398	0.000000	1.000000
	P 177.495 {490}	5/22/2018 8:37:59	5/21/2018 21:10:12	Linear	1/Conc	-0.005539	0.117725	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	0.000385	0.001283	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000112	0.000375	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000286	0.000954	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000368	0.001226	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000482	0.001607	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000609	0.002029	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000074	0.000247	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000530	0.001767	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000673	0.002245	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000550	0.001833	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000181	0.000604	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001658	0.005528	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001838	0.006127	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001773	0.005910	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.003063	0.010210	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.002281	0.007602	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.015519	0.051731	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.004014	0.013381	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.003138	0.010462	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.024959	0.083198	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.062545	0.208482	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.014526	0.048420	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.001010	0.003367	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000392	0.001307	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001737	0.005791	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000870	0.002899	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000154	0.000515	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000532	0.001774	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	0.001639	0.005463	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000260	0.000865	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.003461	0.011535	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.002684	0.008946	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.002479	0.008262	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001491	0.004971	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/22/2018 11:41:37 Type: Cal
Method: Accutest XPress(v328) 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	**.0045**	**-.0004**	**.0003**	**.0002**	**-.0001**	**.0036**	**.0000**	**-.0001**	**-.0005**
Stddev	.0000	.0001	.0001	.0000	.0000	.0000	.0000	.0002	.0001
%RSD	.4474	18.02	25.93	.8152	12.01	.2515	11.34	200.2	13.54
#1	.0045	-.0005	.0004	.0002	-.0001	.0036	.0000	-.0002	-.0004
#2	.0045	-.0004	.0003	.0002	-.0001	.0036	.0000	.0000	-.0005

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	**.0001**	**-.0001**	**.0000**	**-.0002**	**.0003**	**-.0002**	**-.0002**	**-.0011**	**.0077**
Stddev	.0001	.0000	.0001	.0000	.0002	.0001	.0000	.0005	.0004
%RSD	71.73	37.03	441.7	5.058	59.41	26.87	6.731	46.74	4.935
#1	.0002	-.0001	.0001	-.0002	.0004	-.0002	-.0001	-.0015	.0080
#2	.0001	-.0001	-.0001	-.0002	.0002	-.0002	-.0002	-.0008	.0074

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	**-.0000**	**-.0002**	**-.0034**	**-.0053**	**.0014**	**-.0004**	**.0019**	**.0002**	**-.0002**
Stddev	.0000	.0000	.0012	.0001	.0000	.0002	.0003	.0001	.0001
%RSD	50.71	16.46	34.83	2.754	1.210	53.01	15.51	24.83	48.19
#1	-.0001	-.0001	-.0026	-.0054	.0014	-.0005	.0017	.0003	-.0002
#2	-.0000	-.0002	-.0043	-.0052	.0014	-.0002	.0021	.0002	-.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**.0005**	**-.0006**	**-.0029**	**.0002**	**.0015**	**-.0125**
Stddev	.0000	.0002	.0000	.0000	.0003	.0004	.0000
%RSD	101.3	34.76	6.658	1.573	202.0	25.76	.1058
#1	-.0001	.0004	-.0006	-.0029	-.0001	.0012	-.0125
#2	-.0000	.0007	-.0006	-.0028	.0004	.0018	-.0125

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/22/2018 11:41:37 Type: Cal
Method: Accutest XPress(v328) 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	**154610.**	**23203.**	**6412.8**	**9929.9**
Stddev	1136.	360.	1.7	.1
%RSD	.73482	1.5517	.02659	.00111
#1	155410.	22949.	6411.6	9930.0
#2	153800.	23458.	6414.0	9929.9

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/22/2018 11:44:38 Type: Cal
Method: Accutest XPress(v328) 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	**5.615**	**6.943**	**3.405**	**2.014**	**.3847**	**.7013**	**2.289**	**1.612**	**.0516**
Stddev	.021	.040	.032	.014	.0005	.0009	.003	.013	.0002
%RSD	.3652	.5725	.9306	.7063	.1419	.1327	.1254	.7778	.2909
#1	5.601	6.915	3.383	2.004	.3851	.7020	2.287	1.603	.0515
#2	5.630	6.971	3.428	2.024	.3843	.7007	2.291	1.621	.0517

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	**.5773**	**4.521**	**.3771**	**.2460**	**.6797**	**.2745**	**.4635**	**2.232**	**4.853**
Stddev	.0007	.028	.0028	.0020	.0050	.0025	.0050	.013	.035
%RSD	.1152	.6252	.7523	.7975	.7380	.9007	1.088	.5669	.7116
#1	.5777	4.501	.3751	.2446	.6762	.2727	.4599	2.223	4.828
#2	.5768	4.541	.3791	.2474	.6832	.2762	.4670	2.241	4.877

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	**3.169**	**.5171**	**1.051**	**4.447**	**.7697**	**2.228**	**1.576**	**.7190**	**9.422**
Stddev	.015	.0027	.012	.026	.0075	.018	.014	.0036	.055
%RSD	.4707	.5281	1.098	.5754	.9703	.8168	.9007	.5031	.5878
#1	3.159	.5152	1.042	4.428	.7644	2.215	1.566	.7164	9.383
#2	3.180	.5190	1.059	4.465	.7749	2.241	1.586	.7215	9.461

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4837**	**1.107**	**1.399**	**.1797**	**.4925**	**1.241**	**.4214**
Stddev	.0004	.008	.002	.0013	.0049	.005	.0033
%RSD	.0852	.7313	.1366	.7437	.9880	.3814	.7843
#1	.4840	1.101	1.401	.1787	.4890	1.237	.4191
#2	.4834	1.113	1.398	.1806	.4959	1.244	.4238

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/22/2018 11:44:38 Type: Cal
Method: Accutest XPress(v328) 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	**146320.**	**22900.**	**6130.0**	**9263.1**
Stddev	769.	10.	21.2	31.1
%RSD	.52529	.04510	.34582	.33613
#1	145780.	22893.	6115.0	9241.1
#2	146860.	22907.	6145.0	9285.1

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 5/22/2018 11:47:35 Type: QC
Method: Accutest XPress(v328) 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**	**1.997**	**1.970**	**2.001**	**2.008**	**1.975**	**2.043**	**2.009**	**.2481**
Stddev	.022	.016	.016	.017	.009	.015	.007	.018	.0026
%RSD	1.124	.7774	.8100	.8376	.4466	.7704	.3575	.8963	1.039
#1	2.003	2.008	1.958	1.989	2.002	1.964	2.038	1.996	.2463
#2	1.971	1.986	1.981	2.013	2.015	1.986	2.048	2.021	.2500
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	**1.997**	**1.998**	**1.971**	**2.006**	**2.005**	**1.967**	**1.982**	**39.62**	**40.02**
Stddev	.008	.014	.019	.023	.020	.013	.018	.31	.27
%RSD	.3935	.6927	.9471	1.131	.9846	.6738	.9149	.7896	.6667
#1	1.991	1.988	1.958	1.990	1.991	1.958	1.969	39.84	40.21
#2	2.002	2.008	1.984	2.022	2.019	1.976	1.995	39.40	39.83
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	**40.05**	**40.24**	**39.41**	**39.91**	**1.987**	**1.995**	**4.983**	**2.008**	**1.989**
Stddev	.32	.20	.02	.29	.015	.017	.048	.013	.018
%RSD	.7927	.4902	.0455	.7231	.7712	.8381	.9600	.6488	.9062
#1	40.28	40.37	39.39	40.11	1.976	1.983	4.949	1.998	2.002
#2	39.83	40.10	39.42	39.70	1.997	2.007	5.017	2.017	1.977
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: 5/22/2018 11:47:35 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**1.976**	**2.007**	**1.952**	**1.995**	**1.998**	**1.969**
Stddev	.009	.014	.010	.016	.016	.017	.017
%RSD	.4431	.6892	.4804	.7915	.8103	.8240	.8470
#1	2.000	1.966	2.000	1.941	1.984	2.010	1.957
#2	2.012	1.985	2.013	1.963	2.007	1.987	1.981
Check ?	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	**149340.**	**23134.**	**6262.0**	**9454.9**
Stddev	102.	49.	12.0	8.9
%RSD	.06849	.21011	.19181	.09418
#1	149410.	23168.	6253.5	9448.6
#2	149260.	23099.	6270.5	9461.2

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 5/22/2018 11:50:25 Type: QC
Method: Accutest XPress(v328) 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**	**.0002**	**.0003**	**-.0000**	**.0002**	**.0000**	**.0006**	**-.0001**
Stddev	.0001	.0000	.0000	.0001	.0004	.0000	.0001	.0003	.0009
%RSD	43.58	21.79	24.38	55.96	3773.	21.27	167.5	40.79	737.8
#1	-.0003	.0002	.0002	.0004	-.0003	.0002	.0001	.0004	.0005
#2	-.0002	.0001	.0001	.0002	.0003	.0003	-.0000	.0008	-.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	**.0002**	**-.0001**	**.0007**	**-.0006**	**-.0001**	**.0024**	**.0018**	**.0074**	**.0013**
Stddev	.0005	.0001	.0003	.0013	.0007	.0010	.0005	.0076	.0005
%RSD	199.7	170.0	38.42	219.2	1265.	43.65	25.65	102.7	39.57
#1	.0005	.0000	.0009	-.0015	-.0005	.0017	.0022	.0128	.0016
#2	-.0001	-.0002	.0005	.0003	.0004	.0031	.0015	.0020	.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	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0222**	**-.0448**	**.0046**	**.0042**	**.0000**	**.0012**	**-.0005**	**.0002**
Stddev	.0022	.0046	.0614	.0191	.0005	.0000	.0016	.0002	.0003
%RSD	139.7	20.89	137.1	412.2	13.08	107.6	134.3	44.71	114.7
#1	.0031	.0189	-.0883	-.0089	.0046	.0000	.0001	-.0006	.0000
#2	.0000	.0254	-.0014	.0182	.0038	.0000	.0023	-.0003	.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: CCBCONF Acquired: 5/22/2018 11:50:25 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0008**	**.0002**	**.0003**	**.0021**	**.0020**	**.0006**
Stddev	.0001	.0006	.0002	.0011	.0006	.0035	.0012
%RSD	2885.	67.25	88.82	435.1	27.88	172.5	185.6
#1	-.0001	.0012	.0004	-.0005	.0025	-.0004	.0015
#2	.0001	.0004	.0001	.0010	.0017	.0045	-.0002
Check ?	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	**154530.**	**23337.**	**6401.0**	**9909.5**
Stddev	882.	88.	11.9	5.4
%RSD	.57087	.37583	.18650	.05438
#1	155150.	23274.	6392.6	9905.6
#2	153900.	23399.	6409.5	9913.3

Zoom In Zoom Out

Sample Name: icv Acquired: 5/22/2018 11:53:29 Type: QC
Method: Accutest XPress(v328) 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	**1.997**	**2.010**	**1.956**	**2.035**	**1.947**	**1.944**	**2.046**	**1.972**	**.2576**
Stddev	.001	.003	.024	.029	.010	.008	.014	.027	.0009
%RSD	.0550	.1565	1.238	1.404	.5123	.4168	.6865	1.349	.3564
#1	1.996	2.008	1.939	2.015	1.940	1.938	2.036	1.953	.2569
#2	1.998	2.012	1.973	2.055	1.954	1.950	2.056	1.991	.2582
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	**2.008**	**1.976**	**2.036**	**1.981**	**2.000**	**2.054**	**2.009**	**39.53**	**38.90**
Stddev	.012	.022	.022	.030	.026	.022	.028	.08	.10
%RSD	.5778	1.091	1.097	1.493	1.304	1.086	1.415	.2079	.2575
#1	1.999	1.961	2.020	1.960	1.981	2.038	1.988	39.47	38.83
#2	2.016	1.991	2.052	2.002	2.018	2.069	2.029	39.59	38.97
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	**38.37**	**39.50**	**39.17**	**41.22**	**2.035**	**1.962**	**5.033**	**1.957**	**1.992**
Stddev	.03	.03	.26	.15	.026	.023	.065	.021	.001
%RSD	.0686	.0713	.6754	.3531	1.289	1.182	1.284	1.052	.0444
#1	38.35	39.52	38.99	41.12	2.016	1.946	4.987	1.943	1.991
#2	38.39	39.48	39.36	41.32	2.053	1.979	5.078	1.972	1.992
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 Acquired: 5/22/2018 11:53:29 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.033**	**2.041**	**1.996**	**1.990**	**1.985**	**1.992**	**1.987**
Stddev	.014	.018	.011	.029	.024	.010	.019
%RSD	.6824	.8994	.5596	1.467	1.231	.4821	.9364
#1	2.023	2.028	1.988	1.970	1.968	1.985	1.974
#2	2.043	2.054	2.004	2.011	2.002	1.999	2.000
Check ?	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	**150020.**	**23285.**	**6312.3**	**9518.8**
Stddev	842.	46.	6.2	6.5
%RSD	.56122	.19883	.09889	.06781
#1	150620.	23317.	6307.9	9523.4
#2	149430.	23252.	6316.7	9514.2

Zoom In Zoom Out

Sample Name: icb Acquired: 5/22/2018 11:56:19 Type: QC
Method: Accutest XPress(v328) 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**	**.0002**	**.0004**	**.0000**	**.0005**	**-.0004**
Stddev	.0002	.0002	.0002	.0002	.0005	.0003	.0000	.0002	.0003
%RSD	199.7	110.6	208.2	125.3	280.5	74.26	54.78	49.51	75.52
#1	.0003	.0003	-.0001	.0000	-.0002	.0006	.0001	.0003	-.0006
#2	-.0000	.0000	.0003	.0002	.0005	.0002	.0000	.0007	-.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	**.0003**	**-.0001**	**.0007**	**.0006**	**.0006**	**.0041**	**.0032**	**.0076**	**.0013**
Stddev	.0005	.0003	.0005	.0016	.0017	.0002	.0003	.0049	.0004
%RSD	180.1	337.0	70.51	263.7	281.0	6.006	8.870	64.14	31.06
#1	.0006	-.0003	.0003	.0017	-.0006	.0043	.0030	.0042	.0010
#2	-.0001	.0001	.0010	-.0005	.0018	.0039	.0034	.0111	.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	**.0041**	**.0097**	**-.0161**	**-.0145**	**.0037**	**.0001**	**-.0014**	**-.0003**	**.0002**
Stddev	.0016	.0233	.0035	.0040	.0003	.0003	.0005	.0002	.0001
%RSD	39.40	238.8	21.67	27.34	8.031	176.4	35.80	72.55	60.31
#1	.0052	-.0067	-.0185	-.0173	.0035	-.0000	-.0018	-.0004	.0001
#2	.0029	.0262	-.0136	-.0117	.0040	.0003	-.0011	-.0001	.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: icb Acquired: 5/22/2018 11:56:19 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **.0092**	**.0004**	**.0017**	**-.0012**	F **.0048**	**.0019**
Stddev	.0003	.0008	.0001	.0022	.0006	.0007	.0001
%RSD	285.9	9.169	16.28	133.6	54.08	13.72	5.303
#1	-.0001	.0086	.0003	.0032	-.0007	.0053	.0018
#2	.0003	.0098	.0004	.0001	-.0016	.0044	.0019
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		.0050				.0040	
Low Limit		-.0050				-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**154420.**	**23407.**	**6471.8**	**9997.4**
Stddev	1529.	85.	18.0	20.3
%RSD	.99027	.36466	.27743	.20335
#1	155500.	23467.	6484.5	10012.
#2	153340.	23346.	6459.1	9983.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 11:59:23 Type: QC
Method: Accutest XPress(v328) 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	**1.996**	**1.977**	**1.973**	**2.002**	**1.966**	**1.940**	**2.019**	**2.011**	**.2448**
Stddev	.006	.003	.025	.022	.009	.006	.012	.022	.0018
%RSD	.2925	.1447	1.267	1.103	.4779	.3155	.5805	1.085	.7303
#1	1.992	1.975	1.955	1.986	1.960	1.936	2.011	1.996	.2436
#2	2.001	1.979	1.991	2.017	1.973	1.944	2.028	2.027	.2461
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	**1.968**	**1.997**	**1.979**	**2.008**	**2.013**	**1.979**	**1.985**	**39.33**	**39.79**
Stddev	.009	.024	.027	.026	.021	.019	.024	.03	.11
%RSD	.4618	1.192	1.381	1.319	1.022	.9456	1.218	.0811	.2840
#1	1.962	1.980	1.960	1.989	1.998	1.965	1.968	39.35	39.71
#2	1.975	2.014	1.999	2.027	2.027	1.992	2.002	39.31	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	**39.80**	**40.12**	**39.18**	**40.07**	**1.993**	**1.999**	**4.984**	**2.008**	**1.988**
Stddev	.04	.21	.09	.15	.027	.024	.064	.024	.003
%RSD	.1033	.5274	.2225	.3783	1.370	1.222	1.278	1.175	.1317
#1	39.77	39.97	39.12	39.96	1.973	1.982	4.939	1.991	1.987
#2	39.83	40.27	39.24	40.18	2.012	2.017	5.029	2.025	1.990
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: 5/22/2018 11:59:23 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**1.992**	**1.979**	**1.949**	**2.003**	**2.010**	**1.976**
Stddev	.008	.029	.008	.027	.017	.006	.029
%RSD	.4206	1.462	.4200	1.392	.8314	.2885	1.446
#1	1.987	1.971	1.973	1.930	1.991	2.006	1.956
#2	1.999	2.013	1.985	1.968	2.014	2.014	1.997
Check ?	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	**150900.**	**23251.**	**6275.2**	**9465.9**
Stddev	726.	93.	1.4	9.5
%RSD	.48093	.40120	.02185	.10077
#1	151410.	23185.	6276.2	9459.1
#2	150390.	23317.	6274.2	9472.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 12:02:13 Type: QC
Method: Accutest XPress(v328) 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**	**-.0001**	**.0002**	**-.0005**	**.0005**	**.0001**	**.0004**	**-.0004**
Stddev	.0004	.0001	.0001	.0003	.0001	.0003	.0000	.0005	.0002
%RSD	186.4	83.95	110.8	131.1	26.70	51.27	16.25	109.1	36.79
#1	-.0005	.0001	-.0001	.0004	-.0005	.0007	.0001	.0001	-.0003
#2	.0001	.0003	-.0000	.0000	-.0004	.0003	.0001	.0008	-.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	**.0002**	**-.0001**	**.0008**	**-.0009**	**.0005**	**.0030**	**.0018**	**.0217**	**.0040**
Stddev	.0004	.0000	.0005	.0005	.0012	.0008	.0010	.0086	.0008
%RSD	274.7	43.16	63.21	53.09	243.6	27.50	55.54	39.50	18.69
#1	-.0002	-.0001	.0004	-.0012	-.0003	.0024	.0025	.0277	.0035
#2	.0005	-.0001	.0012	-.0005	.0013	.0035	.0011	.0156	.0046
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	**.0021**	**.0230**	**.0069**	**.0076**	**.0039**	**.0003**	**.0017**	**-.0012**	**.0003**
Stddev	.0015	.0239	.0338	.0044	.0006	.0000	.0014	.0000	.0000
%RSD	70.26	103.9	488.7	57.65	14.66	7.605	79.04	.5841	1.040
#1	.0031	.0061	.0308	.0045	.0035	.0003	.0008	-.0012	.0003
#2	.0010	.0399	-.0170	.0106	.0043	.0004	.0027	-.0012	.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: 5/22/2018 12:02:13 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0044**	**.0002**	**.0006**	**.0012**	**.0024**	**.0014**
Stddev	.0001	.0002	.0001	.0001	.0006	.0015	.0010
%RSD	72.51	3.494	36.13	20.56	52.07	62.67	70.18
#1	.0001	.0043	.0002	.0005	.0016	.0013	.0007
#2	.0003	.0045	.0003	.0007	.0007	.0035	.0021
Check ?	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	**155820.**	**23252.**	**6432.5**	**9935.0**
Stddev	1466.	127.	2.5	10.7
%RSD	.94053	.54605	.03882	.10737
#1	154780.	23162.	6430.7	9942.5
#2	156860.	23342.	6434.3	9927.4

Zoom In Zoom Out

Sample Name: CRI Acquired: 5/22/2018 12:05:16 Type: QC
Method: Accutest XPress(v328) 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	**.2035**	**.0020**	**.0029**	**.0516**	**.0104**	**.0097**	**.0162**	**.0109**
Stddev	.0002	.0000	.0000	.0003	.0005	.0000	.0000	.0001
%RSD	.0930	2.156	.1662	.6288	4.853	.3883	.0174	.5646
#1	.2033	.0020	.0029	.0513	.0107	.0097	.0162	.0109
#2	.2036	.0021	.0029	.0518	.0100	.0098	.0162	.0110
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	W **.0039**	**.0513**	**.0211**	**.0088**	**.0099**	W **.0022**	W **.0128**	W **.0075**
Stddev	.0006	.0002	.0002	.0002	.0010	.0000	.0025	.0019
%RSD	16.35	.3211	.7458	1.928	9.663	.3843	19.65	25.49
#1	.0043	.0514	.0210	.0087	.0092	.0022	.0110	.0061
#2	.0034	.0512	.0212	.0089	.0106	.0023	.0146	.0088
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Warn
Value	.0050					.0030	.0100	.0060
Range	-20.00%					-20.00%	20.00%	20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2195**	**5.129**	**.1043**	**5.276**	**5.037**	**5.221**	**.1025**	**.0207**
Stddev	.0163	.009	.0026	.000	.077	.022	.0003	.0004
%RSD	7.443	.1654	2.448	.0076	1.535	.4230	.2720	1.928
#1	.2079	5.123	.1025	5.277	4.982	5.206	.1027	.0204
#2	.2310	5.135	.1061	5.276	5.092	5.237	.1023	.0210
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: 5/22/2018 12:05:16 Type: QC
Method: Accutest XPress(v328) 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	**.2152**	**.0099**	**.0101**	**.0103**	**.0537**	**.0116**	**.0526**	**.0238**
Stddev	.0030	.0003	.0000	.0002	.0020	.0003	.0001	.0010
%RSD	1.410	2.554	.1926	1.705	3.694	2.887	.1679	4.104
#1	.2131	.0097	.0101	.0104	.0523	.0118	.0527	.0245
#2	.2174	.0101	.0101	.0102	.0551	.0114	.0526	.0231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0543**	**.0516**
Stddev	.0003	.0011
%RSD	.5996	2.096
#1	.0546	.0509
#2	.0541	.0524
Check ?	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	**154800.**	**23310.**	**6429.5**	**9882.4**
Stddev	1065.	107.	27.6	34.1
%RSD	.68771	.45703	.42932	.34521
#1	154040.	23385.	6410.0	9858.3
#2	155550.	23235.	6449.0	9906.5

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/22/2018 12:08:36 Type: QC
Method: Accutest XPress(v328) 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	**.0044**	**.0011**	**.0009**	**.0033**	**.0022**	F **-.0002**	**.0034**	**.0046**
Stddev	.0004	.0001	.0001	.0003	.0002	.0008	.0001	.0001
%RSD	9.594	6.106	6.886	8.704	11.00	336.7	2.104	3.045
#1	.0046	.0011	.0009	.0031	.0023	-.0008	.0033	.0047
#2	.0041	.0012	.0008	.0036	.0020	.0003	.0034	.0045
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**	**.0022**	**.0110**	**.0028**	F **.0011**	F **-.0010**	**.0060**	F **.0015**
Stddev	.0005	.0003	.0001	.0010	.0001	.0013	.0012	.0018
%RSD	172.5	12.56	.5361	34.76	9.563	129.5	20.37	122.5
#1	.0006	.0024	.0110	.0035	.0012	-.0019	.0068	.0027
#2	-.0001	.0020	.0111	.0021	.0011	-.0001	.0051	.0002
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail
Value	.0020				.0020	.0025		.0030
Range	-30.00%				-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	**.1169**	**1.093**	**.0040**	**.1263**	**2.103**	**1.096**	**.0008**	**-.0000**
Stddev	.0162	.001	.0002	.0067	.034	.042	.0002	.0003
%RSD	13.88	.0866	5.367	5.341	1.635	3.841	23.46	10520.
#1	.1283	1.094	.0039	.1311	2.079	1.066	.0006	-.0002
#2	.1054	1.093	.0042	.1215	2.128	1.125	.0009	.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/22/2018 12:08:36 Type: QC
Method: Accutest XPress(v328) 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	**.0106**	**-.0004**	**.0001**	**-.0003**	**.0023**	**.0000**	**.0016**	**.0006**
Stddev	.0006	.0008	.0000	.0003	.0016	.0001	.0006	.0008
%RSD	5.545	189.4	59.05	103.9	70.34	174.4	35.85	136.1
#1	.0102	.0001	.0001	-.0001	.0012	-.0000	.0020	.0000
#2	.0110	-.0010	.0000	-.0005	.0035	.0001	.0012	.0011
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0001**	**.0018**
Stddev	.0015	.0006
%RSD	2114.	34.23
#1	-.0010	.0014
#2	.0011	.0023
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155970.**	**23440.**	**6423.0**	**9913.3**
Stddev	986.	13.	26.7	20.3
%RSD	.63246	.05604	.41591	.20459
#1	156670.	23431.	6404.1	9898.9
#2	155280.	23449.	6441.9	9927.6

Zoom In Zoom Out

Sample Name: ICSA Acquired: 5/22/2018 12:11:38 Type: QC
Method: Accutest XPress(v328) 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	**.0014**	**.0001**	**.0001**	**.0002**	**.0012**	**-.0008**	**-.0005**	**.0002**	**.0003**
Stddev	.0004	.0000	.0000	.0001	.0003	.0005	.0001	.0001	.0009
%RSD	26.34	15.02	18.88	63.85	24.04	59.44	9.879	48.87	267.5
#1	.0017	.0001	.0001	.0002	.0014	-.0005	-.0005	.0001	.0010
#2	.0012	.0001	.0001	.0001	.0010	-.0011	-.0005	.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**.0048**	**.0017**	**.0030**	**.0038**	**.0060**	**.0070**	**508.3**	**401.7**
Stddev	.0003	.0003	.0006	.0006	.0060	.0047	.0005	13.1	4.5
%RSD	8.531	6.132	32.92	20.00	159.1	77.98	7.582	2.578	1.110
#1	.0033	.0046	.0013	.0035	.0081	.0027	.0073	517.5	404.9
#2	.0029	.0050	.0022	.0026	-.0005	.0093	.0066	499.0	398.5
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	**196.5**	**499.6**	**.1387**	**-.0122**	**-.0007**	**.0004**	**.0132**	**-.0056**	**-.0030**
Stddev	.8	2.4	.0556	.0044	.0023	.0000	.0001	.0005	.0000
%RSD	.3958	.4864	40.10	35.90	317.3	6.968	.4993	9.610	.0520
#1	197.1	501.3	.0994	-.0153	.0009	.0004	.0133	-.0060	-.0030
#2	196.0	497.9	.1780	-.0091	-.0023	.0004	.0132	-.0053	-.0030
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: 5/22/2018 12:11:38 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0026**	**.0051**	**-.0025**	**-.0187**	**.0064**	**.0041**	**.0030**
Stddev	.0000	.0006	.0001	.0005	.0028	.0014	.0016
%RSD	.4878	11.70	3.601	2.594	43.63	34.27	52.71
#1	-.0026	.0047	-.0025	-.0191	.0083	.0031	.0019
#2	-.0026	.0055	-.0024	-.0184	.0044	.0051	.0041
Check ?	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	**140370.**	**22713.**	**5903.8**	**8810.7**
Stddev	538.	249.	18.8	20.8
%RSD	.38301	1.0942	.31915	.23561
#1	140750.	22537.	5890.5	8796.0
#2	139990.	22889.	5917.1	8825.3

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/22/2018 12:14:45 Type: QC
Method: Accutest XPress(v328) 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	**.4861**	**.4692**	**.9741**	**.4766**	**.4673**	**.4831**	**.4854**	**.9418**	**1.005**
Stddev	.0017	.0010	.0075	.0029	.0012	.0020	.0007	.0063	.004
%RSD	.3472	.2136	.7716	.6113	.2479	.4151	.1424	.6718	.4040
#1	.4849	.4685	.9688	.4745	.4681	.4817	.4849	.9373	1.002
#2	.4873	.4699	.9794	.4786	.4664	.4845	.4859	.9462	1.008
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	**.4821**	**.9231**	**1.024**	**.9375**	**.9441**	**.9582**	**.9960**	**483.4**	**372.8**
Stddev	.0020	.0065	.009	.0064	.0065	.0028	.0051	4.2	2.4
%RSD	.4112	.6999	.8302	.6834	.6934	.2892	.5132	.8627	.6550
#1	.4835	.9185	1.018	.9330	.9395	.9562	.9923	486.4	374.5
#2	.4807	.9277	1.030	.9421	.9487	.9601	.9996	480.5	371.0
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	**190.5**	**480.6**	**.1237**	**.0087**	**.4912**	**.4715**	**.4908**	**.4545**	**.4830**
Stddev	.5	2.5	.0303	.0013	.0038	.0030	.0048	.0028	.0018
%RSD	.2675	.5207	24.53	14.80	.7645	.6382	.9736	.6173	.3644
#1	190.2	478.8	.1023	.0078	.4886	.4693	.4874	.4525	.4817
#2	190.9	482.4	.1452	.0096	.4939	.4736	.4942	.4565	.4842
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: 5/22/2018 12:14:45 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4825**	**.4768**	**.4716**	**.4794**	**.4928**	**.4991**	**.4836**
Stddev	.0001	.0002	.0006	.0018	.0049	.0017	.0024
%RSD	.0137	.0404	.1243	.3786	.9989	.3423	.4900
#1	.4825	.4767	.4712	.4807	.4893	.4979	.4819
#2	.4825	.4770	.4720	.4781	.4963	.5003	.4853
Check ?	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	**144810.**	**23393.**	**6104.8**	**9070.6**
Stddev	725.	54.	15.2	21.6
%RSD	.50033	.23281	.24876	.23804
#1	144300.	23432.	6094.0	9055.3
#2	145330.	23355.	6115.5	9085.9

Zoom In Zoom Out

Sample Name: HSTD 2 Acquired: 5/22/2018 12:17:46 Type: QC
Method: Accutest XPress(v328) 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	**5.139**	**5.034**	**5.052**	**5.100**	**5.036**	**5.044**	**5.026**	**5.144**	**.6286**
Stddev	.013	.031	.059	.057	.019	.025	.105	.059	.0059
%RSD	.2531	.6101	1.162	1.109	.3769	.5007	2.087	1.141	.9448
#1	5.130	5.012	5.010	5.060	5.022	5.026	4.952	5.102	.6244
#2	5.149	5.055	5.093	5.140	5.049	5.062	5.100	5.185	.6328
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	**4.978**	**5.191**	**5.023**	**5.109**	**5.167**	**5.038**	**5.089**	**-.0196**	**-.1119**
Stddev	.023	.056	.062	.060	.063	.070	.063	.0136	.0050
%RSD	.4630	1.085	1.240	1.185	1.227	1.385	1.238	69.29	4.429
#1	4.962	5.151	4.979	5.066	5.122	4.988	5.044	-.0100	-.1084
#2	4.995	5.231	5.067	5.152	5.212	5.087	5.133	-.0292	-.1154
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	**-.0103**	**.0738**	**.2482**	**.0389**	**5.041**	**5.105**	**25.07**	**5.170**	**5.030**
Stddev	.0026	.0107	.0485	.0127	.060	.059	.33	.055	.149
%RSD	25.46	14.57	19.54	32.61	1.197	1.148	1.333	1.056	2.958
#1	-.0084	.0814	.2139	.0300	4.998	5.064	24.83	5.132	4.925
#2	-.0121	.0662	.2825	.0479	5.083	5.147	25.30	5.209	5.136
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD 2 Acquired: 5/22/2018 12:17:46 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.054**	**5.160**	**4.939**	**50.31**	**5.182**	**5.233**	**4.991**
Stddev	.025	.068	.010	.56	.069	.030	.058
%RSD	.4883	1.315	.2039	1.112	1.339	.5705	1.159
#1	5.037	5.112	4.946	49.91	5.133	5.212	4.950
#2	5.072	5.208	4.932	50.70	5.231	5.254	5.032
Check ?	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	**156180.**	**23426.**	**6391.2**	**9936.8**
Stddev	184.	87.	11.3	17.6
%RSD	.11812	.37039	.17738	.17714
#1	156310.	23488.	6399.2	9949.3
#2	156050.	23365.	6383.2	9924.4

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 5/22/2018 12:20:51 Type: Unk
Method: Accutest XPress(v328) 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
Avg	*****	*****	**.0995**	**.1241**	*****	*****	*****	**.1261**	**.0619**
Stddev	-----	-----	.1382	.1726	-----	-----	-----	.1749	.0860
%RSD	-----	-----	138.8	139.1	-----	-----	-----	138.7	138.9
#1	.0227	.0224	.0018	.0020	.0036	-.0054	.0032	.0024	.0011
#2	-----	-----	.1973	.2461	-----	-----	-----	.2497	.1227

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	*****	**.1078**	**.0987**	**.1164**	**.1239**	**.0986**	**.0971**	**.0614**	**.0004**
Stddev	-----	.1491	.1342	.1615	.1723	.1316	.1341	.0693	.0123
%RSD	-----	138.4	136.0	138.7	139.0	133.5	138.1	112.9	3030.
#1	.0028	.0023	.0038	.0022	.0021	.0055	.0023	.0124	-.0083
#2	-----	.2132	.1936	.2306	.2457	.1917	.1920	.1104	.0091

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0033**	**.0191**	**.0321**	**.0147**	**.1061**	**.1016**	**.5175**	**.1031**	*****
Stddev	.0005	.0175	.0314	.0032	.1404	.1401	.6964	.1438	-----
%RSD	14.82	91.62	97.63	21.76	132.3	138.0	134.6	139.6	-----
#1	.0030	.0314	.0543	.0169	.0068	.0025	.0251	.0014	.0236
#2	.0037	.0067	.0099	.0124	.2054	.2006	1.010	.2048	-----

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	*****	**.1002**	*****	**.9648**	**.0916**	*****	**.0895**
Stddev	-----	.1388	-----	1.299	.1273	-----	.1294
%RSD	-----	138.5	-----	134.7	139.0	-----	144.6
#1	.0034	.0021	.0035	.0460	.0016	.0252	-.0020
#2	-----	.1984	-----	1.884	.1815	-----	.1810

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**300350.**	**33863.**	*****	*****
Stddev	25029.	6556.	-----	-----
%RSD	8.3333	19.362	-----	-----
#1	318050.	38499.	11841.	18031.
#2	282650.	29227.	-----	-----

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/22/2018 12:23:50 Type: QC
Method: Accutest XPress(v328) 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	**.0006**	**.0001**	**.0000**	**.0002**	**.0003**	**-.0006**	**-.0002**	**.0003**	**-.0001**
Stddev	.0002	.0000	.0001	.0002	.0001	.0002	.0001	.0003	.0007
%RSD	31.46	39.22	282.1	96.23	51.29	30.31	74.33	103.9	578.9
#1	.0005	.0000	.0001	.0001	.0004	-.0005	-.0001	.0001	.0004
#2	.0007	.0001	-.0000	.0004	.0002	-.0007	-.0003	.0005	-.0006
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	**.0023**	**.0027**	**.0022**	**.0031**	**-.0004**	**.0031**	**.0018**	**306.4**	**149.3**
Stddev	.0004	.0001	.0015	.0005	.0014	.0018	.0006	2.6	1.1
%RSD	19.43	2.650	67.37	17.02	347.1	59.28	31.46	.8331	.7521
#1	.0020	.0026	.0033	.0027	.0006	.0018	.0014	308.2	150.1
#2	.0026	.0027	.0012	.0035	-.0014	.0044	.0023	304.6	148.5
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	**149.2**	**306.5**	**152.3**	**153.4**	**.0053**	**.0002**	**.0109**	**-.0032**	**-.0010**
Stddev	1.3	2.4	.3	.6	.0001	.0005	.0034	.0009	.0000
%RSD	.8519	.7673	.1713	.4155	1.306	199.2	31.43	27.24	2.640
#1	150.1	308.1	152.5	153.9	.0053	-.0001	.0133	-.0026	-.0010
#2	148.3	304.8	152.1	153.0	.0054	.0006	.0085	-.0038	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/22/2018 12:23:50 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0030**	**-.0019**	**-.0116**	**.0046**	**.0054**	**.0021**
Stddev	.0001	.0008	.0002	.0053	.0006	.0037	.0002
%RSD	8.796	27.53	8.772	45.38	12.20	68.59	8.312
#1	-.0010	.0024	-.0018	-.0079	.0042	.0028	.0022
#2	-.0008	.0036	-.0020	-.0153	.0050	.0081	.0019
Check ?	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	**142440.**	**22855.**	**6024.6**	**8859.7**
Stddev	363.	186.	3.0	6.8
%RSD	.25511	.81222	.05036	.07674
#1	142690.	22724.	6022.5	8854.9
#2	142180.	22986.	6026.8	8864.5

Zoom In Zoom Out

Sample Name: FECONF Acquired: 5/22/2018 12:26:48 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.0002**	**.0000**	**-.0006**	**.0003**	**-.0001**	**-.0010**	**.0020**	**.0002**	**-.0001**
Stddev	.0004	.0000	.0001	.0000	.0003	.0008	.0003	.0001	.0011
%RSD	207.4	18.28	18.85	10.09	285.0	82.89	12.70	35.73	726.0
#1	.0005	.0000	-.0006	.0003	.0001	-.0016	.0018	.0003	-.0009
#2	-.0001	.0000	-.0005	.0004	-.0003	-.0004	.0022	.0002	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0024**	**.0022**	**.0004**	**.0020**	**.0012**	**.0056**	**.0036**	**.0089**	**.1063**
Stddev	.0002	.0002	.0001	.0001	.0002	.0032	.0005	.0146	.0001
%RSD	8.789	7.450	20.88	4.892	20.05	57.32	13.36	164.5	.1181
#1	.0022	.0020	.0004	.0020	.0010	.0078	.0033	-.0014	.1062
#2	.0025	.0023	.0003	.0021	.0014	.0033	.0040	.0192	.1064

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**222.9**	**.0521**	**.0089**	**.0760**	**.0016**	**.0001**	**.0010**	**.0008**	**.0004**
Stddev	3.4	.0430	.0144	.0048	.0009	.0000	.0007	.0003	.0000
%RSD	1.519	82.45	162.7	6.293	56.24	31.47	74.97	44.73	4.031
#1	220.5	.0825	.0190	.0726	.0010	.0001	.0005	.0010	.0004
#2	225.3	.0217	-.0013	.0794	.0022	.0001	.0015	.0005	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0000**	**.0008**	**-.0026**	**.0188**	**.0142**	**.0014**	**-.0098**
Stddev	.0004	.0011	.0003	.0023	.0004	.0006	.0001
%RSD	14050.	128.4	13.42	12.04	2.683	39.93	1.235
#1	-.0003	.0001	-.0028	.0172	.0140	.0018	-.0099
#2	.0003	.0016	-.0023	.0205	.0145	.0010	-.0097

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**152270.**	**23158.**	**6338.7**	**9951.4**
Stddev	166.	37.	25.2	39.7
%RSD	.10885	.15864	.39819	.39867
#1	152380.	23132.	6356.5	9979.4
#2	152150.	23184.	6320.8	9923.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/22/2018 12:29:52 Type: QC
Method: Accutest XPress(v328) 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	**2.016**	**1.996**	**1.978**	**2.010**	**2.000**	**1.968**	**2.039**	**2.022**	**.2476**
Stddev	.018	.015	.018	.016	.000	.006	.000	.019	.0000
%RSD	.9072	.7477	.9357	.7906	.0186	.2902	.0126	.9428	.0132
#1	2.029	2.007	1.965	1.999	2.000	1.964	2.039	2.009	.2477
#2	2.003	1.986	1.992	2.022	2.000	1.972	2.039	2.036	.2476
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	**1.989**	**2.004**	**1.993**	**2.020**	**2.023**	**1.988**	**1.996**	**39.80**	**40.27**
Stddev	.000	.015	.022	.024	.019	.025	.017	.28	.31
%RSD	.0058	.7555	1.095	1.201	.9457	1.269	.8484	.7050	.7586
#1	1.989	1.993	1.978	2.003	2.010	1.970	1.984	40.00	40.49
#2	1.989	2.015	2.009	2.037	2.037	2.006	2.008	39.60	40.05
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	**40.21**	**40.51**	**39.57**	**40.45**	**1.997**	**2.009**	**5.012**	**2.012**	**2.011**
Stddev	.32	.33	.24	.27	.021	.017	.052	.017	.017
%RSD	.8018	.8076	.6011	.6669	1.033	.8453	1.032	.8373	.8221
#1	40.44	40.74	39.74	40.64	1.983	1.997	4.975	2.001	2.022
#2	39.98	40.28	39.40	40.26	2.012	2.021	5.049	2.024	1.999
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: 5/22/2018 12:29:52 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.013**	**1.992**	**2.002**	**1.963**	**2.015**	**2.019**	**1.982**
Stddev	.001	.025	.002	.023	.020	.011	.013
%RSD	.0325	1.235	.0740	1.158	1.001	.5207	.6488
#1	2.013	1.975	2.003	1.947	2.001	2.027	1.973
#2	2.012	2.010	2.001	1.979	2.029	2.012	1.991
Check ?	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	**150250.**	**23122.**	**6279.1**	**9456.9**
Stddev	691.	182.	17.1	19.9
%RSD	.45988	.78654	.27166	.20993
#1	149760.	22993.	6267.0	9442.8
#2	150740.	23250.	6291.2	9470.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/22/2018 12:32:41 Type: QC
Method: Accutest XPress(v328) 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**	**.0002**	**-.0001**	**.0001**	**.0001**	**.0003**	**.0002**
Stddev	.0001	.0001	.0001	.0002	.0001	.0005	.0000	.0001	.0003
%RSD	43.97	765.1	222.5	88.90	243.1	937.9	48.58	28.10	193.8
#1	-.0002	-.0001	-.0000	.0001	.0000	-.0003	.0000	.0002	.0004
#2	-.0001	.0001	.0001	.0003	-.0001	.0004	.0001	.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0000**	**.0008**	**.0001**	**-.0001**	**-.0009**	**-.0004**	**.0193**	**.0031**
Stddev	.0001	.0001	.0018	.0007	.0005	.0013	.0001	.0259	.0003
%RSD	72.59	330.0	224.3	637.9	310.0	154.6	34.36	133.9	11.13
#1	.0001	-.0001	-.0005	.0006	.0002	.0001	-.0003	.0376	.0029
#2	.0003	.0000	.0021	-.0004	-.0005	-.0018	-.0005	.0010	.0034
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	**.0062**	**.0393**	**-.0335**	**-.0127**	**.0038**	**.0003**	**-.0001**	**-.0006**	**.0001**	
Stddev	.0035	.0149	.0455	.0097	.0001	.0001	.0003	.0006	.0001
%RSD	56.35	37.92	136.0	75.90	2.691	30.19	240.1	94.76	84.90
#1	.0087	.0288	-.0657	-.0059	.0039	.0002	-.0004	-.0011	.0000
#2	.0037	.0498	-.0013	-.0196	.0037	.0003	.0001	-.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: 5/22/2018 12:32:41 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0003**	**.0001**	**-.0012**	**-.0012**	F **.0044**	**.0018**
Stddev	.0003	.0009	.0003	.0003	.0001	.0000	.0018
%RSD	382.9	312.1	232.6	23.88	4.423	.6657	104.1
#1	.0003	-.0009	.0003	-.0010	-.0011	.0044	.0031
#2	-.0001	.0004	-.0001	-.0014	-.0012	.0043	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155560.**	**23390.**	**6412.1**	**9895.1**
Stddev	354.	49.	19.5	22.9
%RSD	.22745	.20863	.30435	.23183
#1	155310.	23424.	6398.3	9878.9
#2	155810.	23355.	6425.9	9911.3

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 5/22/2018 12:35:44 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.0000**	**.0001**	**.0001**	**-.0004**	F **11.22**	**-.0004**	**-.0013**	**.0003**	**-.0010**
Stddev	.0001	.0000	.0003	.0002	.00	.0008	.0000	.0000	.0006
%RSD	371.6	5.116	417.9	37.16	.0010	192.5	2.784	2.657	59.24
#1	-.0000	.0001	.0002	-.0006	11.22	-.0010	-.0014	.0003	-.0013
#2	.0001	.0001	-.0001	-.0003	11.22	.0002	-.0013	.0003	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0069**	**.0023**	**.0004**	**-.0015**	**-.0010**	**.0014**	**.0002**	**.0113**	**.0174**
Stddev	.0003	.0002	.0005	.0001	.0000	.0010	.0039	.0048	.0001
%RSD	4.495	6.846	126.8	3.733	2.004	67.56	1992.	42.28	.6741
#1	.0071	.0024	.0000	-.0015	-.0010	.0021	-.0025	.0146	.0175
#2	.0067	.0022	.0007	-.0015	-.0010	.0008	.0029	.0079	.0173

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**-.0103**	**.0212**	**-.0271**	**.0097**	**.0010**	**.0002**	**.0064**	**.0049**	**.0003**
Stddev	.0021	.0004	.0131	.0068	.0011	.0003	.0011	.0010	.0000
%RSD	20.40	1.757	48.22	69.49	113.7	164.5	17.38	19.39	17.11
#1	-.0088	.0215	-.0178	.0049	.0002	-.0000	.0056	.0042	.0002
#2	-.0118	.0209	-.0363	.0145	.0018	.0004	.0071	.0056	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0031**	**.0056**	**.0024**	**.0012**	**.0161**	**.0022**	**.0004**
Stddev	.0003	.0004	.0001	.0019	.0030	.0012	.0000
%RSD	9.579	7.341	3.594	159.9	18.36	53.65	8.492
#1	-.0028	.0058	.0024	-.0002	.0140	.0014	.0005
#2	-.0033	.0053	.0025	.0026	.0182	.0030	.0004

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156230.**	**23610.**	**6325.0**	**9924.7**
Stddev	459.	102.	12.3	13.6
%RSD	.29402	.43401	.19462	.13667
#1	155900.	23683.	6316.3	9915.1
#2	156550.	23538.	6333.7	9934.3

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 5/22/2018 12:38:47 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0000**	**.0001**	**.0002**	**.0001**	**.0005**	**-.0005**	**.0001**	**-.0001**
Stddev	.0002	.0000	.0004	.0001	.0000	.0002	.0000	.0001
%RSD	2196.	1.550	175.4	106.1	1.545	36.24	23.53	90.09
#1	-.0001	.0001	-.0001	.0002	.0005	-.0006	.0001	-.0000
#2	.0001	.0001	.0005	.0000	.0005	-.0004	.0001	-.0002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0006**	**-.0002**	**.0001**	**5.067**	F **-.0021**	**-.0012**	**.0002**	**-.0004**
Stddev	.0006	.0003	.0001	.053	.0021	.0011	.0012	.0018
%RSD	98.64	102.2	142.8	1.040	98.38	93.27	687.3	445.3
#1	-.0002	-.0001	-.0000	5.029	-.0036	-.0004	-.0007	.0009
#2	-.0011	-.0004	.0002	5.104	-.0007	-.0019	.0010	-.0017

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**-.0004**	**-.0388**	**.0044**	**.0324**	**-.0261**	**-.0087**	**.0000**	**-.0002**
Stddev	.0037	.0026	.0011	.0071	.0901	.0054	.0001	.0002
%RSD	1044.	6.603	25.45	21.91	345.1	62.61	568.3	86.44
#1	.0022	-.0370	.0036	.0374	-.0898	-.0048	-.0000	-.0001
#2	-.0029	-.0407	.0052	.0274	.0376	-.0125	.0001	-.0003

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**-.0014**	**-.0016**	**.0001**	**.0003**	**.0009**	**.0001**	**.0037**	**-.0007**
Stddev	.0002	.0001	.0002	.0001	.0002	.0000	.0018	.0009
%RSD	13.81	3.893	182.3	27.40	25.17	30.36	48.14	122.2
#1	-.0015	-.0016	.0003	.0004	.0011	.0001	.0050	-.0001
#2	-.0012	-.0015	-.0000	.0002	.0007	.0001	.0025	-.0013

Elem	Li6707	P_1774
Avg	**.0013**	**.0008**
Stddev	.0017	.0001
%RSD	136.4	13.51
#1	.0000	.0007
#2	.0025	.0008

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 5/22/2018 12:38:47 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157120.**	**23585.**	**6494.7**	**10007.**
Stddev	769.	.	15.8	12.
%RSD	.48913	.00108	.24353	.11679
#1	157670.	23585.	6505.9	10016.
#2	156580.	23585.	6483.5	9999.0

Zoom In Zoom Out

Sample Name: mp7232-mb1conf Acquired: 5/22/2018 12:41:47 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**-.0001**	**-.0000**	**-.0001**	**-.0001**	**-.0000**	**-.0000**	**.0001**	**.0003**	**-.0001**
Stddev	.0004	.0000	.0002	.0002	.0001	.0000	.0000	.0003	.0003
%RSD	564.1	41.16	225.0	339.3	632.1	12990.	56.24	108.3	354.3
#1	-.0004	-.0000	-.0002	.0001	.0001	-.0000	.0001	.0005	-.0003
#2	.0002	-.0000	.0001	-.0002	-.0001	.0000	.0000	.0001	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**-.0001**	**.0000**	**.0004**	**-.0008**	**.0001**	**.0019**	**.0007**	**.0003**	**.0067**
Stddev	.0000	.0000	.0009	.0015	.0010	.0008	.0015	.0016	.0013
%RSD	14.12	99.50	198.2	187.2	716.1	42.79	208.3	533.6	20.05
#1	-.0001	.0000	-.0002	.0003	-.0006	.0025	-.0003	-.0008	.0076
#2	-.0000	.0001	.0011	-.0019	.0009	.0014	.0017	.0014	.0057

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0027**	**.0222**	**-.0505**	**.0137**	**-.0011**	**-.0003**	**.0105**	**-.0006**	**.0000**
Stddev	.0008	.0635	.0255	.0033	.0005	.0000	.0016	.0004	.0000
%RSD	29.83	285.9	50.42	23.76	41.13	2.646	15.63	71.22	98.17
#1	.0033	.0671	-.0325	.0114	-.0008	-.0003	.0116	-.0008	.0001
#2	.0021	-.0227	-.0685	.0160	-.0014	-.0003	.0093	-.0003	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0000**	**.0019**	**.0004**	**.0070**	**.0012**	**.0024**	**.0029**
Stddev	.0003	.0005	.0000	.0036	.0011	.0018	.0002
%RSD	755.8	28.58	.6164	51.02	92.22	73.47	6.508
#1	-.0002	.0023	.0004	.0045	.0020	.0037	.0031
#2	.0002	.0015	.0004	.0095	.0004	.0012	.0028

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159420.**	**24059.**	**6558.9**	**10078.**
Stddev	314.	131.	17.6	23.
%RSD	.19717	.54653	.26859	.22537
#1	159200.	24152.	6546.5	10062.
#2	159650.	23966.	6571.4	10094.

Zoom In Zoom Out

Sample Name: mp7232-b1conf Acquired: 5/22/2018 12:44:47 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**2.019**	**1.987**	**1.989**	**2.032**	**1.995**	**1.982**	**2.044**	**2.042**	**.2402**
Stddev	.000	.001	.016	.020	.008	.006	.006	.021	.0004
%RSD	.0163	.0570	.8127	.9941	.3895	.2810	.2820	1.024	.1667
#1	2.019	1.988	1.978	2.018	2.000	1.986	2.048	2.028	.2405
#2	2.018	1.987	2.001	2.046	1.989	1.978	2.040	2.057	.2400

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**1.992**	**2.013**	**2.018**	**2.024**	**2.040**	**1.997**	**2.039**	**24.16**	**24.42**
Stddev	.006	.019	.020	.026	.020	.021	.019	.03	.04
%RSD	.3277	.9658	.9841	1.273	.9800	1.050	.9395	.1156	.1624
#1	1.997	1.999	2.004	2.006	2.026	1.982	2.026	24.14	24.44
#2	1.988	2.027	2.032	2.043	2.054	2.012	2.053	24.18	24.39

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**24.52**	**24.79**	**23.88**	**24.68**	**2.000**	**2.052**	**-.0459**	**2.054**	**2.003**
Stddev	.05	.02	.11	.06	.023	.018	.0004	.017	.001
%RSD	.1949	.0918	.4567	.2386	1.172	.8971	.8819	.8288	.0680
#1	24.56	24.81	23.81	24.64	1.983	2.039	-.0456	2.042	2.004
#2	24.49	24.77	23.96	24.73	2.016	2.065	-.0462	2.066	2.002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.034**	**1.988**	**2.027**	**.0159**	**.0224**	**.0010**	**1.984**
Stddev	.006	.014	.008	.0011	.0003	.0018	.021
%RSD	.3142	.6999	.3844	6.626	1.322	182.4	1.067
#1	2.039	1.978	2.032	.0167	.0226	.0023	1.969
#2	2.029	1.998	2.021	.0152	.0222	-.0003	1.999

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155520.**	**24009.**	**6425.3**	**9709.6**
Stddev	701.	112.	7.3	2.3
%RSD	.45053	.46776	.11317	.02329
#1	155020.	23930.	6420.2	9711.2
#2	156020.	24089.	6430.5	9708.0

Zoom In Zoom Out

Sample Name: jc66378-2f Acquired: 5/22/2018 12:47:36 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.0013**	**-.0000**	**-.0001**	**-.0001**	**.0003**	**.0006**	**.0028**	**.0008**	**.0001**
Stddev	.0004	.0001	.0003	.0001	.0002	.0003	.0001	.0002	.0005
%RSD	31.54	263.9	540.9	130.4	71.10	47.77	2.367	27.02	605.0
#1	.0016	.0000	.0002	-.0000	.0005	.0004	.0027	.0010	-.0002
#2	.0010	-.0001	-.0003	-.0002	.0002	.0009	.0028	.0007	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0001**	**.0010**	**-.0006**	**-.0007**	**-.0010**	**.0045**	**.0007**	**-.0085**	**1.184**
Stddev	.0002	.0001	.0012	.0008	.0000	.0007	.0011	.0061	.001
%RSD	249.0	7.257	182.3	121.3	2.330	15.64	158.7	71.41	.0629
#1	-.0001	.0010	.0002	-.0012	-.0010	.0049	-.0001	-.0042	1.184
#2	.0002	.0011	-.0015	-.0001	-.0011	.0040	.0015	-.0129	1.185

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0055**	**1.014**	**1.090**	**1.069**	**.0033**	**.0001**	**.3473**	**-.0006**	**.0099**
Stddev	.0026	.012	.014	.007	.0005	.0000	.0062	.0006	.0001
%RSD	47.27	1.168	1.245	.6837	13.94	3.198	1.780	89.57	.7082
#1	.0037	1.023	1.081	1.074	.0036	.0001	.3429	-.0002	.0099
#2	.0074	1.006	1.100	1.064	.0030	.0001	.3517	-.0010	.0098

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0013**	**.0004**	**.0679**	**-.0019**	**.0026**	**.0228**
Stddev	.0003	.0006	.0001	.0002	.0021	.0038	.0001
%RSD	581.6	46.11	28.46	.2274	111.1	143.8	.3354
#1	.0003	.0018	.0004	.0680	-.0034	-.0000	.0228
#2	-.0002	.0009	.0003	.0678	-.0004	.0053	.0229

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158930.**	**23940.**	**6544.5**	**10051.**
Stddev	990.	97.	4.0	18.
%RSD	.62266	.40578	.06070	.18049
#1	159630.	23872.	6541.6	10038.
#2	158230.	24009.	6547.3	10064.

Zoom In Zoom Out

Sample Name: jc66378-7f Acquired: 5/22/2018 12:50:37 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.0259**	**-.0000**	**-.0001**	**.0004**	**.0007**	**.0005**	**.4772**	**.0047**	**-.0004**
Stddev	.0004	.0000	.0000	.0001	.0002	.0004	.0059	.0003	.0006
%RSD	1.670	146.2	28.25	18.20	28.66	70.64	1.242	7.341	129.8
#1	.0262	-.0000	-.0001	.0005	.0009	.0003	.4814	.0044	-.0008
#2	.0256	.0000	-.0002	.0004	.0006	.0008	.4730	.0049	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0003**	**.0021**	**.0007**	**-.0008**	**-.0012**	**.0022**	**-.0007**	**.0598**	**25.82**
Stddev	.0000	.0001	.0005	.0005	.0002	.0017	.0000	.0070	.01
%RSD	10.19	3.636	69.51	63.00	17.02	76.26	1.538	11.78	.0364
#1	.0003	.0022	.0004	-.0012	-.0010	.0010	-.0007	.0648	25.82
#2	.0003	.0021	.0010	-.0005	-.0013	.0034	-.0007	.0548	25.81

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0295**	**3.976**	**2.580**	**8.561**	**.0193**	**.0071**	**2.268**	**-.0019**	**.0898**
Stddev	.0034	.013	.062	.037	.0001	.0002	.008	.0007	.0005
%RSD	11.57	.3281	2.397	.4304	.3921	3.481	.3676	38.84	.6057
#1	.0319	3.967	2.536	8.535	.0193	.0070	2.262	-.0014	.0895
#2	.0271	3.985	2.624	8.587	.0194	.0073	2.274	-.0024	.0902

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0001**	**.0047**	**-.0005**	**9.660**	**-.0019**	**.0037**	**.0166**
Stddev	.0003	.0002	.0000	.053	.0024	.0001	.0007
%RSD	543.7	3.714	5.509	.5534	123.8	2.387	4.292
#1	.0003	.0048	-.0005	9.622	-.0002	.0038	.0161
#2	-.0002	.0046	-.0004	9.697	-.0036	.0037	.0171

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157230.**	**23966.**	**6494.4**	**9942.6**
Stddev	1429.	84.	36.0	45.9
%RSD	.90883	.34986	.55388	.46119
#1	156220.	24025.	6469.0	9910.1
#2	158240.	23906.	6519.9	9975.0

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 5/22/2018 12:53:39 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.0040**	**.0011**	**.0008**	**.0035**	**.0022**	**.0001**	**.0034**	**.0043**	**-.0004**
Stddev	.0000	.0000	.0002	.0003	.0000	.0002	.0000	.0004	.0000
%RSD	.2758	1.530	22.60	7.792	2.043	269.2	.3552	9.368	10.90
#1	.0040	.0011	.0007	.0033	.0022	.0002	.0033	.0040	-.0004
#2	.0040	.0011	.0009	.0037	.0023	-.0001	.0034	.0046	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0022**	**.0108**	**.0021**	**.0020**	**-.0010**	**.0062**	**.0025**	**.1195**	**1.081**
Stddev	.0000	.0001	.0011	.0003	.0019	.0025	.0014	.0124	.011
%RSD	1.293	1.189	53.23	16.70	201.2	39.27	57.32	10.37	1.020
#1	.0022	.0107	.0013	.0018	.0004	.0080	.0015	.1283	1.073
#2	.0022	.0109	.0029	.0022	-.0023	.0045	.0035	.1108	1.088

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.0025**	**.1442**	**2.065**	**1.090**	**-.0008**	**.0000**	**.0086**	**-.0004**	**.0001**
Stddev	.0020	.0005	.063	.018	.0012	.0002	.0007	.0002	.0000
%RSD	78.16	.3398	3.026	1.653	146.1	732.0	8.296	38.42	27.73
#1	.0011	.1438	2.021	1.078	-.0016	.0002	.0091	-.0005	.0001
#2	.0039	.1445	2.109	1.103	.0000	-.0001	.0081	-.0003	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**-.0001**	**.0013**	**.0002**	**.0028**	**.0004**	**.0004**	**.0020**
Stddev	.0005	.0003	.0000	.0006	.0010	.0006	.0009
%RSD	480.5	18.89	25.82	20.16	239.9	151.0	46.37
#1	-.0005	.0012	.0001	.0024	.0012	-.0000	.0013
#2	.0003	.0015	.0002	.0032	-.0003	.0008	.0027

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155750.**	**23519.**	**6459.3**	**9943.6**
Stddev	187.	155.	16.2	28.0
%RSD	.11994	.65967	.25124	.28139
#1	155620.	23629.	6447.9	9923.8
#2	155880.	23410.	6470.8	9963.4

Zoom In Zoom Out

Sample Name: sampleconf Acquired: 5/22/2018 12:56:41 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.2045**	**.0020**	**.0029**	**.0515**	**.0101**	**.0096**	**.0164**	**.0105**	**.0033**
Stddev	.0006	.0000	.0003	.0004	.0002	.0000	.0001	.0007	.0004
%RSD	.3074	1.046	9.311	.8664	1.518	.1432	.8452	6.243	13.82
#1	.2041	.0020	.0031	.0512	.0102	.0096	.0163	.0101	.0029
#2	.2050	.0020	.0027	.0518	.0100	.0096	.0165	.0110	.0036

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0509**	**.0210**	**.0079**	**.0080**	**.0021**	**.0128**	**.0053**	**.2038**	**5.139**
Stddev	.0004	.0003	.0007	.0012	.0014	.0003	.0001	.0004	.002
%RSD	.7201	1.462	8.318	14.35	65.98	2.246	1.799	.1768	.0309
#1	.0507	.0208	.0074	.0088	.0011	.0126	.0052	.2035	5.140
#2	.0512	.0212	.0083	.0072	.0031	.0130	.0054	.2040	5.137

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**.1058**	**5.283**	**5.007**	**5.212**	**.0998**	**.0206**	**.2102**	**.0092**	**.0101**
Stddev	.0001	.004	.052	.022	.0010	.0003	.0039	.0008	.0000
%RSD	.1152	.0813	1.047	.4322	.9658	1.313	1.834	8.268	.1629
#1	.1057	5.286	5.044	5.196	.0991	.0204	.2075	.0087	.0101
#2	.1059	5.280	4.970	5.228	.1004	.0208	.2130	.0098	.0101

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.0104**	**.0499**	**.0111**	**.0541**	**.0233**	**.0560**	**.0520**
Stddev	.0004	.0006	.0001	.0022	.0029	.0019	.0007
%RSD	3.849	1.180	.8411	4.126	12.35	3.387	1.267
#1	.0101	.0503	.0111	.0525	.0213	.0547	.0525
#2	.0107	.0495	.0112	.0557	.0253	.0574	.0516

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155430.**	**23625.**	**6460.3**	**9901.5**
Stddev	562.	120.	7.7	6.5
%RSD	.36132	.50725	.11875	.06524
#1	155820.	23709.	6465.8	9906.1
#2	155030.	23540.	6454.9	9897.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 12:59:43 Type: QC
Method: Accutest XPress(v328) 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**	**1.986**	**1.980**	**2.017**	**1.994**	**1.969**	**2.041**	**2.032**	**.2494**
Stddev	.009	.008	.020	.021	.022	.024	.022	.023	.0027
%RSD	.4606	.4088	.9904	1.048	1.125	1.208	1.091	1.121	1.097
#1	2.008	1.980	1.966	2.002	1.978	1.952	2.025	2.016	.2475
#2	2.021	1.991	1.993	2.032	2.010	1.986	2.057	2.048	.2513
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	**1.987**	**2.002**	**1.999**	**2.021**	**2.029**	**1.996**	**2.006**	**39.55**	**40.08**
Stddev	.025	.019	.016	.021	.023	.021	.019	.14	.20
%RSD	1.241	.9405	.8177	1.042	1.120	1.066	.9587	.3502	.4874
#1	1.970	1.988	1.987	2.006	2.013	1.981	1.992	39.45	39.95
#2	2.005	2.015	2.010	2.036	2.046	2.011	2.019	39.64	40.22
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	**39.97**	**40.32**	**39.78**	**40.55**	**2.005**	**2.014**	**5.021**	**2.007**	**2.007**
Stddev	.19	.31	.37	.25	.018	.018	.050	.020	.009
%RSD	.4833	.7769	.9312	.6121	.8926	.8844	.9937	.9710	.4658
#1	39.84	40.10	39.52	40.37	1.992	2.001	4.986	1.993	2.000
#2	40.11	40.55	40.04	40.72	2.018	2.026	5.057	2.021	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: 5/22/2018 12:59:43 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.010**	**1.999**	**2.001**	**1.966**	**2.024**	**2.017**	**1.997**
Stddev	.024	.020	.024	.020	.017	.009	.017
%RSD	1.203	1.018	1.206	1.030	.8504	.4463	.8579
#1	1.993	1.984	1.984	1.952	2.011	2.011	1.985
#2	2.027	2.013	2.018	1.980	2.036	2.024	2.009
Check ?	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	**151150.**	**23399.**	**6333.1**	**9513.3**
Stddev	627.	38.	6.7	23.0
%RSD	.41456	.16062	.10550	.24154
#1	151590.	23426.	6337.8	9529.6
#2	150700.	23373.	6328.3	9497.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 13:02:33 Type: QC
Method: Accutest XPress(v328) 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**	**-.0000**	**.0005**	**-.0004**	**.0001**	**.0008**	**-.0004**
Stddev	.0002	.0001	.0002	.0001	.0000	.0005	.0001	.0000	.0002
%RSD	223.3	76.65	902.5	866.5	3.211	126.0	60.82	1.313	50.80
#1	.0001	.0000	.0002	-.0001	.0005	-.0008	.0001	.0008	-.0005
#2	-.0002	.0001	-.0001	.0001	.0005	-.0000	.0001	.0008	-.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	**.0003**	**-.0002**	**.0008**	**-.0005**	**-.0012**	**.0003**	**.0003**	**-.0048**	**.0026**
Stddev	.0004	.0000	.0002	.0006	.0025	.0028	.0016	.0059	.0008
%RSD	163.9	4.414	32.93	114.9	216.2	823.8	486.7	124.2	31.01
#1	-.0000	-.0002	.0006	-.0010	.0006	.0023	.0015	-.0090	.0020
#2	.0006	-.0002	.0009	-.0001	-.0030	-.0016	-.0008	-.0006	.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	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**.0158**	**-.0395**	**-.0124**	**.0006**	**.0002**	**-.0022**	**-.0003**	**-.0000**
Stddev	.0038	.0074	.0437	.0005	.0013	.0001	.0021	.0002	.0000
%RSD	102.1	46.71	110.5	4.087	213.4	52.50	93.42	52.88	199.8
#1	.0010	.0106	-.0704	-.0121	.0015	.0002	-.0008	-.0004	-.0000
#2	.0064	.0210	-.0087	-.0128	-.0003	.0001	-.0037	-.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: ccb Acquired: 5/22/2018 13:02:33 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0002**	**.0029**	**-.0008**	**.0018**	**.0030**
Stddev	.0002	.0002	.0002	.0022	.0017	.0008	.0000
%RSD	153.8	6774.	76.27	75.33	206.5	45.18	.3432
#1	.0000	-.0002	.0001	.0044	.0004	.0024	.0030
#2	-.0003	.0002	.0003	.0014	-.0021	.0013	.0030
Check ?	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	**158180.**	**23688.**	**6501.6**	**9999.0**
Stddev	791.	79.	9.1	20.8
%RSD	.50035	.33281	.13963	.20843
#1	158740.	23744.	6495.1	9984.3
#2	157620.	23632.	6508.0	10014.

Zoom In Zoom Out

Sample Name: mp7239-s1 Acquired: 5/22/2018 13:05:36 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**2.067**	**2.225**	**2.303**	**2.008**	**3.447**	**5.335**	F **21.56**	**3.124**	*****
Stddev	.008	.004	.024	.018	.021	.049	.08	.026	-----
%RSD	.3989	.1770	1.043	.9047	.6059	.9185	.3706	.8327	-----
#1	2.061	2.228	2.286	1.995	3.432	5.301	21.50	3.106	-----
#2	2.073	2.222	2.320	2.021	3.462	5.370	21.62	3.142	-----

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.582**	**5.746**	**2.725**	**1.893**	**5.637**	**2.315**	**2.269**	**33.44**	**75.43**
Stddev	.015	.056	.030	.020	.043	.025	.027	.02	.04
%RSD	.5703	.9679	1.098	1.033	.7706	1.059	1.206	.0554	.0576
#1	2.571	5.707	2.704	1.879	5.606	2.297	2.250	33.45	75.46
#2	2.592	5.785	2.746	1.907	5.668	2.332	2.289	33.43	75.40

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	F **1167.**	**30.83**	**31.28**	**73.08**	**6.377**	**2.694**	**10.63**	**3.249**	**5.033**
Stddev	9.	.04	.05	.14	.088	.029	.13	.030	.009
%RSD	.7423	.1248	.1608	.1912	1.373	1.061	1.237	.9244	.1774
#1	1174.	30.86	31.24	72.99	6.315	2.674	10.54	3.228	5.039
#2	1161.	30.81	31.31	73.18	6.439	2.714	10.72	3.270	5.027

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.446**	**2.243**	**2.398**	F **1088.**	**.1613**	F **10.31**	F **13.78**
Stddev	.028	.024	.012	51.	.0005	.01	.16
%RSD	.5041	1.073	.5113	4.679	.3217	.1063	1.161
#1	5.427	2.226	2.389	1124.	.1609	10.30	13.67
#2	5.466	2.260	2.407	1052.	.1616	10.32	13.90

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**147290.**	**23626.**	**6007.5**	**10443.**
Stddev	466.	48.	66.5	84.
%RSD	.31655	.20280	1.1061	.80567
#1	146960.	23592.	6054.5	10502.
#2	147620.	23660.	5960.5	10383.

Zoom In Zoom Out

Sample Name: mp7239-s2 Acquired: 5/22/2018 13:08:48 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.371**	**2.191**	**2.244**	**1.953**	**3.582**	**5.308**	F **22.13**	**3.131**	*****
Stddev	.007	.007	.023	.024	.006	.001	.22	.036	-----
%RSD	.5339	.3239	1.014	1.246	.1800	.0205	.9753	1.152	-----
#1	1.377	2.196	2.228	1.936	3.586	5.309	22.28	3.105	-----
#2	1.366	2.186	2.260	1.971	3.577	5.307	21.97	3.156	-----

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.520**	**5.793**	**2.694**	**1.829**	**5.727**	**2.286**	**2.213**	**33.17**	**77.04**
Stddev	.001	.021	.037	.010	.050	.033	.034	.13	.28
%RSD	.0513	.3648	1.362	.5330	.8665	1.444	1.545	.3923	.3586
#1	2.521	5.778	2.668	1.822	5.691	2.263	2.188	33.26	77.24
#2	2.519	5.808	2.720	1.836	5.762	2.310	2.237	33.07	76.85

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	F **1212.**	**30.79**	**31.31**	**78.16**	**6.441**	**2.630**	**8.928**	**3.206**	**5.028**
Stddev	6.	.22	.08	.08	.081	.030	.117	.022	.014
%RSD	.4876	.7179	.2534	.1069	1.262	1.131	1.308	.6966	.2869
#1	1216.	30.95	31.25	78.22	6.383	2.609	8.845	3.190	5.038
#2	1208.	30.64	31.37	78.10	6.498	2.651	9.011	3.222	5.018

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**4.959**	**2.192**	**2.323**	F **1188.**	**.1537**	F **10.67**	F **13.79**
Stddev	.003	.020	.002	12.	.0005	.03	.13
%RSD	.0533	.9236	.1033	1.006	.3254	.2770	.9595
#1	4.961	2.178	2.325	1180.	.1540	10.69	13.70
#2	4.957	2.206	2.322	1196.	.1533	10.65	13.89

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**146620.**	**23565.**	**6126.9**	**10666.**
Stddev	241.	129.	91.8	139.
%RSD	.16463	.54918	1.4984	1.3059
#1	146450.	23473.	6062.0	10567.
#2	146790.	23657.	6191.8	10764.

Zoom In Zoom Out

Sample Name: mp7239-s1 Acquired: 5/22/2018 13:11:59 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**3.627**	**2.325**	**2.388**	**2.400**	**3.677**	**5.349**	**24.67**	**3.763**
Stddev	.018	.007	.017	.017	.027	.054	.34	.028
%RSD	.4819	.3131	.7031	.7262	.7317	1.008	1.398	.7301
#1	3.615	2.319	2.376	2.387	3.658	5.310	24.42	3.743
#2	3.639	2.330	2.400	2.412	3.696	5.387	24.91	3.782

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2726**	**2.731**	**6.273**	**2.824**	**2.290**	**6.840**	**2.411**	**2.368**
Stddev	.0027	.027	.048	.016	.017	.041	.022	.004
%RSD	.9889	.9982	.7669	.5590	.7186	.5939	.9015	.1914
#1	.2707	2.711	6.239	2.813	2.278	6.811	2.396	2.365
#2	.2745	2.750	6.307	2.836	2.302	6.868	2.427	2.371

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**35.16**	**80.98**	W **1363.**	**33.99**	**33.21**	**77.96**	**6.873**	**2.848**
Stddev	.03	.48	13.	.17	.12	.32	.058	.028
%RSD	.0782	.5936	.9380	.4931	.3753	.4047	.8415	.9789
#1	35.14	80.64	1354.	33.87	33.12	77.74	6.832	2.828
#2	35.18	81.32	1372.	34.11	33.30	78.18	6.914	2.867

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**11.92**	**3.525**	**5.305**	**5.679**	**2.381**	**2.505**	F **1421.**	**.1413**
Stddev	.17	.026	.013	.046	.020	.022	11.	.0194
%RSD	1.385	.7263	.2501	.8048	.8562	.8765	.7717	13.76
#1	11.80	3.507	5.295	5.647	2.367	2.489	1413.	.1276
#2	12.04	3.543	5.314	5.711	2.396	2.521	1429.	.1551

Elem	Li6707	P_1774
Avg	**10.95**	**14.76**
Stddev	.05	.13
%RSD	.4892	.9032
#1	10.91	14.67
#2	10.99	14.86

Zoom In Zoom Out

Sample Name: mp7239-s1 Acquired: 5/22/2018 13:11:59 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156890.**	**24172.**	**6512.0**	**10224.**
Stddev	367.	7.	7.0	14.
%RSD	.23412	.02911	.10804	.14142
#1	157150.	24167.	6507.1	10214.
#2	156630.	24177.	6517.0	10234.

Zoom In Zoom Out

Sample Name: mp7239-s2 Acquired: 5/22/2018 13:15:00 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**1.516**	**2.298**	**2.401**	**2.405**	**4.011**	**5.625**	**26.29**	**3.881**
Stddev	.022	.024	.015	.013	.073	.102	.47	.014
%RSD	1.467	1.030	.6311	.5489	1.827	1.816	1.778	.3470
#1	1.500	2.281	2.391	2.395	3.959	5.553	25.95	3.872
#2	1.531	2.315	2.412	2.414	4.062	5.697	26.62	3.891

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.2652**	**2.806**	**6.510**	**2.859**	**2.289**	**7.111**	**2.424**	**2.364**
Stddev	.0005	.054	.026	.035	.025	.052	.011	.001
%RSD	.1832	1.926	.3938	1.234	1.077	.7358	.4434	.0512
#1	.2649	2.768	6.492	2.834	2.271	7.074	2.417	2.364
#2	.2656	2.845	6.528	2.884	2.306	7.148	2.432	2.365

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**35.16**	**83.13**	W **1423.**	**33.82**	**33.22**	**83.19**	**7.106**	**2.860**
Stddev	.42	.76	16.	.38	.28	1.01	.024	.014
%RSD	1.199	.9164	1.142	1.123	.8405	1.217	.3342	.4863
#1	34.86	82.60	1412.	33.55	33.03	82.47	7.089	2.850
#2	35.46	83.67	1435.	34.09	33.42	83.90	7.122	2.870

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**9.645**	**3.585**	**5.385**	**5.436**	**2.379**	**2.560**	F **1580.**	**.1668**
Stddev	.046	.008	.064	.096	.015	.048	7.	.0045
%RSD	.4787	.2140	1.184	1.758	.6442	1.855	.4685	2.699
#1	9.613	3.580	5.340	5.368	2.369	2.527	1575.	.1636
#2	9.678	3.590	5.430	5.503	2.390	2.594	1585.	.1700

Elem	Li6707	P_1774
Avg	**11.29**	**15.12**
Stddev	.19	.06
%RSD	1.714	.3794
#1	11.15	15.08
#2	11.43	15.16

Zoom In Zoom Out

Sample Name: mp7239-s2 Acquired: 5/22/2018 13:15:00 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155450.**	**24293.**	**6512.1**	**10234.**
Stddev	1804.	155.	19.5	26.
%RSD	1.1602	.63642	.30004	.25484
#1	156730.	24184.	6498.3	10216.
#2	154180.	24402.	6525.9	10253.

Zoom In Zoom Out

Sample Name: mp7239-d1 Acquired: 5/22/2018 13:18:00 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.384**	**-.0009**	**.0280**	**.0910**	**1.339**	**3.106**	**21.66**	**1.431**	**-.0104**
Stddev	.014	.0002	.0013	.0005	.000	.004	.03	.022	.0073
%RSD	1.001	24.70	4.710	.5772	.0149	.1177	.1410	1.536	70.21
#1	1.374	-.0011	.0271	.0907	1.339	3.104	21.64	1.416	-.0156
#2	1.394	-.0007	.0290	.0914	1.338	3.109	21.68	1.447	-.0052

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3904**	**4.041**	**.4837**	**.0082**	**4.544**	**.0685**	**.0981**	**4.316**	**49.99**
Stddev	.0021	.069	.0148	.0029	.064	.0056	.0005	.029	.38
%RSD	.5488	1.704	3.051	35.34	1.413	8.136	.4898	.6753	.7614
#1	.3889	3.992	.4733	.0102	4.499	.0646	.0984	4.295	49.72
#2	.3919	4.090	.4942	.0061	4.590	.0724	.0978	4.336	50.26

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1316.**	**4.389**	**3.600**	**47.47**	**4.542**	**.4589**	**5.496**	**1.145**	**3.037**
Stddev	25.	.156	.486	.61	.084	.0017	.085	.010	.027
%RSD	1.927	3.542	13.49	1.294	1.854	.3754	1.551	.8537	.8838
#1	1298.	4.279	3.257	47.04	4.482	.4577	5.436	1.138	3.018
#2	1334.	4.499	3.943	47.90	4.601	.4601	5.557	1.152	3.056

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.361**	**.0576**	**.0800**	F **1500.**	**.1113**	**10.74**	**12.27**
Stddev	.007	.0049	.0013	24.	.0042	.11	.18
%RSD	.3046	8.447	1.610	1.577	3.813	1.040	1.430
#1	2.366	.0542	.0791	1483.	.1083	10.66	12.14
#2	2.356	.0611	.0809	1516.	.1143	10.82	12.39

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156610.**	**24442.**	**6535.7**	**10293.**
Stddev	429.	127.	36.2	41.
%RSD	.27371	.51964	.55428	.39820
#1	156310.	24532.	6561.3	10322.
#2	156910.	24352.	6510.1	10264.

Zoom In Zoom Out

Sample Name: td21085-1 Acquired: 5/22/2018 13:21:05 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.031**	**-.0006**	**.0224**	**.0752**	**1.101**	**2.336**	**17.85**	**1.170**	**-.0018**
Stddev	.008	.0002	.0008	.0011	.002	.009	.06	.007	.0036
%RSD	.8168	31.48	3.603	1.501	.2034	.3793	.3126	.6428	201.4
#1	1.025	-.0005	.0218	.0744	1.102	2.342	17.89	1.165	.0008
#2	1.037	-.0007	.0229	.0760	1.099	2.329	17.81	1.175	-.0044

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3149**	**3.156**	**.3795**	**.0101**	**3.762**	**.0522**	**.0787**	**3.763**	**41.44**
Stddev	.0037	.028	.0062	.0025	.022	.0167	.0021	.027	.30
%RSD	1.164	.8987	1.626	24.36	.5870	32.06	2.671	.7260	.7308
#1	.3175	3.136	.3838	.0084	3.747	.0641	.0772	3.743	41.23
#2	.3123	3.176	.3751	.0119	3.778	.0404	.0802	3.782	41.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1082.**	**3.681**	**2.975**	**38.75**	**3.625**	**.3543**	**4.381**	**.9156**	**2.440**
Stddev	4.	.052	.422	.39	.032	.0023	.028	.0015	.024
%RSD	.4102	1.414	14.18	.9995	.8923	.6368	.6382	.1610	.9653
#1	1085.	3.718	2.677	38.47	3.602	.3527	4.361	.9145	2.424
#2	1079.	3.644	3.273	39.02	3.648	.3559	4.401	.9166	2.457

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.457**	**.0452**	**.0728**	F **1240.**	**.0778**	**8.674**	**9.809**
Stddev	.000	.0064	.0005	12.	.0024	.081	.083
%RSD	.0117	14.12	.7430	.9676	3.116	.9300	.8499
#1	2.457	.0407	.0731	1232.	.0761	8.616	9.750
#2	2.458	.0497	.0724	1249.	.0795	8.731	9.868

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158080.**	**24141.**	**6521.7**	**10215.**
Stddev	433.	141.	20.1	7.
%RSD	.27375	.58366	.30885	.07011
#1	157780.	24041.	6535.9	10220.
#2	158390.	24241.	6507.5	10209.

Zoom In Zoom Out

Sample Name: mp7239-sd1 Acquired: 5/22/2018 13:24:06 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.022**	**-.0014**	**.0221**	**.0745**	**1.089**	**2.278**	**17.99**	**1.212**	**.0019**
Stddev	.018	.0018	.0003	.0043	.013	.004	.24	.012	.0032
%RSD	1.734	128.3	1.495	5.815	1.177	.1960	1.343	.9858	162.9
#1	1.010	-.0026	.0223	.0714	1.080	2.275	17.82	1.203	-.0003
#2	1.035	-.0001	.0219	.0775	1.098	2.282	18.16	1.220	.0042

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3227**	**3.189**	**.3475**	**-.0214**	**3.832**	**.0492**	**.0987**	**4.203**	**41.32**
Stddev	.0059	.032	.0251	.0491	.017	.0055	.0404	.125	.83
%RSD	1.841	.9932	7.226	229.4	.4335	11.26	40.91	2.979	2.014
#1	.3269	3.166	.3297	-.0561	3.821	.0453	.0702	4.292	40.73
#2	.3185	3.211	.3652	.0133	3.844	.0531	.1273	4.115	41.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1094.**	**4.292**	**1.520**	**38.46**	**3.747**	**.3422**	**4.358**	**.9122**	**2.424**
Stddev	21.	.181	1.165	.63	.021	.0046	.079	.0035	.042
%RSD	1.947	4.211	76.67	1.634	.5608	1.347	1.804	.3852	1.711
#1	1079.	4.164	.6959	38.02	3.732	.3390	4.303	.9147	2.395
#2	1110.	4.419	2.344	38.91	3.761	.3455	4.414	.9097	2.453

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.438**	**.0593**	**.0844**	**1267.**	**.1095**	**8.620**	**9.755**
Stddev	.022	.0017	.0045	13.	.0571	.203	.106
%RSD	.9192	2.811	5.347	1.029	52.20	2.353	1.090
#1	2.423	.0581	.0812	1258.	.0691	8.477	9.680
#2	2.454	.0604	.0876	1277.	.1499	8.764	9.830

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**156870.**	**23804.**	**6550.7**	**10087.**
Stddev	1283.	417.	3.3	.
%RSD	.81798	1.7507	.05030	.00339
#1	157780.	24099.	6548.4	10087.
#2	155960.	23509.	6553.0	10087.

Zoom In Zoom Out

Sample Name: mp7239-mb1conf Acquired: 5/22/2018 13:27:04 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0003**	**.0000**	**-.0001**	**-.0001**	**.0012**	**.0015**	**.0005**	**.0018**
Stddev	.0001	.0001	.0001	.0001	.0002	.0006	.0000	.0005
%RSD	40.49	325.7	96.60	49.16	16.71	42.31	7.521	28.37
#1	.0002	-.0000	-.0000	-.0001	.0013	.0019	.0005	.0022
#2	.0004	.0001	-.0002	-.0002	.0011	.0010	.0004	.0015

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**-.0005**	**-.0003**	**.0094**	**-.0011**	F **-.0021**	**.0002**	**.0015**	**.0019**
Stddev	.0004	.0005	.0002	.0011	.0004	.0013	.0001	.0006
%RSD	85.61	177.6	2.156	95.57	18.64	586.9	8.377	32.88
#1	-.0008	.0001	.0092	-.0004	-.0018	.0012	.0016	.0024
#2	-.0002	-.0006	.0095	-.0018	-.0024	-.0007	.0014	.0015

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0133**	**.1353**	**.0309**	**.0465**	**-.0037**	**.1154**	**.0072**	**.0002**
Stddev	.0065	.0070	.0045	.0090	.0078	.0215	.0002	.0004
%RSD	49.24	5.195	14.63	19.36	209.4	18.65	2.969	172.6
#1	.0179	.1303	.0277	.0529	.0018	.1306	.0074	-.0000
#2	.0087	.1403	.0341	.0402	-.0092	.1002	.0071	.0005

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0607**	**.0367**	**.0009**	**.0002**	**.0009**	**.0005**	**.0417**	**-.0007**
Stddev	.0001	.0002	.0001	.0003	.0013	.0002	.0043	.0003
%RSD	.2153	.4502	8.186	164.0	142.9	44.21	10.39	43.68
#1	.0606	.0366	.0008	.0004	.0019	.0006	.0448	-.0005
#2	.0608	.0368	.0009	-.0000	-.0000	.0003	.0387	-.0009

Elem	Li6707	P_1774
Avg	**.0036**	**.0394**
Stddev	.0018	.0008
%RSD	50.01	2.064
#1	.0023	.0389
#2	.0049	.0400

Zoom In Zoom Out

Sample Name: mp7239-mb1conf Acquired: 5/22/2018 13:27:04 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159810.**	**24053.**	**6607.7**	**10132.**
Stddev	113.	235.	24.3	25.
%RSD	.07058	.97523	.36850	.24778
#1	159890.	24219.	6590.5	10114.
#2	159730.	23887.	6624.9	10150.

Zoom In Zoom Out

Sample Name: mp7239-b1conf Acquired: 5/22/2018 13:30:06 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**2.212**	**2.158**	**2.149**	**2.201**	**2.159**	**2.154**	**2.217**	**2.217**	**.2575**
Stddev	.027	.024	.015	.013	.002	.006	.000	.015	.0004
%RSD	1.225	1.095	.6760	.5860	.0810	.2954	.0180	.6794	.1421
#1	2.193	2.141	2.139	2.192	2.157	2.150	2.217	2.206	.2572
#2	2.231	2.175	2.160	2.210	2.160	2.159	2.217	2.228	.2577

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.161**	**2.182**	**2.191**	**2.186**	**2.211**	**2.147**	**2.195**	**26.51**	**27.03**
Stddev	.000	.014	.021	.021	.014	.019	.015	.27	.25
%RSD	.0183	.6588	.9414	.9501	.6368	.8847	.6712	1.013	.9107
#1	2.161	2.172	2.177	2.171	2.201	2.133	2.184	26.32	26.85
#2	2.161	2.192	2.206	2.201	2.221	2.160	2.205	26.70	27.20

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**26.85**	**27.32**	**26.52**	**27.55**	**2.147**	**2.237**	**.1077**	**2.266**	**2.187**
Stddev	.22	.19	.37	.30	.016	.015	.0019	.015	.026
%RSD	.8274	.6997	1.381	1.080	.7286	.6478	1.795	.6545	1.186
#1	26.70	27.18	26.27	27.34	2.136	2.227	.1063	2.255	2.169
#2	27.01	27.45	26.78	27.76	2.158	2.247	.1090	2.276	2.205

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.225**	**2.197**	**2.205**	**2.104**	**.0267**	**.0047**	**2.188**
Stddev	.000	.014	.001	.012	.0015	.0006	.016
%RSD	.0146	.6383	.0286	.5568	5.802	11.92	.7145
#1	2.225	2.187	2.206	2.096	.0278	.0051	2.177
#2	2.225	2.207	2.205	2.113	.0256	.0043	2.199

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154690.**	**23492.**	**6361.0**	**9623.0**
Stddev	69.	213.	10.7	6.8
%RSD	.04463	.90869	.16790	.07033
#1	154740.	23341.	6368.5	9627.8
#2	154640.	23643.	6353.4	9618.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 13:32:56 Type: QC
Method: Accutest XPress(v328) 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	**1.990**	**1.951**	**1.974**	**2.010**	**1.976**	**1.955**	**2.026**	**2.025**	**.2482**
Stddev	.001	.004	.014	.017	.004	.005	.007	.017	.0010
%RSD	.0548	.2221	.6988	.8217	.1937	.2666	.3391	.8312	.4141
#1	1.989	1.948	1.964	1.998	1.974	1.951	2.021	2.013	.2474
#2	1.991	1.954	1.984	2.021	1.979	1.958	2.031	2.037	.2489
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	**1.971**	**2.001**	**1.993**	**2.019**	**2.023**	**1.994**	**1.989**	**38.97**	**39.55**
Stddev	.008	.017	.012	.016	.015	.015	.014	.07	.09
%RSD	.3863	.8396	.5838	.7753	.7277	.7726	.7048	.1891	.2235
#1	1.966	1.989	1.985	2.008	2.013	1.984	1.979	38.92	39.49
#2	1.977	2.013	2.001	2.030	2.034	2.005	1.999	39.02	39.61
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	**39.38**	**39.88**	**39.34**	**40.14**	**2.007**	**2.008**	**5.000**	**2.003**	**1.980**
Stddev	.04	.05	.31	.14	.011	.013	.039	.015	.005
%RSD	.1050	.1171	.7812	.3611	.5498	.6467	.7691	.7638	.2373
#1	39.35	39.91	39.12	40.04	1.999	1.999	4.973	1.992	1.977
#2	39.41	39.85	39.56	40.24	2.014	2.017	5.027	2.014	1.983
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: 5/22/2018 13:32:56 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.998**	**1.989**	**1.985**	**1.963**	**2.013**	**1.998**	**1.992**
Stddev	.007	.013	.007	.015	.009	.004	.013
%RSD	.3330	.6496	.3650	.7763	.4461	.1944	.6327
#1	1.993	1.980	1.980	1.952	2.006	1.996	1.983
#2	2.002	1.998	1.990	1.974	2.019	2.001	2.001
Check ?	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	**152470.**	**23578.**	**6341.5**	**9532.1**
Stddev	19.	28.	10.2	7.2
%RSD	.01261	.12015	.16139	.07546
#1	152460.	23558.	6334.3	9527.0
#2	152480.	23598.	6348.7	9537.2

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 13:35:46 Type: QC
Method: Accutest XPress(v328) 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**	**-.0003**	**.0002**	**.0004**	**.0003**
Stddev	.0001	.0001	.0001	.0001	.0001	.0004	.0000	.0003	.0001
%RSD	84.97	50.12	56.24	423.6	73.72	121.7	16.61	94.33	43.20
#1	.0001	.0001	.0003	.0001	.0002	-.0006	.0002	.0006	.0002
#2	.0000	.0002	.0001	-.0001	.0001	-.0000	.0001	.0001	.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**	**.0001**	**-.0019**	**-.0008**	**-.0001**	**.0004**	**.0009**	**.0021**
Stddev	.0001	.0000	.0026	.0013	.0001	.0015	.0000	.0069	.0021
%RSD	144.2	65.68	1773.	71.80	14.48	2192.	4.245	745.7	100.7
#1	.0000	-.0000	-.0017	-.0028	-.0007	.0010	.0004	.0058	.0035
#2	-.0002	-.0001	.0020	-.0009	-.0009	-.0011	.0004	-.0039	.0006
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**	**.0171**	**-.0341**	**-.0118**	**.0066**	**.0000**	**-.0020**	**.0003**	**.0001**
Stddev	.0006	.0041	.0268	.0041	.0006	.0000	.0011	.0008	.0000
%RSD	8.748	23.95	78.39	34.58	9.808	197.6	54.22	232.1	4.006
#1	.0069	.0200	-.0531	-.0089	.0062	.0000	-.0028	-.0002	.0001
#2	.0061	.0142	-.0152	-.0146	.0071	-.0000	-.0012	.0009	.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: 5/22/2018 13:35:46 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0005**	**.0003**	**.0078**	**.0010**	F **.0051**	**.0022**
Stddev	.0006	.0001	.0001	.0005	.0001	.0023	.0002
%RSD	307.6	13.64	18.88	5.868	5.354	45.95	10.43
#1	.0002	.0005	.0003	.0075	.0010	.0067	.0020
#2	-.0006	.0006	.0002	.0081	.0009	.0034	.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**157360.**	**23633.**	**6507.4**	**10011.**
Stddev	1587.	153.	31.9	45.
%RSD	1.0087	.64694	.48994	.45181
#1	156240.	23525.	6484.8	9979.1
#2	158490.	23741.	6529.9	10043.

Zoom In Zoom Out

Sample Name: mp7239-s1 Acquired: 5/22/2018 13:38:47 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**3.916**	**2.370**	**2.445**	**2.551**	**3.868**	**5.380**	**26.44**	**4.030**	**.2869**
Stddev	.038	.020	.014	.018	.025	.056	.19	.025	.0188
%RSD	.9598	.8504	.5788	.7092	.6391	1.034	.7085	.6219	6.542
#1	3.889	2.356	2.435	2.538	3.851	5.341	26.31	4.012	.3002
#2	3.942	2.384	2.455	2.564	3.885	5.419	26.57	4.048	.2737

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.869**	**6.597**	**2.891**	**2.476**	**7.321**	**2.452**	**2.438**	**36.33**	**83.68**
Stddev	.037	.048	.000	.013	.043	.026	.080	.27	1.06
%RSD	1.304	.7260	.0118	.5324	.5837	1.062	3.282	.7422	1.263
#1	2.842	6.564	2.891	2.466	7.291	2.434	2.382	36.14	82.93
#2	2.895	6.631	2.891	2.485	7.351	2.471	2.495	36.52	84.42

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1446.**	**35.62**	**35.24**	**79.80**	**7.100**	**2.923**	**12.20**	**3.679**	**5.456**
Stddev	13.	.46	1.34	1.25	.048	.001	.03	.009	.044
%RSD	.9020	1.282	3.798	1.562	.6739	.0407	.2527	.2394	.8044
#1	1436.	35.94	34.30	78.92	7.066	2.924	12.22	3.673	5.425
#2	1455.	35.30	36.19	80.69	7.134	2.922	12.18	3.685	5.487

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.928**	**2.466**	**2.606**	**1501.**	**.1434**	**11.27**	**15.11**
Stddev	.041	.023	.005	11.	.0015	.10	.08
%RSD	.6920	.9150	.1833	.7445	1.070	.8971	.5288
#1	5.899	2.450	2.603	1493.	.1423	11.20	15.05
#2	5.957	2.482	2.610	1509.	.1445	11.34	15.17

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157170.**	**23818.**	**6526.8**	**10047.**
Stddev	475.	100.	25.9	38.
%RSD	.30209	.42160	.39657	.37381
#1	157510.	23889.	6545.1	10073.
#2	156830.	23747.	6508.5	10020.

Zoom In Zoom Out

Sample Name: mp7239-s2 Acquired: 5/22/2018 13:41:39 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.642**	**2.445**	**2.514**	**2.634**	**4.184**	**5.611**	**28.18**	**4.271**	**.5703**
Stddev	.026	.020	.030	.040	.004	.001	.02	.037	.0172
%RSD	1.613	.8280	1.200	1.499	.0850	.0130	.0547	.8697	3.017
#1	1.661	2.459	2.492	2.606	4.186	5.611	28.17	4.245	.5581
#2	1.623	2.431	2.535	2.662	4.181	5.610	28.19	4.298	.5824

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**2.905**	**7.022**	**2.979**	**2.517**	**7.831**	**2.531**	**2.508**	**37.97**	**89.49**
Stddev	.005	.075	.010	.066	.142	.068	.031	.16	.74
%RSD	.1571	1.064	.3446	2.623	1.809	2.700	1.234	.4282	.8224
#1	2.908	6.970	2.972	2.471	7.731	2.483	2.530	38.08	90.01
#2	2.902	7.075	2.986	2.564	7.931	2.580	2.486	37.85	88.97

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1594.**	**37.13**	**35.51**	**88.41**	**7.530**	**3.021**	**10.05**	**3.824**	**5.761**
Stddev	14.	.18	.87	.45	.098	.032	.08	.032	.048
%RSD	.8919	.4803	2.453	.5051	1.300	1.049	.7596	.8247	.8284
#1	1604.	37.26	34.89	88.73	7.461	2.999	9.996	3.801	5.795
#2	1584.	37.00	36.13	88.10	7.599	3.044	10.10	3.846	5.727

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.628**	**2.544**	**2.658**	**1724.**	**.1491**	**12.12**	**15.92**
Stddev	.012	.001	.005	18.	.0481	.03	.21
%RSD	.2051	.0555	.1781	1.041	32.28	.2859	1.321
#1	5.620	2.545	2.661	1711.	.1151	12.14	15.77
#2	5.637	2.543	2.655	1737.	.1831	12.10	16.07

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158270.**	**23755.**	**6524.2**	**10044.**
Stddev	1106.	151.	2.3	10.
%RSD	.69876	.63386	.03544	.09846
#1	157490.	23649.	6525.8	10051.
#2	159050.	23862.	6522.6	10037.

Zoom In Zoom Out

Sample Name: mp7239-d1 Acquired: 5/22/2018 13:44:32 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.540**	**-.0013**	**.0315**	**.1008**	**1.459**	**3.303**	**24.21**	**1.618**	**-.0074**
Stddev	.012	.0008	.0025	.0045	.001	.026	.20	.013	.0083
%RSD	.7524	66.62	7.850	4.493	.0918	.7907	.8337	.8111	110.9
#1	1.532	-.0019	.0298	.0976	1.458	3.285	24.07	1.609	-.0016
#2	1.549	-.0007	.0333	.1040	1.460	3.322	24.36	1.627	-.0133

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.4349**	**4.472**	**.4843**	**.0568**	**5.051**	**.1269**	**.1021**	**5.209**	**56.04**
Stddev	.0046	.062	.0065	.0095	.087	.0714	.0097	.062	.24
%RSD	1.063	1.384	1.334	16.65	1.731	56.24	9.489	1.183	.4335
#1	.4382	4.428	.4797	.0635	4.989	.1773	.1090	5.253	56.21
#2	.4317	4.516	.4889	.0501	5.113	.0764	.0953	5.165	55.87

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1511.**	**5.229**	**3.110**	**51.91**	**4.964**	**.4920**	**5.985**	**1.243**	**3.362**
Stddev	5.	.347	3.666	.14	.087	.0030	.092	.012	.017
%RSD	.3624	6.630	117.9	.2605	1.754	.6121	1.532	.9566	.5100
#1	1515.	4.984	.5175	51.81	4.902	.4899	5.920	1.235	3.374
#2	1507.	5.475	5.702	52.00	5.026	.4941	6.050	1.252	3.350

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.576**	**.1443**	**.1142**	**1677.**	**.1079**	**11.97**	**13.25**
Stddev	.002	.0472	.0071	26.	.0405	.08	.19
%RSD	.0693	32.71	6.189	1.543	37.56	.6760	1.468
#1	2.577	.1109	.1192	1659.	.0793	11.91	13.11
#2	2.574	.1777	.1092	1696.	.1366	12.03	13.39

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157540.**	**23830.**	**6542.8**	**10113.**
Stddev	695.	108.	9.0	12.
%RSD	.44139	.45477	.13691	.11426
#1	158030.	23907.	6549.2	10121.
#2	157050.	23753.	6536.5	10105.

Zoom In Zoom Out

Sample Name: td21085-1 Acquired: 5/22/2018 13:47:28 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.106**	**-.0013**	**.0254**	**.0827**	**1.194**	**2.465**	**19.73**	**1.324**	**-.0077**
Stddev	.004	.0009	.0015	.0004	.006	.008	.06	.011	.0104
%RSD	.3804	72.41	5.870	.4916	.4923	.3178	.3017	.8074	135.5
#1	1.103	-.0019	.0265	.0824	1.198	2.470	19.69	1.317	-.0151
#2	1.109	-.0006	.0244	.0830	1.190	2.459	19.77	1.332	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3425**	**3.494**	**.3691**	**.0163**	**4.213**	**.1125**	**.0997**	**4.338**	**44.95**
Stddev	.0066	.048	.0542	.0078	.054	.0262	.0158	.187	.28
%RSD	1.929	1.385	14.68	47.59	1.290	23.31	15.84	4.301	.6173
#1	.3471	3.460	.4074	.0218	4.174	.0940	.1109	4.470	45.15
#2	.3378	3.528	.3308	.0108	4.251	.1311	.0885	4.206	44.76

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1196.**	**4.195**	**1.321**	**41.46**	**3.957**	**.3864**	**4.718**	**.9930**	**2.637**
Stddev	6.	.066	2.145	.45	.079	.0060	.071	.0251	.010
%RSD	.4603	1.567	162.4	1.085	2.003	1.565	1.502	2.532	.3784
#1	1200.	4.149	-.1960	41.78	3.901	.3822	4.668	.9752	2.644
#2	1192.	4.242	2.838	41.14	4.013	.3907	4.768	1.011	2.630

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.659**	**.0937**	**.0860**	**1387.**	**.0683**	**9.338**	**10.63**
Stddev	.017	.0105	.0013	19.	.0436	.041	.11
%RSD	.6551	11.18	1.566	1.366	63.83	.4333	1.055
#1	2.672	.1011	.0870	1374.	.0374	9.367	10.55
#2	2.647	.0863	.0851	1401.	.0991	9.309	10.71

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158590.**	**24007.**	**6549.6**	**10091.**
Stddev	643.	275.	4.7	5.
%RSD	.40570	1.1438	.07218	.04595
#1	158130.	23813.	6553.0	10094.
#2	159040.	24202.	6546.3	10087.

Zoom In Zoom Out

Sample Name: mp7239-sd1 Acquired: 5/22/2018 13:50:25 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 125.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**1.132**	**-.0029**	**.0184**	**.1204**	**1.235**	**2.532**	**20.46**	**1.478**	**-.1114**
Stddev	.002	.0123	.0189	.0269	.022	.044	.03	.045	.0561
%RSD	.2114	425.2	102.7	22.30	1.748	1.723	.1696	3.028	50.32
#1	1.131	-.0116	.0051	.1394	1.220	2.501	20.44	1.446	-.1510
#2	1.134	.0058	.0318	.1015	1.250	2.563	20.49	1.509	-.0718

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.3630**	**3.670**	**.2130**	**-.2349**	**4.591**	**.0803**	**.2304**	**5.046**	**47.82**
Stddev	.0089	.021	.0926	.0755	.051	.1386	.0006	2.210	1.03
%RSD	2.445	.5769	43.46	32.14	1.110	172.6	.2510	43.81	2.156
#1	.3567	3.655	.1476	-.2883	4.555	-.0177	.2308	6.609	47.09
#2	.3693	3.685	.2785	-.1815	4.627	.1783	.2300	3.483	48.55

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**1249.**	**9.073**	**-9.627**	**42.16**	**4.162**	**.3888**	**4.943**	**1.044**	**2.774**
Stddev	17.	.815	8.202	.82	.009	.0040	.098	.004	.023
%RSD	1.398	8.979	85.20	1.939	.2161	1.026	1.982	.4157	.8177
#1	1237.	9.649	-3.827	41.58	4.169	.3860	4.874	1.041	2.758
#2	1262.	8.497	-15.43	42.74	4.156	.3916	5.012	1.047	2.790

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.754**	**.0988**	**.1076**	**1443.**	**-.1465**	**10.14**	**11.13**
Stddev	.005	.0785	.0056	17.	.4868	.00	.07
%RSD	.1938	79.48	5.206	1.167	332.3	.0012	.6237
#1	2.758	.1543	.1036	1431.	-.4907	10.14	11.18
#2	2.751	.0433	.1116	1455.	.1977	10.14	11.08

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157100.**	**23692.**	**6537.0**	**10040.**
Stddev	780.	169.	21.2	26.
%RSD	.49639	.71265	.32438	.26207
#1	156540.	23811.	6552.0	10058.
#2	157650.	23573.	6522.0	10021.

Zoom In Zoom Out

Sample Name: mp7239-ps1 Acquired: 5/22/2018 13:53:26 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**5.819**	**.0972**	**.1214**	**.5161**	**1.364**	**2.522**	F **13.90**	**1.332**	*****
Stddev	.007	.0006	.0003	.0008	.007	.019	.15	.005	-----
%RSD	.1251	.5674	.2778	.1636	.4846	.7624	1.091	.3441	-----
#1	5.814	.0968	.1212	.5155	1.359	2.508	13.80	1.329	-----
#2	5.824	.0976	.1217	.5167	1.369	2.535	14.01	1.336	-----

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.7643**	**2.981**	**.8375**	**.1078**	**3.232**	**.6193**	**.5948**	**7.906**	**130.3**
Stddev	.0038	.011	.0034	.0004	.009	.0018	.0013	.009	.5
%RSD	.4985	.3661	.4061	.3961	.2658	.2885	.2227	.1198	.3957
#1	.7616	2.973	.8350	.1081	3.225	.6206	.5939	7.913	129.9
#2	.7670	2.988	.8399	.1075	3.238	.6180	.5957	7.900	130.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	F **815.4**	**99.99**	**101.7**	**133.3**	**3.917**	**.7874**	**3.706**	**1.218**	**2.505**
Stddev	15.6	.50	1.0	.9	.013	.0008	.007	.002	.010
%RSD	1.917	.4981	.9887	.7008	.3186	.1059	.2004	.1285	.3874
#1	804.4	99.63	101.0	132.6	3.908	.7868	3.700	1.217	2.498
#2	826.5	100.3	102.5	134.0	3.926	.7880	3.711	1.219	2.512

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.514**	**.0470**	**.0526**	F **925.4**	**.0896**	**6.888**	**8.135**
Stddev	.016	.0016	.0004	2.0	.0021	.033	.022
%RSD	.6352	3.500	.8199	.2203	2.380	.4822	.2740
#1	2.503	.0481	.0523	923.9	.0911	6.865	8.119
#2	2.526	.0458	.0529	926.8	.0881	6.912	8.151

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**148320.**	**23904.**	**6097.5**	**10099.**
Stddev	20.	90.	12.7	23.
%RSD	.01325	.37632	.20861	.23246
#1	148330.	23967.	6088.5	10083.
#2	148310.	23840.	6106.5	10116.

Zoom In Zoom Out

Sample Name: mp7239-ps1 Acquired: 5/22/2018 13:56:27 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**5.918**	**.0989**	**.1192**	**.5704**	**1.389**	**2.373**	**14.77**	**1.478**	**.1041**
Stddev	.037	.0002	.0005	.0022	.012	.011	.34	.003	.0043
%RSD	.6202	.1535	.4151	.3779	.8424	.4420	2.274	.1904	4.139
#1	5.944	.0988	.1196	.5688	1.381	2.365	14.54	1.476	.1072
#2	5.892	.0990	.1189	.5719	1.397	2.380	15.01	1.480	.1011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.7714**	**3.081**	**.8199**	**.1253**	**3.602**	**.6254**	**.5865**	**8.052**	**133.3**
Stddev	.0104	.019	.0001	.0017	.005	.0057	.0017	.024	.5
%RSD	1.350	.6033	.0154	1.331	.1483	.9097	.2879	.3008	.3973
#1	.7641	3.068	.8200	.1242	3.598	.6213	.5854	8.070	133.7
#2	.7788	3.094	.8198	.1265	3.605	.6294	.5877	8.035	133.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**894.3**	**104.2**	**101.6**	**135.7**	**3.966**	**.7952**	**3.623**	**1.245**	**2.513**
Stddev	3.7	.2	.3	.3	.012	.0024	.007	.001	.010
%RSD	.4173	.1627	.3365	.2194	.3068	.3000	.1845	.0647	.4048
#1	897.0	104.3	101.3	135.9	3.957	.7935	3.628	1.246	2.520
#2	891.7	104.1	101.8	135.5	3.974	.7969	3.618	1.245	2.505

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.491**	**.0494**	**.0638**	F **1039.**	**.0689**	**6.998**	**8.110**
Stddev	.012	.0007	.0006	5.	.0018	.041	.036
%RSD	.4832	1.399	.9176	.5147	2.583	.5913	.4390
#1	2.482	.0499	.0642	1035.	.0677	7.027	8.085
#2	2.499	.0489	.0634	1042.	.0702	6.968	8.135

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**155900.**	**23832.**	**6456.0**	**9965.5**
Stddev	1904.	58.	3.6	14.9
%RSD	1.2213	.24362	.05546	.14931
#1	157240.	23791.	6453.5	9955.0
#2	154550.	23873.	6458.5	9976.0

Zoom In Zoom Out

Sample Name: jc66313-2 Acquired: 5/22/2018 13:59:25 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.8820**	**.0029**	**.0317**	**.0441**	**.3781**	**1.656**	**2.540**	**.1456**	**.0015**
Stddev	.0137	.0001	.0005	.0005	.0009	.007	.009	.0010	.0009
%RSD	1.553	2.479	1.678	1.121	.2273	.4389	.3701	.6918	59.38
#1	.8723	.0029	.0314	.0438	.3775	1.651	2.533	.1448	.0009
#2	.8917	.0030	.0321	.0445	.3787	1.661	2.547	.1463	.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1789**	**7.418**	**.0541**	**.0030**	**3.564**	**.0076**	**.0136**	**60.81**	**12.47**
Stddev	.0004	.061	.0001	.0018	.033	.0017	.0009	.88	.20
%RSD	.2498	.8242	.2022	58.28	.9373	22.50	6.567	1.443	1.608
#1	.1785	7.375	.0540	.0018	3.540	.0064	.0142	60.18	12.33
#2	.1792	7.462	.0542	.0043	3.587	.0088	.0130	61.43	12.61

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**163.4**	**19.14**	**10.55**	**.8539**	**.0185**	**.0077**	**1.891**	**.5931**	**.1067**
Stddev	2.3	.27	.21	.0062	.0001	.0004	.012	.0037	.0016
%RSD	1.406	1.413	1.975	.7304	.6797	4.768	.6240	.6186	1.494
#1	161.8	18.95	10.40	.8495	.0186	.0080	1.883	.5906	.1056
#2	165.0	19.33	10.69	.8583	.0184	.0075	1.899	.5957	.1078

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**3.590**	**.0113**	**.0047**	**1.292**	**.0461**	**.1664**	**5.910**
Stddev	.010	.0012	.0003	.007	.0008	.0034	.047
%RSD	.2740	10.49	5.838	.5228	1.715	2.059	.7976
#1	3.583	.0122	.0049	1.287	.0455	.1640	5.877
#2	3.597	.0105	.0045	1.297	.0466	.1689	5.944

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158600.**	**24192.**	**6592.1**	**9939.9**
Stddev	534.	259.	14.1	30.0
%RSD	.33679	1.0721	.21318	.30195
#1	158220.	24376.	6582.1	9918.7
#2	158980.	24009.	6602.0	9961.1

Zoom In Zoom Out

Sample Name: jc66313-4 Acquired: 5/22/2018 14:02:18 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**1.385**	**.0043**	**.0308**	**.0675**	**.1062**	**5.531**	**3.601**	**.2315**	**.0054**
Stddev	.009	.0001	.0002	.0006	.0008	.008	.007	.0026	.0010
%RSD	.6300	1.222	.6077	.8987	.7774	.1450	.2088	1.103	17.87
#1	1.379	.0043	.0310	.0671	.1068	5.526	3.596	.2297	.0048
#2	1.392	.0044	.0307	.0679	.1056	5.537	3.607	.2333	.0061

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1607**	**5.712**	**.1098**	**.0025**	**1.433**	**.0238**	**.0201**	**29.37**	**10.87**
Stddev	.0004	.060	.0020	.0023	.012	.0055	.0018	.04	.05
%RSD	.2626	1.058	1.833	90.34	.8513	23.12	9.120	.1373	.4950
#1	.1610	5.669	.1083	.0041	1.424	.0277	.0214	29.34	10.83
#2	.1604	5.754	.1112	.0009	1.441	.0199	.0188	29.39	10.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**299.0**	**5.781**	**5.381**	**5.622**	**.0397**	**.0142**	**2.196**	**.6087**	**.3207**
Stddev	1.1	.038	.065	.053	.0000	.0000	.025	.0045	.0015
%RSD	.3614	.6610	1.202	.9492	.1195	.3189	1.151	.7355	.4600
#1	298.3	5.754	5.335	5.585	.0397	.0142	2.179	.6055	.3197
#2	299.8	5.808	5.427	5.660	.0396	.0142	2.214	.6118	.3218

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.201**	**.0569**	**.0354**	**2.956**	**.0323**	**.0593**	**3.527**
Stddev	.004	.0026	.0003	.034	.0005	.0050	.037
%RSD	.1697	4.552	.9794	1.147	1.643	8.353	1.045
#1	2.199	.0551	.0357	2.932	.0327	.0628	3.501
#2	2.204	.0587	.0352	2.980	.0319	.0558	3.553

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158920.**	**24030.**	**6573.7**	**10042.**
Stddev	381.	61.	25.9	29.
%RSD	.23987	.25582	.39460	.28448
#1	158650.	23986.	6592.0	10062.
#2	159190.	24073.	6555.4	10022.

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 14:05:15 Type: QC
Method: Accutest XPress(v328) 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	**1.979**	**1.942**	**1.950**	**1.986**	**1.944**	**1.917**	**1.999**	**2.001**	**.2430**
Stddev	.002	.003	.014	.017	.004	.011	.003	.015	.0026
%RSD	.1229	.1509	.6904	.8381	.1982	.5473	.1508	.7592	1.050
#1	1.981	1.944	1.940	1.974	1.942	1.910	1.997	1.990	.2412
#2	1.977	1.939	1.959	1.998	1.947	1.925	2.001	2.012	.2448
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	**1.944**	**1.974**	**1.967**	**1.995**	**2.000**	**1.967**	**1.965**	**38.68**	**39.29**
Stddev	.005	.017	.021	.010	.015	.011	.013	.08	.04
%RSD	.2365	.8388	1.085	.4894	.7493	.5742	.6403	.2077	.1124
#1	1.941	1.963	1.952	1.988	1.989	1.959	1.956	38.74	39.32
#2	1.948	1.986	1.982	2.002	2.010	1.975	1.974	38.62	39.26
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	**39.13**	**39.64**	**39.06**	**39.89**	**1.979**	**1.980**	**4.934**	**1.978**	**1.968**
Stddev	.07	.04	.23	.10	.015	.015	.041	.014	.004
%RSD	.1833	.1029	.5769	.2591	.7700	.7533	.8279	.6865	.1767
#1	39.18	39.67	38.90	39.82	1.968	1.970	4.905	1.968	1.970
#2	39.08	39.61	39.22	39.97	1.990	1.991	4.963	1.987	1.965
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: 5/22/2018 14:05:15 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.972**	**1.966**	**1.956**	**1.945**	**1.984**	**1.986**	**1.965**
Stddev	.002	.013	.003	.008	.011	.009	.019
%RSD	.1072	.6532	.1641	.4062	.5656	.4424	.9892
#1	1.971	1.957	1.953	1.940	1.976	1.979	1.952
#2	1.974	1.975	1.958	1.951	1.992	1.992	1.979
Check ?	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	**152000.**	**23309.**	**6339.6**	**9526.0**
Stddev	386.	19.	.8	6.6
%RSD	.25409	.08228	.01276	.06898
#1	151730.	23296.	6339.1	9530.7
#2	152280.	23323.	6340.2	9521.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 14:08:04 Type: QC
Method: Accutest XPress(v328) 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**	**.0003**	**-.0005**	**.0001**	**.0004**	**-.0003**
Stddev	.0002	.0001	.0002	.0000	.0001	.0001	.0000	.0003	.0000
%RSD	550.7	116.3	170.9	18.03	38.17	19.82	33.68	69.36	.5072
#1	-.0002	.0001	-.0003	.0002	.0004	-.0005	.0001	.0005	-.0003
#2	.0001	.0000	.0000	.0003	.0003	-.0006	.0001	.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									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0003**	**-.0004**	**-.0012**	**-.0019**	**.0022**	**.0021**	**.0173**	**.0029**
Stddev	.0003	.0000	.0003	.0007	.0005	.0009	.0009	.0263	.0021
%RSD	102.4	7.845	92.28	63.70	25.15	39.56	45.18	151.7	73.70
#1	-.0006	-.0003	-.0001	-.0017	-.0022	.0028	.0027	-.0013	.0044
#2	-.0001	-.0003	-.0006	-.0006	-.0015	.0016	.0014	.0359	.0014
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	**.0075**	**.0082**	**-.0232**	**-.0107**	**.0040**	**-.0000**	**-.0001**	**.0003**	**.0001**
Stddev	.0002	.0117	.0181	.0080	.0006	.0001	.0016	.0000	.0001
%RSD	3.150	143.1	78.15	74.66	15.92	266.3	3223.	15.19	80.50
#1	.0077	.0165	-.0360	-.0164	.0044	.0000	.0011	.0003	.0002
#2	.0074	-.0001	-.0104	-.0051	.0035	-.0001	-.0012	.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: 5/22/2018 14:08:04 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0004**	**.0079**	**.0009**	F **.0043**	**.0018**
Stddev	.0001	.0010	.0001	.0033	.0018	.0028	.0002
%RSD	28.16	355.4	13.84	41.35	192.5	65.25	13.43
#1	.0002	-.0004	.0004	.0056	.0022	.0062	.0017
#2	.0003	.0010	.0004	.0103	-.0003	.0023	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**158010.**	**23476.**	**6524.4**	**10029.**
Stddev	678.	143.	7.5	10.
%RSD	.42897	.60901	.11480	.09515
#1	158490.	23577.	6519.1	10022.
#2	157530.	23374.	6529.6	10035.

Zoom In Zoom Out

Sample Name: jc66223-2 Acquired: 5/22/2018 14:11:07 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.5262**	**.0047**	**.0361**	**.0775**	**.1499**	**3.248**	**3.147**	**.2895**	**.0007**
Stddev	.0034	.0000	.0008	.0012	.0002	.022	.017	.0031	.0005
%RSD	.6401	.1082	2.157	1.510	.1320	.6683	.5235	1.056	75.81
#1	.5238	.0047	.0355	.0766	.1498	3.233	3.135	.2873	.0011
#2	.5286	.0047	.0366	.0783	.1501	3.264	3.159	.2916	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.2237**	**11.92**	**.0241**	**.0015**	**.1461**	**.0046**	**.0046**	**103.4**	**9.828**
Stddev	.0019	.16	.0027	.0010	.0019	.0009	.0007	.7	.062
%RSD	.8582	1.315	11.09	71.08	1.313	18.49	14.77	.6682	.6291
#1	.2223	11.81	.0222	.0007	.1475	.0052	.0051	102.9	9.784
#2	.2250	12.03	.0260	.0022	.1448	.0040	.0042	103.9	9.872

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**163.6**	**34.10**	**20.18**	**.6311**	**.0133**	**.0093**	**2.028**	**.0214**	**.0629**
Stddev	1.0	.24	.28	.0102	.0013	.0002	.015	.0026	.0002
%RSD	.6046	.7068	1.403	1.615	9.645	1.865	.7557	12.33	.2481
#1	162.9	33.93	19.98	.6239	.0142	.0092	2.017	.0195	.0628
#2	164.3	34.27	20.38	.6383	.0124	.0095	2.039	.0233	.0630

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**7.593**	**.0143**	**.0035**	**.6631**	**.0876**	**.2074**	**3.552**
Stddev	.025	.0035	.0005	.0022	.0037	.0002	.054
%RSD	.3307	24.29	13.93	.3323	4.192	.0803	1.522
#1	7.575	.0167	.0031	.6616	.0902	.2075	3.513
#2	7.610	.0118	.0038	.6647	.0850	.2073	3.590

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**158310.**	**24026.**	**6587.6**	**9868.1**
Stddev	123.	67.	3.6	1.5
%RSD	.07799	.28000	.05504	.01569
#1	158220.	24074.	6590.2	9869.2
#2	158400.	23979.	6585.1	9867.0

Zoom In Zoom Out

Sample Name: jc66223-6 Acquired: 5/22/2018 14:14:01 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	**.5699**	**.0050**	**.0155**	**.0991**	**.3392**	**10.78**	**4.423**	**.5200**	**.0044**
Stddev	.0087	.0002	.0007	.0006	.0001	.03	.008	.0010	.0014
%RSD	1.529	3.114	4.816	.6412	.0298	.2521	.1845	.1863	31.03
#1	.5760	.0051	.0160	.0996	.3391	10.76	4.417	.5193	.0054
#2	.5637	.0049	.0150	.0987	.3392	10.80	4.428	.5207	.0034

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.5762**	**6.750**	**.1364**	**.0011**	**3.022**	**.0231**	**.0392**	**65.57**	**22.92**
Stddev	.0027	.016	.0008	.0055	.007	.0078	.0016	1.18	.42
%RSD	.4629	.2336	.5857	520.0	.2325	33.93	4.077	1.799	1.820
#1	.5781	6.739	.1358	.0050	3.018	.0286	.0403	66.40	23.22
#2	.5743	6.761	.1370	-.0028	3.027	.0175	.0381	64.73	22.63

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**487.5**	**31.51**	**10.65**	**1.789**	**.0318**	**.0310**	**7.805**	**.1472**	**.2258**
Stddev	8.4	.56	.16	.000	.0006	.0001	.019	.0016	.0029
%RSD	1.732	1.764	1.510	.0201	1.864	.1919	.2403	1.111	1.293
#1	493.4	31.90	10.76	1.789	.0314	.0310	7.792	.1460	.2279
#2	481.5	31.12	10.53	1.790	.0322	.0311	7.818	.1483	.2237

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**5.633**	**.0186**	**.0331**	**6.174**	**.0741**	**.1054**	**4.555**
Stddev	.009	.0042	.0000	.007	.0009	.0094	.022
%RSD	.1565	22.36	.0751	.1191	1.151	8.958	.4920
#1	5.627	.0216	.0331	6.179	.0735	.1121	4.539
#2	5.639	.0157	.0331	6.169	.0747	.0987	4.571

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157350.**	**23963.**	**6523.6**	**9979.2**
Stddev	206.	207.	6.7	16.7
%RSD	.13086	.86192	.10339	.16694
#1	157210.	23817.	6518.9	9967.4
#2	157500.	24110.	6528.4	9990.9

Zoom In Zoom Out

Sample Name: jc66223-7 Acquired: 5/22/2018 14:16:56 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.2723**	**.0021**	**.0006**	**.0770**	**.1110**	**.4132**	**2.285**	**.1469**	**.0015**
Stddev	.0027	.0000	.0002	.0011	.0005	.0006	.003	.0013	.0003
%RSD	.9967	1.263	28.52	1.413	.4801	.1465	.1363	.9128	18.78
#1	.2742	.0021	.0005	.0763	.1114	.4137	2.287	.1460	.0016
#2	.2704	.0021	.0008	.0778	.1106	.4128	2.283	.1479	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.7940**	**.6192**	**.0157**	**-.0005**	**.1191**	**.0073**	**.0055**	**84.33**	**59.78**
Stddev	.0029	.0064	.0000	.0009	.0011	.0001	.0012	.97	.54
%RSD	.3695	1.042	.3115	196.2	.9153	.6963	21.72	1.151	.9030
#1	.7960	.6146	.0158	-.0011	.1183	.0072	.0063	85.01	60.16
#2	.7919	.6237	.0157	.0002	.1199	.0073	.0046	83.64	59.40

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**179.3**	**38.11**	**9.731**	**7.512**	**.0993**	**.0230**	**1.969**	**.0276**	**.1878**
Stddev	1.5	.29	.035	.038	.0024	.0003	.013	.0003	.0017
%RSD	.8594	.7543	.3563	.5094	2.390	1.131	.6573	1.262	.8915
#1	180.3	38.31	9.755	7.539	.0977	.0228	1.960	.0273	.1889
#2	178.2	37.90	9.706	7.485	.1010	.0231	1.978	.0278	.1866

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**F 10.12**	**.0081**	**.0780**	**14.64**	**.1218**	**.1000**	**2.924**
Stddev	.07	.0004	.0004	.16	.0020	.0011	.033
%RSD	.7104	5.081	.4946	1.090	1.663	1.139	1.117
#1	10.07	.0084	.0782	14.53	.1204	.1008	2.901
#2	10.18	.0078	.0777	14.75	.1232	.0992	2.947

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**160720.**	**25063.**	**6674.5**	**9887.7**
Stddev	1115.	92.	.1	7.6
%RSD	.69367	.36775	.00089	.07709
#1	159930.	24997.	6674.6	9882.3
#2	161510.	25128.	6674.5	9893.1

Zoom In Zoom Out

Sample Name: jc66223-7 Acquired: 5/22/2018 14:19:55 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.2875**	**.0022**	**.0003**	**.0788**	**.1161**	**.4284**	**2.411**	**.1529**	**.0020**
Stddev	.0020	.0001	.0004	.0001	.0006	.0035	.012	.0004	.0010
%RSD	.6830	6.063	110.5	.0941	.5440	.8181	.5043	.2473	52.23
#1	.2861	.0023	.0001	.0789	.1165	.4259	2.402	.1531	.0027
#2	.2888	.0021	.0006	.0788	.1156	.4309	2.419	.1526	.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.8308**	**.6491**	**.0177**	**.0016**	**.1263**	**.0086**	**.0024**	**87.29**	**62.78**
Stddev	.0048	.0030	.0045	.0008	.0005	.0028	.0044	.48	.37
%RSD	.5766	.4580	25.18	47.60	.4108	32.88	186.4	.5538	.5912
#1	.8274	.6512	.0209	.0011	.1259	.0106	.0055	86.95	62.51
#2	.8342	.6470	.0146	.0021	.1267	.0066	-.0008	87.63	63.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**188.6**	**40.39**	**10.35**	**7.951**	**.1042**	**.0243**	**2.248**	**.0285**	**.1972**
Stddev	.8	.21	.14	.100	.0004	.0003	.023	.0006	.0009
%RSD	.4230	.5277	1.346	1.260	.4123	1.069	1.030	2.186	.4374
#1	188.1	40.24	10.25	7.880	.1045	.0245	2.264	.0289	.1966
#2	189.2	40.54	10.45	8.022	.1039	.0241	2.232	.0281	.1979

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**10.69**	**.0116**	**.0811**	**15.16**	**.1300**	**.1063**	**3.022**
Stddev	.05	.0029	.0005	.06	.0077	.0032	.012
%RSD	.4586	24.77	.6417	.4158	5.897	2.990	.3924
#1	10.66	.0096	.0807	15.20	.1246	.1040	3.031
#2	10.73	.0136	.0814	15.11	.1355	.1085	3.014

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159380.**	**24575.**	**6639.2**	**9943.2**
Stddev	35.	112.	35.0	46.1
%RSD	.02177	.45654	.52670	.46336
#1	159410.	24654.	6614.4	9910.6
#2	159360.	24495.	6663.9	9975.7

Zoom In Zoom Out

Sample Name: jc66223-9 Acquired: 5/22/2018 14:22:50 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.4675**	**.0027**	**.0312**	**.0582**	**.1080**	**4.035**	**3.208**	**.1790**	**-.0016**
Stddev	.0031	.0002	.0000	.0005	.0011	.038	.028	.0012	.0018
%RSD	.6607	8.277	.1197	.8558	1.064	.9450	.8742	.6503	110.9
#1	.4653	.0029	.0313	.0578	.1072	4.008	3.188	.1798	-.0029
#2	.4697	.0026	.0312	.0585	.1088	4.062	3.228	.1782	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1915**	**2.678**	**.0727**	**.0006**	**1.176**	**.0072**	**.0205**	**29.63**	**12.18**
Stddev	.0026	.006	.0040	.0026	.000	.0052	.0037	.20	.10
%RSD	1.361	.2364	5.494	465.2	.0061	72.89	17.85	.6820	.8496
#1	.1897	2.674	.0699	-.0013	1.176	.0035	.0179	29.49	12.10
#2	.1934	2.683	.0756	.0024	1.176	.0109	.0231	29.77	12.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**425.7**	**5.280**	**4.325**	**2.779**	**.0333**	**.0133**	**2.271**	**.2297**	**.1499**
Stddev	13.4	.005	.181	.037	.0001	.0001	.006	.0016	.0011
%RSD	3.138	.0940	4.184	1.330	.2103	.4536	.2543	.6884	.7584
#1	416.3	5.283	4.197	2.753	.0333	.0133	2.267	.2286	.1491
#2	435.2	5.276	4.453	2.805	.0334	.0134	2.276	.2309	.1507

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**2.627**	**.0124**	**.0442**	**5.336**	**.0531**	**.0521**	**4.198**
Stddev	.023	.0029	.0010	.023	.0065	.0022	.019
%RSD	.8722	23.30	2.197	.4278	12.18	4.298	.4530
#1	2.611	.0104	.0435	5.320	.0577	.0506	4.185
#2	2.643	.0145	.0449	5.352	.0486	.0537	4.212

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**157610.**	**24181.**	**6538.3**	**10121.**
Stddev	90.	124.	1.7	2.
%RSD	.05685	.51365	.02585	.01969
#1	157550.	24094.	6539.5	10119.
#2	157680.	24269.	6537.1	10122.

Zoom In Zoom Out

Sample Name: jc66384-4 Acquired: 5/22/2018 14:25:48 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.0746**	**.0008**	**-.0010**	**.0078**	**.0403**	**.0404**	**1.287**	**.0564**	**.0004**
Stddev	.0028	.0003	.0001	.0004	.0031	.0006	.009	.0008	.0003
%RSD	3.702	36.05	10.89	5.645	7.695	1.478	.6952	1.404	76.75
#1	.0727	.0010	-.0011	.0075	.0381	.0408	1.280	.0558	.0006
#2	.0766	.0006	-.0009	.0081	.0425	.0400	1.293	.0570	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.0611**	**.0991**	**.0493**	**-.0048**	**.1134**	**.0220**	**.0005**	**8.183**	**893.9**
Stddev	.0020	.0015	.0012	.0031	.0008	.0104	.0006	.290	31.9
%RSD	3.244	1.484	2.352	64.63	.7218	47.34	127.4	3.547	3.566
#1	.0625	.0980	.0501	-.0070	.1140	.0294	.0009	7.978	871.4
#2	.0597	.1001	.0485	-.0026	.1128	.0147	.0000	8.389	916.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**19.26**	**765.8**	**.4698**	**.4800**	**.0467**	**.0011**	**4.830**	**.1936**	**.1399**
Stddev	.54	22.4	.3566	.0102	.0021	.0010	.070	.0001	.0025
%RSD	2.804	2.922	75.91	2.134	4.484	88.14	1.459	.0397	1.795
#1	18.87	750.0	.2176	.4728	.0453	.0004	4.879	.1936	.1381
#2	19.64	781.6	.7219	.4873	.0482	.0018	4.780	.1935	.1416

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**.3911**	**.0076**	**.0151**	**8.575**	**.0072**	**.0252**	**.4029**
Stddev	.0008	.0019	.0007	.050	.0005	.0013	.0077
%RSD	.2053	24.49	4.440	.5857	7.316	5.104	1.908
#1	.3917	.0063	.0147	8.540	.0068	.0242	.3975
#2	.3906	.0090	.0156	8.611	.0075	.0261	.4084

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**149770.**	**23220.**	**6208.7**	**9295.0**
Stddev	821.	101.	10.4	23.9
%RSD	.54838	.43478	.16710	.25697
#1	150350.	23291.	6216.1	9311.9
#2	149190.	23149.	6201.4	9278.1

Zoom In Zoom Out

Sample Name: jc66396-3 Acquired: 5/22/2018 14:28:51 Type: Unk
Method: Accutest XPress(v328) 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
Avg	**.7852**	**.0040**	**.0023**	**.0849**	**.8792**	**.1834**	**3.672**	**.4379**	**.0044**
Stddev	.0046	.0005	.0002	.0011	.0037	.0020	.003	.0080	.0012
%RSD	.5873	12.56	7.391	1.248	.4191	1.077	.0827	1.833	28.16
#1	.7820	.0043	.0021	.0841	.8818	.1848	3.675	.4322	.0053
#2	.7885	.0036	.0024	.0856	.8766	.1820	3.670	.4436	.0035

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	**.1953**	**.5398**	**.0549**	**.0048**	**.2421**	**.0109**	**.0078**	**78.25**	**762.7**
Stddev	.0030	.0076	.0060	.0026	.0069	.0051	.0038	.10	10.1
%RSD	1.526	1.399	10.92	54.46	2.865	46.64	48.21	.1258	1.328
#1	.1932	.5344	.0591	.0029	.2470	.0073	.0052	78.32	755.6
#2	.1974	.5451	.0506	.0066	.2372	.0145	.0105	78.18	769.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	**131.5**	**120.9**	**15.45**	**6.882**	**.1039**	**.0800**	**4.219**	**.0315**	**1.501**
Stddev	.1	.4	.26	.051	.0041	.0004	.007	.0039	.003
%RSD	.1062	.3713	1.675	.7368	3.901	.4975	.1620	12.47	.1749
#1	131.4	120.6	15.27	6.847	.1010	.0797	4.214	.0343	1.499
#2	131.6	121.3	15.63	6.918	.1067	.0803	4.224	.0287	1.502

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	**1.927**	**.0543**	**.0543**	**13.26**	**.0302**	**.1414**	**4.114**
Stddev	.007	.0014	.0001	.13	.0003	.0022	.038
%RSD	.3544	2.627	.1575	1.007	.8577	1.561	.9248
#1	1.931	.0553	.0544	13.16	.0304	.1399	4.087
#2	1.922	.0532	.0542	13.35	.0300	.1430	4.141

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**154140.**	**23697.**	**6384.1**	**9531.8**
Stddev	244.	56.	29.3	32.1
%RSD	.15812	.23652	.45880	.33696
#1	153970.	23736.	6404.8	9554.5
#2	154310.	23657.	6363.4	9509.1

Zoom In Zoom Out

Sample Name: ticonf Acquired: 5/22/2018 14:31:55 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**-.0000**	**.0003**	**-.0001**	**-.0007**	**-.0006**	**-.0003**	**.0001**	**.0009**
Stddev	.0005	.0000	.0001	.0003	.0001	.0008	.0000	.0000
%RSD	1449.	13.41	112.5	44.59	21.17	309.9	34.12	5.059
#1	-.0004	.0003	-.0000	-.0005	-.0005	.0003	.0001	.0008
#2	.0003	.0003	-.0001	-.0010	-.0007	-.0008	.0001	.0009

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0009**	**-.0010**	**.0024**	**-.0005**	F **-.0024**	**.0001**	**.0024**	**.0020**
Stddev	.0006	.0006	.0000	.0004	.0013	.0001	.0011	.0006
%RSD	67.87	57.92	.1984	81.83	54.66	68.31	48.55	28.14
#1	.0013	-.0014	.0024	-.0002	-.0034	.0001	.0032	.0016
#2	.0005	-.0006	.0024	-.0009	-.0015	.0000	.0015	.0024

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0202**	**.0210**	**.0095**	**.0164**	**-.0940**	**-.0160**	**-.0004**	**-.0001**
Stddev	.0218	.0037	.0046	.0091	.0544	.0022	.0007	.0002
%RSD	107.7	17.60	48.31	55.59	57.90	13.46	157.0	212.2
#1	.0356	.0236	.0127	.0228	-.0555	-.0145	-.0009	-.0003
#2	.0048	.0184	.0062	.0099	-.1325	-.0175	.0000	.0001

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0038**	**-.0045**	**.0000**	F **10.11**	**-.0011**	**-.0032**	**.0058**	**.1152**
Stddev	.0008	.0003	.0000	.12	.0000	.0001	.0001	.0044
%RSD	20.23	6.468	174.7	1.204	1.886	2.692	2.495	3.840
#1	.0032	-.0043	-.0000	10.02	-.0012	-.0032	.0059	.1121
#2	.0043	-.0047	.0000	10.20	-.0011	-.0033	.0057	.1184

Elem	Li6707	P_1774
Avg	**.0017**	**-.0003**
Stddev	.0024	.0012
%RSD	139.7	406.6
#1	.0034	.0006
#2	.0000	-.0012

Zoom In Zoom Out

Sample Name: ticonf Acquired: 5/22/2018 14:31:55 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	156290.	23493.	6521.2	10002.
Stddev	276.	196.	32.1	42.
%RSD	.17648	.83468	.49236	.41528
#1	156490.	23632.	6498.5	9972.2
#2	156100.	23355.	6543.9	10031.

Zoom In Zoom Out

Sample Name: vconf Acquired: 5/22/2018 14:34:57 Type: Unk
Method: Accutest XPress(v328) 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
Avg	.0005	.0002	.0001	.0003	.0003	-.0012	.0000	.0005	.0029
Stddev	.0002	.0002	.0000	.0003	.0003	.0005	.0001	.0002	.0003
%RSD	38.60	132.1	51.64	83.68	101.5	41.62	1744000.	46.44	9.281
#1	.0007	.0000	.0001	.0006	.0001	-.0008	.0001	.0003	.0031
#2	.0004	.0003	.0000	.0001	.0004	-.0015	-.0001	.0006	.0028

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	F 10.26	.0009	-.0009	.0022	-.0020	.0049	.0071	.0324	.0184
Stddev	.02	.0000	.0019	.0035	.0011	.0006	.0007	.0116	.0014
%RSD	.1815	4.898	217.1	155.7	54.11	12.93	9.462	35.83	7.345
#1	10.27	.0009	-.0022	.0047	-.0028	.0053	.0076	.0406	.0175
#2	10.24	.0009	.0005	-.0002	-.0012	.0044	.0066	.0242	.0194

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0064	.0224	.0049	.0591	.0228	-.0046	.0054	.0011	.0001
Stddev	.0022	.0196	.0329	.0083	.0001	.0003	.0079	.0006	.0000
%RSD	34.58	87.61	668.2	14.01	.4003	5.873	146.0	57.59	53.93
#1	.0080	.0362	.0282	.0650	.0229	-.0044	-.0002	.0006	.0001
#2	.0049	.0085	-.0184	.0533	.0228	-.0048	.0110	.0015	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0008	.0025	.0008	.0016	.0127	.0001	-.0032
Stddev	.0002	.0002	.0001	.0002	.0006	.0019	.0006
%RSD	19.81	9.427	10.73	9.746	4.639	2549.	17.67
#1	.0009	.0024	.0009	.0015	.0131	-.0013	-.0036
#2	.0007	.0027	.0007	.0018	.0123	.0014	-.0028

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	156200.	23542.	6504.7	9979.2
Stddev	1038.	34.	9.8	17.9
%RSD	.66463	.14587	.15074	.17966
#1	155470.	23566.	6497.8	9966.5
#2	156940.	23517.	6511.7	9991.9

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 14:38:00 Type: QC
Method: Accutest XPress(v328) 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	1.936	1.954	1.992	1.948	1.925	1.996	2.005	.2424
Stddev	.020	.016	.019	.022	.008	.010	.011	.019	.0027
%RSD	1.008	.8405	.9573	1.101	.4031	.5173	.5514	.9589	1.113
#1	1.952	1.925	1.941	1.977	1.943	1.918	1.988	1.992	.2405
#2	1.980	1.948	1.968	2.008	1.954	1.932	2.004	2.019	.2443
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	1.941	1.981	1.973	1.997	2.004	1.970	1.972	38.65	39.18
Stddev	.011	.020	.024	.024	.026	.024	.020	.28	.34
%RSD	.5430	.9886	1.202	1.196	1.305	1.202	1.023	.7223	.8610
#1	1.933	1.967	1.956	1.980	1.985	1.953	1.957	38.45	38.94
#2	1.948	1.995	1.989	2.013	2.022	1.986	1.986	38.85	39.41
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	38.98	39.45	38.75	39.63	1.977	1.986	4.956	1.980	1.958
Stddev	.31	.28	.52	.43	.018	.019	.057	.020	.018
%RSD	.7905	.7076	1.355	1.093	.8859	.9513	1.144	.9984	.8946
#1	38.77	39.25	38.38	39.32	1.965	1.973	4.916	1.966	1.946
#2	39.20	39.64	39.13	39.94	1.990	2.000	4.997	1.994	1.971
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: 5/22/2018 14:38:00 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.967	1.967	1.955	1.948	1.991	1.972	1.970
Stddev	.012	.023	.010	.021	.025	.025	.019
%RSD	.6314	1.189	.5143	1.066	1.262	1.261	.9836
#1	1.959	1.950	1.948	1.933	1.973	1.955	1.956
#2	1.976	1.983	1.962	1.963	2.009	1.990	1.984
Check ?	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	152110.	23226.	6316.1	9492.3
Stddev	470.	19.	3.3	6.3
%RSD	.30912	.08093	.05159	.06645
#1	152440.	23240.	6318.4	9496.8
#2	151770.	23213.	6313.7	9487.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 14:40:51 Type: QC
Method: Accutest XPress(v328) 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**	**.0000**	**-.0000**	**.0001**	**.0000**	**-.0004**	**.0001**	**.0007**	**-.0004**
Stddev	.0003	.0000	.0001	.0002	.0006	.0004	.0001	.0001	.0005
%RSD	58.45	27.56	4050.	169.2	1970.	85.42	45.25	13.52	138.3
#1	-.0003	.0000	-.0001	.0003	.0004	-.0002	.0002	.0008	-.0000
#2	-.0006	.0000	.0001	-.0000	-.0004	-.0007	.0001	.0007	-.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**	**.0000**	**.0004**	**-.0008**	**-.0015**	**.0032**	**.0014**	**.0193**	**.0045**
Stddev	.0001	.0002	.0008	.0002	.0000	.0008	.0001	.0003	.0019
%RSD	67.84	683.8	198.1	23.36	1.117	24.19	9.220	1.569	42.63
#1	-.0001	.0001	.0010	-.0007	-.0015	.0026	.0015	.0191	.0032
#2	-.0002	-.0001	-.0002	-.0010	-.0015	.0037	.0013	.0195	.0059
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	**.0043**	**.0281**	**-.0381**	**-.0195**	**-.0003**	**-.0003**	**-.0027**	**-.0003**	**.0002**
Stddev	.0002	.0112	.0150	.0173	.0007	.0004	.0002	.0009	.0000
%RSD	5.109	39.73	39.42	88.62	223.5	146.3	8.771	331.1	17.93
#1	.0042	.0360	-.0275	-.0317	.0002	.0000	-.0029	.0004	.0002
#2	.0045	.0202	-.0487	-.0073	-.0008	-.0006	-.0025	-.0009	.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: 5/22/2018 14:40:51 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0014**	**.0001**	**.0022**	**-.0003**	**.0005**	**.0027**
Stddev	.0003	.0017	.0000	.0010	.0007	.0052	.0002
%RSD	1001.	120.6	19.76	44.74	252.2	1150.	6.126
#1	-.0002	-.0002	.0002	.0029	-.0008	-.0032	.0025
#2	.0003	-.0027	.0001	.0015	.0002	.0041	.0028
Check ?	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	**155740.**	**23566.**	**6553.9**	**10065.**
Stddev	70.	68.	16.7	26.
%RSD	.04483	.28803	.25474	.25847
#1	155690.	23518.	6565.8	10084.
#2	155790.	23614.	6542.1	10047.

Zoom In Zoom Out

Sample Name: mp7257-mb1conf Acquired: 5/22/2018 14:43:54 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	**.0004**	**.0001**	**-.0000**	**-.0001**	**.0006**	**.0013**	**.0002**	**.0008**
Stddev	.0003	.0001	.0001	.0001	.0001	.0008	.0000	.0002
%RSD	60.57	125.4	284.0	198.9	23.73	63.44	7.585	31.77
#1	.0002	.0002	-.0001	.0000	.0005	.0007	.0003	.0009
#2	.0006	.0000	.0000	-.0001	.0007	.0018	.0002	.0006

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Avg	**.0006**	**-.0001**	**.0047**	**-.0004**	F **-.0020**	**.0002**	**.0028**	**.0008**
Stddev	.0009	.0002	.0001	.0017	.0019	.0008	.0006	.0015
%RSD	159.7	156.1	2.311	419.3	92.83	565.3	19.95	178.6
#1	-.0001	.0000	.0048	-.0016	-.0007	.0008	.0024	.0019
#2	.0012	-.0002	.0046	.0008	-.0034	-.0005	.0032	-.0002

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	**.0098**	**.0953**	**.0186**	**.0571**	**-.0636**	**.0733**	**-.0003**	**.0002**
Stddev	.0004	.0023	.0012	.0104	.0257	.0225	.0003	.0002
%RSD	3.905	2.401	6.201	18.27	40.39	30.72	97.86	91.60
#1	.0095	.0970	.0194	.0498	-.0818	.0892	-.0001	.0003
#2	.0100	.0937	.0178	.0645	-.0455	.0574	-.0005	.0001

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	**.0396**	**.0236**	**.0007**	**.0004**	**.0007**	**.0004**	**.0097**	**-.0014**
Stddev	.0016	.0006	.0000	.0003	.0009	.0001	.0015	.0029
%RSD	3.929	2.726	6.312	74.40	133.0	17.06	15.58	203.6
#1	.0385	.0231	.0007	.0002	.0013	.0005	.0108	-.0035
#2	.0407	.0240	.0008	.0006	.0000	.0004	.0086	.0006

Elem	Li6707	P_1774
Avg	**.0011**	**.0263**
Stddev	.0014	.0005
%RSD	124.8	1.729
#1	.0022	.0266
#2	.0001	.0260

Zoom In Zoom Out

Sample Name: mp7257-mb1conf Acquired: 5/22/2018 14:43:54 Type: Unk
Method: Accutest XPress(v328) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	**159100.**	**23832.**	**6529.5**	**9997.2**
Stddev	903.	151.	20.4	17.9
%RSD	.56781	.63542	.31231	.17916
#1	159740.	23725.	6515.0	9984.5
#2	158460.	23939.	6543.9	10010.

Zoom In Zoom Out

Sample Name: cri Acquired: 5/22/2018 14:46:56 Type: QC
Method: Accutest XPress(v328) 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	**.2025**	**.0019**	**.0029**	**.0508**	**.0104**	**.0092**	**.0159**	**.0109**
Stddev	.0013	.0000	.0002	.0002	.0001	.0005	.0002	.0005
%RSD	.6353	2.059	5.923	.4707	1.281	5.083	1.088	4.706
#1	.2034	.0020	.0027	.0506	.0103	.0095	.0157	.0112
#2	.2016	.0019	.0030	.0509	.0105	.0088	.0160	.0105
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**	**.0495**	**.0204**	**.0076**	**.0092**	W **.0024**	**.0093**	**.0052**
Stddev	.0006	.0001	.0001	.0001	.0009	.0014	.0021	.0010
%RSD	13.71	.1546	.4521	.6798	9.682	57.59	23.14	19.72
#1	.0041	.0494	.0204	.0076	.0085	.0014	.0077	.0045
#2	.0050	.0495	.0205	.0076	.0098	.0033	.0108	.0060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value						.0030		
Range						-20.00%		

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2187**	**5.088**	**.1030**	**5.234**	**4.969**	**5.166**	**.0970**	**.0202**
Stddev	.0267	.024	.0008	.018	.061	.002	.0006	.0003
%RSD	12.20	.4704	.8063	.3363	1.236	.0379	.6400	1.314
#1	.2376	5.105	.1036	5.222	4.926	5.167	.0974	.0200
#2	.1998	5.071	.1024	5.246	5.013	5.165	.0965	.0204
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: 5/22/2018 14:46:56 Type: QC
Method: Accutest XPress(v328) 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	**.2044**	**.0096**	**.0099**	**.0099**	**.0504**	**.0110**	**.0521**	**.0219**
Stddev	.0042	.0004	.0001	.0001	.0009	.0002	.0014	.0014
%RSD	2.072	4.445	.6177	.7854	1.811	1.931	2.595	6.234
#1	.2014	.0099	.0100	.0099	.0498	.0108	.0530	.0209
#2	.2074	.0093	.0099	.0098	.0511	.0111	.0511	.0229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0533**	**.0519**
Stddev	.0007	.0019
%RSD	1.270	3.727
#1	.0528	.0533
#2	.0538	.0505
Check ?	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	**156510.**	**23347.**	**6503.1**	**9942.8**
Stddev	830.	124.	27.5	41.3
%RSD	.53054	.53192	.42225	.41529
#1	157090.	23259.	6483.7	9913.6
#2	155920.	23434.	6522.6	9972.0

Zoom In Zoom Out

Sample Name: crid Acquired: 5/22/2018 14:49:57 Type: QC
Method: Accutest XPress(v328) 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	**.0041**	**.0010**	**.0010**	**.0034**	**.0021**	F **.0008**	**.0034**	**.0044**
Stddev	.0000	.0000	.0002	.0003	.0000	.0007	.0001	.0002
%RSD	.3322	.1318	16.63	10.22	1.284	81.84	4.277	5.630
#1	.0041	.0010	.0011	.0036	.0021	.0013	.0033	.0042
#2	.0041	.0010	.0008	.0031	.0022	.0003	.0035	.0045
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 **-.0004**	**.0017**	**.0110**	**.0032**	F **.0012**	F **-.0012**	F **.0070**	F **.0001**
Stddev	.0002	.0003	.0001	.0011	.0004	.0000	.0006	.0016
%RSD	48.13	17.40	1.222	34.49	32.11	1.293	8.817	1583.
#1	-.0002	.0015	.0109	.0039	.0009	-.0012	.0065	.0012
#2	-.0005	.0020	.0111	.0024	.0014	-.0012	.0074	-.0010
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%				-30.00%	-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	**.1120**	**1.046**	**.0016**	**.1224**	**2.003**	**1.036**	**-.0020**	**-.0002**
Stddev	.0049	.010	.0016	.0200	.041	.004	.0009	.0003
%RSD	4.371	.9611	97.04	16.35	2.033	.3787	42.87	179.6
#1	.1086	1.038	.0028	.1365	1.974	1.033	-.0014	.0000
#2	.1155	1.053	.0005	.1082	2.032	1.039	-.0027	-.0004
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 5/22/2018 14:49:57 Type: QC
Method: Accutest XPress(v328) 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	**.0095**	**-.0001**	**.0002**	**-.0001**	**-.0001**	**-.0000**	**.0028**	**-.0009**
Stddev	.0000	.0002	.0002	.0003	.0002	.0001	.0016	.0032
%RSD	.1121	315.2	95.88	258.6	218.5	318.1	55.63	351.6
#1	.0095	.0001	.0001	.0001	.0000	-.0001	.0017	.0014
#2	.0095	-.0002	.0004	-.0003	-.0002	.0000	.0040	-.0032
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0008**	**.0022**
Stddev	.0002	.0012
%RSD	28.04	55.32
#1	.0010	.0031
#2	.0007	.0014
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156640.**	**23424.**	**6527.4**	**10014.**
Stddev	179.	38.	8.4	7.
%RSD	.11427	.16280	.12880	.06949
#1	156770.	23451.	6521.5	10010.
#2	156520.	23397.	6533.4	10019.

Zoom In Zoom Out

Sample Name: icsa Acquired: 5/22/2018 14:53:01 Type: QC
Method: Accutest XPress(v328) 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	**.0014**	**.0001**	**.0002**	**.0001**	**.0008**	**.0004**	**-.0005**	**.0003**	**-.0001**
Stddev	.0002	.0000	.0004	.0000	.0004	.0013	.0004	.0004	.0002
%RSD	16.16	37.50	185.8	22.03	53.26	286.4	72.50	167.4	171.3
#1	.0013	.0000	-.0001	.0001	.0011	-.0005	-.0008	-.0000	-.0003
#2	.0016	.0001	.0005	.0001	.0005	.0013	-.0002	.0006	.0000
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	**.0032**	**.0050**	**.0004**	**-.0001**	**.0027**	**.0046**	**.0053**	**495.4**	**392.6**
Stddev	.0002	.0004	.0004	.0041	.0025	.0077	.0046	2.0	13.4
%RSD	4.872	8.690	92.15	7909.	93.70	168.2	86.93	.4046	3.413
#1	.0033	.0047	.0001	.0029	.0044	.0100	.0086	494.0	383.2
#2	.0031	.0053	.0007	-.0030	.0009	-.0009	.0020	496.8	402.1
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	**196.8**	**502.1**	**.0573**	**-.0344**	**-.0024**	**.0004**	**.0152**	**-.0056**	**-.0025**
Stddev	1.3	3.4	.0205	.0074	.0010	.0004	.0001	.0007	.0004
%RSD	.6784	.6735	35.70	21.62	44.24	104.2	.8969	12.57	16.11
#1	195.9	499.7	.0718	-.0397	-.0031	.0001	.0153	-.0061	-.0022
#2	197.8	504.4	.0428	-.0292	-.0016	.0007	.0151	-.0051	-.0028
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: 5/22/2018 14:53:01 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**.0039**	**-.0028**	**-.0153**	**.0061**	**.0016**	**.0044**
Stddev	.0005	.0014	.0002	.0028	.0009	.0030	.0003
%RSD	26.26	36.95	6.852	18.01	14.27	188.0	6.426
#1	-.0016	.0049	-.0030	-.0172	.0055	-.0005	.0042
#2	-.0024	.0029	-.0027	-.0133	.0067	.0037	.0046
Check ?	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	**140830.**	**22730.**	**5944.0**	**8837.3**
Stddev	1413.	104.	18.2	30.0
%RSD	1.0031	.45879	.30681	.33956
#1	139830.	22804.	5956.9	8858.5
#2	141830.	22657.	5931.1	8816.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/22/2018 14:56:08 Type: QC
Method: Accutest XPress(v328) 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	**.5018**	**.4789**	**1.006**	**.4932**	**.4820**	**.4979**	**.5014**	**.9763**	**1.039**
Stddev	.0054	.0059	.010	.0044	.0034	.0027	.0018	.0101	.002
%RSD	1.073	1.228	.9891	.8970	.7092	.5488	.3685	1.030	.1729
#1	.4980	.4747	.9991	.4900	.4844	.4998	.5027	.9692	1.040
#2	.5056	.4831	1.013	.4963	.4796	.4960	.5001	.9834	1.037
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	**.4972**	**.9543**	**1.062**	**.9696**	**.9730**	**.9923**	**1.031**	**501.7**	**380.2**
Stddev	.0026	.0112	.012	.0095	.0087	.0092	.017	11.0	7.4
%RSD	.5154	1.169	1.141	.9813	.8899	.9293	1.662	2.193	1.950
#1	.4990	.9464	1.053	.9628	.9668	.9858	1.019	493.9	374.9
#2	.4954	.9622	1.070	.9763	.9791	.9989	1.043	509.5	385.4
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	**194.8**	**492.9**	**.0729**	**-.0012**	**.5053**	**.4892**	**.5079**	**.4670**	**.4973**
Stddev	2.1	5.4	.0548	.0250	.0061	.0051	.0065	.0040	.0047
%RSD	1.055	1.095	75.18	2048.	1.202	1.039	1.271	.8498	.9547
#1	193.4	489.0	.0342	-.0189	.5010	.4856	.5033	.4642	.4939
#2	196.3	496.7	.1117	.0164	.5096	.4928	.5124	.4698	.5007
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: 5/22/2018 14:56:08 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5001**	**.4888**	**.4873**	**.4907**	**.5135**	**.5120**	**.5063**
Stddev	.0031	.0075	.0033	.0091	.0049	.0072	.0092
%RSD	.6115	1.544	.6674	1.853	.9547	1.411	1.822
#1	.5023	.4835	.4896	.4842	.5100	.5069	.4998
#2	.4980	.4941	.4850	.4971	.5170	.5172	.5129
Check ?	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	**141380.**	**22741.**	**5936.1**	**8824.7**
Stddev	732.	97.	9.6	6.1
%RSD	.51775	.42603	.16162	.06893
#1	140860.	22810.	5942.9	8829.0
#2	141890.	22673.	5929.4	8820.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/22/2018 14:59:10 Type: QC
Method: Accutest XPress(v328) 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	**1.983**	**1.949**	**1.936**	**1.973**	**1.946**	**1.914**	**1.988**	**1.988**	**.2409**
Stddev	.003	.004	.018	.017	.000	.003	.004	.014	.0006
%RSD	.1585	.2331	.9022	.8348	.0208	.1675	.1884	.7241	.2502
#1	1.981	1.946	1.924	1.961	1.946	1.912	1.986	1.978	.2405
#2	1.985	1.953	1.949	1.985	1.945	1.916	1.991	1.998	.2414
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	**1.935**	**1.960**	**1.954**	**1.976**	**1.982**	**1.950**	**1.953**	**38.99**	**39.41**
Stddev	.002	.016	.018	.024	.021	.023	.019	.13	.10
%RSD	.0863	.8301	.9398	1.193	1.053	1.174	.9554	.3314	.2486
#1	1.934	1.949	1.941	1.959	1.967	1.934	1.939	38.90	39.34
#2	1.937	1.972	1.967	1.992	1.997	1.966	1.966	39.08	39.47
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	**39.29**	**39.77**	**38.59**	**39.75**	**1.957**	**1.973**	**4.902**	**1.961**	**1.973**
Stddev	.04	.16	.28	.21	.019	.016	.054	.016	.004
%RSD	.1002	.3936	.7236	.5242	.9839	.7962	1.102	.8275	.2268
#1	39.26	39.66	38.40	39.60	1.943	1.962	4.864	1.950	1.970
#2	39.32	39.88	38.79	39.90	1.970	1.984	4.940	1.973	1.977
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: 5/22/2018 14:59:10 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.962**	**1.950**	**1.956**	**1.917**	**1.972**	**1.984**	**1.953**
Stddev	.003	.019	.001	.024	.016	.004	.017
%RSD	.1526	.9592	.0333	1.258	.7997	.2196	.8460
#1	1.960	1.937	1.955	1.900	1.961	1.981	1.941
#2	1.964	1.963	1.956	1.934	1.983	1.987	1.965
Check ?	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	**151880.**	**23215.**	**6329.2**	**9502.3**
Stddev	305.	4.	2.2	2.9
%RSD	.20108	.01652	.03414	.03036
#1	152100.	23218.	6330.8	9500.3
#2	151670.	23212.	6327.7	9504.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/22/2018 15:02:01 Type: QC
Method: Accutest XPress(v328) 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**	**.0005**	**-.0001**	**.0001**	**.0005**	**-.0002**
Stddev	.0001	.0000	.0000	.0003	.0004	.0001	.0000	.0001	.0004
%RSD	152.5	54.23	41.05	412.4	76.29	54.04	29.17	10.13	209.6
#1	.0002	.0000	-.0001	.0002	.0002	-.0002	.0001	.0005	.0001
#2	-.0000	.0001	-.0000	-.0003	.0008	-.0001	.0001	.0006	-.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**	**-.0001**	**.0005**	**.0005**	**.0032**	**.0008**	**.0100**	**.0021**
Stddev	.0004	.0000	.0020	.0004	.0004	.0013	.0008	.0015	.0027
%RSD	678.0	10.79	1591.	80.75	91.29	39.95	96.97	14.85	132.8
#1	-.0004	.0001	.0013	.0008	.0008	.0040	.0013	.0110	.0040
#2	.0003	.0001	-.0015	.0002	.0002	.0023	.0002	.0089	.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	**.0059**	**.0308**	**-.0983**	**-.0125**	**-.0007**	**.0001**	**-.0023**	**-.0004**	**.0002**
Stddev	.0010	.0041	.0270	.0023	.0000	.0000	.0009	.0007	.0001
%RSD	16.43	13.19	27.46	18.71	2.877	38.41	38.32	200.8	29.69
#1	.0066	.0337	-.0792	-.0142	-.0007	.0001	-.0017	.0002	.0003
#2	.0052	.0279	-.1174	-.0109	-.0007	.0001	-.0029	-.0009	.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: 5/22/2018 15:02:01 Type: QC
Method: Accutest XPress(v328) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0004**	**.0003**	**.0002**	**.0008**	**.0011**	**.0023**
Stddev	.0004	.0007	.0005	.0029	.0012	.0013	.0002
%RSD	146.6	183.5	161.2	1322.	152.5	122.1	8.539
#1	.0000	-.0001	.0006	-.0018	-.0001	.0001	.0024
#2	-.0005	.0009	-.0000	.0023	.0016	.0020	.0022
Check ?	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	**157160.**	**23390.**	**6490.3**	**9954.9**
Stddev	476.	64.	9.8	8.2
%RSD	.30293	.27240	.15148	.08281
#1	156820.	23345.	6483.4	9949.0
#2	157500.	23435.	6497.3	9960.7

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.000941	0.000000	No
Be 313.042 {108}	☒	6	V	0.001350	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000268	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	☒	11	As	0.010831	0.000000	No
			Ni	-0.000417	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001354	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.001000	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000024	0.000000	No
			Mo	-0.000972	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.001920	0.000000	No
			Ba	0.000238	0.000000	No
			W	-0.001840	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	8	Mn	0.000440	0.000000	No
			V	-0.000027	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000008	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	13	Cr	-0.000004	0.000000	No
			V	-0.000397	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000196	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.001082	0.000000	No
			Si	0.000016	0.000000	No
			Mn	-0.000087	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000002	0.000000	No
Mn 257.610 {131}	☒	4	Fe	-0.000098	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000026	0.000000	No
			Zn	-0.000013	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000220	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000152	0.000000	No
			Mo	-0.000188	-0.000003	No
			Ti	-0.000302	0.000000	No
			Fe	-0.000258	0.000000	No
			Zn	0.000044	0.000000	No
			Ca	-0.000003	0.000000	No
			Zr	0.006454	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000000	0.000000	No
			Ba	0.000071	0.000000	No
			Cr	0.000022	0.000000	No
			V	-0.002823	0.000000	No
			Al	-0.000002	0.000000	No
			W	-0.000010	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000304	0.000000	No
			Fe	0.000017	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.006000	0.000000	No
			Mn	-0.002097	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000006	0.000000	No
			Si	0.000015	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	0.000255	0.000000	No
			Cu	0.001248	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000364	0.000000	No
As 189.042 {478}	☒	17	Al	0.000002	0.000000	No
			Fe	-0.000023	0.000000	No
			Ca	0.000002	0.000000	No
			Mo	0.002586	0.000000	No
			Cr	0.001270	0.000000	No
			Ba	0.000083	0.000000	No
			Sn	-0.000037	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000024	0.000000	No
			Zn	-0.000082	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.000000	0.000000	No
			Cu	0.000038	0.000000	No
			Co	-0.000453	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	-0.000080	0.000000	No
			S	0.000007	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000209	0.000000	No
			Mo	-0.008052	0.000000	No
			Al	-0.000006	0.000000	No
			Fe	-0.000049	0.000000	No
			V	-0.025500	0.000000	No
			Mn	0.001426	0.000000	No
			Si	0.000089	0.000000	No
			Ca	0.000003	0.000000	No
			Ti	-0.002030	0.000000	No
			Mg	-0.000002	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Co	0.004062	0.000000	No
				Sr	0.000010	0.000000	No
				B	-0.000003	0.000000	No
				Ba	0.000034	0.000000	No
				Zn	-0.000023	0.000000	No
				As	0.000068	0.000000	No
				W	-0.026645	0.000000	No
				Cu	-0.000049	0.000000	No
				Zr	0.000056	0.000000	No
				Pb	-0.000020	0.000000	No
				S	-0.000004	0.000000	No
				Sn	-0.000086	0.000000	No
				Li	0.000000	0.000000	No
				K	0.000000	0.000000	No
	Pb 220.353 {453}	☒	20	Al	-0.000123	0.000000	No
				Fe	0.000034	0.000000	No
				Ca	0.000003	0.000000	No
				Mn	0.000054	0.000000	No
				Mo	-0.000663	0.000000	No
				Cu	0.000654	0.000000	No
				Co	0.000064	0.000000	No
				Ti	-0.000746	0.000000	No
				Si	0.000133	0.000000	No
				Ba	-0.000022	0.000000	No
				Sb	-0.000200	0.000000	No
				Sr	-0.000033	0.000000	No
				W	0.000000	0.000000	No
				Mg	0.000002	0.000000	No
				Cd	0.000012	0.000000	No
				Cr	-0.000031	0.000000	No
				Zr	-0.000382	0.000000	No
				Ni	-0.000003	0.000000	No
				S	0.000004	0.000000	No
				Zn	-0.000106	0.000000	No
	Se 196.090 {472}	☒	22	Al	-0.000000	0.000000	No
				Ca	-0.000008	0.000000	No
				Mn	0.000594	0.000000	No
				Mo	0.000050	0.000000	No
				Fe	-0.000190	0.000000	No
				Co	-0.000182	0.000000	No
				Sr	-0.000011	0.000000	No
				Cu	-0.000087	0.000000	No
				W	0.000000	0.000000	No
				Si	0.000054	0.000000	No
				Be	-0.000143	0.000000	No
				Zn	0.000050	0.000000	No
				B	0.000028	0.000000	No
				Ti	-0.000120	0.000000	No
				Cd	0.000090	0.000000	No
				Zr	0.000108	0.000000	No
				Ba	-0.000046	0.000000	No
				Mg	-0.000006	0.000000	No
				Pb	-0.000011	0.000000	No
				Ni	-0.000100	0.000000	No
				Cr	-0.000024	0.000000	No
				S	-0.000032	0.000000	No
	Sb 206.833 {463}	☒	17	Fe	0.000028	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Al	-0.000009	0.000000	No
			Ca	-0.000001	0.000000	No
			Ni	-0.000616	0.000000	No
			Cr	0.019310	0.000000	No
			V	-0.003578	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000191	0.000000	No
			Ti	0.000152	0.000000	No
			Sn	-0.011300	0.000000	No
			Mg	-0.000007	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	0.000049	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000131	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.044851	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000012	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	-0.000822	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.002602	0.000000	No
			Cr	0.002280	0.000000	No
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	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}	☒	3	Mo	-0.020250	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.015570	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	-0.000850	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	-0.010000	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.038137	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.031190	0.000000	No
			V	0.034576	0.000000	No
			Ti	0.002619	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	0.003000	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.002242	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000043	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001070	0.000000	No
			Si	0.000035	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}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	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	0.009921	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	-0.002570	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.001000	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.002600	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
			Ti	0.000400	0.000000	No
			Fe	-0.000055	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Si	0.000615	0.000000	No
				S	-0.000030	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	0.000477	0.000000	No
				Al	-0.000095	0.000000	No
				Fe	-0.000018	0.000000	No
				Mn	0.004620	0.000000	No
				W	-0.045000	0.000000	No
				Ca	0.000056	0.000000	No
				Mg	0.000071	0.000000	No
	Bi 223.061 {451}	☒	6	Ti	-0.055180	0.000000	No
				V	-0.001680	0.000000	No
				Co	-0.002380	0.000000	No
				Ca	-0.000002	0.000000	No
				Mg	-0.000000	0.000000	No
				Fe	0.000123	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000003	0.000000	No
				Fe	0.000004	0.000000	No
	P 177.495 {490}	☒	1	Mn	-0.006184	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}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.004505	1.401352	0.000000	1.000000
	Be 313.042 {108}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000420	1.733978	0.000000	1.000000
	Cd 228.802 {448}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000316	0.844298	0.000000	1.000000
	Co 228.616 {448}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000168	0.503730	0.000000	1.000000
	Cr 267.716 {126}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000127	0.096172	0.000000	1.000000
	Cu 324.754 {104}2	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.003559	0.175315	0.000000	1.000000
	Mn 257.610 {131}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000025	0.573304	0.000000	1.000000
	Ni 231.604 {446}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000083	0.402725	0.000000	1.000000
	Ag 328.068 {103}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000462	0.105756	0.000000	1.000000
	V 292.402 {115}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000128	0.145374	0.000000	1.000000
	Zn 206.200 {464}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000078	1.128925	0.000000	1.000000
	As 189.042 {478}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000029	0.094012	0.000000	1.000000
	Tl 190.856 {477}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000215	0.065308	0.000000	1.000000
	Pb 220.353 {453}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000304	0.170318	0.000000	1.000000
	Se 196.090 {472}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000190	0.068933	0.000000	1.000000
	Sb 206.833 {463}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000155	0.115436	0.000000	1.000000
	Al 396.152 { 85}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.001125	0.027847	0.000000	1.000000
	Ca 317.933 {106}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.007703	0.060473	0.000000	1.000000
	Fe 259.940 {130}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000044	0.039610	0.000000	1.000000
	Mg 279.079 {121}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000152	0.006475	0.000000	1.000000
	K 766.490 { 44}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.003439	0.013217	0.000000	1.000000
	Na 589.592 { 57}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.005285	0.055681	0.000000	1.000000
	B 208.959 {462}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.001386	0.185014	0.000000	1.000000
	Mo 202.030 {467}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000379	0.557266	0.000000	1.000000
	Si 212.412 {459}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.001923	0.152269	0.000000	1.000000
	Sn 189.989 {478}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000244	0.179845	0.000000	1.000000
	Sr 407.771 { 83}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000243	2.353400	0.000000	1.000000
	Ti 334.904 {101}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000035	0.120775	0.000000	1.000000
	Y 360.073 { 94}*	5/22/2018 15:13:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	5/22/2018 15:13:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	5/22/2018 15:13:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	5/22/2018 15:13:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000524	0.278415	0.000000	1.000000
	Zr 339.198 { 99}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.000616	0.349610	0.000000	1.000000
	S 182.034 {485}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	-0.002861	0.047514	0.000000	1.000000
	Bi 223.061 {451}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.000163	0.130491	0.000000	1.000000
	Li 670.784 { 50}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	None	0.001520	0.309739	0.000000	1.000000
	P 177.495 {490}	5/22/2018 15:13:03	5/22/2018 11:47:20	Linear	1/Conc	-0.012534	0.109168	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	0.000420	0.001400	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000124	0.000412	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000303	0.001009	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000391	0.001302	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000510	0.001701	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000652	0.002173	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000079	0.000262	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000559	0.001862	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000719	0.002396	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000588	0.001961	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000189	0.000628	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001836	0.006120	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001926	0.006421	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001843	0.006142	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.003213	0.010710	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.002405	0.008016	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.016703	0.055678	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.004380	0.014599	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.003413	0.011378	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.026886	0.089619	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.066107	0.220358	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.015668	0.052228	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.001065	0.003550	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000435	0.001449	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001816	0.006054	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000912	0.003041	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000167	0.000555	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000566	0.001885	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	0.001720	0.005733	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000277	0.000923	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.003652	0.012174	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.002828	0.009425	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.002760	0.009199	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.001775	0.005917	OK.	1.000000	0.000000	1	0

ACCUTEST LABORATORIES

Mercury Digestion Log

Product: **HG /HGLIQ**
Matrix: **Soil**

MA Batch #: MA44439
Analyst: JA
Date: 5/18/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M72

Method: SW846 7471B
Required corrected Temp. Range is 95C. +/- 3C.

Hot Block # 7 Start Time: 7:20 End Time: 7:50 Tube # 1-19, 41-43
Start Temp: 96 Corrected Start Temp: 93 Correction: -3 Thermometer ID: 4156488
End Temp: 96 Corrected End Temp: 93 Correction: -3 Thermometer ID: 4156488

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelot and Conc.	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N	(mg/L)		
1	ICV (External)		100	3.0 ml	Y	0.1		HG-18-136-269-HGB1, Ultra Scientific
2	ICB		100					
CCV	CCV		100	2.5 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCB	CCB		100					
3	CRI		100	2.0 ml	Y	0.01		HG-18-136-268-HGA2, Inorganic Ventures
4	MP7226-MB1	0.6002	100				MP7226	
5	MP7226-B1	0.6005	100	2.0 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
6	MP7226-S1	0.6384	100	2.0 ml	Y	0.1		JC66322-4, HG-18-136-267-HGA1 (IV)
7	MP7226-S2	0.6314	100	2.0 ml	Y	0.1		JC66322-4, HG-18-136-267-HGA1 (IV)
8	JC66322-4	0.6313	100					
9	JC66322-3	0.6598	100					
10	JC66322-6	0.6423	100					
11	JC66322-9	0.6423	100					
12	JC66313-1	0.6437	100					
CCV	CCV		100	2.5 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCB	CCB		100					
13	JC66313-2	0.6428	100					
14	JC66313-3	0.6639	100					
15	JC66313-4	0.6319	100					
16	JC66314-1	0.6463	100					
17	JC66314-2	0.6423	100					
18	JC66314-3	0.6586	100					
19	JC66318-1	0.6428	100					
20	JC66378-3	0.6232	100					
21	JC66346-1	0.6497	100					
22	JC66346-2	0.6697	100					
CCV	CCV		100	2.5 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCB	CCB		100					
23	JC66346-3	0.6564	100					
24	JC66348-6	0.6764	100					
25	JC66348-7	0.6761	100					
26	JC66348-8	0.6685	100					
27	JC66385-2	0.6387	100					
28	MP7227-MB1	0.6003	100				MP7227	
29	MP7227-B1	0.6006	100	2.0 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
30	MP7227-S1	0.6627	100	2.0 ml	Y	0.1		JC66357-1, HG-18-136-267-HGA1 (IV)
31	MP7227-S2	0.6791	100	2.0 ml	Y	0.1		JC66357-1, HG-18-136-267-HGA1 (IV)
32	JC66357-1	0.6620	100					
CCV	CCV		100	2.5 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCB	CCB		100					

Form: HG-022F-02
Revision Date:08/24/15

ANALYST: JA
SPIKE WITNESS: DP
QC REVIERER:

DATE: 5/18/18
DATE: 5/18/18
DATE:

13.4.1
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ACCUTEST LABORATORIES

Mercury Digestion Log

Product: **HG /HGLIQ**
Matrix: **Soil**

MA Batch #: MA44439
Analyst: JA
Date: 5/18/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M72

Method: SW846 7471B
Required corrected Temp. Range is 95C. +/- 3C.

Hot Block # 7 Start Time: 9:30 End Time: 10:00 Tube # 20-40
Start Temp: 97 Corrected Start Temp: 94 Correction: -3 Thermometer ID: 4156488
End Temp: 97 Corrected End Temp: 94 Correction: -3 Thermometer ID: 4156488

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelot and Conc.	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N	(mg/L)		
33	JC66368-5	0.6507	100					
34	JC66368-15	0.6303	100					
35	JC66368-16	0.6305	100					
36	JC66380-1	0.6501	100					
37	JC66380-2	0.6638	100					
38	JC66384-1	0.6737	100					
39	JC66384-2	0.7154	100					SOFT BLACK CLAY
40	JC66384-4	0.7589	100					WET, WHITE CLAY
41	MP7119-MB2	0.6002	100				MP7119	MDLV-H7-SOIL
42	MP7119-B2	0.6004	100	2.0 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCV	CCV		100	2.5 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCB	CCB		100					
43	JC63808-28A	0.6001	100	1.0 ml	Y	0.01		HG-18-136-268-HGA2, Inorganic Ventures
* 44	JC66402-1	0.6086	100				MP7227	
45			100					
46			100					
47			100					
48			100					
49			100					
50			100					
51			100					
52			100					
CCV	CCV		100	2.5 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCB	CCB		100					
53			100					
54			100					
55			100					
56			100					
57			100					
58			100					
59			100					
60			100					
61			100					
62			100					
CCV	CCV		100	2.5 ml	Y	0.1		HG-18-136-267-HGA1, Inorganic Ventures
CCB	CCB		100					

* Digested in HB 7 from 12:00-12:30 start temp 97 corrected to 94, end temp 97 corrected to 94. thermo ID 4156488, correction -3.

Form: HG-022F-02
Revision Date:08/24/15

ANALYST: JA DATE: 5/18/18
SPIKE WITNESS: DP DATE: 5/18/18
QC REVIERER: DATE:

13.4.1
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ACCUTEST LABORATORIES

Mercury Digestion Log

Product: **HG /HGLIQ**
Matrix: **Soil**

MA Batch #: MA44439
Analyst: JA
Date: 5/18/2018
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M72

Method: SW846 7471B
Required corrected Temp. Range is 95C. +/- 3 C.

Hot Block # 7 Start Time: 7:20 End Time: 7:50 Tube # S1-S6
Start Temp: 96 Corrected Start Temp: 93 Correction: -3 Thermometer ID: 4156488
End Temp: 96 Corrected End Temp: 93 Correction: -3 Thermometer ID: 4156488

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelot and Conc.	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N	(mg/L)		
S-1	Calibration Blank	100 ml	100 ml	N/A	N	N/A	N/A	N/A
S-2	0.20 ug/l standard	100 ml	100 ml	2.0 ml	Y	0.0100	N/A	HG-18-136-268-HGA2, Inorganic Ventures
S-3	0.50 ug/l standard	100 ml	100 ml	5.0 ml	Y	0.0100	N/A	HG-18-136-268-HGA2, Inorganic Ventures
S-4	1.00 ug/l standard	100 ml	100 ml	1.0 ml	Y	0.1000	N/A	HG-18-136-267-HGA1, Inorganic Ventures
S-5	2.50 ug/l standard	100 ml	100 ml	2.5 ml	Y	0.1000	N/A	HG-18-136-267-HGA1, Inorganic Ventures
S-6	5.00 us/l standard	100 ml	100 ml	5.0 ml	Y	0.1000	N/A	HG-18-136-267-HGA1, Inorganic Ventures

Form: HG-022F-02
Revision Date:08/24/15

ANALYST: JA DATE: 5/18/18
QC REVIEWER: _____ DATE: _____

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SGS

Reagent Information Log- Hg Soil

MA #_____

Reagents	Exp. Date	Reagent # or manufacturer lot #
Conc. Sulfuric Acid	4/25/2020	Fisher -177436
Conc. Nitric Acid	5/14/2020	Baker - 192717
Sodium Chloride-Hydroxylamine Hydrochloride	11/14/2018	HG-18-136 250 -HGHCL
Potassium Permanganate	11/14/2018	HG-18-136 248 -HGKM2
Stannous Chloride	5/19/2018	HG-18-136 270 -HGS
STD Hg standard solution 1000 ppm	3/1/2019	Inorganic Ventures K2-HG653768
STD Hg standard solution 100 ppb	5/19/2018	HG-18-136 267 -HGA1
STD Hg standard solution 10 ppb	5/19/2018	HG-18-136 268 -HGA2
ICV Hg standard solution 1000 ppm	6/30/2021	Ultra T00601
ICV Hg standard solution 100 ppb	5/19/2018	HG-17-132 269 -HGB1
Solid Lab control/Soil LC	9/30/2018	ERA D091-540
Aqua Regia	5/19/2018	HG-18-136 271 -HGKAQ
Dilution acid	11/14/2018	HG-18-136 251 -HGD1
Digestion Tubes	N/A	Environmental Express 1712272
Teflon Chips (For Soil MB)	N/A	Saint Gobain, Lot: 0919120

Form: GN087A80-04
Rev.Date: 06/06/17

SGS North America Inc.

Solids/Soil Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP7257	5/21/2018	8:45	5/21/2018	14:00	JC66366-4	

Temperature

		Block ID	Therm. ID#	Balance ID	Temperature	Correction	Corrected Temp	
1	Start	1	4156601	B-41	95	-2	93	
1	End	1	4156601	NA	93	-2	91	
2	Start							
2	End			NA				

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3050B	Digestion Block		M-74	1712272	

Sample ID	Bottle ID	Final Volume (ML)	Wet Weight (G)	Reagent Groups Added	Spike Groups Added	Comments
MP7257-MB1	N/A	100	1.00	ABCD		
MP7257-B1	N/A	100	0.96	ABCD	ABCD	
MP7257-S1	2	100	1.03	ABCD	ABCD	
MP7257-S2	2	100	1.01	ABCD	ABCD	
MP7257-SD1	2	100	1.04	ABCD		
JC66223-1	2	100	0.99	ABCD		
JC66223-2	2	100	1.00	ABCD		
JC66223-3	2	100	1.04	ABCD		
JC66223-4	2	100	1.01	ABCD		
JC66223-5	2	100	1.05	ABCD		
JC66223-6	2	100	1.05	ABCD		
JC66223-7	2	100	1.01	ABCD		
JC66223-8	2	100	1.01	ABCD		
JC66223-9	2	100	1.05	ABCD		
JC66366-1	2	100	1.02	ABCD		
JC66366-2	2	100	0.98	ABCD		
JC66366-3	2	100	0.99	ABCD		
JC66366-4	2	100	0.99	ABCD		
JC66380-1	2	100	1.01	ABCD		
JC66380-2	2	100	1.02	ABCD		
JC66384-1	2	100	1.02	ABCD		
JC66384-2	2	100	1.04	ABCD		
JC66384-4	2	100	1.02	ABCD		
JC66396-3	2	100	1.03	ABCD		

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	5
B	1:1 HNO3	10
C	H2O2	5
D	CONC HCL	10
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV1	1
B	ACCUTEST 14A REV1	1
C	MINERALS 5000PPM	0.5
D	AG 20PPM	1.25
E		
F	AG 20PPM	1.25
G		
H		

Comments: _____

Analyst RADHIKAM **Approved by** Wendyz **Approved on** 5/21/2018

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 7257 **Date:** 5/21/18

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	10/19/2018	MP-015-1051
Spiking Solution - (ACCUTEST -14A Rev1)	10/19/2018	MP-015-1052
Spiking Solution - 5000 mg/l Minerals	5/11/2019	N2-MEB667268 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	2/8/2020	LOT: 020817 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	5/11/2019	K2-SI654310 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	12/1/2018	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	6/7/2018	MA-18-328-114
Spiking Solution - Li 1000ppm	11/14/2018	M2-LI657553 MFG: INO. VENT
Spiking Solution- Ag 20 ppm	10/6/2018	MA-18-328-94
Spiking Solution - (ACCUTEST -13B Rev1)	10/25/2018	MP-015-1053
Spiking Solution - (ACCUTEST -14B Rev1)	9/28/2018	MP-015-1045
Spiking Solution - 400ppm Minerals	11/5/2018	MP-015-1056
Spiking Solution- P		
Nitric Acid	5/19/2020	LOT: 192717 MFG: J.T. BAKER
Nitric Acid (1:1)	11/16/2018	MP-013-20-1016 1:1 HNO3
Hydrochloric Acid	5/18/2020	LOT: 189306 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	11/11/2018	MP-013-20-1014 1:1 HCL
Hydrogen Peroxide	5/11/2020	LOT: 177290 MFG: FISHER
Soil Lab Control/Soil LC	3/21/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 23430173 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1712272 MFG: ENV. EXPRESS
pH Paper	11/30/2018	LOT: 232515 MFG: HYDRION
Filter paper Q8	N/A	LOT: 9802858 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F7EA83809 MFG: FISHER

Spike witnessed By: BP

Validated By:

Validated On:

AA014-06 (Metals Digest Stds)-DAYT-MET-0039-06-FORM-Metals Digestion Reagants Info Log.xls
1/17/18

13.4.2 13

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP13289/GN80478	0.12	0.0	mg/kg	1	1.01	101.0	90-110%

Associated Samples:
Batch GP13289: JC66384-1, JC66384-2, JC66384-4
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP13289/GN80478	JC66366-1	mg/kg	0.0	0.0	0.0	0-49%

Associated Samples:
Batch GP13289: JC66384-1, JC66384-2, JC66384-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP13289/GN80478	JC66366-1	mg/kg	0.0	1.95	1.9	97.2	75-125%

Associated Samples:
Batch GP13289: JC66384-1, JC66384-2, JC66384-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E052418W1.CN Date Analyzed: 05/24/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN80478
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:25	GN80478-STD1	1		STDA
14:26	GN80478-STD2	1		STDB
14:27	GN80478-STD3	1		STDC
14:29	GN80478-STD4	1		STDD
14:30	GN80478-STD5	1		STDE
14:31	GN80478-STD6	1		STDF
14:33	GN80478-STD7	1		STDG
14:34	GN80478-ICV1	1		
14:35	GN80478-ICB1	1		
14:37	GN80478-CCV1	1		
14:38	GN80478-CCB1	1		
14:40	GP13267-MB1	1		
14:41	GP13267-B1	1		
14:42	GP13267-B2	1		
14:44	GP13267-S1	1		
14:45	GP13267-D1	1		
14:46	JC66530-1	1		(sample used for QC only; not part of login JC66384)
14:48	ZZZZZZ	1		
14:49	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:52	ZZZZZZ	1		
14:53	GN80478-CCV2	1		
14:55	GN80478-CCB2	1		
14:56	ZZZZZZ	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:00	GP13272-MB1	1		
15:01	GP13272-B1	1		
15:03	GP13272-S1	1		
15:04	GP13272-D1	1		
15:05	JC66361-1	1		(sample used for QC only; not part of login JC66384)
15:07	ZZZZZZ	1		
15:08	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E052418W1.CN Date Analyzed: 05/24/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN80478
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:09	GN80478-CCV3	1		
15:11	GN80478-CCB3	1		
15:12	ZZZZZZ	1		
15:14	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:16	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:19	GP13270-MB1	1		
15:20	GP13270-B1	1		
15:22	GP13270-S1	1		
15:23	GP13270-D1	1		
15:24	JC66368-5	1		(sample used for QC only; not part of login JC66384)
15:26	GN80478-CCV4	1		
15:27	GN80478-CCB4	1		
15:28	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:31	ZZZZZZ	1		
15:33	ZZZZZZ	4		
15:34	ZZZZZZ	20		
15:35	ZZZZZZ	40		
15:37	ZZZZZZ	10		
15:38	ZZZZZZ	20		
15:39	GN80478-CCV5	1		
15:41	GN80478-CCB5	1		
15:44	GN80478-CCV6	1		
15:46	GN80478-CCB6	1		
15:47	GP13293-MB1	1		
15:48	GP13293-B1	1		
15:50	GP13293-S1	1		
15:51	GP13293-S2	1		
15:53	GP13293-D1	1		
15:54	ZZZZZZ	1		
15:55	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E052418W1.CN Date Analyzed: 05/24/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN80478
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:57	ZZZZZZ	1		
15:58	ZZZZZZ	1		
15:59	ZZZZZZ	1		
16:01	GN80478-CCV7	1		
16:02	GN80478-CCB7	1		
16:03	ZZZZZZ	1		
16:05	ZZZZZZ	1		
16:06	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:09	JC66538-8	1		(sample used for QC only; not part of login JC66384)
16:10	ZZZZZZ	1		
16:12	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:14	ZZZZZZ	1		
16:16	ZZZZZZ	1		
16:17	GN80478-CCV8	1		
16:18	GN80478-CCB8	1		
16:20	ZZZZZZ	1		
16:21	JC66538-16	1		(sample used for QC only; not part of login JC66384)
16:23	ZZZZZZ	1		
16:24	ZZZZZZ	1		
16:25	GP13289-MB1	1		
16:27	GP13289-B1	1		
16:28	GP13289-S1	1		
16:29	GP13289-S2	1		
16:31	GP13289-D1	1		
16:32	ZZZZZZ	1		
16:33	GN80478-CCV9	1		
16:35	GN80478-CCB9	1		
16:36	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:39	ZZZZZZ	1		
16:40	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E052418W1.CN Date Analyzed: 05/24/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN80478
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:42	ZZZZZZ	1		
16:43	ZZZZZZ	1		
16:44	ZZZZZZ	1		
16:46	JC66366-1	1		(sample used for QC only; not part of login JC66384)
16:47	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:50	GN80478-CCV10	1		
16:51	GN80478-CCB10	1		
16:52	JC66366-4	1		(sample used for QC only; not part of login JC66384)
16:54	JC66384-1	1		
16:55	JC66384-2	1		
16:57	JC66384-4	1		
16:58	ZZZZZZ	1		
16:59	ZZZZZZ	1		
17:01	ZZZZZZ	1		
17:02	ZZZZZZ	1		
17:05	GN80478-CCV11	1		
17:06	GN80478-CCB11	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC66384
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

File ID: E052418W1.CN Date Analyzed: 05/24/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Run ID: GN80478 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN80478-ICV1	Cyanide	0.290	0.010	0.0058	.3	96.7	90-110
GN80478-ICB1	Cyanide	-0.00709	0.010	0.0058			
GN80478-CCV1	Cyanide	0.440	0.010	0.0058	.4	110.0	90-110
GN80478-CCB1	Cyanide	0.0058 U	0.010	0.0058			
GN80478-CCV2	Cyanide	0.420	0.010	0.0058	.4	105.0	90-110
GN80478-CCB2	Cyanide	-0.00823	0.010	0.0058			
GN80478-CCV3	Cyanide	0.421	0.010	0.0058	.4	105.3	90-110
GN80478-CCB3	Cyanide	0.0058 U	0.010	0.0058			
GN80478-CCV4	Cyanide	0.420	0.010	0.0058	.4	105.0	90-110
GN80478-CCB4	Cyanide	-0.00659	0.010	0.0058			
GN80478-CCV5	Cyanide	0.420	0.010	0.0058	.4	105.0	90-110
GN80478-CCB5	Cyanide	0.0058 U	0.010	0.0058			
GN80478-CCV6	Cyanide	0.430	0.010	0.0058	.4	107.5	90-110
GN80478-CCB6	Cyanide	0.0058 U	0.010	0.0058			
GN80478-CCV7	Cyanide	0.428	0.010	0.0058	.4	107.0	90-110
GN80478-CCB7	Cyanide	-0.00756	0.010	0.0058			
GN80478-CCV8	Cyanide	0.428	0.010	0.0058	.4	107.0	90-110
GN80478-CCB8	Cyanide	-0.00640	0.010	0.0058			
GN80478-CCV9	Cyanide	0.428	0.010	0.0058	.4	107.0	90-110
GN80478-CCB9	Cyanide	-0.00677	0.010	0.0058			
GN80478-CCV10	Cyanide	0.428	0.010	0.0058	.4	107.0	90-110
GN80478-CCB10	Cyanide	0.0058 U	0.010	0.0058			
GN80478-CCV11	Cyanide	0.426	0.010	0.0058	.4	106.5	90-110
GN80478-CCB11	Cyanide	0.0058 U	0.010	0.0058			

(!) Outside of QC limits

Percent Solids Raw Data Summary

Job Number: JC66384
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia PA

Sample: JC66384-1 **Analyzed:** 21-MAY-18 by JV **Method:** SM2540 G-97
ClientID: MW-103(6-7)

Wet Weight (Total)	33.87	g
Tare Weight	27.85	g
Dry Weight (Total)	32.67	g
Solids, Percent	80.1	%

Sample: JC66384-2 **Analyzed:** 21-MAY-18 by JV **Method:** SM2540 G-97
ClientID: MW-103(15-16)

Wet Weight (Total)	31.39	g
Tare Weight	25.86	g
Dry Weight (Total)	29.77	g
Solids, Percent	70.7	%

Sample: JC66384-4 **Analyzed:** 21-MAY-18 by JV **Method:** SM2540 G-97
ClientID: MW-102(12-13)

Wet Weight (Total)	33.15	g
Tare Weight	26.43	g
Dry Weight (Total)	30.01	g
Solids, Percent	53.3	%

General Chemistry

Raw Data

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E052418W1.CN
Analyst: BM

Date Analyzed: 05/24/18
Run ID: GN80478

Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 901

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 5/25/18

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 6/7/18

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E052418W1.CN Date Analyzed: 05/24/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 901
Analyst: BM Run ID: GN80478

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 5/24/18

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 _____

GN80478

Author: chemistry

EQS 2918 W1. ON

Date : 5/24/2018

Original Run Filename: OM_5-24-2018_02-23-52PM.OMN Created: 5/24/2018 2:23:52 PM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_5-24-2018_02-23-52PM.OMN Last Modified: 5/24/2018 3:43:22 PM
Current Run Author's Signature: [chemistry]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF	% REC
STDA	1	1	0.800	5/24/2018@2:25:02 PM		
STDB	1	2	0.600	5/24/2018@2:26:24 PM		
STDC	1	3	0.400	5/24/2018@2:27:47 PM		
STDD	1	4	0.100	5/24/2018@2:29:09 PM		
STDE	1	5	0.0200	5/24/2018@2:30:31 PM		
STDF	1	6	0.0100	5/24/2018@2:31:52 PM		
STDG	1	7	0.00	5/24/2018@2:33:14 PM		
ICV	1	8	0.290	5/24/2018@2:34:36 PM		96.6%
Known Conc:			0.300			
Calibration:			Table/Fig. : 1			
ICB	1	9	-7.09e-3	5/24/2018@2:35:57 PM		
Known Conc:			0.00			
CCV	1	S9	0.440	5/24/2018@2:37:19 PM		110%
Known Conc:			0.400			
CCB	1	S10	-4.34e-3	5/24/2018@2:38:41 PM		
Known Conc:			0.00			
GP13267-MB1	1	10	2.86e-3	5/24/2018@2:40:02 PM		
GP13267-B1	1	11	0.0902	5/24/2018@2:41:24 PM		108.3%
GP13267-B2	1	12	0.437	5/24/2018@2:42:45 PM		104.7%
GP13267-S1	1	13	0.0740	5/24/2018@2:44:06 PM		
GP13267-D1	1	14	1.36e-3	5/24/2018@2:45:27 PM		
JC66530-1	1	15	-6.61e-4	5/24/2018@2:46:48 PM		
JC66530-2	1	16	2.40e-4	5/24/2018@2:48:10 PM		
JC66530-3	1	17	-7.69e-4	5/24/2018@2:49:32 PM		
JC66530-4	1	18	2.43e-3	5/24/2018@2:50:54 PM		
JC66530-5	1	19	0.0147	5/24/2018@2:52:16 PM		
CCV	1	S9	0.420	5/24/2018@2:53:38 PM		105.1%
Known Conc:			0.400			
CCB	1	S10	-8.23e-3	5/24/2018@2:55:00 PM		
Known Conc:			0.00			
JC66530-6	1	20	3.72e-4	5/24/2018@2:56:22 PM		
JC66530-7	1	21	-2.55e-3	5/24/2018@2:57:44 PM		
JC66530-8	1	22	-1.34e-3	5/24/2018@2:59:05 PM		
GP13272-MB1	1	23	-2.36e-3	5/24/2018@3:00:27 PM		
GP13272-B1	1	24	0.0881	5/24/2018@3:01:48 PM		105.7%
GP13272-S1	1	25	0.0502	5/24/2018@3:03:09 PM		
GP13272-D1	1	26	-1.61e-3	5/24/2018@3:04:31 PM		
JC66361-1	1	27	-1.64e-3	5/24/2018@3:05:52 PM		
JC66361-7	1	28	-3.20e-3	5/24/2018@3:07:13 PM		
JC66393-6 (2)	1	29	1.39	5/24/2018@3:08:34 PM		over range, see verso.
CCV	1	S9	0.421	5/24/2018@3:09:55 PM		105.2%
Known Conc:			0.400			
CCB	1	S10	-5.19e-3	5/24/2018@3:11:18 PM		
Known Conc:			0.00			
JC66393-7	1	30	-3.01e-3	5/24/2018@3:12:37 PM		
JC66492-3 (2)	1	31	3.60	5/24/2018@3:14:00 PM		> over range, see verso.
JC66492-4 (2)	1	32	2.63	5/24/2018@3:15:22 PM		
JC66492-5	1	33	-1.97e-4	5/24/2018@3:16:44 PM		
JC66327-1	1	34	3.29e-3	5/24/2018@3:18:06 PM		
GP13270-MB1	1	35	1.70e-3	5/24/2018@3:19:28 PM		
GP13270-B1	1	36	0.0867	5/24/2018@3:20:49 PM		104.0%
GP13270-S1	1	37	0.0793	5/24/2018@3:22:11 PM		
GP13270-D1	1	38	-5.44e-3	5/24/2018@3:23:32 PM		
JC66368-5	1	39	-3.85e-3	5/24/2018@3:24:54 PM		
CCV	1	S9	0.420	5/24/2018@3:26:16 PM		105%
Known Conc:			0.400			
CCB	1	S10	-6.59e-3	5/24/2018@3:27:38 PM		
Known Conc:			0.00			
JC66368-15	1	40	-3.57e-3	5/24/2018@3:28:59 PM		
JC66368-16	1	41	-4.06e-3	5/24/2018@3:30:20 PM		

15.1

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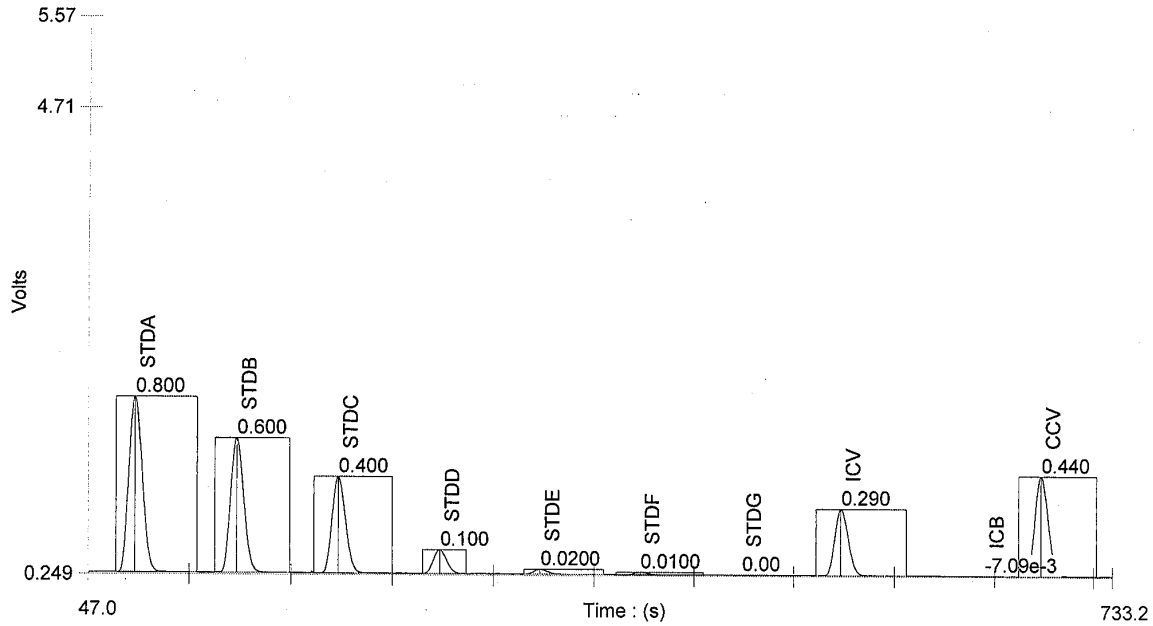
Author: chemistry

Date : 5/24/2018

JC66442-1	1	42	4.69e-3	5/24/2018@3:31:41 PM	
JC66393-6	1	91	0.360	5/24/2018@3:33:04 PM	4.00
JC66492-3	1	92	0.715	5/24/2018@3:34:26 PM	20.00
JC66492-3	1	93	0.373	5/24/2018@3:35:49 PM	40.00
JC66492-4	1	94	0.481	5/24/2018@3:37:11 PM	10.00
JC66492-4	1	95	0.253	5/24/2018@3:38:33 PM	20.00
CCV	1	S9	0.420	5/24/2018@3:39:54 PM	
	Known Conc:		100		
CCB	1	S10	-4.91e-3	5/24/2018@3:41:16 PM	
	Known Conc:		100		

105-1.

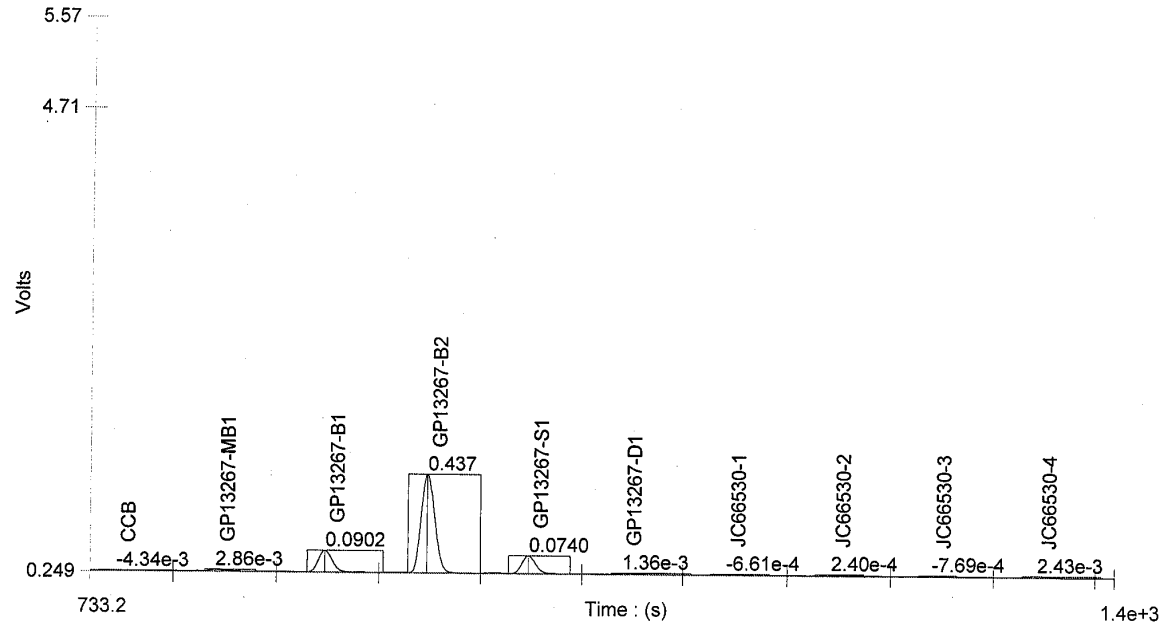
Channel 1 - Set: 1 / 6



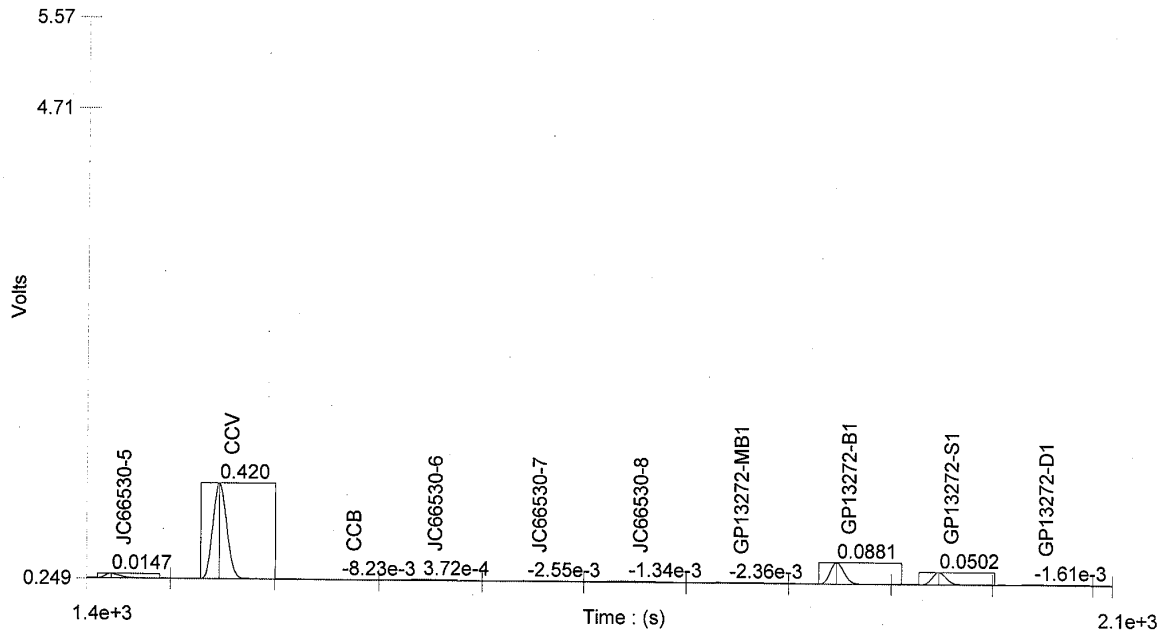
Author: chemistry

Date : 5/24/2018

Channel 1 - Set: 2 / 6



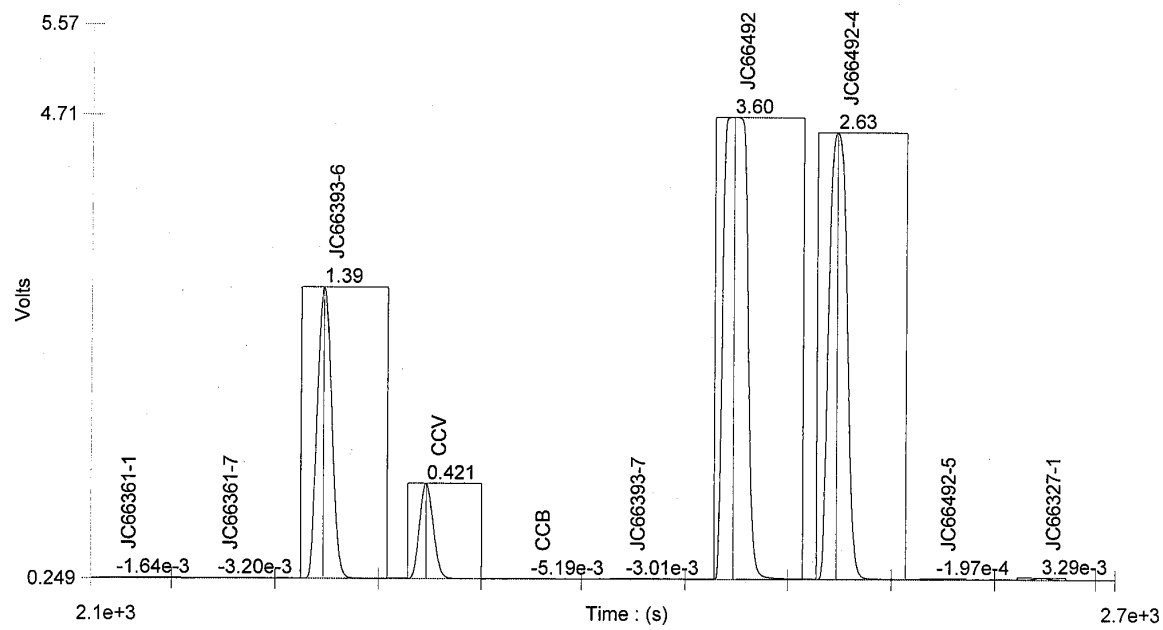
Channel 1 - Set: 3 / 6



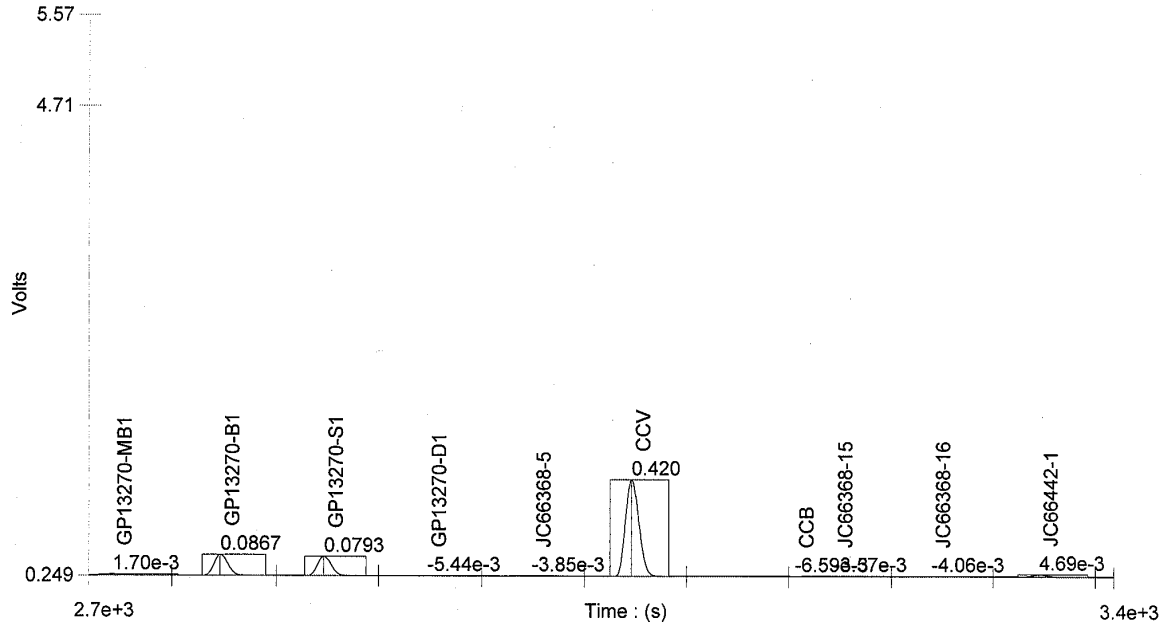
Author: chemistry

Date : 5/24/2018

Channel 1 - Set: 4 / 6



Channel 1 - Set: 5 / 6



Author: chemistry

Date : 5/24/2018

Channel 1 - Set: 6 / 6

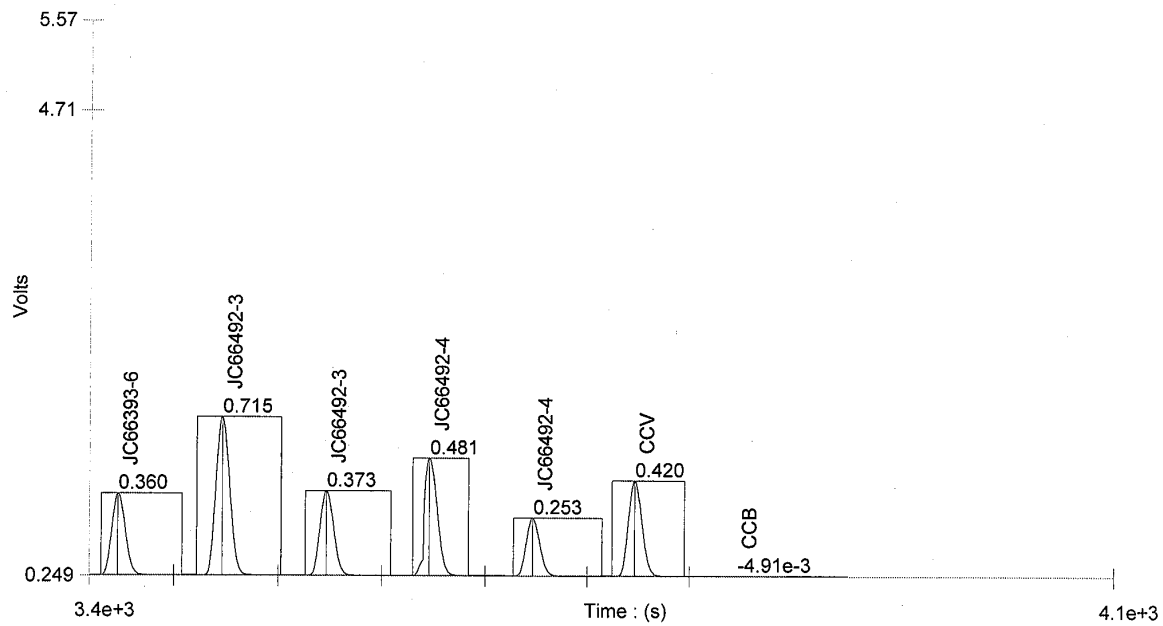
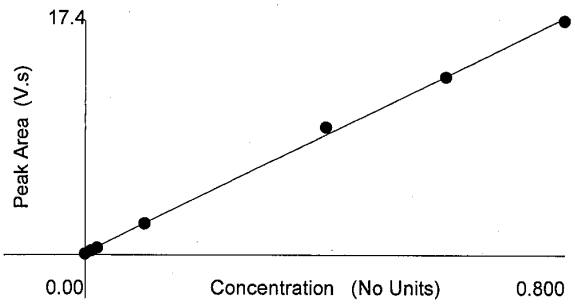


Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	0.800	1	17.4	1.67	0.0	1.3	0.789	5/24/2018	2:25:02 PM
2	0.600	1	13.2	1.28	0.0	0.5	0.597	5/24/2018	2:26:24 PM
3	0.400	1	9.46	0.917	0.0	-6.3	0.425	5/24/2018	2:27:47 PM
4	0.100	1	2.31	0.226	0.0	1.0	0.0991	5/24/2018	2:29:09 PM
5	0.0200	1	0.507	0.0466	0.0	13.5	0.0167	5/24/2018	2:30:31 PM
6	0.0100	1	0.288	0.0239	0.0	21.6	6.72e-3	5/24/2018	2:31:52 PM
7	0.00	1	0.0609	2.12e-3			-3.63e-3	5/24/2018	2:33:14 PM

Figure : 1 (CN)



Area = 21.9 * Conc + 0.148
Conc = 0.0457 * Area - 6.41e-3
Correlation Coefficient (r) = 0.99936

Weighting : None

e052418PW2.cn

Author: chemistry

Date : 5/25/2018

Original Run Filename: OM_5-24-2018_03-43-43PM.OMN Created: 5/24/2018 3:43:43 PM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_5-24-2018_03-43-43PM.OMN Last Modified: 5/25/2018 11:03:57 AM
Current Run Author's Signature: [chemistry]
Description: Default New Run

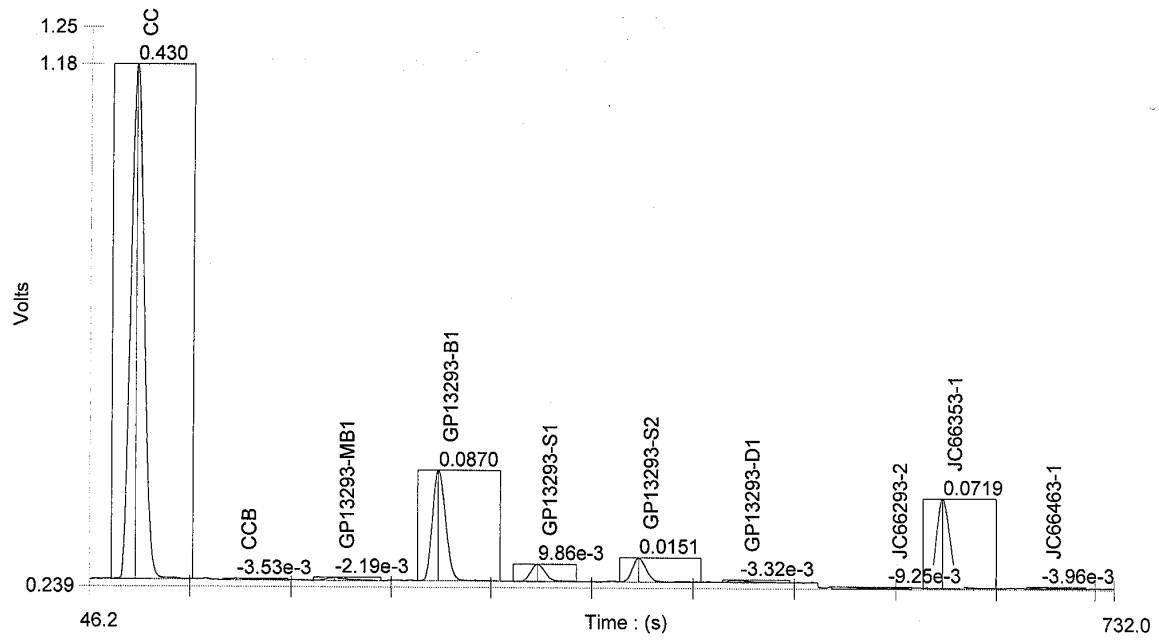
Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF	% Rec
CCV	1	S9	0.430	5/24/2018@3:44:52 PM		107.5%
	Known Conc:		0.400			
CCB	1	S10	-3.53e-3	5/24/2018@3:46:14 PM		
	Known Conc:		0.00			
	Calibration:		Table/Fig. : 1			
GP13293-MB1	1	43	-2.19e-3	5/24/2018@3:47:35 PM		
GP13293-B1	1	44	0.0870	5/24/2018@3:48:56 PM		104.4%
GP13293-S1	1	45	9.86e-3	5/24/2018@3:50:17 PM		
GP13293-S2	1	46	0.0151	5/24/2018@3:51:39 PM		
GP13293-D1	1	47	-3.32e-3	5/24/2018@3:53:01 PM		
JC66293-2	1	48	-9.25e-3	5/24/2018@3:54:24 PM		
JC66353-1	1	49	0.0719	5/24/2018@3:55:46 PM		
JC66463-1	1	50	-3.96e-3	5/24/2018@3:57:08 PM		
JC66538-1	1	51	-3.79e-3	5/24/2018@3:58:30 PM		
JC66538-3	1	52	-4.25e-3	5/24/2018@3:59:52 PM		
CCV	1	S9	0.428	5/24/2018@4:01:13 PM		107%
	Known Conc:		0.400			
CCB	1	S10	-7.56e-3	5/24/2018@4:02:35 PM		
	Known Conc:		0.00			
JC66538-4	1	53	-7.52e-3	5/24/2018@4:03:57 PM		
JC66538-5	1	54	-4.36e-3	5/24/2018@4:05:19 PM		
JC66538-6	1	55	-5.00e-3	5/24/2018@4:06:40 PM		
JC66538-7	1	56	-4.38e-3	5/24/2018@4:08:02 PM		
JC66538-8	1	57	-6.46e-3	5/24/2018@4:09:23 PM		
JC66538-9	1	58	-3.82e-3	5/24/2018@4:10:44 PM		
JC66538-10	1	59	-7.13e-3	5/24/2018@4:12:05 PM		
JC66538-12	1	60	-4.86e-3	5/24/2018@4:13:26 PM		
JC66538-13	1	61	-4.69e-3	5/24/2018@4:14:49 PM		
JC66538-14	1	62	-6.56e-3	5/24/2018@4:16:11 PM		
CCV	1	S9	0.428	5/24/2018@4:17:33 PM		107%
	Known Conc:		0.400			
CCB	1	S10	-6.40e-3	5/24/2018@4:18:55 PM		
	Known Conc:		0.00			
JC66538-15	1	63	-6.34e-3	5/24/2018@4:20:17 PM		
JC66538-16	1	64	-3.58e-3	5/24/2018@4:21:39 PM		
JC66538-17	1	65	-4.09e-3	5/24/2018@4:23:01 PM		
JC66538-18	1	66	-8.06e-4	5/24/2018@4:24:23 PM		
GP13289-MB1	1	67	-4.42e-3	5/24/2018@4:25:45 PM		
GP13289-B1	1	68	0.0840	5/24/2018@4:27:07 PM		100.8%
GP13289-S1	1	69	0.0816	5/24/2018@4:28:28 PM		
GP13289-S2	1	70	0.0837	5/24/2018@4:29:50 PM		
GP13289-D1	1	71	-2.82e-3	5/24/2018@4:31:11 PM		
JC66649-1	1	72	-2.72e-3	5/24/2018@4:32:32 PM		
CCV	1	S9	0.428	5/24/2018@4:33:53 PM		107%
	Known Conc:		0.400			
CCB	1	S10	-6.77e-3	5/24/2018@4:35:15 PM		
	Known Conc:		0.00			
JC66649-2	1	73	-3.79e-3	5/24/2018@4:36:37 PM		
JC66649-3	1	74	-5.40e-3	5/24/2018@4:37:58 PM		
JC66649-4	1	75	-3.71e-3	5/24/2018@4:39:19 PM		
JC66649-5	1	76	-4.61e-3	5/24/2018@4:40:41 PM		
JC66649-6	1	77	-7.01e-3	5/24/2018@4:42:04 PM		
JC66649-7	1	78	-4.86e-3	5/24/2018@4:43:26 PM		
JC66649-8	1	79	4.88e-3	5/24/2018@4:44:48 PM		
JC66366-1	1	80	-1.22e-4	5/24/2018@4:46:10 PM		
JC66366-2	1	81	-6.09e-3	5/24/2018@4:47:32 PM		
JC66366-3	1	82	1.44e-3	5/24/2018@4:48:54 PM		
CCV	1	S9	0.428	5/24/2018@4:50:15 PM		107%
	Known Conc:		0.400			
CCB	1	S10	-4.03e-3	5/24/2018@4:51:37 PM		

Author: chemistry

Date : 5/25/2018

	Known Conc:		0.00		
JC66366-4	1	83	-4.03e-3	5/24/2018@4:52:59 PM	
JC66384-1	1	84	0.0115	5/24/2018@4:54:20 PM	
JC66384-2	1	85	-4.93e-3	5/24/2018@4:55:41 PM	
JC66384-4	1	86	0.0307	5/24/2018@4:57:03 PM	
JC66409-1	1	87	-4.38e-3	5/24/2018@4:58:24 PM	
JC66409-2	1	88	-1.08e-3	5/24/2018@4:59:45 PM	
JC66633-8	1	89	1.99e-3	5/24/2018@5:01:07 PM	
JC66633-10	1	90	-5.30e-3	5/24/2018@5:02:28 PM	
CCV	1	S9	0.426	5/24/2018@5:05:31 PM	106.5%
	Known Conc:		0.400		
CCB	1	S10	-5.44e-3	5/24/2018@5:06:53 PM	
	Known Conc:		0.00		

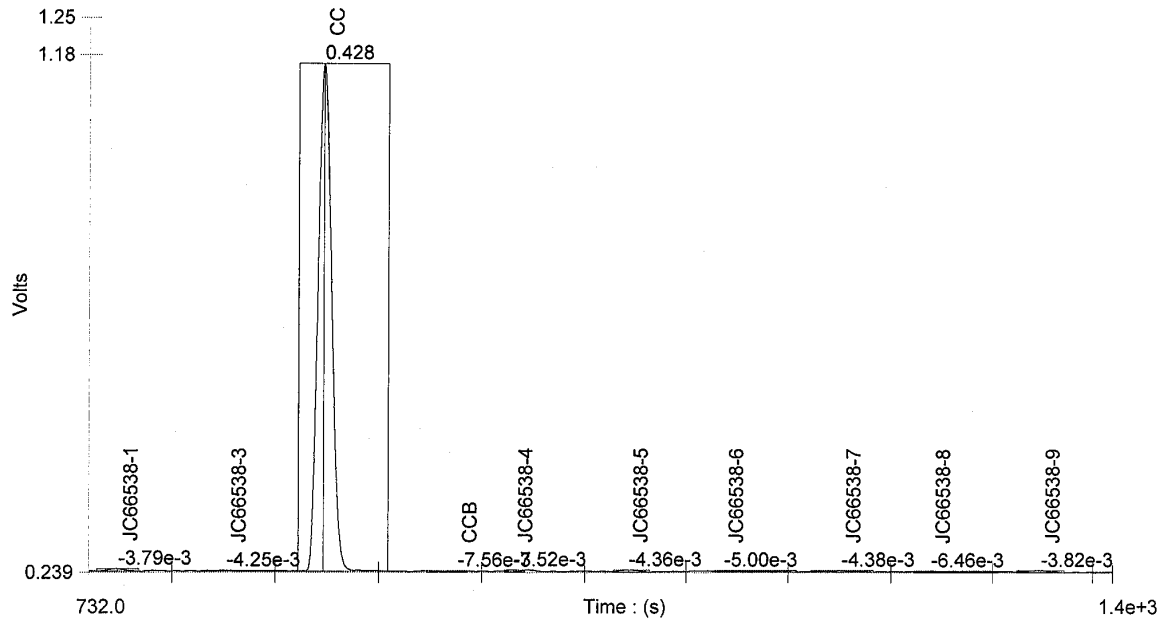
Channel 1 - Set: 1 / 6



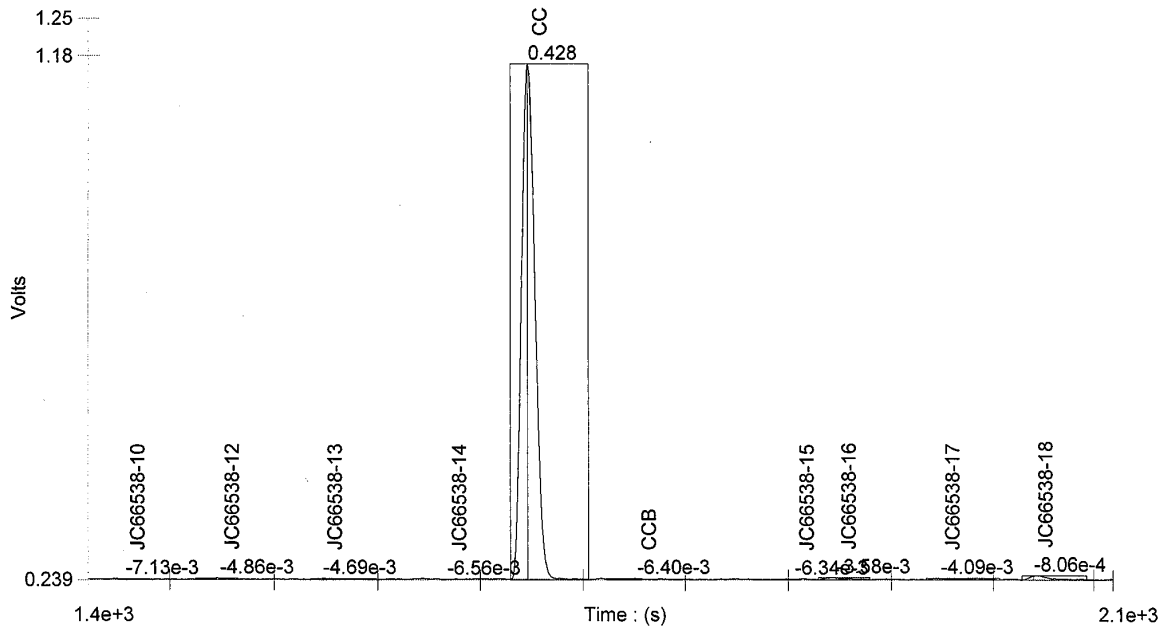
Author: chemistry

Date : 5/25/2018

Channel 1 - Set: 2 / 6



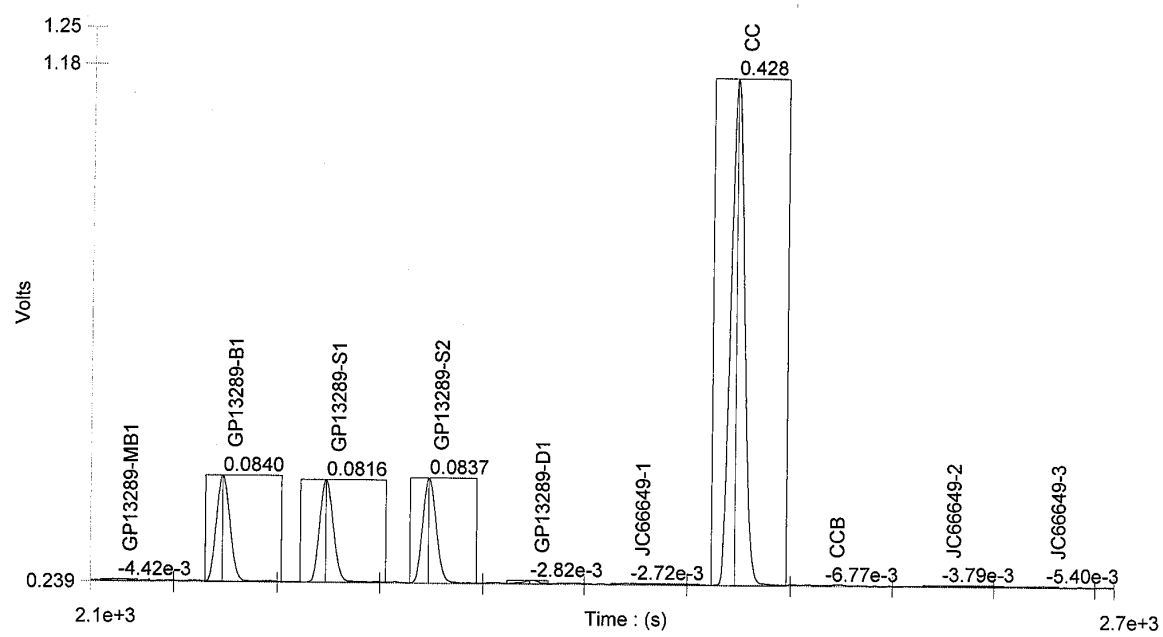
Channel 1 - Set: 3 / 6



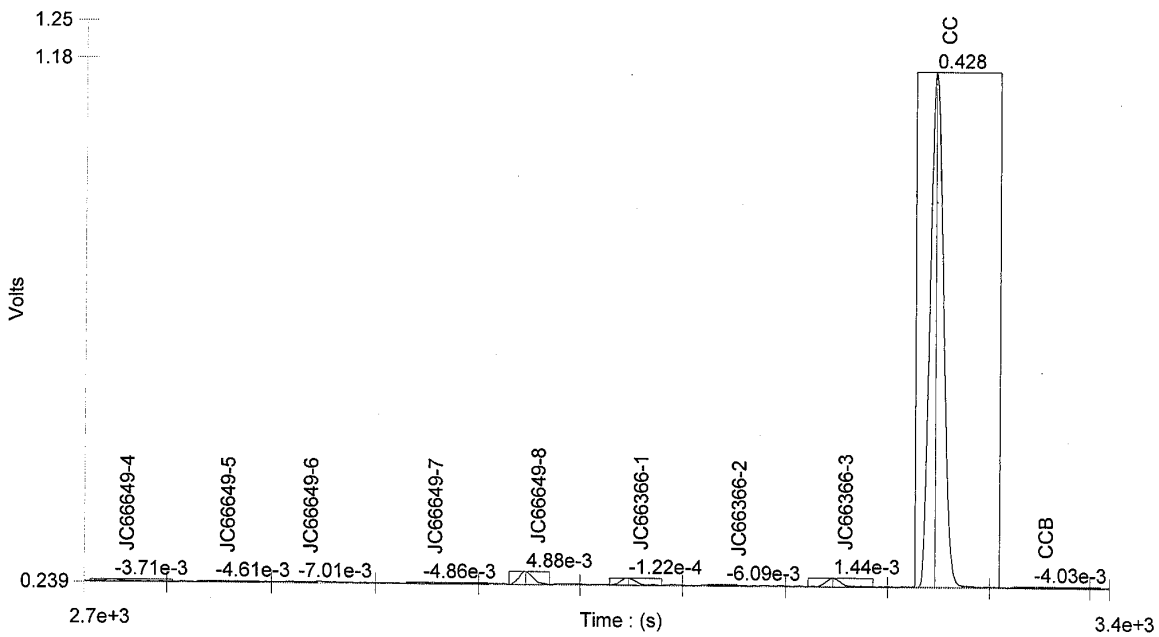
Author: chemistry

Date : 5/25/2018

Channel 1 - Set: 4 / 6



Channel 1 - Set: 5 / 6



Author: chemistry

Date : 5/25/2018

Channel 1 - Set: 6 / 6

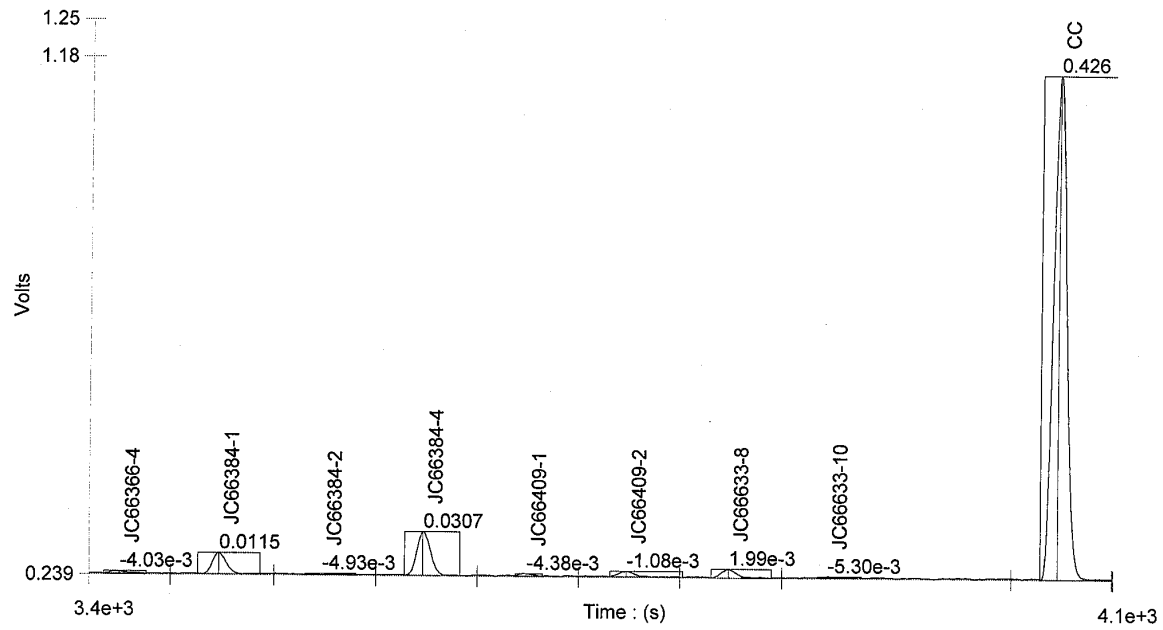
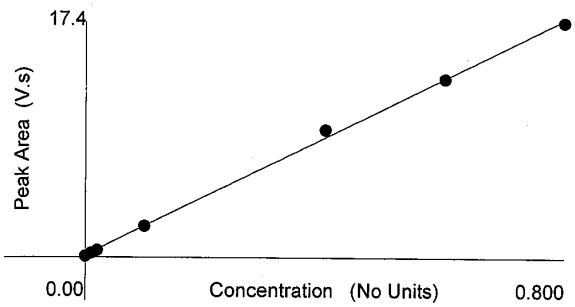


Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	0.800	1	17.4	1.67	0.0	1.3	0.789	5/24/2018	2:25:02 PM
2	0.600	1	13.2	1.28	0.0	0.5	0.597	5/24/2018	2:26:24 PM
3	0.400	1	9.46	0.917	0.0	-6.3	0.425	5/24/2018	2:27:47 PM
4	0.100	1	2.31	0.226	0.0	1.0	0.0991	5/24/2018	2:29:09 PM
5	0.0200	1	0.507	0.0466	0.0	13.5	0.0167	5/24/2018	2:30:31 PM
6	0.0100	1	0.288	0.0239	0.0	21.6	6.72e-3	5/24/2018	2:31:52 PM
7	0.00	1	0.0609	2.12e-3			-3.63e-3	5/24/2018	2:33:14 PM

Figure : 1 (CN)



Area = 21.9 * Conc + 0.148
Conc = 0.0457 * Area - 6.41e-3
Correlation Coefficient (r) = 0.99936

Weighting : None

ACCUTEST LABORATORIES

GP13293

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Batch ID: _____

Autopipette ID: 41

Balance ID: N/A

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
	2	MB1	12	-	✓	6	6	120C	11:25	11:55	8/24/18	GP -MB1			
	1	B1		1								GP -B1	0.10 ml of 5.0 mg/l (c)		
		S1 JC66538-8										GP -S1	0.10 ml of 5.0 mg/l		
		S2 JC66538-16										GP -S2	0.10 ml of 5.0 mg/l		
		D1 JC66538-8										GP -D1			
5		JC66293-2													
11		JC66353-1													
6		JC66463-1													
11		JC66538-1													
10		-3													
9		-4													
9		-5													
10		-6													
10		-7													
23		-8													
8		-9													
11		-10													
8		-12													
8		-13													
8		-14													
8		-15													
24	D	-16													
10		-17													
10		-18													

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04

Rev. Date: 03/09/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP13293

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	April/03/2018	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

ACCUTEST LABORATORIES

GP13289

Batch ID: _____

Autopipette ID: 41

Balance ID: B-27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
	2	MB1	12	-	✓	0.28	6	20C	9:40	10:10	5/24/18	GP -MB1			AA
		B1				0.27						GP -B1	0.10 ml of 5.0 mg/l (c)		
		S1 JC66366-1				0.31						GP -S1	0.10 ml of 5.0 mg/l		
		S2 ↓ -4				0.30						GP -S2	0.10 ml of 5.0 mg/l		
		D1 ↓ -1				0.27						GP -D1			
1		JC66649-1				0.28									
		-2				0.28									
		-3				0.30									
		-4				0.30									
		-5				0.31									
		-6				0.32									
		-7				0.35									
		-8				0.29									
2		JC66366-1				0.31									
		-2				0.35									
		-3				0.33									
		-4				0.41									
		JC66384-1				0.34									
		-2				0.35									
		-4				0.34									
6	4	JC66409-1				0.40									
6		-2				0.34									
1		JC66633-8				0.28									
1	↓	-10	↓	↓	↓	0.37	↓	↓	↓	↓	↓				✓

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments: _____

QC Reviewer: _____ Date: _____

Form: GN0012-05
Rev. Date: 06/8/13

ACCUTEST.

Batch ID: (#1) PP 5/24/13

Autopipette ID: 34 41

Balance ID: N/A

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analy
												GP -MB1			
												GP -B1	0.10 ml of 5.0 mg/l (c)		
												GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			
	4	Calibration Curve	12	–	✓	6	6	120C	9:40	10:10	5/24/13				
		0.00 ppm	↓	↓	↓	↓	↓	↓	↓	↓	↓	0.0 ml of	5ppm Cn Std T	100ml	PP
		0.01 ppm										0.2ml of	" "	"	↓
		0.02 ppm										0.4ml of	" "	"	
		0.10 ppm										2.0ml of	" "	"	
		0.40 ppm										8.0 ml of	" "	"	
		0.60 ppm										12.0 ml of	" "	"	
↓	↓	0.80 ppm	↓	↓	↓	↓	↓	↓	↓	↓	↓	16.0ml of	" "	"	

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: Date:

Form: GN0012-04

Rev. Date: 03/09/13

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13289

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE4-54219-CN	5/21/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/21/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	1000	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	5/28/18	fo	5/21/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	5/28/18	fo	5/21/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	5/28/18	fo	5/21/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	5/28/18	fo	5/21/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	5/28/18	fo	5/21/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	5/28/18	fo	5/21/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP13289

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	April/03/2018	NA
0.95 NaOH	gne5-54766-cn	11/23/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

15.1 15

ACCUTEST LABORATORIES

GN80478

Batch ID: GP13267

CYANIDE WEAK ACID DISSOCIABLE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Autopipette ID:

Balance ID: N/A

Method: SM4500CN I-11

GP13267

Block # ~~Bottle #~~	Bottle # ~~Block #~~	Sample ID	pH	S2-	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
1		MB1	12-14	-	✓	6	6	120	11:50	12:20	5/23/18	GP -MB1			FO
		low B1	↓									GP -B1	0.10 ml of 5.0 mg/l (c)	✓	
		high B2										GP -S1	0.10 ml of ~~5.0 mg/l~~ 25 mg/L	✓	
6		TC66530-1 S1	12									GP -S2	0.10 ml of 5.0 mg/l	✓	
6		↓ D1										GP -D1			
6		TC66530-1													
6		-2													
6		-3													
6		-4													
6		-5													
6		-6													
6		-7													
6		-8	↓	↓	↓	↓	↓	↓	↓	↓	↓				↓

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

Comments: 5 PPM SPIKE = ml of • PPM CN STD , T200-mL with 0.25 N NaOH.

QC Reviewer:

Date:

Form: GN0012-05
Rev. Date: 06/8/13

ACCUTEST.

Reagent Information Log - CNWAD - Distillation

GP Numbers: GP132 67

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Sodium Hydroxide 1.25N/0.25 N	GNE1-53550-CN	7/25/2018
Acetate Buffer	gne5-54741-cnwad	8/2/2018
Zinc Acetate	gne5-54743-cnwad	11/21/2018
1:9 Acetic Acid	gne5-54742-cnwad	11/21/2018
Methyl Red	E5-54763	11/23/2018
Micro Distillation tubes/Membranes	3/27/2018	N/A
.95 NaOH	GNE5-54616-CN	11/7/2018
Cyanide Stock Solution A - spiking/standards	GNE4-54219-CN	10/2/2018
Cyanide Stock Solution B- externals	GNE2-53657-CN	8/5/2018
Acetic Acid Buffer Solution	gne2-53801-cnwad	11/21/2018
Lead Acetate Test Paper	FISHER Lot:12/8/2016	N/A
pH paper - range 12.5 to 14	HYDRON 210114B	4/15/2019
pH paper - range 1 to 12	HYDRON 223016	9/15/2019

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-28
Rev. Date: 03/19/13

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13267

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE4-54219-CN	5/21/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/21/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	996	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	5/28/18	fo	5/21/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	5/28/18	fo	5/21/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	5/28/18	fo	5/21/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	5/28/18	fo	5/21/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	5/28/18	fo	5/21/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	5/28/18	fo	5/21/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST LABORATORIES

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Batch ID: GP13272

Autopipette ID: 41

Balance ID: N/A

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analys
	A	MB1	12	—	✓	6	6	120	3:15	3:45	5/23/18	GP -MB1			FD
		B1										GP -B1	0.10 ml of 5.0 mg/l (c)	✓	
3		JC66361-1 S1										GP -S1	0.10 ml of 5.0 mg/l	✓	
3		D1										GP -S2	0.10 ml of 5.0 mg/l		
3		JC66361-1										GP -D1			
3		-7													
3		JC66343-6													
3		-7													
1		JC66342-3													
2		-4													
2		-5													
* 2		JC66327-1													

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: _____ Date: _____

Form: GN0012-04
Rev. Date: 03/09/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP13272

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	April/03/2018	NA
0.95 NaOH	gne5-54616-cn	11/7/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP132772

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE4-54219-CN	5/21/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/21/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	996	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	5/28/18	fo	5/21/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	5/28/18	fo	5/21/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	5/28/18	fo	5/21/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	5/28/18	fo	5/21/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	5/28/18	fo	5/21/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	5/28/18	fo	5/21/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST LABORATORIES

Batch ID: GP13270

Autopipette ID: 41

Balance ID: B27

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
	4	MB1	12-17	-	✓	0.25	6	6	13:30	14:00	5/23/16	GP -MB1			FD
		B1				0.25						GP -B1	0.10 ml of 5.0 mg/l (c)	✓	
1		JC66368-S1				0.29						GP -S1	0.10 ml of 5.0 mg/l	✓	
												GP -S2	0.10 ml of 5.0 mg/l	✓	
1		JC66368-D1				0.32						GP -D1			
1		JC66368-5				0.34									
1		-15				0.31									
1		-16				0.31									
1		JC66442-1				0.43									

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

QC Reviewer: Date:

Form: GN0012-05
Rev. Date: 06/8/13

SGS

Reagent Information Log - CN - Distillation

GP Numbers: GP13270

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-53020-CN	6/5/2018
Magnesium Chloride Solution	GNE12-53020-CN	6/5/2018
Sulfamic Acid	A0369642	7/27/2019
Sulfuric Acid	172416	8/18/2022
Sodium Hydroxide 1.25N/0.25N	GNE1-53542-CN	7/24/2018
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Filter Paper	170199	NA
Micro Distillation Tubes/Membranes	April/03/2018	NA
0.95 NaOH	gne5-54616-cn	11/7/2018
Cyanide Stock Solution A- Spiking/standards	GNE5-54740-CN	11/21/2018
Cyanide Stock Solution B- Externals	GNE2-53657-CN	8/5/2018
Lead Acetate Test Paper	12/8/2016	12/8/2021
pH paper - Range 12.5 to 14	210114B	4/15/2019
pH paper - Range 1 to 12	216315	6/15/2018
Benzalrthodanine	GNE1-53541-CN	7/24/2018

Form: GN087A28-02
Rev. Date: 01/18/18

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: GP13270

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE4-54219-CN	5/21/18	1000	1.000	41	.25 N NaOH	200	5.00	10/2/18	fo	5/21/18
Undistilled ICV Int.	GNE2-53657-CN	5/14/18	992	2.00	41	.25 N NaOH	100	20.00	8/5/18	bm	
Undistilled CCV Int.	GNE4-54219-CN	5/7/18	996	2.00	41	.25 N NaOH	100	20.00	10/2/18	bm	

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	5/28/18	fo	5/21/18
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	5/28/18	fo	5/21/18
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	5/28/18	fo	5/21/18
D	5.0 ppm CN STD		5.0	2.00	41	.25 N NaOH	100	0.10	5/28/18	fo	5/21/18
E	5.0 ppm CN STD		5.0	0.40	41	.25 N NaOH	100	0.02	5/28/18	fo	5/21/18
F	5.0 ppm CN STD		5.0	0.20	41	.25 N NaOH	100	0.01	5/28/18	fo	5/21/18
Undistilled ICV	ICV Int.		20.0	1.50	41	.25 N NaOH	100	0.30			
Undistilled CCV	CCV Int.		20.0	2.00	41	.25 N NaOH	100	0.40			

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maxiumum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the approcpriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transciption error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date:1/6/2014

ACCUTEST

Analyst BM Product CN Autopipette # 42

Date 5/24/18 Batch ID Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC66442-1	1:4	1	4	
JC66393-2	1:20	1	20	
JC66492-3	1:40	1	40	
~~JC66492 #4~~ BM				
JC66492-4	1:10	1	10	
"	1:20	1	20	

QC Reviewer:_____ Date:_____

Form: GN165-01
Rev. Date: 2/25/03

ACCUTEST.

Reagent Information Log - CN Lachat Autoanalyzer

GN Number:

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartituric Acid Reagent	GNE5-5433-CN	11/1/2018
Chloramine-T	GNE5-54761-CN	5/30/2018
Phosphate Buffer Solution, 1.0 M	gne4-54304-cn	10/9/2018
0.25 N Sodium Hydroxide Carrier Solution	gne4-54306-cn GNE12-53078-CN	10/9/2018 6/11/2018

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-27
Rev. Date: 7/19/06

Misc. Raw Data

Raw Data

Methanol Prep Log

Vial Track #:	Lims ID:	Initial Tare Wt (g)	Total Wt (g)	Weight of Sample (g)	Date Prepared	Lot #:	Prep By	Vial Desc:	Comments
041017-3:16817	JC66384-1.3	37.2400	42.7300	5.4900				NAB	
040918-3:50973	JC66384-1.4	34.6300	40.7200	6.0900				NAB	
040918-3:50972	JC66384-1.5	34.7900	40.7900	6.0000				NAB	
041017-3:16810	JC66384-2.3	37.2800	37.0500	-0.2300				NAB	
040918-3:50958	JC66384-2.4	34.8600	40.8000	5.9400				NAB	
040918-3:50959	JC66384-2.5	34.7600	41.1900	6.4300				NAB	
041017-3:16809	JC66384-4.3	37.4800	41.2600	3.7800				NAB	
040918-3:50979	JC66384-4.4	35.1100	39.3000	4.1900				NAB	
040918-3:50978	JC66384-4.5	34.6700	38.6400	3.9700				NAB	